

EPHEMERIDES

12 30.9

12 31.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>270933</b>	2002 <i>UK</i> <sub>60</sub>		12 30.9 160°52	3°6/31.9	17		<b>150406</b>	2000 <i>EW</i> <sub>136</sub>		12 30.9 233°85	7°7/29.6	18	
11 27	7 3.82	+ 9 45.0	2.738	3.527	11.0	22.2	11 27	7 17.83	+41 11.8	1.843	2.644	15.0	20.0
12 7	6 58.69	+ 9 40.4	2.658	3.530	8.6	22.0	12 7	7 10.79	+42 18.2	1.761	2.633	12.2	19.8
12 17	6 52.01	+ 9 44.9	2.603	3.534	6.0	21.9	12 17	7 0.15	+43 14.0	1.701	2.622	9.5	19.6
12 27	6 44.35	+ 9 58.6	2.576	3.537	3.9	21.8	12 27	6 46.89	+43 50.0	1.668	2.610	7.8	19.4
1 6	6 36.38	+10 20.9	2.579	3.540	3.9	21.8	1 6	6 32.65	+44 0.0	1.663	2.598	8.4	19.5
1 16	6 28.83	+10 50.6	2.612	3.543	6.0	21.9	1 16	6 19.31	+43 42.4	1.684	2.585	10.9	19.6
1 26	6 22.39	+11 25.8	2.674	3.545	8.6	22.1	1 26	6 8.62	+43 1.7	1.730	2.572	13.9	19.7
2 5	6 17.56	+12 4.6	2.761	3.547	10.9	22.2	2 5	6 1.62	+42 5.4	1.798	2.558	16.8	19.9
<b>42509</b>	1993 <i>FV</i> <sub>33</sub>		12 30.9 20°47	5°2/31.9	18		<b>490803</b>	2010 <i>VD</i> <sub>87</sub>		12 30.9 353°44	6°6/29.4	17	
11 27	7 5.39	+11 9.3	1.315	2.147	18.2	17.4	11 27	7 9.89	+36 35.3	1.705	2.530	15.0	21.3
12 7	7 1.17	+10 55.0	1.255	2.153	14.1	17.2	12 7	7 4.77	+37 54.8	1.635	2.527	11.8	21.1
12 17	6 54.05	+10 56.8	1.216	2.161	9.7	16.9	12 17	6 56.44	+39 7.9	1.588	2.524	8.7	20.9
12 27	6 45.00	+11 15.7	1.200	2.169	5.9	16.7	12 27	6 45.80	+40 6.0	1.566	2.522	6.7	20.8
1 6	6 35.44	+11 50.0	1.210	2.179	5.9	16.8	1 6	6 34.33	+40 42.9	1.572	2.520	7.5	20.8
1 16	6 26.83	+12 36.3	1.245	2.189	9.6	17.0	1 16	6 23.69	+40 56.1	1.604	2.519	10.3	21.0
1 26	6 20.49	+13 30.3	1.304	2.200	13.8	17.3	1 26	6 15.44	+40 48.1	1.660	2.519	13.5	21.2
2 5	6 17.20	+14 27.2	1.383	2.212	17.6	17.5	2 5	6 10.54	+40 24.3	1.737	2.519	16.5	21.4
<b>302415</b>	2002 <i>CF</i> <sub>206</sub>		12 30.9 210°64	3°0/30.6	18		<b>485534</b>	2011 <i>UH</i> <sub>54</sub>		12 30.9 10°15	4°2/31.3	17	
11 27	7 12.42	+30 20.3	1.890	2.710	13.9	20.8	11 27	7 5.70	+15 20.0	1.377	2.214	17.2	20.7
12 7	7 6.04	+30 45.0	1.809	2.706	10.6	20.6	12 7	7 1.35	+14 36.7	1.312	2.216	13.2	20.5
12 17	6 56.89	+31 6.0	1.752	2.702	6.8	20.4	12 17	6 54.15	+14 2.3	1.269	2.219	8.7	20.2
12 27	6 45.84	+31 18.8	1.722	2.697	3.4	20.2	12 27	6 45.08	+13 38.4	1.250	2.224	4.8	20.0
1 6	6 34.17	+31 20.1	1.722	2.692	4.2	20.2	1 6	6 35.50	+13 25.8	1.257	2.229	5.2	20.1
1 16	6 23.28	+31 9.3	1.750	2.687	7.9	20.4	1 16	6 26.87	+13 24.3	1.290	2.235	9.3	20.3
1 26	6 14.47	+30 48.4	1.805	2.681	11.7	20.6	1 26	6 20.47	+13 32.5	1.347	2.242	13.6	20.6
2 5	6 8.55	+30 21.0	1.883	2.675	15.0	20.8	2 5	6 17.05	+13 48.1	1.424	2.250	17.3	20.8
<b>276244</b>	2002 <i>RM</i> <sub>130</sub>		12 30.9 36°13	8°9/ 1.6	17		<b>78130</b>	2002 <i>NL</i> <sub>12</sub>		12 30.9 218°88	0°8/31.2	18 R	
11 27	7 3.87	- 0 8.4	1.902	2.674	15.7	20.3	11 27	7 9.15	+19 33.3	2.200	3.011	12.5	20.2
12 7	6 59.15	- 1 12.2	1.846	2.688	13.2	20.1	12 7	7 3.20	+19 49.7	2.108	3.002	9.4	20.0
12 17	6 52.44	- 1 57.3	1.811	2.702	10.8	20.0	12 17	6 55.04	+20 11.0	2.041	2.993	5.8	19.8
12 27	6 44.49	- 2 19.8	1.800	2.717	9.2	20.0	12 27	6 45.33	+20 35.4	2.003	2.984	1.9	19.5
1 6	6 36.25	- 2 18.2	1.815	2.733	9.1	20.0	1 6	6 35.05	+21 0.6	1.996	2.973	2.5	19.5
1 16	6 28.71	- 1 53.9	1.856	2.749	10.5	20.1	1 16	6 25.24	+21 24.9	2.019	2.962	6.5	19.8
1 26	6 22.73	- 1 10.7	1.921	2.765	12.6	20.3	1 26	6 16.94	+21 47.4	2.070	2.951	10.2	20.0
2 5	6 18.91	- 0 13.9	2.007	2.782	14.8	20.5	2 5	6 10.88	+22 7.7	2.145	2.939	13.4	20.2
<b>473559</b>	2015 <i>XC</i> <sub>210</sub>		12 30.9 98°34	1°3/31.2	18		<b>488096</b>	2015 <i>VU</i> <sub>62</sub>		12 31.0 131°74	0°0/30.8	17	
11 27	7 7.77	+19 52.9	1.998	2.818	13.3	21.4	11 27	7 9.60	+20 24.5	2.265	3.075	12.3	22.2
12 7	7 2.14	+19 41.4	1.924	2.823	10.0	21.2	12 7	7 3.34	+21 7.1	2.194	3.088	9.1	22.1
12 17	6 54.30	+19 33.4	1.875	2.828	6.1	21.0	12 17	6 55.00	+21 54.4	2.148	3.100	5.5	21.9
12 27	6 45.05	+19 28.0	1.853	2.833	2.2	20.8	12 27	6 45.30	+22 43.3	2.132	3.112	1.6	21.6
1 6	6 35.41	+19 24.5	1.861	2.837	2.8	20.8	1 6	6 35.18	+23 30.4	2.146	3.124	2.4	21.7
1 16	6 26.47	+19 22.3	1.897	2.842	6.8	21.1	1 16	6 25.66	+24 13.4	2.192	3.135	6.1	22.0
1 26	6 19.23	+19 21.4	1.962	2.847	10.5	21.3	1 26	6 17.68	+24 50.9	2.267	3.145	9.5	22.2
2 5	6 14.33	+19 21.9	2.049	2.852	13.6	21.5	2 5	6 11.89	+25 22.9	2.366	3.155	12.4	22.4
<b>221867</b>	2008 <i>GR</i> <sub>90</sub>		12 30.9 90°65	0°0/30.8	18		<b>235533</b>	2004 <i>CJ</i> <sub>70</sub>		12 31.0 349°23	2°9/31.9	18	
11 27	7 14.39	+22 4.1	1.556	2.381	16.2	20.8	11 27	7 3.78	+12 45.9	2.030	2.842	13.4	20.0
12 7	7 7.38	+22 22.8	1.505	2.406	12.0	20.6	12 7	6 59.27	+13 4.0	1.948	2.838	10.3	19.8
12 17	6 57.54	+22 44.9	1.476	2.431	7.2	20.4	12 17	6 52.67	+13 33.2	1.890	2.835	6.8	19.6
12 27	6 45.97	+23 6.8	1.475	2.456	2.1	20.1	12 27	6 44.65	+14 12.9	1.859	2.832	3.6	19.3
1 6	6 34.12	+23 25.4	1.502	2.480	3.1	20.3	1 6	6 36.12	+15 0.8	1.857	2.829	3.7	19.3
1 16	6 23.46	+23 39.4	1.558	2.503	7.9	20.6	1 16	6 28.10	+15 54.0	1.884	2.827	6.9	19.5
1 26	6 15.20	+23 48.9	1.640	2.526	12.1	20.9	1 26	6 21.54	+16 49.6	1.938	2.825	10.5	19.8
2 5	6 10.02	+23 55.2	1.744	2.549	15.5	21.2	2 5	6 17.15	+17 44.9	2.016	2.824	13.6	20.0
<b>235811</b>	2004 <i>XT</i> <sub>58</sub>		12 30.9 235°48	2°3/30.6	18		<b>305159</b>	2007 <i>VJ</i> <sub>221</sub>		12 31.0 107°33	0°4/31.1	18	
11 27	7 11.24	+28 18.8	2.094	2.911	12.9	20.7	11 27	7 9.65	+20 18.2	1.884	2.704	14.0	21.6
12 7	7 5.02	+28 49.2	2.002	2.898	9.7	20.5	12 7	7 3.67	+20 41.2	1.817	2.716	10.4	21.4
12 17	6 56.25	+29 18.4	1.934	2.886	6.1	20.2	12 17	6 55.31	+21 9.1	1.775	2.729	6.3	21.2
12 27	6 45.67	+29 42.4	1.895	2.872	2.8	20.0	12 27	6 45.40	+21 39.3	1.760	2.741	1.9	20.9
1 6	6 34.39	+29 57.9	1.885	2.858	3.6	20.0	1 6	6 35.07	+22 8.9	1.775	2.752	2.7	21.0
1 16	6 23.66	+30 3.2	1.906	2.843	7.3	20.2	1 16	6 25.51	+22 35.9	1.819	2.764	7.0	21.3
1 26	6 14.69	+29 59.2	1.953	2.828	11.0	20.4	1 26	6 17.80	+22 59.4	1.890	2.775	10.8	21.6
2 5	6 8.32	+29 48.4	2.024	2.812	14.3	20.6	2 5	6 12.62	+23 19.4	1.984	2.786	14.0	21.8
<b>335283</b>	2005 <i>OJ</i> <sub>9</sub>		12 30.9 170°32	2°6/30.7	18		<b>231232</b>	2005 <i>XB</i> <sub>25</sub>		12 31.0 317°28	2°6/30.5	18	
11 27	7 15.99	+30 40.4	2.168	2.974	12.9	22.2	11 27	7 8.22	+25 54.8	1.345	2.191	17.0	20.0
12 7	7 8.24	+30 56.8	2.090	2.980	9.7	22.0	12 7	7 4.02	+26 45.2	1.261	2.173	12.9	19.7
12 17	6 58.00	+31 8.5	2.037	2.984	6.2	21.8	12 17	6 56.27	+27 40.0	1.198	2.156	8.1	19.4
12 27	6 46.13	+31 11.5	2.014	2.988	3.1	21.6	12 27	6 45.84	+28 33.0	1.160	2.140	3.3	19.1
1 6	6 33.83	+31 3.7	2.021	2.991	3.7	21.7	1 6	6 34.24	+29 17.6	1.148	2.124	4.7	19.1
1 16	6 22.36	+30 44.9	2.059	2.993	7.1	21.9	1 16	6 23.32	+29 49.4	1.162	2.108	9.9	19.4
1 26	6 12.85	+30 17.5	2.126	2.994	10.5	22.1	1 26	6 14.92	+30 7.8	1.200	2.093	15.0	19.6
2 5	6 6.01	+29 45.1	2.216	2.994	13.5	22.3	2 5	6 10.20	+30 15.2	1.257	2.080	19.3	19.9
<b>329664</b>	2003 <i>TZ</i> <sub>12</sub>		12 30.9 49°76	7°9/31.8	18		<b>188040</b>	2001 <i>UW</i> <sub>176</sub>		12 31.0 58°13	3°4/30.4	17	

EPHEMERIDES

12 31.0

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>52505</b>	1996 <i>FD</i> <sub>4</sub>		12 31.0 341°69	4.4/30.6	18		<b>424358</b>	2007 <i>VQ</i> <sub>159</sub>		12 31.0 156°50	1.2/30.8	18	
11 27	7 6.41	+30 32.8	1.086	1.947	19.1	17.5	11 27	7 13.44	+23 26.4	1.446	2.277	16.8	21.2
12 7	7 3.25	+31 1.1	1.014	1.932	14.6	17.2	12 7	7 7.36	+24 9.4	1.376	2.281	12.6	20.9
12 17	6 56.01	+31 25.1	0.961	1.919	9.5	16.9	12 17	6 57.98	+24 57.2	1.328	2.284	7.7	20.7
12 27	6 45.77	+31 37.9	0.930	1.907	5.0	16.6	12 27	6 46.28	+25 44.2	1.306	2.287	2.5	20.3
1 6	6 34.42	+31 33.8	0.923	1.896	6.0	16.6	1 6	6 33.80	+26 25.1	1.313	2.289	3.7	20.4
1 16	6 24.20	+31 11.7	0.939	1.887	11.2	16.8	1 16	6 22.29	+26 56.5	1.346	2.292	8.9	20.7
1 26	6 17.13	+30 35.4	0.976	1.880	16.6	17.1	1 26	6 13.28	+27 18.1	1.405	2.293	13.6	21.0
2 5	6 14.31	+29 51.1	1.031	1.874	21.2	17.4	2 5	6 7.72	+27 31.8	1.485	2.295	17.5	21.3
<b>335327</b>	2005 <i>QF</i> <sub>135</sub>		12 31.0 359°62	5.4/30.4	18		<b>169754</b>	2002 <i>PE</i> <sub>25</sub>		12 31.0 116°90	0.4/31.1	18	
11 27	7 13.23	+33 39.9	1.411	2.245	17.0	20.5	11 27	7 9.52	+21 28.0	1.872	2.694	14.0	20.6
12 7	7 7.55	+34 25.3	1.343	2.244	13.2	20.3	12 7	7 3.63	+21 33.3	1.801	2.701	10.4	20.4
12 17	6 58.21	+35 4.0	1.297	2.244	9.0	20.0	12 17	6 55.32	+21 41.7	1.754	2.709	6.3	20.2
12 27	6 46.33	+35 28.2	1.275	2.244	5.7	19.8	12 27	6 45.44	+21 51.4	1.735	2.716	1.9	19.9
1 6	6 33.68	+35 32.5	1.280	2.244	6.5	19.9	1 6	6 35.13	+22 0.3	1.745	2.723	2.7	20.0
1 16	6 22.19	+35 16.1	1.310	2.244	10.3	20.1	1 16	6 25.60	+22 7.4	1.784	2.730	7.0	20.3
1 26	6 13.57	+34 43.1	1.365	2.245	14.5	20.3	1 26	6 17.93	+22 12.8	1.850	2.736	10.9	20.5
2 5	6 8.74	+33 59.9	1.440	2.246	18.2	20.6	2 5	6 12.82	+22 16.8	1.939	2.742	14.2	20.7
<b>52779</b>	1998 <i>QZ</i> <sub>29</sub>		12 31.0 127°54	0.9/30.9	18		<b>481784</b>	2008 <i>ST</i> <sub>172</sub>		12 31.0 31°09	1.1/31.2	18	
11 27	7 14.33	+25 51.0	1.676	2.499	15.3	19.7	11 27	7 7.87	+19 22.2	1.174	2.024	18.7	20.4
12 7	7 7.41	+25 48.9	1.609	2.510	11.4	19.4	12 7	7 3.33	+19 36.2	1.125	2.038	14.0	20.2
12 17	6 57.65	+25 45.4	1.566	2.521	6.9	19.2	12 17	6 55.48	+19 58.8	1.095	2.054	8.5	19.9
12 27	6 46.08	+25 37.5	1.551	2.531	2.2	18.9	12 27	6 45.51	+20 26.9	1.089	2.070	2.8	19.7
1 6	6 34.13	+25 23.7	1.564	2.541	3.2	19.0	1 6	6 35.09	+20 56.8	1.109	2.088	3.6	19.8
1 16	6 23.23	+25 4.3	1.606	2.550	7.8	19.3	1 16	6 25.92	+21 25.5	1.154	2.106	9.1	20.1
1 26	6 14.63	+24 41.3	1.674	2.559	12.0	19.6	1 26	6 19.45	+21 51.5	1.222	2.125	14.0	20.5
2 5	6 9.07	+24 17.4	1.766	2.567	15.5	19.8	2 5	6 16.42	+22 14.1	1.311	2.145	18.0	20.8
<b>336060</b>	2008 <i>EE</i> <sub>109</sub>		12 31.0 160°42	2.1/31.4	18		<b>310126</b>	2011 <i>FV</i> <sub>71</sub>		12 31.0 173°78	3.6/30.5	18	
11 27	7 11.63	+16 11.9	1.840	2.650	14.6	21.5	11 27	7 8.92	+34 34.2	2.443	3.252	11.5	20.3
12 7	7 5.21	+16 22.3	1.765	2.657	11.1	21.2	12 7	7 2.94	+34 54.2	2.365	3.253	8.8	20.1
12 17	6 56.30	+16 40.9	1.714	2.663	7.0	21.0	12 17	6 54.80	+35 7.8	2.312	3.253	6.0	20.0
12 27	6 45.71	+17 6.4	1.691	2.668	3.0	20.8	12 27	6 45.28	+35 11.6	2.287	3.253	3.8	19.8
1 6	6 34.62	+17 36.4	1.697	2.673	3.4	20.8	1 6	6 35.37	+35 3.4	2.291	3.253	4.3	19.8
1 16	6 24.25	+18 8.5	1.733	2.677	7.4	21.1	1 16	6 26.14	+34 43.3	2.326	3.253	6.8	20.0
1 26	6 15.75	+18 41.2	1.797	2.680	11.4	21.3	1 26	6 18.54	+34 13.3	2.388	3.253	9.7	20.2
2 5	6 9.88	+19 13.0	1.883	2.682	14.8	21.5	2 5	6 13.22	+33 36.6	2.474	3.253	12.2	20.4
<b>458427</b>	2011 <i>AS</i> <sub>36</sub>		12 31.0 185°54	2.5/30.7	18		<b>48379</b>	4672 <i>T</i> <sub>-3</sub>		12 31.0 352°11	1.5/30.7	18	
11 27	7 9.21	+31 13.2	2.469	3.281	11.3	21.6	11 27	7 6.89	+24 11.5	1.428	2.272	16.3	18.3
12 7	7 3.03	+31 21.7	2.388	3.281	8.6	21.5	12 7	7 2.57	+24 49.8	1.356	2.267	12.2	18.1
12 17	6 54.80	+31 25.6	2.332	3.280	5.5	21.3	12 17	6 55.12	+25 32.1	1.305	2.263	7.5	17.8
12 27	6 45.25	+31 22.2	2.305	3.280	2.8	21.1	12 27	6 45.47	+26 13.8	1.279	2.260	2.5	17.5
1 6	6 35.33	+31 10.0	2.309	3.279	3.4	21.1	1 6	6 35.04	+26 49.9	1.281	2.258	3.7	17.6
1 16	6 26.05	+30 48.9	2.342	3.278	6.3	21.3	1 16	6 25.45	+27 17.4	1.308	2.256	8.8	17.8
1 26	6 18.34	+30 20.7	2.404	3.277	9.3	21.5	1 26	6 18.19	+27 35.8	1.360	2.255	13.4	18.1
2 5	6 12.81	+29 48.2	2.491	3.275	12.0	21.7	2 5	6 14.18	+27 46.5	1.433	2.255	17.4	18.4
<b>28138</b>	1998 <i>SD</i> <sub>141</sub>		12 31.0 144°24	4.3/30.1	18		<b>275649</b>	2000 <i>GJ</i> <sub>131</sub>		12 31.0 203°93	0.8/31.1	18	
11 27	7 10.19	+35 57.3	2.477	3.282	11.5	18.4	11 27	7 11.20	+20 26.9	1.984	2.798	13.6	22.4
12 7	7 3.90	+36 39.5	2.405	3.288	8.9	18.2	12 7	7 4.90	+20 30.3	1.898	2.794	10.2	22.2
12 17	6 55.40	+37 15.2	2.358	3.294	6.3	18.0	12 17	6 56.14	+20 37.4	1.836	2.789	6.3	21.9
12 27	6 45.44	+37 40.1	2.339	3.299	4.5	17.9	12 27	6 45.71	+20 46.5	1.803	2.783	2.0	21.6
1 6	6 35.05	+37 51.1	2.350	3.304	4.9	18.0	1 6	6 34.70	+20 55.8	1.799	2.776	2.8	21.7
1 16	6 25.34	+37 47.6	2.391	3.309	7.2	18.1	1 16	6 24.31	+21 4.2	1.825	2.769	7.1	21.9
1 26	6 17.29	+37 31.5	2.459	3.313	9.8	18.3	1 26	6 15.67	+21 11.5	1.879	2.762	11.0	22.2
2 5	6 11.58	+37 6.0	2.550	3.317	12.2	18.5	2 5	6 9.55	+21 18.0	1.957	2.753	14.4	22.4
<b>454587</b>	2014 <i>PA</i> <sub>33</sub>		12 31.0 184°84	0.6/31.2	18		<b>421059</b>	2013 <i>QU</i> <sub>7</sub>		12 31.0 67°26	3.9/31.7	17	
11 27	7 7.77	+19 58.6	2.296	3.108	12.0	22.3	11 27	7 4.60	+11 21.7	2.276	3.077	12.5	21.6
12 7	7 2.03	+20 16.8	2.213	3.108	9.0	22.1	12 7	6 59.57	+10 57.4	2.199	3.080	9.7	21.4
12 17	6 54.26	+20 39.2	2.155	3.108	5.5	21.9	12 17	6 52.71	+10 41.9	2.147	3.083	6.8	21.2
12 27	6 45.12	+21 4.1	2.127	3.107	1.7	21.6	12 27	6 44.68	+10 36.0	2.123	3.087	4.3	21.1
1 6	6 35.52	+21 29.2	2.128	3.106	2.4	21.7	1 6	6 36.31	+10 39.8	2.127	3.090	4.4	21.1
1 16	6 26.45	+21 53.1	2.161	3.104	6.1	21.9	1 16	6 28.47	+10 52.5	2.161	3.094	6.9	21.2
1 26	6 18.83	+22 14.7	2.221	3.103	9.6	22.1	1 26	6 21.98	+11 12.6	2.222	3.097	9.8	21.4
2 5	6 13.31	+22 34.0	2.306	3.100	12.5	22.3	2 5	6 17.42	+11 38.1	2.307	3.101	12.5	21.6
<b>50737</b>	2000 <i>EB</i> <sub>154</sub>		12 31.0 154°70	3.5/ 1.1	18		<b>274663</b>	2008 <i>TY</i> <sub>170</sub>		12 31.0 139°64	0.0/30.8	18	
11 27	7 4.30	+ 9 38.2	2.654	3.442	11.3	19.0	11 27	7 5.59	+22 16.4	2.444	3.260	11.3	20.6
12 7	6 59.13	+ 9 41.6	2.573	3.446	8.8	18.8	12 7	7 0.32	+22 31.9	2.364	3.262	8.4	20.4
12 17	6 52.35	+ 9 54.6	2.518	3.450	6.1	18.7	12 17	6 53.18	+22 49.6	2.310	3.264	5.1	20.2
12 27	6 44.54	+10 17.5	2.492	3.454	3.9	18.5	12 27	6 44.83	+23 7.8	2.284	3.265	1.5	20.0
1 6	6 36.41	+10 49.0	2.495	3.458	3.9	18.5	1 6	6 36.09	+23 24.5	2.289	3.267	2.2	20.0
1 16	6 28.70	+11 27.7	2.529	3.461	6.1	18.7	1 16	6 27.86	+23 38.8	2.324	3.269	5.7	20.3
1 26	6 22.13	+12 11.3	2.591	3.464	8.7	18.9	1 26	6 20.99	+23 50.2	2.388	3.270	9.0	20.5
2 5	6 17.23	+12 57.5	2.679	3.467	11.2	19.0	2 5	6 16.07	+23 59.0	2.476	3.272	11.7	20.7
<b>370248</b>	2002 <i>PT</i> <sub>174</sub>		12 31.0 309°19	5.4/30.2	18		<b>342</b>	Endymion		12 31.0 0°85	4.2/31.3	18	
11 27	7 10												

EPHEMERIDES

12 31.0

12 31.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>216393</b>	2008 CW <sub>196</sub>		12 31.0 173°44	1°0/31.2 18			<b>368527</b>	2003 WZ <sub>43</sub>		12 31.0 27°38	0°0/30.9 18		
11 27	7 8.02	+19 22.8	2.301	3.112	12.1	21.7	11 27	7 7.79	+24 35.3	2.088	2.909	12.7	20.5
12 7	7 2.17	+19 26.2	2.220	3.114	9.0	21.5	12 7	7 2.16	+24 15.4	2.012	2.912	9.5	20.3
12 17	6 54.32	+19 33.4	2.165	3.116	5.6	21.3	12 17	6 54.37	+23 54.4	1.961	2.916	5.7	20.0
12 27	6 45.17	+19 43.4	2.138	3.118	1.9	21.1	12 27	6 45.21	+23 31.4	1.939	2.920	1.7	19.8
1 6	6 35.61	+19 54.6	2.142	3.119	2.5	21.1	1 6	6 35.72	+23 6.1	1.946	2.923	2.5	19.8
1 16	6 26.61	+20 6.2	2.176	3.119	6.1	21.3	1 16	6 26.96	+22 39.0	1.982	2.928	6.5	20.1
1 26	6 19.07	+20 17.5	2.238	3.120	9.5	21.5	1 26	6 19.88	+22 11.6	2.046	2.932	10.1	20.3
2 5	6 13.62	+20 28.4	2.325	3.119	12.4	21.7	2 5	6 15.11	+21 45.3	2.134	2.936	13.1	20.6
<b>271212</b>	2003 TC		12 31.0 65°86	2°3/31.4 17			<b>174231</b>	2002 RL <sub>72</sub>		12 31.0 108°75	1°4/30.8 18		
11 27	7 5.55	+16 22.1	2.190	3.003	12.5	20.9	11 27	7 10.72	+26 7.9	1.884	2.706	13.9	20.6
12 7	7 0.35	+16 9.3	2.116	3.009	9.5	20.7	12 7	7 4.59	+26 26.1	1.816	2.716	10.3	20.4
12 17	6 53.21	+16 2.4	2.067	3.015	6.1	20.5	12 17	6 55.96	+26 43.8	1.772	2.725	6.3	20.2
12 27	6 44.84	+16 1.0	2.045	3.021	2.9	20.4	12 27	6 45.70	+26 57.6	1.755	2.735	2.2	20.0
1 6	6 36.12	+16 4.8	2.053	3.026	3.2	20.4	1 6	6 35.02	+27 5.2	1.768	2.744	3.1	20.0
1 16	6 28.00	+16 12.7	2.090	3.032	6.4	20.6	1 16	6 25.18	+27 5.5	1.810	2.753	7.2	20.3
1 26	6 21.34	+16 24.1	2.155	3.038	9.7	20.8	1 26	6 17.30	+26 59.8	1.879	2.762	11.0	20.6
2 5	6 16.74	+16 38.0	2.244	3.044	12.6	21.0	2 5	6 12.09	+26 49.8	1.971	2.770	14.2	20.8
<b>345752</b>	2007 EW <sub>42</sub>		12 31.0 245°32	1°3/31.2 18			<b>447850</b>	2007 UJ <sub>137</sub>		12 31.0 71°58	2°4/31.5 17		
11 27	7 10.27	+19 3.6	1.782	2.602	14.6	21.7	11 27	7 10.63	+15 43.6	1.654	2.472	15.7	21.5
12 7	7 4.55	+19 7.1	1.692	2.590	11.1	21.4	12 7	7 4.44	+15 53.1	1.604	2.499	11.8	21.3
12 17	6 56.13	+19 16.3	1.625	2.577	6.9	21.1	12 17	6 55.78	+16 11.7	1.576	2.526	7.4	21.1
12 27	6 45.78	+19 29.9	1.585	2.564	2.5	20.8	12 27	6 45.61	+16 37.8	1.575	2.552	3.3	20.9
1 6	6 34.68	+19 45.7	1.573	2.551	3.1	20.8	1 6	6 35.20	+17 8.8	1.603	2.579	3.5	21.0
1 16	6 24.16	+20 2.2	1.591	2.537	7.8	21.1	1 16	6 25.79	+17 42.2	1.660	2.605	7.6	21.3
1 26	6 15.50	+20 18.6	1.635	2.522	12.1	21.3	1 26	6 18.45	+18 16.1	1.743	2.630	11.4	21.6
2 5	6 9.58	+20 34.6	1.702	2.507	15.8	21.5	2 5	6 13.80	+18 49.0	1.849	2.656	14.7	21.9
<b>366660</b>	2003 SB <sub>339</sub>		12 31.0 99°36	0°2/30.9 17			<b>368305</b>	2002 PV <sub>2</sub>		12 31.0 151°28	0°0/31.0 18		
11 27	7 6.82	+22 26.4	2.298	3.115	11.9	21.7	11 27	7 8.20	+24 22.1	2.826	3.632	10.2	21.6
12 7	7 1.29	+22 46.1	2.227	3.125	8.8	21.5	12 7	7 1.91	+24 5.7	2.747	3.639	7.6	21.4
12 17	6 53.79	+23 8.1	2.181	3.135	5.3	21.3	12 17	6 54.00	+23 48.3	2.695	3.647	4.6	21.3
12 27	6 45.02	+23 30.2	2.163	3.144	1.5	21.1	12 27	6 45.08	+23 29.2	2.673	3.653	1.3	21.0
1 6	6 35.91	+23 50.4	2.176	3.154	2.3	21.1	1 6	6 35.94	+23 7.9	2.682	3.660	2.0	21.1
1 16	6 27.39	+24 7.4	2.219	3.163	6.0	21.4	1 16	6 27.35	+22 45.0	2.724	3.666	5.1	21.3
1 26	6 20.36	+24 20.7	2.290	3.172	9.3	21.6	1 26	6 20.05	+22 21.3	2.795	3.671	8.0	21.5
2 5	6 15.42	+24 30.9	2.385	3.181	12.1	21.8	2 5	6 14.53	+21 57.9	2.891	3.677	10.5	21.7
<b>79016</b>	2094 T <sub>-1</sub>		12 31.0 313°90	2°3/30.7 18			<b>222004</b>	1998 MF <sub>17</sub>		12 31.0 82°60	2°2/30.9 18		
11 27	7 10.48	+26 25.0	1.288	2.133	17.7	19.8	11 27	7 15.22	+28 39.8	1.444	2.276	16.9	20.5
12 7	7 5.72	+26 56.4	1.211	2.123	13.4	19.5	12 7	7 8.45	+28 43.0	1.387	2.291	12.6	20.3
12 17	6 57.30	+27 29.3	1.156	2.113	8.3	19.2	12 17	6 58.45	+28 41.9	1.352	2.306	7.8	20.0
12 27	6 46.20	+27 58.1	1.124	2.104	3.2	18.9	12 27	6 46.43	+28 32.5	1.342	2.321	3.1	19.8
1 6	6 34.08	+28 17.5	1.119	2.095	4.5	18.9	1 6	6 34.06	+28 12.8	1.360	2.336	4.0	19.9
1 16	6 22.89	+28 25.1	1.139	2.086	9.9	19.2	1 16	6 23.03	+27 43.9	1.406	2.351	8.7	20.2
1 26	6 14.42	+28 21.9	1.183	2.078	15.0	19.5	1 26	6 14.71	+27 9.1	1.477	2.365	13.1	20.5
2 5	6 9.76	+28 11.4	1.246	2.070	19.4	19.7	2 5	6 9.81	+26 32.6	1.570	2.380	16.7	20.8
<b>11392</b>	Pauleeters		12 31.0 1°83	0°9/31.2 18			<b>175144</b>	2005 EX <sub>16</sub>		12 31.0 221°80	1°1/30.9 18		
11 27	7 7.44	+19 1.4	1.847	2.671	14.1	18.3	11 27	7 13.64	+25 1.1	1.732	2.554	14.9	21.6
12 7	7 2.23	+19 21.6	1.770	2.670	10.6	18.0	12 7	7 7.23	+25 19.5	1.646	2.546	11.2	21.3
12 17	6 54.59	+19 48.3	1.717	2.670	6.5	17.8	12 17	6 57.84	+25 39.0	1.582	2.536	6.9	21.0
12 27	6 45.31	+20 19.4	1.690	2.670	2.2	17.5	12 27	6 46.33	+25 55.7	1.546	2.527	2.3	20.7
1 6	6 35.47	+20 52.1	1.693	2.670	2.8	17.6	1 6	6 34.04	+26 6.5	1.539	2.516	3.3	20.8
1 16	6 26.27	+21 24.0	1.724	2.671	7.2	17.8	1 16	6 22.46	+26 9.8	1.561	2.505	8.1	21.0
1 26	6 18.85	+21 53.8	1.782	2.671	11.1	18.1	1 26	6 12.99	+26 6.5	1.610	2.493	12.5	21.3
2 5	6 13.94	+22 20.7	1.863	2.671	14.5	18.3	2 5	6 6.57	+25 58.7	1.681	2.481	16.2	21.5
<b>505001</b>	2011 KO <sub>15</sub>		12 31.0 294°69	4°3/30.8 17			<b>159322</b>	2006 BY <sub>270</sub>		12 31.0 337°35	0°6/31.2 18		
11 27	7 10.41	+12 24.4	2.495	3.282	11.9	22.0	11 27	7 6.37	+18 48.7	2.053	2.872	13.0	19.8
12 7	7 4.11	+11 23.9	2.363	3.236	9.5	21.7	12 7	7 1.29	+19 25.7	1.972	2.870	9.8	19.6
12 17	6 55.69	+10 26.4	2.257	3.189	6.7	21.5	12 17	6 53.99	+20 9.9	1.915	2.868	6.0	19.4
12 27	6 45.67	+9 33.9	2.181	3.142	4.6	21.3	12 27	6 45.17	+20 58.5	1.886	2.867	1.9	19.1
1 6	6 34.85	+8 48.5	2.136	3.094	5.0	21.2	1 6	6 35.79	+21 48.3	1.887	2.865	2.5	19.1
1 16	6 24.19	+8 12.2	2.122	3.044	7.7	21.3	1 16	6 26.94	+22 36.2	1.918	2.864	6.6	19.4
1 26	6 14.67	+7 45.9	2.137	2.994	11.0	21.4	1 26	6 19.63	+23 20.3	1.976	2.862	10.3	19.6
2 5	6 7.08	+7 29.4	2.177	2.944	14.1	21.5	2 5	6 14.61	+23 59.6	2.058	2.861	13.5	19.8
<b>29996</b>	2000 AQ <sub>97</sub>		12 31.0 240°47	14°3/31.5 18			<b>234401</b>	2001 QB <sub>330</sub>		12 31.0 90°43	0°0/30.9 18		
11 27	7 33.05	+51 49.0	1.203	1.992	22.1	18.7	11 27	7 11.90	+21 7.5	1.549	2.377	16.1	20.2
12 7	7 24.51	+52 51.4	1.138	1.987	19.2	18.4	12 7	7 5.82	+21 41.0	1.488	2.391	12.0	20.0
12 17	7 9.44	+53 25.8	1.091	1.982	16.4	18.3	12 17	6 56.86	+22 20.2	1.450	2.406	7.2	19.7
12 27	6 49.77	+53 14.0	1.064	1.976	14.5	18.1	12 27	6 46.00	+23 0.9	1.439	2.420	2.1	19.5
1 6	6 29.15	+52 6.2	1.059	1.971	14.7	18.1	1 6	6 34.66	+23 39.0	1.456	2.434	3.1	19.6
1 16	6 11.48	+50 6.2	1.077	1.965	16.7	18.2	1 16	6 24.30	+24 11.8	1.501	2.448	8.0	19.9
1 26	5 59.45	+47 30.7	1.116	1.959	19.8	18.4	1 26	6 16.22	+24 38.3	1.573	2.462	12.3	20.2
2 5	5 53.79	+44 39.9	1.174	1.953	23.0	18.6	2 5	6 11.21	+24 59.2	1.666	2.475	15.9	20.4
<b>250581</b>	2005 AE <sub>32</sub>		12 31.0 28°09	1°7/31.3 18			<b>519757</b>	2013 DD <sub>17</sub>		12 31.0 212°43	4°9/ 1.2 18		
11 27	7 7.90	+18 36.2	0.918	1.782	21.5	19.4	11 27	7 6.93	+ 7 40.8	2.231			

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12 31.0

12 31.1

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>340052</b>	2005 VC <sub>23</sub>	12 31.0 151°10' 1.6°/30.7 18					<b>405853</b>	2006 CA <sub>15</sub>	12 31.0 55°05' 4.7°/ 1.4 18				
11 27	7 12.81	+25 29.6	1.773	2.595	14.6	21.0	11 27	7 5.50	+8 18.2	1.976	2.774	14.2	20.5
12 7	7 6.39	+26 4.7	1.702	2.602	10.9	20.8	12 7	7 0.48	+8 22.9	1.908	2.785	11.2	20.3
12 17	6 57.19	+26 40.8	1.654	2.608	6.7	20.6	12 17	6 53.41	+8 41.6	1.863	2.795	7.9	20.1
12 27	6 46.12	+27 13.6	1.634	2.614	2.4	20.3	12 27	6 45.00	+9 14.6	1.845	2.806	5.2	20.0
1 6	6 34.47	+27 39.2	1.643	2.619	3.4	20.4	1 6	6 36.23	+10 0.2	1.855	2.817	5.1	20.0
1 16	6 23.66	+27 55.7	1.681	2.623	7.7	20.7	1 16	6 28.07	+10 55.3	1.894	2.829	7.6	20.2
1 26	6 14.95	+28 3.6	1.746	2.627	11.8	20.9	1 26	6 21.47	+11 56.4	1.960	2.840	10.7	20.4
2 5	6 9.15	+28 5.0	1.833	2.631	15.2	21.2	2 5	6 17.04	+12 59.9	2.049	2.851	13.6	20.6
<b>103824</b>	2000 DE <sub>24</sub>	12 31.0 151°72' 0°/30.9 18					<b>133830</b>	2003 XE <sub>32</sub>	12 31.0 210°44' 0°/31.1 18				
11 27	7 13.61	+25 0.4	1.997	2.811	13.5	20.0	11 27	7 5.79	+21 1.9	2.675	3.486	10.6	21.4
12 7	7 6.61	+25 16.3	1.925	2.821	10.1	19.8	12 7	7 0.39	+21 8.9	2.587	3.481	7.9	21.2
12 17	6 57.14	+25 32.3	1.878	2.831	6.1	19.6	12 17	6 53.25	+21 18.4	2.524	3.476	4.8	21.0
12 27	6 46.08	+25 45.3	1.859	2.839	2.0	19.3	12 27	6 44.96	+21 29.1	2.491	3.471	1.5	20.8
1 6	6 34.58	+25 53.0	1.871	2.847	2.8	19.4	1 6	6 36.29	+21 39.7	2.488	3.466	2.1	20.8
1 16	6 23.90	+25 54.4	1.912	2.854	7.0	19.7	1 16	6 28.04	+21 49.3	2.517	3.460	5.4	21.0
1 26	6 15.14	+25 50.5	1.982	2.861	10.7	19.9	1 26	6 21.00	+21 57.7	2.574	3.454	8.5	21.2
2 5	6 8.99	+25 43.1	2.075	2.866	13.9	20.2	2 5	6 15.76	+22 4.8	2.656	3.448	11.1	21.4
<b>381030</b>	2006 VX <sub>7</sub>	12 31.0 25°53' 4°/30.1 18					<b>327084</b>	2004 VS <sub>86</sub>	12 31.0 49°76' 1°/30.6 17				
11 27	7 12.53	+30 13.6	1.319	2.159	17.6	20.1	11 27	7 7.65	+24 46.7	1.991	2.816	13.1	20.2
12 7	7 7.22	+31 22.3	1.255	2.162	13.4	19.8	12 7	7 2.32	+25 34.4	1.922	2.824	9.8	20.0
12 17	6 58.18	+32 29.6	1.212	2.164	8.8	19.6	12 17	6 54.64	+26 24.4	1.877	2.832	6.0	19.8
12 27	6 46.49	+33 26.7	1.194	2.167	5.1	19.4	12 27	6 45.40	+27 12.5	1.860	2.840	2.2	19.6
1 6	6 33.92	+34 6.1	1.202	2.170	6.2	19.5	1 6	6 35.67	+27 54.7	1.873	2.848	3.1	19.6
1 16	6 22.46	+34 24.8	1.236	2.174	10.5	19.7	1 16	6 26.59	+28 28.6	1.914	2.857	6.9	19.9
1 26	6 13.88	+34 25.0	1.294	2.177	14.9	20.0	1 26	6 19.26	+28 53.8	1.983	2.865	10.5	20.1
2 5	6 9.19	+34 11.9	1.371	2.181	18.7	20.2	2 5	6 14.38	+29 11.2	2.076	2.874	13.6	20.4
<b>189271</b>	2005 RR <sub>21</sub>	12 31.0 186°22' 0°/31.1 18					<b>256844</b>	2008 CR <sub>163</sub>	12 31.0 308°74' 1°/30.9 17				
11 27	7 12.21	+21 7.0	1.849	2.666	14.3	21.1	11 27	7 9.08	+27 10.7	1.758	2.588	14.4	20.7
12 7	7 5.79	+21 7.5	1.769	2.666	10.7	20.8	12 7	7 3.78	+27 20.8	1.675	2.578	10.8	20.5
12 17	6 56.77	+21 11.2	1.712	2.665	6.6	20.6	12 17	6 55.72	+27 29.6	1.614	2.569	6.7	20.2
12 27	6 46.00	+21 16.1	1.684	2.664	2.1	20.3	12 27	6 45.76	+27 33.5	1.581	2.560	2.5	19.9
1 6	6 34.67	+21 20.7	1.685	2.663	2.8	20.4	1 6	6 35.13	+27 30.2	1.575	2.551	3.4	20.0
1 16	6 24.08	+21 23.9	1.716	2.660	7.4	20.6	1 16	6 25.23	+27 19.0	1.598	2.543	7.8	20.2
1 26	6 15.42	+21 25.9	1.773	2.657	11.5	20.9	1 26	6 17.35	+27 1.3	1.647	2.534	12.0	20.4
2 5	6 9.45	+21 27.4	1.854	2.654	14.9	21.1	2 5	6 12.33	+26 39.8	1.718	2.526	15.6	20.6
<b>104981</b>	2000 JS <sub>71</sub>	12 31.0 196°45' 0°/31.1 18					<b>368308</b>	2002 PP <sub>23</sub>	12 31.1 37°96' 9°/8' 4.8 18				
11 27	7 5.58	+22 0.6	2.714	3.525	10.4	20.4	11 27	7 5.41	-7 5.6	1.876	2.611	17.1	20.0
12 7	7 0.19	+22 12.4	2.628	3.523	7.8	20.2	12 7	7 0.40	-7 4.6	1.819	2.629	14.7	19.8
12 17	6 53.11	+22 26.3	2.568	3.521	4.7	20.0	12 17	6 53.34	-6 36.7	1.782	2.648	12.3	19.7
12 27	6 44.89	+22 40.6	2.538	3.519	1.4	19.7	12 27	6 44.99	-5 39.7	1.768	2.668	10.4	19.6
1 6	6 36.31	+22 53.9	2.538	3.516	2.0	19.8	1 6	6 36.35	-4 15.1	1.779	2.688	9.8	19.6
1 16	6 28.17	+23 5.4	2.570	3.513	5.3	20.0	1 16	6 28.43	-2 27.7	1.818	2.709	10.8	19.7
1 26	6 21.22	+23 14.6	2.630	3.510	8.3	20.2	1 26	6 22.14	-0 25.1	1.882	2.730	12.7	19.9
2 5	6 16.05	+23 21.8	2.715	3.506	10.9	20.4	2 5	6 18.07	+1 44.5	1.970	2.751	14.8	20.1
<b>439451</b>	2013 XK <sub>25</sub>	12 31.0 353°69' 0°/31.1 18					<b>211426</b>	2002 XJ <sub>19</sub>	12 31.1 172°36' 2°/31.2 18				
11 27	7 7.01	+20 9.7	1.126	1.980	19.0	20.4	11 27	7 9.63	+17 26.4	2.316	3.120	12.2	20.0
12 7	7 3.27	+20 43.9	1.059	1.976	14.3	20.1	12 7	7 3.31	+16 56.5	2.234	3.123	9.2	19.8
12 17	6 55.88	+21 28.6	1.012	1.972	8.8	19.8	12 17	6 55.03	+16 30.1	2.179	3.125	5.9	19.6
12 27	6 45.85	+22 19.6	0.988	1.969	2.6	19.4	12 27	6 45.49	+16 7.6	2.152	3.127	2.8	19.4
1 6	6 34.87	+23 11.0	0.988	1.967	3.8	19.5	1 6	6 35.61	+15 49.1	2.156	3.129	3.2	19.5
1 16	6 24.89	+23 57.8	1.014	1.967	9.9	19.8	1 16	6 26.33	+15 34.9	2.191	3.130	6.4	19.7
1 26	6 17.67	+24 37.4	1.061	1.967	15.4	20.1	1 26	6 18.54	+15 25.2	2.254	3.130	9.7	19.9
2 5	6 14.29	+25 9.4	1.128	1.968	19.9	20.4	2 5	6 12.82	+15 19.7	2.342	3.130	12.5	20.1
<b>215025</b>	2009 BG <sub>86</sub>	12 31.0 212°16' 1°/31.3 18					<b>247514</b>	2002 PV <sub>141</sub>	12 31.1 234°74' 10°/31.3 17				
11 27	7 8.96	+18 47.4	2.103	2.916	13.0	21.6	11 27	7 28.30	+52 14.2	2.009	2.760	15.6	20.2
12 7	7 3.17	+19 0.0	2.016	2.910	9.8	21.4	12 7	7 18.53	+52 42.7	1.931	2.754	13.5	20.0
12 17	6 55.12	+19 18.0	1.953	2.905	6.1	21.1	12 17	6 47.72	+52 49.4	1.874	2.747	11.4	19.9
12 27	6 45.53	+19 40.0	1.919	2.898	2.1	20.9	12 27	6 48.35	+52 25.0	1.841	2.741	10.2	19.8
1 6	6 35.37	+20 3.8	1.915	2.892	2.7	20.9	1 6	6 31.60	+51 25.0	1.836	2.733	10.3	19.8
1 16	6 25.74	+20 27.7	1.940	2.885	6.7	21.1	1 16	6 16.67	+49 52.0	1.857	2.726	11.8	19.8
1 26	6 17.69	+20 50.5	1.994	2.877	10.4	21.4	1 26	6 5.25	+47 54.5	1.904	2.719	14.0	20.0
2 5	6 11.93	+21 12.0	2.071	2.869	13.6	21.6	2 5	5 58.07	+45 43.8	1.974	2.711	16.3	20.1
<b>68961</b>	2002 RE <sub>50</sub>	12 31.0 160°76' 0°/31.2 18					<b>113825</b>	2002 TS <sub>223</sub>	12 31.1 338°14' 4°/31.6 18				
11 27	7 9.37	+20 38.7	2.149	2.963	12.7	20.5	11 27	7 4.04	+11 12.1	2.123	2.929	13.1	19.6
12 7	7 3.33	+20 49.1	2.072	2.968	9.5	20.3	12 7	6 59.39	+10 38.2	2.041	2.924	10.3	19.4
12 17	6 55.13	+21 3.1	2.020	2.972	5.8	20.1	12 17	6 52.78	+10 13.2	1.983	2.919	7.2	19.2
12 27	6 45.50	+21 18.8	1.996	2.976	1.8	19.8	12 27	6 44.87	+9 58.7	1.951	2.914	4.8	19.1
1 6	6 35.45	+21 34.3	2.002	2.980	2.5	19.8	1 6	6 36.53	+9 55.1	1.948	2.910	4.9	19.1
1 16	6 26.03	+21 48.4	2.039	2.983	6.4	20.1	1 16	6 28.70	+10 2.1	1.973	2.906	7.5	19.2
1 26	6 18.21	+22 0.6	2.103	2.986	10.0	20.3	1 26	6 22.28	+10 18.2	2.025	2.902	10.6	19.4
2 5	6 12.66	+22 11.1	2.192	2.988	13.1	20.5	2 5	6 17.90	+10 41.3	2.100	2.899	13.4	19.6
<b>486440</b>	2013 FL <sub>21</sub>	12 31.0 162°16' 4°/ 1.1 18					<b>489229</b>	2006 KB <sub>120</sub>	12 31.1 255°45' 8°/31.2 17				
11 27	7 6.30	+7 18.1	2.490	3.270	12.2	22.1	11 27	7 5.33	-2 58.3	2.510	3.246	13.2	21.4
12 7	7 0.70	+6 55.9	2.412	3.275	9.7	21.9	12 7	7 0.07	-4 24.7	2.427	3.238	11.5	21.3
12 17	6 53.39	+6 44.4	2.359	3.280	7.1	21.8	12						

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>364901</b>	2008 EX <sub>110</sub>	12 31.1 136°25		1°1/30.8 18			<b>55357</b>	2001 SY <sub>160</sub>	12 31.1 104°95		0°3/31.0 18		
11 27	7 8.89	+24 33.1	2.078	2.897	12.8	21.4	11 27	7 10.20	+23 59.9	2.077	2.895	13.0	19.0
12 7	7 3.15	+25 2.7	2.003	2.902	9.6	21.2	12 7	7 3.93	+24 2.7	2.012	2.910	9.6	18.8
12 17	6 55.13	+25 33.8	1.953	2.906	5.8	20.9	12 17	6 55.47	+24 5.9	1.971	2.925	5.8	18.6
12 27	6 45.57	+26 3.1	1.930	2.911	1.9	20.7	12 27	6 45.65	+24 7.5	1.959	2.939	1.7	18.3
1 6	6 35.54	+26 27.8	1.938	2.915	2.8	20.8	1 6	6 35.53	+24 6.1	1.976	2.954	2.5	18.4
1 16	6 26.15	+26 46.2	1.976	2.919	6.7	21.0	1 16	6 26.20	+24 1.2	2.024	2.968	6.4	18.7
1 26	6 18.46	+26 58.3	2.041	2.922	10.3	21.2	1 26	6 18.63	+23 53.6	2.099	2.982	10.0	18.9
2 5	6 13.16	+27 5.0	2.129	2.926	13.4	21.4	2 5	6 13.43	+23 44.6	2.198	2.995	13.0	19.2
<b>283043</b>	2008 DD <sub>15</sub>	12 31.1 342°79		3°7/30.8 18			<b>485258</b>	2010 VO <sub>179</sub>	12 31.1 75°26		3°6/30.2 18		
11 27	7 11.63	+30 13.2	1.191	2.040	18.6	20.2	11 27	7 10.83	+30 49.4	1.939	2.760	13.6	21.2
12 7	7 6.82	+30 31.8	1.122	2.034	14.2	19.9	12 7	7 4.81	+31 45.2	1.878	2.775	10.3	21.0
12 17	6 58.07	+30 45.7	1.073	2.029	9.1	19.6	12 17	6 56.20	+32 37.8	1.842	2.789	6.7	20.9
12 27	6 46.54	+30 48.4	1.048	2.025	4.4	19.3	12 27	6 45.90	+33 21.7	1.833	2.804	3.9	20.7
1 6	6 34.12	+30 35.8	1.047	2.021	5.3	19.4	1 6	6 35.14	+33 52.7	1.854	2.819	4.6	20.8
1 16	6 22.94	+30 7.7	1.071	2.018	10.4	19.6	1 16	6 25.22	+34 9.3	1.903	2.834	7.8	21.0
1 26	6 14.83	+29 28.4	1.118	2.016	15.5	19.9	1 26	6 17.30	+34 12.7	1.978	2.849	11.1	21.2
2 5	6 10.78	+28 43.9	1.185	2.014	19.9	20.2	2 5	6 12.11	+34 6.1	2.077	2.864	14.0	21.5
<b>56712</b>	2000 MQ <sub>2</sub>	12 31.1 188°96		0°7/30.9 18			<b>81507</b>	2000 GA <sub>165</sub>	12 31.1 44°06		9°6/30.1 18		
11 27	7 12.13	+24 23.5	1.971	2.788	13.6	20.5	11 27	7 16.72	+44 9.7	1.516	2.326	17.3	18.7
12 7	7 5.68	+24 34.6	1.890	2.787	10.2	20.3	12 7	7 10.28	+45 25.3	1.471	2.342	14.2	18.6
12 17	6 56.71	+24 46.4	1.833	2.786	6.2	20.0	12 17	6 59.93	+46 23.7	1.446	2.360	11.4	18.5
12 27	6 46.05	+24 56.1	1.804	2.784	1.9	19.7	12 27	6 47.02	+46 54.9	1.446	2.378	9.7	18.4
1 6	6 34.84	+25 1.5	1.805	2.782	2.8	19.8	1 6	6 33.61	+46 53.7	1.470	2.396	10.1	18.5
1 16	6 24.33	+25 1.7	1.836	2.779	7.1	20.1	1 16	6 21.81	+46 21.5	1.519	2.415	12.2	18.7
1 26	6 15.68	+24 57.4	1.894	2.776	11.0	20.3	1 26	6 13.28	+45 25.1	1.591	2.434	14.9	18.9
2 5	6 9.64	+24 50.2	1.976	2.771	14.3	20.5	2 5	6 8.79	+44 13.9	1.682	2.453	17.4	19.1
<b>404429</b>	2013 GW <sub>93</sub>	12 31.1 236°00		2°3/31.5 17			<b>458008</b>	2009 WB <sub>90</sub>	12 31.1 67°47		1°7/31.1 18		
11 27	7 7.57	+16 3.1	2.238	3.045	12.5	22.0	11 27	7 8.94	+20 6.9	2.101	2.916	12.9	20.9
12 7	7 2.03	+15 55.5	2.145	3.035	9.5	21.8	12 7	7 2.86	+19 25.9	2.034	2.929	9.7	20.7
12 17	6 54.41	+15 53.9	2.077	3.023	6.1	21.6	12 17	6 54.76	+18 46.8	1.992	2.943	6.0	20.5
12 27	6 45.37	+15 58.1	2.037	3.012	2.9	21.3	12 27	6 45.43	+18 9.9	1.978	2.956	2.4	20.3
1 6	6 35.80	+16 7.3	2.026	3.000	3.2	21.3	1 6	6 35.88	+17 36.0	1.994	2.970	2.9	20.4
1 16	6 26.69	+16 20.6	2.046	2.988	6.6	21.5	1 16	6 27.10	+17 5.9	2.041	2.983	6.5	20.6
1 26	6 18.98	+16 37.1	2.094	2.975	10.1	21.7	1 26	6 19.98	+16 40.5	2.115	2.997	10.0	20.9
2 5	6 13.38	+16 55.6	2.166	2.962	13.2	21.9	2 5	6 15.09	+16 20.1	2.213	3.010	12.9	21.1
<b>448855</b>	2011 UJ <sub>136</sub>	12 31.1 46°35		1°2/30.9 18			<b>97600</b>	2000 EY <sub>65</sub>	12 31.1 350°54		0°5/30.9 18		
11 27	7 9.93	+25 34.9	1.591	2.424	15.5	21.0	11 27	7 5.65	+23 38.7	1.839	2.670	13.8	19.5
12 7	7 4.38	+25 45.1	1.528	2.434	11.5	20.8	12 7	7 1.05	+23 54.0	1.760	2.666	10.3	19.3
12 17	6 56.01	+25 55.2	1.488	2.444	7.0	20.5	12 17	6 53.99	+24 11.5	1.705	2.662	6.3	19.1
12 27	6 45.83	+26 1.8	1.474	2.455	2.3	20.3	12 27	6 45.28	+24 28.6	1.677	2.658	1.9	18.8
1 6	6 35.22	+26 2.7	1.488	2.466	3.3	20.3	1 6	6 36.02	+24 42.9	1.677	2.655	2.8	18.8
1 16	6 25.60	+25 57.3	1.530	2.477	7.9	20.7	1 16	6 27.41	+24 53.0	1.706	2.653	7.2	19.1
1 26	6 18.22	+25 46.9	1.598	2.488	12.1	20.9	1 26	6 20.59	+24 58.7	1.761	2.652	11.1	19.3
2 5	6 13.81	+25 33.5	1.687	2.500	15.6	21.2	2 5	6 16.32	+25 1.0	1.838	2.650	14.5	19.6
<b>449636</b>	2014 KZ <sub>23</sub>	12 31.1 144°57		1°5/31.5 18			<b>407351</b>	2010 RR <sub>99</sub>	12 31.1 46°25		0°2/31.0 17		
11 27	7 9.53	+16 10.6	2.170	2.976	12.9	21.8	11 27	7 8.70	+23 38.4	1.763	2.592	14.4	21.1
12 7	7 3.43	+16 42.6	2.096	2.985	9.7	21.6	12 7	7 3.23	+23 41.0	1.695	2.599	10.7	20.9
12 17	6 55.21	+17 22.7	2.046	2.994	6.1	21.4	12 17	6 55.24	+23 44.9	1.651	2.607	6.5	20.7
12 27	6 45.59	+18 8.5	2.024	3.002	2.4	21.2	12 27	6 45.62	+23 47.8	1.633	2.614	1.9	20.4
1 6	6 35.52	+18 57.4	2.034	3.010	2.7	21.2	1 6	6 35.58	+23 48.1	1.645	2.623	2.8	20.5
1 16	6 26.04	+19 46.3	2.074	3.018	6.4	21.5	1 16	6 26.38	+23 45.0	1.684	2.631	7.3	20.8
1 26	6 18.09	+20 33.2	2.143	3.024	9.9	21.7	1 26	6 19.16	+23 39.2	1.750	2.640	11.3	21.0
2 5	6 12.36	+21 16.9	2.237	3.031	12.9	21.9	2 5	6 14.60	+23 31.9	1.838	2.648	14.6	21.3
<b>266381</b>	2007 EF <sub>115</sub>	12 31.1 24°36		2°8/30.5 17			<b>411582</b>	2011 EO <sub>26</sub>	12 31.1 8°24		0°7/31.2 17		
11 27	7 8.12	+28 25.1	1.812	2.641	14.0	20.2	11 27	7 5.16	+19 47.2	1.728	2.559	14.5	20.3
12 7	7 2.96	+29 9.0	1.743	2.646	10.5	20.0	12 7	7 0.72	+20 6.9	1.656	2.561	10.9	20.1
12 17	6 55.17	+29 51.9	1.698	2.651	6.6	19.8	12 17	6 53.80	+20 32.8	1.607	2.563	6.6	19.9
12 27	6 45.61	+30 29.0	1.680	2.656	3.2	19.6	12 27	6 45.22	+21 2.6	1.585	2.566	2.1	19.6
1 6	6 35.51	+30 56.3	1.690	2.662	4.1	19.6	1 6	6 36.12	+21 33.6	1.591	2.569	2.8	19.7
1 16	6 26.19	+31 12.0	1.729	2.668	7.8	19.9	1 16	6 27.72	+22 3.3	1.625	2.574	7.3	19.9
1 26	6 18.84	+31 16.7	1.793	2.675	11.5	20.1	1 26	6 21.16	+22 30.4	1.685	2.579	11.4	20.2
2 5	6 14.25	+31 13.0	1.880	2.682	14.7	20.3	2 5	6 17.17	+22 54.3	1.767	2.584	14.8	20.4
<b>73131</b>	2002 GE <sub>74</sub>	12 31.1 121°03		1°5/31.2 18			<b>321870</b>	2010 RN <sub>167</sub>	12 31.1 87°49		2°4/31.4 17		
11 27	7 14.14	+19 43.2	1.569	2.391	16.2	19.5	11 27	7 8.04	+16 33.0	1.968	2.783	13.7	21.2
12 7	7 7.37	+19 32.5	1.506	2.405	12.2	19.3	12 7	7 2.38	+16 21.1	1.902	2.795	10.3	21.0
12 17	6 57.77	+19 26.4	1.466	2.419	7.5	19.1	12 17	6 54.57	+16 15.5	1.859	2.808	6.6	20.8
12 27	6 46.35	+19 23.6	1.452	2.432	2.7	18.8	12 27	6 45.41	+16 16.1	1.844	2.820	3.0	20.6
1 6	6 34.52	+19 22.7	1.467	2.444	3.3	18.9	1 6	6 35.91	+16 21.7	1.858	2.832	3.3	20.6
1 16	6 23.75	+19 23.1	1.511	2.456	8.1	19.2	1 16	6 27.14	+16 31.6	1.902	2.845	6.9	20.9
1 26	6 15.28	+19 24.7	1.581	2.468	12.4	19.5	1 26	6 20.06	+16 44.7	1.972	2.857	10.4	21.1
2 5	6 9.85	+19 27.8	1.672	2.479	16.0	19.8	2 5	6 15.29	+16 59.9	2.066	2.869	13.5	21.3
<b>147515</b>	2004 DM <sub>20</sub>	12 31.1 227°45		0°0/30.9 18			<b>148490</b>	2001 KR <sub>29</sub>	12 31.1 143°49		0°9/31.2 18		
11 27	7 12.72	+23 46.3	1.591	2.418	15.8	20.0	11 27	7 12.91	+20 9.0	1.901	2.714	14.1	21.1
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12 31.1

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>452575</b>	2005 <i>EK</i> <sub>109</sub>		12 31.1 310°09	7°9/30.1	18		<b>278774</b>	2008 <i>SP</i> <sub>156</sub>		12 31.1 96°28	5°1/1.6	18	
11 27	7 14.10	+45 25.3	2.111	2.899	13.8	20.4	11 27	7 5.82	+5 5.6	2.577	3.348	12.0	21.1
12 7	7 7.73	+46 7.6	2.027	2.885	11.5	20.2	12 7	7 0.21	+4 50.7	2.517	3.372	9.7	21.0
12 17	6 58.22	+46 35.9	1.966	2.872	9.3	20.1	12 17	6 53.06	+4 47.9	2.482	3.396	7.2	20.9
12 27	6 46.56	+46 43.3	1.931	2.858	8.0	20.0	12 27	6 44.99	+4 58.1	2.474	3.419	5.4	20.8
1 6	6 34.21	+46 25.5	1.923	2.845	8.3	20.0	1 6	6 36.72	+5 20.8	2.496	3.442	5.3	20.8
1 16	6 22.80	+45 42.6	1.941	2.832	10.2	20.1	1 16	6 29.00	+5 54.4	2.548	3.464	6.9	20.9
1 26	6 13.76	+44 38.9	1.984	2.819	12.7	20.2	1 26	6 22.52	+6 36.4	2.627	3.487	9.1	21.1
2 5	6 7.97	+43 21.3	2.049	2.807	15.1	20.3	2 5	6 17.74	+7 23.8	2.731	3.508	11.3	21.3
<b>227001</b>	2004 <i>XV</i> <sub>80</sub>		12 31.1 17°82	0°6/31.1	17		<b>386679</b>	2009 <i>VR</i> <sub>51</sub>		12 31.1 48°36	0°4/31.0	18	
11 27	7 7.64	+22 39.9	1.921	2.746	13.5	19.6	11 27	7 13.24	+23 35.6	1.156	2.002	19.2	20.4
12 7	7 2.25	+22 15.5	1.847	2.749	10.1	19.4	12 7	7 7.31	+23 40.2	1.115	2.027	14.2	20.2
12 17	6 54.57	+21 51.6	1.797	2.752	6.2	19.2	12 17	6 57.91	+23 47.2	1.094	2.053	8.5	19.9
12 27	6 45.43	+21 27.5	1.775	2.755	1.9	18.9	12 27	6 46.44	+23 52.7	1.098	2.079	2.5	19.7
1 6	6 35.91	+21 3.3	1.781	2.759	2.7	18.9	1 6	6 34.75	+23 54.3	1.127	2.105	3.6	19.8
1 16	6 27.15	+20 39.3	1.817	2.764	6.9	19.2	1 16	6 24.64	+23 51.3	1.182	2.132	9.1	20.2
1 26	6 20.16	+20 16.8	1.880	2.768	10.7	19.5	1 26	6 17.51	+23 45.2	1.261	2.160	14.0	20.6
2 5	6 15.61	+19 56.7	1.965	2.773	13.9	19.7	2 5	6 14.00	+23 37.7	1.359	2.187	17.9	20.9
<b>365570</b>	2010 <i>TO</i> <sub>91</sub>		12 31.1 190°42	3°9/31.7	18		<b>112180</b>	2002 <i>JE</i> <sub>98</sub>		12 31.1 96°59	5°5/1.5	18	
11 27	7 6.88	+12 11.7	2.045	2.850	13.6	21.7	11 27	7 9.55	+6 36.7	1.977	2.761	14.7	19.7
12 7	7 1.56	+11 52.0	1.966	2.850	10.5	21.5	12 7	7 3.35	+6 25.5	1.920	2.786	11.7	19.6
12 17	6 54.14	+11 41.5	1.910	2.849	7.2	21.3	12 17	6 55.10	+6 28.9	1.887	2.810	8.5	19.4
12 27	6 45.32	+11 41.1	1.881	2.849	4.4	21.1	12 27	6 45.61	+6 47.6	1.880	2.834	5.9	19.3
1 6	6 36.04	+11 50.3	1.881	2.848	4.5	21.1	1 6	6 35.87	+7 20.5	1.902	2.857	5.8	19.3
1 16	6 27.34	+12 8.3	1.911	2.847	7.4	21.3	1 16	6 26.89	+8 5.0	1.953	2.880	8.0	19.5
1 26	6 20.17	+12 33.1	1.967	2.846	10.7	21.5	1 26	6 19.59	+8 57.6	2.032	2.902	10.9	19.7
2 5	6 15.19	+13 2.8	2.046	2.845	13.8	21.7	2 5	6 14.53	+9 54.5	2.134	2.923	13.6	20.0
<b>487987</b>	2015 <i>TH</i> <sub>326</sub>		12 31.1 49°72	7°7/2.1	18		<b>198583</b>	2004 <i>YQ</i> <sub>20</sub>		12 31.1 294°61	1°0/31.3	18	
11 27	7 6.04	+2 32.8	1.729	2.515	16.5	20.6	11 27	7 5.52	+18 47.9	2.203	3.020	12.3	20.3
12 7	7 1.13	+2 8.8	1.665	2.524	13.5	20.4	12 7	7 0.61	+19 2.2	2.114	3.011	9.3	20.0
12 17	6 53.94	+2 4.6	1.622	2.533	10.5	20.2	12 17	6 53.63	+19 22.0	2.050	3.002	5.7	19.8
12 27	6 45.26	+2 22.6	1.603	2.543	8.2	20.1	12 27	6 45.23	+19 45.9	2.014	2.994	2.0	19.5
1 6	6 36.16	+3 2.5	1.610	2.553	7.9	20.1	1 6	6 36.31	+20 11.9	2.008	2.985	2.5	19.6
1 16	6 27.77	+4 1.1	1.644	2.563	9.8	20.3	1 16	6 27.85	+20 38.2	2.031	2.977	6.3	19.8
1 26	6 21.13	+5 13.5	1.704	2.573	12.7	20.5	1 26	6 20.80	+21 3.7	2.082	2.968	9.9	20.0
2 5	6 16.90	+6 33.7	1.786	2.584	15.5	20.7	2 5	6 15.86	+21 27.6	2.157	2.960	13.0	20.2
<b>76762</b>	2000 <i>KH</i> <sub>14</sub>		12 31.1 281°40	0°0/30.9	18		<b>335457</b>	2005 <i>VB</i> <sub>3</sub>		12 31.1 60°47	0°2/31.1	18	
11 27	7 5.93	+22 34.2	2.342	3.160	11.6	19.9	11 27	7 11.53	+22 11.6	1.374	2.211	17.2	20.5
12 7	7 0.81	+22 41.3	2.250	3.149	8.7	19.6	12 7	7 5.88	+22 33.0	1.318	2.225	12.8	20.3
12 17	6 53.69	+22 50.4	2.183	3.137	5.3	19.4	12 17	6 57.08	+22 58.8	1.283	2.240	7.8	20.0
12 27	6 45.20	+22 59.7	2.145	3.125	1.6	19.1	12 27	6 46.26	+23 25.3	1.274	2.255	2.3	19.7
1 6	6 36.20	+23 7.8	2.136	3.114	2.3	19.2	1 6	6 34.96	+23 48.6	1.292	2.270	3.3	19.9
1 16	6 27.67	+23 13.6	2.157	3.102	6.1	19.4	1 16	6 24.80	+24 6.8	1.337	2.286	8.5	20.2
1 26	6 20.51	+23 17.2	2.206	3.091	9.5	19.6	1 26	6 17.17	+24 19.7	1.406	2.301	13.1	20.5
2 5	6 15.41	+23 18.9	2.280	3.079	12.5	19.8	2 5	6 12.84	+24 28.5	1.497	2.316	16.9	20.8
<b>482051</b>	2009 <i>XH</i> <sub>19</sub>		12 31.1 332°21	0°8/31.3	18		<b>151704</b>	2003 <i>BH</i> <sub>28</sub>		12 31.1 214°02	3°5/31.7	18	
11 27	7 6.07	+18 48.8	1.240	2.088	18.0	21.2	11 27	7 9.94	+12 45.6	2.058	2.857	13.7	20.1
12 7	7 2.47	+19 20.4	1.161	2.074	13.7	20.9	12 7	7 3.96	+12 38.1	1.967	2.850	10.6	19.9
12 17	6 55.45	+20 4.1	1.102	2.061	8.5	20.6	12 17	6 55.71	+12 40.0	1.901	2.841	7.2	19.7
12 27	6 45.85	+20 56.5	1.067	2.048	2.7	20.2	12 27	6 45.88	+12 51.4	1.862	2.832	4.0	19.5
1 6	6 35.17	+21 52.7	1.057	2.036	3.6	20.2	1 6	6 35.45	+13 11.4	1.854	2.823	4.2	19.5
1 16	6 25.21	+22 47.4	1.073	2.025	9.6	20.5	1 16	6 25.51	+13 38.7	1.874	2.812	7.4	19.6
1 26	6 17.71	+23 37.2	1.112	2.016	15.0	20.8	1 26	6 17.13	+14 11.2	1.923	2.801	11.0	19.8
2 5	6 13.80	+24 20.5	1.170	2.007	19.6	21.0	2 5	6 11.05	+14 47.0	1.995	2.789	14.2	20.0
<b>173358</b>	1999 <i>YL</i> <sub>12</sub>		12 31.1 196°52	4°6/30.6	18		<b>22959</b>	1999 <i>UY</i> <sub>1</sub>		12 31.1 108°30	4°7/31.6	18	
11 27	7 14.28	+15 38.3	1.899	2.701	14.6	19.4	11 27	7 11.71	+13 0.0	1.531	2.347	16.9	17.9
12 7	7 7.08	+14 3.3	1.817	2.700	11.3	19.2	12 7	7 5.61	+12 23.2	1.468	2.358	13.0	17.7
12 17	6 57.46	+12 30.1	1.760	2.700	7.7	18.9	12 17	6 56.77	+11 57.0	1.427	2.369	8.8	17.4
12 27	6 46.29	+11 2.3	1.732	2.698	4.9	18.8	12 27	6 46.16	+11 42.9	1.411	2.380	5.3	17.3
1 6	6 34.72	+9 44.0	1.735	2.697	5.4	18.8	1 6	6 35.13	+11 41.0	1.423	2.391	5.4	17.3
1 16	6 23.96	+8 38.5	1.769	2.695	8.7	19.0	1 16	6 25.06	+11 50.5	1.463	2.401	9.0	17.5
1 26	6 15.09	+7 47.7	1.830	2.694	12.2	19.2	1 26	6 17.16	+12 9.3	1.528	2.411	13.0	17.8
2 5	6 8.80	+7 11.3	1.913	2.692	15.3	19.4	2 5	6 12.18	+12 34.8	1.614	2.421	16.5	18.0
<b>373508</b>	2001 <i>KW</i> <sub>31</sub>		12 31.1 138°43	5°9/1.5	18		<b>438042</b>	2004 <i>KA</i> <sub>8</sub>		12 31.1 194°59	1°0/30.9	18	
11 27	7 4.04	-1 43.8	3.500	4.226	10.0	22.5	11 27	7 13.57	+25 52.2	2.182	2.991	12.7	23.0
12 7	6 58.58	-2 25.9	3.431	4.241	8.4	22.4	12 7	7 6.61	+26 1.6	2.095	2.988	9.5	22.8
12 17	6 51.96	-2 56.6	3.388	4.256	7.0	22.3	12 17	6 57.27	+26 10.1	2.033	2.985	5.8	22.6
12 27	6 44.64	-3 14.1	3.372	4.271	6.0	22.3	12 27	6 46.32	+26 15.1	2.001	2.981	2.0	22.3
1 6	6 37.13	-3 17.8	3.384	4.285	6.0	22.3	1 6	6 34.84	+26 14.3	1.999	2.975	2.7	22.4
1 16	6 29.99	-3 8.0	3.427	4.298	6.8	22.4	1 16	6 24.01	+26 7.3	2.028	2.969	6.7	22.6
1 26	6 23.73	-2 46.4	3.496	4.311	8.2	22.5	1 26	6 14.91	+25 55.2	2.086	2.962	10.3	22.8
2 5	6 18.73	-2 15.3	3.590	4.323	9.6	22.6	2 5	6 8.27	+25 39.9	2.167	2.954	13.5	23.0
<b>85523</b>	1997 <i>WM</i> <sub>5</sub>		12 31.1 221°47	2°8/30.3	18		<b>197459</b>	2003 <i>Y7</i> <sub>125</sub>		12 31.1 25°70	5°3/29.9	17	
11 27	7 10.59	+29 38.3	2.300										

EPHEMERIDES

12 31.1

12 31.1

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>69519</b>	1997 <i>GT</i> <sub>1</sub>		12 31.1	70°31	1°0/31.2	18	<b>59414</b>	1999 <i>FP</i> <sub>62</sub>		12 31.1	237°69	1°2/31.3	18
11 27	7 9.47	+20 10.0	1.678	2.504	15.1	19.5	11 27	7 10.22	+19 9.0	1.835	2.654	14.3	20.1
12 7	7 3.92	+20 10.4	1.610	2.511	11.3	19.2	12 7	7 4.53	+19 16.1	1.747	2.644	10.9	19.9
12 17	6 55.76	+20 15.5	1.564	2.518	6.9	19.0	12 17	6 56.24	+19 28.9	1.682	2.634	6.8	19.6
12 27	6 45.88	+20 23.6	1.545	2.526	2.3	18.7	12 27	6 46.10	+19 45.9	1.644	2.624	2.4	19.3
1 6	6 35.53	+20 32.9	1.555	2.533	3.0	18.8	1 6	6 35.26	+20 4.8	1.635	2.613	3.0	19.4
1 16	6 26.02	+20 42.1	1.593	2.540	7.6	19.1	1 16	6 24.99	+20 24.1	1.656	2.602	7.5	19.6
1 26	6 18.53	+20 50.9	1.657	2.548	11.7	19.3	1 26	6 16.53	+20 42.6	1.703	2.590	11.7	19.8
2 5	6 13.79	+20 59.3	1.743	2.555	15.2	19.6	2 5	6 10.71	+21 0.2	1.773	2.578	15.3	20.0
<b>296204</b>	2009 <i>BT</i> <sub>189</sub>		12 31.1	282°49	0°6/31.1	17	<b>97227</b>	1999 <i>XG</i> <sub>54</sub>		12 31.1	281°76	2°2/30.5	18
11 27	7 11.61	+26 2.1	1.746	2.571	14.7	20.4	11 27	7 8.10	+27 3.0	2.152	2.972	12.4	18.5
12 7	7 5.71	+25 41.4	1.656	2.558	11.1	20.1	12 7	7 2.75	+27 53.8	2.068	2.967	9.3	18.3
12 17	6 56.98	+25 17.7	1.589	2.544	6.8	19.8	12 17	6 55.06	+28 45.6	2.010	2.962	5.8	18.0
12 27	6 46.28	+24 49.2	1.550	2.530	2.1	19.5	12 27	6 45.74	+29 34.1	1.980	2.957	2.6	17.8
1 6	6 34.91	+24 15.1	1.539	2.517	3.0	19.5	1 6	6 35.79	+30 15.3	1.979	2.952	3.5	17.9
1 16	6 24.29	+23 36.5	1.557	2.503	7.8	19.8	1 16	6 26.34	+30 46.7	2.009	2.947	7.0	18.1
1 26	6 15.73	+22 56.1	1.601	2.489	12.2	20.0	1 26	6 18.50	+31 7.9	2.065	2.942	10.4	18.3
2 5	6 10.09	+22 16.7	1.668	2.475	16.0	20.2	2 5	6 13.04	+31 20.4	2.145	2.937	13.5	18.5
<b>277880</b>	2006 <i>JB</i> <sub>64</sub>		12 31.1	140°68	4°0/30.4	17	<b>222957</b>	2002 <i>PR</i> <sub>159</sub>		12 31.1	181°47	2°9/30.8	18
11 27	7 10.31	+35 5.7	2.414	3.221	11.7	21.8	11 27	7 16.13	+30 8.8	1.874	2.687	14.3	21.4
12 7	7 4.12	+35 36.5	2.340	3.225	9.0	21.6	12 7	7 8.93	+30 30.1	1.795	2.689	10.8	21.2
12 17	6 55.70	+36 1.0	2.291	3.230	6.2	21.4	12 17	6 58.86	+30 47.3	1.741	2.690	6.9	21.0
12 27	6 45.84	+36 15.0	2.271	3.234	4.2	21.3	12 27	6 46.86	+30 55.8	1.714	2.690	3.4	20.7
1 6	6 35.58	+36 16.1	2.280	3.238	4.6	21.3	1 6	6 34.27	+30 52.6	1.718	2.689	4.1	20.8
1 16	6 26.01	+36 3.8	2.318	3.242	7.1	21.5	1 16	6 22.55	+30 37.2	1.750	2.687	7.9	21.0
1 26	6 18.13	+35 40.3	2.384	3.246	9.8	21.7	1 26	6 13.02	+30 12.1	1.810	2.685	11.8	21.2
2 5	6 12.59	+35 8.7	2.474	3.249	12.3	21.9	2 5	6 6.48	+29 41.2	1.893	2.682	15.1	21.5
<b>234619</b>	2002 <i>AN</i> <sub>106</sub>		12 31.1	345°76	0°7/31.2	18	<b>143188</b>	2002 <i>XW</i> <sub>78</sub>		12 31.1	37°75	1°8/30.8	18
11 27	7 6.96	+20 7.1	1.298	2.144	17.5	20.4	11 27	7 9.35	+26 26.2	1.649	2.481	15.0	19.6
12 7	7 2.91	+20 24.3	1.225	2.137	13.2	20.2	12 7	7 4.03	+26 52.1	1.583	2.488	11.2	19.4
12 17	6 55.58	+20 49.6	1.172	2.131	8.1	19.9	12 17	6 55.92	+27 17.9	1.541	2.496	6.9	19.1
12 27	6 45.92	+21 20.2	1.144	2.125	2.6	19.5	12 27	6 45.98	+27 39.5	1.525	2.504	2.6	18.9
1 6	6 35.42	+21 52.3	1.142	2.121	3.5	19.6	1 6	6 35.54	+27 53.6	1.537	2.513	3.5	19.0
1 16	6 25.76	+22 22.7	1.165	2.117	9.1	19.9	1 16	6 26.00	+27 59.1	1.577	2.521	7.9	19.3
1 26	6 18.53	+22 49.8	1.213	2.115	14.2	20.1	1 26	6 18.62	+27 56.7	1.642	2.530	11.9	19.5
2 5	6 14.70	+23 13.1	1.280	2.113	18.5	20.4	2 5	6 14.15	+27 48.8	1.729	2.540	15.4	19.8
<b>357059</b>	2001 <i>OJ</i> <sub>37</sub>		12 31.1	126°69	2°8/30.5	18	<b>366707</b>	2003 <i>WA</i> <sub>130</sub>		12 31.1	30°58	0°5/31.2	17
11 27	7 12.21	+30 15.0	2.369	3.177	11.8	21.5	11 27	7 6.19	+20 57.3	1.844	2.672	13.9	20.6
12 7	7 5.40	+30 56.3	2.303	3.194	8.9	21.3	12 7	7 1.30	+21 6.7	1.778	2.681	10.3	20.4
12 17	6 56.42	+31 34.6	2.264	3.210	5.7	21.2	12 17	6 54.10	+21 20.2	1.737	2.692	6.3	20.1
12 27	6 46.06	+32 5.7	2.254	3.226	3.1	21.0	12 27	6 45.42	+21 35.8	1.722	2.702	1.9	19.9
1 6	6 35.33	+32 26.6	2.274	3.242	3.7	21.1	1 6	6 36.35	+21 51.4	1.735	2.714	2.6	19.9
1 16	6 25.31	+32 36.4	2.325	3.256	6.6	21.3	1 16	6 28.03	+22 5.7	1.778	2.725	6.9	20.2
1 26	6 16.97	+32 36.2	2.404	3.270	9.6	21.5	1 26	6 21.49	+22 18.1	1.846	2.738	10.7	20.5
2 5	6 10.95	+32 28.4	2.507	3.284	12.1	21.7	2 5	6 17.38	+22 28.6	1.938	2.750	13.9	20.7
<b>103243</b>	2000 <i>AV</i> <sub>3</sub>		12 31.1	55°85	1°4/31.3	18	<b>64548</b>	2001 <i>WK</i> <sub>1</sub>		12 31.1	207°98	0°0/30.9	18
11 27	7 24.33	+30 50.9	1.410	2.228	17.9	17.9	11 27	7 14.13	+22 40.9	1.539	2.365	16.3	20.2
12 7	7 14.55	+29 44.3	1.369	2.266	13.3	17.7	12 7	7 7.87	+22 46.5	1.460	2.362	12.2	19.9
12 17	7 1.74	+28 28.2	1.352	2.305	8.1	17.5	12 17	6 58.44	+22 54.9	1.403	2.358	7.5	19.6
12 27	6 47.47	+27 2.3	1.363	2.343	2.8	17.3	12 27	6 46.78	+23 3.2	1.372	2.353	2.2	19.3
1 6	6 33.62	+25 30.2	1.404	2.381	3.4	17.5	1 6	6 34.36	+23 8.7	1.369	2.347	3.2	19.4
1 16	6 21.77	+23 57.8	1.474	2.419	8.3	17.8	1 16	6 22.78	+23 10.3	1.395	2.342	8.5	19.7
1 26	6 13.04	+22 31.3	1.572	2.457	12.6	18.2	1 26	6 13.55	+23 8.5	1.446	2.335	13.2	19.9
2 5	6 7.84	+21 15.0	1.692	2.494	16.0	18.5	2 5	6 7.58	+23 5.0	1.519	2.328	17.2	20.2
<b>149637</b>	2004 <i>EE</i> <sub>79</sub>		12 31.1	319°42	3°1/31.5	18	<b>112162</b>	2002 <i>JS</i> <sub>78</sub>		12 31.1	146°38	0°3/31.2	18
11 27	7 8.10	+16 5.7	1.330	2.167	17.7	19.8	11 27	7 13.88	+21 33.4	1.642	2.463	15.6	19.9
12 7	7 3.67	+15 55.7	1.252	2.157	13.6	19.5	12 7	7 7.31	+21 41.7	1.572	2.472	11.7	19.7
12 17	6 56.02	+15 56.0	1.194	2.147	8.8	19.2	12 17	6 57.89	+21 53.6	1.526	2.479	7.1	19.4
12 27	6 46.07	+16 6.6	1.161	2.138	4.1	18.9	12 27	6 46.57	+22 6.5	1.506	2.487	2.2	19.1
1 6	6 35.23	+16 26.1	1.153	2.129	4.5	18.9	1 6	6 34.72	+22 17.9	1.515	2.493	3.0	19.2
1 16	6 25.16	+16 52.3	1.172	2.121	9.4	19.2	1 16	6 23.80	+22 26.5	1.553	2.499	7.8	19.5
1 26	6 17.42	+17 22.8	1.214	2.113	14.4	19.5	1 26	6 15.09	+22 32.4	1.618	2.505	12.2	19.8
2 5	6 13.00	+17 55.4	1.276	2.106	18.7	19.7	2 5	6 9.38	+22 36.5	1.705	2.510	15.8	20.0
<b>266502</b>	2008 <i>ET</i> <sub>15</sub>		12 31.1	236°23	1°4/31.3	18	<b>153575</b>	2001 <i>SP</i> <sub>226</sub>		12 31.1	167°45	0°9/31.7	18
11 27	7 11.39	+19 3.8	1.608	2.432	15.8	21.3	11 27	7 11.88	+19 31.1	1.980	2.792	13.7	21.3
12 7	7 5.70	+19 7.9	1.524	2.424	12.0	21.1	12 7	7 5.44	+19 41.4	1.903	2.797	10.3	21.1
12 17	6 57.07	+19 18.4	1.462	2.416	7.5	20.8	12 17	6 56.61	+19 56.5	1.850	2.801	6.3	20.9
12 27	6 46.35	+19 33.8	1.427	2.407	2.7	20.5	12 27	6 46.18	+20 14.6	1.825	2.805	2.1	20.6
1 6	6 34.84	+19 51.6	1.421	2.398	3.3	20.5	1 6	6 35.26	+20 33.4	1.830	2.808	2.7	20.6
1 16	6 24.02	+20 9.9	1.442	2.389	8.2	20.8	1 16	6 25.02	+20 51.4	1.866	2.810	6.9	20.9
1 26	6 15.29	+20 27.9	1.489	2.379	12.8	21.0	1 26	6 16.55	+21 8.0	1.929	2.811	10.7	21.1
2 5	6 9.57	+20 45.3	1.558	2.369	16.8	21.2	2 5	6 10.57	+21 23.1	2.016	2.812	14.0	21.4
<b>152756</b>	1999 <i>JV</i> <sub>3</sub>		12 31.1	84°39	16°5/2.4	18	<b>446737</b>	2015 <i>OR</i> <sub>76</sub>		12 31.1	130°03	1°9/30.8	18
11 27													

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>332768</b>	2009 <i>UJ</i> <sub>136</sub>	12 31.1 110° 02'	0° 4'/31.0 18				<b>67178</b>	2000 <i>BE</i> <sub>25</sub>	12 31.1 124° 26'	2° 5'/30.9 18			
11 27	7 14.97	+22 35.7	1.752	2.569	15.0	21.5	11 27	7 11.44	+32 25.4	2.595	3.399	11.1	19.2
12 7	7 7.82	+23 1.3	1.694	2.592	11.1	21.3	12 7	7 4.61	+32 24.9	2.524	3.412	8.4	19.1
12 17	6 58.03	+23 29.6	1.660	2.614	6.7	21.1	12 17	6 55.85	+32 18.7	2.479	3.424	5.4	18.9
12 27	6 46.57	+23 57.0	1.654	2.635	2.0	20.8	12 27	6 45.93	+32 4.4	2.464	3.436	2.9	18.7
1 6	6 34.78	+24 20.3	1.678	2.656	2.9	20.9	1 6	6 35.79	+31 40.9	2.479	3.448	3.3	18.8
1 16	6 23.99	+24 37.9	1.731	2.676	7.4	21.3	1 16	6 26.39	+31 9.0	2.525	3.459	6.0	19.0
1 26	6 15.37	+24 50.0	1.812	2.695	11.3	21.5	1 26	6 18.58	+30 30.8	2.600	3.470	8.8	19.2
2 5	6 9.60	+24 57.8	1.915	2.713	14.6	21.8	2 5	6 12.90	+29 49.1	2.700	3.481	11.3	19.4
<b>45244</b>	1999 <i>XC</i> <sub>242</sub>	12 31.1 322° 45'	3° 2'/30.8 18				<b>421499</b>	2014 <i>OS</i> <sub>71</sub>	12 31.1 245° 21'	0° 5'/31.0 18			
11 27	7 10.67	+30 4.0	1.603	2.435	15.4	18.9	11 27	7 8.45	+22 58.1	1.995	2.817	13.2	21.2
12 7	7 5.34	+30 25.2	1.524	2.428	11.7	18.7	12 7	7 3.05	+23 23.8	1.914	2.814	9.9	21.0
12 17	6 56.92	+30 42.7	1.468	2.421	7.5	18.4	12 17	6 55.26	+23 52.7	1.856	2.810	6.0	20.8
12 27	6 46.34	+30 51.6	1.438	2.414	3.7	18.2	12 27	6 45.84	+24 21.7	1.826	2.807	1.8	20.5
1 6	6 35.04	+30 48.5	1.436	2.408	4.5	18.2	1 6	6 35.84	+24 47.9	1.826	2.803	2.7	20.5
1 16	6 24.60	+30 32.7	1.460	2.402	8.7	18.4	1 16	6 26.42	+25 9.5	1.855	2.800	6.9	20.8
1 26	6 16.48	+30 6.7	1.510	2.397	12.9	18.7	1 26	6 18.70	+25 25.8	1.911	2.796	10.7	21.0
2 5	6 11.57	+29 34.5	1.582	2.392	16.6	18.9	2 5	6 13.42	+25 37.6	1.990	2.792	14.0	21.2
<b>334138</b>	2001 <i>RE</i> <sub>50</sub>	12 31.1 72° 36'	0° 0'/30.9 18				<b>354293</b>	2002 <i>SD</i> <sub>72</sub>	12 31.1 248° 54'	6° 7'/30.4 17			
11 27	7 14.75	+23 46.7	1.438	2.269	17.0	20.8	11 27	7 16.38	+40 58.6	1.970	2.770	14.2	21.0
12 7	7 7.95	+23 35.7	1.388	2.292	12.6	20.6	12 7	7 9.48	+41 37.2	1.887	2.760	11.5	20.8
12 17	6 58.17	+23 25.3	1.360	2.316	7.6	20.3	12 17	6 59.39	+42 4.2	1.826	2.750	8.7	20.6
12 27	6 46.60	+23 13.4	1.358	2.339	2.2	20.1	12 27	6 47.09	+42 12.5	1.793	2.739	6.9	20.5
1 6	6 34.82	+22 58.8	1.385	2.363	3.1	20.2	1 6	6 34.08	+41 57.8	1.786	2.729	7.3	20.5
1 16	6 24.36	+22 41.8	1.438	2.386	8.2	20.5	1 16	6 22.00	+41 20.0	1.808	2.718	9.7	20.6
1 26	6 16.48	+22 24.2	1.518	2.409	12.6	20.9	1 26	6 12.32	+40 23.6	1.856	2.707	12.7	20.8
2 5	6 11.81	+22 7.6	1.619	2.432	16.2	21.2	2 5	6 5.95	+39 15.4	1.925	2.695	15.5	20.9
<b>337414</b>	2001 <i>QA</i> <sub>267</sub>	12 31.1 105° 21'	3° 1'/31.6 16				<b>126335</b>	2002 <i>AP</i> <sub>153</sub>	12 31.1 282° 14'	1° 3'/30.9 18			
11 27	7 12.73	+14 43.2	1.760	2.569	15.3	22.1	11 27	7 10.67	+25 32.8	1.647	2.477	15.2	19.8
12 7	7 6.00	+14 33.9	1.703	2.592	11.6	21.9	12 7	7 5.30	+25 46.5	1.560	2.464	11.5	19.5
12 17	6 56.85	+14 33.4	1.669	2.614	7.5	21.7	12 17	6 56.93	+26 0.8	1.495	2.450	7.1	19.2
12 27	6 46.22	+14 41.3	1.662	2.636	3.8	21.6	12 27	6 46.40	+26 12.1	1.456	2.437	2.4	18.9
1 6	6 35.31	+14 56.2	1.684	2.657	4.0	21.6	1 6	6 35.05	+26 17.4	1.446	2.423	3.4	19.0
1 16	6 25.34	+15 16.4	1.736	2.677	7.6	21.9	1 16	6 24.37	+26 15.4	1.463	2.409	8.2	19.2
1 26	6 17.36	+15 40.3	1.815	2.697	11.3	22.1	1 26	6 15.82	+26 7.1	1.507	2.396	12.8	19.4
2 5	6 12.01	+16 6.2	1.916	2.716	14.5	22.4	2 5	6 10.33	+25 54.6	1.571	2.383	16.7	19.7
<b>441242</b>	2007 <i>VW</i> <sub>223</sub>	12 31.1 29° 58'	2° 2'/31.5 17				<b>76963</b>	2001 <i>BX</i> <sub>35</sub>	12 31.1 15° 49'	6° 9'/30.4 18			
11 27	7 7.24	+16 59.7	1.188	2.034	18.8	20.6	11 27	7 13.04	+34 51.3	1.135	1.982	19.4	19.2
12 7	7 2.86	+17 10.2	1.142	2.053	14.1	20.4	12 7	7 8.24	+35 48.2	1.078	1.984	15.1	19.0
12 17	6 55.32	+17 32.0	1.117	2.073	8.8	20.1	12 17	6 59.16	+36 36.3	1.040	1.988	10.6	18.7
12 27	6 45.81	+18 2.7	1.115	2.094	3.5	19.9	12 27	6 47.10	+37 5.6	1.025	1.992	7.2	18.6
1 6	6 35.92	+18 38.7	1.139	2.117	3.9	20.0	1 6	6 34.19	+37 9.2	1.034	1.997	7.9	18.6
1 16	6 27.26	+19 16.4	1.188	2.140	8.9	20.3	1 16	6 22.78	+36 46.7	1.067	2.003	11.9	18.9
1 26	6 21.18	+19 53.3	1.261	2.164	13.6	20.7	1 26	6 14.82	+36 4.0	1.122	2.009	16.3	19.1
2 5	6 18.37	+20 27.4	1.354	2.189	17.5	21.0	2 5	6 11.25	+35 9.5	1.195	2.016	20.2	19.4
<b>229489</b>	2005 <i>UR</i> <sub>445</sub>	12 31.1 331° 09'	2° 3'/30.6 18				<b>207966</b>	1995 <i>UQ</i> <sub>23</sub>	12 31.1 297° 89'	9° 4'/28.9 18			
11 27	7 5.10	+24 19.7	1.138	1.998	18.5	19.7	11 27	7 16.13	+43 29.5	1.700	2.504	15.9	20.1
12 7	7 2.34	+25 11.9	1.055	1.975	14.1	19.4	12 7	7 10.13	+45 2.0	1.629	2.497	13.2	19.9
12 17	6 55.76	+26 12.5	0.992	1.953	8.8	19.0	12 17	7 0.24	+46 22.6	1.580	2.491	10.8	19.8
12 27	6 46.16	+27 15.2	0.952	1.932	3.3	18.6	12 27	6 47.46	+47 20.5	1.555	2.484	9.4	19.7
1 6	6 35.16	+28 12.3	0.935	1.912	4.8	18.7	1 6	6 33.55	+47 47.9	1.557	2.477	10.1	19.7
1 16	6 24.80	+28 57.7	0.943	1.894	10.8	18.9	1 16	6 20.62	+47 42.9	1.583	2.471	12.3	19.8
1 26	6 17.17	+29 29.2	0.972	1.878	16.5	19.2	1 26	6 10.57	+47 10.0	1.633	2.465	15.1	20.0
2 5	6 13.62	+29 48.1	1.020	1.863	21.4	19.4	2 5	6 4.53	+46 17.4	1.702	2.459	17.8	20.1
<b>178219</b>	2006 <i>VU</i> <sub>111</sub>	12 31.1 271° 22'	2° 9'/30.5 18				<b>38129</b>	1999 <i>JV</i> <sub>45</sub>	12 31.1 168° 69'	2° 3'/31.5 18			
11 27	7 10.55	+30 0.6	2.090	2.907	12.9	20.3	11 27	7 13.30	+16 35.3	1.903	2.709	14.4	19.8
12 7	7 4.82	+30 34.1	1.991	2.887	9.8	20.0	12 7	7 6.54	+16 30.2	1.826	2.715	10.9	19.6
12 17	6 56.47	+31 5.7	1.917	2.866	6.4	19.8	12 17	6 57.32	+16 31.9	1.773	2.720	7.0	19.3
12 27	6 46.23	+31 30.9	1.871	2.845	3.3	19.6	12 27	6 46.46	+16 39.4	1.747	2.724	3.1	19.1
1 6	6 35.18	+31 46.0	1.854	2.824	4.1	19.6	1 6	6 35.09	+16 51.5	1.752	2.727	3.4	19.1
1 16	6 24.61	+31 49.3	1.867	2.803	7.6	19.7	1 16	6 24.45	+17 6.8	1.787	2.729	7.4	19.4
1 26	6 15.76	+31 41.7	1.906	2.781	11.3	19.9	1 26	6 15.65	+17 24.3	1.849	2.730	11.2	19.6
2 5	6 9.53	+31 25.9	1.969	2.759	14.5	20.1	2 5	6 9.43	+17 43.3	1.935	2.730	14.6	19.8
<b>209208</b>	2003 <i>UP</i> <sub>316</sub>	12 31.1 69° 24'	1° 0'/31.3 17				<b>420922</b>	2013 <i>NA</i> <sub>12</sub>	12 31.1 53° 43'	1° 9'/31.1 17			
11 27	7 12.51	+19 0.8	1.627	2.448	15.7	20.2	11 27	7 11.59	+30 32.6	2.088	2.903	12.9	19.8
12 7	7 5.97	+19 21.5	1.581	2.480	11.7	20.0	12 7	7 5.09	+30 11.6	2.017	2.912	9.7	19.6
12 17	6 56.86	+19 48.3	1.558	2.511	7.1	19.8	12 17	6 56.29	+29 44.7	1.971	2.921	6.1	19.4
12 27	6 46.23	+20 18.5	1.562	2.542	2.3	19.6	12 27	6 46.11	+29 9.8	1.953	2.930	2.6	19.2
1 6	6 35.38	+20 48.9	1.595	2.573	2.9	19.7	1 6	6 35.69	+28 26.8	1.965	2.940	3.1	19.2
1 16	6 25.62	+21 17.2	1.657	2.603	7.4	20.0	1 16	6 26.17	+27 37.3	2.007	2.949	6.7	19.5
1 26	6 18.05	+21 42.6	1.745	2.633	11.4	20.3	1 26	6 18.54	+26 44.4	2.077	2.959	10.1	19.7
2 5	6 13.28	+22 4.9	1.856	2.663	14.6	20.6	2 5	6 13.40	+25 51.3	2.172	2.969	13.1	19.9
<b>421221</b>	2013 <i>SC</i> <sub>35</sub>	12 31.1 146° 62'	0° 5'/31.2 18				<b>72435</b>	2001 <i>CH</i> <sub>43</sub>	12 31.1 281°				



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>412396</b>	2013 <i>TO</i> <sub>155</sub>	12 31.1 183°70 4°0/ 1.1 18					<b>331442</b>	2012 <i>GZ</i> <sub>22</sub>	12 31.1 105°31 0°8/31.4 18				
11 27	7 5.03	+ 9 35.3	2.472	3.263	11.9	21.9	11 27	7 6.63	+18 34.0	2.710	3.515	10.6	21.2
12 7	6 59.95	+ 9 22.7	2.390	3.263	9.4	21.7	12 7	7 0.96	+18 57.7	2.643	3.534	7.9	21.0
12 17	6 53.14	+ 9 19.8	2.332	3.263	6.6	21.5	12 17	6 53.68	+19 25.8	2.603	3.553	4.8	20.8
12 27	6 45.21	+ 9 27.3	2.302	3.263	4.4	21.4	12 27	6 45.38	+19 56.5	2.592	3.571	1.7	20.6
1 6	6 36.90	+ 9 44.8	2.302	3.262	4.4	21.4	1 6	6 36.83	+20 28.0	2.612	3.589	2.0	20.7
1 16	6 29.04	+10 11.2	2.331	3.261	6.6	21.5	1 16	6 28.78	+20 58.7	2.664	3.607	5.1	20.9
1 26	6 22.39	+10 44.5	2.388	3.261	9.4	21.7	1 26	6 21.95	+21 27.6	2.744	3.625	8.0	21.2
2 5	6 17.52	+11 22.4	2.469	3.260	11.9	21.9	2 5	6 16.86	+21 54.0	2.851	3.642	10.5	21.3
<b>419151</b>	2009 <i>SJ</i> <sub>324</sub>	12 31.1 170°91 0°3/31.2 17					<b>356127</b>	2009 <i>FZ</i> <sub>45</sub>	12 31.1 281°23 3°5/31.9 18				
11 27	7 7.68	+21 9.0	2.477	3.287	11.3	22.4	11 27	7 7.41	+12 39.2	1.805	2.617	14.8	20.5
12 7	7 1.98	+21 23.1	2.396	3.290	8.4	22.2	12 7	7 2.45	+12 44.0	1.719	2.609	11.5	20.3
12 17	6 54.40	+21 40.2	2.340	3.292	5.1	22.0	12 17	6 55.03	+13 0.5	1.657	2.600	7.7	20.0
12 27	6 45.58	+21 58.4	2.314	3.294	1.6	21.7	12 27	6 45.88	+13 28.8	1.620	2.592	4.2	19.8
1 6	6 36.37	+22 16.1	2.318	3.296	2.2	21.8	1 6	6 36.06	+14 7.1	1.612	2.583	4.3	19.8
1 16	6 27.66	+22 31.9	2.353	3.297	5.7	22.0	1 16	6 26.77	+14 52.7	1.632	2.575	7.8	20.0
1 26	6 20.30	+22 45.5	2.417	3.298	8.9	22.2	1 26	6 19.17	+15 42.6	1.679	2.567	11.8	20.2
2 5	6 14.89	+22 57.0	2.505	3.298	11.7	22.4	2 5	6 14.07	+16 33.8	1.749	2.558	15.3	20.4
<b>454436</b>	2014 <i>OK</i> <sub>19</sub>	12 31.1 119°39 0°6/31.2 17					<b>516567</b>	2007 <i>DY</i> <sub>92</sub>	12 31.1 320°12 2°3/31.5 18				
11 27	7 9.08	+21 13.7	2.077	2.893	13.0	22.3	11 27	7 6.54	+17 46.1	1.229	2.076	18.2	21.5
12 7	7 3.24	+21 13.0	2.004	2.901	9.7	22.1	12 7	7 3.00	+17 44.8	1.142	2.054	14.0	21.2
12 17	6 55.23	+21 14.9	1.957	2.910	5.9	21.8	12 17	6 55.99	+17 53.7	1.076	2.032	9.0	20.8
12 27	6 45.83	+21 18.1	1.937	2.917	1.9	21.6	12 27	6 46.30	+18 12.1	1.032	2.012	3.6	20.4
1 6	6 36.05	+21 21.1	1.947	2.925	2.5	21.7	1 6	6 35.41	+18 37.8	1.014	1.992	4.2	20.4
1 16	6 26.97	+21 23.3	1.987	2.932	6.5	21.9	1 16	6 25.13	+19 7.9	1.020	1.973	9.9	20.7
1 26	6 19.54	+21 24.7	2.055	2.940	10.1	22.2	1 26	6 17.27	+19 40.1	1.049	1.955	15.5	20.9
2 5	6 14.42	+21 25.7	2.146	2.947	13.1	22.4	2 5	6 13.04	+20 12.5	1.097	1.938	20.4	21.1
<b>490155</b>	2008 <i>UP</i> <sub>198</sub>	12 31.1 112°15 9°3/28.3 17					<b>329558</b>	2002 <i>UV</i> <sub>20</sub>	12 31.1 71°79 4°6/31.8 18				
11 27	7 19.97	+53 1.9	2.600	3.342	12.7	21.2	11 27	7 6.74	+ 9 51.6	2.300	3.092	12.7	20.4
12 7	7 12.21	+54 34.5	2.548	3.355	11.1	21.1	12 7	7 1.12	+ 9 8.1	2.242	3.114	9.9	20.3
12 17	7 1.12	+55 51.2	2.520	3.367	9.9	21.1	12 17	6 53.78	+ 8 34.0	2.208	3.136	7.1	20.1
12 27	6 47.67	+56 44.3	2.517	3.379	9.3	21.1	12 27	6 45.42	+ 8 10.8	2.202	3.159	4.9	20.0
1 6	6 33.39	+57 9.2	2.539	3.391	9.6	21.1	1 6	6 36.86	+ 7 59.0	2.225	3.181	5.0	20.1
1 16	6 20.03	+57 5.7	2.588	3.402	10.7	21.2	1 16	6 28.96	+ 7 58.3	2.277	3.203	7.1	20.2
1 26	6 9.14	+56 37.6	2.659	3.414	12.1	21.3	1 26	6 22.46	+ 8 7.3	2.357	3.224	9.7	20.4
2 5	6 1.68	+55 51.5	2.751	3.425	13.5	21.4	2 5	6 17.87	+ 8 23.9	2.461	3.246	12.1	20.6
<b>33580</b>	Priyankajain	12 31.1 336°64 1°1/30.9 18					<b>26499</b>	2000 <i>CX</i> <sub>1</sub>	12 31.1 83°18 2°3/31.6 18				
11 27	7 8.05	+23 38.3	1.322	2.168	17.2	17.9	11 27	7 8.54	+16 2.3	1.804	2.621	14.6	17.6
12 7	7 3.87	+24 9.3	1.246	2.159	13.0	17.6	12 7	7 3.12	+16 9.1	1.735	2.630	11.1	17.4
12 17	6 56.31	+24 45.1	1.192	2.150	8.0	17.3	12 17	6 55.31	+16 24.4	1.689	2.638	7.0	17.2
12 27	6 46.29	+25 21.3	1.161	2.142	2.6	17.0	12 27	6 45.93	+16 47.0	1.670	2.646	3.1	16.9
1 6	6 35.34	+25 53.0	1.157	2.135	3.7	17.0	1 6	6 36.10	+17 14.8	1.679	2.655	3.4	17.0
1 16	6 25.21	+26 17.0	1.179	2.129	9.2	17.3	1 16	6 26.98	+17 45.7	1.717	2.663	7.3	17.2
1 26	6 17.57	+26 32.8	1.224	2.123	14.3	17.6	1 26	6 19.68	+18 17.8	1.782	2.671	11.1	17.5
2 5	6 13.44	+26 41.7	1.289	2.118	18.6	17.8	2 5	6 14.87	+18 49.6	1.871	2.679	14.5	17.7
<b>403353</b>	2009 <i>FH</i> <sub>72</sub>	12 31.1 169°91 2°9/30.5 18					<b>367235</b>	2007 <i>HJ</i> <sub>73</sub>	12 31.1 186°13 2°0/31.6 18				
11 27	7 11.59	+31 50.5	2.728	3.530	10.6	22.9	11 27	7 6.12	+15 52.8	2.629	3.431	11.0	22.2
12 7	7 4.86	+32 26.1	2.649	3.535	8.1	22.7	12 7	7 0.71	+15 47.9	2.545	3.431	8.3	22.0
12 17	6 56.15	+32 58.1	2.596	3.539	5.3	22.6	12 17	6 53.61	+15 48.4	2.485	3.430	5.4	21.8
12 27	6 46.12	+33 22.7	2.573	3.543	3.1	22.4	12 27	6 45.40	+15 53.9	2.455	3.429	2.6	21.6
1 6	6 35.67	+33 37.5	2.581	3.546	3.6	22.5	1 6	6 36.84	+16 3.7	2.455	3.428	2.8	21.6
1 16	6 25.77	+33 41.6	2.620	3.548	6.2	22.6	1 16	6 28.70	+16 16.8	2.486	3.426	5.6	21.8
1 26	6 17.31	+33 35.9	2.688	3.549	8.9	22.8	1 26	6 21.77	+16 32.6	2.545	3.424	8.6	22.0
2 5	6 10.92	+33 22.9	2.781	3.550	11.3	23.0	2 5	6 16.58	+16 49.9	2.630	3.422	11.2	22.2
<b>284252</b>	2006 <i>FO</i> <sub>43</sub>	12 31.1 280°74 7°5/31.9 18					<b>115468</b>	2003 <i>TX</i> <sub>20</sub>	12 31.1 121°96 0°3/31.1 18				
11 27	7 5.25	+ 0 4.7	2.483	3.235	12.9	21.1	11 27	7 7.54	+22 57.6	2.471	3.284	11.3	19.7
12 7	7 0.30	- 0 44.1	2.375	3.206	11.0	20.9	12 7	7 1.87	+23 17.8	2.399	3.294	8.4	19.6
12 17	6 53.50	- 1 19.5	2.290	3.177	9.1	20.7	12 17	6 54.34	+23 39.9	2.352	3.305	5.1	19.4
12 27	6 45.37	- 1 38.1	2.231	3.147	7.7	20.6	12 27	6 45.62	+24 1.5	2.334	3.315	1.5	19.1
1 6	6 36.65	- 1 37.8	2.199	3.117	7.8	20.5	1 6	6 36.56	+24 20.9	2.347	3.324	2.2	19.2
1 16	6 28.15	- 1 18.5	2.195	3.086	9.2	20.6	1 16	6 28.05	+24 36.6	2.390	3.334	5.6	19.5
1 26	6 20.75	- 0 41.9	2.218	3.055	11.4	20.7	1 26	6 20.92	+24 48.6	2.462	3.343	8.8	19.7
2 5	6 15.11	+ 0 8.4	2.263	3.023	13.8	20.8	2 5	6 15.76	+24 57.3	2.559	3.352	11.5	19.9
<b>485569</b>	2011 <i>UO</i> <sub>176</sub>	12 31.1 43°33 0°8/31.0 17					<b>152993</b>	2000 <i>HH</i> <sub>44</sub>	12 31.1 167°00 0°0/30.9 18				
11 27	7 9.89	+24 41.2	1.596	2.428	15.5	21.6	11 27	7 12.25	+21 41.7	1.940	2.755	13.8	20.6
12 7	7 4.45	+24 49.5	1.531	2.437	11.5	21.4	12 7	7 5.87	+22 3.6	1.863	2.760	10.3	20.4
12 17	6 56.22	+24 58.5	1.490	2.446	7.0	21.1	12 17	6 57.00	+22 29.1	1.811	2.764	6.3	20.2
12 27	6 46.17	+25 5.2	1.474	2.455	2.2	20.8	12 27	6 46.46	+22 55.5	1.786	2.767	1.9	19.9
1 6	6 35.67	+25 7.4	1.487	2.465	3.1	20.9	1 6	6 35.37	+23 19.9	1.792	2.770	2.6	20.0
1 16	6 26.11	+25 4.4	1.527	2.475	7.8	21.2	1 16	6 24.97	+23 40.5	1.827	2.772	7.0	20.2
1 26	6 18.76	+24 57.0	1.593	2.485	12.0	21.5	1 26	6 16.41	+23 56.8	1.890	2.773	10.9	20.5
2 5	6 14.34	+24 47.2	1.681	2.496	15.6	21.8	2 5	6 10.43	+24 9.4	1.977	2.774	14.2	20.7
<b>488111</b>	2015 <i>VY</i> <sub>81</sub>	12 31.1 80°27 2°6/31.6 18					<b>343927</b>	2011 <i>KO</i> <sub>9</sub>	12 31.1 289°22 3°6/31.5 18				
11 27	7 8.47	+15 26.6	1.851	2.666	14.4	21.2	11 27	7 9.18	+15 20.8	1.492	2.318	16.7	21.3
12 7	7 2.93	+15 26.1	1.786	2.679	10.9	21.0	12 7	7 4.36	+15 0.9	1.402	2.300	12.9	21.0
12 1													

EPHEMERIDES

12 31.1

12 31.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>64383</b>	2001 <i>UY</i> <sub>130</sub>	12 31.1 287°41'		1°5'/31.3 18			<b>18662</b>	Erinwhite	12 31.1 162°40'		0°4'/31.2 18		
11 27	7 9.61	+19 17.0	1.558	2.388	15.9	19.6	11 27	7 8.22	+21 36.0	2.079	2.898	12.9	18.8
12 7	7 4.62	+19 13.2	1.468	2.371	12.1	19.3	12 7	7 2.72	+21 39.2	2.000	2.898	9.6	18.5
12 17	6 56.63	+19 15.4	1.399	2.354	7.6	19.0	12 17	6 55.03	+21 45.1	1.946	2.899	5.9	18.3
12 27	6 46.43	+19 22.5	1.357	2.336	2.8	18.7	12 27	6 45.88	+21 52.1	1.919	2.900	1.8	18.1
1 6	6 35.32	+19 32.5	1.341	2.319	3.4	18.7	1 6	6 36.27	+21 58.6	1.923	2.901	2.5	18.1
1 16	6 24.80	+19 44.1	1.354	2.302	8.5	19.0	1 16	6 27.28	+22 3.6	1.955	2.901	6.5	18.4
1 26	6 16.33	+19 56.5	1.391	2.285	13.3	19.2	1 26	6 19.91	+22 7.2	2.015	2.902	10.2	18.6
2 5	6 10.92	+20 9.4	1.450	2.268	17.5	19.4	2 5	6 14.84	+22 9.7	2.099	2.902	13.3	18.8
<b>60512</b>	2000 <i>EU</i> <sub>8</sub>	12 31.1 248°91'		4°5'/1.3 18			<b>52943</b>	1998 <i>SV</i> <sub>139</sub>	12 31.1 27°31'		2°6'/31.0 18		
11 27	7 4.78	+8 27.0	2.325	3.115	12.6	20.2	11 27	7 11.68	+28 41.6	1.148	1.999	19.0	18.6
12 7	6 59.90	+8 17.3	2.242	3.113	10.0	20.1	12 7	7 6.69	+28 45.4	1.094	2.007	14.3	18.3
12 17	6 53.21	+8 19.1	2.183	3.111	7.2	19.9	12 17	6 57.95	+28 45.1	1.060	2.017	8.9	18.1
12 27	6 45.31	+8 32.9	2.151	3.109	4.9	19.7	12 27	6 46.79	+28 35.8	1.049	2.028	3.6	17.8
1 6	6 36.99	+8 58.5	2.148	3.107	4.8	19.7	1 6	6 35.12	+28 15.2	1.064	2.040	4.5	17.9
1 16	6 29.12	+9 34.1	2.175	3.105	7.0	19.9	1 16	6 24.91	+27 44.4	1.103	2.053	9.8	18.2
1 26	6 22.52	+10 17.3	2.229	3.103	9.9	20.0	1 26	6 17.77	+27 7.3	1.166	2.067	14.7	18.5
2 5	6 17.80	+11 5.4	2.307	3.101	12.5	20.2	2 5	6 14.47	+26 28.4	1.248	2.081	18.8	18.8
<b>211762</b>	2004 <i>BL</i> <sub>27</sub>	12 31.1 37°41'		1°5'/30.9 18			<b>493018</b>	2014 <i>ST</i> <sub>217</sub>	12 31.1 284°30'		2°1'/31.8 18		
11 27	7 11.06	+25 30.0	1.248	2.094	18.1	19.5	11 27	7 5.44	+14 47.3	2.306	3.113	12.2	20.9
12 7	7 5.68	+25 47.3	1.206	2.118	13.4	19.3	12 7	7 0.51	+15 5.7	2.221	3.110	9.3	20.7
12 17	6 57.04	+26 4.8	1.185	2.143	8.1	19.1	12 17	6 53.64	+15 32.4	2.160	3.106	6.0	20.5
12 27	6 46.43	+26 18.2	1.189	2.169	2.7	18.8	12 27	6 45.48	+16 6.5	2.127	3.102	2.8	20.3
1 6	6 35.56	+26 24.3	1.219	2.196	3.7	19.0	1 6	6 36.83	+16 46.0	2.124	3.098	2.9	20.3
1 16	6 26.12	+26 22.7	1.274	2.224	8.8	19.4	1 16	6 28.63	+17 28.6	2.151	3.095	6.2	20.5
1 26	6 19.42	+26 14.9	1.354	2.252	13.3	19.7	1 26	6 21.73	+18 12.2	2.206	3.091	9.5	20.7
2 5	6 16.13	+26 3.5	1.455	2.281	17.0	20.0	2 5	6 16.79	+18 55.0	2.286	3.087	12.4	20.9
<b>97807</b>	2000 <i>OR</i> <sub>18</sub>	12 31.1 70°34'		0°5'/31.1 18			<b>364936</b>	2008 <i>FQ</i> <sub>95</sub>	12 31.1 177°10'		1°6'/30.8 17		
11 27	7 15.98	+24 2.4	1.214	2.053	18.9	19.2	11 27	7 9.45	+26 36.2	2.170	2.988	12.5	22.0
12 7	7 9.43	+24 7.4	1.167	2.075	14.1	19.0	12 7	7 3.68	+27 3.2	2.091	2.988	9.3	21.8
12 17	6 59.36	+24 13.8	1.140	2.097	8.5	18.8	12 17	6 55.64	+27 29.9	2.037	2.989	5.8	21.6
12 27	6 47.13	+24 18.0	1.138	2.119	2.5	18.5	12 27	6 46.07	+27 53.0	2.011	2.989	2.2	21.3
1 6	6 34.59	+24 17.1	1.163	2.141	3.6	18.6	1 6	6 36.01	+28 10.0	2.015	2.990	3.0	21.4
1 16	6 23.57	+24 10.8	1.214	2.163	9.1	19.0	1 16	6 26.56	+28 19.4	2.048	2.990	6.6	21.6
1 26	6 15.54	+24 1.0	1.289	2.185	14.0	19.3	1 26	6 18.75	+28 21.7	2.110	2.989	10.1	21.8
2 5	6 11.20	+23 49.9	1.384	2.206	17.9	19.7	2 5	6 13.28	+28 18.4	2.195	2.989	13.1	22.1
<b>396387</b>	2014 <i>DK</i> <sub>119</sub>	12 31.1 311°91'		0°2'/31.2 18			<b>481983</b>	2009 <i>HR</i> <sub>105</sub>	12 31.1 339°01'		6°5'/1.9 17		
11 27	7 9.28	+22 4.6	1.412	2.251	16.7	21.0	11 27	7 4.60	+6 38.7	1.447	2.262	17.7	20.9
12 7	7 4.61	+22 8.6	1.330	2.239	12.7	20.7	12 7	7 0.85	+6 37.9	1.367	2.250	14.3	20.6
12 17	6 56.71	+22 16.8	1.269	2.227	7.8	20.4	12 17	6 54.31	+6 58.1	1.306	2.240	10.4	20.4
12 27	6 46.47	+22 26.6	1.234	2.215	2.4	20.0	12 27	6 45.76	+7 41.2	1.270	2.230	7.2	20.2
1 6	6 35.32	+22 35.5	1.224	2.203	3.3	20.1	1 6	6 36.40	+8 45.7	1.259	2.221	6.9	20.1
1 16	6 24.92	+22 41.7	1.242	2.192	8.8	20.4	1 16	6 27.62	+10 7.2	1.274	2.214	9.9	20.3
1 26	6 16.85	+22 45.4	1.283	2.181	13.9	20.6	1 26	6 20.80	+11 39.2	1.313	2.207	13.9	20.5
2 5	6 12.11	+22 47.4	1.346	2.171	18.2	20.9	2 5	6 16.86	+13 14.8	1.374	2.201	17.8	20.7
<b>48347</b>	3567 <i>P-L</i>	12 31.1 345°95'		3°7'/30.9 18			<b>445985</b>	2013 <i>BY</i> <sub>59</sub>	12 31.2 228°27'		0°6'/31.0 18		
11 27	7 13.73	+31 17.0	1.349	2.186	17.5	18.4	11 27	7 9.95	+23 1.5	1.955	2.775	13.5	21.2
12 7	7 8.11	+31 28.9	1.278	2.183	13.4	18.1	12 7	7 4.31	+23 31.6	1.870	2.770	10.1	20.9
12 17	6 58.85	+31 34.4	1.229	2.181	8.6	17.8	12 17	6 56.17	+24 5.2	1.810	2.764	6.2	20.7
12 27	6 47.08	+31 27.7	1.204	2.179	4.3	17.6	12 27	6 46.27	+24 38.9	1.777	2.758	1.9	20.4
1 6	6 34.57	+31 5.7	1.205	2.178	5.1	17.6	1 6	6 35.72	+25 9.5	1.774	2.751	2.8	20.4
1 16	6 23.26	+30 28.9	1.233	2.177	9.7	17.9	1 16	6 25.73	+25 34.8	1.800	2.744	7.1	20.7
1 26	6 14.80	+29 42.0	1.284	2.176	14.4	18.1	1 26	6 17.48	+25 54.0	1.853	2.737	11.0	20.9
2 5	6 10.10	+28 50.8	1.357	2.175	18.4	18.4	2 5	6 11.78	+26 8.0	1.930	2.730	14.4	21.1
<b>278123</b>	2007 <i>CM</i> <sub>21</sub>	12 31.1 346°43'		2°6'/31.4 18			<b>488823</b>	2005 <i>NT</i> <sub>16</sub>	12 31.2 95°85'		1°4'/31.4 16		
11 27	7 4.81	+18 31.8	1.059	1.918	19.6	20.3	11 27	7 14.23	+19 7.6	1.606	2.425	16.0	22.3
12 7	7 1.89	+18 13.5	0.989	1.907	15.0	20.0	12 7	7 7.41	+19 9.6	1.551	2.449	12.0	22.1
12 17	6 55.31	+18 3.7	0.938	1.897	9.5	19.7	12 17	6 57.90	+19 17.4	1.520	2.472	7.4	21.9
12 27	6 46.09	+18 2.6	0.909	1.889	3.9	19.3	12 27	6 46.73	+19 28.9	1.515	2.494	2.6	21.7
1 6	6 35.89	+18 8.8	0.904	1.882	4.5	19.3	1 6	6 35.26	+19 42.1	1.539	2.516	3.1	21.8
1 16	6 26.66	+18 20.8	0.921	1.876	10.3	19.6	1 16	6 24.87	+19 55.4	1.592	2.538	7.7	22.1
1 26	6 20.18	+18 37.1	0.961	1.872	15.9	19.9	1 26	6 16.72	+20 8.3	1.671	2.559	11.8	22.4
2 5	6 17.51	+18 56.0	1.018	1.870	20.7	20.2	2 5	6 11.49	+20 20.8	1.773	2.579	15.3	22.6
<b>351370</b>	2005 <i>EY</i>	12 31.1 329°24'		8°5'/28.3 17			<b>199175</b>	2005 <i>YN</i> <sub>213</sub>	12 31.2 15°96'		5°4'/30.4 18		
11 27	7 42.30	+35 9.2	1.714	2.486	17.1	21.2	11 27	7 12.72	+33 17.6	1.396	2.231	17.1	19.9
12 7	7 33.26	+37 4.6	1.524	2.386	14.4	20.7	12 7	7 7.40	+34 9.9	1.331	2.233	13.2	19.6
12 17	7 17.57	+39 16.0	1.357	2.282	11.0	20.2	12 17	6 58.46	+34 56.3	1.288	2.235	9.0	19.4
12 27	6 54.02	+41 28.8	1.221	2.174	8.6	19.8	12 27	6 47.01	+35 28.8	1.269	2.238	5.7	19.2
1 6	6 22.64	+43 17.1	1.119	2.061	10.6	19.6	1 6	6 34.79	+35 41.6	1.277	2.241	6.5	19.3
1 16	5 46.00	+44 11.7	1.052	1.943	16.8	19.5	1 16	6 23.70	+35 33.6	1.310	2.244	10.3	19.5
1 26	5 9.27	+43 58.2	1.016	1.819	24.2	19.6	1 26	6 15.43	+35 8.3	1.367	2.248	14.4	19.7
2 5	4 37.61	+42 48.7	1.005	1.688	31.7	19.6	2 5	6 10.90	+34 31.8	1.444	2.252	18.0	20.0
<b>92629</b>	2000 <i>QD</i> <sub>15</sub>	12 31.1 165°59'		1°3'/31.4 18			<b>34412</b>	2000 <i>RG</i> <sub>100</sub>	12 31.2 34°77'		1°4'/30.9 18		
11 27	7 11.30	+18 36.5	2.021	2.831	13.5	20.6	11 27	7 8.86	+25 42.5	1			

EPHEMERIDES

12 31.2

12 31.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>302682</b>	2002 <i>TS</i> <sub>32</sub>		12 31.2	31°37'	11°9'/29.4	18	<b>362413</b>	2010 <i>PF</i> <sub>55</sub>		12 31.2	146°24'	1°8'/30.8	18
11 27	7 16.43	+45 36.6	1.302	2.119	19.2	19.2	11 27	7 10.55	+27 45.6	2.409	3.220	11.6	21.7
12 7	7 10.99	+47 33.2	1.266	2.138	16.0	19.0	12 7	7 4.23	+28 10.7	2.335	3.229	8.7	21.5
12 17	7 0.94	+49 9.5	1.251	2.158	13.3	18.9	12 17	6 55.86	+28 34.2	2.287	3.238	5.4	21.3
12 27	6 47.76	+50 12.3	1.257	2.179	11.9	18.9	12 27	6 46.15	+28 53.1	2.268	3.246	2.3	21.1
1 6	6 33.83	+50 34.4	1.287	2.201	12.4	19.0	1 6	6 36.06	+29 5.2	2.280	3.254	2.9	21.2
1 16	6 21.73	+50 16.8	1.340	2.223	14.4	19.2	1 16	6 26.59	+29 9.5	2.322	3.261	6.1	21.4
1 26	6 13.44	+49 28.0	1.413	2.247	16.9	19.4	1 26	6 18.67	+29 6.8	2.393	3.268	9.3	21.6
2 5	6 9.81	+48 19.2	1.504	2.271	19.3	19.6	2 5	6 12.93	+28 58.8	2.488	3.274	12.0	21.8
<b>444479</b>	2006 <i>QT</i> <sub>71</sub>		12 31.2	80°90'	1°2'/30.9	17	<b>28866</b>	Chakraborty		12 31.2	347°14'	3°2'/31.9	18
11 27	7 11.13	+25 21.1	1.806	2.630	14.3	22.0	11 27	7 7.17	+13 35.0	1.275	2.112	18.4	17.8
12 7	7 5.10	+25 41.7	1.745	2.646	10.6	21.8	12 7	7 3.14	+13 59.9	1.202	2.106	14.2	17.5
12 17	6 56.53	+26 2.7	1.707	2.661	6.5	21.6	12 17	6 55.88	+14 41.9	1.150	2.101	9.2	17.2
12 27	6 46.34	+26 20.5	1.696	2.676	2.2	21.3	12 27	6 46.28	+15 39.6	1.121	2.097	4.4	16.9
1 6	6 35.78	+26 32.4	1.715	2.692	3.0	21.4	1 6	6 35.79	+16 48.4	1.118	2.094	4.4	16.9
1 16	6 26.10	+26 37.6	1.762	2.707	7.2	21.7	1 16	6 26.06	+18 2.7	1.140	2.091	9.4	17.2
1 26	6 18.45	+26 36.7	1.836	2.722	11.0	22.0	1 26	6 18.68	+19 16.8	1.187	2.090	14.4	17.5
2 5	6 13.50	+26 31.5	1.934	2.737	14.3	22.2	2 5	6 14.66	+20 26.8	1.254	2.089	18.7	17.7
<b>427069</b>	2014 <i>UU</i> <sub>18</sub>		12 31.2	344°38'	1°5'/31.4	18	<b>83532</b>	2001 <i>SV</i> <sub>157</sub>		12 31.2	273°16'	0°3'/31.2	18
11 27	7 5.75	+18 17.1	2.070	2.889	12.9	21.1	11 27	7 9.03	+22 23.4	1.918	2.741	13.7	19.0
12 7	7 0.92	+18 18.2	1.989	2.886	9.7	20.9	12 7	7 3.55	+22 19.2	1.837	2.738	10.2	18.8
12 17	6 53.97	+18 24.7	1.932	2.883	6.1	20.7	12 17	6 55.65	+22 17.0	1.780	2.734	6.3	18.5
12 27	6 45.60	+18 35.7	1.902	2.881	2.4	20.5	12 27	6 46.12	+22 14.9	1.751	2.731	1.9	18.2
1 6	6 36.76	+18 49.8	1.902	2.879	2.8	20.5	1 6	6 36.08	+22 11.8	1.750	2.728	2.6	18.3
1 16	6 28.47	+19 5.7	1.931	2.877	6.5	20.7	1 16	6 26.70	+22 7.1	1.779	2.725	7.0	18.5
1 26	6 21.69	+19 22.6	1.987	2.876	10.2	20.9	1 26	6 19.09	+22 1.3	1.834	2.722	10.9	18.8
2 5	6 17.11	+19 39.6	2.067	2.874	13.3	21.1	2 5	6 13.99	+21 55.0	1.913	2.719	14.3	19.0
<b>196011</b>	2002 <i>RR</i> <sub>250</sub>		12 31.2	112°90'	0°2'/31.1	17	<b>481243</b>	2005 <i>WW</i> <sub>140</sub>		12 31.2	348°59'	1°3'/30.8	18
11 27	7 8.13	+24 14.3	2.425	3.238	11.4	21.0	11 27	7 4.25	+20 24.5	1.073	1.934	19.2	20.5
12 7	7 2.31	+24 8.0	2.351	3.247	8.5	20.8	12 7	7 1.70	+21 40.8	1.002	1.923	14.5	20.1
12 17	6 54.62	+24 1.5	2.302	3.255	5.2	20.6	12 17	6 55.39	+23 12.8	0.951	1.912	8.9	19.8
12 27	6 45.76	+23 53.4	2.283	3.263	1.5	20.4	12 27	6 46.22	+24 53.4	0.922	1.904	2.8	19.4
1 6	6 36.60	+23 43.0	2.294	3.271	2.2	20.4	1 6	6 35.82	+26 32.5	0.918	1.897	4.3	19.5
1 16	6 28.05	+23 30.2	2.335	3.279	5.7	20.7	1 16	6 26.21	+28 1.1	0.939	1.892	10.5	19.8
1 26	6 20.96	+23 15.7	2.405	3.287	8.9	20.9	1 26	6 19.38	+29 13.6	0.981	1.888	16.1	20.1
2 5	6 15.89	+23 0.6	2.500	3.295	11.7	21.1	2 5	6 16.57	+30 9.3	1.041	1.887	20.9	20.4
<b>520708</b>	2014 <i>QZ</i> <sub>466</sub>		12 31.2	33°32'	4°8'/1.3	17	<b>382680</b>	2002 <i>TO</i> <sub>381</sub>		12 31.2	71°01'	4°2'/31.8	16
11 27	7 5.11	+8 58.5	1.934	2.736	14.3	20.9	11 27	7 12.58	+13 34.5	1.358	2.181	18.2	21.8
12 7	7 0.41	+8 48.4	1.865	2.743	11.3	20.7	12 7	7 6.48	+13 15.7	1.308	2.204	13.9	21.6
12 17	6 53.63	+8 51.4	1.818	2.751	8.0	20.6	12 17	6 57.45	+13 9.4	1.280	2.226	9.2	21.4
12 27	6 45.49	+9 8.4	1.797	2.759	5.3	20.4	12 27	6 46.63	+13 15.8	1.277	2.249	5.0	21.2
1 6	6 36.95	+9 38.4	1.805	2.767	5.2	20.4	1 6	6 35.50	+13 33.3	1.300	2.272	5.1	21.3
1 16	6 29.02	+10 19.2	1.840	2.775	7.8	20.6	1 16	6 25.56	+13 59.5	1.351	2.294	9.1	21.6
1 26	6 22.65	+11 7.6	1.902	2.784	10.9	20.8	1 26	6 18.06	+14 31.6	1.426	2.317	13.2	21.9
2 5	6 18.46	+12 0.3	1.988	2.793	13.9	21.0	2 5	6 13.68	+15 6.7	1.522	2.339	16.8	22.2
<b>459459</b>	2012 <i>YZ</i> <sub>2</sub>		12 31.2	230°00'	4°7'/31.7	18	<b>356644</b>	2011 <i>UZ</i> <sub>48</sub>		12 31.2	102°18'	1°6'/30.9	18
11 27	7 27.17	+36 33.7	1.171	1.995	20.4	20.6	11 27	7 10.79	+26 11.8	1.815	2.640	14.2	21.1
12 7	7 18.70	+35 52.5	1.096	1.991	16.0	20.3	12 7	7 5.00	+26 35.0	1.744	2.645	10.6	20.9
12 17	7 5.47	+34 50.9	1.041	1.988	10.7	20.0	12 17	6 56.58	+26 58.2	1.696	2.650	6.5	20.7
12 27	6 49.09	+33 22.2	1.010	1.984	5.7	19.7	12 27	6 46.41	+27 17.7	1.675	2.654	2.4	20.4
1 6	6 32.08	+31 26.3	1.007	1.979	5.9	19.7	1 6	6 35.72	+27 30.4	1.683	2.659	3.2	20.5
1 16	6 17.08	+29 11.9	1.031	1.975	11.1	19.9	1 16	6 25.82	+27 35.2	1.720	2.664	7.4	20.7
1 26	6 6.09	+26 53.1	1.079	1.970	16.5	20.2	1 26	6 17.91	+27 32.8	1.783	2.668	11.3	21.0
2 5	5 59.93	+24 42.2	1.149	1.965	21.2	20.5	2 5	6 12.75	+27 25.4	1.869	2.673	14.7	21.2
<b>440111</b>	2003 <i>RK</i> <sub>27</sub>		12 31.2	62°35'	1°9'/31.5	15	<b>189919</b>	2003 <i>SY</i> <sub>144</sub>		12 31.2	80°94'	1°4'/31.3	17
11 27	7 11.71	+17 59.0	1.521	2.346	16.5	21.5	11 27	7 7.92	+19 49.9	2.216	3.030	12.4	19.4
12 7	7 5.59	+17 58.3	1.473	2.373	12.3	21.4	12 7	7 2.24	+19 28.1	2.146	3.041	9.3	19.2
12 17	6 56.80	+18 4.7	1.448	2.400	7.6	21.2	12 17	6 54.62	+19 9.0	2.101	3.052	5.7	19.0
12 27	6 46.41	+18 16.8	1.448	2.427	3.0	20.9	12 27	6 45.78	+18 52.2	2.084	3.063	2.2	18.8
1 6	6 35.77	+18 32.4	1.477	2.454	3.4	21.0	1 6	6 36.66	+18 37.7	2.097	3.073	2.6	18.8
1 16	6 26.26	+18 49.8	1.533	2.480	7.8	21.4	1 16	6 28.20	+18 25.3	2.140	3.084	6.2	19.1
1 26	6 19.00	+19 8.0	1.616	2.507	11.9	21.7	1 26	6 21.27	+18 15.4	2.211	3.095	9.5	19.3
2 5	6 14.62	+19 26.0	1.720	2.534	15.3	21.9	2 5	6 16.44	+18 8.0	2.306	3.106	12.4	19.5
<b>179651</b>	2002 <i>PW</i> <sub>168</sub>		12 31.2	201°06'	0°9'/31.3	18	<b>50282</b>	2000 <i>CM</i> <sub>19</sub>		12 31.2	188°18'	1°5'/31.5	18
11 27	7 12.38	+19 50.1	1.672	2.493	15.4	21.3	11 27	7 8.91	+17 57.9	1.981	2.796	13.6	20.0
12 7	7 6.38	+19 59.6	1.592	2.491	11.6	21.1	12 7	7 3.36	+18 3.6	1.901	2.796	10.3	19.8
12 17	6 57.54	+20 14.8	1.535	2.488	7.2	20.8	12 17	6 55.50	+18 15.4	1.845	2.796	6.4	19.6
12 27	6 46.72	+20 33.5	1.505	2.485	2.4	20.5	12 27	6 46.10	+18 32.1	1.816	2.795	2.5	19.3
1 6	6 35.21	+20 53.2	1.503	2.481	3.0	20.6	1 6	6 36.17	+18 51.9	1.817	2.794	2.9	19.3
1 16	6 24.41	+21 11.9	1.530	2.477	7.9	20.9	1 16	6 26.84	+19 13.1	1.847	2.793	6.9	19.6
1 26	6 15.68	+21 28.8	1.583	2.472	12.3	21.1	1 26	6 19.16	+19 34.6	1.905	2.791	10.7	19.8
2 5	6 9.86	+21 44.1	1.659	2.467	16.1	21.3	2 5	6 13.86	+19 55.7	1.986	2.790	13.9	20.0
<b>215344</b>	2001 <i>VC</i> <sub>22</sub>		12 31.2	89°81'	5°1'/30.0	18	<b>272270</b>	2005 <i>RQ</i> <sub>3</sub>		12 31.2	132°72'	3°8'/30.7	18
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>170553</b>	2003 <i>WF</i> <sub>136</sub>		12 31.2 14°04'	3:7/31.2	18		<b>303478</b>	2005 <i>EO</i> <sub>21</sub>		12 31.2 333°85'	5:5/30.4	17	
11 27	7 10.37	+17 6.3	1.609	2.431	15.8	19.7	11 27	7 9.73	+33 21.3	1.380	2.221	17.0	20.1
12 7	7 4.72	+16 2.6	1.536	2.433	12.1	19.5	12 7	7 5.43	+34 9.2	1.303	2.208	13.2	19.9
12 17	6 56.41	+15 2.9	1.486	2.434	8.0	19.3	12 17	6 57.48	+34 52.0	1.247	2.195	9.1	19.6
12 27	6 46.37	+14 9.3	1.463	2.436	4.3	19.0	12 27	6 46.85	+35 21.7	1.214	2.184	5.8	19.4
1 6	6 35.87	+13 24.1	1.467	2.438	4.7	19.1	1 6	6 35.20	+35 32.3	1.208	2.173	6.6	19.4
1 16	6 26.24	+12 49.1	1.500	2.440	8.6	19.3	1 16	6 24.46	+35 21.8	1.226	2.163	10.6	19.6
1 26	6 18.67	+12 24.9	1.558	2.443	12.7	19.6	1 26	6 16.43	+34 53.4	1.268	2.154	14.9	19.8
2 5	6 13.89	+12 10.8	1.638	2.446	16.2	19.8	2 5	6 12.19	+34 12.9	1.330	2.146	18.8	20.0
<b>273021</b>	2006 <i>DN</i> <sub>97</sub>		12 31.2 189°53'	6:9/1.7	18		<b>267234</b>	2001 <i>HY</i> <sub>63</sub>		12 31.2 183°74'	3:9/30.1	18	
11 27	7 4.46	- 0 3.0	2.599	3.350	12.5	21.1	11 27	7 10.02	+35 7.1	2.687	3.490	10.8	20.9
12 7	6 59.49	- 0 40.2	2.519	3.349	10.5	21.0	12 7	7 3.94	+35 53.2	2.608	3.490	8.3	20.8
12 17	6 52.92	- 1 3.1	2.462	3.348	8.5	20.9	12 17	6 55.78	+36 34.2	2.554	3.490	5.8	20.6
12 27	6 45.30	- 1 9.5	2.430	3.347	7.1	20.8	12 27	6 46.22	+37 6.0	2.529	3.489	4.1	20.5
1 6	6 37.34	- 0 58.5	2.427	3.346	7.0	20.8	1 6	6 36.17	+37 25.4	2.534	3.489	4.6	20.5
1 16	6 29.77	- 0 30.9	2.451	3.344	8.3	20.8	1 16	6 26.63	+37 31.5	2.569	3.487	6.8	20.7
1 26	6 23.32	+ 0 11.0	2.503	3.343	10.2	21.0	1 26	6 18.55	+37 25.3	2.632	3.486	9.3	20.8
2 5	6 18.53	+ 1 3.3	2.578	3.341	12.2	21.1	2 5	6 12.61	+37 9.6	2.719	3.484	11.6	21.0
<b>454681</b>	2014 <i>QB</i> <sub>425</sub>		12 31.2 22°57'	2:8/30.8	17		<b>89393</b>	2001 <i>VT</i> <sub>116</sub>		12 31.2 124°72'	1:5/30.9	18	
11 27	7 9.88	+30 1.5	1.914	2.738	13.6	21.5	11 27	7 9.68	+25 46.4	2.079	2.898	12.9	20.0
12 7	7 4.31	+30 25.3	1.840	2.739	10.3	21.3	12 7	7 3.92	+26 17.1	2.006	2.904	9.6	19.8
12 17	6 56.17	+30 45.8	1.790	2.741	6.6	21.1	12 17	6 55.85	+26 48.4	1.957	2.910	5.9	19.5
12 27	6 46.31	+30 58.9	1.767	2.743	3.3	20.9	12 27	6 46.24	+27 16.8	1.936	2.915	2.2	19.3
1 6	6 35.94	+31 1.8	1.773	2.745	3.9	20.9	1 6	6 36.15	+27 39.3	1.945	2.920	2.9	19.4
1 16	6 26.35	+30 53.8	1.808	2.747	7.5	21.1	1 16	6 26.72	+27 54.4	1.983	2.925	6.7	19.6
1 26	6 18.69	+30 36.6	1.869	2.749	11.1	21.3	1 26	6 19.00	+28 2.3	2.049	2.930	10.3	19.9
2 5	6 13.72	+30 13.3	1.952	2.752	14.3	21.6	2 5	6 13.69	+28 4.4	2.139	2.935	13.3	20.1
<b>474863</b>	2005 <i>SS</i> <sub>131</sub>		12 31.2 120°19'	0:7/31.1	16		<b>246633</b>	2008 <i>WL</i> <sub>129</sub>		12 31.2 118°36'	0:8/31.3	18	
11 27	7 14.58	+24 3.4	1.792	2.610	14.7	22.8	11 27	7 11.50	+20 52.4	1.839	2.657	14.3	21.3
12 7	7 7.65	+24 19.1	1.729	2.627	10.9	22.6	12 7	7 5.33	+20 50.8	1.770	2.668	10.7	21.0
12 17	6 58.09	+24 35.9	1.690	2.644	6.6	22.4	12 17	6 56.70	+20 52.5	1.726	2.679	6.6	20.8
12 27	6 46.86	+24 50.5	1.679	2.660	2.0	22.1	12 27	6 46.49	+20 55.9	1.709	2.689	2.1	20.6
1 6	6 35.25	+25 0.4	1.698	2.675	2.9	22.2	1 6	6 35.88	+20 59.4	1.721	2.699	2.7	20.6
1 16	6 24.59	+25 4.6	1.746	2.690	7.3	22.5	1 16	6 26.08	+21 2.3	1.763	2.709	7.1	20.9
1 26	6 16.04	+25 3.8	1.821	2.704	11.2	22.8	1 26	6 18.20	+21 4.5	1.832	2.718	11.0	21.2
2 5	6 10.31	+24 59.9	1.919	2.718	14.5	23.0	2 5	6 12.92	+21 6.5	1.924	2.728	14.3	21.4
<b>37584</b>	Schleiden		12 31.2 86°34'	2:5/31.4	18		<b>191373</b>	2003 <i>RD</i> <sub>14</sub>		12 31.2 57°01'	5:0/1.2	18	
11 27	7 13.94	+17 59.5	1.357	2.186	17.9	18.0	11 27	7 5.63	+ 8 39.1	2.070	2.866	13.7	19.8
12 7	7 7.66	+17 39.5	1.300	2.202	13.5	17.8	12 7	7 0.67	+ 8 16.5	2.002	2.876	10.9	19.6
12 17	6 58.28	+17 26.7	1.266	2.218	8.5	17.5	12 17	6 53.76	+ 8 5.9	1.957	2.886	7.8	19.4
12 27	6 46.93	+17 20.5	1.256	2.234	3.6	17.3	12 27	6 45.61	+ 8 8.4	1.938	2.896	5.4	19.3
1 6	6 35.18	+17 19.8	1.273	2.250	4.0	17.4	1 6	6 37.11	+ 8 23.9	1.948	2.906	5.3	19.3
1 16	6 24.63	+17 23.7	1.318	2.265	8.8	17.7	1 16	6 29.21	+ 8 50.9	1.986	2.916	7.6	19.5
1 26	6 16.62	+17 31.4	1.388	2.280	13.4	18.0	1 26	6 22.78	+ 9 26.8	2.051	2.927	10.5	19.7
2 5	6 11.89	+17 42.1	1.478	2.295	17.2	18.3	2 5	6 18.41	+10 8.5	2.140	2.937	13.3	19.9
<b>66960</b>	1999 <i>XN</i> <sub>36</sub>		12 31.2 115°05'	6:9/30.0	18		<b>225412</b>	1999 <i>XR</i> <sub>227</sub>		12 31.2 274°41'	0:2/31.2	18	
11 27	7 18.68	+41 18.1	2.041	2.835	14.0	18.4	11 27	7 11.29	+22 6.1	1.510	2.342	16.2	21.0
12 7	7 10.98	+42 22.4	1.986	2.853	11.3	18.3	12 7	7 5.97	+22 12.0	1.428	2.332	12.3	20.7
12 17	7 0.24	+43 14.8	1.954	2.871	8.6	18.1	12 17	6 57.52	+22 21.8	1.367	2.323	7.6	20.5
12 27	6 47.53	+43 48.1	1.949	2.888	7.0	18.1	12 27	6 46.84	+22 32.8	1.333	2.314	2.3	20.1
1 6	6 34.33	+43 57.9	1.972	2.905	7.4	18.1	1 6	6 35.32	+22 42.3	1.326	2.304	3.2	20.1
1 16	6 22.24	+43 44.3	2.023	2.921	9.5	18.3	1 16	6 24.54	+22 48.9	1.346	2.295	8.5	20.4
1 26	6 12.60	+43 11.4	2.100	2.937	12.0	18.5	1 26	6 16.01	+22 52.6	1.392	2.286	13.3	20.7
2 5	6 6.17	+42 25.7	2.199	2.952	14.4	18.7	2 5	6 10.68	+22 54.4	1.459	2.276	17.4	20.9
<b>248043</b>	2004 <i>HQ</i> <sub>29</sub>		12 31.2 162°36'	2:8/31.6	18		<b>48904</b>	1998 <i>ME</i> <sub>34</sub>		12 31.2 161°48'	0:5/31.1	18	
11 27	7 8.26	+14 24.3	2.465	3.262	11.8	21.1	11 27	7 13.75	+22 36.2	1.872	2.687	14.2	19.5
12 7	7 2.36	+14 4.2	2.385	3.268	9.0	21.0	12 7	7 7.15	+23 9.0	1.797	2.694	10.7	19.3
12 17	6 54.67	+13 50.1	2.331	3.273	6.0	20.8	12 17	6 57.92	+23 45.3	1.747	2.700	6.5	19.1
12 27	6 45.83	+13 42.4	2.306	3.277	3.3	20.6	12 27	6 46.90	+24 21.5	1.724	2.705	2.0	18.8
1 6	6 36.66	+13 40.8	2.312	3.281	3.4	20.6	1 6	6 35.29	+24 53.9	1.732	2.709	2.8	18.9
1 16	6 28.01	+13 44.8	2.348	3.285	6.2	20.8	1 16	6 24.42	+25 20.3	1.769	2.713	7.2	19.1
1 26	6 20.68	+13 53.6	2.412	3.288	9.2	21.0	1 26	6 15.49	+25 40.1	1.834	2.716	11.2	19.4
2 5	6 15.24	+14 6.2	2.501	3.290	11.8	21.2	2 5	6 9.28	+25 54.5	1.922	2.718	14.6	19.6
<b>386660</b>	2009 <i>UY</i> <sub>29</sub>		12 31.2 92°77'	1:1/31.3	18		<b>154364</b>	2002 <i>XM</i> <sub>62</sub>		12 31.2 6°40'	1:7/31.0	18	
11 27	7 14.56	+19 53.8	1.566	2.388	16.3	21.1	11 27	7 9.49	+26 4.2	1.163	2.016	18.7	19.7
12 7	7 7.74	+19 56.0	1.512	2.411	12.1	20.9	12 7	7 5.22	+26 15.9	1.100	2.016	14.0	19.4
12 17	6 58.16	+20 3.2	1.481	2.434	7.4	20.7	12 17	6 57.26	+26 27.6	1.057	2.017	8.7	19.1
12 27	6 46.88	+20 13.4	1.477	2.457	2.5	20.5	12 27	6 46.76	+26 35.0	1.038	2.018	3.0	18.8
1 6	6 35.29	+20 24.2	1.502	2.479	3.1	20.6	1 6	6 35.51	+26 34.5	1.043	2.021	4.1	18.9
1 16	6 24.83	+20 34.6	1.555	2.501	7.8	20.9	1 16	6 25.45	+26 25.3	1.074	2.025	9.7	19.2
1 26	6 16.68	+20 44.1	1.634	2.522	12.0	21.2	1 26	6 18.28	+26 9.5	1.127	2.030	14.9	19.5
2 5	6 11.51	+20 53.1	1.735	2.543	15.5	21.5	2 5	6 14.90	+25 50.1	1.199	2.036	19.2	19.8
<b>4671</b>	Drtikol		12 31.2 131°08'	2:9/30.8	18		<b>517941</b>	2015 <i>TG</i> <sub>283</sub>		12 31.2 105°53'	4:3/31.9	18	
11 27	7 14.07	+29 29.6	1										

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12 31.2

12 31.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>216818</b>	2006 <i>UQ</i> <sub>231</sub>		12 31.2 136°64	2°4/30.7	18		<b>78033</b>	2002 <i>JC</i> <sub>79</sub>		12 31.2 127°49	0°8/31.1	18	
11 27	7 10.63	+27 51.6	1.928	2.750	13.6	20.7	11 27	7 14.70	+24 26.3	1.502	2.330	16.5	20.2
12 7	7 4.90	+28 31.9	1.854	2.753	10.2	20.5	12 7	7 8.31	+24 37.3	1.436	2.339	12.4	20.0
12 17	6 56.58	+29 11.6	1.803	2.755	6.4	20.3	12 17	6 58.79	+24 49.3	1.391	2.346	7.5	19.7
12 27	6 46.51	+29 46.3	1.780	2.757	2.9	20.1	12 27	6 47.18	+24 58.9	1.373	2.354	2.4	19.4
1 6	6 35.85	+30 12.0	1.786	2.759	3.7	20.1	1 6	6 35.01	+25 3.0	1.383	2.361	3.3	19.5
1 16	6 25.89	+30 27.1	1.822	2.761	7.4	20.3	1 16	6 23.89	+25 1.0	1.421	2.368	8.3	19.8
1 26	6 17.82	+30 32.1	1.883	2.763	11.1	20.6	1 26	6 15.22	+24 53.9	1.485	2.374	12.9	20.1
2 5	6 12.42	+30 29.3	1.968	2.765	14.3	20.8	2 5	6 9.83	+24 44.0	1.570	2.381	16.7	20.4
<b>506107</b>	2016 <i>AR</i> <sub>194</sub>		12 31.2 280°07	11°0/	1.3	17	<b>232244</b>	2002 <i>PU</i> <sub>2</sub>		12 31.2 29°42	4°1/31.3	17	
11 27	7 30.59	+45 54.0	1.088	1.901	22.4	20.6	11 27	7 7.98	+15 44.2	1.602	2.427	15.8	19.0
12 7	7 22.73	+46 5.9	1.011	1.888	18.7	20.3	12 7	7 2.72	+14 40.4	1.550	2.447	12.0	18.8
12 17	7 8.72	+45 50.4	0.952	1.875	14.7	20.0	12 17	6 55.08	+13 43.7	1.521	2.467	8.0	18.6
12 27	6 50.30	+44 51.1	0.913	1.861	11.5	19.8	12 27	6 46.00	+12 56.3	1.517	2.488	4.6	18.5
1 6	6 30.76	+43 0.1	0.898	1.847	11.4	19.7	1 6	6 36.72	+12 19.9	1.542	2.511	4.9	18.6
1 16	6 13.70	+40 23.9	0.907	1.834	14.8	19.8	1 16	6 28.43	+11 55.2	1.594	2.534	8.3	18.8
1 26	6 1.78	+37 21.5	0.940	1.820	19.4	20.0	1 26	6 22.13	+11 41.9	1.671	2.557	11.9	19.1
2 5	5 55.89	+34 14.5	0.991	1.807	23.9	20.3	2 5	6 18.42	+11 38.1	1.770	2.582	15.0	19.3
<b>152720</b>	1998 <i>TF</i> <sub>17</sub>		12 31.2 33°75	0°4/31.2	18		<b>83258</b>	2001 <i>RJ</i> <sub>71</sub>		12 31.2 216°22	1°4/30.9	18	
11 27	7 10.50	+22 12.4	1.135	1.986	19.2	20.0	11 27	7 10.24	+26 36.1	2.084	2.903	12.9	19.8
12 7	7 5.67	+22 7.5	1.084	1.999	14.3	19.8	12 7	7 4.40	+26 49.0	2.002	2.899	9.7	19.6
12 17	6 57.32	+22 6.7	1.054	2.013	8.7	19.5	12 17	6 56.20	+27 1.0	1.943	2.896	6.0	19.3
12 27	6 46.73	+22 7.4	1.047	2.028	2.7	19.2	12 27	6 46.40	+27 9.2	1.913	2.892	2.2	19.1
1 6	6 35.67	+22 7.4	1.065	2.044	3.6	19.3	1 6	6 36.07	+27 11.4	1.912	2.888	2.9	19.1
1 16	6 25.98	+22 5.9	1.108	2.061	9.3	19.7	1 16	6 26.37	+27 7.0	1.941	2.884	6.8	19.3
1 26	6 19.16	+22 3.4	1.174	2.078	14.3	20.0	1 26	6 18.39	+26 56.7	1.997	2.880	10.4	19.6
2 5	6 15.95	+22 0.8	1.260	2.096	18.5	20.4	2 5	6 12.86	+26 42.6	2.077	2.875	13.6	19.8
<b>9691</b>	Zwaan		12 31.2 157°76	1°4/31.4	18		<b>73448</b>	2002 <i>MS</i> <sub>13</sub>		12 31.2 127°97	1°2/31.0	18	
11 27	7 10.05	+18 25.0	2.269	3.075	12.4	19.6	11 27	7 9.06	+27 23.8	2.423	3.236	11.5	19.1
12 7	7 3.88	+18 22.5	2.192	3.082	9.3	19.4	12 7	7 3.11	+27 23.7	2.347	3.242	8.6	18.9
12 17	6 55.69	+18 24.3	2.140	3.088	5.8	19.2	12 17	6 55.21	+27 21.5	2.297	3.248	5.3	18.7
12 27	6 46.20	+18 29.6	2.116	3.094	2.3	18.9	12 27	6 46.06	+27 15.1	2.275	3.254	1.9	18.5
1 6	6 36.32	+18 37.1	2.124	3.100	2.6	19.0	1 6	6 36.59	+27 3.3	2.284	3.260	2.5	18.5
1 16	6 27.04	+18 46.0	2.161	3.105	6.2	19.2	1 16	6 27.75	+26 46.3	2.323	3.265	5.9	18.8
1 26	6 19.27	+18 55.7	2.228	3.109	9.6	19.4	1 26	6 20.42	+26 25.3	2.390	3.270	9.1	19.0
2 5	6 13.61	+19 6.0	2.318	3.112	12.5	19.6	2 5	6 15.18	+26 2.0	2.482	3.275	11.8	19.2
<b>75208</b>	1999 <i>VE</i> <sub>191</sub>		12 31.2 277°44	3°3/30.6	18		<b>226271</b>	2003 <i>AU</i> <sub>66</sub>		12 31.2 358°75	4°7/	1.0	18
11 27	7 12.93	+28 26.7	1.456	2.290	16.6	20.0	11 27	7 8.51	+12 1.3	1.399	2.224	17.7	20.1
12 7	7 7.53	+29 9.8	1.377	2.282	12.6	19.7	12 7	7 3.81	+11 47.7	1.328	2.223	13.8	19.8
12 17	6 58.65	+29 52.9	1.320	2.274	8.1	19.5	12 17	6 56.15	+11 48.4	1.278	2.222	9.4	19.6
12 27	6 47.22	+30 29.4	1.289	2.265	3.9	19.2	12 27	6 46.43	+12 4.3	1.252	2.222	5.5	19.4
1 6	6 34.82	+30 53.7	1.284	2.257	4.8	19.2	1 6	6 36.02	+12 34.1	1.252	2.222	5.5	19.4
1 16	6 23.25	+31 3.1	1.306	2.249	9.5	19.5	1 16	6 26.41	+13 15.1	1.278	2.222	9.4	19.6
1 26	6 14.20	+30 59.1	1.353	2.240	14.1	19.7	1 26	6 18.99	+14 3.4	1.329	2.223	13.8	19.8
2 5	6 8.73	+30 45.6	1.421	2.232	18.1	19.9	2 5	6 14.63	+14 55.1	1.401	2.224	17.7	20.1
<b>464534</b>	2016 <i>CZ</i> <sub>19</sub>		12 31.2 31°73	3°2/31.9	17		<b>260743</b>	2005 <i>LA</i> <sub>49</sub>		12 31.2 57°94	0°0/30.9	18	
11 27	7 5.81	+13 51.1	1.824	2.642	14.5	20.9	11 27	7 10.22	+20 26.8	1.639	2.465	15.4	20.1
12 7	7 1.09	+13 46.6	1.758	2.651	11.1	20.7	12 7	7 4.63	+21 9.3	1.582	2.485	11.4	19.9
12 17	6 54.14	+13 52.0	1.715	2.660	7.3	20.5	12 17	6 56.40	+21 58.0	1.549	2.504	6.9	19.7
12 27	6 45.75	+14 7.1	1.698	2.670	3.9	20.3	12 27	6 46.46	+22 48.8	1.543	2.524	2.1	19.4
1 6	6 36.96	+14 30.4	1.709	2.681	3.9	20.4	1 6	6 36.10	+23 37.4	1.566	2.544	2.8	19.5
1 16	6 28.85	+15 0.0	1.748	2.692	7.3	20.6	1 16	6 26.64	+24 20.5	1.616	2.564	7.4	19.8
1 26	6 22.44	+15 33.6	1.814	2.703	10.9	20.8	1 26	6 19.26	+24 56.7	1.694	2.584	11.5	20.1
2 5	6 18.37	+16 9.1	1.903	2.715	14.1	21.1	2 5	6 14.67	+25 26.3	1.794	2.604	14.9	20.4
<b>514622</b>	2004 <i>PL</i> <sub>106</sub>		12 31.2 146°44	6°8/	1.9	18	<b>85223</b>	1993 <i>FU</i> <sub>22</sub>		12 31.2 233°31	0°6/31.1	18	
11 27	7 10.06	+ 2 22.0	2.181	2.942	14.3	22.1	11 27	7 12.92	+24 7.8	1.853	2.671	14.2	20.6
12 7	7 3.83	+ 1 55.2	2.111	2.954	11.7	22.0	12 7	7 6.77	+24 19.5	1.762	2.660	10.7	20.3
12 17	6 55.64	+ 1 44.1	2.064	2.966	9.1	21.8	12 17	6 57.85	+24 32.7	1.694	2.648	6.6	20.1
12 27	6 46.18	+ 1 50.9	2.043	2.977	7.2	21.7	12 27	6 46.96	+24 44.3	1.655	2.635	2.1	19.7
1 6	6 36.38	+ 2 15.5	2.051	2.987	7.0	21.8	1 6	6 35.31	+24 51.7	1.644	2.622	2.9	19.8
1 16	6 27.17	+ 2 56.1	2.088	2.997	8.6	21.9	1 16	6 24.26	+24 53.6	1.663	2.608	7.5	20.0
1 26	6 19.44	+ 3 49.3	2.152	3.005	11.1	22.0	1 26	6 15.12	+24 50.6	1.709	2.594	11.8	20.3
2 5	6 13.79	+ 4 50.8	2.240	3.013	13.5	22.2	2 5	6 8.77	+24 44.3	1.778	2.579	15.4	20.5
<b>75490</b>	1999 <i>XQ</i> <sub>178</sub>		12 31.2 72°51	1°6/30.7	18		<b>257287</b>	2009 <i>HT</i> <sub>28</sub>		12 31.2 187°03	2°0/31.4	18	
11 27	7 12.93	+23 20.7	1.670	2.494	15.3	18.5	11 27	7 13.88	+18 29.3	1.631	2.449	15.9	21.5
12 7	7 6.68	+24 30.7	1.616	2.517	11.3	18.3	12 7	7 7.51	+18 15.0	1.553	2.449	12.1	21.2
12 17	6 57.66	+25 44.7	1.585	2.540	6.9	18.1	12 17	6 58.28	+18 6.2	1.498	2.448	7.6	21.0
12 27	6 46.82	+26 56.5	1.583	2.562	2.4	17.9	12 27	6 47.07	+18 2.0	1.469	2.447	3.1	20.7
1 6	6 35.51	+28 0.3	1.609	2.585	3.4	18.0	1 6	6 35.23	+18 1.5	1.469	2.445	3.5	20.7
1 16	6 25.13	+28 52.4	1.665	2.607	7.8	18.3	1 16	6 24.19	+18 3.7	1.498	2.443	8.2	21.0
1 26	6 16.93	+29 32.1	1.747	2.630	11.7	18.6	1 26	6 15.29	+18 8.5	1.553	2.440	12.6	21.2
2 5	6 11.66	+30 0.8	1.852	2.652	15.0	18.9	2 5	6 9.35	+18 15.6	1.630	2.437	16.4	21.5
<b>459852</b>	2013 <i>TE</i> <sub>67</sub>		12 31.2 101°01	3°5/31.8	16		<b>494560</b>	2017 <i>BW</i> <sub>8</sub>		12 31.2 332°98	4°0/31.1	17	
11 27	7 5.80	+12											

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12 31.2

12 31.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>256388</b>	2006 YE <sub>42</sub>	12 31.2 195°12	0°7/31.3 17				<b>429941</b>	2012 TC <sub>313</sub>	12 31.2 103°07	1°8/31.8 18			
11 27	7 8.21	+19 51.0	2.052	2.870	13.1	20.7	11 27	7 14.49	+14 46.9	1.855	2.657	14.9	21.1
12 7	7 2.86	+20 8.8	1.972	2.869	9.8	20.5	12 7	7 7.44	+15 34.8	1.797	2.684	11.2	20.9
12 17	6 55.26	+20 31.7	1.916	2.869	6.0	20.3	12 17	6 57.97	+16 33.1	1.763	2.710	7.0	20.7
12 27	6 46.14	+20 57.7	1.888	2.868	2.0	20.0	12 27	6 46.95	+17 38.3	1.758	2.736	2.8	20.5
1 6	6 36.50	+21 24.3	1.889	2.867	2.5	20.0	1 6	6 35.57	+18 46.1	1.784	2.760	3.0	20.6
1 16	6 27.43	+21 49.8	1.920	2.866	6.6	20.3	1 16	6 25.03	+19 52.3	1.840	2.784	7.0	20.9
1 26	6 19.95	+22 13.0	1.978	2.865	10.3	20.5	1 26	6 16.41	+20 53.9	1.925	2.807	10.8	21.1
2 5	6 14.77	+22 33.7	2.061	2.864	13.5	20.7	2 5	6 10.40	+21 49.6	2.034	2.830	13.9	21.4
<b>45937</b>	2000 YD <sub>133</sub>	12 31.2 215°62	0°9/31.0 18				<b>146513</b>	2001 SA <sub>98</sub>	12 31.2 101°63	1°2/31.4 18			
11 27	7 7.87	+25 42.4	2.818	3.626	10.2	19.4	11 27	7 9.33	+19 59.0	1.948	2.766	13.7	20.2
12 7	7 2.12	+25 53.8	2.725	3.618	7.6	19.2	12 7	7 3.66	+19 49.9	1.875	2.773	10.2	20.0
12 17	6 54.61	+26 4.8	2.658	3.610	4.7	19.0	12 17	6 55.72	+19 44.4	1.827	2.779	6.3	19.8
12 27	6 45.92	+26 13.5	2.622	3.601	1.6	18.8	12 27	6 46.29	+19 41.6	1.806	2.785	2.3	19.6
1 6	6 36.81	+26 18.4	2.616	3.592	2.2	18.8	1 6	6 36.45	+19 40.4	1.814	2.792	2.7	19.6
1 16	6 28.12	+26 18.8	2.641	3.583	5.3	19.0	1 16	6 27.33	+19 40.2	1.852	2.798	6.8	19.9
1 26	6 20.63	+26 14.9	2.696	3.573	8.3	19.2	1 26	6 19.94	+19 41.0	1.917	2.804	10.6	20.1
2 5	6 14.93	+26 7.8	2.776	3.562	10.8	19.4	2 5	6 14.95	+19 42.7	2.005	2.810	13.8	20.3
<b>391196</b>	2006 EU <sub>65</sub>	12 31.2 175°73	6°1/30.2 18				<b>79372</b>	1997 EU <sub>41</sub>	12 31.2 221°00	0°0/31.1 18			
11 27	7 17.49	+40 25.6	2.240	3.031	13.0	21.8	11 27	7 13.11	+22 36.0	1.805	2.624	14.6	20.3
12 7	7 10.01	+41 15.1	2.166	3.034	10.4	21.7	12 7	7 6.90	+22 39.8	1.718	2.616	11.0	20.0
12 17	6 59.70	+41 54.4	2.116	3.036	7.9	21.5	12 17	6 57.93	+22 45.8	1.654	2.608	6.7	19.8
12 27	6 47.49	+42 17.3	2.093	3.038	6.2	21.4	12 27	6 47.02	+22 51.7	1.618	2.599	2.0	19.5
1 6	6 34.69	+42 19.8	2.100	3.038	6.6	21.4	1 6	6 35.39	+22 55.4	1.611	2.589	2.8	19.5
1 16	6 22.75	+42 1.5	2.135	3.039	8.8	21.6	1 16	6 24.42	+22 55.8	1.633	2.579	7.6	19.8
1 26	6 12.95	+41 25.7	2.197	3.038	11.4	21.7	1 26	6 15.40	+22 53.4	1.682	2.568	11.9	20.0
2 5	6 6.09	+40 38.0	2.282	3.037	13.8	21.9	2 5	6 9.19	+22 49.5	1.754	2.557	15.5	20.2
<b>148887</b>	2001 WQ <sub>19</sub>	12 31.2 93°83	0°4/31.1 18				<b>70929</b>	1999 VN <sub>216</sub>	12 31.2 143°73	3°0/30.7 18			
11 27	7 9.56	+23 19.2	1.961	2.782	13.5	20.6	11 27	7 14.04	+31 4.2	2.173	2.982	12.7	20.4
12 7	7 3.88	+23 33.7	1.891	2.790	10.0	20.4	12 7	7 7.14	+31 36.5	2.103	2.994	9.6	20.2
12 17	6 55.86	+23 50.2	1.845	2.799	6.1	20.1	12 17	6 57.81	+32 4.8	2.058	3.004	6.3	20.0
12 27	6 46.31	+24 6.0	1.826	2.807	1.8	19.9	12 27	6 46.92	+32 24.8	2.042	3.014	3.4	19.9
1 6	6 36.34	+24 18.8	1.837	2.815	2.6	19.9	1 6	6 35.60	+32 33.5	2.056	3.024	4.0	19.9
1 16	6 27.09	+24 27.7	1.877	2.823	6.7	20.2	1 16	6 25.05	+32 30.2	2.099	3.032	7.1	20.1
1 26	6 19.61	+24 32.5	1.945	2.831	10.5	20.5	1 26	6 16.37	+32 16.8	2.171	3.040	10.3	20.4
2 5	6 14.59	+24 34.3	2.036	2.839	13.6	20.7	2 5	6 10.24	+31 56.3	2.266	3.048	13.1	20.6
<b>330609</b>	2008 DP <sub>67</sub>	12 31.2 200°92	1°0/31.3 18				<b>258142</b>	2001 RP <sub>113</sub>	12 31.2 112°63	4°3/30.6 18			
11 27	7 13.22	+20 56.6	1.689	2.509	15.3	21.1	11 27	7 13.57	+34 25.3	2.062	2.873	13.3	21.0
12 7	7 7.01	+20 48.3	1.609	2.507	11.6	20.8	12 7	7 6.96	+35 2.4	1.997	2.885	10.2	20.9
12 17	6 57.98	+20 43.2	1.551	2.504	7.1	20.6	12 17	6 57.77	+35 32.8	1.956	2.897	7.0	20.7
12 27	6 47.00	+20 39.8	1.521	2.501	2.4	20.3	12 27	6 46.91	+35 51.5	1.943	2.908	4.5	20.6
1 6	6 35.38	+20 36.6	1.519	2.497	3.0	20.3	1 6	6 35.63	+35 55.4	1.959	2.919	5.0	20.6
1 16	6 24.53	+20 33.2	1.546	2.492	7.8	20.6	1 16	6 25.22	+35 44.2	2.004	2.930	7.8	20.8
1 26	6 15.75	+20 29.7	1.600	2.488	12.2	20.8	1 26	6 16.84	+35 20.4	2.075	2.941	10.9	21.0
2 5	6 9.89	+20 27.1	1.676	2.482	16.0	21.1	2 5	6 11.19	+34 48.0	2.170	2.951	13.6	21.2
<b>299130</b>	2005 ED <sub>217</sub>	12 31.2 138°64	7°4/29.9 18				<b>159826</b>	Knapp	12 31.2 108°93	0°4/31.3 17			
11 27	7 17.83	+42 19.6	2.035	2.828	14.1	20.3	11 27	7 7.40	+20 20.9	2.392	3.204	11.6	20.7
12 7	7 10.58	+43 25.3	1.971	2.836	11.4	20.1	12 7	7 1.90	+20 43.2	2.320	3.215	8.7	20.6
12 17	6 47.66	+44 19.1	1.931	2.844	9.0	20.0	12 17	6 54.52	+21 9.5	2.274	3.226	5.3	20.4
12 27	6 34.51	+44 53.3	1.917	2.852	7.5	19.9	12 27	6 45.92	+21 37.6	2.256	3.236	1.7	20.1
1 6	6 22.36	+44 48.4	1.972	2.866	9.9	20.1	1 6	6 36.96	+22 5.4	2.269	3.247	2.1	20.2
1 16	6 12.66	+44 12.9	2.038	2.873	12.4	20.3	1 16	6 28.55	+22 31.3	2.312	3.257	5.7	20.4
1 26	6 6.23	+43 23.5	2.127	2.879	14.8	20.5	1 26	6 21.52	+22 54.5	2.384	3.267	8.9	20.7
2 5							2 5	6 16.47	+23 14.7	2.480	3.277	11.7	20.9
<b>329941</b>	2005 QT <sub>11</sub>	12 31.2 139°76	1°6/31.5 18				<b>483435</b>	2001 HV <sub>18</sub>	12 31.2 181°11	5°8/ 2.2 18			
11 27	7 12.87	+17 24.0	1.811	2.623	14.8	21.6	11 27	7 3.56	- 4 6.6	3.816	4.525	9.5	23.4
12 7	7 6.43	+17 40.4	1.741	2.634	11.2	21.4	12 7	6 58.41	- 4 30.7	3.732	4.526	8.1	23.3
12 17	6 57.46	+18 4.4	1.695	2.645	7.0	21.2	12 17	6 52.16	- 4 43.0	3.671	4.527	6.8	23.2
12 27	6 46.82	+18 33.9	1.677	2.655	2.7	20.9	12 27	6 45.19	- 4 42.2	3.638	4.526	6.0	23.2
1 6	6 35.69	+19 6.1	1.688	2.665	3.0	21.0	1 6	6 37.99	- 4 27.6	3.634	4.526	5.8	23.1
1 16	6 25.33	+19 38.6	1.729	2.674	7.3	21.3	1 16	6 31.06	- 4 0.0	3.658	4.524	6.6	23.2
1 26	6 16.89	+20 9.9	1.797	2.682	11.3	21.5	1 26	6 24.89	- 3 21.0	3.711	4.522	7.8	23.3
2 5	6 11.10	+20 39.2	1.888	2.690	14.6	21.7	2 5	6 19.85	- 2 33.3	3.789	4.520	9.2	23.4
<b>55907</b>	1998 DW <sub>27</sub>	12 31.2 170°83	1°0/31.2 18				<b>405672</b>	2005 UR <sub>189</sub>	12 31.2 90°52	0°3/31.3 18			
11 27	7 10.17	+28 3.4	2.619	3.426	10.9	18.8	11 27	7 8.78	+21 45.3	2.033	2.851	13.1	21.6
12 7	7 3.80	+27 41.1	2.535	3.427	8.1	18.7	12 7	7 3.21	+21 49.8	1.961	2.859	9.8	21.4
12 17	6 55.58	+27 15.1	2.477	3.428	5.0	18.5	12 17	6 55.43	+21 57.0	1.913	2.867	6.0	21.2
12 27	6 46.21	+26 44.2	2.449	3.429	1.8	18.2	12 27	6 46.22	+22 5.1	1.894	2.874	1.8	20.9
1 6	6 36.56	+26 8.3	2.453	3.430	2.3	18.3	1 6	6 36.61	+22 12.4	1.904	2.882	2.4	21.0
1 16	6 27.54	+25 28.2	2.488	3.430	5.5	18.5	1 16	6 27.68	+22 18.1	1.943	2.890	6.5	21.2
1 26	6 19.95	+24 45.8	2.552	3.431	8.6	18.7	1 26	6 20.42	+22 22.0	2.010	2.897	10.2	21.5
2 5	6 14.35	+24 3.4	2.642	3.431	11.3	18.9	2 5	6 15.49	+22 24.6	2.101	2.905	13.3	21.7
<b>426080</b>	2012 DR <sub>25</sub>	12 31.2 196°82	3°2/30.7 18				<b>320783</b>	2008 EJ <sub>134</sub>	12 31.2 47°62	1°8/30.9 17			
11 27	7 16.51	+29 27.5	1.727	2.545	15.1	22.3	11 27	7 10.25	+27 27.5	1.820	2.646		

EPHEMERIDES

12 31.2

12 31.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>285010</b>	2011 <i>AM</i> <sub>66</sub>		12 31.2 288°02	0°3/31.2 18			<b>382310</b>	2013 <i>PG</i> <sub>49</sub>		12 31.2 321°10	0°7/31.2 18		
11 27	7 11.60	+23 23.0	1.423	2.259	16.8	21.3	11 27	7 8.71	+25 51.7	2.227	3.044	12.2	20.4
12 7	7 6.64	+23 30.3	1.331	2.238	12.8	21.0	12 7	7 3.09	+25 44.2	2.146	3.043	9.1	20.2
12 17	6 58.24	+23 40.7	1.260	2.217	7.9	20.7	12 17	6 55.35	+25 35.3	2.089	3.042	5.6	20.0
12 27	6 47.23	+23 51.0	1.215	2.196	2.4	20.3	12 27	6 46.24	+25 23.4	2.061	3.041	1.8	19.7
1 6	6 35.07	+23 57.8	1.196	2.175	3.4	20.3	1 6	6 36.73	+25 7.4	2.063	3.040	2.4	19.8
1 16	6 23.53	+23 59.7	1.205	2.154	9.2	20.6	1 16	6 27.84	+24 47.5	2.094	3.039	6.2	20.0
1 26	6 14.33	+23 56.9	1.237	2.133	14.4	20.8	1 26	6 20.52	+24 25.0	2.154	3.038	9.7	20.2
2 5	6 8.62	+23 51.4	1.290	2.112	19.0	21.0	2 5	6 15.43	+24 1.4	2.238	3.038	12.7	20.4
<b>367395</b>	2008 <i>OD</i> <sub>25</sub>		12 31.2 75°33	2°3/31.5 17			<b>53946</b>	2000 <i>GC</i> <sub>53</sub>		12 31.2 75°19	1°5/31.0 18		
11 27	7 7.63	+17 20.2	2.160	2.972	12.7	21.0	11 27	7 14.92	+25 46.0	1.463	2.293	16.7	18.6
12 7	7 2.14	+16 54.0	2.089	2.981	9.6	20.8	12 7	7 8.40	+26 6.7	1.411	2.315	12.5	18.4
12 17	6 54.69	+16 32.4	2.042	2.989	6.2	20.6	12 17	6 58.79	+26 27.2	1.382	2.337	7.6	18.2
12 27	6 45.98	+16 15.5	2.023	2.998	2.9	20.4	12 27	6 47.28	+26 43.2	1.379	2.359	2.6	17.9
1 6	6 36.96	+16 3.4	2.033	3.007	3.2	20.4	1 6	6 35.41	+26 51.4	1.404	2.380	3.5	18.1
1 16	6 28.58	+15 55.8	2.073	3.016	6.5	20.7	1 16	6 24.80	+26 51.2	1.456	2.402	8.3	18.4
1 26	6 21.72	+15 52.7	2.141	3.025	9.8	20.9	1 26	6 16.74	+26 44.1	1.534	2.423	12.6	18.7
2 5	6 16.96	+15 53.3	2.233	3.034	12.7	21.1	2 5	6 11.94	+26 32.9	1.633	2.444	16.1	19.0
<b>306473</b>	1999 <i>RZ</i> <sub>202</sub>		12 31.2 98°21	7°3/ 1.1 18			<b>269808</b>	1999 <i>VZ</i> <sub>102</sub>		12 31.2 16°31	3°0/30.8 18		
11 27	7 9.98	+ 5 17.2	1.817	2.601	15.8	20.7	11 27	7 9.64	+26 33.5	1.082	1.939	19.4	20.1
12 7	7 4.06	+ 4 15.7	1.756	2.617	12.8	20.6	12 7	7 5.64	+27 19.4	1.025	1.943	14.6	19.8
12 17	6 55.91	+ 3 29.0	1.718	2.632	9.8	20.4	12 17	6 57.71	+28 7.2	0.989	1.948	9.1	19.5
12 27	6 46.35	+ 3 0.6	1.706	2.647	7.7	20.3	12 27	6 47.07	+28 49.6	0.975	1.954	3.8	19.3
1 6	6 36.48	+ 2 52.0	1.721	2.662	7.6	20.4	1 6	6 35.61	+29 20.1	0.985	1.961	4.9	19.3
1 16	6 27.38	+ 3 2.5	1.763	2.676	9.7	20.5	1 16	6 25.44	+29 35.8	1.020	1.970	10.4	19.7
1 26	6 20.04	+ 3 29.1	1.831	2.690	12.4	20.7	1 26	6 18.35	+29 38.0	1.077	1.979	15.5	20.0
2 5	6 15.10	+ 4 7.4	1.920	2.704	15.1	20.9	2 5	6 15.29	+29 30.5	1.152	1.990	19.8	20.3
<b>178670</b>	2000 <i>QN</i> <sub>159</sub>		12 31.2 167°45	4°3/ 1.2 18			<b>42280</b>	2001 <i>SS</i> <sub>267</sub>		12 31.2 244°08	5°0/31.8 18		
11 27	7 7.17	+ 8 13.8	2.628	3.406	11.6	20.7	11 27	7 10.36	+10 43.5	1.916	2.714	14.6	19.1
12 7	7 1.52	+ 7 54.6	2.548	3.411	9.2	20.5	12 7	7 4.67	+10 9.4	1.821	2.699	11.6	18.9
12 17	6 54.22	+ 7 45.1	2.492	3.415	6.7	20.4	12 17	6 56.54	+ 9 45.0	1.750	2.683	8.2	18.6
12 27	6 45.85	+ 7 46.2	2.465	3.419	4.7	20.2	12 27	6 46.67	+ 9 32.4	1.704	2.667	5.4	18.4
1 6	6 37.16	+ 7 57.8	2.467	3.422	4.6	20.2	1 6	6 36.08	+ 9 32.2	1.688	2.650	5.5	18.4
1 16	6 28.90	+ 8 18.9	2.500	3.425	6.6	20.4	1 16	6 25.95	+ 9 44.1	1.700	2.632	8.5	18.5
1 26	6 21.82	+ 8 47.9	2.562	3.427	9.1	20.5	1 26	6 17.42	+10 6.5	1.739	2.614	12.1	18.7
2 5	6 16.46	+ 9 22.4	2.648	3.428	11.5	20.7	2 5	6 11.32	+10 36.9	1.801	2.595	15.5	18.9
<b>422425</b>	2014 <i>SZ</i> <sub>286</sub>		12 31.2 45°01	5°4/30.4 17			<b>445387</b>	2010 <i>RH</i> <sub>119</sub>		12 31.2 79°85	4°7/31.7 18		
11 27	7 11.96	+37 36.9	2.048	2.858	13.4	20.2	11 27	7 9.07	+11 33.6	1.907	2.710	14.5	20.8
12 7	7 5.95	+38 16.0	1.979	2.863	10.5	20.0	12 7	7 3.34	+10 47.5	1.843	2.724	11.3	20.6
12 17	6 57.26	+38 46.4	1.934	2.868	7.6	19.9	12 17	6 55.47	+10 11.0	1.803	2.739	7.9	20.4
12 27	6 46.81	+39 2.6	1.916	2.873	5.6	19.8	12 27	6 46.26	+ 9 45.7	1.790	2.753	5.2	20.3
1 6	6 35.87	+39 1.2	1.926	2.878	6.0	19.8	1 6	6 36.75	+ 9 32.6	1.806	2.768	5.3	20.3
1 16	6 25.79	+38 42.0	1.964	2.884	8.4	19.9	1 16	6 27.99	+ 9 31.2	1.850	2.782	8.0	20.5
1 26	6 17.78	+38 8.1	2.028	2.889	11.3	20.1	1 26	6 20.93	+ 9 40.2	1.920	2.796	11.1	20.7
2 5	6 12.58	+37 24.2	2.115	2.895	14.0	20.3	2 5	6 16.18	+ 9 57.3	2.014	2.810	14.0	21.0
<b>225679</b>	2001 <i>PG</i> <sub>50</sub>		12 31.2 230°05	2°8/30.8 18			<b>307297</b>	2002 <i>QF</i> <sub>3</sub>		12 31.2 164°95	0°0/31.1 18		
11 27	7 15.25	+29 40.1	1.963	2.776	13.8	21.4	11 27	7 11.43	+22 58.7	2.314	3.122	12.1	22.1
12 7	7 8.56	+30 6.7	1.870	2.763	10.5	21.1	12 7	7 4.97	+22 57.9	2.235	3.128	9.0	21.9
12 17	6 59.01	+30 30.8	1.800	2.749	6.7	20.9	12 17	6 56.44	+22 57.9	2.181	3.133	5.5	21.7
12 27	6 47.41	+30 47.5	1.759	2.734	3.3	20.6	12 27	6 46.57	+22 57.2	2.157	3.137	1.7	21.5
1 6	6 34.99	+30 53.2	1.748	2.719	4.0	20.6	1 6	6 36.32	+22 54.5	2.163	3.141	2.3	21.5
1 16	6 23.18	+30 46.8	1.766	2.703	7.8	20.8	1 16	6 26.68	+22 49.4	2.200	3.144	6.0	21.8
1 26	6 13.33	+30 29.7	1.811	2.686	11.7	21.1	1 26	6 18.60	+22 42.4	2.266	3.147	9.5	22.0
2 5	6 6.36	+30 5.6	1.879	2.668	15.2	21.2	2 5	6 12.69	+22 34.4	2.357	3.149	12.4	22.2
<b>379894</b>	2012 <i>HN</i> <sub>80</sub>		12 31.2 336°49	0°4/31.3 18			<b>36491</b>	2000 <i>QS</i> <sub>46</sub>		12 31.2 65°46	1°1/31.1 18		
11 27	7 10.60	+19 59.9	1.256	2.098	18.2	20.9	11 27	7 13.51	+25 2.5	1.461	2.293	16.7	18.0
12 7	7 5.94	+20 28.6	1.184	2.094	13.8	20.7	12 7	7 7.34	+25 16.2	1.408	2.313	12.4	17.8
12 17	6 57.78	+21 6.7	1.133	2.090	8.5	20.4	12 17	6 58.17	+25 30.3	1.378	2.333	7.5	17.6
12 27	6 47.09	+21 50.4	1.106	2.087	2.7	20.0	12 27	6 47.10	+25 41.2	1.373	2.354	2.4	17.3
1 6	6 35.45	+22 34.7	1.105	2.084	3.5	20.0	1 6	6 35.68	+25 45.9	1.396	2.374	3.3	17.4
1 16	6 24.70	+23 15.4	1.130	2.082	9.4	20.4	1 16	6 25.47	+25 43.9	1.447	2.394	8.1	17.8
1 26	6 16.53	+23 50.4	1.179	2.080	14.6	20.7	1 26	6 17.74	+25 36.6	1.523	2.415	12.5	18.1
2 5	6 11.99	+24 19.5	1.248	2.078	19.0	20.9	2 5	6 13.20	+25 26.2	1.620	2.435	16.1	18.4
<b>486523</b>	2013 <i>HE</i> <sub>4</sub>		12 31.2 331°94	0°9/31.0 17			<b>79441</b>	1997 <i>TB</i> <sub>27</sub>		12 31.2 142°16	0°6/31.1 18		
11 27	7 6.88	+22 27.1	1.445	2.287	16.3	21.0	11 27	7 10.69	+24 9.5	2.127	2.942	12.8	20.4
12 7	7 2.96	+23 8.1	1.362	2.273	12.3	20.7	12 7	7 4.61	+24 21.5	2.053	2.949	9.5	20.2
12 17	6 55.91	+23 56.2	1.301	2.259	7.6	20.4	12 17	6 56.31	+24 34.4	2.004	2.956	5.8	20.0
12 27	6 46.53	+24 47.2	1.265	2.246	2.4	20.0	12 27	6 46.55	+24 45.8	1.983	2.963	1.8	19.8
1 6	6 36.18	+25 35.7	1.255	2.233	3.4	20.1	1 6	6 36.37	+24 53.5	1.992	2.969	2.5	19.8
1 16	6 26.44	+26 17.6	1.272	2.222	8.7	20.4	1 16	6 26.87	+24 56.8	2.031	2.975	6.4	20.1
1 26	6 18.88	+26 51.0	1.314	2.212	13.6	20.6	1 26	6 19.04	+24 56.0	2.098	2.981	10.0	20.3
2 5	6 14.56	+27 16.2	1.376	2.202	17.8	20.8	2 5	6 13.56	+24 52.3	2.189	2.986	13.0	20.5
<b>345767</b>	2007 <i>EG</i> <sub>108</sub>		12 31.2 266°72	7°6/29.7 18			<b>348151</b>	2004 <i>FS</i> <sub>18</sub>		12 31.2 205°36	2°0/30.9 18		

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>90624</b>	1270 <i>T</i> <sub>-2</sub>		12 31.2 168°82	2°9/30.8	18		<b>404907</b>	2014 <i>KB</i> <sub>92</sub>		12 31.2 175°53	4°0/1.4	18	
11 27	7 17.17	+29 43.8	1.866	2.678	14.4	20.9	11 27	7 8.69	+9 26.9	2.277	3.064	12.9	21.8
12 7	7 9.89	+30 14.7	1.791	2.684	10.9	20.7	12 7	7 2.96	+9 30.8	2.195	3.066	10.2	21.6
12 17	6 59.73	+30 42.4	1.740	2.689	7.0	20.5	12 17	6 55.28	+9 46.1	2.137	3.068	7.1	21.4
12 27	6 47.62	+31 1.9	1.717	2.692	3.4	20.3	12 27	6 46.29	+10 13.1	2.107	3.070	4.5	21.2
1 6	6 34.92	+31 9.5	1.724	2.695	4.1	20.3	1 6	6 36.84	+10 50.4	2.107	3.070	4.4	21.2
1 16	6 23.08	+31 4.4	1.760	2.697	7.9	20.5	1 16	6 27.87	+11 35.9	2.136	3.071	6.9	21.4
1 26	6 13.43	+30 48.6	1.824	2.698	11.7	20.8	1 26	6 20.27	+12 26.8	2.195	3.070	9.9	21.6
2 5	6 6.78	+30 25.9	1.910	2.698	15.0	21.0	2 5	6 14.67	+13 20.3	2.278	3.069	12.8	21.8
<b>23014</b>	Walstein		12 31.2 123°85	1°9/31.6	18		<b>464422</b>	2016 <i>BX</i> <sub>29</sub>		12 31.2 66°94	3°4/30.8	17	
11 27	7 10.81	+17 12.6	2.027	2.835	13.5	19.3	11 27	7 10.85	+33 10.5	2.158	2.972	12.6	21.4
12 7	7 4.64	+17 11.5	1.959	2.849	10.2	19.1	12 7	7 4.81	+33 28.6	2.091	2.983	9.6	21.2
12 17	6 56.29	+17 16.5	1.915	2.863	6.4	18.9	12 17	6 56.45	+33 40.6	2.049	2.993	6.4	21.0
12 27	6 46.54	+17 26.6	1.899	2.876	2.7	18.7	12 27	6 46.62	+33 43.0	2.034	3.004	3.8	20.9
1 6	6 36.43	+17 40.2	1.913	2.889	3.0	18.7	1 6	6 36.45	+33 33.6	2.049	3.015	4.2	20.9
1 16	6 27.04	+17 56.2	1.957	2.901	6.7	19.0	1 16	6 27.09	+33 12.5	2.092	3.026	7.1	21.1
1 26	6 19.33	+18 13.5	2.029	2.912	10.2	19.2	1 26	6 19.56	+32 42.2	2.163	3.037	10.2	21.3
2 5	6 13.94	+18 31.3	2.124	2.924	13.3	19.4	2 5	6 14.51	+32 5.9	2.258	3.048	12.9	21.5
<b>434157</b>	2002 <i>SR</i> <sub>17</sub>		12 31.2 129°77	2°4/30.9	16		<b>22590</b>	1998 <i>HJ</i> <sub>102</sub>		12 31.2 167°38	3°1/30.7	18	
11 27	7 16.32	+28 7.3	1.745	2.563	15.0	22.2	11 27	7 15.85	+29 18.6	1.807	2.624	14.6	19.5
12 7	7 9.24	+28 35.1	1.681	2.577	11.3	22.0	12 7	7 9.06	+30 3.2	1.733	2.628	11.1	19.3
12 17	6 59.30	+29 0.8	1.640	2.591	7.0	21.8	12 17	6 59.33	+30 45.9	1.683	2.632	7.1	19.1
12 27	6 47.48	+29 19.6	1.626	2.604	3.0	21.5	12 27	6 47.57	+31 21.1	1.661	2.635	3.6	18.8
1 6	6 35.19	+29 28.2	1.642	2.616	3.8	21.6	1 6	6 35.13	+31 44.1	1.668	2.638	4.3	18.9
1 16	6 23.91	+29 25.7	1.687	2.628	7.8	21.9	1 16	6 23.52	+31 53.3	1.704	2.640	8.1	19.1
1 26	6 14.91	+29 14.2	1.759	2.639	11.8	22.1	1 26	6 14.10	+31 50.2	1.766	2.641	12.0	19.4
2 5	6 8.95	+28 56.9	1.853	2.649	15.1	22.4	2 5	6 7.72	+31 38.2	1.852	2.642	15.3	19.6
<b>273225</b>	2006 <i>JE</i> <sub>55</sub>		12 31.2 214°53	1°0/31.0	18		<b>337797</b>	2001 <i>UU</i> <sub>207</sub>		12 31.2 140°34	3°0/31.8	18	
11 27	7 7.29	+25 10.7	2.553	3.367	10.9	21.2	11 27	7 11.76	+14 44.3	1.841	2.649	14.8	21.5
12 7	7 1.90	+25 32.4	2.468	3.363	8.2	21.0	12 7	7 5.57	+14 34.7	1.771	2.659	11.3	21.3
12 17	6 54.62	+25 54.7	2.407	3.360	5.0	20.8	12 17	6 56.98	+14 33.7	1.723	2.668	7.4	21.0
12 27	6 46.07	+26 15.1	2.376	3.356	1.7	20.5	12 27	6 46.81	+14 40.9	1.703	2.677	3.7	20.8
1 6	6 37.07	+26 31.8	2.375	3.352	2.3	20.6	1 6	6 36.20	+14 55.2	1.713	2.685	3.9	20.9
1 16	6 28.52	+26 43.4	2.405	3.348	5.7	20.8	1 16	6 26.33	+15 15.1	1.751	2.693	7.5	21.1
1 26	6 21.29	+26 49.9	2.463	3.344	8.8	21.0	1 26	6 18.28	+15 39.0	1.816	2.700	11.3	21.3
2 5	6 15.99	+26 52.2	2.546	3.339	11.5	21.2	2 5	6 12.77	+16 5.3	1.905	2.707	14.5	21.6
<b>291846</b>	2006 <i>MD</i> <sub>14</sub>		12 31.2 187°96	5°0/29.9	18		<b>248933</b>	2006 <i>WA</i> <sub>33</sub>		12 31.2 53°54	1°8/31.2	17	
11 27	7 14.59	+35 23.1	2.187	2.992	12.8	20.6	11 27	7 13.31	+29 23.5	1.781	2.602	14.6	20.1
12 7	7 7.95	+36 27.1	2.109	2.991	10.0	20.4	12 7	7 6.92	+29 4.7	1.710	2.608	11.0	19.9
12 17	6 58.59	+37 25.7	2.055	2.990	7.1	20.3	12 17	6 57.84	+28 40.4	1.663	2.615	6.8	19.7
12 27	6 47.32	+38 12.7	2.030	2.989	5.1	20.1	12 27	6 47.07	+28 8.3	1.643	2.621	2.7	19.5
1 6	6 35.34	+38 43.3	2.034	2.987	5.7	20.2	1 6	6 35.93	+27 27.8	1.652	2.628	3.2	19.5
1 16	6 24.00	+38 55.6	2.068	2.984	8.3	20.3	1 16	6 25.79	+26 40.6	1.690	2.635	7.4	19.8
1 26	6 14.55	+38 51.2	2.128	2.981	11.2	20.5	1 26	6 17.82	+25 50.1	1.755	2.642	11.4	20.0
2 5	6 7.86	+38 34.4	2.212	2.977	13.9	20.7	2 5	6 12.70	+24 59.9	1.844	2.649	14.8	20.3
<b>138042</b>	2000 <i>DW</i> <sub>21</sub>		12 31.2 320°01	3°3/30.9	17		<b>372180</b>	2008 <i>TP</i> <sub>66</sub>		12 31.2 129°96	3°7/30.3	18	
11 27	7 12.38	+31 26.6	1.712	2.537	14.9	19.9	11 27	7 9.67	+33 12.7	2.437	3.247	11.5	21.1
12 7	7 6.60	+31 36.5	1.634	2.533	11.4	19.7	12 7	7 3.89	+33 58.5	2.362	3.251	8.8	20.9
12 17	6 57.86	+31 40.6	1.579	2.528	7.4	19.4	12 17	6 55.93	+34 40.1	2.313	3.255	6.0	20.8
12 27	6 47.10	+31 34.5	1.549	2.524	3.8	19.2	12 27	6 46.52	+35 13.2	2.293	3.259	3.9	20.6
1 6	6 35.72	+31 15.8	1.548	2.520	4.4	19.2	1 6	6 36.62	+35 34.5	2.302	3.262	4.4	20.7
1 16	6 25.23	+30 44.8	1.575	2.516	8.3	19.5	1 16	6 27.30	+35 42.9	2.340	3.266	6.9	20.8
1 26	6 16.98	+30 4.4	1.628	2.512	12.3	19.7	1 26	6 19.55	+35 39.5	2.406	3.270	9.7	21.0
2 5	6 11.80	+29 19.3	1.703	2.509	15.8	19.9	2 5	6 14.05	+35 26.9	2.496	3.273	12.2	21.2
<b>98172</b>	2000 <i>SN</i> <sub>92</sub>		12 31.2 249°12	1°5/31.2	18		<b>364872</b>	2008 <i>DF</i> <sub>70</sub>		12 31.2 284°26	2°3/30.5	18	
11 27	7 14.39	+28 7.5	1.765	2.586	14.7	19.2	11 27	7 10.30	+25 28.5	1.913	2.735	13.7	20.5
12 7	7 8.00	+27 56.2	1.677	2.576	11.2	19.0	12 7	7 5.02	+26 37.6	1.821	2.721	10.3	20.2
12 17	6 58.69	+27 40.7	1.613	2.565	7.0	18.7	12 17	6 57.01	+27 51.5	1.754	2.706	6.5	20.0
12 27	6 47.36	+27 18.1	1.575	2.555	2.6	18.4	12 27	6 46.95	+29 4.5	1.714	2.692	2.8	19.7
1 6	6 35.36	+26 46.9	1.567	2.544	3.3	18.4	1 6	6 35.95	+30 10.8	1.704	2.677	3.8	19.8
1 16	6 24.16	+26 8.0	1.588	2.533	7.8	18.7	1 16	6 25.35	+31 5.9	1.724	2.663	7.8	20.0
1 26	6 15.11	+25 24.5	1.635	2.521	12.1	18.9	1 26	6 16.48	+31 48.3	1.770	2.648	11.8	20.2
2 5	6 9.05	+24 40.1	1.706	2.510	15.9	19.1	2 5	6 10.32	+32 18.9	1.840	2.634	15.2	20.4
<b>55205</b>	2001 <i>RQ</i> <sub>29</sub>		12 31.2 191°03	3°1/30.6	18		<b>298370</b>	2003 <i>RK</i> <sub>2</sub>		12 31.2 18°41	25°7/31.0	17	
11 27	7 9.16	+33 50.1	2.906	3.708	10.1	19.7	11 27	7 0.77	-32 36.7	1.075	1.718	32.0	19.6
12 7	7 3.17	+34 15.5	2.823	3.706	7.7	19.5	12 7	6 58.56	-34 31.4	1.065	1.737	30.7	19.6
12 17	6 55.33	+34 36.1	2.765	3.705	5.2	19.4	12 17	6 53.10	-35 25.6	1.061	1.760	29.4	19.5
12 27	6 46.28	+34 48.9	2.737	3.703	3.3	19.3	12 27	6 45.67	-35 11.0	1.064	1.784	28.1	19.5
1 6	6 36.85	+34 51.8	2.739	3.701	3.7	19.3	1 6	6 37.93	-33 46.0	1.075	1.812	27.0	19.6
1 16	6 27.90	+34 44.3	2.772	3.698	5.9	19.4	1 16	6 31.47	-31 15.7	1.098	1.842	26.2	19.6
1 26	6 20.27	+34 27.6	2.833	3.695	8.4	19.6	1 26	6 27.61	-27 52.2	1.133	1.874	25.7	19.7
2 5	6 14.56	+34 4.0	2.919	3.692	10.7	19.7	2 5	6 26.99	-23 53.2	1.183	1.907	25.7	19.8
<b>180666</b>	2004 <i>GC</i> <sub>61</sub>		12 31.2 320°14	13°2/31.4	18		<b>451949</b>	2014 <i>MH</i> <sub>26</sub>		12 31.2 172°42	2°4/30.6	18	
11 27	7												



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>148257</b>	2000 <i>FS</i> <sub>17</sub>		12 31.3 240°16	4°3/	1.2	18	<b>280535</b>	2004 <i>RO</i> <sub>40</sub>		12 31.3 174°35	0°9/	31.4	18
11 27	7 8.08	+ 9 0.1	2.366	3.151	12.6	21.3	11 27	7 12.31	+20 7.0	2.051	2.860	13.4	22.4
12 7	7 2.61	+ 8 53.0	2.266	3.135	10.0	21.1	12 7	7 5.92	+20 9.1	1.971	2.864	10.1	22.2
12 17	6 55.17	+ 8 56.8	2.190	3.119	7.1	20.9	12 17	6 57.22	+20 15.0	1.915	2.866	6.2	22.0
12 27	6 46.33	+ 9 12.3	2.142	3.102	4.7	20.7	12 27	6 46.96	+20 23.1	1.888	2.868	2.1	21.7
1 6	6 36.91	+ 9 39.2	2.124	3.085	4.7	20.7	1 6	6 36.20	+20 31.7	1.891	2.869	2.6	21.8
1 16	6 27.82	+10 15.8	2.136	3.067	7.1	20.8	1 16	6 26.09	+20 39.8	1.925	2.869	6.7	22.0
1 26	6 19.97	+11 0.0	2.175	3.048	10.2	21.0	1 26	6 17.67	+20 47.2	1.986	2.869	10.5	22.2
2 5	6 14.04	+11 48.9	2.240	3.029	13.0	21.1	2 5	6 11.67	+20 53.9	2.071	2.868	13.7	22.5
<b>358215</b>	2006 <i>SM</i> <sub>208</sub>		12 31.3 44°96	4°9/	1.3	18	<b>286906</b>	2002 <i>PS</i> <sub>72</sub>		12 31.3 112°44	5°0/	1.3	18
11 27	7 7.53	+10 14.7	1.696	2.506	15.7	20.5	11 27	7 5.88	+ 6 38.1	2.548	3.325	12.0	20.9
12 7	7 2.60	+ 9 58.5	1.629	2.513	12.3	20.3	12 7	7 0.60	+ 6 8.3	2.478	3.338	9.6	20.7
12 17	6 55.27	+ 9 55.8	1.583	2.520	8.6	20.1	12 17	6 53.73	+ 5 49.2	2.433	3.350	7.2	20.6
12 27	6 46.35	+10 7.4	1.563	2.528	5.5	19.9	12 27	6 45.85	+ 5 42.3	2.415	3.362	5.3	20.5
1 6	6 36.96	+10 32.5	1.571	2.536	5.4	19.9	1 6	6 37.71	+ 5 47.7	2.426	3.374	5.2	20.5
1 16	6 28.30	+11 8.9	1.606	2.544	8.4	20.1	1 16	6 30.06	+ 6 4.5	2.467	3.386	7.0	20.6
1 26	6 21.43	+11 53.3	1.667	2.553	12.0	20.4	1 26	6 23.61	+ 6 31.0	2.535	3.398	9.3	20.8
2 5	6 17.09	+12 42.1	1.750	2.562	15.2	20.6	2 5	6 18.86	+ 7 4.4	2.628	3.409	11.5	21.0
<b>266681</b>	2009 <i>OO</i> <sub>2</sub>		12 31.3 129°33	1°5/	31.1	18	<b>260732</b>	2005 <i>LN</i> <sub>19</sub>		12 31.3 94°66	2°8/	31.9	18
11 27	7 17.29	+26 39.1	1.801	2.614	14.8	21.6	11 27	7 8.82	+14 29.9	1.901	2.712	14.2	20.9
12 7	7 9.80	+26 50.5	1.737	2.632	11.0	21.4	12 7	7 3.37	+14 32.8	1.832	2.722	10.9	20.7
12 17	6 59.58	+27 0.2	1.697	2.648	6.8	21.2	12 17	6 55.67	+14 44.9	1.786	2.731	7.1	20.5
12 27	6 47.63	+27 4.6	1.685	2.664	2.4	20.9	12 27	6 46.49	+15 5.5	1.766	2.741	3.5	20.3
1 6	6 35.30	+27 1.4	1.703	2.679	3.1	21.0	1 6	6 36.88	+15 32.8	1.776	2.750	3.6	20.3
1 16	6 24.01	+26 50.5	1.751	2.694	7.4	21.3	1 16	6 27.94	+16 4.9	1.815	2.759	7.1	20.5
1 26	6 14.93	+26 33.7	1.826	2.707	11.3	21.6	1 26	6 20.69	+16 39.4	1.881	2.768	10.7	20.8
2 5	6 8.79	+26 13.9	1.924	2.719	14.6	21.8	2 5	6 15.80	+17 14.7	1.971	2.777	13.9	21.0
<b>79879</b>	1998 <i>YP</i> <sub>19</sub>		12 31.3 331°55	0°7/	31.1	17	<b>119205</b>	2001 <i>QN</i> <sub>141</sub>		12 31.3 48°92	1°4/	31.1	18
11 27	7 8.92	+23 56.3	1.686	2.516	14.9	20.3	11 27	7 12.88	+24 54.0	1.259	2.101	18.2	19.5
12 7	7 3.99	+24 11.1	1.606	2.511	11.2	20.0	12 7	7 7.35	+25 17.0	1.209	2.119	13.6	19.2
12 17	6 56.31	+24 28.1	1.550	2.505	6.8	19.8	12 17	6 58.43	+25 41.4	1.180	2.137	8.3	19.0
12 27	6 46.71	+24 44.2	1.520	2.500	2.2	19.4	12 27	6 47.35	+26 2.6	1.176	2.156	2.8	18.7
1 6	6 36.44	+24 56.7	1.517	2.495	3.0	19.5	1 6	6 35.82	+26 16.5	1.198	2.176	3.7	18.8
1 16	6 26.87	+25 4.1	1.543	2.491	7.7	19.8	1 16	6 25.63	+26 22.0	1.246	2.196	8.9	19.2
1 26	6 19.29	+25 6.6	1.594	2.487	12.0	20.0	1 26	6 18.21	+26 20.4	1.319	2.216	13.6	19.5
2 5	6 14.54	+25 5.4	1.668	2.483	15.7	20.2	2 5	6 14.31	+26 14.0	1.412	2.236	17.5	19.8
<b>106834</b>	2000 <i>YN</i> <sub>7</sub>		12 31.3 219°73	3°4/	30.6	18	<b>76384</b>	2000 <i>FE</i>		12 31.3 238°47	0°5/	31.2	18
11 27	7 15.08	+28 47.3	1.603	2.428	15.8	19.9	11 27	7 7.27	+23 40.3	2.463	3.277	11.3	19.4
12 7	7 8.98	+29 37.4	1.523	2.423	12.0	19.7	12 7	7 1.98	+23 56.5	2.375	3.271	8.4	19.2
12 17	6 59.57	+30 27.2	1.466	2.417	7.7	19.4	12 17	6 54.76	+24 14.2	2.313	3.265	5.1	19.0
12 27	6 47.76	+31 10.2	1.436	2.411	3.9	19.2	12 27	6 46.22	+24 31.4	2.279	3.259	1.6	18.8
1 6	6 35.00	+31 40.7	1.433	2.405	4.7	19.2	1 6	6 37.22	+24 46.1	2.275	3.253	2.2	18.8
1 16	6 23.02	+31 55.9	1.459	2.398	9.0	19.4	1 16	6 28.67	+24 57.1	2.302	3.247	5.8	19.0
1 26	6 13.41	+31 57.0	1.510	2.390	13.3	19.7	1 26	6 21.44	+25 4.3	2.357	3.240	9.0	19.2
2 5	6 7.18	+31 47.8	1.582	2.382	17.1	19.9	2 5	6 16.19	+25 8.2	2.437	3.234	11.9	19.4
<b>355458</b>	2007 <i>VG</i> <sub>228</sub>		12 31.3 44°69	9°2/	3.1	17	<b>165537</b>	2001 <i>DN</i> <sub>6</sub>		12 31.3 263°12	0°5/	31.2	18
11 27	7 8.50	+ 0 54.1	1.384	2.176	19.6	20.7	11 27	7 10.22	+22 9.5	1.766	2.590	14.6	19.7
12 7	7 3.44	+ 0 27.4	1.341	2.201	16.1	20.5	12 7	7 4.91	+22 43.3	1.684	2.585	11.0	19.5
12 17	6 55.76	+ 0 26.5	1.317	2.227	12.6	20.4	12 17	6 56.88	+23 22.2	1.625	2.579	6.7	19.2
12 27	6 46.47	+ 0 54.0	1.316	2.254	9.9	20.3	12 27	6 46.93	+24 2.5	1.593	2.574	2.1	18.9
1 6	6 36.90	+ 1 48.3	1.340	2.281	9.3	20.3	1 6	6 36.25	+24 40.5	1.590	2.568	2.9	19.0
1 16	6 28.37	+ 3 4.1	1.389	2.309	11.1	20.5	1 16	6 26.16	+25 13.1	1.616	2.563	7.5	19.2
1 26	6 22.01	+ 4 34.2	1.461	2.337	14.0	20.8	1 26	6 17.97	+25 39.4	1.668	2.557	11.8	19.5
2 5	6 18.45	+ 6 10.3	1.556	2.365	16.9	21.0	2 5	6 12.54	+25 59.8	1.743	2.551	15.4	19.7
<b>490086</b>	2008 <i>TF</i> <sub>173</sub>		12 31.3 302°66	2°3/	30.8	18	<b>319859</b>	2006 <i>WF</i> <sub>49</sub>		12 31.3 308°73	2°5/	31.6	18
11 27	7 8.61	+29 23.2	2.284	3.101	11.9	21.8	11 27	7 9.35	+17 46.6	1.326	2.163	17.7	21.1
12 7	7 3.15	+29 47.6	2.204	3.099	9.0	21.6	12 7	7 4.97	+17 34.8	1.243	2.149	13.6	20.8
12 17	6 55.52	+30 9.6	2.148	3.098	5.7	21.4	12 17	6 57.28	+17 31.1	1.180	2.134	8.7	20.5
12 27	6 46.44	+30 26.0	2.121	3.097	2.8	21.2	12 27	6 47.13	+17 35.4	1.142	2.120	3.7	20.2
1 6	6 36.88	+30 34.2	2.124	3.096	3.3	21.2	1 6	6 35.96	+17 46.1	1.129	2.106	4.1	20.2
1 16	6 27.89	+30 33.5	2.156	3.094	6.5	21.4	1 16	6 25.50	+18 1.7	1.143	2.093	9.4	20.4
1 26	6 20.48	+30 24.7	2.216	3.093	9.8	21.6	1 26	6 17.36	+18 20.6	1.180	2.080	14.6	20.7
2 5	6 15.32	+30 9.9	2.299	3.092	12.6	21.8	2 5	6 12.64	+18 41.7	1.237	2.068	19.1	20.9
<b>122119</b>	2000 <i>JP</i> <sub>14</sub>		12 31.3 116°58	2°0/	30.9	18	<b>517220</b>	2014 <i>BR</i> <sub>6</sub>		12 31.3 323°61	3°8/	1.2	18
11 27	7 18.64	+26 10.3	1.611	2.429	16.0	20.2	11 27	7 7.37	+12 44.3	1.297	2.130	18.3	21.0
12 7	7 11.08	+26 46.8	1.554	2.451	12.0	20.0	12 7	7 3.52	+13 1.2	1.215	2.116	14.3	20.7
12 17	7 0.48	+27 23.1	1.520	2.472	7.4	19.8	12 17	6 56.42	+13 35.9	1.153	2.103	9.5	20.4
12 27	6 47.93	+27 53.8	1.514	2.492	2.8	19.6	12 27	6 46.88	+14 28.0	1.115	2.090	4.9	20.1
1 6	6 34.96	+28 14.9	1.537	2.512	3.6	19.7	1 6	6 36.27	+15 34.0	1.103	2.078	4.8	20.0
1 16	6 23.14	+28 25.0	1.589	2.531	8.1	20.0	1 16	6 26.27	+16 48.5	1.116	2.067	9.6	20.2
1 26	6 13.80	+28 25.6	1.667	2.548	12.2	20.3	1 26	6 18.52	+18 5.8	1.154	2.056	14.7	20.5
2 5	6 7.71	+28 19.7	1.768	2.565	15.7	20.5	2 5	6 14.12	+19 20.9	1.211	2.046	19.2	20.7
<b>419286</b>	2009 <i>WN</i> <sub>24</sub>		12 31.3 170°03	2°6/	30.5	18	<b>42257</b>	2001 <i>OU</i> <sub>68</sub>		12 31.3 92°99	0°4/	31.2	18
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>231846</b>	2000 <i>RC</i> <sub>85</sub>		12 31.3	63°69	7.8/30.9	18	<b>300454</b>	2007 <i>TM</i> <sub>74</sub>		12 31.3	37°66	3.2/1.0	18
11 27	7 20.16	+40 21.6	1.457	2.271	17.6	19.7	11 27	7 8.47	+13 55.9	1.386	2.216	17.5	19.7
12 7	7 12.84	+41 11.7	1.413	2.295	14.0	19.6	12 7	7 3.74	+14 9.2	1.331	2.231	13.4	19.4
12 17	7 1.75	+41 46.8	1.390	2.318	10.4	19.4	12 17	6 56.15	+14 36.2	1.297	2.247	8.7	19.2
12 27	6 48.34	+41 58.1	1.391	2.342	8.0	19.3	12 27	6 46.72	+15 15.2	1.288	2.263	4.2	19.0
1 6	6 34.62	+41 41.6	1.419	2.366	8.3	19.4	1 6	6 36.81	+16 2.8	1.305	2.281	4.2	19.0
1 16	6 22.61	+40 59.5	1.473	2.389	10.9	19.6	1 16	6 27.88	+16 55.0	1.349	2.298	8.4	19.3
1 26	6 13.85	+39 58.9	1.551	2.413	14.1	19.9	1 26	6 21.18	+17 48.0	1.419	2.317	12.8	19.6
2 5	6 9.00	+38 48.5	1.649	2.437	17.0	20.1	2 5	6 17.45	+18 38.9	1.509	2.336	16.5	19.9
<b>221332</b>	2005 <i>WB</i> <sub>2</sub>		12 31.3	112°41	0°6/31.1	18	<b>223108</b>	2002 <i>VK</i> <sub>13</sub>		12 31.3	117°15	1°5/31.0	18
11 27	7 9.28	+23 50.7	2.143	2.960	12.6	21.1	11 27	7 15.61	+25 36.3	1.694	2.513	15.3	21.0
12 7	7 3.63	+24 10.8	2.070	2.967	9.4	20.9	12 7	7 8.79	+26 3.3	1.632	2.530	11.4	20.8
12 17	6 55.81	+24 32.5	2.021	2.975	5.7	20.7	12 17	6 59.12	+26 30.6	1.593	2.546	7.0	20.6
12 27	6 46.56	+24 53.2	2.001	2.982	1.8	20.4	12 27	6 47.61	+26 53.8	1.582	2.561	2.5	20.3
1 6	6 36.88	+25 10.4	2.011	2.989	2.5	20.5	1 6	6 35.65	+27 9.6	1.599	2.576	3.3	20.4
1 16	6 27.84	+25 22.9	2.051	2.996	6.3	20.7	1 16	6 24.68	+27 16.7	1.646	2.590	7.7	20.7
1 26	6 20.41	+25 30.7	2.118	3.003	9.8	21.0	1 26	6 15.97	+27 16.2	1.720	2.604	11.8	21.0
2 5	6 15.25	+25 34.6	2.209	3.009	12.8	21.2	2 5	6 10.26	+27 10.5	1.816	2.617	15.2	21.2
<b>213961</b>	2003 <i>YA</i> <sub>26</sub>		12 31.3	304°55	1°9/30.9	17	<b>507566</b>	2013 <i>AL</i> <sub>69</sub>		12 31.3	191°74	8°0/31.9	18
11 27	7 9.44	+25 39.5	1.652	2.484	15.0	20.1	11 27	7 28.65	+41 28.5	1.216	2.030	20.5	21.1
12 7	7 4.72	+26 14.3	1.561	2.466	11.4	19.8	12 7	7 20.19	+41 28.9	1.146	2.030	16.5	20.8
12 17	6 57.00	+26 51.8	1.493	2.448	7.1	19.5	12 17	6 7.74	+41 7.9	1.096	2.029	12.1	20.6
12 27	6 47.05	+27 27.4	1.450	2.430	2.7	19.2	12 27	6 49.99	+40 14.8	1.070	2.028	8.5	20.4
1 6	6 36.12	+27 56.7	1.436	2.412	3.6	19.2	1 6	6 32.63	+38 45.9	1.069	2.027	8.6	20.4
1 16	6 25.74	+28 16.8	1.449	2.394	8.3	19.5	1 16	6 17.42	+36 47.5	1.094	2.026	12.2	20.6
1 26	6 17.36	+28 27.5	1.487	2.377	12.9	19.7	1 26	6 6.44	+34 33.1	1.144	2.024	16.7	20.8
2 5	6 12.03	+28 30.6	1.547	2.360	16.8	19.9	2 5	6 0.47	+32 17.4	1.214	2.022	20.8	21.1
<b>15065</b>	1999 <i>AJ</i> <sub>4</sub>		12 31.3	55°67	1°1/31.4	18	<b>411080</b>	2009 <i>VF</i> <sub>88</sub>		12 31.3	33°03	1°3/31.1	17
11 27	7 13.57	+20 21.5	1.266	2.104	18.4	18.6	11 27	7 8.77	+26 26.9	1.813	2.641	14.1	21.0
12 7	7 7.61	+20 20.3	1.221	2.128	13.7	18.4	12 7	7 3.56	+26 35.4	1.749	2.652	10.5	20.8
12 17	6 58.46	+20 24.9	1.197	2.153	8.4	18.1	12 17	6 55.88	+26 42.9	1.709	2.663	6.4	20.6
12 27	6 47.36	+20 33.0	1.197	2.178	2.8	17.9	12 27	6 46.62	+26 46.5	1.695	2.675	2.3	20.3
1 6	6 35.98	+20 42.1	1.224	2.203	3.4	18.0	1 6	6 36.97	+26 44.4	1.710	2.687	3.0	20.4
1 16	6 25.95	+20 50.8	1.278	2.228	8.6	18.4	1 16	6 28.16	+26 36.3	1.753	2.699	7.1	20.7
1 26	6 18.60	+20 58.9	1.356	2.254	13.3	18.7	1 26	6 21.28	+26 23.1	1.822	2.712	10.9	21.0
2 5	6 14.61	+21 6.5	1.455	2.279	17.1	19.0	2 5	6 17.00	+26 7.0	1.915	2.725	14.1	21.2
<b>172650</b>	2003 <i>YV</i> <sub>66</sub>		12 31.3	356°73	3°2/31.4	17	<b>100629</b>	1997 <i>UL</i> <sub>5</sub>		12 31.3	153°67	5°0/30.4	18
11 27	7 13.58	+32 47.7	1.407	2.241	17.1	18.9	11 27	7 16.56	+34 30.6	1.894	2.705	14.3	20.3
12 7	7 7.94	+32 18.9	1.334	2.237	13.1	18.6	12 7	7 9.66	+35 25.6	1.825	2.712	11.1	20.1
12 17	6 58.87	+31 39.0	1.283	2.235	8.4	18.4	12 17	6 59.78	+36 14.6	1.779	2.718	7.7	19.9
12 27	6 47.54	+30 44.6	1.256	2.233	4.0	18.1	12 27	6 47.86	+36 50.8	1.760	2.724	5.2	19.7
1 6	6 35.68	+29 35.6	1.257	2.232	4.4	18.1	1 6	6 35.29	+37 9.4	1.771	2.729	5.8	19.8
1 16	6 25.07	+28 15.8	1.285	2.232	9.0	18.4	1 16	6 23.61	+37 9.2	1.810	2.734	8.7	20.0
1 26	6 17.20	+26 51.6	1.338	2.233	13.6	18.7	1 26	6 14.17	+36 52.9	1.875	2.738	12.0	20.2
2 5	6 12.87	+25 29.5	1.412	2.235	17.6	18.9	2 5	6 7.82	+36 25.4	1.963	2.741	15.0	20.4
<b>300756</b>	2007 <i>VR</i> <sub>224</sub>		12 31.3	239°10	2°6/31.7	18	<b>403136</b>	2008 <i>EL</i> <sub>74</sub>		12 31.3	198°59	0°2/31.3	17
11 27	7 9.72	+15 35.7	2.047	2.854	13.5	21.0	11 27	7 8.94	+21 9.7	2.099	2.915	12.9	21.5
12 7	7 4.14	+15 26.6	1.954	2.843	10.4	20.8	12 7	7 3.51	+21 29.9	2.017	2.914	9.6	21.3
12 17	6 56.26	+15 24.6	1.885	2.830	6.8	20.5	12 17	6 55.83	+21 54.2	1.960	2.913	5.9	21.0
12 27	6 46.75	+15 29.4	1.843	2.817	3.3	20.3	12 27	6 46.64	+22 20.2	1.931	2.912	1.8	20.8
1 6	6 36.62	+15 40.2	1.831	2.804	3.5	20.3	1 6	6 36.91	+22 45.5	1.932	2.910	2.4	20.8
1 16	6 26.94	+15 56.0	1.848	2.790	7.1	20.5	1 16	6 27.73	+23 8.2	1.962	2.908	6.5	21.1
1 26	6 18.79	+16 15.5	1.893	2.776	10.9	20.7	1 26	6 20.12	+23 27.7	2.020	2.907	10.1	21.3
2 5	6 12.95	+16 37.5	1.961	2.762	14.2	20.9	2 5	6 14.79	+23 44.0	2.102	2.905	13.3	21.5
<b>520703</b>	2014 <i>QG</i> <sub>466</sub>		12 31.3	56°97	5°4/1.6	18	<b>105574</b>	2000 <i>RZ</i> <sub>70</sub>		12 31.3	105°87	4°8/30.3	18
11 27	7 6.24	+ 7 17.3	2.008	2.801	14.2	21.1	11 27	7 13.33	+35 27.8	2.154	2.962	12.9	19.8
12 7	7 1.28	+ 6 56.6	1.944	2.814	11.3	20.9	12 7	7 6.90	+36 21.5	2.090	2.975	10.0	19.6
12 17	6 54.33	+ 6 49.6	1.902	2.827	8.3	20.7	12 17	6 57.92	+37 8.6	2.051	2.987	7.0	19.5
12 27	6 46.11	+ 6 57.3	1.886	2.840	5.9	20.6	12 27	6 47.26	+37 43.5	2.040	3.000	5.0	19.4
1 6	6 37.56	+ 7 19.5	1.899	2.854	5.7	20.6	1 6	6 36.12	+38 2.6	2.058	3.012	5.5	19.4
1 16	6 29.63	+ 7 54.1	1.939	2.868	7.9	20.8	1 16	6 25.78	+38 4.8	2.105	3.024	7.9	19.6
1 26	6 23.21	+ 8 38.2	2.006	2.882	10.8	21.0	1 26	6 17.37	+37 52.2	2.178	3.036	10.8	19.8
2 5	6 18.90	+ 9 28.2	2.097	2.896	13.5	21.2	2 5	6 11.63	+37 29.0	2.274	3.048	13.3	20.0
<b>182997</b>	2002 <i>PY</i> <sub>29</sub>		12 31.3	85°21	2°6/31.6	18	<b>353490</b>	2011 <i>SP</i> <sub>71</sub>		12 31.3	31°28	3°3/31.1	18
11 27	7 11.75	+17 10.5	1.429	2.257	17.2	20.3	11 27	7 13.56	+31 31.7	1.593	2.420	15.7	20.3
12 7	7 6.29	+16 59.2	1.361	2.261	13.1	20.0	12 7	7 7.61	+31 38.1	1.524	2.424	12.0	20.1
12 17	6 57.79	+16 56.2	1.314	2.265	8.3	19.7	12 17	6 58.56	+31 38.0	1.477	2.427	7.7	19.8
12 27	6 47.23	+17 0.9	1.292	2.269	3.6	19.5	12 27	6 47.48	+31 27.1	1.456	2.431	3.9	19.6
1 6	6 36.05	+17 11.6	1.297	2.273	3.9	19.5	1 6	6 35.87	+31 3.0	1.463	2.435	4.5	19.7
1 16	6 25.78	+17 26.9	1.329	2.277	8.7	19.8	1 16	6 25.33	+30 26.8	1.498	2.440	8.5	19.9
1 26	6 17.80	+17 45.4	1.386	2.281	13.3	20.1	1 26	6 17.23	+29 42.0	1.558	2.445	12.6	20.2
2 5	6 12.98	+18 5.7	1.465	2.285	17.2	20.3	2 5	6 12.35	+28 53.4	1.640	2.450	16.1	20.4
<b>116178</b>	2003 <i>XP</i> <sub>4</sub>		12 31.3	298°32	6°3/31.6	18	<b>109526</b>	2001 <i>QS</i> <sub>245</sub>		12 31.3	194°28	5°5/30.2	18

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>167903</b>	2005 <i>EU</i> <sub>89</sub>		12 31.3 212°13	0°0/31.1 18			<b>40347</b>	1999 <i>NH</i> <sub>10</sub>		12 31.3 147°07	1°7/31.1 18		
11 27	7 10.68	+22 21.9	2.082	2.896	13.0	21.3	11 27	7 16.93	+27 16.7	1.739	2.556	15.1	19.5
12 7	7 4.86	+22 36.3	1.996	2.892	9.8	21.0	12 7	7 9.79	+27 27.8	1.670	2.566	11.3	19.3
12 17	6 56.70	+22 53.4	1.934	2.886	6.0	20.8	12 17	6 59.76	+27 36.8	1.624	2.575	7.0	19.0
12 27	6 46.92	+23 11.0	1.900	2.881	1.8	20.5	12 27	6 47.85	+27 39.9	1.605	2.584	2.7	18.8
1 6	6 36.55	+23 26.7	1.897	2.875	2.5	20.6	1 6	6 35.44	+27 34.5	1.616	2.592	3.4	18.8
1 16	6 26.73	+23 39.1	1.923	2.868	6.6	20.8	1 16	6 24.02	+27 20.5	1.656	2.599	7.7	19.1
1 26	6 18.54	+23 48.0	1.977	2.861	10.4	21.0	1 26	6 14.86	+27 0.0	1.723	2.605	11.8	19.4
2 5	6 12.73	+23 54.1	2.054	2.854	13.7	21.2	2 5	6 8.74	+26 36.1	1.812	2.611	15.3	19.6
<b>211287</b>	2002 <i>RZ</i> <sub>157</sub>		12 31.3 144°25	8°0/ 1.9 18			<b>367009</b>	2006 <i>AT</i> <sub>105</sub>		12 31.3 87°44	3°8/ 1.4 18		
11 27	7 7.43	+ 1 55.7	1.887	2.662	15.7	20.7	11 27	7 6.97	+10 14.5	2.195	2.990	13.1	20.8
12 7	7 2.39	+ 1 14.9	1.813	2.663	13.0	20.5	12 7	7 1.73	+10 16.0	2.126	3.003	10.2	20.6
12 17	6 55.15	+ 0 51.8	1.760	2.664	10.3	20.3	12 17	6 54.60	+10 28.8	2.081	3.016	7.1	20.4
12 27	6 46.43	+ 0 49.7	1.733	2.665	8.4	20.2	12 27	6 46.25	+10 52.6	2.064	3.028	4.4	20.3
1 6	6 37.22	+ 1 9.4	1.731	2.666	8.2	20.2	1 6	6 37.56	+11 26.1	2.075	3.041	4.2	20.3
1 16	6 28.59	+ 1 49.4	1.757	2.667	9.9	20.3	1 16	6 29.43	+12 7.1	2.116	3.053	6.8	20.5
1 26	6 21.53	+ 2 45.8	1.808	2.668	12.5	20.5	1 26	6 22.71	+12 53.2	2.185	3.066	9.8	20.7
2 5	6 16.74	+ 3 53.3	1.881	2.668	15.2	20.6	2 5	6 17.99	+13 41.5	2.279	3.078	12.5	20.9
<b>260238</b>	2004 <i>RV</i> <sub>308</sub>		12 31.3 116°22	0°3/31.4 18			<b>302669</b>	2002 <i>SC</i> <sub>48</sub>		12 31.3 27°26	12°7/ 3.1 18		
11 27	7 8.23	+21 1.4	2.111	2.928	12.8	20.6	11 27	7 6.45	- 8 56.6	1.774	2.502	18.2	20.0
12 7	7 2.92	+21 15.1	2.033	2.930	9.6	20.4	12 7	7 1.79	-10 13.0	1.711	2.505	16.2	19.8
12 17	6 55.44	+21 32.5	1.979	2.932	5.9	20.2	12 17	6 54.85	-11 3.4	1.666	2.508	14.3	19.7
12 27	6 46.52	+21 51.6	1.954	2.934	1.8	19.9	12 27	6 46.37	-11 21.8	1.642	2.511	13.0	19.6
1 6	6 37.12	+22 10.5	1.958	2.936	2.4	20.0	1 6	6 37.40	-11 5.5	1.641	2.514	12.8	19.6
1 16	6 28.30	+22 27.5	1.991	2.938	6.3	20.2	1 16	6 29.05	-10 15.7	1.663	2.518	13.7	19.7
1 26	6 21.03	+22 42.2	2.052	2.940	10.0	20.4	1 26	6 22.36	- 8 57.7	1.707	2.521	15.3	19.8
2 5	6 16.01	+22 54.6	2.138	2.942	13.1	20.7	2 5	6 18.04	- 7 19.7	1.771	2.525	17.3	20.0
<b>75350</b>	1999 <i>XY</i> <sub>65</sub>		12 31.3 95°92	0°5/31.2 18			<b>331719</b>	2002 <i>SS</i> <sub>55</sub>		12 31.3 56°35	0°3/31.4 18		
11 27	7 13.04	+22 52.7	1.882	2.699	14.1	19.6	11 27	7 15.15	+20 30.6	1.190	2.028	19.3	20.3
12 7	7 6.53	+23 18.4	1.824	2.721	10.5	19.4	12 7	7 8.93	+20 57.1	1.150	2.058	14.3	20.1
12 17	6 57.60	+23 46.6	1.790	2.743	6.4	19.2	12 17	6 59.34	+21 30.3	1.132	2.088	8.6	19.9
12 27	6 47.15	+24 13.9	1.784	2.765	1.9	19.0	12 27	6 47.71	+22 5.7	1.138	2.118	2.6	19.6
1 6	6 36.35	+24 37.4	1.808	2.786	2.6	19.1	1 6	6 35.81	+22 38.7	1.170	2.149	3.4	19.7
1 16	6 26.43	+24 55.5	1.862	2.807	6.8	19.4	1 16	6 25.40	+23 6.6	1.229	2.179	8.9	20.1
1 26	6 18.45	+25 8.3	1.942	2.827	10.6	19.7	1 26	6 17.88	+23 28.8	1.312	2.210	13.6	20.5
2 5	6 13.07	+25 16.7	2.047	2.847	13.7	19.9	2 5	6 13.91	+23 46.1	1.415	2.240	17.4	20.8
<b>287759</b>	2003 <i>SN</i> <sub>54</sub>		12 31.3 109°40	4°0/31.9 18			<b>520859</b>	2014 <i>VY</i>		12 31.3 84°15	4°4/30.0 18		
11 27	7 7.03	+10 55.1	2.401	3.193	12.2	21.0	11 27	7 12.12	+34 36.8	2.371	3.176	11.9	21.1
12 7	7 1.59	+10 26.8	2.330	3.205	9.5	20.8	12 7	7 5.80	+35 44.4	2.313	3.197	9.2	21.0
12 17	6 54.42	+10 7.0	2.284	3.217	6.7	20.6	12 17	6 57.19	+36 46.5	2.281	3.217	6.4	20.8
12 27	6 46.17	+ 9 56.7	2.267	3.228	4.4	20.5	12 27	6 47.08	+37 37.9	2.278	3.237	4.6	20.7
1 6	6 37.63	+ 9 55.9	2.278	3.240	4.4	20.5	1 6	6 36.52	+38 14.5	2.305	3.257	5.1	20.8
1 16	6 29.63	+10 4.1	2.320	3.251	6.6	20.7	1 16	6 26.65	+38 35.2	2.361	3.277	7.4	21.0
1 26	6 22.94	+10 19.8	2.389	3.262	9.4	20.9	1 26	6 18.50	+38 41.1	2.444	3.297	9.9	21.2
2 5	6 18.10	+10 41.2	2.483	3.273	11.9	21.1	2 5	6 12.74	+38 35.5	2.551	3.316	12.3	21.4
<b>96274</b>	1995 <i>UB</i> <sub>32</sub>		12 31.3 85°44	0°3/31.4 18			<b>55833</b>	1996 <i>GM</i> <sub>18</sub>		12 31.3 234°37	1°5/31.5 18		
11 27	7 12.26	+20 47.8	1.724	2.545	15.0	19.7	11 27	7 11.66	+19 3.3	1.806	2.623	14.6	20.2
12 7	7 6.13	+21 7.0	1.666	2.564	11.2	19.5	12 7	7 5.91	+18 58.5	1.718	2.614	11.1	20.0
12 17	6 57.43	+21 30.8	1.631	2.584	6.8	19.3	12 17	6 57.51	+18 58.8	1.653	2.604	7.0	19.7
12 27	6 47.11	+21 56.3	1.623	2.603	2.1	19.1	12 27	6 47.24	+19 3.0	1.615	2.594	2.6	19.4
1 6	6 36.41	+22 20.7	1.644	2.622	2.7	19.2	1 6	6 36.26	+19 9.8	1.607	2.584	3.1	19.4
1 16	6 26.63	+22 42.1	1.694	2.641	7.2	19.5	1 16	6 25.87	+19 17.9	1.627	2.573	7.5	19.7
1 26	6 18.88	+22 59.9	1.771	2.660	11.2	19.8	1 26	6 17.31	+19 26.9	1.674	2.562	11.8	19.9
2 5	6 13.85	+23 14.4	1.871	2.678	14.5	20.0	2 5	6 11.43	+19 36.6	1.744	2.550	15.4	20.1
<b>213672</b>	2002 <i>TZ</i> <sub>41</sub>		12 31.3 69°11	5°6/ 1.3 18			<b>254560</b>	2005 <i>EH</i> <sub>291</sub>		12 31.3 303°26	6°5/29.5 18		
11 27	7 8.98	+ 8 54.4	1.738	2.540	15.7	20.6	11 27	7 11.56	+40 16.5	2.228	3.029	12.7	20.3
12 7	7 3.54	+ 8 21.1	1.679	2.556	12.4	20.4	12 7	7 5.99	+41 23.9	2.145	3.018	10.3	20.1
12 17	6 55.80	+ 8 1.3	1.642	2.572	8.9	20.2	12 17	6 57.65	+42 23.3	2.086	3.006	8.0	19.9
12 27	6 46.61	+ 7 56.7	1.631	2.589	6.1	20.1	12 27	6 47.31	+43 8.1	2.053	2.995	6.6	19.8
1 6	6 37.08	+ 8 7.4	1.647	2.606	6.0	20.1	1 6	6 36.16	+43 33.3	2.049	2.984	7.1	19.9
1 16	6 28.35	+ 8 31.6	1.691	2.622	8.6	20.3	1 16	6 25.58	+43 37.2	2.072	2.973	9.2	20.0
1 26	6 21.43	+ 9 6.4	1.760	2.639	11.8	20.6	1 26	6 16.89	+43 21.8	2.121	2.962	11.7	20.1
2 5	6 16.95	+ 9 48.1	1.853	2.655	14.8	20.8	2 5	6 10.99	+42 51.5	2.192	2.951	14.2	20.3
<b>196794</b>	2003 <i>SK</i> <sub>197</sub>		12 31.3 126°15	4°2/ 1.3 17			<b>432956</b>	2012 <i>HA</i> <sub>82</sub>		12 31.3 182°08	0°0/31.1 16		
11 27	7 6.20	+ 9 19.4	2.426	3.214	12.2	20.8	11 27	7 14.94	+22 7.1	1.931	2.742	14.0	22.9
12 7	7 1.02	+ 9 4.0	2.351	3.222	9.6	20.6	12 7	7 8.16	+22 21.5	1.850	2.744	10.6	22.7
12 17	6 54.11	+ 8 58.6	2.300	3.229	6.8	20.5	12 17	6 58.78	+22 38.8	1.793	2.744	6.5	22.5
12 27	6 46.09	+ 9 4.0	2.277	3.236	4.6	20.3	12 27	6 47.61	+22 56.4	1.764	2.744	2.0	22.2
1 6	6 37.74	+ 9 19.7	2.283	3.243	4.5	20.3	1 6	6 35.84	+23 11.6	1.765	2.743	2.6	22.2
1 16	6 29.87	+ 9 44.5	2.319	3.249	6.7	20.5	1 16	6 24.74	+23 23.0	1.796	2.741	7.1	22.5
1 26	6 23.25	+10 16.6	2.383	3.256	9.4	20.7	1 26	6 15.52	+23 30.6	1.856	2.738	11.1	22.7
2 5	6 18.44	+10 53.4	2.471	3.262	11.9	20.9	2 5	6 8.97	+23 35.4	1.938	2.734	14.5	22.9
<b>474598</b>	2004 <i>RL</i> <sub>42</sub>		12 31.3 104°83	8°2/ 2.4 18			<b>51911</b>						

EPHEMERIDES

12 31.3

12 31.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>399796</b>	2005 QV <sub>107</sub>	12 31.3	98°46	0°3/31.3	18		<b>271600</b>	2004 OX <sub>5</sub>	12 31.3	117°62	2°0/30.9	18	
11 27	7 10.33	+23 48.2	2.003	2.821	13.3	21.5	11 27	7 15.08	+26 21.7	1.851	2.667	14.3	21.2
12 7	7 4.53	+23 50.5	1.932	2.830	9.9	21.3	12 7	7 8.28	+27 2.2	1.788	2.684	10.7	21.0
12 17	6 56.44	+23 53.7	1.885	2.838	6.1	21.1	12 17	6 58.83	+27 42.7	1.750	2.701	6.6	20.8
12 27	6 46.87	+23 55.6	1.865	2.846	1.9	20.9	12 27	6 47.64	+28 18.5	1.740	2.718	2.7	20.6
1 6	6 36.90	+23 54.8	1.876	2.854	2.5	20.9	1 6	6 35.99	+28 45.8	1.759	2.734	3.4	20.6
1 16	6 27.65	+23 50.7	1.916	2.862	6.6	21.2	1 16	6 25.22	+29 2.9	1.808	2.749	7.4	20.9
1 26	6 20.16	+23 43.9	1.983	2.870	10.3	21.4	1 26	6 16.53	+29 10.5	1.884	2.764	11.1	21.2
2 5	6 15.07	+23 35.5	2.074	2.877	13.4	21.7	2 5	6 10.64	+29 10.9	1.984	2.778	14.3	21.4
<b>108835</b>	2001 OW <sub>84</sub>	12 31.3	92°73	2°9/31.1	18		<b>163675</b>	2002 XC <sub>31</sub>	12 31.3	81°42	2°3/30.8	17	
11 27	7 16.57	+29 51.4	1.571	2.395	16.1	19.3	11 27	7 8.87	+29 22.8	2.390	3.204	11.6	20.0
12 7	7 9.73	+30 7.8	1.513	2.412	12.1	19.1	12 7	7 3.24	+29 52.4	2.322	3.216	8.7	19.9
12 17	6 59.80	+30 19.6	1.477	2.428	7.7	18.9	12 17	6 55.58	+30 19.6	2.279	3.228	5.5	19.7
12 27	6 47.91	+30 22.1	1.468	2.444	3.6	18.7	12 27	6 46.63	+30 41.2	2.265	3.240	2.7	19.5
1 6	6 35.62	+30 12.6	1.487	2.460	4.2	18.8	1 6	6 37.31	+30 54.7	2.281	3.252	3.2	19.6
1 16	6 24.55	+29 51.4	1.534	2.476	8.3	19.1	1 16	6 28.61	+30 59.3	2.327	3.264	6.2	19.8
1 26	6 16.01	+29 21.7	1.607	2.491	12.4	19.4	1 26	6 21.44	+30 55.9	2.400	3.276	9.2	20.0
2 5	6 10.74	+28 47.7	1.702	2.507	15.9	19.6	2 5	6 16.40	+30 46.3	2.498	3.288	11.8	20.2
<b>179803</b>	2002 TR <sub>54</sub>	12 31.3	119°83	1°1/31.1	18		<b>282012</b>	2011 HF <sub>66</sub>	12 31.3	219°25	3°8/30.4	18	
11 27	7 15.82	+24 30.0	1.750	2.567	15.0	20.8	11 27	7 9.72	+33 52.6	2.474	3.283	11.4	21.0
12 7	7 8.88	+24 59.0	1.688	2.585	11.2	20.6	12 7	7 4.05	+34 33.3	2.394	3.281	8.8	20.8
12 17	6 59.19	+25 29.2	1.650	2.603	6.8	20.4	12 17	6 56.19	+35 9.4	2.338	3.278	6.0	20.6
12 27	6 47.73	+25 56.6	1.639	2.619	2.3	20.1	12 27	6 46.86	+35 36.8	2.311	3.276	4.0	20.5
1 6	6 35.82	+26 17.8	1.658	2.635	3.0	20.2	1 6	6 37.01	+35 52.3	2.314	3.274	4.4	20.5
1 16	6 24.87	+26 31.2	1.707	2.651	7.5	20.5	1 16	6 27.69	+35 55.0	2.346	3.271	6.9	20.6
1 26	6 16.09	+26 37.5	1.782	2.665	11.4	20.8	1 26	6 19.91	+35 45.8	2.405	3.269	9.7	20.8
2 5	6 10.22	+26 38.5	1.881	2.679	14.8	21.0	2 5	6 14.36	+35 27.7	2.489	3.266	12.2	21.0
<b>495068</b>	2011 FF <sub>76</sub>	12 31.3	237°91	2°3/30.8	18		<b>386063</b>	2007 GK <sub>37</sub>	12 31.3	291°58	1°5/31.5	18	
11 27	7 8.85	+29 33.5	2.475	3.287	11.3	22.2	11 27	7 10.17	+18 57.0	1.509	2.339	16.3	21.0
12 7	7 3.30	+29 58.2	2.388	3.281	8.5	22.1	12 7	7 5.41	+19 0.1	1.418	2.321	12.5	20.7
12 17	6 55.68	+30 20.7	2.326	3.275	5.4	21.9	12 17	6 57.56	+19 10.6	1.349	2.303	7.9	20.4
12 27	6 46.67	+30 37.8	2.294	3.269	2.7	21.7	12 27	6 47.39	+19 27.0	1.306	2.285	2.9	20.1
1 6	6 37.16	+30 47.2	2.291	3.262	3.2	21.7	1 6	6 36.22	+19 46.9	1.289	2.267	3.4	20.1
1 16	6 28.15	+30 47.8	2.318	3.256	6.2	21.9	1 16	6 25.60	+20 8.1	1.300	2.250	8.6	20.3
1 26	6 20.56	+30 40.5	2.374	3.249	9.3	22.1	1 26	6 17.05	+20 29.4	1.336	2.232	13.5	20.6
2 5	6 15.09	+30 27.1	2.454	3.242	12.0	22.2	2 5	6 11.63	+20 50.1	1.393	2.215	17.8	20.8
<b>16836</b>	1997 WG <sub>36</sub>	12 31.3	304°12	1°2/31.2	18		<b>80325</b>	1999 XT <sub>89</sub>	12 31.3	325°92	1°0/31.5	18	
11 27	7 10.68	+25 2.7	1.485	2.321	16.2	18.4	11 27	7 8.72	+18 48.8	1.263	2.106	18.1	19.1
12 7	7 5.90	+25 15.7	1.398	2.305	12.3	18.1	12 7	7 4.76	+19 14.6	1.185	2.095	13.8	18.8
12 17	6 57.87	+25 30.2	1.333	2.289	7.6	17.8	12 17	6 57.34	+19 51.6	1.127	2.083	8.6	18.4
12 27	6 47.46	+25 42.5	1.293	2.274	2.6	17.4	12 27	6 47.36	+20 36.8	1.092	2.073	2.9	18.1
1 6	6 36.07	+25 49.2	1.281	2.259	3.4	17.4	1 6	6 36.30	+21 25.7	1.084	2.063	3.5	18.1
1 16	6 25.36	+25 48.8	1.295	2.244	8.7	17.7	1 16	6 25.95	+22 13.4	1.101	2.054	9.3	18.4
1 26	6 16.92	+25 42.1	1.333	2.229	13.6	18.0	1 26	6 18.04	+22 57.1	1.142	2.045	14.7	18.7
2 5	6 11.78	+25 31.2	1.393	2.215	17.8	18.2	2 5	6 13.69	+23 35.4	1.202	2.037	19.3	18.9
<b>514636</b>	2004 TA <sub>281</sub>	12 31.3	93°30	0°1/31.3	18		<b>146663</b>	2001 UD <sub>137</sub>	12 31.3	61°84	0°7/31.2	17	
11 27	7 13.33	+21 46.2	1.707	2.527	15.2	21.4	11 27	7 10.55	+24 53.3	1.838	2.662	14.1	20.3
12 7	7 6.97	+21 59.4	1.648	2.547	11.3	21.2	12 7	7 4.91	+24 56.0	1.769	2.670	10.5	20.0
12 17	6 58.00	+22 16.1	1.612	2.566	6.9	21.0	12 17	6 56.79	+24 58.7	1.723	2.677	6.4	19.8
12 27	6 47.36	+22 33.4	1.604	2.584	2.1	20.7	12 27	6 47.04	+24 59.1	1.705	2.685	2.1	19.5
1 6	6 36.35	+22 48.7	1.624	2.603	2.7	20.8	1 6	6 36.86	+24 55.5	1.715	2.693	2.7	19.6
1 16	6 26.29	+23 0.8	1.674	2.621	7.3	21.1	1 16	6 27.49	+24 47.4	1.754	2.701	7.0	19.9
1 26	6 18.33	+23 9.6	1.750	2.639	11.3	21.4	1 26	6 20.03	+24 35.8	1.820	2.709	10.9	20.1
2 5	6 13.16	+23 15.8	1.849	2.656	14.7	21.7	2 5	6 15.18	+24 22.4	1.909	2.717	14.2	20.4
<b>280432</b>	2003 YF <sub>106</sub>	12 31.3	228°46	1°5/31.2	18		<b>94931</b>	2001 YO <sub>72</sub>	12 31.3	279°25	1°7/31.1	18	
11 27	7 13.14	+28 1.7	2.001	2.817	13.4	20.3	11 27	7 11.83	+25 57.2	1.642	2.470	15.3	19.5
12 7	7 6.81	+27 53.3	1.915	2.811	10.1	20.1	12 7	7 6.52	+26 19.8	1.554	2.457	11.6	19.2
12 17	6 57.95	+27 41.4	1.853	2.805	6.3	19.9	12 17	6 58.16	+26 43.6	1.489	2.443	7.2	18.9
12 27	6 47.38	+27 23.5	1.819	2.798	2.4	19.6	12 27	6 47.57	+27 4.2	1.450	2.429	2.7	18.6
1 6	6 36.27	+26 58.3	1.815	2.792	2.9	19.6	1 6	6 36.08	+27 18.0	1.439	2.415	3.5	18.6
1 16	6 25.89	+26 26.3	1.841	2.785	7.0	19.9	1 16	6 25.22	+27 23.0	1.455	2.401	8.3	18.9
1 26	6 17.38	+25 49.8	1.894	2.778	10.9	20.1	1 26	6 16.47	+27 20.0	1.498	2.388	12.8	19.1
2 5	6 11.49	+25 11.7	1.971	2.771	14.2	20.3	2 5	6 10.82	+27 11.3	1.562	2.374	16.7	19.3
<b>280710</b>	2005 GH <sub>80</sub>	12 31.3	290°71	1°5/30.9	18		<b>6648</b>	1991 PM <sub>11</sub>	12 31.3	69°45	2°3/31.1	18	
11 27	7 7.57	+26 5.0	2.318	3.135	11.8	20.9	11 27	7 15.83	+28 27.0	1.571	2.396	16.0	16.7
12 7	7 2.56	+26 37.0	2.220	3.117	8.9	20.7	12 7	7 9.00	+28 42.3	1.522	2.422	12.0	16.6
12 17	6 55.37	+27 10.2	2.147	3.100	5.5	20.5	12 17	6 59.26	+28 54.2	1.496	2.449	7.4	16.4
12 27	6 46.62	+27 41.3	2.103	3.082	2.2	20.2	12 27	6 47.77	+28 58.6	1.497	2.475	3.1	16.2
1 6	6 37.21	+28 7.5	2.089	3.064	2.8	20.2	1 6	6 36.03	+28 53.0	1.526	2.501	3.7	16.3
1 16	6 28.18	+28 26.9	2.104	3.047	6.4	20.4	1 16	6 25.56	+28 37.7	1.584	2.527	7.9	16.6
1 26	6 20.54	+28 39.0	2.148	3.029	9.9	20.6	1 26	6 17.57	+28 15.5	1.667	2.553	11.9	16.9
2 5	6 15.07	+28 44.9	2.215	3.011	12.9	20.8	2 5	6 12.70	+27 49.5	1.772	2.579	15.3	17.1
<b>9001</b>	Slettebak	12 31.3	111°14	3°6/ 1.1	18		<b>28485</b>	Dastidar	12 31.3	226°52	3°3/31.8	18	
11 27	7 13.79	+12 38.7	1.711	2.514	15.9	18.3	11 27	7 11.59					

EPHEMERIDES

12 31.3

12 31.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>191583</b>	2003 YF <sub>105</sub>	12 31.3	65°66	1.6/31.8	18		<b>447505</b>	2006 SH <sub>16</sub>	12 31.3	106°21	2.8/31.7	18	
11 27	7 8.84	+16 30.1	2.132	2.940	13.0	19.5	11 27	7 9.45	+15 43.3	1.905	2.716	14.2	21.0
12 7	7 3.13	+16 50.8	2.078	2.968	9.7	19.4	12 7	7 3.96	+15 24.2	1.831	2.722	10.8	20.8
12 17	6 55.47	+17 18.4	2.048	2.996	6.1	19.2	12 17	6 56.18	+15 12.1	1.782	2.728	7.1	20.6
12 27	6 46.62	+17 51.2	2.047	3.024	2.5	19.0	12 27	6 46.92	+15 7.1	1.759	2.733	3.5	20.3
1 6	6 37.52	+18 26.6	2.076	3.052	2.6	19.1	1 6	6 37.21	+15 8.6	1.765	2.739	3.7	20.4
1 16	6 29.12	+19 2.7	2.134	3.080	6.1	19.4	1 16	6 28.18	+15 16.0	1.801	2.744	7.2	20.6
1 26	6 22.28	+19 37.6	2.221	3.108	9.4	19.6	1 26	6 20.84	+15 28.1	1.863	2.749	10.9	20.8
2 5	6 17.56	+20 10.5	2.333	3.135	12.2	19.9	2 5	6 15.88	+15 43.7	1.948	2.754	14.1	21.0
<b>108043</b>	2001 FQ <sub>155</sub>	12 31.3	205°60	2.0/31.8	18		<b>142859</b>	2002 VB <sub>28</sub>	12 31.3	7°37	0.5/31.2	18	
11 27	7 9.66	+16 0.1	2.397	3.196	12.0	20.4	11 27	7 9.57	+22 56.0	1.735	2.563	14.7	19.6
12 7	7 3.81	+16 0.6	2.306	3.191	9.2	20.2	12 7	7 4.47	+23 19.1	1.660	2.563	11.0	19.3
12 17	6 55.99	+16 7.3	2.240	3.185	5.9	20.0	12 17	6 56.71	+23 45.6	1.608	2.563	6.7	19.1
12 27	6 46.83	+16 19.4	2.203	3.178	2.7	19.8	12 27	6 47.12	+24 12.4	1.583	2.564	2.1	18.8
1 6	6 37.16	+16 35.9	2.196	3.170	2.9	19.8	1 6	6 36.92	+24 36.4	1.586	2.565	2.8	18.8
1 16	6 27.93	+16 55.6	2.220	3.162	6.1	20.0	1 16	6 27.42	+24 55.4	1.618	2.566	7.4	19.1
1 26	6 20.01	+17 17.2	2.273	3.153	9.4	20.2	1 26	6 19.84	+25 9.1	1.675	2.567	11.6	19.4
2 5	6 14.08	+17 39.9	2.351	3.144	12.4	20.4	2 5	6 15.00	+25 18.3	1.756	2.568	15.1	19.6
<b>516459</b>	2005 LP <sub>7</sub>	12 31.3	175°27	1.4/30.9	18		<b>416720</b>	2005 CC <sub>50</sub>	12 31.3	357°30	8.3/3.2	18	
11 27	7 11.35	+26 18.3	2.618	3.423	10.9	22.4	11 27	7 4.70	- 1 1.3	1.872	2.639	16.0	20.3
12 7	7 4.98	+26 46.7	2.535	3.426	8.2	22.3	12 7	7 0.51	- 1 8.5	1.795	2.637	13.5	20.2
12 17	6 56.65	+27 14.9	2.479	3.429	5.1	22.1	12 17	6 54.15	- 0 53.5	1.738	2.635	10.9	20.0
12 27	6 47.02	+27 40.0	2.452	3.430	2.0	21.9	12 27	6 46.32	- 0 13.7	1.706	2.634	8.8	19.9
1 6	6 36.94	+27 59.6	2.457	3.432	2.5	21.9	1 6	6 37.96	+ 0 50.4	1.699	2.633	8.3	19.8
1 16	6 27.35	+28 12.6	2.492	3.432	5.7	22.1	1 16	6 30.11	+ 2 15.3	1.719	2.633	9.8	19.9
1 26	6 19.13	+28 19.0	2.557	3.432	8.8	22.3	1 26	6 23.76	+ 3 55.1	1.766	2.634	12.4	20.1
2 5	6 12.91	+28 20.2	2.648	3.431	11.4	22.5	2 5	6 19.62	+ 5 42.8	1.835	2.635	15.1	20.3
<b>260980</b>	2005 SC <sub>62</sub>	12 31.3	207°93	0.3/31.3	17		<b>264827</b>	2002 PV <sub>178</sub>	12 31.3	248°01	0.5/31.4	18	
11 27	7 9.36	+23 7.2	2.053	2.872	13.0	21.7	11 27	7 8.75	+22 15.9	2.544	3.352	11.1	20.5
12 7	7 3.92	+23 19.5	1.973	2.871	9.8	21.5	12 7	7 3.10	+22 1.2	2.447	3.340	8.4	20.3
12 17	6 56.18	+23 33.8	1.917	2.870	6.0	21.3	12 17	6 55.55	+21 47.0	2.376	3.327	5.2	20.1
12 27	6 46.90	+23 47.8	1.888	2.869	1.8	21.0	12 27	6 46.73	+21 32.6	2.333	3.313	1.7	19.9
1 6	6 37.10	+23 59.5	1.889	2.868	2.5	21.0	1 6	6 37.44	+21 17.5	2.321	3.299	2.1	19.9
1 16	6 27.89	+24 7.7	1.920	2.866	6.6	21.3	1 16	6 28.58	+21 1.7	2.341	3.285	5.7	20.1
1 26	6 20.32	+24 12.2	1.978	2.865	10.3	21.5	1 26	6 21.01	+20 45.7	2.389	3.271	9.0	20.3
2 5	6 15.11	+24 14.0	2.060	2.864	13.5	21.7	2 5	6 15.36	+20 30.4	2.462	3.257	11.8	20.4
<b>67516</b>	2000 RM <sub>65</sub>	12 31.3	90°98	3.3/31.9	18		<b>355982</b>	2009 AW <sub>42</sub>	12 31.3	101°41	3.4/1.4	18	
11 27	7 15.29	+14 14.2	1.416	2.233	17.9	20.3	11 27	7 11.07	+11 12.4	1.870	2.669	14.9	21.3
12 7	7 8.71	+14 15.9	1.364	2.257	13.6	20.1	12 7	7 5.14	+11 39.0	1.804	2.686	11.5	21.1
12 17	6 59.19	+14 29.6	1.333	2.280	8.8	19.9	12 17	6 56.89	+12 18.9	1.762	2.702	7.7	20.9
12 27	6 47.81	+14 54.2	1.329	2.303	4.3	19.7	12 27	6 47.14	+13 10.6	1.748	2.718	4.2	20.8
1 6	6 36.07	+15 26.8	1.351	2.326	4.3	19.8	1 6	6 36.95	+14 10.9	1.762	2.734	4.0	20.8
1 16	6 25.47	+16 4.4	1.402	2.348	8.6	20.1	1 16	6 27.46	+15 15.9	1.807	2.749	7.2	21.0
1 26	6 17.29	+16 44.1	1.478	2.369	12.9	20.4	1 26	6 19.71	+16 21.8	1.879	2.764	10.8	21.3
2 5	6 12.25	+17 23.6	1.576	2.390	16.5	20.7	2 5	6 14.39	+17 25.7	1.975	2.779	14.0	21.5
<b>346294</b>	2008 PH <sub>6</sub>	12 31.3	173°43	0.6/31.4	18		<b>322069</b>	2010 VR <sub>101</sub>	12 31.3	270°66	1.8/31.5	18	
11 27	7 13.19	+20 41.8	1.948	2.760	13.9	22.6	11 27	7 12.46	+19 21.7	1.397	2.229	17.3	21.0
12 7	7 6.82	+20 49.0	1.869	2.763	10.5	22.4	12 7	7 7.22	+19 11.0	1.317	2.220	13.2	20.7
12 17	6 57.98	+21 0.1	1.814	2.766	6.4	22.2	12 17	6 58.70	+19 6.2	1.257	2.211	8.3	20.4
12 27	6 47.47	+21 12.9	1.788	2.768	2.1	21.9	12 27	6 47.81	+19 6.3	1.223	2.202	3.1	20.1
1 6	6 36.42	+21 25.4	1.791	2.769	2.6	22.0	1 6	6 36.01	+19 9.7	1.215	2.193	3.6	20.1
1 16	6 26.04	+21 36.4	1.824	2.769	6.9	22.2	1 16	6 24.98	+19 15.1	1.234	2.184	9.0	20.4
1 26	6 17.46	+21 45.6	1.884	2.769	10.8	22.5	1 26	6 16.30	+19 22.2	1.278	2.175	14.0	20.6
2 5	6 11.42	+21 53.3	1.969	2.769	14.2	22.7	2 5	6 10.97	+19 30.9	1.342	2.165	18.3	20.9
<b>36398</b>	2000 OQ <sub>45</sub>	12 31.3	264°77	2.1/31.3	18		<b>128893</b>	2004 TK	12 31.3	171°31	1.4/31.1	18	
11 27	7 14.92	+29 16.0	1.643	2.466	15.5	18.8	11 27	7 13.75	+25 58.4	1.993	2.807	13.5	20.6
12 7	7 8.69	+29 5.5	1.561	2.460	11.8	18.5	12 7	7 7.29	+26 22.1	1.915	2.810	10.2	20.4
12 17	6 59.36	+28 49.7	1.502	2.454	7.4	18.3	12 17	6 58.30	+26 45.9	1.862	2.813	6.3	20.2
12 27	6 47.94	+28 25.3	1.470	2.448	3.0	18.0	12 27	6 47.60	+27 6.2	1.837	2.816	2.3	19.9
1 6	6 35.85	+27 50.7	1.466	2.442	3.6	18.0	1 6	6 36.33	+27 20.0	1.841	2.817	3.0	20.0
1 16	6 24.69	+27 7.0	1.491	2.436	8.2	18.3	1 16	6 25.76	+27 26.0	1.876	2.818	7.0	20.2
1 26	6 15.86	+26 18.1	1.541	2.430	12.6	18.5	1 26	6 17.05	+27 25.1	1.938	2.819	10.8	20.5
2 5	6 10.21	+25 28.0	1.614	2.424	16.4	18.7	2 5	6 10.95	+27 19.0	2.024	2.819	14.0	20.7
<b>442372</b>	2011 SF <sub>273</sub>	12 31.3	148°88	1.9/31.8	18		<b>194122</b>	2001 SU <sub>262</sub>	12 31.3	188°94	6.6/31.2	18	
11 27	7 10.89	+15 59.4	2.144	2.947	13.1	21.6	11 27	7 14.34	+ 8 49.9	1.960	2.743	14.9	19.9
12 7	7 4.83	+16 12.0	2.069	2.956	9.9	21.4	12 7	7 7.50	+ 7 21.9	1.878	2.742	12.0	19.7
12 17	6 56.64	+16 32.0	2.018	2.964	6.3	21.2	12 17	6 58.32	+ 6 2.1	1.821	2.741	9.0	19.5
12 27	6 47.05	+16 58.1	1.996	2.972	2.8	21.0	12 27	6 47.59	+ 4 54.7	1.792	2.739	6.8	19.4
1 6	6 37.02	+17 28.2	2.004	2.979	2.9	21.0	1 6	6 36.36	+ 4 3.2	1.792	2.737	7.0	19.4
1 16	6 27.58	+18 0.4	2.042	2.986	6.4	21.2	1 16	6 25.79	+ 3 29.4	1.821	2.734	9.4	19.5
1 26	6 19.68	+18 32.9	2.109	2.992	9.9	21.4	1 26	6 16.92	+ 3 13.0	1.877	2.730	12.5	19.7
2 5	6 13.99	+19 4.7	2.200	2.998	13.0	21.7	2 5	6 10.47	+ 3 11.6	1.956	2.726	15.3	19.9
<b>333312</b>	2001 MR <sub>18</sub>	12 31.3	83°48	0.4/31.3	18		<b>22806</b>	1999 RZ <sub>3</sub>	12 31.3	117°58	1.8/31.6	18	
11 27	7 19.42	+24 49.4	1.629	2.444	16.0	20.7	11 27	7 14.71					

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12 31.3

12 31.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>401092</b>	2011 <i>UM</i> <sub>156</sub>		12 31.3 165°11	3°0/30.5	18		<b>21887</b>	Dipippo		12 31.3 327°73	4°9/ 1.0	18	
11 27	7 13.67	+30 12.4	2.413	3.218	11.8	21.9	11 27	7 6.37	+10 9.0	2.013	2.814	13.9	18.1
12 7	7 7.00	+31 8.2	2.336	3.224	8.9	21.7	12 7	7 1.63	+9 33.0	1.931	2.809	11.0	17.9
12 17	6 58.05	+32 2.1	2.284	3.229	5.8	21.5	12 17	6 54.80	+9 7.1	1.873	2.805	7.9	17.7
12 27	6 47.53	+32 49.4	2.263	3.234	3.3	21.3	12 27	6 46.56	+8 53.3	1.840	2.800	5.4	17.5
1 6	6 36.45	+33 26.1	2.272	3.238	3.9	21.4	1 6	6 37.82	+8 52.0	1.836	2.796	5.4	17.5
1 16	6 25.91	+33 50.5	2.312	3.241	6.7	21.6	1 16	6 29.60	+9 2.9	1.860	2.792	7.9	17.6
1 26	6 16.95	+34 2.9	2.380	3.244	9.8	21.8	1 26	6 22.84	+9 24.2	1.910	2.788	11.1	17.8
2 5	6 10.31	+34 5.7	2.472	3.246	12.4	22.0	2 5	6 18.24	+9 53.2	1.983	2.785	14.0	18.0
<b>311807</b>	2006 <i>UL</i> <sub>179</sub>		12 31.3 16°25	9°5/ 2.0	18		<b>357081</b>	2001 <i>SG</i> <sub>37</sub>		12 31.3 24°41	23°5/ 7.9	17	
11 27	7 5.14	+2 49.1	1.401	2.204	18.8	20.3	11 27	7 7.43	-17 50.7	0.980	1.720	29.1	20.0
12 7	7 1.29	+1 47.2	1.343	2.211	15.6	20.1	12 7	7 3.97	-20 16.0	0.943	1.724	27.2	19.9
12 17	6 54.79	+1 7.0	1.304	2.218	12.4	19.9	12 17	6 56.88	-21 52.2	0.917	1.730	25.4	19.8
12 27	6 46.54	+0 53.2	1.288	2.226	10.0	19.8	12 27	6 47.29	-22 25.5	0.904	1.737	24.1	19.7
1 6	6 37.79	+1 7.3	1.296	2.236	9.7	19.8	1 6	6 36.94	-21 49.2	0.904	1.744	23.5	19.7
1 16	6 29.86	+1 47.4	1.328	2.246	11.7	20.0	1 16	6 27.71	-20 6.2	0.919	1.752	23.8	19.8
1 26	6 23.94	+2 47.9	1.382	2.258	14.6	20.2	1 26	6 21.28	-17 28.7	0.949	1.762	24.8	19.9
2 5	6 20.76	+4 1.5	1.457	2.270	17.6	20.4	2 5	6 18.61	-14 15.2	0.993	1.772	26.3	20.0
<b>81914</b>	2000 <i>NJ</i> <sub>11</sub>		12 31.3 75°52	2°2/31.9	18		<b>454741</b>	2014 <i>UB</i> <sub>106</sub>		12 31.3 273°57	3°5/31.7	18	
11 27	7 5.78	+15 21.2	2.444	3.248	11.6	19.6	11 27	7 7.20	+13 44.1	2.281	3.083	12.4	20.9
12 7	7 0.81	+15 22.0	2.370	3.257	8.8	19.4	12 7	7 2.01	+13 7.2	2.198	3.081	9.6	20.7
12 17	6 54.11	+15 29.4	2.321	3.266	5.7	19.3	12 17	6 54.92	+12 36.6	2.139	3.078	6.6	20.5
12 27	6 46.28	+15 42.7	2.300	3.274	2.8	19.1	12 27	6 46.58	+12 13.3	2.108	3.076	3.9	20.3
1 6	6 38.12	+16 0.9	2.309	3.283	2.8	19.1	1 6	6 37.84	+11 58.0	2.107	3.074	4.0	20.3
1 16	6 30.46	+16 22.7	2.348	3.292	5.8	19.3	1 16	6 29.60	+11 50.7	2.135	3.071	6.8	20.5
1 26	6 24.06	+16 46.8	2.416	3.300	8.8	19.5	1 26	6 22.71	+11 50.8	2.191	3.069	9.8	20.7
2 5	6 19.47	+17 11.9	2.508	3.309	11.5	19.7	2 5	6 17.78	+11 57.3	2.271	3.067	12.6	20.9
<b>385405</b>	2002 <i>XA</i> <sub>7</sub>		12 31.3 356°32	3°9/31.7	18		<b>305068</b>	2007 <i>UY</i> <sub>99</sub>		12 31.3 105°04	1°6/31.6	18	
11 27	7 7.15	+16 44.1	1.113	1.963	19.5	19.9	11 27	7 12.48	+18 30.1	2.017	2.825	13.6	21.7
12 7	7 3.64	+16 8.4	1.047	1.958	15.0	19.6	12 7	7 5.97	+18 21.3	1.956	2.846	10.2	21.5
12 17	6 56.65	+15 42.0	1.000	1.955	9.8	19.3	12 17	6 57.30	+18 17.1	1.919	2.867	6.4	21.3
12 27	6 47.20	+15 26.3	0.976	1.953	4.8	19.0	12 27	6 47.29	+18 16.6	1.910	2.888	2.5	21.1
1 6	6 36.93	+15 21.5	0.976	1.952	5.1	19.0	1 6	6 37.00	+18 18.8	1.932	2.908	2.8	21.1
1 16	6 27.67	+15 26.8	1.000	1.952	10.2	19.3	1 16	6 27.52	+18 22.9	1.983	2.928	6.5	21.4
1 26	6 21.04	+15 40.7	1.046	1.953	15.4	19.6	1 26	6 19.79	+18 28.5	2.063	2.947	10.1	21.7
2 5	6 18.00	+16 0.5	1.111	1.956	19.8	19.9	2 5	6 14.40	+18 35.4	2.166	2.965	13.1	21.9
<b>350876</b>	2002 <i>PV</i> <sub>184</sub>		12 31.3 68°28	4°0/ 1.2	18		<b>419318</b>	2009 <i>WM</i> <sub>87</sub>		12 31.3 49°89	0°2/31.3	17	
11 27	7 9.15	+11 58.5	1.703	2.514	15.6	20.7	11 27	7 9.14	+24 10.1	2.071	2.890	12.9	21.2
12 7	7 3.92	+11 52.5	1.637	2.524	12.1	20.5	12 7	7 3.66	+24 3.0	1.998	2.896	9.6	21.0
12 17	6 56.25	+11 58.8	1.594	2.535	8.2	20.3	12 17	6 55.99	+23 56.1	1.949	2.902	5.9	20.8
12 27	6 46.98	+12 17.4	1.576	2.546	4.7	20.1	12 27	6 46.91	+23 47.7	1.928	2.909	1.8	20.6
1 6	6 37.25	+12 46.7	1.587	2.556	4.6	20.1	1 6	6 37.46	+23 36.8	1.937	2.915	2.4	20.6
1 16	6 28.27	+13 24.4	1.625	2.567	7.9	20.4	1 16	6 28.69	+23 23.4	1.975	2.922	6.4	20.9
1 26	6 21.12	+14 7.5	1.690	2.578	11.7	20.6	1 26	6 21.58	+23 8.4	2.040	2.929	10.0	21.1
2 5	6 16.53	+14 52.8	1.777	2.589	15.0	20.8	2 5	6 16.78	+22 52.8	2.130	2.936	13.0	21.3
<b>37705</b>	1996 <i>GD</i> <sub>20</sub>		12 31.3 201°08	3°3/31.8	18		<b>242825</b>	2006 <i>CA</i> <sub>57</sub>		12 31.4 243°81	2°5/31.9	18	
11 27	7 13.19	+15 16.3	1.578	2.394	16.4	19.4	11 27	7 6.82	+14 54.9	2.299	3.104	12.3	21.2
12 7	7 7.32	+15 2.1	1.499	2.391	12.7	19.1	12 7	7 1.79	+14 51.0	2.213	3.100	9.4	21.0
12 17	6 58.55	+14 57.1	1.442	2.389	8.3	18.9	12 17	6 54.83	+14 54.2	2.151	3.095	6.2	20.8
12 27	6 47.75	+15 1.3	1.411	2.385	4.1	18.6	12 27	6 46.57	+15 4.3	2.117	3.091	3.1	20.6
1 6	6 36.22	+15 13.6	1.408	2.382	4.3	18.6	1 6	6 37.85	+15 20.2	2.113	3.086	3.2	20.6
1 16	6 25.42	+15 32.4	1.433	2.377	8.5	18.8	1 16	6 29.57	+15 40.9	2.139	3.082	6.3	20.8
1 26	6 16.70	+15 56.1	1.484	2.373	12.9	19.1	1 26	6 22.62	+16 4.9	2.192	3.077	9.6	21.0
2 5	6 10.94	+16 22.9	1.556	2.368	16.8	19.3	2 5	6 17.62	+16 30.7	2.270	3.072	12.5	21.2
<b>142893</b>	2002 <i>VA</i> <sub>46</sub>		12 31.3 44°74	0°3/31.4	17		<b>400052</b>	2006 <i>SQ</i> <sub>42</sub>		12 31.4 77°39	2°9/30.9	18	
11 27	7 10.88	+21 55.2	1.476	2.309	16.4	20.3	11 27	7 12.90	+29 21.6	1.819	2.640	14.3	20.7
12 7	7 5.49	+21 58.2	1.423	2.329	12.3	20.1	12 7	7 6.80	+29 57.9	1.759	2.657	10.8	20.5
12 17	6 57.27	+22 4.7	1.393	2.348	7.5	19.9	12 17	6 58.04	+30 31.4	1.723	2.673	6.9	20.3
12 27	6 47.29	+22 12.5	1.388	2.369	2.3	19.6	12 27	6 47.56	+30 57.5	1.714	2.689	3.4	20.1
1 6	6 36.96	+22 19.2	1.411	2.390	2.9	19.7	1 6	6 36.65	+31 12.6	1.734	2.705	4.0	20.2
1 16	6 27.70	+22 24.0	1.461	2.411	7.8	20.1	1 16	6 26.65	+31 15.8	1.782	2.722	7.6	20.5
1 26	6 20.73	+22 26.7	1.536	2.432	12.1	20.4	1 26	6 18.74	+31 8.6	1.857	2.738	11.2	20.7
2 5	6 16.73	+22 28.2	1.633	2.454	15.7	20.7	2 5	6 13.64	+30 54.2	1.955	2.753	14.3	21.0
<b>185240</b>	2006 <i>UF</i> <sub>12</sub>		12 31.3 347°56	3°9/30.5	17		<b>228676</b>	2002 <i>JK</i> <sub>91</sub>		12 31.4 114°62	3°0/30.6	17	
11 27	7 8.80	+29 18.5	1.489	2.328	16.0	20.2	11 27	7 10.62	+30 43.2	2.319	3.131	11.9	20.4
12 7	7 4.59	+30 15.8	1.414	2.321	12.2	19.9	12 7	7 4.76	+31 27.4	2.248	3.140	9.0	20.3
12 17	6 57.15	+31 13.1	1.362	2.315	8.0	19.7	12 17	6 56.69	+32 8.8	2.202	3.148	5.9	20.1
12 27	6 47.38	+32 3.5	1.335	2.309	4.3	19.4	12 27	6 47.15	+32 43.3	2.185	3.156	3.3	19.9
1 6	6 36.70	+32 41.1	1.334	2.305	5.2	19.5	1 6	6 37.14	+33 7.6	2.198	3.165	3.9	20.0
1 16	6 26.79	+33 2.6	1.360	2.301	9.3	19.7	1 16	6 27.74	+33 20.3	2.240	3.173	6.7	20.2
1 26	6 19.21	+33 8.7	1.410	2.298	13.6	19.9	1 26	6 19.95	+33 22.3	2.310	3.181	9.7	20.4
2 5	6 14.96	+33 2.8	1.480	2.296	17.3	20.2	2 5	6 14.45	+33 15.9	2.404	3.188	12.4	20.6
<b>107125</b>	2001 <i>AU</i> <sub>45</sub>		12 31.3 222°80	3°6/30.7	18		<b>265941</b>	2006 <i>BQ</i> <sub>195</sub>		12 31.4 105°35	2°0/31.1	17	
11 27	7 13.82	+31 39.1											

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>33878</b>	2000 <i>JW</i> <sub>61</sub>		12 31.4 146°71	1.2°/31.2	18		<b>469476</b>	2002 <i>RL</i> <sub>266</sub>		12 31.4 98°95	0°0'/31.2	16	
11 27	7 17.03	+24 28.0	1.642	2.460	15.8	19.3	11 27	7 16.76	+22 16.0	1.598	2.417	16.1	22.7
12 7	7 10.14	+24 57.0	1.573	2.471	11.8	19.1	12 7	7 9.67	+22 25.1	1.544	2.442	12.0	22.5
12 17	7 0.22	+25 28.0	1.528	2.480	7.3	18.8	12 17	6 59.76	+22 37.0	1.513	2.465	7.3	22.3
12 27	6 48.28	+25 56.3	1.509	2.489	2.4	18.5	12 27	6 48.11	+22 48.7	1.508	2.489	2.2	22.0
1 6	6 35.72	+26 18.1	1.520	2.497	3.2	18.6	1 6	6 36.13	+22 57.7	1.533	2.511	2.8	22.1
1 16	6 24.10	+26 31.5	1.560	2.505	8.0	18.9	1 16	6 25.28	+23 3.0	1.586	2.533	7.6	22.5
1 26	6 14.78	+26 37.2	1.627	2.511	12.3	19.2	1 26	6 16.76	+23 5.2	1.666	2.555	11.8	22.8
2 5	6 8.60	+26 37.4	1.715	2.517	15.9	19.4	2 5	6 11.27	+23 5.3	1.769	2.575	15.3	23.0
<b>516125</b>	2015 <i>UA</i> <sub>60</sub>		12 31.4 171°86	5°4'/1.5	18		<b>518071</b>	2015 <i>XK</i> <sub>399</sub>		12 31.4 319°67	4°4'/1.3	18	
11 27	7 7.76	+7 51.5	1.982	2.774	14.4	21.3	11 27	7 5.68	+9 35.4	2.265	3.059	12.8	21.5
12 7	7 2.68	+7 28.1	1.904	2.775	11.5	21.1	12 7	7 0.93	+9 18.1	2.183	3.057	10.1	21.3
12 17	6 55.45	+7 17.6	1.849	2.775	8.4	20.9	12 17	6 54.32	+9 11.1	2.124	3.055	7.2	21.1
12 27	6 46.78	+7 21.8	1.820	2.775	5.9	20.8	12 27	6 46.46	+9 15.6	2.093	3.053	4.8	20.9
1 6	6 37.63	+7 40.6	1.819	2.776	5.8	20.8	1 6	6 38.16	+9 31.3	2.090	3.051	4.7	20.9
1 16	6 29.01	+8 12.3	1.846	2.776	8.1	20.9	1 16	6 30.32	+9 57.0	2.116	3.049	7.0	21.1
1 26	6 21.92	+8 54.3	1.900	2.776	11.2	21.1	1 26	6 23.77	+10 30.5	2.170	3.047	10.0	21.2
2 5	6 17.02	+9 43.0	1.977	2.776	14.2	21.3	2 5	6 19.13	+11 9.4	2.247	3.046	12.7	21.4
<b>394168</b>	2006 <i>QT</i> <sub>96</sub>		12 31.4 174°47	1°0'/31.1	18		<b>280873</b>	2005 <i>VQ</i> <sub>28</sub>		12 31.4 354°67	3°7'/31.6	18	
11 27	7 11.87	+25 22.5	2.698	3.500	10.7	22.3	11 27	7 10.59	+16 20.3	1.403	2.232	17.4	20.3
12 7	7 5.33	+25 48.3	2.615	3.504	8.0	22.1	12 7	7 5.62	+15 41.6	1.331	2.231	13.4	20.0
12 17	6 56.90	+26 14.3	2.557	3.507	4.9	21.9	12 17	6 57.61	+15 10.2	1.280	2.229	8.8	19.8
12 27	6 47.21	+26 37.9	2.530	3.509	1.8	21.7	12 27	6 47.54	+14 47.5	1.254	2.229	4.5	19.5
1 6	6 37.09	+26 56.9	2.535	3.511	2.3	21.7	1 6	6 36.79	+14 33.9	1.255	2.228	4.7	19.5
1 16	6 27.44	+27 10.1	2.571	3.512	5.5	21.9	1 16	6 26.92	+14 29.5	1.282	2.228	9.1	19.8
1 26	6 19.12	+27 17.6	2.637	3.512	8.5	22.1	1 26	6 19.29	+14 33.4	1.333	2.228	13.7	20.1
2 5	6 12.74	+27 20.4	2.729	3.511	11.1	22.3	2 5	6 14.79	+14 44.1	1.405	2.229	17.6	20.3
<b>43253</b>	2000 <i>CY</i> <sub>18</sub>		12 31.4 356°69	1°1'/31.5	18		<b>77832</b>	2001 <i>QU</i> <sub>226</sub>		12 31.4 259°07	0°7'/31.3	18	
11 27	7 9.78	+19 32.0	1.791	2.612	14.5	19.4	11 27	7 8.43	+25 45.7	2.645	3.454	10.7	19.7
12 7	7 4.52	+19 38.8	1.714	2.612	11.0	19.1	12 7	7 2.92	+25 46.1	2.546	3.439	8.0	19.5
12 17	6 56.72	+19 51.1	1.659	2.612	6.8	18.9	12 17	6 55.52	+25 45.6	2.472	3.423	5.0	19.3
12 27	6 47.21	+20 7.3	1.632	2.612	2.4	18.6	12 27	6 46.84	+25 42.5	2.428	3.408	1.7	19.0
1 6	6 37.10	+20 25.1	1.634	2.612	2.8	18.6	1 6	6 37.67	+25 35.6	2.414	3.391	2.2	19.0
1 16	6 27.66	+20 43.0	1.664	2.612	7.2	18.9	1 16	6 28.90	+25 24.5	2.431	3.375	5.5	19.2
1 26	6 20.04	+20 59.9	1.720	2.612	11.3	19.2	1 26	6 21.39	+25 10.0	2.477	3.358	8.7	19.4
2 5	6 15.02	+21 15.6	1.800	2.612	14.8	19.4	2 5	6 15.77	+24 53.1	2.548	3.342	11.5	19.6
<b>488945</b>	2005 <i>UF</i> <sub>164</sub>		12 31.4 56°47	2°2'/31.1	16		<b>144524</b>	2004 <i>ER</i> <sub>79</sub>		12 31.4 356°50	8°4'/1.1	18	
11 27	7 15.04	+26 45.3	1.290	2.129	18.1	22.2	11 27	7 7.12	+4 59.4	1.639	2.436	16.8	19.2
12 7	7 9.04	+27 12.8	1.243	2.150	13.5	22.0	12 7	7 2.56	+3 45.9	1.568	2.434	13.8	19.0
12 17	6 59.63	+27 39.5	1.217	2.172	8.3	21.8	12 17	6 55.55	+2 47.7	1.517	2.432	10.8	18.8
12 27	6 48.07	+27 59.9	1.216	2.195	3.2	21.6	12 27	6 46.87	+2 9.5	1.491	2.431	8.7	18.7
1 6	6 36.13	+28 10.1	1.241	2.218	4.0	21.7	1 6	6 37.65	+1 54.1	1.490	2.430	8.7	18.7
1 16	6 25.58	+28 9.4	1.293	2.241	8.9	22.0	1 16	6 29.07	+2 1.6	1.515	2.430	10.8	18.8
1 26	6 17.85	+27 59.9	1.369	2.264	13.4	22.3	1 26	6 22.28	+2 29.1	1.564	2.431	13.8	19.0
2 5	6 13.66	+27 45.1	1.466	2.287	17.2	22.6	2 5	6 18.02	+3 11.7	1.634	2.432	16.7	19.2
<b>66126</b>	1998 <i>SX</i> <sub>112</sub>		12 31.4 109°96	6°9'/30.1	18		<b>251277</b>	2006 <i>WP</i> <sub>61</sub>		12 31.4 58°61	1°7'/31.6	18	
11 27	7 18.53	+40 51.6	2.029	2.823	14.0	19.0	11 27	7 10.48	+18 56.2	1.697	2.519	15.2	20.7
12 7	7 11.20	+41 59.2	1.972	2.841	11.3	18.8	12 7	7 4.90	+18 43.5	1.638	2.536	11.4	20.5
12 17	7 0.84	+42 55.7	1.940	2.858	8.6	18.7	12 17	6 56.84	+18 36.0	1.601	2.553	7.1	20.3
12 27	6 48.47	+43 33.6	1.934	2.874	7.0	18.6	12 27	6 47.22	+18 32.9	1.592	2.570	2.8	20.1
1 6	6 35.56	+43 48.4	1.956	2.890	7.4	18.7	1 6	6 37.27	+18 33.1	1.611	2.588	3.1	20.1
1 16	6 23.67	+43 39.8	2.006	2.906	9.5	18.9	1 16	6 28.21	+18 35.9	1.658	2.605	7.3	20.4
1 26	6 14.17	+43 11.6	2.082	2.921	12.0	19.0	1 26	6 21.12	+18 40.7	1.731	2.623	11.2	20.7
2 5	6 7.85	+42 30.0	2.180	2.936	14.4	19.2	2 5	6 16.65	+18 47.2	1.828	2.641	14.6	20.9
<b>13629</b>	1995 <i>WD</i> <sub>2</sub>		12 31.4 340°00	1°9'/31.5	18		<b>427289</b>	2014 <i>WD</i> <sub>238</sub>		12 31.4 330°79	1°7'/31.7	18	
11 27	7 7.67	+19 41.1	1.155	2.007	18.9	17.7	11 27	7 4.98	+17 17.4	1.736	2.564	14.6	20.8
12 7	7 4.16	+19 24.5	1.081	1.995	14.4	17.4	12 7	7 1.22	+17 30.8	1.642	2.543	11.2	20.5
12 17	6 57.10	+19 14.4	1.027	1.985	9.1	17.1	12 17	6 54.91	+17 53.1	1.570	2.523	7.1	20.2
12 27	6 47.44	+19 10.1	0.995	1.975	3.5	16.7	12 27	6 46.74	+18 23.3	1.525	2.503	2.9	19.9
1 6	6 36.79	+19 10.5	0.988	1.967	4.0	16.7	1 6	6 37.75	+18 59.0	1.507	2.484	3.1	19.9
1 16	6 27.03	+19 14.3	1.006	1.960	9.8	17.0	1 16	6 29.18	+19 37.5	1.516	2.467	7.5	20.1
1 26	6 19.87	+19 20.9	1.045	1.954	15.3	17.3	1 26	6 22.27	+20 16.4	1.552	2.450	11.9	20.3
2 5	6 16.39	+19 29.8	1.104	1.949	19.9	17.6	2 5	6 17.93	+20 53.9	1.610	2.434	15.7	20.5
<b>457496</b>	2008 <i>UQ</i> <sub>367</sub>		12 31.4 95°69	3°0'/30.5	17		<b>74093</b>	1998 <i>QU</i> <sub>6</sub>		12 31.4 151°17	10°9'/29.1	18	
11 27	7 9.84	+30 23.5	2.391	3.203	11.6	20.8	11 27	7 30.70	+53 10.6	2.124	2.865	15.2	19.0
12 7	7 4.14	+31 12.5	2.321	3.213	8.8	20.7	12 7	7 21.36	+54 49.1	2.069	2.877	13.3	18.8
12 17	6 56.30	+31 59.3	2.277	3.223	5.7	20.5	12 17	7 7.62	+56 8.6	2.037	2.887	11.7	18.8
12 27	6 47.06	+32 39.5	2.262	3.233	3.2	20.3	12 27	6 50.70	+56 58.3	2.029	2.897	10.9	18.7
1 6	6 37.36	+33 9.9	2.277	3.243	3.8	20.4	1 6	6 32.75	+57 11.6	2.047	2.906	11.3	18.8
1 16	6 28.24	+33 29.0	2.321	3.253	6.6	20.6	1 16	6 16.19	+56 48.8	2.090	2.914	12.5	18.9
1 26	6 20.65	+33 37.3	2.394	3.263	9.5	20.8	1 26	6 3.09	+55 56.2	2.155	2.921	14.2	19.0
2 5	6 15.26	+33 36.9	2.490	3.273	12.0	21.0	2 5	5 54.51	+54 43.9	2.241	2.927	15.9	19.1
<b>354421</b>	2003 <i>WR</i> <sub>53</sub>		12 31.4 358°76	1°7'/31.5	18		<b>16829</b>	1997 <i>WG</i> <sub>7</sub>		12 31.4 5°79	2°4'/31.3	18	
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>14449</b>	Myogizinzya		12 31.4	82°14	0°6/31.2	18	<b>523306</b>	2017 BC <sub>106</sub>		12 31.4	27°16	1°7/30.8	18
11 27	7 15.93	+22 26.5	1.424	2.251	17.3	18.4	11 27	7 11.10	+21 42.8	1.471	2.304	16.5	20.8
12 7	7 9.43	+23 2.6	1.372	2.275	12.8	18.2	12 7	7 6.16	+23 11.7	1.405	2.310	12.4	20.6
12 17	6 59.80	+23 43.0	1.343	2.298	7.8	18.0	12 17	6 58.09	+24 50.0	1.361	2.317	7.6	20.3
12 27	6 48.17	+24 22.8	1.340	2.320	2.4	17.7	12 27	6 47.76	+26 30.4	1.344	2.324	2.7	20.1
1 6	6 36.10	+24 57.4	1.364	2.343	3.2	17.8	1 6	6 36.59	+28 4.4	1.356	2.332	3.8	20.2
1 16	6 25.23	+25 24.2	1.417	2.365	8.3	18.2	1 16	6 26.17	+29 25.4	1.395	2.341	8.6	20.5
1 26	6 16.90	+25 43.2	1.495	2.386	12.7	18.5	1 26	6 18.01	+30 30.5	1.460	2.349	13.1	20.7
2 5	6 11.86	+25 56.0	1.595	2.408	16.4	18.8	2 5	6 13.09	+31 20.4	1.547	2.359	16.8	21.0
<b>214290</b>	2005 GT <sub>206</sub>		12 31.4	104°89	1°1/31.6	18	<b>218327</b>	2004 BF <sub>3</sub>		12 31.4	29°30	3°3/31.3	18
11 27	7 10.93	+19 32.0	1.963	2.777	13.7	21.2	11 27	7 14.80	+30 31.6	1.164	2.010	19.2	19.6
12 7	7 5.03	+19 34.4	1.896	2.790	10.3	21.0	12 7	7 9.44	+30 31.4	1.107	2.017	14.6	19.4
12 17	6 56.86	+19 41.5	1.853	2.804	6.4	20.8	12 17	7 0.18	+30 24.4	1.069	2.024	9.3	19.1
12 27	6 47.25	+19 51.5	1.837	2.817	2.3	20.5	12 27	6 48.37	+30 5.5	1.055	2.033	4.2	18.8
1 6	6 37.24	+20 2.8	1.851	2.829	2.6	20.6	1 6	6 35.98	+29 32.4	1.067	2.042	4.8	18.9
1 16	6 27.97	+20 14.4	1.895	2.842	6.6	20.9	1 16	6 25.07	+28 46.9	1.103	2.052	9.9	19.2
1 26	6 20.43	+20 25.5	1.966	2.854	10.3	21.1	1 26	6 17.30	+27 54.6	1.163	2.063	14.8	19.5
2 5	6 15.29	+20 36.2	2.061	2.866	13.5	21.3	2 5	6 13.50	+27 1.0	1.242	2.074	19.0	19.8
<b>270113</b>	2001 RU <sub>28</sub>		12 31.4	204°36	5°4/1.9	18	<b>108309</b>	2001 JY <sub>1</sub>		12 31.4	104°76	4°0/1.2	18
11 27	7 4.88	+2 52.7	2.842	3.600	11.3	20.8	11 27	7 12.85	+12 25.7	1.620	2.429	16.4	20.3
12 7	7 0.00	+2 36.7	2.755	3.596	9.3	20.7	12 7	7 6.76	+12 18.4	1.559	2.445	12.7	20.1
12 17	6 53.61	+2 32.9	2.691	3.593	7.3	20.6	12 17	6 58.06	+12 23.3	1.520	2.461	8.5	19.8
12 27	6 46.24	+2 42.7	2.655	3.589	5.7	20.5	12 27	6 47.66	+12 40.2	1.507	2.477	4.8	19.7
1 6	6 38.50	+3 6.0	2.648	3.584	5.6	20.4	1 6	6 36.83	+13 7.6	1.522	2.492	4.7	19.7
1 16	6 31.10	+3 41.9	2.670	3.580	6.9	20.5	1 16	6 26.88	+13 42.8	1.565	2.507	8.2	19.9
1 26	6 24.69	+4 28.0	2.720	3.575	9.0	20.6	1 26	6 18.97	+14 22.9	1.635	2.521	12.1	20.2
2 5	6 19.80	+5 21.4	2.795	3.570	11.1	20.8	2 5	6 13.82	+15 5.2	1.727	2.535	15.5	20.5
<b>174414</b>	2002 VL <sub>111</sub>		12 31.4	69°62	3°4/30.3	18	<b>190482</b>	2000 DU <sub>113</sub>		12 31.4	83°88	5°2/31.0	17
11 27	7 12.50	+27 35.2	1.804	2.626	14.4	19.8	11 27	7 15.05	+39 29.3	2.258	3.054	12.7	20.0
12 7	7 6.84	+28 57.9	1.733	2.631	10.9	19.6	12 7	7 8.14	+39 48.2	2.193	3.067	10.1	19.9
12 17	6 58.33	+30 22.7	1.686	2.636	7.0	19.4	12 17	6 58.75	+39 56.4	2.152	3.080	7.4	19.7
12 27	6 47.79	+31 42.4	1.667	2.642	3.7	19.2	12 27	6 47.84	+39 49.5	2.139	3.092	5.4	19.6
1 6	6 36.47	+32 50.6	1.678	2.647	4.6	19.2	1 6	6 36.64	+39 25.5	2.155	3.104	5.7	19.7
1 16	6 25.79	+33 43.0	1.718	2.652	8.2	19.5	1 16	6 26.39	+38 45.3	2.200	3.117	7.8	19.8
1 26	6 17.11	+34 19.3	1.784	2.658	11.9	19.7	1 26	6 18.16	+37 52.6	2.272	3.129	10.4	20.0
2 5	6 11.33	+34 41.7	1.872	2.663	15.1	19.9	2 5	6 12.58	+36 52.4	2.367	3.141	12.9	20.2
<b>82615</b>	2001 OL <sub>101</sub>		12 31.4	157°87	2°7/30.9	18	<b>426589</b>	2013 SR <sub>29</sub>		12 31.4	151°78	0°8/31.5	18
11 27	7 16.42	+29 38.0	1.935	2.746	14.0	20.0	11 27	7 7.90	+21 13.2	2.500	3.310	11.3	20.8
12 7	7 9.42	+30 3.9	1.862	2.754	10.6	19.8	12 7	7 2.44	+20 56.0	2.418	3.311	8.4	20.6
12 17	6 59.70	+30 26.7	1.813	2.761	6.8	19.6	12 17	6 55.18	+20 40.2	2.362	3.313	5.2	20.4
12 27	6 48.16	+30 41.7	1.792	2.767	3.3	19.4	12 27	6 46.75	+20 25.3	2.335	3.314	1.8	20.2
1 6	6 36.09	+30 45.8	1.800	2.772	3.8	19.4	1 6	6 37.98	+20 11.0	2.338	3.315	2.2	20.2
1 16	6 24.86	+30 38.3	1.839	2.777	7.5	19.7	1 16	6 29.73	+19 57.2	2.371	3.317	5.6	20.4
1 26	6 15.70	+30 21.3	1.904	2.781	11.2	19.9	1 26	6 22.80	+19 44.4	2.433	3.318	8.7	20.6
2 5	6 9.36	+29 58.1	1.993	2.784	14.4	20.1	2 5	6 17.75	+19 33.0	2.520	3.319	11.5	20.8
<b>266146</b>	2006 UY <sub>12</sub>		12 31.4	320°39	0°5/31.3	18	<b>1301</b>	Yvonne		12 31.4	355°82	22°4/15.2	18
11 27	7 10.80	+22 17.0	1.293	2.135	17.8	20.4	11 27	7 2.93	-29 20.6	1.421	2.043	26.0	14.8
12 7	7 6.37	+22 44.0	1.216	2.126	13.5	20.1	12 7	7 0.09	-30 34.6	1.366	2.034	25.1	14.7
12 17	6 58.43	+23 17.4	1.160	2.117	8.3	19.8	12 17	6 54.36	-31 2.5	1.319	2.028	24.1	14.6
12 27	6 47.90	+23 53.2	1.128	2.109	2.6	19.5	12 27	6 46.60	-30 33.6	1.283	2.023	23.2	14.5
1 6	6 36.34	+24 26.5	1.123	2.101	3.5	19.5	1 6	6 38.14	-29 2.3	1.261	2.020	22.6	14.4
1 16	6 25.56	+24 53.9	1.143	2.094	9.3	19.8	1 16	6 30.43	-26 29.1	1.253	2.019	22.4	14.4
1 26	6 17.31	+25 14.4	1.187	2.087	14.5	20.1	1 26	6 24.84	-23 2.4	1.262	2.020	22.7	14.4
2 5	6 12.66	+25 28.7	1.250	2.081	19.0	20.3	2 5	6 22.25	-18 57.2	1.288	2.023	23.5	14.5
<b>80863</b>	2000 DT <sub>27</sub>		12 31.4	185°78	4°1/1.2	18	<b>24557</b>	3521 P-L		12 31.4	147°65	0°6/31.4	18
11 27	7 11.61	+11 38.2	1.879	2.678	14.8	19.9	11 27	7 12.58	+22 5.8	2.133	2.943	12.9	18.8
12 7	7 5.73	+11 29.1	1.798	2.679	11.6	19.7	12 7	7 6.14	+21 49.9	2.058	2.951	9.7	18.7
12 17	6 57.43	+11 31.3	1.740	2.678	7.9	19.5	12 17	6 57.51	+21 35.0	2.007	2.958	6.0	18.4
12 27	6 47.48	+11 45.1	1.710	2.677	4.7	19.3	12 27	6 47.48	+21 20.2	1.985	2.965	1.9	18.2
1 6	6 36.94	+12 9.5	1.708	2.676	4.6	19.3	1 6	6 37.08	+21 4.7	1.994	2.972	2.4	18.2
1 16	6 26.99	+12 42.6	1.735	2.674	7.8	19.5	1 16	6 27.38	+20 48.9	2.033	2.978	6.3	18.5
1 26	6 18.74	+13 21.9	1.789	2.671	11.5	19.7	1 26	6 19.35	+20 33.4	2.100	2.983	9.9	18.7
2 5	6 12.94	+14 4.6	1.867	2.668	14.8	19.9	2 5	6 13.63	+20 19.1	2.191	2.989	13.0	18.9
<b>279085</b>	2008 WW <sub>105</sub>		12 31.4	5°92	0°6/31.2	18	<b>461095</b>	2015 BY <sub>56</sub>		12 31.4	210°61	4°8/1.6	18
11 27	7 7.92	+21 13.9	2.119	2.936	12.7	20.2	11 27	7 5.19	+5 40.9	2.802	3.572	11.2	21.6
12 7	7 2.94	+22 12.9	2.039	2.937	9.5	20.0	12 7	7 0.27	+5 22.4	2.713	3.567	9.1	21.4
12 17	6 55.74	+23 18.0	1.984	2.937	5.8	19.8	12 17	6 53.81	+5 14.5	2.649	3.562	6.8	21.3
12 27	6 46.97	+24 25.4	1.958	2.938	1.8	19.5	12 27	6 46.34	+5 18.4	2.612	3.557	5.1	21.2
1 6	6 37.60	+25 30.6	1.961	2.939	2.5	19.6	1 6	6 38.50	+5 34.2	2.605	3.552	5.0	21.2
1 16	6 28.69	+26 30.0	1.995	2.941	6.4	19.8	1 16	6 30.99	+6 1.0	2.627	3.546	6.6	21.2
1 26	6 21.28	+27 21.5	2.057	2.942	10.1	20.1	1 26	6 24.50	+6 36.9	2.677	3.540	8.9	21.4
2 5	6 16.11	+28 4.8	2.143	2.944	13.1	20.3	2 5	6 19.55	+7 19.3	2.753	3.533	11.1	21.5
<b>265467</b>	2005 AN <sub>49</sub>		12 31.4	52°49	2°9/1.2	17	<b>343727</b>	2011 EY <sub>77</sub>		12 31.4	330°20	20°5/24.3	18
11 27	7 6.69	+13 7.9	2.141	2.946	13.1	20.5	11 27	7 30.91	+54 33.4	1.041			



EPHEMERIDES

12 31.4

12 31.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>457454</b>	2008 <i>UP</i> <sub>159</sub>		12 31.4 197°76	1°1/31.5 18			<b>86824</b>	2000 <i>GS</i> <sub>140</sub>		12 31.4 246°01	0°2/31.4 18	R	
11 27	7 7.76	+19 59.1	2.635	3.441	10.9	21.4	11 27	7 12.93	+22 29.4	1.792	2.611	14.6	20.7
12 7	7 2.28	+19 43.3	2.549	3.439	8.2	21.2	12 7	7 7.17	+22 46.6	1.700	2.598	11.1	20.4
12 17	6 55.07	+19 29.7	2.488	3.437	5.1	21.0	12 17	6 58.59	+23 7.6	1.631	2.584	6.8	20.1
12 27	6 46.73	+19 17.7	2.456	3.435	1.9	20.8	12 27	6 47.96	+23 29.4	1.589	2.569	2.1	19.8
1 6	6 38.03	+19 7.1	2.456	3.432	2.2	20.8	1 6	6 36.45	+23 48.9	1.576	2.554	2.8	19.8
1 16	6 29.79	+18 57.8	2.485	3.430	5.4	21.0	1 16	6 25.47	+24 4.1	1.592	2.539	7.6	20.1
1 26	6 22.78	+18 49.8	2.544	3.427	8.5	21.2	1 26	6 16.37	+24 14.7	1.635	2.523	12.0	20.3
2 5	6 17.55	+18 43.3	2.628	3.424	11.1	21.4	2 5	6 10.09	+24 21.6	1.701	2.507	15.8	20.5
<b>218098</b>	2002 <i>MG</i>		12 31.4 75°35	13°6/ 2.2 18			<b>225664</b>	2001 <i>MJ</i> <sub>7</sub>		12 31.4 142°53	2°8/31.7 18		
11 27	7 16.17	- 5 21.6	1.473	2.217	20.6	19.3	11 27	7 13.61	+16 49.0	1.772	2.583	15.1	20.2
12 7	7 9.05	- 7 35.6	1.439	2.249	17.9	19.2	12 7	7 7.25	+16 22.7	1.701	2.591	11.5	20.0
12 17	6 59.30	- 9 21.1	1.425	2.281	15.4	19.1	12 17	6 58.35	+16 2.5	1.653	2.599	7.4	19.8
12 27	6 48.00	-10 30.0	1.433	2.313	13.9	19.1	12 27	6 47.79	+15 48.3	1.632	2.607	3.5	19.6
1 6	6 36.53	-10 58.9	1.465	2.344	13.7	19.2	1 6	6 36.78	+15 40.1	1.640	2.614	3.7	19.6
1 16	6 26.24	-10 49.5	1.521	2.374	14.8	19.3	1 16	6 26.57	+15 37.3	1.678	2.621	7.6	19.9
1 26	6 18.23	-10 8.5	1.598	2.404	16.6	19.5	1 26	6 18.30	+15 39.7	1.742	2.627	11.6	20.1
2 5	6 13.11	- 9 5.0	1.693	2.433	18.5	19.7	2 5	6 12.68	+15 46.3	1.829	2.633	15.0	20.3
<b>306056</b>	2010 <i>GY</i> <sub>28</sub>		12 31.4 153°38	0°4/31.3 18			<b>171114</b>	2005 <i>EC</i> <sub>311</sub>		12 31.4 119°54	2°8/ 1.0 18		
11 27	7 12.36	+22 30.0	2.290	3.097	12.3	21.6	11 27	7 10.29	+14 23.6	1.886	2.694	14.4	20.6
12 7	7 5.97	+23 1.9	2.214	3.106	9.2	21.4	12 7	7 4.69	+14 26.0	1.815	2.703	11.0	20.4
12 17	6 57.44	+23 36.6	2.164	3.115	5.6	21.2	12 17	6 56.76	+14 37.9	1.767	2.712	7.2	20.2
12 27	6 47.49	+24 11.2	2.143	3.123	1.7	20.9	12 27	6 47.31	+14 58.4	1.746	2.720	3.6	20.0
1 6	6 37.07	+24 42.8	2.152	3.130	2.3	21.0	1 6	6 37.38	+15 25.9	1.754	2.728	3.6	20.0
1 16	6 27.22	+25 9.5	2.193	3.137	6.1	21.3	1 16	6 28.11	+15 58.1	1.792	2.736	7.2	20.3
1 26	6 18.90	+25 30.8	2.263	3.143	9.5	21.5	1 26	6 20.55	+16 33.0	1.856	2.743	10.9	20.5
2 5	6 12.79	+25 47.2	2.357	3.148	12.4	21.7	2 5	6 15.40	+17 8.8	1.944	2.750	14.1	20.7
<b>359132</b>	2009 <i>BN</i> <sub>78</sub>		12 31.4 317°81	5°6/29.7 17			<b>196114</b>	2002 <i>TD</i> <sub>170</sub>		12 31.4 358°25	14°5/31.6 16		
11 27	7 12.03	+31 50.1	1.558	2.389	15.9	20.5	11 27	7 16.60	+55 35.1	1.410	2.192	19.7	18.2
12 7	7 7.27	+33 21.9	1.478	2.377	12.3	20.3	12 7	7 12.09	+56 36.3	1.352	2.185	17.6	18.1
12 17	6 59.05	+34 54.1	1.420	2.366	8.5	20.0	12 17	7 2.39	+57 9.7	1.312	2.179	15.8	17.9
12 27	6 48.17	+36 17.4	1.389	2.355	5.8	19.8	12 27	6 49.16	+57 3.1	1.291	2.176	14.7	17.9
1 6	6 36.08	+37 23.3	1.384	2.344	6.8	19.9	1 6	6 35.17	+56 10.3	1.290	2.175	14.7	17.9
1 16	6 24.57	+38 6.6	1.407	2.334	10.4	20.0	1 16	6 23.32	+54 33.5	1.311	2.176	15.9	17.9
1 26	6 15.42	+38 27.5	1.453	2.324	14.3	20.3	1 26	6 15.71	+52 23.2	1.353	2.179	17.9	18.1
2 5	6 9.81	+38 30.3	1.520	2.315	17.9	20.5	2 5	6 13.07	+49 53.0	1.413	2.184	20.1	18.3
<b>18276</b>	3355 <i>T</i> <sub>-3</sub>		12 31.4 191°09	4°1/ 1.1 18			<b>12002</b>	<i>Suess</i>		12 31.4 136°74	3°6/ 1.0 18		
11 27	7 8.13	+11 13.0	2.211	3.006	13.0	19.7	11 27	7 7.35	+11 47.9	2.457	3.249	11.9	18.8
12 7	7 2.81	+10 48.7	2.128	3.005	10.2	19.5	12 7	7 1.99	+11 23.2	2.380	3.256	9.3	18.7
12 17	6 55.51	+10 33.5	2.070	3.004	7.1	19.3	12 17	6 54.91	+11 6.3	2.328	3.263	6.4	18.5
12 27	6 46.90	+10 28.3	2.039	3.003	4.5	19.1	12 27	6 46.71	+10 57.9	2.305	3.269	4.0	18.4
1 6	6 37.85	+10 33.2	2.038	3.002	4.5	19.1	1 6	6 38.18	+10 58.1	2.311	3.275	4.0	18.4
1 16	6 29.28	+10 47.3	2.066	3.000	7.1	19.3	1 16	6 30.15	+11 6.3	2.347	3.281	6.4	18.5
1 26	6 22.11	+11 9.1	2.121	2.998	10.2	19.5	1 26	6 23.37	+11 21.1	2.411	3.287	9.2	18.7
2 5	6 16.95	+11 36.6	2.200	2.996	13.0	19.7	2 5	6 18.40	+11 41.1	2.500	3.292	11.7	18.9
<b>140476</b>	2001 <i>TL</i> <sub>137</sub>		12 31.4 334°62	3°9/30.2 17			<b>332996</b>	2011 <i>GX</i> <sub>64</sub>		12 31.4 297°96	1°2/31.1 18		
11 27	7 10.59	+28 34.5	1.685	2.514	14.9	19.0	11 27	7 7.89	+24 31.4	2.298	3.115	11.9	20.4
12 7	7 5.76	+29 55.4	1.606	2.508	11.4	18.7	12 7	7 2.82	+25 10.5	2.213	3.110	8.9	20.2
12 17	6 57.88	+31 18.6	1.551	2.501	7.4	18.5	12 17	6 55.63	+25 51.9	2.154	3.106	5.5	20.0
12 27	6 47.76	+32 36.8	1.522	2.495	4.2	18.3	12 27	6 46.99	+26 32.4	2.123	3.102	2.0	19.7
1 6	6 36.67	+33 42.9	1.522	2.490	5.1	18.3	1 6	6 37.78	+27 8.8	2.121	3.098	2.6	19.8
1 16	6 26.15	+34 32.2	1.550	2.485	8.9	18.5	1 16	6 29.02	+27 39.0	2.150	3.094	6.2	20.0
1 26	6 17.71	+35 4.2	1.603	2.480	12.9	18.8	1 26	6 21.68	+28 2.2	2.207	3.090	9.6	20.2
2 5	6 12.35	+35 21.3	1.677	2.476	16.3	19.0	2 5	6 16.45	+28 19.0	2.288	3.086	12.5	20.4
<b>336692</b>	2010 <i>AD</i> <sub>80</sub>		12 31.4 261°70	1°6/31.2 18			<b>314668</b>	2006 <i>QB</i> <sub>56</sub>		12 31.4 114°09	0°8/31.6 18		
11 27	7 9.96	+29 9.2	2.523	3.333	11.2	20.6	11 27	7 11.01	+19 54.4	2.000	2.814	13.5	20.9
12 7	7 4.13	+29 3.0	2.431	3.323	8.4	20.4	12 7	7 5.12	+20 3.5	1.931	2.826	10.1	20.7
12 17	6 56.30	+28 53.2	2.364	3.314	5.3	20.2	12 17	6 56.98	+20 17.1	1.886	2.838	6.3	20.5
12 27	6 47.14	+28 37.7	2.326	3.304	2.2	20.0	12 27	6 47.38	+20 33.3	1.869	2.849	2.1	20.3
1 6	6 37.56	+28 15.5	2.319	3.294	2.6	20.0	1 6	6 37.37	+20 50.2	1.882	2.860	2.5	20.3
1 16	6 28.49	+27 47.0	2.342	3.284	5.9	20.2	1 16	6 28.05	+21 6.2	1.924	2.871	6.5	20.6
1 26	6 20.86	+27 13.6	2.394	3.274	9.0	20.4	1 26	6 20.42	+21 20.9	1.994	2.882	10.2	20.9
2 5	6 15.29	+26 37.6	2.471	3.264	11.8	20.6	2 5	6 15.17	+21 34.0	2.088	2.892	13.3	21.1
<b>377195</b>	2003 <i>WX</i> <sub>31</sub>		12 31.4 43°18	2°5/31.7 17			<b>491550</b>	2012 <i>LV</i> <sub>26</sub>		12 31.4 206°87	8°5/ 3.4 18		
11 27	7 7.82	+16 59.5	2.069	2.882	13.2	20.8	11 27	7 5.72	- 8 14.6	2.771	3.469	12.9	22.4
12 7	7 2.64	+16 32.1	1.997	2.889	10.0	20.7	12 7	7 0.70	- 8 42.2	2.687	3.465	11.4	22.2
12 17	6 55.41	+16 9.7	1.948	2.896	6.5	20.4	12 17	6 54.12	- 8 51.6	2.624	3.461	9.9	22.1
12 27	6 46.86	+15 52.7	1.928	2.903	3.1	20.3	12 27	6 46.49	- 8 40.0	2.586	3.456	8.8	22.1
1 6	6 37.95	+15 41.0	1.936	2.910	3.3	20.3	1 6	6 38.48	- 8 6.6	2.574	3.451	8.6	22.0
1 16	6 29.66	+15 34.6	1.974	2.917	6.6	20.5	1 16	6 30.82	- 7 12.5	2.588	3.445	9.3	22.1
1 26	6 22.92	+15 33.0	2.038	2.925	10.1	20.7	1 26	6 24.19	- 6 1.0	2.629	3.439	10.7	22.2
2 5	6 18.34	+15 35.5	2.127	2.933	13.1	20.9	2 5	6 19.14	- 4 36.7	2.694	3.433	12.3	22.3
<b>9183</b>	1991 <i>OW</i>		12 31.4 208°94	0°1/31.4 18			<b>384375</b>	2009 <i>VC</i> <sub>3</sub>		12 31.4 69°67	0°3/31.3 18		
11 27	7 15.05												

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>518025</b>	2015 <i>VV</i> <sub>155</sub>	12 31.4 127°51' 0 <sup>3</sup> /31.3 18					<b>301529</b>	2009 <i>FH</i> <sub>38</sub>	12 31.4 335°71' 5 <sup>5</sup> / 1.1 17				
11 27	7 11.08	+22 45.8	2.097	2.911	13.0	21.9	11 27	7 6.90	+11 23.5	1.444	2.268	17.3	20.9
12 7	7 5.17	+23 5.6	2.025	2.920	9.7	21.7	12 7	7 2.92	+10 48.9	1.365	2.257	13.6	20.6
12 17	6 57.02	+23 27.9	1.977	2.930	5.9	21.5	12 17	6 56.09	+10 27.1	1.307	2.248	9.6	20.4
12 27	6 47.41	+23 50.0	1.958	2.939	1.8	21.2	12 27	6 47.24	+10 20.6	1.272	2.239	6.2	20.2
1 6	6 37.35	+24 9.4	1.969	2.947	2.4	21.3	1 6	6 37.61	+10 29.9	1.264	2.231	6.1	20.1
1 16	6 27.95	+24 24.9	2.010	2.956	6.4	21.6	1 16	6 28.62	+10 53.9	1.281	2.223	9.6	20.3
1 26	6 20.20	+24 36.0	2.079	2.964	10.0	21.8	1 26	6 21.63	+11 29.6	1.322	2.216	13.8	20.5
2 5	6 14.77	+24 43.6	2.171	2.972	13.0	22.0	2 5	6 17.56	+12 13.1	1.384	2.211	17.7	20.8
<b>456174</b>	2006 <i>HG</i> <sub>27</sub>	12 31.4 224°35' 3 <sup>1</sup> /30.3 17					<b>116542</b>	2004 <i>BR</i> <sub>68</sub>	12 31.4 349°80' 14 <sup>6</sup> / 5.2 18				
11 27	7 10.22	+31 16.8	2.735	3.539	10.5	21.3	11 27	7 3.21	-15 46.3	1.843	2.531	18.8	18.8
12 7	7 4.44	+32 16.0	2.645	3.532	8.1	21.1	12 7	6 59.62	-16 52.3	1.773	2.523	17.4	18.7
12 17	6 56.60	+33 13.6	2.581	3.524	5.4	20.9	12 17	6 53.82	-17 28.7	1.719	2.516	16.0	18.5
12 27	6 47.31	+34 5.4	2.547	3.515	3.3	20.8	12 27	6 46.49	-17 28.6	1.684	2.509	15.0	18.5
1 6	6 37.41	+34 47.8	2.544	3.506	3.9	20.8	1 6	6 38.60	-16 49.0	1.669	2.504	14.6	18.4
1 16	6 27.83	+35 18.5	2.572	3.497	6.4	21.0	1 16	6 31.21	-15 31.0	1.676	2.500	15.1	18.4
1 26	6 19.54	+35 37.6	2.628	3.488	9.1	21.1	1 26	6 25.35	-13 40.1	1.703	2.496	16.3	18.5
2 5	6 13.24	+35 46.5	2.708	3.478	11.5	21.3	2 5	6 21.74	-11 25.5	1.750	2.494	17.8	18.6
<b>21428</b>	Junehokim	12 31.4 231°04' 0 <sup>8</sup> /31.3 18					<b>416128</b>	2002 <i>QE</i> <sub>95</sub>	12 31.4 62°31' 0 <sup>1</sup> /31.4 16				
11 27	7 14.67	+25 1.1	1.537	2.364	16.2	19.0	11 27	7 8.78	+22 29.1	2.115	2.933	12.7	21.7
12 7	7 8.77	+25 4.3	1.458	2.360	12.3	18.7	12 7	7 3.37	+22 46.8	2.052	2.950	9.5	21.5
12 17	6 59.67	+25 7.7	1.400	2.354	7.6	18.4	12 17	6 55.88	+23 7.0	2.014	2.967	5.8	21.3
12 27	6 48.32	+25 8.1	1.369	2.349	2.5	18.1	12 27	6 47.08	+23 27.2	2.004	2.985	1.8	21.1
1 6	6 36.18	+25 2.9	1.365	2.343	3.2	18.1	1 6	6 37.93	+23 45.4	2.024	3.002	2.3	21.2
1 16	6 24.88	+24 51.6	1.389	2.337	8.4	18.4	1 16	6 29.46	+24 0.3	2.073	3.020	6.1	21.5
1 26	6 15.91	+24 35.6	1.439	2.331	13.1	18.7	1 26	6 22.60	+24 11.6	2.150	3.038	9.6	21.7
2 5	6 10.21	+24 17.5	1.511	2.325	17.1	18.9	2 5	6 17.94	+24 19.7	2.251	3.055	12.5	21.9
<b>88929</b>	2001 <i>TR</i> <sub>22</sub>	12 31.4 114°57' 0 <sup>4</sup> /31.5 18					<b>27480</b>	Heablosky	12 31.4 344°62' 6 <sup>3</sup> / 1.8 18				
11 27	7 15.08	+21 35.8	1.821	2.634	14.7	19.9	11 27	7 4.73	+ 9 16.7	1.105	1.945	20.3	17.6
12 7	7 8.25	+21 39.2	1.759	2.654	11.0	19.7	12 7	7 2.04	+ 9 11.4	1.032	1.933	16.2	17.3
12 17	6 58.91	+21 45.4	1.721	2.673	6.7	19.5	12 17	6 55.93	+ 9 28.7	0.978	1.922	11.5	17.0
12 27	6 47.98	+21 52.3	1.711	2.691	2.1	19.3	12 27	6 47.28	+10 10.9	0.945	1.913	7.3	16.7
1 6	6 36.70	+21 58.0	1.730	2.708	2.6	19.3	1 6	6 37.56	+11 16.1	0.935	1.905	6.8	16.7
1 16	6 26.33	+22 1.5	1.779	2.725	7.0	19.6	1 16	6 28.57	+12 38.7	0.949	1.899	10.9	16.9
1 26	6 17.97	+22 3.1	1.855	2.742	10.9	19.9	1 26	6 22.02	+14 10.8	0.985	1.894	15.9	17.1
2 5	6 12.30	+22 3.7	1.955	2.757	14.2	20.2	2 5	6 19.04	+15 44.6	1.039	1.891	20.4	17.4
<b>54332</b>	2000 <i>KQ</i> <sub>9</sub>	12 31.4 299°66' 0 <sup>7</sup> /31.5 18					<b>199323</b>	2006 <i>BB</i> <sub>120</sub>	12 31.4 159°31' 0 <sup>8</sup> /31.6 17				
11 27	7 11.14	+21 30.9	1.452	2.286	16.7	20.1	11 27	7 8.13	+20 4.2	2.616	3.421	10.9	21.4
12 7	7 6.32	+21 27.4	1.367	2.272	12.7	19.8	12 7	7 2.59	+20 5.1	2.536	3.426	8.2	21.3
12 17	6 58.29	+21 27.9	1.304	2.260	7.9	19.5	12 17	6 55.31	+20 8.9	2.481	3.430	5.1	21.1
12 27	6 47.93	+21 30.5	1.266	2.247	2.6	19.1	12 27	6 46.90	+20 14.6	2.455	3.434	1.8	20.9
1 6	6 36.64	+21 33.2	1.255	2.234	3.2	19.2	1 6	6 38.14	+20 21.0	2.460	3.438	2.1	20.9
1 16	6 26.05	+21 34.6	1.271	2.222	8.6	19.4	1 16	6 29.85	+20 27.5	2.496	3.441	5.3	21.1
1 26	6 17.69	+21 35.0	1.312	2.210	13.6	19.7	1 26	6 22.80	+20 33.6	2.561	3.444	8.4	21.3
2 5	6 12.58	+21 35.0	1.373	2.198	17.9	19.9	2 5	6 17.55	+20 39.4	2.651	3.446	11.1	21.5
<b>73576</b>	4812 <i>P-L</i>	12 31.4 29°57' 0 <sup>3</sup> /31.3 17					<b>478420</b>	2012 <i>FP</i> <sub>67</sub>	12 31.4 190°24' 0 <sup>7</sup> /31.3 18				
11 27	7 8.27	+23 9.2	1.680	2.512	14.9	19.2	11 27	7 15.39	+22 58.0	1.783	2.598	14.8	22.6
12 7	7 3.47	+23 21.5	1.621	2.525	11.1	18.9	12 7	7 8.95	+23 31.5	1.701	2.597	11.2	22.3
12 17	6 56.12	+23 36.2	1.584	2.539	6.7	18.7	12 17	6 59.66	+24 8.9	1.643	2.596	6.9	22.1
12 27	6 47.15	+23 50.8	1.573	2.554	2.1	18.5	12 27	6 48.35	+24 46.2	1.613	2.594	2.2	21.8
1 6	6 37.76	+24 2.7	1.590	2.569	2.7	18.5	1 6	6 36.27	+25 19.4	1.613	2.591	2.9	21.8
1 16	6 29.23	+24 11.0	1.636	2.585	7.2	18.9	1 16	6 24.85	+25 45.8	1.642	2.587	7.6	22.1
1 26	6 22.66	+24 15.4	1.707	2.602	11.2	19.1	1 26	6 15.43	+26 5.0	1.698	2.582	11.8	22.3
2 5	6 18.74	+24 16.9	1.801	2.619	14.5	19.4	2 5	6 8.90	+26 18.0	1.777	2.577	15.5	22.6
<b>447586</b>	2006 <i>UU</i> <sub>25</sub>	12 31.4 116°53' 5 <sup>0</sup> / 1.2 18					<b>387233</b>	2012 <i>US</i> <sub>41</sub>	12 31.4 179°31' 1 <sup>4</sup> /31.2 18				
11 27	7 9.82	+ 9 3.0	2.144	2.931	13.6	22.2	11 27	7 14.02	+25 31.4	1.821	2.639	14.4	21.6
12 7	7 3.97	+ 8 26.6	2.076	2.945	10.8	22.0	12 7	7 7.85	+25 57.5	1.743	2.640	10.9	21.4
12 17	6 56.17	+ 8 0.8	2.033	2.959	7.8	21.9	12 17	6 58.93	+26 24.6	1.689	2.641	6.7	21.2
12 27	6 47.13	+ 7 47.3	2.017	2.973	5.4	21.7	12 27	6 48.10	+26 48.5	1.662	2.641	2.4	20.9
1 6	6 37.78	+ 7 46.4	2.031	2.987	5.3	21.8	1 6	6 36.63	+27 6.1	1.665	2.641	3.1	20.9
1 16	6 29.06	+ 7 57.2	2.073	3.000	7.6	21.9	1 16	6 25.87	+27 15.6	1.696	2.641	7.5	21.2
1 26	6 21.83	+ 8 18.0	2.142	3.012	10.4	22.1	1 26	6 17.10	+27 17.5	1.755	2.640	11.5	21.4
2 5	6 16.68	+ 8 46.1	2.236	3.025	13.1	22.3	2 5	6 11.15	+27 14.0	1.837	2.638	15.0	21.7
<b>75653</b>	2000 <i>AG</i> <sub>64</sub>	12 31.4 209°24' 2 <sup>4</sup> /31.9 18 R					<b>36256</b>	1999 <i>XT</i> <sub>17</sub>	12 31.4 5°54' 6 <sup>1</sup> /30.1 18				
11 27	7 11.64	+15 4.3	1.599	2.416	16.2	18.4	11 27	7 11.54	+36 29.3	1.757	2.578	14.8	16.5
12 7	7 6.27	+15 26.3	1.520	2.414	12.4	18.2	12 7	7 6.45	+37 34.2	1.688	2.578	11.6	16.3
12 17	6 58.06	+16 0.4	1.464	2.412	8.0	17.9	12 17	6 58.27	+38 32.1	1.643	2.579	8.5	16.1
12 27	6 47.83	+16 44.8	1.434	2.410	3.5	17.6	12 27	6 47.93	+39 15.5	1.623	2.580	6.3	16.0
1 6	6 36.82	+17 36.0	1.432	2.408	3.6	17.6	1 6	6 36.84	+39 39.1	1.630	2.582	6.9	16.0
1 16	6 26.46	+18 30.2	1.458	2.406	8.1	17.9	1 16	6 26.58	+39 41.3	1.664	2.584	9.6	16.2
1 26	6 18.09	+19 24.0	1.510	2.403	12.5	18.1	1 26	6 18.58	+39 24.5	1.722	2.587	12.8	16.4
2 5	6 12.61	+20 15.0	1.585	2.400	16.3	18.4	2 5	6 13.75	+38 54.0	1.802	2.590	15.7	16.6
<b>70719</b>	1999 <i>UB</i> <sub>52</sub>	12 31.4 58°21' 4 <sup>4</sup> / 1.7 18					<b>396594</b>	2001 <i>MZ</i> <sub>1</sub>	12 31.4 199°83' 0 <sup>0</sup> /31.2 18				
11 27	7 10.46	+ 9 59.4	1.523	2.334	17.2	19.1	11 27	7 11.10	+20 45.4	2.421	3.225	11.7	21.3
12 7	7 5.13	+10 16.3	1.467	2.353	13.3	18.9	12 7						

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>443935</b>	2002 TY <sub>232</sub>	12 31.4 74°32'		0°1'/31.4 18			<b>344923</b>	2004 TB <sub>12</sub>	12 31.4 76°12'		0°0'/31.2 18		
11 27	7 13.42	+24 33.9	1.774	2.594	14.7	20.3	11 27	7 14.98	+21 49.0	1.565	2.388	16.2	21.2
12 7	7 7.17	+24 4.5	1.704	2.602	11.0	20.1	12 7	7 8.46	+22 5.9	1.515	2.414	12.1	21.0
12 17	6 58.34	+23 33.6	1.657	2.610	6.7	19.9	12 17	6 59.17	+22 26.5	1.487	2.441	7.3	20.8
12 27	6 47.87	+23 0.3	1.638	2.619	2.1	19.6	12 27	6 48.16	+22 47.6	1.486	2.467	2.3	20.6
1 6	6 37.02	+22 24.6	1.648	2.627	2.6	19.7	1 6	6 36.83	+23 6.1	1.514	2.493	2.8	20.7
1 16	6 27.08	+21 47.8	1.688	2.635	7.2	20.0	1 16	6 26.62	+23 20.6	1.570	2.518	7.6	21.0
1 26	6 19.19	+21 11.9	1.754	2.643	11.2	20.2	1 26	6 18.70	+23 30.9	1.653	2.544	11.7	21.3
2 5	6 14.02	+20 39.0	1.843	2.652	14.7	20.5	2 5	6 13.75	+23 38.2	1.758	2.568	15.2	21.6
<b>366608</b>	2003 CA <sub>17</sub>	12 31.4 350°80'		6°5'/2.4 18			<b>397366</b>	2006 UX <sub>201</sub>	12 31.4 63°06'		4°7'/30.3 18		
11 27	7 7.10	+4 28.6	1.759	2.549	16.1	20.4	11 27	7 15.16	+31 31.2	1.664	2.486	15.4	20.5
12 7	7 2.56	+4 28.7	1.681	2.547	13.1	20.2	12 7	7 8.90	+32 47.9	1.615	2.510	11.7	20.4
12 17	6 55.65	+4 48.1	1.624	2.544	9.8	20.0	12 17	6 59.61	+34 0.5	1.589	2.535	7.8	20.2
12 27	6 47.09	+5 28.3	1.592	2.543	7.1	19.9	12 27	6 48.34	+35 1.4	1.591	2.559	4.9	20.1
1 6	6 37.93	+6 28.0	1.587	2.541	6.7	19.8	1 6	6 36.56	+35 44.9	1.621	2.583	5.6	20.2
1 16	6 29.29	+7 43.6	1.609	2.540	9.0	20.0	1 16	6 25.83	+36 9.1	1.678	2.608	8.8	20.4
1 26	6 22.30	+9 9.6	1.658	2.540	12.2	20.2	1 26	6 17.49	+36 16.0	1.761	2.632	12.2	20.7
2 5	6 17.72	+10 40.1	1.730	2.540	15.4	20.4	2 5	6 12.30	+36 9.9	1.866	2.656	15.2	20.9
<b>199663</b>	2006 GG <sub>47</sub>	12 31.4 176°36'		3°7'/30.6 18			<b>79534</b>	1998 QQ <sub>21</sub>	12 31.4 83°68'		2°0'/31.2 18		
11 27	7 10.72	+33 49.6	2.460	3.267	11.5	20.7	11 27	7 17.65	+26 46.1	1.493	2.317	16.7	19.9
12 7	7 4.93	+34 29.7	2.381	3.267	8.9	20.6	12 7	7 10.68	+27 11.0	1.442	2.343	12.5	19.7
12 17	6 56.94	+35 5.1	2.328	3.268	6.1	20.4	12 17	7 0.61	+27 34.8	1.415	2.367	7.7	19.5
12 27	6 47.47	+35 31.6	2.303	3.268	4.0	20.2	12 27	6 48.62	+27 52.4	1.413	2.392	3.0	19.2
1 6	6 37.49	+35 46.1	2.308	3.268	4.4	20.3	1 6	6 36.28	+28 0.5	1.440	2.416	3.6	19.4
1 16	6 28.07	+35 47.8	2.342	3.268	6.9	20.4	1 16	6 25.22	+27 58.6	1.495	2.440	8.2	19.7
1 26	6 20.20	+35 37.8	2.404	3.268	9.6	20.6	1 26	6 16.74	+27 48.7	1.576	2.463	12.4	20.0
2 5	6 14.58	+35 18.8	2.490	3.268	12.2	20.8	2 5	6 11.54	+27 33.9	1.678	2.486	15.9	20.3
<b>51009</b>	2000 GF <sub>103</sub>	12 31.4 135°06'		0°1'/31.4 18 R			<b>475114</b>	2005 UF <sub>265</sub>	12 31.4 351°06'		1°1'/31.6 18		
11 27	7 7.74	+22 47.3	2.905	3.710	10.0	19.7	11 27	7 8.31	+20 12.9	1.208	2.056	18.4	21.6
12 7	7 2.16	+23 1.4	2.830	3.721	7.4	19.6	12 7	7 4.58	+20 15.9	1.138	2.050	14.0	21.3
12 17	6 54.99	+23 16.9	2.781	3.732	4.5	19.4	12 17	6 57.40	+20 26.2	1.088	2.045	8.7	21.0
12 27	6 46.82	+23 32.1	2.762	3.743	1.4	19.2	12 27	6 47.76	+20 41.8	1.061	2.041	3.0	20.7
1 6	6 38.36	+23 45.6	2.775	3.753	1.8	19.2	1 6	6 37.22	+20 59.8	1.059	2.038	3.5	20.7
1 16	6 30.34	+23 56.5	2.819	3.763	4.8	19.4	1 16	6 27.59	+21 17.7	1.082	2.036	9.3	21.0
1 26	6 23.47	+24 4.7	2.892	3.772	7.6	19.6	1 26	6 20.49	+21 34.4	1.128	2.035	14.5	21.3
2 5	6 18.26	+24 10.4	2.990	3.782	10.0	19.8	2 5	6 16.94	+21 49.5	1.194	2.035	19.0	21.6
<b>218820</b>	2006 SN <sub>349</sub>	12 31.4 131°25'		2°9'/31.0 18			<b>267647</b>	2002 TQ	12 31.4 82°38'		5°4'/30.2 17		
11 27	7 17.45	+29 2.7	1.614	2.435	15.9	20.4	11 27	7 12.47	+38 8.1	2.335	3.136	12.2	20.4
12 7	7 10.66	+29 32.5	1.549	2.446	12.0	20.2	12 7	7 6.41	+39 4.7	2.271	3.147	9.7	20.2
12 17	7 0.72	+29 59.6	1.506	2.456	7.6	20.0	12 17	6 57.92	+39 53.5	2.231	3.158	7.1	20.1
12 27	6 48.68	+30 18.5	1.490	2.466	3.6	19.8	12 27	6 47.81	+40 29.1	2.219	3.169	5.5	20.0
1 6	6 36.07	+30 25.3	1.502	2.475	4.2	19.8	1 6	6 37.21	+40 47.9	2.236	3.180	5.9	20.0
1 16	6 24.49	+30 19.3	1.543	2.484	8.4	20.1	1 16	6 27.31	+40 49.1	2.281	3.191	7.9	20.2
1 26	6 15.36	+30 2.9	1.610	2.493	12.5	20.4	1 26	6 19.22	+40 34.6	2.353	3.202	10.4	20.3
2 5	6 9.50	+29 39.9	1.699	2.500	16.0	20.6	2 5	6 13.64	+40 8.6	2.448	3.213	12.7	20.5
<b>113366</b>	2002 SV <sub>2</sub>	12 31.4 339°33'		7°8'/31.0 18			<b>298598</b>	2003 YP <sub>123</sub>	12 31.4 92°37'		2°6'/31.6 18		
11 27	7 11.44	+8 3.9	1.716	2.511	16.2	19.0	11 27	7 13.61	+17 32.1	1.851	2.660	14.6	20.6
12 7	7 5.75	+6 17.3	1.639	2.508	13.2	18.8	12 7	7 7.03	+16 54.5	1.791	2.681	11.1	20.4
12 17	6 57.56	+4 40.0	1.586	2.505	10.1	18.6	12 17	6 58.13	+16 21.7	1.755	2.701	7.1	20.2
12 27	6 47.69	+3 17.9	1.560	2.503	8.0	18.5	12 27	6 47.83	+15 54.3	1.746	2.721	3.4	20.0
1 6	6 37.29	+2 15.6	1.560	2.501	8.3	18.5	1 6	6 37.28	+15 32.6	1.768	2.741	3.6	20.1
1 16	6 27.58	+1 35.7	1.588	2.499	10.7	18.7	1 16	6 27.62	+15 16.9	1.818	2.761	7.2	20.3
1 26	6 19.69	+1 17.6	1.641	2.498	13.8	18.9	1 26	6 19.86	+15 7.1	1.896	2.780	10.8	20.6
2 5	6 14.37	+1 18.2	1.715	2.497	16.7	19.0	2 5	6 14.61	+15 2.7	1.997	2.799	14.0	20.8
<b>339046</b>	2004 KK <sub>11</sub>	12 31.4 135°57'		1°9'/31.1 16			<b>442439</b>	2011 UU <sub>159</sub>	12 31.4 76°35'		2°5'/30.9 18		
11 27	7 15.86	+26 44.4	1.992	2.802	13.7	22.0	11 27	7 16.07	+27 43.4	1.762	2.580	14.9	21.1
12 7	7 8.90	+27 19.4	1.924	2.817	10.3	21.8	12 7	7 9.14	+28 26.1	1.715	2.611	11.1	20.9
12 17	6 59.41	+27 53.9	1.881	2.831	6.4	21.6	12 17	6 59.53	+29 7.0	1.692	2.642	6.9	20.8
12 27	6 48.25	+28 23.7	1.867	2.845	2.6	21.4	12 27	6 48.29	+29 41.0	1.696	2.673	3.1	20.6
1 6	6 36.61	+28 45.2	1.883	2.858	3.2	21.5	1 6	6 36.75	+30 4.4	1.730	2.703	3.7	20.7
1 16	6 25.77	+28 57.2	1.929	2.870	7.0	21.7	1 16	6 26.29	+30 16.1	1.793	2.733	7.5	21.0
1 26	6 16.87	+29 0.5	2.003	2.881	10.6	22.0	1 26	6 18.05	+30 17.6	1.882	2.762	11.1	21.3
2 5	6 10.63	+28 57.2	2.101	2.892	13.7	22.2	2 5	6 12.69	+30 11.7	1.995	2.791	14.1	21.5
<b>288101</b>	2003 WS <sub>26</sub>	12 31.4 54°22'		7°8'/28.5 18			<b>455712</b>	2005 EH <sub>317</sub>	12 31.4 130°89'		4°6'/1.5 18		
11 27	7 24.61	+32 47.8	1.427	2.243	17.8	19.5	11 27	7 5.78	+8 5.2	2.453	3.237	12.2	21.6
12 7	7 16.82	+35 53.8	1.392	2.280	13.8	19.3	12 7	7 0.94	+7 46.9	2.373	3.239	9.7	21.5
12 17	7 4.93	+38 53.8	1.383	2.317	9.9	19.2	12 17	6 54.39	+7 39.2	2.317	3.242	7.1	21.3
12 27	6 50.09	+41 30.9	1.402	2.354	7.8	19.1	12 27	6 46.71	+7 43.1	2.289	3.244	5.0	21.2
1 6	6 34.27	+43 32.5	1.451	2.390	8.9	19.3	1 6	6 38.66	+7 58.5	2.289	3.246	4.8	21.2
1 16	6 19.69	+44 54.4	1.527	2.427	11.8	19.6	1 16	6 31.04	+8 24.3	2.319	3.247	6.8	21.3
1 26	6 8.32	+45 40.8	1.628	2.464	14.9	19.8	1 26	6 24.61	+8 58.4	2.377	3.249	9.4	21.5
2 5	6 1.21	+46 0.7	1.749	2.500	17.6	20.1	2 5	6 19.93	+9 38.2	2.459	3.251	11.9	21.6
<b>12823</b>	Pochintesta	12 31.4 119°01'		0°4'/31.4 18			<b>249512</b>	2010 AT <sub>76</sub>	12 31.4 325°58'		6°9'/31.4 18		
11 27	7 16.23	+23 46.4	1.654	2.473	15.6	18.6	11 27	7 19.09	+45 52.0				

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>379667</b>	2011 <i>EN</i> <sub>78</sub>		12 31.4 220°11	0°4/31.3	18		<b>364803</b>	2008 <i>AB</i> <sub>136</sub>		12 31.4 355°19	1°5/31.7	17	
11 27	7 7.78	+23 32.6	2.707	3.515	10.5	21.8	11 27	7 7.42	+18 37.7	1.490	2.325	16.2	20.3
12 7	7 2.46	+23 47.5	2.617	3.509	7.9	21.6	12 7	7 3.33	+18 45.7	1.416	2.322	12.3	20.0
12 17	6 55.35	+24 3.7	2.552	3.503	4.8	21.4	12 17	6 56.39	+19 1.8	1.364	2.318	7.7	19.8
12 27	6 47.04	+24 19.4	2.517	3.497	1.5	21.1	12 27	6 47.45	+19 24.2	1.337	2.316	2.9	19.5
1 6	6 38.28	+24 33.0	2.512	3.490	2.0	21.1	1 6	6 37.80	+19 50.3	1.336	2.315	3.2	19.5
1 16	6 29.92	+24 43.3	2.538	3.483	5.3	21.4	1 16	6 28.87	+20 17.7	1.363	2.314	8.0	19.8
1 26	6 22.74	+24 50.2	2.593	3.476	8.3	21.6	1 26	6 22.00	+20 44.5	1.414	2.315	12.6	20.0
2 5	6 17.36	+24 54.1	2.674	3.468	11.0	21.7	2 5	6 18.04	+21 9.7	1.487	2.316	16.5	20.3
<b>87822</b>	2000 <i>SB</i> <sub>165</sub>		12 31.4 262°01	6°8/31.9	18		<b>447869</b>	2007 <i>VP</i> <sub>80</sub>		12 31.4 255°02	4°8/30.0	17	
11 27	7 8.31	+5 29.6	2.138	2.916	14.0	19.3	11 27	7 13.82	+32 32.5	1.910	2.726	14.0	21.4
12 7	7 3.13	+4 26.1	2.048	2.905	11.5	19.1	12 7	7 8.09	+33 48.9	1.826	2.717	10.8	21.2
12 17	6 55.90	+3 33.7	1.982	2.893	8.9	18.9	12 17	6 59.37	+35 3.6	1.766	2.708	7.5	20.9
12 27	6 47.23	+2 55.9	1.943	2.882	7.1	18.8	12 27	6 48.43	+36 9.3	1.733	2.698	5.0	20.8
1 6	6 38.03	+2 35.0	1.931	2.870	7.1	18.7	1 6	6 36.51	+36 59.7	1.730	2.689	5.8	20.8
1 16	6 29.24	+2 31.6	1.947	2.858	9.0	18.8	1 16	6 25.10	+37 31.3	1.754	2.679	8.9	21.0
1 26	6 21.83	+2 44.3	1.989	2.846	11.7	19.0	1 26	6 15.67	+37 44.7	1.805	2.669	12.4	21.2
2 5	6 16.47	+3 9.9	2.054	2.834	14.4	19.1	2 5	6 9.22	+37 43.4	1.878	2.659	15.5	21.3
<b>457417</b>	2008 <i>TU</i> <sub>177</sub>		12 31.4 46°89	8°2/2.6	17		<b>421303</b>	2013 <i>TL</i> <sub>28</sub>		12 31.4 209°07	5°0/30.2	18	
11 27	7 5.95	-0 21.4	2.035	2.797	15.1	20.8	11 27	7 12.79	+39 58.0	2.818	3.606	10.7	21.2
12 7	7 1.23	-1 3.9	1.977	2.813	12.7	20.7	12 7	7 6.43	+40 41.2	2.734	3.601	8.6	21.1
12 17	6 54.61	-1 27.9	1.940	2.830	10.3	20.6	12 17	6 57.89	+41 16.7	2.676	3.595	6.5	20.9
12 27	6 46.79	-1 30.7	1.927	2.846	8.5	20.5	12 27	6 47.86	+41 39.9	2.645	3.589	5.1	20.8
1 6	6 38.65	-1 11.6	1.941	2.864	8.3	20.5	1 6	6 37.30	+41 47.9	2.645	3.583	5.5	20.8
1 16	6 31.13	-0 32.5	1.981	2.881	9.5	20.6	1 16	6 27.26	+41 39.8	2.673	3.577	7.2	20.9
1 26	6 25.05	+0 22.7	2.047	2.898	11.6	20.8	1 26	6 18.73	+41 17.5	2.729	3.570	9.4	21.1
2 5	6 20.99	+1 28.7	2.135	2.916	13.8	21.0	2 5	6 12.41	+40 44.4	2.809	3.563	11.5	21.2
<b>462478</b>	2008 <i>UO</i> <sub>281</sub>		12 31.4 194°34	3°3/30.4	18		<b>278620</b>	2008 <i>QM</i> <sub>20</sub>		12 31.4 38°62	5°3/30.8	16	
11 27	7 10.01	+32 44.2	2.717	3.521	10.6	21.4	11 27	7 12.58	+36 16.3	1.811	2.628	14.5	20.2
12 7	7 4.28	+33 33.1	2.634	3.519	8.1	21.2	12 7	7 6.85	+36 55.4	1.756	2.645	11.3	20.0
12 17	6 56.55	+34 18.7	2.577	3.518	5.5	21.0	12 17	6 58.31	+37 25.6	1.725	2.663	8.0	19.9
12 27	6 47.43	+34 57.2	2.550	3.516	3.5	20.9	12 27	6 47.98	+37 41.5	1.719	2.680	5.6	19.8
1 6	6 37.79	+35 25.4	2.553	3.514	4.0	20.9	1 6	6 37.26	+37 39.6	1.742	2.699	5.9	19.8
1 16	6 28.57	+35 41.7	2.586	3.511	6.4	21.1	1 16	6 27.57	+37 20.4	1.791	2.718	8.6	20.0
1 26	6 20.71	+35 46.8	2.647	3.508	9.0	21.2	1 26	6 20.13	+36 47.1	1.867	2.737	11.7	20.3
2 5	6 14.85	+35 42.5	2.733	3.506	11.4	21.4	2 5	6 15.63	+36 4.6	1.964	2.757	14.5	20.5
<b>20343</b>	Vaccariello		12 31.4 238°96	1°2/31.7	18		<b>196141</b>	2002 <i>TL</i> <sub>268</sub>		12 31.4 42°50	4°0/31.1	17	
11 27	7 10.90	+18 50.2	1.850	2.666	14.3	18.5	11 27	7 12.08	+34 10.3	1.931	2.748	13.8	19.6
12 7	7 5.50	+19 2.2	1.764	2.659	10.9	18.2	12 7	7 6.22	+34 30.0	1.872	2.764	10.6	19.4
12 17	6 57.55	+19 20.7	1.701	2.652	6.8	18.0	12 17	6 57.81	+34 42.4	1.838	2.781	7.1	19.3
12 27	6 47.79	+19 43.9	1.666	2.645	2.5	17.7	12 27	6 47.81	+34 43.4	1.830	2.798	4.4	19.1
1 6	6 37.33	+20 9.3	1.659	2.637	2.8	17.7	1 6	6 37.49	+34 30.6	1.851	2.816	4.7	19.2
1 16	6 27.41	+20 35.0	1.682	2.629	7.2	18.0	1 16	6 28.13	+34 4.6	1.899	2.833	7.6	19.4
1 26	6 19.23	+20 59.5	1.731	2.621	11.3	18.2	1 26	6 20.81	+33 28.4	1.975	2.852	10.8	19.6
2 5	6 13.62	+21 22.2	1.804	2.613	14.9	18.4	2 5	6 16.19	+32 46.1	2.073	2.870	13.7	19.9
<b>88350</b>	2001 <i>OJ</i> <sub>79</sub>		12 31.4 157°56	4°2/30.8	18		<b>226412</b>	2003 <i>QY</i> <sub>64</sub>		12 31.4 114°71	2°5/30.8	18	
11 27	7 14.48	+34 16.8	2.043	2.853	13.4	20.2	11 27	7 11.07	+29 41.2	2.529	3.336	11.2	20.8
12 7	7 8.10	+34 49.2	1.969	2.856	10.4	20.0	12 7	7 4.98	+30 20.1	2.462	3.352	8.4	20.7
12 17	6 59.06	+35 15.2	1.919	2.859	7.1	19.8	12 17	6 56.90	+30 56.7	2.421	3.367	5.4	20.5
12 27	6 48.23	+35 29.9	1.896	2.862	4.5	19.7	12 27	6 47.54	+31 27.4	2.409	3.382	2.8	20.3
1 6	6 36.85	+35 29.9	1.902	2.864	5.0	19.7	1 6	6 37.80	+31 49.5	2.427	3.396	3.3	20.4
1 16	6 26.26	+35 14.8	1.937	2.866	7.8	19.9	1 16	6 28.64	+32 1.9	2.476	3.411	6.0	20.6
1 26	6 17.66	+34 47.0	1.999	2.868	11.1	20.1	1 26	6 20.96	+32 5.3	2.553	3.424	8.9	20.8
2 5	6 11.82	+34 10.8	2.084	2.870	14.0	20.3	2 5	6 15.36	+32 1.4	2.655	3.438	11.4	21.0
<b>48021</b>	2001 <i>DN</i> <sub>6</sub>		12 31.4 194°39	3°4/30.9	18		<b>273369</b>	2006 <i>UA</i> <sub>231</sub>		12 31.4 146°66	6°0/2.1	18	
11 27	7 16.82	+30 24.4	1.806	2.620	14.7	19.5	11 27	7 9.07	+2 59.9	2.455	3.213	12.9	21.7
12 7	7 10.18	+31 0.7	1.726	2.619	11.2	19.3	12 7	7 3.31	+2 38.7	2.382	3.224	10.6	21.6
12 17	6 57.05	+31 34.0	1.669	2.617	7.3	19.0	12 17	6 55.81	+2 31.2	2.332	3.234	8.2	21.5
12 27	6 48.74	+31 58.8	1.640	2.614	3.9	18.8	12 27	6 47.19	+2 39.2	2.309	3.244	6.4	21.4
1 6	6 36.19	+32 10.6	1.640	2.610	4.5	18.8	1 6	6 38.23	+3 2.6	2.315	3.253	6.1	21.4
1 16	6 24.41	+32 8.3	1.669	2.606	8.2	19.1	1 16	6 29.76	+3 39.7	2.351	3.262	7.7	21.5
1 26	6 14.82	+31 53.6	1.724	2.601	12.1	19.3	1 26	6 22.54	+4 27.9	2.414	3.270	9.9	21.6
2 5	6 8.30	+31 30.6	1.802	2.596	15.6	19.5	2 5	6 17.14	+5 23.4	2.502	3.277	12.2	21.8
<b>107774</b>	2001 <i>FJ</i> <sub>46</sub>		12 31.4 217°79	1°3/31.2	18		<b>244570</b>	2002 <i>VP</i> <sub>143</sub>		12 31.4 277°93	3°5/30.3	18	
11 27	7 14.91	+25 1.9	1.814	2.631	14.6	20.8	11 27	7 9.72	+31 31.1	2.412	3.223	11.6	20.7
12 7	7 8.69	+25 26.9	1.727	2.624	11.0	20.6	12 7	7 4.37	+32 31.3	2.326	3.216	8.9	20.5
12 17	6 59.61	+25 53.5	1.663	2.615	6.8	20.3	12 17	6 56.77	+33 29.7	2.266	3.209	6.0	20.3
12 27	6 48.46	+26 17.7	1.627	2.607	2.4	20.0	12 27	6 47.56	+34 21.7	2.235	3.202	3.7	20.1
1 6	6 36.51	+26 36.1	1.620	2.597	3.1	20.0	1 6	6 37.69	+35 3.0	2.233	3.196	4.3	20.2
1 16	6 25.17	+26 46.7	1.643	2.587	7.6	20.3	1 16	6 28.24	+35 31.4	2.261	3.189	7.0	20.3
1 26	6 15.79	+26 49.8	1.692	2.577	11.9	20.5	1 26	6 20.24	+35 47.0	2.316	3.182	9.9	20.5
2 5	6 9.30	+26 47.5	1.764	2.566	15.5	20.7	2 5	6 14.47	+35 51.7	2.396	3.175	12.6	20.7
<b>167576</b>	2004 <i>BQ</i> <sub>69</sub>		12 31.4 331°11	2°5/30.9	18		<b>517292</b>	2014 <i>HC</i> <sub>10</sub>		12 31.4 220°67	0°4/31.4	18	
11 27	7 8.53	+29 21.4											

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12 31.4

12 31.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>382700</b>	2002 <i>VK</i> <sub>114</sub>		12 31.4 58°81'	1.5°/31.2	18		<b>186444</b>	2002 <i>SP</i> <sub>18</sub>		12 31.4 301°82'	4.7°/1.2	18	
11 27	7 15.32	+24 21.4	1.261	2.099	18.4	20.6	11 27	7 10.61	+12 21.7	1.434	2.255	17.5	20.0
12 7	7 9.42	+24 57.8	1.215	2.122	13.7	20.3	12 7	7 5.77	+12 4.7	1.358	2.250	13.7	19.7
12 17	7 0.09	+25 36.7	1.189	2.145	8.4	20.1	12 17	6 57.95	+12 1.0	1.303	2.246	9.4	19.5
12 27	6 48.57	+26 12.5	1.188	2.168	2.9	19.9	12 27	6 47.99	+12 11.7	1.272	2.242	5.5	19.2
1 6	6 36.61	+26 40.3	1.214	2.191	3.7	20.0	1 6	6 37.24	+12 35.9	1.267	2.238	5.4	19.2
1 16	6 26.00	+26 57.9	1.266	2.215	8.9	20.3	1 16	6 27.20	+13 11.3	1.289	2.234	9.3	19.4
1 26	6 18.19	+27 6.3	1.343	2.239	13.5	20.7	1 26	6 19.28	+13 54.5	1.336	2.230	13.7	19.7
2 5	6 13.94	+27 8.0	1.440	2.262	17.3	21.0	2 5	6 14.42	+14 41.8	1.403	2.226	17.7	19.9
<b>517216</b>	2014 <i>AV</i> <sub>6</sub>		12 31.4 288°96'	0°3'/31.5	18		<b>362934</b>	2012 <i>HU</i> <sub>21</sub>		12 31.5 122°66'	1°3'/31.8	17	
11 27	7 11.54	+20 33.2	1.478	2.309	16.6	21.7	11 27	7 8.13	+17 12.2	2.357	3.162	12.0	20.7
12 7	7 6.65	+20 57.0	1.396	2.299	12.6	21.4	12 7	7 2.83	+17 34.5	2.279	3.169	9.0	20.5
12 17	6 58.60	+21 28.3	1.335	2.290	7.8	21.1	12 17	6 55.64	+18 3.2	2.227	3.175	5.7	20.3
12 27	6 48.22	+22 3.9	1.299	2.280	2.5	20.7	12 27	6 47.18	+18 36.7	2.204	3.182	2.2	20.1
1 6	6 36.88	+22 39.7	1.291	2.270	3.1	20.7	1 6	6 38.30	+19 12.8	2.211	3.188	2.3	20.1
1 16	6 26.19	+23 12.4	1.310	2.261	8.5	21.0	1 16	6 29.89	+19 49.4	2.248	3.194	5.8	20.3
1 26	6 17.67	+23 40.5	1.355	2.252	13.4	21.3	1 26	6 22.82	+20 25.0	2.314	3.200	9.0	20.6
2 5	6 12.37	+24 3.8	1.420	2.242	17.5	21.5	2 5	6 17.70	+20 58.4	2.404	3.205	11.9	20.8
<b>416155</b>	2002 <i>RZ</i> <sub>118</sub>		12 31.4 83°90'	2°0'/1.1	18		<b>229231</b>	2004 <i>XS</i> <sub>40</sub>		12 31.5 91°71'	3°5'/30.5	18	
11 27	7 8.83	+14 14.9	2.448	3.244	11.9	21.6	11 27	7 12.37	+31 25.8	2.278	3.087	12.2	19.9
12 7	7 3.11	+14 40.3	2.387	3.269	9.0	21.5	12 7	7 6.21	+32 24.0	2.216	3.105	9.3	19.7
12 17	6 55.67	+15 13.6	2.351	3.294	5.8	21.3	12 17	6 57.78	+33 18.9	2.180	3.123	6.2	19.5
12 27	6 47.14	+15 53.1	2.345	3.319	2.7	21.1	12 27	6 47.86	+34 5.7	2.172	3.141	3.7	19.4
1 6	6 38.34	+16 36.7	2.369	3.344	2.7	21.2	1 6	6 37.48	+34 40.4	2.195	3.159	4.3	19.5
1 16	6 30.10	+17 22.0	2.424	3.368	5.6	21.4	1 16	6 27.77	+35 1.7	2.247	3.176	7.0	19.7
1 26	6 23.19	+18 7.0	2.509	3.392	8.6	21.6	1 26	6 19.75	+35 10.3	2.327	3.193	9.9	19.9
2 5	6 18.13	+18 50.2	2.619	3.416	11.1	21.8	2 5	6 14.10	+35 8.8	2.431	3.210	12.4	20.1
<b>167984</b>	2005 <i>GT</i> <sub>37</sub>		12 31.4 322°01'	2°7'/31.2	17		<b>307761</b>	2003 <i>VF</i>		12 31.5 103°19'	1°5'/31.4	17	
11 27	7 11.82	+29 29.8	1.541	2.374	15.9	19.4	11 27	7 16.42	+28 19.5	1.870	2.683	14.3	20.6
12 7	7 6.85	+29 36.9	1.458	2.362	12.1	19.1	12 7	7 9.33	+28 4.8	1.805	2.699	10.7	20.4
12 17	6 58.68	+29 40.1	1.397	2.350	7.8	18.8	12 17	6 59.67	+27 46.0	1.764	2.715	6.7	20.2
12 27	6 48.22	+29 34.9	1.362	2.339	3.5	18.6	12 27	6 48.42	+27 20.6	1.751	2.730	2.5	20.0
1 6	6 36.93	+29 18.7	1.353	2.328	4.1	18.6	1 6	6 36.89	+26 48.1	1.768	2.745	2.9	20.0
1 16	6 26.45	+28 51.1	1.372	2.318	8.6	18.8	1 16	6 26.37	+26 9.6	1.814	2.759	7.0	20.3
1 26	6 18.29	+28 15.2	1.415	2.309	13.2	19.0	1 26	6 17.97	+25 28.0	1.889	2.773	10.8	20.6
2 5	6 13.40	+27 34.9	1.480	2.300	17.1	19.3	2 5	6 12.33	+24 46.5	1.987	2.787	14.0	20.8
<b>517897</b>	2015 <i>TY</i> <sub>75</sub>		12 31.4 173°63'	4°4'/1.1	18		<b>197762</b>	2004 <i>PG</i> <sub>35</sub>		12 31.5 121°35'	1°4'/31.3	18	
11 27	7 9.88	+10 8.5	2.305	3.091	12.8	22.2	11 27	7 14.74	+26 23.5	1.711	2.532	15.1	20.7
12 7	7 4.08	+9 37.3	2.224	3.094	10.1	22.0	12 7	7 8.46	+26 33.2	1.642	2.541	11.3	20.5
12 17	6 56.37	+9 15.1	2.168	3.096	7.2	21.9	12 17	6 59.35	+26 41.9	1.596	2.549	7.0	20.3
12 27	6 47.39	+9 3.3	2.139	3.098	4.8	21.7	12 27	6 48.38	+26 46.2	1.577	2.557	2.5	20.0
1 6	6 38.01	+9 2.2	2.140	3.099	4.8	21.7	1 6	6 36.89	+26 43.6	1.587	2.564	3.1	20.1
1 16	6 29.12	+9 11.3	2.171	3.100	7.1	21.9	1 16	6 26.32	+26 33.7	1.626	2.572	7.6	20.4
1 26	6 21.60	+9 29.0	2.229	3.100	10.0	22.0	1 26	6 17.91	+26 18.1	1.691	2.579	11.7	20.6
2 5	6 16.04	+9 53.4	2.312	3.100	12.7	22.2	2 5	6 12.43	+25 59.2	1.779	2.586	15.2	20.9
<b>216474</b>	1999 <i>RT</i> <sub>79</sub>		12 31.4 126°36'	0°5'/31.4	18		<b>144125</b>	2004 <i>BS</i> <sub>86</sub>		12 31.5 83°76'	2°0'/31.2	18	
11 27	7 16.89	+24 24.8	1.635	2.454	15.8	21.2	11 27	7 16.74	+27 1.1	1.413	2.242	17.3	20.3
12 7	7 10.04	+24 25.9	1.570	2.467	11.8	21.0	12 7	7 10.33	+27 19.9	1.356	2.259	13.0	20.1
12 17	7 0.28	+24 27.4	1.527	2.480	7.3	20.7	12 17	7 0.62	+27 37.4	1.321	2.275	8.0	19.9
12 27	6 48.63	+24 26.3	1.512	2.492	2.3	20.4	12 27	6 48.78	+27 48.8	1.312	2.291	3.1	19.6
1 6	6 36.52	+24 20.6	1.525	2.504	2.9	20.5	1 6	6 36.46	+27 50.7	1.331	2.307	3.8	19.7
1 16	6 25.42	+24 10.1	1.568	2.514	7.7	20.8	1 16	6 25.36	+27 42.7	1.377	2.323	8.6	20.0
1 26	6 16.62	+23 56.2	1.636	2.525	12.0	21.1	1 26	6 16.93	+27 26.9	1.448	2.339	13.0	20.3
2 5	6 10.87	+23 41.0	1.728	2.535	15.6	21.4	2 5	6 11.94	+27 6.9	1.540	2.354	16.8	20.6
<b>411861</b>	2012 <i>DY</i> <sub>86</sub>		12 31.4 262°52'	2°5'/31.1	18		<b>163659</b>	2002 <i>VX</i> <sub>111</sub>		12 31.5 86°37'	0°1'/31.4	18	
11 27	7 11.43	+30 1.0	2.093	2.909	12.9	21.3	11 27	7 11.61	+22 51.9	1.840	2.660	14.2	20.7
12 7	7 5.72	+30 15.9	2.011	2.905	9.8	21.1	12 7	7 5.87	+23 0.1	1.772	2.671	10.7	20.4
12 17	6 57.59	+30 27.2	1.953	2.902	6.3	20.9	12 17	6 57.66	+23 10.5	1.728	2.682	6.5	20.2
12 27	6 47.81	+30 31.7	1.923	2.898	3.0	20.6	12 27	6 47.84	+23 20.7	1.712	2.692	2.0	20.0
1 6	6 37.49	+30 26.8	1.922	2.895	3.5	20.7	1 6	6 37.58	+23 28.6	1.724	2.703	2.5	20.0
1 16	6 27.82	+30 12.3	1.951	2.891	7.0	20.9	1 16	6 28.09	+23 33.3	1.766	2.714	6.9	20.3
1 26	6 19.90	+29 49.7	2.006	2.888	10.5	21.1	1 26	6 20.49	+23 34.8	1.834	2.724	10.8	20.6
2 5	6 14.48	+29 21.9	2.086	2.884	13.6	21.3	2 5	6 15.47	+23 34.1	1.926	2.734	14.1	20.8
<b>322108</b>	2010 <i>VF</i> <sub>152</sub>		12 31.4 103°53'	2°7'/31.8	18		<b>206397</b>	2003 <i>SS</i> <sub>42</sub>		12 31.5 27°91'	6°3'/31.7	18	
11 27	7 16.38	+16 28.5	1.514	2.329	17.0	21.1	11 27	7 17.68	+38 19.4	1.331	2.157	18.3	19.6
12 7	7 9.59	+16 17.2	1.458	2.350	12.9	20.9	12 7	7 11.48	+38 21.7	1.274	2.167	14.4	19.4
12 17	6 59.95	+16 14.5	1.424	2.371	8.3	20.7	12 17	7 1.46	+38 8.7	1.237	2.178	10.2	19.2
12 27	6 48.51	+16 19.2	1.416	2.392	3.7	20.5	12 27	6 49.04	+37 34.0	1.225	2.189	6.8	19.1
1 6	6 36.70	+16 30.0	1.436	2.412	3.8	20.6	1 6	6 36.24	+36 35.7	1.238	2.201	6.9	19.1
1 16	6 25.97	+16 45.0	1.485	2.431	8.2	20.9	1 16	6 25.08	+35 17.5	1.278	2.214	10.3	19.3
1 26	6 17.55	+17 3.1	1.560	2.450	12.4	21.2	1 26	6 17.10	+33 47.7	1.342	2.228	14.2	19.6
2 5	6 12.17	+17 23.0	1.657	2.467	16.0	21.4	2 5	6 13.01	+32 14.8	1.426	2.242	17.8	19.9
<b>518386</b>	2017 <i>GN</i> <sub>9</sub>		12 31.4 215°08'	2°8'/30.6	18		<b>460065</b>	2014 <i>OF</i> <sub>229</sub>		12 31.5 71°38'	1°2'/31.7	18	
11 27													

EPHEMERIDES

12 31.5

12 31.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>80878</b>	2000 <i>DY</i> <sub>37</sub>		12 31.5	90°04	5°6/31.1	18	<b>136422</b>	2005 <i>CS</i> <sub>49</sub>		12 31.5	280°15	2°6/31.3	18
11 27	7 18.62	+38 14.4	1.900	2.703	14.6	19.6	11 27	7 15.49	+28 36.1	1.375	2.209	17.4	20.2
12 7	7 11.24	+38 44.9	1.844	2.723	11.4	19.4	12 7	7 10.00	+28 47.4	1.295	2.199	13.3	19.9
12 17	7 0.95	+39 4.5	1.811	2.742	8.2	19.3	12 17	7 0.85	+28 55.9	1.236	2.190	8.5	19.6
12 27	6 48.86	+39 7.4	1.805	2.762	5.9	19.2	12 27	6 49.03	+28 56.3	1.202	2.180	3.6	19.3
1 6	6 36.45	+38 50.8	1.828	2.781	6.1	19.2	1 6	6 36.22	+28 44.9	1.194	2.170	4.3	19.3
1 16	6 25.22	+38 15.8	1.878	2.799	8.6	19.4	1 16	6 24.32	+28 21.2	1.213	2.160	9.4	19.6
1 26	6 16.41	+37 26.7	1.956	2.818	11.6	19.6	1 26	6 15.10	+27 48.4	1.256	2.150	14.4	19.9
2 5	6 10.70	+36 29.5	2.056	2.836	14.3	19.8	2 5	6 9.59	+27 11.1	1.320	2.141	18.7	20.1
<b>227691</b>	2006 <i>DA</i> <sub>24</sub>		12 31.5	113°72	0°5/31.6	17	<b>41094</b>	1999 <i>VH</i> <sub>61</sub>		12 31.5	178°51	0°8/31.6	18
11 27	7 8.48	+20 39.2	2.306	3.118	12.0	21.0	11 27	7 8.86	+20 11.2	2.370	3.179	11.8	20.0
12 7	7 3.16	+20 51.4	2.230	3.123	9.0	20.8	12 7	7 3.43	+20 15.2	2.288	3.180	8.9	19.8
12 17	6 55.88	+21 7.1	2.178	3.129	5.5	20.6	12 17	6 56.06	+20 22.5	2.230	3.181	5.5	19.6
12 27	6 47.30	+21 24.6	2.155	3.135	1.8	20.4	12 27	6 47.40	+20 31.9	2.201	3.181	1.9	19.4
1 6	6 38.31	+21 42.2	2.162	3.141	2.1	20.4	1 6	6 38.30	+20 42.1	2.203	3.181	2.2	19.4
1 16	6 29.85	+21 58.6	2.200	3.146	5.8	20.7	1 16	6 29.68	+20 52.0	2.234	3.181	5.8	19.6
1 26	6 22.79	+22 13.0	2.265	3.152	9.2	20.9	1 26	6 22.43	+21 1.2	2.295	3.180	9.1	19.8
2 5	6 17.77	+22 25.6	2.355	3.157	12.1	21.1	2 5	6 17.17	+21 9.7	2.379	3.180	12.0	20.0
<b>320231</b>	2007 <i>JL</i> <sub>14</sub>		12 31.5	167°90	0°9/31.3	17	<b>3569</b>	Kumon		12 31.5	346°04	9°0/2.6	18
11 27	7 9.49	+25 11.1	2.373	3.186	11.7	22.0	11 27	7 6.54	+1 50.8	1.509	2.301	18.2	16.0
12 7	7 3.95	+25 27.5	2.293	3.187	8.8	21.8	12 7	7 2.57	+1 18.5	1.434	2.295	15.2	15.8
12 17	6 56.38	+25 44.2	2.237	3.189	5.4	21.6	12 17	6 55.94	+1 8.5	1.379	2.290	12.0	15.6
12 27	6 47.46	+25 59.0	2.211	3.190	1.9	21.4	12 27	6 47.44	+1 25.0	1.346	2.285	9.5	15.5
1 6	6 38.10	+26 9.6	2.214	3.191	2.3	21.4	1 6	6 38.22	+2 8.8	1.339	2.282	9.1	15.4
1 16	6 29.26	+26 15.3	2.248	3.192	5.9	21.6	1 16	6 29.61	+3 16.9	1.356	2.279	11.1	15.5
1 26	6 21.86	+26 16.2	2.310	3.193	9.2	21.9	1 26	6 22.85	+4 43.2	1.397	2.276	14.3	15.7
2 5	6 16.53	+26 13.2	2.396	3.193	12.0	22.0	2 5	6 18.80	+6 19.9	1.460	2.275	17.5	15.9
<b>252518</b>	2001 <i>UR</i> <sub>201</sub>		12 31.5	168°37	3°3/30.8	18	<b>434016</b>	2001 <i>QC</i> <sub>262</sub>		12 31.5	106°57	6°8/1.9	16
11 27	7 13.77	+33 10.2	2.658	3.456	11.0	22.1	11 27	7 13.30	+4 46.3	1.844	2.620	16.0	21.9
12 7	7 7.05	+33 44.4	2.580	3.462	8.4	21.9	12 7	7 6.82	+4 12.9	1.788	2.644	12.9	21.7
12 17	6 58.24	+34 14.2	2.527	3.466	5.7	21.8	12 17	6 58.11	+3 56.0	1.754	2.667	9.7	21.6
12 27	6 48.04	+34 35.5	2.503	3.470	3.5	21.6	12 27	6 48.02	+3 57.4	1.746	2.690	7.3	21.5
1 6	6 37.40	+34 45.7	2.511	3.473	3.9	21.7	1 6	6 37.62	+4 17.1	1.766	2.712	7.0	21.5
1 16	6 27.31	+34 44.2	2.549	3.476	6.3	21.8	1 16	6 28.04	+4 52.8	1.814	2.734	9.0	21.7
1 26	6 18.72	+34 32.2	2.616	3.478	9.0	22.0	1 26	6 20.25	+5 40.8	1.889	2.754	11.8	21.9
2 5	6 12.29	+34 12.3	2.707	3.479	11.5	22.2	2 5	6 14.87	+6 36.5	1.987	2.774	14.5	22.1
<b>434147</b>	2002 <i>RH</i> <sub>156</sub>		12 31.5	163°75	0°2/31.5	18	<b>449961</b>	2015 <i>PX</i> <sub>2</sub>		12 31.5	76°21	7°0/2.5	18
11 27	7 15.84	+21 52.4	2.079	2.884	13.4	22.9	11 27	7 11.16	+3 38.0	1.790	2.568	16.3	21.4
12 7	7 8.82	+21 58.8	2.002	2.892	10.1	22.7	12 7	7 5.27	+3 17.0	1.740	2.595	13.2	21.2
12 17	6 59.42	+22 7.4	1.949	2.899	6.2	22.4	12 17	6 57.17	+3 14.4	1.710	2.623	10.0	21.1
12 27	6 48.43	+22 16.3	1.925	2.905	2.0	22.2	12 27	6 47.73	+3 31.7	1.707	2.650	7.5	21.0
1 6	6 36.97	+22 23.4	1.932	2.910	2.4	22.2	1 6	6 38.02	+4 7.9	1.730	2.677	7.1	21.1
1 16	6 26.18	+22 27.7	1.969	2.914	6.5	22.5	1 16	6 29.14	+4 59.8	1.782	2.703	9.0	21.2
1 26	6 17.16	+22 29.6	2.035	2.917	10.3	22.7	1 26	6 22.04	+6 2.9	1.860	2.729	11.8	21.4
2 5	6 10.61	+22 29.8	2.126	2.919	13.5	22.9	2 5	6 17.31	+7 12.0	1.960	2.755	14.4	21.7
<b>273894</b>	2007 <i>HT</i> <sub>33</sub>		12 31.5	72°66	4°4/30.5	17	<b>325925</b>	2010 <i>UU</i> <sub>103</sub>		12 31.5	219°45	4°4/31.9	18
11 27	7 11.99	+34 1.1	2.115	2.928	12.9	20.4	11 27	7 13.78	+13 8.7	1.615	2.423	16.4	21.9
12 7	7 6.23	+34 50.4	2.047	2.935	10.0	20.2	12 7	7 7.94	+12 38.4	1.531	2.417	12.9	21.7
12 17	6 57.95	+35 34.5	2.002	2.942	6.9	20.1	12 17	6 59.24	+12 18.0	1.469	2.409	8.8	21.4
12 27	6 47.99	+36 8.1	1.986	2.950	4.6	19.9	12 27	6 48.50	+12 8.7	1.432	2.402	5.1	21.2
1 6	6 37.50	+36 27.4	1.998	2.957	5.1	20.0	1 6	6 36.97	+12 10.9	1.424	2.393	5.2	21.2
1 16	6 27.70	+36 31.4	2.039	2.965	7.7	20.2	1 16	6 26.08	+12 23.5	1.444	2.384	8.9	21.4
1 26	6 19.76	+36 21.6	2.106	2.973	10.7	20.4	1 26	6 17.16	+12 45.0	1.489	2.375	13.1	21.6
2 5	6 14.40	+36 1.6	2.197	2.980	13.4	20.6	2 5	6 11.13	+13 12.9	1.557	2.365	16.9	21.8
<b>363318</b>	2002 <i>OG</i> <sub>18</sub>		12 31.5	172°51	5°2/1.8	18	<b>366335</b>	2013 <i>EZ</i> <sub>119</sub>		12 31.5	298°42	2°3/31.9	18
11 27	7 9.67	+6 10.3	2.363	3.134	13.0	22.2	11 27	7 9.01	+16 52.9	1.731	2.551	15.0	20.8
12 7	7 3.93	+5 56.5	2.282	3.138	10.4	22.0	12 7	7 4.39	+16 50.3	1.637	2.533	11.5	20.5
12 17	6 56.31	+5 55.2	2.224	3.141	7.7	21.9	12 17	6 57.11	+16 55.6	1.565	2.514	7.5	20.2
12 27	6 47.45	+6 7.6	2.194	3.144	5.6	21.7	12 27	6 47.87	+17 8.3	1.519	2.496	3.3	19.9
1 6	6 38.17	+6 33.3	2.193	3.145	5.4	21.7	1 6	6 37.77	+17 27.0	1.501	2.478	3.4	19.9
1 16	6 29.34	+7 10.6	2.223	3.146	7.3	21.9	1 16	6 28.12	+17 49.8	1.511	2.460	7.8	20.1
1 26	6 21.80	+7 57.0	2.280	3.147	10.0	22.0	1 26	6 20.20	+18 15.1	1.548	2.442	12.2	20.3
2 5	6 16.17	+8 49.2	2.362	3.147	12.6	22.2	2 5	6 14.93	+18 41.6	1.606	2.424	16.0	20.5
<b>271439</b>	2004 <i>DU</i> <sub>60</sub>		12 31.5	331°35	0°0/31.4	18	<b>227182</b>	2005 <i>QW</i> <sub>52</sub>		12 31.5	88°55	0°8/31.4	18
11 27	7 9.61	+22 31.0	1.183	2.033	18.6	21.2	11 27	7 17.16	+23 55.2	1.558	2.379	16.3	21.1
12 7	7 5.86	+22 32.1	1.106	2.020	14.2	20.9	12 7	7 10.26	+24 15.2	1.506	2.405	12.2	20.9
12 17	6 58.44	+22 37.5	1.049	2.008	8.8	20.5	12 17	7 0.44	+24 37.0	1.477	2.430	7.4	20.7
12 27	6 48.30	+22 44.6	1.016	1.997	2.8	20.1	12 27	6 48.80	+24 56.3	1.474	2.455	2.4	20.5
1 6	6 37.07	+22 50.4	1.007	1.986	3.5	20.1	1 6	6 36.82	+25 10.3	1.501	2.479	3.0	20.6
1 16	6 26.68	+22 53.2	1.023	1.977	9.6	20.5	1 16	6 25.99	+25 17.6	1.556	2.503	7.7	20.9
1 26	6 18.94	+22 53.2	1.061	1.968	15.2	20.7	1 26	6 17.57	+25 19.1	1.637	2.526	11.9	21.2
2 5	6 14.97	+22 51.6	1.119	1.961	19.9	21.0	2 5	6 12.25	+25 16.8	1.740	2.549	15.4	21.5
<b>237984</b>	2002 <i>SN</i> <sub>16</sub>		12 31.5	214°88	7°0/30.5	18	<b>160599</b>	1999 <i>RX</i> <sub>166</sub>		12 31.5	37°03	8°0/3.2	18
11 27	7 17.44	+47 5.0	2.676										

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12 31.5

12 31.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>407141</b>	2009 <i>TG</i> <sub>6</sub>		12 31.5	54°52'	0°9/31.3	18	<b>400621</b>	2009 <i>DK</i> <sub>18</sub>		12 31.5	198°62'	4°7/1.7	18
11 27	7 10.30	+24 36.2	1.895	2.717	13.8	21.0	11 27	7 9.21	+6 55.0	2.520	3.292	12.3	22.3
12 7	7 4.87	+24 54.8	1.833	2.733	10.3	20.9	12 7	7 3.57	+6 43.3	2.430	3.288	9.8	22.2
12 17	6 57.07	+25 14.4	1.796	2.749	6.3	20.7	12 17	6 56.15	+6 42.9	2.364	3.283	7.2	22.0
12 27	6 47.76	+25 32.1	1.785	2.765	2.1	20.4	12 27	6 47.50	+6 54.8	2.327	3.278	5.1	21.8
1 6	6 38.06	+25 45.4	1.804	2.782	2.6	20.5	1 6	6 38.39	+7 18.8	2.319	3.272	5.0	21.8
1 16	6 29.14	+25 53.2	1.851	2.798	6.7	20.8	1 16	6 29.64	+7 53.5	2.341	3.266	6.9	21.9
1 26	6 22.05	+25 55.8	1.926	2.815	10.4	21.0	1 26	6 22.08	+8 36.6	2.391	3.259	9.6	22.1
2 5	6 17.44	+25 54.3	2.024	2.832	13.5	21.3	2 5	6 16.31	+9 25.2	2.467	3.251	12.1	22.3
<b>480295</b>	2015 <i>HA</i> <sub>152</sub>		12 31.5	42°44'	7°3/30.6	18	<b>496326</b>	2013 <i>LB</i> <sub>1</sub>		12 31.5	308°98'	7°6/29.7	17 C
11 27	7 16.92	+35 53.2	1.194	2.032	19.3	20.1	11 27	7 20.65	+11 57.0	1.773	2.559	16.1	21.6
12 7	7 11.50	+37 0.5	1.144	2.044	15.1	19.9	12 7	7 13.63	+9 50.9	1.633	2.502	13.2	21.2
12 17	7 1.87	+37 57.8	1.114	2.057	10.7	19.7	12 17	7 3.24	+7 38.7	1.518	2.443	10.0	20.9
12 27	6 49.37	+38 34.9	1.107	2.070	7.6	19.5	12 27	6 50.01	+5 25.8	1.432	2.383	7.7	20.6
1 6	6 36.13	+38 44.7	1.125	2.084	8.2	19.6	1 6	6 35.03	+3 19.7	1.377	2.323	8.6	20.5
1 16	6 24.45	+38 27.2	1.167	2.098	11.7	19.9	1 16	6 19.86	+1 29.0	1.353	2.261	12.4	20.6
1 26	6 16.15	+37 48.3	1.232	2.113	15.6	20.1	1 26	6 6.19	+0 0.2	1.356	2.198	17.0	20.7
2 5	6 12.12	+36 56.5	1.316	2.128	19.2	20.4	2 5	5 55.42	-1 4.8	1.381	2.135	21.3	20.8
<b>493448</b>	2014 <i>WE</i> <sub>375</sub>		12 31.5	180°94'	2°1/31.0	18	<b>234680</b>	2002 <i>GQ</i> <sub>66</sub>		12 31.5	132°42'	1°0/31.3	18
11 27	7 9.67	+29 5.2	2.638	3.446	10.8	21.9	11 27	7 14.17	+25 0.7	2.361	3.164	12.0	21.4
12 7	7 4.01	+29 31.2	2.556	3.447	8.1	21.7	12 7	7 7.34	+25 25.8	2.293	3.182	9.0	21.2
12 17	6 56.43	+29 55.3	2.499	3.447	5.2	21.5	12 17	6 58.44	+25 51.1	2.250	3.200	5.5	21.0
12 27	6 47.56	+30 14.5	2.472	3.447	2.5	21.3	12 27	6 48.20	+26 13.8	2.237	3.217	1.9	20.8
1 6	6 38.26	+30 26.8	2.475	3.447	2.9	21.4	1 6	6 37.60	+26 31.5	2.256	3.232	2.4	20.9
1 16	6 29.43	+30 31.0	2.508	3.446	5.8	21.5	1 16	6 27.65	+26 42.9	2.305	3.247	5.9	21.1
1 26	6 21.94	+30 27.8	2.570	3.445	8.7	21.7	1 26	6 19.29	+26 48.5	2.383	3.262	9.2	21.4
2 5	6 16.40	+30 18.8	2.657	3.444	11.3	21.9	2 5	6 13.13	+26 49.6	2.487	3.275	11.9	21.6
<b>249982</b>	2001 <i>VC</i> <sub>102</sub>		12 31.5	51°40'	2°3/31.7	18	<b>358133</b>	2006 <i>QN</i> <sub>121</sub>		12 31.5	96°46'	7°9/2.3	18
11 27	7 11.62	+18 26.6	1.628	2.450	15.7	20.2	11 27	7 8.97	+1 23.0	1.932	2.699	15.6	21.0
12 7	7 5.91	+17 55.9	1.574	2.471	11.8	20.0	12 7	7 3.70	+0 40.8	1.867	2.710	13.0	20.9
12 17	6 57.99	+17 30.5	1.542	2.492	7.5	19.8	12 17	6 56.31	+0 16.3	1.823	2.722	10.3	20.7
12 27	6 47.93	+17 10.6	1.537	2.514	3.3	19.6	12 27	6 47.55	+0 12.8	1.804	2.733	8.4	20.6
1 6	6 37.90	+16 55.9	1.560	2.536	3.5	19.6	1 6	6 38.39	+0 30.9	1.812	2.744	8.1	20.7
1 16	6 28.85	+16 46.4	1.612	2.559	7.5	19.9	1 16	6 29.86	+1 8.8	1.848	2.755	9.7	20.8
1 26	6 21.84	+16 41.9	1.689	2.581	11.4	20.2	1 26	6 22.89	+2 2.6	1.908	2.766	12.1	20.9
2 5	6 17.51	+16 41.6	1.789	2.604	14.8	20.5	2 5	6 18.13	+3 7.1	1.992	2.776	14.6	21.1
<b>138069</b>	2000 <i>DY</i> <sub>51</sub>		12 31.5	193°12'	3°4/1.5	18	<b>302960</b>	2003 <i>US</i> <sub>179</sub>		12 31.5	81°50'	0°5/31.4	18
11 27	7 6.30	+9 54.3	2.914	3.695	10.6	20.6	11 27	7 14.23	+22 52.2	1.731	2.550	15.1	21.2
12 7	7 1.20	+9 50.1	2.826	3.693	8.3	20.5	12 7	7 7.89	+23 19.8	1.676	2.574	11.2	21.0
12 17	6 54.59	+9 54.2	2.762	3.690	5.9	20.3	12 17	6 58.96	+23 50.2	1.645	2.598	6.8	20.8
12 27	6 46.98	+10 7.1	2.727	3.688	3.8	20.2	12 27	6 48.38	+24 19.7	1.641	2.621	2.2	20.5
1 6	6 39.01	+10 28.1	2.722	3.685	3.7	20.2	1 6	6 37.43	+24 45.1	1.666	2.645	2.7	20.6
1 16	6 31.37	+10 56.1	2.749	3.681	5.6	20.3	1 16	6 27.43	+25 4.6	1.721	2.668	7.1	20.9
1 26	6 24.72	+11 29.5	2.804	3.677	8.1	20.4	1 26	6 19.52	+25 18.2	1.802	2.691	11.1	21.2
2 5	6 19.59	+12 6.4	2.885	3.673	10.4	20.6	2 5	6 14.36	+25 27.0	1.906	2.713	14.3	21.5
<b>269159</b>	2008 <i>EZ</i> <sub>114</sub>		12 31.5	355°76'	4°3/31.3	18	<b>175051</b>	2004 <i>FT</i> <sub>108</sub>		12 31.5	178°43'	1°2/31.3	18
11 27	7 14.67	+32 1.7	1.183	2.027	19.0	20.0	11 27	7 11.52	+25 43.7	2.314	3.124	12.0	21.0
12 7	7 9.78	+32 13.8	1.117	2.024	14.6	19.7	12 7	7 5.58	+26 5.4	2.232	3.125	9.0	20.8
12 17	7 0.85	+32 18.4	1.070	2.022	9.6	19.4	12 17	6 57.48	+26 27.4	2.175	3.126	5.6	20.6
12 27	6 49.09	+32 8.9	1.046	2.021	5.1	19.1	12 27	6 47.94	+26 46.6	2.148	3.127	2.0	20.4
1 6	6 36.47	+31 41.4	1.047	2.020	5.6	19.2	1 6	6 37.89	+27 0.9	2.150	3.127	2.5	20.4
1 16	6 25.13	+30 57.1	1.073	2.020	10.4	19.4	1 16	6 28.38	+27 8.8	2.183	3.126	6.1	20.6
1 26	6 16.94	+30 1.4	1.122	2.021	15.3	19.7	1 26	6 20.39	+27 10.9	2.244	3.126	9.5	20.9
2 5	6 12.83	+29 1.4	1.191	2.023	19.6	20.0	2 5	6 14.59	+27 8.3	2.330	3.124	12.4	21.1
<b>483279</b>	2015 <i>TW</i> <sub>253</sub>		12 31.5	114°46'	2°8/30.9	18	<b>51185</b>	2000 <i>HP</i> <sub>85</sub>		12 31.5	198°17'	3°6/30.8	18
11 27	7 12.36	+28 34.0	1.887	2.707	13.9	21.4	11 27	7 10.92	+34 0.3	2.522	3.327	11.3	19.4
12 7	7 6.73	+29 17.2	1.813	2.710	10.5	21.2	12 7	7 5.13	+34 29.5	2.441	3.326	8.7	19.2
12 17	6 58.41	+29 59.6	1.763	2.713	6.7	21.0	12 17	6 57.20	+34 53.6	2.385	3.325	6.0	19.1
12 27	6 48.25	+30 36.2	1.740	2.715	3.3	20.8	12 27	6 47.85	+35 8.9	2.358	3.324	3.8	18.9
1 6	6 37.46	+31 2.9	1.746	2.718	3.9	20.8	1 6	6 38.02	+35 12.7	2.360	3.322	4.2	18.9
1 16	6 27.35	+31 17.8	1.781	2.721	7.6	21.1	1 16	6 28.75	+35 4.4	2.392	3.320	6.6	19.1
1 26	6 19.16	+31 21.5	1.843	2.723	11.3	21.3	1 26	6 20.99	+34 45.6	2.452	3.319	9.4	19.3
2 5	6 13.70	+31 16.6	1.927	2.726	14.5	21.5	2 5	6 15.41	+34 18.9	2.536	3.317	11.9	19.4
<b>89478</b>	2001 <i>XS</i> <sub>25</sub>		12 31.5	96°00'	2°5/31.3	18	<b>122484</b>	2000 <i>QF</i> <sub>171</sub>		12 31.5	175°37'	0°5/31.4	18
11 27	7 16.55	+29 5.4	1.657	2.477	15.5	19.5	11 27	7 14.48	+24 24.1	2.083	2.892	13.2	20.8
12 7	7 9.88	+29 19.6	1.596	2.493	11.7	19.3	12 7	7 7.93	+24 29.5	2.003	2.895	9.9	20.6
12 17	7 0.28	+29 30.2	1.558	2.509	7.4	19.1	12 17	6 58.97	+24 35.2	1.947	2.898	6.1	20.3
12 27	6 48.79	+29 32.9	1.547	2.524	3.3	18.9	12 27	6 48.42	+24 38.8	1.919	2.899	2.0	20.1
1 6	6 36.89	+29 25.1	1.565	2.539	3.8	18.9	1 6	6 37.34	+24 38.5	1.922	2.900	2.5	20.1
1 16	6 26.06	+29 6.9	1.610	2.554	7.9	19.2	1 16	6 26.93	+24 33.6	1.955	2.900	6.6	20.4
1 26	6 17.59	+28 41.0	1.683	2.568	11.9	19.5	1 26	6 18.26	+24 24.9	2.016	2.900	10.3	20.6
2 5	6 12.21	+28 11.0	1.777	2.582	15.3	19.8	2 5	6 12.06	+24 13.9	2.102	2.898	13.5	20.8
<b>80535</b>	2000 <i>AH</i> <sub>73</sub>		12 31.5	94°16'	0°2/31.4	18	<b>165969</b>	2001 <i>XN</i> <sub>213</sub>		12 31.5	311°35'	4°0/1.2	18
11 27	7 14.26	+20											

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>82553</b>	2001 <i>OL</i> <sub>71</sub>		12 31.5 128°15	2°8/	1.3	18	<b>516528</b>	2006 <i>RJ</i> <sub>93</sub>		12 31.5 135°55	7°2/30.3	18	
11 27	7 9.98	+13 9.9	2.204	3.001	13.0	20.0	11 27	7 19.97	+43 59.5	2.274	3.053	13.2	21.7
12 7	7 4.30	+13 16.6	2.131	3.012	10.0	19.8	12 7	7 12.36	+44 57.2	2.212	3.065	10.8	21.5
12 17	6 56.63	+13 32.5	2.083	3.023	6.6	19.6	12 17	7 1.84	+45 42.4	2.173	3.077	8.6	21.4
12 27	6 47.67	+13 56.8	2.063	3.034	3.5	19.4	12 27	6 49.37	+46 8.4	2.161	3.088	7.3	21.4
1 6	6 38.30	+14 28.0	2.072	3.044	3.4	19.4	1 6	6 36.37	+46 11.2	2.177	3.099	7.6	21.4
1 16	6 29.49	+15 4.0	2.112	3.054	6.4	19.6	1 16	6 24.32	+45 50.7	2.221	3.109	9.3	21.5
1 26	6 22.12	+15 42.6	2.180	3.064	9.6	19.9	1 26	6 14.53	+45 10.9	2.291	3.118	11.5	21.7
2 5	6 16.81	+16 22.1	2.273	3.073	12.5	20.1	2 5	6 7.79	+44 17.8	2.383	3.127	13.6	21.8
<b>483687</b>	2005 <i>NF</i> <sub>125</sub>		12 31.5 114°26	0°3/31.5	18		<b>448784</b>	2011 <i>SW</i> <sub>143</sub>		12 31.5 158°96	0°8/31.4	15	
11 27	7 11.65	+22 35.9	2.016	2.831	13.4	21.4	11 27	7 13.23	+24 28.6	2.176	2.985	12.7	22.9
12 7	7 5.78	+22 26.7	1.943	2.839	10.0	21.2	12 7	7 6.92	+24 48.1	2.099	2.992	9.5	22.7
12 17	6 57.62	+22 18.8	1.894	2.846	6.2	20.9	12 17	6 58.35	+25 8.6	2.047	2.998	5.9	22.5
12 27	6 47.99	+22 10.7	1.873	2.853	2.0	20.7	12 27	6 48.27	+25 27.2	2.024	3.003	2.0	22.3
1 6	6 37.94	+22 1.6	1.881	2.860	2.4	20.7	1 6	6 37.70	+25 41.5	2.031	3.008	2.5	22.3
1 16	6 28.60	+21 51.2	1.919	2.867	6.5	21.0	1 16	6 27.75	+25 50.3	2.068	3.012	6.3	22.6
1 26	6 20.97	+21 40.1	1.985	2.873	10.2	21.2	1 26	6 19.44	+25 53.8	2.134	3.016	9.9	22.8
2 5	6 15.72	+21 29.3	2.075	2.880	13.4	21.5	2 5	6 13.46	+25 53.3	2.224	3.019	12.9	23.0
<b>247606</b>	2002 <i>TO</i> <sub>267</sub>		12 31.5 117°21	1°8/31.8	18		<b>181109</b>	2005 <i>QZ</i> <sub>80</sub>		12 31.5 152°48	2°7/30.9	18	
11 27	7 11.79	+18 22.5	2.028	2.837	13.5	20.5	11 27	7 13.69	+31 37.0	2.661	3.460	10.9	21.5
12 7	7 5.77	+18 7.4	1.959	2.849	10.2	20.3	12 7	7 6.96	+32 5.0	2.586	3.471	8.3	21.3
12 17	6 57.57	+17 56.8	1.913	2.861	6.5	20.1	12 17	6 58.24	+32 29.1	2.538	3.480	5.5	21.2
12 27	6 47.97	+17 50.2	1.896	2.873	2.7	19.9	12 27	6 48.21	+32 45.9	2.519	3.489	3.1	21.0
1 6	6 38.00	+17 46.9	1.908	2.884	2.9	19.9	1 6	6 37.79	+32 53.1	2.531	3.498	3.4	21.1
1 16	6 28.72	+17 46.3	1.950	2.895	6.6	20.2	1 16	6 27.96	+32 50.1	2.574	3.505	6.0	21.2
1 26	6 21.11	+17 48.1	2.019	2.906	10.2	20.4	1 26	6 19.61	+32 38.1	2.645	3.512	8.8	21.4
2 5	6 15.81	+17 52.1	2.113	2.916	13.2	20.6	2 5	6 13.35	+32 19.6	2.742	3.519	11.2	21.6
<b>499392</b>	2010 <i>BF</i>		12 31.5 276°08	4°5/31.3	17		<b>59549</b>	1999 <i>JE</i> <sub>36</sub>		12 31.5 293°19	6°1/	1.2	18
11 27	7 16.48	+39 5.7	2.554	3.342	11.7	21.2	11 27	7 8.20	+7 49.2	1.948	2.740	14.6	19.6
12 7	7 9.39	+39 6.9	2.450	3.321	9.3	21.0	12 7	7 3.30	+7 1.1	1.865	2.734	11.8	19.4
12 17	6 59.88	+38 57.9	2.371	3.299	6.7	20.8	12 17	6 56.21	+6 24.7	1.806	2.729	8.8	19.2
12 27	6 48.73	+38 34.6	2.321	3.277	4.8	20.6	12 27	6 47.62	+6 2.6	1.772	2.723	6.5	19.0
1 6	6 37.03	+37 54.8	2.300	3.254	5.0	20.6	1 6	6 38.48	+5 56.3	1.766	2.718	6.4	19.0
1 16	6 25.97	+36 59.2	2.310	3.232	7.2	20.7	1 16	6 29.84	+6 5.6	1.787	2.712	8.7	19.1
1 26	6 16.65	+35 51.2	2.349	3.209	10.0	20.8	1 26	6 22.72	+6 28.4	1.835	2.707	11.8	19.3
2 5	6 9.81	+34 35.8	2.413	3.186	12.7	21.0	2 5	6 17.81	+7 1.6	1.905	2.702	14.7	19.5
<b>85779</b>	1998 <i>UO</i> <sub>43</sub>		12 31.5 60°26	4°8/30.7	18		<b>150806</b>	2001 <i>RW</i> <sub>91</sub>		12 31.5 153°72	0°7/31.4	18	
11 27	7 15.96	+31 1.1	1.359	2.192	17.6	19.3	11 27	7 15.27	+24 8.1	1.938	2.750	14.0	21.2
12 7	7 10.24	+32 3.1	1.303	2.205	13.4	19.1	12 7	7 8.66	+24 24.6	1.865	2.758	10.5	21.0
12 17	7 0.90	+33 1.6	1.270	2.219	8.9	18.9	12 17	6 59.50	+24 42.4	1.815	2.766	6.4	20.8
12 27	6 49.11	+33 48.2	1.261	2.232	5.2	18.7	12 27	6 48.65	+24 58.3	1.793	2.773	2.1	20.5
1 6	6 36.63	+34 16.7	1.278	2.246	5.9	18.8	1 6	6 37.27	+25 9.8	1.802	2.780	2.6	20.6
1 16	6 25.35	+34 25.1	1.322	2.260	9.9	19.0	1 16	6 26.63	+25 15.7	1.840	2.785	6.9	20.9
1 26	6 16.90	+34 16.5	1.391	2.274	14.0	19.3	1 26	6 17.88	+25 16.4	1.906	2.791	10.8	21.1
2 5	6 12.16	+33 56.1	1.479	2.289	17.6	19.6	2 5	6 11.76	+25 13.4	1.996	2.795	14.0	21.3
<b>359377</b>	2010 <i>EZ</i> <sub>35</sub>		12 31.5 333°20	22°6/	5.9	18	<b>410677</b>	2008 <i>UM</i> <sub>169</sub>		12 31.5 323°82	10°9/31.3	18	
11 27	7 8.56	-20 3.2	1.189	1.890	26.8	20.4	11 27	7 5.51	-2 56.9	1.953	2.706	15.9	20.0
12 7	7 4.86	-22 16.7	1.136	1.884	25.3	20.2	12 7	7 1.44	-4 36.9	1.863	2.684	14.0	19.8
12 17	6 57.76	-23 47.6	1.095	1.879	24.0	20.1	12 17	6 55.17	-6 0.9	1.794	2.662	12.2	19.6
12 27	6 48.19	-24 22.6	1.068	1.874	23.0	20.0	12 27	6 47.32	-7 2.4	1.748	2.641	11.0	19.5
1 6	6 37.65	-23 53.9	1.055	1.870	22.6	20.0	1 6	6 38.79	-7 36.7	1.727	2.620	11.1	19.5
1 16	6 27.88	-22 21.2	1.057	1.866	23.0	20.0	1 16	6 30.59	-7 42.0	1.731	2.599	12.5	19.5
1 26	6 20.53	-19 53.1	1.075	1.863	24.1	20.0	1 26	6 23.76	-7 20.0	1.757	2.580	14.6	19.6
2 5	6 16.66	-16 45.1	1.107	1.860	25.6	20.1	2 5	6 19.09	-6 35.5	1.803	2.561	16.9	19.7
<b>215511</b>	2002 <i>UY</i> <sub>3</sub>		12 31.5 14°71	8°0/29.4	18		<b>148252</b>	2000 <i>ER</i> <sub>162</sub>		12 31.5 359°49	4°6/31.1	18	
11 27	7 11.51	+35 31.7	1.292	2.133	17.9	19.2	11 27	7 15.30	+32 32.0	1.361	2.195	17.6	19.5
12 7	7 7.49	+37 22.5	1.238	2.138	14.1	19.0	12 7	7 9.91	+32 58.1	1.292	2.193	13.5	19.2
12 17	6 59.56	+39 7.3	1.206	2.145	10.4	18.8	12 17	7 0.82	+33 17.8	1.244	2.193	9.0	19.0
12 27	6 48.78	+40 34.0	1.197	2.153	8.1	18.7	12 27	6 49.15	+33 24.1	1.220	2.193	5.1	18.8
1 6	6 36.98	+41 33.2	1.213	2.163	9.0	18.8	1 6	6 36.67	+33 12.8	1.223	2.193	5.6	18.8
1 16	6 26.28	+42 1.4	1.253	2.173	12.1	19.0	1 16	6 25.32	+32 43.8	1.251	2.193	9.8	19.0
1 26	6 18.55	+42 1.8	1.316	2.185	15.7	19.2	1 26	6 16.80	+32 1.3	1.304	2.194	14.3	19.3
2 5	6 14.84	+41 41.5	1.397	2.198	18.9	19.5	2 5	6 12.05	+31 11.6	1.377	2.195	18.2	19.5
<b>198308</b>	2004 <i>TQ</i> <sub>332</sub>		12 31.5 169°27	0°4/31.6	17		<b>361362</b>	2006 <i>UE</i> <sub>247</sub>		12 31.5 225°89	1°7/31.2	17	
11 27	7 9.18	+21 17.5	2.313	3.124	12.0	21.1	11 27	7 11.98	+26 52.2	2.060	2.875	13.1	21.7
12 7	7 3.77	+21 20.8	2.232	3.125	9.0	20.9	12 7	7 6.27	+27 14.0	1.975	2.870	9.9	21.5
12 17	6 56.36	+21 26.8	2.175	3.126	5.6	20.7	12 17	6 58.11	+27 35.4	1.914	2.865	6.2	21.3
12 27	6 47.62	+21 34.0	2.148	3.127	1.8	20.5	12 27	6 48.24	+27 53.0	1.881	2.859	2.5	21.0
1 6	6 38.44	+21 41.1	2.150	3.128	2.1	20.5	1 6	6 37.74	+28 4.0	1.878	2.854	3.0	21.1
1 16	6 29.78	+21 47.0	2.182	3.129	5.9	20.7	1 16	6 27.82	+28 7.1	1.904	2.847	6.8	21.3
1 26	6 22.53	+21 51.7	2.243	3.129	9.3	20.9	1 26	6 19.60	+28 3.0	1.958	2.841	10.6	21.5
2 5	6 17.32	+21 55.3	2.328	3.130	12.2	21.1	2 5	6 13.86	+27 53.6	2.035	2.835	13.8	21.7
<b>8328</b>	Uyttenhove		12 31.5 108°05	2°4/31.9	18		<b>185686</b>	1996 <i>VY</i> <sub>17</sub>		12 31.5 37°65	1°5/31.2	18	
11 27	7 13.61	+1											



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>135016</b>	2001 <i>KD</i> <sub>41</sub>		12 31.5 168°12	5°0/ 1.7 18			<b>247221</b>	2001 <i>QV</i> <sub>129</sub>		12 31.5 54°34	0°5/31.5 18		
11 27	7 9.56	+ 7 11.2	2.322	3.098	13.0	20.6	11 27	7 14.15	+25 26.9	1.612	2.438	15.7	20.1
12 7	7 3.93	+ 6 52.7	2.242	3.102	10.4	20.5	12 7	7 7.95	+25 10.8	1.559	2.460	11.7	19.9
12 17	6 56.43	+ 6 46.0	2.186	3.106	7.7	20.3	12 17	6 59.04	+24 53.5	1.529	2.482	7.1	19.7
12 27	6 47.66	+ 6 52.3	2.157	3.109	5.4	20.2	12 27	6 48.50	+24 33.2	1.525	2.505	2.3	19.5
1 6	6 38.48	+ 7 11.4	2.158	3.112	5.3	20.2	1 6	6 37.70	+24 9.1	1.549	2.528	2.7	19.6
1 16	6 29.77	+ 7 41.9	2.188	3.114	7.3	20.3	1 16	6 28.02	+23 42.2	1.602	2.551	7.3	19.9
1 26	6 22.37	+ 8 21.4	2.246	3.115	10.0	20.5	1 26	6 20.59	+23 14.3	1.681	2.574	11.4	20.2
2 5	6 16.90	+ 9 6.9	2.328	3.116	12.6	20.7	2 5	6 16.03	+22 47.5	1.783	2.597	14.8	20.5
<b>125060</b>	2001 <i>TT</i> <sub>233</sub>		12 31.5 267°22	1°2/31.7 18			<b>222531</b>	2001 <i>UC</i> <sub>41</sub>		12 31.5 58°43	0°2/31.5 18		
11 27	7 12.39	+20 26.4	1.629	2.452	15.6	20.0	11 27	7 14.12	+21 52.7	1.343	2.177	17.7	19.9
12 7	7 7.06	+20 17.7	1.543	2.442	11.9	19.7	12 7	7 8.47	+22 18.7	1.292	2.198	13.3	19.6
12 17	6 58.83	+20 13.2	1.480	2.432	7.5	19.4	12 17	6 59.63	+22 49.7	1.263	2.218	8.1	19.4
12 27	6 48.52	+20 11.5	1.443	2.422	2.7	19.1	12 27	6 48.74	+23 21.7	1.259	2.239	2.5	19.1
1 6	6 37.41	+20 11.1	1.434	2.412	3.0	19.1	1 6	6 37.39	+23 50.3	1.281	2.260	3.1	19.2
1 16	6 26.94	+20 11.2	1.452	2.402	7.9	19.4	1 16	6 27.20	+24 13.3	1.331	2.282	8.3	19.6
1 26	6 18.48	+20 11.8	1.497	2.391	12.5	19.6	1 26	6 19.57	+24 30.2	1.405	2.303	12.9	19.9
2 5	6 12.94	+20 13.1	1.564	2.381	16.5	19.8	2 5	6 15.23	+24 42.1	1.501	2.324	16.7	20.2
<b>161574</b>	2005 <i>DS</i>		12 31.5 150°22	1°2/31.8 18			<b>110852</b>	2001 <i>US</i> <sub>76</sub>		12 31.5 95°95	2°4/31.0 18		
11 27	7 7.45	+18 23.3	2.580	3.385	11.1	20.3	11 27	7 12.44	+28 11.0	1.975	2.792	13.5	20.2
12 7	7 2.28	+18 26.8	2.499	3.388	8.4	20.1	12 7	7 6.62	+28 48.6	1.907	2.802	10.2	20.0
12 17	6 55.37	+18 34.6	2.444	3.392	5.3	19.9	12 17	6 58.30	+29 25.0	1.862	2.812	6.4	19.8
12 27	6 47.33	+18 45.7	2.417	3.395	2.1	19.7	12 27	6 48.32	+29 55.9	1.846	2.822	3.0	19.6
1 6	6 38.91	+18 59.0	2.421	3.398	2.2	19.7	1 6	6 37.83	+30 17.9	1.859	2.832	3.5	19.6
1 16	6 30.94	+19 13.4	2.455	3.401	5.4	19.9	1 16	6 28.05	+30 29.4	1.901	2.841	7.1	19.9
1 26	6 24.17	+19 28.2	2.518	3.404	8.4	20.1	1 26	6 20.13	+30 31.2	1.970	2.851	10.6	20.1
2 5	6 19.18	+19 42.9	2.606	3.406	11.1	20.3	2 5	6 14.78	+30 25.6	2.062	2.860	13.7	20.3
<b>298552</b>	2003 <i>WH</i> <sub>151</sub>		12 31.5 79°67	6°2/ 1.4 18			<b>418484</b>	2008 <i>RF</i> <sub>106</sub>		12 31.5 46°95	2°6/ 1.4 18		
11 27	7 10.43	+ 8 20.0	1.741	2.538	15.9	20.9	11 27	7 9.20	+12 47.2	1.879	2.686	14.5	20.4
12 7	7 5.01	+ 7 32.1	1.677	2.549	12.7	20.7	12 7	7 3.94	+13 21.5	1.825	2.712	11.1	20.3
12 17	6 57.24	+ 6 57.4	1.634	2.561	9.3	20.5	12 17	6 56.52	+14 7.6	1.795	2.738	7.2	20.1
12 27	6 47.94	+ 6 38.5	1.617	2.572	6.7	20.4	12 27	6 47.72	+15 3.1	1.791	2.765	3.6	19.9
1 6	6 38.22	+ 6 36.3	1.628	2.583	6.5	20.4	1 6	6 38.60	+16 4.6	1.817	2.792	3.3	20.0
1 16	6 29.24	+ 6 49.9	1.666	2.594	9.0	20.6	1 16	6 30.20	+17 8.3	1.872	2.819	6.7	20.2
1 26	6 22.05	+ 7 16.7	1.730	2.605	12.2	20.8	1 26	6 23.48	+18 10.8	1.955	2.846	10.2	20.5
2 5	6 17.31	+ 7 52.9	1.816	2.616	15.2	21.0	2 5	6 19.05	+19 9.7	2.062	2.874	13.2	20.7
<b>18454</b>	1995 <i>BF</i> <sub>1</sub>		12 31.5 255°92	0°9/31.4 18			<b>267795</b>	2003 <i>SM</i> <sub>250</sub>		12 31.5 89°66	7°2/29.9 18		
11 27	7 15.31	+25 7.9	1.449	2.279	16.9	17.7	11 27	7 17.36	+44 31.5	2.388	3.167	12.6	19.7
12 7	7 9.65	+25 8.9	1.368	2.271	12.8	17.4	12 7	7 10.36	+45 42.7	2.335	3.187	10.4	19.6
12 17	7 0.60	+25 10.2	1.309	2.263	8.0	17.1	12 17	7 0.62	+46 41.7	2.307	3.206	8.4	19.5
12 27	6 49.12	+25 8.2	1.275	2.255	2.7	16.8	12 27	6 49.06	+47 22.0	2.305	3.225	7.3	19.5
1 6	6 36.73	+25 0.3	1.268	2.247	3.3	16.8	1 6	6 36.97	+47 39.8	2.331	3.244	7.6	19.5
1 16	6 25.17	+24 45.9	1.289	2.238	8.7	17.1	1 16	6 25.75	+47 34.7	2.384	3.263	9.1	19.7
1 26	6 16.05	+24 26.9	1.334	2.229	13.7	17.4	1 26	6 16.62	+47 9.9	2.463	3.281	11.1	19.8
2 5	6 10.37	+24 5.9	1.401	2.221	17.9	17.6	2 5	6 10.35	+46 30.9	2.564	3.299	13.0	20.0
<b>425077</b>	2009 <i>RG</i> <sub>69</sub>		12 31.5 156°77	0°0/31.4 18			<b>6296</b>	Cleveland		12 31.5 314°32	6°2/ 3.4 18 A		
11 27	7 17.02	+23 36.7	1.838	2.649	14.6	21.6	11 27	7 17.65	+ 0 56.4	1.032	1.832	24.2	16.9
12 7	7 10.03	+23 32.0	1.764	2.657	11.0	21.3	12 7	7 12.60	+ 2 46.0	0.950	1.826	19.8	16.6
12 17	7 0.38	+23 27.8	1.713	2.664	6.8	21.1	12 17	7 3.20	+ 5 27.7	0.887	1.819	14.2	16.2
12 27	6 48.96	+23 22.0	1.691	2.671	2.1	20.8	12 27	6 50.21	+ 9 1.2	0.846	1.813	8.4	15.9
1 6	6 37.03	+23 13.0	1.698	2.677	2.6	20.9	1 6	6 35.33	+13 12.4	0.834	1.807	6.5	15.8
1 16	6 25.95	+23 0.6	1.736	2.682	7.1	21.2	1 16	6 20.88	+17 36.5	0.850	1.801	11.6	16.0
1 26	6 16.90	+22 46.0	1.801	2.686	11.2	21.4	1 26	6 9.29	+21 48.0	0.893	1.796	17.8	16.4
2 5	6 10.63	+22 30.9	1.889	2.690	14.7	21.7	2 5	6 2.19	+25 30.3	0.958	1.792	23.2	16.7
<b>516846</b>	2011 <i>BW</i> <sub>164</sub>		12 31.5 243°67	4°8/30.6 18			<b>236244</b>	2005 <i>YL</i> <sub>89</sub>		12 31.5 304°00	0°1/31.6 18		
11 27	7 12.58	+37 19.6	2.370	3.172	12.1	21.4	11 27	7 11.29	+22 14.3	1.493	2.326	16.3	20.6
12 7	7 6.64	+37 56.1	2.290	3.168	9.5	21.2	12 7	7 6.58	+22 19.1	1.408	2.313	12.4	20.3
12 17	6 58.29	+38 25.3	2.234	3.165	6.9	21.1	12 17	6 58.73	+22 27.8	1.345	2.300	7.7	20.0
12 27	6 48.31	+38 42.5	2.205	3.161	5.0	20.9	12 27	6 48.58	+22 37.9	1.307	2.287	2.5	19.6
1 6	6 37.77	+38 44.4	2.206	3.157	5.4	21.0	1 6	6 37.49	+22 46.8	1.295	2.275	3.0	19.7
1 16	6 27.86	+38 30.4	2.235	3.154	7.6	21.1	1 16	6 27.06	+22 52.8	1.311	2.262	8.4	19.9
1 26	6 19.67	+38 2.7	2.291	3.150	10.3	21.3	1 26	6 18.78	+22 56.0	1.352	2.251	13.3	20.2
2 5	6 13.93	+37 25.1	2.371	3.146	12.8	21.4	2 5	6 13.68	+22 57.1	1.414	2.239	17.5	20.4
<b>158891</b>	2004 <i>PZ</i> <sub>82</sub>		12 31.5 70°17	3°6/ 1.3 18			<b>82224</b>	2001 <i>HC</i> <sub>59</sub>		12 31.5 231°28	2°8/31.2 18		
11 27	7 12.13	+13 19.7	1.511	2.327	17.0	20.1	11 27	7 16.38	+29 9.1	1.690	2.509	15.3	19.8
12 7	7 6.60	+13 19.8	1.454	2.345	13.1	19.9	12 7	7 10.19	+29 30.3	1.605	2.501	11.7	19.5
12 17	6 58.34	+13 32.5	1.418	2.363	8.6	19.7	12 17	7 0.84	+29 49.0	1.542	2.492	7.5	19.3
12 27	6 48.31	+13 57.0	1.408	2.380	4.5	19.5	12 27	6 49.22	+30 0.2	1.507	2.483	3.5	19.0
1 6	6 37.84	+14 31.0	1.425	2.398	4.4	19.6	1 6	6 36.75	+30 0.1	1.500	2.474	4.0	19.0
1 16	6 28.28	+15 11.4	1.470	2.416	8.2	19.8	1 16	6 25.02	+29 47.7	1.521	2.464	8.3	19.2
1 26	6 20.84	+15 55.0	1.540	2.433	12.3	20.1	1 26	6 15.52	+29 25.2	1.569	2.453	12.6	19.5
2 5	6 16.26	+16 39.2	1.633	2.451	15.8	20.4	2 5	6 9.21	+28 56.4	1.638	2.443	16.4	19.7
<b>361769</b>	2008 <i>AG</i> <sub>17</sub>		12 31.5 3°06	1°3/31.8 18			<b>290523</b>	2005 <i>UB</i> <sub>44</sub>		12 31.5 28°86	3°3/ 1.1 18		
11 27	7 9												

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>106914</b>	2000 YO <sub>51</sub>	12 31.5	44°33	0°0/31.3	18		<b>283346</b>	1999 VG <sub>35</sub>	12 31.5	29°56	3°9/30.8	18	
11 27	7 13.35	+21 21.4	1.120	1.967	19.7	18.9	11 27	7 11.67	+27 39.4	1.106	1.960	19.4	19.0
12 7	7 8.46	+21 46.4	1.070	1.981	14.8	18.7	12 7	7 7.33	+28 48.2	1.067	1.981	14.5	18.7
12 17	6 59.90	+22 18.5	1.039	1.996	9.1	18.4	12 17	6 59.23	+29 56.5	1.048	2.004	9.2	18.5
12 27	6 48.90	+22 53.1	1.031	2.012	2.9	18.1	12 27	6 48.70	+30 55.6	1.052	2.028	4.6	18.3
1 6	6 37.28	+23 25.2	1.049	2.028	3.4	18.2	1 6	6 37.64	+31 38.6	1.080	2.054	5.4	18.5
1 16	6 26.96	+23 51.7	1.091	2.045	9.3	18.6	1 16	6 28.01	+32 2.6	1.134	2.080	10.0	18.8
1 26	6 19.54	+24 11.9	1.158	2.062	14.4	18.9	1 26	6 21.41	+32 9.9	1.210	2.108	14.5	19.1
2 5	6 15.87	+24 26.5	1.243	2.080	18.7	19.2	2 5	6 18.59	+32 4.7	1.306	2.136	18.3	19.5
<b>74514</b>	1999 FG <sub>16</sub>	12 31.5	23°11	4°6/30.8	18		<b>519416</b>	2011 UZ <sub>156</sub>	12 31.5	164°49	5°2/30.0	18	
11 27	7 11.74	+36 10.5	2.197	3.005	12.6	19.8	11 27	7 15.85	+34 59.7	2.111	2.916	13.2	21.1
12 7	7 6.10	+36 43.8	2.123	3.007	9.9	19.7	12 7	7 9.44	+36 14.6	2.037	2.919	10.3	20.9
12 17	6 57.99	+37 10.0	2.074	3.010	7.0	19.5	12 17	7 0.24	+37 24.9	1.988	2.923	7.4	20.8
12 27	6 48.26	+37 24.3	2.052	3.013	4.9	19.4	12 27	6 49.05	+38 23.7	1.968	2.925	5.3	20.6
1 6	6 38.02	+37 23.8	2.059	3.015	5.2	19.4	1 6	6 37.09	+39 5.4	1.976	2.928	5.9	20.7
1 16	6 28.48	+37 8.0	2.094	3.018	7.6	19.6	1 16	6 25.75	+39 27.8	2.014	2.930	8.5	20.8
1 26	6 20.76	+36 39.3	2.156	3.022	10.5	19.7	1 26	6 16.33	+39 32.3	2.078	2.932	11.4	21.0
2 5	6 15.58	+36 1.5	2.241	3.025	13.2	19.9	2 5	6 9.71	+39 22.9	2.165	2.933	14.1	21.2
<b>5915</b>	Yoshihiro	12 31.5	356°86	0°1/31.6	18		<b>131378</b>	2001 KP <sub>35</sub>	12 31.5	220°35	1°6/31.9	18	
11 27	7 10.72	+20 18.2	1.189	2.034	18.8	16.7	11 27	7 7.62	+17 0.5	2.819	3.617	10.4	20.7
12 7	7 6.65	+20 49.1	1.121	2.032	14.3	16.4	12 7	7 2.36	+16 57.7	2.724	3.609	7.9	20.5
12 17	6 58.98	+21 29.8	1.073	2.030	8.9	16.1	12 17	6 55.47	+16 59.3	2.655	3.600	5.1	20.3
12 27	6 48.70	+22 16.1	1.048	2.029	2.9	15.7	12 27	6 47.46	+17 4.9	2.615	3.591	2.3	20.1
1 6	6 37.44	+23 2.5	1.049	2.028	3.4	15.8	1 6	6 39.03	+17 13.7	2.606	3.581	2.3	20.1
1 16	6 27.08	+23 44.6	1.075	2.029	9.4	16.1	1 16	6 30.94	+17 24.8	2.628	3.572	5.2	20.3
1 26	6 19.36	+24 20.0	1.124	2.030	14.7	16.4	1 26	6 23.91	+17 37.7	2.679	3.561	8.1	20.5
2 5	6 15.33	+24 48.5	1.193	2.031	19.2	16.7	2 5	6 18.51	+17 51.6	2.756	3.551	10.7	20.6
<b>414697</b>	2009 WH <sub>163</sub>	12 31.5	51°80	1°6/31.7	17		<b>136167</b>	2003 UP <sub>85</sub>	12 31.5	171°07	1°0/31.4	18	
11 27	7 9.10	+19 18.5	2.136	2.948	12.8	20.9	11 27	7 16.45	+24 7.6	1.715	2.532	15.3	20.8
12 7	7 3.81	+18 57.8	2.059	2.952	9.7	20.7	12 7	7 9.99	+24 35.3	1.639	2.536	11.5	20.6
12 17	6 56.45	+18 40.5	2.007	2.956	6.1	20.4	12 17	7 0.59	+25 5.4	1.587	2.539	7.1	20.3
12 27	6 47.75	+18 26.1	1.983	2.960	2.5	20.2	12 27	6 49.16	+25 33.9	1.561	2.541	2.4	20.1
1 6	6 38.66	+18 14.5	1.988	2.965	2.7	20.2	1 6	6 37.01	+25 56.9	1.565	2.543	3.0	20.1
1 16	6 30.15	+18 5.5	2.023	2.969	6.3	20.5	1 16	6 25.63	+26 12.3	1.598	2.544	7.7	20.4
1 26	6 23.16	+17 59.1	2.085	2.974	9.8	20.7	1 26	6 16.37	+26 20.5	1.658	2.544	12.0	20.6
2 5	6 18.31	+17 55.2	2.172	2.978	12.8	20.9	2 5	6 10.10	+26 23.1	1.740	2.544	15.6	20.9
<b>519298</b>	2011 CD <sub>121</sub>	12 31.5	159°77	1°0/31.3	18		<b>114109</b>	2002 VS <sub>45</sub>	12 31.5	169°66	2°2/31.9	18	
11 27	7 9.09	+26 12.9	2.798	3.604	10.3	22.1	11 27	7 10.34	+16 42.9	1.970	2.780	13.8	20.3
12 7	7 3.46	+26 25.5	2.717	3.608	7.7	21.9	12 7	7 4.95	+16 35.9	1.891	2.782	10.5	20.1
12 17	6 56.11	+26 37.5	2.663	3.612	4.8	21.7	12 17	6 57.28	+16 35.4	1.836	2.782	6.8	19.8
12 27	6 47.63	+26 46.9	2.637	3.616	1.8	21.5	12 27	6 48.07	+16 41.0	1.807	2.783	3.1	19.6
1 6	6 38.80	+26 52.1	2.643	3.620	2.1	21.6	1 6	6 38.34	+16 51.6	1.808	2.784	3.1	19.6
1 16	6 30.43	+26 52.5	2.680	3.623	5.2	21.8	1 16	6 29.18	+17 5.8	1.839	2.784	6.8	19.9
1 26	6 23.28	+26 48.5	2.746	3.626	8.0	22.0	1 26	6 21.64	+17 22.7	1.896	2.785	10.6	20.1
2 5	6 17.91	+26 41.0	2.838	3.629	10.5	22.1	2 5	6 16.43	+17 41.2	1.977	2.785	13.8	20.3
<b>346804</b>	2009 BF <sub>183</sub>	12 31.5	358°67	2°7/ 1.5	18		<b>453601</b>	2010 NF	12 31.5	187°75	3°5/31.2	18	
11 27	7 8.00	+11 38.9	1.282	2.113	18.6	19.0	11 27	7 16.43	+34 4.6	2.317	3.117	12.4	21.6
12 7	7 4.35	+12 48.2	1.209	2.109	14.4	18.7	12 7	7 9.40	+34 17.1	2.234	3.116	9.5	21.4
12 17	6 57.48	+14 21.0	1.156	2.106	9.4	18.5	12 17	6 59.95	+34 23.0	2.176	3.115	6.4	21.2
12 27	6 48.24	+16 13.5	1.128	2.105	4.3	18.2	12 27	6 48.91	+34 18.2	2.146	3.114	3.9	21.1
1 6	6 37.99	+18 17.7	1.127	2.105	3.8	18.1	1 6	6 37.39	+34 0.6	2.146	3.112	4.2	21.1
1 16	6 28.38	+20 23.7	1.152	2.106	8.9	18.4	1 16	6 26.58	+33 30.4	2.177	3.109	7.0	21.3
1 26	6 21.02	+22 22.6	1.203	2.108	14.0	18.7	1 26	6 17.57	+32 50.2	2.236	3.106	10.1	21.5
2 5	6 16.96	+24 8.9	1.275	2.112	18.3	19.0	2 5	6 11.06	+32 3.9	2.320	3.102	12.9	21.6
<b>118869</b>	2000 SS <sub>362</sub>	12 31.5	136°69	1°4/31.9	18		<b>171952</b>	2001 SD <sub>340</sub>	12 31.6	229°97	1°8/31.4	18	
11 27	7 10.18	+16 52.6	2.400	3.200	12.0	20.5	11 27	7 13.73	+28 51.6	2.230	3.039	12.5	20.1
12 7	7 4.41	+17 12.8	2.325	3.211	9.0	20.3	12 7	7 7.46	+28 53.6	2.138	3.029	9.5	19.9
12 17	6 56.75	+17 39.3	2.275	3.222	5.7	20.1	12 17	6 58.84	+28 52.2	2.071	3.020	6.0	19.7
12 27	6 47.85	+18 10.5	2.255	3.232	2.3	19.9	12 27	6 48.59	+28 44.8	2.032	3.009	2.5	19.4
1 6	6 38.55	+18 44.4	2.265	3.242	2.4	19.9	1 6	6 37.77	+28 29.5	2.024	2.999	2.9	19.4
1 16	6 29.74	+19 18.9	2.306	3.251	5.7	20.1	1 16	6 27.52	+28 6.4	2.046	2.988	6.5	19.6
1 26	6 22.28	+19 52.6	2.376	3.260	8.9	20.3	1 26	6 18.92	+27 37.0	2.096	2.977	10.1	19.8
2 5	6 16.78	+20 24.5	2.471	3.268	11.7	20.5	2 5	6 12.72	+27 4.2	2.170	2.965	13.2	20.0
<b>68998</b>	2002 TC <sub>157</sub>	12 31.5	345°79	6°3/ 2.6	18		<b>487540</b>	2014 UF <sub>189</sub>	12 31.6	159°97	4°1/30.9	17	
11 27	7 5.79	+ 2 57.1	2.158	2.931	14.0	18.9	11 27	7 13.72	+36 3.0	2.473	3.272	11.7	20.9
12 7	7 1.37	+ 2 51.6	2.076	2.928	11.5	18.7	12 7	7 7.30	+36 29.8	2.397	3.276	9.1	20.7
12 17	6 55.01	+ 3 2.8	2.016	2.925	8.9	18.6	12 17	6 58.64	+36 49.7	2.345	3.279	6.4	20.5
12 27	6 47.33	+ 3 32.1	1.981	2.922	6.8	18.4	12 27	6 48.50	+36 58.7	2.322	3.283	4.4	20.4
1 6	6 39.15	+ 4 19.1	1.974	2.920	6.4	18.4	1 6	6 37.92	+36 54.1	2.328	3.286	4.7	20.4
1 16	6 31.40	+ 5 21.3	1.996	2.918	8.1	18.5	1 16	6 28.00	+36 35.7	2.365	3.288	7.0	20.6
1 26	6 24.94	+ 6 34.6	2.044	2.916	10.7	18.7	1 26	6 19.74	+36 5.8	2.429	3.291	9.6	20.7
2 5	6 20.43	+ 7 54.3	2.117	2.915	13.4	18.8	2 5	6 13.82	+35 27.9	2.517	3.293	12.1	20.9
<b>413803</b>	2006 JE <sub>31</sub>	12 31.5	318°82	2°5/30.8	18		<b>294211</b>	2007 UY	12 31.6	60°71	2°7/ 1.1	18	
11 27	7 9.31	+27 3.8	2.033	2.855	13.0	20.3	11 27	7 12.62	+15 31.9				

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12 31.6

12 31.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>446303</b>	2014 <i>EC</i> <sub>14</sub>		12 31.6 196°91		1°0/31.7 18		<b>274706</b>	2008 <i>UB</i> <sub>96</sub>		12 31.6 44°24		2°2/ 1.1 17	
11 27	7 12.93	+19 53.1	2.062	2.870	13.4	22.1	11 27	7 7.86	+15 48.7	1.972	2.786	13.7	20.2
12 7	7 6.89	+19 54.8	1.976	2.867	10.1	21.9	12 7	7 3.00	+15 56.7	1.908	2.800	10.4	20.0
12 17	6 58.50	+20 0.6	1.914	2.864	6.3	21.7	12 17	6 56.03	+16 12.7	1.867	2.815	6.7	19.8
12 27	6 48.49	+20 9.0	1.881	2.860	2.3	21.4	12 27	6 47.69	+16 35.6	1.854	2.830	3.0	19.6
1 6	6 37.90	+20 18.4	1.878	2.856	2.5	21.4	1 6	6 38.97	+17 3.6	1.869	2.845	3.0	19.6
1 16	6 27.85	+20 27.6	1.905	2.851	6.6	21.7	1 16	6 30.88	+17 34.6	1.913	2.861	6.5	19.9
1 26	6 19.43	+20 36.2	1.959	2.846	10.4	21.9	1 26	6 24.37	+18 6.6	1.985	2.877	10.0	20.1
2 5	6 13.37	+20 44.2	2.038	2.840	13.7	22.1	2 5	6 20.06	+18 38.3	2.080	2.893	13.1	20.4
<b>521926</b>	2015 <i>UL</i> <sub>88</sub>		12 31.6 2°93		6°1/ 1.5 17		<b>239746</b>	2009 <i>YF</i> <sub>4</sub>		12 31.6 293°33		1°2/31.4 18	
11 27	7 6.48	+9 44.8	1.442	2.262	17.4	21.5	11 27	7 9.24	+26 32.6	2.268	3.083	12.1	20.7
12 7	7 2.68	+9 8.5	1.373	2.261	13.9	21.3	12 7	7 4.12	+26 40.5	2.174	3.070	9.1	20.5
12 17	6 56.17	+8 47.2	1.324	2.261	10.0	21.0	12 17	6 56.81	+26 47.7	2.105	3.056	5.7	20.3
12 27	6 47.78	+8 43.3	1.300	2.262	6.8	20.8	12 27	6 47.98	+26 51.7	2.064	3.043	2.1	20.0
1 6	6 38.77	+8 57.2	1.300	2.264	6.6	20.8	1 6	6 38.57	+26 50.6	2.052	3.029	2.6	20.0
1 16	6 30.47	+9 27.3	1.327	2.267	9.6	21.0	1 16	6 29.61	+26 43.8	2.071	3.016	6.2	20.3
1 26	6 24.14	+10 9.8	1.377	2.271	13.4	21.3	1 26	6 22.12	+26 31.9	2.117	3.003	9.8	20.5
2 5	6 20.60	+11 0.1	1.448	2.275	17.0	21.5	2 5	6 16.82	+26 16.5	2.187	2.989	12.9	20.6
<b>29625</b>	1998 <i>TF</i> <sub>7</sub>		12 31.6 267°24		2°7/ 1.1 18		<b>215506</b>	2002 <i>TY</i> <sub>371</sub>		12 31.6 345°78		1°9/ 1.1 17	
11 27	7 7.87	+14 45.6	2.237	3.041	12.6	19.3	11 27	7 8.52	+15 8.1	1.539	2.364	16.3	19.8
12 7	7 2.94	+14 37.3	2.147	3.033	9.7	19.1	12 7	7 4.33	+15 51.4	1.459	2.358	12.5	19.5
12 17	6 56.01	+14 36.1	2.082	3.025	6.4	18.9	12 17	6 57.30	+16 49.0	1.402	2.353	8.0	19.3
12 27	6 47.70	+14 42.2	2.044	3.017	3.4	18.7	12 27	6 48.21	+17 58.4	1.370	2.348	3.3	19.0
1 6	6 38.87	+14 54.7	2.036	3.008	3.3	18.7	1 6	6 38.26	+19 14.7	1.365	2.344	3.2	18.9
1 16	6 30.45	+15 12.5	2.057	3.000	6.4	18.8	1 16	6 28.86	+20 32.1	1.389	2.340	7.9	19.2
1 26	6 23.36	+15 34.3	2.106	2.992	9.8	19.0	1 26	6 21.39	+21 46.1	1.438	2.338	12.5	19.5
2 5	6 18.28	+15 58.7	2.179	2.984	12.8	19.2	2 5	6 16.80	+22 53.6	1.510	2.336	16.5	19.7
<b>156578</b>	2002 <i>EZ</i> <sub>149</sub>		12 31.6 174°61		0°7/31.7 17		<b>147379</b>	2003 <i>EA</i> <sub>23</sub>		12 31.6 248°90		0°8/31.7 18	
11 27	7 9.32	+20 7.2	2.419	3.225	11.7	21.1	11 27	7 9.79	+19 32.0	2.213	3.023	12.5	20.3
12 7	7 3.86	+20 14.2	2.336	3.227	8.8	20.9	12 7	7 4.52	+19 45.7	2.119	3.011	9.5	20.1
12 17	6 56.49	+20 24.7	2.278	3.228	5.5	20.7	12 17	6 57.07	+20 4.4	2.050	3.000	5.9	19.8
12 27	6 47.83	+20 37.3	2.250	3.229	1.9	20.4	12 27	6 48.08	+20 26.5	2.008	2.988	2.1	19.5
1 6	6 38.74	+20 50.6	2.251	3.230	2.1	20.5	1 6	6 38.46	+20 49.9	1.997	2.976	2.3	19.5
1 16	6 30.12	+21 3.4	2.284	3.230	5.7	20.7	1 16	6 29.23	+21 12.9	2.016	2.963	6.2	19.8
1 26	6 22.82	+21 15.2	2.344	3.230	9.0	20.9	1 26	6 21.41	+21 34.5	2.063	2.950	9.9	20.0
2 5	6 17.48	+21 25.9	2.430	3.230	11.8	21.1	2 5	6 15.73	+21 54.2	2.134	2.937	13.1	20.2
<b>282908</b>	2007 <i>HE</i> <sub>81</sub>		12 31.6 281°35		3°8/31.9 18		<b>362228</b>	2009 <i>HQ</i> <sub>96</sub>		12 31.6 276°77		3°3/30.5 18	
11 27	7 11.41	+14 40.7	1.569	2.387	16.4	20.7	11 27	7 12.77	+27 54.8	1.871	2.691	14.1	20.8
12 7	7 6.31	+14 12.8	1.489	2.382	12.7	20.5	12 7	7 7.46	+29 6.1	1.780	2.677	10.7	20.6
12 17	6 58.40	+13 53.8	1.432	2.377	8.5	20.2	12 17	6 59.26	+30 20.2	1.714	2.663	7.0	20.3
12 27	6 48.51	+13 44.8	1.400	2.372	4.6	20.0	12 27	6 48.86	+31 30.9	1.675	2.649	3.7	20.1
1 6	6 37.91	+13 45.6	1.396	2.368	4.6	20.0	1 6	6 37.44	+32 31.7	1.665	2.635	4.5	20.1
1 16	6 27.98	+13 55.4	1.418	2.363	8.6	20.2	1 16	6 26.42	+33 18.5	1.684	2.621	8.2	20.3
1 26	6 20.04	+14 12.7	1.466	2.358	12.9	20.5	1 26	6 17.21	+33 50.2	1.730	2.606	12.1	20.5
2 5	6 14.94	+14 35.4	1.536	2.354	16.7	20.7	2 5	6 10.85	+34 8.8	1.798	2.592	15.6	20.7
<b>65888</b>	1998 <i>BS</i> <sub>3</sub>		12 31.6 143°88		0°2/31.6 18		<b>417390</b>	2006 <i>HA</i> <sub>108</sub>		12 31.6 166°84		1°3/31.2 18	
11 27	7 10.55	+21 37.1	2.103	2.917	12.9	20.6	11 27	7 9.18	+25 44.3	2.546	3.356	11.1	21.6
12 7	7 5.04	+21 46.9	2.026	2.921	9.7	20.4	12 7	7 3.78	+26 15.4	2.464	3.357	8.3	21.5
12 17	6 57.31	+21 59.7	1.972	2.924	6.0	20.2	12 17	6 56.46	+26 47.1	2.409	3.359	5.1	21.3
12 27	6 48.11	+22 13.7	1.947	2.927	1.9	19.9	12 27	6 47.84	+27 16.6	2.382	3.361	2.0	21.1
1 6	6 38.42	+22 26.9	1.951	2.930	2.3	19.9	1 6	6 38.77	+27 41.5	2.386	3.362	2.4	21.1
1 16	6 29.31	+22 37.9	1.986	2.933	6.3	20.2	1 16	6 30.13	+28 0.2	2.420	3.363	5.6	21.3
1 26	6 21.77	+22 46.6	2.047	2.936	9.9	20.4	1 26	6 22.81	+28 12.5	2.483	3.364	8.7	21.5
2 5	6 16.50	+22 53.3	2.133	2.938	13.1	20.6	2 5	6 17.44	+28 19.4	2.571	3.365	11.4	21.7
<b>116082</b>	2003 <i>WZ</i> <sub>124</sub>		12 31.6 260°27		3°1/30.8 18		<b>431731</b>	2008 <i>FG</i> <sub>56</sub>		12 31.6 168°45		0°4/31.6 18	
11 27	7 13.63	+29 35.9	2.073	2.885	13.1	19.6	11 27	7 15.33	+21 9.4	2.010	2.817	13.7	22.9
12 7	7 7.86	+30 21.0	1.974	2.866	10.1	19.3	12 7	7 8.69	+21 18.2	1.932	2.822	10.3	22.6
12 17	6 59.37	+31 5.7	1.899	2.846	6.6	19.1	12 17	6 59.60	+21 30.4	1.877	2.827	6.4	22.4
12 27	6 48.86	+31 44.8	1.853	2.826	3.5	18.8	12 27	6 48.86	+21 43.7	1.851	2.831	2.1	22.1
1 6	6 37.43	+32 13.8	1.836	2.805	4.1	18.8	1 6	6 37.58	+21 56.0	1.856	2.834	2.4	22.2
1 16	6 26.37	+32 30.3	1.848	2.784	7.6	19.0	1 16	6 26.96	+22 6.1	1.890	2.836	6.7	22.4
1 26	6 17.01	+32 34.4	1.888	2.763	11.3	19.2	1 26	6 18.09	+22 13.8	1.953	2.838	10.5	22.7
2 5	6 10.29	+32 28.7	1.950	2.741	14.6	19.4	2 5	6 11.73	+22 19.6	2.040	2.838	13.8	22.9
<b>77600</b>	2001 <i>KY</i> <sub>23</sub>		12 31.6 213°12		2°6/31.9 18		<b>274130</b>	2008 <i>EZ</i> <sub>96</sub>		12 31.6 175°59		1°2/31.4 18	
11 27	7 8.49	+15 39.1	2.501	3.300	11.6	19.5	11 27	7 16.08	+24 57.0	1.778	2.594	14.9	21.7
12 7	7 3.13	+15 9.5	2.414	3.297	8.9	19.3	12 7	7 9.65	+25 19.0	1.700	2.596	11.2	21.5
12 17	6 56.00	+14 44.6	2.352	3.293	5.9	19.1	12 17	7 0.38	+25 42.3	1.646	2.598	6.9	21.3
12 27	6 47.67	+14 24.8	2.318	3.290	3.1	18.9	12 27	6 49.15	+26 2.9	1.620	2.599	2.4	21.0
1 6	6 38.95	+14 10.4	2.315	3.286	3.2	18.9	1 6	6 37.24	+26 17.7	1.622	2.600	3.0	21.0
1 16	6 30.68	+14 1.4	2.342	3.282	6.0	19.1	1 16	6 26.07	+26 24.9	1.654	2.600	7.5	21.3
1 26	6 23.63	+13 57.7	2.398	3.278	9.0	19.3	1 26	6 16.95	+26 25.3	1.713	2.599	11.7	21.6
2 5	6 18.41	+13 58.4	2.478	3.274	11.7	19.5	2 5	6 10.73	+26 20.8	1.795	2.598	15.2	21.8
<b>440123</b>	2003 <i>SF</i> <sub>183</sub>		12 31.6 100°57		3°1/31.1 18		<b>31900</b>	2000 <i>GX</i> <sub>15</sub>		12 31.6 108°89		1°0/31.4 18	
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>473317</b>	2015 <i>RN</i> <sub>122</sub>	12 31.6 161°36'		0°3/31.5 18			<b>112642</b>	2002 <i>PE</i> <sub>82</sub>	12 31.6 183°26'		4°0/31.2 18		
11 27	7 13.22	+21 27.4	2.073	2.882	13.3	21.3	11 27	7 17.02	+34 59.3	2.193	2.994	12.9	20.2
12 7	7 7.13	+22 5.4	1.994	2.887	10.0	21.0	12 7	7 10.02	+35 17.6	2.113	2.995	10.0	20.1
12 17	6 58.68	+22 48.1	1.941	2.892	6.1	20.8	12 17	7 0.45	+35 28.6	2.057	2.995	6.9	19.9
12 27	6 48.59	+23 32.1	1.916	2.896	2.0	20.6	12 27	6 49.15	+35 27.7	2.029	2.994	4.3	19.7
1 6	6 37.91	+24 13.9	1.922	2.900	2.4	20.6	1 6	6 37.34	+35 12.4	2.031	2.993	4.7	19.7
1 16	6 27.79	+24 50.7	1.958	2.904	6.5	20.9	1 16	6 26.30	+34 42.7	2.062	2.992	7.4	19.9
1 26	6 19.32	+25 21.6	2.022	2.906	10.2	21.1	1 26	6 17.18	+34 1.7	2.122	2.990	10.6	20.1
2 5	6 13.24	+25 46.7	2.110	2.909	13.4	21.3	2 5	6 10.74	+33 13.6	2.205	2.987	13.4	20.3
<b>230213</b>	2001 <i>TP</i> <sub>31</sub>	12 31.6 31°01'		1°4/31.5 18			<b>204466</b>	2005 <i>AE</i> <sub>22</sub>	12 31.6 44°86'		0°1/31.6 18		
11 27	7 13.24	+26 37.4	1.099	1.950	19.6	18.8	11 27	7 16.55	+23 27.9	1.215	2.053	19.0	18.8
12 7	7 8.40	+26 28.1	1.052	1.966	14.7	18.6	12 7	7 10.20	+23 12.3	1.180	2.087	14.1	18.6
12 17	6 59.85	+26 16.8	1.025	1.983	9.1	18.3	12 17	7 0.59	+22 58.6	1.165	2.121	8.6	18.4
12 27	6 48.95	+26 0.3	1.020	2.001	3.1	18.1	12 27	6 49.12	+22 44.6	1.175	2.156	2.7	18.1
1 6	6 37.64	+25 37.0	1.041	2.020	3.6	18.2	1 6	6 37.58	+22 29.0	1.212	2.191	3.1	18.2
1 16	6 27.83	+25 8.0	1.087	2.040	9.3	18.5	1 16	6 27.60	+22 12.3	1.275	2.227	8.4	18.6
1 26	6 21.04	+24 36.4	1.155	2.061	14.3	18.9	1 26	6 20.46	+21 56.0	1.362	2.262	13.0	19.0
2 5	6 17.98	+24 5.4	1.244	2.083	18.5	19.2	2 5	6 16.72	+21 41.4	1.471	2.298	16.8	19.3
<b>270149</b>	2001 <i>SF</i> <sub>73</sub>	12 31.6 88°20'		19°5/ 7.2 18			<b>195827</b>	2002 <i>QE</i> <sub>48</sub>	12 31.6 73°12'		0°2/31.5 17		
11 27	7 12.95	-16 9.1	1.181	1.898	26.1	20.7	11 27	7 9.71	+23 7.5	2.207	3.021	12.4	20.9
12 7	7 7.96	-17 49.9	1.134	1.907	24.0	20.6	12 7	7 4.24	+23 15.9	2.140	3.035	9.2	20.7
12 17	6 59.60	-18 47.9	1.101	1.916	21.9	20.5	12 17	6 56.74	+23 25.8	2.098	3.050	5.7	20.5
12 27	6 48.93	-18 52.0	1.083	1.925	20.2	20.4	12 27	6 47.95	+23 35.3	2.084	3.064	1.8	20.2
1 6	6 37.55	-17 57.6	1.082	1.934	19.5	20.4	1 6	6 38.81	+23 42.8	2.100	3.079	2.1	20.3
1 16	6 27.19	-16 8.3	1.100	1.943	20.0	20.4	1 16	6 30.30	+23 47.4	2.146	3.093	5.9	20.6
1 26	6 19.39	-13 35.5	1.137	1.952	21.4	20.6	1 26	6 23.33	+23 49.1	2.220	3.108	9.3	20.8
2 5	6 15.06	-10 35.6	1.190	1.960	23.2	20.7	2 5	6 18.50	+23 48.6	2.318	3.122	12.2	21.0
<b>176300</b>	2001 <i>SX</i> <sub>135</sub>	12 31.6 285°11'		5°3/ 1.5 18			<b>232425</b>	2003 <i>ES</i> <sub>63</sub>	12 31.6 200°01'		0°8/31.4 18		
11 27	7 8.64	+ 9 1.7	1.929	2.725	14.6	20.1	11 27	7 14.16	+24 1.9	1.919	2.733	14.0	21.5
12 7	7 3.72	+ 8 33.3	1.849	2.723	11.6	19.9	12 7	7 8.10	+24 22.2	1.835	2.730	10.5	21.3
12 17	6 56.57	+ 8 17.0	1.792	2.721	8.4	19.7	12 17	6 59.40	+24 44.5	1.775	2.727	6.5	21.0
12 27	6 47.92	+ 8 14.4	1.761	2.719	5.8	19.6	12 27	6 48.87	+25 5.6	1.743	2.723	2.2	20.7
1 6	6 38.73	+ 8 25.9	1.757	2.717	5.6	19.5	1 6	6 37.66	+25 22.4	1.741	2.719	2.7	20.8
1 16	6 30.06	+ 8 50.2	1.782	2.715	8.1	19.7	1 16	6 27.04	+25 33.4	1.768	2.714	7.1	21.0
1 26	6 22.92	+ 9 24.9	1.833	2.713	11.4	19.9	1 26	6 18.25	+25 38.6	1.822	2.708	11.1	21.3
2 5	6 18.04	+10 6.6	1.908	2.711	14.4	20.1	2 5	6 12.11	+25 39.4	1.900	2.702	14.5	21.5
<b>210837</b>	2001 <i>PT</i> <sub>46</sub>	12 31.6 204°69'		5°1/30.2 18			<b>320140</b>	2007 <i>EX</i> <sub>214</sub>	12 31.6 321°30'		1°1/31.4 17		
11 27	7 16.18	+37 42.0	2.533	3.324	11.7	21.0	11 27	7 9.76	+25 5.3	1.956	2.777	13.5	21.0
12 7	7 9.41	+38 40.2	2.447	3.318	9.3	20.9	12 7	7 4.78	+25 24.6	1.873	2.772	10.1	20.7
12 17	7 0.13	+39 32.3	2.387	3.312	6.8	20.7	12 17	6 57.35	+25 45.1	1.813	2.766	6.3	20.5
12 27	6 49.09	+40 12.4	2.355	3.305	5.2	20.6	12 27	6 48.21	+26 3.7	1.781	2.761	2.2	20.2
1 6	6 37.32	+40 36.4	2.353	3.297	5.6	20.6	1 6	6 38.45	+26 17.9	1.778	2.756	2.7	20.2
1 16	6 26.04	+40 42.8	2.381	3.289	7.7	20.7	1 16	6 29.25	+26 26.1	1.804	2.751	6.8	20.5
1 26	6 16.41	+40 33.1	2.436	3.280	10.3	20.9	1 26	6 21.75	+26 28.4	1.857	2.747	10.7	20.7
2 5	6 9.24	+40 10.9	2.515	3.270	12.7	21.0	2 5	6 16.72	+26 26.2	1.933	2.742	14.0	20.9
<b>456183</b>	2006 <i>HS</i> <sub>65</sub>	12 31.6 220°52'		0°5/31.7 18			<b>482671</b>	2013 <i>CX</i> <sub>22</sub>	12 31.6 32°99'		4°5/31.0 17		
11 27	7 8.16	+20 47.7	2.680	3.485	10.7	22.1	11 27	7 13.99	+30 2.7	1.085	1.936	19.8	19.6
12 7	7 2.91	+20 54.4	2.589	3.479	8.1	21.9	12 7	7 9.07	+30 53.6	1.050	1.962	15.0	19.4
12 17	6 55.89	+21 3.9	2.523	3.473	5.0	21.7	12 17	7 0.29	+31 39.7	1.035	1.989	9.6	19.2
12 27	6 47.68	+21 14.8	2.486	3.466	1.7	21.5	12 27	6 49.11	+32 13.0	1.043	2.018	5.1	19.0
1 6	6 39.03	+21 26.0	2.480	3.459	1.9	21.5	1 6	6 37.58	+32 28.3	1.076	2.048	5.7	19.2
1 16	6 30.75	+21 36.3	2.505	3.451	5.2	21.7	1 16	6 27.70	+32 25.2	1.133	2.079	10.1	19.5
1 26	6 23.63	+21 45.4	2.559	3.444	8.3	21.9	1 26	6 21.01	+32 7.8	1.213	2.110	14.5	19.9
2 5	6 18.27	+21 53.3	2.638	3.436	11.0	22.1	2 5	6 18.19	+31 41.3	1.312	2.143	18.2	20.2
<b>228788</b>	2002 <i>YM</i> <sub>17</sub>	12 31.6 308°15'		1°7/31.7 18			<b>109045</b>	2001 <i>QP</i> <sub>14</sub>	12 31.6 41°08'		1°6/31.3 18		
11 27	7 12.90	+20 15.7	1.458	2.287	16.9	20.0	11 27	7 13.90	+24 30.7	1.128	1.975	19.5	18.7
12 7	7 7.69	+19 51.8	1.380	2.282	12.8	19.7	12 7	7 8.83	+25 3.5	1.085	1.997	14.5	18.5
12 17	6 59.37	+19 31.7	1.324	2.277	8.1	19.5	12 17	7 0.11	+25 38.9	1.062	2.019	8.9	18.3
12 27	6 48.87	+19 14.6	1.294	2.273	3.1	19.2	12 27	6 49.07	+26 11.2	1.063	2.043	3.1	18.0
1 6	6 37.62	+19 0.2	1.290	2.268	3.4	19.2	1 6	6 37.58	+26 35.3	1.088	2.067	3.8	18.1
1 16	6 27.17	+18 48.2	1.314	2.264	8.5	19.5	1 16	6 27.53	+26 49.4	1.140	2.092	9.2	18.5
1 26	6 18.97	+18 39.4	1.363	2.260	13.3	19.7	1 26	6 20.43	+26 54.4	1.214	2.117	14.1	18.9
2 5	6 13.93	+18 33.9	1.433	2.257	17.3	20.0	2 5	6 17.04	+26 52.9	1.309	2.143	18.1	19.2
<b>65429</b>	2002 <i>TV</i> <sub>177</sub>	12 31.6 16°34'		6°0/31.1 18			<b>393293</b>	2013 <i>YN</i> <sub>50</sub>	12 31.6 286°98'		3°0/ 1.2 18		
11 27	7 11.21	+17 7.1	1.152	1.995	19.5	17.1	11 27	7 11.23	+14 25.7	1.506	2.326	16.8	21.4
12 7	7 6.50	+15 4.6	1.099	2.004	15.1	16.9	12 7	7 6.42	+14 37.8	1.424	2.319	13.0	21.2
12 17	6 58.53	+13 6.3	1.067	2.015	10.3	16.6	12 17	6 58.64	+15 2.9	1.365	2.312	8.6	20.9
12 27	6 48.53	+11 19.0	1.059	2.028	6.5	16.5	12 27	6 48.70	+15 39.9	1.330	2.305	4.1	20.6
1 6	6 38.16	+ 9 49.4	1.076	2.043	6.9	16.5	1 6	6 37.87	+16 26.2	1.322	2.298	4.0	20.6
1 16	6 29.08	+ 8 41.9	1.119	2.059	10.9	16.8	1 16	6 27.63	+17 17.8	1.342	2.292	8.5	20.8
1 26	6 22.61	+ 7 57.6	1.184	2.077	15.2	17.1	1 26	6 19.43	+18 11.2	1.388	2.285	13.1	21.1
2 5	6 19.45	+ 7 33.6	1.268	2.096	18.9	17.4	2 5	6 14.21	+19 3.5	1.455	2.278	17.1	21.3
<b>411015</b>	2009 <i>UV</i> <sub>93</sub>	12 31.6 94°58'		4°2/30.6 17			<b>34268</b>	Gracietian	12 31.6 220°50'		1°0/31.4 18		
11 27	7 12.59	+33 53.3	2.225	3.034	12.5	21.1							

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>159756</b>	2003 <i>FS</i> <sub>107</sub>		12 31.6 237°36	3°2/	1.2 18		<b>90027</b>	2002 <i>UM</i> <sub>18</sub>		12 31.6 205°04	0°7/	31.7 18	
11 27	7 11.34	+14 5.9	1.714	2.525	15.5	20.1	11 27	7 14.25	+19 53.7	1.785	2.599	14.9	20.5
12 7	7 6.13	+14 4.7	1.631	2.520	12.0	19.9	12 7	7 8.32	+20 10.1	1.701	2.595	11.3	20.2
12 17	6 58.27	+14 14.2	1.571	2.515	8.0	19.6	12 17	6 59.64	+20 32.5	1.640	2.591	7.1	20.0
12 27	6 48.54	+14 34.0	1.536	2.510	4.1	19.4	12 27	6 49.01	+20 58.3	1.606	2.586	2.4	19.7
1 6	6 38.09	+15 2.6	1.530	2.504	4.0	19.4	1 6	6 37.63	+21 24.8	1.602	2.580	2.7	19.7
1 16	6 28.20	+15 37.6	1.552	2.498	7.9	19.6	1 16	6 26.83	+21 49.5	1.626	2.574	7.4	19.9
1 26	6 20.11	+16 16.5	1.601	2.492	12.0	19.8	1 26	6 17.91	+22 11.5	1.678	2.568	11.7	20.2
2 5	6 14.67	+16 56.8	1.672	2.486	15.7	20.1	2 5	6 11.73	+22 30.7	1.753	2.561	15.3	20.4
<b>293229</b>	2007 <i>BS</i> <sub>60</sub>		12 31.6 14°76	0°3/	31.7 17		<b>349745</b>	2008 <i>YG</i> <sub>140</sub>		12 31.6 43°19	2°1/	31.9 18	
11 27	7 9.67	+20 11.4	2.014	2.830	13.4	21.1	11 27	7 12.65	+18 23.3	1.270	2.106	18.5	19.7
12 7	7 4.56	+20 38.6	1.934	2.830	10.1	20.8	12 7	7 7.37	+18 13.3	1.225	2.129	13.9	19.5
12 17	6 57.15	+21 11.3	1.878	2.830	6.2	20.6	12 17	6 59.01	+18 11.4	1.200	2.154	8.7	19.3
12 27	6 48.16	+21 47.1	1.850	2.830	2.0	20.3	12 27	6 48.73	+18 16.2	1.200	2.179	3.5	19.0
1 6	6 38.57	+22 23.1	1.852	2.831	2.3	20.4	1 6	6 38.13	+18 25.8	1.226	2.204	3.6	19.1
1 16	6 29.52	+22 56.7	1.882	2.831	6.5	20.6	1 16	6 28.76	+18 38.5	1.279	2.230	8.5	19.5
1 26	6 22.04	+23 26.6	1.941	2.831	10.3	20.9	1 26	6 21.91	+18 52.9	1.356	2.257	13.0	19.8
2 5	6 16.89	+23 52.4	2.023	2.831	13.5	21.1	2 5	6 18.26	+19 8.2	1.454	2.284	16.8	20.1
<b>149868</b>	2005 <i>QH</i> <sub>95</sub>		12 31.6 115°73	0°7/	31.7 18 R		<b>389399</b>	2009 <i>XQ</i> <sub>17</sub>		12 31.6 293°52	0°7/	31.4 18	
11 27	7 15.48	+19 55.6	1.710	2.524	15.4	20.7	11 27	7 12.25	+22 0.3	1.531	2.360	16.2	20.9
12 7	7 9.03	+20 13.8	1.647	2.541	11.6	20.5	12 7	7 7.34	+22 42.5	1.450	2.353	12.3	20.6
12 17	6 59.90	+20 37.5	1.606	2.557	7.2	20.3	12 17	6 59.30	+23 31.7	1.391	2.346	7.6	20.3
12 27	6 49.01	+21 4.0	1.593	2.573	2.4	20.0	12 27	6 48.97	+24 23.5	1.358	2.338	2.5	20.0
1 6	6 37.63	+21 30.2	1.609	2.588	2.7	20.1	1 6	6 37.67	+25 12.8	1.353	2.331	3.1	20.0
1 16	6 27.12	+21 54.1	1.655	2.603	7.3	20.4	1 16	6 26.98	+25 55.3	1.375	2.324	8.3	20.3
1 26	6 18.67	+22 14.9	1.727	2.617	11.4	20.7	1 26	6 18.42	+26 29.4	1.423	2.317	13.0	20.6
2 5	6 13.03	+22 32.5	1.823	2.630	14.8	20.9	2 5	6 13.01	+26 55.4	1.492	2.311	17.0	20.8
<b>351801</b>	2006 <i>KW</i> <sub>23</sub>		12 31.6 202°61	6°0/	30.6 18		<b>8862</b>	Takayukiota		12 31.6 54°98	3°7/	1.3 18	
11 27	7 18.74	+39 40.6	2.193	2.984	13.2	21.0	11 27	7 12.01	+13 49.2	1.452	2.272	17.4	16.4
12 7	7 11.63	+40 25.8	2.111	2.980	10.6	20.9	12 7	7 6.60	+13 41.3	1.401	2.294	13.3	16.2
12 17	7 1.63	+41 1.6	2.053	2.976	7.9	20.7	12 17	6 58.45	+13 45.6	1.371	2.316	8.8	16.0
12 27	6 49.60	+41 21.6	2.023	2.970	6.1	20.6	12 27	6 48.56	+14 1.4	1.366	2.339	4.6	15.8
1 6	6 36.87	+41 21.7	2.021	2.965	6.5	20.6	1 6	6 38.31	+14 26.9	1.389	2.362	4.4	15.9
1 16	6 24.89	+41 1.1	2.048	2.958	8.7	20.7	1 16	6 29.05	+14 59.3	1.438	2.385	8.3	16.2
1 26	6 15.00	+40 23.1	2.102	2.951	11.5	20.9	1 26	6 21.99	+15 35.7	1.513	2.408	12.3	16.4
2 5	6 8.05	+39 33.2	2.179	2.944	14.1	21.0	2 5	6 17.80	+16 13.4	1.610	2.432	15.8	16.7
<b>157008</b>	2003 <i>QR</i> <sub>11</sub>		12 31.6 118°06	0°8/	31.8 18		<b>317264</b>	2002 <i>EA</i> <sub>51</sub>		12 31.6 267°53	8°2/	2.6 18	
11 27	7 9.30	+19 29.3	2.379	3.186	11.8	20.5	11 27	7 7.06	- 1 15.6	2.187	2.937	14.5	20.6
12 7	7 3.84	+19 40.9	2.305	3.196	8.9	20.3	12 7	7 2.37	- 1 50.6	2.102	2.930	12.3	20.4
12 17	6 56.49	+19 56.7	2.256	3.206	5.5	20.1	12 17	6 55.72	- 2 8.0	2.038	2.922	10.2	20.2
12 27	6 47.90	+20 15.1	2.236	3.215	2.0	19.9	12 27	6 47.73	- 2 4.4	1.999	2.915	8.5	20.1
1 6	6 38.93	+20 34.5	2.247	3.225	2.1	19.9	1 6	6 39.21	- 1 38.9	1.987	2.908	8.3	20.1
1 16	6 30.48	+20 53.5	2.287	3.234	5.6	20.2	1 16	6 31.08	- 0 52.7	2.002	2.900	9.6	20.1
1 26	6 23.40	+21 11.2	2.356	3.243	8.9	20.4	1 26	6 24.23	+ 0 10.7	2.043	2.893	11.7	20.3
2 5	6 18.27	+21 27.4	2.450	3.252	11.7	20.6	2 5	6 19.33	+ 1 26.1	2.107	2.885	14.1	20.4
<b>76568</b>	2000 <i>GC</i> <sub>111</sub>		12 31.6 12°76	8°3/	30.9 18		<b>220135</b>	2002 <i>TX</i> <sub>102</sub>		12 31.6 118°77	0°7/	31.5 18	
11 27	7 14.87	+40 20.0	1.389	2.214	17.8	18.0	11 27	7 17.07	+24 34.6	1.654	2.472	15.7	20.3
12 7	7 9.90	+41 12.9	1.330	2.217	14.3	17.8	12 7	7 10.37	+24 41.4	1.589	2.486	11.8	20.1
12 17	7 1.02	+41 52.1	1.291	2.221	10.9	17.6	12 17	7 0.79	+24 48.8	1.548	2.500	7.2	19.9
12 27	6 49.46	+42 8.5	1.275	2.226	8.5	17.5	12 27	6 49.33	+24 53.5	1.534	2.514	2.4	19.6
1 6	6 37.15	+41 56.5	1.285	2.233	8.8	17.5	1 6	6 37.41	+24 53.3	1.548	2.527	2.8	19.7
1 16	6 26.17	+41 16.8	1.319	2.240	11.5	17.7	1 16	6 26.46	+24 47.4	1.592	2.539	7.6	20.0
1 26	6 18.26	+40 15.6	1.376	2.248	14.9	17.9	1 26	6 17.77	+24 37.3	1.662	2.551	11.8	20.3
2 5	6 14.29	+39 1.6	1.453	2.256	18.1	18.1	2 5	6 12.08	+24 24.9	1.755	2.563	15.3	20.5
<b>458023</b>	2009 <i>WU</i> <sub>156</sub>		12 31.6 74°95	0°4/	31.5 17		<b>455212</b>	2001 <i>OG</i> <sub>62</sub>		12 31.6 188°66	2°6/	31.1 18	
11 27	7 11.41	+24 53.5	2.124	2.938	12.8	21.5	11 27	7 11.28	+33 15.6	3.212	4.006	9.4	21.9
12 7	7 5.58	+24 42.6	2.055	2.950	9.6	21.3	12 7	7 5.03	+33 27.9	3.125	4.005	7.2	21.7
12 17	6 57.59	+24 31.0	2.010	2.962	5.9	21.1	12 17	6 57.12	+33 35.6	3.064	4.003	4.8	21.6
12 27	6 48.26	+24 17.3	1.993	2.973	1.9	20.9	12 27	6 48.13	+33 36.3	3.033	4.001	2.8	21.4
1 6	6 38.58	+24 0.6	2.007	2.985	2.2	20.9	1 6	6 38.79	+33 28.5	3.033	3.998	3.1	21.4
1 16	6 29.63	+23 41.2	2.050	2.997	6.1	21.2	1 16	6 29.90	+33 11.9	3.065	3.995	5.2	21.6
1 26	6 22.34	+23 20.1	2.121	3.009	9.7	21.5	1 26	6 22.19	+32 47.9	3.126	3.992	7.6	21.7
2 5	6 17.31	+22 58.8	2.216	3.021	12.6	21.7	2 5	6 16.21	+32 18.5	3.213	3.987	9.8	21.9
<b>114369</b>	2002 <i>XA</i> <sub>95</sub>		12 31.6 62°08	0°9/	31.4 18		<b>334576</b>	2002 <i>TR</i> <sub>106</sub>		12 31.6 163°83	2°9/	1.2 18	
11 27	7 11.99	+24 6.1	1.723	2.547	14.9	19.7	11 27	7 7.35	+12 36.4	2.959	3.745	10.3	22.0
12 7	7 6.55	+24 28.1	1.657	2.557	11.1	19.5	12 7	7 2.04	+12 18.9	2.877	3.750	8.0	21.8
12 17	6 58.45	+24 52.1	1.614	2.568	6.9	19.3	12 17	6 55.26	+12 7.5	2.820	3.754	5.5	21.7
12 27	6 48.58	+25 14.8	1.599	2.579	2.3	19.0	12 27	6 47.54	+12 2.6	2.792	3.758	3.3	21.5
1 6	6 38.20	+25 32.9	1.611	2.590	2.8	19.1	1 6	6 39.51	+12 4.1	2.795	3.762	3.2	21.5
1 16	6 28.62	+25 45.0	1.652	2.601	7.2	19.4	1 16	6 31.86	+12 11.4	2.829	3.765	5.3	21.7
1 26	6 21.04	+25 51.2	1.720	2.612	11.3	19.7	1 26	6 25.23	+12 23.7	2.893	3.768	7.8	21.8
2 5	6 16.20	+25 52.8	1.810	2.623	14.7	19.9	2 5	6 20.12	+12 39.8	2.981	3.770	10.1	22.0
<b>459700</b>	2013 <i>PG</i> <sub>11</sub>		12 31.6 111°32	5°2/	30.9 17		<b>164651</b>	1996 <i>AM</i> <sub>7</sub>		12 31.6 257°86	1°3/	31.4 18	

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>490964</b>	2011 <i>DX</i> <sub>36</sub>	12 31.6 227°78	0°8/31.8 18				<b>263824</b>	2008 <i>SP</i> <sub>155</sub>	12 31.6 94°42	3°7/30.7 17			
11 27	7 8.47	+20 4.2	2.507	3.314	11.3	22.2	11 27	7 11.77	+33 1.3	2.345	3.153	12.0	20.5
12 7	7 3.26	+20 6.4	2.417	3.308	8.5	22.0	12 7	7 6.01	+33 48.8	2.275	3.162	9.2	20.3
12 17	6 56.20	+20 11.9	2.353	3.302	5.3	21.8	12 17	6 58.00	+34 32.0	2.231	3.171	6.2	20.1
12 27	6 47.88	+20 19.5	2.317	3.296	1.9	21.5	12 27	6 48.49	+35 6.6	2.215	3.181	4.0	20.0
1 6	6 39.10	+20 28.0	2.312	3.290	2.1	21.5	1 6	6 38.49	+35 29.1	2.228	3.190	4.4	20.0
1 16	6 30.72	+20 36.6	2.337	3.284	5.5	21.8	1 16	6 29.09	+35 38.2	2.271	3.199	6.9	20.2
1 26	6 23.58	+20 44.8	2.391	3.277	8.8	22.0	1 26	6 21.31	+35 35.2	2.341	3.208	9.8	20.4
2 5	6 18.31	+20 52.5	2.469	3.270	11.6	22.1	2 5	6 15.84	+35 22.7	2.435	3.217	12.3	20.6
<b>44912</b>	1999 <i>VN</i> <sub>25</sub>	12 31.6 58°37	1°7/31.4 18				<b>167381</b>	2003 <i>WL</i> <sub>72</sub>	12 31.6 137°28	2°3/31.2 18			
11 27	7 15.56	+26 22.2	1.321	2.157	17.9	17.9	11 27	7 14.81	+28 42.3	2.079	2.890	13.2	20.8
12 7	7 9.90	+26 32.7	1.262	2.167	13.5	17.7	12 7	7 8.37	+29 10.0	2.009	2.900	10.0	20.6
12 17	7 0.79	+26 42.4	1.224	2.178	8.4	17.4	12 17	6 59.47	+29 35.5	1.962	2.910	6.3	20.4
12 27	6 49.40	+26 47.2	1.210	2.190	3.0	17.1	12 27	6 48.96	+29 55.0	1.944	2.920	2.9	20.2
1 6	6 37.40	+26 43.9	1.223	2.201	3.6	17.2	1 6	6 37.96	+30 5.4	1.956	2.929	3.4	20.2
1 16	6 26.61	+26 32.1	1.263	2.213	8.8	17.5	1 16	6 27.69	+30 6.0	1.997	2.937	6.8	20.5
1 26	6 18.51	+26 14.0	1.327	2.224	13.5	17.8	1 26	6 19.24	+29 57.8	2.066	2.945	10.3	20.7
2 5	6 13.95	+25 52.7	1.412	2.236	17.5	18.1	2 5	6 13.32	+29 43.5	2.159	2.953	13.3	20.9
<b>58387</b>	1995 <i>SZ</i> <sub>78</sub>	12 31.6 162°75	0°5/31.7 17				<b>57161</b>	2001 <i>QX</i> <sub>15</sub>	12 31.6 45°53	4°9/31.2 18			
11 27	7 10.18	+21 3.4	2.133	2.946	12.8	20.7	11 27	7 15.69	+34 14.9	1.525	2.350	16.4	18.4
12 7	7 4.79	+21 6.8	2.053	2.947	9.6	20.5	12 7	7 9.68	+34 45.8	1.475	2.370	12.6	18.2
12 17	6 57.23	+21 13.4	1.998	2.949	6.0	20.3	12 17	7 0.48	+35 8.3	1.448	2.392	8.6	18.0
12 27	6 48.22	+21 21.5	1.970	2.950	2.0	20.1	12 27	6 49.27	+35 16.4	1.445	2.413	5.3	17.9
1 6	6 38.72	+21 29.7	1.972	2.951	2.3	20.1	1 6	6 37.69	+35 6.9	1.470	2.435	5.7	17.9
1 16	6 29.77	+21 37.0	2.004	2.951	6.2	20.3	1 16	6 27.37	+34 40.5	1.521	2.458	9.0	18.2
1 26	6 22.35	+21 42.9	2.063	2.952	9.8	20.6	1 26	6 19.68	+34 1.4	1.598	2.480	12.6	18.4
2 5	6 17.15	+21 47.8	2.147	2.953	12.9	20.8	2 5	6 15.29	+33 15.2	1.697	2.503	15.8	18.7
<b>521827</b>	2015 <i>TP</i> <sub>358</sub>	12 31.6 212°10	4°7/1.4 18				<b>122899</b>	2000 <i>SX</i> <sub>157</sub>	12 31.6 100°31	0°8/31.6 18			
11 27	7 9.96	+10 11.3	2.004	2.798	14.2	21.9	11 27	7 14.31	+26 43.6	2.138	2.948	12.9	19.8
12 7	7 4.70	+9 48.9	1.920	2.795	11.2	21.7	12 7	7 7.70	+26 26.6	2.070	2.962	9.7	19.6
12 17	6 57.23	+9 37.3	1.860	2.792	8.0	21.5	12 17	6 58.89	+26 7.0	2.027	2.977	6.0	19.4
12 27	6 48.24	+9 38.0	1.826	2.788	5.2	21.4	12 27	6 48.73	+25 43.3	2.012	2.992	2.0	19.1
1 6	6 38.69	+9 50.8	1.821	2.784	5.1	21.3	1 6	6 38.28	+25 14.9	2.028	3.006	2.4	19.2
1 16	6 29.63	+10 14.6	1.844	2.779	7.7	21.5	1 16	6 28.63	+24 42.6	2.074	3.020	6.2	19.5
1 26	6 22.08	+10 47.0	1.895	2.775	11.0	21.7	1 26	6 20.75	+24 8.5	2.148	3.033	9.7	19.7
2 5	6 16.75	+11 25.4	1.969	2.770	14.1	21.9	2 5	6 15.24	+23 34.5	2.247	3.047	12.7	19.9
<b>33877</b>	2000 <i>JR</i> <sub>57</sub>	12 31.6 94°29	1°6/31.9 18				<b>117794</b>	2005 <i>GZ</i> <sub>138</sub>	12 31.6 280°59	2°5/31.1 18			
11 27	7 15.84	+17 40.5	1.769	2.577	15.2	19.4	11 27	7 9.79	+30 2.8	2.409	3.221	11.6	20.2
12 7	7 9.05	+17 52.1	1.716	2.606	11.5	19.3	12 7	7 4.55	+30 29.8	2.318	3.210	8.8	20.0
12 17	6 59.79	+18 10.6	1.685	2.633	7.2	19.1	12 17	6 57.15	+30 54.7	2.251	3.198	5.7	19.7
12 27	6 49.00	+18 33.9	1.682	2.660	2.8	18.8	12 27	6 48.24	+31 13.9	2.212	3.186	3.0	19.5
1 6	6 37.90	+18 59.4	1.709	2.687	2.8	18.9	1 6	6 38.74	+31 24.8	2.204	3.175	3.4	19.6
1 16	6 27.74	+19 25.1	1.765	2.712	7.0	19.2	1 16	6 29.68	+31 26.3	2.225	3.163	6.4	19.7
1 26	6 19.57	+19 49.8	1.849	2.737	10.8	19.5	1 26	6 22.05	+31 18.9	2.274	3.151	9.6	19.9
2 5	6 14.06	+20 12.9	1.957	2.762	14.1	19.8	2 5	6 16.57	+31 4.7	2.346	3.140	12.4	20.1
<b>295609</b>	2008 <i>SA</i> <sub>194</sub>	12 31.6 191°92	3°7/1.3 18				<b>322301</b>	2011 <i>FU</i> <sub>82</sub>	12 31.6 342°08	1°0/31.8 18			
11 27	7 11.72	+12 47.9	1.817	2.621	15.1	21.0	11 27	7 7.87	+19 30.8	2.029	2.846	13.2	20.9
12 7	7 6.23	+12 38.5	1.737	2.621	11.7	20.8	12 7	7 3.22	+19 35.4	1.946	2.842	10.0	20.7
12 17	6 58.27	+12 39.7	1.679	2.620	7.9	20.6	12 17	6 56.37	+19 45.0	1.887	2.839	6.2	20.4
12 27	6 48.59	+12 51.8	1.648	2.618	4.5	20.4	12 27	6 48.00	+19 58.0	1.856	2.835	2.3	20.2
1 6	6 38.29	+13 13.6	1.646	2.616	4.3	20.4	1 6	6 39.08	+20 13.1	1.853	2.832	2.4	20.2
1 16	6 28.57	+13 43.5	1.672	2.614	7.7	20.6	1 16	6 30.67	+20 28.6	1.880	2.829	6.4	20.4
1 26	6 20.56	+14 18.9	1.725	2.612	11.5	20.8	1 26	6 23.78	+20 43.7	1.934	2.827	10.2	20.6
2 5	6 15.05	+14 57.4	1.801	2.609	15.0	21.0	2 5	6 19.12	+20 58.0	2.011	2.824	13.4	20.8
<b>182994</b>	2002 <i>PO</i> <sub>11</sub>	12 31.6 202°13	2°0/31.9 18				<b>197760</b>	2004 <i>PV</i> <sub>34</sub>	12 31.6 96°56	0°9/31.8 18			
11 27	7 14.39	+17 34.8	1.749	2.560	15.3	21.8	11 27	7 14.89	+19 59.4	1.705	2.520	15.4	20.8
12 7	7 8.41	+17 33.7	1.665	2.557	11.7	21.6	12 7	7 8.56	+20 7.0	1.645	2.540	11.6	20.6
12 17	6 59.71	+17 39.5	1.605	2.553	7.5	21.3	12 17	6 59.62	+20 19.6	1.609	2.560	7.2	20.4
12 27	6 49.08	+17 51.3	1.571	2.549	3.1	21.0	12 27	6 49.00	+20 35.0	1.600	2.579	2.5	20.1
1 6	6 37.72	+18 7.1	1.567	2.544	3.2	21.0	1 6	6 37.98	+20 50.7	1.619	2.598	2.7	20.2
1 16	6 26.97	+18 25.2	1.591	2.538	7.6	21.3	1 16	6 27.88	+21 5.4	1.668	2.617	7.2	20.5
1 26	6 18.11	+18 44.6	1.642	2.532	11.9	21.5	1 26	6 19.82	+21 18.4	1.744	2.635	11.2	20.8
2 5	6 12.00	+19 4.5	1.716	2.525	15.6	21.7	2 5	6 14.52	+21 29.9	1.843	2.652	14.6	21.1
<b>337811</b>	2001 <i>UD</i> <sub>228</sub>	12 31.6 176°08	0°7/31.7 18				<b>99519</b>	2002 <i>EP</i> <sub>31</sub>	12 31.6 312°99	1°4/31.3 18			
11 27	7 14.46	+20 51.3	1.947	2.756	14.0	21.6	11 27	7 11.09	+24 8.7	1.477	2.312	16.4	18.8
12 7	7 8.17	+20 52.9	1.867	2.759	10.6	21.4	12 7	7 6.68	+24 41.6	1.393	2.299	12.4	18.6
12 17	6 59.40	+20 58.0	1.810	2.761	6.6	21.2	12 17	6 59.03	+25 19.1	1.330	2.285	7.8	18.3
12 27	6 48.95	+21 4.7	1.782	2.762	2.2	20.9	12 27	6 48.97	+25 56.6	1.292	2.272	2.7	17.9
1 6	6 37.92	+21 11.2	1.784	2.763	2.5	20.9	1 6	6 37.87	+26 29.3	1.281	2.259	3.4	17.9
1 16	6 27.54	+21 16.6	1.815	2.762	6.8	21.2	1 16	6 27.36	+26 54.0	1.297	2.247	8.6	18.2
1 26	6 18.93	+21 20.7	1.875	2.762	10.8	21.4	1 26	6 19.05	+27 9.9	1.338	2.235	13.5	18.5
2 5	6 12.85	+21 24.0	1.958	2.761	14.1	21.7	2 5	6 14.00	+27 18.5	1.399	2.224	17.6	18.7
<b>244828</b>	2003 <i>UM</i> <sub>28</sub>	12 31.6 47°46	0°0/31.5 17				<b>163624</b>	Moorthy	12 31.6 145°32	4°7/1.9 18			
11 27	7 9.54												

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>113048</b>	2002 RY <sub>51</sub>		12 31.6 154°71	1.7°/31.2	18		<b>202010</b>	2004 RE <sub>12</sub>		12 31.6 119°85	1°0/31.8	18	
11 27	7 13.36	+26 30.2	2.107	2.919	13.0	20.2	11 27	7 14.51	+19 6.1	1.916	2.724	14.2	21.5
12 7	7 7.31	+27 2.6	2.031	2.924	9.8	20.0	12 7	7 8.09	+19 17.4	1.850	2.741	10.7	21.3
12 17	6 58.86	+27 35.2	1.979	2.930	6.1	19.8	12 17	6 59.29	+19 34.1	1.809	2.758	6.7	21.1
12 27	6 48.80	+28 4.1	1.956	2.934	2.5	19.6	12 27	6 48.95	+19 54.2	1.795	2.774	2.4	20.9
1 6	6 38.19	+28 26.3	1.963	2.939	3.0	19.6	1 6	6 38.18	+20 15.2	1.811	2.790	2.5	20.9
1 16	6 28.19	+28 40.1	2.000	2.943	6.7	19.9	1 16	6 28.18	+20 35.6	1.857	2.805	6.7	21.2
1 26	6 19.90	+28 45.9	2.065	2.946	10.2	20.1	1 26	6 19.98	+20 54.4	1.931	2.819	10.5	21.4
2 5	6 14.03	+28 45.2	2.153	2.949	13.2	20.3	2 5	6 14.29	+21 11.6	2.029	2.833	13.7	21.7
<b>231411</b>	2007 CB <sub>26</sub>		12 31.6 232°70	1°0/31.4	18		<b>450592</b>	2006 RU <sub>48</sub>		12 31.6 77°01	1°9/31.9	17	
11 27	7 14.64	+23 48.2	1.850	2.665	14.4	21.2	11 27	7 11.18	+17 48.8	1.822	2.637	14.6	21.7
12 7	7 8.75	+24 20.5	1.758	2.654	10.9	20.9	12 7	7 5.74	+17 42.1	1.755	2.648	11.0	21.5
12 17	7 0.05	+24 56.2	1.690	2.642	6.8	20.7	12 17	6 57.91	+17 41.6	1.710	2.659	7.0	21.3
12 27	6 49.27	+25 31.7	1.650	2.630	2.3	20.3	12 27	6 48.52	+17 46.5	1.693	2.670	3.0	21.1
1 6	6 37.60	+26 2.8	1.639	2.617	2.9	20.4	1 6	6 38.68	+17 55.3	1.704	2.681	3.0	21.1
1 16	6 26.42	+26 26.9	1.658	2.604	7.5	20.6	1 16	6 29.58	+18 6.9	1.745	2.692	7.0	21.4
1 26	6 17.07	+26 43.5	1.704	2.590	11.7	20.8	1 26	6 22.25	+18 20.3	1.812	2.703	10.8	21.6
2 5	6 10.50	+26 53.7	1.772	2.575	15.4	21.0	2 5	6 17.41	+18 34.8	1.902	2.714	14.1	21.9
<b>403108</b>	2008 CJ <sub>160</sub>		12 31.6 18°09	3°1/31.4	17		<b>184383</b>	2005 LU <sub>16</sub>		12 31.6 227°71	0°9/31.5	18	
11 27	7 13.29	+30 59.8	1.674	2.499	15.2	20.9	11 27	7 14.74	+23 13.0	1.547	2.372	16.2	20.8
12 7	7 7.80	+31 10.0	1.603	2.501	11.6	20.7	12 7	7 9.20	+23 44.7	1.467	2.368	12.3	20.5
12 17	6 59.38	+31 14.9	1.555	2.504	7.5	20.5	12 17	7 0.49	+24 21.2	1.410	2.363	7.6	20.3
12 27	6 48.99	+31 10.5	1.533	2.508	3.8	20.3	12 27	6 49.46	+24 57.9	1.378	2.358	2.6	19.9
1 6	6 38.04	+30 54.1	1.538	2.511	4.2	20.3	1 6	6 37.52	+25 30.4	1.374	2.353	3.1	20.0
1 16	6 28.00	+30 26.1	1.572	2.515	8.0	20.5	1 16	6 26.27	+25 55.6	1.399	2.347	8.3	20.3
1 26	6 20.18	+29 49.4	1.631	2.520	12.0	20.8	1 26	6 17.22	+26 13.1	1.449	2.341	12.9	20.5
2 5	6 15.38	+29 8.1	1.713	2.525	15.5	21.0	2 5	6 11.38	+26 24.0	1.520	2.335	16.9	20.8
<b>342164</b>	2008 SG <sub>159</sub>		12 31.6 89°22	0°0/31.4	18		<b>229682</b>	2007 CN <sub>52</sub>		12 31.6 274°46	1°7/31.5	18	
11 27	7 15.88	+22 42.5	1.648	2.467	15.7	21.5	11 27	7 14.94	+27 9.8	1.544	2.371	16.2	20.3
12 7	7 9.37	+22 48.5	1.591	2.488	11.7	21.3	12 7	7 9.38	+27 15.1	1.462	2.363	12.3	20.0
12 17	7 0.14	+22 56.9	1.557	2.510	7.2	21.1	12 17	7 0.58	+27 18.7	1.402	2.355	7.7	19.7
12 27	6 49.19	+23 4.9	1.550	2.530	2.3	20.8	12 27	6 49.48	+27 16.7	1.368	2.347	3.0	19.4
1 6	6 37.86	+23 10.3	1.572	2.551	2.7	20.9	1 6	6 37.53	+27 6.4	1.362	2.339	3.4	19.4
1 16	6 27.54	+23 12.2	1.623	2.571	7.3	21.2	1 16	6 26.37	+26 47.3	1.383	2.331	8.4	19.7
1 26	6 19.42	+23 11.2	1.700	2.591	11.4	21.5	1 26	6 17.53	+26 21.6	1.430	2.323	13.0	20.0
2 5	6 14.19	+23 8.5	1.800	2.611	14.9	21.8	2 5	6 11.96	+25 52.6	1.498	2.315	17.0	20.2
<b>173421</b>	2000 FL <sub>61</sub>		12 31.6 197°34	0°8/31.4	18		<b>460783</b>	2014 WH <sub>20</sub>		12 31.6 219°95	2°5/31.9	18	
11 27	7 11.92	+23 46.2	2.181	2.992	12.6	20.5	11 27	7 8.71	+15 47.0	2.399	3.200	11.9	21.4
12 7	7 6.20	+24 12.9	2.096	2.990	9.5	20.3	12 7	7 3.47	+15 22.7	2.312	3.197	9.2	21.3
12 17	6 58.20	+24 41.8	2.037	2.988	5.9	20.1	12 17	6 56.37	+15 3.5	2.251	3.193	6.1	21.1
12 27	6 48.62	+25 10.0	2.005	2.985	2.0	19.8	12 27	6 48.03	+14 49.7	2.218	3.190	3.2	20.9
1 6	6 38.44	+25 34.7	2.004	2.982	2.4	19.8	1 6	6 39.26	+14 41.3	2.214	3.186	3.2	20.9
1 16	6 28.77	+25 54.1	2.033	2.978	6.3	20.1	1 16	6 30.94	+14 38.1	2.241	3.183	6.1	21.0
1 26	6 20.63	+26 7.8	2.090	2.974	9.9	20.3	1 26	6 23.90	+14 39.6	2.296	3.179	9.2	21.2
2 5	6 14.78	+26 16.6	2.171	2.970	13.1	20.5	2 5	6 18.74	+14 45.1	2.375	3.175	12.1	21.4
<b>152172</b>	2005 OO <sub>14</sub>		12 31.6 74°70	1°9/31.9	18		<b>17601</b>	Sheldonschafer		12 31.6 191°83	18°8/29.9	18	
11 27	7 15.46	+17 18.6	1.440	2.261	17.4	19.7	11 27	7 18.35	-7 17.2	1.183	1.937	24.3	18.2
12 7	7 9.27	+17 29.3	1.390	2.286	13.1	19.5	12 7	7 12.25	-10 37.9	1.128	1.937	21.9	18.1
12 17	7 0.16	+17 49.0	1.361	2.311	8.3	19.3	12 17	7 2.52	-13 31.7	1.090	1.936	19.9	17.9
12 27	6 49.21	+18 15.3	1.358	2.336	3.3	19.0	12 27	6 50.14	-15 42.7	1.072	1.935	18.9	17.8
1 6	6 37.87	+18 45.1	1.383	2.361	3.3	19.1	1 6	6 36.77	-16 59.6	1.075	1.933	19.2	17.9
1 16	6 27.65	+19 15.7	1.435	2.385	8.0	19.4	1 16	6 24.29	-17 19.1	1.097	1.931	20.7	17.9
1 26	6 19.78	+19 45.2	1.514	2.409	12.3	19.7	1 26	6 14.43	-16 47.1	1.136	1.928	22.8	18.1
2 5	6 14.97	+20 12.9	1.614	2.433	15.9	20.0	2 5	6 8.26	-15 35.9	1.189	1.925	25.0	18.3
<b>64558</b>	2001 WH <sub>27</sub>		12 31.6 146°87	3°4/ 1.2	18		<b>64584</b>	2001 WW <sub>88</sub>		12 31.6 161°06	3°7/30.9	18	
11 27	7 12.79	+13 54.1	1.802	2.607	15.1	19.9	11 27	7 16.62	+30 58.6	1.853	2.667	14.4	19.6
12 7	7 6.98	+13 40.9	1.728	2.613	11.7	19.7	12 7	7 10.21	+31 43.8	1.780	2.671	11.0	19.4
12 17	6 58.71	+13 37.1	1.677	2.619	7.8	19.5	12 17	7 0.89	+32 25.9	1.730	2.675	7.3	19.2
12 27	6 48.77	+13 42.9	1.653	2.625	4.2	19.3	12 27	6 49.55	+32 59.1	1.708	2.679	4.1	19.0
1 6	6 38.30	+13 57.2	1.658	2.630	4.1	19.3	1 6	6 37.52	+33 19.0	1.714	2.682	4.6	19.0
1 16	6 28.51	+14 18.5	1.692	2.635	7.6	19.5	1 16	6 26.26	+33 23.9	1.750	2.685	8.1	19.2
1 26	6 20.50	+14 44.9	1.752	2.639	11.4	19.7	1 26	6 17.11	+33 15.6	1.812	2.687	11.7	19.5
2 5	6 15.03	+15 14.4	1.836	2.643	14.8	20.0	2 5	6 10.92	+32 57.7	1.896	2.689	14.9	19.7
<b>22875</b>	Lanejackson		12 31.6 116°51	2°9/31.4	18		<b>500566</b>	2012 UT <sub>61</sub>		12 31.6 113°90	19°8/ 5.0	17	
11 27	7 18.63	+29 53.4	1.525	2.347	16.6	19.3	11 27	7 14.08	-14 33.9	1.185	1.909	25.8	21.8
12 7	7 11.96	+30 7.1	1.459	2.357	12.6	19.0	12 7	7 8.92	-16 44.8	1.138	1.916	23.6	21.7
12 17	7 1.99	+30 16.3	1.416	2.366	8.1	18.8	12 17	7 0.35	-18 16.1	1.106	1.923	21.6	21.6
12 27	6 49.84	+30 16.0	1.399	2.375	3.7	18.6	12 27	6 49.42	-18 55.6	1.089	1.930	20.2	21.5
1 6	6 37.12	+30 3.1	1.410	2.384	4.2	18.6	1 6	6 37.70	-18 37.2	1.090	1.937	19.8	21.5
1 16	6 25.52	+29 38.0	1.449	2.393	8.5	18.9	1 16	6 26.96	-17 22.7	1.108	1.943	20.4	21.6
1 26	6 16.52	+29 4.1	1.514	2.401	12.8	19.2	1 26	6 18.78	-15 22.0	1.145	1.949	21.9	21.7
2 5	6 10.91	+28 25.9	1.600	2.409	16.5	19.4	2 5	6 14.09	-12 50.2	1.197	1.955	23.8	21.9
<b>197174</b>	2003 UG <sub>282</sub>		12 31.6 76°57	1°4/31.9	18		<b>109108</b>	2001 QG <sub>38</sub>		12 31.6 80°27	1°6/31.4	18	
11 27	7 8.97	+17 34.9	2.222	3.030	12.5	20.4	11 27						

EPHEMERIDES

12 31.6

12 31.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>326567</b>	2002 <i>PJ</i> <sub>195</sub>		12 31.6 168°80	2°5/	1.5	18	<b>125262</b>	2001 <i>UV</i> <sub>220</sub>		12 31.6 285°29	0°9/	31.7	18	
11 27	7 7.86	+12 33.2	2.841	3.627	10.7	21.8	11 27	7 12.90	+21 29.8	1.565	2.392	16.0	20.0	
12 7	7 2.58	+12 43.6	2.756	3.630	8.2	21.7	12 7	7 7.79	+21 17.0	1.477	2.378	12.2	19.8	
12 17	6 55.73	+13 1.7	2.697	3.634	5.5	21.5	12 17	6 59.63	+21 7.1	1.411	2.364	7.7	19.5	
12 27	6 47.83	+13 26.9	2.667	3.636	3.1	21.3	12 27	6 49.25	+20 58.7	1.370	2.350	2.7	19.1	
1 6	6 39.57	+13 58.0	2.668	3.639	2.9	21.3	1 6	6 37.97	+20 50.4	1.357	2.336	3.0	19.1	
1 16	6 31.66	+14 33.6	2.700	3.641	5.3	21.5	1 16	6 27.31	+20 41.8	1.372	2.322	8.2	19.4	
1 26	6 24.79	+15 11.7	2.762	3.642	8.0	21.7	1 26	6 18.73	+20 33.3	1.412	2.309	12.9	19.6	
2 5	6 19.50	+15 50.9	2.850	3.643	10.4	21.8	2 5	6 13.20	+20 26.1	1.474	2.295	17.1	19.9	
<b>266455</b>	2007 <i>JH</i> <sub>42</sub>		12 31.6 118°75	4°8/	2.5	18	<b>84748</b>	2002 <i>XQ</i> <sub>9</sub>		12 31.6 73°15	1°2/	31.4	18	R
11 27	7 8.37	+4 48.5	2.545	3.310	12.3	20.2	11 27	7 14.51	+24 13.6	1.448	2.278	16.9	19.7	
12 7	7 3.04	+5 0.8	2.470	3.321	9.9	20.0	12 7	7 9.04	+24 40.8	1.382	2.285	12.7	19.4	
12 17	6 56.03	+5 26.8	2.418	3.332	7.4	19.9	12 17	7 0.35	+25 10.8	1.337	2.292	7.9	19.2	
12 27	6 47.93	+6 6.6	2.395	3.343	5.3	19.8	12 27	6 49.45	+25 39.3	1.318	2.298	2.7	18.9	
1 6	6 39.48	+6 58.8	2.401	3.354	4.9	19.7	1 6	6 37.84	+26 1.9	1.327	2.305	3.3	18.9	
1 16	6 31.45	+8 0.8	2.438	3.364	6.6	19.9	1 16	6 27.15	+26 16.6	1.362	2.312	8.3	19.3	
1 26	6 24.59	+9 9.3	2.503	3.375	9.0	20.0	1 26	6 18.87	+26 23.6	1.423	2.319	12.9	19.6	
2 5	6 19.45	+10 20.7	2.595	3.384	11.4	20.2	2 5	6 13.88	+26 24.8	1.506	2.325	16.8	19.8	
<b>463822</b>	2014 <i>TN</i> <sub>44</sub>		12 31.6 8°00	0°4/	31.7	17	<b>346515</b>	2008 <i>UM</i> <sub>157</sub>		12 31.6 59°23	2°4/	31.7	17	
11 27	7 8.04	+21 17.3	1.797	2.623	14.3	20.9	11 27	7 15.93	+20 7.7	1.442	2.266	17.2	20.3	
12 7	7 3.60	+21 23.8	1.723	2.624	10.7	20.7	12 7	7 9.61	+19 13.8	1.387	2.285	13.0	20.1	
12 17	6 56.73	+21 34.3	1.673	2.626	6.6	20.4	12 17	7 0.37	+18 22.9	1.354	2.305	8.2	19.8	
12 27	6 48.22	+21 46.9	1.649	2.629	2.2	20.1	12 27	6 49.36	+17 35.9	1.347	2.325	3.5	19.6	
1 6	6 39.16	+21 59.7	1.653	2.632	2.5	20.2	1 6	6 38.05	+16 54.3	1.368	2.344	3.7	19.7	
1 16	6 30.74	+22 11.1	1.685	2.636	6.9	20.5	1 16	6 27.92	+16 19.6	1.417	2.364	8.3	20.0	
1 26	6 24.07	+22 20.8	1.744	2.641	10.9	20.7	1 26	6 20.19	+15 52.8	1.491	2.384	12.6	20.3	
2 5	6 19.89	+22 28.6	1.826	2.646	14.3	20.9	2 5	6 15.51	+15 33.9	1.587	2.404	16.2	20.6	
<b>358244</b>	2006 <i>SJ</i> <sub>362</sub>		12 31.6 173°04	4°7/	30.4	18	<b>360245</b>	2000 <i>GG</i> <sub>4</sub>		12 31.6 345°58	23°9/	9.4	17	
11 27	7 15.78	+35 47.1	2.377	3.175	12.1	21.0	11 27	7 14.76	+61 36.7	1.078	1.862	24.4	19.0	
12 7	7 9.21	+36 45.4	2.300	3.178	9.5	20.8	12 7	7 16.95	+66 7.8	1.033	1.836	23.9	18.9	
12 17	7 0.13	+37 38.1	2.248	3.180	6.8	20.7	12 17	7 10.93	+70 11.1	1.006	1.813	24.1	18.8	
12 27	6 49.32	+38 19.6	2.225	3.182	4.9	20.6	12 27	6 54.72	+73 22.0	0.996	1.792	24.9	18.8	
1 6	6 37.87	+38 45.9	2.232	3.183	5.3	20.6	1 6	6 30.02	+75 20.3	0.999	1.774	26.3	18.8	
1 16	6 26.98	+38 55.4	2.268	3.184	7.6	20.7	1 16	6 4.81	+75 58.8	1.014	1.758	27.9	18.9	
1 26	6 17.81	+38 49.5	2.331	3.185	10.3	20.9	1 26	5 49.67	+75 28.7	1.037	1.746	29.4	19.0	
2 5	6 11.15	+38 31.9	2.418	3.184	12.8	21.1	2 5	5 49.09	+74 9.4	1.068	1.737	30.8	19.1	
<b>1939</b>	Loretta		12 31.6 240°88	0°3/	31.6	18	<b>365043</b>	2008 <i>TF</i> <sub>115</sub>		12 31.6 128°99	0°4/	31.6	18	
11 27	7 9.00	+23 28.0	2.567	3.375	11.0	16.5	11 27	7 10.36	+24 43.7	2.440	3.249	11.5	21.0	
12 7	7 3.75	+23 39.4	2.474	3.367	8.3	16.3	12 7	7 4.71	+24 38.4	2.362	3.254	8.6	20.8	
12 17	6 56.60	+23 52.3	2.407	3.358	5.1	16.1	12 17	6 57.14	+24 32.7	2.308	3.259	5.3	20.6	
12 27	6 48.16	+24 4.7	2.368	3.348	1.7	15.8	12 27	6 48.33	+24 25.1	2.284	3.264	1.7	20.4	
1 6	6 39.22	+24 15.0	2.361	3.339	2.0	15.8	1 6	6 39.16	+24 14.8	2.290	3.268	2.0	20.4	
1 16	6 30.66	+24 22.3	2.383	3.329	5.5	16.0	1 16	6 30.53	+24 1.5	2.326	3.273	5.6	20.7	
1 26	6 23.35	+24 26.3	2.435	3.320	8.7	16.2	1 26	6 23.31	+23 46.0	2.391	3.277	8.8	20.9	
2 5	6 17.91	+24 27.5	2.511	3.310	11.5	16.4	2 5	6 18.08	+23 29.4	2.481	3.281	11.6	21.1	
<b>290997</b>	2005 <i>XK</i> <sub>82</sub>		12 31.6 284°74	0°8/	31.5	18	<b>92167</b>	1999 <i>XG</i> <sub>166</sub>		12 31.6 17°36	5°7/	30.6	17	
11 27	7 13.30	+24 31.6	1.562	2.391	16.0	20.9	11 27	7 13.22	+36 50.2	1.904	2.717	14.1	18.2	
12 7	7 8.19	+24 40.5	1.475	2.377	12.1	20.7	12 7	7 7.79	+37 42.9	1.834	2.719	11.1	18.0	
12 17	6 59.92	+24 51.0	1.409	2.363	7.6	20.4	12 17	6 59.47	+38 28.2	1.788	2.722	8.1	17.8	
12 27	6 49.35	+24 59.8	1.369	2.349	2.6	20.0	12 27	6 49.16	+38 59.5	1.768	2.725	5.9	17.7	
1 6	6 37.81	+25 3.9	1.357	2.335	3.1	20.0	1 6	6 38.18	+39 12.4	1.775	2.728	6.3	17.7	
1 16	6 26.90	+25 1.9	1.372	2.322	8.2	20.3	1 16	6 27.99	+39 5.8	1.810	2.732	8.9	17.9	
1 26	6 18.14	+24 54.6	1.413	2.308	13.0	20.5	1 26	6 19.91	+38 42.4	1.871	2.736	11.9	18.1	
2 5	6 12.54	+24 43.9	1.475	2.294	17.1	20.8	2 5	6 14.78	+38 6.9	1.953	2.740	14.8	18.3	
<b>51107</b>	2000 <i>HF</i> <sub>17</sub>		12 31.6 110°16	2°1/	1.1	17	<b>512243</b>	2015 <i>XZ</i> <sub>385</sub>		12 31.6 83°50	18°1/	8.2	17	
11 27	7 7.95	+15 24.1	2.570	3.368	11.3	19.8	11 27	7 13.76	-15 37.9	1.178	1.898	26.1	20.8	
12 7	7 2.73	+15 19.7	2.497	3.380	8.6	19.6	12 7	7 8.76	-16 32.3	1.124	1.904	23.7	20.7	
12 17	6 55.84	+15 21.3	2.448	3.391	5.6	19.4	12 17	7 0.32	-16 41.9	1.082	1.911	21.2	20.5	
12 27	6 47.88	+15 28.5	2.429	3.402	2.8	19.3	12 27	6 49.48	-15 56.5	1.056	1.918	19.2	20.4	
1 6	6 39.60	+15 40.3	2.439	3.413	2.7	19.3	1 6	6 37.83	-14 12.9	1.048	1.924	18.1	20.4	
1 16	6 31.78	+15 55.8	2.480	3.423	5.5	19.5	1 16	6 27.13	-11 36.8	1.062	1.931	18.5	20.4	
1 26	6 25.17	+16 13.9	2.550	3.434	8.4	19.7	1 26	6 18.99	-8 22.6	1.096	1.937	20.2	20.5	
2 5	6 20.30	+16 33.5	2.645	3.444	11.0	19.9	2 5	6 14.38	-4 48.7	1.150	1.944	22.5	20.7	
<b>228917</b>	2003 <i>SU</i> <sub>217</sub>		12 31.6 61°51	2°9/	1.2	17	<b>117535</b>	2005 <i>CC</i> <sub>67</sub>		12 31.6 241°17	2°4/	31.1	18	
11 27	7 8.50	+14 31.7	2.101	2.906	13.2	20.6	11 27	7 10.18	+29 38.9	2.461	3.271	11.4	20.1	
12 7	7 3.47	+14 20.1	2.031	2.917	10.2	20.4	12 7	7 4.80	+30 8.0	2.376	3.267	8.6	19.9	
12 17	6 56.42	+14 16.1	1.986	2.928	6.7	20.2	12 17	6 57.33	+30 35.2	2.315	3.262	5.6	19.7	
12 27	6 48.08	+14 19.9	1.967	2.939	3.6	20.1	12 27	6 48.44	+30 57.0	2.284	3.258	2.8	19.6	
1 6	6 39.37	+14 30.5	1.978	2.951	3.5	20.1	1 6	6 39.02	+31 10.9	2.282	3.253	3.2	19.6	
1 16	6 31.24	+14 46.8	2.018	2.962	6.5	20.3	1 16	6 30.06	+31 15.7	2.311	3.249	6.2	19.8	
1 26	6 24.58	+15 7.4	2.086	2.974	9.8	20.5	1 26	6 22.52	+31 12.1	2.367	3.244	9.2	19.9	
2 5	6 20.00	+15 30.7	2.178	2.985	12.7	20.7	2 5	6 17.07	+31 1.7	2.448	3.239	12.0	20.1	
<b>102042</b>	1999 <i>RB</i> <sub>114</sub>		12 31.6 193°40	0°9/	31.6	18	<b>27945</b>	1997 <i>MK</i> <sub>3</sub>		12 31.6 22°44	1°2/	31.8	18	
11 2														



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12 31.7

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>376071</b>	2010 <i>OE</i> <sub>49</sub>		12 31.6	73°09	2°8/	1.1 18	<b>346321</b>	2008 <i>QY</i> <sub>39</sub>		12 31.7	79°72	2°4/31.4	18
11 27	7 10.22	+15 42.0	1.914	2.724	14.2	21.2	11 27	7 18.06	+28 23.1	1.565	2.386	16.3	21.3
12 7	7 4.95	+15 25.7	1.844	2.733	10.8	21.0	12 7	7 11.27	+28 42.0	1.513	2.410	12.2	21.1
12 17	6 57.44	+15 16.7	1.796	2.741	7.1	20.8	12 17	7 1.47	+28 57.8	1.483	2.434	7.7	20.9
12 27	6 48.46	+15 14.9	1.776	2.750	3.6	20.6	12 27	6 49.78	+29 6.2	1.480	2.457	3.3	20.7
1 6	6 39.04	+15 19.5	1.784	2.758	3.5	20.6	1 6	6 37.73	+29 4.2	1.505	2.480	3.7	20.8
1 16	6 30.27	+15 29.7	1.822	2.767	7.0	20.8	1 16	6 26.89	+28 51.8	1.558	2.503	7.9	21.1
1 26	6 23.15	+15 44.3	1.886	2.776	10.6	21.1	1 26	6 18.51	+28 31.5	1.638	2.526	12.0	21.4
2 5	6 18.35	+16 1.8	1.974	2.784	13.8	21.3	2 5	6 13.31	+28 6.8	1.740	2.548	15.4	21.7
<b>226242</b>	2002 <i>XQ</i> <sub>43</sub>		12 31.6	101°59	0°2/31.7	18	<b>483034</b>	2015 <i>FU</i> <sub>301</sub>		12 31.7	114°60	2°1/	1.1 16
11 27	7 18.31	+22 40.5	1.674	2.488	15.7	21.0	11 27	7 14.61	+16 7.8	1.724	2.533	15.5	21.7
12 7	7 11.13	+22 34.0	1.618	2.512	11.8	20.8	12 7	7 8.45	+16 22.5	1.659	2.549	11.8	21.4
12 17	7 1.23	+22 29.1	1.584	2.535	7.2	20.5	12 17	6 59.71	+16 46.4	1.617	2.564	7.5	21.2
12 27	6 49.65	+22 23.7	1.578	2.558	2.3	20.3	12 27	6 49.24	+17 17.6	1.602	2.579	3.2	21.0
1 6	6 37.76	+22 16.4	1.602	2.580	2.6	20.4	1 6	6 38.28	+17 53.1	1.616	2.593	3.1	21.0
1 16	6 26.93	+22 7.0	1.654	2.602	7.3	20.7	1 16	6 28.10	+18 30.3	1.660	2.607	7.3	21.3
1 26	6 18.35	+21 56.4	1.734	2.623	11.4	21.0	1 26	6 19.88	+19 7.0	1.730	2.620	11.3	21.6
2 5	6 12.68	+21 46.0	1.836	2.643	14.8	21.3	2 5	6 14.34	+19 41.9	1.824	2.633	14.8	21.8
<b>264274</b>	1996 <i>JG</i> <sub>11</sub>		12 31.6	120°10	1°3/	1.0 18	<b>324081</b>	2005 <i>WL</i> <sub>87</sub>		12 31.7	89°37	0°6/31.5	18
11 27	7 8.86	+17 22.5	2.509	3.310	11.5	20.7	11 27	7 10.87	+23 42.6	2.106	2.921	12.9	20.6
12 7	7 3.51	+17 36.1	2.434	3.321	8.7	20.5	12 7	7 5.41	+24 4.3	2.034	2.930	9.6	20.4
12 17	6 56.39	+17 55.1	2.385	3.331	5.5	20.3	12 17	6 57.74	+24 27.8	1.987	2.939	5.9	20.2
12 27	6 48.11	+18 18.4	2.364	3.342	2.2	20.1	12 27	6 48.60	+24 50.5	1.968	2.948	2.0	20.0
1 6	6 39.46	+18 44.2	2.374	3.351	2.2	20.2	1 6	6 39.00	+25 9.9	1.979	2.957	2.3	20.0
1 16	6 31.28	+19 10.9	2.415	3.361	5.4	20.4	1 16	6 30.01	+25 24.4	2.019	2.966	6.2	20.3
1 26	6 24.35	+19 37.4	2.485	3.371	8.5	20.6	1 26	6 22.63	+25 34.0	2.087	2.975	9.8	20.5
2 5	6 19.25	+20 2.8	2.579	3.380	11.2	20.8	2 5	6 17.53	+25 39.5	2.180	2.984	12.8	20.7
<b>368404</b>	2002 <i>TG</i> <sub>84</sub>		12 31.6	95°75	4°8/30.4	18	<b>485738</b>	2012 <i>BZ</i> <sub>79</sub>		12 31.7	0°60	2°8/	1.6 17
11 27	7 14.86	+38 8.6	2.686	3.476	11.1	21.0	11 27	7 8.13	+12 55.7	1.509	2.332	16.7	20.9
12 7	7 8.12	+39 3.2	2.632	3.501	8.7	20.9	12 7	7 4.12	+13 33.8	1.435	2.330	12.9	20.7
12 17	6 59.25	+39 50.1	2.602	3.526	6.4	20.8	12 17	6 57.34	+14 28.2	1.382	2.329	8.5	20.4
12 27	6 49.03	+40 24.8	2.602	3.550	4.9	20.7	12 27	6 48.56	+15 36.9	1.354	2.329	4.1	20.2
1 6	6 38.43	+40 44.4	2.631	3.574	5.2	20.8	1 6	6 38.99	+16 55.3	1.353	2.330	3.7	20.1
1 16	6 28.51	+40 48.2	2.690	3.598	7.0	20.9	1 16	6 30.02	+18 17.6	1.380	2.331	8.0	20.4
1 26	6 20.20	+40 38.0	2.777	3.621	9.2	21.1	1 26	6 22.98	+19 38.7	1.432	2.333	12.5	20.7
2 5	6 14.13	+40 17.3	2.887	3.643	11.2	21.3	2 5	6 18.77	+20 54.4	1.507	2.337	16.3	20.9
<b>300421</b>	2007 <i>SD</i> <sub>15</sub>		12 31.6	57°96	3°0/31.1	18	<b>33153</b>	1998 <i>DH</i> <sub>15</sub>		12 31.7	120°04	1°0/31.5	18
11 27	7 13.72	+28 30.6	1.657	2.482	15.3	20.4	11 27	7 11.76	+25 5.4	2.117	2.931	12.9	18.7
12 7	7 8.27	+29 15.2	1.587	2.487	11.6	20.2	12 7	7 6.10	+25 22.3	2.042	2.937	9.6	18.5
12 17	6 59.83	+29 58.9	1.541	2.491	7.5	20.0	12 17	6 58.17	+25 39.8	1.992	2.944	6.0	18.3
12 27	6 49.31	+30 36.3	1.520	2.496	3.6	19.7	12 27	6 48.74	+25 55.0	1.971	2.950	2.1	18.1
1 6	6 38.08	+31 2.7	1.528	2.501	4.2	19.8	1 6	6 38.84	+26 5.8	1.979	2.956	2.5	18.1
1 16	6 27.66	+31 15.9	1.564	2.506	8.2	20.0	1 16	6 29.56	+26 11.1	2.016	2.962	6.3	18.4
1 26	6 19.41	+31 16.9	1.625	2.511	12.2	20.3	1 26	6 21.91	+26 11.1	2.082	2.968	9.9	18.6
2 5	6 14.22	+31 8.8	1.709	2.516	15.7	20.5	2 5	6 16.58	+26 7.1	2.171	2.974	12.9	18.8
<b>414364</b>	2008 <i>TZ</i> <sub>149</sub>		12 31.6	103°98	2°0/31.2	17	<b>384615</b>	2011 <i>CC</i> <sub>6</sub>		12 31.7	24°73	1°1/31.7	18
11 27	7 10.91	+28 12.3	2.412	3.222	11.6	21.6	11 27	7 11.13	+21 45.1	0.954	1.814	21.2	20.3
12 7	7 5.23	+28 40.3	2.341	3.233	8.7	21.4	12 7	7 7.33	+21 26.8	0.907	1.825	16.0	20.1
12 17	6 57.52	+29 6.8	2.296	3.244	5.5	21.2	12 17	6 59.59	+21 13.6	0.879	1.838	9.9	19.8
12 27	6 48.49	+29 28.7	2.279	3.255	2.5	21.0	12 27	6 49.26	+21 3.8	0.872	1.852	3.4	19.5
1 6	6 39.05	+29 43.7	2.293	3.266	2.9	21.1	1 6	6 38.34	+20 55.8	0.888	1.868	3.7	19.5
1 16	6 30.19	+29 50.6	2.337	3.277	6.0	21.3	1 16	6 28.89	+20 49.1	0.928	1.885	9.9	20.0
1 26	6 22.81	+29 50.0	2.409	3.288	9.0	21.5	1 26	6 22.56	+20 43.9	0.989	1.903	15.4	20.3
2 5	6 17.52	+29 43.6	2.505	3.298	11.7	21.7	2 5	6 20.14	+20 40.5	1.069	1.922	19.9	20.7
<b>40943</b>	1999 <i>TT</i> <sub>213</sub>		12 31.6	354°14	1°2/31.4	18	<b>515138</b>	2011 <i>HZ</i>		12 31.7	272°17	1°7/	1.3 18
11 27	7 10.26	+25 22.9	1.957	2.778	13.5	19.6	11 27	7 14.71	+13 28.8	1.646	2.452	16.3	21.2
12 7	7 5.22	+25 43.3	1.878	2.777	10.1	19.3	12 7	7 9.29	+14 39.0	1.546	2.434	12.6	20.9
12 17	6 57.75	+26 4.7	1.824	2.776	6.3	19.1	12 17	7 0.77	+16 8.7	1.468	2.414	8.2	20.6
12 27	6 48.61	+26 23.8	1.796	2.775	2.3	18.8	12 27	6 49.78	+17 54.5	1.417	2.395	3.4	20.3
1 6	6 38.89	+26 38.0	1.797	2.775	2.7	18.9	1 6	6 37.47	+19 49.7	1.397	2.375	3.1	20.2
1 16	6 29.76	+26 46.0	1.827	2.774	6.8	19.1	1 16	6 25.35	+21 46.1	1.406	2.355	8.2	20.5
1 26	6 22.34	+26 47.8	1.885	2.774	10.6	19.4	1 26	6 14.99	+23 36.7	1.444	2.335	13.1	20.7
2 5	6 17.39	+26 44.9	1.965	2.774	13.8	19.6	2 5	6 7.60	+25 17.0	1.505	2.314	17.3	20.9
<b>226559</b>	2003 <i>WR</i> <sub>38</sub>		12 31.6	31°62	1°7/31.7	18	<b>205126</b>	1999 <i>VH</i> <sub>129</sub>		12 31.7	13°08	0°7/31.6	18
11 27	7 10.78	+20 20.5	2.121	2.932	12.9	19.9	11 27	7 9.98	+24 38.4	1.219	2.068	18.2	20.0
12 7	7 5.20	+19 39.2	2.044	2.936	9.8	19.7	12 7	7 6.02	+24 36.1	1.159	2.072	13.8	19.7
12 17	6 57.52	+18 59.3	1.991	2.940	6.2	19.5	12 17	6 58.65	+24 34.9	1.119	2.077	8.5	19.4
12 27	6 48.49	+18 21.2	1.966	2.944	2.6	19.3	12 27	6 48.97	+24 31.8	1.103	2.084	2.8	19.1
1 6	6 39.09	+17 45.5	1.972	2.948	2.7	19.3	1 6	6 38.63	+24 24.6	1.112	2.092	3.2	19.2
1 16	6 30.33	+17 13.3	2.007	2.953	6.4	19.6	1 16	6 29.38	+24 13.0	1.147	2.101	8.8	19.5
1 26	6 23.13	+16 45.6	2.070	2.957	9.9	19.8	1 26	6 22.75	+23 58.2	1.204	2.111	13.8	19.8
2 5	6 18.12	+16 22.7	2.157	2.962	12.9	20.0	2 5	6 19.56	+23 42.2	1.282	2.123	18.0	20.1
<b>477396</b>	2009 <i>VA</i> <sub>49</sub>		12 31.7	33°53	0°0/31.4	16	<b>89545</b>	2001 <i>XM</i> <sub>92</sub>		12 31.7	146°20	1°5/31.9	18
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>248995</b>	2007 <i>HU</i> <sub>48</sub>		12 31.7 230°72	1°8/31.9 18			<b>76060</b>	2000 <i>DJ</i> <sub>68</sub>		12 31.7 227°99	1°2/31.5 18		
11 27	7 13.07	+17 59.7	1.841	2.652	14.6	21.5	11 27	7 12.59	+25 38.7	1.884	2.703	14.0	19.5
12 7	7 7.46	+17 58.3	1.752	2.643	11.2	21.2	12 7	7 7.09	+25 54.8	1.804	2.701	10.6	19.3
12 17	6 59.24	+18 3.2	1.686	2.634	7.1	21.0	12 17	6 58.99	+26 11.4	1.748	2.699	6.6	19.1
12 27	6 49.16	+18 13.5	1.647	2.625	2.9	20.7	12 27	6 49.09	+26 25.2	1.718	2.698	2.4	18.8
1 6	6 38.33	+18 27.3	1.638	2.615	3.0	20.7	1 6	6 38.56	+26 33.4	1.718	2.696	2.8	18.8
1 16	6 28.02	+18 43.3	1.657	2.604	7.3	20.9	1 16	6 28.68	+26 35.0	1.747	2.694	7.0	19.1
1 26	6 19.44	+19 0.4	1.703	2.594	11.5	21.1	1 26	6 20.63	+26 30.5	1.803	2.692	11.0	19.3
2 5	6 13.45	+19 17.9	1.773	2.582	15.1	21.3	2 5	6 15.20	+26 21.8	1.882	2.690	14.4	19.5
<b>129360</b>	4263 <i>P-L</i>		12 31.7 36°94	5°6/30.8 17			<b>121630</b>	1999 <i>VD</i> <sub>187</sub>		12 31.7 22°58	1°5/31.9 18		
11 27	7 13.66	+37 29.2	1.962	2.771	13.9	19.7	11 27	7 8.17	+18 42.7	1.444	2.280	16.6	19.5
12 7	7 7.97	+38 12.0	1.897	2.779	10.9	19.5	12 7	7 4.05	+18 45.8	1.388	2.293	12.5	19.3
12 17	6 59.51	+38 46.2	1.855	2.787	7.9	19.3	12 17	6 57.16	+18 56.4	1.354	2.308	7.9	19.0
12 27	6 49.20	+39 5.9	1.839	2.796	5.8	19.2	12 27	6 48.48	+19 13.0	1.345	2.324	3.0	18.8
1 6	6 38.36	+39 7.6	1.852	2.804	6.1	19.3	1 6	6 39.32	+19 33.0	1.362	2.340	3.0	18.8
1 16	6 28.37	+38 50.9	1.892	2.813	8.6	19.4	1 16	6 31.07	+19 54.4	1.406	2.358	7.7	19.2
1 26	6 20.48	+38 18.7	1.958	2.823	11.5	19.6	1 26	6 24.92	+20 15.6	1.474	2.377	12.0	19.4
2 5	6 15.44	+37 36.0	2.046	2.832	14.2	19.8	2 5	6 21.59	+20 35.7	1.565	2.397	15.7	19.7
<b>447795</b>	2007 <i>TH</i> <sub>19</sub>		12 31.7 175°86	0°2/31.6 15			<b>301091</b>	2008 <i>UX</i> <sub>344</sub>		12 31.7 252°58	1°3/31.9 18		
11 27	7 13.71	+22 53.1	2.964	3.756	10.1	23.8	11 27	7 12.75	+19 32.2	1.797	2.613	14.7	21.4
12 7	7 6.95	+23 8.4	2.877	3.760	7.6	23.6	12 7	7 7.33	+19 29.2	1.706	2.601	11.2	21.1
12 17	6 58.46	+23 24.8	2.816	3.764	4.7	23.4	12 17	6 59.24	+19 31.2	1.639	2.589	7.1	20.9
12 27	6 48.82	+23 40.5	2.786	3.766	1.5	23.2	12 27	6 49.21	+19 36.9	1.599	2.577	2.7	20.6
1 6	6 38.78	+23 53.9	2.789	3.767	1.8	23.2	1 6	6 38.39	+19 44.6	1.587	2.565	2.8	20.5
1 16	6 29.15	+24 4.1	2.824	3.767	4.9	23.5	1 16	6 28.09	+19 53.1	1.604	2.552	7.4	20.8
1 26	6 20.70	+24 10.8	2.890	3.766	7.8	23.6	1 26	6 19.58	+20 1.9	1.648	2.540	11.7	21.0
2 5	6 13.99	+24 14.7	2.982	3.764	10.3	23.8	2 5	6 13.72	+20 10.9	1.714	2.526	15.4	21.2
<b>460774</b>	2014 <i>WX</i> <sub>10</sub>		12 31.7 23°03	3°7/ 1.1 17			<b>84429</b>	2002 <i>TW</i> <sub>223</sub>		12 31.7 73°10	0°5/31.6 18		
11 27	7 8.25	+13 50.0	1.976	2.784	13.9	20.9	11 27	7 16.17	+22 57.9	1.386	2.215	17.5	20.0
12 7	7 3.46	+13 16.8	1.902	2.788	10.7	20.7	12 7	7 10.18	+23 20.0	1.332	2.235	13.1	19.7
12 17	6 56.54	+12 51.4	1.852	2.793	7.3	20.5	12 17	7 0.99	+23 45.8	1.300	2.254	8.1	19.5
12 27	6 48.23	+12 34.7	1.828	2.797	4.3	20.3	12 27	6 49.72	+24 10.9	1.293	2.273	2.6	19.2
1 6	6 39.49	+12 27.1	1.833	2.802	4.2	20.3	1 6	6 37.95	+24 31.6	1.313	2.292	3.0	19.3
1 16	6 31.33	+12 28.2	1.867	2.808	7.2	20.5	1 16	6 27.31	+24 46.0	1.361	2.311	8.2	19.7
1 26	6 24.71	+12 36.8	1.927	2.814	10.5	20.7	1 26	6 19.22	+24 54.4	1.434	2.330	12.8	20.0
2 5	6 20.26	+12 51.3	2.010	2.820	13.6	21.0	2 5	6 14.43	+24 58.3	1.528	2.349	16.6	20.3
<b>386042</b>	2007 <i>EB</i> <sub>97</sub>		12 31.7 235°70	0°4/31.6 18			<b>187943</b>	2001 <i>KO</i> <sub>33</sub>		12 31.7 197°33	0°9/31.8 18		
11 27	7 14.40	+23 30.7	1.822	2.638	14.5	22.0	11 27	7 14.98	+19 44.5	1.958	2.765	14.0	21.4
12 7	7 8.60	+23 42.8	1.732	2.628	11.0	21.8	12 7	7 8.74	+19 53.6	1.872	2.762	10.6	21.1
12 17	7 0.02	+23 57.1	1.666	2.618	6.9	21.5	12 17	6 59.97	+20 7.8	1.809	2.758	6.7	20.9
12 27	6 49.44	+24 10.9	1.627	2.607	2.3	21.2	12 27	6 49.42	+20 25.0	1.775	2.754	2.4	20.6
1 6	6 38.05	+24 21.3	1.617	2.595	2.7	21.2	1 6	6 38.19	+20 42.9	1.770	2.749	2.5	20.6
1 16	6 27.21	+24 26.9	1.636	2.584	7.3	21.5	1 16	6 27.50	+21 0.0	1.796	2.743	6.9	20.9
1 26	6 18.23	+24 27.8	1.682	2.571	11.6	21.7	1 26	6 18.54	+21 15.4	1.849	2.736	10.9	21.1
2 5	6 12.02	+24 25.4	1.751	2.559	15.3	21.9	2 5	6 12.10	+21 29.3	1.926	2.729	14.4	21.3
<b>457301</b>	2008 <i>RG</i> <sub>143</sub>		12 31.7 43°35	2°8/ 1.2 16			<b>249273</b>	2008 <i>SS</i> <sub>197</sub>		12 31.7 315°41	4°2/ 1.5 18		
11 27	7 8.77	+15 26.4	1.906	2.719	14.1	21.3	11 27	7 7.11	+10 23.1	2.280	3.073	12.7	20.9
12 7	7 3.83	+15 11.1	1.844	2.735	10.8	21.1	12 7	7 2.43	+9 58.6	2.196	3.069	10.1	20.7
12 17	6 56.73	+15 3.5	1.806	2.751	7.1	20.9	12 17	6 55.87	+9 43.4	2.135	3.066	7.2	20.5
12 27	6 48.28	+15 3.4	1.794	2.768	3.6	20.7	12 27	6 48.05	+9 38.9	2.102	3.063	4.7	20.3
1 6	6 39.47	+15 10.2	1.811	2.785	3.5	20.7	1 6	6 39.77	+9 45.0	2.097	3.059	4.6	20.3
1 16	6 31.35	+15 22.6	1.856	2.802	6.8	21.0	1 16	6 31.91	+10 0.9	2.122	3.056	6.9	20.5
1 26	6 24.87	+15 39.3	1.929	2.820	10.3	21.2	1 26	6 25.32	+10 25.1	2.173	3.053	9.8	20.7
2 5	6 20.64	+15 58.7	2.024	2.838	13.3	21.5	2 5	6 20.62	+10 55.2	2.249	3.050	12.6	20.8
<b>503350</b>	2016 <i>BH</i> <sub>62</sub>		12 31.7 280°20	2°6/ 1.2 18			<b>101462</b>	1998 <i>WW</i> <sub>7</sub>		12 31.7 56°53	1°9/31.9 18		
11 27	7 8.34	+14 57.6	2.229	3.033	12.6	21.7	11 27	7 14.80	+19 11.7	1.294	2.126	18.4	19.3
12 7	7 3.53	+14 51.3	2.132	3.017	9.8	21.5	12 7	7 9.15	+18 57.0	1.243	2.146	13.9	19.1
12 17	6 56.66	+14 52.3	2.058	3.001	6.5	21.2	12 17	7 0.32	+18 49.0	1.213	2.166	8.7	18.9
12 27	6 48.32	+15 0.5	2.013	2.986	3.3	21.0	12 27	6 49.49	+18 46.5	1.208	2.187	3.4	18.6
1 6	6 39.37	+15 15.1	1.996	2.970	3.3	21.0	1 6	6 38.25	+18 47.9	1.229	2.207	3.5	18.7
1 16	6 30.76	+15 34.8	2.009	2.953	6.5	21.2	1 16	6 28.21	+18 52.1	1.277	2.229	8.5	19.1
1 26	6 23.45	+15 58.5	2.050	2.937	10.0	21.3	1 26	6 20.73	+18 58.4	1.350	2.250	13.1	19.4
2 5	6 18.15	+16 24.5	2.115	2.921	13.1	21.5	2 5	6 16.53	+19 6.5	1.443	2.271	17.0	19.7
<b>367400</b>	2008 <i>PH</i> <sub>14</sub>		12 31.7 164°88	0°0/31.7 17			<b>496532</b>	2014 <i>WF</i> <sub>144</sub>		12 31.7 291°12	3°9/31.9 18		
11 27	7 9.86	+22 12.6	2.917	3.717	10.1	22.6	11 27	7 8.56	+12 55.4	2.283	3.080	12.6	21.4
12 7	7 4.10	+22 21.3	2.835	3.722	7.5	22.5	12 7	7 3.55	+12 9.4	2.191	3.069	9.9	21.2
12 17	6 56.72	+22 31.6	2.779	3.727	4.6	22.3	12 17	6 56.59	+11 29.4	2.123	3.058	6.9	21.0
12 27	6 48.27	+22 42.0	2.752	3.732	1.5	22.1	12 27	6 48.30	+10 57.1	2.083	3.047	4.4	20.8
1 6	6 39.48	+22 51.2	2.757	3.736	1.7	22.1	1 6	6 39.51	+10 33.6	2.072	3.036	4.4	20.8
1 16	6 31.10	+22 58.4	2.794	3.739	4.8	22.3	1 16	6 31.13	+10 19.5	2.091	3.026	7.0	20.9
1 26	6 23.85	+23 3.6	2.860	3.742	7.7	22.5	1 26	6 24.05	+10 14.3	2.137	3.015	10.1	21.1
2 5	6 18.25	+23 6.8	2.953	3.745	10.1	22.7	2 5	6 18.91	+10 17.0	2.207	3.004	12.9	21.3
<b>50280</b>	2000 <i>CN</i> <sub>17</sub>		12 31.7 169°13	4°6/ 2.0 18			<b>393267</b>	2013 <i>WH</i> <sub>43</sub>		12 31.7 328°23	2°8/31.2 18		
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>71645</b>	2000 <i>EX</i> <sub>109</sub>		12 31.7 333°31	4°0/ 1.2 18			<b>385679</b>	2005 <i>SV</i> <sub>206</sub>		12 31.7 55°78	0°5/31.8 18		
11 27	7 7.92	+12 30.0	2.129	2.930	13.2	18.7	11 27	7 14.84	+21 19.3	1.297	2.131	18.2	20.6
12 7	7 3.16	+11 56.4	2.046	2.927	10.4	18.5	12 7	7 9.28	+21 23.1	1.245	2.150	13.7	20.4
12 17	6 56.37	+11 30.9	1.987	2.923	7.2	18.3	12 17	7 0.48	+21 31.9	1.214	2.169	8.4	20.2
12 27	6 48.23	+11 14.5	1.955	2.920	4.5	18.2	12 27	6 49.59	+21 43.0	1.208	2.189	2.8	19.9
1 6	6 39.60	+11 7.8	1.951	2.917	4.4	18.2	1 6	6 38.23	+21 53.5	1.229	2.208	3.0	20.0
1 16	6 31.45	+11 10.5	1.976	2.914	7.1	18.3	1 16	6 28.08	+22 1.9	1.276	2.229	8.4	20.4
1 26	6 24.69	+11 21.4	2.029	2.912	10.3	18.5	1 26	6 20.51	+22 8.2	1.348	2.249	13.1	20.7
2 5	6 19.98	+11 38.7	2.105	2.909	13.2	18.7	2 5	6 16.29	+22 12.9	1.441	2.269	17.0	21.0
<b>159338</b>	2006 <i>DG</i> <sub>198</sub>		12 31.7 128°25	5°1/ 2.8 18			<b>77792</b>	2001 <i>QX</i> <sub>51</sub>		12 31.7 20°06	4°9/31.1 18		
11 27	7 8.43	+ 2 45.6	2.759	3.510	11.8	20.1	11 27	7 13.53	+37 53.6	2.248	3.050	12.6	18.9
12 7	7 3.00	+ 2 54.5	2.684	3.523	9.6	20.0	12 7	7 7.60	+38 18.2	2.173	3.052	9.9	18.8
12 17	6 56.04	+ 3 17.0	2.633	3.536	7.3	19.9	12 17	6 59.20	+38 34.2	2.122	3.053	7.2	18.6
12 27	6 48.08	+ 3 53.5	2.609	3.548	5.5	19.8	12 27	6 49.16	+38 36.9	2.099	3.055	5.2	18.5
1 6	6 39.79	+ 4 43.1	2.615	3.559	5.2	19.8	1 6	6 38.65	+38 23.8	2.104	3.057	5.4	18.5
1 16	6 31.91	+ 5 43.4	2.652	3.571	6.6	19.9	1 16	6 28.89	+37 54.9	2.137	3.060	7.7	18.6
1 26	6 25.10	+ 6 51.2	2.718	3.582	8.7	20.0	1 26	6 20.96	+37 13.0	2.198	3.062	10.4	18.8
2 5	6 19.87	+ 8 3.0	2.810	3.592	10.8	20.2	2 5	6 15.59	+36 22.5	2.282	3.064	13.0	19.0
<b>139048</b>	2001 <i>EO</i> <sub>20</sub>		12 31.7 174°86	3°7/ 1.2 18			<b>72224</b>	2001 <i>AN</i> <sub>11</sub>		12 31.7 77°22	1°1/31.9 18		
11 27	7 14.25	+13 40.6	1.776	2.578	15.4	20.5	11 27	7 12.20	+19 37.9	1.682	2.503	15.3	19.7
12 7	7 8.24	+13 22.0	1.697	2.581	12.0	20.2	12 7	7 6.91	+19 42.5	1.609	2.506	11.6	19.4
12 17	6 59.67	+13 12.8	1.642	2.583	8.1	20.0	12 17	6 58.94	+19 52.8	1.558	2.509	7.3	19.2
12 27	6 49.33	+13 13.4	1.614	2.584	4.5	19.8	12 27	6 49.12	+20 7.0	1.533	2.513	2.6	18.9
1 6	6 38.37	+13 23.2	1.614	2.585	4.3	19.8	1 6	6 38.68	+20 23.0	1.537	2.516	2.8	18.9
1 16	6 28.06	+13 40.8	1.643	2.585	7.9	20.0	1 16	6 28.96	+20 38.9	1.570	2.519	7.4	19.2
1 26	6 19.58	+14 4.5	1.699	2.585	11.8	20.2	1 26	6 21.17	+20 54.0	1.628	2.523	11.6	19.5
2 5	6 13.71	+14 32.3	1.778	2.584	15.2	20.5	2 5	6 16.12	+21 8.0	1.709	2.526	15.3	19.7
<b>490941</b>	2011 <i>CC</i> <sub>90</sub>		12 31.7 137°02	2°4/31.3 18			<b>267603</b>	2002 <i>RC</i> <sub>79</sub>		12 31.7 91°98	3°5/31.3 18		
11 27	7 12.27	+30 38.6	2.437	3.243	11.6	21.7	11 27	7 19.83	+30 18.6	1.512	2.333	16.8	21.1
12 7	7 6.28	+30 49.2	2.360	3.249	8.8	21.5	12 7	7 12.87	+30 51.6	1.458	2.354	12.7	20.9
12 17	6 58.22	+30 56.0	2.308	3.254	5.7	21.3	12 17	7 2.62	+31 20.4	1.427	2.375	8.2	20.7
12 27	6 48.81	+30 56.0	2.285	3.259	2.8	21.2	12 27	6 50.28	+31 38.6	1.421	2.395	4.2	20.5
1 6	6 39.00	+30 47.7	2.292	3.264	3.1	21.2	1 6	6 37.47	+31 42.6	1.443	2.415	4.6	20.6
1 16	6 29.81	+30 30.8	2.330	3.269	6.1	21.4	1 16	6 25.90	+31 31.9	1.494	2.435	8.6	20.9
1 26	6 22.14	+30 6.8	2.395	3.273	9.1	21.6	1 26	6 16.99	+31 9.8	1.570	2.454	12.7	21.2
2 5	6 16.63	+29 38.2	2.486	3.278	11.8	21.8	2 5	6 11.50	+30 40.8	1.668	2.473	16.1	21.4
<b>104798</b>	2000 <i>HH</i> <sub>41</sub>		12 31.7 250°20	0°4/31.8 18			<b>168474</b>	1999 <i>RN</i> <sub>3</sub>		12 31.7 80°68	2°8/ 1.1 18		
11 27	7 8.72	+19 28.6	2.529	3.334	11.3	20.1	11 27	7 14.75	+15 52.7	1.708	2.517	15.7	20.2
12 7	7 3.65	+20 2.6	2.436	3.326	8.5	19.9	12 7	7 8.38	+15 39.8	1.656	2.544	11.9	20.0
12 17	6 56.67	+20 42.1	2.367	3.317	5.3	19.7	12 17	6 59.57	+15 35.0	1.626	2.571	7.7	19.9
12 27	6 48.35	+21 25.0	2.328	3.307	1.8	19.5	12 27	6 49.25	+15 37.8	1.623	2.598	3.7	19.7
1 6	6 39.47	+22 8.7	2.319	3.298	1.9	19.5	1 6	6 38.64	+15 46.7	1.649	2.624	3.6	19.7
1 16	6 30.89	+22 50.8	2.342	3.289	5.5	19.7	1 16	6 28.98	+16 0.5	1.704	2.649	7.3	20.0
1 26	6 23.50	+23 29.6	2.393	3.279	8.8	19.9	1 26	6 21.30	+16 17.8	1.786	2.675	11.1	20.3
2 5	6 17.95	+24 4.5	2.470	3.269	11.6	20.0	2 5	6 16.26	+16 37.1	1.890	2.700	14.3	20.5
<b>269919</b>	2000 <i>JZ</i> <sub>84</sub>		12 31.7 234°72	3°6/30.7 18			<b>477420</b>	2009 <i>WV</i> <sub>38</sub>		12 31.7 73°43	3°6/30.9 18		
11 27	7 11.28	+32 51.9	2.479	3.286	11.4	20.9	11 27	7 16.55	+28 28.1	1.430	2.260	17.1	21.0
12 7	7 5.77	+33 38.2	2.395	3.281	8.8	20.7	12 7	7 10.76	+29 28.3	1.372	2.273	12.9	20.7
12 17	6 58.06	+34 21.2	2.337	3.277	6.0	20.5	12 17	7 1.55	+30 28.0	1.336	2.287	8.3	20.5
12 27	6 48.81	+34 56.5	2.306	3.272	3.8	20.3	12 27	6 50.01	+31 19.7	1.326	2.301	4.2	20.3
1 6	6 38.96	+35 20.7	2.306	3.268	4.3	20.4	1 6	6 37.75	+31 57.3	1.343	2.315	4.9	20.4
1 16	6 29.57	+35 32.3	2.335	3.263	6.8	20.5	1 16	6 26.55	+32 18.1	1.387	2.329	9.1	20.7
1 26	6 21.64	+35 31.8	2.392	3.258	9.6	20.7	1 26	6 17.96	+32 23.7	1.456	2.342	13.3	20.9
2 5	6 15.89	+35 21.7	2.472	3.253	12.2	20.9	2 5	6 12.85	+32 18.0	1.546	2.356	16.9	21.2
<b>421209</b>	2013 <i>SS</i> <sub>21</sub>		12 31.7 167°62	1°2/31.7 18			<b>460667</b>	2014 <i>UZ</i> <sub>156</sub>		12 31.7 106°28	2°4/31.9 17		
11 27	7 12.12	+20 50.7	2.909	3.703	10.3	20.6	11 27	7 9.33	+16 29.6	2.380	3.182	12.0	21.4
12 7	7 5.68	+20 12.2	2.823	3.706	7.7	20.5	12 7	7 3.95	+16 2.7	2.303	3.188	9.2	21.2
12 17	6 57.65	+19 33.9	2.764	3.710	4.9	20.3	12 17	6 56.75	+15 40.4	2.252	3.195	6.0	21.1
12 27	6 48.60	+18 56.0	2.735	3.713	1.9	20.1	12 27	6 48.37	+15 23.1	2.228	3.201	3.0	20.9
1 6	6 39.28	+18 19.0	2.739	3.715	2.1	20.1	1 6	6 39.63	+15 10.8	2.235	3.208	3.0	20.9
1 16	6 30.44	+17 43.8	2.774	3.717	5.0	20.3	1 16	6 31.42	+15 3.3	2.272	3.214	6.0	21.1
1 26	6 22.79	+17 11.2	2.841	3.719	7.8	20.5	1 26	6 24.53	+15 0.4	2.336	3.221	9.1	21.3
2 5	6 16.84	+16 42.1	2.933	3.720	10.3	20.6	2 5	6 19.55	+15 1.4	2.426	3.227	11.8	21.5
<b>434052</b>	2001 <i>UP</i> <sub>17</sub>		12 31.7 122°92	4°5/ 1.5 16			<b>437382</b>	2013 <i>WY</i> <sub>29</sub>		12 31.7 1°59	2°4/31.2 18		
11 27	7 15.56	+ 9 16.0	2.334	3.105	13.1	22.4	11 27	7 12.53	+25 9.4	1.198	2.044	18.7	20.9
12 7	7 8.37	+ 8 45.9	2.272	3.131	10.3	22.2	12 7	7 8.35	+25 57.3	1.132	2.043	14.2	20.6
12 17	6 59.33	+ 8 25.6	2.234	3.157	7.4	22.1	12 17	7 0.41	+26 49.7	1.086	2.042	8.9	20.3
12 27	6 49.14	+ 8 16.1	2.226	3.182	5.0	22.0	12 27	6 49.74	+27 40.1	1.063	2.042	3.5	20.0
1 6	6 38.71	+ 8 17.5	2.248	3.205	4.8	22.0	1 6	6 38.03	+28 21.7	1.066	2.043	4.3	20.1
1 16	6 28.95	+ 8 28.9	2.301	3.227	7.0	22.2	1 16	6 27.27	+28 50.3	1.094	2.044	9.7	20.4
1 26	6 20.68	+ 8 48.5	2.383	3.248	9.7	22.4	1 26	6 19.28	+29 5.9	1.145	2.046	14.8	20.7
2 5	6 14.46	+ 9 14.1	2.489	3.268	12.2	22.6	2 5	6 15.12	+29 11.0	1.216	2.049	19.2	21.0
<b>420079</b>	2011 <i>EE</i> <sub>37</sub>		12 31.7 255°82	2°5/ 1.3 18			<b>481794</b>	2008 <i>TC</i> <sub>42</sub>		12 31.7 8°04	11°8/31.5 17		
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>470186</b>	2006 <i>VJ</i> <sub>12</sub>		12 31.7	36°10	2°3/31.9	18	<b>130307</b>	2000 <i>EP</i> <sub>102</sub>		12 31.7	44°48	2°1/	1.0 18
11 27	7 12.52	+18 24.1	1.069	1.917	20.3	20.7	11 27	7 11.58	+17 48.1	1.483	2.310	16.7	20.1
12 7	7 8.01	+18 12.6	1.022	1.932	15.4	20.4	12 7	7 6.51	+17 40.7	1.427	2.326	12.7	19.9
12 17	6 59.91	+18 10.6	0.993	1.948	9.7	20.2	12 17	6 58.67	+17 41.0	1.393	2.344	8.0	19.6
12 27	6 49.46	+18 16.8	0.987	1.966	3.9	19.9	12 27	6 49.05	+17 48.0	1.384	2.361	3.4	19.4
1 6	6 38.48	+18 28.9	1.006	1.984	3.9	20.0	1 6	6 38.99	+17 59.9	1.402	2.380	3.3	19.4
1 16	6 28.82	+18 44.7	1.049	2.004	9.4	20.3	1 16	6 29.88	+18 14.9	1.448	2.398	7.8	19.8
1 26	6 22.02	+19 2.4	1.115	2.024	14.5	20.7	1 26	6 22.92	+18 31.9	1.519	2.417	12.1	20.1
2 5	6 18.85	+19 20.8	1.201	2.044	18.8	21.0	2 5	6 18.82	+18 49.6	1.612	2.436	15.7	20.3
<b>80724</b>	2000 <i>CC</i> <sub>26</sub>		12 31.7	182°26	2°3/	1.1 18	<b>195811</b>	2002 <i>QA</i> <sub>19</sub>		12 31.7	76°60	0°5/31.6	17
11 27	7 14.11	+15 51.3	2.026	2.826	13.9	20.0	11 27	7 9.79	+23 23.9	2.256	3.069	12.2	20.5
12 7	7 7.95	+15 53.0	1.943	2.827	10.6	19.8	12 7	7 4.52	+23 43.8	2.184	3.079	9.1	20.3
12 17	6 59.43	+16 2.3	1.884	2.827	6.9	19.5	12 17	6 57.21	+24 5.6	2.137	3.089	5.6	20.2
12 27	6 49.29	+16 18.3	1.852	2.827	3.2	19.3	12 27	6 48.56	+24 26.8	2.119	3.099	1.8	19.9
1 6	6 38.57	+16 39.3	1.851	2.826	3.1	19.3	1 6	6 39.50	+24 45.4	2.130	3.109	2.2	20.0
1 16	6 28.37	+17 3.6	1.880	2.824	6.8	19.5	1 16	6 30.99	+25 0.0	2.171	3.119	5.8	20.2
1 26	6 19.79	+17 29.7	1.936	2.822	10.6	19.8	1 26	6 23.95	+25 10.2	2.241	3.128	9.2	20.4
2 5	6 13.57	+17 56.5	2.017	2.819	13.8	20.0	2 5	6 19.01	+25 16.7	2.334	3.138	12.1	20.7
<b>155361</b>	1096 <i>T</i> <sub>-2</sub>		12 31.7	99°06	4°5/	1.6 18	<b>278515</b>	2008 <i>CV</i> <sub>199</sub>		12 31.7	169°13	1°8/31.4	18
11 27	7 8.79	+9 28.2	2.230	3.018	13.1	20.0	11 27	7 17.84	+27 15.1	2.055	2.860	13.5	21.8
12 7	7 3.63	+9 5.3	2.158	3.028	10.4	19.8	12 7	7 10.83	+27 36.8	1.977	2.866	10.2	21.6
12 17	6 56.59	+8 52.9	2.110	3.038	7.4	19.7	12 17	7 1.24	+27 57.2	1.923	2.871	6.4	21.4
12 27	6 48.33	+8 52.0	2.089	3.048	5.0	19.5	12 27	6 49.90	+28 12.6	1.897	2.875	2.6	21.2
1 6	6 39.70	+9 2.5	2.097	3.058	4.8	19.5	1 6	6 37.99	+28 20.1	1.902	2.878	3.0	21.2
1 16	6 31.59	+9 23.2	2.135	3.067	7.0	19.7	1 16	6 26.77	+28 18.8	1.938	2.880	6.9	21.4
1 26	6 24.83	+9 52.1	2.199	3.077	9.8	19.9	1 26	6 17.42	+28 9.8	2.001	2.881	10.6	21.7
2 5	6 20.02	+10 26.7	2.288	3.086	12.5	20.1	2 5	6 10.69	+27 55.6	2.089	2.881	13.7	21.9
<b>344459</b>	2002 <i>MW</i> <sub>6</sub>		12 31.7	207°98	0°4/31.7	18	<b>84964</b>	2003 <i>YF</i> <sub>14</sub>		12 31.7	319°72	5°6/30.3	18
11 27	7 16.74	+22 6.5	1.909	2.717	14.3	21.9	11 27	7 13.61	+33 12.8	1.639	2.463	15.5	18.9
12 7	7 10.19	+22 3.1	1.819	2.711	10.8	21.6	12 7	7 8.72	+34 28.3	1.560	2.455	12.1	18.6
12 17	7 0.95	+22 1.9	1.754	2.704	6.8	21.4	12 17	7 0.51	+35 41.4	1.504	2.446	8.5	18.4
12 27	6 49.83	+22 0.7	1.716	2.696	2.3	21.1	12 27	6 49.80	+36 44.0	1.474	2.438	5.8	18.2
1 6	6 37.97	+21 57.9	1.708	2.687	2.5	21.1	1 6	6 38.01	+37 28.7	1.471	2.430	6.5	18.3
1 16	6 26.71	+21 52.8	1.730	2.677	7.1	21.4	1 16	6 26.85	+37 52.1	1.494	2.423	9.8	18.4
1 26	6 17.28	+21 46.0	1.780	2.667	11.3	21.6	1 26	6 17.97	+37 55.2	1.543	2.416	13.6	18.6
2 5	6 10.53	+21 38.6	1.854	2.656	14.9	21.8	2 5	6 12.44	+37 42.6	1.612	2.409	16.9	18.8
<b>365922</b>	2011 <i>YJ</i> <sub>20</sub>		12 31.7	31°01	0°0/31.6	17	<b>372067</b>	2008 <i>RH</i> <sub>136</sub>		12 31.7	166°01	3°3/31.2	18
11 27	7 11.94	+23 11.5	1.913	2.731	13.9	20.9	11 27	7 12.99	+34 2.3	2.624	3.424	11.1	21.2
12 7	7 6.48	+23 4.4	1.834	2.731	10.5	20.7	12 7	7 6.81	+34 22.2	2.545	3.427	8.5	21.0
12 17	6 58.57	+22 58.5	1.779	2.731	6.5	20.4	12 17	6 58.58	+34 36.5	2.491	3.429	5.8	20.8
12 27	6 49.02	+22 52.0	1.752	2.732	2.1	20.1	12 27	6 49.00	+34 42.0	2.466	3.432	3.6	20.7
1 6	6 38.93	+22 43.7	1.753	2.733	2.4	20.2	1 6	6 39.01	+34 36.6	2.470	3.434	3.9	20.7
1 16	6 29.50	+22 33.3	1.784	2.733	6.7	20.4	1 16	6 29.60	+34 20.0	2.506	3.436	6.3	20.9
1 26	6 21.83	+22 21.5	1.842	2.734	10.7	20.7	1 26	6 21.67	+33 53.9	2.569	3.437	9.0	21.0
2 5	6 16.66	+22 9.4	1.923	2.734	14.0	20.9	2 5	6 15.85	+33 21.1	2.657	3.439	11.4	21.2
<b>493369</b>	2014 <i>WH</i> <sub>71</sub>		12 31.7	187°33	1°6/31.2	18	<b>464488</b>	2016 <i>BS</i> <sub>63</sub>		12 31.7	236°88	0°9/31.5	18
11 27	7 10.21	+25 30.8	2.358	3.170	11.8	20.8	11 27	7 10.07	+26 0.0	2.657	3.463	10.8	22.0
12 7	7 4.94	+26 16.3	2.276	3.170	8.9	20.6	12 7	7 4.60	+26 7.7	2.563	3.453	8.1	21.8
12 17	6 57.55	+27 3.6	2.219	3.170	5.5	20.4	12 17	6 57.24	+26 14.9	2.494	3.443	5.1	21.6
12 27	6 48.69	+27 49.0	2.191	3.169	2.2	20.2	12 27	6 48.59	+26 19.6	2.454	3.433	1.8	21.4
1 6	6 39.27	+28 29.2	2.194	3.169	2.7	20.2	1 6	6 39.45	+26 20.1	2.445	3.422	2.1	21.4
1 16	6 30.27	+29 1.9	2.226	3.169	6.1	20.4	1 16	6 30.71	+26 16.0	2.467	3.411	5.4	21.6
1 26	6 22.67	+29 26.4	2.287	3.168	9.4	20.6	1 26	6 23.21	+26 7.5	2.517	3.400	8.5	21.7
2 5	6 17.16	+29 43.4	2.372	3.168	12.2	20.8	2 5	6 17.58	+25 56.0	2.593	3.389	11.3	21.9
<b>521596</b>	2015 <i>PE</i> <sub>317</sub>		12 31.7	140°91	0°2/31.7	18	<b>26291</b>	Terristaples		12 31.7	157°06	1°3/31.9	18
11 27	7 13.97	+23 20.4	1.838	2.654	14.4	21.6	11 27	7 15.27	+19 7.7	1.861	2.669	14.6	19.9
12 7	7 8.07	+23 24.7	1.763	2.659	10.9	21.3	12 7	7 8.95	+19 8.7	1.786	2.677	11.1	19.7
12 17	6 59.59	+23 30.8	1.712	2.664	6.7	21.1	12 17	7 0.10	+19 14.9	1.734	2.683	7.0	19.5
12 27	6 49.36	+23 36.1	1.689	2.669	2.2	20.8	12 27	6 49.54	+19 24.7	1.710	2.689	2.6	19.2
1 6	6 38.58	+23 38.6	1.694	2.673	2.5	20.9	1 6	6 38.42	+19 36.3	1.716	2.694	2.7	19.2
1 16	6 28.53	+23 37.6	1.729	2.677	7.0	21.1	1 16	6 27.99	+19 48.2	1.751	2.698	7.0	19.5
1 26	6 20.36	+23 33.4	1.791	2.681	11.0	21.4	1 26	6 19.40	+20 0.0	1.814	2.702	11.0	19.7
2 5	6 14.85	+23 27.4	1.876	2.685	14.4	21.6	2 5	6 13.41	+20 11.4	1.900	2.705	14.4	20.0
<b>187183</b>	2005 <i>SH</i> <sub>60</sub>		12 31.7	88°32	5°5/30.7	18	<b>499201</b>	2009 <i>TX</i> <sub>4</sub>		12 31.7	88°38	18°9/29.1	17
11 27	7 16.21	+37 11.1	2.035	2.839	13.7	20.5	11 27	7 38.46	+56 20.3	1.126	1.903	24.0	21.1
12 7	7 9.82	+38 5.9	1.975	2.854	10.7	20.3	12 7	7 31.89	+59 4.6	1.091	1.913	21.7	21.0
12 17	7 0.68	+38 52.6	1.938	2.869	7.8	20.2	12 17	7 17.08	+61 18.4	1.073	1.924	19.8	20.9
12 27	6 49.71	+39 25.0	1.928	2.883	5.7	20.1	12 27	6 55.54	+62 39.0	1.073	1.934	18.9	20.9
1 6	6 38.21	+39 39.2	1.947	2.898	6.1	20.1	1 6	6 31.70	+62 52.3	1.091	1.944	19.3	20.9
1 16	6 27.56	+39 34.3	1.994	2.912	8.4	20.3	1 16	6 11.12	+62 0.3	1.127	1.955	20.6	21.0
1 26	6 19.01	+39 13.1	2.068	2.926	11.3	20.5	1 26	5 57.76	+60 19.5	1.180	1.965	22.5	21.2
2 5	6 13.31	+38 40.5	2.164	2.940	13.8	20.7	2 5	5 52.52	+58 10.8	1.247	1.974	24.5	21.4
<b>120623</b>	1996 <i>BM</i> <sub>6</sub>		12 31.7	83°57	1°9/31.4	18	<b>350875</b>	2002 <i>PL</i> <sub>112</sub>		12 31.7	117°92	4°1/	1.9 18
11 27	7 19.26												

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12 31.7

12 31.7

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>335390</b>	2005 <i>TW</i> <sub>2</sub>		12 31.7 352°56	5°4/31.1	18		<b>276798</b>	2004 <i>OA</i> <sub>12</sub>		12 31.7 131°39	1°3/31.5	18	
11 27	7 16.59	+33 52.6	1.404	2.234	17.4	20.5	11 27	7 16.72	+25 42.6	1.926	2.736	14.1	22.1
12 7	7 11.18	+34 29.8	1.334	2.232	13.5	20.3	12 7	7 10.00	+26 2.1	1.858	2.750	10.6	21.9
12 17	7 2.04	+35 0.1	1.286	2.231	9.3	20.0	12 17	7 0.72	+26 21.6	1.814	2.764	6.6	21.7
12 27	6 50.27	+35 15.8	1.261	2.230	5.8	19.8	12 27	6 49.75	+26 37.5	1.798	2.777	2.4	21.5
1 6	6 37.61	+35 11.7	1.263	2.229	6.2	19.8	1 6	6 38.31	+26 47.1	1.812	2.790	2.8	21.5
1 16	6 26.02	+34 47.3	1.291	2.229	10.0	20.0	1 16	6 27.67	+26 49.3	1.856	2.801	6.9	21.8
1 26	6 17.23	+34 6.8	1.343	2.229	14.3	20.3	1 26	6 18.97	+26 45.2	1.928	2.813	10.7	22.0
2 5	6 12.20	+33 16.7	1.415	2.229	18.0	20.5	2 5	6 12.94	+26 36.7	2.023	2.823	13.9	22.3
<b>273104</b>	2006 <i>FP</i> <sub>20</sub>		12 31.7 262°95	0°4/31.8	18		<b>103522</b>	2000 <i>BQ</i> <sub>6</sub>		12 31.7 143°16	3°8/30.8	17	
11 27	7 9.12	+20 54.2	2.408	3.216	11.7	21.3	11 27	7 25.89	+25 12.6	1.173	2.000	20.3	19.4
12 7	7 4.06	+21 2.6	2.312	3.204	8.8	21.0	12 7	7 18.68	+26 53.1	1.113	2.013	15.4	19.1
12 17	6 57.00	+21 14.3	2.241	3.191	5.5	20.8	12 17	7 7.00	+28 40.8	1.074	2.025	9.8	18.8
12 27	6 48.54	+21 27.8	2.199	3.178	1.9	20.5	12 27	6 51.99	+30 23.5	1.060	2.036	4.6	18.6
1 6	6 39.52	+21 41.6	2.186	3.165	2.0	20.5	1 6	6 35.73	+31 48.8	1.073	2.046	5.6	18.7
1 16	6 30.86	+21 54.3	2.204	3.152	5.7	20.8	1 16	6 20.68	+32 49.9	1.114	2.055	10.9	19.0
1 26	6 23.47	+22 5.5	2.250	3.139	9.2	21.0	1 26	6 9.02	+33 27.1	1.179	2.062	16.0	19.3
2 5	6 18.04	+22 15.1	2.322	3.125	12.2	21.1	2 5	6 1.93	+33 46.2	1.263	2.069	20.3	19.6
<b>32384</b>	Scottbest		12 31.7 303°13	0°1/31.7	18		<b>6254</b>	1993 <i>UM</i> <sub>3</sub>		12 31.7 207°69	4°1/ 1.5	18	
11 27	7 9.99	+20 8.9	1.832	2.652	14.3	18.5	11 27	7 8.23	+10 20.6	2.382	3.170	12.4	17.2
12 7	7 5.38	+20 43.9	1.740	2.638	10.9	18.3	12 7	7 3.23	+9 56.7	2.297	3.168	9.8	17.0
12 17	6 58.15	+21 26.4	1.671	2.624	6.8	18.0	12 17	6 56.40	+9 41.9	2.236	3.166	7.0	16.9
12 27	6 48.99	+22 13.5	1.630	2.610	2.2	17.7	12 27	6 48.35	+9 37.2	2.203	3.163	4.6	16.7
1 6	6 38.98	+23 1.4	1.617	2.596	2.5	17.7	1 6	6 39.85	+9 42.5	2.199	3.161	4.5	16.7
1 16	6 29.36	+23 46.5	1.633	2.582	7.2	17.9	1 16	6 31.76	+9 57.3	2.225	3.158	6.7	16.8
1 26	6 21.40	+24 26.8	1.675	2.569	11.4	18.2	1 26	6 24.91	+10 20.0	2.278	3.155	9.6	17.0
2 5	6 16.01	+25 1.4	1.741	2.556	15.1	18.4	2 5	6 19.89	+10 48.4	2.356	3.152	12.2	17.2
<b>104581</b>	2000 <i>GA</i> <sub>82</sub>		12 31.7 265°25	20°6/ 1.5	18		<b>307338</b>	2002 <i>RU</i> <sub>45</sub>		12 31.7 153°96	5°2/30.8	18	
11 27	7 12.51	-15 16.8	1.269	1.984	24.8	19.0	11 27	7 18.15	+37 41.3	2.237	3.031	12.9	21.4
12 7	7 8.02	-17 51.0	1.208	1.974	23.1	18.8	12 7	7 11.13	+38 23.6	2.165	3.039	10.2	21.2
12 17	7 0.14	-19 51.4	1.161	1.964	21.7	18.6	12 17	7 1.46	+38 57.7	2.118	3.046	7.4	21.1
12 27	6 49.71	-21 4.1	1.130	1.954	20.8	18.5	12 27	6 50.01	+39 18.0	2.098	3.052	5.4	21.0
1 6	6 38.16	-21 20.0	1.116	1.944	20.7	18.5	1 6	6 38.01	+39 20.9	2.108	3.058	5.7	21.0
1 16	6 27.20	-20 36.9	1.119	1.934	21.6	18.5	1 16	6 26.79	+39 6.1	2.147	3.063	8.0	21.2
1 26	6 18.51	-19 1.0	1.138	1.923	23.2	18.6	1 26	6 17.54	+38 36.2	2.213	3.068	10.7	21.3
2 5	6 13.23	-16 45.2	1.172	1.913	25.1	18.7	2 5	6 11.02	+37 55.9	2.302	3.073	13.3	21.5
<b>271542</b>	2004 <i>JC</i> <sub>14</sub>		12 31.7 239°70	0°4/31.6	18		<b>73871</b>	1997 <i>AP</i> <sub>16</sub>		12 31.7 160°27	0°3/31.8	18	
11 27	7 15.44	+23 41.1	1.846	2.660	14.5	22.1	11 27	7 15.52	+20 30.4	1.749	2.562	15.2	20.3
12 7	7 9.46	+23 49.2	1.752	2.646	11.0	21.8	12 7	7 9.40	+20 53.8	1.673	2.567	11.5	20.1
12 17	7 0.66	+23 59.2	1.681	2.632	6.9	21.5	12 17	7 0.53	+21 22.8	1.621	2.572	7.1	19.8
12 27	6 49.81	+24 8.1	1.637	2.617	2.3	21.2	12 27	6 49.74	+21 54.5	1.597	2.577	2.4	19.5
1 6	6 38.09	+24 13.5	1.623	2.602	2.6	21.2	1 6	6 38.29	+22 25.4	1.601	2.580	2.6	19.6
1 16	6 26.88	+24 14.0	1.638	2.585	7.4	21.5	1 16	6 27.52	+22 53.0	1.635	2.583	7.3	19.9
1 26	6 17.52	+24 10.2	1.680	2.569	11.7	21.7	1 26	6 18.71	+23 16.4	1.696	2.586	11.5	20.1
2 5	6 10.92	+24 3.5	1.746	2.552	15.5	21.9	2 5	6 12.70	+23 35.7	1.780	2.588	15.1	20.4
<b>485951</b>	2012 <i>HD</i> <sub>51</sub>		12 31.7 144°50	0°2/31.8	17		<b>118021</b>	2035 <i>T-2</i>		12 31.7 151°64	1°2/31.9	18	
11 27	7 9.35	+20 30.3	2.802	3.602	10.4	21.5	11 27	7 15.49	+19 39.9	1.524	2.345	16.6	20.1
12 7	7 3.85	+20 59.1	2.723	3.610	7.8	21.3	12 7	7 9.67	+19 42.4	1.452	2.349	12.6	19.8
12 17	6 56.69	+21 31.5	2.670	3.619	4.8	21.1	12 17	7 0.81	+19 51.0	1.402	2.353	7.9	19.6
12 27	6 48.41	+22 5.4	2.647	3.627	1.6	20.9	12 27	6 49.85	+20 3.7	1.378	2.357	2.9	19.3
1 6	6 39.75	+22 38.7	2.656	3.634	1.7	20.9	1 6	6 38.18	+20 17.9	1.381	2.360	3.0	19.3
1 16	6 31.48	+23 9.8	2.695	3.641	4.9	21.2	1 16	6 27.32	+20 32.0	1.413	2.363	8.0	19.6
1 26	6 24.34	+23 37.7	2.765	3.648	7.8	21.4	1 26	6 18.69	+20 45.2	1.470	2.365	12.6	19.9
2 5	6 18.89	+24 2.2	2.860	3.655	10.4	21.6	2 5	6 13.14	+20 57.6	1.549	2.367	16.5	20.1
<b>313256</b>	2001 <i>VX</i> <sub>126</sub>		12 31.7 79°17	0°9/31.5	18		<b>458591</b>	2011 <i>FB</i> <sub>28</sub>		12 31.7 320°28	2°9/31.9	16	
11 27	7 11.51	+23 25.1	1.927	2.746	13.8	21.0	11 27	7 7.93	+16 41.4	1.768	2.589	14.7	21.0
12 7	7 6.26	+23 58.4	1.849	2.747	10.4	20.8	12 7	7 3.89	+16 14.8	1.666	2.561	11.4	20.8
12 17	6 58.53	+24 35.0	1.795	2.748	6.4	20.6	12 17	6 57.27	+15 53.9	1.587	2.535	7.6	20.5
12 27	6 49.08	+25 11.5	1.769	2.749	2.2	20.3	12 27	6 48.74	+15 39.5	1.533	2.508	3.8	20.2
1 6	6 38.98	+25 44.3	1.772	2.750	2.6	20.3	1 6	6 39.33	+15 31.8	1.508	2.482	3.8	20.1
1 16	6 29.46	+26 11.1	1.803	2.751	6.8	20.6	1 16	6 30.27	+15 30.5	1.509	2.457	7.8	20.3
1 26	6 21.66	+26 31.2	1.862	2.752	10.7	20.8	1 26	6 22.82	+15 35.3	1.537	2.433	12.1	20.5
2 5	6 16.36	+26 45.4	1.945	2.753	14.0	21.0	2 5	6 17.91	+15 45.0	1.586	2.409	16.0	20.7
<b>332832</b>	2010 <i>AT</i> <sub>31</sub>		12 31.7 299°23	5°2/ 2.6	18		<b>371285</b>	2006 <i>DD</i> <sub>151</sub>		12 31.7 189°37	0°7/31.6	18	
11 27	7 7.01	+4 36.2	2.407	3.177	12.8	20.4	11 27	7 10.10	+25 7.1	2.695	3.500	10.7	22.2
12 7	7 2.33	+4 41.9	2.320	3.173	10.4	20.2	12 7	7 4.54	+25 18.0	2.609	3.499	8.0	22.1
12 17	6 55.87	+5 2.0	2.256	3.170	7.8	20.0	12 17	6 57.17	+25 28.9	2.549	3.498	5.0	21.9
12 27	6 48.18	+5 37.4	2.219	3.166	5.7	19.9	12 27	6 48.59	+25 38.0	2.517	3.497	1.7	21.6
1 6	6 40.01	+6 27.2	2.210	3.162	5.3	19.9	1 6	6 39.59	+25 43.7	2.517	3.495	2.0	21.7
1 16	6 32.18	+7 28.8	2.231	3.159	7.1	20.0	1 16	6 31.01	+25 45.2	2.548	3.493	5.2	21.9
1 26	6 25.52	+8 38.9	2.281	3.155	9.7	20.1	1 26	6 23.67	+25 42.7	2.607	3.490	8.3	22.1
2 5	6 20.62	+9 53.4	2.355	3.152	12.2	20.3	2 5	6 18.15	+25 37.2	2.692	3.487	10.9	22.2
<b>30111</b>	Wendyslijk		12 31.7 197°68	0°7/31.9	18 R		<b>283773</b>	2003 <i>NE</i> <sub>5</sub>		12 31.7 80°92	0°5/31.7	18	
11 27	7 14.00	+19 19.0	1.751										

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>460599</b>	2014 <i>UX</i> <sub>46</sub>		12 31.7	68°29	4°6/ 1.5	17	<b>424889</b>	2008 <i>WZ</i> <sub>14</sub>		12 31.7	41°75	11°6/ 1.8	17
11 27	7 8.35	+ 9 59.3	2.205	2.996	13.2	21.7	11 27	7 9.01	- 7 42.5	2.088	2.804	16.1	20.6
12 7	7 3.37	+ 9 24.0	2.131	3.002	10.4	21.5	12 7	7 3.91	- 9 36.5	2.033	2.816	14.3	20.5
12 17	6 56.49	+ 8 58.5	2.080	3.009	7.5	21.3	12 17	6 56.85	-11 9.6	1.998	2.829	12.8	20.4
12 27	6 48.37	+ 8 44.1	2.057	3.015	5.1	21.2	12 27	6 48.52	-12 15.9	1.988	2.842	11.8	20.4
1 6	6 39.87	+ 8 41.2	2.062	3.022	4.9	21.2	1 6	6 39.80	-12 52.1	2.001	2.855	11.7	20.4
1 16	6 31.88	+ 8 49.4	2.097	3.028	7.2	21.3	1 16	6 31.64	-12 57.8	2.038	2.869	12.5	20.5
1 26	6 25.24	+ 9 7.0	2.158	3.035	10.0	21.5	1 26	6 24.91	-12 36.2	2.097	2.883	13.9	20.6
2 5	6 20.55	+ 9 31.7	2.243	3.042	12.7	21.7	2 5	6 20.22	-11 53.1	2.176	2.897	15.4	20.7
<b>39633</b>	1994 <i>WO</i>		12 31.7	68°51	2°9/31.1	18	<b>360631</b>	2004 <i>FT</i> <sub>44</sub>		12 31.7	207°53	11°0/ 3.6	18
11 27	7 14.10	+29 32.9	1.999	2.813	13.5	18.8	11 27	7 8.79	-10 55.5	2.303	2.992	15.5	20.8
12 7	7 7.96	+30 15.0	1.946	2.839	10.2	18.7	12 7	7 3.74	-11 53.6	2.226	2.989	13.9	20.7
12 17	6 59.41	+30 54.3	1.917	2.865	6.5	18.5	12 17	6 56.79	-12 29.9	2.168	2.985	12.4	20.6
12 27	6 49.32	+31 26.2	1.916	2.890	3.4	18.3	12 27	6 48.52	-12 39.6	2.132	2.981	11.3	20.5
1 6	6 38.87	+31 47.5	1.945	2.916	3.8	18.4	1 6	6 39.76	-12 20.7	2.121	2.976	11.1	20.5
1 16	6 29.25	+31 57.1	2.003	2.941	7.0	18.7	1 16	6 31.38	-11 33.8	2.134	2.972	11.8	20.5
1 26	6 21.53	+31 56.2	2.087	2.966	10.2	18.9	1 26	6 24.28	-10 22.5	2.171	2.967	13.1	20.6
2 5	6 16.36	+31 47.4	2.196	2.991	13.1	19.2	2 5	6 19.07	- 8 53.2	2.230	2.961	14.8	20.7
<b>452646</b>	2005 <i>UZ</i> <sub>129</sub>		12 31.7	315°19	3°4/30.9	17	<b>393578</b>	2003 <i>SQ</i> <sub>30</sub>		12 31.7	58°39	5°5/31.0	18
11 27	7 12.57	+30 45.1	2.011	2.827	13.4	21.6	11 27	7 17.78	+34 24.8	1.505	2.328	16.7	20.6
12 7	7 7.14	+31 27.2	1.933	2.826	10.2	21.4	12 7	7 11.56	+35 15.4	1.456	2.349	12.9	20.4
12 17	6 59.12	+32 6.9	1.879	2.825	6.7	21.2	12 17	7 1.98	+35 58.0	1.429	2.370	8.9	20.3
12 27	6 49.30	+32 39.3	1.852	2.824	3.8	21.0	12 27	6 50.22	+36 25.3	1.427	2.392	5.8	20.1
1 6	6 38.81	+33 0.3	1.854	2.823	4.2	21.1	1 6	6 37.98	+36 32.8	1.452	2.414	6.2	20.2
1 16	6 28.93	+33 8.5	1.885	2.822	7.5	21.3	1 16	6 27.00	+36 20.2	1.504	2.436	9.4	20.4
1 26	6 20.84	+33 4.6	1.943	2.821	10.9	21.5	1 26	6 18.73	+35 51.8	1.581	2.458	13.0	20.7
2 5	6 15.37	+32 51.7	2.024	2.820	14.0	21.7	2 5	6 13.92	+35 13.3	1.679	2.480	16.2	21.0
<b>455156</b>	1996 <i>VA</i> <sub>23</sub>		12 31.7	83°90	1°7/31.2	17	<b>227926</b>	2007 <i>FX</i> <sub>48</sub>		12 31.7	152°90	0°4/31.6	17
11 27	7 10.32	+25 51.1	2.407	3.218	11.6	21.0	11 27	7 10.65	+23 40.9	2.399	3.207	11.7	21.6
12 7	7 4.93	+26 41.3	2.336	3.228	8.7	20.8	12 7	7 5.12	+23 54.0	2.319	3.211	8.8	21.5
12 17	6 57.52	+27 32.6	2.289	3.239	5.4	20.6	12 17	6 57.61	+24 8.4	2.265	3.215	5.4	21.3
12 27	6 48.73	+28 21.4	2.272	3.250	2.3	20.4	12 27	6 48.78	+24 22.0	2.239	3.219	1.8	21.0
1 6	6 39.47	+29 4.3	2.286	3.260	2.7	20.5	1 6	6 39.51	+24 33.0	2.244	3.222	2.1	21.0
1 16	6 30.69	+29 39.0	2.329	3.271	5.9	20.7	1 16	6 30.73	+24 40.4	2.279	3.225	5.7	21.3
1 26	6 23.31	+30 5.0	2.402	3.281	9.0	20.9	1 26	6 23.35	+24 44.1	2.342	3.228	9.0	21.5
2 5	6 17.98	+30 23.2	2.498	3.292	11.7	21.1	2 5	6 17.98	+24 44.8	2.430	3.231	11.8	21.7
<b>108566</b>	2001 <i>MF</i>		12 31.7	75°33	4°2/ 2.1	18	<b>110599</b>	2001 <i>TX</i> <sub>133</sub>		12 31.7	299°75	3°8/ 1.6	18
11 27	7 12.56	+ 9 13.3	1.859	2.650	15.3	19.5	11 27	7 9.26	+11 38.7	1.911	2.713	14.5	19.6
12 7	7 6.66	+ 9 31.0	1.804	2.678	11.9	19.3	12 7	7 4.50	+11 38.7	1.827	2.709	11.3	19.4
12 17	6 58.55	+10 3.1	1.772	2.705	8.2	19.2	12 17	6 57.45	+11 50.6	1.766	2.704	7.8	19.1
12 27	6 49.04	+10 48.6	1.767	2.732	5.0	19.0	12 27	6 48.79	+12 14.5	1.731	2.700	4.6	18.9
1 6	6 39.19	+11 44.5	1.791	2.758	4.5	19.1	1 6	6 39.49	+12 48.9	1.725	2.695	4.3	18.9
1 16	6 30.10	+12 47.3	1.844	2.784	7.3	19.3	1 16	6 30.67	+13 31.7	1.748	2.691	7.4	19.1
1 26	6 22.73	+13 52.9	1.925	2.810	10.6	19.5	1 26	6 23.38	+14 19.7	1.797	2.687	11.0	19.3
2 5	6 17.72	+14 57.8	2.030	2.836	13.6	19.8	2 5	6 18.38	+15 10.0	1.870	2.683	14.3	19.5
<b>338479</b>	2003 <i>HO</i>		12 31.7	259°21	0°9/31.8	18	<b>354480</b>	2004 <i>EY</i> <sub>5</sub>		12 31.7	261°86	7°9/29.8	18
11 27	7 13.44	+20 35.5	1.737	2.555	15.1	21.5	11 27	7 19.41	+43 46.9	2.140	2.924	13.8	20.7
12 7	7 8.05	+20 34.3	1.645	2.541	11.5	21.2	12 7	7 12.89	+44 54.1	2.050	2.906	11.5	20.5
12 17	6 59.85	+20 37.5	1.576	2.528	7.2	20.9	12 17	7 3.05	+45 50.9	1.983	2.888	9.3	20.3
12 27	6 49.59	+20 43.4	1.534	2.513	2.6	20.6	12 27	6 50.71	+46 29.1	1.942	2.869	8.0	20.2
1 6	6 38.47	+20 50.0	1.520	2.499	2.7	20.6	1 6	6 37.28	+46 42.6	1.928	2.850	8.4	20.2
1 16	6 27.86	+20 56.2	1.535	2.484	7.6	20.9	1 16	6 24.44	+46 29.6	1.941	2.830	10.3	20.3
1 26	6 19.10	+21 1.5	1.576	2.469	12.0	21.1	1 26	6 13.82	+45 52.9	1.980	2.810	12.9	20.4
2 5	6 13.13	+21 6.3	1.640	2.454	15.9	21.3	2 5	6 6.48	+44 59.1	2.040	2.790	15.4	20.5
<b>125858</b>	2001 <i>XO</i> <sub>189</sub>		12 31.7	80°34	1°9/ 1.1	18	<b>357693</b>	2005 <i>NF</i> <sub>68</sub>		12 31.7	145°83	4°8/31.1	18
11 27	7 13.70	+16 35.4	1.568	2.386	16.4	19.8	11 27	7 17.57	+37 53.8	2.357	3.150	12.4	21.2
12 7	7 8.07	+16 53.3	1.508	2.402	12.5	19.6	12 7	7 10.53	+38 24.7	2.286	3.159	9.8	21.0
12 17	6 59.68	+17 20.9	1.469	2.418	7.9	19.4	12 17	7 1.03	+38 47.0	2.239	3.167	7.0	20.9
12 27	6 49.46	+17 55.9	1.457	2.434	3.3	19.2	12 27	6 49.91	+38 56.1	2.220	3.175	5.1	20.8
1 6	6 38.71	+18 35.2	1.472	2.450	3.1	19.2	1 6	6 38.35	+38 48.9	2.231	3.183	5.3	20.8
1 16	6 28.82	+19 15.4	1.516	2.466	7.6	19.5	1 16	6 27.56	+38 25.6	2.271	3.190	7.5	20.9
1 26	6 21.02	+19 54.3	1.586	2.481	11.9	19.8	1 26	6 18.65	+37 48.9	2.339	3.197	10.2	21.1
2 5	6 16.07	+20 30.5	1.679	2.497	15.4	20.1	2 5	6 12.30	+37 3.4	2.431	3.203	12.6	21.3
<b>495809</b>	2017 <i>FQ</i> <sub>97</sub>		12 31.7	278°42	7°2/29.7	17	<b>41</b>	<i>Daphne</i>		12 31.7	265°36	7°2/ 1.9	18
11 27	7 15.86	+40 44.3	2.079	2.877	13.6	21.0	11 27	7 9.20	+ 1 23.8	2.332	3.086	13.6	12.2
12 7	7 10.07	+42 2.0	2.000	2.869	11.1	20.8	12 7	7 4.18	+ 0 46.5	2.228	3.063	11.5	12.0
12 17	7 1.20	+43 11.5	1.944	2.861	8.7	20.6	12 17	6 57.18	+ 0 23.6	2.145	3.039	9.2	11.8
12 27	6 50.05	+44 5.0	1.914	2.852	7.2	20.5	12 27	6 48.72	+ 0 18.1	2.089	3.015	7.6	11.7
1 6	6 37.94	+44 36.4	1.913	2.844	7.7	20.5	1 6	6 39.59	+ 0 31.5	2.060	2.990	7.4	11.6
1 16	6 26.41	+44 43.7	1.938	2.836	9.8	20.6	1 16	6 30.68	+ 1 3.5	2.060	2.965	8.9	11.7
1 26	6 16.94	+44 29.0	1.989	2.828	12.5	20.8	1 26	6 22.93	+ 1 51.6	2.086	2.939	11.4	11.8
2 5	6 10.55	+43 57.6	2.061	2.820	15.0	21.0	2 5	6 17.05	+ 2 51.7	2.136	2.913	14.0	11.9
<b>488588</b>	2002 <i>PM</i> <sub>191</sub>		12 31.7	169°16	3°3/31.3	18	<b>84615</b>	2002 <i>V</i>					

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>317698</b>	2003 <i>PF</i> <sub>6</sub>		12 31.7 165°67	3°2/	1.3	18	<b>279150</b>	2009 <i>SL</i> <sub>45</sub>		12 31.7 231°58	2°7/	31.4	18
11 27	7 16.05	+14 25.4	1.786	2.587	15.4	21.2	11 27	7 17.70	+29 9.5	1.737	2.552	15.2	21.4
12 7	7 9.65	+14 17.1	1.710	2.593	11.9	21.0	12 7	7 11.46	+29 31.7	1.649	2.542	11.6	21.1
12 17	7 0.63	+14 18.1	1.656	2.598	7.9	20.7	12 17	7 2.08	+29 51.6	1.583	2.532	7.5	20.9
12 27	6 49.84	+14 28.0	1.630	2.602	4.1	20.5	12 27	6 50.42	+30 4.1	1.545	2.521	3.5	20.6
1 6	6 38.43	+14 45.5	1.633	2.606	3.9	20.5	1 6	6 37.85	+30 5.5	1.535	2.509	3.9	20.6
1 16	6 27.70	+15 8.8	1.665	2.609	7.6	20.7	1 16	6 25.94	+29 54.5	1.554	2.497	8.2	20.8
1 26	6 18.83	+15 36.2	1.724	2.611	11.6	21.0	1 26	6 16.18	+29 33.2	1.600	2.485	12.4	21.0
2 5	6 12.62	+16 5.7	1.807	2.612	15.1	21.2	2 5	6 9.56	+29 5.2	1.668	2.472	16.2	21.2
<b>102960</b>	1999 <i>XV</i> <sub>65</sub>		12 31.7 348°96	2°0/	31.9	18	<b>119709</b>	2001 <i>XR</i> <sub>186</sub>		12 31.7 132°90	0°1/	31.8	18
11 27	7 8.29	+19 21.2	1.297	2.140	17.7	19.3	11 27	7 11.17	+21 32.1	2.115	2.927	12.9	20.1
12 7	7 4.79	+19 4.6	1.223	2.132	13.5	19.1	12 7	7 5.77	+21 48.1	2.038	2.932	9.7	19.9
12 17	6 58.09	+18 54.2	1.169	2.124	8.6	18.8	12 17	6 58.17	+22 7.5	1.985	2.936	6.0	19.7
12 27	6 49.09	+18 49.7	1.139	2.118	3.5	18.4	12 27	6 49.07	+22 28.3	1.960	2.939	2.0	19.4
1 6	6 39.24	+18 49.9	1.134	2.113	3.5	18.4	1 6	6 39.46	+22 48.1	1.964	2.943	2.2	19.5
1 16	6 30.15	+18 53.7	1.154	2.109	8.8	18.7	1 16	6 30.39	+23 5.4	1.999	2.947	6.2	19.7
1 26	6 23.34	+19 0.5	1.199	2.106	13.8	19.0	1 26	6 22.87	+23 19.6	2.061	2.950	9.8	20.0
2 5	6 19.79	+19 9.3	1.263	2.104	18.1	19.3	2 5	6 17.59	+23 30.9	2.147	2.954	12.9	20.2
<b>38485</b>	1999 <i>TQ</i> <sub>102</sub>		12 31.7 127°83	0°5/	31.9	18	<b>307492</b>	2002 <i>XE</i> <sub>88</sub>		12 31.7 27°65	7°9/	29.7	18
11 27	7 10.77	+19 5.8	2.393	3.196	11.9	18.6	11 27	7 15.17	+37 24.8	1.487	2.312	16.8	19.2
12 7	7 5.20	+19 41.9	2.317	3.205	9.0	18.5	12 7	7 10.23	+39 7.5	1.432	2.321	13.4	19.0
12 17	6 57.68	+20 23.6	2.266	3.215	5.6	18.3	12 17	7 1.60	+40 42.3	1.399	2.331	10.1	18.8
12 27	6 48.84	+21 8.3	2.245	3.224	1.9	18.0	12 27	6 50.31	+41 58.5	1.391	2.341	8.0	18.7
1 6	6 39.55	+21 53.3	2.254	3.233	2.0	18.0	1 6	6 38.06	+42 47.9	1.409	2.353	8.7	18.8
1 16	6 30.71	+22 36.1	2.294	3.241	5.6	18.3	1 16	6 26.82	+43 8.0	1.452	2.365	11.4	19.0
1 26	6 23.22	+23 15.1	2.363	3.250	8.9	18.5	1 26	6 18.33	+43 2.0	1.518	2.377	14.5	19.2
2 5	6 17.69	+23 49.7	2.458	3.257	11.7	18.7	2 5	6 13.59	+42 37.0	1.604	2.391	17.5	19.4
<b>116342</b>	2003 <i>YH</i> <sub>81</sub>		12 31.7 304°60	0°6/	31.7	18	<b>351980</b>	2006 <i>UG</i> <sub>98</sub>		12 31.7 236°16	2°9/	1.3	18
11 27	7 11.95	+26 27.1	2.210	3.022	12.5	19.2	11 27	7 10.39	+14 38.3	1.970	2.776	14.0	21.0
12 7	7 6.33	+26 2.0	2.117	3.011	9.4	18.9	12 7	7 5.30	+14 29.1	1.887	2.773	10.8	20.8
12 17	6 58.48	+25 34.0	2.049	3.000	5.9	18.7	12 17	6 57.94	+14 28.2	1.827	2.770	7.2	20.5
12 27	6 49.13	+25 1.7	2.010	2.989	2.0	18.4	12 27	6 49.01	+14 35.5	1.795	2.767	3.8	20.3
1 6	6 39.26	+24 24.9	2.000	2.979	2.2	18.4	1 6	6 39.50	+14 50.2	1.791	2.764	3.6	20.3
1 16	6 29.95	+23 44.6	2.020	2.968	6.2	18.7	1 16	6 30.50	+15 10.8	1.816	2.761	7.0	20.5
1 26	6 22.21	+23 2.7	2.069	2.958	9.8	18.9	1 26	6 23.03	+15 35.6	1.868	2.758	10.7	20.7
2 5	6 16.71	+22 21.4	2.142	2.948	13.0	19.1	2 5	6 17.85	+16 3.1	1.944	2.755	13.9	20.9
<b>345384</b>	2006 <i>BR</i> <sub>69</sub>		12 31.7 297°46	2°2/	31.3	18	<b>228144</b>	2009 <i>RP</i> <sub>50</sub>		12 31.7 90°72	2°1/	1.2	18
11 27	7 13.07	+26 22.0	1.539	2.369	16.1	21.3	11 27	7 10.79	+16 20.5	2.245	3.046	12.6	21.1
12 7	7 8.34	+26 55.8	1.451	2.354	12.3	21.0	12 7	7 5.14	+16 14.4	2.180	3.066	9.6	21.0
12 17	7 0.34	+27 31.7	1.385	2.338	7.8	20.7	12 17	6 57.59	+16 14.4	2.141	3.085	6.2	20.8
12 27	6 49.88	+28 4.7	1.344	2.323	3.2	20.4	12 27	6 48.84	+16 19.8	2.129	3.104	2.9	20.6
1 6	6 38.33	+28 29.8	1.331	2.307	3.8	20.4	1 6	6 39.77	+16 29.7	2.148	3.123	2.8	20.6
1 16	6 27.34	+28 44.2	1.345	2.292	8.6	20.6	1 16	6 31.32	+16 42.8	2.196	3.142	5.9	20.9
1 26	6 18.52	+28 48.1	1.383	2.277	13.4	20.9	1 26	6 24.32	+16 58.2	2.273	3.160	9.2	21.1
2 5	6 12.97	+28 43.8	1.443	2.263	17.5	21.1	2 5	6 19.32	+17 15.0	2.375	3.178	11.9	21.3
<b>365751</b>	2010 <i>WS</i> <sub>54</sub>		12 31.7 85°57	1°2/	31.8	18	<b>264198</b>	2010 <i>JY</i> <sub>116</sub>		12 31.7 175°06	1°6/	1.3	18
11 27	7 20.55	+21 31.4	1.377	2.198	18.1	20.7	11 27	7 12.73	+15 40.7	2.255	3.051	12.8	21.2
12 7	7 13.28	+21 6.6	1.327	2.224	13.6	20.5	12 7	7 6.83	+16 12.7	2.171	3.053	9.7	21.0
12 17	7 2.86	+20 44.7	1.299	2.250	8.4	20.3	12 17	6 58.80	+16 53.3	2.111	3.056	6.3	20.8
12 27	6 50.51	+20 24.4	1.296	2.276	3.0	20.1	12 27	6 49.29	+17 40.5	2.081	3.057	2.6	20.6
1 6	6 37.89	+20 5.0	1.322	2.301	3.1	20.1	1 6	6 39.21	+18 31.4	2.081	3.058	2.5	20.6
1 16	6 26.63	+19 47.0	1.376	2.326	8.2	20.5	1 16	6 29.56	+19 23.1	2.112	3.058	6.1	20.8
1 26	6 18.03	+19 31.5	1.456	2.350	12.8	20.8	1 26	6 21.30	+20 13.3	2.172	3.058	9.6	21.0
2 5	6 12.78	+19 19.4	1.557	2.373	16.5	21.1	2 5	6 15.15	+21 0.3	2.258	3.057	12.6	21.2
<b>140329</b>	2001 <i>SM</i> <sub>344</sub>		12 31.7 147°56	1°4/	31.9	18	<b>462962</b>	2011 <i>DV</i> <sub>45</sub>		12 31.7 176°86	7°3/	30.1	18
11 27	7 12.62	+20 6.2	2.055	2.864	13.4	20.1	11 27	7 21.28	+52 28.6	3.274	4.003	10.5	21.8
12 7	7 6.80	+19 43.7	1.976	2.867	10.1	19.9	12 7	7 13.26	+53 15.4	3.203	4.005	9.2	21.7
12 17	6 58.75	+19 23.8	1.922	2.871	6.4	19.7	12 17	7 2.74	+53 49.0	3.155	4.007	8.0	21.6
12 27	6 49.22	+19 6.1	1.896	2.874	2.5	19.5	12 27	6 50.55	+54 4.0	3.134	4.008	7.3	21.5
1 6	6 39.24	+18 50.2	1.900	2.877	2.6	19.5	1 6	6 37.87	+53 57.6	3.140	4.008	7.5	21.5
1 16	6 29.88	+18 36.3	1.933	2.880	6.5	19.7	1 16	6 25.94	+53 29.8	3.174	4.009	8.4	21.6
1 26	6 22.15	+18 24.6	1.995	2.883	10.1	20.0	1 26	6 15.88	+52 43.5	3.233	4.008	9.7	21.7
2 5	6 16.71	+18 15.6	2.080	2.886	13.3	20.2	2 5	6 8.43	+51 43.6	3.315	4.007	11.1	21.8
<b>369139</b>	2008 <i>RB</i> <sub>110</sub>		12 31.7 52°88	1°5/	1.0	16	<b>421340</b>	2013 <i>TW</i> <sub>91</sub>		12 31.7 229°73	2°2/	1.2	18
11 27	7 9.13	+18 17.9	2.134	2.945	12.9	21.3	11 27	7 7.90	+15 34.2	2.500	3.300	11.5	21.4
12 7	7 4.13	+18 13.8	2.060	2.952	9.8	21.2	12 7	7 3.01	+15 26.2	2.414	3.298	8.9	21.2
12 17	6 57.07	+18 14.8	2.010	2.958	6.2	21.0	12 17	6 56.33	+15 24.1	2.352	3.295	5.8	21.0
12 27	6 48.67	+18 19.9	1.988	2.965	2.6	20.7	12 27	6 48.46	+15 27.8	2.319	3.292	2.9	20.8
1 6	6 39.84	+18 28.2	1.994	2.972	2.5	20.7	1 6	6 40.16	+15 36.4	2.316	3.290	2.8	20.8
1 16	6 31.57	+18 38.4	2.031	2.979	6.1	21.0	1 16	6 32.26	+15 49.2	2.343	3.287	5.7	21.0
1 26	6 24.76	+18 49.9	2.095	2.986	9.6	21.2	1 26	6 25.54	+16 5.2	2.398	3.284	8.8	21.2
2 5	6 20.05	+19 2.1	2.183	2.993	12.6	21.4	2 5	6 20.60	+16 23.2	2.478	3.281	11.5	21.4
<b>18354</b>	1990 <i>RK</i> <sub>5</sub>		12 31.7 106°44	1°9/	1.1	18	<b>330821</b>	2008 <i>WS</i> <sub>76</sub>		12 31.7 89°50	0°4/	31.6	18

EPHEMERIDES

12 31.7

12 31.8

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>22543</b> Ranjan		12 31.7 215°86	0°6/31.7 18				<b>470022</b> 2006 RR <sub>72</sub>		12 31.8 77°94	6°2/31.1 18			
11 27	7 16.38	+23 36.8	1.773	2.587	14.9	20.4	11 27	7 20.34	+35 22.9	1.366	2.190	18.0	21.1
12 7	7 10.27	+23 52.1	1.686	2.581	11.3	20.2	12 7	7 14.05	+36 12.7	1.308	2.201	14.1	20.9
12 17	7 1.26	+24 9.9	1.622	2.573	7.1	19.9	12 17	7 3.86	+36 53.5	1.272	2.213	9.9	20.7
12 27	6 50.17	+24 26.9	1.585	2.565	2.4	19.6	12 27	6 51.03	+37 16.6	1.260	2.225	6.6	20.5
1 6	6 38.24	+24 40.0	1.578	2.557	2.7	19.6	1 6	6 37.48	+37 16.3	1.275	2.236	7.0	20.6
1 16	6 26.91	+24 47.4	1.600	2.547	7.5	19.9	1 16	6 25.28	+36 52.7	1.315	2.248	10.4	20.8
1 26	6 17.54	+24 49.6	1.648	2.537	11.9	20.1	1 26	6 16.15	+36 11.1	1.380	2.259	14.4	21.1
2 5	6 11.05	+24 47.9	1.720	2.527	15.6	20.3	2 5	6 10.97	+35 18.9	1.465	2.271	17.9	21.3
<b>23212</b> Arkajitdey		12 31.7 57°74	1°3/31.9 18				<b>256017</b> 2006 UF <sub>24</sub>		12 31.8 93°88	2°6/ 1.1 18			
11 27	7 10.42	+19 8.5	1.965	2.780	13.7	19.0	11 27	7 11.29	+16 21.4	1.896	2.706	14.3	21.0
12 7	7 5.30	+19 8.2	1.890	2.784	10.4	18.8	12 7	7 5.99	+16 3.3	1.821	2.710	10.9	20.8
12 17	6 57.92	+19 12.8	1.839	2.789	6.5	18.5	12 17	6 58.36	+15 51.8	1.769	2.715	7.1	20.5
12 27	6 49.01	+19 21.2	1.815	2.794	2.5	18.3	12 27	6 49.17	+15 46.8	1.744	2.719	3.5	20.3
1 6	6 39.60	+19 31.9	1.821	2.799	2.5	18.3	1 6	6 39.49	+15 47.8	1.748	2.723	3.4	20.3
1 16	6 30.80	+19 43.6	1.855	2.804	6.5	18.6	1 16	6 30.42	+15 54.0	1.781	2.727	7.0	20.6
1 26	6 23.61	+19 55.6	1.916	2.809	10.3	18.8	1 26	6 23.02	+16 4.5	1.841	2.732	10.7	20.8
2 5	6 18.73	+20 7.4	2.001	2.814	13.5	19.0	2 5	6 18.00	+16 18.0	1.924	2.736	14.0	21.0
<b>329636</b> 2003 SE <sub>104</sub>		12 31.7 144°24	1°9/31.4 18				<b>403831</b> 2011 UA <sub>219</sub>		12 31.8 216°46	0°5/31.9 18			
11 27	7 18.75	+25 48.1	1.679	2.494	15.6	21.6	11 27	7 13.07	+20 53.1	2.086	2.894	13.2	22.3
12 7	7 12.05	+26 28.9	1.610	2.504	11.8	21.3	12 7	7 7.33	+21 0.3	1.997	2.888	10.0	22.1
12 17	7 2.32	+27 11.1	1.564	2.514	7.4	21.1	12 17	6 59.24	+21 11.1	1.932	2.881	6.3	21.8
12 27	6 50.49	+27 49.3	1.545	2.524	2.9	20.9	12 27	6 49.50	+21 23.8	1.894	2.874	2.2	21.5
1 6	6 37.97	+28 19.0	1.556	2.532	3.4	20.9	1 6	6 39.11	+21 36.4	1.887	2.866	2.3	21.5
1 16	6 26.30	+28 37.7	1.596	2.540	7.9	21.2	1 16	6 29.20	+21 47.6	1.910	2.858	6.5	21.8
1 26	6 16.87	+28 46.2	1.662	2.547	12.0	21.5	1 26	6 20.85	+21 56.9	1.961	2.849	10.3	22.0
2 5	6 10.53	+28 46.9	1.751	2.553	15.6	21.7	2 5	6 14.83	+22 4.6	2.035	2.840	13.6	22.2
<b>450608</b> 2006 SR <sub>241</sub>		12 31.7 85°44	3°3/ 1.4 18				<b>480869</b> 2001 SO <sub>232</sub>		12 31.8 106°54	3°3/31.2 16			
11 27	7 10.59	+13 41.4	1.852	2.659	14.7	21.4	11 27	7 18.36	+29 53.7	1.694	2.510	15.5	21.9
12 7	7 5.53	+13 32.9	1.775	2.661	11.4	21.2	12 7	7 11.71	+30 34.1	1.634	2.527	11.7	21.7
12 17	6 58.12	+13 34.2	1.721	2.663	7.6	21.0	12 17	7 2.05	+31 11.4	1.596	2.544	7.6	21.5
12 27	6 49.10	+13 45.2	1.694	2.665	4.2	20.7	12 27	6 50.40	+31 39.9	1.586	2.560	3.9	21.3
1 6	6 39.50	+14 5.0	1.695	2.667	3.9	20.7	1 6	6 38.20	+31 55.4	1.604	2.575	4.3	21.4
1 16	6 30.49	+14 31.6	1.724	2.669	7.3	20.9	1 16	6 26.99	+31 56.8	1.651	2.590	8.1	21.6
1 26	6 23.12	+15 3.0	1.781	2.671	11.0	21.2	1 26	6 18.10	+31 46.1	1.724	2.605	11.9	21.9
2 5	6 18.14	+15 37.1	1.860	2.673	14.4	21.4	2 5	6 12.31	+31 27.3	1.819	2.619	15.2	22.1
<b>365699</b> 2010 VX <sub>121</sub>		12 31.7 189°40	1°5/31.5 17				<b>358693</b> 2008 AQ <sub>21</sub>		12 31.8 220°86	2°0/31.4 17			
11 27	7 12.58	+26 54.5	2.134	2.947	12.8	21.7	11 27	7 13.35	+28 2.2	2.039	2.854	13.3	21.7
12 7	7 6.91	+27 7.5	2.053	2.947	9.7	21.5	12 7	7 7.67	+28 21.9	1.956	2.850	10.1	21.5
12 17	6 58.92	+27 19.4	1.996	2.946	6.1	21.3	12 17	6 59.49	+28 40.2	1.898	2.847	6.4	21.3
12 27	6 49.35	+27 27.5	1.967	2.946	2.4	21.1	12 27	6 49.58	+28 53.5	1.866	2.843	2.8	21.0
1 6	6 39.23	+27 29.6	1.968	2.945	2.7	21.1	1 6	6 39.04	+28 59.1	1.864	2.840	3.1	21.0
1 16	6 29.70	+27 24.8	1.999	2.944	6.4	21.3	1 16	6 29.10	+28 55.9	1.892	2.836	6.9	21.3
1 26	6 21.81	+27 14.1	2.057	2.943	10.0	21.6	1 26	6 20.89	+28 44.9	1.947	2.832	10.5	21.5
2 5	6 16.27	+26 59.2	2.139	2.942	13.1	21.8	2 5	6 15.19	+28 28.4	2.025	2.827	13.8	21.7
<b>250669</b> 2005 NE <sub>109</sub>		12 31.7 90°64	0°3/31.8 18				<b>108319</b> 2001 JV <sub>7</sub>		12 31.8 290°24	0°3/31.8 18			
11 27	7 13.63	+21 37.0	2.062	2.871	13.3	21.8	11 27	7 11.57	+21 3.6	1.730	2.552	14.9	19.6
12 7	7 7.43	+21 43.2	2.002	2.894	10.0	21.7	12 7	7 6.75	+21 19.2	1.640	2.539	11.4	19.3
12 17	6 59.07	+21 52.0	1.967	2.917	6.1	21.5	12 17	6 59.15	+21 40.1	1.573	2.525	7.1	19.0
12 27	6 49.34	+22 1.5	1.960	2.940	2.0	21.2	12 27	6 49.53	+22 4.0	1.532	2.512	2.4	18.7
1 6	6 39.30	+22 9.9	1.983	2.962	2.2	21.3	1 6	6 39.04	+22 28.0	1.519	2.499	2.6	18.7
1 16	6 30.02	+22 16.4	2.036	2.984	6.1	21.6	1 16	6 29.03	+22 49.7	1.535	2.486	7.4	18.9
1 26	6 22.43	+22 20.9	2.117	3.005	9.7	21.9	1 26	6 20.83	+23 8.1	1.577	2.473	11.9	19.2
2 5	6 17.15	+22 23.9	2.222	3.026	12.6	22.1	2 5	6 15.37	+23 23.4	1.642	2.460	15.7	19.4
<b>273327</b> 2006 TY <sub>48</sub>		12 31.8 117°99	2°3/31.4 18				<b>32069</b> Mayarao		12 31.8 243°77	4°7/30.9 18			
11 27	7 19.94	+27 21.0	1.728	2.540	15.4	21.7	11 27	7 16.66	+32 5.0	1.623	2.444	15.8	18.6
12 7	7 12.72	+27 57.4	1.668	2.561	11.6	21.5	12 7	7 10.98	+32 57.5	1.545	2.439	12.2	18.3
12 17	7 2.59	+28 32.8	1.632	2.581	7.3	21.3	12 17	7 1.95	+33 46.7	1.490	2.435	8.3	18.1
12 27	6 50.54	+29 2.0	1.623	2.600	3.1	21.0	12 27	6 50.47	+34 25.6	1.461	2.430	5.0	17.9
1 6	6 38.00	+29 21.0	1.643	2.618	3.6	21.1	1 6	6 38.04	+34 48.2	1.459	2.425	5.6	17.9
1 16	6 26.44	+29 28.4	1.693	2.636	7.6	21.4	1 16	6 26.36	+34 52.3	1.485	2.420	9.2	18.1
1 26	6 17.17	+29 25.8	1.770	2.652	11.6	21.7	1 26	6 17.03	+34 39.9	1.536	2.415	13.2	18.3
2 5	6 10.94	+29 16.3	1.870	2.668	14.9	21.9	2 5	6 11.09	+34 15.7	1.609	2.410	16.8	18.5
<b>228460</b> 2001 RH <sub>1</sub>		12 31.8 43°44	0°9/31.9 18				<b>393702</b> 2004 TO <sub>119</sub>		12 31.8 66°73	5°6/ 1.4 18			
11 27	7 13.63	+20 27.6	1.230	2.069	18.7	20.2	11 27	7 10.44	+ 9 8.1	2.003	2.793	14.4	20.0
12 7	7 8.65	+20 30.2	1.178	2.085	14.1	20.0	12 7	7 5.06	+ 8 12.4	1.939	2.807	11.4	19.9
12 17	7 0.32	+20 39.3	1.147	2.102	8.8	19.7	12 17	6 57.64	+ 7 27.3	1.897	2.822	8.4	19.7
12 27	6 49.83	+20 52.3	1.140	2.119	3.0	19.4	12 27	6 48.92	+ 6 55.4	1.883	2.836	6.0	19.6
1 6	6 38.81	+21 6.3	1.158	2.138	3.1	19.5	1 6	6 39.85	+ 6 37.8	1.896	2.850	5.9	19.6
1 16	6 28.96	+21 19.4	1.203	2.156	8.6	19.9	1 16	6 31.43	+ 6 34.3	1.938	2.865	8.0	19.8
1 26	6 21.74	+21 30.9	1.272	2.176	13.5	20.2	1 26	6 24.55	+ 6 43.5	2.007	2.879	10.9	20.0
2 5	6 17.92	+21 41.0	1.361	2.195	17.5	20.5	2 5	6 19.82	+ 7 2.5	2.099	2.894	13.6	20.2
<b>25374</b> Harbrucker		12 31.8 312°86	5°1/ 1.3 18				<b>125771</b> 2001 XM <sub>138</sub>		12 31.8 188°42	0°4/31.9 18			
11 27	7 11.43	+12 50.6	1.358	2.182	18.2	18.2	11 27	7 14.00					



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12 31.8

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>74834</b>	1999 <i>TN</i> <sub>30</sub>		12 31.8 119°55	2.4/	1.2	18	<b>246246</b>	2007 <i>SD</i> <sub>7</sub>		12 31.8 262°37	1.4/	1.0	18
11 27	7 14.33	+15 40.6	2.166	2.961	13.3	20.9	11 27	7 11.96	+18 39.0	1.761	2.578	14.9	21.2
12 7	7 7.83	+15 32.4	2.101	2.982	10.1	20.7	12 7	7 6.84	+18 43.8	1.679	2.574	11.4	21.0
12 17	6 59.29	+15 30.7	2.060	3.002	6.6	20.6	12 17	6 59.10	+18 55.1	1.620	2.570	7.2	20.7
12 27	6 49.45	+15 35.0	2.048	3.022	3.2	20.4	12 27	6 49.51	+19 11.5	1.588	2.567	2.8	20.4
1 6	6 39.29	+15 44.3	2.067	3.041	3.1	20.4	1 6	6 39.23	+19 30.9	1.584	2.563	2.8	20.4
1 16	6 29.80	+15 57.4	2.115	3.059	6.3	20.6	1 16	6 29.51	+19 51.3	1.609	2.559	7.2	20.7
1 26	6 21.88	+16 13.3	2.193	3.076	9.6	20.9	1 26	6 21.59	+20 11.5	1.660	2.555	11.5	20.9
2 5	6 16.14	+16 31.0	2.295	3.093	12.5	21.1	2 5	6 16.29	+20 31.0	1.734	2.551	15.1	21.2
<b>477229</b>	2009 <i>RX</i> <sub>3</sub>		12 31.8 44°62	4.1/31.6	16		<b>285118</b>	1995 <i>SE</i> <sub>14</sub>		12 31.8 49°87	1.0/31.6	17	
11 27	7 18.68	+30 59.7	1.095	1.938	20.2	21.1	11 27	7 11.76	+24 57.0	1.897	2.717	13.9	21.6
12 7	7 12.85	+31 20.9	1.055	1.962	15.3	20.9	12 7	7 6.49	+25 12.7	1.824	2.722	10.4	21.3
12 17	7 3.02	+31 35.4	1.035	1.987	9.9	20.7	12 17	6 58.76	+25 29.2	1.775	2.728	6.5	21.1
12 27	6 50.72	+31 36.7	1.038	2.013	5.0	20.5	12 27	6 49.36	+25 43.8	1.754	2.733	2.3	20.9
1 6	6 38.09	+31 21.2	1.066	2.040	5.3	20.6	1 6	6 39.43	+25 53.8	1.761	2.739	2.6	20.9
1 16	6 27.20	+30 50.4	1.119	2.066	9.9	21.0	1 16	6 30.17	+25 58.1	1.797	2.745	6.8	21.2
1 26	6 19.65	+30 9.8	1.195	2.094	14.6	21.3	1 26	6 22.70	+25 57.1	1.860	2.751	10.6	21.4
2 5	6 16.09	+29 25.0	1.290	2.121	18.5	21.6	2 5	6 17.74	+25 52.2	1.946	2.757	13.9	21.6
<b>189797</b>	2002 <i>GV</i> <sub>50</sub>		12 31.8 249°59	0.6/31.9	18		<b>447613</b>	2006 <i>UQ</i> <sub>141</sub>		12 31.8 111°61	8.8/	1.6	16
11 27	7 10.09	+20 23.3	2.219	3.029	12.5	20.3	11 27	7 12.40	- 0 28.0	2.165	2.909	14.9	21.8
12 7	7 4.97	+20 32.7	2.131	3.023	9.4	20.1	12 7	7 6.38	- 1 56.3	2.102	2.924	12.6	21.7
12 17	6 57.74	+20 46.1	2.067	3.017	5.9	19.8	12 17	6 58.41	- 3 8.9	2.063	2.939	10.4	21.6
12 27	6 49.02	+21 1.9	2.031	3.011	2.1	19.6	12 27	6 49.20	- 4 1.3	2.049	2.953	9.0	21.5
1 6	6 39.74	+21 18.3	2.026	3.004	2.2	19.6	1 6	6 39.64	- 4 30.9	2.062	2.967	8.9	21.5
1 16	6 30.89	+21 34.0	2.050	2.998	6.0	19.8	1 16	6 30.67	- 4 37.4	2.103	2.981	10.2	21.6
1 26	6 23.45	+21 48.2	2.102	2.992	9.6	20.0	1 26	6 23.15	- 4 23.3	2.169	2.994	12.1	21.8
2 5	6 18.12	+22 0.7	2.178	2.985	12.7	20.2	2 5	6 17.67	- 3 52.9	2.257	3.007	14.1	22.0
<b>198845</b>	2005 <i>GF</i> <sub>120</sub>		12 31.8 321°32	3.7/	1.3	18	<b>298457</b>	2003 <i>UF</i> <sub>109</sub>		12 31.8 73°79	6.2/30.9	18	
11 27	7 7.46	+13 23.9	2.051	2.858	13.5	19.4	11 27	7 18.20	+37 14.4	1.685	2.497	15.7	20.6
12 7	7 3.12	+12 57.7	1.960	2.844	10.5	19.2	12 7	7 11.91	+38 3.9	1.625	2.509	12.4	20.4
12 17	6 56.65	+12 39.4	1.892	2.831	7.2	19.0	12 17	7 2.34	+38 44.0	1.587	2.521	8.9	20.2
12 27	6 48.68	+12 30.0	1.850	2.819	4.3	18.8	12 27	6 50.56	+39 7.3	1.575	2.532	6.4	20.1
1 6	6 40.11	+12 29.6	1.837	2.807	4.2	18.7	1 6	6 38.16	+39 9.2	1.590	2.544	6.8	20.1
1 16	6 31.95	+12 37.9	1.853	2.795	7.1	18.9	1 16	6 26.85	+38 49.7	1.632	2.555	9.5	20.3
1 26	6 25.17	+12 53.4	1.895	2.783	10.6	19.1	1 26	6 18.07	+38 12.6	1.699	2.567	12.8	20.6
2 5	6 20.51	+13 14.5	1.960	2.772	13.8	19.3	2 5	6 12.65	+37 24.4	1.788	2.579	15.8	20.8
<b>335446</b>	2005 <i>US</i> <sub>392</sub>		12 31.8 83°89	0.6/31.7	18		<b>370417</b>	2002 <i>TG</i> <sub>381</sub>		12 31.8 146°21	0.0/31.6	18	
11 27	7 15.07	+22 59.1	1.499	2.326	16.6	21.5	11 27	7 9.66	+22 23.9	2.668	3.472	10.8	22.2
12 7	7 9.49	+23 22.6	1.434	2.335	12.5	21.3	12 7	7 4.24	+22 32.5	2.589	3.478	8.1	22.0
12 17	7 0.83	+23 49.9	1.390	2.344	7.7	21.0	12 17	6 57.08	+22 42.8	2.535	3.484	5.0	21.9
12 27	6 50.07	+24 17.2	1.373	2.353	2.6	20.7	12 27	6 48.77	+22 53.3	2.510	3.490	1.6	21.6
1 6	6 38.65	+24 40.5	1.383	2.362	2.9	20.8	1 6	6 40.09	+23 2.6	2.516	3.495	1.8	21.6
1 16	6 28.12	+24 57.8	1.421	2.371	8.0	21.1	1 16	6 31.85	+23 9.8	2.554	3.500	5.1	21.9
1 26	6 19.88	+25 8.8	1.484	2.380	12.5	21.4	1 26	6 24.83	+23 14.7	2.620	3.505	8.1	22.1
2 5	6 14.78	+25 15.0	1.570	2.389	16.3	21.6	2 5	6 19.59	+23 17.7	2.711	3.510	10.8	22.3
<b>20254</b>	<i>U</i> picæ		12 31.8 197°48	0.3/31.7	18		<b>9903</b>	Leonhardt		12 31.8 99°67	0.7/31.9	18	
11 27	7 13.82	+22 35.1	2.031	2.841	13.5	18.9	11 27	7 10.86	+20 13.8	2.499	3.301	11.5	19.7
12 7	7 7.99	+22 57.4	1.946	2.839	10.2	18.7	12 7	7 5.09	+20 18.2	2.433	3.322	8.6	19.5
12 17	6 59.70	+23 22.9	1.886	2.836	6.3	18.4	12 17	6 57.56	+20 25.7	2.394	3.342	5.3	19.4
12 27	6 49.69	+23 48.8	1.853	2.833	2.1	18.1	12 27	6 48.91	+20 35.0	2.383	3.362	1.9	19.1
1 6	6 39.02	+24 12.3	1.851	2.829	2.4	18.2	1 6	6 39.98	+20 44.6	2.403	3.381	1.9	19.2
1 16	6 28.87	+24 31.4	1.878	2.825	6.6	18.4	1 16	6 31.60	+20 53.8	2.453	3.400	5.3	19.4
1 26	6 20.37	+24 45.6	1.933	2.821	10.5	18.6	1 26	6 24.56	+21 2.1	2.533	3.419	8.4	19.7
2 5	6 14.32	+24 55.7	2.012	2.816	13.8	18.9	2 5	6 19.59	+21 9.5	2.637	3.437	11.0	19.9
<b>267930</b>	2004 <i>DC</i> <sub>44</sub>		12 31.8 269°37	0.0/31.5	18		<b>189449</b>	1998 <i>XV</i> <sub>28</sub>		12 31.8 87°09	1.9/	1.1	18
11 27	7 13.89	+20 18.3	1.485	2.311	16.7	20.3	11 27	7 10.56	+17 44.7	2.278	3.081	12.4	19.8
12 7	7 8.86	+20 56.4	1.406	2.307	12.7	20.0	12 7	7 5.01	+17 25.9	2.209	3.096	9.4	19.6
12 17	7 0.64	+21 43.2	1.350	2.303	7.9	19.7	12 17	6 57.57	+17 11.5	2.166	3.111	6.0	19.4
12 27	6 50.08	+22 34.7	1.318	2.299	2.6	19.4	12 27	6 48.92	+17 1.3	2.151	3.126	2.7	19.2
1 6	6 38.56	+23 25.9	1.315	2.294	2.9	19.4	1 6	6 39.97	+16 54.9	2.165	3.141	2.7	19.2
1 16	6 27.67	+24 12.4	1.339	2.290	8.2	19.7	1 16	6 31.60	+16 52.0	2.210	3.156	5.9	19.5
1 26	6 18.95	+24 51.9	1.389	2.286	13.1	20.0	1 26	6 24.67	+16 52.0	2.283	3.170	9.1	19.7
2 5	6 13.44	+25 24.3	1.460	2.282	17.2	20.2	2 5	6 19.72	+16 54.7	2.381	3.185	11.9	19.9
<b>477301</b>	2009 <i>SC</i> <sub>205</sub>		12 31.8 139°98	2.9/	1.2	18	<b>493038</b>	2014 <i>SM</i> <sub>253</sub>		12 31.8 149°41	5.2/	1.6	17
11 27	7 15.66	+15 28.4	1.801	2.604	15.2	22.3	11 27	7 9.20	+ 8 46.2	2.166	2.953	13.5	20.9
12 7	7 9.31	+15 16.3	1.730	2.615	11.7	22.1	12 7	7 4.17	+ 8 7.3	2.087	2.954	10.8	20.7
12 17	7 0.44	+15 12.3	1.683	2.626	7.7	21.9	12 17	6 57.16	+ 7 38.7	2.031	2.955	7.9	20.6
12 27	6 49.90	+15 15.8	1.663	2.637	3.8	21.7	12 27	6 48.83	+ 7 22.5	2.002	2.956	5.6	20.4
1 6	6 38.85	+15 25.9	1.672	2.646	3.6	21.7	1 6	6 40.05	+ 7 19.2	2.001	2.957	5.4	20.4
1 16	6 28.54	+15 41.0	1.711	2.655	7.4	21.9	1 16	6 31.74	+ 7 28.6	2.029	2.958	7.6	20.5
1 26	6 20.10	+16 0.0	1.776	2.664	11.2	22.2	1 26	6 24.80	+ 7 48.7	2.084	2.959	10.5	20.7
2 5	6 14.26	+16 21.3	1.865	2.671	14.6	22.4	2 5	6 19.85	+ 8 17.1	2.163	2.959	13.2	20.9
<b>67255</b>	2000 <i>ET</i> <sub>109</sub>		12 31.8 31°90	5.3/31.9	18		<b>75981</b>	2000 <i>CH</i> <sub>136</sub>		12 31.8 160°87	0.3/31.8	18	
11 27	7 17												

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12 31.8

12 31.8

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>452616</b>	2005 <i>QM</i> <sub>128</sub>		12 31.8 184°19	3°0/ 1.5 18			<b>129030</b>	2004 <i>TR</i> <sub>349</sub>		12 31.8 75°81	0°5/31.9 18		
11 27	7 10.40	+12 42.0	2.331	3.122	12.5	22.2	11 27	7 10.63	+20 27.3	2.094	2.907	13.0	20.2
12 7	7 5.01	+12 43.1	2.246	3.123	9.7	22.0	12 7	7 5.35	+20 39.8	2.025	2.918	9.8	20.0
12 17	6 57.67	+12 53.1	2.185	3.122	6.6	21.8	12 17	6 57.93	+20 56.4	1.979	2.930	6.1	19.8
12 27	6 49.01	+13 11.7	2.153	3.122	3.7	21.6	12 27	6 49.11	+21 15.3	1.962	2.941	2.1	19.6
1 6	6 39.86	+13 37.8	2.150	3.121	3.5	21.6	1 6	6 39.86	+21 34.3	1.974	2.953	2.2	19.6
1 16	6 31.12	+14 9.8	2.178	3.120	6.3	21.7	1 16	6 31.21	+21 52.1	2.015	2.964	6.1	19.9
1 26	6 23.68	+14 45.5	2.234	3.118	9.4	21.9	1 26	6 24.11	+22 7.8	2.085	2.976	9.6	20.1
2 5	6 18.18	+15 23.2	2.315	3.116	12.3	22.1	2 5	6 19.20	+22 21.3	2.178	2.987	12.7	20.3
<b>326910</b>	2003 <i>WF</i> <sub>171</sub>		12 31.8 88°85	3°2/30.7 17			<b>83067</b>	2001 <i>QB</i> <sub>213</sub>		12 31.8 86°55	1°7/ 1.1 18		
11 27	7 12.87	+29 43.8	2.285	3.094	12.2	20.6	11 27	7 12.77	+17 48.2	1.947	2.756	14.0	20.2
12 7	7 7.11	+30 49.0	2.217	3.107	9.3	20.4	12 7	7 6.95	+17 46.2	1.886	2.775	10.6	20.1
12 17	6 59.08	+31 53.1	2.175	3.120	6.1	20.2	12 17	6 58.89	+17 50.1	1.848	2.795	6.7	19.9
12 27	6 49.49	+32 50.9	2.162	3.133	3.5	20.1	12 27	6 49.42	+17 58.7	1.837	2.814	2.8	19.7
1 6	6 39.35	+33 38.1	2.179	3.145	4.0	20.1	1 6	6 39.59	+18 10.7	1.856	2.833	2.7	19.7
1 16	6 29.75	+34 12.4	2.226	3.158	6.8	20.3	1 16	6 30.49	+18 24.7	1.904	2.852	6.5	20.0
1 26	6 21.72	+34 33.9	2.300	3.171	9.8	20.6	1 26	6 23.09	+18 39.7	1.980	2.871	10.1	20.2
2 5	6 16.00	+34 44.7	2.399	3.183	12.4	20.8	2 5	6 18.04	+18 55.0	2.080	2.889	13.2	20.5
<b>404226</b>	2013 <i>CM</i> <sub>222</sub>		12 31.8 239°57	1°1/31.9 17			<b>288106</b>	2003 <i>WP</i> <sub>46</sub>		12 31.8 87°87	2°1/31.4 18		
11 27	7 12.07	+19 33.0	2.097	2.905	13.2	22.6	11 27	7 16.48	+27 11.1	1.785	2.601	14.8	21.1
12 7	7 6.62	+19 34.7	2.004	2.894	10.0	22.4	12 7	7 10.06	+27 41.8	1.728	2.623	11.1	20.9
12 17	6 58.85	+19 40.9	1.935	2.884	6.3	22.1	12 17	7 0.95	+28 11.4	1.694	2.644	7.0	20.7
12 27	6 49.45	+19 50.3	1.894	2.872	2.4	21.8	12 27	6 50.11	+28 35.6	1.688	2.665	2.9	20.5
1 6	6 39.38	+20 1.2	1.882	2.861	2.4	21.8	1 6	6 38.85	+28 51.1	1.711	2.686	3.3	20.5
1 16	6 29.74	+20 12.6	1.901	2.849	6.5	22.1	1 16	6 28.52	+28 56.7	1.762	2.707	7.2	20.8
1 26	6 21.59	+20 23.6	1.947	2.837	10.3	22.3	1 26	6 20.28	+28 53.6	1.841	2.727	11.0	21.1
2 5	6 15.73	+20 34.2	2.017	2.824	13.6	22.5	2 5	6 14.85	+28 44.5	1.943	2.747	14.2	21.3
<b>370488</b>	2003 <i>RD</i> <sub>16</sub>		12 31.8 78°08	1°5/31.6 18			<b>417431</b>	2006 <i>KW</i> <sub>70</sub>		12 31.8 239°88	0°8/31.6 18		
11 27	7 20.40	+25 57.1	1.319	2.147	18.4	21.0	11 27	7 9.78	+23 29.3	2.377	3.187	11.7	20.9
12 7	7 13.55	+26 7.6	1.271	2.172	13.8	20.8	12 7	7 4.70	+24 3.8	2.292	3.185	8.8	20.7
12 17	7 3.27	+26 17.6	1.243	2.197	8.5	20.6	12 17	6 57.58	+24 41.0	2.233	3.183	5.5	20.5
12 27	6 50.84	+26 22.5	1.242	2.221	3.1	20.3	12 27	6 49.04	+25 18.2	2.202	3.181	1.9	20.3
1 6	6 38.04	+26 19.4	1.267	2.245	3.4	20.4	1 6	6 39.95	+25 52.5	2.201	3.179	2.2	20.3
1 16	6 26.65	+26 8.3	1.320	2.269	8.5	20.8	1 16	6 31.27	+26 21.7	2.231	3.177	5.8	20.5
1 26	6 18.09	+25 51.4	1.397	2.293	13.1	21.1	1 26	6 23.92	+26 45.1	2.289	3.175	9.1	20.7
2 5	6 13.09	+25 31.9	1.496	2.316	16.9	21.4	2 5	6 18.59	+27 3.0	2.371	3.173	12.0	20.9
<b>291816</b>	2006 <i>KS</i> <sub>99</sub>		12 31.8 182°85	2°6/ 1.2 18			<b>89341</b>	2001 <i>VM</i> <sub>58</sub>		12 31.8 220°57	0°9/31.6 18		
11 27	7 12.58	+15 1.8	2.355	3.147	12.4	22.1	11 27	7 12.83	+25 29.1	2.203	3.013	12.6	20.0
12 7	7 6.60	+14 48.8	2.269	3.148	9.6	21.9	12 7	7 7.11	+25 36.4	2.115	3.008	9.5	19.7
12 17	6 58.63	+14 42.0	2.208	3.149	6.3	21.7	12 17	6 59.12	+25 43.5	2.052	3.002	5.9	19.5
12 27	6 49.33	+14 41.5	2.176	3.148	3.3	21.5	12 27	6 49.55	+25 48.0	2.017	2.996	2.1	19.3
1 6	6 39.56	+14 46.5	2.174	3.147	3.2	21.5	1 6	6 39.41	+25 48.1	2.011	2.990	2.4	19.3
1 16	6 30.24	+14 56.3	2.203	3.145	6.2	21.7	1 16	6 29.78	+25 43.0	2.036	2.983	6.2	19.5
1 26	6 22.27	+15 9.9	2.261	3.142	9.4	21.9	1 26	6 21.70	+25 33.3	2.089	2.976	9.8	19.7
2 5	6 16.29	+15 26.4	2.343	3.139	12.3	22.1	2 5	6 15.89	+25 20.6	2.167	2.969	13.0	19.9
<b>412505</b>	2014 <i>KM</i> <sub>85</sub>		12 31.8 130°33	0°5/31.6 18			<b>232989</b>	2005 <i>EP</i> <sub>143</sub>		12 31.8 3°01	2°7/ 1.4 18		
11 27	7 14.05	+22 15.9	2.260	3.064	12.5	20.8	11 27	7 7.70	+15 6.3	1.913	2.727	14.0	20.2
12 7	7 7.81	+22 54.2	2.189	3.078	9.4	20.7	12 7	7 3.39	+15 1.4	1.835	2.726	10.8	20.0
12 17	6 59.42	+23 35.7	2.143	3.093	5.8	20.5	12 17	6 56.86	+15 5.1	1.781	2.726	7.1	19.8
12 27	6 49.59	+24 17.3	2.127	3.107	1.9	20.2	12 27	6 48.81	+15 17.0	1.753	2.727	3.6	19.5
1 6	6 39.30	+24 55.7	2.141	3.120	2.2	20.3	1 6	6 40.23	+15 35.9	1.753	2.728	3.4	19.5
1 16	6 29.57	+25 28.9	2.187	3.132	5.9	20.5	1 16	6 32.17	+16 0.3	1.782	2.730	6.9	19.7
1 26	6 21.37	+25 55.8	2.261	3.144	9.3	20.8	1 26	6 25.65	+16 28.2	1.838	2.732	10.5	20.0
2 5	6 15.36	+26 17.1	2.360	3.156	12.2	21.0	2 5	6 21.37	+16 57.8	1.916	2.735	13.8	20.2
<b>405385</b>	2004 <i>DN</i> <sub>70</sub>		12 31.8 235°09	5°6/ 2.1 17			<b>426762</b>	2013 <i>TR</i> <sub>99</sub>		12 31.8 78°64	3°9/31.0 18		
11 27	7 9.80	+ 6 8.6	2.152	2.929	13.9	21.9	11 27	7 12.28	+35 11.8	2.526	3.327	11.4	20.8
12 7	7 4.75	+ 5 51.0	2.062	2.921	11.3	21.7	12 7	7 6.48	+35 45.2	2.460	3.341	8.8	20.7
12 17	6 57.63	+ 5 47.1	1.995	2.913	8.5	21.5	12 17	6 58.58	+36 12.6	2.419	3.354	6.2	20.5
12 27	6 49.04	+ 5 58.4	1.954	2.904	6.1	21.3	12 27	6 49.34	+36 30.2	2.406	3.367	4.1	20.4
1 6	6 39.86	+ 6 24.9	1.941	2.894	5.8	21.3	1 6	6 39.71	+36 35.6	2.422	3.381	4.4	20.5
1 16	6 31.05	+ 7 5.2	1.958	2.885	7.9	21.4	1 16	6 30.70	+36 28.1	2.468	3.394	6.6	20.6
1 26	6 23.57	+ 7 56.2	2.001	2.875	10.8	21.6	1 26	6 23.24	+36 9.6	2.542	3.407	9.2	20.8
2 5	6 18.12	+ 8 54.1	2.069	2.865	13.7	21.8	2 5	6 17.95	+35 42.9	2.640	3.420	11.5	21.0
<b>271629</b>	2004 <i>PJ</i> <sub>67</sub>		12 31.8 181°00	2°1/ 1.1 18			<b>307427</b>	2002 <i>TP</i> <sub>273</sub>		12 31.8 135°53	6°1/ 1.8 18		
11 27	7 14.41	+16 46.6	2.153	2.950	13.2	21.8	11 27	7 11.41	+ 6 15.3	2.126	2.901	14.1	21.0
12 7	7 8.15	+16 39.3	2.069	2.952	10.1	21.6	12 7	7 5.79	+ 5 30.5	2.054	2.911	11.4	20.8
12 17	6 59.68	+16 37.8	2.009	2.953	6.6	21.4	12 17	6 58.16	+ 4 58.1	2.005	2.920	8.6	20.6
12 27	6 49.70	+16 41.4	1.978	2.953	3.0	21.1	12 27	6 49.21	+ 4 40.4	1.983	2.928	6.5	20.5
1 6	6 39.18	+16 49.2	1.977	2.952	2.9	21.1	1 6	6 39.85	+ 4 38.3	1.990	2.936	6.3	20.5
1 16	6 29.18	+17 0.0	2.006	2.951	6.5	21.4	1 16	6 31.04	+ 4 51.2	2.024	2.944	8.2	20.6
1 26	6 20.70	+17 13.2	2.064	2.949	10.1	21.6	1 26	6 23.67	+ 5 16.9	2.086	2.952	10.9	20.8
2 5	6 14.46	+17 27.9	2.147	2.946	13.2	21.8	2 5	6 18.37	+ 5 52.0	2.171	2.959	13.4	21.0
<b>198826</b>	2005 <i>EY</i> <sub>272</sub>		12 31.8 110°08	4°4/30.9 18			<b>481968</b>	2009 <i>ED</i> <sub>19</sub>		12 31.8 323°04	2°5/ 1.3 18		

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>184612</b>	2005 <i>RU</i> <sub>6</sub>		12 31.8 102°25	2.4/ 1.3	18		<b>202857</b>	2008 <i>TT</i> <sub>117</sub>		12 31.8 187°72	5.5/30.1	18	
11 27	7 16.40	+15 35.0	1.721	2.526	15.7	21.1	11 27	7 15.39	+41 56.3	2.947	3.724	10.5	21.3
12 7	7 9.87	+15 43.5	1.663	2.550	12.0	20.9	12 7	7 8.89	+42 50.9	2.868	3.723	8.6	21.1
12 17	7 0.79	+16 1.2	1.628	2.573	7.7	20.7	12 17	7 0.18	+43 37.3	2.814	3.722	6.7	21.0
12 27	6 50.07	+16 26.4	1.620	2.596	3.5	20.5	12 27	6 49.93	+44 10.6	2.788	3.720	5.6	20.9
1 6	6 38.96	+16 56.7	1.642	2.618	3.3	20.5	1 6	6 39.09	+44 27.7	2.792	3.718	5.9	20.9
1 16	6 28.71	+17 29.4	1.692	2.639	7.2	20.8	1 16	6 28.73	+44 27.3	2.825	3.716	7.4	21.0
1 26	6 20.46	+18 2.7	1.770	2.660	11.1	21.1	1 26	6 19.84	+44 11.3	2.885	3.713	9.3	21.2
2 5	6 14.88	+18 35.1	1.871	2.679	14.5	21.3	2 5	6 13.15	+43 43.0	2.968	3.709	11.2	21.3
<b>454499</b>	2014 <i>OU</i> <sub>176</sub>		12 31.8 24°15	3.1/31.1	17		<b>194556</b>	2001 <i>XF</i> <sub>79</sub>		12 31.8 340°88	0.5/31.9	18	
11 27	7 12.92	+28 50.0	1.778	2.601	14.6	21.5	11 27	7 11.42	+21 49.0	1.329	2.168	17.6	20.4
12 7	7 7.75	+29 36.8	1.706	2.603	11.1	21.3	12 7	7 7.27	+21 47.2	1.253	2.160	13.4	20.1
12 17	6 59.77	+30 22.9	1.656	2.605	7.2	21.1	12 17	6 59.79	+21 49.9	1.198	2.154	8.4	19.8
12 27	6 49.82	+31 3.0	1.633	2.608	3.6	20.9	12 27	6 49.91	+21 54.9	1.168	2.148	2.9	19.5
1 6	6 39.16	+31 32.4	1.639	2.611	4.1	20.9	1 6	6 39.11	+21 59.8	1.163	2.143	3.0	19.5
1 16	6 29.18	+31 49.0	1.672	2.614	7.8	21.2	1 16	6 29.10	+22 3.1	1.184	2.138	8.6	19.8
1 26	6 21.18	+31 53.4	1.732	2.617	11.6	21.4	1 26	6 21.44	+22 4.8	1.230	2.135	13.7	20.1
2 5	6 16.02	+31 48.3	1.814	2.620	15.0	21.6	2 5	6 17.15	+22 5.4	1.295	2.132	18.1	20.3
<b>78870</b>	2003 <i>QO</i> <sub>94</sub>		12 31.8 86°70	1.0/31.6	18		<b>447534</b>	2006 <i>SP</i> <sub>227</sub>		12 31.8 80°19	6.0/ 1.7	18	
11 27	7 16.38	+23 40.4	1.771	2.586	15.0	20.3	11 27	7 10.49	+ 8 0.6	1.865	2.656	15.2	21.2
12 7	7 9.93	+24 14.2	1.716	2.611	11.2	20.2	12 7	7 5.42	+ 7 16.7	1.791	2.660	12.2	21.0
12 17	7 0.85	+24 50.3	1.685	2.636	6.9	19.9	12 17	6 58.08	+ 6 45.4	1.740	2.664	9.0	20.8
12 27	6 50.11	+25 24.6	1.681	2.661	2.4	19.7	12 27	6 49.24	+ 6 29.2	1.715	2.668	6.5	20.7
1 6	6 38.95	+25 53.4	1.707	2.685	2.7	19.8	1 6	6 39.88	+ 6 29.0	1.718	2.672	6.3	20.7
1 16	6 28.71	+26 14.9	1.762	2.709	7.0	20.1	1 16	6 31.11	+ 6 44.0	1.748	2.677	8.6	20.8
1 26	6 20.51	+26 29.2	1.844	2.732	10.9	20.4	1 26	6 23.95	+ 7 11.8	1.804	2.681	11.7	21.0
2 5	6 15.05	+26 37.5	1.949	2.755	14.1	20.7	2 5	6 19.08	+ 7 48.9	1.883	2.685	14.7	21.2
<b>381027</b>	2006 <i>UW</i> <sub>238</sub>		12 31.8 96°97	0°0/31.6	18		<b>19637</b>	Presbrey		12 31.8 235°98	0°3/31.8	18	
11 27	7 18.45	+22 45.6	1.503	2.323	16.9	21.2	11 27	7 16.61	+22 40.5	1.599	2.418	16.1	18.8
12 7	7 11.82	+22 50.2	1.446	2.343	12.7	21.0	12 7	7 10.75	+22 33.4	1.512	2.409	12.2	18.5
12 17	7 2.17	+22 57.3	1.411	2.363	7.8	20.8	12 17	7 1.77	+22 28.3	1.448	2.400	7.7	18.3
12 27	6 50.56	+23 4.1	1.402	2.382	2.6	20.5	12 27	6 50.55	+22 23.1	1.410	2.390	2.6	17.9
1 6	6 38.49	+23 8.0	1.421	2.400	2.8	20.6	1 6	6 38.43	+22 15.7	1.401	2.380	2.8	17.9
1 16	6 27.51	+23 8.1	1.469	2.419	7.8	20.9	1 16	6 26.97	+22 5.8	1.420	2.369	8.0	18.2
1 26	6 18.95	+23 5.2	1.542	2.436	12.2	21.2	1 26	6 17.66	+21 54.1	1.464	2.358	12.7	18.4
2 5	6 13.55	+23 0.7	1.638	2.453	15.9	21.5	2 5	6 11.45	+21 42.3	1.531	2.347	16.8	18.7
<b>516889</b>	2011 <i>OC</i> <sub>19</sub>		12 31.8 189°63	0°8/31.9	18		<b>112946</b>	2002 <i>RZ</i> <sub>7</sub>		12 31.8 245°05	5°9/30.9	18	
11 27	7 14.12	+20 13.3	2.066	2.872	13.4	22.3	11 27	7 18.03	+38 6.1	1.937	2.739	14.3	19.7
12 7	7 8.13	+20 18.9	1.981	2.871	10.2	22.1	12 7	7 11.73	+38 46.3	1.854	2.732	11.4	19.5
12 17	6 59.78	+20 28.6	1.921	2.870	6.4	21.9	12 17	7 2.32	+39 17.7	1.794	2.724	8.4	19.3
12 27	6 49.80	+20 40.6	1.889	2.868	2.3	21.6	12 27	6 50.71	+39 33.6	1.761	2.716	6.2	19.2
1 6	6 39.22	+20 53.1	1.887	2.865	2.3	21.6	1 6	6 38.28	+39 29.6	1.756	2.708	6.5	19.2
1 16	6 29.17	+21 4.7	1.915	2.862	6.5	21.9	1 16	6 26.62	+39 4.8	1.778	2.699	9.1	19.3
1 26	6 20.73	+21 15.1	1.971	2.859	10.3	22.1	1 26	6 17.15	+38 22.6	1.827	2.691	12.2	19.5
2 5	6 14.64	+21 24.2	2.051	2.854	13.6	22.3	2 5	6 10.82	+37 28.8	1.898	2.682	15.2	19.7
<b>345158</b>	2005 <i>SO</i> <sub>193</sub>		12 31.8 57°80	1°8/ 1.0	18		<b>232344</b>	2002 <i>UD</i> <sub>53</sub>		12 31.8 155°78	2°8/31.0	18	
11 27	7 16.42	+19 1.0	1.284	2.114	18.6	20.5	11 27	7 11.35	+30 25.5	2.541	3.348	11.2	20.5
12 7	7 10.46	+18 53.5	1.240	2.141	14.0	20.3	12 7	7 5.84	+31 8.7	2.462	3.350	8.5	20.4
12 17	7 1.34	+18 53.2	1.216	2.168	8.8	20.1	12 17	6 58.28	+31 49.9	2.409	3.353	5.6	20.2
12 27	6 50.26	+18 58.5	1.216	2.195	3.4	19.9	12 27	6 49.30	+32 25.3	2.384	3.355	3.1	20.0
1 6	6 38.86	+19 7.0	1.243	2.222	3.3	19.9	1 6	6 39.81	+32 51.9	2.389	3.357	3.5	20.1
1 16	6 28.73	+19 17.4	1.298	2.249	8.3	20.3	1 16	6 30.77	+33 8.0	2.425	3.359	6.2	20.2
1 26	6 21.20	+19 28.6	1.376	2.277	12.9	20.6	1 26	6 23.11	+33 14.1	2.488	3.361	9.0	20.4
2 5	6 16.94	+19 40.3	1.477	2.304	16.7	21.0	2 5	6 17.51	+33 11.9	2.577	3.363	11.6	20.6
<b>276536</b>	2003 <i>SN</i> <sub>62</sub>		12 31.8 60°67	3°6/ 1.8	18		<b>370420</b>	2002 <i>UE</i> <sub>12</sub>		12 31.8 89°61	10°0/30.9	17	
11 27	7 9.04	+11 24.7	2.062	2.860	13.7	20.4	11 27	7 27.52	+56 54.3	2.514	3.233	13.6	20.0
12 7	7 4.12	+11 25.4	1.994	2.873	10.7	20.3	12 7	7 18.88	+57 50.7	2.461	3.245	12.1	19.9
12 17	6 57.17	+11 37.1	1.950	2.886	7.3	20.1	12 17	7 6.63	+58 28.0	2.429	3.258	10.8	19.9
12 27	6 48.90	+11 59.6	1.933	2.900	4.3	19.9	12 27	6 52.04	+58 38.5	2.420	3.270	10.1	19.8
1 6	6 40.23	+12 31.4	1.944	2.913	4.0	19.9	1 6	6 36.97	+58 18.7	2.437	3.282	10.2	19.9
1 16	6 32.12	+13 10.3	1.985	2.927	6.7	20.1	1 16	6 23.34	+57 29.6	2.478	3.294	11.0	19.9
1 26	6 25.47	+13 53.7	2.053	2.941	9.9	20.3	1 26	6 12.67	+56 16.5	2.543	3.306	12.3	20.1
2 5	6 20.89	+14 39.0	2.145	2.955	12.8	20.6	2 5	6 5.74	+54 47.3	2.629	3.317	13.7	20.2
<b>178875</b>	2001 <i>MW</i> <sub>23</sub>		12 31.8 54°08	4°2/31.5	18		<b>438692</b>	2008 <i>PO</i> <sub>12</sub>		12 31.8 88°62	1°8/31.8	18	
11 27	7 19.30	+33 10.7	1.568	2.386	16.4	19.2	11 27	7 19.00	+28 43.6	1.567	2.386	16.3	20.3
12 7	7 12.35	+33 35.8	1.528	2.420	12.5	19.1	12 7	7 12.28	+28 29.4	1.502	2.399	12.4	20.1
12 17	7 2.35	+33 53.1	1.510	2.454	8.3	18.9	12 17	7 2.46	+28 10.5	1.460	2.411	7.8	19.9
12 27	6 50.56	+33 57.2	1.518	2.488	4.8	18.8	12 27	6 50.67	+27 43.8	1.445	2.423	3.1	19.6
1 6	6 38.58	+33 45.5	1.554	2.522	5.0	18.9	1 6	6 38.44	+27 8.2	1.458	2.436	3.2	19.7
1 16	6 27.97	+33 19.2	1.618	2.556	8.3	19.2	1 16	6 27.35	+26 25.3	1.500	2.448	7.9	20.0
1 26	6 19.97	+32 42.3	1.707	2.590	11.9	19.4	1 26	6 18.71	+25 38.8	1.567	2.459	12.2	20.3
2 5	6 15.18	+31 59.8	1.819	2.623	15.0	19.7	2 5	6 13.28	+24 52.4	1.658	2.471	15.8	20.5
<b>486558</b>	2013 <i>HU</i> <sub>72</sub>		12 31.8 200°53	4°8/ 1.5	18		<b>194817</b>	2001 <i>YA</i> <sub>117</sub>		12 31.8 350°12	1°9/31.5	18	
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>359485</b>	2010 <i>OO</i> <sub>37</sub>		12 31.8 167°28	2°0/ 1.0 18			<b>481329</b>	2006 <i>BT</i> <sub>48</sub>		12 31.8 45°50	0°3/31.9 18		
11 27	7 12.97	+17 32.4	2.551	3.343	11.6	21.1	11 27	7 13.28	+20 36.4	1.560	2.385	16.1	21.6
12 7	7 6.72	+17 5.3	2.468	3.348	8.8	20.9	12 7	7 8.19	+21 0.3	1.487	2.387	12.2	21.4
12 17	6 58.66	+16 41.6	2.410	3.353	5.7	20.7	12 17	7 0.15	+21 30.7	1.436	2.389	7.6	21.1
12 27	6 49.41	+16 21.3	2.383	3.357	2.7	20.5	12 27	6 50.04	+22 4.6	1.411	2.391	2.6	20.8
1 6	6 39.79	+16 4.4	2.386	3.360	2.7	20.5	1 6	6 39.18	+22 38.1	1.414	2.393	2.7	20.8
1 16	6 30.67	+15 51.1	2.420	3.363	5.7	20.7	1 16	6 29.02	+23 8.3	1.444	2.395	7.7	21.1
1 26	6 22.85	+15 41.5	2.484	3.365	8.7	20.9	1 26	6 20.95	+23 34.0	1.501	2.398	12.3	21.4
2 5	6 16.90	+15 35.3	2.574	3.366	11.4	21.1	2 5	6 15.85	+23 55.1	1.579	2.400	16.1	21.7
<b>273237</b>	2006 <i>KN</i> <sub>20</sub>		12 31.8 210°30	4°7/ 2.3 18			<b>494142</b>	2016 <i>CR</i> <sub>202</sub>		12 31.8 276°79	2°6/ 1.5 18		
11 27	7 7.50	+5 18.3	2.808	3.571	11.3	21.0	11 27	7 8.15	+13 37.6	2.365	3.162	12.2	21.2
12 7	7 2.59	+5 11.4	2.716	3.566	9.2	20.8	12 7	7 3.40	+13 45.4	2.279	3.160	9.4	21.0
12 17	6 56.13	+5 16.0	2.649	3.561	6.9	20.7	12 17	6 56.77	+14 1.8	2.217	3.157	6.3	20.8
12 27	6 48.60	+5 33.0	2.610	3.555	5.1	20.6	12 27	6 48.86	+14 26.2	2.183	3.154	3.3	20.6
1 6	6 40.66	+6 1.8	2.600	3.549	4.8	20.5	1 6	6 40.45	+14 57.3	2.179	3.152	3.1	20.6
1 16	6 33.01	+6 41.4	2.620	3.543	6.4	20.6	1 16	6 32.42	+15 33.1	2.204	3.149	6.0	20.8
1 26	6 26.35	+7 29.3	2.669	3.537	8.7	20.8	1 26	6 25.62	+16 11.6	2.258	3.146	9.1	21.0
2 5	6 21.22	+8 22.7	2.743	3.530	11.0	20.9	2 5	6 20.68	+16 51.1	2.337	3.144	12.0	21.2
<b>63992</b>	2001 <i>SY</i> <sub>108</sub>		12 31.8 20°45	0°9/31.8 18			<b>398942</b>	2013 <i>CQ</i> <sub>200</sub>		12 31.8 147°48	3°0/31.2 18		
11 27	7 12.67	+26 27.8	1.497	2.329	16.3	17.9	11 27	7 15.24	+29 55.8	2.044	2.855	13.4	21.5
12 7	7 7.68	+26 8.5	1.432	2.336	12.3	17.7	12 7	7 9.16	+30 34.4	1.970	2.861	10.2	21.3
12 17	6 59.72	+25 46.9	1.390	2.344	7.6	17.4	12 17	7 0.52	+31 10.8	1.920	2.866	6.6	21.1
12 27	6 49.83	+25 20.9	1.373	2.353	2.6	17.1	12 27	6 50.13	+31 40.1	1.898	2.871	3.5	20.9
1 6	6 39.43	+24 49.9	1.383	2.363	2.8	17.2	1 6	6 39.13	+31 58.9	1.906	2.876	3.9	21.0
1 16	6 30.03	+24 15.1	1.421	2.373	7.7	17.5	1 16	6 28.79	+32 5.6	1.942	2.881	7.2	21.2
1 26	6 22.90	+23 38.7	1.484	2.384	12.2	17.8	1 26	6 20.27	+32 1.3	2.006	2.885	10.6	21.4
2 5	6 18.80	+23 3.5	1.569	2.396	15.9	18.0	2 5	6 14.34	+31 48.7	2.094	2.888	13.6	21.6
<b>352166</b>	2007 <i>RM</i> <sub>29</sub>		12 31.8 86°72	13°0/ 1.5 18			<b>412596</b>	2014 <i>OL</i> <sub>68</sub>		12 31.8 158°71	0°5/31.7 18		
11 27	7 39.31	+58 38.6	1.837	2.559	17.8	20.8	11 27	7 12.01	+22 56.4	2.004	2.819	13.4	21.2
12 7	7 28.95	+59 40.8	1.791	2.576	15.9	20.7	12 7	7 6.69	+23 22.6	1.925	2.820	10.1	21.0
12 17	7 13.27	+60 16.6	1.764	2.593	14.2	20.6	12 17	6 58.99	+23 52.0	1.870	2.821	6.3	20.8
12 27	6 54.25	+60 14.1	1.758	2.609	13.2	20.6	12 27	6 49.63	+24 21.6	1.842	2.822	2.1	20.5
1 6	6 34.92	+59 28.1	1.776	2.626	13.1	20.6	1 6	6 39.66	+24 48.5	1.844	2.823	2.4	20.5
1 16	6 18.28	+58 1.9	1.817	2.642	14.0	20.7	1 16	6 30.23	+25 10.6	1.875	2.823	6.5	20.8
1 26	6 6.32	+56 6.2	1.881	2.658	15.5	20.8	1 26	6 22.45	+25 27.3	1.934	2.824	10.3	21.0
2 5	5 59.62	+53 53.9	1.966	2.674	17.2	21.0	2 5	6 17.05	+25 39.2	2.017	2.825	13.6	21.3
<b>460323</b>	2014 <i>QK</i> <sub>416</sub>		12 31.8 31°00	2°9/31.5 16			<b>137211</b>	1999 <i>NM</i> <sub>4</sub>		12 31.8 132°32	0°5/31.9 18		
11 27	7 12.71	+30 21.0	1.789	2.612	14.5	21.2	11 27	7 17.22	+19 23.7	1.674	2.485	15.8	20.2
12 7	7 7.43	+30 35.8	1.723	2.620	11.0	21.0	12 7	7 10.87	+19 58.7	1.605	2.498	12.0	19.9
12 17	6 59.47	+30 46.5	1.680	2.629	7.1	20.7	12 17	7 1.67	+20 41.1	1.560	2.510	7.4	19.7
12 27	6 49.74	+30 49.3	1.663	2.638	3.5	20.6	12 27	6 50.53	+21 27.3	1.542	2.522	2.5	19.4
1 6	6 39.52	+30 41.6	1.675	2.648	3.8	20.6	1 6	6 38.74	+22 13.0	1.554	2.533	2.6	19.5
1 16	6 30.13	+30 23.4	1.715	2.659	7.4	20.8	1 16	6 27.72	+22 54.7	1.594	2.543	7.4	19.8
1 26	6 22.78	+29 56.9	1.781	2.669	11.1	21.1	1 26	6 18.76	+23 30.8	1.662	2.553	11.7	20.1
2 5	6 18.17	+29 25.2	1.869	2.680	14.4	21.3	2 5	6 12.71	+24 1.3	1.753	2.562	15.3	20.3
<b>258560</b>	2002 <i>CM</i> <sub>73</sub>		12 31.8 220°58	0°7/31.9 17			<b>298468</b>	2003 <i>UW</i> <sub>188</sub>		12 31.8 106°16	5°8/30.9 18		
11 27	7 10.66	+20 7.8	2.089	2.901	13.1	20.8	11 27	7 19.19	+37 7.2	1.874	2.678	14.7	20.2
12 7	7 5.54	+20 18.4	2.007	2.900	9.9	20.6	12 7	7 12.45	+38 0.0	1.813	2.692	11.5	20.0
12 17	6 58.20	+20 33.5	1.949	2.899	6.2	20.3	12 17	7 2.67	+38 44.2	1.775	2.706	8.3	19.9
12 27	6 49.33	+20 51.4	1.919	2.898	2.2	20.1	12 27	6 50.85	+39 12.9	1.763	2.719	6.0	19.8
1 6	6 39.91	+21 10.2	1.919	2.898	2.2	20.1	1 6	6 38.44	+39 21.7	1.780	2.732	6.4	19.8
1 16	6 30.98	+21 28.2	1.947	2.897	6.2	20.3	1 16	6 27.00	+39 10.1	1.825	2.745	8.9	20.0
1 26	6 23.57	+21 44.6	2.004	2.896	9.9	20.6	1 26	6 17.88	+38 41.4	1.896	2.758	11.9	20.2
2 5	6 18.38	+21 59.1	2.085	2.895	13.1	20.8	2 5	6 11.99	+38 1.4	1.989	2.770	14.7	20.4
<b>169061</b>	2001 <i>FP</i> <sub>126</sub>		12 31.8 293°56	1°5/31.5 17			<b>318897</b>	2005 <i>TA</i> <sub>177</sub>		12 31.8 95°62	1°1/ 1.1 18		
11 27	7 12.53	+24 37.0	1.690	2.515	15.1	20.2	11 27	7 11.73	+17 41.4	2.074	2.881	13.4	20.8
12 7	7 7.77	+25 11.9	1.597	2.497	11.5	19.9	12 7	7 6.24	+18 10.2	2.005	2.894	10.1	20.6
12 17	7 0.04	+25 50.7	1.527	2.480	7.2	19.6	12 17	6 58.58	+18 46.2	1.960	2.907	6.3	20.4
12 27	6 50.06	+26 29.1	1.483	2.462	2.7	19.3	12 27	6 49.47	+19 27.0	1.942	2.920	2.4	20.1
1 6	6 39.04	+27 2.7	1.467	2.445	3.2	19.3	1 6	6 39.89	+20 9.6	1.955	2.933	2.3	20.2
1 16	6 28.46	+27 28.2	1.479	2.428	7.9	19.5	1 16	6 30.88	+20 51.5	1.997	2.946	6.1	20.4
1 26	6 19.77	+27 44.9	1.517	2.410	12.4	19.8	1 26	6 23.42	+21 30.7	2.068	2.959	9.7	20.7
2 5	6 14.02	+27 54.0	1.578	2.394	16.4	20.0	2 5	6 18.17	+22 6.3	2.163	2.971	12.8	20.9
<b>287734</b>	2003 <i>RD</i> <sub>27</sub>		12 31.8 115°84	7°5/ 2.9 18			<b>109867</b>	2001 <i>RA</i> <sub>147</sub>		12 31.8 237°69	3°8/ 1.1 18		
11 27	7 12.14	+0 48.4	2.076	2.829	15.1	21.0	11 27	7 12.17	+13 5.5	2.283	3.073	12.8	20.5
12 7	7 6.33	+0 15.9	2.013	2.847	12.6	20.8	12 7	7 6.49	+12 25.3	2.185	3.060	10.1	20.3
12 17	6 58.51	+0 1.0	1.971	2.865	10.0	20.7	12 17	6 58.75	+11 51.2	2.112	3.046	7.0	20.1
12 27	6 49.39	+0 6.1	1.956	2.882	8.0	20.6	12 27	6 49.56	+11 24.5	2.067	3.032	4.3	19.9
1 6	6 39.91	+0 31.3	1.967	2.898	7.6	20.6	1 6	6 39.78	+11 6.1	2.052	3.018	4.3	19.8
1 16	6 31.03	+1 14.6	2.007	2.914	9.0	20.7	1 16	6 30.38	+10 56.4	2.067	3.003	7.0	20.0
1 26	6 23.65	+2 12.2	2.074	2.929	11.3	20.9	1 26	6 22.30	+10 54.9	2.110	2.987	10.2	20.2
2 5	6 18.36	+3 19.0	2.163	2.944	13.7	21.1	2 5	6 16.24	+11 0.5	2.178	2.971	13.2	20.3
<b>175153</b>	2005 <i>EL</i> <sub>38</sub>		12 31.8 207°75	2°4/31.5 18			<b>383460</b>	2006 <i>XG</i> <sub>72</sub>		12 31.8 342°11	2°1/31.5 18		
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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>332994</b>	2011 <i>GE</i> <sub>37</sub>		12 31.8	27°03	9°1/ 4.3	17	<b>414341</b>	2008 <i>SQ</i> <sub>252</sub>		12 31.8	48°27	1°1/ 1.1	16
11 27	7 7.24	- 4 30.5	2.042	2.781	15.8	19.6	11 27	7 9.99	+19 21.7	1.991	2.805	13.5	21.3
12 7	7 2.85	- 4 50.4	1.972	2.787	13.6	19.5	12 7	7 4.97	+19 25.9	1.927	2.821	10.2	21.1
12 17	6 56.48	- 4 48.0	1.923	2.794	11.3	19.3	12 17	6 57.80	+19 35.1	1.887	2.837	6.4	20.9
12 27	6 48.79	- 4 20.5	1.897	2.801	9.6	19.3	12 27	6 49.25	+19 47.7	1.875	2.853	2.4	20.7
1 6	6 40.66	- 3 27.8	1.896	2.809	9.1	19.2	1 6	6 40.30	+20 2.0	1.891	2.870	2.3	20.7
1 16	6 33.02	- 2 12.7	1.922	2.817	10.1	19.3	1 16	6 32.01	+20 16.7	1.937	2.887	6.2	21.0
1 26	6 26.76	- 0 40.4	1.974	2.826	12.0	19.5	1 26	6 25.32	+20 31.0	2.010	2.904	9.8	21.3
2 5	6 22.51	+ 1 2.2	2.049	2.835	14.2	19.6	2 5	6 20.86	+20 44.4	2.107	2.921	12.9	21.5
<b>171015</b>	2005 <i>EU</i> <sub>38</sub>		12 31.8	242°16	0°1/31.9	18	<b>347649</b>	2001 <i>TP</i> <sub>76</sub>		12 31.8	77°55	4°5/31.1	18
11 27	7 12.94	+21 3.7	2.056	2.866	13.3	20.8	11 27	7 20.65	+31 45.1	1.521	2.339	16.8	20.4
12 7	7 7.47	+21 25.1	1.962	2.854	10.1	20.6	12 7	7 13.74	+32 40.9	1.474	2.366	12.8	20.2
12 17	6 59.56	+21 51.3	1.891	2.841	6.3	20.3	12 17	7 3.52	+33 31.3	1.449	2.393	8.5	20.0
12 27	6 49.88	+22 19.8	1.849	2.829	2.1	20.0	12 27	6 51.16	+34 9.1	1.450	2.420	5.0	19.8
1 6	6 39.43	+22 47.9	1.836	2.815	2.3	20.0	1 6	6 38.35	+34 29.2	1.479	2.446	5.4	19.9
1 16	6 29.37	+23 13.3	1.853	2.802	6.6	20.3	1 16	6 26.79	+34 30.7	1.536	2.472	8.9	20.2
1 26	6 20.85	+23 35.1	1.898	2.787	10.5	20.5	1 26	6 17.91	+34 17.0	1.619	2.498	12.7	20.5
2 5	6 14.70	+23 53.2	1.967	2.773	14.0	20.7	2 5	6 12.47	+33 53.2	1.723	2.523	15.9	20.8
<b>20609</b>	1999 <i>RO</i> <sub>225</sub>		12 31.8	40°66	1°1/31.6	18	<b>72838</b>	2001 <i>HM</i> <sub>29</sub>		12 31.8	324°74	8°9/ 1.2	18
11 27	7 11.65	+25 32.3	2.082	2.897	13.0	19.4	11 27	7 8.49	+ 1 11.5	2.013	2.777	15.2	18.9
12 7	7 6.36	+25 48.2	2.002	2.897	9.8	19.2	12 7	7 3.93	- 0 15.5	1.930	2.768	12.9	18.7
12 17	6 58.76	+26 4.5	1.947	2.898	6.1	18.9	12 17	6 57.26	- 1 28.5	1.870	2.759	10.7	18.5
12 27	6 49.57	+26 18.4	1.920	2.899	2.2	18.7	12 27	6 49.12	- 2 22.3	1.834	2.750	9.2	18.4
1 6	6 39.83	+26 27.6	1.921	2.899	2.5	18.7	1 6	6 40.41	- 2 53.5	1.825	2.742	9.1	18.4
1 16	6 30.66	+26 30.9	1.953	2.900	6.4	19.0	1 16	6 32.11	- 3 1.0	1.842	2.734	10.6	18.5
1 26	6 23.11	+26 28.7	2.012	2.901	10.0	19.2	1 26	6 25.20	- 2 46.6	1.883	2.726	12.9	18.6
2 5	6 17.89	+26 22.4	2.094	2.901	13.2	19.4	2 5	6 20.37	- 2 14.5	1.946	2.719	15.3	18.8
<b>115950</b>	Kocherpeter		12 31.8	75°98	0°3/31.9	18	<b>43995</b>	1997 <i>PY</i> <sub>5</sub>		12 31.8	347°17	0°9/31.9	18
11 27	7 15.92	+22 1.8	1.689	2.506	15.5	20.1	11 27	7 13.86	+21 26.5	1.182	2.024	19.1	19.4
12 7	7 9.61	+22 0.8	1.635	2.530	11.6	19.9	12 7	7 9.45	+21 16.4	1.112	2.021	14.6	19.1
12 17	7 0.70	+22 2.5	1.603	2.554	7.1	19.7	12 17	7 1.34	+21 11.1	1.062	2.018	9.2	18.8
12 27	6 50.16	+22 4.8	1.599	2.579	2.4	19.4	12 27	6 50.59	+21 8.6	1.035	2.015	3.2	18.4
1 6	6 39.29	+22 5.9	1.623	2.603	2.5	19.5	1 6	6 38.86	+21 6.8	1.033	2.013	3.3	18.4
1 16	6 29.40	+22 5.2	1.677	2.626	7.0	19.8	1 16	6 28.08	+21 4.7	1.057	2.012	9.3	18.8
1 26	6 21.60	+22 3.0	1.757	2.650	11.0	20.1	1 26	6 20.00	+21 2.5	1.104	2.011	14.8	19.1
2 5	6 16.55	+22 0.1	1.860	2.673	14.4	20.4	2 5	6 15.63	+21 1.0	1.170	2.010	19.4	19.3
<b>316108</b>	2009 <i>PO</i> <sub>4</sub>		12 31.8	195°34	0°3/31.8	17	<b>337590</b>	2001 <i>SQ</i> <sub>347</sub>		12 31.8	150°17	2°6/31.5	18
11 27	7 12.74	+24 15.1	2.525	3.327	11.4	21.8	11 27	7 18.77	+29 47.5	1.880	2.689	14.4	21.7
12 7	7 6.77	+24 14.1	2.436	3.325	8.6	21.6	12 7	7 11.93	+30 4.3	1.808	2.698	11.0	21.5
12 17	6 58.83	+24 13.2	2.373	3.322	5.3	21.4	12 17	7 2.29	+30 17.4	1.759	2.705	7.1	21.3
12 27	6 49.57	+24 10.7	2.339	3.318	1.8	21.2	12 27	6 50.79	+30 22.5	1.737	2.712	3.4	21.1
1 6	6 39.85	+24 5.5	2.336	3.315	1.9	21.2	1 6	6 38.73	+30 16.8	1.745	2.719	3.6	21.1
1 16	6 30.59	+23 57.0	2.364	3.310	5.5	21.4	1 16	6 27.51	+30 0.1	1.783	2.725	7.4	21.4
1 26	6 22.67	+23 45.9	2.421	3.305	8.8	21.6	1 26	6 18.38	+29 34.7	1.848	2.730	11.2	21.6
2 5	6 16.73	+23 33.2	2.503	3.300	11.6	21.8	2 5	6 12.12	+29 4.1	1.936	2.735	14.4	21.8
<b>97255</b>	1999 <i>XS</i> <sub>114</sub>		12 31.8	151°43	6°5/30.7	18	<b>153000</b>	2000 <i>HP</i> <sub>86</sub>		12 31.8	150°36	0°0/31.8	18
11 27	7 20.89	+41 1.2	2.164	2.951	13.5	18.6	11 27	7 15.89	+21 38.2	1.960	2.768	14.0	20.9
12 7	7 13.60	+41 55.0	2.096	2.959	10.9	18.4	12 7	7 9.56	+21 55.0	1.886	2.777	10.5	20.7
12 17	7 3.36	+42 38.3	2.051	2.967	8.4	18.3	12 17	7 0.76	+22 15.3	1.836	2.785	6.5	20.4
12 27	6 51.11	+43 4.3	2.033	2.974	6.7	18.2	12 27	6 50.28	+22 36.6	1.813	2.793	2.2	20.2
1 6	6 38.23	+43 8.8	2.044	2.980	6.9	18.2	1 6	6 39.25	+22 56.1	1.821	2.800	2.3	20.2
1 16	6 26.21	+42 51.3	2.083	2.986	8.9	18.4	1 16	6 28.88	+23 12.3	1.859	2.807	6.6	20.5
1 26	6 16.39	+42 15.3	2.148	2.992	11.5	18.5	1 26	6 20.28	+23 24.7	1.924	2.812	10.5	20.7
2 5	6 9.57	+41 26.6	2.236	2.996	13.9	18.7	2 5	6 14.20	+23 34.0	2.014	2.818	13.8	21.0
<b>327252</b>	2005 <i>SP</i> <sub>98</sub>		12 31.8	288°95	4°3/31.2	18	<b>331400</b>	2012 <i>FH</i> <sub>34</sub>		12 31.8	179°17	1°7/31.4	17
11 27	7 14.82	+34 13.9	1.979	2.790	13.7	20.8	11 27	7 11.85	+26 31.7	2.227	3.038	12.4	21.3
12 7	7 9.10	+34 41.4	1.898	2.785	10.7	20.6	12 7	7 6.47	+27 6.0	2.146	3.039	9.3	21.1
12 17	7 0.62	+35 2.6	1.840	2.780	7.4	20.4	12 17	6 58.85	+27 40.8	2.089	3.039	5.9	20.9
12 27	6 50.23	+35 12.6	1.809	2.775	4.7	20.2	12 27	6 49.67	+28 12.7	2.062	3.039	2.5	20.7
1 6	6 39.15	+35 8.1	1.806	2.770	4.9	20.2	1 6	6 39.91	+28 38.4	2.063	3.039	2.8	20.7
1 16	6 28.76	+34 48.3	1.832	2.765	7.9	20.4	1 16	6 30.64	+28 56.3	2.095	3.039	6.3	20.9
1 26	6 20.33	+34 15.8	1.884	2.760	11.3	20.6	1 26	6 22.89	+29 6.2	2.155	3.039	9.7	21.1
2 5	6 14.68	+33 34.7	1.959	2.755	14.4	20.8	2 5	6 17.37	+29 9.5	2.239	3.038	12.7	21.3
<b>518503</b>	2006 <i>BM</i> <sub>261</sub>		12 31.8	260°32	1°2/31.6	18	<b>361776</b>	2008 <i>AK</i> <sub>56</sub>		12 31.8	237°15	2°1/ 1.5	18
11 27	7 14.53	+25 12.5	1.778	2.597	14.7	22.2	11 27	7 11.76	+14 30.5	2.558	3.347	11.6	21.8
12 7	7 9.09	+25 30.7	1.687	2.584	11.2	22.0	12 7	7 6.15	+14 47.1	2.453	3.330	9.0	21.6
12 17	7 0.77	+25 50.2	1.619	2.570	7.1	21.7	12 17	6 58.58	+15 11.7	2.372	3.312	5.9	21.3
12 27	6 50.34	+26 7.7	1.577	2.557	2.6	21.4	12 27	6 49.60	+15 43.4	2.320	3.294	2.9	21.1
1 6	6 39.01	+26 19.7	1.565	2.543	2.9	21.4	1 6	6 39.97	+16 20.6	2.300	3.275	2.7	21.1
1 16	6 28.19	+26 24.5	1.581	2.529	7.5	21.7	1 16	6 30.57	+17 1.1	2.311	3.255	5.8	21.2
1 26	6 19.27	+26 22.5	1.624	2.515	11.9	21.9	1 26	6 22.29	+17 43.1	2.351	3.234	9.0	21.4
2 5	6 13.19	+26 15.6	1.689	2.500	15.7	22.1	2 5	6 15.83	+18 24.9	2.417	3.213	12.0	21.6
<b>47754</b>	2000 <i>DE</i> <sub>94</sub>		12 31.8	266°09	3°3/ 1.7	18	<b>412173</b>	2013 <i>GS</i> <sub>93</sub>		12 31.8	203°35	4°0/30.9	17
11 27	7 8.36	+1											

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>379792</b>	2011 <i>HO</i> <sub>82</sub>		12 31.8 259°12	9°5/ 1.6 18			<b>161433</b>	2003 <i>WY</i> <sub>100</sub>		12 31.9 81°89	2°5/ 1.4 18		
11 27	7 7.96	- 7 34.7	2.674	3.373	13.3	20.8	11 27	7 15.48	+15 7.4	1.783	2.587	15.3	20.5
12 7	7 3.11	- 8 56.5	2.587	3.362	11.8	20.7	12 7	7 9.12	+15 16.1	1.731	2.617	11.7	20.3
12 17	6 56.59	-10 2.7	2.523	3.351	10.5	20.6	12 17	7 0.38	+15 34.0	1.702	2.646	7.5	20.1
12 27	6 48.91	-10 48.7	2.483	3.339	9.7	20.5	12 27	6 50.16	+15 59.5	1.701	2.675	3.5	19.9
1 6	6 40.76	-11 11.8	2.469	3.327	9.6	20.5	1 6	6 39.63	+16 30.2	1.728	2.704	3.2	20.0
1 16	6 32.87	-11 11.4	2.480	3.316	10.4	20.5	1 16	6 29.97	+17 3.7	1.785	2.732	6.9	20.3
1 26	6 26.01	-10 49.0	2.516	3.304	11.8	20.6	1 26	6 22.20	+17 37.9	1.869	2.759	10.6	20.5
2 5	6 20.76	-10 8.5	2.573	3.291	13.3	20.7	2 5	6 16.96	+18 11.3	1.977	2.786	13.8	20.8
<b>211939</b>	2004 <i>XV</i> <sub>36</sub>		12 31.8 175°35	0°0/31.6 18			<b>514656</b>	2005 <i>SP</i> <sub>174</sub>		12 31.9 195°90	2°7/ 1.2 18		
11 27	7 18.67	+22 34.8	1.708	2.519	15.6	21.0	11 27	7 15.49	+15 52.9	2.017	2.814	14.0	22.3
12 7	7 12.06	+22 39.9	1.630	2.523	11.8	20.8	12 7	7 9.24	+15 33.0	1.930	2.812	10.8	22.1
12 17	7 2.51	+22 47.6	1.575	2.525	7.4	20.5	12 17	7 0.60	+15 19.3	1.866	2.808	7.1	21.8
12 27	6 50.94	+22 55.2	1.547	2.527	2.5	20.2	12 27	6 50.31	+15 11.9	1.831	2.804	3.6	21.6
1 6	6 38.65	+23 0.1	1.548	2.527	2.6	20.2	1 6	6 39.39	+15 10.2	1.825	2.799	3.5	21.6
1 16	6 27.11	+23 1.3	1.579	2.527	7.5	20.5	1 16	6 29.00	+15 13.8	1.850	2.793	7.0	21.8
1 26	6 17.67	+22 59.2	1.637	2.527	11.9	20.8	1 26	6 20.21	+15 21.8	1.902	2.787	10.8	22.0
2 5	6 11.19	+22 55.2	1.717	2.525	15.6	21.0	2 5	6 13.81	+15 33.4	1.979	2.779	14.1	22.2
<b>321606</b>	2009 <i>VK</i> <sub>21</sub>		12 31.8 122°73	0°0/31.7 17			<b>220709</b>	2004 <i>SB</i> <sub>3</sub>		12 31.9 77°27	0°0/31.6 18		
11 27	7 10.70	+21 39.8	2.352	3.160	11.9	21.4	11 27	7 11.85	+22 32.6	2.030	2.844	13.3	20.7
12 7	7 5.36	+21 57.8	2.275	3.167	9.0	21.2	12 7	7 6.46	+22 38.8	1.959	2.854	10.0	20.5
12 17	6 58.04	+22 18.9	2.224	3.174	5.6	21.0	12 17	6 58.81	+22 47.3	1.913	2.863	6.2	20.3
12 27	6 49.40	+22 41.0	2.201	3.180	1.8	20.8	12 27	6 49.68	+22 56.0	1.893	2.873	2.1	20.0
1 6	6 40.31	+23 2.0	2.208	3.187	1.9	20.8	1 6	6 40.10	+23 3.2	1.903	2.883	2.2	20.0
1 16	6 31.70	+23 20.6	2.245	3.193	5.6	21.0	1 16	6 31.15	+23 7.9	1.943	2.892	6.2	20.3
1 26	6 24.47	+23 35.9	2.311	3.199	8.9	21.2	1 26	6 23.83	+23 10.0	2.010	2.902	9.9	20.6
2 5	6 19.25	+23 48.3	2.401	3.205	11.8	21.4	2 5	6 18.83	+23 10.2	2.101	2.911	13.0	20.8
<b>384354</b>	2009 <i>UA</i> <sub>28</sub>		12 31.8 23°05	1°5/31.7 18			<b>377196</b>	2003 <i>WS</i> <sub>36</sub>		12 31.9 86°09	0°3/31.9 18		
11 27	7 12.51	+25 28.9	1.057	1.911	20.0	20.0	11 27	7 20.31	+23 24.3	1.399	2.221	17.8	20.8
12 7	7 8.59	+25 38.9	1.005	1.920	15.1	19.8	12 7	7 13.38	+23 4.9	1.345	2.243	13.4	20.6
12 17	7 0.80	+25 50.0	0.973	1.931	9.4	19.5	12 17	7 3.26	+22 46.5	1.313	2.265	8.3	20.3
12 27	6 50.40	+25 57.7	0.963	1.943	3.4	19.2	12 27	6 51.15	+22 27.1	1.307	2.286	2.8	20.1
1 6	6 39.31	+25 58.3	0.977	1.956	3.7	19.3	1 6	6 38.66	+22 5.7	1.328	2.308	2.9	20.1
1 16	6 29.53	+25 51.0	1.015	1.970	9.5	19.6	1 16	6 27.46	+21 43.0	1.378	2.328	8.1	20.5
1 26	6 22.75	+25 37.6	1.076	1.986	14.8	20.0	1 26	6 18.87	+21 20.8	1.453	2.349	12.7	20.8
2 5	6 19.82	+25 20.9	1.155	2.002	19.1	20.3	2 5	6 13.61	+21 0.9	1.550	2.369	16.5	21.1
<b>494530</b>	2017 <i>AF</i> <sub>7</sub>		12 31.8 18°48	10°8/31.8 17			<b>146626</b>	2001 <i>UN</i> <sub>3</sub>		12 31.9 83°22	0°6/31.9 18		
11 27	7 26.97	+51 2.0	1.752	2.520	17.0	20.4	11 27	7 12.05	+20 0.4	1.915	2.729	14.0	20.3
12 7	7 19.29	+51 46.5	1.687	2.521	14.6	20.3	12 7	7 6.75	+20 19.3	1.844	2.738	10.6	20.1
12 17	7 7.32	+52 10.0	1.643	2.523	12.4	20.1	12 17	6 59.07	+20 43.5	1.797	2.747	6.6	19.9
12 27	6 52.53	+52 2.3	1.621	2.525	11.0	20.0	12 27	6 49.80	+21 10.7	1.777	2.756	2.3	19.6
1 6	6 37.11	+51 18.5	1.625	2.528	11.0	20.1	1 6	6 40.00	+21 38.3	1.786	2.765	2.3	19.6
1 16	6 23.38	+50 0.4	1.653	2.530	12.5	20.2	1 16	6 30.83	+22 4.2	1.824	2.774	6.5	19.9
1 26	6 13.14	+48 16.3	1.706	2.533	14.7	20.3	1 26	6 23.34	+22 27.3	1.890	2.783	10.4	20.2
2 5	6 7.20	+46 17.4	1.779	2.537	17.1	20.5	2 5	6 18.26	+22 47.2	1.979	2.791	13.6	20.4
<b>149903</b>	2005 <i>SE</i> <sub>37</sub>		12 31.8 323°20	1°8/31.5 17			<b>292225</b>	2006 <i>SS</i> <sub>55</sub>		12 31.9 118°36	1°3/ 1.1 18		
11 27	7 11.84	+26 43.4	1.803	2.626	14.4	20.4	11 27	7 17.58	+18 13.5	1.656	2.466	16.0	21.2
12 7	7 7.00	+27 6.4	1.720	2.618	10.9	20.2	12 7	7 11.09	+18 31.4	1.593	2.483	12.1	21.0
12 17	6 59.44	+27 29.7	1.660	2.611	6.9	19.9	12 17	7 1.83	+18 56.9	1.552	2.500	7.6	20.8
12 27	6 49.94	+27 49.5	1.626	2.605	2.8	19.6	12 27	6 50.72	+19 27.2	1.538	2.517	2.9	20.5
1 6	6 39.70	+28 2.4	1.621	2.598	3.2	19.6	1 6	6 39.07	+19 59.3	1.554	2.532	2.8	20.6
1 16	6 30.03	+28 7.0	1.645	2.592	7.4	19.9	1 16	6 28.28	+20 30.5	1.598	2.548	7.3	20.9
1 26	6 22.22	+28 3.6	1.694	2.586	11.4	20.1	1 26	6 19.58	+20 59.3	1.670	2.562	11.6	21.2
2 5	6 17.13	+27 54.2	1.766	2.580	15.0	20.3	2 5	6 13.74	+21 25.2	1.765	2.576	15.1	21.4
<b>496044</b>	2008 <i>WM</i> <sub>41</sub>		12 31.9 243°46	6°8/31.9 18			<b>123858</b>	2001 <i>CB</i> <sub>48</sub>		12 31.9 197°97	3°2/ 1.7 18		
11 27	7 10.35	+ 2 42.8	2.709	3.456	12.1	21.1	11 27	7 9.19	+12 2.5	2.349	3.140	12.4	20.2
12 7	7 4.82	+ 1 23.0	2.616	3.446	10.1	20.9	12 7	7 4.23	+12 3.5	2.263	3.139	9.7	20.0
12 17	6 57.61	+ 0 12.7	2.548	3.436	8.2	20.8	12 17	6 57.38	+12 13.9	2.202	3.138	6.6	19.8
12 27	6 49.26	- 0 44.5	2.508	3.425	6.9	20.7	12 27	6 49.23	+12 33.5	2.169	3.137	3.9	19.6
1 6	6 40.46	- 1 26.2	2.497	3.414	7.0	20.7	1 6	6 40.60	+13 1.3	2.165	3.135	3.6	19.6
1 16	6 31.97	- 1 51.0	2.515	3.403	8.3	20.7	1 16	6 32.35	+13 35.5	2.192	3.133	6.2	19.8
1 26	6 24.53	- 1 59.7	2.560	3.391	10.3	20.9	1 26	6 25.34	+14 14.1	2.246	3.131	9.3	20.0
2 5	6 18.73	- 1 54.3	2.628	3.380	12.3	21.0	2 5	6 20.21	+14 54.8	2.325	3.129	12.1	20.1
<b>216601</b>	2002 <i>RN</i> <sub>7</sub>		12 31.9 60°01	8°7/ 1.1 16			<b>231188</b>	2005 <i>UR</i> <sub>354</sub>		12 31.9 1°19	0°0/31.6 18		
11 27	7 25.15	+49 55.7	2.139	2.898	14.5	19.8	11 27	7 12.27	+24 48.1	1.159	2.008	19.0	19.3
12 7	7 16.79	+50 25.5	2.088	2.919	12.3	19.7	12 7	7 8.28	+24 21.8	1.093	2.005	14.4	19.0
12 17	7 5.22	+50 36.9	2.058	2.939	10.2	19.6	12 17	7 0.63	+23 54.5	1.047	2.004	9.0	18.7
12 27	6 51.72	+50 23.1	2.053	2.960	8.9	19.5	12 27	6 50.42	+23 24.5	1.024	2.004	3.0	18.4
1 6	6 38.04	+49 41.7	2.075	2.981	8.8	19.6	1 6	6 39.38	+22 51.3	1.025	2.005	3.2	18.4
1 16	6 25.85	+48 34.9	2.124	3.001	10.1	19.7	1 16	6 29.43	+22 16.2	1.052	2.007	9.2	18.7
1 26	6 16.46	+47 8.9	2.199	3.022	12.0	19.8	1 26	6 22.23	+21 41.8	1.101	2.011	14.5	19.0
2 5	6 10.48	+45 32.0	2.297	3.043	14.0	20.0	2 5	6 18.69	+21 10.6	1.170	2.016	19.0	19.3
<b>454782</b>	2014 <i>XY</i> <sub>28</sub>		12 31.9 223°73	1°3/31.4 18			<b>446568</b>	2014 <i>ON</i> <sub>115</sub>		12 31.9 130°97	0°3/31.8 18		

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12 31.9

12 31.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>4202</b> Miniti			12 31.9 178°13	3°0/ 1.7	18	R	<b>179223</b> 2001 TA <sub>257</sub>			12 31.9 297°38	2°7/ 1.4	18	
11 27	7 9.08	+12 9.5	2.486	3.275	11.9	17.0	11 27	7 10.76	+14 58.7	1.936	2.743	14.2	20.5
12 7	7 4.04	+12 11.5	2.401	3.276	9.3	16.8	12 7	7 5.79	+14 57.9	1.856	2.743	10.9	20.3
12 17	6 57.21	+12 22.4	2.341	3.276	6.3	16.6	12 17	6 58.52	+15 5.8	1.799	2.742	7.2	20.1
12 27	6 49.17	+12 41.8	2.309	3.277	3.7	16.4	12 27	6 49.66	+15 21.9	1.769	2.742	3.6	19.9
1 6	6 40.68	+13 8.8	2.307	3.277	3.4	16.4	1 6	6 40.21	+15 44.7	1.767	2.742	3.3	19.9
1 16	6 32.57	+13 41.6	2.335	3.277	5.9	16.6	1 16	6 31.28	+16 12.6	1.795	2.742	6.9	20.1
1 26	6 25.63	+14 18.4	2.392	3.276	8.9	16.8	1 26	6 23.91	+16 43.3	1.849	2.742	10.6	20.3
2 5	6 20.47	+14 57.2	2.474	3.276	11.6	17.0	2 5	6 18.84	+17 15.3	1.928	2.741	13.9	20.5
<b>495691</b> 2016 CH <sub>1</sub>			12 31.9 8°46	2°8/31.8	18		<b>449529</b> 2014 HD <sub>36</sub>			12 31.9 178°13	3°5/30.9	18	
11 27	7 14.97	+32 19.2	1.911	2.724	14.0	20.1	11 27	7 15.77	+29 0.3	1.848	2.663	14.4	21.4
12 7	7 9.07	+32 4.8	1.834	2.725	10.8	19.9	12 7	7 10.03	+30 4.1	1.771	2.664	11.0	21.2
12 17	7 0.53	+31 43.1	1.780	2.727	7.0	19.7	12 17	7 1.40	+31 8.1	1.718	2.664	7.2	20.9
12 27	6 50.28	+31 11.2	1.754	2.728	3.5	19.4	12 27	6 50.69	+32 6.1	1.692	2.665	3.9	20.7
1 6	6 39.57	+30 28.0	1.757	2.731	3.6	19.4	1 6	6 39.12	+32 52.4	1.695	2.665	4.4	20.8
1 16	6 29.70	+29 35.2	1.789	2.733	7.2	19.7	1 16	6 28.15	+33 23.9	1.727	2.665	8.0	21.0
1 26	6 21.84	+28 36.2	1.848	2.736	10.8	19.9	1 26	6 19.12	+33 40.7	1.786	2.664	11.7	21.2
2 5	6 16.69	+27 35.4	1.931	2.740	14.1	20.1	2 5	6 12.97	+33 45.5	1.868	2.664	15.0	21.4
<b>380153</b> 2000 AV <sub>39</sub>			12 31.9 337°64	1°0/31.6	18		<b>445538</b> 2011 FL <sub>23</sub>			12 31.9 245°34	3°3/ 1.4	18	
11 27	7 12.15	+21 51.7	1.260	2.102	18.2	20.4	11 27	7 14.05	+14 1.4	1.856	2.657	14.9	22.2
12 7	7 8.22	+22 39.1	1.186	2.094	13.9	20.1	12 7	7 8.55	+13 54.3	1.759	2.641	11.7	21.9
12 17	7 0.72	+23 35.7	1.131	2.088	8.7	19.8	12 17	7 0.44	+13 56.7	1.684	2.625	7.9	21.7
12 27	6 50.53	+24 36.4	1.101	2.082	3.0	19.4	12 27	6 50.37	+14 8.8	1.636	2.608	4.2	21.4
1 6	6 39.19	+25 34.3	1.097	2.076	3.4	19.4	1 6	6 39.43	+14 29.4	1.617	2.590	3.9	21.4
1 16	6 28.53	+26 24.1	1.118	2.071	9.2	19.7	1 16	6 28.84	+14 57.0	1.628	2.572	7.7	21.6
1 26	6 20.36	+27 3.3	1.164	2.067	14.5	20.0	1 26	6 19.87	+15 29.5	1.665	2.554	11.8	21.8
2 5	6 15.81	+27 32.3	1.229	2.064	18.9	20.3	2 5	6 13.43	+16 4.7	1.725	2.534	15.5	22.0
<b>92226</b> 2000 AZ <sub>92</sub>			12 31.9 67°08	9°9/ 2.6	18		<b>350576</b> 2001 EH <sub>15</sub>			12 31.9 202°72	5°0/30.9	18	
11 27	7 38.82	+45 43.5	0.988	1.800	24.3	18.7	11 27	7 18.39	+37 6.8	2.321	3.114	12.5	21.5
12 7	7 29.21	+45 27.3	0.938	1.814	19.8	18.4	12 7	7 11.61	+37 49.4	2.237	3.110	9.9	21.4
12 17	7 13.64	+44 40.2	0.904	1.829	15.0	18.2	12 17	7 2.19	+38 25.0	2.176	3.105	7.2	21.2
12 27	6 54.54	+43 9.7	0.892	1.844	10.9	18.1	12 27	6 50.91	+38 48.0	2.144	3.099	5.2	21.0
1 6	6 35.51	+40 54.3	0.904	1.859	10.2	18.1	1 6	6 38.93	+38 54.6	2.141	3.093	5.5	21.0
1 16	6 19.80	+38 7.1	0.941	1.875	13.3	18.3	1 16	6 27.55	+38 43.8	2.167	3.086	7.8	21.2
1 26	6 9.37	+35 8.6	1.001	1.890	17.7	18.6	1 26	6 17.97	+38 17.8	2.221	3.078	10.6	21.3
2 5	6 4.57	+32 16.9	1.082	1.905	21.8	18.9	2 5	6 11.02	+37 40.7	2.299	3.070	13.3	21.5
<b>267222</b> 2001 DN <sub>2</sub>			12 31.9 31°08	0°7/31.9	18		<b>185280</b> 2006 UH <sub>192</sub>			12 31.9 32°45	5°0/31.4	17	
11 27	7 10.35	+20 29.1	1.700	2.525	15.0	20.4	11 27	7 15.66	+34 31.1	1.548	2.372	16.3	20.0
12 7	7 5.69	+20 37.7	1.636	2.535	11.3	20.2	12 7	7 10.22	+34 58.9	1.488	2.382	12.6	19.8
12 17	6 58.49	+20 51.4	1.594	2.547	7.1	20.0	12 17	7 1.53	+35 18.5	1.449	2.392	8.7	19.6
12 27	6 49.62	+21 8.1	1.579	2.559	2.5	19.7	12 27	6 50.68	+35 24.1	1.436	2.403	5.5	19.4
1 6	6 40.25	+21 25.5	1.592	2.571	2.5	19.7	1 6	6 39.26	+35 12.0	1.449	2.415	5.7	19.5
1 16	6 31.62	+21 41.9	1.632	2.584	6.9	20.0	1 16	6 28.94	+34 42.6	1.489	2.427	9.0	19.7
1 26	6 24.84	+21 56.4	1.699	2.598	11.0	20.3	1 26	6 21.13	+33 59.9	1.555	2.440	12.7	19.9
2 5	6 20.64	+22 8.9	1.789	2.612	14.4	20.6	2 5	6 16.62	+33 9.5	1.642	2.453	16.1	20.2
<b>118125</b> 3278 T <sub>-3</sub>			12 31.9 5°64	2°1/31.5	18		<b>308738</b> 2006 HG <sub>99</sub>			12 31.9 278°34	0°0/31.7	18	
11 27	7 11.17	+27 32.3	1.936	2.756	13.6	19.4	11 27	7 13.17	+21 56.3	1.702	2.523	15.2	21.5
12 7	7 6.28	+27 59.6	1.859	2.756	10.3	19.2	12 7	7 8.06	+22 8.4	1.620	2.518	11.5	21.3
12 17	6 58.89	+28 26.5	1.806	2.757	6.5	19.0	12 17	7 0.16	+22 24.8	1.561	2.513	7.2	21.0
12 27	6 49.78	+28 49.1	1.781	2.758	2.9	18.8	12 27	6 50.27	+22 42.7	1.528	2.508	2.4	20.7
1 6	6 40.06	+29 4.4	1.784	2.759	3.2	18.8	1 6	6 39.61	+22 59.3	1.524	2.503	2.5	20.7
1 16	6 30.94	+29 10.8	1.815	2.761	7.0	19.0	1 16	6 29.54	+23 12.9	1.548	2.498	7.4	21.0
1 26	6 23.57	+29 8.8	1.873	2.763	10.7	19.2	1 26	6 21.37	+23 23.0	1.598	2.493	11.8	21.2
2 5	6 18.72	+29 0.5	1.955	2.765	13.9	19.5	2 5	6 16.00	+23 30.1	1.670	2.488	15.5	21.4
<b>458670</b> 2011 GY <sub>87</sub>			12 31.9 245°98	1°1/ 1.2	18		<b>223494</b> 2004 BT <sub>43</sub>			12 31.9 284°74	2°1/31.6	18	
11 27	7 9.19	+17 58.5	2.618	3.418	11.1	21.6	11 27	7 15.48	+26 32.8	1.451	2.281	16.9	20.6
12 7	7 4.18	+18 14.4	2.521	3.407	8.4	21.5	12 7	7 10.45	+26 58.8	1.369	2.272	12.9	20.3
12 17	6 57.36	+18 35.8	2.449	3.395	5.4	21.2	12 17	7 1.97	+27 25.9	1.309	2.262	8.2	20.0
12 27	6 49.25	+19 1.3	2.405	3.383	2.1	21.0	12 27	6 50.95	+27 49.0	1.274	2.252	3.3	19.7
1 6	6 40.61	+19 29.2	2.393	3.371	2.0	21.0	1 6	6 38.86	+28 3.6	1.266	2.243	3.7	19.7
1 16	6 32.25	+19 57.9	2.411	3.359	5.3	21.2	1 16	6 27.48	+28 7.4	1.284	2.233	8.8	20.0
1 26	6 25.01	+20 26.1	2.458	3.346	8.5	21.4	1 26	6 18.46	+28 1.3	1.328	2.224	13.6	20.2
2 5	6 19.51	+20 53.0	2.531	3.333	11.3	21.5	2 5	6 12.89	+27 48.3	1.393	2.215	17.8	20.5
<b>520828</b> 2014 UU <sub>232</sub>			12 31.9 103°24	3°2/ 1.5	18		<b>66844</b> 1999 VP			12 31.9 120°37	3°3/31.4	18	
11 27	7 10.32	+13 0.4	2.469	3.259	12.0	21.7	11 27	7 15.70	+30 28.1	1.751	2.570	14.9	18.3
12 7	7 4.80	+12 36.2	2.401	3.275	9.3	21.5	12 7	7 10.00	+30 55.7	1.676	2.571	11.4	18.1
12 17	6 57.58	+12 19.1	2.357	3.292	6.3	21.3	12 17	7 1.34	+31 19.9	1.624	2.571	7.5	17.8
12 27	6 49.27	+12 9.6	2.342	3.308	3.8	21.2	12 27	6 50.65	+31 35.8	1.599	2.572	3.9	17.6
1 6	6 40.67	+12 7.6	2.356	3.324	3.6	21.2	1 6	6 39.25	+31 39.6	1.601	2.573	4.2	17.7
1 16	6 32.58	+12 12.4	2.401	3.339	6.0	21.4	1 16	6 28.62	+31 30.4	1.632	2.574	7.9	17.9
1 26	6 25.76	+12 23.1	2.474	3.355	8.8	21.6	1 26	6 20.11	+31 10.2	1.689	2.575	11.8	18.1
2 5	6 20.74	+12 38.2	2.573	3.370	11.3	21.8	2 5	6 14.57	+30 42.7	1.769	2.576	15.3	18.3
<b>285024</b> 2011 DD <sub>40</sub>			12 31.9 46°18	7°2/ 3.0	17		<b>460089</b> 2014 OU <sub>376</sub>			12 31.9 163°05	0°0/31.7	18	
11 27	7 8.01	+ 1 14.9	2.111	2.873	14.6	20.3	11 27	7 12.3					

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>29729</b>	1999 <i>BY</i> <sub>1</sub>		12 31.9 329°39	8°6/ 4.7	18	R	<b>143160</b>	2002 <i>XP</i> <sub>55</sub>		12 31.9 104°06	1°9/ 1.3	18	
11 27	7 11.22	- 1 12.5	1.276	2.061	21.2	16.9	11 27	7 12.37	+16 52.9	1.965	2.772	14.0	20.2
12 7	7 7.48	- 0 22.7	1.184	2.043	17.9	16.7	12 7	7 6.89	+16 56.7	1.895	2.783	10.6	20.0
12 17	7 0.35	+ 1 6.9	1.111	2.025	13.9	16.4	12 17	6 59.15	+17 7.6	1.848	2.794	6.8	19.8
12 27	6 50.51	+ 3 20.4	1.060	2.009	10.1	16.1	12 27	6 49.90	+17 24.4	1.828	2.804	3.0	19.6
1 6	6 39.25	+ 6 14.0	1.034	1.993	8.6	16.0	1 6	6 40.18	+17 45.2	1.838	2.815	2.8	19.6
1 16	6 28.24	+ 9 35.8	1.035	1.979	11.2	16.1	1 16	6 31.07	+18 8.5	1.877	2.825	6.5	19.8
1 26	6 19.29	+13 9.0	1.064	1.966	15.7	16.3	1 26	6 23.59	+18 32.7	1.944	2.835	10.2	20.1
2 5	6 13.71	+16 37.1	1.115	1.954	20.2	16.5	2 5	6 18.41	+18 56.7	2.034	2.845	13.4	20.3
<b>451088</b>	2009 <i>BQ</i> <sub>142</sub>		12 31.9 229°80	5°5/31.3	17		<b>398081</b>	2009 <i>JB</i> <sub>17</sub>		12 31.9 216°29	3°1/ 1.3	18	
11 27	7 19.38	+37 50.0	1.966	2.766	14.2	21.7	11 27	7 12.03	+14 8.7	2.311	3.103	12.6	21.6
12 7	7 12.73	+38 16.5	1.882	2.759	11.3	21.5	12 7	7 6.43	+13 43.5	2.219	3.096	9.8	21.4
12 17	7 3.04	+38 33.5	1.822	2.753	8.2	21.3	12 17	6 58.81	+13 24.5	2.151	3.089	6.7	21.2
12 27	6 51.22	+38 35.1	1.789	2.746	5.8	21.1	12 27	6 49.80	+13 12.5	2.112	3.081	3.8	21.0
1 6	6 38.69	+38 17.4	1.784	2.739	6.0	21.1	1 6	6 40.25	+13 7.5	2.102	3.072	3.6	21.0
1 16	6 26.96	+37 40.4	1.807	2.732	8.6	21.3	1 16	6 31.10	+13 9.1	2.123	3.063	6.5	21.2
1 26	6 17.43	+36 47.9	1.857	2.725	11.9	21.4	1 26	6 23.26	+13 16.7	2.172	3.053	9.8	21.3
2 5	6 10.98	+35 45.8	1.931	2.717	14.9	21.6	2 5	6 17.41	+13 28.9	2.245	3.043	12.7	21.5
<b>462723</b>	2009 <i>YK</i> <sub>20</sub>		12 31.9 18°85	1°0/ 1.2	16		<b>446023</b>	2013 <i>CL</i> <sub>60</sub>		12 31.9 354°73	3°8/31.5	17	
11 27	7 8.82	+17 13.6	1.654	2.478	15.4	20.8	11 27	7 15.22	+31 54.4	1.576	2.401	16.0	21.1
12 7	7 4.68	+17 58.7	1.588	2.487	11.7	20.6	12 7	7 9.96	+32 13.4	1.502	2.400	12.3	20.8
12 17	6 57.99	+18 54.3	1.545	2.496	7.3	20.4	12 17	7 1.48	+32 27.0	1.451	2.398	8.2	20.6
12 27	6 49.53	+19 57.1	1.527	2.506	2.7	20.1	12 27	6 50.75	+32 29.7	1.424	2.397	4.5	20.4
1 6	6 40.46	+21 2.4	1.538	2.518	2.5	20.1	1 6	6 39.28	+32 18.2	1.425	2.396	4.7	20.4
1 16	6 32.02	+22 5.7	1.577	2.530	7.0	20.4	1 16	6 28.69	+31 52.1	1.453	2.396	8.6	20.6
1 26	6 25.39	+23 3.9	1.643	2.543	11.2	20.7	1 26	6 20.46	+31 14.7	1.506	2.396	12.7	20.8
2 5	6 21.36	+23 55.1	1.731	2.556	14.7	21.0	2 5	6 15.47	+30 30.8	1.581	2.397	16.4	21.1
<b>507304</b>	2011 <i>LM</i> <sub>18</sub>		12 31.9 347°68	18°2/28.9	17		<b>13523</b>	Vanhassel		12 31.9 184°19	2°1/ 1.3	18	
11 27	7 13.23	+ 1 11.0	0.898	1.719	25.4	20.2	11 27	7 9.82	+16 31.1	2.399	3.200	12.0	19.4
12 7	7 9.47	- 2 35.1	0.844	1.712	22.3	20.0	12 7	7 4.68	+16 18.9	2.315	3.200	9.2	19.3
12 17	7 1.66	- 6 2.5	0.808	1.707	19.6	19.8	12 17	6 57.67	+16 12.0	2.256	3.199	6.0	19.1
12 27	6 50.90	- 8 51.2	0.790	1.702	18.3	19.7	12 27	6 49.40	+16 10.2	2.225	3.199	2.9	18.9
1 6	6 39.01	-10 45.3	0.792	1.699	18.9	19.7	1 6	6 40.69	+16 12.9	2.224	3.199	2.7	18.8
1 16	6 28.13	-11 37.7	0.812	1.697	21.1	19.8	1 16	6 32.41	+16 19.3	2.253	3.198	5.8	19.0
1 26	6 20.19	-11 33.0	0.848	1.696	24.1	20.0	1 26	6 25.39	+16 28.7	2.310	3.198	9.0	19.2
2 5	6 16.33	-10 44.1	0.897	1.696	27.1	20.2	2 5	6 20.26	+16 40.4	2.392	3.197	11.8	19.4
<b>125620</b>	2001 <i>XH</i> <sub>56</sub>		12 31.9 61°38	1°2/ 1.1	18		<b>506945</b>	2008 <i>HC</i> <sub>43</sub>		12 31.9 245°54	17°7/31.7	17	
11 27	7 15.18	+19 36.4	1.400	2.227	17.5	19.4	11 27	7 15.13	- 7 41.6	1.237	1.990	23.5	21.5
12 7	7 9.65	+19 41.2	1.346	2.246	13.2	19.2	12 7	7 10.15	-10 24.8	1.177	1.986	21.2	21.3
12 17	7 1.08	+19 52.7	1.313	2.265	8.3	18.9	12 17	7 1.77	-12 40.5	1.134	1.982	19.1	21.1
12 27	6 50.53	+20 8.5	1.305	2.284	3.0	18.7	12 27	6 50.91	-14 15.2	1.110	1.978	17.9	21.0
1 6	6 39.49	+20 25.9	1.324	2.304	2.9	18.7	1 6	6 39.05	-14 59.8	1.106	1.974	17.9	21.0
1 16	6 29.50	+20 43.0	1.371	2.323	7.9	19.1	1 16	6 27.91	-14 52.0	1.121	1.970	19.2	21.1
1 26	6 21.86	+20 58.7	1.443	2.343	12.5	19.4	1 26	6 19.11	-13 57.4	1.154	1.966	21.3	21.2
2 5	6 17.34	+21 12.9	1.536	2.362	16.3	19.7	2 5	6 13.71	-12 27.7	1.203	1.962	23.6	21.4
<b>479564</b>	2014 <i>CF</i> <sub>6</sub>		12 31.9 60°90	0°3/31.9	18		<b>443205</b>	2014 <i>DP</i> <sub>70</sub>		12 31.9 340°21	2°3/ 1.3	16	
11 27	7 14.17	+19 49.1	1.456	2.283	17.0	21.0	11 27	7 9.43	+17 3.9	1.232	2.073	18.6	21.3
12 7	7 9.09	+20 22.1	1.388	2.289	12.9	20.8	12 7	7 6.10	+17 11.1	1.156	2.063	14.3	21.0
12 17	7 0.91	+21 3.5	1.342	2.295	8.0	20.5	12 17	6 59.39	+17 30.3	1.099	2.053	9.3	20.7
12 27	6 50.55	+21 49.6	1.321	2.301	2.7	20.2	12 27	6 50.15	+18 0.3	1.066	2.044	3.9	20.4
1 6	6 39.40	+22 35.5	1.328	2.307	2.8	20.2	1 6	6 39.84	+18 37.9	1.058	2.037	3.7	20.3
1 16	6 29.05	+23 17.6	1.362	2.314	8.0	20.6	1 16	6 30.19	+19 19.3	1.074	2.030	9.1	20.6
1 26	6 20.92	+23 53.7	1.422	2.321	12.7	20.8	1 26	6 22.88	+20 1.2	1.114	2.024	14.4	20.9
2 5	6 15.92	+24 23.7	1.503	2.327	16.6	21.1	2 5	6 19.00	+20 41.1	1.174	2.020	19.0	21.1
<b>345377</b>	2006 <i>BE</i> <sub>36</sub>		12 31.9 348°14	1°7/31.6	18		<b>446515</b>	2014 <i>KF</i> <sub>98</sub>		12 31.9 280°18	0°8/31.7	18	
11 27	7 14.27	+25 58.9	1.488	2.319	16.5	21.3	11 27	7 13.32	+23 30.2	1.716	2.537	15.0	21.1
12 7	7 9.28	+26 18.3	1.414	2.317	12.5	21.0	12 7	7 8.31	+23 53.7	1.628	2.526	11.4	20.9
12 17	7 1.09	+26 38.5	1.362	2.315	7.9	20.8	12 17	7 0.43	+24 20.8	1.563	2.515	7.2	20.6
12 27	6 50.63	+26 55.2	1.334	2.314	3.0	20.5	12 27	6 50.45	+24 48.2	1.524	2.504	2.5	20.3
1 6	6 39.33	+27 4.9	1.334	2.312	3.3	20.5	1 6	6 39.56	+25 12.2	1.513	2.492	2.7	20.3
1 16	6 28.83	+27 5.7	1.362	2.311	8.3	20.8	1 16	6 29.18	+25 30.3	1.531	2.481	7.5	20.5
1 26	6 20.62	+26 58.8	1.414	2.311	12.9	21.0	1 26	6 20.68	+25 42.3	1.575	2.470	12.0	20.8
2 5	6 15.63	+26 46.7	1.487	2.311	16.8	21.3	2 5	6 15.03	+25 48.9	1.642	2.458	15.8	21.0
<b>518079</b>	2016 <i>AR</i> <sub>227</sub>		12 31.9 199°02	1°1/31.6	18		<b>421251</b>	2013 <i>SX</i> <sub>59</sub>		12 31.9 346°69	4°8/ 2.1	18	
11 27	7 10.77	+25 14.9	2.690	3.494	10.7	21.4	11 27	7 7.73	+ 8 35.6	2.113	2.903	13.7	21.0
12 7	7 5.37	+25 46.0	2.602	3.491	8.1	21.3	12 7	7 3.35	+ 8 20.7	2.031	2.901	10.9	20.8
12 17	6 58.10	+26 18.3	2.539	3.488	5.0	21.1	12 17	6 56.96	+ 8 18.0	1.971	2.898	7.9	20.6
12 27	6 49.54	+26 48.9	2.507	3.485	1.9	20.8	12 27	6 49.20	+ 8 28.6	1.938	2.896	5.4	20.5
1 6	6 40.48	+27 15.6	2.505	3.481	2.2	20.9	1 6	6 40.92	+ 8 52.1	1.933	2.894	5.1	20.5
1 16	6 31.77	+27 36.6	2.534	3.478	5.3	21.1	1 16	6 33.06	+ 9 27.0	1.957	2.892	7.3	20.6
1 26	6 24.26	+27 51.7	2.592	3.474	8.4	21.3	1 26	6 26.53	+10 10.6	2.007	2.891	10.3	20.8
2 5	6 18.58	+28 1.3	2.675	3.469	11.0	21.4	2 5	6 21.99	+10 59.6	2.081	2.890	13.2	21.0
<b>139553</b>	2001 <i>QZ</i> <sub>58</sub>		12 31.9 88°00	1°7/31.7	18		<b>315757</b>	2008 <i>FH</i> <sub>50</sub>		12 31.9 13°78	0°0/31.7	18	



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>427119</b>	2014 <i>UO</i> <sub>95</sub>		12 31.9 49°13	0°6/ 1.0 18			<b>445294</b>	2010 <i>AU</i> <sub>49</sub>		12 31.9 256°26	3°1/ 1.4 18		
11 27	7 10.72	+20 28.9	1.953	2.769	13.7	21.4	11 27	7 13.35	+14 50.0	1.831	2.636	14.9	21.6
12 7	7 5.66	+20 36.6	1.890	2.785	10.3	21.2	12 7	7 8.09	+14 39.0	1.735	2.620	11.6	21.4
12 17	6 58.38	+20 48.4	1.850	2.800	6.4	21.0	12 17	7 0.21	+14 36.7	1.661	2.604	7.8	21.1
12 27	6 49.65	+21 2.7	1.837	2.816	2.3	20.7	12 27	6 50.40	+14 43.2	1.614	2.587	4.0	20.9
1 6	6 40.52	+21 17.4	1.853	2.833	2.2	20.8	1 6	6 39.71	+14 57.6	1.596	2.570	3.8	20.8
1 16	6 32.06	+21 31.2	1.899	2.849	6.3	21.0	1 16	6 29.40	+15 18.4	1.606	2.552	7.6	21.0
1 26	6 25.25	+21 43.5	1.972	2.866	9.9	21.3	1 26	6 20.72	+15 44.1	1.643	2.534	11.8	21.2
2 5	6 20.73	+21 54.2	2.068	2.883	13.0	21.5	2 5	6 14.58	+16 12.9	1.703	2.515	15.5	21.4
<b>45446</b>	2000 <i>AX</i> <sub>186</sub>		12 31.9 120°10	7°5/ 2.6 18			<b>159274</b>	2005 <i>YV</i> <sub>247</sub>		12 31.9 71°10	0°0/ 31.7 18		
11 27	7 11.16	+3 0.1	1.867	2.639	15.9	18.7	11 27	7 16.90	+22 25.2	1.483	2.307	16.9	20.3
12 7	7 6.05	+2 23.1	1.796	2.645	13.1	18.6	12 7	7 10.82	+22 34.9	1.430	2.329	12.7	20.1
12 17	6 58.68	+2 3.3	1.745	2.651	10.3	18.4	12 17	7 1.76	+22 48.0	1.399	2.352	7.8	19.8
12 27	6 49.78	+2 3.7	1.719	2.656	8.0	18.3	12 27	6 50.81	+23 1.3	1.394	2.374	2.6	19.6
1 6	6 40.36	+2 24.8	1.721	2.661	7.7	18.3	1 6	6 39.43	+23 12.1	1.417	2.397	2.7	19.6
1 16	6 31.50	+3 5.0	1.749	2.667	9.4	18.4	1 16	6 29.14	+23 19.0	1.468	2.419	7.6	20.0
1 26	6 24.21	+4 0.2	1.804	2.672	12.1	18.5	1 26	6 21.19	+23 22.3	1.545	2.441	12.0	20.3
2 5	6 19.20	+5 5.4	1.881	2.676	14.9	18.7	2 5	6 16.32	+23 23.2	1.644	2.463	15.6	20.6
<b>490454</b>	2009 <i>SM</i> <sub>214</sub>		12 31.9 77°71	0°7/ 1.0 16			<b>185287</b>	2006 <i>UV</i> <sub>204</sub>		12 31.9 17°78	6°5/ 31.9 18		
11 27	7 17.84	+20 34.1	1.423	2.245	17.5	22.1	11 27	7 11.74	+11 48.4	1.501	2.315	17.2	19.2
12 7	7 11.57	+20 42.4	1.371	2.269	13.2	21.9	12 7	7 6.89	+10 18.3	1.436	2.320	13.7	19.0
12 17	7 2.24	+20 56.3	1.340	2.292	8.2	21.7	12 17	6 59.35	+8 57.2	1.392	2.326	9.9	18.8
12 27	6 50.95	+21 12.7	1.336	2.316	2.8	21.4	12 27	6 50.03	+7 50.0	1.374	2.333	7.0	18.6
1 6	6 39.23	+21 28.7	1.359	2.339	2.8	21.5	1 6	6 40.20	+7 0.2	1.382	2.340	7.0	18.7
1 16	6 28.64	+21 42.7	1.410	2.361	7.9	21.9	1 16	6 31.18	+6 29.7	1.417	2.349	9.9	18.9
1 26	6 20.49	+21 54.2	1.487	2.384	12.4	22.2	1 26	6 24.17	+6 17.5	1.475	2.358	13.4	19.1
2 5	6 15.51	+22 3.6	1.585	2.406	16.1	22.5	2 5	6 19.90	+6 20.7	1.555	2.368	16.7	19.3
<b>266053</b>	2006 <i>QJ</i> <sub>27</sub>		12 31.9 107°44	3°9/ 31.3 18			<b>131404</b>	2001 <i>LZ</i> <sub>4</sub>		12 31.9 200°96	3°5/ 1.6 18		
11 27	7 23.31	+31 26.6	1.689	2.497	15.9	20.6	11 27	7 8.78	+11 33.3	2.579	3.365	11.6	20.5
12 7	7 15.55	+32 11.9	1.636	2.523	12.1	20.4	12 7	7 3.79	+11 13.9	2.492	3.363	9.1	20.3
12 17	7 4.66	+32 52.1	1.605	2.548	8.0	20.2	12 17	6 57.09	+11 2.3	2.429	3.361	6.4	20.1
12 27	6 51.76	+33 20.8	1.602	2.573	4.5	20.1	12 27	6 49.25	+10 59.1	2.395	3.358	4.0	20.0
1 6	6 38.40	+33 33.6	1.629	2.597	4.8	20.1	1 6	6 40.98	+11 4.2	2.390	3.355	3.8	20.0
1 16	6 26.20	+33 30.0	1.684	2.619	8.3	20.4	1 16	6 33.07	+11 16.9	2.416	3.352	6.1	20.1
1 26	6 16.52	+33 12.9	1.765	2.641	12.0	20.7	1 26	6 26.29	+11 36.0	2.470	3.349	8.8	20.3
2 5	6 10.11	+32 47.2	1.870	2.662	15.1	20.9	2 5	6 21.20	+11 59.8	2.548	3.346	11.4	20.5
<b>255559</b>	2006 <i>KK</i> <sub>27</sub>		12 31.9 242°37	0°8/ 31.9 18			<b>68269</b>	2001 <i>EY</i> <sub>19</sub>		12 31.9 97°70	4°2/ 31.2 17		
11 27	7 16.78	+20 56.7	1.498	2.319	16.9	21.6	11 27	7 14.54	+34 50.6	2.202	3.007	12.7	19.7
12 7	7 11.24	+20 57.4	1.411	2.309	12.9	21.3	12 7	7 8.68	+35 21.8	2.128	3.011	9.9	19.5
12 17	7 2.42	+21 3.0	1.347	2.298	8.2	21.0	12 17	7 0.35	+35 46.8	2.078	3.015	6.9	19.3
12 27	6 51.16	+21 11.3	1.308	2.287	2.9	20.7	12 27	6 50.37	+36 1.1	2.055	3.019	4.5	19.2
1 6	6 38.87	+21 19.7	1.297	2.276	2.9	20.7	1 6	6 39.85	+36 1.6	2.062	3.023	4.8	19.2
1 16	6 27.19	+21 26.7	1.313	2.264	8.4	20.9	1 16	6 30.00	+35 47.8	2.097	3.027	7.3	19.3
1 26	6 17.72	+21 32.0	1.355	2.252	13.4	21.2	1 26	6 21.93	+35 21.8	2.160	3.031	10.3	19.5
2 5	6 11.50	+21 36.2	1.418	2.239	17.6	21.4	2 5	6 16.36	+34 47.2	2.246	3.034	13.0	19.7
<b>226246</b>	2002 <i>XP</i> <sub>60</sub>		12 31.9 290°67	1°7/ 31.9 18			<b>190003</b>	2004 <i>JR</i> <sub>26</sub>		12 31.9 247°02	1°1/ 1.0 18		
11 27	7 14.85	+20 33.6	1.469	2.295	16.9	20.0	11 27	7 15.24	+20 35.5	1.688	2.504	15.5	20.4
12 7	7 9.64	+20 4.3	1.390	2.290	12.9	19.8	12 7	7 9.71	+20 26.1	1.599	2.494	11.9	20.1
12 17	7 1.30	+19 37.9	1.332	2.284	8.2	19.5	12 17	7 1.28	+20 20.6	1.533	2.483	7.5	19.8
12 27	6 50.74	+19 14.0	1.300	2.279	3.2	19.2	12 27	6 50.76	+20 17.4	1.493	2.472	2.8	19.5
1 6	6 39.36	+18 52.4	1.295	2.273	3.3	19.2	1 6	6 39.39	+20 15.3	1.482	2.461	2.8	19.5
1 16	6 28.75	+18 33.5	1.317	2.268	8.3	19.5	1 16	6 28.57	+20 13.2	1.499	2.449	7.6	19.8
1 26	6 20.35	+18 18.1	1.364	2.263	13.1	19.7	1 26	6 19.69	+20 11.4	1.543	2.437	12.2	20.0
2 5	6 15.09	+18 6.9	1.433	2.258	17.2	20.0	2 5	6 13.66	+20 10.3	1.609	2.425	16.1	20.2
<b>442726</b>	2012 <i>VS</i> <sub>49</sub>		12 31.9 358°46	4°0/ 31.1 18			<b>343953</b>	2011 <i>KO</i> <sub>30</sub>		12 31.9 169°33	0°2/ 31.9 18		
11 27	7 13.14	+28 37.8	1.310	2.151	17.7	20.6	11 27	7 16.56	+22 53.1	1.882	2.692	14.4	21.3
12 7	7 8.99	+29 35.1	1.242	2.148	13.6	20.3	12 7	7 10.25	+22 43.4	1.803	2.695	10.9	21.1
12 17	7 1.22	+30 33.4	1.194	2.147	8.9	20.0	12 17	7 1.36	+22 34.7	1.748	2.698	6.8	20.9
12 27	6 50.78	+31 24.9	1.171	2.146	4.6	19.8	12 27	6 50.72	+22 25.5	1.720	2.700	2.3	20.6
1 6	6 39.31	+32 2.7	1.173	2.146	5.2	19.8	1 6	6 39.50	+22 14.4	1.722	2.702	2.4	20.6
1 16	6 28.70	+32 23.3	1.201	2.147	9.7	20.1	1 16	6 28.97	+22 1.2	1.754	2.703	6.8	20.9
1 26	6 20.70	+32 27.5	1.253	2.148	14.3	20.4	1 26	6 20.32	+21 46.9	1.814	2.704	10.9	21.1
2 5	6 16.36	+32 19.2	1.324	2.150	18.3	20.6	2 5	6 14.29	+21 32.8	1.896	2.704	14.3	21.4
<b>359396</b>	2010 <i>HS</i> <sub>82</sub>		12 31.9 142°82	0°6/ 31.7 18			<b>57412</b>	2001 <i>RP</i> <sub>150</sub>		12 31.9 24°47	2°9/ 1.9 18		
11 27	7 14.05	+23 8.1	2.289	3.093	12.3	21.7	11 27	7 10.45	+11 49.9	1.397	2.218	17.9	18.4
12 7	7 8.00	+23 40.2	2.214	3.104	9.3	21.5	12 7	7 6.28	+12 44.5	1.335	2.228	13.8	18.2
12 17	6 59.80	+24 14.7	2.165	3.114	5.7	21.3	12 17	6 59.18	+13 58.0	1.294	2.240	9.1	17.9
12 27	6 50.15	+24 48.8	2.144	3.123	2.0	21.1	12 27	6 50.06	+15 27.0	1.278	2.253	4.4	17.7
1 6	6 40.01	+25 19.5	2.154	3.132	2.2	21.1	1 6	6 40.22	+17 5.2	1.289	2.266	3.6	17.7
1 16	6 30.40	+25 44.9	2.194	3.140	5.9	21.4	1 16	6 31.12	+18 45.1	1.328	2.281	8.0	18.0
1 26	6 22.28	+26 4.5	2.264	3.148	9.3	21.6	1 26	6 24.12	+20 20.2	1.392	2.296	12.5	18.3
2 5	6 16.32	+26 18.8	2.358	3.156	12.2	21.8	2 5	6 20.08	+21 46.5	1.479	2.312	16.4	18.6
<b>80966</b>	2000 <i>DP</i> <sub>111</sub>		12 31.9 154°49	1°0/ 31.7 18			<b>518833</b>	2010 <i>CW</i> <sub>199</sub>		12 31.9 316°62	4°0/ 31.2 18		

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>75177</b>	1999 VY <sub>156</sub>		12 31.9 195°06	4.4/30.6	18		<b>220721</b>	2004 SL <sub>39</sub>		12 31.9 45°21	6.2/2.3	18	
11 27	7 17.39	+33 7.1	2.225	3.026	12.8	19.5	11 27	7 9.12	+6 11.1	1.911	2.697	15.1	19.9
12 7	7 11.03	+34 16.0	2.142	3.024	9.9	19.3	12 7	7 4.47	+5 41.1	1.844	2.707	12.2	19.7
12 17	7 1.99	+35 22.1	2.084	3.021	6.9	19.1	12 17	6 57.70	+5 25.9	1.799	2.717	9.2	19.6
12 27	6 51.00	+36 19.3	2.055	3.018	4.6	19.0	12 27	6 49.52	+5 27.4	1.779	2.728	6.7	19.4
1 6	6 39.18	+37 2.4	2.056	3.014	5.1	19.0	1 6	6 40.91	+5 45.6	1.787	2.739	6.4	19.4
1 16	6 27.81	+37 28.6	2.086	3.010	7.8	19.1	1 16	6 32.87	+6 18.8	1.822	2.750	8.3	19.6
1 26	6 18.15	+37 38.6	2.144	3.004	10.8	19.3	1 26	6 26.34	+7 3.8	1.883	2.762	11.2	19.8
2 5	6 11.09	+37 35.7	2.225	2.999	13.6	19.5	2 5	6 21.98	+7 56.3	1.968	2.773	14.0	20.0
<b>295822</b>	2008 UJ <sub>344</sub>		12 31.9 84°00	1.8/31.2	18		<b>158259</b>	2001 TL <sub>132</sub>		12 31.9 44°92	0.8/1.1	18	
11 27	7 14.49	+24 51.2	2.467	3.267	11.7	20.0	11 27	7 13.58	+18 48.1	1.382	2.211	17.6	20.1
12 7	7 8.22	+26 5.8	2.405	3.292	8.7	19.9	12 7	7 8.77	+19 20.4	1.318	2.220	13.3	19.9
12 17	6 59.91	+27 22.4	2.369	3.317	5.4	19.7	12 17	7 0.81	+20 2.5	1.275	2.228	8.4	19.6
12 27	6 50.22	+28 36.1	2.364	3.341	2.3	19.6	12 27	6 50.65	+20 50.8	1.258	2.237	3.0	19.3
1 6	6 40.06	+29 42.6	2.391	3.365	2.8	19.6	1 6	6 39.73	+21 40.4	1.267	2.247	2.8	19.4
1 16	6 30.41	+30 39.1	2.450	3.389	5.8	19.9	1 16	6 29.65	+22 27.1	1.303	2.256	8.1	19.7
1 26	6 22.17	+31 24.4	2.538	3.412	8.8	20.1	1 26	6 21.87	+23 8.5	1.365	2.266	12.9	20.0
2 5	6 16.01	+31 59.4	2.651	3.435	11.4	20.3	2 5	6 17.28	+23 43.7	1.447	2.277	16.9	20.3
<b>228846</b>	2003 EG <sub>60</sub>		12 31.9 296°72	1.4/31.6	18		<b>181823</b>	1998 SK <sub>12</sub>		12 31.9 61°36	6.5/2.3	18	
11 27	7 13.42	+23 32.8	1.496	2.326	16.5	20.3	11 27	7 16.06	+8 34.5	1.302	2.110	19.7	19.6
12 7	7 8.98	+24 13.5	1.404	2.306	12.6	20.0	12 7	7 10.18	+8 4.4	1.259	2.139	15.5	19.4
12 17	7 1.22	+25 0.7	1.333	2.287	8.0	19.7	12 17	7 1.36	+7 52.9	1.237	2.169	11.1	19.2
12 27	6 50.87	+25 49.6	1.288	2.268	2.9	19.3	12 27	6 50.72	+8 1.5	1.238	2.199	7.4	19.1
1 6	6 39.25	+26 34.7	1.270	2.248	3.3	19.3	1 6	6 39.77	+8 28.9	1.265	2.228	6.8	19.2
1 16	6 28.04	+27 11.6	1.279	2.229	8.6	19.6	1 16	6 29.99	+9 11.3	1.319	2.258	9.7	19.4
1 26	6 18.92	+27 38.7	1.313	2.211	13.7	19.8	1 26	6 22.61	+10 3.7	1.397	2.288	13.5	19.7
2 5	6 13.10	+27 56.9	1.368	2.192	18.0	20.0	2 5	6 18.30	+11 0.9	1.496	2.317	16.9	20.0
<b>418856</b>	2008 WT <sub>92</sub>		12 31.9 121°30	3.1/30.9	18		<b>380966</b>	2006 QZ <sub>141</sub>		12 31.9 146°40	0.8/31.8	18	
11 27	7 13.50	+31 39.2	2.777	3.574	10.6	20.9	11 27	7 20.10	+25 9.9	1.769	2.578	15.2	21.8
12 7	7 7.41	+32 34.5	2.708	3.590	8.1	20.7	12 7	7 13.03	+25 10.3	1.697	2.589	11.5	21.6
12 17	6 59.38	+33 27.1	2.666	3.605	5.4	20.6	12 17	7 3.14	+25 10.2	1.650	2.599	7.2	21.4
12 27	6 50.05	+34 12.9	2.653	3.620	3.3	20.4	12 27	6 51.37	+25 6.8	1.629	2.609	2.5	21.1
1 6	6 40.26	+34 48.6	2.671	3.634	3.7	20.5	1 6	6 39.05	+24 58.0	1.639	2.618	2.6	21.1
1 16	6 30.92	+35 12.8	2.720	3.648	5.9	20.7	1 16	6 27.61	+24 43.6	1.678	2.626	7.2	21.4
1 26	6 22.91	+35 25.7	2.798	3.662	8.5	20.8	1 26	6 18.31	+24 25.3	1.744	2.633	11.4	21.7
2 5	6 16.86	+35 29.4	2.901	3.675	10.7	21.0	2 5	6 11.92	+24 5.2	1.834	2.639	14.9	22.0
<b>522037</b>	2015 XW <sub>409</sub>		12 31.9 201°57	4.1/30.8	17		<b>223425</b>	2003 SJ <sub>253</sub>		12 31.9 47°26	0.7/1.1	17	
11 27	7 13.36	+34 44.1	2.472	3.273	11.6	21.8	11 27	7 10.55	+20 24.0	2.027	2.841	13.3	20.6
12 7	7 7.68	+35 30.0	2.391	3.272	9.1	21.6	12 7	7 5.58	+20 29.3	1.954	2.848	10.1	20.4
12 17	6 59.73	+36 11.1	2.335	3.270	6.4	21.4	12 17	6 58.41	+20 38.6	1.906	2.856	6.3	20.2
12 27	6 50.20	+36 43.0	2.307	3.268	4.3	21.3	12 27	6 49.77	+20 50.4	1.885	2.864	2.3	19.9
1 6	6 40.07	+37 2.1	2.309	3.266	4.7	21.3	1 6	6 40.66	+21 3.1	1.893	2.872	2.2	19.9
1 16	6 30.42	+37 7.1	2.340	3.264	7.0	21.4	1 16	6 32.14	+21 15.2	1.930	2.880	6.2	20.2
1 26	6 22.29	+36 59.1	2.398	3.262	9.7	21.6	1 26	6 25.17	+21 26.1	1.995	2.889	9.9	20.4
2 5	6 16.42	+36 40.9	2.481	3.259	12.2	21.8	2 5	6 20.44	+21 35.9	2.083	2.897	13.0	20.7
<b>37981</b>	1998 HD <sub>130</sub>		12 31.9 44°47	10.1/3.3	18		<b>332252</b>	2006 KP <sub>103</sub>		12 31.9 240°60	4.0/1.2	18	
11 27	7 9.14	-2 56.0	1.800	2.552	17.1	18.6	11 27	7 10.37	+11 10.8	2.698	3.478	11.3	21.0
12 7	7 4.56	-3 57.9	1.740	2.564	14.7	18.5	12 7	7 4.96	+10 21.7	2.601	3.467	9.0	20.8
12 17	6 57.77	-4 37.9	1.699	2.575	12.3	18.3	12 17	6 57.85	+9 38.5	2.529	3.455	6.5	20.6
12 27	6 49.53	-4 51.6	1.682	2.587	10.6	18.3	12 27	6 49.58	+9 2.8	2.485	3.443	4.4	20.5
1 6	6 40.84	-4 37.3	1.690	2.600	10.2	18.3	1 6	6 40.86	+8 35.7	2.472	3.431	4.4	20.4
1 16	6 32.76	-3 56.7	1.722	2.612	11.3	18.4	1 16	6 32.46	+8 18.0	2.490	3.418	6.4	20.5
1 26	6 26.28	-2 54.6	1.779	2.625	13.4	18.5	1 26	6 25.14	+8 9.3	2.536	3.405	9.0	20.7
2 5	6 22.05	-1 37.6	1.856	2.638	15.6	18.7	2 5	6 19.48	+8 8.6	2.607	3.392	11.5	20.8
<b>281076</b>	2006 QV <sub>122</sub>		12 31.9 137°04	17.6/5.6	18		<b>213127</b>	2000 DP <sub>3</sub>		12 31.9 272°59	2.3/31.5	18	
11 27	7 15.75	-14 9.9	1.350	2.058	23.8	20.4	11 27	7 15.02	+28 19.4	1.990	2.803	13.6	20.7
12 7	7 10.30	-15 52.9	1.296	2.066	21.7	20.3	12 7	7 9.49	+28 43.4	1.888	2.780	10.5	20.5
12 17	7 1.70	-16 59.7	1.258	2.073	19.6	20.2	12 17	7 1.20	+29 6.7	1.809	2.757	6.8	20.2
12 27	6 50.92	-17 20.1	1.237	2.080	18.1	20.1	12 27	6 50.83	+29 25.0	1.758	2.734	3.1	19.9
1 6	6 39.38	-16 49.3	1.235	2.087	17.6	20.1	1 6	6 39.50	+29 34.9	1.735	2.710	3.4	19.9
1 16	6 28.66	-15 29.3	1.253	2.092	18.2	20.1	1 16	6 28.54	+29 34.4	1.743	2.686	7.4	20.1
1 26	6 20.23	-13 29.0	1.291	2.098	19.7	20.3	1 26	6 19.27	+29 24.4	1.777	2.662	11.4	20.3
2 5	6 14.98	-11 1.8	1.346	2.103	21.7	20.4	2 5	6 12.67	+29 7.4	1.834	2.637	14.9	20.5
<b>227262</b>	2005 SL <sub>98</sub>		12 31.9 180°06	1.7/31.7	18		<b>279620</b>	2011 EH <sub>39</sub>		12 31.9 149°69	4.4/2.1	18	
11 27	7 18.00	+27 2.4	1.838	2.649	14.6	21.1	11 27	7 8.06	+7 45.1	2.598	3.373	11.8	21.4
12 7	7 11.56	+27 14.1	1.758	2.651	11.1	20.8	12 7	7 3.23	+7 27.9	2.516	3.376	9.5	21.3
12 17	7 2.30	+27 24.5	1.702	2.652	7.0	20.6	12 17	6 56.77	+7 20.9	2.459	3.379	7.0	21.1
12 27	6 51.10	+27 30.0	1.674	2.652	2.8	20.3	12 27	6 49.21	+7 25.1	2.430	3.382	4.9	21.0
1 6	6 39.22	+27 27.9	1.674	2.651	3.0	20.3	1 6	6 41.27	+7 40.5	2.429	3.385	4.6	21.0
1 16	6 28.06	+27 17.5	1.705	2.651	7.3	20.6	1 16	6 33.70	+8 5.8	2.459	3.388	6.4	21.1
1 26	6 18.91	+27 0.2	1.762	2.649	11.3	20.8	1 26	6 27.22	+8 39.2	2.516	3.390	8.9	21.3
2 5	6 12.60	+26 38.8	1.843	2.647	14.8	21.1	2 5	6 22.39	+9 18.3	2.598	3.392	11.3	21.4
<b>65105</b>	2002 CR <sub>26</sub>		12 31.9 158°00	1.7/31.5	18		<b>117691</b>	2005 ES <sub>276</sub>		12 31.9 301°83	0.3/31.9	18	
11 27	7 16.11	+25 38.7	1.883	2.695	14.3	20.0	11 27	7 12.57	+21 37.5	1.71			

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>493717</b>	2015 <i>TG</i> <sub>125</sub>		12 31.9 349°77	1°5/	1.3	17	<b>172869</b>	2005 <i>EH</i> <sub>126</sub>		12 31.9 177°61	0°5/	1.1	18
11 27	7 8.87	+16 51.1	1.478	2.308	16.6	21.3	11 27	7 13.79	+18 23.6	1.993	2.799	13.8	20.2
12 7	7 5.23	+17 23.6	1.400	2.301	12.7	21.0	12 7	7 8.23	+19 10.8	1.911	2.800	10.5	20.0
12 17	6 58.67	+18 8.3	1.343	2.295	8.1	20.7	12 17	7 0.24	+20 6.4	1.852	2.801	6.6	19.8
12 27	6 49.99	+19 2.9	1.311	2.290	3.2	20.4	12 27	6 50.50	+21 7.2	1.822	2.801	2.3	19.5
1 6	6 40.42	+20 3.0	1.306	2.286	2.9	20.4	1 6	6 40.04	+22 9.0	1.822	2.801	2.2	19.5
1 16	6 31.40	+21 3.7	1.328	2.282	7.9	20.7	1 16	6 30.02	+23 7.9	1.852	2.801	6.5	19.8
1 26	6 24.34	+22 1.3	1.376	2.280	12.6	20.9	1 26	6 21.59	+24 1.3	1.911	2.801	10.4	20.0
2 5	6 20.20	+22 53.5	1.445	2.279	16.6	21.2	2 5	6 15.55	+24 48.3	1.994	2.800	13.8	20.2
<b>395160</b>	2010 <i>CP</i> <sub>160</sub>		12 31.9 328°72	6°0/30.5	18		<b>439015</b>	2011 <i>BA</i> <sub>20</sub>		12 31.9 236°95	1°9/31.7	18	
11 27	7 12.97	+31 45.3	1.296	2.136	17.9	20.5	11 27	7 18.44	+27 32.9	1.902	2.710	14.3	21.8
12 7	7 9.35	+33 4.6	1.217	2.121	14.0	20.3	12 7	7 12.09	+27 47.4	1.805	2.695	11.0	21.5
12 17	7 1.81	+34 24.3	1.159	2.107	9.7	20.0	12 17	7 2.83	+28 0.8	1.732	2.680	7.0	21.3
12 27	6 51.19	+35 34.5	1.125	2.093	6.4	19.7	12 27	6 51.42	+28 9.0	1.686	2.664	2.9	21.0
1 6	6 39.12	+36 25.9	1.116	2.081	7.1	19.8	1 6	6 39.07	+28 8.7	1.670	2.646	3.2	20.9
1 16	6 27.68	+36 53.0	1.131	2.069	11.2	19.9	1 16	6 27.23	+27 58.8	1.684	2.629	7.5	21.2
1 26	6 18.93	+36 56.8	1.170	2.058	15.7	20.2	1 26	6 17.27	+27 40.8	1.725	2.610	11.7	21.4
2 5	6 14.20	+36 42.3	1.227	2.048	19.8	20.4	2 5	6 10.16	+27 17.4	1.789	2.591	15.3	21.6
<b>324332</b>	2006 <i>OR</i> <sub>12</sub>		12 31.9 168°87	1°1/31.7	18		<b>314254</b>	2005 <i>QW</i> <sub>103</sub>		12 31.9 124°01	0°8/31.8	18	
11 27	7 19.03	+23 6.6	1.895	2.700	14.5	21.1	11 27	7 13.67	+25 11.7	2.066	2.878	13.2	21.4
12 7	7 12.30	+23 53.6	1.817	2.706	11.0	20.8	12 7	7 7.97	+25 19.0	1.990	2.883	10.0	21.2
12 17	7 2.80	+24 44.9	1.762	2.711	6.8	20.6	12 17	6 59.94	+25 26.4	1.939	2.889	6.2	21.0
12 27	6 51.33	+25 35.8	1.736	2.715	2.4	20.3	12 27	6 50.35	+25 31.5	1.915	2.895	2.2	20.8
1 6	6 39.10	+26 21.6	1.740	2.718	2.7	20.4	1 6	6 40.26	+25 32.2	1.921	2.900	2.3	20.8
1 16	6 27.45	+26 59.2	1.775	2.720	7.1	20.6	1 16	6 30.80	+25 27.9	1.957	2.905	6.3	21.1
1 26	6 17.69	+27 27.6	1.837	2.721	11.1	20.9	1 26	6 23.00	+25 19.4	2.020	2.910	10.0	21.3
2 5	6 10.68	+27 48.0	1.924	2.721	14.6	21.1	2 5	6 17.57	+25 7.9	2.108	2.915	13.1	21.5
<b>198791</b>	2005 <i>EC</i> <sub>134</sub>		12 31.9 36°22	3°9/	1.6	17	<b>81744</b>	2000 <i>JK</i> <sub>47</sub>		12 31.9 272°41	0°4/31.9	18	
11 27	7 8.89	+11 57.1	2.182	2.979	13.1	19.9	11 27	7 13.99	+23 8.5	1.932	2.745	13.9	19.4
12 7	7 4.13	+11 28.1	2.106	2.983	10.3	19.7	12 7	7 8.49	+22 49.7	1.838	2.732	10.6	19.2
12 17	6 57.44	+11 7.8	2.053	2.987	7.2	19.6	12 17	7 0.44	+22 31.1	1.769	2.719	6.7	18.9
12 27	6 49.46	+10 57.1	2.028	2.992	4.5	19.4	12 27	6 50.58	+22 11.4	1.727	2.706	2.3	18.6
1 6	6 41.06	+10 56.2	2.031	2.997	4.3	19.4	1 6	6 40.01	+21 50.0	1.714	2.693	2.3	18.6
1 16	6 33.15	+11 4.3	2.064	3.002	6.8	19.6	1 16	6 29.96	+21 27.1	1.731	2.680	6.8	18.8
1 26	6 26.58	+11 20.2	2.123	3.007	9.8	19.8	1 26	6 21.61	+21 3.9	1.774	2.667	11.0	19.1
2 5	6 21.98	+11 41.9	2.207	3.013	12.6	20.0	2 5	6 15.79	+20 41.7	1.842	2.654	14.5	19.3
<b>358189</b>	2006 <i>SU</i> <sub>97</sub>		12 31.9 148°82	6°8/30.4	18		<b>427359</b>	2014 <i>WZ</i> <sub>413</sub>		12 31.9 76°32	0°9/31.6	18	
11 27	7 19.87	+41 29.3	2.187	2.974	13.4	21.1	11 27	7 11.08	+22 35.9	2.319	3.127	12.1	20.0
12 7	7 13.07	+42 34.1	2.119	2.981	10.9	21.0	12 7	7 5.91	+23 27.7	2.241	3.133	9.1	19.8
12 17	7 3.31	+43 28.9	2.074	2.987	8.5	20.8	12 17	6 58.65	+24 23.8	2.188	3.138	5.6	19.6
12 27	6 51.50	+44 6.6	2.056	2.993	6.9	20.8	12 27	6 49.94	+25 20.4	2.164	3.143	2.0	19.4
1 6	6 38.97	+44 22.4	2.067	2.998	7.2	20.8	1 6	6 40.67	+26 13.9	2.170	3.148	2.2	19.4
1 16	6 27.19	+44 15.5	2.105	3.003	9.1	20.9	1 16	6 31.81	+27 1.3	2.207	3.153	5.8	19.7
1 26	6 17.53	+43 48.7	2.169	3.008	11.6	21.1	1 26	6 24.32	+27 41.4	2.272	3.158	9.2	19.9
2 5	6 10.85	+43 7.7	2.256	3.012	13.9	21.3	2 5	6 18.88	+28 13.9	2.363	3.163	12.1	20.1
<b>225250</b>	Georgfranziska		12 31.9 60°77	2°8/	1.5	18	<b>36961</b>	2000 <i>SL</i> <sub>280</sub>		12 31.9 145°72	1°1/31.8	18	
11 27	7 16.86	+15 26.5	1.268	2.092	19.2	20.3	11 27	7 19.83	+25 12.5	1.667	2.480	15.8	19.6
12 7	7 11.02	+15 34.7	1.224	2.120	14.6	20.1	12 7	7 13.08	+25 26.2	1.596	2.490	12.0	19.4
12 17	7 2.01	+15 55.1	1.200	2.148	9.4	19.9	12 17	7 3.33	+25 40.3	1.549	2.499	7.5	19.2
12 27	6 51.01	+16 25.7	1.200	2.176	4.3	19.7	12 27	6 51.53	+25 51.2	1.529	2.508	2.7	18.9
1 6	6 39.61	+17 2.9	1.227	2.205	3.8	19.7	1 6	6 39.10	+25 55.7	1.537	2.516	2.9	18.9
1 16	6 29.43	+17 42.9	1.281	2.233	8.5	20.1	1 16	6 27.55	+25 52.9	1.575	2.523	7.6	19.2
1 26	6 21.80	+18 22.9	1.360	2.261	13.0	20.4	1 26	6 18.24	+25 44.0	1.640	2.530	11.9	19.5
2 5	6 17.43	+19 0.9	1.460	2.289	16.8	20.7	2 5	6 11.99	+25 31.4	1.727	2.535	15.5	19.8
<b>162906</b>	2001 <i>KY</i> <sub>10</sub>		12 31.9 176°56	2°1/31.2	18		<b>329656</b>	2003 <i>SO</i> <sub>328</sub>		12 31.9 29°01	3°4/31.3	18	
11 27	7 11.85	+29 14.9	3.160	3.956	9.5	20.9	11 27	7 15.24	+26 45.8	1.147	1.993	19.4	19.7
12 7	7 6.03	+29 59.3	3.075	3.958	7.2	20.8	12 7	7 10.85	+27 42.7	1.089	1.998	14.7	19.4
12 17	6 58.52	+30 42.7	3.017	3.960	4.7	20.6	12 17	7 2.53	+28 42.1	1.050	2.005	9.4	19.1
12 27	6 49.84	+31 21.9	2.989	3.961	2.5	20.4	12 27	6 51.37	+29 36.2	1.035	2.013	4.3	18.9
1 6	6 40.70	+31 54.5	2.992	3.962	2.7	20.5	1 6	6 39.24	+30 17.3	1.045	2.021	4.9	18.9
1 16	6 31.86	+32 18.8	3.028	3.962	5.1	20.6	1 16	6 28.22	+30 41.7	1.080	2.029	10.0	19.3
1 26	6 24.09	+32 34.7	3.093	3.962	7.6	20.8	1 26	6 20.16	+30 50.2	1.138	2.039	15.0	19.6
2 5	6 17.97	+32 43.3	3.183	3.961	9.8	20.9	2 5	6 16.06	+30 46.9	1.215	2.049	19.2	19.9
<b>486247</b>	2013 <i>BF</i> <sub>33</sub>		12 31.9 270°93	4°4/	2.2	18	<b>419218</b>	2009 <i>UQ</i> <sub>146</sub>		12 31.9 316°68	5°0/30.3	18	
11 27	7 11.58	+ 9 16.2	1.811	2.606	15.5	21.3	11 27	7 13.08	+33 49.6	2.042	2.854	13.3	20.8
12 7	7 6.74	+ 9 30.8	1.722	2.597	12.3	21.1	12 7	7 8.12	+35 3.7	1.957	2.844	10.4	20.6
12 17	6 59.40	+10 1.3	1.656	2.589	8.7	20.9	12 17	7 0.40	+36 15.4	1.897	2.835	7.4	20.4
12 27	6 50.23	+10 47.8	1.615	2.580	5.3	20.6	12 27	6 50.63	+37 18.0	1.864	2.825	5.2	20.2
1 6	6 40.26	+11 48.1	1.603	2.571	4.8	20.6	1 6	6 39.92	+38 5.6	1.860	2.816	5.7	20.3
1 16	6 30.68	+12 58.5	1.619	2.563	7.8	20.7	1 16	6 29.63	+38 35.2	1.884	2.807	8.5	20.4
1 26	6 22.68	+14 14.4	1.663	2.554	11.7	21.0	1 26	6 21.10	+38 47.0	1.934	2.799	11.6	20.6
2 5	6 17.12	+15 31.3	1.730	2.545	15.2	21.2	2 5	6 15.27	+38 44.2	2.007	2.791	14.5	20.8
<b>260273</b>	2004 <i>SB</i> <sub>61</sub>		12 31.9 36°52	3°5/	2.1	18	<b>272082</b>	2005 <i>EK</i> <sub>291</sub>		12 31.9 260°03	4°3/30.8	18	
11													

EPHEMERIDES

12 31.9

12 31.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>287776</b>	2003 SA <sub>89</sub>		12 31.9 57°08	1.9°/ 1.2 18			<b>369015</b>	2007 TY <sub>51</sub>		12 31.9 74°29	2.3°/ 1.2 18		
11 27	7 11.75	+18 41.5	1.998	2.808	13.7	20.1	11 27	7 17.32	+18 19.0	1.244	2.074	19.1	21.6
12 7	7 6.39	+18 16.7	1.931	2.822	10.4	19.9	12 7	7 11.70	+18 5.0	1.188	2.088	14.6	21.4
12 17	6 58.88	+17 55.9	1.888	2.835	6.6	19.7	12 17	7 2.66	+17 59.1	1.151	2.102	9.3	21.1
12 27	6 49.99	+17 39.3	1.873	2.849	2.9	19.5	12 27	6 51.35	+18 0.2	1.139	2.117	3.9	20.9
1 6	6 40.73	+17 26.3	1.887	2.863	2.8	19.6	1 6	6 39.43	+18 6.5	1.153	2.131	3.7	20.9
1 16	6 32.14	+17 17.1	1.930	2.878	6.4	19.8	1 16	6 28.64	+18 16.3	1.193	2.145	8.8	21.2
1 26	6 25.17	+17 11.3	2.000	2.892	9.9	20.1	1 26	6 20.49	+18 28.6	1.258	2.160	13.7	21.6
2 5	6 20.43	+17 8.7	2.095	2.907	13.0	20.3	2 5	6 15.80	+18 42.6	1.343	2.174	17.9	21.9
<b>115264</b>	2003 SW <sub>172</sub>		12 31.9 63°64	0°0/31.8 18			<b>55870</b>	1997 TD <sub>26</sub>		12 31.9 32°88	6°8/30.9 18		
11 27	7 13.92	+21 49.1	1.628	2.450	15.7	20.5	11 27	7 15.94	+36 2.3	1.422	2.250	17.3	18.4
12 7	7 8.66	+22 2.2	1.560	2.458	11.9	20.2	12 7	7 10.93	+37 10.9	1.371	2.264	13.6	18.2
12 17	7 0.61	+22 19.6	1.514	2.466	7.4	20.0	12 17	7 2.32	+38 10.9	1.342	2.280	9.8	18.1
12 27	6 50.65	+22 38.5	1.494	2.474	2.5	19.7	12 27	6 51.27	+38 53.4	1.337	2.296	7.0	18.0
1 6	6 40.06	+22 56.0	1.502	2.482	2.5	19.7	1 6	6 39.52	+39 12.6	1.357	2.313	7.4	18.0
1 16	6 30.24	+23 10.3	1.538	2.490	7.3	20.0	1 16	6 28.94	+39 7.4	1.403	2.331	10.4	18.2
1 26	6 22.45	+23 21.0	1.601	2.498	11.6	20.3	1 26	6 21.13	+38 42.0	1.473	2.349	13.9	18.5
2 5	6 17.49	+23 28.6	1.686	2.506	15.3	20.6	2 5	6 16.92	+38 2.8	1.563	2.368	17.0	18.7
<b>115246</b>	2003 SF <sub>153</sub>		12 31.9 13°00	6°8/30.5 18			<b>196936</b>	2003 UL <sub>16</sub>		12 31.9 78°21	0°6/31.8 18		
11 27	7 13.91	+38 2.3	1.761	2.576	15.0	18.7	11 27	7 11.93	+24 1.7	2.222	3.032	12.5	20.2
12 7	7 9.07	+39 12.4	1.696	2.579	12.0	18.5	12 7	7 6.47	+24 19.6	2.155	3.048	9.3	20.0
12 17	7 1.07	+40 14.5	1.653	2.583	9.0	18.4	12 17	6 58.94	+24 38.8	2.113	3.063	5.8	19.8
12 27	6 50.85	+41 0.6	1.637	2.588	7.0	18.3	12 27	6 50.06	+24 56.9	2.099	3.079	2.0	19.6
1 6	6 39.83	+41 25.3	1.646	2.593	7.4	18.3	1 6	6 40.78	+25 11.7	2.115	3.094	2.1	19.6
1 16	6 29.60	+41 26.9	1.683	2.599	9.8	18.4	1 16	6 32.10	+25 21.9	2.162	3.110	5.8	19.9
1 26	6 21.64	+41 8.0	1.743	2.606	12.8	18.6	1 26	6 24.93	+25 27.7	2.236	3.125	9.2	20.1
2 5	6 16.84	+40 34.1	1.825	2.613	15.6	18.8	2 5	6 19.91	+25 29.7	2.334	3.140	12.0	20.4
<b>111425</b>	2001 XJ <sub>202</sub>		12 31.9 113°95	2°2/31.3 18			<b>251093</b>	2006 SE <sub>200</sub>		12 31.9 235°34	6°2/ 1.8 18		
11 27	7 14.70	+26 41.2	2.114	2.924	13.0	20.0	11 27	7 11.00	+ 6 46.3	2.040	2.821	14.5	21.0
12 7	7 8.83	+27 37.5	2.044	2.935	9.8	19.8	12 7	7 5.95	+ 6 1.9	1.955	2.815	11.8	20.8
12 17	7 0.55	+28 34.8	1.999	2.947	6.2	19.6	12 17	6 58.75	+ 5 29.6	1.893	2.809	8.9	20.6
12 27	6 50.61	+29 28.4	1.982	2.958	2.9	19.4	12 27	6 50.04	+ 5 12.2	1.856	2.803	6.6	20.5
1 6	6 40.08	+30 13.8	1.995	2.969	3.3	19.5	1 6	6 40.75	+ 5 10.7	1.848	2.797	6.4	20.5
1 16	6 30.12	+30 48.5	2.038	2.979	6.7	19.7	1 16	6 31.89	+ 5 24.8	1.867	2.791	8.5	20.6
1 26	6 21.82	+31 12.3	2.110	2.990	10.1	19.9	1 26	6 24.44	+ 5 52.4	1.913	2.785	11.4	20.7
2 5	6 15.94	+31 26.6	2.205	3.000	13.0	20.2	2 5	6 19.12	+ 6 30.0	1.982	2.778	14.2	20.9
<b>199269</b>	2006 BZ <sub>22</sub>		12 31.9 177°14	3°3/ 1.8 18			<b>81524</b>	2000 HL <sub>8</sub>		12 31.9 347°09	2°7/ 1.3 18		
11 27	7 9.20	+11 19.3	2.570	3.355	11.7	20.6	11 27	7 11.50	+16 32.8	1.723	2.539	15.3	19.2
12 7	7 4.18	+11 16.7	2.485	3.356	9.1	20.4	12 7	7 6.74	+16 13.6	1.644	2.536	11.8	19.0
12 17	6 57.43	+11 22.8	2.425	3.357	6.3	20.2	12 17	6 59.41	+16 1.6	1.588	2.534	7.7	18.8
12 27	6 49.53	+11 37.8	2.393	3.358	3.8	20.1	12 27	6 50.31	+15 56.8	1.558	2.533	3.8	18.5
1 6	6 41.20	+12 0.9	2.391	3.358	3.6	20.1	1 6	6 40.56	+15 58.5	1.556	2.531	3.5	18.5
1 16	6 33.22	+12 30.6	2.419	3.358	5.9	20.2	1 16	6 31.40	+16 6.0	1.581	2.530	7.5	18.7
1 26	6 26.38	+13 5.1	2.475	3.358	8.7	20.4	1 26	6 24.01	+16 18.0	1.633	2.529	11.5	19.0
2 5	6 21.23	+13 42.5	2.557	3.357	11.3	20.6	2 5	6 19.18	+16 33.3	1.708	2.529	15.1	19.2
<b>341940</b>	2008 OB <sub>18</sub>		12 31.9 154°37	2°3/31.7 18			<b>282703</b>	2006 BF <sub>77</sub>		12 31.9 215°01	1°2/ 1.2 18		
11 27	7 18.40	+28 45.1	1.829	2.640	14.7	21.4	11 27	7 14.61	+18 59.8	2.004	2.809	13.8	21.6
12 7	7 11.90	+29 2.0	1.755	2.646	11.2	21.2	12 7	7 8.86	+19 2.4	1.914	2.802	10.6	21.4
12 17	7 2.56	+29 16.2	1.704	2.652	7.1	21.0	12 17	7 0.67	+19 10.4	1.848	2.795	6.7	21.2
12 27	6 51.30	+29 23.6	1.681	2.657	3.2	20.8	12 27	6 50.74	+19 22.1	1.809	2.787	2.6	20.9
1 6	6 39.42	+29 21.3	1.686	2.662	3.4	20.8	1 6	6 40.11	+19 35.9	1.801	2.779	2.5	20.9
1 16	6 28.34	+29 8.7	1.721	2.666	7.4	21.0	1 16	6 29.93	+19 50.3	1.822	2.771	6.6	21.1
1 26	6 19.32	+28 47.8	1.784	2.669	11.3	21.3	1 26	6 21.34	+20 4.5	1.871	2.761	10.6	21.3
2 5	6 13.19	+28 21.7	1.869	2.672	14.7	21.5	2 5	6 15.16	+20 18.2	1.944	2.751	14.0	21.5
<b>121450</b>	1999 TO <sub>194</sub>		12 31.9 79°41	2°3/31.7 17			<b>8028</b>	Joeangle		12 31.9 105°62	8°6/29.9 18		
11 27	7 14.40	+29 48.2	2.100	2.910	13.1	19.6	11 27	7 23.33	+51 23.1	2.614	3.357	12.6	17.7
12 7	7 8.49	+29 56.5	2.030	2.921	9.9	19.4	12 7	7 15.71	+52 39.2	2.562	3.375	10.9	17.6
12 17	7 0.24	+30 1.3	1.985	2.932	6.4	19.2	12 17	7 5.01	+53 40.3	2.534	3.392	9.4	17.5
12 27	6 50.48	+29 59.3	1.968	2.943	3.0	19.0	12 27	6 52.19	+54 19.4	2.531	3.409	8.7	17.5
1 6	6 40.29	+29 48.7	1.980	2.954	3.2	19.1	1 6	6 38.69	+54 32.4	2.555	3.425	8.9	17.5
1 16	6 30.83	+29 29.6	2.021	2.965	6.5	19.3	1 16	6 26.08	+54 19.2	2.605	3.441	9.9	17.6
1 26	6 23.13	+29 3.6	2.091	2.976	9.9	19.5	1 26	6 15.76	+53 43.5	2.679	3.457	11.4	17.7
2 5	6 17.85	+28 33.5	2.184	2.987	12.9	19.7	2 5	6 8.57	+52 51.5	2.774	3.473	12.9	17.9
<b>239693</b>	2008 YP <sub>132</sub>		12 31.9 143°04	4°4/30.9 18			<b>327765</b>	2006 UU <sub>68</sub>		12 31.9 73°09	1°2/31.8 16		
11 27	7 13.15	+36 50.7	2.617	3.413	11.2	20.3	11 27	7 20.53	+23 23.7	1.333	2.158	18.3	20.8
12 7	7 7.44	+37 27.4	2.539	3.415	8.8	20.2	12 7	7 13.88	+24 2.6	1.289	2.188	13.7	20.6
12 17	6 59.58	+37 57.8	2.487	3.417	6.3	20.0	12 17	7 3.89	+24 45.0	1.265	2.218	8.5	20.4
12 27	6 50.27	+38 17.6	2.462	3.418	4.6	19.9	12 27	6 51.77	+25 25.1	1.268	2.247	3.0	20.2
1 6	6 40.46	+38 24.2	2.467	3.420	4.8	19.9	1 6	6 39.23	+25 57.8	1.298	2.276	3.2	20.3
1 16	6 31.18	+38 16.7	2.502	3.422	6.8	20.1	1 16	6 27.99	+26 20.9	1.355	2.305	8.3	20.6
1 26	6 23.39	+37 56.7	2.564	3.423	9.3	20.2	1 26	6 19.47	+26 34.9	1.438	2.333	12.8	21.0
2 5	6 17.76	+37 27.3	2.650	3.425	11.6	20.4	2 5	6 14.40	+26 41.8	1.542	2.361	16.5	21.3
<b>364906</b>	2008 EE <sub>132</sub>		12 31.9 280°67	4°2/ 1.8 18			<b>121268</b>	1999 RD <sub>108</sub>		12 31.9 205°22	5°3/ 1.8 18		
11 27	7 10.26	+11 0.0	1.971	2.768	14.3	21.1	11 27	7 12.90</					

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>213365</b>	2001 TV <sub>148</sub>		12 31.9 111°72	1°9/ 1.5 18			<b>395878</b>	2013 AU <sub>29</sub>		12 31.9 102°59	4°5/31.0 18		
11 27	7 13.64	+15 42.8	2.402	3.193	12.2	21.8	11 27	7 16.83	+32 12.1	1.727	2.544	15.2	21.2
12 7	7 7.46	+15 50.8	2.338	3.217	9.3	21.6	12 7	7 11.15	+33 8.1	1.657	2.548	11.7	20.9
12 17	6 59.43	+16 5.3	2.298	3.240	6.0	21.4	12 17	7 2.36	+34 0.7	1.609	2.552	8.0	20.7
12 27	6 50.23	+16 25.1	2.288	3.262	2.8	21.3	12 27	6 51.38	+34 43.1	1.587	2.555	4.9	20.6
1 6	6 40.72	+16 48.7	2.309	3.284	2.5	21.3	1 6	6 39.58	+35 9.9	1.594	2.559	5.4	20.6
1 16	6 31.77	+17 14.4	2.360	3.305	5.6	21.5	1 16	6 28.54	+35 18.9	1.628	2.562	8.7	20.8
1 26	6 24.21	+17 40.9	2.441	3.326	8.7	21.7	1 26	6 19.70	+35 12.0	1.688	2.566	12.3	21.0
2 5	6 18.58	+18 7.2	2.547	3.346	11.4	22.0	2 5	6 13.97	+34 53.3	1.770	2.569	15.6	21.2
<b>323532</b>	2004 RN <sub>186</sub>		12 31.9 78°39	5°9/ 2.2 17			<b>294347</b>	2007 VL <sub>91</sub>		12 31.9 82°04	4°1/31.2 18		
11 27	7 9.73	+ 6 5.6	2.094	2.873	14.2	21.3	11 27	7 18.35	+31 43.7	1.768	2.581	15.0	20.5
12 7	7 4.86	+ 5 32.5	2.022	2.880	11.5	21.1	12 7	7 11.95	+32 36.7	1.713	2.603	11.5	20.4
12 17	6 57.99	+ 5 12.6	1.971	2.887	8.7	21.0	12 17	7 2.63	+33 25.5	1.681	2.624	7.7	20.2
12 27	6 49.79	+ 5 8.1	1.947	2.894	6.4	20.8	12 27	6 51.40	+34 3.6	1.677	2.646	4.6	20.0
1 6	6 41.15	+ 5 19.2	1.951	2.901	6.1	20.8	1 6	6 39.64	+34 26.7	1.701	2.667	4.9	20.1
1 16	6 33.01	+ 5 44.7	1.983	2.908	8.0	21.0	1 16	6 28.83	+34 33.4	1.753	2.688	8.1	20.3
1 26	6 26.26	+ 6 22.1	2.041	2.915	10.7	21.1	1 26	6 20.25	+34 25.9	1.832	2.708	11.5	20.6
2 5	6 21.52	+ 7 7.6	2.123	2.922	13.3	21.3	2 5	6 14.66	+34 8.3	1.933	2.729	14.6	20.8
<b>4430</b>	Govorukhin		12 31.9 18°94	7°6/31.2 17			<b>269692</b>	1996 TN <sub>16</sub>		12 31.9 69°59	0°6/ 1.1 17		
11 27	7 16.51	+41 16.0	1.687	2.495	15.8	17.1	11 27	7 11.35	+21 28.8	2.252	3.060	12.4	21.0
12 7	7 11.13	+42 3.0	1.625	2.501	12.8	16.9	12 7	7 5.96	+21 19.9	2.183	3.074	9.3	20.9
12 17	7 2.37	+42 37.3	1.585	2.508	9.9	16.7	12 17	6 58.61	+21 13.1	2.139	3.088	5.8	20.7
12 27	6 51.33	+42 51.3	1.570	2.515	7.8	16.6	12 27	6 50.00	+21 7.5	2.123	3.102	2.1	20.4
1 6	6 39.64	+42 40.5	1.581	2.524	8.0	16.7	1 6	6 41.04	+21 2.0	2.137	3.116	2.0	20.5
1 16	6 29.02	+42 5.3	1.618	2.533	10.2	16.8	1 16	6 32.67	+20 56.5	2.181	3.131	5.7	20.7
1 26	6 20.98	+41 10.5	1.679	2.542	13.2	17.0	1 26	6 25.76	+20 50.8	2.253	3.145	9.0	21.0
2 5	6 16.33	+40 3.3	1.762	2.552	16.0	17.2	2 5	6 20.90	+20 45.5	2.350	3.159	11.9	21.2
<b>486826</b>	2014 JU <sub>27</sub>		12 31.9 117°97	4°2/ 2.2 18			<b>45350</b>	2000 AD <sub>95</sub>		12 31.9 326°77	2°2/31.7 18		
11 27	7 12.66	+ 9 2.9	2.155	2.936	13.8	21.8	11 27	7 12.65	+29 25.9	2.035	2.850	13.2	18.2
12 7	7 6.96	+ 9 5.9	2.086	2.952	10.9	21.6	12 7	7 7.47	+29 33.0	1.950	2.844	10.1	18.0
12 17	6 59.25	+ 9 21.2	2.040	2.967	7.7	21.5	12 17	6 59.82	+29 37.0	1.890	2.838	6.5	17.7
12 27	6 50.21	+ 9 48.8	2.021	2.982	4.9	21.3	12 27	6 50.48	+29 34.6	1.856	2.832	3.0	17.5
1 6	6 40.75	+10 27.2	2.033	2.997	4.4	21.3	1 6	6 40.52	+29 23.8	1.852	2.827	3.2	17.5
1 16	6 31.84	+11 14.0	2.073	3.011	6.8	21.5	1 16	6 31.15	+29 4.3	1.876	2.821	6.8	17.7
1 26	6 24.37	+12 6.0	2.143	3.025	9.9	21.7	1 26	6 23.48	+28 37.6	1.928	2.816	10.4	17.9
2 5	6 18.95	+13 0.3	2.236	3.038	12.7	21.9	2 5	6 18.29	+28 6.6	2.003	2.812	13.6	18.1
<b>304152</b>	2006 NH		12 31.9 151°13	1°4/31.7 18			<b>179176</b>	2001 TA <sub>114</sub>		12 31.9 72°56	1°6/ 1.2 18		
11 27	7 15.27	+25 46.8	2.246	3.050	12.5	21.3	11 27	7 16.23	+19 2.1	1.889	2.694	14.5	20.0
12 7	7 9.09	+26 14.9	2.170	3.059	9.4	21.1	12 7	7 9.68	+18 45.3	1.839	2.727	10.9	19.9
12 17	7 0.66	+26 43.4	2.119	3.067	5.9	20.9	12 17	7 0.87	+18 33.1	1.813	2.759	6.9	19.7
12 27	6 50.71	+27 9.1	2.096	3.074	2.3	20.7	12 27	6 50.73	+18 24.5	1.814	2.791	2.8	19.5
1 6	6 40.24	+27 29.1	2.104	3.081	2.5	20.7	1 6	6 40.38	+18 18.8	1.845	2.823	2.7	19.6
1 16	6 30.32	+27 41.9	2.143	3.087	6.1	21.0	1 16	6 30.93	+18 15.5	1.906	2.854	6.5	19.9
1 26	6 21.97	+27 47.8	2.210	3.093	9.5	21.2	1 26	6 23.33	+18 14.4	1.995	2.885	10.1	20.1
2 5	6 15.90	+27 48.1	2.301	3.098	12.5	21.4	2 5	6 18.16	+18 15.3	2.108	2.916	13.1	20.4
<b>188318</b>	2003 GY <sub>9</sub>		12 31.9 282°58	0°6/ 1.1 18			<b>124273</b>	2001 QU <sub>19</sub>		12 31.9 154°81	0°9/31.8 18		
11 27	7 11.48	+19 21.9	2.016	2.827	13.5	21.2	11 27	7 17.92	+24 43.7	1.983	2.789	13.9	21.0
12 7	7 6.67	+19 48.5	1.918	2.810	10.3	20.9	12 7	7 11.30	+24 58.7	1.908	2.798	10.5	20.8
12 17	6 59.42	+20 22.1	1.843	2.793	6.5	20.7	12 17	7 2.13	+25 14.5	1.857	2.806	6.6	20.6
12 27	6 50.38	+21 0.5	1.797	2.776	2.3	20.4	12 27	6 51.24	+25 27.9	1.834	2.813	2.3	20.3
1 6	6 40.50	+21 40.6	1.779	2.759	2.3	20.3	1 6	6 39.80	+25 36.3	1.842	2.820	2.5	20.3
1 16	6 30.92	+22 19.8	1.791	2.741	6.6	20.6	1 16	6 29.03	+25 38.7	1.879	2.826	6.6	20.6
1 26	6 22.81	+22 55.9	1.831	2.724	10.6	20.8	1 26	6 20.10	+25 35.7	1.944	2.831	10.5	20.9
2 5	6 17.03	+23 28.2	1.894	2.707	14.2	21.0	2 5	6 13.75	+25 28.9	2.034	2.835	13.7	21.1
<b>330818</b>	2008 WN <sub>15</sub>		12 31.9 112°75	3°9/ 1.8 17			<b>267588</b>	2002 RV <sub>1</sub>		12 31.9 132°68	5°0/ 2.5 18		
11 27	7 9.55	+10 27.1	2.539	3.321	11.9	21.2	11 27	7 8.66	+ 4 41.6	2.789	3.547	11.5	20.9
12 7	7 4.38	+10 0.1	2.465	3.332	9.4	21.0	12 7	7 3.60	+ 4 24.0	2.713	3.558	9.4	20.7
12 17	6 57.54	+ 9 41.5	2.416	3.343	6.7	20.8	12 17	6 57.02	+ 4 17.7	2.662	3.569	7.1	20.6
12 27	6 49.62	+ 9 32.3	2.395	3.354	4.4	20.7	12 27	6 49.47	+ 4 23.9	2.639	3.579	5.4	20.5
1 6	6 41.37	+ 9 32.4	2.403	3.364	4.2	20.7	1 6	6 41.59	+ 4 42.5	2.644	3.589	5.1	20.5
1 16	6 33.57	+ 9 41.4	2.441	3.374	6.2	20.9	1 16	6 34.09	+ 5 12.2	2.680	3.598	6.5	20.6
1 26	6 26.94	+ 9 57.8	2.508	3.384	8.8	21.0	1 26	6 27.62	+ 5 50.9	2.744	3.608	8.6	20.8
2 5	6 22.03	+10 19.7	2.599	3.394	11.3	21.2	2 5	6 22.69	+ 6 35.9	2.833	3.617	10.7	20.9
<b>305073</b>	2007 UJ <sub>104</sub>		12 31.9 337°97	3°6/ 1.3 17			<b>369499</b>	2010 VY <sub>16</sub>		12 31.9 95°06	1°0/31.9 17		
11 27	7 9.46	+16 16.6	1.405	2.237	17.2	20.1	11 27	7 22.59	+25 4.6	1.439	2.257	17.6	21.7
12 7	7 5.82	+15 44.9	1.324	2.224	13.4	19.8	12 7	7 15.26	+25 11.2	1.387	2.283	13.2	21.5
12 17	6 59.17	+15 21.1	1.263	2.212	9.0	19.5	12 17	7 4.69	+25 17.8	1.357	2.308	8.2	21.3
12 27	6 50.33	+15 6.4	1.227	2.201	4.6	19.3	12 27	6 52.07	+25 20.7	1.353	2.333	2.9	21.0
1 6	6 40.59	+15 1.0	1.216	2.192	4.4	19.2	1 6	6 39.07	+25 17.2	1.378	2.357	3.0	21.1
1 16	6 31.45	+15 4.4	1.231	2.183	8.8	19.4	1 16	6 27.35	+25 7.0	1.431	2.380	8.0	21.4
1 26	6 24.36	+15 15.5	1.271	2.175	13.5	19.7	1 26	6 18.29	+24 52.1	1.510	2.403	12.5	21.7
2 5	6 20.27	+15 32.3	1.331	2.168	17.6	19.9	2 5	6 12.61	+24 35.3	1.611	2.425	16.2	22.0
<b>198138</b>	2004 TW <sub>37</sub>		12 31.9 283°97	4°5/31.1 18			<b>65855</b>	1997 GQ <sub>5</sub>		12 31.9 83°36	2°5/ 1.7 18		
11 27	7 16.39	+31											

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>291147</b>	2005 Y <sub>Y250</sub>		12 31.9	52°72	1.2°/	1.2 17	<b>359624</b>	2011 QR <sub>12</sub>		12 31.9	298°62	10°6/	1.7 18
11 27	7 11.19	+19 16.7	1.972	2.785	13.7	21.6	11 27	7 31.23	+45 14.7	1.144	1.953	21.8	20.1
12 7	7 6.19	+19 18.6	1.899	2.792	10.4	21.4	12 7	7 24.14	+45 36.8	1.073	1.947	18.1	19.8
12 17	6 58.93	+19 25.6	1.850	2.799	6.6	21.2	12 17	7 11.37	+45 35.2	1.021	1.941	14.2	19.6
12 27	6 50.16	+19 36.3	1.828	2.807	2.5	20.9	12 27	6 54.56	+44 55.8	0.990	1.935	11.2	19.4
1 6	6 40.90	+19 49.0	1.836	2.814	2.4	20.9	1 6	6 36.66	+43 31.1	0.982	1.929	11.0	19.4
1 16	6 32.22	+20 2.4	1.872	2.822	6.3	21.2	1 16	6 20.89	+41 25.8	0.999	1.924	13.9	19.5
1 26	6 25.14	+20 15.7	1.935	2.830	10.1	21.4	1 26	6 9.69	+38 55.0	1.038	1.918	18.0	19.7
2 5	6 20.33	+20 28.4	2.023	2.838	13.3	21.7	2 5	6 4.01	+36 16.5	1.097	1.913	22.0	20.0
<b>179185</b>	2001 TW <sub>144</sub>		12 31.9	32°37	2°9/	1.6 18	<b>46483</b>	1549 T <sub>-2</sub>		12 31.9	110°83	2°6/	1.4 18
11 27	7 11.09	+14 33.1	1.854	2.662	14.7	20.4	11 27	7 11.64	+15 42.2	1.979	2.784	13.9	19.4
12 7	7 6.26	+14 30.5	1.777	2.664	11.3	20.2	12 7	7 6.52	+15 30.3	1.900	2.786	10.7	19.2
12 17	6 59.06	+14 37.3	1.722	2.665	7.5	20.0	12 17	6 59.16	+15 25.7	1.845	2.789	7.1	19.0
12 27	6 50.24	+14 53.1	1.695	2.668	3.9	19.7	12 27	6 50.27	+15 28.1	1.817	2.791	3.5	18.8
1 6	6 40.81	+15 16.5	1.695	2.670	3.5	19.7	1 6	6 40.84	+15 36.8	1.818	2.793	3.3	18.8
1 16	6 31.94	+15 45.5	1.725	2.672	7.0	19.9	1 16	6 31.94	+15 50.5	1.849	2.795	6.7	19.0
1 26	6 24.68	+16 18.0	1.781	2.675	10.8	20.2	1 26	6 24.60	+16 8.0	1.906	2.798	10.4	19.2
2 5	6 19.79	+16 51.9	1.860	2.677	14.2	20.4	2 5	6 19.51	+16 28.0	1.987	2.800	13.6	19.4
<b>89081</b>	2001 TE <sub>166</sub>		12 31.9	131°82	0°7/	31.9 18	<b>441882</b>	2010 CC <sub>51</sub>		12 31.9	269°34	1°4/	1.1 18
11 27	7 17.37	+25 2.1	1.716	2.532	15.3	19.2	11 27	7 15.02	+21 11.2	1.727	2.543	15.2	21.0
12 7	7 11.19	+25 1.1	1.644	2.539	11.6	19.0	12 7	7 9.47	+20 40.9	1.644	2.538	11.6	20.7
12 17	7 2.19	+25 0.0	1.595	2.546	7.2	18.8	12 17	7 1.18	+20 12.3	1.584	2.534	7.4	20.5
12 27	6 51.29	+24 56.0	1.573	2.552	2.5	18.5	12 27	6 51.00	+19 44.8	1.550	2.529	2.8	20.2
1 6	6 39.80	+24 47.3	1.580	2.559	2.6	18.5	1 6	6 40.15	+19 18.4	1.545	2.524	2.8	20.1
1 16	6 29.13	+24 33.6	1.615	2.565	7.2	18.8	1 16	6 29.95	+18 53.8	1.569	2.519	7.4	20.4
1 26	6 20.55	+24 16.2	1.678	2.570	11.5	19.1	1 26	6 21.66	+18 32.0	1.620	2.515	11.7	20.7
2 5	6 14.84	+23 57.3	1.763	2.576	15.1	19.3	2 5	6 16.11	+18 13.9	1.693	2.510	15.4	20.9
<b>256947</b>	2008 EQ <sub>49</sub>		12 31.9	22°40	2°7/	31.5 17	<b>193087</b>	2000 GW <sub>73</sub>		12 31.9	231°44	5°2/	30.4 18
11 27	7 13.91	+29 2.2	1.785	2.605	14.6	20.6	11 27	7 15.22	+40 15.1	2.877	3.659	10.6	20.7
12 7	7 8.70	+29 28.3	1.711	2.608	11.1	20.3	12 7	7 9.13	+41 7.1	2.787	3.648	8.6	20.5
12 17	7 0.72	+29 52.4	1.661	2.610	7.2	20.1	12 17	7 0.79	+41 52.2	2.722	3.637	6.6	20.4
12 27	6 50.82	+30 10.1	1.637	2.613	3.4	19.9	12 27	6 50.86	+42 25.4	2.686	3.626	5.3	20.3
1 6	6 40.26	+30 18.0	1.641	2.615	3.7	19.9	1 6	6 40.26	+42 43.4	2.678	3.614	5.6	20.3
1 16	6 30.41	+30 14.9	1.674	2.618	7.5	20.2	1 16	6 30.03	+42 44.7	2.701	3.601	7.3	20.4
1 26	6 22.54	+30 2.3	1.733	2.622	11.4	20.4	1 26	6 21.20	+42 30.7	2.750	3.589	9.4	20.5
2 5	6 17.46	+29 42.9	1.814	2.625	14.7	20.6	2 5	6 14.53	+42 4.5	2.824	3.576	11.5	20.6
<b>257358</b>	2009 LT		12 31.9	218°86	0°4/	1.1 18	<b>337634</b>	2001 TX <sub>98</sub>		12 31.9	10°31	2°7/	31.8 18
11 27	7 17.00	+20 38.1	1.559	2.377	16.5	20.7	11 27	7 12.66	+28 10.3	1.113	1.965	19.4	19.8
12 7	7 11.39	+20 57.3	1.476	2.372	12.6	20.5	12 7	7 8.97	+28 21.4	1.054	1.967	14.8	19.5
12 17	7 2.63	+21 23.2	1.415	2.366	7.9	20.2	12 17	7 1.41	+28 30.0	1.014	1.970	9.4	19.2
12 27	6 51.54	+21 52.5	1.380	2.359	2.8	19.9	12 27	6 51.15	+28 31.2	0.996	1.975	4.0	18.9
1 6	6 39.48	+22 21.6	1.373	2.353	2.7	19.8	1 6	6 40.05	+28 21.2	1.003	1.981	4.2	19.0
1 16	6 28.02	+22 47.6	1.394	2.345	8.0	20.1	1 16	6 30.12	+27 59.9	1.034	1.988	9.6	19.3
1 26	6 18.67	+23 9.4	1.442	2.338	12.8	20.4	1 26	6 23.11	+27 30.2	1.088	1.996	14.7	19.6
2 5	6 12.44	+23 27.1	1.511	2.330	16.9	20.6	2 5	6 19.95	+26 56.6	1.160	2.006	19.1	19.9
<b>420713</b>	2012 MY		12 31.9	154°34	4°9/	1.9 17	<b>197511</b>	2004 CA <sub>19</sub>		12 31.9	26°07	0°7/	1.1 17
11 27	7 9.16	+ 6 15.2	2.807	3.570	11.3	21.6	11 27	7 9.83	+20 21.2	1.905	2.723	13.9	20.3
12 7	7 3.97	+ 5 35.6	2.728	3.576	9.2	21.5	12 7	7 5.26	+20 26.1	1.835	2.731	10.5	20.1
12 17	6 57.27	+ 5 5.5	2.672	3.582	7.0	21.3	12 17	6 58.40	+20 35.5	1.789	2.740	6.6	19.9
12 27	6 49.57	+ 4 46.5	2.645	3.587	5.3	21.2	12 27	6 50.03	+20 47.7	1.770	2.749	2.4	19.6
1 6	6 41.54	+ 4 39.3	2.647	3.592	5.1	21.2	1 6	6 41.16	+21 1.0	1.780	2.759	2.3	19.6
1 16	6 33.87	+ 4 43.7	2.679	3.596	6.6	21.3	1 16	6 32.91	+21 13.9	1.818	2.769	6.4	19.9
1 26	6 27.23	+ 4 58.3	2.740	3.600	8.7	21.5	1 26	6 26.30	+21 25.7	1.883	2.780	10.2	20.1
2 5	6 22.14	+ 5 21.0	2.825	3.604	10.9	21.6	2 5	6 21.99	+21 36.2	1.971	2.791	13.4	20.4
<b>394266</b>	2006 UK <sub>114</sub>		12 31.9	19°87	3°0/	1.4 18	<b>333706</b>	2008 XQ <sub>46</sub>		12 31.9	267°71	0°6/	1.1 18
11 27	7 11.85	+15 18.9	1.861	2.669	14.6	20.9	11 27	7 10.31	+21 15.8	2.448	3.254	11.6	21.1
12 7	7 6.82	+14 58.7	1.782	2.669	11.3	20.7	12 7	7 5.29	+21 10.9	2.354	3.244	8.8	20.9
12 17	6 59.41	+14 46.1	1.726	2.669	7.5	20.5	12 17	6 58.32	+21 8.2	2.285	3.234	5.5	20.7
12 27	6 50.36	+14 41.4	1.697	2.670	3.9	20.2	12 27	6 50.01	+21 6.7	2.245	3.224	2.0	20.4
1 6	6 40.73	+14 44.0	1.697	2.670	3.7	20.2	1 6	6 41.17	+21 5.5	2.235	3.214	1.9	20.4
1 16	6 31.67	+14 53.2	1.724	2.671	7.2	20.4	1 16	6 32.71	+21 3.8	2.255	3.203	5.5	20.6
1 26	6 24.24	+15 7.6	1.779	2.671	11.0	20.7	1 26	6 25.50	+21 1.6	2.303	3.193	8.9	20.8
2 5	6 19.20	+15 25.8	1.857	2.672	14.3	20.9	2 5	6 20.19	+20 59.2	2.376	3.183	11.8	21.0
<b>35315</b>	1997 AX <sub>9</sub>		12 31.9	9°45	1°0/	1.2 17	<b>169443</b>	2002 AO <sub>156</sub>		12 31.9	342°88	2°5/	1.4 18
11 27	7 11.30	+19 46.6	1.941	2.756	13.8	19.4	11 27	7 14.77	+16 38.5	1.289	2.118	18.7	20.2
12 7	7 6.39	+19 48.4	1.862	2.756	10.5	19.2	12 7	7 10.06	+16 40.4	1.217	2.117	14.4	20.0
12 17	6 59.13	+19 55.0	1.807	2.756	6.6	19.0	12 17	7 1.95	+16 53.7	1.165	2.116	9.4	19.7
12 27	6 50.27	+20 4.9	1.778	2.757	2.5	18.7	12 27	6 51.36	+17 16.9	1.138	2.115	4.1	19.4
1 6	6 40.83	+20 16.5	1.779	2.758	2.4	18.7	1 6	6 39.82	+17 47.3	1.136	2.114	3.7	19.4
1 16	6 31.93	+20 28.4	1.808	2.759	6.5	19.0	1 16	6 29.05	+18 21.7	1.160	2.113	8.9	19.7
1 26	6 24.64	+20 39.9	1.865	2.760	10.4	19.2	1 26	6 20.67	+18 57.3	1.209	2.113	14.0	19.9
2 5	6 19.69	+20 50.8	1.945	2.761	13.7	19.4	2 5	6 15.71	+19 32.1	1.278	2.113	18.4	20.2
<b>268722</b>	2006 HG <sub>85</sub>		12 31.9	212°12	0°1/	31.9 18	<b>454737</b>	2014 UL <sub>18</sub>		12 31.9	9°10	5°1/	1.6 17
11 27	7 10.78	+22 54.7	2.679	3.481	10.8	21.6	11 27						

EPHEMERIDES

12 31.9

12 31.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>342107</b>	2008 <i>SF</i> <sub>70</sub>		12 31.9	65°22	4°4/31.5	18	<b>376417</b>	2012 <i>GQ</i> <sub>21</sub>		12 31.9	180°10	4°6/31.1	18
11 27	7 18.82	+32 4.1	1.463	2.287	17.1	20.3	11 27	7 19.58	+30 37.7	1.464	2.288	17.1	21.0
12 7	7 12.85	+32 39.3	1.406	2.301	13.1	20.1	12 7	7 13.80	+31 39.9	1.392	2.288	13.2	20.8
12 17	7 3.45	+33 8.9	1.370	2.316	8.7	19.9	12 17	7 4.36	+32 40.9	1.342	2.289	8.8	20.5
12 27	6 51.78	+33 26.4	1.360	2.331	5.0	19.7	12 27	6 52.21	+33 32.4	1.318	2.289	5.1	20.3
1 6	6 39.50	+33 27.3	1.377	2.346	5.2	19.8	1 6	6 39.00	+34 7.2	1.320	2.289	5.6	20.4
1 16	6 28.38	+33 11.5	1.421	2.362	9.0	20.0	1 16	6 26.61	+34 22.1	1.350	2.288	9.6	20.6
1 26	6 19.90	+32 42.4	1.490	2.377	13.0	20.3	1 26	6 16.83	+34 19.0	1.404	2.287	13.9	20.8
2 5	6 14.89	+32 5.3	1.580	2.392	16.5	20.6	2 5	6 10.71	+34 2.8	1.479	2.287	17.7	21.1
<b>487061</b>	2014 <i>OH</i> <sub>89</sub>		12 31.9	38°61	5°2/ 2.6	18	<b>1036</b>	Ganymed		12 31.9	52°38	14°1/ 6.8	18 R
11 27	7 10.59	+ 7 29.6	1.831	2.622	15.5	20.9	11 27	7 22.74	-12 19.6	1.615	2.300	21.2	13.2
12 7	7 5.89	+ 7 33.5	1.756	2.625	12.4	20.7	12 7	7 14.30	-14 13.0	1.607	2.362	18.7	13.1
12 17	6 58.86	+ 7 53.6	1.702	2.629	9.0	20.5	12 17	7 3.55	-15 31.2	1.618	2.424	16.4	13.1
12 27	6 50.22	+ 8 30.3	1.674	2.633	6.0	20.3	12 27	6 51.63	-16 8.9	1.649	2.484	14.8	13.2
1 6	6 40.99	+ 9 22.1	1.674	2.637	5.4	20.3	1 6	6 39.84	-16 5.9	1.704	2.543	14.1	13.3
1 16	6 32.26	+10 25.6	1.702	2.641	7.9	20.4	1 16	6 29.38	-15 26.4	1.782	2.601	14.5	13.5
1 26	6 25.11	+11 36.4	1.757	2.646	11.3	20.6	1 26	6 21.18	-14 18.8	1.882	2.658	15.6	13.6
2 5	6 20.28	+12 49.8	1.836	2.650	14.5	20.8	2 5	6 15.72	-12 52.7	2.001	2.714	16.8	13.9
<b>248585</b>	2006 <i>BN</i> <sub>223</sub>		12 31.9	123°37	2°0/ 1.5	17	<b>224016</b>	2005 <i>JF</i> <sub>43</sub>		12 31.9	141°48	1°0/31.8	18
11 27	7 10.30	+15 59.4	2.241	3.043	12.6	21.0	11 27	7 19.15	+24 9.0	1.926	2.730	14.3	22.2
12 7	7 5.32	+16 2.2	2.161	3.045	9.7	20.8	12 7	7 12.29	+24 36.5	1.855	2.745	10.8	22.0
12 17	6 58.35	+16 11.9	2.104	3.048	6.3	20.6	12 17	7 2.81	+25 5.9	1.809	2.758	6.7	21.8
12 27	6 50.02	+16 27.8	2.076	3.050	3.0	20.4	12 27	6 51.57	+25 33.3	1.792	2.771	2.4	21.5
1 6	6 41.20	+16 48.5	2.077	3.053	2.7	20.4	1 6	6 39.76	+25 55.3	1.804	2.782	2.5	21.6
1 16	6 32.83	+17 12.5	2.107	3.055	6.0	20.6	1 16	6 28.68	+26 10.4	1.846	2.793	6.8	21.9
1 26	6 25.80	+17 38.2	2.166	3.057	9.3	20.8	1 26	6 19.51	+26 18.6	1.917	2.803	10.6	22.1
2 5	6 20.76	+18 4.4	2.250	3.059	12.3	21.0	2 5	6 13.01	+26 21.5	2.012	2.812	13.9	22.4
<b>75159</b>	1999 <i>VZ</i> <sub>112</sub>		12 31.9	321°36	4°8/ 1.0	18	<b>448348</b>	2009 <i>FB</i> <sub>64</sub>		12 31.9	123°07	3°2/31.4	18
11 27	7 12.55	+15 3.4	1.560	2.377	16.5	18.9	11 27	7 16.13	+30 31.3	1.981	2.791	13.7	21.3
12 7	7 7.86	+13 56.9	1.475	2.365	13.0	18.7	12 7	7 10.17	+31 9.9	1.909	2.799	10.5	21.1
12 17	7 0.33	+12 55.5	1.412	2.353	9.0	18.4	12 17	7 1.57	+31 45.8	1.862	2.807	6.9	20.9
12 27	6 50.78	+12 2.3	1.374	2.342	5.4	18.2	12 27	6 51.16	+32 13.9	1.842	2.814	3.8	20.7
1 6	6 40.43	+11 19.9	1.363	2.332	5.4	18.2	1 6	6 40.15	+32 30.6	1.852	2.821	4.0	20.8
1 16	6 30.67	+10 50.1	1.379	2.322	9.1	18.3	1 16	6 29.82	+32 34.5	1.890	2.828	7.3	21.0
1 26	6 22.83	+10 33.4	1.421	2.312	13.2	18.6	1 26	6 21.38	+32 26.9	1.955	2.835	10.8	21.2
2 5	6 17.80	+10 28.4	1.483	2.303	17.0	18.8	2 5	6 15.59	+32 10.8	2.044	2.842	13.8	21.4