

EPHEMERIDES

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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>199880</b>	2007 <i>EP</i> <sub>213</sub>	12	7.9 106°76	1°1/ 8.2 18			<b>400600</b>	2009 <i>BT</i> <sub>62</sub>	12	8.0 298°27	1°3/ 7.9 18		
11 7	5 29.14	+25 37.7	1.647	2.501	14.2	20.6	11 7	5 25.93	+18 43.2	1.604	2.466	14.1	21.0
11 17	5 21.73	+25 44.2	1.591	2.514	10.2	20.4	11 17	5 19.81	+18 57.3	1.523	2.450	10.2	20.7
11 27	5 11.83	+25 44.8	1.559	2.526	5.6	20.1	11 27	5 11.05	+19 14.0	1.465	2.435	5.6	20.4
12 7	5 0.60	+25 38.2	1.554	2.539	1.3	19.9	12 7	5 0.59	+19 32.6	1.435	2.419	1.3	20.1
12 17	4 49.42	+25 25.3	1.579	2.550	4.4	20.1	12 17	4 49.73	+19 52.9	1.432	2.404	4.9	20.3
12 27	4 39.70	+25 8.6	1.631	2.562	8.9	20.4	12 27	4 39.92	+20 15.3	1.457	2.388	9.7	20.5
1 6	4 32.47	+24 51.9	1.709	2.573	12.8	20.7	1 6	4 32.41	+20 40.5	1.507	2.373	14.1	20.8
1 16	4 28.29	+24 38.4	1.808	2.584	16.1	20.9	1 16	4 27.97	+21 9.4	1.577	2.359	17.8	21.0
<b>399777</b>	2005 <i>NZ</i> <sub>28</sub>	12	7.9 180°36	1°9/ 8.6 18			<b>43740</b>	1981 <i>EM</i> <sub>9</sub>	12	8.0 141°50	0°8/ 8.2 18		
11 7	5 26.33	+29 32.5	2.227	3.067	11.6	21.3	11 7	5 30.60	+26 3.4	1.707	2.556	14.0	19.5
11 17	5 19.37	+29 24.1	2.154	3.068	8.4	21.1	11 17	5 22.69	+25 48.2	1.646	2.567	10.0	19.3
11 27	5 10.46	+29 7.3	2.106	3.068	4.9	20.9	11 27	5 12.35	+25 25.6	1.610	2.578	5.5	19.0
12 7	5 0.48	+28 41.5	2.087	3.068	2.0	20.7	12 7	5 0.71	+24 55.6	1.603	2.587	1.0	18.7
12 17	4 50.46	+28 7.6	2.099	3.068	3.8	20.8	12 17	4 49.15	+24 19.9	1.624	2.596	4.3	19.0
12 27	4 41.50	+27 28.7	2.140	3.068	7.3	21.0	12 27	4 39.07	+23 42.5	1.675	2.604	8.8	19.3
1 6	4 34.44	+26 48.6	2.208	3.067	10.6	21.2	1 6	4 31.46	+23 7.7	1.751	2.612	12.7	19.6
1 16	4 29.82	+26 11.1	2.300	3.065	13.4	21.4	1 16	4 26.87	+22 39.1	1.849	2.619	16.0	19.8
<b>295001</b>	2008 <i>EM</i> <sub>39</sub>	12	8.0 206°14	0°2/ 8.1 18			<b>215755</b>	2004 <i>FF</i> <sub>51</sub>	12	8.0 261°27	1°1/ 8.2 18		
11 7	5 29.36	+24 33.0	1.860	2.708	13.1	21.2	11 7	5 26.05	+25 25.2	1.869	2.722	12.8	20.5
11 17	5 21.83	+24 15.4	1.782	2.703	9.4	20.9	11 17	5 19.54	+25 38.9	1.796	2.719	9.2	20.3
11 27	5 11.92	+23 51.9	1.729	2.697	5.1	20.7	11 27	5 10.73	+25 48.0	1.749	2.716	5.1	20.0
12 7	5 0.63	+23 22.5	1.705	2.690	0.5	20.3	12 7	5 0.57	+25 51.1	1.729	2.713	1.3	19.7
12 17	4 49.21	+22 48.9	1.711	2.683	4.2	20.6	12 17	4 50.24	+25 48.4	1.738	2.710	4.1	19.9
12 27	4 38.97	+22 14.4	1.746	2.674	8.6	20.8	12 27	4 41.01	+25 41.3	1.776	2.707	8.3	20.2
1 6	4 30.96	+21 42.9	1.808	2.665	12.6	21.1	1 6	4 33.90	+25 32.9	1.839	2.704	12.1	20.4
1 16	4 25.80	+21 17.6	1.891	2.656	15.9	21.3	1 16	4 29.55	+25 26.1	1.925	2.700	15.3	20.6
<b>518232</b>	2016 <i>US</i>	12	8.0 354°76	2°9/ 7.7 18			<b>296864</b>	2009 <i>WY</i> <sub>261</sub>	12	8.0 89°08	0°1/ 7.9 18		
11 7	5 21.99	+17 11.2	1.042	1.931	17.8	20.1	11 7	5 23.84	+22 12.5	2.293	3.142	10.9	20.5
11 17	5 17.66	+17 3.4	0.984	1.924	12.9	19.8	11 17	5 17.47	+22 19.7	2.233	3.155	7.7	20.3
11 27	5 10.06	+17 0.0	0.947	1.918	7.3	19.5	11 27	5 9.41	+22 25.1	2.199	3.167	4.1	20.1
12 7	5 0.47	+17 3.0	0.931	1.914	2.9	19.3	12 7	5 0.44	+22 28.4	2.195	3.180	0.4	19.8
12 17	4 50.64	+17 13.4	0.940	1.912	6.6	19.5	12 17	4 51.47	+22 29.8	2.221	3.192	3.4	20.1
12 27	4 42.45	+17 32.4	0.972	1.911	12.2	19.8	12 27	4 43.44	+22 30.6	2.276	3.205	6.9	20.3
1 6	4 37.34	+18 0.4	1.024	1.912	17.4	20.1	1 6	4 37.09	+22 32.2	2.359	3.217	10.0	20.5
1 16	4 36.04	+18 36.3	1.094	1.914	21.6	20.4	1 16	4 32.90	+22 36.1	2.465	3.229	12.6	20.8
<b>79323</b>	1996 <i>PM</i> <sub>7</sub>	12	8.0 72°57	1°0/ 8.2 18			<b>492870</b>	2014 <i>QG</i> <sub>379</sub>	12	8.0 85°54	5°1/ 6.6 18		
11 7	5 25.72	+26 0.1	1.837	2.691	13.0	19.2	11 7	5 21.97	+ 8 27.6	2.161	3.004	11.7	21.0
11 17	5 19.15	+25 54.8	1.777	2.700	9.3	19.0	11 17	5 16.12	+ 7 45.4	2.106	3.014	8.9	20.8
11 27	5 10.41	+25 43.5	1.741	2.709	5.1	18.8	11 27	5 8.66	+ 7 11.1	2.075	3.023	6.3	20.7
12 7	5 0.50	+25 25.7	1.733	2.717	1.1	18.5	12 7	5 0.38	+ 6 47.6	2.073	3.033	5.1	20.6
12 17	4 50.61	+25 2.8	1.754	2.726	4.0	18.8	12 17	4 52.11	+ 6 36.9	2.100	3.042	6.4	20.7
12 27	4 41.97	+24 37.5	1.804	2.735	8.1	19.0	12 27	4 44.76	+ 6 39.8	2.154	3.051	9.0	20.9
1 6	4 35.49	+24 13.3	1.879	2.744	11.8	19.3	1 6	4 39.01	+ 6 55.7	2.234	3.061	11.7	21.1
1 16	4 31.70	+23 53.1	1.976	2.753	14.9	19.5	1 16	4 35.33	+ 7 22.9	2.335	3.070	14.0	21.3
<b>261924</b>	2006 <i>KO</i> <sub>99</sub>	12	8.0 177°86	2°3/ 7.5 18			<b>220806</b>	2004 <i>TA</i> <sub>242</sub>	12	8.0 58°10	4°2/ 9.2 18		
11 7	5 29.28	+18 35.0	1.609	2.466	14.4	21.0	11 7	5 27.90	+34 29.5	1.889	2.725	13.5	19.9
11 17	5 21.87	+18 3.8	1.543	2.468	10.3	20.8	11 17	5 20.69	+34 49.9	1.842	2.748	10.1	19.8
11 27	5 11.96	+17 32.2	1.502	2.469	5.8	20.5	11 27	5 11.22	+34 57.4	1.820	2.772	6.7	19.6
12 7	5 0.65	+17 2.0	1.488	2.470	2.3	20.3	12 7	5 0.61	+34 49.8	1.825	2.795	4.3	19.5
12 17	4 49.28	+16 35.7	1.502	2.470	5.3	20.5	12 17	4 50.17	+34 27.5	1.858	2.819	5.3	19.6
12 27	4 39.27	+16 16.2	1.545	2.469	9.9	20.7	12 27	4 41.18	+33 54.1	1.920	2.843	8.3	19.9
1 6	4 31.67	+16 5.9	1.613	2.468	14.0	21.0	1 6	4 34.56	+33 14.7	2.007	2.867	11.4	20.1
1 16	4 27.10	+16 5.6	1.701	2.466	17.4	21.2	1 16	4 30.79	+32 34.5	2.117	2.891	14.1	20.3
<b>2112</b>	Ulyanov	12	8.0 27°07	0°7/ 7.8 18			<b>255141</b>	2005 <i>UE</i> <sub>148</sub>	12	8.0 81°59	1°2/ 8.3 18		
11 7	5 26.36	+23 8.3	1.085	1.966	17.9	14.9	11 7	5 25.11	+26 22.7	2.004	2.854	12.2	20.7
11 17	5 20.51	+22 37.6	1.037	1.973	12.7	14.6	11 17	5 18.66	+26 26.5	1.938	2.859	8.8	20.5
11 27	5 11.42	+22 1.2	1.009	1.981	6.9	14.3	11 27	5 10.16	+26 24.6	1.898	2.865	4.9	20.3
12 7	5 0.60	+21 20.9	1.005	1.990	0.9	13.9	12 7	5 0.52	+26 16.3	1.886	2.870	1.3	20.1
12 17	4 49.88	+20 40.7	1.026	1.999	5.7	14.3	12 17	4 50.85	+26 2.3	1.904	2.875	3.8	20.2
12 27	4 41.12	+20 5.7	1.071	2.010	11.5	14.7	12 27	4 42.27	+25 44.6	1.950	2.881	7.7	20.5
1 6	4 35.57	+19 40.2	1.138	2.021	16.4	15.0	1 6	4 35.69	+25 26.4	2.023	2.886	11.2	20.7
1 16	4 33.76	+19 26.2	1.223	2.033	20.4	15.3	1 16	4 31.64	+25 10.4	2.118	2.891	14.1	20.9
<b>101675</b>	1999 <i>CO</i> <sub>107</sub>	12	8.0 274°10	0°1/ 8.0 18			<b>63402</b>	2001 <i>KU</i> <sub>24</sub>	12	8.0 91°07	2°9/ 8.4 18		
11 7	5 22.78	+24 44.9	2.475	3.321	10.3	19.7	11 7	5 31.53	+28 20.7	1.493	2.346	15.5	19.1
11 17	5 16.79	+24 17.5	2.383	3.303	7.4	19.5	11 17	5 23.75	+28 58.4	1.441	2.361	11.3	18.9
11 27	5 9.09	+23 44.9	2.317	3.285	4.0	19.3	11 27	5 13.07	+29 27.7	1.413	2.376	6.6	18.6
12 7	5 0.39	+23 7.7	2.281	3.266	0.4	18.9	12 7	5 0.80	+29 45.0	1.411	2.391	3.0	18.4
12 17	4 51.53	+22 27.5	2.276	3.248	3.3	19.2	12 17	4 48.55	+29 49.5	1.437	2.406	5.3	18.6
12 27	4 43.45	+21 47.0	2.301	3.229	6.9	19.4	12 27	4 37.98	+29 43.4	1.490	2.420	9.7	18.9
1 6	4 36.91	+21 9.2	2.354	3.210	10.1	19.5	1 6	4 30.29	+29 31.7	1.568	2.434	13.7	19.2
1 16	4 32.44	+20 36.7	2.430	3.191	12.9	19.7	1 16	4 26.06	+29 19.0	1.667	2.448	17.0	19.5
<b>474259</b>	2001 <i>SV</i> <sub>307</sub>	12	8.0 83°63	0°9/ 8.2 16			<b>303509</b>	2005 <i>EF</i> <sub>171</sub>	12	8.0 297°07	7°3/ 10.1 17		
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EPHEMERIDES

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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>132523</b>	2002 <i>JF</i> <sub>55</sub>		12 8.0 158°97	1.6/ 8.4	18		<b>261458</b>	2005 <i>VK</i> <sub>68</sub>		12 8.0 218°12	1.8/ 8.2	17	
11 7	5 28.20	+27 7.0	2.089	2.932	12.1	20.7	11 7	5 27.05	+26 32.4	2.253	3.095	11.4	21.5
11 17	5 20.82	+27 22.3	2.021	2.938	8.7	20.5	11 17	5 20.07	+27 15.2	2.175	3.091	8.2	21.3
11 27	5 11.34	+27 31.7	1.979	2.943	5.0	20.2	11 27	5 11.01	+27 54.3	2.123	3.087	4.8	21.1
12 7	5 0.66	+27 33.6	1.965	2.948	1.7	20.0	12 7	5 0.66	+28 27.2	2.101	3.082	1.9	20.9
12 17	4 49.90	+27 28.0	1.982	2.952	3.9	20.2	12 17	4 50.06	+28 52.4	2.109	3.077	3.9	21.0
12 27	4 40.25	+27 16.7	2.029	2.956	7.7	20.4	12 27	4 40.33	+29 10.2	2.147	3.073	7.4	21.2
1 6	4 32.62	+27 2.9	2.102	2.960	11.1	20.7	1 6	4 32.41	+29 22.4	2.213	3.067	10.7	21.4
1 16	4 27.59	+26 49.7	2.199	2.962	14.0	20.9	1 16	4 26.94	+29 31.7	2.301	3.062	13.5	21.6
<b>73953</b>	1997 <i>UN</i> <sub>20</sub>		12 8.0 343°99	3.7/ 8.9	18		<b>212206</b>	2005 <i>GQ</i> <sub>152</sub>		12 8.0 105°07	1.6/ 8.3	18	
11 7	5 23.69	+32 46.9	1.838	2.685	13.3	19.2	11 7	5 28.32	+26 2.5	1.968	2.815	12.6	20.4
11 17	5 18.04	+32 58.1	1.764	2.677	10.0	19.0	11 17	5 20.96	+26 33.9	1.910	2.829	9.0	20.2
11 27	5 10.00	+32 57.8	1.713	2.670	6.4	18.8	11 27	5 11.43	+27 0.4	1.878	2.843	5.1	20.0
12 7	5 0.54	+32 44.2	1.688	2.663	3.8	18.6	12 7	5 0.69	+27 20.0	1.874	2.857	1.7	19.8
12 17	4 50.92	+32 17.4	1.692	2.657	5.1	18.7	12 17	4 49.93	+27 31.9	1.900	2.870	4.0	20.0
12 27	4 42.48	+31 40.3	1.723	2.652	8.6	18.9	12 27	4 40.35	+27 37.4	1.955	2.883	7.9	20.2
1 6	4 36.27	+30 58.0	1.779	2.647	12.2	19.1	1 6	4 32.91	+27 39.0	2.037	2.896	11.3	20.5
1 16	4 32.94	+30 15.5	1.857	2.643	15.3	19.3	1 16	4 28.14	+27 39.6	2.141	2.908	14.2	20.7
<b>67450</b>	2000 <i>QN</i> <sub>167</sub>		12 8.0 289°96	0.5/ 7.9	18		<b>346634</b>	2008 <i>WW</i> <sub>137</sub>		12 8.0 36°28	1.8/ 7.7	18	
11 7	5 27.95	+23 13.1	1.298	2.167	16.3	19.4	11 7	5 26.19	+20 21.1	1.128	2.007	17.5	19.2
11 17	5 21.59	+22 48.9	1.228	2.159	11.7	19.1	11 17	5 20.02	+19 54.5	1.095	2.030	12.3	19.0
11 27	5 12.12	+22 18.8	1.181	2.151	6.4	18.8	11 27	5 11.00	+19 27.2	1.083	2.055	6.7	18.7
12 7	5 0.75	+21 43.6	1.159	2.144	0.7	18.4	12 7	5 0.64	+19 1.3	1.096	2.080	1.8	18.5
12 17	4 49.15	+21 6.1	1.163	2.136	5.4	18.7	12 17	4 50.63	+18 39.7	1.134	2.106	5.7	18.8
12 27	4 39.12	+20 30.9	1.193	2.128	11.0	19.0	12 27	4 42.59	+18 25.3	1.197	2.133	10.8	19.2
1 6	4 32.00	+20 2.7	1.246	2.121	15.9	19.3	1 6	4 37.52	+18 20.2	1.282	2.160	15.3	19.6
1 16	4 28.51	+19 44.7	1.319	2.113	20.0	19.5	1 16	4 35.84	+18 24.5	1.386	2.188	18.8	19.9
<b>425262</b>	2009 <i>WC</i> <sub>87</sub>		12 8.0 258°50	3.3/ 8.4	18		<b>359562</b>	2010 <i>TU</i> <sub>86</sub>		12 8.0 119°25	3.8/ 9.2	18	
11 7	5 26.77	+31 6.1	2.350	3.183	11.2	21.0	11 7	5 28.03	+34 19.8	2.056	2.888	12.7	20.6
11 17	5 19.92	+31 56.8	2.268	3.176	8.4	20.8	11 17	5 20.80	+34 30.9	1.992	2.896	9.6	20.4
11 27	5 10.95	+32 41.1	2.213	3.168	5.4	20.6	11 27	5 11.35	+34 29.7	1.952	2.904	6.3	20.3
12 7	5 0.64	+33 15.7	2.187	3.160	3.3	20.4	12 7	5 0.69	+34 14.4	1.940	2.912	3.9	20.1
12 17	4 50.02	+33 38.8	2.191	3.152	4.6	20.5	12 17	4 50.05	+33 45.3	1.958	2.920	5.0	20.2
12 27	4 40.23	+33 50.7	2.225	3.144	7.6	20.7	12 27	4 40.68	+33 5.6	2.004	2.927	8.0	20.4
1 6	4 32.25	+33 54.0	2.286	3.136	10.6	20.8	1 6	4 33.52	+32 20.4	2.077	2.934	11.2	20.6
1 16	4 26.74	+33 52.0	2.370	3.128	13.2	21.0	1 16	4 29.10	+31 34.8	2.172	2.941	13.9	20.8
<b>284491</b>	2007 <i>NQ</i> <sub>2</sub>		12 8.0 103°45	1.4/ 8.4	18		<b>191483</b>	2003 <i>SH</i> <sub>319</sub>		12 8.0 125°51	5.9/ 10.0	18	
11 7	5 28.63	+27 11.1	1.776	2.626	13.6	20.4	11 7	5 29.70	+43 37.3	2.741	3.526	11.2	20.4
11 17	5 21.23	+27 6.1	1.721	2.641	9.7	20.2	11 17	5 21.77	+44 15.6	2.680	3.540	9.1	20.3
11 27	5 11.54	+26 53.4	1.690	2.656	5.4	20.0	11 27	5 11.81	+44 39.0	2.644	3.554	7.1	20.2
12 7	5 0.68	+26 32.7	1.687	2.670	1.5	19.8	12 7	5 0.74	+44 44.7	2.635	3.567	6.0	20.1
12 17	4 49.92	+26 5.1	1.713	2.685	4.2	20.0	12 17	4 49.64	+44 31.7	2.656	3.580	6.3	20.2
12 27	4 40.57	+25 34.1	1.768	2.698	8.4	20.3	12 27	4 39.66	+44 2.4	2.705	3.593	7.8	20.3
1 6	4 33.57	+25 3.8	1.849	2.712	12.1	20.5	1 6	4 31.68	+43 21.1	2.781	3.605	9.7	20.4
1 16	4 29.43	+24 37.6	1.952	2.725	15.1	20.8	1 16	4 26.24	+42 33.2	2.881	3.617	11.6	20.6
<b>322943</b>	2002 <i>GA</i> <sub>105</sub>		12 8.0 157°68	5.8/ 6.7	18		<b>300550</b>	2007 <i>TJ</i> <sub>270</sub>		12 8.0 298°72	4.4/ 6.5	18	
11 7	5 22.06	+ 5 20.9	2.232	3.066	11.7	20.0	11 7	5 23.94	+14 59.6	1.667	2.528	13.7	20.7
11 17	5 16.22	+ 4 48.1	2.169	3.068	9.1	19.8	11 17	5 18.12	+13 47.7	1.591	2.515	10.1	20.5
11 27	5 8.76	+ 4 25.5	2.131	3.069	6.8	19.7	11 27	5 10.02	+12 36.4	1.540	2.503	6.4	20.2
12 7	5 0.42	+ 4 15.7	2.120	3.071	5.8	19.6	12 7	5 0.58	+11 30.4	1.516	2.490	4.4	20.1
12 17	4 52.04	+ 4 20.5	2.138	3.072	6.9	19.7	12 17	4 50.98	+10 34.8	1.520	2.478	6.7	20.2
12 27	4 44.48	+ 4 40.0	2.184	3.073	9.3	19.9	12 27	4 42.48	+ 9 53.8	1.552	2.466	10.7	20.4
1 6	4 38.46	+ 5 13.0	2.255	3.074	11.9	20.0	1 6	4 36.09	+ 9 29.5	1.607	2.454	14.5	20.6
1 16	4 34.47	+ 5 57.1	2.348	3.075	14.2	20.2	1 16	4 32.42	+ 9 21.8	1.682	2.442	17.7	20.8
<b>510128</b>	2010 <i>TQ</i> <sub>176</sub>		12 8.0 41°34	2.8/ 8.7	18		<b>167232</b>	2003 <i>UC</i> <sub>59</sub>		12 8.0 120°51	2.4/ 8.9	18	
11 7	5 29.62	+30 20.8	1.004	1.880	19.5	20.3	11 7	5 29.30	+31 34.1	1.943	2.781	13.1	20.1
11 17	5 22.96	+29 58.9	0.966	1.897	14.1	20.0	11 17	5 21.59	+31 11.7	1.882	2.794	9.6	19.9
11 27	5 12.74	+29 20.8	0.947	1.914	8.2	19.8	11 27	5 11.71	+30 37.4	1.846	2.806	5.7	19.7
12 7	5 0.78	+28 26.6	0.951	1.933	3.0	19.5	12 7	5 0.73	+29 51.0	1.838	2.818	2.6	19.5
12 17	4 49.25	+27 21.1	0.979	1.953	6.0	19.8	12 17	4 49.92	+28 54.9	1.861	2.830	4.3	19.7
12 27	4 40.17	+26 12.7	1.032	1.973	11.5	20.2	12 27	4 40.51	+27 53.6	1.912	2.841	8.0	19.9
1 6	4 34.73	+25 10.1	1.106	1.994	16.4	20.5	1 6	4 33.38	+26 52.7	1.991	2.852	11.5	20.2
1 16	4 33.32	+24 18.7	1.199	2.015	20.4	20.8	1 16	4 29.03	+25 56.8	2.093	2.862	14.4	20.4
<b>200919</b>	2002 <i>AU</i> <sub>104</sub>		12 8.0 227°63	2.4/ 8.6	18		<b>451868</b>	2014 <i>HU</i> <sub>19</sub>		12 8.0 120°20	0.4/ 8.1	18	
11 7	5 28.30	+29 38.1	1.760	2.608	13.8	20.3	11 7	5 27.03	+24 31.2	2.099	2.946	11.9	21.6
11 17	5 21.31	+29 38.0	1.685	2.603	10.1	20.1	11 17	5 19.83	+24 25.5	2.041	2.961	8.4	21.4
11 27	5 11.76	+29 28.0	1.635	2.598	6.0	19.8	11 27	5 10.73	+24 15.3	2.008	2.976	4.6	21.2
12 7	5 0.72	+29 6.6	1.612	2.593	2.5	19.6	12 7	5 0.65	+24 0.5	2.005	2.990	0.6	20.9
12 17	4 49.53	+28 34.5	1.617	2.587	4.6	19.7	12 17	4 50.63	+23 42.2	2.032	3.003	3.6	21.2
12 27	4 39.63	+27 55.4	1.651	2.582	8.8	19.9	12 27	4 41.75	+23 22.6	2.089	3.017	7.4	21.4
1 6	4 32.14	+27 14.3	1.711	2.576	12.8	20.2	1 6	4 34.81	+23 4.5	2.172	3.030	10.8	21.7
1 16	4 27.70	+26 36.0	1.792	2.570	16.1	20.4	1 16	4 30.31	+22 50.1	2.279	3.042	13.5	21.9
<b>327110</b>	2005 <i>CY</i> <sub>13</sub>		12 8.0 20°46	2.3/ 7.8	18		<b>453555</b>	2009 <i>YL</i> <sub>5</sub>		12 8.0 1°99	8.9		

EPHEMERIDES

12 8.0

12 8.1

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>432259</b>	2009 <i>RS</i> <sub>62</sub>	12	8.0 213°08	2°6/ 8.4 18			<b>414283</b>	2008 <i>MW</i> <sub>4</sub>	12	8.0 88°33	2°2/ 7.3 14	C	
11 7	5 30.21	+27 55.6	1.596	2.447	14.7	20.6	11 7	5 24.49	+17 3.1	2.485	3.329	10.4	22.1
11 17	5 22.95	+28 29.2	1.525	2.445	10.8	20.3	11 17	5 17.62	+16 23.1	2.442	3.360	7.4	22.0
11 27	5 12.80	+28 56.0	1.478	2.442	6.3	20.1	11 27	5 9.39	+15 44.3	2.426	3.390	4.2	21.9
12 7	5 0.86	+29 12.5	1.458	2.439	2.7	19.8	12 7	5 0.56	+15 8.5	2.441	3.420	2.2	21.8
12 17	4 48.66	+29 17.4	1.466	2.435	5.1	20.0	12 17	4 51.91	+14 37.5	2.487	3.449	4.0	21.9
12 27	4 37.82	+29 12.5	1.502	2.432	9.6	20.2	12 27	4 44.23	+14 13.3	2.563	3.478	6.9	22.2
1 6	4 29.64	+29 1.9	1.562	2.428	13.8	20.5	1 6	4 38.11	+13 56.9	2.666	3.506	9.6	22.4
1 16	4 24.84	+28 50.4	1.644	2.424	17.3	20.7	1 16	4 33.91	+13 48.6	2.793	3.534	11.8	22.6
<b>201049</b>	2002 <i>EY</i> <sub>32</sub>	12	8.0 143°37	0°5/ 7.9 18			<b>179178</b>	2001 <i>TC</i> <sub>121</sub>	12	8.0 356°93	9°6/ 10.2 17		
11 7	5 27.86	+20 54.1	2.087	2.933	12.0	20.5	11 7	5 31.49	+46 11.0	1.745	2.544	16.0	19.7
11 17	5 20.46	+20 59.2	2.024	2.945	8.5	20.3	11 17	5 24.33	+47 17.1	1.680	2.543	13.4	19.5
11 27	5 11.12	+21 3.1	1.987	2.955	4.6	20.0	11 27	5 13.73	+48 1.5	1.636	2.541	11.1	19.4
12 7	5 0.70	+21 5.6	1.980	2.965	0.7	19.8	12 7	5 1.00	+48 17.2	1.617	2.541	9.7	19.3
12 17	4 50.27	+21 6.9	2.004	2.974	3.8	20.0	12 17	4 47.99	+48 1.3	1.622	2.540	10.0	19.3
12 27	4 40.92	+21 8.4	2.057	2.983	7.6	20.3	12 27	4 36.72	+47 17.0	1.653	2.540	11.9	19.4
1 6	4 33.49	+21 11.7	2.137	2.991	11.1	20.5	1 6	4 28.67	+46 12.6	1.706	2.541	14.4	19.6
1 16	4 28.51	+21 18.2	2.240	2.998	13.9	20.7	1 16	4 24.58	+44 57.8	1.780	2.541	16.8	19.8
<b>113537</b>	2002 <i>TZ</i> <sub>23</sub>	12	8.0 49°51	2°8/ 7.4 18			<b>494098</b>	2016 <i>CN</i> <sub>36</sub>	12	8.0 62°11	4°5/ 7.3 18		
11 7	5 24.52	+16 55.3	1.663	2.525	13.7	19.3	11 7	5 22.19	+ 8 26.2	2.213	3.055	11.6	20.8
11 17	5 18.39	+16 24.2	1.605	2.532	9.8	19.1	11 17	5 16.29	+ 8 14.9	2.159	3.067	8.7	20.6
11 27	5 10.09	+15 54.9	1.572	2.539	5.7	18.9	11 27	5 8.82	+ 8 12.2	2.129	3.080	5.9	20.5
12 7	5 0.61	+15 29.8	1.566	2.546	2.8	18.7	12 7	5 0.52	+ 8 19.6	2.128	3.092	4.5	20.4
12 17	4 51.14	+15 11.0	1.588	2.554	5.3	18.9	12 17	4 52.23	+ 8 37.9	2.156	3.104	5.8	20.5
12 27	4 42.92	+15 0.7	1.637	2.562	9.4	19.1	12 27	4 44.82	+ 9 6.7	2.212	3.117	8.4	20.7
1 6	4 36.85	+15 0.0	1.711	2.570	13.1	19.4	1 6	4 38.99	+ 9 44.7	2.294	3.130	11.1	20.9
1 16	4 33.48	+15 8.9	1.806	2.578	16.2	19.6	1 16	4 35.19	+10 30.3	2.399	3.142	13.5	21.1
<b>168132</b>	2006 <i>GG</i> <sub>32</sub>	12	8.0 130°25	5°0/ 9.5 18			<b>82320</b>	2001 <i>KY</i> <sub>61</sub>	12	8.0 66°69	1°6/ 7.9 18		
11 7	5 31.80	+38 3.4	2.239	3.050	12.5	20.0	11 7	5 29.61	+17 57.3	1.329	2.194	16.3	18.7
11 17	5 23.40	+38 33.6	2.179	3.067	9.7	19.9	11 17	5 22.39	+18 15.9	1.282	2.211	11.6	18.5
11 27	5 12.74	+38 49.7	2.145	3.082	6.9	19.7	11 27	5 12.38	+18 37.6	1.258	2.227	6.3	18.2
12 7	5 0.86	+38 48.6	2.139	3.097	5.1	19.6	12 7	5 0.86	+19 1.4	1.260	2.244	1.7	18.0
12 17	4 49.03	+38 30.0	2.163	3.111	5.8	19.7	12 17	4 49.43	+19 26.6	1.290	2.261	5.3	18.3
12 27	4 38.52	+37 56.7	2.215	3.125	8.1	19.9	12 27	4 39.69	+19 53.4	1.346	2.278	10.2	18.6
1 6	4 30.29	+37 14.1	2.295	3.138	10.8	20.1	1 6	4 32.76	+20 22.4	1.426	2.295	14.6	18.9
1 16	4 24.89	+36 27.9	2.398	3.150	13.2	20.3	1 16	4 29.21	+20 54.2	1.526	2.312	18.1	19.2
<b>352926</b>	2008 <i>YG</i> <sub>170</sub>	12	8.0 191°95	3°9/ 7.4 18			<b>129639</b>	1998 <i>HS</i> <sub>150</sub>	12	8.0 147°59	0°4/ 7.9 18		
11 7	5 25.19	+10 48.9	2.193	3.034	11.7	21.5	11 7	5 27.41	+21 19.3	2.281	3.125	11.2	20.6
11 17	5 18.54	+10 40.1	2.121	3.033	8.7	21.3	11 17	5 20.04	+21 22.0	2.217	3.136	7.9	20.4
11 27	5 10.09	+10 38.0	2.075	3.031	5.6	21.1	11 27	5 10.86	+21 23.0	2.180	3.147	4.3	20.2
12 7	5 0.62	+10 44.0	2.058	3.029	3.9	21.0	12 7	5 0.72	+21 22.3	2.173	3.157	0.6	19.9
12 17	4 51.03	+10 58.9	2.071	3.026	5.4	21.1	12 17	4 50.57	+21 20.3	2.196	3.167	3.5	20.1
12 27	4 42.30	+11 23.0	2.113	3.023	8.5	21.3	12 27	4 41.41	+21 18.3	2.250	3.176	7.1	20.4
1 6	4 35.23	+11 55.4	2.182	3.019	11.5	21.5	1 6	4 34.02	+21 17.8	2.332	3.184	10.3	20.6
1 16	4 30.35	+12 35.0	2.273	3.015	14.2	21.7	1 16	4 28.91	+21 20.5	2.437	3.191	13.0	20.8
<b>517461</b>	2014 <i>OZ</i> <sub>386</sub>	12	8.0 160°94	4°5/ 6.9 18			<b>324745</b>	2007 <i>EH</i> <sub>223</sub>	12	8.0 180°37	0°7/ 8.3 17		
11 7	5 23.41	+ 8 48.9	2.366	3.203	11.1	22.4	11 7	5 24.02	+26 38.9	2.685	3.525	9.8	21.2
11 17	5 17.10	+ 8 19.8	2.302	3.208	8.3	22.2	11 17	5 17.52	+26 19.8	2.610	3.526	7.0	21.0
11 27	5 9.24	+ 7 57.8	2.264	3.213	5.8	22.1	11 27	5 9.48	+25 55.0	2.561	3.526	3.9	20.8
12 7	5 0.53	+ 7 45.2	2.255	3.217	4.5	22.0	12 7	5 0.62	+25 24.8	2.542	3.526	0.9	20.6
12 17	4 51.80	+ 7 43.3	2.276	3.221	5.8	22.1	12 17	4 51.74	+24 50.6	2.555	3.526	3.0	20.8
12 27	4 43.90	+ 7 52.9	2.325	3.224	8.4	22.3	12 27	4 43.69	+24 14.7	2.598	3.525	6.2	21.0
1 6	4 37.50	+ 8 13.2	2.401	3.227	11.0	22.4	1 6	4 37.14	+23 39.8	2.670	3.524	9.1	21.2
1 16	4 33.08	+ 8 43.1	2.500	3.230	13.3	22.6	1 16	4 32.55	+23 8.3	2.766	3.523	11.6	21.4
<b>307448</b>	2002 <i>UY</i> <sub>77</sub>	12	8.0 59°38	6°3/ 6.5 18			<b>515142</b>	2011 <i>HO</i> <sub>43</sub>	12	8.1 282°44	3°8/ 7.1 18		
11 7	5 24.72	+ 9 12.1	1.600	2.454	14.6	20.5	11 7	5 26.33	+15 43.3	1.523	2.386	14.7	21.5
11 17	5 18.34	+ 8 3.8	1.561	2.475	11.0	20.3	11 17	5 20.23	+15 1.6	1.438	2.364	10.8	21.2
11 27	5 9.95	+ 7 5.4	1.545	2.496	7.7	20.2	11 27	5 11.41	+14 21.2	1.377	2.342	6.5	20.9
12 7	5 0.59	+ 6 21.6	1.556	2.517	6.3	20.2	12 7	5 0.84	+13 45.5	1.342	2.320	3.8	20.7
12 17	4 51.44	+ 5 55.7	1.594	2.538	7.9	20.3	12 17	4 49.85	+13 17.8	1.334	2.297	6.5	20.8
12 27	4 43.62	+ 5 49.0	1.659	2.559	11.0	20.5	12 27	4 39.95	+13 1.7	1.353	2.275	11.2	21.0
1 6	4 37.97	+ 6 0.1	1.747	2.581	14.1	20.8	1 6	4 32.39	+12 58.9	1.395	2.252	15.6	21.2
1 16	4 34.90	+ 6 26.2	1.854	2.602	16.7	21.0	1 16	4 27.98	+13 9.8	1.457	2.230	19.4	21.4
<b>188409</b>	2004 <i>EX</i> <sub>73</sub>	12	8.0 168°04	3°3/ 7.2 18			<b>300823</b>	2007 <i>WJ</i> <sub>61</sub>	12	8.1 34°94	5°3/ 9.3 18		
11 7	5 27.44	+15 31.7	1.749	2.602	13.6	21.2	11 7	5 28.70	+35 53.6	1.643	2.482	15.0	20.1
11 17	5 20.42	+14 55.4	1.685	2.606	9.8	21.0	11 17	5 21.85	+36 17.6	1.581	2.486	11.5	19.9
11 27	5 11.19	+14 21.6	1.645	2.609	5.9	20.7	11 27	5 12.18	+36 26.1	1.541	2.490	7.9	19.7
12 7	5 0.73	+13 52.8	1.634	2.611	3.3	20.6	12 7	5 0.90	+36 15.8	1.527	2.495	5.4	19.5
12 17	4 50.24	+13 31.4	1.651	2.613	5.7	20.7	12 17	4 49.57	+35 46.5	1.540	2.500	6.4	19.6
12 27	4 40.95	+13 19.7	1.697	2.615	9.6	21.0	12 27	4 39.80	+35 2.1	1.581	2.505	9.7	19.8
1 6	4 33.82	+13 18.7	1.767	2.616	13.3	21.2	1 6	4 32.78	+34 9.5	1.646	2.510	13.2	20.1
1 16	4 29.40	+13 28.4	1.859	2.616	16.4	21.4	1 16	4 29.11	+33 15.6	1.732	2.516	16.4	20.3
<b>280420</b>	2003 <i>YN</i> <sub>17</sub>	12	8.0 351°58	2°9/ 8.2 17			<b>310173</b>	2011 <i>SQ</i> <sub>30</sub>	12	8.1 31°45	0°6/ 7.9 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>316684</b>	1995 VT <sub>11</sub>	12	8.1	65°06'	2°0'	7.7	15	<b>322032</b>	2010 VB <sub>27</sub>	12	8.1	60°45'	0°7'	7.9	18
11 7	5 27.97	+18 13.6	1.513	2.374	14.9	20.7	11 7	5 24.31	+21 31.8	1.924	2.780	12.4	20.8		
11 17	5 20.84	+18 3.5	1.472	2.399	10.5	20.5	11 17	5 18.13	+21 20.0	1.863	2.788	8.8	20.6		
11 27	5 11.39	+17 54.8	1.455	2.424	5.8	20.3	11 27	5 9.97	+21 6.1	1.827	2.796	4.7	20.3		
12 7	5 0.82	+17 48.6	1.465	2.448	2.0	20.1	12 7	5 0.73	+20 50.9	1.819	2.804	0.8	20.1		
12 17	4 50.47	+17 45.8	1.503	2.473	5.0	20.4	12 17	4 51.50	+20 35.5	1.841	2.812	4.0	20.3		
12 27	4 41.66	+17 48.1	1.569	2.498	9.4	20.7	12 27	4 43.36	+20 22.1	1.890	2.820	8.0	20.6		
1 6	4 35.31	+17 56.5	1.659	2.522	13.2	21.0	1 6	4 37.18	+20 12.6	1.966	2.828	11.5	20.8		
1 16	4 31.90	+18 11.2	1.770	2.547	16.4	21.2	1 16	4 33.46	+20 8.6	2.064	2.837	14.5	21.1		
<b>411484</b>	2011 AF <sub>44</sub>	12	8.1	342°62'	0°8'	7.9	17	<b>269516</b>	2009 UN <sub>127</sub>	12	8.1	349°09'	8°5'	6.8	17
11 7	5 22.82	+20 48.3	1.809	2.671	12.8	21.2	11 7	5 21.00	+1 6.0	1.733	2.570	14.5	19.8		
11 17	5 17.30	+20 41.8	1.737	2.665	9.1	20.9	11 17	5 15.94	+0 30.9	1.670	2.563	11.8	19.6		
11 27	5 9.62	+20 34.2	1.690	2.659	5.0	20.7	11 27	5 8.87	+0 12.6	1.629	2.557	9.4	19.4		
12 7	5 0.67	+20 26.0	1.670	2.654	0.9	20.4	12 7	5 0.64	+0 15.4	1.613	2.552	8.5	19.4		
12 17	4 51.58	+20 18.2	1.678	2.650	4.2	20.6	12 17	4 52.26	+0 41.2	1.623	2.548	9.5	19.4		
12 27	4 43.51	+20 12.5	1.714	2.646	8.5	20.9	12 27	4 44.87	+1 29.2	1.658	2.544	11.9	19.5		
1 6	4 37.45	+20 10.8	1.775	2.642	12.3	21.1	1 6	4 39.34	+2 36.1	1.716	2.541	14.7	19.7		
1 16	4 33.99	+20 14.5	1.859	2.639	15.5	21.3	1 16	4 36.26	+3 57.1	1.795	2.539	17.3	19.9		
<b>279615</b>	2011 EV <sub>36</sub>	12	8.1	202°96'	1°9'	8.6	18	<b>31452</b>	1999 CX <sub>12</sub>	12	8.1	300°68'	3°1'	7.3	18
11 7	5 23.69	+29 48.6	2.802	3.636	9.6	21.3	11 7	5 23.76	+15 54.2	1.824	2.682	12.9	19.1		
11 17	5 17.37	+29 57.6	2.722	3.633	7.0	21.1	11 17	5 17.88	+15 21.7	1.753	2.677	9.3	18.9		
11 27	5 9.47	+30 0.2	2.670	3.629	4.2	20.9	11 27	5 9.92	+14 51.2	1.706	2.671	5.5	18.6		
12 7	5 0.66	+29 55.4	2.646	3.625	2.0	20.7	12 7	5 0.75	+14 25.2	1.687	2.666	3.1	18.5		
12 17	4 51.75	+29 43.5	2.654	3.621	3.3	20.8	12 17	4 51.45	+14 6.0	1.697	2.661	5.3	18.6		
12 27	4 43.59	+29 25.9	2.692	3.617	6.1	21.0	12 27	4 43.17	+13 55.7	1.734	2.655	9.2	18.8		
1 6	4 36.89	+29 5.0	2.758	3.612	8.9	21.2	1 6	4 36.85	+13 55.4	1.796	2.650	12.8	19.0		
1 16	4 32.14	+28 43.6	2.848	3.607	11.2	21.4	1 16	4 33.06	+14 5.0	1.880	2.645	15.9	19.2		
<b>5385</b>	Kamenka	12	8.1	67°44'	2°7'	8.6	18	<b>407236</b>	2009 WR <sub>69</sub>	12	8.1	22°51'	5°3'	9.0	17
11 7	5 26.95	+30 1.0	2.125	2.965	12.0	17.0	11 7	5 27.28	+36 2.0	1.940	2.772	13.4	20.3		
11 17	5 19.90	+30 32.7	2.075	2.987	8.8	16.9	11 17	5 20.66	+36 52.0	1.876	2.775	10.3	20.1		
11 27	5 10.86	+30 56.5	2.051	3.010	5.3	16.7	11 27	5 11.53	+37 29.7	1.835	2.780	7.3	20.0		
12 7	5 0.79	+31 10.4	2.055	3.032	2.8	16.6	12 7	5 0.90	+37 51.0	1.822	2.784	5.4	19.9		
12 17	4 50.77	+31 13.8	2.089	3.055	4.3	16.7	12 17	4 50.10	+37 54.4	1.836	2.789	6.2	19.9		
12 27	4 41.92	+31 8.7	2.152	3.077	7.4	16.9	12 27	4 40.53	+37 41.7	1.878	2.794	9.0	20.1		
1 6	4 35.08	+30 58.1	2.242	3.100	10.5	17.2	1 6	4 33.30	+37 17.6	1.945	2.799	12.0	20.3		
1 16	4 30.76	+30 45.5	2.355	3.122	13.0	17.4	1 16	4 29.06	+36 47.7	2.034	2.805	14.7	20.5		
<b>328036</b>	2007 LK <sub>6</sub>	12	8.1	247°46'	6°5'	6.4	17	<b>11170</b>	1998 FY <sub>34</sub>	12	8.1	28°22'	0°5'	7.9	18
11 7	5 21.70	+2 29.2	2.335	3.160	11.6	21.1	11 7	5 24.33	+22 12.6	1.805	2.664	12.9	17.8		
11 17	5 16.01	+1 53.6	2.265	3.153	9.3	20.9	11 17	5 18.30	+22 0.9	1.741	2.668	9.2	17.5		
11 27	5 8.75	+1 29.5	2.219	3.146	7.3	20.8	11 27	5 10.12	+21 46.4	1.702	2.671	5.0	17.3		
12 7	5 0.59	+1 20.0	2.201	3.139	6.5	20.7	12 7	5 0.76	+21 29.6	1.690	2.675	0.6	17.0		
12 17	4 52.32	+1 26.9	2.211	3.132	7.5	20.7	12 17	4 51.36	+21 12.1	1.707	2.679	4.1	17.3		
12 27	4 44.79	+1 50.6	2.248	3.125	9.6	20.9	12 27	4 43.10	+20 56.1	1.752	2.683	8.4	17.5		
1 6	4 38.71	+2 29.3	2.310	3.118	12.0	21.0	1 6	4 36.91	+20 43.9	1.823	2.688	12.1	17.8		
1 16	4 34.57	+3 20.5	2.394	3.110	14.2	21.2	1 16	4 33.34	+20 37.4	1.915	2.693	15.2	18.0		
<b>493976</b>	2016 AU <sub>74</sub>	12	8.1	277°00'	4°6'	6.6	18	<b>324083</b>	2005 WW <sub>94</sub>	12	8.1	39°27'	0°8'	7.9	18
11 7	5 20.76	+8 56.7	2.393	3.235	10.8	21.4	11 7	5 25.88	+19 30.2	1.566	2.429	14.3	19.7		
11 17	5 15.34	+8 19.4	2.319	3.227	8.2	21.2	11 17	5 19.48	+19 53.3	1.520	2.448	10.1	19.5		
11 27	5 8.39	+7 48.6	2.270	3.219	5.7	21.1	11 27	5 10.77	+20 17.5	1.498	2.468	5.5	19.3		
12 7	5 0.56	+7 26.9	2.250	3.211	4.6	21.0	12 7	5 0.82	+20 41.7	1.504	2.488	0.9	19.0		
12 17	4 52.62	+7 16.3	2.259	3.203	5.9	21.1	12 17	4 50.95	+21 5.3	1.537	2.509	4.4	19.3		
12 27	4 45.40	+7 17.9	2.296	3.195	8.4	21.2	12 27	4 42.47	+21 28.7	1.597	2.530	8.9	19.6		
1 6	4 39.60	+7 31.4	2.359	3.187	11.1	21.4	1 6	4 36.34	+21 52.6	1.683	2.552	12.7	19.9		
1 16	4 35.69	+7 55.6	2.445	3.179	13.5	21.5	1 16	4 33.08	+22 18.1	1.790	2.574	15.9	20.2		
<b>441283</b>	2007 XL <sub>16</sub>	12	8.1	42°25'	2°4'	8.4	18	<b>425359</b>	2010 BM <sub>75</sub>	12	8.1	124°17'	0°4'	7.9	18
11 7	5 28.31	+26 55.2	1.396	2.258	15.8	20.3	11 7	5 21.68	+20 47.1	2.842	3.687	9.2	20.7		
11 17	5 21.56	+27 33.7	1.351	2.277	11.4	20.0	11 17	5 15.84	+20 58.4	2.772	3.692	6.5	20.5		
11 27	5 12.00	+28 5.2	1.329	2.296	6.5	19.8	11 27	5 8.62	+21 9.2	2.729	3.697	3.5	20.4		
12 7	5 0.92	+28 26.5	1.333	2.315	2.5	19.6	12 7	5 0.62	+21 19.3	2.717	3.702	0.5	20.1		
12 17	4 49.92	+28 36.8	1.364	2.335	5.1	19.8	12 17	4 52.56	+21 28.8	2.735	3.706	2.9	20.3		
12 27	4 40.62	+28 38.2	1.422	2.356	9.7	20.2	12 27	4 45.17	+21 38.2	2.784	3.711	5.9	20.5		
1 6	4 34.14	+28 34.6	1.503	2.376	13.7	20.5	1 6	4 39.08	+21 48.3	2.862	3.715	8.6	20.7		
1 16	4 31.04	+28 30.2	1.605	2.398	17.1	20.7	1 16	4 34.73	+22 0.1	2.963	3.720	10.9	20.9		
<b>22250</b>	Konstfrolov	12	8.1	49°53'	2°4'	8.4	18	<b>393734</b>	2005 BM <sub>6</sub>	12	8.1	259°83'	2°9'	7.6	18
11 7	5 29.26	+27 27.4	1.371	2.233	16.1	17.5	11 7	5 26.05	+14 33.4	1.812	2.665	13.2	21.0		
11 17	5 22.18	+27 53.5	1.331	2.256	11.6	17.3	11 17	5 19.63	+14 32.9	1.734	2.655	9.6	20.7		
11 27	5 12.28	+28 11.4	1.313	2.279	6.6	17.1	11 27	5 10.94	+14 37.6	1.680	2.644	5.7	20.5		
12 7	5 0.95	+28 18.5	1.320	2.302	2.5	16.9	12 7	5 0.86	+14 48.3	1.655	2.634	3.0	20.3		
12 17	4 49.82	+28 14.9	1.355	2.326	5.1	17.1	12 17	4 50.51	+15 5.4	1.658	2.623	5.3	20.4		
12 27	4 40.50	+28 3.6	1.417	2.351	9.7	17.4	12 27	4 41.14	+15 29.4	1.690	2.612	9.3	20.6		
1 6	4 34.08	+27 49.3	1.502	2.375	13.7	17.8	1 6	4 33.77	+16 0.2	1.747	2.602	13.1	20.9		
1 16	4 31.04	+27 36.0	1.608	2.400	17.1	18.0	1 16	4 29.07	+16 37.2	1.825	2.590	16.3	21.1		
<b>452076</b>	2014 OQ <sub>377</sub>	12	8.1	99°67'	0°8'	8.3	18	<b>329508</b>	2002 RY <sub>175</sub>	12	8.1	30°74'	6°6'	5.8	17
11 7	5 25.43	+25 14.0	2.042	2.892											

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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>328748</b>	2009 <i>UX</i> <sub>39</sub>	12	8.1 109°44	1°9/ 8.4	18		<b>291871</b>	2006 <i>PT</i> <sub>11</sub>	12	8.1 115°58	3°1/ 7.6	18	
11 7	5 25.72	+27 55.7	2.350	3.190	11.0	20.8	11 7	5 29.61	+15 37.0	1.490	2.348	15.2	21.3
11 17	5 18.99	+28 23.4	2.285	3.200	8.0	20.6	11 17	5 22.23	+15 21.5	1.437	2.361	11.0	21.0
11 27	5 10.41	+28 45.5	2.246	3.209	4.7	20.4	11 27	5 12.33	+15 10.1	1.407	2.373	6.4	20.8
12 7	5 0.80	+29 0.5	2.237	3.218	2.0	20.2	12 7	5 1.06	+15 4.3	1.404	2.384	3.2	20.6
12 17	4 51.12	+29 7.8	2.258	3.227	3.7	20.4	12 17	4 49.85	+15 5.4	1.430	2.396	5.8	20.8
12 27	4 42.37	+29 8.5	2.309	3.236	6.9	20.6	12 27	4 40.12	+15 14.6	1.482	2.407	10.2	21.1
1 6	4 35.38	+29 5.1	2.388	3.244	9.9	20.8	1 6	4 32.92	+15 32.1	1.559	2.417	14.2	21.4
1 16	4 30.68	+29 0.1	2.490	3.253	12.5	21.0	1 16	4 28.81	+15 57.6	1.657	2.427	17.5	21.6
<b>411110</b>	2009 <i>WZ</i> <sub>72</sub>	12	8.1 55°25	0°8/ 7.9	18		<b>75948</b>	2000 <i>CH</i> <sub>88</sub>	12	8.1 298°50	2°5/ 7.7	18	
11 7	5 23.75	+20 29.8	2.007	2.863	12.0	21.1	11 7	5 25.05	+15 58.7	1.735	2.593	13.4	18.9
11 17	5 17.66	+20 27.0	1.949	2.874	8.5	20.9	11 17	5 19.00	+15 56.2	1.660	2.584	9.7	18.7
11 27	5 9.70	+20 23.5	1.917	2.886	4.6	20.7	11 27	5 10.66	+15 57.5	1.609	2.576	5.6	18.4
12 7	5 0.74	+20 19.6	1.913	2.897	0.9	20.5	12 7	5 0.91	+16 3.6	1.586	2.567	2.6	18.2
12 17	4 51.78	+20 16.1	1.938	2.909	3.8	20.7	12 17	4 50.93	+16 15.1	1.591	2.559	5.1	18.4
12 27	4 43.87	+20 14.3	1.992	2.921	7.7	21.0	12 27	4 41.97	+16 32.6	1.624	2.551	9.3	18.6
1 6	4 37.82	+20 15.7	2.072	2.934	11.0	21.2	1 6	4 35.09	+16 56.5	1.682	2.543	13.2	18.8
1 16	4 34.12	+20 21.3	2.175	2.946	13.9	21.4	1 16	4 30.93	+17 26.7	1.761	2.535	16.5	19.0
<b>215523</b>	2002 <i>VB</i> <sub>59</sub>	12	8.1 19°74	1°1/ 8.3	18		<b>273979</b>	2007 <i>LH</i> <sub>20</sub>	12	8.1 308°00	3°0/ 7.2	17	
11 7	5 25.91	+25 33.3	1.702	2.559	13.7	20.5	11 7	5 22.28	+14 44.0	2.183	3.035	11.3	21.3
11 17	5 19.63	+25 38.1	1.636	2.561	9.8	20.3	11 17	5 16.55	+14 14.5	2.114	3.034	8.2	21.1
11 27	5 10.94	+25 37.4	1.595	2.563	5.4	20.0	11 27	5 9.13	+13 47.8	2.071	3.033	5.0	20.9
12 7	5 0.87	+25 30.3	1.581	2.565	1.2	19.7	12 7	5 0.75	+13 26.0	2.055	3.032	3.0	20.8
12 17	4 50.71	+25 17.5	1.595	2.567	4.3	19.9	12 17	4 52.31	+13 10.9	2.070	3.031	4.8	20.9
12 27	4 41.80	+25 1.3	1.636	2.569	8.7	20.2	12 27	4 44.73	+13 4.0	2.113	3.030	8.0	21.1
1 6	4 35.18	+24 45.2	1.703	2.572	12.6	20.5	1 6	4 38.76	+13 6.0	2.182	3.029	11.1	21.3
1 16	4 31.46	+24 32.1	1.792	2.575	15.9	20.7	1 16	4 34.91	+13 16.6	2.274	3.028	13.8	21.5
<b>88367</b>	2001 <i>PY</i> <sub>8</sub>	12	8.1 93°74	2°5/ 8.7	18 R		<b>271257</b>	2003 <i>UA</i> <sub>109</sub>	12	8.1 325°38	0°8/ 7.8	17	
11 7	5 30.40	+29 56.7	1.553	2.403	15.1	19.0	11 7	5 22.67	+21 14.8	2.179	3.033	11.2	21.0
11 17	5 22.87	+29 50.5	1.498	2.417	11.0	18.8	11 17	5 16.90	+20 56.6	2.106	3.030	8.0	20.8
11 27	5 12.67	+29 32.8	1.466	2.430	6.5	18.6	11 27	5 9.35	+20 36.3	2.059	3.027	4.3	20.6
12 7	5 1.06	+29 2.7	1.462	2.443	2.7	18.3	12 7	5 0.78	+20 15.0	2.040	3.025	0.9	20.3
12 17	4 49.60	+28 21.8	1.485	2.456	4.9	18.5	12 17	4 52.13	+19 54.1	2.052	3.022	3.7	20.5
12 27	4 39.80	+27 35.1	1.537	2.469	9.2	18.8	12 27	4 44.37	+19 35.4	2.092	3.020	7.4	20.7
1 6	4 32.74	+26 48.3	1.613	2.481	13.2	19.1	1 6	4 38.31	+19 21.2	2.159	3.018	10.7	20.9
1 16	4 28.93	+26 6.4	1.711	2.494	16.6	19.3	1 16	4 34.45	+19 12.7	2.249	3.016	13.6	21.1
<b>160480</b>	2006 <i>XE</i> <sub>26</sub>	12	8.1 336°44	2°7/ 7.8	17		<b>4044</b>	Erikkhøg	12	8.1 79°23	1°7/ 7.8	18	
11 7	5 24.03	+15 2.8	1.555	2.420	14.4	19.8	11 7	5 24.29	+16 55.4	2.139	2.990	11.5	16.5
11 17	5 18.51	+15 16.8	1.482	2.409	10.4	19.5	11 17	5 18.00	+17 5.1	2.077	2.998	8.2	16.3
11 27	5 10.48	+15 37.3	1.432	2.399	6.1	19.3	11 27	5 9.91	+17 17.5	2.040	3.007	4.6	16.1
12 7	5 0.87	+16 4.8	1.408	2.389	2.7	19.0	12 7	5 0.83	+17 32.5	2.033	3.015	1.7	16.0
12 17	4 50.95	+16 38.7	1.412	2.380	5.4	19.2	12 17	4 51.70	+17 50.2	2.055	3.023	4.0	16.1
12 27	4 42.12	+17 18.6	1.442	2.372	9.9	19.4	12 27	4 43.50	+18 10.8	2.106	3.032	7.6	16.4
1 6	4 35.52	+18 3.7	1.497	2.365	14.1	19.6	1 6	4 37.02	+18 34.5	2.185	3.040	10.8	16.6
1 16	4 31.88	+18 53.0	1.572	2.358	17.7	19.9	1 16	4 32.78	+19 1.5	2.286	3.048	13.5	16.8
<b>479389</b>	2013 <i>YV</i> <sub>11</sub>	12	8.1 316°44	11°2/ 12.8	18		<b>241855</b>	2001 <i>TM</i> <sub>109</sub>	12	8.1 84°70	0°3/ 7.9	18	
11 7	5 36.73	+50 12.1	1.347	2.143	20.0	20.1	11 7	5 26.88	+23 17.1	1.948	2.799	12.5	20.4
11 17	5 28.92	+50 4.8	1.262	2.123	17.1	19.8	11 17	5 19.79	+22 50.7	1.899	2.821	8.8	20.2
11 27	5 16.52	+49 20.0	1.196	2.104	14.0	19.6	11 27	5 10.81	+22 20.4	1.876	2.844	4.7	20.0
12 7	5 1.47	+47 48.5	1.152	2.086	11.6	19.4	12 7	5 0.91	+21 47.2	1.881	2.866	0.5	19.8
12 17	4 46.45	+45 29.0	1.132	2.068	11.4	19.3	12 17	4 51.20	+21 13.2	1.916	2.888	3.8	20.1
12 27	4 34.17	+42 31.9	1.138	2.051	13.7	19.4	12 27	4 42.75	+20 41.5	1.981	2.909	7.7	20.4
1 6	4 26.29	+39 16.2	1.167	2.034	17.3	19.6	1 6	4 36.34	+20 14.8	2.072	2.931	11.2	20.6
1 16	4 23.34	+36 1.0	1.219	2.018	21.0	19.8	1 16	4 32.40	+19 54.9	2.186	2.952	14.0	20.8
<b>419920</b>	2011 <i>BN</i> <sub>21</sub>	12	8.1 348°76	5°7/ 10.1	16		<b>51800</b>	2001 <i>NN</i> <sub>2</sub>	12	8.1 61°27	0°2/ 8.0	18	
11 7	5 26.03	+38 43.6	1.636	2.471	15.2	20.2	11 7	5 25.55	+23 35.2	1.796	2.652	13.1	19.1
11 17	5 20.08	+38 35.5	1.563	2.464	11.9	19.9	11 17	5 19.20	+23 12.3	1.730	2.656	9.3	18.8
11 27	5 11.31	+38 7.6	1.512	2.458	8.4	19.7	11 27	5 10.66	+22 44.8	1.690	2.659	5.1	18.6
12 7	5 0.95	+37 17.5	1.486	2.452	5.9	19.6	12 7	5 0.91	+22 13.4	1.677	2.662	0.5	18.3
12 17	4 50.56	+36 6.3	1.488	2.447	6.6	19.6	12 17	4 51.15	+21 40.3	1.694	2.666	4.1	18.5
12 27	4 41.72	+34 40.2	1.516	2.443	9.8	19.8	12 27	4 42.59	+21 8.6	1.738	2.669	8.4	18.8
1 6	4 35.60	+33 7.8	1.569	2.440	13.4	20.0	1 6	4 36.17	+20 41.5	1.808	2.673	12.2	19.1
1 16	4 32.79	+31 37.3	1.644	2.438	16.7	20.2	1 16	4 32.43	+20 21.5	1.900	2.676	15.4	19.3
<b>176263</b>	2001 <i>RF</i> <sub>40</sub>	12	8.1 39°00	3°0/ 9.2	17		<b>249944</b>	2001 <i>TV</i> <sub>178</sub>	12	8.1 33°31	0°1/ 8.1	18	
11 7	5 27.46	+32 56.6	1.840	2.680	13.6	20.1	11 7	5 25.01	+24 9.1	1.677	2.538	13.7	20.4
11 17	5 20.62	+32 36.1	1.770	2.682	10.1	19.9	11 17	5 18.91	+23 52.3	1.617	2.544	9.7	20.2
11 27	5 11.42	+32 2.2	1.726	2.684	6.2	19.7	11 27	5 10.53	+23 30.6	1.581	2.550	5.3	20.0
12 7	5 0.96	+31 14.1	1.708	2.686	3.2	19.5	12 7	5 0.90	+23 4.4	1.572	2.557	0.5	19.6
12 17	4 50.54	+30 14.0	1.720	2.688	4.7	19.6	12 17	4 51.28	+22 35.7	1.591	2.564	4.2	19.9
12 27	4 41.49	+29 6.8	1.760	2.691	8.4	19.9	12 27	4 42.95	+22 7.5	1.638	2.572	8.7	20.2
1 6	4 34.79	+27 58.8	1.827	2.693	12.0	20.1	1 6	4 36.87	+21 43.3	1.710	2.579	12.6	20.5
1 16	4 30.97	+26 55.3	1.916	2.695	15.2	20.3	1 16	4 33.58	+21 25.5	1.804	2.587	15.8	20.7
<b>513247</b>	2006 <i>DA</i> <sub>29</sub>	12	8.1 67°74	7°8/ 9.7	18		<b>305178</b>	2007 <i>VY</i> <sub>294</sub>	12	8.1 88°34	3°4/ 8.7	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>78311</b>	2002 <i>PB</i> <sub>66</sub>	12	8.1	35°96	4°9/ 9.6	17	<b>279549</b>	2011 <i>CP</i> <sub>39</sub>	12	8.1	100°89	3°1/ 7.5	18
11 7	5 28.98	+36 15.6	1.597	2.436	15.4	19.6	11 7	5 23.05	+12 38.1	2.292	3.138	11.1	20.4
11 17	5 22.06	+36 13.5	1.535	2.441	11.7	19.4	11 17	5 17.02	+12 32.4	2.229	3.145	8.1	20.2
11 27	5 12.33	+35 54.0	1.496	2.447	7.9	19.2	11 27	5 9.37	+12 32.0	2.192	3.151	5.0	20.0
12 7	5 1.09	+35 14.8	1.482	2.453	5.1	19.0	12 7	5 0.83	+12 37.8	2.183	3.158	3.1	19.9
12 17	4 49.92	+34 17.4	1.496	2.458	6.1	19.1	12 17	4 52.25	+12 50.5	2.205	3.165	4.7	20.0
12 27	4 40.42	+33 7.4	1.537	2.465	9.6	19.3	12 27	4 44.51	+13 10.3	2.255	3.171	7.7	20.2
1 6	4 33.72	+31 52.9	1.602	2.471	13.3	19.6	1 6	4 38.33	+13 36.8	2.333	3.178	10.6	20.4
1 16	4 30.36	+30 41.1	1.690	2.478	16.5	19.8	1 16	4 34.17	+14 9.3	2.433	3.184	13.1	20.6
<b>194893</b>	2002 <i>AX</i> <sub>94</sub>	12	8.1	280°10	1°5/ 8.4	18	<b>283837</b>	2003 <i>UP</i> <sub>59</sub>	12	8.1	69°49	6°2/ 10.1	18
11 7	5 27.69	+26 20.7	1.639	2.495	14.2	20.2	11 7	5 32.51	+39 6.4	1.616	2.442	15.8	20.5
11 17	5 21.26	+26 29.5	1.556	2.479	10.3	19.9	11 17	5 24.46	+39 21.3	1.568	2.463	12.3	20.4
11 27	5 12.06	+26 32.1	1.496	2.463	5.9	19.6	11 27	5 13.56	+39 16.6	1.543	2.484	8.7	20.2
12 7	5 1.09	+26 26.8	1.463	2.447	1.6	19.3	12 7	5 1.24	+38 49.1	1.544	2.505	6.3	20.1
12 17	4 49.73	+26 13.5	1.459	2.431	4.7	19.5	12 17	4 49.21	+37 59.9	1.572	2.525	7.0	20.2
12 27	4 39.54	+25 54.8	1.482	2.414	9.4	19.7	12 27	4 39.10	+36 54.9	1.627	2.546	9.8	20.4
1 6	4 31.78	+25 34.5	1.529	2.398	13.8	19.9	1 6	4 31.99	+35 42.5	1.707	2.567	13.1	20.7
1 16	4 27.22	+25 16.9	1.598	2.382	17.5	20.1	1 16	4 28.34	+34 30.4	1.809	2.588	16.0	20.9
<b>516586</b>	2007 <i>FE</i> <sub>25</sub>	12	8.1	291°90	1°0/ 8.3	18	<b>238670</b>	2005 <i>EQ</i> <sub>171</sub>	12	8.1	18°81	14°8/ 2.1	18
11 7	5 27.56	+25 10.0	1.478	2.340	15.1	21.9	11 7	5 23.33	-14 9.3	1.771	2.537	17.1	20.0
11 17	5 21.34	+25 15.1	1.399	2.326	10.9	21.6	11 17	5 17.57	-16 17.2	1.733	2.538	15.7	19.9
11 27	5 12.16	+25 14.6	1.344	2.312	6.1	21.3	11 27	5 9.78	-17 57.2	1.714	2.539	14.9	19.8
12 7	5 1.11	+25 7.2	1.314	2.298	1.2	21.0	12 7	5 0.88	-19 1.2	1.717	2.540	14.9	19.8
12 17	4 49.67	+24 53.1	1.312	2.285	4.9	21.2	12 17	4 51.94	-19 25.2	1.742	2.541	15.7	19.9
12 27	4 39.52	+24 35.1	1.336	2.271	10.0	21.5	12 27	4 44.07	-19 9.6	1.785	2.542	17.0	20.0
1 6	4 32.01	+24 17.3	1.385	2.258	14.7	21.7	1 6	4 38.15	-18 19.3	1.846	2.543	18.4	20.1
1 16	4 27.92	+24 3.6	1.453	2.245	18.6	21.9	1 16	4 34.72	-17 1.6	1.922	2.545	19.8	20.2
<b>395871</b>	2013 <i>AF</i> <sub>23</sub>	12	8.1	60°70	1°1/ 7.9	18	<b>446823</b>	2001 <i>FB</i> <sub>152</sub>	12	8.1	259°37	4°4/ 6.5	18
11 7	5 26.29	+20 11.2	1.634	2.495	14.0	20.7	11 7	5 25.17	+12 40.9	2.031	2.878	12.2	21.3
11 17	5 19.82	+20 7.8	1.578	2.505	9.9	20.5	11 17	5 18.85	+11 40.9	1.943	2.858	9.1	21.0
11 27	5 11.03	+20 4.0	1.546	2.515	5.4	20.3	11 27	5 10.53	+10 43.2	1.881	2.838	6.0	20.8
12 7	5 0.98	+20 0.0	1.542	2.526	1.1	20.0	12 7	5 0.97	+9 51.6	1.848	2.817	4.4	20.7
12 17	4 50.94	+19 56.8	1.565	2.537	4.5	20.3	12 17	4 51.17	+9 9.8	1.844	2.795	6.3	20.7
12 27	4 42.20	+19 56.0	1.617	2.548	8.9	20.6	12 27	4 42.21	+8 41.0	1.868	2.774	9.7	20.9
1 6	4 35.76	+19 59.3	1.693	2.559	12.9	20.8	1 6	4 34.99	+8 26.5	1.918	2.751	13.1	21.1
1 16	4 32.15	+20 7.9	1.791	2.570	16.1	21.1	1 16	4 30.15	+8 26.3	1.990	2.728	16.0	21.2
<b>336212</b>	2008 <i>SN</i> <sub>45</sub>	12	8.1	67°92	1°3/ 8.3	18	<b>280168</b>	2002 <i>QJ</i> <sub>109</sub>	12	8.1	174°32	5°2/ 6.6	17
11 7	5 28.19	+25 46.8	1.546	2.405	14.8	20.6	11 7	5 21.45	+5 46.3	2.525	3.356	10.6	21.2
11 17	5 21.43	+25 56.5	1.485	2.410	10.6	20.3	11 17	5 15.77	+5 10.9	2.459	3.357	8.3	21.1
11 27	5 12.01	+26 0.1	1.448	2.416	5.9	20.1	11 27	5 8.66	+4 44.2	2.420	3.358	6.2	20.9
12 7	5 1.08	+25 56.4	1.438	2.422	1.5	19.8	12 7	5 0.78	+4 28.6	2.408	3.359	5.2	20.9
12 17	4 50.09	+25 45.7	1.455	2.427	4.6	20.0	12 17	4 52.85	+4 25.7	2.426	3.359	6.3	20.9
12 27	4 40.54	+25 30.7	1.500	2.433	9.3	20.3	12 27	4 45.63	+4 36.1	2.473	3.359	8.5	21.1
1 6	4 33.56	+25 15.1	1.569	2.439	13.4	20.6	1 6	4 39.78	+4 59.0	2.545	3.360	10.8	21.2
1 16	4 29.77	+25 2.5	1.659	2.445	16.9	20.8	1 16	4 35.72	+5 32.6	2.639	3.360	12.9	21.4
<b>316929</b>	2000 <i>YC</i> <sub>92</sub>	12	8.1	0°92	4°2/ 9.4	17	<b>76908</b>	2000 <i>YG</i> <sub>126</sub>	12	8.1	219°86	4°5/ 8.9	18
11 7	5 26.21	+34 58.5	1.851	2.689	13.6	19.8	11 7	5 30.74	+35 38.2	2.278	3.097	12.1	20.0
11 17	5 19.88	+35 0.4	1.781	2.688	10.3	19.6	11 17	5 23.00	+36 17.7	2.193	3.087	9.3	19.8
11 27	5 11.11	+34 48.3	1.735	2.688	6.8	19.4	11 27	5 12.86	+36 46.4	2.134	3.077	6.5	19.6
12 7	5 0.99	+34 20.3	1.716	2.688	4.3	19.2	12 7	5 1.22	+37 0.5	2.103	3.067	4.6	19.4
12 17	4 50.82	+33 37.3	1.725	2.688	5.3	19.3	12 17	4 49.25	+36 58.5	2.102	3.055	5.5	19.5
12 27	4 41.98	+32 43.3	1.762	2.689	8.6	19.5	12 27	4 38.28	+36 41.8	2.130	3.043	8.2	19.6
1 6	4 35.48	+31 44.2	1.824	2.690	12.1	19.7	1 6	4 29.40	+36 14.6	2.185	3.030	11.2	19.8
1 16	4 31.90	+30 45.9	1.909	2.692	15.1	19.9	1 16	4 23.29	+35 42.2	2.263	3.017	13.9	20.0
<b>442878</b>	2013 <i>BG</i> <sub>29</sub>	12	8.1	3°47	0°3/ 8.1	18	<b>34217</b>	2000 <i>QA</i> <sub>78</sub>	12	8.1	74°11	4°1/ 9.1	18
11 7	5 26.55	+21 5.3	1.367	2.236	15.7	20.5	11 7	5 31.50	+32 45.9	1.527	2.372	15.6	17.8
11 17	5 20.61	+21 50.6	1.305	2.235	11.2	20.2	11 17	5 23.77	+33 5.9	1.479	2.392	11.6	17.7
11 27	5 11.74	+22 37.5	1.265	2.235	6.1	19.9	11 27	5 13.22	+33 12.1	1.455	2.412	7.3	17.5
12 7	5 1.07	+23 23.1	1.251	2.236	0.7	19.6	12 7	5 1.23	+33 1.9	1.457	2.432	4.2	17.3
12 17	4 50.12	+24 4.9	1.264	2.238	4.9	19.9	12 17	4 49.43	+32 35.9	1.487	2.452	5.7	17.5
12 27	4 40.58	+24 42.2	1.304	2.240	10.1	20.2	12 27	4 39.42	+31 58.3	1.544	2.472	9.5	17.7
1 6	4 33.73	+25 16.0	1.367	2.243	14.6	20.5	1 6	4 32.30	+31 15.9	1.625	2.492	13.3	18.0
1 16	4 30.33	+25 48.2	1.450	2.248	18.4	20.7	1 16	4 28.58	+30 34.4	1.728	2.511	16.4	18.3
<b>485700</b>	2011 <i>YD</i> <sub>33</sub>	12	8.1	304°11	0°2/ 8.0	17	<b>259887</b>	2004 <i>DH</i> <sub>34</sub>	12	8.1	281°08	7°9/ 6.1	17
11 7	5 24.61	+24 21.8	1.763	2.621	13.2	21.1	11 7	5 23.62	+2 23.6	1.912	2.743	13.6	20.6
11 17	5 18.81	+23 47.6	1.676	2.602	9.5	20.8	11 17	5 17.83	+1 34.6	1.832	2.723	11.0	20.4
11 27	5 10.62	+23 6.5	1.614	2.583	5.2	20.5	11 27	5 10.02	+0 58.7	1.776	2.704	8.7	20.2
12 7	5 0.97	+22 19.5	1.578	2.563	0.5	20.1	12 7	5 0.94	+0 40.4	1.745	2.684	7.9	20.1
12 17	4 51.05	+21 29.3	1.572	2.544	4.3	20.4	12 17	4 51.58	+0 42.9	1.742	2.664	9.1	20.1
12 27	4 42.19	+20 40.1	1.594	2.526	9.0	20.6	12 27	4 43.05	+1 7.1	1.765	2.645	11.7	20.3
1 6	4 35.48	+19 56.3	1.641	2.507	13.2	20.8	1 6	4 36.27	+1 51.1	1.811	2.625	14.6	20.4
1 16	4 31.57	+19 21.3	1.709	2.489	16.7	21.0	1 16	4 31.88	+2 51.5	1.878	2.605	17.2	20.6
<b>117901</b>	3055 <i>P-L</i>	12	8.1	54°51	18°1/ 16.6	18	<b>490097</b>	2008 <i>UW</i> <sub>26</sub>	12	8.1	186°79	3°8/ 8.8	17
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EPHEMERIDES

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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>460624</b>	2014 <i>UU</i> <sub>89</sub>		12 8.1	2°50	2°0/ 8.4	17	<b>281924</b>	2011 <i>FZ</i> <sub>12</sub>		12 8.1	95°97	1°0/ 7.9	18
11 7	5 25.40	+27 11.3	2.159	3.005	11.6	21.0	11 7	5 29.46	+19 25.9	1.599	2.455	14.5	20.6
11 17	5 19.04	+27 49.9	2.087	3.004	8.4	20.8	11 17	5 22.11	+19 38.6	1.546	2.470	10.3	20.4
11 27	5 10.64	+28 24.0	2.041	3.004	4.9	20.6	11 27	5 12.32	+19 52.0	1.517	2.485	5.6	20.1
12 7	5 1.00	+28 51.4	2.024	3.005	2.1	20.4	12 7	5 1.21	+20 5.5	1.515	2.500	1.1	19.9
12 17	4 51.16	+29 10.8	2.036	3.005	4.0	20.5	12 17	4 50.12	+20 19.0	1.543	2.514	4.6	20.1
12 27	4 42.25	+29 22.8	2.078	3.005	7.5	20.7	12 27	4 40.44	+20 33.2	1.598	2.528	9.1	20.4
1 6	4 35.19	+29 29.6	2.146	3.006	10.8	20.9	1 6	4 33.19	+20 49.6	1.679	2.542	13.1	20.7
1 16	4 30.59	+29 33.8	2.237	3.007	13.6	21.1	1 16	4 28.94	+21 9.1	1.781	2.556	16.3	21.0
<b>96091</b>	1267 <i>T</i> <sub>-2</sub>		12 8.1	79°07	4°7/ 9.3	17	<b>267972</b>	2004 <i>FX</i> <sub>109</sub>		12 8.1	289°23	0°1/ 8.1	18
11 7	5 27.88	+36 10.4	2.096	2.922	12.7	20.0	11 7	5 27.64	+23 0.6	1.441	2.306	15.3	20.8
11 17	5 20.86	+36 38.6	2.035	2.932	9.7	19.8	11 17	5 21.51	+22 55.2	1.359	2.287	11.1	20.5
11 27	5 11.60	+36 53.9	1.998	2.943	6.7	19.7	11 27	5 12.36	+22 45.9	1.299	2.269	6.1	20.1
12 7	5 1.09	+36 53.8	1.988	2.953	4.7	19.6	12 7	5 1.25	+22 32.1	1.265	2.250	0.6	19.7
12 17	4 50.55	+36 37.8	2.008	2.963	5.5	19.6	12 17	4 49.67	+22 15.0	1.258	2.231	5.0	20.0
12 27	4 41.25	+36 8.6	2.056	2.974	8.2	19.8	12 27	4 39.33	+21 57.3	1.278	2.213	10.4	20.2
1 6	4 34.15	+29 31.1	2.130	2.984	11.1	20.0	1 6	4 31.62	+21 43.0	1.322	2.195	15.3	20.5
1 16	4 29.81	+34 50.4	2.226	2.994	13.7	20.2	1 16	4 27.38	+21 35.1	1.385	2.176	19.4	20.7
<b>487377</b>	2014 <i>QQ</i> <sub>273</sub>		12 8.1	80°30	4°2/ 9.3	17	<b>342363</b>	2008 <i>TK</i> <sub>185</sub>		12 8.1	252°89	0°8/ 7.9	18
11 7	5 27.14	+35 1.0	2.085	2.915	12.6	21.5	11 7	5 27.24	+20 36.2	1.783	2.638	13.3	21.1
11 17	5 20.36	+35 19.2	2.018	2.920	9.6	21.3	11 17	5 20.66	+20 37.0	1.703	2.627	9.5	20.9
11 27	5 11.34	+35 25.2	1.975	2.924	6.4	21.1	11 27	5 11.66	+20 37.0	1.647	2.616	5.2	20.6
12 7	5 1.08	+35 16.9	1.960	2.929	4.3	21.0	12 7	5 1.17	+20 36.2	1.619	2.604	0.9	20.3
12 17	4 50.76	+34 54.1	1.973	2.933	5.2	21.0	12 17	4 50.39	+20 35.0	1.620	2.592	4.4	20.5
12 27	4 41.63	+34 19.6	2.016	2.938	8.1	21.2	12 27	4 40.65	+20 34.9	1.650	2.579	8.9	20.7
1 6	4 34.65	+33 38.2	2.084	2.942	11.1	21.4	1 6	4 33.04	+20 37.9	1.705	2.567	13.0	21.0
1 16	4 30.38	+32 55.0	2.176	2.947	13.9	21.6	1 16	4 28.26	+20 45.6	1.781	2.554	16.4	21.2
<b>113496</b>	2002 <i>TF</i> <sub>5</sub>		12 8.1	67°56	2°2/ 7.7	18	<b>225710</b>	2001 <i>QX</i> <sub>278</sub>		12 8.1	16°15	0°2/ 8.1	18
11 7	5 27.90	+17 21.5	1.657	2.514	14.0	19.3	11 7	5 26.07	+21 18.7	1.081	1.963	17.9	18.8
11 17	5 20.70	+17 11.3	1.618	2.542	10.0	19.1	11 17	5 20.66	+21 53.6	1.031	1.968	12.8	18.5
11 27	5 11.39	+17 3.4	1.604	2.570	5.6	18.9	11 27	5 11.91	+22 29.0	1.002	1.974	6.9	18.2
12 7	5 1.08	+16 58.6	1.616	2.598	2.2	18.8	12 7	5 1.20	+23 2.3	0.997	1.982	0.7	17.8
12 17	4 51.00	+16 57.8	1.658	2.626	4.8	19.0	12 17	4 50.36	+23 31.8	1.016	1.991	5.5	18.2
12 27	4 42.34	+17 2.4	1.728	2.654	8.8	19.3	12 27	4 41.35	+23 57.6	1.060	2.001	11.2	18.5
1 6	4 35.96	+17 12.9	1.823	2.682	12.4	19.6	1 6	4 35.54	+24 21.8	1.125	2.012	16.2	18.8
1 16	4 32.28	+17 29.5	1.940	2.709	15.4	19.8	1 16	4 33.61	+24 46.3	1.209	2.025	20.2	19.2
<b>456257</b>	2006 <i>QM</i> <sub>132</sub>		12 8.1	187°24	15°1/ 9.7	18	<b>23359</b>	2301 <i>T</i> <sub>-1</sub>		12 8.1	40°74	4°9/ 8.8	18
11 7	5 50.75	+52 55.9	1.420	2.185	20.6	20.8	11 7	5 31.16	+30 55.8	1.064	1.933	19.1	17.1
11 17	5 40.44	+55 10.2	1.362	2.185	18.3	20.6	11 17	5 24.43	+31 47.1	1.023	1.949	14.1	16.9
11 27	5 23.76	+56 55.2	1.322	2.185	16.2	20.5	11 27	5 13.94	+32 24.8	1.003	1.966	8.8	16.7
12 7	5 2.43	+57 54.0	1.304	2.183	15.1	20.4	12 7	5 1.40	+32 43.1	1.006	1.983	5.1	16.5
12 17	4 39.95	+57 57.1	1.308	2.181	15.5	20.4	12 17	4 48.98	+32 40.7	1.033	2.001	7.1	16.7
12 27	4 20.52	+57 8.6	1.335	2.178	17.0	20.5	12 27	4 38.87	+32 22.0	1.085	2.020	11.8	17.0
1 6	4 7.03	+55 43.7	1.381	2.175	19.3	20.7	1 6	4 32.48	+31 54.9	1.158	2.040	16.3	17.3
1 16	4 0.40	+54 0.7	1.444	2.170	21.6	20.8	1 16	4 30.34	+31 26.6	1.249	2.060	20.0	17.7
<b>403140</b>	2008 <i>EV</i> <sub>103</sub>		12 8.1	317°06	2°5/ 8.6	17	<b>121239</b>	1999 <i>RQ</i> <sub>41</sub>		12 8.1	95°76	0°7/ 8.3	18
11 7	5 26.26	+29 18.3	1.791	2.641	13.4	21.7	11 7	5 25.51	+25 4.9	2.121	2.969	11.7	20.1
11 17	5 20.01	+29 32.3	1.716	2.635	9.9	21.4	11 17	5 18.97	+25 8.2	2.060	2.980	8.4	19.9
11 27	5 11.29	+29 38.0	1.666	2.629	5.9	21.2	11 27	5 10.52	+25 7.2	2.024	2.991	4.6	19.7
12 7	5 1.10	+29 33.4	1.643	2.623	2.7	21.0	12 7	5 1.05	+25 1.3	2.017	3.001	0.9	19.5
12 17	4 50.70	+29 18.5	1.648	2.618	4.6	21.1	12 17	4 51.58	+24 51.0	2.039	3.011	3.6	19.7
12 27	4 41.47	+28 55.7	1.682	2.613	8.6	21.3	12 27	4 43.15	+24 38.4	2.092	3.022	7.3	19.9
1 6	4 34.52	+28 29.3	1.740	2.608	12.5	21.5	1 6	4 36.59	+24 25.7	2.170	3.032	10.6	20.2
1 16	4 30.50	+28 3.5	1.820	2.603	15.7	21.7	1 16	4 32.41	+24 15.4	2.272	3.042	13.4	20.4
<b>214024</b>	2004 <i>DZ</i> <sub>26</sub>		12 8.1	64°56	1°1/ 8.3	18	<b>441688</b>	2008 <i>YL</i> <sub>99</sub>		12 8.1	30°91	4°3/ 7.8	16
11 7	5 26.55	+25 26.8	1.801	2.654	13.2	20.4	11 7	5 25.71	+12 27.5	1.324	2.191	16.2	20.6
11 17	5 20.04	+25 37.7	1.736	2.659	9.5	20.1	11 17	5 19.74	+12 26.9	1.275	2.201	11.9	20.4
11 27	5 11.22	+25 43.7	1.696	2.663	5.3	19.9	11 27	5 11.15	+12 35.8	1.249	2.212	7.3	20.1
12 7	5 1.08	+25 43.6	1.683	2.667	1.3	19.6	12 7	5 1.12	+12 55.5	1.247	2.224	4.3	20.0
12 17	4 50.86	+25 37.6	1.699	2.671	4.1	19.9	12 17	4 51.10	+13 25.9	1.271	2.236	6.6	20.2
12 27	4 41.84	+25 27.7	1.744	2.676	8.3	20.1	12 27	4 42.56	+14 6.3	1.322	2.249	10.9	20.4
1 6	4 35.02	+25 17.0	1.814	2.680	12.1	20.4	1 6	4 36.60	+14 54.8	1.396	2.263	15.0	20.7
1 16	4 30.97	+25 8.3	1.906	2.685	15.3	20.6	1 16	4 33.78	+15 49.3	1.489	2.277	18.4	21.0
<b>51440</b>	2001 <i>FW</i> <sub>24</sub>		12 8.1	190°12	2°4/ 8.8	18	<b>17495</b>	1992 <i>DY</i>		12 8.1	219°22	2°5/ 7.8	18
11 7	5 31.31	+30 13.8	2.002	2.837	12.8	19.8	11 7	5 29.36	+16 49.6	1.561	2.418	14.7	17.6
11 17	5 23.33	+30 13.3	1.925	2.836	9.4	19.6	11 17	5 22.33	+16 44.0	1.488	2.412	10.7	17.3
11 27	5 12.98	+30 3.0	1.874	2.835	5.6	19.4	11 27	5 12.63	+16 41.3	1.440	2.406	6.1	17.1
12 7	5 1.28	+29 41.3	1.852	2.832	2.5	19.2	12 7	5 1.29	+16 42.5	1.418	2.400	2.5	16.8
12 17	4 49.47	+29 8.8	1.860	2.828	4.3	19.3	12 17	4 49.70	+16 48.2	1.425	2.393	5.4	17.0
12 27	4 38.88	+28 28.9	1.897	2.824	8.2	19.5	12 27	4 39.35	+16 59.7	1.459	2.386	10.1	17.3
1 6	4 30.54	+27 46.4	1.962	2.819	11.8	19.7	1 6	4 31.41	+17 17.8	1.518	2.378	14.4	17.5
1 16	4 25.05	+27 6.0	2.049	2.813	14.8	19.9	1 16	4 26.61	+17 42.8	1.598	2.370	18.0	17.7
<b>129454</b>	1991 <i>UQ</i> <sub>2</sub>		12 8.1	47°29	6°6/ 8.9	18	<b>242879</b>	2006 <i>HP</i> <sub>111</sub>		12 8.1	140°93	1°7/ 8.8	

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12 8.1

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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>326771</b>	2003 <i>SJ</i> <sub>196</sub>	12	8.1 109°33	2°9/ 7.0 18			<b>443166</b>	2014 <i>CA</i> <sub>23</sub>	12	8.1 255°65	0°5/ 8.2 18		
11 7	5 22.56	+15 40.2	2.290	3.140	10.9	20.1	11 7	5 29.17	+22 44.9	1.798	2.649	13.4	21.1
11 17	5 16.69	+14 50.1	2.225	3.144	7.9	19.9	11 17	5 22.20	+23 11.2	1.712	2.634	9.6	20.8
11 27	5 9.24	+14 1.4	2.186	3.148	4.8	19.7	11 27	5 12.63	+23 36.4	1.650	2.618	5.3	20.5
12 7	5 0.94	+13 16.7	2.176	3.152	2.9	19.6	12 7	5 1.35	+23 58.6	1.616	2.601	0.8	20.1
12 17	4 52.64	+12 38.6	2.196	3.155	4.7	19.7	12 17	4 49.62	+24 16.5	1.612	2.584	4.3	20.4
12 27	4 45.22	+12 9.5	2.245	3.159	7.8	19.9	12 27	4 38.88	+24 30.7	1.637	2.567	8.9	20.6
1 6	4 39.35	+11 50.6	2.320	3.162	10.8	20.1	1 6	4 30.32	+24 43.1	1.688	2.550	13.1	20.8
1 16	4 35.50	+11 42.2	2.418	3.166	13.3	20.3	1 16	4 24.75	+24 56.1	1.760	2.532	16.6	21.0
<b>363774</b>	2005 <i>EK</i> <sub>174</sub>	12	8.1 152°28	4°9/ 6.6 18			<b>495074</b>	2011 <i>HJ</i> <sub>3</sub>	12	8.1 272°65	1°1/ 8.3 17		
11 7	5 24.61	+ 8 21.3	2.361	3.195	11.2	21.7	11 7	5 25.13	+24 46.5	2.438	3.281	10.6	21.4
11 17	5 18.04	+ 7 33.9	2.301	3.204	8.5	21.5	11 17	5 18.80	+25 19.0	2.349	3.266	7.6	21.2
11 27	5 9.93	+ 6 53.5	2.268	3.213	6.0	21.4	11 27	5 10.56	+25 49.3	2.286	3.252	4.3	20.9
12 7	5 1.01	+ 6 22.9	2.263	3.221	4.9	21.3	12 7	5 1.13	+26 15.8	2.253	3.237	1.2	20.7
12 17	4 52.11	+ 6 4.4	2.288	3.228	6.2	21.4	12 17	4 51.39	+26 37.3	2.251	3.222	3.4	20.8
12 27	4 44.07	+ 5 59.2	2.343	3.235	8.6	21.6	12 27	4 42.35	+26 54.2	2.279	3.207	6.9	21.0
1 6	4 37.57	+ 6 6.7	2.423	3.241	11.2	21.8	1 6	4 34.88	+27 7.7	2.335	3.192	10.1	21.2
1 16	4 33.05	+ 6 25.7	2.525	3.246	13.4	21.9	1 16	4 29.60	+27 19.8	2.414	3.176	12.9	21.4
<b>415558</b>	2014 <i>QD</i> <sub>221</sub>	12	8.1 35°27	2°7/ 8.9 15			<b>397373</b>	2006 <i>UX</i> <sub>270</sub>	12	8.1 100°87	1°9/ 8.5 18		
11 7	5 25.82	+31 21.2	1.774	2.622	13.6	21.0	11 7	5 28.57	+27 22.6	2.049	2.892	12.3	21.1
11 17	5 19.51	+31 8.6	1.715	2.632	10.0	20.8	11 17	5 21.21	+27 47.3	1.994	2.910	8.9	20.9
11 27	5 10.92	+30 44.4	1.681	2.642	6.0	20.6	11 27	5 11.78	+28 5.9	1.964	2.927	5.1	20.7
12 7	5 1.12	+30 8.3	1.673	2.653	2.8	20.4	12 7	5 1.24	+28 16.6	1.963	2.944	2.0	20.5
12 17	4 51.42	+29 22.0	1.694	2.664	4.5	20.6	12 17	4 50.71	+28 19.1	1.991	2.961	4.0	20.7
12 27	4 43.08	+28 30.0	1.743	2.675	8.3	20.8	12 27	4 41.37	+28 15.1	2.050	2.978	7.6	21.0
1 6	4 37.05	+27 37.4	1.817	2.687	11.9	21.1	1 6	4 34.08	+28 7.5	2.135	2.994	10.9	21.2
1 16	4 33.83	+26 48.9	1.914	2.699	15.0	21.3	1 16	4 29.38	+27 59.4	2.243	3.010	13.6	21.4
<b>458036</b>	2009 <i>WD</i> <sub>212</sub>	12	8.1 294°52	2°3/ 7.3 18			<b>26892</b>	1995 <i>FZ</i> <sub>3</sub>	12	8.1 122°19	3°1/ 7.4 18		
11 7	5 22.86	+17 43.0	2.194	3.046	11.2	21.2	11 7	5 24.95	+14 35.2	1.984	2.835	12.3	17.9
11 17	5 17.23	+17 5.1	2.098	3.020	8.1	21.0	11 17	5 18.59	+14 13.2	1.922	2.841	8.9	17.7
11 27	5 9.71	+16 26.3	2.027	2.993	4.7	20.7	11 27	5 10.36	+13 55.0	1.885	2.848	5.4	17.5
12 7	5 1.02	+15 48.8	1.986	2.966	2.3	20.5	12 7	5 1.10	+13 42.1	1.877	2.854	3.1	17.4
12 17	4 52.05	+15 14.9	1.974	2.940	4.6	20.6	12 17	4 51.81	+13 36.3	1.898	2.861	5.1	17.5
12 27	4 43.81	+14 47.3	1.992	2.913	8.2	20.8	12 27	4 43.54	+13 38.5	1.948	2.866	8.5	17.7
1 6	4 37.17	+14 28.0	2.035	2.886	11.7	21.0	1 6	4 37.10	+13 49.1	2.023	2.872	11.8	17.9
1 16	4 32.74	+14 18.3	2.101	2.859	14.7	21.1	1 16	4 33.01	+14 7.8	2.121	2.878	14.6	18.1
<b>25546</b>	1999 <i>XL</i> <sub>164</sub>	12	8.1 45°50	1°4/ 8.1 18			<b>447199</b>	2005 <i>SX</i> <sub>216</sub>	12	8.1 28°30	4°1/ 8.7 18		
11 7	5 31.05	+17 38.6	1.065	1.940	18.6	16.7	11 7	5 27.44	+30 43.2	1.498	2.354	15.3	20.1
11 17	5 23.84	+18 19.2	1.032	1.965	13.2	16.5	11 17	5 21.14	+31 35.9	1.447	2.366	11.3	19.9
11 27	5 13.42	+19 4.1	1.020	1.991	7.2	16.3	11 27	5 12.01	+32 18.6	1.420	2.380	7.1	19.7
12 7	5 1.38	+19 50.7	1.033	2.017	1.5	16.0	12 7	5 1.27	+32 47.3	1.418	2.394	4.2	19.5
12 17	4 49.63	+20 36.2	1.072	2.045	5.6	16.4	12 17	4 50.48	+33 0.1	1.443	2.409	5.8	19.7
12 27	4 40.00	+21 19.8	1.135	2.073	11.1	16.7	12 27	4 41.24	+32 59.2	1.495	2.425	9.7	19.9
1 6	4 33.69	+22 2.0	1.221	2.101	15.8	17.1	1 6	4 34.73	+32 49.1	1.571	2.441	13.4	20.2
1 16	4 31.17	+22 43.6	1.326	2.129	19.5	17.4	1 16	4 31.56	+32 35.1	1.668	2.459	16.6	20.5
<b>114252</b>	2002 <i>WD</i> <sub>15</sub>	12	8.1 41°50	5°8/ 7.6 18			<b>273009</b>	2006 <i>DT</i> <sub>81</sub>	12	8.1 98°97	4°3/ 6.9 18		
11 7	5 26.79	+10 26.2	1.226	2.094	17.2	19.1	11 7	5 22.12	+10 18.7	2.255	3.100	11.3	20.6
11 17	5 20.61	+10 5.9	1.181	2.104	12.8	18.8	11 17	5 16.42	+ 9 45.0	2.192	3.103	8.4	20.4
11 27	5 11.66	+ 9 57.7	1.156	2.116	8.4	18.6	11 27	5 9.13	+ 9 17.6	2.154	3.106	5.7	20.3
12 7	5 1.22	+10 4.3	1.156	2.128	5.8	18.5	12 7	5 0.98	+ 8 58.7	2.144	3.110	4.3	20.2
12 17	4 50.83	+10 26.8	1.181	2.141	7.9	18.7	12 17	4 52.78	+ 8 50.3	2.163	3.113	5.7	20.3
12 27	4 42.06	+11 4.4	1.231	2.154	12.0	18.9	12 27	4 45.41	+ 8 53.2	2.211	3.116	8.4	20.5
1 6	4 36.03	+11 54.5	1.304	2.168	16.1	19.2	1 6	4 39.57	+ 9 7.1	2.284	3.119	11.2	20.7
1 16	4 33.31	+12 53.7	1.395	2.182	19.5	19.5	1 16	4 35.74	+ 9 31.0	2.380	3.122	13.6	20.8
<b>446129</b>	2013 <i>EC</i> <sub>33</sub>	12	8.1 5°54	5°5/ 9.7 18			<b>138266</b>	2000 <i>GC</i> <sub>14</sub>	12	8.1 280°25	4°3/ 8.9 18		
11 7	5 28.92	+37 35.6	1.716	2.548	14.8	20.4	11 7	5 28.53	+33 0.3	1.840	2.679	13.6	20.0
11 17	5 22.10	+37 49.1	1.648	2.548	11.5	20.2	11 17	5 21.80	+33 37.7	1.763	2.672	10.3	19.8
11 27	5 12.50	+37 45.7	1.603	2.548	8.0	20.0	11 27	5 12.40	+34 4.7	1.710	2.664	6.8	19.6
12 7	5 1.31	+37 22.3	1.584	2.549	5.7	19.9	12 7	5 1.34	+34 17.7	1.684	2.656	4.3	19.4
12 17	4 50.06	+36 38.9	1.592	2.549	6.5	19.9	12 17	4 49.97	+34 15.1	1.687	2.649	5.6	19.5
12 27	4 40.34	+35 40.0	1.627	2.550	9.6	20.1	12 27	4 39.78	+33 58.8	1.717	2.641	9.1	19.7
1 6	4 33.30	+34 33.0	1.688	2.552	13.0	20.3	1 6	4 31.97	+33 33.4	1.773	2.634	12.6	19.9
1 16	4 29.56	+33 25.1	1.770	2.553	16.1	20.5	1 16	4 27.27	+33 4.4	1.850	2.626	15.8	20.1
<b>97576</b>	2000 <i>DK</i> <sub>110</sub>	12	8.1 243°72	6°5/10.0 18			<b>37138</b>	2000 <i>VT</i> <sub>33</sub>	12	8.1 357°01	1°4/ 7.8 18		
11 7	5 29.55	+44 50.0	2.657	3.439	11.6	19.8	11 7	5 23.64	+19 36.2	1.791	2.652	12.9	18.5
11 17	5 22.14	+45 28.7	2.572	3.427	9.6	19.7	11 17	5 17.96	+19 23.4	1.723	2.650	9.2	18.3
11 27	5 12.43	+45 52.2	2.511	3.416	7.7	19.5	11 27	5 10.15	+19 10.3	1.680	2.649	5.1	18.1
12 7	5 1.31	+45 56.7	2.477	3.404	6.6	19.4	12 7	5 1.11	+18 58.0	1.664	2.648	1.4	17.8
12 17	4 49.94	+45 40.9	2.471	3.391	6.9	19.4	12 17	4 51.96	+18 47.6	1.677	2.648	4.4	18.0
12 27	4 39.58	+45 6.2	2.493	3.379	8.5	19.5	12 27	4 43.88	+18 41.1	1.718	2.648	8.6	18.3
1 6	4 31.27	+44 17.5	2.542	3.366	10.5	19.6	1 6	4 37.81	+18 40.1	1.783	2.648	12.4	18.5
1 16	4 25.65	+43 20.5	2.614	3.353	12.6	19.8	1 16	4 34.32	+18 45.5	1.870	2.649	15.5	18.7
<b>176965</b>	2002 <i>XN</i> <sub>54</sub>	12	8.1 85°81	1°9/ 7.6 18			<b>429763</b>	2012 <i>DN</i> <sub>15</sub>	12	8.1 174°18	1°2/ 7.9 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>342076</b>	2008 <i>SG</i> <sub>34</sub>	12	8.1 36°14	0°3/ 8.1 18			<b>250667</b>	2005 <i>NQ</i> <sub>67</sub>	12	8.1 208°26	0°8/ 8.3 18		
11 7	5 27.46	+22 0.7	1.127	2.005	17.6	19.8	11 7	5 26.09	+25 49.1	1.953	2.803	12.5	21.3
11 17	5 21.27	+22 5.1	1.090	2.024	12.5	19.6	11 17	5 19.64	+25 38.0	1.881	2.802	9.0	21.1
11 27	5 12.06	+22 7.2	1.074	2.045	6.7	19.3	11 27	5 11.04	+25 20.9	1.834	2.801	5.0	20.9
12 7	5 1.30	+22 6.6	1.082	2.067	0.7	19.0	12 7	5 1.24	+24 57.6	1.815	2.800	1.0	20.6
12 17	4 50.77	+22 4.1	1.115	2.089	5.3	19.4	12 17	4 51.35	+24 29.6	1.826	2.798	3.8	20.8
12 27	4 42.19	+22 2.3	1.173	2.112	10.6	19.7	12 27	4 42.55	+23 59.6	1.866	2.797	7.9	21.0
1 6	4 36.70	+22 3.8	1.254	2.136	15.2	20.1	1 6	4 35.79	+23 31.0	1.932	2.796	11.6	21.3
1 16	4 34.76	+22 10.3	1.354	2.161	18.9	20.4	1 16	4 31.61	+23 6.9	2.020	2.794	14.7	21.5
<b>383567</b>	2007 <i>EQ</i> <sub>156</sub>	12	8.1 190°24	0°2/ 8.2 18			<b>414375</b>	2008 <i>UQ</i> <sub>251</sub>	12	8.1 87°13	1°6/ 8.5 17		
11 7	5 28.60	+24 15.3	2.060	2.905	12.2	22.4	11 7	5 24.78	+27 37.7	2.386	3.228	10.8	21.3
11 17	5 21.30	+23 59.8	1.985	2.904	8.7	22.2	11 17	5 18.37	+27 52.1	2.325	3.240	7.8	21.1
11 27	5 11.90	+23 39.3	1.935	2.902	4.8	22.0	11 27	5 10.24	+28 0.9	2.289	3.253	4.5	21.0
12 7	5 1.30	+23 14.1	1.915	2.900	0.5	21.6	12 7	5 1.16	+28 3.2	2.283	3.265	1.7	20.8
12 17	4 50.62	+22 45.4	1.925	2.897	3.8	21.9	12 17	4 52.05	+27 59.0	2.307	3.277	3.5	20.9
12 27	4 41.00	+22 16.0	1.965	2.893	7.8	22.1	12 27	4 43.89	+27 49.9	2.360	3.289	6.7	21.2
1 6	4 33.36	+21 49.1	2.032	2.889	11.4	22.3	1 6	4 37.41	+27 38.3	2.441	3.301	9.7	21.4
1 16	4 28.28	+21 27.4	2.122	2.883	14.5	22.5	1 16	4 33.12	+27 26.7	2.546	3.312	12.2	21.6
<b>258109</b>	2001 <i>QE</i> <sub>208</sub>	12	8.1 75°19	6°5/ 9.9 18			<b>511712</b>	2015 <i>CG</i> <sub>49</sub>	12	8.1 352°58	3°5/ 7.7 18		
11 7	5 31.82	+40 0.7	1.840	2.656	14.6	20.2	11 7	5 26.54	+15 53.6	1.108	1.986	17.8	21.1
11 17	5 24.00	+40 40.3	1.788	2.674	11.5	20.0	11 17	5 21.00	+15 41.1	1.049	1.982	13.0	20.8
11 27	5 13.46	+41 2.3	1.760	2.692	8.5	19.9	11 27	5 12.18	+15 34.3	1.011	1.980	7.6	20.6
12 7	5 1.46	+41 2.6	1.757	2.710	6.6	19.8	12 7	5 1.38	+15 35.1	0.996	1.977	3.6	20.3
12 17	4 49.53	+40 40.6	1.783	2.727	7.2	19.9	12 17	4 50.35	+15 44.9	1.006	1.976	6.8	20.5
12 27	4 39.23	+40 0.2	1.835	2.745	9.5	20.0	12 27	4 40.96	+16 4.8	1.040	1.975	12.2	20.8
1 6	4 31.67	+39 8.1	1.913	2.763	12.4	20.3	1 6	4 34.62	+16 34.7	1.096	1.975	17.2	21.1
1 16	4 27.39	+38 11.8	2.013	2.780	15.0	20.5	1 16	4 32.08	+17 13.5	1.169	1.976	21.3	21.4
<b>484634</b>	2008 <i>SY</i> <sub>214</sub>	12	8.1 221°89	3°9/ 9.2 18			<b>295582</b>	2008 <i>SW</i> <sub>114</sub>	12	8.1 128°27	3°6/ 8.9 18		
11 7	5 27.00	+36 36.7	2.829	3.641	10.2	21.8	11 7	5 27.20	+34 20.3	2.649	3.470	10.5	20.6
11 17	5 20.01	+37 3.0	2.742	3.632	7.9	21.6	11 17	5 20.11	+34 56.9	2.583	3.480	8.0	20.4
11 27	5 11.18	+37 19.4	2.682	3.622	5.5	21.5	11 27	5 11.21	+35 24.5	2.544	3.491	5.4	20.3
12 7	5 1.24	+37 23.6	2.650	3.611	4.0	21.4	12 7	5 1.27	+35 40.7	2.534	3.500	3.7	20.2
12 17	4 51.09	+37 14.7	2.649	3.600	4.7	21.4	12 17	4 51.23	+35 44.6	2.554	3.510	4.5	20.3
12 27	4 41.73	+36 54.1	2.678	3.589	6.8	21.5	12 27	4 42.10	+35 37.6	2.605	3.520	6.8	20.4
1 6	4 33.99	+36 25.2	2.734	3.577	9.3	21.7	1 6	4 34.67	+35 22.8	2.682	3.529	9.3	20.6
1 16	4 28.44	+35 51.8	2.815	3.565	11.5	21.8	1 16	4 29.48	+35 3.6	2.784	3.537	11.6	20.8
<b>410884</b>	2009 <i>SB</i> <sub>49</sub>	12	8.1 161°15	3°2/ 8.9 17			<b>187535</b>	2006 <i>UH</i> <sub>87</sub>	12	8.1 356°83	1°0/ 8.3 18		
11 7	5 26.98	+32 38.4	2.576	3.402	10.6	21.6	11 7	5 25.84	+25 8.8	1.743	2.599	13.4	20.3
11 17	5 20.00	+33 10.3	2.504	3.407	7.9	21.4	11 17	5 19.70	+25 20.3	1.674	2.598	9.7	20.0
11 27	5 11.16	+33 34.1	2.459	3.411	5.2	21.2	11 27	5 11.19	+25 27.1	1.630	2.597	5.4	19.8
12 7	5 1.24	+33 47.6	2.443	3.414	3.2	21.1	12 7	5 1.27	+25 28.3	1.613	2.597	1.2	19.5
12 17	4 51.19	+33 50.1	2.457	3.417	4.2	21.2	12 17	4 51.20	+25 23.8	1.624	2.597	4.2	19.7
12 27	4 42.01	+33 42.6	2.501	3.420	6.8	21.4	12 27	4 42.29	+25 15.7	1.663	2.597	8.5	20.0
1 6	4 34.55	+33 28.3	2.573	3.423	9.6	21.6	1 6	4 35.61	+25 6.7	1.728	2.597	12.5	20.2
1 16	4 29.33	+33 10.6	2.669	3.425	11.9	21.7	1 16	4 31.77	+24 59.9	1.814	2.597	15.8	20.4
<b>273685</b>	2007 <i>EB</i> <sub>22</sub>	12	8.1 207°72	0°6/ 8.3 18			<b>103711</b>	2000 <i>CV</i> <sub>86</sub>	12	8.1 357°05	4°4/ 7.7 18		
11 7	5 29.08	+24 49.6	1.861	2.709	13.1	21.6	11 7	5 21.28	+13 25.2	1.129	2.012	17.2	17.9
11 17	5 21.89	+24 44.0	1.784	2.705	9.4	21.3	11 17	5 17.16	+13 18.8	1.070	2.005	12.6	17.6
11 27	5 12.33	+24 33.1	1.733	2.700	5.2	21.1	11 27	5 10.06	+13 22.1	1.033	2.000	7.8	17.3
12 7	5 1.37	+24 16.5	1.709	2.694	0.8	20.8	12 7	5 1.16	+13 37.4	1.018	1.997	4.5	17.1
12 17	4 50.23	+23 54.9	1.716	2.688	4.1	21.0	12 17	4 52.02	+14 5.4	1.027	1.995	7.1	17.3
12 27	4 40.23	+23 31.0	1.751	2.681	8.5	21.2	12 27	4 44.33	+14 45.8	1.060	1.996	12.0	17.6
1 6	4 32.43	+23 8.5	1.813	2.674	12.4	21.5	1 6	4 39.41	+15 36.4	1.115	1.998	16.7	17.8
1 16	4 27.44	+22 50.3	1.896	2.666	15.7	21.7	1 16	4 37.98	+16 34.6	1.187	2.002	20.6	18.1
<b>150068</b>	2006 <i>SK</i> <sub>12</sub>	12	8.1 38°87	4°0/ 7.8 18			<b>484274</b>	2007 <i>JF</i> <sub>18</sub>	12	8.1 201°79	4°6/ 6.9 17		
11 7	5 27.65	+13 59.6	1.141	2.015	17.7	19.6	11 7	5 22.15	+ 7 2.8	2.678	3.508	10.1	22.4
11 17	5 21.44	+13 55.3	1.096	2.026	12.9	19.4	11 17	5 16.31	+ 6 37.8	2.605	3.505	7.8	22.3
11 27	5 12.22	+13 59.5	1.071	2.038	7.7	19.1	11 27	5 9.07	+ 6 20.3	2.559	3.501	5.6	22.1
12 7	5 1.35	+14 13.7	1.070	2.050	4.1	19.0	12 7	5 1.05	+ 6 12.2	2.541	3.497	4.6	22.0
12 17	4 50.52	+14 38.0	1.095	2.063	6.8	19.2	12 17	4 52.94	+ 6 14.9	2.553	3.492	5.6	22.1
12 27	4 41.44	+15 12.0	1.145	2.076	11.7	19.5	12 27	4 45.48	+ 6 28.9	2.594	3.487	7.9	22.2
1 6	4 35.35	+15 54.4	1.216	2.090	16.2	19.8	1 6	4 39.30	+ 6 53.5	2.662	3.482	10.2	22.4
1 16	4 32.80	+16 43.4	1.307	2.105	20.0	20.1	1 16	4 34.86	+ 7 27.3	2.753	3.477	12.4	22.5
<b>262381</b>	2006 <i>TV</i> <sub>111</sub>	12	8.1 34°09	0°8/ 8.1 18			<b>210354</b>	2007 <i>UV</i> <sub>19</sub>	12	8.1 230°90	1°6/ 7.8 18		
11 7	5 26.63	+19 6.7	1.549	2.412	14.5	20.1	11 7	5 26.14	+19 8.6	1.974	2.826	12.3	21.5
11 17	5 20.30	+19 35.8	1.494	2.421	10.3	19.9	11 17	5 19.66	+18 49.6	1.896	2.819	8.8	21.2
11 27	5 11.49	+20 7.2	1.462	2.431	5.6	19.6	11 27	5 11.08	+18 30.0	1.843	2.810	4.9	21.0
12 7	5 1.28	+20 39.3	1.457	2.442	1.0	19.3	12 7	5 1.27	+18 10.9	1.819	2.802	1.6	20.7
12 17	4 50.98	+21 11.0	1.480	2.453	4.5	19.6	12 17	4 51.27	+17 53.9	1.824	2.793	4.4	20.9
12 27	4 42.00	+21 42.0	1.531	2.464	9.1	19.9	12 27	4 42.25	+17 41.0	1.858	2.784	8.4	21.1
1 6	4 35.41	+22 13.0	1.606	2.476	13.2	20.2	1 6	4 35.12	+17 34.1	1.918	2.774	12.0	21.4
1 16	4 31.80	+22 44.9	1.703	2.489	16.5	20.4	1 16	4 30.49	+17 34.3	2.000	2.764	15.2	21.6
<b>321862</b>	2010 <i>RS</i> <sub>154</sub>	12	8.1 327°92	1°4/ 8.5 17			<b>411489</b>	2011 <i>AJ</i> <sub>50</sub>	12	8.1 52°83	2°1/ 7.9 18		

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12 8.1

12 8.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>77210</b>	2001 <i>FQ</i> <sub>21</sub>	12	8.1 305°95	2°1/ 7.9 18			<b>459682</b>	2013 <i>ML</i> <sub>2</sub>	12	8.2 98°73	4°9/ 7.1 18		
11 7	5 27.59	+17 38.4	1.328	2.196	16.1	19.5	11 7	5 23.32	+ 8 4.4	2.192	3.032	11.7	20.9
11 17	5 21.56	+17 45.2	1.255	2.185	11.7	19.2	11 17	5 17.30	+ 7 37.0	2.136	3.042	8.9	20.8
11 27	5 12.48	+17 55.9	1.205	2.174	6.6	18.9	11 27	5 9.67	+ 7 18.1	2.105	3.052	6.2	20.6
12 7	5 1.44	+18 10.5	1.180	2.164	2.1	18.6	12 7	5 1.19	+ 7 10.0	2.101	3.062	4.9	20.6
12 17	4 49.99	+18 29.0	1.182	2.153	5.7	18.8	12 17	4 52.70	+ 7 14.0	2.127	3.072	6.2	20.7
12 27	4 39.86	+18 52.1	1.209	2.143	11.0	19.1	12 27	4 45.10	+ 7 30.4	2.181	3.082	8.7	20.8
1 6	4 32.44	+19 20.3	1.260	2.134	15.8	19.3	1 6	4 39.10	+ 7 58.1	2.261	3.092	11.4	21.0
1 16	4 28.56	+19 53.9	1.330	2.124	19.9	19.6	1 16	4 35.16	+ 8 35.4	2.363	3.101	13.8	21.2
<b>441124</b>	2007 <i>TN</i> <sub>76</sub>	12	8.2 44°43	2°8/ 7.7 15			<b>364917</b>	2008 <i>EQ</i> <sub>156</sub>	12	8.2 333°92	4°4/ 8.9 17		
11 7	5 25.93	+16 52.5	1.466	2.332	15.0	21.3	11 7	5 27.30	+33 9.8	1.709	2.554	14.3	20.9
11 17	5 19.78	+16 32.6	1.414	2.342	10.8	21.1	11 17	5 21.08	+33 44.1	1.636	2.548	10.8	20.7
11 27	5 11.19	+16 15.6	1.386	2.353	6.2	20.8	11 27	5 12.12	+34 7.3	1.587	2.542	7.1	20.5
12 7	5 1.28	+16 3.2	1.384	2.365	2.8	20.7	12 7	5 1.47	+34 15.5	1.563	2.536	4.5	20.3
12 17	4 51.42	+15 57.2	1.409	2.377	5.5	20.9	12 17	4 50.53	+34 7.6	1.568	2.531	5.8	20.4
12 27	4 42.97	+15 59.0	1.460	2.389	9.9	21.2	12 27	4 40.88	+33 45.8	1.599	2.526	9.4	20.6
1 6	4 36.93	+16 9.4	1.536	2.402	13.9	21.4	1 6	4 33.72	+33 15.3	1.655	2.522	13.1	20.8
1 16	4 33.85	+16 28.2	1.632	2.415	17.3	21.7	1 16	4 29.77	+32 41.8	1.732	2.518	16.3	21.0
<b>371352</b>	2006 <i>KZ</i> <sub>144</sub>	12	8.2 251°23	1°2/ 7.8 18			<b>394927</b>	2008 <i>WU</i> <sub>85</sub>	12	8.2 318°81	1°6/ 7.9 18		
11 7	5 22.70	+19 26.8	2.535	3.383	10.1	21.5	11 7	5 26.15	+18 42.3	1.580	2.442	14.3	21.0
11 17	5 16.89	+19 10.5	2.451	3.371	7.2	21.3	11 17	5 20.09	+18 40.2	1.510	2.437	10.3	20.8
11 27	5 9.47	+18 53.5	2.393	3.360	4.0	21.1	11 27	5 11.51	+18 39.4	1.463	2.432	5.7	20.5
12 7	5 1.12	+18 36.8	2.364	3.348	1.2	20.9	12 7	5 1.40	+18 40.4	1.443	2.427	1.7	20.2
12 17	4 52.62	+18 21.4	2.367	3.336	3.5	21.0	12 17	4 51.07	+18 43.9	1.451	2.422	4.9	20.4
12 27	4 44.82	+18 8.9	2.399	3.323	6.8	21.2	12 27	4 41.92	+18 51.2	1.486	2.417	9.6	20.7
1 6	4 38.45	+18 0.7	2.458	3.311	9.9	21.4	1 6	4 35.07	+19 3.6	1.545	2.413	13.8	20.9
1 16	4 34.01	+17 58.0	2.541	3.298	12.5	21.6	1 16	4 31.21	+19 21.7	1.626	2.409	17.3	21.2
<b>309451</b>	2007 <i>UX</i> <sub>99</sub>	12	8.2 0°86	0°1/ 8.1 17			<b>228414</b>	2001 <i>MR</i> <sub>21</sub>	12	8.2 87°93	0°1/ 8.2 18		
11 7	5 25.03	+23 24.6	1.459	2.327	14.9	20.7	11 7	5 31.13	+22 27.5	1.530	2.386	15.0	21.1
11 17	5 19.39	+23 14.5	1.395	2.325	10.7	20.4	11 17	5 23.38	+22 34.5	1.484	2.408	10.6	20.9
11 27	5 11.11	+23 0.1	1.354	2.325	5.8	20.2	11 27	5 13.11	+22 38.6	1.462	2.430	5.8	20.7
12 7	5 1.30	+22 41.6	1.339	2.324	0.6	19.8	12 7	5 1.55	+22 39.1	1.467	2.452	0.6	20.4
12 17	4 51.36	+22 20.6	1.352	2.325	4.7	20.1	12 17	4 50.15	+22 36.5	1.500	2.473	4.5	20.7
12 27	4 42.80	+22 0.2	1.390	2.326	9.6	20.4	12 27	4 40.35	+22 32.8	1.562	2.494	9.1	21.1
1 6	4 36.74	+21 43.9	1.452	2.328	14.0	20.6	1 6	4 33.16	+22 30.8	1.648	2.514	13.2	21.4
1 16	4 33.82	+21 33.9	1.535	2.331	17.6	20.9	1 16	4 29.09	+22 32.6	1.756	2.534	16.4	21.6
<b>29081</b>	Krymradio	12	8.2 45°13	0°4/ 8.2 18 R			<b>412004</b>	2012 <i>LN</i> <sub>7</sub>	12	8.2 20°42	7°8/ 4.6 17		
11 7	5 28.77	+23 25.0	1.224	2.095	17.0	17.8	11 7	5 21.84	+ 1 44.6	2.231	3.055	12.1	20.9
11 17	5 22.15	+23 34.2	1.182	2.113	12.1	17.6	11 17	5 16.26	+ 0 8.1	2.174	3.056	9.9	20.8
11 27	5 12.56	+23 39.2	1.162	2.132	6.5	17.4	11 27	5 9.12	+ 1 17.3	2.142	3.057	8.3	20.7
12 7	5 1.44	+23 39.3	1.167	2.152	0.8	17.0	12 7	5 1.14	+ 2 26.1	2.137	3.058	7.8	20.6
12 17	4 50.49	+23 35.0	1.199	2.173	5.0	17.4	12 17	4 53.13	+ 3 14.3	2.160	3.059	8.9	20.7
12 27	4 41.41	+23 29.0	1.256	2.193	10.3	17.8	12 27	4 45.94	+ 3 40.3	2.210	3.061	10.9	20.8
1 6	4 35.32	+23 24.7	1.336	2.215	14.7	18.1	1 6	4 40.26	+ 3 44.8	2.283	3.062	13.0	21.0
1 16	4 32.75	+23 24.6	1.436	2.236	18.4	18.4	1 16	4 36.55	+ 3 30.5	2.375	3.064	15.0	21.1
<b>212276</b>	2005 <i>KO</i> <sub>1</sub>	12	8.2 179°39	2°0/ 7.6 18			<b>107285</b>	2001 <i>BN</i> <sub>76</sub>	12	8.2 174°52	1°1/ 8.5 18		
11 7	5 25.37	+17 22.3	2.332	3.177	10.9	21.3	11 7	5 30.67	+27 3.2	1.669	2.519	14.3	19.6
11 17	5 18.77	+16 59.9	2.260	3.179	7.8	21.1	11 17	5 23.17	+26 43.5	1.600	2.521	10.3	19.4
11 27	5 10.47	+16 38.3	2.215	3.180	4.5	20.9	11 27	5 13.09	+26 15.0	1.556	2.522	5.8	19.1
12 7	5 1.23	+16 18.6	2.199	3.180	2.0	20.8	12 7	5 1.56	+25 37.5	1.540	2.524	1.3	18.8
12 17	4 51.93	+16 2.4	2.214	3.180	4.1	20.9	12 17	4 50.00	+24 53.1	1.552	2.524	4.4	19.1
12 27	4 43.49	+15 51.3	2.259	3.180	7.4	21.1	12 27	4 39.85	+24 6.2	1.593	2.525	9.0	19.3
1 6	4 36.65	+15 46.5	2.331	3.178	10.5	21.3	1 6	4 32.22	+23 21.9	1.660	2.524	13.1	19.6
1 16	4 31.93	+15 48.5	2.427	3.177	13.2	21.5	1 16	4 27.68	+22 44.4	1.748	2.524	16.6	19.8
<b>36275</b>	2000 <i>AO</i> <sub>138</sub>	12	8.2 128°52	0°5/ 8.1 18			<b>6491</b>	1991 <i>OA</i>	12	8.2 151°73	1°4/ 8.7 15		
11 7	5 25.41	+20 17.9	2.229	3.077	11.2	18.6	11 7	5 29.55	+28 52.4	3.042	3.864	9.3	24.9
11 17	5 18.92	+20 34.4	2.161	3.082	8.0	18.4	11 17	5 21.40	+28 50.5	2.974	3.879	6.7	24.7
11 27	5 10.62	+20 51.1	2.120	3.087	4.3	18.2	11 27	5 11.79	+28 42.2	2.934	3.894	3.9	24.5
12 7	5 1.27	+21 7.2	2.107	3.092	0.7	17.9	12 7	5 1.43	+28 26.9	2.926	3.907	1.5	24.4
12 17	4 51.81	+21 22.5	2.125	3.096	3.5	18.1	12 17	4 51.12	+28 5.2	2.951	3.919	2.9	24.5
12 27	4 43.25	+21 37.5	2.173	3.101	7.2	18.4	12 27	4 41.65	+27 38.9	3.008	3.930	5.7	24.7
1 6	4 36.39	+21 53.2	2.248	3.105	10.4	18.6	1 6	4 33.69	+27 10.8	3.094	3.940	8.3	24.9
1 16	4 31.77	+22 10.6	2.346	3.109	13.2	18.8	1 16	4 27.67	+26 43.4	3.207	3.948	10.4	25.1
<b>201</b>	Penelope	12	8.2 77°01	3°3/ 7.5 18 A			<b>493257</b>	2014 <i>UY</i> <sub>112</sub>	12	8.2 328°56	0°8/ 8.4 17		
11 7	5 26.44	+14 36.7	1.744	2.599	13.5	12.4	11 7	5 23.72	+26 32.8	2.172	3.021	11.5	21.0
11 17	5 19.75	+14 12.9	1.697	2.618	9.8	12.2	11 17	5 17.83	+26 12.2	2.097	3.017	8.2	20.8
11 27	5 11.04	+13 53.6	1.674	2.637	5.9	12.1	11 27	5 10.07	+25 45.1	2.047	3.014	4.6	20.5
12 7	5 1.30	+13 40.6	1.678	2.656	3.3	12.0	12 7	5 1.26	+25 11.9	2.026	3.010	1.0	20.3
12 17	4 51.68	+13 35.5	1.712	2.675	5.4	12.1	12 17	4 52.38	+24 34.3	2.034	3.007	3.5	20.5
12 27	4 43.31	+13 39.2	1.773	2.694	9.1	12.4	12 27	4 44.46	+23 55.1	2.072	3.004	7.2	20.7
1 6	4 37.04	+13 52.0	1.859	2.712	12.5	12.6	1 6	4 38.31	+23 17.8	2.137	3.001	10.6	20.9
1 16	4 33.33	+14 13.1	1.967	2.731	15.4	12.8	1 16	4 34.47	+22 45.2	2.225	2.998	13.5	21.1
<b>246778</b>	2009 <i>DK</i> <sub>16</sub>	12	8.2 18°67	7°6/ 6.2 17			<b>4120</b>	Denoyelle	12	8.2 225°98	2°7/ 7.4 18		
11 7	5 20.06	+ 1 45.6	2.										

EPHEMERIDES

12 8.2

12 8.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>134509</b>	1999 <i>FC</i> <sub>8</sub>	12	8.2 155°32	3°0/ 7.5 16			<b>277539</b>	2005 <i>YE</i> <sub>34</sub>	12	8.2 245°07	1°8/ 7.8 17		
11 7	5 30.28	+15 53.1	1.854	2.700	13.3	21.0	11 7	5 23.86	+17 13.0	2.200	3.051	11.3	20.9
11 17	5 22.50	+15 21.5	1.792	2.710	9.6	20.8	11 17	5 17.88	+17 7.7	2.126	3.047	8.1	20.7
11 27	5 12.59	+14 52.1	1.756	2.719	5.6	20.5	11 27	5 10.11	+17 4.1	2.078	3.044	4.6	20.5
12 7	5 1.54	+14 26.8	1.749	2.728	3.0	20.4	12 7	5 1.30	+17 3.1	2.059	3.041	1.9	20.3
12 17	4 50.51	+14 7.8	1.772	2.735	5.3	20.6	12 17	4 52.35	+17 5.2	2.069	3.037	4.1	20.5
12 27	4 40.69	+13 57.0	1.824	2.741	9.1	20.8	12 27	4 44.24	+17 11.6	2.109	3.033	7.6	20.7
1 6	4 32.99	+13 55.4	1.902	2.747	12.6	21.0	1 6	4 37.78	+17 22.8	2.175	3.030	10.9	20.9
1 16	4 27.95	+14 3.3	2.001	2.752	15.6	21.3	1 16	4 33.49	+17 39.2	2.264	3.026	13.6	21.1
<b>268320</b>	2005 <i>RB</i> <sub>30</sub>	12	8.2 139°61	1°2/ 8.4 18			<b>243289</b>	2008 <i>DX</i> <sub>15</sub>	12	8.2 42°94	0°8/ 8.1 18		
11 7	5 31.19	+26 24.5	1.879	2.722	13.2	21.8	11 7	5 26.05	+19 56.1	1.723	2.581	13.5	20.4
11 17	5 23.25	+26 26.7	1.818	2.735	9.5	21.6	11 17	5 19.78	+20 7.5	1.662	2.588	9.6	20.2
11 27	5 13.03	+26 22.3	1.782	2.748	5.3	21.4	11 27	5 11.24	+20 19.4	1.626	2.594	5.2	20.0
12 7	5 1.59	+26 10.5	1.775	2.759	1.4	21.1	12 7	5 1.42	+20 31.2	1.617	2.601	1.0	19.7
12 17	4 50.17	+25 51.8	1.799	2.770	4.0	21.4	12 17	4 51.51	+20 43.1	1.636	2.608	4.3	19.9
12 27	4 40.07	+25 29.2	1.851	2.780	8.1	21.6	12 27	4 42.78	+20 55.8	1.684	2.616	8.6	20.2
1 6	4 32.25	+25 6.2	1.930	2.790	11.8	21.9	1 6	4 36.21	+21 10.5	1.757	2.623	12.4	20.5
1 16	4 27.26	+24 46.3	2.032	2.798	14.9	22.1	1 16	4 32.37	+21 28.3	1.852	2.631	15.6	20.7
<b>87174</b>	2000 <i>OF</i> <sub>5</sub>	12	8.2 125°71	4°4/ 7.3 18			<b>411947</b>	2012 <i>GE</i> <sub>37</sub>	12	8.2 318°18	2°4/ 7.3 17		
11 7	5 27.14	+12 17.8	1.765	2.615	13.6	19.2	11 7	5 23.13	+18 2.0	2.054	2.909	11.8	20.9
11 17	5 20.32	+11 43.0	1.709	2.625	10.0	19.0	11 17	5 17.41	+17 12.6	1.981	2.904	8.5	20.7
11 27	5 11.43	+11 14.4	1.677	2.635	6.4	18.8	11 27	5 9.85	+16 22.3	1.934	2.899	4.9	20.5
12 7	5 1.42	+10 54.4	1.672	2.644	4.4	18.7	12 7	5 1.27	+15 33.9	1.915	2.895	2.4	20.3
12 17	4 51.42	+10 45.3	1.697	2.653	6.2	18.8	12 17	4 52.62	+14 50.4	1.926	2.891	4.7	20.4
12 27	4 42.61	+10 48.2	1.749	2.662	9.7	19.1	12 27	4 44.89	+14 14.9	1.965	2.886	8.3	20.6
1 6	4 35.87	+11 2.9	1.826	2.670	13.1	19.3	1 6	4 38.91	+13 49.2	2.030	2.882	11.6	20.8
1 16	4 31.71	+11 28.1	1.924	2.678	16.0	19.5	1 16	4 35.19	+13 34.4	2.118	2.878	14.5	21.0
<b>78268</b>	2002 <i>PC</i> <sub>27</sub>	12	8.2 216°56	3°3/ 9.2 18			<b>172353</b>	2002 <i>VR</i> <sub>133</sub>	12	8.2 51°25	1°7/ 7.9 18		
11 7	5 25.83	+33 50.6	2.368	3.197	11.3	20.2	11 7	5 26.18	+17 55.5	1.683	2.542	13.7	19.9
11 17	5 19.33	+33 55.5	2.292	3.195	8.5	20.0	11 17	5 19.86	+17 59.9	1.625	2.550	9.8	19.7
11 27	5 10.89	+33 50.0	2.241	3.194	5.5	19.8	11 27	5 11.28	+18 6.5	1.590	2.558	5.5	19.5
12 7	5 1.36	+33 32.7	2.219	3.192	3.4	19.7	12 7	5 1.43	+18 15.4	1.583	2.566	1.8	19.3
12 17	4 51.75	+33 3.8	2.227	3.190	4.4	19.7	12 17	4 51.52	+18 27.0	1.604	2.575	4.6	19.5
12 27	4 43.12	+32 25.8	2.264	3.188	7.2	19.9	12 27	4 42.82	+18 42.0	1.654	2.583	8.9	19.8
1 6	4 36.33	+31 43.0	2.328	3.186	10.1	20.1	1 6	4 36.30	+19 1.0	1.728	2.592	12.7	20.0
1 16	4 31.91	+30 59.4	2.416	3.184	12.7	20.3	1 16	4 32.52	+19 24.4	1.824	2.601	15.9	20.2
<b>388075</b>	2005 <i>UX</i> <sub>47</sub>	12	8.2 13°86	1°6/ 7.9 18			<b>447542</b>	2006 <i>SQ</i> <sub>262</sub>	12	8.2 33°21	2°8/ 7.5 18		
11 7	5 24.50	+19 17.5	1.040	1.926	18.1	19.7	11 7	5 24.60	+16 43.5	1.789	2.647	13.1	21.1
11 17	5 19.61	+19 21.3	0.992	1.930	12.9	19.5	11 17	5 18.62	+16 11.0	1.725	2.649	9.4	20.9
11 27	5 11.46	+19 27.2	0.964	1.936	7.1	19.2	11 27	5 10.57	+15 40.2	1.686	2.651	5.5	20.7
12 7	5 1.44	+19 35.3	0.959	1.944	1.7	18.9	12 7	5 1.36	+15 13.3	1.674	2.654	2.8	20.5
12 17	4 51.35	+19 46.0	0.979	1.952	5.9	19.2	12 17	4 52.09	+14 52.5	1.691	2.656	5.1	20.7
12 27	4 43.07	+20 0.6	1.021	1.963	11.5	19.5	12 27	4 43.92	+14 40.0	1.735	2.659	9.0	20.9
1 6	4 37.93	+20 20.2	1.085	1.974	16.5	19.8	1 6	4 37.75	+14 37.0	1.805	2.662	12.6	21.2
1 16	4 36.54	+20 45.3	1.168	1.987	20.6	20.1	1 16	4 34.13	+14 43.6	1.896	2.665	15.7	21.4
<b>460067</b>	2014 <i>OB</i> <sub>230</sub>	12	8.2 105°26	5°8/ 9.7 17			<b>139436</b>	2001 <i>OT</i> <sub>51</sub>	12	8.2 200°97	3°9/ 9.2 18		
11 7	5 29.12	+39 54.7	2.237	3.047	12.6	20.9	11 7	5 29.41	+34 37.3	2.308	3.131	11.8	20.4
11 17	5 21.93	+40 32.6	2.171	3.053	10.0	20.8	11 17	5 22.02	+35 0.6	2.229	3.127	9.0	20.2
11 27	5 12.41	+40 56.1	2.128	3.058	7.4	20.6	11 27	5 12.44	+35 13.1	2.175	3.123	6.0	20.0
12 7	5 1.54	+41 1.7	2.113	3.064	5.9	20.5	12 7	5 1.57	+35 12.2	2.150	3.119	4.0	19.9
12 17	4 50.56	+40 48.4	2.127	3.069	6.4	20.6	12 17	4 50.51	+34 57.4	2.155	3.113	4.9	19.9
12 27	4 40.77	+40 18.6	2.168	3.075	8.5	20.7	12 27	4 40.48	+34 30.6	2.189	3.108	7.7	20.1
1 6	4 33.19	+39 37.3	2.236	3.080	11.0	20.9	1 6	4 32.44	+33 56.1	2.250	3.102	10.7	20.3
1 16	4 28.42	+38 50.3	2.326	3.085	13.4	21.1	1 16	4 27.00	+33 18.8	2.335	3.095	13.3	20.5
<b>399600</b>	2003 <i>UU</i> <sub>416</sub>	12	8.2 18°42	1°0/ 8.5 18			<b>151946</b>	2004 <i>FR</i> <sub>116</sub>	12	8.2 212°69	4°6/ 7.5 18		
11 7	5 23.80	+26 52.3	1.745	2.603	13.3	19.7	11 7	5 27.81	+11 14.6	1.722	2.571	14.0	20.6
11 17	5 18.16	+26 31.1	1.684	2.609	9.6	19.4	11 17	5 21.05	+10 56.0	1.651	2.566	10.4	20.4
11 27	5 10.32	+26 2.3	1.648	2.616	5.3	19.2	11 27	5 11.97	+10 45.1	1.604	2.562	6.7	20.2
12 7	5 1.31	+25 26.5	1.639	2.623	1.2	18.9	12 7	5 1.52	+10 44.1	1.585	2.557	4.6	20.0
12 17	4 52.32	+24 45.9	1.658	2.631	4.0	19.2	12 17	4 50.87	+10 54.3	1.594	2.551	6.5	20.1
12 27	4 44.58	+24 4.2	1.705	2.640	8.2	19.4	12 27	4 41.30	+11 16.5	1.630	2.545	10.2	20.3
1 6	4 38.99	+23 25.4	1.777	2.649	12.0	19.7	1 6	4 33.83	+11 49.6	1.692	2.539	13.8	20.6
1 16	4 36.09	+22 52.8	1.871	2.659	15.2	19.9	1 16	4 29.12	+12 32.2	1.775	2.532	17.0	20.8
<b>215619</b>	2003 <i>SQ</i> <sub>168</sub>	12	8.2 56°18	2°0/ 8.0 18			<b>132790</b>	2002 <i>PW</i> <sub>140</sub>	12	8.2 114°82	1°7/ 8.4 18		
11 7	5 31.35	+17 32.0	1.112	1.984	18.2	19.7	11 7	5 30.76	+26 29.9	2.130	2.968	12.1	19.6
11 17	5 24.05	+17 47.0	1.076	2.007	13.0	19.4	11 17	5 22.79	+27 5.4	2.074	2.988	8.7	19.5
11 27	5 13.64	+18 6.0	1.061	2.031	7.2	19.2	11 27	5 12.76	+27 35.7	2.045	3.008	5.0	19.3
12 7	5 1.66	+18 28.0	1.071	2.054	2.1	19.0	12 7	5 1.60	+27 58.7	2.045	3.027	1.8	19.1
12 17	4 49.94	+18 52.5	1.106	2.079	5.8	19.3	12 17	4 50.43	+28 13.3	2.076	3.046	3.8	19.3
12 27	4 40.25	+19 19.6	1.167	2.103	11.1	19.6	12 27	4 40.41	+28 20.8	2.138	3.064	7.4	19.5
1 6	4 33.78	+19 49.8	1.251	2.127	15.7	20.0	1 6	4 32.44	+28 23.6	2.226	3.081	10.6	19.8
1 16	4 30.99	+20 23.4	1.354	2.152	19.4	20.3	1 16	4 27.04	+28 24.7	2.338	3.098	13.3	20.0
<b>325743</b>	2009 <i>VT</i> <sub>110</sub>	12	8.2 19°62	5°8/ 6.3 17			<b>414656</b>	2009 <i>VT</i> <sub>116</sub>	12	8.2 103°01	1°9/ 8.5 1		

EPHEMERIDES

12 8.2

12 8.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>213297</b>	2001 <i>QS</i> <sub>249</sub>	12	8.2 112°85	6°3/ 9.4	18		<b>302734</b>	2002 <i>TP</i> <sub>379</sub>	12	8.2 128°31	2°6/ 7.5	18	
11 7	5 31.76	+39 8.4	1.993	2.808	13.7	20.1	11 7	5 26.06	+16 22.8	2.029	2.878	12.1	21.5
11 17	5 24.09	+40 5.7	1.929	2.815	10.8	20.0	11 17	5 19.41	+15 54.0	1.969	2.889	8.7	21.3
11 27	5 13.72	+40 48.3	1.890	2.822	8.1	19.8	11 27	5 10.91	+15 27.1	1.935	2.899	5.1	21.1
12 7	5 1.72	+41 11.3	1.878	2.829	6.4	19.7	12 7	5 1.43	+15 3.8	1.929	2.908	2.6	20.9
12 17	4 49.53	+41 12.7	1.893	2.835	7.0	19.8	12 17	4 51.97	+14 46.0	1.953	2.917	4.7	21.1
12 27	4 38.67	+40 54.5	1.937	2.842	9.4	19.9	12 27	4 43.55	+14 35.4	2.006	2.926	8.2	21.3
1 6	4 30.33	+40 22.5	2.005	2.848	12.2	20.1	1 6	4 36.97	+14 32.9	2.086	2.935	11.5	21.5
1 16	4 25.19	+39 43.2	2.096	2.855	14.7	20.3	1 16	4 32.72	+14 38.9	2.187	2.943	14.3	21.8
<b>236995</b>	2008 <i>RW</i> <sub>15</sub>	12	8.2 103°56	3°2/ 7.2	18		<b>358296</b>	2006 <i>UF</i> <sub>102</sub>	12	8.2 102°97	3°2/ 7.4	18	
11 7	5 23.04	+12 46.2	2.542	3.383	10.2	20.9	11 7	5 24.70	+15 6.3	1.899	2.753	12.6	21.2
11 17	5 16.91	+12 11.8	2.489	3.402	7.5	20.8	11 17	5 18.62	+14 36.8	1.834	2.755	9.2	21.0
11 27	5 9.42	+11 41.5	2.463	3.420	4.8	20.6	11 27	5 10.56	+14 10.5	1.794	2.757	5.5	20.8
12 7	5 1.24	+11 17.1	2.467	3.438	3.2	20.6	12 7	5 1.40	+13 49.4	1.782	2.759	3.2	20.7
12 17	4 53.13	+11 0.2	2.501	3.456	4.6	20.7	12 17	4 52.18	+13 35.5	1.799	2.761	5.2	20.8
12 27	4 45.84	+10 51.9	2.565	3.473	7.2	20.9	12 27	4 43.98	+13 30.4	1.843	2.764	8.8	21.0
1 6	4 39.98	+10 52.5	2.655	3.490	9.8	21.1	1 6	4 37.67	+13 34.9	1.914	2.766	12.3	21.3
1 16	4 35.93	+11 1.6	2.769	3.507	12.0	21.3	1 16	4 33.78	+13 48.5	2.006	2.768	15.2	21.5
<b>135513</b>	2001 <i>XR</i> <sub>261</sub>	12	8.2 292°48	3°0/ 7.7	17		<b>1463</b>	Nordenmarkia	12	8.2 18°45	4°2/ 9.3	18	
11 7	5 24.53	+14 17.2	1.907	2.760	12.6	19.9	11 7	5 25.40	+33 55.9	1.720	2.565	14.1	14.6
11 17	5 18.65	+14 11.0	1.828	2.748	9.2	19.6	11 17	5 19.53	+34 10.2	1.660	2.572	10.6	14.4
11 27	5 10.67	+14 9.7	1.774	2.737	5.6	19.4	11 27	5 11.18	+34 11.4	1.625	2.580	7.0	14.2
12 7	5 1.40	+14 14.4	1.747	2.725	3.1	19.2	12 7	5 1.47	+33 57.5	1.615	2.588	4.3	14.1
12 17	4 51.88	+14 26.1	1.750	2.714	5.1	19.3	12 17	4 51.74	+33 28.8	1.633	2.597	5.4	14.2
12 27	4 43.26	+14 45.3	1.780	2.703	8.9	19.5	12 27	4 43.39	+32 49.1	1.678	2.607	8.8	14.4
1 6	4 36.47	+15 11.9	1.836	2.692	12.5	19.7	1 6	4 37.45	+32 3.8	1.748	2.618	12.3	14.6
1 16	4 32.16	+15 45.4	1.914	2.681	15.6	19.9	1 16	4 34.49	+31 18.4	1.839	2.629	15.3	14.9
<b>239271</b>	2007 <i>JV</i> <sub>36</sub>	12	8.2 167°73	0°8/ 8.3	18		<b>269316</b>	2008 <i>SJ</i> <sub>166</sub>	12	8.2 277°84	6°7/ 9.4	17	
11 7	5 29.68	+24 44.1	1.944	2.790	12.7	20.9	11 7	5 30.31	+42 17.2	2.358	3.155	12.4	20.3
11 17	5 22.26	+24 56.6	1.875	2.794	9.1	20.7	11 17	5 22.98	+43 22.9	2.287	3.155	10.1	20.1
11 27	5 12.59	+25 4.8	1.831	2.798	5.1	20.5	11 27	5 13.13	+44 14.4	2.240	3.154	8.0	20.0
12 7	5 1.61	+25 7.6	1.816	2.801	1.0	20.2	12 7	5 1.70	+44 47.0	2.219	3.153	6.8	19.9
12 17	4 50.51	+25 4.8	1.831	2.803	3.9	20.4	12 17	4 49.93	+44 58.2	2.227	3.153	7.2	20.0
12 27	4 40.54	+24 58.3	1.876	2.805	8.0	20.7	12 27	4 39.22	+44 49.1	2.263	3.152	9.0	20.1
1 6	4 32.70	+24 50.7	1.947	2.806	11.7	20.9	1 6	4 30.71	+44 24.3	2.324	3.152	11.3	20.2
1 16	4 27.58	+24 44.9	2.040	2.807	14.8	21.1	1 16	4 25.11	+43 49.8	2.408	3.151	13.4	20.4
<b>291717</b>	2006 <i>JR</i> <sub>23</sub>	12	8.2 95°77	0°2/ 8.1	18		<b>215743</b>	2004 <i>EV</i> <sub>29</sub>	12	8.2 153°74	0°6/ 8.0	18	
11 7	5 28.22	+22 54.7	1.804	2.656	13.3	21.8	11 7	5 26.02	+21 21.9	2.181	3.029	11.5	21.6
11 17	5 21.11	+22 42.7	1.751	2.673	9.4	21.6	11 17	5 19.40	+21 13.6	2.113	3.034	8.2	21.4
11 27	5 11.87	+22 27.2	1.722	2.690	5.1	21.4	11 27	5 10.94	+21 3.6	2.071	3.039	4.4	21.2
12 7	5 1.52	+22 8.6	1.722	2.707	0.6	21.0	12 7	5 1.45	+20 52.1	2.059	3.043	0.7	20.9
12 17	4 51.27	+21 48.3	1.751	2.723	4.0	21.4	12 17	4 51.91	+20 40.0	2.076	3.048	3.6	21.2
12 27	4 42.32	+21 28.8	1.808	2.739	8.2	21.6	12 27	4 43.34	+20 29.2	2.124	3.051	7.3	21.4
1 6	4 35.56	+21 12.9	1.892	2.754	11.9	21.9	1 6	4 36.53	+20 21.5	2.198	3.055	10.7	21.6
1 16	4 31.48	+21 2.6	1.998	2.770	14.9	22.1	1 16	4 32.00	+20 18.2	2.295	3.058	13.5	21.8
<b>248278</b>	2005 <i>JW</i> <sub>44</sub>	12	8.2 215°58	5°2/ 7.1	18		<b>334253</b>	2001 <i>TT</i> <sub>211</sub>	12	8.2 66°56	1°3/ 8.0	18	
11 7	5 24.84	+ 8 59.3	1.969	2.812	12.7	20.6	11 7	5 30.10	+19 3.5	1.382	2.245	15.9	20.4
11 17	5 18.68	+ 8 27.1	1.900	2.809	9.6	20.4	11 17	5 22.86	+19 15.4	1.338	2.265	11.3	20.2
11 27	5 10.59	+ 8 3.1	1.855	2.806	6.7	20.2	11 27	5 12.96	+19 28.6	1.317	2.286	6.2	20.0
12 7	5 1.40	+ 7 50.1	1.838	2.802	5.2	20.1	12 7	5 1.66	+19 42.6	1.322	2.306	1.4	19.7
12 17	4 52.07	+ 7 50.0	1.850	2.798	6.6	20.2	12 17	4 50.50	+19 57.1	1.355	2.327	5.0	20.0
12 27	4 43.68	+ 8 3.6	1.890	2.794	9.6	20.3	12 27	4 40.99	+20 13.1	1.415	2.348	9.8	20.3
1 6	4 37.06	+ 8 30.1	1.954	2.790	12.7	20.5	1 6	4 34.20	+20 31.8	1.499	2.368	14.0	20.6
1 16	4 32.77	+ 9 7.6	2.040	2.785	15.5	20.7	1 16	4 30.65	+20 54.0	1.603	2.389	17.4	20.9
<b>274725</b>	2008 <i>US</i> <sub>173</sub>	12	8.2 245°66	5°2/ 9.7	18		<b>251584</b>	2009 <i>FP</i> <sub>70</sub>	12	8.2 75°67	1°5/ 8.5	18	
11 7	5 27.74	+40 1.4	2.577	3.382	11.3	20.4	11 7	5 30.94	+26 18.4	1.273	2.138	16.9	21.0
11 17	5 20.84	+40 32.0	2.493	3.372	9.0	20.2	11 17	5 23.94	+26 21.5	1.218	2.145	12.2	20.7
11 27	5 11.82	+40 49.9	2.434	3.362	6.7	20.1	11 27	5 13.76	+26 16.6	1.184	2.152	6.8	20.4
12 7	5 1.53	+40 52.1	2.403	3.352	5.3	20.0	12 7	5 1.77	+26 2.3	1.175	2.159	1.7	20.1
12 17	4 51.02	+40 37.4	2.400	3.342	5.8	20.0	12 17	4 49.75	+25 39.7	1.193	2.166	5.2	20.4
12 27	4 41.44	+40 7.7	2.427	3.332	7.8	20.1	12 27	4 39.54	+25 12.7	1.237	2.173	10.5	20.7
1 6	4 33.73	+39 27.1	2.480	3.321	10.2	20.2	1 6	4 32.43	+24 46.7	1.304	2.181	15.2	21.0
1 16	4 28.52	+38 40.6	2.557	3.310	12.5	20.4	1 16	4 29.04	+24 25.9	1.391	2.188	19.0	21.3
<b>72705</b>	2001 <i>FO</i> <sub>80</sub>	12	8.2 278°05	2°3/ 7.4	18		<b>391622</b>	2007 <i>VU</i> <sub>65</sub>	12	8.2 115°05	2°9/ 8.8	18	
11 7	5 23.06	+17 40.6	2.208	3.060	11.2	19.5	11 7	5 30.84	+30 22.6	1.977	2.814	12.9	21.8
11 17	5 17.31	+16 57.0	2.129	3.050	8.1	19.3	11 17	5 23.04	+30 49.1	1.920	2.831	9.5	21.6
11 27	5 9.82	+16 12.9	2.076	3.041	4.7	19.1	11 27	5 12.97	+31 6.7	1.889	2.847	5.8	21.4
12 7	5 1.32	+15 30.6	2.052	3.031	2.3	18.9	12 7	5 1.68	+31 13.0	1.885	2.863	3.0	21.3
12 17	4 52.70	+14 52.7	2.057	3.022	4.5	19.1	12 17	4 50.39	+31 7.7	1.912	2.878	4.5	21.4
12 27	4 44.91	+14 21.9	2.092	3.013	7.9	19.3	12 27	4 40.40	+30 53.0	1.968	2.893	8.0	21.6
1 6	4 38.75	+14 0.0	2.154	3.003	11.2	19.4	1 6	4 32.66	+30 33.0	2.050	2.908	11.3	21.9
1 16	4 34.72	+13 47.9	2.237	2.994	14.0	19.6	1 16	4 27.71	+30 11.8	2.155	2.922	14.1	22.1
<b>76116</b>	2000 <i>DZ</i> <sub>109</sub>	12	8.2 337°83	4°3/ 7.3	18		<b>164454</b>	2006 <i>DM</i> <sub>65</sub>	12	8.2 160°21	1°9/ 8.5	18	

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12 8.2

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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>97102</b>	1999 VY <sub>69</sub>	12	8.2 264°68	3°3/ 8.7 18			<b>266566</b>	2008 GH <sub>105</sub>	12	8.2 276°91	1°9/ 7.9 18		
11 7	5 27.27	+31 12.7	2.210	3.046	11.8	19.7	11 7	5 28.36	+18 29.5	1.433	2.297	15.4	20.9
11 17	5 20.63	+31 53.1	2.130	3.038	8.8	19.5	11 17	5 21.97	+18 25.8	1.362	2.289	11.1	20.7
11 27	5 11.79	+32 26.3	2.075	3.031	5.6	19.2	11 27	5 12.74	+18 23.9	1.314	2.282	6.2	20.4
12 7	5 1.58	+32 49.3	2.048	3.023	3.3	19.1	12 7	5 1.74	+18 24.0	1.291	2.275	1.9	20.1
12 17	4 51.06	+33 0.6	2.052	3.015	4.6	19.2	12 17	4 50.43	+18 27.1	1.297	2.268	5.3	20.3
12 27	4 41.45	+33 1.1	2.084	3.007	7.8	19.3	12 27	4 40.43	+18 34.5	1.328	2.260	10.4	20.6
1 6	4 33.75	+32 53.8	2.143	2.999	10.9	19.5	1 6	4 33.00	+18 47.9	1.384	2.253	15.0	20.8
1 16	4 28.62	+32 42.4	2.225	2.991	13.7	19.7	1 16	4 28.88	+19 7.9	1.459	2.246	18.8	21.0
<b>403163</b>	2008 FO <sub>135</sub>	12	8.2 269°82	0°2/ 8.2 17			<b>203987</b>	2003 SN <sub>265</sub>	12	8.2 329°14	0°1/ 8.2 18		
11 7	5 25.77	+21 38.8	2.006	2.858	12.1	21.2	11 7	5 24.77	+24 11.6	1.376	2.247	15.5	20.0
11 17	5 19.55	+21 48.2	1.925	2.848	8.7	21.0	11 17	5 19.60	+23 54.2	1.301	2.232	11.2	19.7
11 27	5 11.19	+21 56.5	1.870	2.838	4.8	20.7	11 27	5 11.51	+23 30.6	1.247	2.218	6.2	19.4
12 7	5 1.52	+22 3.1	1.843	2.828	0.6	20.4	12 7	5 1.61	+23 1.1	1.219	2.204	0.7	19.0
12 17	4 51.59	+22 8.1	1.846	2.818	3.8	20.6	12 17	4 51.37	+22 27.9	1.217	2.191	4.9	19.2
12 27	4 42.57	+22 12.5	1.877	2.808	8.0	20.9	12 27	4 42.45	+21 55.0	1.241	2.179	10.3	19.5
1 6	4 35.43	+22 18.0	1.935	2.797	11.7	21.1	1 6	4 36.17	+21 26.9	1.289	2.168	15.1	19.8
1 16	4 30.80	+22 26.2	2.015	2.787	14.8	21.3	1 16	4 33.28	+21 6.9	1.355	2.158	19.1	20.0
<b>271529</b>	2004 HL <sub>6</sub>	12	8.2 276°49	0°4/ 8.2 18			<b>332621</b>	2008 TW <sub>105</sub>	12	8.2 178°13	2°4/ 7.4 18		
11 7	5 29.28	+22 57.6	1.555	2.413	14.7	20.2	11 7	5 22.43	+16 12.2	2.499	3.346	10.2	21.3
11 17	5 22.74	+23 16.0	1.469	2.394	10.7	19.9	11 17	5 16.67	+15 39.1	2.428	3.346	7.4	21.1
11 27	5 13.24	+23 32.7	1.407	2.375	5.9	19.6	11 27	5 9.43	+15 7.3	2.384	3.347	4.4	20.9
12 7	5 1.77	+23 45.8	1.371	2.356	0.8	19.2	12 7	5 1.36	+14 38.6	2.369	3.347	2.4	20.8
12 17	4 49.75	+23 54.4	1.364	2.337	4.7	19.4	12 17	4 53.24	+14 14.7	2.384	3.347	4.1	20.9
12 27	4 38.83	+23 59.7	1.384	2.317	9.9	19.7	12 27	4 45.89	+13 57.3	2.429	3.347	7.1	21.1
1 6	4 30.41	+24 4.4	1.428	2.297	14.6	19.9	1 6	4 39.96	+13 47.6	2.502	3.347	10.0	21.3
1 16	4 25.34	+24 11.3	1.493	2.278	18.5	20.1	1 16	4 35.90	+13 45.8	2.597	3.347	12.4	21.4
<b>200928</b>	2002 AY <sub>151</sub>	12	8.2 138°65	4°1/ 7.5 18			<b>276592</b>	2003 SA <sub>386</sub>	12	8.2 70°27	0°4/ 8.3 18		
11 7	5 27.02	+12 2.5	1.780	2.629	13.6	20.1	11 7	5 24.78	+23 53.9	2.160	3.009	11.5	20.8
11 17	5 20.35	+11 44.0	1.718	2.635	10.0	19.9	11 17	5 18.61	+24 1.3	2.095	3.016	8.2	20.6
11 27	5 11.55	+11 32.3	1.682	2.640	6.3	19.7	11 27	5 10.57	+24 5.6	2.055	3.022	4.5	20.4
12 7	5 1.56	+11 29.3	1.672	2.645	4.2	19.6	12 7	5 1.49	+24 6.2	2.044	3.029	0.7	20.1
12 17	4 51.51	+11 36.3	1.691	2.650	6.0	19.7	12 17	4 52.34	+24 3.6	2.063	3.035	3.5	20.3
12 27	4 42.58	+11 53.8	1.739	2.655	9.5	19.9	12 27	4 44.15	+23 58.9	2.111	3.042	7.2	20.6
1 6	4 35.69	+12 21.2	1.811	2.659	13.0	20.2	1 6	4 37.74	+23 54.4	2.186	3.049	10.5	20.8
1 16	4 31.39	+12 57.2	1.905	2.663	16.0	20.4	1 16	4 33.63	+23 51.9	2.284	3.055	13.3	21.0
<b>112819</b>	2002 QM <sub>7</sub>	12	8.2 127°50	0°3/ 8.1 18			<b>41325</b>	1999 XR <sub>212</sub>	12	8.2 62°11	5°3/ 6.9 18		
11 7	5 24.22	+21 23.9	2.588	3.432	10.0	19.9	11 7	5 23.11	+ 8 32.5	2.007	2.852	12.4	18.4
11 17	5 17.90	+21 28.1	2.523	3.442	7.1	19.7	11 17	5 17.32	+ 7 52.4	1.953	2.862	9.4	18.3
11 27	5 10.07	+21 31.0	2.485	3.452	3.8	19.5	11 27	5 9.82	+ 7 20.9	1.924	2.872	6.6	18.1
12 7	5 1.40	+21 32.7	2.477	3.462	0.5	19.3	12 7	5 1.41	+ 7 0.9	1.922	2.883	5.3	18.1
12 17	4 52.70	+21 33.3	2.500	3.471	3.1	19.5	12 17	4 53.00	+ 6 54.3	1.948	2.893	6.6	18.2
12 27	4 44.79	+21 34.0	2.553	3.480	6.3	19.7	12 27	4 45.57	+ 7 2.0	2.002	2.904	9.3	18.3
1 6	4 38.36	+21 35.9	2.634	3.489	9.2	19.9	1 6	4 39.84	+ 7 22.9	2.081	2.915	12.2	18.5
1 16	4 33.86	+21 40.3	2.740	3.498	11.6	20.1	1 16	4 36.29	+ 7 55.1	2.181	2.925	14.6	18.7
<b>407254</b>	2009 WC <sub>261</sub>	12	8.2 22°55	5°3/ 8.2 18			<b>132901</b>	2002 RF <sub>230</sub>	12	8.2 236°27	5°5/ 6.8 18		
11 7	5 30.01	+30 27.8	1.440	2.295	15.9	19.6	11 7	5 21.91	+ 5 40.9	2.392	3.224	11.1	20.1
11 17	5 23.32	+32 15.0	1.394	2.311	11.9	19.4	11 17	5 16.36	+ 5 8.2	2.323	3.221	8.7	20.0
11 27	5 13.51	+33 53.6	1.371	2.327	7.8	19.2	11 27	5 9.29	+ 4 44.8	2.280	3.218	6.5	19.8
12 7	5 1.80	+35 15.9	1.375	2.346	5.3	19.1	12 7	5 1.36	+ 4 33.1	2.265	3.216	5.5	19.8
12 17	4 49.86	+36 16.8	1.406	2.365	6.9	19.2	12 17	4 53.34	+ 4 34.8	2.278	3.213	6.5	19.8
12 27	4 39.50	+36 56.2	1.463	2.385	10.5	19.5	12 27	4 46.05	+ 4 50.5	2.320	3.210	8.8	20.0
1 6	4 32.08	+37 18.4	1.544	2.407	14.1	19.8	1 6	4 40.17	+ 5 18.9	2.387	3.207	11.3	20.1
1 16	4 28.32	+37 29.3	1.646	2.429	17.1	20.0	1 16	4 36.18	+ 5 58.4	2.476	3.204	13.5	20.3
<b>475582</b>	2006 UO <sub>33</sub>	12	8.2 95°73	1°8/ 8.5 16			<b>289375</b>	2005 CX <sub>13</sub>	12	8.2 235°10	8°0/ 5.9 18		
11 7	5 34.17	+26 52.6	1.526	2.375	15.4	21.9	11 7	5 22.01	- 8 2.9	2.965	3.732	10.8	21.2
11 17	5 25.65	+27 10.4	1.482	2.401	11.1	21.7	11 17	5 16.24	- 8 36.5	2.891	3.720	9.4	21.1
11 27	5 14.44	+27 20.4	1.461	2.426	6.3	21.5	11 27	5 9.17	- 8 55.1	2.841	3.707	8.4	21.0
12 7	5 1.87	+27 20.6	1.468	2.451	2.0	21.3	12 7	5 1.36	- 8 55.6	2.818	3.693	8.0	21.0
12 17	4 49.52	+27 11.3	1.503	2.474	4.7	21.6	12 17	4 53.43	- 8 36.5	2.821	3.680	8.6	21.0
12 27	4 38.93	+26 55.7	1.566	2.497	9.2	21.9	12 27	4 46.05	- 7 58.0	2.852	3.666	9.8	21.0
1 6	4 31.15	+26 38.2	1.655	2.520	13.2	22.2	1 6	4 39.83	- 7 2.3	2.906	3.651	11.3	21.1
1 16	4 26.70	+26 22.8	1.765	2.542	16.4	22.4	1 16	4 35.17	- 5 52.5	2.982	3.636	12.8	21.2
<b>258204</b>	2001 SH <sub>318</sub>	12	8.2 22°94	1°4/ 7.9 18			<b>384328</b>	2009 SJ <sub>302</sub>	12	8.2 95°62	1°8/ 8.5 18		
11 7	5 24.85	+20 27.9	1.661	2.524	13.7	20.4	11 7	5 32.96	+26 14.7	1.527	2.378	15.3	21.0
11 17	5 18.99	+20 4.5	1.600	2.527	9.8	20.2	11 17	5 24.91	+26 41.0	1.478	2.398	11.0	20.8
11 27	5 10.88	+19 39.7	1.562	2.531	5.4	19.9	11 27	5 14.13	+27 0.8	1.453	2.419	6.2	20.6
12 7	5 1.50	+19 14.8	1.552	2.536	1.4	19.7	12 7	5 1.89	+27 11.5	1.455	2.438	2.0	20.4
12 17	4 52.09	+18 51.8	1.569	2.540	4.6	19.9	12 17	4 49.75	+27 12.8	1.486	2.457	4.7	20.6
12 27	4 43.89	+18 33.4	1.614	2.545	8.9	20.2	12 27	4 39.27	+27 7.0	1.545	2.476	9.2	20.9
1 6	4 37.87	+18 21.7	1.684	2.551	12.9	20.4	1 6	4 31.55	+26 58.3	1.628	2.495	13.3	21.2
1 16	4 34.59	+18 18.0	1.775	2.557	16.1	20.7	1 16	4 27.15	+26 50.4	1.733	2.512	16.5	21.5
<b>361794</b>	2008 BS <sub>40</sub>	12	8.2 39°63	7°6/ 7.4 18			<b>473633</b>	2015 XK <sub>310</sub>	12	8.2 106°77	0°5/ 8.3 18		
11 7	5 24.76	+ 2 57.9	1.691	2.528	14.7								

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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>485343</b>	2011 <i>CU</i> <sub>10</sub>		12 8.2 23°97'	4.1°/ 7.6 18			<b>147232</b>	2002 <i>XB</i> <sub>48</sub>		12 8.2 122°29'	1°0' / 8.5 18		
11 7	5 23.59	+11 7.0	1.905	2.756	12.7	20.7	11 7	5 30.95	+26 13.7	1.678	2.528	14.2	20.4
11 17	5 17.85	+11 0.1	1.843	2.760	9.4	20.5	11 17	5 23.32	+26 5.4	1.620	2.541	10.2	20.2
11 27	5 10.20	+11 0.9	1.807	2.764	6.1	20.3	11 27	5 13.23	+25 50.0	1.587	2.553	5.7	20.0
12 7	5 1.47	+11 11.0	1.797	2.769	4.1	20.2	12 7	5 1.82	+25 27.0	1.581	2.566	1.2	19.7
12 17	4 52.66	+11 30.9	1.816	2.774	5.7	20.3	12 17	4 50.48	+24 58.0	1.605	2.577	4.3	20.0
12 27	4 44.83	+12 0.4	1.863	2.780	8.9	20.5	12 27	4 40.60	+24 26.3	1.657	2.588	8.7	20.3
1 6	4 38.80	+12 38.6	1.935	2.786	12.2	20.7	1 6	4 33.20	+23 56.3	1.734	2.599	12.7	20.5
1 16	4 35.12	+13 23.9	2.029	2.792	15.0	20.9	1 16	4 28.82	+23 31.4	1.834	2.609	15.9	20.8
<b>343109</b>	2009 <i>DV</i> <sub>110</sub>		12 8.2 203°71'	3°1' / 7.9 18			<b>16</b>	<i>Psyche</i>		12 8.2 44°47'	1°7' / 7.9 18		
11 7	5 27.57	+12 48.1	1.974	2.819	12.6	20.4	11 7	5 24.70	+18 38.6	1.783	2.642	13.1	10.0
11 17	5 20.74	+13 2.5	1.901	2.817	9.3	20.2	11 17	5 18.72	+18 25.0	1.727	2.652	9.3	9.8
11 27	5 11.82	+13 23.8	1.853	2.814	5.6	19.9	11 27	5 10.69	+18 12.2	1.695	2.663	5.2	9.6
12 7	5 1.66	+13 52.2	1.834	2.811	3.1	19.8	12 7	5 1.55	+18 1.1	1.691	2.674	1.8	9.4
12 17	4 51.29	+14 27.4	1.845	2.808	5.0	19.9	12 17	4 52.41	+17 53.2	1.716	2.686	4.4	9.6
12 27	4 41.85	+15 8.6	1.885	2.805	8.6	20.1	12 27	4 44.42	+17 50.0	1.768	2.697	8.5	9.8
1 6	4 34.27	+15 54.9	1.951	2.802	12.1	20.3	1 6	4 38.46	+17 52.7	1.846	2.709	12.1	10.1
1 16	4 29.17	+16 45.3	2.040	2.798	15.1	20.5	1 16	4 35.04	+18 1.9	1.946	2.722	15.1	10.3
<b>209826</b>	2005 <i>GC</i> <sub>137</sub>		12 8.2 238°35'	1°7' / 7.8 18			<b>174168</b>	2002 <i>PD</i> <sub>84</sub>		12 8.2 134°47'	4°4' / 7.5 18		
11 7	5 25.92	+18 50.2	1.837	2.692	12.9	20.8	11 7	5 29.21	+12 17.6	1.637	2.487	14.5	20.2
11 17	5 19.67	+18 32.6	1.766	2.689	9.3	20.6	11 17	5 22.02	+11 54.0	1.580	2.497	10.7	20.0
11 27	5 11.26	+18 15.2	1.719	2.687	5.2	20.4	11 27	5 12.52	+11 37.4	1.548	2.507	6.7	19.8
12 7	5 1.60	+17 58.9	1.701	2.684	1.8	20.1	12 7	5 1.75	+11 29.8	1.542	2.516	4.4	19.6
12 17	4 51.79	+17 45.4	1.712	2.681	4.5	20.3	12 17	4 50.98	+11 33.0	1.565	2.524	6.3	19.8
12 27	4 43.05	+17 36.6	1.751	2.678	8.7	20.5	12 27	4 41.50	+11 47.4	1.616	2.532	10.1	20.0
1 6	4 36.31	+17 34.1	1.815	2.675	12.4	20.8	1 6	4 34.28	+12 12.6	1.691	2.540	13.8	20.3
1 16	4 32.17	+17 38.8	1.901	2.672	15.6	21.0	1 16	4 29.89	+12 47.2	1.787	2.547	16.8	20.5
<b>328874</b>	2010 <i>AQ</i> <sub>114</sub>		12 8.2 80°78'	5°8' / 7.2 18			<b>523349</b>	2017 <i>BF</i> <sub>141</sub>		12 8.2 213°64'	4°5' / 7.1 17		
11 7	5 23.25	+ 5 18.7	2.153	2.987	12.1	20.7	11 7	5 22.06	+ 8 9.5	2.515	3.351	10.5	21.3
11 17	5 17.38	+ 4 54.7	2.094	2.993	9.4	20.5	11 17	5 16.43	+ 7 44.8	2.444	3.348	8.0	21.1
11 27	5 9.86	+ 4 41.6	2.059	2.999	7.0	20.4	11 27	5 9.34	+ 7 27.4	2.399	3.345	5.6	21.0
12 7	5 1.44	+ 4 41.9	2.052	3.005	5.8	20.3	12 7	5 1.41	+ 7 19.3	2.382	3.342	4.5	20.9
12 17	4 52.97	+ 4 56.7	2.073	3.011	6.9	20.4	12 17	4 53.39	+ 7 21.8	2.395	3.339	5.6	21.0
12 27	4 45.37	+ 5 25.9	2.122	3.017	9.3	20.5	12 27	4 46.07	+ 7 35.5	2.437	3.336	8.0	21.1
1 6	4 39.36	+ 6 7.6	2.197	3.023	11.9	20.7	1 6	4 40.09	+ 7 59.7	2.505	3.333	10.5	21.3
1 16	4 35.43	+ 6 59.4	2.293	3.028	14.2	20.9	1 16	4 35.94	+ 8 33.0	2.596	3.329	12.8	21.4
<b>192077</b>	2006 <i>BK</i> <sub>116</sub>		12 8.2 122°57'	0°4' / 8.1 18			<b>318852</b>	2005 <i>TU</i> <sub>17</sub>		12 8.2 98°16'	1°7' / 7.9 18		
11 7	5 24.18	+21 52.9	2.328	3.176	10.8	21.1	11 7	5 30.20	+18 14.6	1.555	2.412	14.8	20.3
11 17	5 18.04	+21 43.8	2.261	3.182	7.7	20.9	11 17	5 22.83	+18 19.2	1.503	2.427	10.6	20.1
11 27	5 10.22	+21 32.7	2.220	3.188	4.2	20.7	11 27	5 12.99	+18 25.7	1.475	2.443	5.9	19.8
12 7	5 1.48	+21 19.9	2.209	3.193	0.6	20.5	12 7	5 1.81	+18 33.8	1.475	2.458	1.7	19.6
12 17	4 52.69	+21 6.4	2.227	3.199	3.4	20.7	12 17	4 50.67	+18 44.0	1.502	2.473	4.8	19.9
12 27	4 44.78	+20 53.9	2.276	3.204	6.9	20.9	12 27	4 40.97	+18 57.0	1.558	2.487	9.4	20.2
1 6	4 38.50	+20 44.1	2.351	3.209	10.0	21.1	1 6	4 33.74	+19 13.8	1.639	2.502	13.4	20.4
1 16	4 34.32	+20 38.5	2.450	3.214	12.7	21.3	1 16	4 29.54	+19 35.2	1.740	2.516	16.6	20.7
<b>329561</b>	2002 <i>UV</i> <sub>65</sub>		12 8.2 181°44'	5°9' / 5.9 17			<b>451965</b>	2014 <i>NS</i> <sub>9</sub>		12 8.2 60°46'	0°9' / 8.0 17		
11 7	5 21.24	+ 2 25.6	2.797	3.614	10.1	21.5	11 7	5 25.66	+20 17.3	1.839	2.695	12.9	21.7
11 17	5 15.68	+ 1 32.7	2.733	3.615	8.2	21.3	11 17	5 19.40	+20 14.2	1.780	2.704	9.2	21.5
11 27	5 8.85	+ 0 49.2	2.694	3.615	6.5	21.2	11 27	5 11.07	+20 10.6	1.746	2.714	5.0	21.3
12 7	5 1.33	+ 0 18.1	2.684	3.615	5.9	21.2	12 7	5 1.60	+20 6.7	1.739	2.724	1.1	21.0
12 17	4 53.76	+ 0 1.3	2.703	3.614	6.8	21.3	12 17	4 52.10	+20 3.5	1.762	2.734	4.1	21.3
12 27	4 46.82	- 0 0.1	2.750	3.614	8.5	21.4	12 27	4 43.74	+20 2.2	1.813	2.744	8.2	21.6
1 6	4 41.10	+ 0 12.8	2.822	3.613	10.5	21.5	1 6	4 37.40	+20 4.5	1.890	2.754	11.8	21.8
1 16	4 36.99	+ 0 38.4	2.916	3.611	12.3	21.6	1 16	4 33.62	+20 11.5	1.989	2.764	14.8	22.0
<b>159286</b>	2006 <i>AH</i> <sub>36</sub>		12 8.2 159°75'	0°1' / 8.3 18			<b>409054</b>	2003 <i>SE</i> <sub>101</sub>		12 8.2 63°38'	1°2' / 7.8 17		
11 7	5 24.49	+23 29.8	2.638	3.480	9.9	21.3	11 7	5 26.26	+21 25.6	2.011	2.862	12.2	20.5
11 17	5 18.13	+23 27.8	2.567	3.485	7.0	21.1	11 17	5 19.42	+20 40.7	1.969	2.891	8.6	20.4
11 27	5 10.23	+23 23.0	2.523	3.490	3.8	20.9	11 27	5 10.88	+19 53.6	1.953	2.920	4.6	20.2
12 7	5 1.48	+23 15.3	2.509	3.494	0.5	20.6	12 7	5 1.56	+19 6.4	1.966	2.950	1.3	20.0
12 17	4 52.67	+23 5.3	2.526	3.498	3.0	20.8	12 17	4 52.49	+18 21.9	2.009	2.979	3.9	20.2
12 27	4 44.65	+22 54.4	2.574	3.501	6.2	21.1	12 27	4 44.63	+17 43.0	2.082	3.008	7.6	20.5
1 6	4 38.09	+22 44.3	2.649	3.505	9.1	21.2	1 6	4 38.68	+17 12.0	2.181	3.037	10.8	20.8
1 16	4 33.47	+22 36.7	2.749	3.507	11.6	21.4	1 16	4 35.04	+16 50.1	2.303	3.065	13.4	21.0
<b>26496</b>	2000 <i>CE</i> <sub>1</sub>		12 8.2 108°48'	4°0' / 7.5 18			<b>74422</b>	1999 <i>AP</i> <sub>28</sub>		12 8.2 193°55'	4°4' / 10.1 18		
11 7	5 28.71	+13 22.8	1.601	2.455	14.6	18.3	11 7	5 27.64	+39 35.9	2.681	3.485	10.9	19.6
11 17	5 21.64	+12 57.1	1.549	2.468	10.7	18.1	11 17	5 20.54	+39 33.0	2.602	3.484	8.5	19.5
11 27	5 12.28	+12 37.4	1.520	2.481	6.6	17.9	11 27	5 11.59	+39 16.5	2.549	3.482	6.1	19.3
12 7	5 1.71	+12 25.9	1.519	2.494	4.0	17.8	12 7	5 1.66	+38 44.8	2.524	3.481	4.5	19.2
12 17	4 51.18	+12 24.1	1.546	2.507	6.1	17.9	12 17	4 51.72	+37 58.5	2.529	3.479	5.0	19.2
12 27	4 41.99	+12 33.2	1.600	2.519	10.0	18.2	12 27	4 42.81	+37 0.5	2.564	3.477	7.0	19.4
1 6	4 35.11	+12 52.8	1.679	2.531	13.7	18.4	1 6	4 35.71	+35 55.5	2.627	3.474	9.5	19.5
1 16	4 31.05	+13 21.7	1.779	2.542	16.8	18.7	1 16	4 30.92	+34 48.5	2.714	3.472	11.7	19.7
<b>418466</b>	2008 <i>RT</i> <sub>52</sub>		12 8.2 138°72'	1°2' / 8.6 18			<b>362561</b>	2010 <i>VJ</i> <sub>53</sub>		12 8.2 93°92'	0°5' / 8.1 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>227153</b>	2005 <i>PQ</i> <sub>23</sub>	12	8.2 168°46	0°6/ 8.0 18			<b>266856</b>	2009 <i>UV</i> <sub>97</sub>	12	8.2 173°91	0°2/ 8.3 18		
11 7	5 30.23	+23 43.3	1.879	2.725	13.1	20.4	11 7	5 30.22	+23 13.3	1.791	2.641	13.5	21.3
11 17	5 22.62	+23 0.1	1.810	2.730	9.3	20.2	11 17	5 22.85	+23 17.9	1.722	2.643	9.7	21.0
11 27	5 12.81	+22 10.8	1.766	2.734	5.1	19.9	11 27	5 13.08	+23 19.1	1.678	2.645	5.3	20.8
12 7	5 1.82	+21 17.0	1.752	2.737	0.7	19.6	12 7	5 1.90	+23 16.3	1.662	2.647	0.6	20.4
12 17	4 50.85	+20 21.9	1.768	2.739	4.1	19.9	12 17	4 50.58	+23 9.7	1.676	2.648	4.1	20.7
12 27	4 41.13	+19 29.7	1.814	2.741	8.4	20.2	12 27	4 40.48	+23 1.4	1.718	2.648	8.6	21.0
1 6	4 33.60	+18 44.5	1.886	2.742	12.2	20.4	1 6	4 32.63	+22 54.0	1.786	2.648	12.5	21.2
1 16	4 28.79	+18 8.8	1.981	2.743	15.3	20.6	1 16	4 27.66	+22 50.1	1.877	2.647	15.8	21.4
<b>321822</b>	2010 <i>RW</i> <sub>46</sub>	12	8.2 141°02	1°6/ 7.8 18			<b>437850</b>	1999 <i>TF</i> <sub>218</sub>	12	8.2 55°69	4°3/ 9.1 18		
11 7	5 25.22	+19 27.5	1.993	2.847	12.2	20.8	11 7	5 32.79	+32 6.4	1.406	2.255	16.5	20.3
11 17	5 19.00	+19 3.0	1.926	2.849	8.7	20.6	11 17	5 24.95	+32 40.4	1.370	2.285	12.2	20.1
11 27	5 10.85	+18 37.7	1.884	2.851	4.8	20.4	11 27	5 14.20	+33 0.7	1.356	2.314	7.7	19.9
12 7	5 1.61	+18 12.9	1.870	2.853	1.6	20.1	12 7	5 2.00	+33 4.0	1.369	2.344	4.4	19.8
12 17	4 52.30	+17 50.5	1.885	2.855	4.2	20.3	12 17	4 50.11	+32 50.3	1.408	2.374	5.9	20.0
12 27	4 44.01	+17 32.8	1.930	2.856	8.0	20.6	12 27	4 40.18	+32 24.1	1.475	2.404	9.8	20.3
1 6	4 37.58	+17 21.4	2.000	2.858	11.5	20.8	1 6	4 33.30	+31 51.7	1.565	2.434	13.5	20.6
1 16	4 33.54	+17 17.4	2.093	2.860	14.5	21.0	1 16	4 29.94	+31 19.2	1.676	2.464	16.7	20.9
<b>30926</b>	1993 <i>TL</i> <sub>13</sub>	12	8.2 124°55	2°5/ 8.6 18			<b>195920</b>	2002 <i>RT</i> <sub>84</sub>	12	8.2 129°49	3°5/ 9.4 18		
11 7	5 32.20	+28 25.1	1.865	2.705	13.4	18.6	11 7	5 26.95	+35 41.2	2.843	3.658	10.0	20.6
11 17	5 24.18	+28 58.1	1.806	2.720	9.8	18.4	11 17	5 19.93	+36 1.2	2.779	3.671	7.6	20.5
11 27	5 13.73	+29 23.7	1.773	2.735	5.8	18.2	11 27	5 11.26	+36 11.4	2.741	3.684	5.2	20.4
12 7	5 1.93	+29 39.3	1.769	2.749	2.6	18.0	12 7	5 1.69	+36 10.1	2.732	3.696	3.6	20.3
12 17	4 50.09	+29 43.9	1.794	2.762	4.5	18.2	12 17	4 52.10	+35 57.2	2.753	3.708	4.2	20.3
12 27	4 39.58	+29 39.4	1.848	2.775	8.3	18.4	12 27	4 43.41	+35 34.5	2.805	3.720	6.4	20.5
1 6	4 31.44	+29 29.6	1.929	2.788	11.9	18.7	1 6	4 36.32	+35 5.1	2.885	3.731	8.7	20.7
1 16	4 26.24	+29 18.3	2.032	2.800	14.8	18.9	1 16	4 31.34	+34 32.8	2.989	3.742	10.8	20.8
<b>368651</b>	2005 <i>EH</i> <sub>146</sub>	12	8.2 322°39	8°9/ 5.3 17			<b>215186</b>	2000 <i>KX</i>	12	8.2 194°13	1°8/ 7.6 18		
11 7	5 20.90	- 0 58.6	2.043	2.864	13.2	20.3	11 7	5 25.64	+18 59.6	2.337	3.182	10.9	21.1
11 17	5 15.92	- 2 8.2	1.975	2.852	11.0	20.1	11 17	5 19.09	+18 19.0	2.261	3.180	7.8	20.9
11 27	5 9.19	- 3 3.4	1.931	2.840	9.4	20.0	11 27	5 10.84	+17 37.1	2.212	3.178	4.4	20.7
12 7	5 1.44	- 3 38.9	1.911	2.828	8.9	20.0	12 7	5 1.65	+16 55.7	2.193	3.175	1.8	20.5
12 17	4 53.52	- 3 51.4	1.918	2.817	9.9	20.0	12 17	4 52.40	+16 17.1	2.205	3.171	4.0	20.7
12 27	4 46.40	- 3 39.8	1.950	2.806	11.9	20.1	12 27	4 44.02	+15 43.9	2.247	3.167	7.4	20.9
1 6	4 40.85	- 3 6.2	2.004	2.796	14.2	20.2	1 6	4 37.25	+15 18.1	2.316	3.163	10.6	21.1
1 16	4 37.41	- 2 14.1	2.078	2.786	16.3	20.4	1 16	4 32.59	+15 1.0	2.408	3.158	13.3	21.3
<b>66595</b>	1999 <i>RU</i> <sub>178</sub>	12	8.2 113°80	4°6/ 7.4 18 R			<b>416091</b>	2002 <i>OM</i> <sub>33</sub>	12	8.2 117°76	0°2/ 8.3 18		
11 7	5 27.44	+10 17.1	1.948	2.789	12.9	19.3	11 7	5 24.43	+24 48.1	2.416	3.261	10.6	21.4
11 17	5 20.40	+9 50.3	1.897	2.807	9.6	19.2	11 17	5 18.18	+24 26.2	2.349	3.268	7.5	21.2
11 27	5 11.52	+9 31.1	1.872	2.825	6.3	19.0	11 27	5 10.32	+23 59.8	2.309	3.276	4.1	21.0
12 7	5 1.68	+9 21.6	1.874	2.842	4.6	18.9	12 7	5 1.59	+23 29.4	2.299	3.283	0.5	20.7
12 17	4 51.92	+9 23.4	1.906	2.858	6.1	19.1	12 17	4 52.88	+22 56.6	2.319	3.291	3.2	20.9
12 27	4 43.28	+9 36.7	1.967	2.874	9.1	19.3	12 27	4 45.07	+22 23.8	2.369	3.298	6.6	21.2
1 6	4 36.52	+10 0.8	2.053	2.890	12.2	19.5	1 6	4 38.87	+21 53.7	2.446	3.305	9.7	21.4
1 16	4 32.14	+10 34.0	2.161	2.905	14.8	19.7	1 16	4 34.74	+21 28.2	2.548	3.312	12.2	21.6
<b>77836</b>	2001 <i>QJ</i> <sub>258</sub>	12	8.2 230°37	5°7/ 9.3 18			<b>339985</b>	2005 <i>UQ</i> <sub>249</sub>	12	8.2 120°41	0°1/ 8.2 18		
11 7	5 31.01	+38 25.4	2.168	2.982	12.8	19.3	11 7	5 30.60	+22 31.7	1.772	2.622	13.6	21.9
11 17	5 23.60	+39 14.3	2.088	2.974	10.1	19.1	11 17	5 22.96	+22 32.3	1.716	2.638	9.7	21.7
11 27	5 13.59	+39 50.4	2.032	2.966	7.4	18.9	11 27	5 13.04	+22 29.9	1.686	2.653	5.3	21.5
12 7	5 1.96	+40 9.2	2.004	2.958	5.8	18.8	12 7	5 1.90	+22 24.3	1.683	2.668	0.6	21.2
12 17	4 49.98	+40 8.6	2.004	2.949	6.5	18.9	12 17	4 50.81	+22 16.1	1.710	2.682	4.1	21.5
12 27	4 39.07	+39 50.0	2.033	2.941	8.9	19.0	12 27	4 41.05	+22 7.3	1.766	2.696	8.4	21.8
1 6	4 30.42	+39 18.5	2.088	2.932	11.7	19.1	1 6	4 33.58	+22 0.6	1.848	2.709	12.2	22.0
1 16	4 24.75	+38 39.8	2.165	2.922	14.3	19.3	1 16	4 28.94	+21 57.9	1.952	2.721	15.3	22.3
<b>184296</b>	2005 <i>EG</i> <sub>38</sub>	12	8.2 340°97	22°9/ 8.6 18			<b>194703</b>	2001 <i>XS</i> <sub>235</sub>	12	8.2 260°00	1°3/ 8.5 18		
11 7	5 28.41	-21 14.7	1.047	1.815	26.3	19.3	11 7	5 29.08	+26 0.6	1.760	2.610	13.6	20.2
11 17	5 22.49	-22 40.4	1.007	1.810	24.7	19.1	11 17	5 22.35	+26 11.2	1.675	2.595	9.9	19.9
11 27	5 13.20	-23 15.4	0.980	1.805	23.5	19.0	11 27	5 12.98	+26 16.4	1.614	2.580	5.6	19.7
12 7	5 1.91	-22 47.4	0.966	1.800	22.9	19.0	12 7	5 1.92	+26 14.3	1.580	2.564	1.5	19.3
12 17	4 50.47	-21 12.0	0.969	1.797	23.2	19.0	12 17	4 50.47	+26 5.0	1.576	2.548	4.4	19.5
12 27	4 40.79	-18 34.2	0.987	1.794	24.4	19.1	12 27	4 40.09	+25 50.2	1.599	2.531	9.0	19.7
1 6	4 34.27	-15 8.5	1.020	1.792	26.1	19.2	1 6	4 31.99	+25 33.8	1.649	2.515	13.1	20.0
1 16	4 31.64	-11 12.3	1.069	1.791	28.0	19.4	1 16	4 26.93	+25 19.4	1.719	2.498	16.7	20.2
<b>117853</b>	2005 <i>JH</i> <sub>151</sub>	12	8.2 186°80	3°5/ 7.4 18			<b>457486</b>	2008 <i>UM</i> <sub>315</sub>	12	8.2 109°75	0°8/ 7.9 17		
11 7	5 28.83	+15 0.3	1.737	2.588	13.8	20.4	11 7	5 23.57	+21 43.3	2.437	3.285	10.4	21.4
11 17	5 21.80	+14 26.5	1.669	2.588	10.0	20.1	11 17	5 17.54	+21 13.2	2.372	3.292	7.4	21.2
11 27	5 12.47	+13 55.6	1.625	2.588	6.1	19.9	11 27	5 9.96	+20 40.6	2.333	3.300	4.0	21.0
12 7	5 1.83	+13 30.2	1.609	2.587	3.5	19.7	12 7	5 1.56	+20 6.8	2.323	3.307	0.9	20.8
12 17	4 51.07	+13 12.6	1.623	2.585	5.7	19.9	12 17	4 53.17	+19 33.4	2.344	3.314	3.3	21.0
12 27	4 41.47	+13 4.9	1.664	2.583	9.7	20.1	12 27	4 45.64	+19 2.9	2.395	3.322	6.7	21.2
1 6	4 34.03	+13 8.0	1.730	2.580	13.5	20.3	1 6	4 39.65	+18 37.3	2.473	3.329	9.7	21.4
1 16	4 29.34	+13 21.6	1.818	2.576	16.6	20.5	1 16	4 35.65	+18 18.0	2.576	3.336	12.2	21.6
<b>329715</b>	2003 <i>WJ</i> <sub>23</sub>	12	8.2 54°13	2°0/ 7.7 18			<b>418706</b>	2008 <i>UL</i> <sub>41</sub>	12	8.2 56°68	7°4/ 8.8 17		</

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12 8.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>219522</b>	2001 <i>QH</i> <sub>83</sub>	12	8.2	53°51	1°9/ 8.7	18	<b>4534</b>	Rimskij-Korsakov	12	8.2	168°97	2°6/ 9.1	18 R
11 7	5 34.55	+28 30.5	1.186	2.047	18.1	19.2	11 7	5 27.85	+31 44.9	2.449	3.278	11.0	17.9
11 17	5 26.06	+28 13.5	1.161	2.085	12.9	19.0	11 17	5 20.75	+31 47.9	2.376	3.282	8.1	17.7
11 27	5 14.65	+27 44.9	1.157	2.124	7.2	18.8	11 27	5 11.80	+31 41.8	2.329	3.285	5.1	17.5
12 7	5 2.05	+27 5.1	1.180	2.163	2.2	18.6	12 7	5 1.82	+31 25.7	2.311	3.288	2.7	17.4
12 17	4 50.15	+26 17.6	1.229	2.202	5.1	18.9	12 17	4 51.79	+30 59.9	2.324	3.290	3.9	17.5
12 27	4 40.60	+25 28.8	1.304	2.240	10.1	19.3	12 27	4 42.72	+30 26.7	2.367	3.292	6.8	17.7
1 6	4 34.36	+24 44.6	1.403	2.279	14.4	19.6	1 6	4 35.45	+29 49.9	2.437	3.293	9.8	17.9
1 16	4 31.70	+24 9.1	1.522	2.317	17.8	20.0	1 16	4 30.47	+29 13.3	2.532	3.294	12.4	18.0
<b>252346</b>	2001 <i>SQ</i> <sub>144</sub>	12	8.2	0°01	5°2/ 6.9	18	<b>351428</b>	2005 <i>GX</i> <sub>104</sub>	12	8.2	223°09	2°4/ 7.6	18
11 7	5 21.60	+13 39.2	1.314	2.189	15.8	19.5	11 7	5 25.92	+16 19.3	2.221	3.067	11.4	22.1
11 17	5 17.12	+12 41.3	1.256	2.186	11.7	19.2	11 17	5 19.46	+15 54.3	2.140	3.058	8.2	21.9
11 27	5 10.09	+11 48.7	1.220	2.184	7.5	19.0	11 27	5 11.16	+15 30.8	2.085	3.048	4.8	21.6
12 7	5 1.59	+11 6.3	1.209	2.183	5.2	18.8	12 7	5 1.76	+15 10.1	2.059	3.038	2.5	21.5
12 17	4 52.99	+10 38.6	1.223	2.184	7.5	19.0	12 17	4 52.19	+14 54.0	2.063	3.027	4.5	21.6
12 27	4 45.72	+10 28.2	1.262	2.186	11.6	19.2	12 27	4 43.44	+14 44.2	2.096	3.016	8.0	21.8
1 6	4 40.86	+10 35.3	1.322	2.189	15.7	19.5	1 6	4 36.34	+14 41.9	2.157	3.004	11.3	22.0
1 16	4 39.02	+10 57.8	1.402	2.194	19.2	19.7	1 16	4 31.45	+14 47.5	2.240	2.992	14.1	22.1
<b>333595</b>	2007 <i>ER</i> <sub>96</sub>	12	8.2	128°65	4°4/ 9.4	18	<b>212349</b>	2005 <i>UM</i> <sub>169</sub>	12	8.3	194°98	1°0/ 8.5	18
11 7	5 28.48	+36 37.9	2.493	3.309	11.3	21.0	11 7	5 29.95	+25 43.8	1.898	2.743	13.0	21.5
11 17	5 21.29	+37 11.1	2.428	3.318	8.7	20.8	11 17	5 22.66	+25 43.7	1.823	2.741	9.4	21.3
11 27	5 12.12	+37 33.1	2.388	3.328	6.1	20.7	11 27	5 13.01	+25 37.8	1.773	2.739	5.3	21.1
12 7	5 1.82	+37 41.3	2.376	3.337	4.4	20.6	12 7	5 1.98	+25 25.2	1.751	2.736	1.2	20.8
12 17	4 51.43	+37 35.0	2.394	3.346	5.1	20.6	12 17	4 50.79	+25 6.5	1.760	2.732	4.0	21.0
12 27	4 42.05	+37 16.1	2.441	3.354	7.3	20.8	12 27	4 40.74	+24 44.4	1.798	2.728	8.3	21.2
1 6	4 34.55	+36 48.3	2.516	3.362	9.9	21.0	1 6	4 32.86	+24 22.2	1.861	2.723	12.1	21.5
1 16	4 29.48	+36 16.0	2.614	3.370	12.2	21.2	1 16	4 27.78	+24 3.3	1.948	2.718	15.3	21.7
<b>191487</b>	2003 <i>TM</i> <sub>7</sub>	12	8.2	88°32	1°4/ 8.0	18	<b>323011</b>	2002 <i>PQ</i> <sub>154</sub>	12	8.3	185°00	4°1/ 7.2	18
11 7	5 25.08	+17 27.5	2.234	3.082	11.2	19.8	11 7	5 22.68	+6 48.1	3.068	3.891	9.2	21.8
11 17	5 18.73	+17 38.4	2.173	3.093	8.0	19.6	11 17	5 16.69	+6 33.5	2.996	3.891	7.0	21.7
11 27	5 10.67	+17 51.4	2.139	3.105	4.5	19.4	11 27	5 9.48	+6 25.7	2.950	3.891	5.0	21.5
12 7	5 1.65	+18 6.4	2.133	3.116	1.5	19.2	12 7	5 1.58	+6 26.4	2.934	3.890	4.1	21.5
12 17	4 52.59	+18 23.3	2.157	3.127	3.7	19.4	12 17	4 53.61	+6 36.3	2.949	3.888	5.0	21.5
12 27	4 44.42	+18 42.4	2.212	3.138	7.2	19.6	12 27	4 46.21	+6 55.5	2.993	3.886	6.9	21.6
1 6	4 37.91	+19 4.2	2.293	3.149	10.3	19.9	1 6	4 39.94	+7 23.5	3.066	3.883	9.1	21.8
1 16	4 33.56	+19 28.8	2.397	3.159	13.0	20.1	1 16	4 35.20	+7 59.0	3.162	3.880	11.0	21.9
<b>21645</b>	Chentsaiwei	12	8.2	60°12	4°4/ 9.8	18	<b>101952</b>	1999 <i>RY</i> <sub>31</sub>	12	8.3	156°93	1°2/ 8.5	18
11 7	5 32.51	+35 34.4	1.465	2.306	16.4	17.7	11 7	5 33.01	+25 38.7	2.065	2.901	12.5	20.6
11 17	5 24.65	+35 16.5	1.420	2.329	12.3	17.5	11 17	5 24.60	+25 57.4	1.999	2.912	9.0	20.4
11 27	5 13.98	+34 40.3	1.398	2.352	7.9	17.3	11 27	5 13.98	+26 11.0	1.958	2.922	5.0	20.2
12 7	5 2.00	+33 44.8	1.402	2.376	4.6	17.2	12 7	5 2.10	+26 18.0	1.948	2.931	1.4	20.0
12 17	4 50.42	+32 33.5	1.433	2.399	5.8	17.3	12 17	4 50.15	+26 18.0	1.968	2.939	3.8	20.2
12 27	4 40.85	+31 13.5	1.492	2.423	9.5	17.6	12 27	4 39.36	+26 12.5	2.019	2.946	7.7	20.4
1 6	4 34.29	+29 53.3	1.575	2.446	13.3	17.9	1 6	4 30.71	+26 4.6	2.098	2.952	11.2	20.7
1 16	4 31.14	+28 39.7	1.680	2.470	16.6	18.2	1 16	4 24.76	+25 57.3	2.199	2.956	14.1	20.9
<b>301906</b>	1998 <i>XV</i> <sub>5</sub>	12	8.2	72°03	0°2/ 8.3	18	<b>270071</b>	2001 <i>PM</i> <sub>44</sub>	12	8.3	131°40	0°9/ 8.0	18
11 7	5 29.69	+22 14.8	1.692	2.546	13.9	20.9	11 7	5 30.32	+21 2.0	1.883	2.730	13.0	22.2
11 17	5 22.35	+22 37.8	1.646	2.569	9.9	20.7	11 17	5 22.64	+20 45.8	1.826	2.746	9.3	22.0
11 27	5 12.72	+22 58.9	1.624	2.592	5.4	20.5	11 27	5 12.85	+20 27.5	1.794	2.761	5.1	21.8
12 7	5 1.88	+23 16.4	1.631	2.616	0.6	20.2	12 7	5 1.96	+20 7.9	1.791	2.775	1.0	21.5
12 17	4 51.14	+23 30.1	1.666	2.639	4.1	20.5	12 17	4 51.14	+19 48.3	1.818	2.789	4.1	21.8
12 27	4 41.80	+23 41.0	1.730	2.662	8.4	20.8	12 27	4 41.57	+19 31.2	1.875	2.802	8.2	22.1
1 6	4 34.80	+23 51.1	1.820	2.685	12.1	21.1	1 6	4 34.15	+19 18.9	1.957	2.814	11.8	22.3
1 16	4 30.65	+24 2.2	1.931	2.707	15.2	21.3	1 16	4 29.37	+19 12.8	2.063	2.825	14.8	22.6
<b>136029</b>	2002 <i>VU</i> <sub>104</sub>	12	8.2	354°22	3°1/ 8.9	17	<b>49048</b>	1998 <i>RZ</i> <sub>21</sub>	12	8.3	305°31	4°3/ 8.9	18
11 7	5 26.30	+29 57.2	1.502	2.360	15.1	19.5	11 7	5 29.63	+31 26.2	1.379	2.235	16.4	18.6
11 17	5 20.59	+30 13.5	1.435	2.357	11.2	19.2	11 17	5 23.47	+31 56.5	1.303	2.222	12.3	18.3
11 27	5 12.06	+30 19.8	1.390	2.354	6.8	19.0	11 27	5 13.90	+32 15.5	1.248	2.208	7.8	18.1
12 7	5 1.83	+30 13.7	1.371	2.351	3.3	18.8	12 7	5 2.12	+32 18.8	1.218	2.196	4.4	17.8
12 17	4 51.40	+29 55.2	1.379	2.350	5.2	18.9	12 17	4 49.85	+32 4.5	1.215	2.183	6.2	17.9
12 27	4 42.37	+29 27.4	1.414	2.349	9.6	19.1	12 27	4 39.05	+31 35.8	1.237	2.171	10.8	18.1
1 6	4 35.96	+28 55.6	1.472	2.349	13.8	19.4	1 6	4 31.28	+30 59.1	1.283	2.159	15.4	18.4
1 16	4 32.87	+28 24.8	1.551	2.350	17.3	19.6	1 16	4 27.39	+30 21.5	1.348	2.147	19.4	18.6
<b>515776</b>	2015 <i>KZ</i> <sub>51</sub>	12	8.2	88°14	0°3/ 8.3	18	<b>395181</b>	2010 <i>EL</i> <sub>103</sub>	12	8.3	83°16	2°1/ 7.8	18
11 7	5 31.23	+22 47.3	1.748	2.597	13.8	20.2	11 7	5 27.84	+18 25.3	1.646	2.503	14.1	21.0
11 17	5 23.35	+23 5.6	1.703	2.624	9.8	20.0	11 17	5 21.06	+18 1.4	1.594	2.518	10.0	20.8
11 27	5 13.22	+23 21.0	1.682	2.650	5.3	19.8	11 27	5 12.06	+17 38.2	1.566	2.533	5.6	20.5
12 7	5 1.94	+23 32.4	1.690	2.675	0.7	19.5	12 7	5 1.88	+17 17.3	1.566	2.548	2.1	20.4
12 17	4 50.80	+23 39.5	1.728	2.700	4.0	19.8	12 17	4 51.78	+17 0.5	1.594	2.563	4.9	20.6
12 27	4 41.08	+23 43.8	1.795	2.725	8.3	20.1	12 27	4 43.01	+16 50.0	1.650	2.578	9.1	20.9
1 6	4 33.71	+23 47.6	1.887	2.749	11.9	20.4	1 6	4 36.51	+16 47.2	1.731	2.592	12.9	21.1
1 16	4 29.18	+23 53.1	2.002	2.773	14.9	20.7	1 16	4 32.77	+16 52.6	1.833	2.607	16.0	21.4
<b>192382</b>	1996 <i>JM</i> <sub>8</sub>	12	8.2	224°77	1°4/ 7.9	18	<b>485811</b>	2012 <i>DQ</i> <sub>46</sub>	12	8.3	166°33	5°2/ 7.0	18
11 7	5												



EPHEMERIDES

12 8.3

12 8.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>124236</b>	2001 <i>PC</i> <sub>44</sub>	12 8.3 110°89	0°5/ 8.3 18				<b>325697</b>	2009 <i>UZ</i> <sub>35</sub>	12 8.3 169°07	1°7/ 8.6 17			
11 7	5 32.79	+24 39.1	1.319	2.180	16.7	20.3	11 7	5 26.22	+27 24.8	2.299	3.140	11.2	20.7
11 17	5 25.17	+24 31.4	1.265	2.191	11.9	20.0	11 17	5 19.75	+27 47.7	2.226	3.141	8.1	20.5
11 27	5 14.50	+24 17.3	1.234	2.202	6.6	19.8	11 27	5 11.37	+28 5.5	2.179	3.142	4.7	20.3
12 7	5 2.16	+23 56.4	1.228	2.213	0.9	19.4	12 7	5 1.85	+28 16.7	2.161	3.143	1.8	20.1
12 17	4 49.88	+23 30.3	1.250	2.224	5.0	19.7	12 17	4 52.18	+28 20.7	2.173	3.143	3.6	20.2
12 27	4 39.40	+23 3.0	1.299	2.234	10.3	20.1	12 27	4 43.40	+28 18.8	2.215	3.144	7.0	20.4
1 6	4 31.95	+22 39.2	1.372	2.244	14.9	20.4	1 6	4 36.37	+28 13.3	2.284	3.144	10.2	20.6
1 16	4 28.11	+22 22.4	1.464	2.253	18.6	20.6	1 16	4 31.65	+28 6.9	2.377	3.145	12.9	20.8
<b>50636</b>	2000 <i>EH</i> <sub>77</sub>	12 8.3 114°93	5°1/ 9.3 18				<b>189731</b>	2001 <i>WE</i> <sub>47</sub>	12 8.3 84°33	0°2/ 8.2 18			
11 7	5 31.63	+36 23.4	2.009	2.831	13.3	18.8	11 7	5 30.52	+23 26.9	1.543	2.400	14.9	20.2
11 17	5 23.93	+37 7.4	1.948	2.842	10.3	18.7	11 17	5 23.07	+23 9.7	1.496	2.420	10.6	20.0
11 27	5 13.72	+37 38.4	1.912	2.854	7.2	18.5	11 27	5 13.17	+22 47.9	1.472	2.441	5.7	19.7
12 7	5 2.08	+37 52.4	1.903	2.865	5.2	18.4	12 7	5 2.04	+22 22.2	1.476	2.461	0.7	19.4
12 17	4 50.33	+37 48.3	1.923	2.875	6.0	18.5	12 17	4 51.10	+21 54.5	1.509	2.481	4.4	19.8
12 27	4 39.90	+37 28.4	1.971	2.886	8.7	18.7	12 27	4 41.73	+21 28.3	1.569	2.501	9.0	20.1
1 6	4 31.86	+36 57.8	2.045	2.896	11.6	18.9	1 6	4 34.92	+21 6.8	1.654	2.521	13.1	20.4
1 16	4 26.81	+36 22.4	2.142	2.906	14.3	19.1	1 16	4 31.15	+20 52.4	1.760	2.540	16.3	20.6
<b>132986</b>	2002 <i>TD</i> <sub>205</sub>	12 8.3 84°86	1°6/ 8.5 17				<b>96596</b>	1998 <i>XW</i> <sub>26</sub>	12 8.3 260°34	7°3/ 7.3 18			
11 7	5 26.00	+26 38.6	2.348	3.190	11.0	19.8	11 7	5 42.74	+29 12.3	1.155	2.006	19.2	18.0
11 17	5 19.51	+27 10.5	2.282	3.198	7.9	19.6	11 17	5 34.17	+31 59.8	1.086	2.000	14.7	17.7
11 27	5 11.18	+27 38.1	2.243	3.206	4.6	19.4	11 27	5 20.54	+34 48.7	1.039	1.994	9.9	17.4
12 7	5 1.80	+27 59.7	2.232	3.214	1.7	19.2	12 7	5 3.00	+37 21.8	1.019	1.988	7.3	17.3
12 17	4 52.30	+28 14.5	2.252	3.222	3.5	19.3	12 17	4 43.88	+39 23.2	1.027	1.981	9.7	17.4
12 27	4 43.68	+28 23.3	2.302	3.230	6.8	19.6	12 27	4 26.29	+40 46.5	1.061	1.975	14.5	17.6
1 6	4 36.77	+28 28.1	2.379	3.238	9.9	19.8	1 6	4 12.89	+41 37.3	1.118	1.968	19.2	17.9
1 16	4 32.10	+28 31.0	2.480	3.246	12.5	20.0	1 16	4 5.12	+42 6.8	1.192	1.961	23.1	18.1
<b>450957</b>	2008 <i>JT</i> <sub>33</sub>	12 8.3 310°39	7°4/ 6.2 18				<b>175127</b>	2005 <i>AH</i> <sub>56</sub>	12 8.3 247°49	1°7/ 8.0 18			
11 7	5 23.20	+ 6 23.3	1.685	2.534	14.2	21.0	11 7	5 30.16	+18 26.4	1.453	2.313	15.4	20.8
11 17	5 18.10	+ 5 23.3	1.598	2.506	11.3	20.7	11 17	5 23.39	+18 29.1	1.379	2.305	11.2	20.5
11 27	5 10.69	+ 4 32.8	1.535	2.478	8.5	20.5	11 27	5 13.69	+18 33.8	1.328	2.296	6.3	20.2
12 7	5 1.77	+ 3 57.2	1.497	2.450	7.4	20.4	12 7	5 2.14	+18 40.6	1.303	2.286	1.8	19.9
12 17	4 52.43	+ 3 41.0	1.485	2.423	9.0	20.4	12 17	4 50.21	+18 49.8	1.306	2.277	5.3	20.1
12 27	4 43.93	+ 3 46.7	1.499	2.396	12.2	20.5	12 27	4 39.55	+19 2.4	1.336	2.267	10.4	20.4
1 6	4 37.35	+ 4 13.5	1.536	2.370	15.7	20.7	1 6	4 31.48	+19 19.8	1.389	2.257	15.0	20.6
1 16	4 33.43	+ 4 58.6	1.592	2.344	18.9	20.8	1 16	4 26.78	+19 42.9	1.463	2.247	18.9	20.8
<b>368035</b>	2012 <i>GW</i> <sub>34</sub>	12 8.3 207°71	1°2/ 7.9 17				<b>233385</b>	2006 <i>EH</i> <sub>10</sub>	12 8.3 29°67	6°8/ 6.8 18			
11 7	5 23.86	+20 12.2	2.351	3.199	10.7	21.6	11 7	5 22.46	+ 5 10.7	1.857	2.699	13.4	19.9
11 17	5 17.90	+19 47.2	2.277	3.198	7.6	21.4	11 17	5 17.07	+ 4 24.6	1.805	2.707	10.5	19.7
11 27	5 10.27	+19 20.8	2.228	3.195	4.2	21.1	11 27	5 9.87	+ 3 50.6	1.776	2.715	7.9	19.6
12 7	5 1.70	+18 54.1	2.210	3.193	1.2	20.9	12 7	5 1.68	+ 3 32.4	1.773	2.723	6.8	19.5
12 17	4 53.05	+18 28.7	2.221	3.191	3.6	21.1	12 17	4 53.48	+ 3 32.3	1.798	2.733	8.0	19.6
12 27	4 45.23	+18 6.8	2.262	3.188	7.1	21.3	12 27	4 46.28	+ 3 50.3	1.849	2.742	10.5	19.8
1 6	4 38.97	+17 50.0	2.330	3.185	10.2	21.5	1 6	4 40.87	+ 4 24.6	1.924	2.752	13.2	20.0
1 16	4 34.78	+17 39.6	2.422	3.183	12.9	21.7	1 16	4 37.72	+ 5 12.0	2.019	2.762	15.7	20.2
<b>283797</b>	2003 <i>SU</i> <sub>42</sub>	12 8.3 92°59	0°6/ 8.4 18				<b>324885</b>	2007 <i>UD</i> <sub>38</sub>	12 8.3 37°70	2°1/ 8.6 18			
11 7	5 28.48	+26 1.0	1.699	2.552	13.9	20.2	11 7	5 30.36	+26 29.3	1.097	1.970	18.3	20.2
11 17	5 21.62	+25 37.4	1.638	2.561	10.0	20.0	11 17	5 24.00	+26 47.8	1.047	1.978	13.3	20.0
11 27	5 12.41	+25 6.5	1.602	2.570	5.5	19.7	11 27	5 14.10	+26 58.3	1.018	1.987	7.6	19.7
12 7	5 1.94	+24 28.8	1.594	2.578	0.9	19.4	12 7	5 2.17	+26 58.1	1.013	1.996	2.3	19.4
12 17	4 51.52	+23 46.7	1.614	2.587	4.1	19.7	12 17	4 50.22	+26 47.4	1.032	2.006	5.7	19.6
12 27	4 42.46	+23 4.2	1.663	2.595	8.6	20.0	12 27	4 40.28	+26 30.0	1.077	2.017	11.2	20.0
1 6	4 35.75	+22 25.4	1.737	2.604	12.5	20.2	1 6	4 33.76	+26 11.3	1.143	2.028	16.2	20.3
1 16	4 31.91	+21 53.7	1.833	2.612	15.8	20.5	1 16	4 31.28	+25 56.2	1.227	2.039	20.2	20.6
<b>84445</b>	2002 <i>TZ</i> <sub>239</sub>	12 8.3 274°65	2°8/ 7.2 18				<b>58441</b>	1996 <i>HO</i> <sub>1</sub>	12 8.3 139°04	2°6/ 7.7 18			
11 7	5 22.41	+15 45.0	2.396	3.245	10.5	18.9	11 7	5 25.98	+16 4.6	1.965	2.816	12.4	19.4
11 17	5 16.83	+14 56.7	2.319	3.238	7.7	18.7	11 17	5 19.60	+15 44.3	1.901	2.821	9.0	19.2
11 27	5 9.68	+14 9.2	2.269	3.231	4.7	18.5	11 27	5 11.27	+15 26.4	1.861	2.826	5.3	18.9
12 7	5 1.64	+13 25.1	2.248	3.224	2.8	18.4	12 7	5 1.86	+15 12.5	1.850	2.830	2.6	18.8
12 17	4 53.51	+12 47.0	2.257	3.217	4.6	18.5	12 17	4 52.39	+15 4.1	1.869	2.834	4.7	18.9
12 27	4 46.14	+12 17.1	2.295	3.210	7.6	18.7	12 27	4 43.93	+15 2.5	1.916	2.838	8.4	19.2
1 6	4 40.24	+11 57.0	2.360	3.203	10.6	18.9	1 6	4 37.33	+15 8.5	1.988	2.842	11.8	19.4
1 16	4 36.27	+11 47.0	2.448	3.196	13.1	19.0	1 16	4 33.12	+15 22.1	2.084	2.845	14.7	19.6
<b>308936</b>	2006 <i>SL</i> <sub>391</sub>	12 8.3 104°75	1°6/ 8.6 18				<b>202401</b>	2005 <i>JR</i> <sub>69</sub>	12 8.3 359°98	4°8/ 6.8 17			
11 7	5 28.30	+27 11.1	1.949	2.795	12.7	21.1	11 7	5 21.65	+10 29.5	2.031	2.881	12.1	19.7
11 17	5 21.34	+27 21.5	1.889	2.806	9.2	20.9	11 17	5 16.47	+ 9 40.3	1.966	2.880	9.1	19.5
11 27	5 12.23	+27 25.5	1.853	2.818	5.2	20.7	11 27	5 9.55	+ 8 57.2	1.927	2.880	6.2	19.3
12 7	5 1.93	+27 22.0	1.846	2.829	1.7	20.5	12 7	5 1.67	+ 8 23.7	1.915	2.879	4.8	19.2
12 17	4 51.61	+27 11.2	1.868	2.840	3.9	20.7	12 17	4 53.71	+ 8 2.4	1.931	2.880	6.3	19.3
12 27	4 42.48	+26 55.3	1.920	2.850	7.8	20.9	12 27	4 46.63	+ 7 54.8	1.974	2.880	9.2	19.5
1 6	4 35.45	+26 37.7	1.997	2.861	11.3	21.2	1 6	4 41.19	+ 8 0.9	2.042	2.881	12.1	19.7
1 16	4 31.07	+26 21.4	2.098	2.871	14.2	21.4	1 16	4 37.89	+ 8 19.4	2.132	2.883	14.7	19.9
<b>48719</b>	1996 <i>RU</i> <sub>25</sub>	12 8.3 150°58	0°2/ 8.2 18				<b>71259</b>	2000 <i>AX</i> <sub>22</sub>	12 8.3 316°38	0°7/ 8.4 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>172636</b>	2003 YZ <sub>14</sub>	12	8.3	71°09'	5°6'/10.1	18	<b>230924</b>	2004 TZ <sub>361</sub>	12	8.3	341°83'	2°3'/7.5	17
11 7	5 32.61	+38 10.5	1.690	2.516	15.3	19.5	11 7	5 23.81	+19 12.3	1.858	2.717	12.6	19.8
11 17	5 24.73	+38 21.1	1.641	2.536	11.8	19.3	11 17	5 18.21	+18 18.8	1.787	2.712	9.1	19.5
11 27	5 14.14	+38 13.6	1.614	2.557	8.2	19.2	11 27	5 10.60	+17 23.4	1.741	2.708	5.2	19.3
12 7	5 2.19	+37 45.3	1.614	2.577	5.8	19.1	12 7	5 1.84	+16 28.9	1.723	2.704	2.3	19.1
12 17	4 50.48	+36 57.3	1.641	2.598	6.4	19.1	12 17	4 53.00	+15 38.9	1.734	2.701	4.8	19.3
12 27	4 40.55	+35 55.0	1.696	2.618	9.3	19.4	12 27	4 45.20	+14 57.0	1.773	2.698	8.7	19.5
1 6	4 33.43	+34 46.2	1.777	2.638	12.6	19.6	1 6	4 39.31	+14 25.7	1.837	2.695	12.4	19.7
1 16	4 29.61	+33 37.9	1.879	2.658	15.4	19.8	1 16	4 35.88	+14 6.3	1.923	2.693	15.5	19.9
<b>73598</b>	2912 T <sub>-2</sub>	12	8.3	32°75'	1°4'/8.5	18	<b>415211</b>	2012 HJ <sub>39</sub>	12	8.3	211°95'	4°5'/6.2	18
11 7	5 29.12	+25 47.9	1.078	1.954	18.3	19.6	11 7	5 22.54	+7 53.3	2.919	3.747	9.4	21.6
11 17	5 23.07	+25 53.4	1.031	1.964	13.2	19.3	11 17	5 16.70	+6 54.5	2.842	3.740	7.3	21.5
11 27	5 13.58	+25 51.1	1.004	1.973	7.4	19.0	11 27	5 9.57	+6 0.8	2.792	3.732	5.3	21.3
12 7	5 2.15	+25 39.8	1.000	1.984	1.7	18.7	12 7	5 1.72	+5 15.2	2.772	3.724	4.5	21.3
12 17	4 50.76	+25 20.6	1.021	1.996	5.5	19.0	12 17	4 53.79	+4 39.9	2.783	3.715	5.6	21.3
12 27	4 41.38	+24 57.7	1.067	2.008	11.2	19.3	12 27	4 46.45	+4 16.8	2.823	3.706	7.7	21.4
1 6	4 35.36	+24 36.4	1.134	2.021	16.1	19.7	1 6	4 40.30	+4 6.1	2.890	3.697	9.9	21.6
1 16	4 33.28	+24 20.7	1.220	2.034	20.2	20.0	1 16	4 35.73	+4 7.2	2.980	3.686	11.8	21.7
<b>143990</b>	2003 YN <sub>175</sub>	12	8.3	52°43'	1°5'/8.6	18	<b>15406</b>	Bleibtreu	12	8.3	214°33'	1°6'/8.6	18
11 7	5 27.61	+26 47.9	1.719	2.572	13.8	20.4	11 7	5 27.54	+26 49.2	1.936	2.784	12.7	18.7
11 17	5 21.15	+26 52.1	1.655	2.577	9.9	20.2	11 17	5 20.99	+27 6.2	1.864	2.783	9.2	18.5
11 27	5 12.26	+26 49.5	1.615	2.581	5.6	20.0	11 27	5 12.18	+27 17.6	1.817	2.782	5.3	18.3
12 7	5 2.00	+26 39.2	1.602	2.585	1.7	19.7	12 7	5 2.03	+27 21.9	1.798	2.781	1.8	18.0
12 17	4 51.65	+26 21.8	1.617	2.590	4.2	19.9	12 17	4 51.70	+27 18.8	1.808	2.779	4.0	18.2
12 27	4 42.58	+25 59.9	1.661	2.595	8.5	20.2	12 27	4 42.43	+27 10.0	1.847	2.778	8.0	18.4
1 6	4 35.81	+25 37.5	1.730	2.599	12.4	20.4	1 6	4 35.23	+26 58.5	1.912	2.777	11.6	18.6
1 16	4 31.94	+25 17.9	1.820	2.604	15.7	20.6	1 16	4 30.74	+26 47.6	1.999	2.776	14.7	18.8
<b>142910</b>	2002 VC <sub>53</sub>	12	8.3	35°72'	0°4'/8.3	18	<b>369773</b>	2012 GM <sub>21</sub>	12	8.3	304°93'	8°0'/6.2	17
11 7	5 26.85	+23 24.8	1.651	2.509	14.0	19.5	11 7	5 22.21	-0 31.5	2.170	2.987	12.7	21.0
11 17	5 20.63	+23 32.7	1.589	2.515	10.0	19.3	11 17	5 16.82	-1 21.1	2.105	2.982	10.5	20.9
11 27	5 11.99	+23 37.3	1.552	2.520	5.5	19.0	11 27	5 9.76	-1 56.4	2.064	2.976	8.7	20.7
12 7	5 1.98	+23 38.1	1.541	2.526	0.7	18.7	12 7	5 1.75	-2 13.5	2.048	2.971	8.0	20.7
12 17	4 51.86	+23 35.2	1.559	2.532	4.2	19.0	12 17	4 53.63	-2 9.9	2.060	2.966	8.9	20.7
12 27	4 43.01	+23 30.6	1.604	2.538	8.7	19.2	12 27	4 46.29	-1 45.5	2.098	2.961	10.8	20.8
1 6	4 36.45	+23 26.8	1.674	2.545	12.7	19.5	1 6	4 40.48	-1 2.5	2.159	2.956	13.1	21.0
1 16	4 32.79	+23 26.1	1.766	2.552	16.0	19.7	1 16	4 36.69	-0 4.3	2.241	2.952	15.2	21.1
<b>231424</b>	2007 EG <sub>79</sub>	12	8.3	98°32'	3°1'/7.6	18	<b>99730</b>	2002 JL <sub>57</sub>	12	8.3	181°06'	0°4'/8.4	17
11 7	5 28.12	+16 48.7	1.601	2.458	14.4	20.0	11 7	5 24.93	+24 41.3	2.435	3.278	10.6	20.3
11 17	5 21.36	+16 9.6	1.546	2.469	10.4	19.8	11 17	5 18.69	+24 30.9	2.360	3.279	7.6	20.1
11 27	5 12.30	+15 32.2	1.515	2.480	6.1	19.5	11 27	5 10.75	+24 16.3	2.313	3.279	4.2	19.9
12 7	5 2.01	+14 59.2	1.511	2.491	3.1	19.4	12 7	5 1.87	+23 57.7	2.294	3.279	0.6	19.6
12 17	4 51.77	+14 33.4	1.536	2.502	5.5	19.6	12 17	4 52.91	+23 36.1	2.306	3.279	3.2	19.8
12 27	4 42.88	+14 17.2	1.588	2.512	9.7	19.8	12 27	4 44.80	+23 13.3	2.349	3.278	6.6	20.0
1 6	4 36.28	+14 11.9	1.665	2.522	13.5	20.1	1 6	4 38.28	+22 51.9	2.418	3.277	9.7	20.2
1 16	4 32.50	+14 17.5	1.763	2.533	16.7	20.3	1 16	4 33.84	+22 33.8	2.512	3.276	12.4	20.4
<b>185159</b>	2006 SC <sub>212</sub>	12	8.3	10°68'	3°4'/7.6	18	<b>78653</b>	2002 TQ <sub>66</sub>	12	8.3	224°17'	12°1'/12.6	18
11 7	5 23.90	+16 14.3	1.462	2.331	14.9	20.0	11 7	5 46.50	+56 16.3	1.921	2.647	17.2	19.4
11 17	5 18.62	+15 40.3	1.404	2.333	10.8	19.8	11 17	5 35.95	+57 4.3	1.842	2.638	15.3	19.3
11 27	5 10.92	+15 9.2	1.369	2.336	6.4	19.5	11 27	5 20.86	+57 23.0	1.783	2.629	13.5	19.1
12 7	5 1.86	+14 43.9	1.360	2.339	3.4	19.3	12 7	5 3.05	+57 3.1	1.746	2.619	12.3	19.0
12 17	4 52.73	+14 26.9	1.377	2.344	5.9	19.5	12 17	4 45.15	+56 0.6	1.734	2.608	12.2	19.0
12 27	4 44.88	+14 20.5	1.421	2.349	10.2	19.8	12 27	4 29.86	+54 20.1	1.746	2.596	13.4	19.1
1 6	4 39.35	+14 25.5	1.488	2.355	14.2	20.0	1 6	4 18.95	+52 13.6	1.783	2.584	15.3	19.2
1 16	4 36.71	+14 41.2	1.575	2.362	17.6	20.3	1 16	4 13.02	+49 54.6	1.841	2.571	17.4	19.3
<b>411938</b>	2012 GY <sub>19</sub>	12	8.3	246°26'	4°7'/6.8	17	<b>344090</b>	1999 JK <sub>133</sub>	12	8.3	277°97'	0°8'/8.2	18
11 7	5 22.85	+9 49.1	2.246	3.088	11.4	21.3	11 7	5 33.61	+20 31.8	1.661	2.509	14.4	20.4
11 17	5 17.22	+9 5.1	2.175	3.084	8.6	21.1	11 17	5 26.05	+21 47.9	1.569	2.489	10.5	20.1
11 27	5 9.95	+8 27.3	2.130	3.080	5.9	21.0	11 27	5 15.37	+23 9.7	1.502	2.469	5.9	19.8
12 7	5 1.75	+7 58.4	2.113	3.076	4.7	20.9	12 7	5 2.46	+24 32.5	1.464	2.449	1.0	19.4
12 17	4 53.45	+7 40.8	2.126	3.072	6.0	20.9	12 17	4 48.69	+25 51.1	1.457	2.428	4.7	19.6
12 27	4 45.94	+7 36.0	2.166	3.068	8.7	21.1	12 27	4 35.77	+27 2.2	1.479	2.408	9.8	19.9
1 6	4 39.95	+7 43.7	2.232	3.064	11.5	21.3	1 6	4 25.21	+28 5.2	1.527	2.387	14.3	20.1
1 16	4 35.98	+8 3.0	2.321	3.060	14.0	21.5	1 16	4 18.04	+29 1.8	1.597	2.366	18.2	20.3
<b>134140</b>	2005 AT <sub>32</sub>	12	8.3	235°22'	6°2'/6.8	18	<b>488377</b>	2016 WT <sub>41</sub>	12	8.3	264°71'	3°9'/6.4	18
11 7	5 22.48	+0 37.4	2.715	3.524	10.6	20.4	11 7	5 30.27	+17 59.0	1.825	2.673	13.3	20.4
11 17	5 16.76	+0 12.3	2.639	3.515	8.6	20.2	11 17	5 22.94	+16 7.9	1.734	2.653	9.8	20.2
11 27	5 9.65	-0 1.3	2.588	3.505	6.9	20.1	11 27	5 13.26	+14 10.0	1.670	2.633	6.0	19.9
12 7	5 1.72	-0 0.9	2.564	3.494	6.2	20.0	12 7	5 2.18	+12 11.1	1.637	2.611	4.0	19.7
12 17	4 53.66	+0 14.6	2.570	3.484	7.0	20.1	12 17	4 50.88	+10 18.7	1.634	2.590	6.5	19.8
12 27	4 46.20	+0 45.4	2.604	3.473	8.8	20.2	12 27	4 40.65	+8 40.4	1.661	2.568	10.6	20.0
1 6	4 39.97	+1 29.9	2.664	3.461	10.9	20.3	1 6	4 32.54	+7 21.3	1.714	2.545	14.5	20.2
1 16	4 35.44	+2 25.6	2.746	3.450	12.8	20.4	1 16	4 27.17	+6 23.3	1.789	2.523	17.7	20.4
<b>5863</b>	Tara	12	8.3	107°53'	9°3'/6.9	18	<b>430777</b>	2004 TS <sub>10</sub>	12	8.3	354°23'	28°7'/8.2	18
11 7	5 32.56	-3 53.5	2.046	2.833	14.4	20.3	11 7	5 7.61	-17 32.2	0.680	1.531	28.	

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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>298088</b>	2002 RW <sub>4</sub>	12	8.3 166°55	0°2/ 8.2 18			<b>381043</b>	2006 VL <sub>119</sub>	12	8.3 96°86	0°6/ 8.4 16		
11 7	5 27.35	+24 23.1	1.868	2.719	12.9	20.0	11 7	5 31.78	+25 5.0	1.462	2.319	15.6	21.8
11 17	5 20.74	+23 45.9	1.798	2.720	9.2	19.8	11 17	5 24.23	+24 54.6	1.411	2.335	11.1	21.6
11 27	5 11.97	+23 2.4	1.754	2.721	5.1	19.5	11 27	5 13.98	+24 37.8	1.382	2.350	6.1	21.3
12 7	5 2.02	+22 14.2	1.737	2.722	0.6	19.2	12 7	5 2.30	+24 14.3	1.381	2.365	1.0	21.0
12 17	4 52.03	+21 23.9	1.751	2.723	4.0	19.5	12 17	4 50.73	+23 45.9	1.407	2.380	4.6	21.3
12 27	4 43.22	+20 35.6	1.793	2.723	8.2	19.7	12 27	4 40.83	+23 16.5	1.461	2.395	9.4	21.6
1 6	4 36.49	+19 53.1	1.861	2.724	12.0	20.0	1 6	4 33.67	+22 50.2	1.540	2.409	13.7	21.9
1 16	4 32.40	+19 19.1	1.952	2.724	15.2	20.2	1 16	4 29.79	+22 30.4	1.639	2.423	17.1	22.2
<b>367237</b>	2007 HE <sub>86</sub>	12	8.3 169°85	1°6/ 7.9 17			<b>307293</b>	2002 PK <sub>174</sub>	12	8.3 171°82	4°5/ 6.9 18		
11 7	5 23.99	+17 23.6	2.555	3.399	10.1	22.0	11 7	5 25.81	+10 52.6	2.200	3.039	11.7	21.6
11 17	5 17.91	+17 17.6	2.483	3.401	7.2	21.9	11 17	5 19.31	+10 2.2	2.133	3.042	8.8	21.5
11 27	5 10.30	+17 13.0	2.438	3.403	4.1	21.7	11 27	5 11.11	+9 17.1	2.093	3.045	5.9	21.3
12 7	5 1.82	+17 10.2	2.423	3.405	1.6	21.5	12 7	5 1.97	+8 40.2	2.082	3.047	4.5	21.2
12 17	4 53.26	+17 10.1	2.439	3.406	3.6	21.6	12 17	4 52.79	+8 14.2	2.100	3.049	6.0	21.3
12 27	4 45.44	+17 13.4	2.484	3.407	6.7	21.8	12 27	4 44.49	+8 0.7	2.148	3.050	8.8	21.5
1 6	4 39.05	+17 20.8	2.558	3.408	9.6	22.0	1 6	4 37.84	+8 0.0	2.221	3.050	11.7	21.7
1 16	4 34.55	+17 32.9	2.655	3.409	12.0	22.2	1 16	4 33.31	+8 11.2	2.316	3.050	14.2	21.8
<b>428629</b>	2008 FD <sub>68</sub>	12	8.3 151°94	2°6/ 7.7 18			<b>299115</b>	2005 EP <sub>156</sub>	12	8.3 278°42	7°1/ 9.4 16		
11 7	5 29.48	+16 15.1	1.959	2.804	12.7	22.1	11 7	5 32.15	+39 22.3	1.778	2.598	14.9	20.7
11 17	5 22.05	+15 49.7	1.897	2.815	9.2	21.9	11 17	5 25.07	+40 19.6	1.698	2.586	11.9	20.4
11 27	5 12.62	+15 26.3	1.861	2.824	5.4	21.6	11 27	5 14.80	+41 1.8	1.641	2.574	9.0	20.2
12 7	5 2.09	+15 6.5	1.853	2.833	2.7	21.5	12 7	5 2.44	+41 22.6	1.610	2.562	7.1	20.1
12 17	4 51.56	+14 51.9	1.876	2.841	4.8	21.6	12 17	4 49.56	+41 19.0	1.606	2.550	7.9	20.1
12 27	4 42.15	+14 44.3	1.928	2.848	8.5	21.9	12 27	4 38.00	+40 52.6	1.629	2.538	10.6	20.3
1 6	4 34.71	+14 44.6	2.006	2.854	12.0	22.1	1 6	4 29.21	+40 10.0	1.675	2.526	13.8	20.4
1 16	4 29.78	+14 53.2	2.107	2.859	14.8	22.3	1 16	4 24.05	+39 19.1	1.743	2.514	16.8	20.6
<b>23878</b>	1998 SN <sub>2</sub>	12	8.3 30°42	0°1/ 8.3 18			<b>79482</b>	1998 EX <sub>12</sub>	12	8.3 283°55	0°1/ 8.3 18		
11 7	5 24.57	+22 54.5	1.770	2.629	13.1	18.5	11 7	5 23.37	+22 56.6	2.463	3.310	10.3	19.4
11 17	5 18.81	+22 49.1	1.714	2.640	9.4	18.3	11 17	5 17.70	+22 55.6	2.376	3.296	7.4	19.2
11 27	5 10.93	+22 40.8	1.682	2.650	5.1	18.1	11 27	5 10.31	+22 52.2	2.315	3.282	4.1	19.0
12 7	5 1.90	+22 29.7	1.677	2.662	0.6	17.8	12 7	5 1.89	+22 46.3	2.283	3.268	0.5	18.7
12 17	4 52.86	+22 16.9	1.701	2.674	3.9	18.1	12 17	4 53.26	+22 38.5	2.281	3.254	3.2	18.9
12 27	4 45.00	+22 4.6	1.752	2.686	8.1	18.3	12 27	4 45.33	+22 30.1	2.310	3.240	6.7	19.1
1 6	4 39.22	+21 55.0	1.829	2.699	11.8	18.6	1 6	4 38.89	+22 22.8	2.365	3.225	9.9	19.3
1 16	4 36.03	+21 50.0	1.928	2.712	14.9	18.8	1 16	4 34.48	+22 18.2	2.444	3.211	12.6	19.4
<b>63494</b>	2001 OX <sub>63</sub>	12	8.3 42°97	0°7/ 8.2 18			<b>70412</b>	1999 SM <sub>4</sub>	12	8.3 94°69	8°2/ 10.2 18		
11 7	5 26.76	+20 12.7	1.736	2.593	13.5	18.7	11 7	5 36.29	+43 21.2	1.800	2.601	15.5	19.6
11 17	5 20.48	+20 23.0	1.673	2.598	9.6	18.5	11 17	5 27.81	+44 25.8	1.747	2.617	12.6	19.4
11 27	5 11.91	+20 33.6	1.634	2.602	5.3	18.3	11 27	5 16.12	+45 10.3	1.717	2.632	9.9	19.3
12 7	5 2.03	+20 43.9	1.623	2.607	0.9	18.0	12 7	5 2.57	+45 28.5	1.713	2.648	8.3	19.3
12 17	4 52.02	+20 54.0	1.640	2.612	4.2	18.2	12 17	4 48.95	+45 18.2	1.735	2.663	8.7	19.3
12 27	4 43.17	+21 4.8	1.685	2.617	8.5	18.5	12 27	4 37.09	+44 43.1	1.784	2.678	10.7	19.5
1 6	4 36.45	+21 17.5	1.756	2.623	12.4	18.8	1 6	4 28.34	+43 51.1	1.857	2.693	13.3	19.7
1 16	4 32.48	+21 33.4	1.848	2.628	15.6	19.0	1 16	4 23.33	+42 50.9	1.951	2.707	15.7	19.9
<b>386065</b>	2007 GW <sub>50</sub>	12	8.3 255°44	2°7/ 7.8 18			<b>146472</b>	2001 RO <sub>79</sub>	12	8.3 217°72	3°1/ 8.6 17		
11 7	5 27.98	+16 14.3	1.714	2.568	13.8	21.1	11 7	5 27.67	+27 49.1	1.445	2.306	15.5	18.8
11 17	5 21.51	+16 1.3	1.633	2.555	10.0	20.9	11 17	5 21.65	+28 41.2	1.390	2.314	11.3	18.5
11 27	5 12.59	+15 51.2	1.577	2.542	5.9	20.6	11 27	5 12.76	+29 26.7	1.359	2.323	6.8	18.3
12 7	5 2.13	+15 45.2	1.548	2.528	2.7	20.4	12 7	5 2.19	+30 1.7	1.353	2.333	3.2	18.1
12 17	4 51.33	+15 44.7	1.547	2.514	5.3	20.5	12 17	4 51.45	+30 24.0	1.374	2.344	5.3	18.3
12 27	4 41.55	+15 51.1	1.574	2.500	9.6	20.7	12 27	4 42.19	+30 34.7	1.422	2.356	9.6	18.6
1 6	4 33.89	+16 5.2	1.627	2.485	13.7	20.9	1 6	4 35.64	+30 37.6	1.494	2.369	13.7	18.8
1 16	4 29.08	+16 27.3	1.700	2.470	17.2	21.1	1 16	4 32.45	+30 36.9	1.586	2.382	17.1	19.1
<b>214031</b>	2004 EV <sub>1</sub>	12	8.3 343°29	9°4/ 6.3 18			<b>419353</b>	2009 WN <sub>209</sub>	12	8.3 171°31	0°3/ 8.3 17		
11 7	5 22.93	+ 2 15.1	1.513	2.357	15.8	19.9	11 7	5 25.98	+22 7.6	2.373	3.217	10.8	20.7
11 17	5 17.90	+ 1 10.9	1.452	2.350	12.8	19.7	11 17	5 19.56	+22 36.9	2.299	3.218	7.7	20.5
11 27	5 10.58	+ 0 23.1	1.413	2.343	10.3	19.6	11 27	5 11.33	+23 5.5	2.252	3.218	4.2	20.3
12 7	5 1.89	- 0 2.2	1.397	2.337	9.4	19.5	12 7	5 2.02	+23 32.1	2.234	3.219	0.6	20.0
12 17	4 53.03	- 0 1.2	1.407	2.332	10.6	19.6	12 17	4 52.52	+23 55.9	2.247	3.219	3.3	20.2
12 27	4 45.27	+ 0 26.5	1.441	2.328	13.3	19.7	12 27	4 43.82	+24 17.0	2.290	3.220	6.8	20.4
1 6	4 39.63	+ 1 17.8	1.496	2.324	16.4	19.9	1 6	4 36.72	+24 36.4	2.361	3.220	10.0	20.7
1 16	4 36.72	+ 2 27.4	1.570	2.321	19.2	20.1	1 16	4 31.78	+24 55.4	2.456	3.220	12.7	20.8
<b>321265</b>	2009 DA <sub>85</sub>	12	8.3 210°05	0°5/ 8.2 16			<b>130132</b>	1999 XQ <sub>133</sub>	12	8.3 85°68	3°4/ 8.7 18		
11 7	5 31.30	+21 56.0	1.527	2.383	15.0	22.2	11 7	5 33.58	+29 43.9	1.805	2.643	13.9	18.9
11 17	5 24.10	+21 49.6	1.455	2.379	10.8	22.0	11 17	5 25.34	+30 43.1	1.756	2.667	10.2	18.7
11 27	5 14.07	+21 40.3	1.406	2.374	6.0	21.7	11 27	5 14.57	+31 34.0	1.733	2.690	6.3	18.5
12 7	5 2.32	+21 28.1	1.384	2.369	0.8	21.3	12 7	5 2.39	+32 12.3	1.738	2.714	3.5	18.4
12 17	4 50.31	+21 13.9	1.391	2.363	4.8	21.6	12 17	4 50.19	+32 36.0	1.772	2.737	5.1	18.6
12 27	4 39.64	+21 0.3	1.425	2.357	9.8	21.9	12 27	4 39.42	+32 46.5	1.836	2.759	8.6	18.8
1 6	4 31.56	+20 50.6	1.484	2.351	14.3	22.1	1 6	4 31.16	+32 47.6	1.925	2.782	12.0	19.1
1 16	4 26.77	+20 47.2	1.564	2.344	18.0	22.4	1 16	4 25.97	+32 44.0	2.037	2.804	14.8	19.3
<b>484535</b>	2008 FA <sub>68</sub>	12	8.3 340°99	21°6/ 16.7 17			<b>221265</b>	2005 UQ <sub>309</sub>	12	8.3 271°63	3°5/ 6.8 17		
11 7	5 16.80	-11 37.9	1.071	1.898	22.0								

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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>302731</b>	2002 <i>TC</i> <sub>370</sub>	12	8.3 113°53	4.8/ 7.3	18		<b>430934</b>	2005 <i>UC</i> <sub>61</sub>	12	8.3 110°88	0°5/ 8.4	16	
11 7	5 26.75	+ 8 22.3	2.212	3.045	11.9	21.3	11 7	5 31.58	+24 2.5	1.727	2.575	13.9	21.9
11 17	5 19.84	+ 7 53.0	2.163	3.066	9.0	21.1	11 17	5 23.82	+24 9.2	1.673	2.594	10.0	21.7
11 27	5 11.32	+ 7 31.8	2.140	3.087	6.2	21.0	11 27	5 13.69	+24 11.7	1.645	2.612	5.5	21.5
12 7	5 2.01	+ 7 21.1	2.146	3.107	4.8	20.9	12 7	5 2.31	+24 8.9	1.644	2.629	0.9	21.2
12 17	4 52.77	+ 7 22.0	2.182	3.127	6.0	21.0	12 17	4 51.00	+24 1.5	1.673	2.646	4.1	21.5
12 27	4 44.51	+ 7 34.8	2.246	3.145	8.6	21.2	12 27	4 41.09	+23 51.6	1.731	2.662	8.5	21.8
1 6	4 37.92	+ 7 58.6	2.337	3.164	11.2	21.4	1 6	4 33.57	+23 42.2	1.815	2.678	12.3	22.1
1 16	4 33.43	+ 8 31.6	2.450	3.181	13.5	21.6	1 16	4 28.96	+23 35.9	1.920	2.693	15.4	22.3
<b>99318</b>	2001 <i>TW</i> <sub>84</sub>	12	8.3 347°71	1.4/ 8.5	18		<b>253458</b>	2003 <i>SG</i> <sub>7</sub>	12	8.3 350°83	3°7/ 9.1	18	
11 7	5 26.69	+25 54.4	1.764	2.618	13.4	20.0	11 7	5 28.61	+30 44.3	1.109	1.980	18.4	20.4
11 17	5 20.58	+26 9.1	1.693	2.616	9.7	19.8	11 17	5 23.08	+30 50.9	1.048	1.975	13.7	20.1
11 27	5 12.06	+26 18.9	1.647	2.614	5.5	19.5	11 27	5 13.85	+30 43.1	1.006	1.971	8.4	19.8
12 7	5 2.11	+26 22.1	1.628	2.612	1.5	19.2	12 7	5 2.36	+30 17.9	0.988	1.968	3.9	19.5
12 17	4 51.97	+26 18.7	1.638	2.611	4.2	19.4	12 17	4 50.63	+29 36.2	0.994	1.966	6.2	19.6
12 27	4 42.96	+26 10.5	1.676	2.609	8.5	19.7	12 27	4 40.81	+28 43.9	1.024	1.965	11.6	19.9
1 6	4 36.15	+26 0.6	1.739	2.609	12.4	19.9	1 6	4 34.45	+27 49.5	1.075	1.964	16.7	20.2
1 16	4 32.18	+25 52.0	1.823	2.608	15.6	20.1	1 16	4 32.28	+27 0.3	1.146	1.964	20.9	20.5
<b>328581</b>	2009 <i>SF</i> <sub>40</sub>	12	8.3 146°08	1°0/ 8.6	17		<b>4198</b>	<i>Panthera</i>	12	8.3 292°09	0°6/ 8.2	18	
11 7	5 25.69	+26 6.2	2.271	3.115	11.2	21.7	11 7	5 23.97	+21 9.1	2.207	3.058	11.2	17.9
11 17	5 19.38	+26 9.3	2.200	3.118	8.1	21.5	11 17	5 18.27	+21 4.8	2.124	3.046	8.0	17.7
11 27	5 11.22	+26 7.5	2.156	3.121	4.5	21.3	11 27	5 10.69	+20 59.2	2.067	3.034	4.4	17.5
12 7	5 2.01	+26 0.3	2.140	3.123	1.2	21.1	12 7	5 1.98	+20 52.5	2.038	3.023	0.8	17.2
12 17	4 52.72	+25 48.0	2.154	3.126	3.4	21.3	12 17	4 53.06	+20 45.5	2.039	3.011	3.6	17.4
12 27	4 44.34	+25 32.4	2.197	3.128	7.0	21.5	12 27	4 44.93	+20 39.6	2.069	2.999	7.4	17.6
1 6	4 37.39	+25 16.2	2.268	3.130	10.2	21.7	1 6	4 38.44	+20 36.4	2.126	2.988	10.8	17.8
1 16	4 33.31	+25 1.8	2.363	3.132	12.9	21.9	1 16	4 34.18	+20 37.3	2.206	2.977	13.7	18.0
<b>25160</b>	<i>Joellama</i>	12	8.3 67°52	1°7/ 8.0	18		<b>384545</b>	2010 <i>EP</i> <sub>75</sub>	12	8.3 230°29	4°1/ 9.5	18	
11 7	5 31.54	+19 34.3	1.320	2.184	16.5	18.5	11 7	5 32.12	+35 16.5	2.103	2.925	12.8	22.0
11 17	5 23.98	+19 17.2	1.284	2.211	11.7	18.3	11 17	5 24.40	+35 25.8	2.014	2.912	9.8	21.8
11 27	5 13.78	+19 0.1	1.270	2.238	6.4	18.1	11 27	5 14.17	+35 22.1	1.950	2.898	6.6	21.6
12 7	5 2.30	+18 44.1	1.282	2.265	1.8	17.8	12 7	5 2.40	+35 2.5	1.914	2.884	4.3	21.4
12 17	4 51.14	+18 31.2	1.321	2.292	5.2	18.1	12 17	4 50.36	+34 26.8	1.908	2.869	5.2	21.4
12 27	4 41.79	+18 23.6	1.387	2.319	10.0	18.5	12 27	4 39.44	+33 37.9	1.931	2.853	8.4	21.6
1 6	4 35.26	+18 23.1	1.477	2.346	14.2	18.8	1 6	4 30.77	+32 41.6	1.981	2.837	11.8	21.8
1 16	4 31.99	+18 30.4	1.587	2.372	17.6	19.1	1 16	4 25.02	+31 43.9	2.055	2.819	14.8	21.9
<b>342240</b>	2008 <i>SB</i> <sub>275</sub>	12	8.3 220°20	0°6/ 8.4	18		<b>16497</b>	<i>Toinevermeylen</i>	12	8.3 121°24	4°0/ 7.6	18	
11 7	5 29.31	+23 50.2	1.798	2.648	13.4	20.9	11 7	5 31.49	+13 27.6	1.604	2.453	14.8	18.0
11 17	5 22.44	+24 1.3	1.722	2.643	9.7	20.6	11 17	5 23.72	+12 59.8	1.553	2.471	10.8	17.8
11 27	5 13.10	+24 9.0	1.671	2.638	5.4	20.4	11 27	5 13.62	+12 37.7	1.527	2.488	6.7	17.6
12 7	5 2.26	+24 12.1	1.648	2.632	0.9	20.0	12 7	5 2.31	+12 23.6	1.529	2.504	4.1	17.5
12 17	4 51.16	+24 10.7	1.654	2.626	4.1	20.3	12 17	4 51.11	+12 19.1	1.559	2.520	6.1	17.6
12 27	4 41.17	+24 6.2	1.688	2.620	8.6	20.5	12 27	4 41.32	+12 25.4	1.617	2.535	10.0	17.9
1 6	4 33.37	+24 1.4	1.749	2.613	12.6	20.7	1 6	4 33.91	+12 42.3	1.700	2.550	13.7	18.2
1 16	4 28.47	+23 59.0	1.831	2.606	15.9	21.0	1 16	4 29.39	+13 8.7	1.804	2.563	16.7	18.4
<b>501558</b>	2014 <i>LD</i> <sub>27</sub>	12	8.3 344°59	24°2/ 1.5	17		<b>242040</b>	2002 <i>RF</i> <sub>71</sub>	12	8.3 147°19	4°5/ 6.9	18	
11 7	5 26.14	-18 59.7	0.984	1.773	26.2	20.9	11 7	5 26.01	+10 40.7	2.173	3.012	11.8	20.8
11 17	5 21.05	-21 48.5	0.955	1.769	25.0	20.8	11 17	5 19.44	+ 9 52.0	2.112	3.021	8.8	20.6
11 27	5 12.60	-23 47.9	0.940	1.765	24.2	20.7	11 27	5 11.19	+ 9 9.0	2.078	3.029	6.0	20.5
12 7	5 2.20	-24 43.9	0.939	1.762	24.3	20.7	12 7	5 2.03	+ 8 34.8	2.072	3.037	4.5	20.4
12 17	4 51.65	-24 30.0	0.952	1.760	25.0	20.8	12 17	4 52.88	+ 8 11.6	2.096	3.045	6.0	20.5
12 27	4 42.87	-23 9.2	0.977	1.758	26.4	20.9	12 27	4 44.65	+ 8 1.1	2.149	3.051	8.8	20.7
1 6	4 37.22	-20 53.6	1.015	1.757	27.9	21.0	1 6	4 38.10	+ 8 3.2	2.228	3.058	11.6	20.9
1 16	4 35.41	-17 58.0	1.063	1.757	29.6	21.1	1 16	4 33.68	+ 8 17.0	2.329	3.063	14.1	21.1
<b>190939</b>	2001 <i>VD</i> <sub>33</sub>	12	8.3 48°82	1°6/ 8.5	18		<b>88685</b>	2001 <i>RB</i> <sub>108</sub>	12	8.3 299°84	5°6/ 7.0	17	
11 7	5 30.30	+25 41.2	1.266	2.132	16.9	19.6	11 7	5 24.44	+ 9 30.4	1.753	2.603	13.7	19.3
11 17	5 23.51	+26 0.2	1.223	2.150	12.1	19.3	11 17	5 18.97	+ 8 51.5	1.668	2.582	10.5	19.0
11 27	5 13.71	+26 12.7	1.201	2.170	6.8	19.1	11 27	5 11.23	+ 8 20.3	1.608	2.560	7.3	18.8
12 7	5 2.31	+26 16.6	1.205	2.189	1.8	18.8	12 7	5 2.06	+ 8 0.6	1.574	2.539	5.6	18.7
12 17	4 51.04	+26 12.2	1.236	2.209	5.0	19.1	12 17	4 52.53	+ 7 55.4	1.567	2.518	7.3	18.7
12 27	4 41.61	+26 2.4	1.292	2.229	10.0	19.4	12 27	4 43.86	+ 8 6.3	1.587	2.497	10.8	18.9
1 6	4 35.20	+25 51.5	1.372	2.250	14.4	19.8	1 6	4 37.10	+ 8 32.7	1.632	2.476	14.4	19.0
1 16	4 32.32	+25 43.1	1.471	2.271	18.0	20.1	1 16	4 32.95	+ 9 12.7	1.696	2.456	17.6	19.2
<b>458475</b>	2011 <i>BM</i> <sub>89</sub>	12	8.3 288°76	3°6/ 9.5	17		<b>10061</b>	<i>Ndolaprata</i>	12	8.3 77°44	5°7/ 10.3	18	
11 7	5 26.82	+34 27.2	2.216	3.046	12.0	21.3	11 7	5 32.84	+39 21.1	1.823	2.641	14.7	17.8
11 17	5 20.38	+34 31.0	2.140	3.043	9.1	21.1	11 17	5 24.84	+39 32.5	1.772	2.662	11.4	17.7
11 27	5 11.84	+34 23.3	2.089	3.040	6.0	20.9	11 27	5 14.26	+39 25.9	1.745	2.683	8.1	17.5
12 7	5 2.10	+34 2.5	2.065	3.037	3.7	20.7	12 7	5 2.39	+38 58.5	1.744	2.703	5.9	17.4
12 17	4 52.26	+33 28.8	2.071	3.034	4.6	20.8	12 17	4 50.74	+38 11.3	1.771	2.724	6.4	17.5
12 27	4 43.47	+32 45.3	2.105	3.031	7.6	21.0	12 27	4 40.78	+37 9.2	1.827	2.744	9.0	17.7
1 6	4 36.65	+31 56.5	2.167	3.028	10.6	21.2	1 6	4 33.52	+35 59.8	1.908	2.765	12.0	17.9
1 16	4 32.35	+31 7.1	2.252	3.025	13.4	21.3	1 16	4 29.43	+34 49.9	2.011	2.785	14.8	18.2
<b>158573</b>	2002 <i>JU</i> <sub>117</sub>	12	8.3 71°02	9°1/ 5.3	18		<b>378063</b>	2006 <i>TL</i> <sub>98</sub>	12	8.3 294°15	12°9/ 1.9	18	
11 7	5 23.98												

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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>421072</b>	2013 <i>QO</i> <sub>26</sub>	12 8.3	5 <sup>o</sup> 14	6 <sup>o</sup> 5/ 6.9	17		<b>522171</b>	2016 <i>AX</i> <sub>255</sub>	12 8.3	342 <sup>o</sup> 22	6 <sup>o</sup> 5/ 6.7	17	
11 7	5 22.34	+ 2 48.3	2.288	3.113	11.8	20.7	11 7	5 22.11	+ 4 49.1	2.086	2.922	12.4	21.2
11 17	5 16.86	+ 2 14.6	2.224	3.113	9.4	20.5	11 17	5 16.86	+ 4 5.6	2.021	2.919	9.8	21.0
11 27	5 9.81	+ 1 52.8	2.185	3.113	7.4	20.4	11 27	5 9.89	+ 3 32.8	1.980	2.916	7.5	20.8
12 7	5 1.89	+ 1 45.6	2.173	3.114	6.5	20.3	12 7	5 1.94	+ 3 14.4	1.965	2.913	6.5	20.8
12 17	4 53.88	+ 1 54.7	2.189	3.114	7.4	20.4	12 17	4 53.89	+ 3 12.5	1.978	2.910	7.6	20.8
12 27	4 46.64	+ 2 20.2	2.233	3.114	9.5	20.5	12 27	4 46.66	+ 3 27.7	2.018	2.908	9.9	21.0
1 6	4 40.86	+ 3 0.2	2.301	3.114	11.8	20.7	1 6	4 41.01	+ 3 58.7	2.083	2.905	12.6	21.2
1 16	4 37.01	+ 3 52.1	2.391	3.115	14.0	20.9	1 16	4 37.44	+ 4 42.8	2.168	2.904	15.0	21.3
<b>83301</b>	2001 <i>RJ</i> <sub>104</sub>	12 8.3	131 <sup>o</sup> 84	0 <sup>o</sup> 4/ 8.2	18		<b>405630</b>	2005 <i>TX</i> <sub>7</sub>	12 8.3	26 <sup>o</sup> 63	1 <sup>o</sup> 5/ 8.0	18	
11 7	5 30.76	+21 41.8	1.824	2.672	13.3	20.2	11 7	5 25.21	+19 21.8	1.832	2.689	12.9	21.5
11 17	5 23.18	+21 42.5	1.765	2.685	9.5	20.0	11 17	5 19.30	+19 9.6	1.767	2.692	9.2	21.3
11 27	5 13.35	+21 41.3	1.731	2.698	5.2	19.8	11 27	5 11.31	+18 57.5	1.727	2.695	5.1	21.1
12 7	5 2.30	+21 37.7	1.726	2.711	0.7	19.5	12 7	5 2.12	+18 46.2	1.715	2.698	1.5	20.8
12 17	4 51.25	+21 32.3	1.750	2.722	4.0	19.8	12 17	4 52.85	+18 37.1	1.731	2.702	4.3	21.0
12 27	4 41.46	+21 27.0	1.804	2.733	8.3	20.0	12 27	4 44.63	+18 31.8	1.775	2.705	8.4	21.3
1 6	4 33.87	+21 23.9	1.884	2.744	12.0	20.3	1 6	4 38.40	+18 31.8	1.845	2.709	12.0	21.5
1 16	4 29.05	+21 24.9	1.986	2.754	15.1	20.5	1 16	4 34.70	+18 38.0	1.937	2.713	15.1	21.7
<b>118613</b>	2000 <i>GE</i> <sub>150</sub>	12 8.3	62 <sup>o</sup> 92	2 <sup>o</sup> 1/ 7.9	18		<b>46425</b>	2002 <i>JP</i> <sub>44</sub>	12 8.3	14 <sup>o</sup> 05	5 <sup>o</sup> 4/ 6.5	18	
11 7	5 28.87	+19 4.0	1.367	2.233	15.9	20.2	11 7	5 25.19	+15 49.9	1.284	2.157	16.2	17.8
11 17	5 22.23	+18 38.1	1.318	2.246	11.4	20.0	11 17	5 19.74	+14 6.4	1.231	2.160	11.9	17.5
11 27	5 12.95	+18 12.3	1.292	2.261	6.3	19.7	11 27	5 11.66	+12 23.7	1.200	2.164	7.5	17.3
12 7	5 2.26	+17 48.7	1.292	2.275	2.2	19.5	12 7	5 2.17	+10 49.4	1.195	2.169	5.4	17.2
12 17	4 51.67	+17 29.4	1.319	2.289	5.4	19.7	12 17	4 52.73	+ 9 31.1	1.216	2.174	7.9	17.4
12 27	4 42.66	+17 17.1	1.372	2.304	10.1	20.1	12 27	4 44.80	+ 8 34.5	1.262	2.181	12.2	17.6
1 6	4 36.30	+17 13.6	1.449	2.319	14.4	20.3	1 6	4 39.44	+ 8 1.4	1.331	2.188	16.2	17.9
1 16	4 33.13	+17 19.4	1.546	2.333	17.9	20.6	1 16	4 37.17	+ 7 50.4	1.418	2.196	19.6	18.2
<b>137543</b>	1999 <i>VW</i> <sub>70</sub>	12 8.3	64 <sup>o</sup> 63	1 <sup>o</sup> 9/ 7.9	18		<b>52895</b>	1998 <i>SE</i> <sub>65</sub>	12 8.3	7 <sup>o</sup> 86	1 <sup>o</sup> 4/ 8.2	18	
11 7	5 31.91	+20 9.8	1.233	2.099	17.2	20.0	11 7	5 27.51	+19 6.1	1.218	2.092	16.9	18.5
11 17	5 24.34	+19 38.2	1.198	2.126	12.2	19.8	11 17	5 21.81	+19 17.5	1.160	2.092	12.1	18.3
11 27	5 14.01	+19 5.7	1.185	2.154	6.7	19.5	11 27	5 13.01	+19 31.3	1.123	2.093	6.7	18.0
12 7	5 2.37	+18 34.5	1.198	2.181	2.0	19.3	12 7	5 2.35	+19 47.0	1.110	2.095	1.5	17.6
12 17	4 51.12	+18 7.4	1.237	2.209	5.5	19.6	12 17	4 51.47	+20 4.2	1.124	2.097	5.4	17.9
12 27	4 41.82	+17 47.7	1.303	2.236	10.5	20.0	12 27	4 42.13	+20 23.9	1.163	2.101	10.8	18.2
1 6	4 35.48	+17 37.6	1.393	2.263	14.8	20.3	1 6	4 35.69	+20 46.9	1.224	2.105	15.6	18.5
1 16	4 32.53	+17 37.7	1.501	2.290	18.2	20.6	1 16	4 32.83	+21 14.1	1.304	2.109	19.6	18.8
<b>214713</b>	2006 <i>SO</i> <sub>409</sub>	12 8.3	148 <sup>o</sup> 41	0 <sup>o</sup> 7/ 8.5	18		<b>303528</b>	2005 <i>EN</i> <sub>248</sub>	12 8.3	327 <sup>o</sup> 45	1 <sup>o</sup> 6/ 8.6	17	
11 7	5 28.18	+25 28.8	2.458	3.295	10.7	21.7	11 7	5 28.01	+26 51.0	1.719	2.571	13.8	21.5
11 17	5 20.95	+25 25.8	2.392	3.306	7.7	21.5	11 17	5 21.60	+26 58.3	1.648	2.570	10.0	21.3
11 27	5 12.02	+25 18.2	2.352	3.317	4.3	21.3	11 27	5 12.69	+26 59.1	1.603	2.568	5.7	21.0
12 7	5 2.16	+25 5.6	2.343	3.327	0.9	21.1	12 7	5 2.31	+26 51.9	1.584	2.567	1.8	20.8
12 17	4 52.29	+24 48.7	2.365	3.337	3.2	21.3	12 17	4 51.75	+26 37.2	1.593	2.566	4.3	20.9
12 27	4 43.36	+24 29.4	2.417	3.345	6.6	21.5	12 27	4 42.40	+26 17.4	1.631	2.565	8.7	21.2
1 6	4 36.11	+24 10.3	2.498	3.353	9.6	21.7	1 6	4 35.37	+25 56.4	1.694	2.563	12.6	21.4
1 16	4 31.03	+23 53.5	2.603	3.361	12.2	21.9	1 16	4 31.28	+25 37.8	1.778	2.563	16.0	21.7
<b>331982</b>	2005 <i>EJ</i> <sub>38</sub>	12 8.3	264 <sup>o</sup> 99	3 <sup>o</sup> 6/ 10.0	18		<b>267771</b>	2003 <i>SE</i> <sub>32</sub>	12 8.3	79 <sup>o</sup> 35	9 <sup>o</sup> 1/ 11.9	18	
11 7	5 29.17	+37 29.6	2.615	3.425	11.0	20.4	11 7	5 36.73	+51 54.5	2.318	3.064	14.0	19.9
11 17	5 21.83	+37 2.1	2.517	3.406	8.5	20.2	11 17	5 27.87	+52 47.8	2.269	3.085	12.1	19.8
11 27	5 12.57	+36 20.3	2.445	3.388	5.8	20.1	11 27	5 16.08	+53 18.7	2.242	3.106	10.4	19.7
12 7	5 2.24	+35 23.2	2.402	3.369	3.7	19.9	12 7	5 2.69	+53 22.4	2.240	3.127	9.3	19.6
12 17	4 51.83	+34 12.0	2.390	3.350	4.4	19.9	12 17	4 49.37	+52 57.6	2.263	3.148	9.3	19.7
12 27	4 42.40	+32 50.5	2.409	3.331	6.9	20.0	12 27	4 37.79	+52 7.7	2.313	3.168	10.3	19.8
1 6	4 34.80	+31 24.2	2.458	3.311	9.8	20.2	1 6	4 29.13	+51 0.1	2.387	3.188	11.9	19.9
1 16	4 29.54	+29 58.8	2.531	3.292	12.4	20.3	1 16	4 23.95	+49 42.6	2.483	3.208	13.5	20.1
<b>486339</b>	2013 <i>CF</i> <sub>161</sub>	12 8.3	264 <sup>o</sup> 11	0 <sup>o</sup> 6/ 8.4	18		<b>320307</b>	2007 <i>SA</i> <sub>4</sub>	12 8.3	42 <sup>o</sup> 99	0 <sup>o</sup> 7/ 8.2	18	
11 7	5 27.13	+24 36.4	1.858	2.710	13.0	21.7	11 7	5 28.58	+21 44.2	1.290	2.159	16.4	20.3
11 17	5 20.80	+24 38.3	1.785	2.707	9.3	21.4	11 17	5 22.05	+21 36.3	1.253	2.184	11.6	20.1
11 27	5 12.18	+24 35.9	1.736	2.703	5.2	21.2	11 27	5 12.84	+21 26.1	1.239	2.209	6.3	19.9
12 7	5 2.20	+24 28.5	1.714	2.699	0.9	20.9	12 7	5 2.31	+21 14.3	1.250	2.234	1.0	19.6
12 17	4 52.04	+24 16.6	1.722	2.695	3.9	21.1	12 17	4 52.03	+21 2.3	1.287	2.261	4.8	19.9
12 27	4 42.94	+24 2.3	1.758	2.691	8.2	21.3	12 27	4 43.50	+20 52.7	1.351	2.288	9.8	20.3
1 6	4 35.94	+23 48.5	1.821	2.687	12.1	21.6	1 6	4 37.75	+20 48.0	1.438	2.315	14.0	20.6
1 16	4 31.64	+23 37.9	1.905	2.683	15.3	21.8	1 16	4 35.23	+20 49.6	1.546	2.342	17.4	20.9
<b>152973</b>	2000 <i>GV</i> <sub>121</sub>	12 8.3	176 <sup>o</sup> 60	1 <sup>o</sup> 9/ 7.9	18		<b>449655</b>	2014 <i>KP</i> <sub>58</sub>	12 8.3	150 <sup>o</sup> 19	4 <sup>o</sup> 8/ 6.8	18	
11 7	5 29.20	+17 24.7	2.042	2.886	12.3	21.3	11 7	5 25.56	+11 28.2	1.973	2.819	12.6	21.3
11 17	5 21.96	+17 18.0	1.971	2.889	8.8	21.1	11 17	5 19.33	+10 29.5	1.910	2.823	9.4	21.1
11 27	5 12.70	+17 12.7	1.926	2.891	5.0	20.9	11 27	5 11.24	+ 9 35.9	1.873	2.826	6.3	20.9
12 7	5 2.26	+17 9.6	1.910	2.892	1.9	20.6	12 7	5 2.14	+ 8 51.2	1.863	2.830	4.8	20.8
12 17	4 51.70	+17 9.3	1.925	2.893	4.3	20.8	12 17	4 53.00	+ 8 18.4	1.883	2.833	6.4	20.9
12 27	4 42.13	+17 13.0	1.969	2.893	8.1	21.0	12 27	4 44.85	+ 7 59.8	1.930	2.835	9.4	21.1
1 6	4 34.46	+17 21.7	2.040	2.892	11.6	21.3	1 6	4 38.49	+ 7 55.7	2.003	2.838	12.5	21.3
1 16	4 29.24	+17 36.0	2.133	2.890	14.5	21.5	1 16	4 34.44	+ 8 5.0	2.097	2.840		

EPHEMERIDES

12 8.3

12 8.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>422465</b>	2014 <i>SL</i> <sub>316</sub>	12 8.3 106°88	1°0/ 8.5 17				<b>440068</b>	2002 <i>RS</i> <sub>250</sub>	12 8.3 50°19	3°4/ 7.6 18			
11 7	5 26.22	+24 57.1	2.334	3.177	11.0	20.9	11 7	5 26.50	+16 5.4	1.515	2.378	14.8	20.8
11 17	5 19.76	+25 21.0	2.267	3.184	7.9	20.7	11 17	5 20.33	+15 25.2	1.468	2.393	10.7	20.6
11 27	5 11.49	+25 41.7	2.226	3.191	4.4	20.5	11 27	5 11.88	+14 48.2	1.444	2.409	6.3	20.4
12 7	5 2.17	+25 57.9	2.215	3.198	1.1	20.3	12 7	5 2.24	+14 17.3	1.446	2.425	3.4	20.3
12 17	4 52.75	+26 9.0	2.234	3.205	3.3	20.5	12 17	4 52.70	+13 55.1	1.476	2.442	5.8	20.4
12 27	4 44.19	+26 16.0	2.282	3.212	6.8	20.7	12 27	4 44.55	+13 43.8	1.533	2.458	9.8	20.7
1 6	4 37.32	+26 20.5	2.359	3.219	9.9	20.9	1 6	4 38.71	+13 44.1	1.614	2.475	13.6	21.0
1 16	4 32.67	+26 24.6	2.459	3.226	12.6	21.1	1 16	4 35.67	+13 55.4	1.715	2.493	16.8	21.2
<b>460987</b>	2014 <i>WO</i> <sub>340</sub>	12 8.3 69°29	3°4/ 7.8 18				<b>219081</b>	1998 <i>OT</i> <sub>9</sub>	12 8.3 56°70	2°4/ 8.9 18			
11 7	5 24.28	+11 32.0	2.223	3.066	11.4	21.0	11 7	5 34.33	+28 44.8	1.187	2.048	18.1	19.5
11 17	5 18.26	+11 29.9	2.166	3.079	8.4	20.8	11 17	5 26.28	+28 44.2	1.156	2.081	13.0	19.3
11 27	5 10.60	+11 34.1	2.135	3.092	5.4	20.6	11 27	5 15.15	+28 31.9	1.147	2.113	7.5	19.1
12 7	5 2.07	+11 45.7	2.133	3.105	3.5	20.5	12 7	5 2.61	+28 6.8	1.163	2.145	2.6	18.9
12 17	4 53.52	+12 5.0	2.160	3.119	4.9	20.7	12 17	4 50.59	+27 31.4	1.205	2.178	5.3	19.1
12 27	4 45.83	+12 31.8	2.216	3.132	7.8	20.9	12 27	4 40.83	+26 51.3	1.274	2.211	10.2	19.5
1 6	4 39.74	+13 5.5	2.299	3.145	10.7	21.1	1 6	4 34.39	+26 12.8	1.365	2.243	14.6	19.8
1 16	4 35.70	+13 44.8	2.404	3.158	13.2	21.3	1 16	4 31.64	+25 40.6	1.477	2.275	18.0	20.2
<b>286055</b>	2001 <i>SM</i> <sub>274</sub>	12 8.3 108°46	2°9/ 9.0 18				<b>240194</b>	2002 <i>RG</i> <sub>2</sub>	12 8.3 102°61	1°2/ 8.0 18			
11 7	5 29.17	+30 50.0	2.033	2.870	12.6	21.4	11 7	5 28.16	+20 0.3	1.951	2.800	12.6	20.9
11 17	5 22.09	+31 8.4	1.971	2.881	9.3	21.2	11 17	5 21.16	+19 44.2	1.897	2.818	8.9	20.7
11 27	5 12.82	+31 17.8	1.934	2.892	5.7	21.0	11 27	5 12.23	+19 27.4	1.869	2.836	4.9	20.5
12 7	5 2.34	+31 16.3	1.926	2.903	3.0	20.8	12 7	5 2.29	+19 10.6	1.870	2.854	1.3	20.3
12 17	4 51.82	+31 3.9	1.947	2.914	4.4	21.0	12 17	4 52.42	+18 55.2	1.900	2.871	4.0	20.6
12 27	4 42.48	+30 42.8	1.997	2.924	7.7	21.2	12 27	4 43.71	+18 43.2	1.960	2.888	7.9	20.8
1 6	4 35.25	+30 17.0	2.073	2.935	11.0	21.4	1 6	4 36.98	+18 36.2	2.046	2.904	11.3	21.1
1 16	4 30.70	+29 50.7	2.173	2.945	13.8	21.6	1 16	4 32.72	+18 35.2	2.155	2.920	14.2	21.3
<b>283665</b>	2002 <i>PV</i> <sub>98</sub>	12 8.3 58°04	4°2/ 7.8 18				<b>34479</b>	2000 <i>ST</i> <sub>120</sub>	12 8.3 312°21	1°2/ 8.1 18			
11 7	5 28.01	+12 28.7	1.534	2.390	15.0	19.8	11 7	5 25.34	+19 41.1	1.991	2.844	12.2	19.2
11 17	5 21.27	+12 13.5	1.495	2.414	10.9	19.6	11 17	5 19.35	+19 33.9	1.920	2.842	8.7	19.0
11 27	5 12.32	+12 6.1	1.479	2.439	6.8	19.4	11 27	5 11.35	+19 26.6	1.873	2.841	4.8	18.7
12 7	5 2.27	+12 8.2	1.490	2.465	4.2	19.3	12 7	5 2.20	+19 19.6	1.855	2.839	1.3	18.5
12 17	4 52.39	+12 20.5	1.528	2.490	6.1	19.5	12 17	4 52.90	+19 13.9	1.867	2.838	4.0	18.7
12 27	4 43.93	+12 42.9	1.594	2.515	9.8	19.8	12 27	4 44.55	+19 10.9	1.907	2.836	7.9	18.9
1 6	4 37.78	+13 14.4	1.684	2.541	13.4	20.0	1 6	4 38.04	+19 12.0	1.973	2.835	11.5	19.1
1 16	4 34.41	+13 53.3	1.794	2.566	16.4	20.3	1 16	4 33.93	+19 18.4	2.062	2.834	14.5	19.3
<b>271574</b>	2004 <i>LJ</i> <sub>8</sub>	12 8.3 133°88	0°9/ 8.2 18				<b>383057</b>	2005 <i>QV</i> <sub>137</sub>	12 8.3 58°43	2°1/ 8.0 18			
11 7	5 30.32	+19 53.3	1.869	2.716	13.1	20.9	11 7	5 31.05	+18 31.9	1.249	2.115	17.0	20.8
11 17	5 22.86	+19 57.5	1.808	2.729	9.3	20.7	11 17	5 23.79	+18 19.4	1.213	2.142	12.1	20.6
11 27	5 13.23	+20 1.5	1.774	2.741	5.1	20.5	11 27	5 13.80	+18 8.7	1.201	2.169	6.7	20.4
12 7	5 2.39	+20 5.1	1.768	2.752	1.1	20.2	12 7	5 2.47	+18 0.6	1.213	2.196	2.2	20.2
12 17	4 51.52	+20 8.5	1.792	2.763	4.1	20.4	12 17	4 51.45	+17 56.5	1.252	2.224	5.4	20.5
12 27	4 41.84	+20 13.1	1.845	2.773	8.2	20.7	12 27	4 42.29	+17 58.2	1.318	2.251	10.3	20.8
1 6	4 34.27	+20 20.3	1.924	2.783	11.9	21.0	1 6	4 36.01	+18 6.9	1.407	2.278	14.6	21.1
1 16	4 29.38	+20 31.3	2.026	2.792	14.9	21.2	1 16	4 33.06	+18 22.7	1.515	2.306	18.0	21.5
<b>120252</b>	2004 <i>GA</i> <sub>10</sub>	12 8.3 157°34	0°5/ 8.2 18				<b>249953</b>	2001 <i>TG</i> <sub>228</sub>	12 8.3 95°13	1°1/ 8.1 18			
11 7	5 30.30	+21 22.0	1.922	2.768	12.8	21.2	11 7	5 26.55	+20 44.8	1.936	2.788	12.5	21.0
11 17	5 22.87	+21 21.0	1.856	2.775	9.2	21.0	11 17	5 20.12	+20 24.6	1.876	2.798	8.9	20.8
11 27	5 13.25	+21 18.4	1.815	2.782	5.0	20.7	11 27	5 11.72	+20 2.8	1.840	2.808	4.9	20.6
12 7	5 2.40	+21 13.7	1.803	2.788	0.8	20.4	12 7	5 2.24	+19 40.4	1.833	2.817	1.2	20.3
12 17	4 51.47	+21 7.8	1.822	2.793	3.9	20.7	12 17	4 52.77	+19 19.1	1.856	2.827	4.0	20.6
12 27	4 41.68	+21 2.2	1.870	2.798	8.1	21.0	12 27	4 44.39	+19 1.0	1.907	2.836	7.9	20.8
1 6	4 33.97	+20 59.1	1.944	2.802	11.8	21.2	1 6	4 37.95	+18 48.3	1.985	2.846	11.5	21.1
1 16	4 28.92	+21 0.2	2.041	2.806	14.9	21.4	1 16	4 33.97	+18 42.1	2.084	2.855	14.4	21.3
<b>98763</b>	2000 <i>YL</i> <sub>69</sub>	12 8.3 125°13	0°6/ 8.3 18				<b>323559</b>	2004 <i>TK</i> <sub>54</sub>	12 8.3 56°12	3°8/ 7.2 18			
11 7	5 30.35	+19 40.7	1.876	2.723	13.1	19.3	11 7	5 24.10	+13 57.6	1.962	2.814	12.4	20.2
11 17	5 22.93	+20 5.1	1.815	2.735	9.3	19.1	11 17	5 18.28	+13 6.0	1.906	2.825	9.0	20.1
11 27	5 13.30	+20 30.3	1.779	2.746	5.1	18.9	11 27	5 10.67	+12 18.1	1.876	2.836	5.7	19.9
12 7	5 2.41	+20 55.2	1.772	2.757	0.9	18.6	12 7	5 2.12	+11 37.0	1.874	2.847	3.8	19.8
12 17	4 51.43	+21 18.7	1.796	2.768	4.0	18.8	12 17	4 53.61	+11 5.5	1.900	2.858	5.6	19.9
12 27	4 41.59	+21 41.4	1.848	2.778	8.1	19.1	12 27	4 46.11	+10 45.7	1.955	2.869	8.8	20.1
1 6	4 33.86	+22 3.9	1.928	2.787	11.8	19.4	1 6	4 40.39	+10 38.1	2.035	2.880	11.9	20.4
1 16	4 28.81	+22 27.7	2.029	2.797	14.8	19.6	1 16	4 36.92	+10 42.3	2.136	2.892	14.6	20.6
<b>253303</b>	2003 <i>CH</i> <sub>1</sub>	12 8.3 237°18	4°7/ 9.5 17				<b>390636</b>	2002 <i>JV</i> <sub>8</sub>	12 8.3 132°72	10°9/ 6.0 16			
11 7	5 29.51	+36 32.6	2.183	3.004	12.5	20.6	11 7	5 26.72	-16 10.2	2.619	3.337	13.3	21.9
11 17	5 22.53	+36 59.1	2.102	2.997	9.6	20.4	11 17	5 19.71	-17 13.3	2.585	3.356	12.1	21.8
11 27	5 13.19	+37 13.3	2.046	2.989	6.8	20.2	11 27	5 11.30	-17 54.4	2.573	3.375	11.2	21.8
12 7	5 2.41	+37 12.0	2.018	2.981	4.8	20.1	12 7	5 2.19	-18 9.6	2.585	3.393	10.9	21.8
12 17	4 51.39	+36 54.3	2.018	2.973	5.6	20.1	12 17	4 53.17	-17 57.6	2.622	3.410	11.3	21.9
12 27	4 41.43	+36 22.5	2.047	2.965	8.2	20.3	12 27	4 45.00	-17 19.6	2.681	3.426	12.2	21.9
1 6	4 33.58	+35 41.3	2.103	2.957	11.2	20.5	1 6	4 38.30	-16 19.4	2.762	3.441	13.3	22.1
1 16	4 28.51	+34 56.1	2.181	2.948	14.0	20.6	1 16	4 33.48	-15 1.9	2.862	3.455	14.3	22.2
<b>463337</b>	2012 <i>MH</i> <sub>5</sub>	12 8.3 86°32	6°6/ 6.5 18				<b>383042</b>	2005 <i>QZ</i> <sub>39</sub>	12 8.3 44°96	1°6/ 8.8 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>76245</b>	2000 <i>EN</i> <sub>86</sub>	12	8.3 232°00	6°1/ 6.0	18		<b>457401</b>	2008 <i>TS</i> <sub>104</sub>	12	8.3 25°04	5°1/ 6.7	18	
11 7	5 22.02	+ 2 32.6	2.722	3.539	10.4	19.8	11 7	5 22.58	+11 49.9	1.765	2.622	13.3	20.6
11 17	5 16.53	+ 1 41.0	2.647	3.529	8.4	19.6	11 17	5 17.33	+10 41.5	1.715	2.633	9.9	20.4
11 27	5 9.67	+ 0 58.5	2.598	3.519	6.7	19.5	11 27	5 10.21	+ 9 39.0	1.689	2.644	6.7	20.3
12 7	5 2.02	+ 0 28.5	2.577	3.509	6.1	19.5	12 7	5 2.10	+ 8 46.8	1.689	2.656	5.1	20.2
12 17	4 54.25	+ 0 13.1	2.585	3.499	7.0	19.5	12 17	4 54.04	+ 8 8.7	1.718	2.669	6.8	20.3
12 27	4 47.09	+ 0 13.4	2.621	3.488	8.8	19.6	12 27	4 47.06	+ 7 46.7	1.773	2.682	9.9	20.5
1 6	4 41.14	+ 0 28.7	2.682	3.477	10.9	19.7	1 6	4 41.96	+ 7 41.1	1.852	2.696	13.0	20.8
1 16	4 36.86	+ 0 57.1	2.765	3.465	12.8	19.9	1 16	4 39.21	+ 7 50.1	1.953	2.710	15.7	21.0
<b>456045</b>	2005 <i>YA</i> <sub>216</sub>	12	8.3 233°25	0°7/ 8.5	17		<b>516779</b>	2009 <i>WP</i> <sub>254</sub>	12	8.3 335°66	1°2/ 8.2	18	
11 7	5 25.61	+25 12.7	2.479	3.320	10.5	22.2	11 7	5 25.51	+19 59.7	1.165	2.044	17.1	21.0
11 17	5 19.35	+25 13.6	2.394	3.311	7.5	22.0	11 17	5 20.73	+20 4.1	1.095	2.030	12.4	20.7
11 27	5 11.32	+25 10.5	2.336	3.301	4.2	21.8	11 27	5 12.66	+20 9.6	1.046	2.017	6.9	20.3
12 7	5 2.23	+25 2.8	2.307	3.291	0.9	21.5	12 7	5 2.44	+20 16.3	1.021	2.005	1.4	19.9
12 17	4 52.95	+24 51.0	2.308	3.281	3.2	21.7	12 17	4 51.73	+20 24.3	1.020	1.994	5.6	20.2
12 27	4 44.44	+24 36.7	2.340	3.270	6.6	21.9	12 27	4 42.43	+20 35.3	1.044	1.985	11.4	20.5
1 6	4 37.48	+24 22.0	2.400	3.259	9.8	22.1	1 6	4 36.07	+20 50.9	1.089	1.976	16.7	20.8
1 16	4 32.62	+24 9.1	2.483	3.248	12.5	22.3	1 16	4 33.51	+21 12.3	1.153	1.969	21.0	21.0
<b>478453</b>	2012 <i>LT</i> <sub>4</sub>	12	8.3 146°43	1°0/ 8.8	17		<b>475144</b>	2005 <i>UK</i> <sub>354</sub>	12	8.4 32°67	4°0/ 9.1	18	
11 7	5 35.32	+29 48.4	1.759	2.595	14.3	20.8	11 7	5 29.75	+30 19.3	1.026	1.900	19.3	20.1
11 17	5 26.43	+28 37.3	1.691	2.605	10.4	20.6	11 17	5 23.70	+30 45.7	0.991	1.919	14.1	19.9
11 27	5 15.14	+27 12.0	1.650	2.614	5.8	20.3	11 27	5 14.07	+30 58.3	0.975	1.940	8.6	19.7
12 7	5 2.66	+25 34.6	1.638	2.622	1.3	20.0	12 7	5 2.57	+30 53.5	0.982	1.962	4.2	19.5
12 17	4 50.44	+23 50.8	1.657	2.630	4.2	20.3	12 17	4 51.33	+30 32.3	1.014	1.985	6.3	19.7
12 27	4 39.85	+22 8.0	1.708	2.637	8.7	20.6	12 27	4 42.37	+30 0.1	1.069	2.009	11.3	20.1
1 6	4 31.83	+20 33.9	1.785	2.643	12.7	20.8	1 6	4 36.97	+29 24.4	1.146	2.034	15.8	20.4
1 16	4 26.87	+19 13.3	1.886	2.649	16.0	21.1	1 16	4 35.57	+28 51.3	1.241	2.060	19.6	20.7
<b>365923</b>	2011 <i>YV</i> <sub>22</sub>	12	8.3 273°22	0°9/ 8.2	17		<b>115306</b>	2003 <i>SN</i> <sub>210</sub>	12	8.4 277°30	0°5/ 8.5	17	
11 7	5 26.60	+19 29.7	2.037	2.887	12.1	21.4	11 7	5 25.60	+26 32.9	2.226	3.071	11.4	19.9
11 17	5 20.39	+19 40.5	1.950	2.871	8.7	21.1	11 17	5 19.40	+25 54.5	2.147	3.065	8.2	19.7
11 27	5 12.05	+19 52.2	1.888	2.855	4.8	20.9	11 27	5 11.35	+25 8.7	2.094	3.060	4.6	19.4
12 7	5 2.33	+20 4.6	1.855	2.840	1.1	20.6	12 7	5 2.27	+24 16.6	2.070	3.055	0.8	19.1
12 17	4 52.28	+20 17.5	1.852	2.823	3.9	20.8	12 17	4 53.13	+23 20.6	2.077	3.049	3.4	19.3
12 27	4 43.03	+20 31.4	1.878	2.807	8.0	21.0	12 27	4 44.94	+22 24.3	2.113	3.044	7.2	19.6
1 6	4 35.57	+20 47.5	1.930	2.791	11.7	21.2	1 6	4 38.51	+21 31.6	2.177	3.039	10.6	19.8
1 16	4 30.59	+21 6.7	2.005	2.774	14.9	21.4	1 16	4 34.35	+20 45.7	2.264	3.034	13.4	20.0
<b>486977</b>	2014 <i>NE</i> <sub>30</sub>	12	8.3 203°92	2°0/ 7.8	18		<b>407478</b>	2010 <i>UG</i> <sub>100</sub>	12	8.4 113°14	1°4/ 8.6	17	
11 7	5 25.79	+18 0.0	2.150	2.998	11.6	21.9	11 7	5 28.00	+25 40.8	2.046	2.891	12.2	21.6
11 17	5 19.53	+17 33.6	2.076	2.996	8.3	21.6	11 17	5 21.30	+26 7.6	1.978	2.896	8.8	21.4
11 27	5 11.41	+17 7.4	2.028	2.993	4.8	21.4	11 27	5 12.48	+26 30.4	1.937	2.902	5.0	21.2
12 7	5 2.24	+16 42.9	2.008	2.990	2.0	21.2	12 7	5 2.41	+26 47.4	1.924	2.907	1.5	20.9
12 17	4 52.95	+16 21.8	2.019	2.986	4.2	21.4	12 17	4 52.20	+26 57.8	1.941	2.912	3.8	21.1
12 27	4 44.55	+16 6.1	2.059	2.982	7.8	21.6	12 27	4 43.01	+27 2.7	1.987	2.917	7.6	21.4
1 6	4 37.86	+15 57.3	2.125	2.978	11.2	21.8	1 6	4 35.77	+27 4.3	2.059	2.922	11.0	21.6
1 16	4 33.42	+15 56.2	2.214	2.974	14.0	22.0	1 16	4 31.08	+27 5.3	2.155	2.927	13.9	21.8
<b>187670</b>	2008 <i>CL</i> <sub>18</sub>	12	8.3 312°18	1°2/ 8.1	18		<b>476576</b>	2008 <i>RZ</i> <sub>43</sub>	12	8.4 8°12	2°2/ 8.7	18	
11 7	5 25.90	+19 51.8	1.866	2.721	12.8	20.9	11 7	5 26.21	+26 54.0	1.145	2.021	17.5	20.9
11 17	5 19.87	+19 43.1	1.795	2.719	9.2	20.7	11 17	5 21.18	+27 11.0	1.089	2.022	12.8	20.7
11 27	5 11.71	+19 34.0	1.749	2.716	5.1	20.4	11 27	5 12.81	+27 20.1	1.055	2.024	7.3	20.4
12 7	5 2.28	+19 25.1	1.730	2.714	1.3	20.1	12 7	5 2.47	+27 18.9	1.044	2.027	2.4	20.1
12 17	4 52.70	+19 17.4	1.740	2.711	4.2	20.3	12 17	4 51.95	+27 7.7	1.058	2.032	5.5	20.3
12 27	4 44.13	+19 12.7	1.779	2.709	8.3	20.6	12 27	4 43.19	+26 49.7	1.096	2.038	10.8	20.6
1 6	4 37.52	+19 12.5	1.843	2.707	12.1	20.8	1 6	4 37.55	+26 30.2	1.156	2.045	15.7	20.9
1 16	4 33.47	+19 17.9	1.929	2.705	15.2	21.0	1 16	4 35.71	+26 13.7	1.235	2.054	19.7	21.2
<b>334051</b>	2001 <i>NA</i> <sub>17</sub>	12	8.3 116°52	2°1/ 8.7	18		<b>301372</b>	2009 <i>CW</i> <sub>54</sub>	12	8.4 325°89	0°7/ 8.2	18	
11 7	5 32.52	+27 50.3	1.686	2.532	14.4	21.4	11 7	5 26.29	+21 24.6	1.501	2.366	14.8	21.0
11 17	5 24.74	+28 9.5	1.630	2.546	10.4	21.2	11 17	5 20.69	+21 21.6	1.427	2.356	10.6	20.7
11 27	5 14.38	+28 20.9	1.597	2.560	6.1	20.9	11 27	5 12.40	+21 17.0	1.377	2.346	5.9	20.4
12 7	5 2.60	+28 22.5	1.592	2.574	2.3	20.7	12 7	5 2.42	+21 10.8	1.352	2.337	0.9	20.0
12 17	4 50.81	+28 14.2	1.616	2.587	4.5	20.9	12 17	4 52.14	+21 4.0	1.355	2.329	4.7	20.3
12 27	4 40.48	+27 58.5	1.669	2.600	8.7	21.2	12 27	4 43.05	+20 58.7	1.385	2.320	9.7	20.6
1 6	4 32.68	+27 39.6	1.747	2.612	12.6	21.4	1 6	4 36.37	+20 57.1	1.438	2.313	14.1	20.8
1 16	4 28.00	+27 21.8	1.848	2.624	15.8	21.7	1 16	4 32.83	+21 1.3	1.512	2.306	17.9	21.0
<b>201243</b>	2002 <i>RM</i> <sub>80</sub>	12	8.3 123°37	4°3/ 7.1	18		<b>194820</b>	2001 <i>YT</i> <sub>117</sub>	12	8.4 349°29	0°2/ 8.4	18	
11 7	5 22.75	+ 8 57.3	2.514	3.350	10.5	20.0	11 7	5 26.41	+21 46.5	1.218	2.094	16.7	19.4
11 17	5 17.06	+ 8 23.8	2.452	3.357	8.0	19.8	11 17	5 21.26	+22 11.2	1.153	2.086	12.1	19.1
11 27	5 9.95	+ 7 56.9	2.417	3.365	5.5	19.7	11 27	5 12.89	+22 35.9	1.110	2.080	6.7	18.8
12 7	5 2.07	+ 7 38.8	2.411	3.372	4.3	19.6	12 7	5 2.50	+22 58.8	1.090	2.075	0.8	18.4
12 17	4 54.17	+ 7 31.1	2.434	3.379	5.5	19.7	12 17	4 51.72	+23 18.7	1.097	2.071	5.1	18.7
12 27	4 47.00	+ 7 34.4	2.486	3.386	7.8	19.9	12 27	4 42.40	+23 36.3	1.128	2.069	10.8	19.0
1 6	4 41.21	+ 7 48.5	2.564	3.392	10.3	20.1	1 6	4 35.98	+23 53.6	1.182	2.067	15.7	19.3
1 16	4 37.22	+ 8 12.1	2.665	3.399	12.5	20.2	1 16	4 33.26	+24 12.7	1.254	2.066	19.9	19.6
<b>495782</b>	2017 <i>FX</i> <sub>22</sub>	12	8.3 262°36	1°7/ 8.8	18		<b>150684</b>	2001 <i>OB</i> <sub>60</sub>	12	8.4 72°51	3°0/ 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>350964</b>	2003 BT <sub>35</sub>	12	8.4 268°66	40°7/ 7.0 18			<b>409665</b>	2005 YQ <sub>138</sub>	12	8.4 303°17	0°7/ 8.5 17		
11 7	6 57.40	-72 35.8	1.274	1.507	40.7	21.6	11 7	5 25.64	+24 42.0	2.061	2.910	12.0	21.7
11 17	6 31.69	-73 42.4	1.240	1.486	41.3	21.5	11 17	5 19.66	+24 46.3	1.985	2.906	8.6	21.5
11 27	5 52.29	-73 48.4	1.195	1.463	42.1	21.5	11 27	5 11.63	+24 46.7	1.934	2.901	4.8	21.3
12 7	5 6.98	-72 23.1	1.140	1.440	43.0	21.3	12 7	5 2.38	+24 42.5	1.911	2.896	0.9	21.0
12 17	4 27.11	-69 5.4	1.077	1.416	43.9	21.2	12 17	4 52.94	+24 34.2	1.918	2.891	3.6	21.2
12 27	3 59.37	-63 49.5	1.012	1.391	45.0	21.1	12 27	4 44.44	+24 23.4	1.954	2.886	7.5	21.4
1 6	3 43.63	-56 37.2	0.948	1.366	46.0	20.9	1 6	4 37.78	+24 12.6	2.016	2.882	11.1	21.6
1 16	3 37.19	-47 31.2	0.894	1.341	47.2	20.8	1 16	4 33.56	+24 4.1	2.101	2.877	14.1	21.8
<b>381033</b>	2006 VB <sub>17</sub>	12	8.4 93°75	2°4/ 8.7 18			<b>126776</b>	2002 EJ <sub>3</sub>	12	8.4 353°33	0°7/ 8.2 18		
11 7	5 35.27	+27 34.2	1.514	2.361	15.6	21.6	11 7	5 25.33	+21 26.0	1.993	2.846	12.2	20.0
11 17	5 26.80	+28 4.5	1.469	2.386	11.3	21.4	11 17	5 19.39	+21 14.5	1.922	2.845	8.7	19.8
11 27	5 15.53	+28 26.6	1.447	2.411	6.6	21.2	11 27	5 11.45	+21 1.0	1.877	2.845	4.8	19.5
12 7	5 2.79	+28 37.7	1.453	2.435	2.5	21.0	12 7	5 2.36	+20 46.2	1.860	2.845	0.9	19.3
12 17	4 50.21	+28 37.3	1.488	2.458	4.8	21.2	12 17	4 53.15	+20 31.2	1.872	2.844	3.8	19.5
12 27	4 39.37	+28 28.0	1.550	2.481	9.3	21.5	12 27	4 44.91	+20 18.0	1.913	2.844	7.8	19.7
1 6	4 31.40	+28 14.5	1.637	2.503	13.2	21.8	1 6	4 38.53	+20 8.6	1.980	2.844	11.4	20.0
1 16	4 26.83	+28 1.4	1.746	2.525	16.5	22.1	1 16	4 34.56	+20 4.4	2.070	2.844	14.4	20.2
<b>420241</b>	2011 HD <sub>65</sub>	12	8.4 302°72	2°0/ 8.0 18			<b>391612</b>	2007 UQ <sub>141</sub>	12	8.4 177°74	5°1/ 9.3 18		
11 7	5 24.21	+16 30.5	2.136	2.987	11.6	20.7	11 7	5 32.65	+36 34.6	2.156	2.972	12.7	21.1
11 17	5 18.59	+16 34.3	2.051	2.971	8.4	20.5	11 17	5 24.88	+37 24.2	2.083	2.974	9.9	20.9
11 27	5 11.04	+16 41.2	1.990	2.956	4.9	20.3	11 27	5 14.59	+38 2.0	2.036	2.975	7.0	20.7
12 7	5 2.28	+16 51.6	1.958	2.940	2.0	20.0	12 7	5 2.75	+38 23.7	2.016	2.976	5.2	20.6
12 17	4 53.23	+17 5.9	1.956	2.925	4.2	20.2	12 17	4 50.64	+38 27.3	2.025	2.976	6.0	20.7
12 27	4 44.92	+17 24.4	1.983	2.910	7.8	20.4	12 27	4 39.65	+38 14.6	2.064	2.976	8.5	20.8
1 6	4 38.24	+17 47.5	2.036	2.895	11.3	20.6	1 6	4 30.90	+37 49.9	2.129	2.975	11.4	21.0
1 16	4 33.81	+18 15.3	2.111	2.880	14.3	20.7	1 16	4 25.08	+37 19.0	2.216	2.974	14.0	21.2
<b>263931</b>	2009 HO <sub>42</sub>	12	8.4 79°73	3°6/ 7.6 18			<b>214919</b>	2007 TG <sub>363</sub>	12	8.4 59°44	2°1/ 8.5 18		
11 7	5 25.75	+13 37.2	1.844	2.696	13.0	20.6	11 7	5 34.03	+25 5.3	1.124	1.991	18.4	19.9
11 17	5 19.67	+13 12.3	1.782	2.701	9.6	20.4	11 17	5 26.61	+25 52.4	1.082	2.010	13.3	19.7
11 27	5 11.57	+12 52.4	1.744	2.705	5.9	20.2	11 27	5 15.71	+26 34.1	1.062	2.030	7.5	19.4
12 7	5 2.33	+12 39.4	1.734	2.710	3.7	20.1	12 7	5 2.87	+27 6.0	1.066	2.049	2.3	19.2
12 17	4 53.03	+12 35.0	1.753	2.714	5.5	20.2	12 17	4 50.13	+27 25.8	1.096	2.069	5.6	19.4
12 27	4 44.76	+12 40.4	1.799	2.719	9.0	20.5	12 27	4 39.48	+27 35.7	1.152	2.089	11.0	19.8
1 6	4 38.42	+12 55.5	1.871	2.723	12.5	20.7	1 6	4 32.29	+27 40.1	1.230	2.110	15.7	20.1
1 16	4 34.53	+13 19.6	1.964	2.728	15.4	20.9	1 16	4 29.13	+27 43.5	1.327	2.130	19.5	20.4
<b>205030</b>	1998 HY <sub>158</sub>	12	8.4 88°08	3°5/ 8.1 18			<b>485652</b>	2011 WO <sub>41</sub>	12	8.4 245°72	3°2/ 7.1 17		
11 7	5 28.72	+12 28.9	1.691	2.541	14.1	20.4	11 7	5 23.86	+7 39.0	3.993	4.806	7.4	23.5
11 17	5 21.93	+12 39.3	1.632	2.549	10.4	20.2	11 17	5 17.59	+7 22.3	3.887	4.779	5.7	23.3
11 27	5 12.86	+12 57.6	1.597	2.558	6.4	19.9	11 27	5 10.24	+7 10.2	3.811	4.751	4.0	23.2
12 7	5 2.50	+13 24.2	1.590	2.567	3.6	19.8	12 7	5 2.23	+7 3.9	3.766	4.722	3.2	23.1
12 17	4 52.05	+13 58.8	1.611	2.576	5.5	19.9	12 17	4 54.04	+7 4.4	3.754	4.693	4.0	23.1
12 27	4 42.76	+14 40.4	1.661	2.584	9.4	20.2	12 27	4 46.20	+7 12.1	3.773	4.662	5.8	23.2
1 6	4 35.63	+15 27.9	1.736	2.593	13.0	20.4	1 6	4 39.19	+7 27.1	3.822	4.630	7.6	23.3
1 16	4 31.25	+16 19.8	1.833	2.602	16.2	20.7	1 16	4 33.38	+7 48.9	3.897	4.598	9.4	23.4
<b>397987</b>	2009 BC <sub>93</sub>	12	8.4 203°53	0°7/ 8.2 18			<b>380357</b>	2002 TD <sub>17</sub>	12	8.4 58°60	6°6/ 9.6 18		
11 7	5 27.46	+21 20.1	2.103	2.950	11.9	21.9	11 7	5 34.30	+36 5.4	1.299	2.144	17.9	20.1
11 17	5 20.83	+21 7.7	2.026	2.946	8.5	21.7	11 17	5 26.90	+36 55.8	1.251	2.158	13.8	19.8
11 27	5 12.22	+20 53.2	1.976	2.943	4.7	21.4	11 27	5 15.93	+37 28.4	1.224	2.172	9.6	19.7
12 7	5 2.43	+20 37.1	1.954	2.938	0.9	21.1	12 7	5 2.92	+37 37.1	1.221	2.187	6.7	19.5
12 17	4 52.49	+20 20.6	1.962	2.934	3.7	21.4	12 17	4 49.92	+37 20.5	1.244	2.202	7.7	19.6
12 27	4 43.49	+20 5.5	2.000	2.929	7.7	21.6	12 27	4 39.00	+36 43.5	1.292	2.217	11.3	19.9
1 6	4 36.31	+19 54.1	2.065	2.923	11.2	21.8	1 6	4 31.57	+35 54.9	1.363	2.233	15.1	20.2
1 16	4 31.52	+19 47.9	2.152	2.917	14.2	22.0	1 16	4 28.21	+35 3.5	1.454	2.248	18.5	20.4
<b>222552</b>	2001 VJ <sub>13</sub>	12	8.4 330°51	16°1/ 5.3 17			<b>513187</b>	2005 GJ <sub>32</sub>	12	8.4 325°95	2°0/ 8.6 18		
11 7	5 43.37	+41 38.2	0.950	1.793	23.0	19.4	11 7	5 26.86	+26 13.4	1.076	1.955	18.1	21.7
11 17	5 36.88	+45 35.7	0.894	1.783	19.7	19.1	11 17	5 22.19	+26 27.9	1.002	1.937	13.4	21.3
11 27	5 23.50	+49 20.5	0.857	1.774	16.9	18.9	11 27	5 13.74	+26 35.5	0.949	1.919	7.7	21.0
12 7	5 4.03	+52 24.9	0.842	1.766	16.1	18.8	12 7	5 2.70	+26 33.3	0.918	1.902	2.2	20.6
12 17	4 41.55	+54 26.4	0.850	1.759	17.7	18.9	12 17	4 50.99	+26 20.7	0.911	1.886	5.9	20.7
12 27	4 21.05	+55 20.2	0.876	1.752	20.8	19.1	12 27	4 40.84	+26 1.0	0.928	1.872	12.1	21.0
1 6	4 6.85	+55 21.0	0.920	1.747	24.2	19.3	1 6	4 34.05	+25 39.9	0.965	1.858	17.7	21.3
1 16	4 0.93	+54 50.3	0.976	1.742	27.3	19.5	1 16	4 31.60	+25 22.8	1.020	1.846	22.5	21.6
<b>425904</b>	2011 FL <sub>104</sub>	12	8.4 263°66	4°1/ 7.4 17			<b>227085</b>	2005 MZ	12	8.4 98°67	0°3/ 8.4 16		
11 7	5 23.05	+10 11.5	2.351	3.191	11.0	21.4	11 7	5 32.22	+24 1.7	1.594	2.445	14.7	21.6
11 17	5 17.47	+9 50.6	2.278	3.188	8.3	21.2	11 17	5 24.46	+23 55.9	1.544	2.466	10.5	21.4
11 27	5 10.30	+9 36.0	2.231	3.184	5.5	21.0	11 27	5 14.22	+23 45.3	1.519	2.486	5.8	21.1
12 7	5 2.20	+9 29.7	2.213	3.180	4.1	20.9	12 7	5 2.70	+23 29.5	1.521	2.506	0.8	20.8
12 17	4 53.98	+9 33.0	2.224	3.176	5.4	21.0	12 17	4 51.33	+23 10.0	1.553	2.526	4.3	21.1
12 27	4 46.48	+9 46.4	2.263	3.172	8.0	21.1	12 27	4 41.50	+22 49.7	1.612	2.545	8.8	21.5
1 6	4 40.44	+10 9.6	2.329	3.168	10.8	21.3	1 6	4 34.22	+22 32.0	1.697	2.563	12.8	21.7
1 16	4 36.33	+10 41.3	2.418	3.164	13.3	21.5	1 16	4 29.99	+22 19.5	1.803	2.581	16.1	22.0
<b>484230</b>	2007 EW <sub>59</sub>	12	8.4 194°07	5°1/ 6.6 17			<b>292512</b>	2006 TS <sub>26</sub>	12	8.4 120°91	1°0/ 8.6 18		
11 7	5 22.94	+5 5.0	2.824	3.645	9.9	22.9							



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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>90033</b>	2002 <i>UT</i> <sub>31</sub>	12	8.4 222°58	4.8/ 9.4	18		<b>179350</b>	2001 <i>XG</i> <sub>123</sub>	12	8.4 99°23	2.1/ 7.8	18	R
11 7	5 33.80	+35 3.7	1.832	2.659	14.2	20.1	11 7	5 26.38	+18 8.8	2.033	2.883	12.1	20.3
11 17	5 26.04	+35 30.8	1.750	2.650	10.9	19.9	11 17	5 19.91	+17 34.0	1.976	2.897	8.7	20.1
11 27	5 15.37	+35 44.8	1.692	2.640	7.4	19.7	11 27	5 11.64	+16 59.5	1.945	2.910	4.9	19.9
12 7	5 2.88	+35 41.5	1.662	2.630	4.9	19.5	12 7	5 2.41	+16 27.2	1.942	2.923	2.1	19.7
12 17	4 50.04	+35 19.6	1.660	2.620	6.0	19.6	12 17	4 53.24	+15 59.2	1.970	2.937	4.3	19.9
12 27	4 38.49	+34 42.0	1.686	2.608	9.3	19.7	12 27	4 45.11	+15 37.8	2.026	2.949	7.9	20.1
1 6	4 29.51	+33 54.7	1.739	2.597	13.0	19.9	1 6	4 38.82	+15 24.4	2.108	2.962	11.2	20.4
1 16	4 23.87	+33 4.7	1.813	2.584	16.2	20.1	1 16	4 34.81	+15 19.6	2.213	2.975	13.9	20.6
<b>368045</b>	2012 <i>HM</i> <sub>25</sub>	12	8.4 283°37	1.4/ 8.2	17		<b>256738</b>	2008 <i>BT</i> <sub>9</sub>	12	8.4 243°04	3.1/ 9.1	17	
11 7	5 25.35	+17 40.8	2.181	3.029	11.4	20.6	11 7	5 28.82	+31 49.7	2.183	3.015	12.0	21.5
11 17	5 19.32	+17 52.7	2.105	3.025	8.2	20.4	11 17	5 22.04	+32 5.7	2.097	3.004	9.0	21.3
11 27	5 11.41	+18 6.8	2.055	3.021	4.6	20.2	11 27	5 13.01	+32 12.6	2.037	2.992	5.7	21.1
12 7	5 2.39	+18 23.1	2.034	3.017	1.5	19.9	12 7	5 2.61	+32 8.2	2.005	2.980	3.2	20.9
12 17	4 53.16	+18 41.5	2.042	3.013	3.8	20.1	12 17	4 51.93	+31 52.1	2.002	2.968	4.4	21.0
12 27	4 44.74	+19 2.2	2.081	3.009	7.5	20.3	12 27	4 42.20	+31 26.3	2.029	2.956	7.7	21.1
1 6	4 37.97	+19 25.6	2.146	3.005	10.8	20.5	1 6	4 34.43	+30 54.7	2.083	2.943	11.1	21.3
1 16	4 33.42	+19 52.0	2.234	3.000	13.7	20.7	1 16	4 29.26	+30 21.7	2.160	2.929	14.0	21.5
<b>439916</b>	2001 <i>PP</i> <sub>32</sub>	12	8.4 97°66	5.7/ 9.6	18		<b>39572</b>	1993 <i>DQ</i> <sub>1</sub>	12	8.4 87°79	5.5/ 10.0	18	
11 7	5 32.37	+37 38.4	1.963	2.782	13.7	20.5	11 7	5 49.11	+37 22.2	1.482	2.294	17.7	20.1
11 17	5 24.74	+38 26.8	1.904	2.795	10.7	20.3	11 17	5 36.32	+37 34.9	1.454	2.344	13.4	19.9
11 27	5 14.51	+39 1.2	1.869	2.807	7.7	20.1	11 27	5 20.46	+37 25.8	1.449	2.393	8.9	19.8
12 7	5 2.77	+39 17.2	1.862	2.819	5.8	20.1	12 7	5 3.45	+36 51.4	1.472	2.439	5.8	19.7
12 17	4 50.92	+39 13.3	1.882	2.831	6.5	20.1	12 17	4 47.41	+35 54.6	1.525	2.483	6.6	19.9
12 27	4 40.42	+38 52.0	1.931	2.843	9.0	20.3	12 27	4 34.14	+34 43.7	1.607	2.526	10.0	20.2
1 6	4 32.40	+38 18.9	2.005	2.855	11.9	20.5	1 6	4 24.62	+33 29.0	1.715	2.567	13.4	20.5
1 16	4 27.48	+37 40.1	2.102	2.866	14.5	20.7	1 16	4 19.11	+32 18.6	1.845	2.606	16.3	20.8
<b>517055</b>	2013 <i>AX</i> <sub>108</sub>	12	8.4 191°29	1.4/ 8.1	18		<b>459770</b>	2013 <i>QC</i> <sub>76</sub>	12	8.4 341°83	2.9/ 9.3	17	
11 7	5 27.30	+19 16.6	1.894	2.746	12.7	21.8	11 7	5 26.13	+32 35.0	2.281	3.114	11.5	21.1
11 17	5 20.87	+19 7.4	1.823	2.745	9.2	21.6	11 17	5 19.91	+32 37.1	2.207	3.113	8.6	20.9
11 27	5 12.31	+18 58.2	1.778	2.745	5.1	21.4	11 27	5 11.73	+32 29.3	2.157	3.113	5.5	20.7
12 7	5 2.50	+18 49.6	1.760	2.744	1.5	21.1	12 7	5 2.44	+32 10.6	2.136	3.112	3.1	20.5
12 17	4 52.54	+18 42.8	1.772	2.743	4.2	21.3	12 17	4 53.06	+31 41.3	2.145	3.111	4.1	20.6
12 27	4 43.61	+18 39.2	1.813	2.742	8.3	21.6	12 27	4 44.65	+31 4.0	2.183	3.111	7.2	20.8
1 6	4 36.65	+18 40.4	1.879	2.740	12.0	21.8	1 6	4 38.09	+30 22.7	2.247	3.110	10.2	21.0
1 16	4 32.24	+18 47.4	1.968	2.739	15.1	22.0	1 16	4 33.90	+29 41.5	2.336	3.109	12.9	21.2
<b>35218</b>	1994 <i>WU</i> <sub>2</sub>	12	8.4 61°20	1.0/ 8.5	18		<b>510261</b>	2011 <i>HE</i> <sub>59</sub>	12	8.4 211°58	4.5/ 7.2	18	
11 7	5 34.13	+23 31.5	1.119	1.987	18.4	17.7	11 7	5 27.96	+11 56.8	1.886	2.730	13.1	22.2
11 17	5 26.51	+24 1.3	1.081	2.011	13.2	17.5	11 17	5 21.32	+11 14.6	1.812	2.725	9.8	22.0
11 27	5 15.57	+24 27.0	1.065	2.035	7.2	17.2	11 27	5 12.57	+10 37.6	1.763	2.719	6.4	21.8
12 7	5 2.88	+24 45.7	1.074	2.059	1.3	16.9	12 7	5 2.56	+10 8.7	1.742	2.712	4.5	21.7
12 17	4 50.43	+24 56.7	1.109	2.083	5.3	17.3	12 17	4 52.38	+9 50.6	1.750	2.705	6.3	21.8
12 27	4 40.13	+25 2.1	1.169	2.107	10.8	17.6	12 27	4 43.18	+9 45.3	1.786	2.697	9.7	21.9
1 6	4 33.22	+25 5.9	1.252	2.132	15.5	18.0	1 6	4 35.88	+9 52.9	1.848	2.689	13.1	22.1
1 16	4 30.19	+25 11.2	1.354	2.156	19.2	18.3	1 16	4 31.11	+10 12.6	1.931	2.680	16.1	22.3
<b>364093</b>	2005 <i>YF</i> <sub>140</sub>	12	8.4 74°43	2.4/ 8.1	18		<b>207833</b>	2007 <i>TL</i> <sub>423</sub>	12	8.4 207°20	0.5/ 8.2	18	
11 7	5 26.24	+15 1.7	2.042	2.890	12.1	20.5	11 7	5 27.84	+22 19.2	2.211	3.054	11.5	21.5
11 17	5 19.87	+15 10.3	1.984	2.903	8.8	20.3	11 17	5 21.07	+22 2.6	2.131	3.049	8.2	21.2
11 27	5 11.66	+15 23.1	1.952	2.915	5.1	20.1	11 27	5 12.37	+21 42.9	2.077	3.043	4.5	21.0
12 7	5 2.42	+15 40.5	1.948	2.928	2.4	19.9	12 7	5 2.54	+21 20.6	2.052	3.037	0.7	20.7
12 17	4 53.14	+16 2.3	1.973	2.940	4.3	20.1	12 17	4 52.55	+20 57.0	2.058	3.030	3.6	20.9
12 27	4 44.83	+16 28.6	2.028	2.953	7.8	20.3	12 27	4 43.46	+20 34.2	2.094	3.023	7.4	21.1
1 6	4 38.30	+16 59.0	2.110	2.966	11.1	20.6	1 6	4 36.12	+20 14.8	2.158	3.014	10.9	21.3
1 16	4 34.07	+17 33.3	2.214	2.978	13.8	20.8	1 16	4 31.11	+20 0.6	2.244	3.006	13.8	21.5
<b>292975</b>	2006 <i>VA</i> <sub>142</sub>	12	8.4 27°19	6.0/ 7.7	18		<b>300643</b>	2007 <i>UQ</i> <sub>65</sub>	12	8.4 341°87	1.2/ 8.1	18	
11 7	5 26.92	+11 15.5	1.112	1.985	18.1	20.1	11 7	5 26.52	+20 32.1	1.583	2.445	14.3	20.6
11 17	5 21.35	+10 45.3	1.066	1.993	13.5	19.8	11 17	5 20.68	+20 18.5	1.515	2.442	10.3	20.4
11 27	5 12.80	+10 26.9	1.040	2.001	8.8	19.6	11 27	5 12.35	+20 3.6	1.470	2.438	5.7	20.1
12 7	5 2.56	+10 23.7	1.037	2.011	6.0	19.5	12 7	5 2.54	+19 48.3	1.451	2.436	1.3	19.8
12 17	4 52.31	+10 37.8	1.059	2.021	8.1	19.6	12 17	4 52.54	+19 34.0	1.461	2.433	4.6	20.1
12 27	4 43.74	+11 8.8	1.105	2.032	12.6	19.9	12 27	4 43.75	+19 23.2	1.497	2.431	9.3	20.3
1 6	4 38.06	+11 54.3	1.172	2.044	16.9	20.2	1 6	4 37.24	+19 17.9	1.558	2.429	13.5	20.6
1 16	4 35.87	+12 50.5	1.257	2.057	20.6	20.5	1 16	4 33.66	+19 19.8	1.640	2.428	17.0	20.8
<b>409756</b>	2006 <i>DS</i> <sub>86</sub>	12	8.4 42°86	4.8/ 9.5	17		<b>11316</b>	Fuchitatsu	12	8.4 36°32	0.2/ 8.4	18	
11 7	5 28.40	+36 28.8	2.144	2.968	12.5	20.8	11 7	5 29.26	+21 49.9	1.073	1.951	18.3	16.8
11 17	5 21.77	+37 3.8	2.076	2.971	9.7	20.6	11 17	5 23.13	+22 5.2	1.035	1.969	13.0	16.6
11 27	5 12.84	+37 26.7	2.032	2.974	6.8	20.4	11 27	5 13.77	+22 18.9	1.018	1.989	7.1	16.4
12 7	5 2.57	+37 34.3	2.015	2.977	4.9	20.3	12 7	5 2.70	+22 29.5	1.025	2.010	0.9	16.0
12 17	4 52.14	+37 25.7	2.027	2.981	5.6	20.4	12 17	4 51.80	+22 37.2	1.057	2.032	5.3	16.4
12 27	4 42.81	+37 2.9	2.067	2.984	8.2	20.5	12 27	4 42.90	+22 43.8	1.113	2.054	10.8	16.8
1 6	4 35.59	+36 30.4	2.133	2.988	11.1	20.7	1 6	4 37.21	+22 51.9	1.192	2.078	15.6	17.1
1 16	4 31.10	+35 53.4	2.222	2.992	13.7	20.9	1 16	4 35.24	+23 3.5	1.289	2.102	19.4	17.4
<b>229847</b>	2009 <i>SR</i> <sub>234</sub>	12	8.4 52°21	5.4/ 9.4	18		<b>510178</b>	2011 <i>BC</i> <sub>43</sub>	12	8.4 228°31	2.1/ 8.8	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>103770</b>	Wilfriedlang	12	8.4	231°90	6°4/10.1	18	<b>133352</b>	2003 SZ <sub>123</sub>	12	8.4	103°73	4°6/ 7.2	18
11 7	5 30.62	+44 14.7	2.652	3.435	11.6	20.5	11 7	5 23.55	+ 8 57.0	2.326	3.164	11.2	19.5
11 17	5 23.32	+44 57.6	2.571	3.427	9.5	20.4	11 17	5 17.77	+ 8 23.4	2.267	3.173	8.5	19.4
11 27	5 13.73	+45 25.9	2.513	3.420	7.6	20.2	11 27	5 10.47	+ 7 57.1	2.233	3.181	5.9	19.2
12 7	5 2.73	+45 35.9	2.483	3.412	6.5	20.1	12 7	5 2.33	+ 7 40.2	2.228	3.190	4.6	19.2
12 17	4 51.45	+45 25.8	2.481	3.403	6.8	20.1	12 17	4 54.18	+ 7 34.5	2.252	3.198	5.8	19.2
12 27	4 41.15	+44 57.3	2.507	3.395	8.3	20.2	12 27	4 46.83	+ 7 40.7	2.305	3.207	8.3	19.4
1 6	4 32.85	+44 14.6	2.560	3.386	10.4	20.4	1 6	4 40.97	+ 7 58.0	2.384	3.215	10.9	19.6
1 16	4 27.20	+43 23.5	2.635	3.377	12.4	20.5	1 16	4 37.04	+ 8 25.3	2.485	3.223	13.2	19.8
<b>118823</b>	2000 SH <sub>139</sub>	12	8.4	39°86	2°1/ 8.9	18	<b>170537</b>	2003 WA <sub>111</sub>	12	8.4	177°78	4°3/ 8.9	18
11 7	5 27.21	+29 10.6	1.836	2.684	13.3	19.5	11 7	5 32.46	+33 33.2	2.092	2.917	12.8	20.4
11 17	5 20.93	+29 9.9	1.772	2.689	9.7	19.3	11 17	5 24.78	+34 26.6	2.019	2.918	9.7	20.2
11 27	5 12.38	+29 0.5	1.732	2.695	5.7	19.1	11 27	5 14.61	+35 10.4	1.971	2.919	6.5	20.0
12 7	5 2.55	+28 41.4	1.720	2.701	2.3	18.9	12 7	5 2.87	+35 40.6	1.952	2.920	4.4	19.9
12 17	4 52.67	+28 13.6	1.736	2.707	4.2	19.0	12 17	4 50.82	+35 55.0	1.963	2.920	5.4	19.9
12 27	4 44.01	+27 40.1	1.780	2.713	8.1	19.3	12 27	4 39.85	+35 54.5	2.002	2.920	8.4	20.1
1 6	4 37.53	+27 5.3	1.850	2.720	11.7	19.5	1 6	4 31.08	+35 43.1	2.069	2.919	11.5	20.3
1 16	4 33.80	+26 33.1	1.943	2.727	14.8	19.7	1 16	4 25.21	+35 25.9	2.157	2.918	14.3	20.5
<b>239525</b>	2008 RW <sub>8</sub>	12	8.4	44°12	5°2/ 7.2	18	<b>47465</b>	1999 YZ <sub>4</sub>	12	8.4	63°93	0°7/ 8.5	18
11 7	5 23.23	+ 8 44.4	1.999	2.844	12.5	20.3	11 7	5 31.59	+23 36.2	1.304	2.167	16.6	18.3
11 17	5 17.70	+ 8 6.8	1.947	2.856	9.5	20.1	11 17	5 24.54	+23 53.8	1.256	2.183	11.9	18.1
11 27	5 10.46	+ 7 37.9	1.919	2.868	6.6	20.0	11 27	5 14.51	+24 7.6	1.231	2.199	6.6	17.9
12 7	5 2.31	+ 7 20.4	1.918	2.880	5.2	19.9	12 7	5 2.84	+24 15.8	1.231	2.216	1.1	17.5
12 17	4 54.17	+ 7 16.1	1.946	2.893	6.5	20.0	12 17	4 51.21	+24 18.3	1.258	2.232	4.8	17.9
12 27	4 46.98	+ 7 25.6	2.001	2.906	9.2	20.2	12 27	4 41.34	+24 17.4	1.312	2.249	10.0	18.2
1 6	4 41.47	+ 7 47.9	2.081	2.919	12.0	20.4	1 6	4 34.40	+24 16.3	1.389	2.265	14.5	18.5
1 16	4 38.12	+ 8 21.0	2.183	2.933	14.5	20.6	1 16	4 30.98	+24 17.9	1.487	2.282	18.1	18.8
<b>84749</b>	2002 XA <sub>10</sub>	12	8.4	14°08	0°8/ 8.2	18	<b>454610</b>	2014 QD <sub>35</sub>	12	8.4	58°81	1°9/ 7.9	16
11 7	5 25.53	+22 25.3	1.487	2.353	14.8	18.5	11 7	5 25.53	+18 55.9	1.893	2.748	12.6	21.6
11 17	5 19.99	+21 57.0	1.427	2.356	10.6	18.3	11 17	5 19.52	+18 25.6	1.831	2.755	9.0	21.4
11 27	5 11.95	+21 24.8	1.391	2.360	5.8	18.0	11 27	5 11.53	+17 55.0	1.795	2.762	5.1	21.2
12 7	5 2.51	+20 50.2	1.380	2.365	1.0	17.7	12 7	5 2.47	+17 25.8	1.786	2.769	1.9	21.0
12 17	4 53.01	+20 15.9	1.397	2.370	4.6	18.0	12 17	4 53.38	+17 0.3	1.807	2.776	4.4	21.2
12 27	4 44.86	+19 45.5	1.440	2.376	9.4	18.3	12 27	4 45.36	+16 40.7	1.856	2.783	8.3	21.4
1 6	4 39.11	+19 22.2	1.507	2.382	13.6	18.6	1 6	4 39.26	+16 28.7	1.930	2.790	11.8	21.7
1 16	4 36.33	+19 7.9	1.595	2.389	17.1	18.8	1 16	4 35.58	+16 25.1	2.027	2.798	14.7	21.9
<b>246422</b>	2007 VB <sub>47</sub>	12	8.4	115°62	2°1/ 8.9	18	<b>169081</b>	2001 HZ <sub>33</sub>	12	8.4	259°73	4°2/ 8.9	17
11 7	5 30.55	+29 11.5	2.018	2.856	12.7	20.9	11 7	5 31.37	+32 19.0	1.958	2.790	13.2	20.4
11 17	5 23.07	+29 19.5	1.960	2.872	9.2	20.7	11 17	5 24.29	+33 9.5	1.870	2.776	10.0	20.1
11 27	5 13.45	+29 19.3	1.927	2.888	5.5	20.5	11 27	5 14.50	+33 52.0	1.808	2.760	6.6	19.9
12 7	5 2.69	+29 9.7	1.923	2.904	2.3	20.3	12 7	5 2.89	+34 21.9	1.773	2.745	4.2	19.7
12 17	4 51.96	+28 51.0	1.949	2.918	4.0	20.4	12 17	4 50.76	+34 36.7	1.768	2.729	5.5	19.8
12 27	4 42.46	+28 26.0	2.004	2.933	7.6	20.7	12 27	4 39.59	+34 36.9	1.791	2.713	8.9	19.9
1 6	4 35.09	+27 58.4	2.085	2.947	11.0	20.9	1 6	4 30.65	+34 26.3	1.840	2.697	12.4	20.1
1 16	4 30.37	+27 32.1	2.190	2.960	13.8	21.2	1 16	4 24.77	+34 10.1	1.911	2.680	15.6	20.3
<b>514740</b>	2007 CT <sub>33</sub>	12	8.4	264°96	0°2/ 8.4	18	<b>304183</b>	2006 QO <sub>41</sub>	12	8.4	58°37	1°0/ 8.1	18
11 7	5 29.55	+23 49.8	1.602	2.458	14.5	22.0	11 7	5 27.96	+22 11.4	1.609	2.468	14.3	20.2
11 17	5 23.05	+23 44.7	1.521	2.445	10.5	21.7	11 17	5 21.39	+21 36.3	1.561	2.487	10.1	20.0
11 27	5 13.79	+23 34.9	1.463	2.431	5.8	21.4	11 27	5 12.56	+20 57.8	1.537	2.505	5.5	19.8
12 7	5 2.77	+23 20.0	1.432	2.417	0.8	21.0	12 7	5 2.61	+20 17.8	1.540	2.524	1.1	19.5
12 17	4 51.36	+23 0.9	1.430	2.403	4.5	21.3	12 17	4 52.80	+19 39.1	1.572	2.544	4.4	19.8
12 27	4 41.12	+22 40.2	1.455	2.389	9.5	21.5	12 27	4 44.41	+19 5.2	1.631	2.563	8.8	20.1
1 6	4 33.30	+22 21.7	1.504	2.374	13.9	21.8	1 6	4 38.34	+18 38.9	1.715	2.582	12.6	20.4
1 16	4 28.65	+22 8.6	1.575	2.360	17.7	22.0	1 16	4 35.05	+18 21.9	1.821	2.602	15.8	20.6
<b>10356</b>	Rudolfsteiner	12	8.4	16°11	1°1/ 8.2	18	<b>100487</b>	1996 VO <sub>2</sub>	12	8.4	173°26	1°3/ 8.1	18
11 7	5 25.69	+21 28.7	1.445	2.313	15.1	17.7	11 7	5 30.97	+20 47.9	1.743	2.593	13.8	20.5
11 17	5 20.17	+21 7.4	1.387	2.316	10.8	17.4	11 17	5 23.61	+20 22.2	1.675	2.596	9.9	20.2
11 27	5 12.07	+20 43.7	1.351	2.321	5.9	17.1	11 27	5 13.88	+19 54.1	1.632	2.598	5.5	20.0
12 7	5 2.53	+20 18.8	1.342	2.326	1.2	16.8	12 7	5 2.79	+19 24.6	1.616	2.600	1.4	19.7
12 17	4 52.93	+19 54.9	1.359	2.332	4.7	17.1	12 17	4 51.61	+18 55.9	1.631	2.602	4.5	19.9
12 27	4 44.70	+19 35.0	1.403	2.339	9.6	17.4	12 27	4 41.68	+18 30.9	1.674	2.602	8.9	20.2
1 6	4 38.91	+19 21.7	1.471	2.346	13.8	17.7	1 6	4 34.00	+18 12.5	1.743	2.602	12.9	20.4
1 16	4 36.16	+19 16.7	1.559	2.354	17.4	17.9	1 16	4 29.17	+18 2.3	1.833	2.601	16.2	20.7
<b>340749</b>	2006 SK <sub>264</sub>	12	8.4	180°29	0°2/ 8.3	18	<b>120546</b>	1994 WJ <sub>8</sub>	12	8.4	109°14	2°3/ 8.0	18
11 7	5 22.67	+23 16.7	2.768	3.611	9.4	21.2	11 7	5 25.66	+15 10.0	2.235	3.080	11.3	19.8
11 17	5 17.07	+22 54.1	2.693	3.612	6.7	21.0	11 17	5 19.40	+15 10.9	2.172	3.089	8.2	19.6
11 27	5 10.07	+22 28.4	2.645	3.612	3.7	20.8	11 27	5 11.42	+15 15.5	2.135	3.098	4.8	19.4
12 7	5 2.28	+22 0.3	2.627	3.612	0.5	20.6	12 7	5 2.50	+15 24.1	2.127	3.106	2.3	19.3
12 17	4 54.44	+21 31.2	2.640	3.612	2.8	20.8	12 17	4 53.50	+15 37.3	2.149	3.115	4.1	19.4
12 27	4 47.31	+21 2.9	2.683	3.612	5.9	21.0	12 27	4 45.37	+15 55.2	2.200	3.123	7.4	19.6
1 6	4 41.51	+20 37.4	2.754	3.611	8.7	21.2	1 6	4 38.86	+16 18.0	2.279	3.131	10.5	19.8
1 16	4 37.48	+20 16.4	2.849	3.611	11.1	21.4	1 16	4 34.47	+16 45.4	2.380	3.139	13.1	20.0
<b>316568</b>	2011 GZ <sub>77</sub>	12	8.4	238°15	0°2/ 8.4	18	<b>368493</b>	2003 UC <sub>1</sub>	12	8.4	169°30	0°5/ 8.2	17
11 7	5 29.86	+21 54.4	1.623	2.479	14.3	20.9	11 7</						

EPHEMERIDES

12 8.4

12 8.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>296850</b>	2009 <i>WP</i> <sub>176</sub>	12 8.4 298°86	3°1/ 8.9 18				<b>317808</b>	2003 <i>SK</i> <sub>225</sub>	12 8.4 124°54	3°2/ 9.3 18			
11 7	5 27.17	+30 55.7	2.176	3.013	11.9	20.4	11 7	5 27.96	+33 18.1	2.570	3.393	10.7	21.0
11 17	5 20.90	+31 29.3	2.097	3.006	8.9	20.2	11 17	5 21.06	+33 39.8	2.505	3.405	8.0	20.8
11 27	5 12.44	+31 55.6	2.043	3.000	5.6	20.0	11 27	5 12.36	+33 52.6	2.466	3.416	5.3	20.7
12 7	5 2.65	+32 12.0	2.018	2.993	3.2	19.8	12 7	5 2.66	+33 54.6	2.456	3.427	3.3	20.5
12 17	4 52.57	+32 17.3	2.022	2.987	4.4	19.9	12 17	4 52.91	+33 45.7	2.477	3.438	4.1	20.6
12 27	4 43.41	+32 12.6	2.055	2.981	7.6	20.1	12 27	4 44.08	+33 27.5	2.527	3.449	6.7	20.8
1 6	4 36.13	+32 1.0	2.114	2.975	10.9	20.3	1 6	4 36.97	+33 3.4	2.605	3.459	9.3	21.0
1 16	4 31.39	+31 46.2	2.196	2.969	13.7	20.5	1 16	4 32.07	+32 36.7	2.707	3.469	11.7	21.2
<b>54022</b>	2000 <i>GX</i> <sub>99</sub>	12 8.4 95°69	0°5/ 8.5 18				<b>287210</b>	2002 <i>SK</i> <sub>65</sub>	12 8.4 147°92	5°3/ 7.3 18			
11 7	5 31.90	+24 40.1	1.630	2.481	14.5	18.8	11 7	5 26.72	+ 6 0.1	2.368	3.192	11.5	21.8
11 17	5 24.24	+24 32.3	1.581	2.502	10.4	18.5	11 17	5 19.99	+ 5 32.2	2.309	3.204	8.9	21.6
11 27	5 14.16	+24 19.0	1.555	2.522	5.7	18.3	11 27	5 11.71	+ 5 13.6	2.276	3.214	6.5	21.5
12 7	5 2.84	+24 0.1	1.558	2.542	0.9	18.0	12 7	5 2.58	+ 5 6.5	2.271	3.224	5.3	21.5
12 17	4 51.66	+23 37.0	1.589	2.562	4.2	18.3	12 17	4 53.44	+ 5 12.3	2.296	3.233	6.3	21.5
12 27	4 41.99	+23 12.9	1.649	2.581	8.7	18.6	12 27	4 45.13	+ 5 31.1	2.350	3.241	8.6	21.7
1 6	4 34.82	+22 51.2	1.734	2.600	12.6	18.9	1 6	4 38.34	+ 6 1.6	2.430	3.249	11.1	21.9
1 16	4 30.63	+22 34.9	1.841	2.619	15.8	19.2	1 16	4 33.54	+ 6 41.9	2.533	3.256	13.3	22.1
<b>154382</b>	2002 <i>YS</i> <sub>26</sub>	12 8.4 335°52	1°5/ 8.7 18 R				<b>246486</b>	2007 <i>XH</i> <sub>21</sub>	12 8.4 53°61	0°2/ 8.4 18			
11 7	5 27.48	+26 22.9	1.242	2.112	16.8	20.1	11 7	5 29.64	+20 39.1	1.560	2.417	14.7	19.9
11 17	5 22.13	+26 24.0	1.173	2.102	12.3	19.8	11 17	5 22.85	+21 12.8	1.508	2.433	10.5	19.7
11 27	5 13.50	+26 17.2	1.125	2.094	7.0	19.5	11 27	5 13.54	+21 46.9	1.481	2.449	5.7	19.5
12 7	5 2.80	+26 1.1	1.101	2.085	1.8	19.1	12 7	5 2.83	+22 19.4	1.481	2.466	0.7	19.1
12 17	4 51.74	+25 36.5	1.103	2.078	5.2	19.3	12 17	4 52.07	+22 49.0	1.509	2.482	4.3	19.4
12 27	4 42.21	+25 7.3	1.130	2.071	10.8	19.6	12 27	4 42.68	+23 15.8	1.565	2.499	8.9	19.8
1 6	4 35.65	+24 39.0	1.180	2.065	15.8	19.9	1 6	4 35.73	+23 41.0	1.646	2.517	12.9	20.0
1 16	4 32.86	+24 16.0	1.249	2.060	20.0	20.1	1 16	4 31.79	+24 6.0	1.749	2.534	16.2	20.3
<b>515797</b>	2015 <i>LR</i> <sub>39</sub>	12 8.4 120°32	2°0/ 7.8 18				<b>523263</b>	2017 <i>AV</i> <sub>23</sub>	12 8.4 165°75	4°2/ 10.1 17			
11 7	5 28.87	+19 29.6	1.926	2.775	12.7	21.4	11 7	5 28.90	+39 1.8	2.875	3.675	10.3	22.1
11 17	5 21.78	+18 43.7	1.869	2.789	9.1	21.2	11 17	5 21.64	+39 9.4	2.800	3.680	8.1	21.9
11 27	5 12.73	+17 56.4	1.837	2.803	5.1	21.0	11 27	5 12.65	+39 4.9	2.752	3.684	5.8	21.8
12 7	5 2.67	+17 10.1	1.834	2.816	2.0	20.8	12 7	5 2.71	+38 46.6	2.732	3.688	4.3	21.7
12 17	4 52.70	+16 27.5	1.861	2.829	4.5	21.0	12 17	4 52.74	+38 14.7	2.742	3.691	4.7	21.7
12 27	4 43.90	+15 51.9	1.918	2.842	8.3	21.3	12 27	4 43.70	+37 31.4	2.783	3.694	6.6	21.9
1 6	4 37.11	+15 25.4	2.000	2.854	11.7	21.5	1 6	4 36.35	+36 40.8	2.852	3.696	8.9	22.0
1 16	4 32.79	+15 9.1	2.105	2.865	14.6	21.7	1 16	4 31.19	+35 47.2	2.945	3.698	11.0	22.2
<b>444483</b>	2006 <i>QY</i> <sub>118</sub>	12 8.4 71°47	5°3/ 7.3 15				<b>208799</b>	2002 <i>QL</i> <sub>78</sub>	12 8.4 1°41	2°8/ 7.8 18			
11 7	5 28.68	+10 7.8	1.763	2.607	13.9	21.7	11 7	5 25.70	+17 10.6	1.514	2.379	14.7	20.0
11 17	5 21.50	+ 9 15.8	1.730	2.640	10.4	21.6	11 17	5 20.13	+16 43.4	1.451	2.378	10.6	19.8
11 27	5 12.49	+ 8 32.6	1.722	2.673	7.0	21.4	11 27	5 12.11	+16 18.2	1.411	2.377	6.2	19.5
12 7	5 2.63	+ 8 1.5	1.741	2.706	5.3	21.4	12 7	5 2.66	+15 57.0	1.396	2.377	2.8	19.3
12 17	4 53.05	+ 7 44.7	1.789	2.738	6.8	21.6	12 17	4 53.06	+15 42.2	1.410	2.378	5.5	19.5
12 27	4 44.78	+ 7 42.9	1.865	2.770	9.7	21.8	12 27	4 44.69	+15 35.9	1.449	2.379	9.9	19.7
1 6	4 38.57	+ 7 55.1	1.966	2.802	12.7	22.1	1 6	4 38.61	+15 39.2	1.513	2.381	14.0	20.0
1 16	4 34.81	+ 8 19.2	2.088	2.833	15.2	22.3	1 16	4 35.44	+15 52.3	1.596	2.383	17.4	20.2
<b>70569</b>	1999 <i>TU</i> <sub>153</sub>	12 8.4 22°19	3°0/ 7.9 18				<b>294297</b>	2007 <i>VM</i> <sub>4</sub>	12 8.4 13°12	8°9/ 5.9 18			
11 7	5 26.47	+16 17.0	1.450	2.315	15.2	19.3	11 7	5 24.03	+ 5 26.3	1.423	2.277	16.1	20.0
11 17	5 20.71	+15 58.9	1.392	2.318	11.0	19.0	11 17	5 18.87	+ 3 54.7	1.372	2.279	12.8	19.8
11 27	5 12.40	+15 44.6	1.357	2.323	6.4	18.8	11 27	5 11.36	+ 2 36.6	1.344	2.283	9.9	19.7
12 7	5 2.66	+15 35.7	1.347	2.328	3.1	18.6	12 7	5 2.57	+ 1 39.1	1.340	2.287	8.9	19.6
12 17	4 52.81	+15 33.8	1.365	2.333	5.6	18.8	12 17	4 53.73	+ 1 7.5	1.361	2.291	10.4	19.7
12 27	4 44.28	+15 40.3	1.409	2.339	10.1	19.0	12 27	4 46.15	+ 1 3.3	1.406	2.297	13.3	19.9
1 6	4 38.14	+15 55.7	1.477	2.346	14.2	19.3	1 6	4 40.80	+ 1 24.3	1.472	2.303	16.4	20.1
1 16	4 35.00	+16 19.5	1.565	2.352	17.7	19.6	1 16	4 38.24	+ 2 5.9	1.557	2.310	19.2	20.4
<b>239812</b>	1997 <i>PP</i>	12 8.4 97°57	1°8/ 8.9 18				<b>120200</b>	2004 <i>DE</i> <sub>60</sub>	12 8.4 172°64	1°9/ 8.0 18			
11 7	5 31.86	+28 17.3	2.230	3.062	11.8	21.2	11 7	5 30.14	+18 34.4	1.775	2.625	13.6	20.9
11 17	5 23.72	+28 28.3	2.184	3.094	8.5	21.0	11 17	5 23.03	+18 17.4	1.707	2.628	9.8	20.7
11 27	5 13.72	+28 32.2	2.165	3.125	4.9	20.9	11 27	5 13.61	+18 0.7	1.664	2.630	5.5	20.5
12 7	5 2.81	+28 27.9	2.175	3.156	1.9	20.7	12 7	5 2.86	+17 45.4	1.649	2.632	1.9	20.2
12 17	4 52.05	+28 15.8	2.216	3.185	3.6	20.9	12 17	4 51.98	+17 32.7	1.663	2.633	4.6	20.4
12 27	4 42.51	+27 58.2	2.287	3.214	6.9	21.1	12 27	4 42.27	+17 24.9	1.707	2.634	8.9	20.7
1 6	4 34.97	+27 38.2	2.386	3.242	10.0	21.4	1 6	4 34.72	+17 23.3	1.775	2.634	12.7	20.9
1 16	4 29.87	+27 19.0	2.509	3.270	12.5	21.6	1 16	4 29.93	+17 29.2	1.866	2.633	16.0	21.1
<b>158172</b>	2001 <i>QD</i> <sub>239</sub>	12 8.4 19°64	2°1/ 8.1 18				<b>171334</b>	2006 <i>JB</i> <sub>47</sub>	12 8.4 165°21	2°6/ 7.8 18			
11 7	5 25.54	+19 29.8	1.033	1.918	18.2	18.8	11 7	5 27.62	+16 25.9	1.986	2.834	12.4	21.0
11 17	5 20.65	+19 9.0	0.988	1.926	13.1	18.6	11 17	5 21.00	+16 1.0	1.919	2.837	9.0	20.8
11 27	5 12.55	+18 48.8	0.964	1.935	7.3	18.3	11 27	5 12.41	+15 38.0	1.877	2.841	5.3	20.6
12 7	5 2.68	+18 31.3	0.963	1.946	2.2	18.0	12 7	5 2.71	+15 18.4	1.864	2.843	2.6	20.4
12 17	4 52.83	+18 18.7	0.986	1.959	6.0	18.3	12 17	4 52.92	+15 4.0	1.880	2.846	4.7	20.5
12 27	4 44.82	+18 13.9	1.032	1.973	11.5	18.7	12 27	4 44.13	+14 56.5	1.925	2.848	8.4	20.8
1 6	4 39.89	+18 18.4	1.100	1.988	16.4	19.0	1 6	4 37.21	+14 56.9	1.997	2.849	11.8	21.0
1 16	4 38.62	+18 32.2	1.186	2.004	20.4	19.3	1 16	4 32.69	+15 5.4	2.090	2.850	14.7	21.2
<b>249708</b>	2000 <i>OC</i> <sub>47</sub>	12 8.4 76°00	5°7/ 9.8 18				<b>507293</b>	2011 <i>JG</i> <sub>9</sub>	12 8.4 303°77	17°2/ 30.9 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>64372</b>	2001 <i>UQ</i> <sub>113</sub>	12 8.4 209°34	0°1/ 8.4 18				<b>378056</b>	2006 <i>TM</i> <sub>74</sub>	12 8.4 79°93	0°1/ 8.4 18			
11 7	5 29.99	+22 57.2	1.945	2.791	12.7	19.8	11 7	5 36.23	+21 40.9	1.403	2.256	16.3	21.3
11 17	5 22.92	+22 50.9	1.866	2.786	9.2	19.6	11 17	5 27.46	+22 3.0	1.368	2.290	11.6	21.1
11 27	5 13.58	+22 41.3	1.813	2.779	5.1	19.3	11 27	5 15.96	+22 23.0	1.356	2.323	6.3	20.9
12 7	5 2.87	+22 28.0	1.788	2.773	0.6	19.0	12 7	5 3.16	+22 39.0	1.371	2.356	0.8	20.6
12 17	4 51.94	+22 12.0	1.793	2.765	3.9	19.2	12 17	4 50.67	+22 50.5	1.415	2.388	4.6	20.9
12 27	4 42.03	+21 55.4	1.827	2.757	8.2	19.5	12 27	4 40.05	+22 59.3	1.487	2.419	9.4	21.3
1 6	4 34.16	+21 40.9	1.888	2.749	12.0	19.7	1 6	4 32.34	+23 7.9	1.583	2.450	13.5	21.6
1 16	4 28.96	+21 31.0	1.971	2.739	15.2	19.9	1 16	4 28.00	+23 18.5	1.701	2.480	16.8	21.9
<b>97334</b>	1999 <i>XY</i> <sub>256</sub>	12 8.4 255°03	3°1/ 8.9 18				<b>513150</b>	2003 <i>OV</i> <sub>7</sub>	12 8.4 96°45	0°2/ 8.4 18			
11 7	5 27.93	+30 56.4	2.211	3.046	11.8	19.1	11 7	5 30.84	+23 21.9	1.839	2.686	13.3	21.0
11 17	5 21.41	+31 31.7	2.135	3.043	8.8	18.9	11 17	5 23.24	+23 1.9	1.791	2.710	9.4	20.9
11 27	5 12.75	+31 59.5	2.084	3.040	5.6	18.7	11 27	5 13.56	+22 37.7	1.767	2.734	5.1	20.6
12 7	5 2.76	+32 17.5	2.061	3.037	3.2	18.5	12 7	5 2.86	+22 10.1	1.773	2.757	0.7	20.4
12 17	4 52.53	+32 24.3	2.069	3.034	4.4	18.6	12 17	4 52.33	+21 41.0	1.808	2.780	3.9	20.7
12 27	4 43.21	+32 21.0	2.105	3.031	7.5	18.8	12 27	4 43.15	+21 13.2	1.872	2.803	8.0	21.0
1 6	4 35.78	+32 10.8	2.168	3.028	10.7	19.0	1 6	4 36.17	+20 49.7	1.963	2.824	11.6	21.2
1 16	4 30.87	+31 57.2	2.254	3.024	13.5	19.1	1 16	4 31.84	+20 32.7	2.076	2.845	14.5	21.5
<b>414698</b>	2009 <i>WR</i> <sub>163</sub>	12 8.4 71°46	1°1/ 8.7 18				<b>211723</b>	2003 <i>YC</i> <sub>53</sub>	12 8.4 317°67	0°7/ 8.3 18			
11 7	5 26.15	+26 42.6	2.152	2.997	11.7	21.5	11 7	5 26.90	+22 26.8	1.641	2.501	14.0	20.1
11 17	5 19.88	+26 36.6	2.091	3.009	8.4	21.3	11 17	5 20.98	+22 3.6	1.569	2.495	10.1	19.8
11 27	5 11.75	+26 24.7	2.056	3.021	4.7	21.1	11 27	5 12.61	+21 36.5	1.520	2.489	5.6	19.5
12 7	5 2.62	+26 6.9	2.049	3.033	1.3	20.8	12 7	5 2.77	+21 6.5	1.498	2.483	0.9	19.2
12 17	4 53.50	+25 44.0	2.073	3.045	3.4	21.0	12 17	4 52.74	+20 35.6	1.505	2.478	4.4	19.4
12 27	4 45.41	+25 18.5	2.125	3.058	7.0	21.3	12 27	4 43.88	+20 7.2	1.539	2.472	9.1	19.7
1 6	4 39.15	+24 53.3	2.205	3.070	10.3	21.5	1 6	4 37.27	+19 44.4	1.597	2.467	13.2	19.9
1 16	4 35.20	+24 31.0	2.308	3.082	13.1	21.7	1 16	4 33.55	+19 29.5	1.677	2.463	16.7	20.2
<b>384787</b>	2012 <i>PG</i> <sub>37</sub>	12 8.4 65°50	1°7/ 8.7 18 R				<b>197773</b>	2004 <i>PJ</i> <sub>45</sub>	12 8.4 160°51	0°6/ 8.5 18			
11 7	5 32.35	+26 33.5	1.383	2.240	16.2	20.7	11 7	5 30.75	+24 19.5	1.980	2.823	12.6	21.1
11 17	5 24.93	+26 44.8	1.340	2.263	11.7	20.5	11 17	5 23.35	+24 24.8	1.912	2.830	9.1	20.9
11 27	5 14.68	+26 48.4	1.320	2.287	6.6	20.3	11 27	5 13.76	+24 26.0	1.870	2.836	5.0	20.6
12 7	5 2.99	+26 43.0	1.327	2.310	1.9	20.1	12 7	5 2.91	+24 22.3	1.856	2.841	0.9	20.4
12 17	4 51.48	+26 29.1	1.360	2.333	4.7	20.3	12 17	4 51.96	+24 14.0	1.873	2.845	3.7	20.6
12 27	4 41.77	+26 10.2	1.421	2.357	9.5	20.6	12 27	4 42.12	+24 2.9	1.919	2.849	7.8	20.8
1 6	4 34.93	+25 50.7	1.506	2.380	13.7	21.0	1 6	4 34.34	+23 51.9	1.991	2.852	11.4	21.1
1 16	4 31.47	+25 34.5	1.611	2.403	17.1	21.2	1 16	4 29.21	+23 43.5	2.087	2.855	14.5	21.3
<b>162174</b>	1999 <i>JS</i> <sub>11</sub>	12 8.4 289°33	11°7/ 2.4 18				<b>292546</b>	2006 <i>TT</i> <sub>54</sub>	12 8.4 106°21	1°8/ 8.2 18			
11 7	5 28.92	+ 4 33.0	1.345	2.193	17.2	18.9	11 7	5 32.34	+18 8.5	1.535	2.388	15.1	20.6
11 17	5 22.81	+ 1 34.4	1.271	2.170	14.2	18.6	11 17	5 24.70	+18 8.2	1.484	2.406	10.8	20.3
11 27	5 13.81	- 1 19.1	1.221	2.147	12.1	18.4	11 27	5 14.53	+18 9.7	1.457	2.424	6.1	20.1
12 7	5 2.93	- 3 53.3	1.197	2.124	12.0	18.3	12 7	5 3.01	+18 13.1	1.457	2.440	1.9	19.9
12 17	4 51.59	- 5 55.0	1.198	2.101	14.2	18.4	12 17	4 51.53	+18 18.8	1.486	2.457	4.9	20.1
12 27	4 41.43	- 7 15.7	1.223	2.078	17.5	18.5	12 27	4 41.54	+18 28.0	1.543	2.473	9.4	20.4
1 6	4 33.74	- 7 54.7	1.266	2.055	21.0	18.7	1 6	4 34.07	+18 41.9	1.625	2.488	13.4	20.7
1 16	4 29.35	- 7 56.6	1.325	2.032	24.1	18.9	1 16	4 29.67	+19 1.0	1.728	2.503	16.7	21.0
<b>390736</b>	2003 <i>RE</i> <sub>17</sub>	12 8.4 90°26	0°7/ 8.6 18				<b>76692</b>	2000 <i>HY</i> <sub>75</sub>	12 8.4 258°40	6°2/ 6.7 18			
11 7	5 29.73	+25 14.4	1.709	2.561	13.9	20.7	11 7	5 25.08	+ 7 1.3	1.991	2.830	12.8	19.5
11 17	5 22.75	+25 6.0	1.653	2.575	10.0	20.5	11 17	5 19.27	+ 6 9.1	1.916	2.819	10.0	19.3
11 27	5 13.42	+24 51.9	1.622	2.588	5.5	20.3	11 27	5 11.53	+ 5 25.5	1.866	2.808	7.3	19.1
12 7	5 2.84	+24 31.8	1.618	2.602	1.0	20.0	12 7	5 2.64	+ 4 54.5	1.843	2.797	6.2	19.0
12 17	4 52.30	+24 7.3	1.643	2.616	4.0	20.2	12 17	4 53.56	+ 4 39.2	1.847	2.786	7.5	19.1
12 27	4 43.12	+23 41.2	1.696	2.629	8.4	20.5	12 27	4 45.30	+ 4 40.9	1.879	2.774	10.3	19.2
1 6	4 36.27	+23 17.2	1.775	2.642	12.3	20.8	1 6	4 38.75	+ 4 59.2	1.936	2.763	13.2	19.4
1 16	4 32.27	+22 58.1	1.875	2.656	15.4	21.0	1 16	4 34.48	+ 5 31.9	2.014	2.751	15.9	19.6
<b>145192</b>	2005 <i>JO</i> <sub>27</sub>	12 8.4 91°21	2°3/ 8.7 18				<b>455642</b>	2004 <i>XJ</i> <sub>91</sub>	12 8.4 26°13	1°2/ 8.4 18			
11 7	5 31.84	+27 12.2	1.945	2.785	13.0	19.7	11 7	5 28.44	+16 29.6	1.955	2.802	12.6	20.2
11 17	5 24.16	+28 0.0	1.891	2.804	9.4	19.5	11 17	5 21.77	+17 18.1	1.887	2.806	9.1	20.0
11 27	5 14.20	+28 42.2	1.862	2.824	5.5	19.4	11 27	5 12.95	+18 11.8	1.845	2.810	5.1	19.8
12 7	5 2.95	+29 15.7	1.863	2.843	2.4	19.2	12 7	5 2.84	+19 8.7	1.831	2.815	1.4	19.5
12 17	4 51.64	+29 39.0	1.893	2.862	4.2	19.3	12 17	4 52.49	+20 6.6	1.848	2.820	3.9	19.7
12 27	4 41.55	+29 52.9	1.953	2.881	7.9	19.6	12 27	4 43.08	+21 3.8	1.895	2.825	7.9	20.0
1 6	4 33.65	+30 0.2	2.040	2.899	11.3	19.9	1 6	4 35.56	+21 59.7	1.969	2.831	11.5	20.2
1 16	4 28.52	+30 4.2	2.149	2.917	14.1	20.1	1 16	4 30.57	+22 54.0	2.066	2.836	14.5	20.5
<b>450180</b>	2001 <i>TR</i> <sub>260</sub>	12 8.4 143°52	1°3/ 8.7 18				<b>217268</b>	2003 <i>YE</i> <sub>75</sub>	12 8.4 340°51	3°7/ 9.3 18			
11 7	5 28.77	+26 4.6	2.169	3.010	11.8	22.0	11 7	5 29.30	+31 41.4	1.184	2.049	17.9	19.9
11 17	5 21.85	+26 25.2	2.102	3.017	8.5	21.8	11 17	5 23.67	+31 37.3	1.118	2.042	13.4	19.6
11 27	5 12.90	+26 41.4	2.060	3.024	4.8	21.6	11 27	5 14.45	+31 17.3	1.072	2.036	8.3	19.3
12 7	5 2.79	+26 51.5	2.047	3.030	1.5	21.4	12 7	5 3.04	+30 39.0	1.050	2.030	4.0	19.0
12 17	4 52.56	+26 55.2	2.064	3.036	3.6	21.5	12 17	4 51.36	+29 43.8	1.053	2.025	6.0	19.1
12 27	4 43.30	+26 53.8	2.111	3.041	7.2	21.8	12 27	4 41.50	+28 38.2	1.080	2.021	11.2	19.4
1 6	4 35.92	+26 49.6	2.185	3.046	10.6	22.0	1 6	4 34.94	+27 31.2	1.130	2.017	16.2	19.7
1 16	4 30.98	+26 45.3	2.283	3.051	13.4	22.2	1 16	4 32.42	+26 30.5	1.199	2.015	20.4	19.9
<b>224076</b>	2005 <i>NX</i> <sub>60</sub>	12 8.4 57°10	1°8/ 8.8 18				<b>280145</b>	2002 <i>PC</i> <sub>86</sub>	12 8.4 91°13	3°4/ 8.1 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>435439</b>	2008 <i>CD</i> <sub>172</sub>	12	8.4 263°22	1°1/ 8.2 18			<b>404096</b>	2012 <i>FJ</i> <sub>33</sub>	12	8.4 359°22	4°3/ 7.1 18		
11 7	5 29.90	+20 59.9	1.547	2.404	14.8	21.5	11 7	5 23.75	+14 34.9	1.672	2.533	13.7	20.0
11 17	5 23.41	+20 43.3	1.465	2.389	10.7	21.2	11 17	5 18.54	+13 33.6	1.608	2.531	10.1	19.8
11 27	5 14.11	+20 24.3	1.406	2.374	6.0	20.9	11 27	5 11.19	+12 34.9	1.569	2.530	6.4	19.6
12 7	5 3.01	+20 3.4	1.374	2.358	1.3	20.5	12 7	5 2.64	+11 43.2	1.556	2.530	4.3	19.5
12 17	4 51.48	+19 42.3	1.370	2.342	4.9	20.7	12 17	4 54.01	+11 2.4	1.570	2.530	6.3	19.6
12 27	4 41.11	+19 24.0	1.394	2.326	10.0	21.0	12 27	4 46.45	+10 35.4	1.611	2.530	10.0	19.8
1 6	4 33.17	+19 11.5	1.442	2.310	14.5	21.2	1 6	4 40.91	+10 23.6	1.677	2.532	13.5	20.0
1 16	4 28.45	+19 7.1	1.510	2.293	18.4	21.4	1 16	4 37.93	+10 26.1	1.763	2.534	16.6	20.2
<b>255095</b>	2005 <i>UN</i> <sub>50</sub>	12	8.4 15°18	0°7/ 8.2 18			<b>248286</b>	2005 <i>JX</i> <sub>130</sub>	12	8.4 122°02	0°8/ 8.4 18		
11 7	5 25.77	+22 16.0	1.878	2.733	12.7	19.9	11 7	5 29.56	+18 38.8	1.935	2.782	12.7	20.3
11 17	5 19.86	+21 52.1	1.810	2.734	9.1	19.7	11 17	5 22.57	+19 11.3	1.869	2.788	9.1	20.1
11 27	5 11.87	+21 25.0	1.767	2.735	5.0	19.4	11 27	5 13.40	+19 46.1	1.828	2.794	5.1	19.9
12 7	5 2.69	+20 55.6	1.752	2.737	0.9	19.1	12 7	5 2.93	+20 21.9	1.815	2.800	1.0	19.6
12 17	4 53.44	+20 26.0	1.766	2.738	3.9	19.4	12 17	4 52.28	+20 57.2	1.833	2.805	3.9	19.8
12 27	4 45.24	+19 58.9	1.808	2.740	8.1	19.6	12 27	4 42.65	+21 31.7	1.881	2.811	8.0	20.1
1 6	4 39.02	+19 37.0	1.876	2.742	11.8	19.9	1 6	4 34.99	+22 5.7	1.955	2.816	11.6	20.3
1 16	4 35.31	+19 22.1	1.966	2.744	14.9	20.1	1 16	4 29.92	+22 39.9	2.052	2.821	14.6	20.5
<b>316733</b>	1998 <i>ST</i> <sub>120</sub>	12	8.4 65°92	4°7/ 7.3 18			<b>132727</b>	2002 <i>PD</i> <sub>16</sub>	12	8.4 151°09	4°0/ 7.5 18		
11 7	5 24.28	+9 44.1	2.060	2.903	12.2	20.3	11 7	5 23.92	+9 34.5	2.491	3.327	10.6	20.2
11 17	5 18.47	+9 8.9	2.006	2.916	9.2	20.1	11 17	5 18.07	+9 16.9	2.425	3.331	8.0	20.0
11 27	5 10.97	+8 41.4	1.978	2.929	6.3	20.0	11 27	5 10.75	+9 5.9	2.384	3.335	5.4	19.8
12 7	5 2.58	+8 23.9	1.978	2.943	4.7	19.9	12 7	5 2.59	+9 3.1	2.373	3.338	4.0	19.8
12 17	4 54.20	+8 18.3	2.006	2.956	6.1	20.0	12 17	4 54.35	+9 9.7	2.391	3.341	5.2	19.8
12 27	4 46.76	+8 25.2	2.063	2.970	8.8	20.2	12 27	4 46.84	+9 25.8	2.438	3.345	7.7	20.0
1 6	4 40.99	+8 44.0	2.144	2.983	11.6	20.4	1 6	4 40.71	+9 51.0	2.512	3.347	10.3	20.2
1 16	4 37.35	+9 12.9	2.248	2.997	14.1	20.6	1 16	4 36.43	+10 24.1	2.610	3.350	12.6	20.4
<b>453703</b>	2010 <i>XA</i> <sub>38</sub>	12	8.4 255°13	1°3/ 8.3 17			<b>166323</b>	2002 <i>JZ</i> <sub>76</sub>	12	8.4 151°09	1°6/ 8.8 18		
11 7	5 26.51	+17 26.3	2.203	3.049	11.4	20.9	11 7	5 30.52	+27 41.5	2.266	3.100	11.6	21.4
11 17	5 20.24	+17 47.3	2.127	3.045	8.2	20.7	11 17	5 23.01	+27 52.0	2.199	3.111	8.4	21.3
11 27	5 12.06	+18 11.1	2.076	3.042	4.6	20.5	11 27	5 13.53	+27 56.3	2.158	3.120	4.9	21.1
12 7	5 2.74	+18 37.3	2.054	3.038	1.4	20.3	12 7	5 2.94	+27 53.1	2.147	3.129	1.8	20.9
12 17	4 53.18	+19 5.3	2.063	3.034	3.7	20.4	12 17	4 52.30	+27 42.5	2.166	3.137	3.6	21.0
12 27	4 44.42	+19 34.8	2.102	3.030	7.4	20.7	12 27	4 42.68	+27 26.5	2.216	3.144	7.0	21.2
1 6	4 37.31	+20 6.0	2.167	3.026	10.7	20.9	1 6	4 34.94	+27 8.0	2.294	3.151	10.3	21.5
1 16	4 32.43	+20 39.2	2.257	3.022	13.6	21.1	1 16	4 29.62	+26 50.1	2.395	3.157	13.0	21.7
<b>517333</b>	2014 <i>JW</i> <sub>50</sub>	12	8.4 199°44	5°3/ 7.6 18			<b>180836</b>	2005 <i>GG</i> <sub>68</sub>	12	8.4 54°76	2°6/ 8.8 18		
11 7	5 27.34	+7 2.7	2.120	2.951	12.4	21.7	11 7	5 32.48	+27 48.5	1.196	2.060	17.8	19.5
11 17	5 20.76	+6 44.2	2.048	2.948	9.5	21.5	11 17	5 25.53	+28 11.3	1.150	2.076	12.9	19.2
11 27	5 12.31	+6 35.5	2.001	2.945	6.8	21.4	11 27	5 15.26	+28 24.8	1.126	2.092	7.5	19.0
12 7	5 2.77	+6 38.7	1.982	2.941	5.3	21.3	12 7	5 3.17	+28 26.1	1.126	2.109	2.9	18.8
12 17	4 53.06	+6 55.0	1.992	2.937	6.5	21.3	12 17	4 51.15	+28 15.1	1.153	2.125	5.5	19.0
12 27	4 44.20	+7 24.5	2.031	2.932	9.3	21.5	12 27	4 41.11	+27 55.6	1.205	2.143	10.5	19.3
1 6	4 37.00	+8 5.8	2.095	2.926	12.2	21.7	1 6	4 34.34	+27 33.5	1.279	2.160	15.1	19.6
1 16	4 32.03	+8 56.5	2.183	2.920	14.8	21.8	1 16	4 31.39	+27 13.6	1.374	2.178	18.9	19.9
<b>442267</b>	2011 <i>QD</i> <sub>40</sub>	12	8.4 124°41	0°3/ 8.4 15			<b>283819</b>	2003 <i>SE</i> <sub>303</sub>	12	8.4 49°81	1°5/ 8.1 13 C		
11 7	5 30.09	+22 58.0	2.145	2.986	11.9	22.7	11 7	5 29.68	+21 18.6	1.342	2.207	16.1	20.7
11 17	5 22.57	+22 42.1	2.088	3.005	8.5	22.5	11 17	5 22.84	+20 41.2	1.306	2.234	11.4	20.5
11 27	5 13.20	+22 22.8	2.057	3.023	4.6	22.3	11 27	5 13.47	+20 1.7	1.293	2.262	6.3	20.3
12 7	5 2.87	+22 0.4	2.056	3.041	0.6	22.0	12 7	5 2.92	+19 22.2	1.306	2.290	1.6	20.1
12 17	4 52.62	+21 36.5	2.086	3.058	3.5	22.3	12 17	4 52.68	+18 46.2	1.346	2.318	5.0	20.4
12 27	4 43.48	+21 13.3	2.146	3.074	7.2	22.5	12 27	4 44.18	+18 17.1	1.412	2.346	9.7	20.7
1 6	4 36.25	+20 53.3	2.233	3.090	10.5	22.8	1 6	4 38.36	+17 57.6	1.503	2.375	13.8	21.1
1 16	4 31.40	+20 38.4	2.344	3.104	13.3	23.0	1 16	4 35.63	+17 48.4	1.614	2.404	17.1	21.4
<b>83005</b>	2001 <i>QX</i> <sub>161</sub>	12	8.4 66°84	2°7/ 7.9 18			<b>76340</b>	2000 <i>EH</i> <sub>155</sub>	12	8.4 240°79	3°6/ 7.1 18		
11 7	5 26.71	+15 38.4	1.803	2.656	13.2	19.7	11 7	5 23.29	+12 33.2	2.564	3.405	10.2	19.7
11 17	5 20.52	+15 30.4	1.742	2.663	9.6	19.5	11 17	5 17.66	+11 45.1	2.485	3.396	7.6	19.5
11 27	5 12.23	+15 25.8	1.706	2.670	5.6	19.2	11 27	5 10.55	+11 0.0	2.432	3.386	5.0	19.3
12 7	5 2.76	+15 26.1	1.697	2.677	2.7	19.1	12 7	5 2.57	+10 20.4	2.408	3.377	3.6	19.2
12 17	4 53.21	+15 31.9	1.717	2.684	4.9	19.2	12 17	4 54.48	+9 48.7	2.415	3.367	5.0	19.3
12 27	4 44.74	+15 44.2	1.765	2.692	8.7	19.5	12 27	4 47.05	+9 26.8	2.451	3.357	7.6	19.4
1 6	4 38.25	+16 3.2	1.839	2.699	12.3	19.7	1 6	4 40.96	+9 15.6	2.513	3.347	10.3	19.6
1 16	4 34.31	+16 28.5	1.934	2.706	15.3	19.9	1 16	4 36.68	+9 14.9	2.599	3.337	12.7	19.7
<b>494633</b>	2017 <i>CP</i> <sub>29</sub>	12	8.4 295°27	3°8/ 7.4 17			<b>510760</b>	2012 <i>XQ</i> <sub>152</sub>	12	8.4 187°16	1°2/ 8.6 18		
11 7	5 25.29	+14 15.7	1.799	2.654	13.2	21.9	11 7	5 30.58	+24 40.7	2.138	2.978	12.0	21.0
11 17	5 19.72	+13 37.3	1.716	2.636	9.8	21.6	11 17	5 23.29	+25 15.2	2.062	2.978	8.7	20.8
11 27	5 11.93	+13 2.0	1.658	2.619	6.1	21.4	11 27	5 13.82	+25 46.9	2.013	2.977	4.9	20.6
12 7	5 2.75	+12 32.5	1.626	2.602	3.9	21.2	12 7	5 3.00	+26 13.7	1.992	2.976	1.3	20.3
12 17	4 53.26	+12 11.9	1.623	2.584	5.9	21.3	12 17	4 51.93	+26 34.3	2.002	2.974	3.7	20.5
12 27	4 44.67	+12 2.3	1.647	2.567	9.7	21.5	12 27	4 41.78	+26 49.2	2.043	2.972	7.5	20.8
1 6	4 37.98	+12 4.8	1.696	2.550	13.5	21.7	1 6	4 33.53	+27 0.2	2.110	2.969	11.0	21.0
1 16	4 33.87	+12 19.1	1.765	2.533	16.7	21.8	1 16	4 27.82	+27 9.6	2.201	2.966	13.9	21.2
<b>330913</b>	2009 <i>SX</i> <sub>92</sub>	12	8.4 96°09	0°1/ 8.4 18			<b>311805</b>	2006 <i>UF</i> <sub>149</sub>	12	8.4 2°51	0°7/ 8.6 18		
11													

EPHEMERIDES

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12 8.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>401377</b>	2013 <i>CN</i> <sub>5</sub>	12 8.4	3°48'	2.1°/ 9.0	18		<b>291543</b>	2006 <i>EW</i> <sub>49</sub>	12 8.5	60°09'	0.9°/ 8.3	18	
11 7	5 28.63	+29 36.4	1.622	2.473	14.6	20.4	11 7	5 25.35	+20 12.0	2.119	2.970	11.6	20.8
11 17	5 22.31	+29 20.4	1.554	2.473	10.7	20.2	11 17	5 19.39	+20 11.2	2.054	2.976	8.3	20.6
11 27	5 13.37	+28 53.5	1.509	2.473	6.3	19.9	11 27	5 11.59	+20 10.0	2.014	2.981	4.6	20.4
12 7	5 2.95	+28 15.1	1.491	2.473	2.4	19.7	12 7	5 2.75	+20 8.8	2.003	2.987	1.0	20.1
12 17	4 52.43	+27 27.0	1.501	2.474	4.5	19.8	12 17	4 53.82	+20 7.9	2.022	2.994	3.6	20.4
12 27	4 43.29	+26 33.8	1.539	2.475	8.9	20.1	12 27	4 45.81	+20 8.7	2.069	3.000	7.3	20.6
1 6	4 36.63	+25 41.3	1.602	2.476	13.0	20.4	1 6	4 39.53	+20 12.3	2.143	3.006	10.7	20.8
1 16	4 33.04	+24 54.3	1.686	2.477	16.5	20.6	1 16	4 35.50	+20 19.8	2.241	3.012	13.5	21.0
<b>376303</b>	2011 <i>FK</i> <sub>148</sub>	12 8.4	229°76'	11°2'/ 2.9	17		<b>233066</b>	2005 <i>GT</i> <sub>208</sub>	12 8.5	329°82'	2°5'/ 8.2	18	
11 7	5 22.31	-15 10.0	2.612	3.345	13.0	21.2	11 7	5 25.71	+13 25.5	2.206	3.049	11.5	19.8
11 17	5 16.94	-16 42.3	2.562	3.342	11.9	21.1	11 17	5 19.66	+13 46.8	2.130	3.045	8.4	19.6
11 27	5 10.14	-17 54.5	2.535	3.339	11.3	21.0	11 27	5 11.78	+14 14.3	2.081	3.042	5.1	19.4
12 7	5 2.53	-18 41.7	2.532	3.335	11.2	21.0	12 7	5 2.78	+14 47.8	2.060	3.038	2.6	19.3
12 17	4 54.83	-19 1.2	2.551	3.332	11.8	21.1	12 17	4 53.58	+15 26.7	2.069	3.035	4.3	19.4
12 27	4 47.78	-18 52.7	2.592	3.329	12.7	21.1	12 27	4 45.13	+16 10.3	2.108	3.032	7.6	19.6
1 6	4 42.05	-18 18.9	2.653	3.325	13.9	21.2	1 6	4 38.28	+16 57.7	2.174	3.029	10.9	19.8
1 16	4 38.08	-17 24.0	2.730	3.322	15.0	21.3	1 16	4 33.58	+17 48.0	2.264	3.026	13.6	20.0
<b>119329</b>	2001 <i>SV</i> <sub>135</sub>	12 8.4	275°73'	0°6'/ 8.6	18	0	<b>452009</b>	2014 <i>OO</i> <sub>88</sub>	12 8.5	50°59'	3°5'/ 7.7	17	
11 7	5 29.52	+24 33.6	1.575	2.431	14.6	20.0	11 7	5 25.50	+14 3.2	1.825	2.678	13.1	21.0
11 17	5 23.19	+24 32.7	1.493	2.417	10.7	19.8	11 17	5 19.62	+13 37.8	1.766	2.686	9.6	20.8
11 27	5 14.03	+24 26.7	1.435	2.403	6.0	19.5	11 27	5 11.75	+13 17.1	1.732	2.693	5.9	20.6
12 7	5 3.06	+24 14.8	1.404	2.389	1.0	19.1	12 7	5 2.77	+13 3.0	1.725	2.701	3.5	20.5
12 17	4 51.68	+23 57.4	1.400	2.374	4.5	19.3	12 17	4 53.75	+12 57.4	1.747	2.710	5.4	20.6
12 27	4 41.47	+23 37.3	1.425	2.360	9.5	19.6	12 27	4 45.78	+13 1.2	1.796	2.718	8.9	20.8
1 6	4 33.71	+23 18.4	1.473	2.345	14.0	19.8	1 6	4 39.72	+13 14.6	1.871	2.726	12.3	21.1
1 16	4 29.19	+23 4.0	1.543	2.331	17.9	20.0	1 16	4 36.10	+13 36.8	1.967	2.735	15.2	21.3
<b>197435</b>	2003 <i>YS</i> <sub>81</sub>	12 8.4	216°10'	1°9'/ 9.1	18		<b>66514</b>	1999 <i>RS</i> <sub>94</sub>	12 8.5	81°62'	0°2'/ 8.5	18	
11 7	5 25.56	+29 55.7	2.516	3.350	10.6	20.0	11 7	5 26.70	+23 21.6	2.063	2.911	12.0	19.0
11 17	5 19.42	+29 48.9	2.438	3.348	7.7	19.8	11 17	5 20.40	+23 24.7	2.000	2.920	8.6	18.8
11 27	5 11.56	+29 34.5	2.386	3.346	4.6	19.6	11 27	5 12.15	+23 25.0	1.963	2.930	4.7	18.6
12 7	5 2.73	+29 12.1	2.364	3.344	2.0	19.4	12 7	5 2.82	+23 22.0	1.954	2.939	0.7	18.3
12 17	4 53.80	+28 42.3	2.371	3.341	3.4	19.5	12 17	4 53.43	+23 16.2	1.975	2.948	3.5	18.6
12 27	4 45.71	+28 7.6	2.409	3.339	6.5	19.7	12 27	4 45.05	+23 9.2	2.025	2.957	7.3	18.8
1 6	4 39.23	+27 31.0	2.475	3.336	9.5	19.9	1 6	4 38.53	+23 3.1	2.102	2.966	10.8	19.1
1 16	4 34.86	+26 55.8	2.564	3.334	12.0	20.1	1 16	4 34.38	+22 59.8	2.201	2.975	13.6	19.3
<b>30631</b>	6026 <i>P-L</i>	12 8.4	136°67'	3°8'/ 7.4	18		<b>2187</b>	La Silla	12 8.5	69°62'	7°6'/ 7.7	18	
11 7	5 26.08	+12 54.0	2.151	2.994	11.8	20.4	11 7	5 27.67	+ 3 53.5	1.590	2.428	15.5	17.1
11 17	5 19.76	+12 13.8	2.090	3.003	8.7	20.2	11 17	5 21.28	+ 3 24.1	1.541	2.440	12.2	16.9
11 27	5 11.72	+11 37.9	2.054	3.011	5.6	20.0	11 27	5 12.68	+ 3 10.6	1.515	2.453	9.1	16.8
12 7	5 2.75	+11 8.7	2.047	3.018	3.8	19.9	12 7	5 2.89	+ 3 16.5	1.514	2.465	7.6	16.7
12 17	4 53.76	+10 48.4	2.069	3.026	5.3	20.0	12 17	4 53.11	+ 3 42.9	1.540	2.478	8.8	16.8
12 27	4 45.69	+10 38.5	2.121	3.033	8.3	20.2	12 27	4 44.56	+ 4 28.6	1.592	2.490	11.5	17.0
1 6	4 39.28	+10 39.3	2.199	3.039	11.3	20.4	1 6	4 38.17	+ 5 29.9	1.668	2.503	14.6	17.2
1 16	4 35.03	+10 50.3	2.298	3.046	13.9	20.6	1 16	4 34.48	+ 6 42.4	1.764	2.516	17.3	17.4
<b>436578</b>	2011 <i>HY</i> <sub>91</sub>	12 8.4	136°64'	1°4'/ 8.1	15		<b>38505</b>	1999 <i>TU</i> <sub>190</sub>	12 8.5	133°99'	3°9'/ 9.8	18	
11 7	5 30.13	+19 18.7	1.957	2.802	12.7	22.8	11 7	5 29.06	+35 53.7	2.356	3.175	11.7	18.9
11 17	5 22.81	+19 6.2	1.897	2.815	9.1	22.6	11 17	5 22.06	+36 2.1	2.287	3.182	8.9	18.7
11 27	5 13.44	+18 53.4	1.862	2.828	5.1	22.4	11 27	5 13.06	+35 58.6	2.244	3.189	6.1	18.5
12 7	5 2.97	+18 41.0	1.856	2.840	1.5	22.2	12 7	5 2.95	+35 41.5	2.228	3.195	4.0	18.4
12 17	4 52.50	+18 30.1	1.881	2.851	4.1	22.4	12 17	4 52.80	+35 10.9	2.243	3.202	4.7	18.5
12 27	4 43.15	+18 22.6	1.934	2.861	8.0	22.7	12 27	4 43.73	+34 29.6	2.287	3.208	7.3	18.7
1 6	4 35.80	+18 19.8	2.015	2.871	11.5	22.9	1 6	4 36.60	+33 42.1	2.357	3.213	10.1	18.8
1 16	4 30.98	+18 23.0	2.118	2.880	14.5	23.1	1 16	4 31.93	+32 53.1	2.452	3.219	12.6	19.0
<b>415239</b>	2012 <i>JW</i> <sub>16</sub>	12 8.4	52°80'	3°3'/ 8.8	17		<b>207780</b>	2007 <i>TO</i> <sub>86</sub>	12 8.5	161°47'	1°3'/ 8.2	18	
11 7	5 28.97	+30 23.1	2.085	2.922	12.3	20.6	11 7	5 28.02	+19 26.8	1.960	2.809	12.5	20.5
11 17	5 22.25	+31 15.4	2.021	2.930	9.2	20.4	11 17	5 21.42	+19 17.5	1.892	2.812	9.0	20.3
11 27	5 13.28	+32 0.7	1.982	2.938	5.8	20.2	11 27	5 12.76	+19 8.2	1.849	2.815	5.0	20.1
12 7	5 2.97	+32 35.7	1.971	2.946	3.4	20.0	12 7	5 2.92	+18 59.3	1.834	2.818	1.4	19.9
12 17	4 52.44	+32 58.5	1.989	2.954	4.6	20.1	12 17	4 52.96	+18 51.7	1.849	2.820	4.0	20.1
12 27	4 42.94	+33 9.9	2.037	2.962	7.8	20.4	12 27	4 44.02	+18 47.2	1.894	2.822	8.0	20.3
1 6	4 35.45	+33 12.6	2.111	2.970	11.0	20.6	1 6	4 37.00	+18 47.1	1.964	2.824	11.6	20.5
1 16	4 30.61	+33 10.4	2.208	2.979	13.7	20.8	1 16	4 32.47	+18 52.6	2.057	2.825	14.6	20.7
<b>343973</b>	2011 <i>LA</i> <sub>15</sub>	12 8.4	246°90'	4°2'/ 7.5	18		<b>113144</b>	2002 <i>RZ</i> <sub>92</sub>	12 8.5	39°42'	3°1'/ 9.2	17	
11 7	5 27.77	+13 59.1	1.610	2.466	14.4	21.0	11 7	5 26.88	+31 27.2	1.964	2.805	12.8	18.8
11 17	5 21.57	+13 20.3	1.542	2.462	10.6	20.8	11 17	5 20.71	+31 42.6	1.906	2.818	9.5	18.6
11 27	5 12.96	+12 45.7	1.497	2.458	6.7	20.5	11 27	5 12.38	+31 48.4	1.873	2.831	5.9	18.4
12 7	5 2.93	+12 18.5	1.478	2.454	4.2	20.4	12 7	5 2.87	+31 43.0	1.867	2.844	3.2	18.2
12 17	4 52.71	+12 1.3	1.488	2.449	6.3	20.5	12 17	4 53.34	+31 26.6	1.890	2.858	4.4	18.4
12 27	4 43.63	+11 56.5	1.524	2.445	10.3	20.7	12 27	4 44.98	+31 1.8	1.942	2.872	7.7	18.6
1 6	4 36.74	+12 4.3	1.585	2.440	14.2	20.9	1 6	4 38.71	+30 32.5	2.019	2.886	11.0	18.8
1 16	4 32.69	+12 24.2	1.666	2.436	17.5	21.2	1 16	4 35.06	+30 2.9	2.119	2.901	13.8	19.0
<b>158335</b>	2001 <i>WM</i> <sub>34</sub>	12 8.4	10°06'	4°4'/ 7.7	18		<b>201774</b>	2003 <i>WV</i> <sub>85</sub>	12 8.5	66°35'	2°3'/ 8.8	18	

EPHEMERIDES

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12 8.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>400075</b>	2006 <i>SD</i> <sub>228</sub>	12	8.5 125°73	1.6°/ 8.0	18		<b>115889</b>	2003 <i>VC</i> <sub>2</sub>	12	8.5 31°59	5.5°/ 9.9	18	
11 7	5 27.58	+19 23.0	2.098	2.945	11.9	21.9	11 7	5 28.68	+37 5.4	1.736	2.568	14.6	19.2
11 17	5 20.89	+18 55.7	2.037	2.957	8.5	21.7	11 17	5 22.35	+37 30.8	1.683	2.583	11.3	19.0
11 27	5 12.37	+18 27.6	2.002	2.968	4.8	21.5	11 27	5 13.43	+37 40.7	1.654	2.599	7.9	18.8
12 7	5 2.88	+18 0.3	1.996	2.979	1.6	21.3	12 7	5 3.10	+37 32.1	1.651	2.615	5.6	18.7
12 17	4 53.39	+17 35.4	2.020	2.990	4.0	21.5	12 17	4 52.81	+37 5.1	1.674	2.631	6.3	18.8
12 27	4 44.92	+17 15.1	2.074	3.000	7.6	21.7	12 27	4 43.99	+36 23.3	1.725	2.649	9.1	19.0
1 6	4 38.27	+17 1.2	2.154	3.010	10.9	21.9	1 6	4 37.71	+35 33.1	1.801	2.666	12.2	19.2
1 16	4 33.90	+16 54.6	2.257	3.019	13.7	22.2	1 16	4 34.50	+34 40.7	1.898	2.685	15.0	19.5
<b>101314</b>	1998 <i>SD</i> <sub>142</sub>	12	8.5 42°28	0.9°/ 8.5	18		<b>491618</b>	2012 <i>TJ</i> <sub>76</sub>	12	8.5 123°56	1.2°/ 8.2	18	
11 7	5 30.74	+23 26.0	1.315	2.179	16.5	19.5	11 7	5 30.45	+21 7.8	1.772	2.622	13.6	21.6
11 17	5 24.22	+23 57.1	1.259	2.186	11.9	19.2	11 17	5 23.21	+20 37.5	1.714	2.635	9.7	21.4
11 27	5 14.62	+24 25.7	1.225	2.194	6.6	18.9	11 27	5 13.78	+20 4.7	1.680	2.647	5.4	21.2
12 7	5 3.19	+24 49.1	1.217	2.202	1.3	18.6	12 7	5 3.16	+19 30.7	1.675	2.659	1.3	20.9
12 17	4 51.59	+25 6.1	1.236	2.210	4.9	18.9	12 17	4 52.59	+18 57.9	1.700	2.671	4.3	21.2
12 27	4 41.59	+25 17.6	1.281	2.219	10.1	19.2	12 27	4 43.30	+18 29.4	1.753	2.682	8.5	21.4
1 6	4 34.47	+25 26.8	1.350	2.228	14.7	19.5	1 6	4 36.21	+18 7.7	1.832	2.693	12.3	21.7
1 16	4 30.92	+25 36.4	1.438	2.237	18.4	19.8	1 16	4 31.85	+17 54.5	1.933	2.703	15.4	21.9
<b>164352</b>	2005 <i>CW</i> <sub>57</sub>	12	8.5 86°74	6.3°/10.5	18		<b>442309</b>	2011 <i>SC</i> <sub>73</sub>	12	8.5 130°01	4.4°/ 9.6	18	
11 7	5 34.67	+40 7.4	1.780	2.594	15.1	19.6	11 7	5 32.67	+35 12.6	2.017	2.840	13.2	22.0
11 17	5 26.55	+40 28.0	1.727	2.613	11.9	19.4	11 17	5 24.94	+35 35.5	1.955	2.852	10.1	21.8
11 27	5 15.66	+40 29.9	1.697	2.631	8.7	19.2	11 27	5 14.79	+35 45.6	1.916	2.863	6.8	21.6
12 7	5 3.31	+40 9.4	1.694	2.649	6.5	19.2	12 7	5 3.31	+35 40.1	1.906	2.874	4.5	21.5
12 17	4 51.11	+39 26.9	1.718	2.667	6.9	19.2	12 17	4 51.77	+35 18.7	1.925	2.884	5.3	21.6
12 27	4 40.64	+38 27.2	1.770	2.685	9.4	19.4	12 27	4 41.55	+34 44.5	1.973	2.894	8.2	21.8
1 6	4 33.00	+37 18.2	1.847	2.703	12.4	19.6	1 6	4 33.65	+34 2.7	2.047	2.903	11.4	22.0
1 16	4 28.69	+36 7.5	1.946	2.720	15.2	19.9	1 16	4 28.65	+33 18.7	2.144	2.912	14.1	22.2
<b>436782</b>	2012 <i>PU</i> <sub>2</sub>	12	8.5 152°63	1.2°/ 8.7	18		<b>82242</b>	2001 <i>JO</i> <sub>8</sub>	12	8.5 238°12	0.1°/ 8.5	18	
11 7	5 31.35	+26 34.4	1.712	2.560	14.1	21.9	11 7	5 30.58	+24 4.0	1.600	2.455	14.6	20.4
11 17	5 24.11	+26 28.5	1.646	2.565	10.2	21.7	11 17	5 23.83	+23 43.6	1.524	2.447	10.5	20.1
11 27	5 14.36	+26 15.4	1.605	2.570	5.8	21.4	11 27	5 14.37	+23 17.3	1.472	2.439	5.9	19.8
12 7	5 3.17	+25 54.4	1.591	2.574	1.4	21.2	12 7	5 3.27	+22 45.4	1.446	2.431	0.8	19.5
12 17	4 51.91	+25 26.6	1.606	2.579	4.2	21.4	12 17	4 51.91	+22 9.9	1.449	2.422	4.4	19.7
12 27	4 41.96	+24 55.3	1.649	2.582	8.6	21.6	12 27	4 41.80	+21 34.4	1.480	2.414	9.4	20.0
1 6	4 34.42	+24 24.7	1.718	2.585	12.6	21.9	1 6	4 34.13	+21 3.2	1.536	2.404	13.8	20.2
1 16	4 29.87	+23 58.6	1.809	2.588	16.0	22.1	1 16	4 29.61	+20 39.6	1.612	2.395	17.4	20.5
<b>293090</b>	2006 <i>WD</i> <sub>198</sub>	12	8.5 252°46	3.2°/ 9.3	18		<b>193065</b>	2000 <i>GB</i> <sub>12</sub>	12	8.5 289°83	2.0°/ 7.9	18	
11 7	5 32.20	+31 50.3	1.689	2.529	14.6	21.3	11 7	5 24.06	+17 43.0	2.231	3.081	11.2	20.2
11 17	5 25.11	+31 47.7	1.604	2.516	10.9	21.0	11 17	5 18.51	+17 17.9	2.151	3.071	8.1	20.0
11 27	5 15.12	+31 32.4	1.543	2.502	6.8	20.7	11 27	5 11.21	+16 53.3	2.097	3.062	4.7	19.7
12 7	5 3.31	+31 2.1	1.509	2.487	3.4	20.5	12 7	5 2.85	+16 30.6	2.072	3.053	2.0	19.5
12 17	4 51.16	+30 17.2	1.503	2.473	5.0	20.6	12 17	4 54.32	+16 11.5	2.076	3.043	4.1	19.7
12 27	4 40.30	+29 22.0	1.526	2.458	9.3	20.8	12 27	4 46.57	+15 57.9	2.109	3.034	7.6	19.9
1 6	4 32.01	+28 22.9	1.574	2.442	13.5	21.0	1 6	4 40.38	+15 51.0	2.169	3.025	10.8	20.1
1 16	4 27.04	+27 26.5	1.643	2.426	17.1	21.2	1 16	4 36.31	+15 51.6	2.251	3.016	13.6	20.2
<b>296473</b>	2009 <i>HX</i> <sub>95</sub>	12	8.5 133°64	1.8°/ 8.0	18		<b>226013</b>	2002 <i>ER</i> <sub>61</sub>	12	8.5 358°71	4.9°/ 7.1	18	
11 7	5 27.09	+18 28.5	2.154	3.000	11.6	21.8	11 7	5 24.36	+10 8.6	2.023	2.868	12.3	20.3
11 17	5 20.55	+18 6.1	2.090	3.009	8.4	21.6	11 17	5 18.74	+9 22.0	1.957	2.868	9.3	20.1
11 27	5 12.22	+17 43.8	2.053	3.018	4.7	21.4	11 27	5 11.31	+8 41.9	1.917	2.868	6.4	19.9
12 7	5 2.91	+17 22.9	2.045	3.027	1.8	21.2	12 7	5 2.86	+8 11.6	1.903	2.868	4.9	19.8
12 17	4 53.58	+17 4.9	2.067	3.036	4.0	21.4	12 17	4 54.32	+7 53.6	1.919	2.868	6.4	19.9
12 27	4 45.20	+16 51.7	2.119	3.044	7.5	21.6	12 27	4 46.65	+7 49.4	1.962	2.868	9.2	20.1
1 6	4 38.57	+16 44.6	2.197	3.051	10.8	21.8	1 6	4 40.67	+7 58.8	2.030	2.868	12.2	20.3
1 16	4 34.17	+16 44.2	2.298	3.059	13.5	22.0	1 16	4 36.89	+8 20.4	2.119	2.868	14.9	20.4
<b>150397</b>	2000 <i>EH</i> <sub>40</sub>	12	8.5 278°46	2.7°/ 7.9	18		<b>285938</b>	2001 <i>QM</i> <sub>323</sub>	12	8.5 26°50	2.7°/ 9.1	18	
11 7	5 28.90	+17 31.3	1.585	2.442	14.5	20.5	11 7	5 29.72	+30 1.0	1.276	2.139	17.0	19.9
11 17	5 22.75	+17 5.2	1.496	2.420	10.6	20.2	11 17	5 23.59	+29 51.7	1.220	2.144	12.5	19.6
11 27	5 13.87	+16 39.7	1.431	2.397	6.2	19.9	11 27	5 14.31	+29 29.3	1.186	2.150	7.4	19.4
12 7	5 3.17	+16 16.5	1.393	2.374	2.7	19.6	12 7	5 3.26	+28 52.9	1.176	2.157	3.0	19.1
12 17	4 51.97	+15 58.1	1.382	2.351	5.5	19.7	12 17	4 52.19	+28 4.7	1.192	2.165	5.2	19.3
12 27	4 41.75	+15 47.2	1.399	2.328	10.3	19.9	12 27	4 42.90	+27 10.2	1.234	2.173	10.2	19.6
1 6	4 33.80	+15 45.7	1.440	2.304	14.8	20.1	1 6	4 36.64	+26 16.8	1.299	2.182	14.8	19.9
1 16	4 28.94	+15 54.7	1.502	2.280	18.7	20.3	1 16	4 34.01	+25 29.9	1.384	2.191	18.6	20.2
<b>506174</b>	2016 <i>FH</i> <sub>61</sub>	12	8.5 234°94	11.1°/ 4.1	17		<b>266668</b>	2008 <i>WO</i> <sub>136</sub>	12	8.5 75°24	2.6°/ 8.9	18	
11 7	5 31.88	+ 7 38.7	1.144	2.003	18.8	21.0	11 7	5 31.09	+28 24.9	1.598	2.447	14.8	20.0
11 17	5 25.07	+ 4 44.5	1.088	1.999	15.0	20.7	11 17	5 24.15	+28 50.3	1.540	2.458	10.8	19.8
11 27	5 15.11	+ 1 57.3	1.055	1.995	11.9	20.5	11 27	5 14.49	+29 7.8	1.505	2.468	6.4	19.5
12 7	5 3.33	+ 0 27.8	1.047	1.991	11.2	20.5	12 7	5 3.29	+29 14.8	1.497	2.478	2.7	19.3
12 17	4 51.43	+ 2 17.9	1.064	1.986	13.5	20.6	12 17	4 51.99	+29 10.7	1.518	2.489	4.7	19.5
12 27	4 41.19	+ 3 25.9	1.104	1.982	17.2	20.8	12 27	4 42.13	+28 57.9	1.566	2.499	9.0	19.8
1 6	4 33.91	+ 3 52.7	1.162	1.977	20.9	21.0	1 6	4 34.84	+28 40.8	1.639	2.509	12.9	20.0
1 16	4 30.25	+ 3 44.4	1.236	1.972	24.1	21.3	1 16	4 30.74	+28 23.8	1.733	2.520	16.2	20.3
<b>468452</b>	2003 <i>SD</i> <sub>170</sub>	12	8.5 135°27	1.4°/ 8.9	16 C		<b>440744</b>	2006 <i>BS</i> <sub>228</sub>	12	8.5 21			

EPHEMERIDES

12 8.5

12 8.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>427821</b>	2005 <i>JG</i> <sub>55</sub>	12 8.5 184°77	1.7/ 8.2	18			<b>309623</b>	2008 <i>CM</i> <sub>71</sub>	12 8.5 215°37	2.2/ 8.2	18		
11 7	5 31.52	+18 3.5	1.775	2.622	13.7	21.7	11 7	5 27.71	+15 30.2	1.990	2.837	12.4	20.1
11 17	5 24.21	+18 5.7	1.704	2.623	9.9	21.5	11 17	5 21.30	+15 41.2	1.917	2.835	9.0	19.9
11 27	5 14.48	+18 9.7	1.657	2.623	5.6	21.2	11 27	5 12.83	+15 56.6	1.869	2.833	5.3	19.7
12 7	5 3.31	+18 15.5	1.639	2.622	1.8	21.0	12 7	5 3.13	+16 16.5	1.850	2.831	2.3	19.5
12 17	4 51.92	+18 23.3	1.650	2.621	4.5	21.2	12 17	4 53.20	+16 40.6	1.860	2.829	4.4	19.6
12 27	4 41.64	+18 34.1	1.690	2.619	8.9	21.4	12 27	4 44.17	+17 9.0	1.900	2.826	8.2	19.8
1 6	4 33.54	+18 48.9	1.757	2.616	12.8	21.7	1 6	4 36.96	+17 41.4	1.966	2.824	11.7	20.0
1 16	4 28.26	+19 8.5	1.845	2.612	16.1	21.9	1 16	4 32.18	+18 17.7	2.054	2.821	14.7	20.2
<b>174260</b>	2002 <i>RR</i> <sub>224</sub>	12 8.5 18°76	2.4/ 8.5	18			<b>192110</b>	2006 <i>CR</i> <sub>43</sub>	12 8.5 95°90	2.1/ 9.0	18		
11 7	5 28.06	+24 13.7	1.136	2.012	17.6	18.6	11 7	5 27.74	+29 31.4	2.436	3.269	10.9	20.7
11 17	5 22.66	+25 25.0	1.091	2.023	12.8	18.4	11 17	5 20.99	+29 46.5	2.378	3.288	8.0	20.5
11 27	5 13.94	+26 34.1	1.067	2.036	7.3	18.1	11 27	5 12.50	+29 54.8	2.346	3.305	4.8	20.4
12 7	5 3.25	+27 35.3	1.068	2.051	2.6	17.9	12 7	5 3.07	+29 55.0	2.344	3.323	2.2	20.2
12 17	4 52.40	+28 24.6	1.093	2.067	5.5	18.1	12 17	4 53.63	+29 47.1	2.372	3.340	3.5	20.3
12 27	4 43.31	+29 1.4	1.144	2.084	10.7	18.5	12 27	4 45.14	+29 33.1	2.429	3.357	6.5	20.6
1 6	4 37.36	+29 28.7	1.217	2.103	15.3	18.8	1 6	4 38.38	+29 15.5	2.515	3.374	9.4	20.8
1 16	4 35.22	+29 50.0	1.309	2.123	19.0	19.1	1 16	4 33.80	+28 57.3	2.624	3.391	11.9	21.0
<b>143092</b>	2002 <i>XD</i> <sub>13</sub>	12 8.5 82°08	1.0/ 8.3	18			<b>212497</b>	2006 <i>QV</i> <sub>154</sub>	12 8.5 62°55	2.9/ 9.1	18		
11 7	5 28.71	+20 44.5	1.827	2.679	13.2	20.1	11 7	5 29.65	+30 15.2	1.745	2.590	14.0	20.4
11 17	5 21.90	+20 29.8	1.776	2.698	9.4	19.9	11 17	5 23.01	+30 32.4	1.682	2.596	10.3	20.2
11 27	5 13.04	+20 13.7	1.750	2.717	5.2	19.7	11 27	5 13.86	+30 40.2	1.643	2.603	6.3	19.9
12 7	5 3.11	+19 57.1	1.752	2.737	1.2	19.5	12 7	5 3.26	+30 36.5	1.631	2.610	3.1	19.8
12 17	4 53.26	+19 41.3	1.784	2.756	4.0	19.7	12 17	4 52.55	+30 21.1	1.647	2.616	4.7	19.9
12 27	4 44.63	+19 28.4	1.844	2.774	8.1	20.0	12 27	4 43.13	+29 56.8	1.691	2.623	8.5	20.1
1 6	4 38.09	+19 20.3	1.930	2.793	11.6	20.3	1 6	4 36.10	+29 28.2	1.761	2.630	12.3	20.4
1 16	4 34.12	+19 18.2	2.038	2.811	14.6	20.5	1 16	4 32.04	+28 59.9	1.852	2.637	15.4	20.6
<b>443410</b>	2014 <i>HC</i> <sub>48</sub>	12 8.5 196°25	3.1/ 8.8	18			<b>471030</b>	2009 <i>SF</i> <sub>333</sub>	12 8.5 48°24	4.3/ 7.5	18		
11 7	5 32.33	+29 14.4	1.943	2.780	13.1	20.8	11 7	5 29.29	+16 50.2	1.171	2.043	17.5	20.2
11 17	5 24.95	+30 8.4	1.869	2.779	9.7	20.6	11 17	5 22.95	+15 40.1	1.131	2.061	12.7	20.0
11 27	5 14.99	+30 56.5	1.819	2.777	6.0	20.4	11 27	5 13.80	+14 32.6	1.113	2.079	7.6	19.8
12 7	5 3.40	+31 34.6	1.798	2.775	3.2	20.2	12 7	5 3.23	+13 33.0	1.119	2.098	4.3	19.6
12 17	4 51.43	+32 0.2	1.807	2.773	4.8	20.3	12 17	4 52.89	+12 46.6	1.151	2.117	7.0	19.9
12 27	4 40.51	+32 13.8	1.844	2.770	8.4	20.5	12 27	4 44.36	+12 17.1	1.209	2.136	11.6	20.2
1 6	4 31.79	+32 18.4	1.909	2.767	12.0	20.7	1 6	4 38.68	+12 5.4	1.288	2.156	15.9	20.5
1 16	4 26.01	+32 18.0	1.995	2.764	15.0	20.9	1 16	4 36.33	+12 10.1	1.386	2.176	19.4	20.8
<b>261680</b>	2005 <i>YC</i> <sub>187</sub>	12 8.5 30°53	0.3/ 8.4	18			<b>142968</b>	2002 <i>VX</i> <sub>81</sub>	12 8.5 43°32	1.9/ 8.3	18		
11 7	5 26.10	+22 12.3	1.813	2.669	13.0	20.5	11 7	5 30.48	+17 46.8	1.138	2.010	17.9	19.1
11 17	5 20.25	+22 11.7	1.751	2.675	9.3	20.3	11 17	5 24.05	+18 1.5	1.097	2.028	12.8	18.9
11 27	5 12.24	+22 9.1	1.714	2.682	5.1	20.0	11 27	5 14.53	+18 20.1	1.078	2.047	7.2	18.6
12 7	5 3.02	+22 4.3	1.704	2.688	0.7	19.7	12 7	5 3.34	+18 42.0	1.082	2.066	2.1	18.4
12 17	4 53.70	+21 58.2	1.722	2.696	3.8	20.0	12 17	4 52.25	+19 6.4	1.113	2.086	5.5	18.7
12 27	4 45.49	+21 52.2	1.769	2.703	8.1	20.3	12 27	4 42.99	+19 33.4	1.169	2.107	10.8	19.0
1 6	4 39.30	+21 48.6	1.841	2.711	11.8	20.5	1 6	4 36.77	+20 3.5	1.247	2.128	15.4	19.4
1 16	4 35.70	+21 49.0	1.936	2.719	14.9	20.7	1 16	4 34.15	+20 36.9	1.345	2.149	19.2	19.7
<b>179025</b>	2001 <i>RE</i> <sub>92</sub>	12 8.5 59°76	1.2/ 8.7	18			<b>207275</b>	2005 <i>EG</i> <sub>327</sub>	12 8.5 125°36	2.3/ 8.0	18		
11 7	5 28.22	+26 8.6	1.776	2.627	13.5	20.0	11 7	5 27.65	+17 2.2	1.903	2.753	12.8	20.7
11 17	5 21.82	+26 11.3	1.715	2.636	9.7	19.8	11 17	5 21.21	+16 45.0	1.840	2.760	9.2	20.4
11 27	5 13.12	+26 8.0	1.679	2.644	5.5	19.6	11 27	5 12.73	+16 29.7	1.802	2.766	5.3	20.2
12 7	5 3.14	+25 58.1	1.670	2.653	1.4	19.3	12 7	5 3.11	+16 17.5	1.791	2.772	2.3	20.0
12 17	4 53.09	+25 42.2	1.689	2.662	3.9	19.5	12 17	4 53.42	+16 9.7	1.810	2.778	4.5	20.2
12 27	4 44.27	+25 22.8	1.737	2.671	8.2	19.8	12 27	4 44.77	+16 7.9	1.858	2.784	8.4	20.4
1 6	4 37.64	+25 3.3	1.810	2.681	11.9	20.1	1 6	4 38.05	+16 12.8	1.932	2.790	11.9	20.7
1 16	4 33.79	+24 46.7	1.906	2.690	15.1	20.3	1 16	4 33.80	+16 24.8	2.028	2.795	14.9	20.9
<b>446076</b>	2013 <i>CD</i> <sub>168</sub>	12 8.5 74°89	1.5/ 8.9	17			<b>521564</b>	2015 <i>OR</i> <sub>104</sub>	12 8.5 157°06	6.7/ 10.3	18		
11 7	5 29.24	+28 27.4	1.763	2.610	13.8	21.5	11 7	5 35.38	+41 52.9	2.060	2.859	13.9	22.0
11 17	5 22.52	+28 6.8	1.702	2.620	10.0	21.3	11 17	5 27.15	+42 29.7	1.993	2.865	11.2	21.9
11 27	5 13.47	+27 37.0	1.665	2.629	5.7	21.1	11 27	5 16.17	+42 49.1	1.949	2.871	8.5	21.7
12 7	5 3.18	+26 58.0	1.656	2.639	1.8	20.8	12 7	5 3.58	+42 46.8	1.931	2.876	6.8	21.6
12 17	4 52.93	+26 11.9	1.676	2.649	4.0	21.0	12 17	4 50.86	+42 21.4	1.942	2.880	7.2	21.7
12 27	4 44.00	+25 23.0	1.724	2.659	8.2	21.3	12 27	4 39.57	+41 36.0	1.981	2.884	9.3	21.8
1 6	4 37.37	+24 35.9	1.798	2.668	12.0	21.5	1 6	4 30.88	+40 37.5	2.045	2.888	12.0	22.0
1 16	4 33.55	+23 54.7	1.895	2.678	15.2	21.8	1 16	4 25.43	+39 33.1	2.133	2.891	14.5	22.2
<b>82538</b>	2001 <i>OJ</i> <sub>65</sub>	12 8.5 110°28	0.2/ 8.5	18			<b>265942</b>	2006 <i>BW</i> <sub>205</sub>	12 8.5 20°42	1.4/ 8.2	18		
11 7	5 32.73	+23 11.1	1.718	2.565	14.1	19.9	11 7	5 25.34	+19 0.7	1.856	2.712	12.8	20.4
11 17	5 24.95	+23 17.4	1.665	2.585	10.1	19.7	11 17	5 19.67	+18 56.8	1.792	2.715	9.2	20.1
11 27	5 14.79	+23 20.3	1.637	2.604	5.5	19.5	11 27	5 11.94	+18 53.7	1.752	2.719	5.1	19.9
12 7	5 3.36	+23 19.0	1.637	2.622	0.8	19.2	12 7	5 3.03	+18 51.9	1.740	2.724	1.5	19.7
12 17	4 51.98	+23 13.8	1.667	2.640	4.0	19.5	12 17	4 54.00	+18 52.2	1.757	2.729	4.1	19.9
12 27	4 42.00	+23 6.9	1.725	2.657	8.4	19.8	12 27	4 45.98	+18 55.7	1.802	2.734	8.1	20.1
1 6	4 34.39	+23 0.8	1.810	2.674	12.2	20.1	1 6	4 39.89	+19 3.6	1.873	2.739	11.8	20.4
1 16	4 29.69	+22 58.1	1.916	2.690	15.4	20.3	1 16	4 36.27	+19 16.4	1.965	2.745	14.8	20.6
<b>427531</b>	2002 <i>PG</i> <sub>173</sub>	12 8.5 205°86	11.9/ 6.1	16			<b>266005</b>	2006 <i>DN</i> <sub>196</sub>	12 8.5 236°55	3.6/ 9.2			



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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>451575</b>	2012 AC <sub>2</sub>	12 8.5 43°44'	2°5'	8.0	18		<b>466977</b>	2016 BH <sub>14</sub>	12 8.5 205°72'	6°5'	10.8	17	
11 7	5 26.34	+16 17.9	1.788	2.642	13.2	21.0	11 7	5 41.52	+39 58.5	1.240	2.070	19.5	21.0
11 17	5 20.40	+16 6.1	1.726	2.648	9.6	20.8	11 17	5 32.62	+39 30.9	1.169	2.067	15.3	20.8
11 27	5 12.34	+15 57.5	1.689	2.654	5.6	20.6	11 27	5 19.54	+38 34.0	1.118	2.064	10.6	20.5
12 7	5 3.08	+15 53.1	1.679	2.660	2.6	20.4	12 7	5 4.09	+37 3.0	1.092	2.060	6.9	20.3
12 17	4 53.74	+15 54.1	1.698	2.666	4.8	20.6	12 17	4 48.71	+35 1.0	1.092	2.056	7.6	20.3
12 27	4 45.46	+16 1.4	1.745	2.672	8.7	20.8	12 27	4 35.84	+32 40.1	1.119	2.051	11.9	20.5
1 6	4 39.16	+16 15.6	1.817	2.679	12.3	21.1	1 6	4 27.01	+30 16.6	1.171	2.046	16.6	20.8
1 16	4 35.41	+16 36.5	1.910	2.686	15.4	21.3	1 16	4 22.79	+28 4.3	1.243	2.040	20.8	21.0
<b>260606</b>	2005 GT <sub>16</sub>	12 8.5 238°32'	1°5'	8.2	18		<b>136883</b>	1998 FB <sub>147</sub>	12 8.5 151°67'	2°2'	7.9	18	
11 7	5 30.99	+20 5.5	1.640	2.492	14.3	21.7	11 7	5 31.26	+18 30.1	1.767	2.615	13.7	20.1
11 17	5 24.14	+19 46.6	1.559	2.481	10.4	21.4	11 17	5 23.89	+17 59.3	1.704	2.624	9.9	19.9
11 27	5 14.62	+19 26.1	1.502	2.469	5.9	21.1	11 27	5 14.26	+17 28.2	1.667	2.632	5.6	19.7
12 7	5 3.41	+19 4.8	1.472	2.456	1.6	20.8	12 7	5 3.39	+16 58.7	1.657	2.639	2.2	19.5
12 17	4 51.85	+18 44.5	1.471	2.443	4.8	21.0	12 17	4 52.48	+16 33.0	1.677	2.646	4.8	19.6
12 27	4 41.41	+18 27.9	1.499	2.429	9.6	21.2	12 27	4 42.80	+16 13.6	1.726	2.652	8.9	19.9
1 6	4 33.29	+18 17.6	1.551	2.414	14.0	21.5	1 6	4 35.31	+16 2.4	1.801	2.657	12.7	20.1
1 16	4 28.23	+18 15.5	1.624	2.399	17.6	21.7	1 16	4 30.56	+16 0.4	1.897	2.661	15.8	20.4
<b>484531</b>	2008 FN <sub>1</sub>	12 8.5 223°24'	5°8'	9.8	17		<b>476808</b>	2008 UJ <sub>190</sub>	12 8.5 351°90'	1°7'	8.7	16	
11 7	5 32.24	+40 22.7	2.382	3.182	12.2	22.1	11 7	5 26.93	+25 28.0	1.209	2.083	17.0	21.2
11 17	5 24.77	+41 3.3	2.299	3.174	9.8	22.0	11 17	5 21.95	+25 49.5	1.145	2.076	12.4	20.9
11 27	5 14.87	+41 30.5	2.240	3.165	7.4	21.8	11 27	5 13.69	+26 5.8	1.102	2.071	7.1	20.6
12 7	5 3.45	+41 40.1	2.209	3.156	5.9	21.7	12 7	5 3.35	+26 14.7	1.083	2.067	2.0	20.3
12 17	4 51.71	+41 30.5	2.207	3.147	6.3	21.7	12 17	4 52.64	+26 15.3	1.089	2.064	5.2	20.5
12 27	4 40.97	+41 3.3	2.234	3.137	8.4	21.8	12 27	4 43.45	+26 9.8	1.120	2.062	10.7	20.8
1 6	4 32.33	+40 23.2	2.287	3.127	11.0	22.0	1 6	4 37.24	+26 2.4	1.173	2.061	15.6	21.1
1 16	4 26.49	+39 36.0	2.363	3.116	13.4	22.1	1 16	4 34.79	+25 56.8	1.245	2.061	19.7	21.3
<b>285449</b>	1999 XO <sub>9</sub>	12 8.5 59°92'	0°5'	8.4	13 C		<b>36606</b>	2000 QL <sub>143</sub>	12 8.5 22°71'	0°9'	8.7	18	
11 7	5 30.38	+24 35.0	1.503	2.360	15.2	20.0	11 7	5 27.01	+25 10.9	1.746	2.601	13.5	19.5
11 17	5 23.34	+23 44.7	1.458	2.383	10.8	19.8	11 17	5 21.08	+25 15.7	1.682	2.604	9.7	19.2
11 27	5 13.89	+22 47.8	1.437	2.405	5.9	19.6	11 27	5 12.82	+25 15.7	1.642	2.608	5.5	19.0
12 7	5 3.29	+21 46.9	1.443	2.428	0.8	19.3	12 7	5 3.22	+25 10.1	1.629	2.613	1.2	18.7
12 17	4 52.96	+20 46.1	1.478	2.451	4.4	19.6	12 17	4 53.49	+24 59.5	1.644	2.618	3.9	18.9
12 27	4 44.23	+19 50.6	1.540	2.474	9.1	19.9	12 27	4 44.92	+24 46.0	1.687	2.623	8.3	19.2
1 6	4 38.04	+19 4.4	1.627	2.497	13.1	20.2	1 6	4 38.53	+24 32.5	1.756	2.628	12.1	19.5
1 16	4 34.82	+18 29.9	1.736	2.520	16.3	20.5	1 16	4 34.89	+24 21.9	1.846	2.634	15.4	19.7
<b>446687</b>	2015 OK <sub>16</sub>	12 8.5 104°35'	0°4'	8.4	18		<b>272730</b>	2005 YP <sub>81</sub>	12 8.5 58°03'	2°0'	8.2	18	
11 7	5 29.09	+21 38.0	1.699	2.553	13.9	21.4	11 7	5 31.03	+18 40.9	1.320	2.184	16.4	20.2
11 17	5 22.56	+21 40.3	1.634	2.557	9.9	21.1	11 17	5 24.04	+18 30.2	1.282	2.209	11.7	20.0
11 27	5 13.63	+21 40.9	1.593	2.561	5.5	20.9	11 27	5 14.39	+18 20.9	1.266	2.234	6.6	19.8
12 7	5 3.29	+21 39.6	1.579	2.564	0.8	20.6	12 7	5 3.41	+18 13.9	1.275	2.259	2.1	19.5
12 17	4 52.81	+21 36.9	1.595	2.568	4.1	20.8	12 17	4 52.63	+18 10.5	1.312	2.284	5.2	19.8
12 27	4 43.51	+21 34.3	1.638	2.571	8.6	21.1	12 27	4 43.57	+18 12.2	1.375	2.309	9.9	20.2
1 6	4 36.45	+21 34.1	1.707	2.575	12.6	21.4	1 6	4 37.23	+18 20.3	1.462	2.334	14.1	20.5
1 16	4 32.23	+21 38.0	1.797	2.578	16.0	21.6	1 16	4 34.11	+18 35.2	1.570	2.360	17.5	20.8
<b>380711</b>	2005 NN <sub>43</sub>	12 8.5 252°39'	1°8'	8.9	18		<b>330190</b>	2006 DM <sub>78</sub>	12 8.5 299°11'	0°6'	8.7	17	
11 7	5 31.88	+28 24.5	1.609	2.457	14.8	21.7	11 7	5 25.90	+24 48.3	2.078	2.927	11.9	21.6
11 17	5 24.96	+28 12.8	1.526	2.444	10.9	21.4	11 17	5 20.12	+24 48.8	1.996	2.916	8.6	21.4
11 27	5 15.15	+27 50.9	1.467	2.431	6.4	21.1	11 27	5 12.27	+24 45.3	1.939	2.905	4.8	21.2
12 7	5 3.51	+27 17.6	1.434	2.417	2.1	20.8	12 7	5 3.16	+24 37.2	1.910	2.894	0.9	20.9
12 17	4 51.53	+26 34.1	1.430	2.403	4.6	21.0	12 17	4 53.79	+24 24.9	1.910	2.883	3.5	21.0
12 27	4 40.81	+25 44.7	1.454	2.388	9.4	21.2	12 27	4 45.29	+24 10.3	1.939	2.873	7.5	21.3
1 6	4 32.66	+24 55.3	1.503	2.374	13.9	21.5	1 6	4 38.60	+23 55.9	1.995	2.862	11.1	21.5
1 16	4 27.83	+24 11.2	1.573	2.358	17.7	21.7	1 16	4 34.32	+23 44.3	2.073	2.852	14.2	21.7
<b>228411</b>	2001 KQ <sub>53</sub>	12 8.5 201°56'	0°1'	8.5	18		<b>383093</b>	2005 SZ <sub>101</sub>	12 8.5 17°10'	3°7'	9.2	18	
11 7	5 25.61	+22 52.4	2.644	3.484	9.9	21.1	11 7	5 29.17	+30 39.7	1.168	2.035	17.9	19.9
11 17	5 19.47	+22 59.5	2.565	3.481	7.1	20.9	11 17	5 23.57	+30 53.0	1.114	2.039	13.3	19.7
11 27	5 11.73	+23 4.7	2.512	3.478	3.9	20.7	11 27	5 14.52	+30 53.0	1.080	2.044	8.2	19.4
12 7	5 3.04	+23 7.5	2.490	3.474	0.5	20.4	12 7	5 3.46	+30 37.0	1.070	2.050	3.9	19.2
12 17	4 54.20	+23 8.1	2.498	3.471	2.9	20.6	12 17	4 52.30	+30 5.6	1.085	2.057	5.9	19.3
12 27	4 46.05	+23 7.5	2.537	3.467	6.2	20.8	12 27	4 43.01	+29 23.9	1.125	2.065	10.8	19.6
1 6	4 39.31	+23 7.0	2.604	3.462	9.2	21.0	1 6	4 36.97	+28 39.2	1.187	2.074	15.5	19.9
1 16	4 34.50	+23 8.1	2.695	3.458	11.7	21.2	1 16	4 34.82	+27 57.9	1.268	2.084	19.5	20.2
<b>329109</b>	2011 CL <sub>11</sub>	12 8.5 340°37'	1°4'	8.2	17		<b>493098</b>	2014 SO <sub>330</sub>	12 8.5 55°77'	2°5'	7.7	18	
11 7	5 24.99	+19 15.5	2.045	2.897	11.9	21.2	11 7	5 24.61	+17 10.0	2.135	2.985	11.6	20.7
11 17	5 19.33	+19 3.3	1.972	2.894	8.6	21.0	11 17	5 18.87	+16 25.9	2.072	2.992	8.4	20.5
11 27	5 11.75	+18 51.1	1.926	2.892	4.8	20.7	11 27	5 11.41	+15 42.4	2.034	2.998	4.9	20.3
12 7	5 3.05	+18 39.7	1.907	2.890	1.5	20.5	12 7	5 3.03	+15 1.9	2.025	3.004	2.5	20.2
12 17	4 54.19	+18 30.4	1.917	2.888	3.9	20.7	12 17	4 54.63	+14 27.0	2.046	3.011	4.5	20.3
12 27	4 46.23	+18 24.6	1.957	2.886	7.7	20.9	12 27	4 47.14	+14 0.0	2.096	3.018	7.8	20.6
1 6	4 40.01	+18 23.6	2.022	2.885	11.2	21.1	1 6	4 41.30	+13 42.3	2.172	3.025	11.0	20.8
1 16	4 36.10	+18 28.4	2.110	2.883	14.2	21.3	1 16	4 37.61	+13 34.4	2.270	3.031	13.6	21.0
<b>85261</b>	1993 TO <sub>23</sub>	12 8.5 146°67'	1°2'	8.7	18		<b>265091</b>	2003 SG <sub>277</sub>	12 8.5 94°00'	2°8'	9.4	18	
11 7	5 33.64	+25 24.1	1.606	2.454	14.8	20.2	11 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>397222</b>	2006 <i>HB</i> <sub>91</sub>	12 8.5 190°67	4.7/ 7.1 18				<b>88866</b>	2001 <i>SW</i> <sub>251</sub>	12 8.5 237°91	0.2/ 8.5 18			
11 7	5 27.25	+11 10.6	2.078	2.918	12.3	22.3	11 7	5 27.27	+22 38.4	2.007	2.856	12.3	20.1
11 17	5 20.82	+10 18.1	2.008	2.917	9.2	22.2	11 17	5 21.07	+22 33.3	1.932	2.853	8.8	19.9
11 27	5 12.54	+9 30.6	1.964	2.916	6.2	22.0	11 27	5 12.79	+22 25.4	1.882	2.849	4.9	19.7
12 7	5 3.20	+8 51.4	1.948	2.914	4.7	21.9	12 7	5 3.27	+22 14.9	1.860	2.845	0.7	19.3
12 17	4 53.76	+8 23.5	1.962	2.912	6.2	22.0	12 17	4 53.57	+22 2.5	1.868	2.842	3.6	19.6
12 27	4 45.21	+8 8.7	2.004	2.909	9.1	22.1	12 27	4 44.82	+21 50.0	1.905	2.838	7.7	19.8
1 6	4 38.38	+8 7.4	2.072	2.905	12.2	22.3	1 6	4 37.95	+21 39.8	1.969	2.834	11.4	20.0
1 16	4 33.80	+8 18.8	2.161	2.901	14.9	22.5	1 16	4 33.55	+21 33.7	2.055	2.830	14.4	20.2
<b>106533</b>	2000 <i>WD</i> <sub>60</sub>	12 8.5 35°11	2.2/ 8.1 18				<b>75298</b>	1999 <i>XF</i> <sub>33</sub>	12 8.5 285°06	3.1/ 8.1 18			
11 7	5 29.65	+19 21.2	1.241	2.110	16.9	18.5	11 7	5 27.28	+14 31.7	1.779	2.631	13.4	18.8
11 17	5 23.51	+18 53.2	1.184	2.114	12.2	18.2	11 17	5 21.31	+14 26.6	1.700	2.620	9.9	18.6
11 27	5 14.35	+18 24.7	1.150	2.118	6.9	17.9	11 27	5 13.03	+14 26.6	1.646	2.609	6.0	18.3
12 7	5 3.46	+17 58.0	1.140	2.123	2.3	17.7	12 7	5 3.32	+14 32.8	1.619	2.598	3.1	18.1
12 17	4 52.46	+17 35.6	1.156	2.128	5.7	17.9	12 17	4 53.28	+14 46.1	1.620	2.587	5.2	18.2
12 27	4 43.07	+17 20.8	1.198	2.133	10.9	18.2	12 27	4 44.17	+15 7.0	1.650	2.576	9.2	18.5
1 6	4 36.53	+17 15.8	1.262	2.138	15.6	18.5	1 6	4 37.04	+15 35.3	1.704	2.565	13.1	18.7
1 16	4 33.48	+17 21.4	1.346	2.144	19.5	18.8	1 16	4 32.56	+16 10.5	1.781	2.554	16.4	18.9
<b>80226</b>	1999 <i>VP</i> <sub>166</sub>	12 8.5 262°63	0.1/ 8.5 18				<b>272624</b>	2005 <i>WY</i> <sub>47</sub>	12 8.5 159°71	0.7/ 8.7 18			
11 7	5 30.46	+24 35.3	1.456	2.315	15.5	19.9	11 7	5 31.56	+24 38.9	1.977	2.819	12.7	21.7
11 17	5 23.94	+24 9.2	1.387	2.312	11.2	19.6	11 17	5 24.11	+24 44.5	1.909	2.825	9.2	21.5
11 27	5 14.56	+23 36.1	1.340	2.308	6.2	19.3	11 27	5 14.44	+24 45.6	1.867	2.832	5.1	21.2
12 7	5 3.49	+22 56.6	1.320	2.305	0.8	19.0	12 7	5 3.50	+24 41.6	1.853	2.837	1.0	21.0
12 17	4 52.23	+22 13.3	1.328	2.302	4.6	19.2	12 17	4 52.44	+24 32.5	1.869	2.842	3.7	21.2
12 27	4 42.39	+21 30.8	1.362	2.298	9.8	19.5	12 27	4 42.50	+24 20.4	1.915	2.846	7.8	21.4
1 6	4 35.19	+20 53.9	1.421	2.295	14.4	19.8	1 6	4 34.64	+24 8.0	1.988	2.850	11.4	21.7
1 16	4 31.30	+20 26.0	1.501	2.291	18.1	20.0	1 16	4 29.44	+23 58.2	2.084	2.853	14.5	21.9
<b>514787</b>	2007 <i>HV</i> <sub>83</sub>	12 8.5 128°53	1.0/ 8.8 18				<b>79635</b>	1998 <i>RY</i> <sub>75</sub>	12 8.5 159°52	4.3/ 7.6 18			
11 7	5 31.51	+25 58.2	1.908	2.750	13.1	22.3	11 7	5 30.00	+11 58.3	1.907	2.748	13.2	20.3
11 17	5 24.04	+25 56.9	1.848	2.764	9.4	22.1	11 17	5 22.87	+11 23.9	1.844	2.755	9.8	20.1
11 27	5 14.35	+25 49.6	1.813	2.777	5.3	21.8	11 27	5 13.70	+10 55.3	1.806	2.761	6.3	19.9
12 7	5 3.45	+25 35.8	1.806	2.790	1.3	21.6	12 7	5 3.39	+10 34.9	1.797	2.767	4.3	19.8
12 17	4 52.55	+25 16.2	1.829	2.802	3.8	21.8	12 17	4 53.03	+10 24.7	1.816	2.772	6.0	19.9
12 27	4 42.88	+24 53.4	1.882	2.813	7.8	22.1	12 27	4 43.72	+10 26.0	1.865	2.777	9.3	20.1
1 6	4 35.39	+24 30.8	1.961	2.824	11.5	22.3	1 6	4 36.35	+10 38.8	1.939	2.780	12.6	20.3
1 16	4 30.61	+24 11.6	2.063	2.835	14.5	22.6	1 16	4 31.48	+11 2.0	2.035	2.783	15.4	20.5
<b>223948</b>	2004 <i>XC</i> <sub>34</sub>	12 8.5 211°90	0.6/ 8.4 17				<b>468380</b>	2016 <i>FM</i> <sub>56</sub>	12 8.5 252°27	1.2/ 8.2 18			
11 7	5 25.54	+21 13.8	2.254	3.101	11.2	20.8	11 7	5 23.19	+18 21.7	2.782	3.624	9.4	21.5
11 17	5 19.62	+21 8.8	2.180	3.100	8.0	20.6	11 17	5 17.70	+18 20.0	2.700	3.618	6.8	21.4
11 27	5 11.90	+21 2.4	2.133	3.099	4.4	20.4	11 27	5 10.78	+18 19.1	2.646	3.611	3.8	21.2
12 7	5 3.14	+20 55.0	2.114	3.099	0.8	20.1	12 7	5 3.01	+18 19.3	2.622	3.604	1.3	21.0
12 17	4 54.24	+20 47.3	2.125	3.098	3.4	20.3	12 17	4 55.08	+18 21.3	2.628	3.598	3.1	21.1
12 27	4 46.17	+20 40.6	2.166	3.097	7.0	20.6	12 27	4 47.76	+18 25.7	2.664	3.591	6.1	21.3
1 6	4 39.74	+20 36.5	2.234	3.096	10.3	20.8	1 6	4 41.69	+18 33.2	2.729	3.584	8.9	21.5
1 16	4 35.46	+20 36.4	2.325	3.095	13.1	21.0	1 16	4 37.34	+18 44.3	2.817	3.577	11.3	21.6
<b>420200</b>	2011 <i>GN</i> <sub>73</sub>	12 8.5 291°86	5.5/ 9.8 17				<b>181620</b>	2006 <i>WA</i> <sub>167</sub>	12 8.5 98°67	0.8/ 8.3 18			
11 7	5 29.07	+39 27.7	2.334	3.144	12.1	21.6	11 7	5 27.57	+21 26.9	1.969	2.819	12.4	21.2
11 17	5 22.53	+40 5.7	2.254	3.136	9.6	21.4	11 17	5 21.15	+21 8.7	1.908	2.829	8.9	21.0
11 27	5 13.68	+40 30.8	2.198	3.128	7.2	21.2	11 27	5 12.75	+20 48.4	1.872	2.839	4.9	20.7
12 7	5 3.39	+40 39.5	2.169	3.120	5.6	21.1	12 7	5 3.27	+20 26.8	1.864	2.848	1.0	20.5
12 17	4 52.82	+40 30.3	2.168	3.113	6.1	21.1	12 17	4 53.76	+20 5.4	1.886	2.858	3.8	20.7
12 27	4 43.22	+40 4.9	2.196	3.105	8.3	21.2	12 27	4 45.33	+19 46.4	1.937	2.868	7.7	21.0
1 6	4 35.63	+39 27.6	2.250	3.097	10.8	21.4	1 6	4 38.81	+19 32.0	2.014	2.877	11.2	21.2
1 16	4 30.72	+38 43.7	2.327	3.090	13.3	21.6	1 16	4 34.73	+19 23.7	2.114	2.886	14.2	21.4
<b>258226</b>	2001 <i>TB</i> <sub>67</sub>	12 8.5 66°03	2.4/ 8.9 18				<b>40356</b>	1999 <i>NZ</i> <sub>17</sub>	12 8.5 83°89	0.8/ 8.6 18			
11 7	5 31.41	+27 54.5	1.756	2.601	13.9	20.4	11 7	5 34.97	+23 52.6	1.381	2.236	16.4	18.9
11 17	5 24.11	+28 28.5	1.709	2.625	10.1	20.2	11 17	5 26.97	+24 11.3	1.337	2.260	11.7	18.7
11 27	5 14.43	+28 55.5	1.688	2.650	5.9	20.0	11 27	5 16.09	+24 25.6	1.317	2.284	6.5	18.5
12 7	5 3.47	+29 12.8	1.693	2.674	2.5	19.9	12 7	5 3.71	+24 33.6	1.323	2.307	1.2	18.2
12 17	4 52.57	+29 19.7	1.728	2.698	4.4	20.0	12 17	4 51.48	+24 35.2	1.357	2.330	4.6	18.5
12 27	4 43.05	+29 18.2	1.791	2.723	8.2	20.3	12 27	4 41.04	+24 32.8	1.418	2.353	9.6	18.8
1 6	4 35.91	+29 11.7	1.880	2.747	11.7	20.6	1 6	4 33.51	+24 29.8	1.504	2.375	13.8	19.2
1 16	4 31.66	+29 3.8	1.991	2.771	14.7	20.8	1 16	4 29.42	+24 29.2	1.610	2.397	17.3	19.4
<b>249830</b>	2001 <i>OD</i> <sub>12</sub>	12 8.5 114°77	4.6/ 7.8 18				<b>60947</b>	2000 <i>JH</i> <sub>58</sub>	12 8.5 167°68	0.8/ 8.4 18			
11 7	5 27.81	+7 59.7	2.272	3.101	11.7	21.4	11 7	5 27.99	+19 37.7	2.448	3.287	10.7	19.7
11 17	5 20.96	+7 46.4	2.220	3.121	8.9	21.2	11 17	5 21.23	+19 44.6	2.375	3.291	7.6	19.5
11 27	5 12.51	+7 41.6	2.194	3.140	6.1	21.1	11 27	5 12.75	+19 51.7	2.330	3.295	4.2	19.3
12 7	5 3.22	+7 47.0	2.196	3.158	4.6	21.0	12 7	5 3.29	+19 58.7	2.315	3.299	1.0	19.1
12 17	4 53.95	+8 3.2	2.229	3.176	5.7	21.1	12 17	4 53.70	+20 5.8	2.330	3.301	3.3	19.3
12 27	4 45.60	+8 29.8	2.290	3.194	8.2	21.3	12 27	4 44.90	+20 13.7	2.377	3.304	6.7	19.5
1 6	4 38.85	+9 5.7	2.379	3.211	10.9	21.5	1 6	4 37.66	+20 23.3	2.451	3.306	9.8	19.7
1 16	4 34.16	+9 49.1	2.490	3.227	13.2	21.7	1 16	4 32.49	+20 35.6	2.549	3.307	12.4	19.9
<b>454296</b>	2014 <i>JF</i> <sub>26</sub>	12 8.5 167°29	4.8/ 7.8 18				<b>271963</b>	2005 <i>AR</i> <sub>58</sub>	12 8.5 334°86	3.5/ 9.7 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>317701</b>	2003 QZ <sub>2</sub>	12 8.5	99°25	4.5/ 7.4	18		<b>154749</b>	2004 PV <sub>2</sub>	12 8.5	194°74	0°9/ 8.7	18	
11 7	5 24.55	+ 9 43.1	2.246	3.085	11.5	20.7	11 7	5 31.39	+25 20.4	1.985	2.826	12.7	20.9
11 17	5 18.76	+ 9 8.5	2.186	3.093	8.7	20.5	11 17	5 24.12	+25 27.1	1.908	2.824	9.2	20.7
11 27	5 11.37	+ 8 40.7	2.152	3.102	5.9	20.4	11 27	5 14.54	+25 29.0	1.857	2.822	5.2	20.4
12 7	5 3.11	+ 8 22.1	2.146	3.110	4.5	20.3	12 7	5 3.59	+25 24.9	1.834	2.818	1.2	20.1
12 17	4 54.81	+ 8 14.4	2.169	3.118	5.7	20.4	12 17	4 52.41	+25 15.0	1.842	2.814	3.8	20.3
12 27	4 47.34	+ 8 18.5	2.221	3.127	8.4	20.6	12 27	4 42.27	+25 1.2	1.879	2.810	7.9	20.6
1 6	4 41.41	+ 8 33.9	2.299	3.135	11.1	20.8	1 6	4 34.19	+24 46.4	1.942	2.804	11.6	20.8
1 16	4 37.47	+ 8 59.3	2.399	3.143	13.5	21.0	1 16	4 28.80	+24 33.8	2.029	2.798	14.8	21.0
<b>117269</b>	2004 TX <sub>53</sub>	12 8.5	14°73	3°1/ 9.0	17		<b>464160</b>	2015 AQ <sub>1</sub>	12 8.5	199°86	5°9/ 5.9	18	
11 7	5 28.50	+30 14.7	2.016	2.856	12.6	19.4	11 7	5 22.49	+ 3 31.6	2.749	3.568	10.2	20.8
11 17	5 22.13	+30 53.3	1.946	2.857	9.4	19.2	11 17	5 17.11	+ 2 24.4	2.682	3.566	8.2	20.7
11 27	5 13.47	+31 24.8	1.901	2.858	5.9	19.0	11 27	5 10.43	+ 1 25.5	2.642	3.564	6.5	20.6
12 7	5 3.41	+31 46.2	1.883	2.859	3.2	18.9	12 7	5 3.02	+ 0 38.4	2.630	3.562	6.0	20.5
12 17	4 53.11	+31 56.2	1.894	2.861	4.5	19.0	12 17	4 55.53	+ 0 5.8	2.647	3.560	6.8	20.6
12 27	4 43.83	+31 55.8	1.934	2.863	7.9	19.2	12 27	4 48.66	- 0 10.9	2.692	3.558	8.6	20.7
1 6	4 36.58	+31 48.3	2.001	2.864	11.3	19.4	1 6	4 43.00	- 0 12.2	2.762	3.555	10.6	20.8
1 16	4 32.01	+31 37.5	2.089	2.866	14.2	19.6	1 16	4 38.96	+ 0 0.5	2.854	3.553	12.5	21.0
<b>164375</b>	2005 EM <sub>107</sub>	12 8.5	201°33	3°7/ 9.9	18		<b>385259</b>	2001 PP <sub>9</sub>	12 8.5	45°07	0°3/ 8.6	16	
11 7	5 27.77	+36 21.5	2.662	3.477	10.7	20.0	11 7	5 31.07	+24 7.6	1.152	2.023	17.8	20.7
11 17	5 21.16	+36 24.0	2.583	3.474	8.2	19.8	11 17	5 24.46	+23 57.6	1.115	2.046	12.7	20.4
11 27	5 12.74	+36 15.3	2.529	3.472	5.6	19.7	11 27	5 14.80	+23 42.0	1.100	2.069	7.0	20.2
12 7	5 3.30	+35 54.0	2.504	3.470	3.8	19.5	12 7	5 3.59	+23 21.1	1.108	2.093	1.0	19.9
12 17	4 53.78	+35 20.3	2.509	3.467	4.4	19.6	12 17	4 52.65	+22 57.1	1.143	2.118	4.9	20.2
12 27	4 45.14	+34 36.7	2.544	3.464	6.7	19.7	12 27	4 43.70	+22 33.9	1.203	2.143	10.3	20.6
1 6	4 38.20	+33 47.1	2.606	3.461	9.3	19.9	1 6	4 37.83	+22 15.4	1.286	2.169	14.9	21.0
1 16	4 33.45	+32 55.7	2.693	3.458	11.6	20.1	1 16	4 35.53	+22 4.2	1.389	2.195	18.6	21.3
<b>5496</b>	1973 NA	12 8.5	189°65	13°1/ 5.8	17		<b>412908</b>	2014 QH <sub>118</sub>	12 8.5	26°42	0°4/ 8.4	17	
11 7	5 40.90	-42 47.2	3.548	3.982	13.6	22.5	11 7	5 26.05	+22 13.5	1.847	2.702	12.9	21.5
11 17	5 29.97	-43 30.2	3.508	3.981	13.3	22.5	11 17	5 20.27	+22 3.2	1.783	2.706	9.2	21.3
11 27	5 17.36	-43 45.9	3.482	3.978	13.2	22.5	11 27	5 12.38	+21 50.4	1.743	2.711	5.1	21.1
12 7	5 3.92	-43 30.2	3.472	3.974	13.1	22.5	12 7	5 3.29	+21 35.5	1.731	2.716	0.8	20.8
12 17	4 50.60	-42 41.6	3.480	3.969	13.2	22.5	12 17	4 54.11	+21 19.8	1.748	2.721	3.8	21.0
12 27	4 38.36	-41 21.5	3.505	3.963	13.4	22.5	12 27	4 46.00	+21 5.4	1.793	2.727	8.0	21.3
1 6	4 27.93	-39 34.4	3.546	3.956	13.7	22.5	1 6	4 39.87	+20 54.5	1.864	2.733	11.7	21.5
1 16	4 19.77	-37 26.0	3.603	3.947	14.0	22.6	1 16	4 36.27	+20 48.7	1.957	2.739	14.8	21.8
<b>256422</b>	2007 BD <sub>34</sub>	12 8.5	204°87	1°2/ 8.3	18		<b>135050</b>	2001 OK <sub>55</sub>	12 8.5	128°19	4°4/ 9.6	18	
11 7	5 26.49	+19 36.0	2.060	2.909	12.0	20.6	11 7	5 31.67	+35 5.2	2.064	2.888	13.0	20.1
11 17	5 20.43	+19 27.2	1.988	2.908	8.6	20.4	11 17	5 24.36	+35 36.8	1.999	2.896	9.9	20.0
11 27	5 12.42	+19 18.3	1.941	2.908	4.8	20.2	11 27	5 14.67	+35 56.5	1.958	2.904	6.7	19.8
12 7	5 3.27	+19 9.7	1.923	2.907	1.3	19.9	12 7	5 3.60	+36 1.4	1.945	2.912	4.5	19.7
12 17	4 53.97	+19 2.5	1.935	2.906	3.8	20.1	12 17	4 52.40	+35 50.5	1.961	2.919	5.4	19.7
12 27	4 45.58	+18 58.0	1.975	2.905	7.7	20.3	12 27	4 42.40	+35 26.1	2.005	2.926	8.2	19.9
1 6	4 38.97	+18 57.8	2.042	2.904	11.2	20.6	1 6	4 34.61	+34 53.0	2.076	2.933	11.2	20.1
1 16	4 34.69	+19 2.7	2.132	2.903	14.1	20.8	1 16	4 29.66	+34 16.5	2.170	2.940	13.9	20.3
<b>366514</b>	2002 PG <sub>178</sub>	12 8.5	12°01	6°5/10.8	16		<b>268250</b>	2005 MS <sub>20</sub>	12 8.5	116°49	1°4/ 8.8	18	
11 7	5 26.92	+39 41.2	1.456	2.295	16.6	18.8	11 7	5 32.38	+26 53.4	1.563	2.414	15.0	21.0
11 17	5 21.61	+39 43.0	1.402	2.302	13.1	18.6	11 17	5 25.11	+26 48.6	1.504	2.423	10.9	20.8
11 27	5 13.30	+39 23.3	1.368	2.310	9.4	18.4	11 27	5 15.14	+26 35.9	1.467	2.433	6.2	20.5
12 7	5 3.38	+38 39.7	1.358	2.320	6.8	18.3	12 7	5 3.66	+26 14.4	1.458	2.442	1.7	20.3
12 17	4 53.53	+37 33.7	1.374	2.332	7.2	18.4	12 17	4 52.16	+25 45.5	1.477	2.450	4.4	20.5
12 27	4 45.43	+36 11.8	1.415	2.345	10.1	18.6	12 27	4 42.14	+25 12.8	1.524	2.459	9.0	20.8
1 6	4 40.21	+34 43.1	1.481	2.359	13.6	18.8	1 6	4 34.73	+24 40.9	1.596	2.467	13.2	21.0
1 16	4 38.39	+33 16.0	1.568	2.374	16.8	19.0	1 16	4 30.52	+24 13.9	1.690	2.475	16.7	21.3
<b>324069</b>	2005 VC <sub>124</sub>	12 8.5	6°35	5°3/10.6	17		<b>252721</b>	2002 CV <sub>214</sub>	12 8.5	205°92	1°6/ 8.3	18	
11 7	5 30.23	+38 49.5	1.718	2.544	15.0	19.7	11 7	5 31.84	+18 58.4	1.561	2.415	14.9	20.9
11 17	5 23.64	+38 32.4	1.648	2.545	11.7	19.5	11 17	5 24.83	+18 53.1	1.489	2.411	10.8	20.7
11 27	5 14.32	+37 55.7	1.602	2.546	8.2	19.3	11 27	5 15.09	+18 48.6	1.441	2.408	6.1	20.4
12 7	5 3.54	+36 57.5	1.581	2.547	5.5	19.2	12 7	5 3.68	+18 45.2	1.420	2.404	1.8	20.1
12 17	4 52.78	+35 39.8	1.588	2.549	6.1	19.2	12 17	4 51.98	+18 43.5	1.428	2.399	4.9	20.3
12 27	4 43.58	+34 8.8	1.623	2.552	9.1	19.4	12 27	4 41.52	+18 45.3	1.463	2.394	9.7	20.6
1 6	4 37.02	+32 32.9	1.684	2.555	12.6	19.6	1 6	4 33.49	+18 52.3	1.523	2.389	14.0	20.8
1 16	4 33.65	+31 0.1	1.767	2.558	15.8	19.8	1 16	4 28.62	+19 5.7	1.604	2.383	17.7	21.0
<b>511871</b>	2015 GM <sub>28</sub>	12 8.5	163°66	0°2/ 8.6	18		<b>23606</b>	1996 AS <sub>1</sub>	12 8.5	110°12	7°6/11.0	17	
11 7	5 32.17	+24 10.6	1.819	2.664	13.5	22.4	11 7	5 55.08	+41 32.7	1.218	2.027	21.0	21.1
11 17	5 24.68	+23 59.8	1.751	2.669	9.7	22.2	11 17	5 41.70	+41 33.4	1.179	2.062	16.4	20.9
11 27	5 14.82	+23 44.0	1.708	2.674	5.4	21.9	11 27	5 24.13	+41 3.4	1.160	2.096	11.5	20.7
12 7	5 3.61	+23 23.2	1.694	2.679	0.8	21.6	12 7	5 4.82	+39 57.2	1.168	2.128	8.0	20.6
12 17	4 52.32	+22 58.5	1.709	2.682	3.9	21.9	12 17	4 46.64	+38 18.8	1.203	2.158	8.4	20.8
12 27	4 42.25	+22 32.9	1.754	2.685	8.3	22.1	12 27	4 31.98	+36 21.5	1.265	2.186	11.9	21.0
1 6	4 34.42	+22 9.7	1.825	2.687	12.2	22.4	1 6	4 22.05	+34 21.4	1.353	2.212	15.9	21.3
1 16	4 29.42	+21 51.7	1.918	2.689	15.4	22.6	1 16	4 16.99	+32 30.8	1.461	2.237	19.3	21.6
<b>133221</b>	2003 QU <sub>81</sub>	12 8.5	82°52	4°7/ 7.5	18		<b>86585</b>	2000 EX <sub>57</sub>	12 8.5	233°08	13°5/ 4.2	18	
11 7	5 24.73	+ 9 6.3	2.192	3.030	11.8	19.							

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12 8.5

12 8.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>152310</b>	2005 <i>TJ</i> <sub>125</sub>	12	8.5 193°98	2°5/ 7.9 18			<b>311683</b>	2006 <i>SY</i> <sub>82</sub>	12	8.6 36°96	0°6/ 8.4 18		
11 7	5 29.57	+18 12.8	1.684	2.538	14.0	21.1	11 7	5 27.54	+21 30.4	1.648	2.506	14.0	20.5
11 17	5 22.93	+17 35.4	1.615	2.537	10.1	20.8	11 17	5 21.53	+21 25.1	1.588	2.513	10.0	20.3
11 27	5 13.92	+16 57.9	1.570	2.535	5.9	20.6	11 27	5 13.17	+21 18.2	1.551	2.519	5.5	20.0
12 7	5 3.52	+16 22.2	1.553	2.534	2.5	20.3	12 7	5 3.46	+21 9.7	1.542	2.526	0.9	19.7
12 17	4 52.98	+15 51.3	1.564	2.532	5.1	20.5	12 17	4 53.67	+21 0.8	1.561	2.534	4.2	20.0
12 27	4 43.60	+15 28.0	1.603	2.530	9.4	20.8	12 27	4 45.09	+20 53.3	1.607	2.542	8.7	20.2
1 6	4 36.43	+15 14.5	1.668	2.527	13.3	21.0	1 6	4 38.73	+20 49.5	1.678	2.550	12.6	20.5
1 16	4 32.07	+15 11.6	1.753	2.525	16.7	21.2	1 16	4 35.18	+20 50.8	1.771	2.558	15.9	20.7
<b>1158</b>	Luda	12	8.5 28°68	10°4/11.2 18			<b>474719</b>	2005 <i>JM</i> <sub>119</sub>	12	8.6 202°97	3°3/ 7.8 18		
11 7	5 35.59	+46 22.2	1.497	2.301	18.0	14.4	11 7	5 30.37	+16 12.6	1.662	2.513	14.3	21.7
11 17	5 28.44	+47 25.3	1.441	2.307	15.1	14.2	11 17	5 23.56	+15 33.5	1.591	2.511	10.4	21.5
11 27	5 17.39	+48 3.4	1.406	2.313	12.3	14.1	11 27	5 14.32	+14 56.1	1.544	2.507	6.3	21.2
12 7	5 4.00	+48 8.5	1.392	2.320	10.6	14.0	12 7	5 3.63	+14 22.8	1.525	2.503	3.3	21.0
12 17	4 50.43	+47 38.1	1.403	2.328	10.7	14.0	12 17	4 52.75	+13 56.6	1.534	2.499	5.6	21.2
12 27	4 38.96	+46 36.9	1.439	2.335	12.7	14.2	12 27	4 43.03	+13 40.2	1.571	2.494	9.8	21.4
1 6	4 31.15	+45 15.4	1.497	2.344	15.3	14.4	1 6	4 35.53	+13 35.0	1.633	2.489	13.8	21.6
1 16	4 27.67	+43 45.0	1.575	2.352	18.0	14.6	1 16	4 30.89	+13 41.2	1.716	2.483	17.2	21.9
<b>444017</b>	2004 <i>EH</i> <sub>92</sub>	12	8.6 61°17	3°3/ 9.3 18			<b>231391</b>	2006 <i>KA</i> <sub>37</sub>	12	8.6 267°88	0°5/ 8.4 17		
11 7	5 29.92	+31 38.5	1.774	2.615	14.0	20.8	11 7	5 25.20	+21 31.6	2.392	3.237	10.7	21.2
11 17	5 23.28	+31 53.3	1.711	2.623	10.4	20.6	11 17	5 19.43	+21 27.7	2.307	3.226	7.7	21.0
11 27	5 14.13	+31 57.5	1.673	2.630	6.5	20.4	11 27	5 11.90	+21 22.3	2.248	3.214	4.3	20.8
12 7	5 3.56	+31 48.9	1.661	2.637	3.5	20.2	12 7	5 3.30	+21 15.6	2.218	3.203	0.7	20.5
12 17	4 52.90	+31 27.5	1.677	2.645	4.8	20.3	12 17	4 54.48	+21 8.2	2.218	3.191	3.2	20.7
12 27	4 43.55	+30 56.4	1.722	2.653	8.5	20.6	12 27	4 46.37	+21 1.3	2.249	3.179	6.8	20.9
1 6	4 36.57	+30 20.6	1.792	2.661	12.1	20.8	1 6	4 39.78	+20 56.6	2.306	3.167	10.1	21.1
1 16	4 32.55	+29 44.9	1.884	2.669	15.2	21.0	1 16	4 35.25	+20 55.4	2.387	3.155	12.9	21.2
<b>489182</b>	2006 <i>HG</i> <sub>10</sub>	12	8.6 198°72	3°2/ 7.6 18			<b>262391</b>	2006 <i>UK</i> <sub>9</sub>	12	8.6 132°17	0°6/ 8.7 18		
11 7	5 23.56	+11 32.6	2.902	3.735	9.3	22.5	11 7	5 28.66	+24 3.5	2.003	2.849	12.4	21.0
11 17	5 17.87	+11 9.6	2.825	3.732	7.0	22.3	11 17	5 22.10	+24 16.3	1.935	2.854	8.9	20.8
11 27	5 10.87	+10 50.8	2.775	3.728	4.6	22.2	11 27	5 13.42	+24 25.8	1.892	2.858	5.0	20.6
12 7	5 3.11	+10 37.6	2.755	3.724	3.2	22.1	12 7	5 3.50	+24 31.2	1.878	2.862	0.9	20.3
12 17	4 55.25	+10 31.4	2.766	3.720	4.3	22.1	12 17	4 53.44	+24 32.3	1.893	2.866	3.6	20.5
12 27	4 47.97	+10 32.9	2.807	3.715	6.7	22.3	12 27	4 44.38	+24 30.5	1.937	2.870	7.6	20.8
1 6	4 41.87	+10 42.3	2.875	3.710	9.1	22.5	1 6	4 37.27	+24 28.0	2.008	2.873	11.2	21.0
1 16	4 37.37	+10 59.0	2.967	3.704	11.3	22.6	1 16	4 32.68	+24 26.9	2.102	2.877	14.2	21.2
<b>395663</b>	2011 <i>WX</i> <sub>81</sub>	12	8.6 116°99	0°2/ 8.5 18			<b>420661</b>	2012 <i>JY</i> <sub>28</sub>	12	8.6 18°98	7°2/ 5.0 18		
11 7	5 29.36	+21 44.5	2.046	2.891	12.2	21.4	11 7	5 25.87	+ 8 51.3	1.826	2.670	13.5	19.8
11 17	5 22.43	+21 52.1	1.986	2.904	8.7	21.2	11 17	5 19.95	+ 6 38.8	1.770	2.675	10.5	19.6
11 27	5 13.50	+21 58.2	1.951	2.917	4.8	21.0	11 27	5 12.14	+ 4 32.3	1.741	2.681	8.0	19.5
12 7	5 3.48	+22 2.2	1.945	2.930	0.7	20.7	12 7	5 3.32	+ 2 39.7	1.740	2.686	7.2	19.5
12 17	4 53.40	+22 4.4	1.969	2.942	3.5	21.0	12 17	4 54.53	+ 1 7.6	1.767	2.693	8.8	19.6
12 27	4 44.37	+22 5.9	2.023	2.954	7.4	21.2	12 27	4 46.80	+ 0 0.5	1.822	2.700	11.5	19.8
1 6	4 37.24	+22 8.5	2.104	2.965	10.9	21.5	1 6	4 40.93	- 0 41.3	1.900	2.707	14.2	20.0
1 16	4 32.56	+22 13.6	2.207	2.977	13.7	21.7	1 16	4 37.41	- 0 59.7	1.998	2.715	16.6	20.2
<b>445705</b>	2011 <i>UK</i> <sub>197</sub>	12	8.6 94°45	5°7/ 9.4 18			<b>15259</b>	1990 <i>SL</i> <sub>7</sub>	12	8.6 21°45	0°8/ 8.6 18		
11 7	5 35.19	+36 25.7	1.907	2.726	14.0	21.1	11 7	5 28.16	+23 30.8	1.071	1.950	18.2	17.7
11 17	5 27.14	+37 33.6	1.852	2.743	10.9	20.9	11 17	5 22.89	+23 52.3	1.024	1.958	13.1	17.5
11 27	5 16.33	+38 28.5	1.821	2.760	7.8	20.8	11 27	5 14.24	+24 10.5	0.997	1.968	7.3	17.2
12 7	5 3.88	+39 5.0	1.818	2.777	5.8	20.7	12 7	5 3.63	+24 23.4	0.994	1.979	1.3	16.9
12 17	4 51.25	+39 20.7	1.844	2.793	6.6	20.8	12 17	4 52.93	+24 30.5	1.016	1.991	5.2	17.2
12 27	4 39.99	+39 17.3	1.897	2.809	9.2	20.9	12 27	4 44.08	+24 33.7	1.061	2.004	10.9	17.5
1 6	4 31.29	+39 0.1	1.977	2.824	12.1	21.2	1 6	4 38.43	+24 36.5	1.128	2.019	15.9	17.9
1 16	4 25.81	+38 35.3	2.078	2.840	14.7	21.4	1 16	4 36.62	+24 41.8	1.214	2.035	19.9	18.2
<b>61876</b>	2000 <i>QN</i> <sub>215</sub>	12	8.6 114°21	1°0/ 8.8 18			<b>141578</b>	2002 <i>GT</i> <sub>159</sub>	12	8.6 198°55	4°0/ 9.4 18		
11 7	5 27.95	+25 38.9	2.048	2.893	12.2	19.4	11 7	5 35.11	+32 58.4	1.696	2.530	14.9	21.3
11 17	5 21.54	+25 43.8	1.980	2.898	8.8	19.2	11 17	5 27.31	+33 17.3	1.621	2.527	11.2	21.1
11 27	5 13.08	+25 43.8	1.937	2.902	5.0	19.0	11 27	5 16.54	+33 23.6	1.570	2.524	7.3	20.8
12 7	5 3.43	+25 38.3	1.923	2.907	1.2	18.7	12 7	5 3.95	+33 13.9	1.546	2.520	4.2	20.6
12 17	4 53.67	+25 27.7	1.938	2.911	3.6	18.9	12 17	4 51.10	+32 47.5	1.550	2.516	5.5	20.7
12 27	4 44.92	+25 13.7	1.982	2.915	7.4	19.1	12 27	4 39.64	+32 7.8	1.583	2.511	9.4	20.9
1 6	4 38.08	+24 59.2	2.053	2.919	10.9	19.4	1 6	4 30.88	+31 21.2	1.641	2.505	13.3	21.1
1 16	4 33.72	+24 46.7	2.147	2.923	13.9	19.6	1 16	4 25.53	+30 34.2	1.721	2.499	16.7	21.4
<b>198584</b>	2004 <i>YQ</i> <sub>21</sub>	12	8.6 268°59	3°4/ 7.9 17			<b>487408</b>	2014 <i>QW</i> <sub>367</sub>	12	8.6 16°46	4°6/ 7.9 18		
11 7	5 24.61	+12 9.3	2.301	3.143	11.2	20.2	11 7	5 24.39	+10 16.4	1.822	2.672	13.3	19.9
11 17	5 18.92	+11 59.3	2.229	3.142	8.3	20.0	11 17	5 19.04	+10 2.6	1.762	2.677	9.9	19.7
11 27	5 11.56	+11 54.9	2.183	3.140	5.3	19.8	11 27	5 11.72	+ 9 57.5	1.726	2.682	6.6	19.5
12 7	5 3.23	+11 57.3	2.165	3.138	3.4	19.7	12 7	5 3.28	+10 3.1	1.717	2.687	4.6	19.4
12 17	4 54.75	+12 7.3	2.177	3.136	4.8	19.8	12 17	4 54.73	+10 20.2	1.736	2.693	6.1	19.5
12 27	4 47.02	+12 25.3	2.218	3.135	7.7	20.0	12 27	4 47.15	+10 48.8	1.782	2.700	9.2	19.7
1 6	4 40.78	+12 50.9	2.285	3.133	10.7	20.1	1 6	4 41.40	+11 27.5	1.853	2.707	12.5	19.9
1 16	4 36.55	+13 23.4	2.375	3.131	13.3	20.3	1 16	4 38.03	+12 14.3	1.945	2.714	15.3	20.2
<b>145008</b>	2005 <i>EO</i> <sub>221</sub>	12	8.6 212°25	10°1/ 8.3 18			<b>269910</b>	2000 <i>HY</i> <sub>43</sub>	12	8.6 293°34	0°2/ 8.5 18		

EPHEMERIDES

12 8.6

12 8.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>202245</b>	2005 <i>AZ</i> <sub>13</sub>	12	8.6 271°69	2°5/ 8.9 18			<b>53429</b>	1999 <i>TF</i> <sub>5</sub>	12	8.6 158°47	9°0/ 5.7 02 C		
11 7	5 30.27	+28 38.6	1.774	2.619	13.8	20.4	11 7	5 33.93	- 5 33.7	2.477	3.243	12.7	24.2
11 17	5 23.78	+29 0.9	1.691	2.607	10.2	20.2	11 17	5 25.23	- 6 55.8	2.425	3.258	10.9	24.1
11 27	5 14.60	+29 16.1	1.632	2.593	6.1	19.9	11 27	5 14.92	- 8 2.0	2.400	3.272	9.5	24.0
12 7	5 3.70	+29 21.6	1.600	2.580	2.7	19.7	12 7	5 3.75	- 8 47.4	2.403	3.283	9.0	24.0
12 17	4 52.37	+29 16.5	1.596	2.567	4.6	19.8	12 17	4 52.59	- 9 9.3	2.434	3.293	9.7	24.1
12 27	4 42.11	+29 2.4	1.621	2.553	8.8	20.0	12 27	4 42.36	- 9 7.3	2.494	3.302	11.2	24.2
1 6	4 34.13	+28 43.4	1.671	2.540	12.8	20.2	1 6	4 33.75	- 8 43.9	2.578	3.308	13.0	24.3
1 16	4 29.20	+28 23.9	1.743	2.526	16.3	20.4	1 16	4 27.25	- 8 2.9	2.683	3.313	14.6	24.5
<b>356102</b>	2009 <i>EK</i> <sub>30</sub>	12	8.6 48°08	1°5/ 8.2 18 R			<b>169491</b>	2002 <i>CV</i> <sub>190</sub>	12	8.6 35°78	0°7/ 8.5 18		
11 7	5 27.59	+20 0.4	1.662	2.520	13.9	20.7	11 7	5 30.92	+20 38.2	1.087	1.962	18.3	19.4
11 17	5 21.51	+19 38.1	1.602	2.526	10.0	20.5	11 17	5 24.83	+20 50.2	1.037	1.970	13.2	19.1
11 27	5 13.14	+19 14.9	1.565	2.533	5.6	20.2	11 27	5 15.33	+21 2.6	1.008	1.978	7.3	18.8
12 7	5 3.48	+18 52.1	1.556	2.539	1.6	20.0	12 7	5 3.83	+21 14.3	1.003	1.988	1.2	18.5
12 17	4 53.75	+18 31.5	1.575	2.546	4.5	20.2	12 17	4 52.21	+21 24.9	1.023	1.997	5.4	18.8
12 27	4 45.24	+18 15.7	1.621	2.554	8.8	20.5	12 27	4 42.43	+21 36.1	1.067	2.008	11.2	19.1
1 6	4 38.90	+18 6.6	1.693	2.561	12.7	20.7	1 6	4 35.89	+21 49.7	1.133	2.019	16.2	19.5
1 16	4 35.32	+18 5.4	1.786	2.568	16.0	21.0	1 16	4 33.24	+22 7.6	1.218	2.030	20.3	19.8
<b>147840</b>	2005 <i>TT</i> <sub>167</sub>	12	8.6 205°69	1°8/ 8.1 18			<b>139828</b>	2001 <i>RR</i> <sub>33</sub>	12	8.6 56°54	4°5/ 7.7 18		
11 7	5 30.20	+19 5.2	1.935	2.781	12.8	21.5	11 7	5 26.89	+12 29.8	1.671	2.524	14.1	19.6
11 17	5 23.24	+18 38.8	1.858	2.776	9.2	21.3	11 17	5 20.83	+11 52.0	1.621	2.539	10.4	19.4
11 27	5 14.08	+18 11.5	1.806	2.771	5.3	21.0	11 27	5 12.69	+11 20.8	1.596	2.554	6.7	19.3
12 7	5 3.62	+17 44.5	1.782	2.764	1.9	20.8	12 7	5 3.44	+10 58.9	1.597	2.570	4.5	19.2
12 17	4 52.96	+17 19.9	1.788	2.758	4.4	21.0	12 17	4 54.23	+10 48.6	1.627	2.585	6.2	19.3
12 27	4 43.30	+17 0.0	1.824	2.750	8.5	21.2	12 27	4 46.22	+10 50.9	1.683	2.601	9.7	19.5
1 6	4 35.60	+16 46.9	1.886	2.742	12.2	21.4	1 6	4 40.27	+11 5.5	1.764	2.617	13.1	19.8
1 16	4 30.49	+16 42.1	1.970	2.733	15.4	21.6	1 16	4 36.88	+11 30.8	1.865	2.633	16.0	20.0
<b>195919</b>	2002 <i>RX</i> <sub>83</sub>	12	8.6 63°54	2°4/ 7.9 18			<b>77079</b>	2001 <i>DX</i> <sub>30</sub>	12	8.6 152°57	6°2/ 7.6 18		
11 7	5 24.51	+16 17.1	2.225	3.073	11.3	19.9	11 7	5 27.59	+ 5 27.1	1.998	2.827	13.1	19.8
11 17	5 18.83	+15 53.9	2.162	3.081	8.1	19.7	11 17	5 21.15	+ 4 59.0	1.936	2.832	10.2	19.7
11 27	5 11.50	+15 32.8	2.126	3.089	4.8	19.5	11 27	5 12.85	+ 4 42.4	1.898	2.837	7.5	19.5
12 7	5 3.25	+15 15.2	2.118	3.097	2.4	19.4	12 7	5 3.48	+ 4 39.9	1.888	2.841	6.2	19.4
12 17	4 54.96	+15 2.6	2.139	3.105	4.2	19.5	12 17	4 54.01	+ 4 53.2	1.907	2.845	7.3	19.5
12 27	4 47.52	+14 56.4	2.190	3.113	7.4	19.7	12 27	4 45.48	+ 5 22.0	1.953	2.849	9.8	19.7
1 6	4 41.66	+14 57.3	2.267	3.122	10.5	19.9	1 6	4 38.70	+ 6 4.4	2.024	2.853	12.7	19.9
1 16	4 37.86	+15 5.3	2.367	3.130	13.1	20.1	1 16	4 34.20	+ 6 57.7	2.117	2.856	15.2	20.0
<b>414674</b>	2009 <i>WN</i> <sub>83</sub>	12	8.6 306°29	2°1/ 9.1 18			<b>24149</b>	Raghavan	12	8.6 41°67	0°1/ 8.6 18		
11 7	5 26.49	+29 3.4	2.051	2.894	12.2	21.2	11 7	5 29.24	+21 55.7	1.462	2.324	15.3	18.6
11 17	5 20.73	+29 6.0	1.964	2.879	9.0	21.0	11 17	5 22.99	+22 10.0	1.408	2.334	11.0	18.4
11 27	5 12.78	+29 1.0	1.903	2.864	5.4	20.7	11 27	5 14.08	+22 23.0	1.376	2.345	6.0	18.1
12 7	5 3.45	+28 47.0	1.869	2.850	2.2	20.5	12 7	5 3.65	+22 33.5	1.371	2.356	0.8	17.8
12 17	4 53.84	+28 24.5	1.864	2.835	3.9	20.6	12 17	4 53.14	+22 41.3	1.393	2.367	4.4	18.1
12 27	4 45.13	+27 55.7	1.888	2.821	7.7	20.8	12 27	4 44.02	+22 47.9	1.442	2.379	9.2	18.4
1 6	4 38.32	+27 24.3	1.938	2.807	11.3	21.0	1 6	4 37.44	+22 55.2	1.516	2.391	13.5	18.7
1 16	4 34.07	+26 54.0	2.011	2.793	14.5	21.2	1 16	4 33.98	+23 5.3	1.610	2.404	17.0	18.9
<b>485339</b>	2011 <i>BO</i> <sub>142</sub>	12	8.6 229°66	0°1/ 8.6 18			<b>454747</b>	2014 <i>UX</i> <sub>194</sub>	12	8.6 233°43	1°6/ 8.8 18		
11 7	5 25.99	+23 5.5	2.886	3.722	9.3	22.3	11 7	5 27.22	+26 43.3	2.356	3.195	11.0	20.5
11 17	5 19.79	+23 11.3	2.795	3.709	6.7	22.1	11 17	5 20.97	+27 9.3	2.278	3.192	8.0	20.3
11 27	5 12.04	+23 15.0	2.731	3.696	3.7	21.9	11 27	5 12.81	+27 31.2	2.227	3.190	4.7	20.1
12 7	5 3.35	+23 16.3	2.698	3.682	0.5	21.6	12 7	5 3.49	+27 47.3	2.205	3.187	1.7	19.8
12 17	4 54.44	+23 15.3	2.696	3.668	2.7	21.8	12 17	4 53.94	+27 57.0	2.213	3.184	3.4	20.0
12 27	4 46.12	+23 12.9	2.725	3.654	5.9	22.0	12 27	4 45.19	+28 0.9	2.251	3.181	6.8	20.2
1 6	4 39.09	+23 10.4	2.783	3.639	8.7	22.1	1 6	4 38.10	+28 1.2	2.316	3.178	10.0	20.4
1 16	4 33.84	+23 9.4	2.865	3.623	11.2	22.3	1 16	4 33.25	+28 0.2	2.405	3.175	12.7	20.6
<b>244908</b>	2003 <i>WC</i> <sub>129</sub>	12	8.6 278°56	3°2/ 8.9 18			<b>305001</b>	2007 <i>TQ</i> <sub>267</sub>	12	8.6 155°06	1°6/ 8.9 18		
11 7	5 28.49	+31 7.0	2.339	3.170	11.4	20.1	11 7	5 30.73	+27 18.6	2.082	2.920	12.3	21.6
11 17	5 22.05	+31 52.2	2.256	3.161	8.5	19.9	11 17	5 23.56	+27 32.4	2.014	2.927	8.9	21.4
11 27	5 13.49	+32 31.0	2.199	3.153	5.5	19.7	11 27	5 14.24	+27 40.2	1.970	2.933	5.2	21.1
12 7	5 3.56	+33 0.4	2.171	3.144	3.3	19.5	12 7	5 3.68	+27 40.5	1.956	2.938	1.8	20.9
12 17	4 53.29	+33 18.6	2.172	3.136	4.4	19.6	12 17	4 52.99	+27 33.3	1.972	2.943	3.7	21.1
12 27	4 43.80	+33 26.2	2.203	3.127	7.4	19.7	12 27	4 43.35	+27 20.3	2.017	2.947	7.5	21.3
1 6	4 36.06	+33 25.5	2.261	3.118	10.4	19.9	1 6	4 35.71	+27 4.6	2.089	2.951	10.9	21.5
1 16	4 30.75	+33 20.0	2.343	3.110	13.1	20.1	1 16	4 30.64	+26 49.6	2.185	2.955	13.8	21.7
<b>142258</b>	2002 <i>RZ</i> <sub>106</sub>	12	8.6 24°90	6°6/ 9.4 18			<b>339058</b>	2004 <i>PX</i> <sub>7</sub>	12	8.6 85°11	0°4/ 8.5 18		
11 7	5 30.73	+34 46.7	1.275	2.128	17.6	18.6	11 7	5 32.29	+23 12.0	1.608	2.459	14.7	21.1
11 17	5 24.74	+35 58.4	1.229	2.141	13.5	18.4	11 17	5 24.74	+22 49.7	1.562	2.484	10.4	20.9
11 27	5 15.29	+36 54.7	1.205	2.156	9.4	18.2	11 27	5 14.83	+22 23.2	1.541	2.508	5.7	20.7
12 7	5 3.81	+37 29.2	1.205	2.172	6.7	18.1	12 7	5 3.75	+21 53.4	1.547	2.532	0.8	20.4
12 17	4 52.20	+37 38.9	1.230	2.189	7.8	18.2	12 17	4 52.87	+21 22.3	1.582	2.555	4.2	20.7
12 27	4 42.46	+37 27.0	1.280	2.207	11.2	18.4	12 27	4 43.50	+20 53.4	1.645	2.578	8.7	21.0
1 6	4 35.99	+37 0.8	1.352	2.226	14.9	18.7	1 6	4 36.59	+20 29.9	1.734	2.600	12.6	21.3
1 16	4 33.43	+36 28.0	1.444	2.246	18.2	19.0	1 16	4 32.61	+20 13.8	1.844	2.623	15.7	21.6
<b>489179</b>	2006 <i>GY</i> <sub>46</sub>	12	8.6 269°72	5°0/ 9.4 18			<b>112910</b>	2002 <i>QY</i> <sub>56</sub>	12	8.6 269°92	4°3/ 7.9 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>248227</b>	2005 <i>ES</i> <sub>207</sub>	12 8.6 63°05'	12.4/15.3	17			<b>325370</b>	2008 <i>QE</i> <sub>39</sub>	12 8.6 169°50'	3°1'	7.6	17	
11 7	5 47.25	+57 46.3	1.736	2.463	18.7	19.2	11 7	5 24.26	+13 25.7	2.600	3.439	10.1	21.3
11 17	5 36.65	+58 5.8	1.679	2.475	16.6	19.1	11 17	5 18.51	+12 51.6	2.530	3.442	7.4	21.1
11 27	5 21.70	+57 51.1	1.639	2.486	14.4	19.0	11 27	5 11.32	+12 20.5	2.487	3.444	4.7	21.0
12 7	5 4.68	+56 54.3	1.621	2.497	12.9	18.9	12 7	5 3.32	+11 54.6	2.473	3.445	3.1	20.9
12 17	4 48.39	+55 14.7	1.628	2.509	12.4	18.9	12 17	4 55.26	+11 35.3	2.489	3.447	4.4	21.0
12 27	4 35.28	+53 0.4	1.659	2.521	13.3	19.0	12 27	4 47.89	+11 24.2	2.535	3.448	7.1	21.1
1 6	4 26.66	+50 25.4	1.714	2.533	15.0	19.1	1 6	4 41.86	+11 21.8	2.608	3.449	9.8	21.3
1 16	4 22.77	+47 44.1	1.792	2.545	17.1	19.3	1 16	4 37.62	+11 27.8	2.705	3.449	12.1	21.5
<b>227828</b>	2007 <i>CA</i> <sub>38</sub>	12 8.6 253°35'	1°8'	8.2	18		<b>231633</b>	2009 <i>UV</i> <sub>26</sub>	12 8.6 86°34'	1°1'	8.7	18	
11 7	5 29.94	+18 40.0	1.687	2.539	14.0	21.0	11 7	5 28.33	+24 50.9	2.211	3.053	11.6	20.3
11 17	5 23.46	+18 28.5	1.605	2.526	10.2	20.7	11 17	5 21.72	+25 18.5	2.150	3.066	8.3	20.1
11 27	5 14.43	+18 17.4	1.547	2.513	5.8	20.4	11 27	5 13.20	+25 42.9	2.115	3.079	4.7	19.9
12 7	5 3.76	+18 7.7	1.517	2.500	1.9	20.1	12 7	5 3.59	+26 2.6	2.109	3.092	1.3	19.6
12 17	4 52.71	+18 0.5	1.515	2.486	4.8	20.3	12 17	4 53.88	+26 16.8	2.133	3.105	3.4	19.8
12 27	4 42.68	+17 57.6	1.541	2.471	9.4	20.5	12 27	4 45.12	+26 26.3	2.187	3.118	6.9	20.1
1 6	4 34.83	+18 0.8	1.592	2.457	13.6	20.7	1 6	4 38.14	+26 33.0	2.268	3.131	10.1	20.3
1 16	4 29.91	+18 11.2	1.665	2.442	17.2	21.0	1 16	4 33.48	+26 38.8	2.372	3.143	12.8	20.5
<b>470971</b>	2009 <i>RR</i> <sub>41</sub>	12 8.6 158°15'	0°1'	8.6	18		<b>424886</b>	2008 <i>VN</i> <sub>80</sub>	12 8.6 261°71'	2°6'	8.0	18	
11 7	5 32.25	+23 57.6	1.746	2.593	13.9	21.7	11 7	5 23.74	+13 36.9	2.638	3.478	10.0	20.8
11 17	5 24.84	+23 38.1	1.680	2.599	10.0	21.4	11 17	5 18.22	+13 32.7	2.558	3.470	7.3	20.6
11 27	5 15.01	+23 13.4	1.638	2.604	5.5	21.2	11 27	5 11.22	+13 32.4	2.504	3.463	4.5	20.4
12 7	5 3.81	+22 43.8	1.625	2.609	0.8	20.9	12 7	5 3.32	+13 37.0	2.479	3.455	2.6	20.2
12 17	4 52.55	+22 11.2	1.641	2.614	4.0	21.1	12 17	4 55.25	+13 47.1	2.485	3.448	4.0	20.3
12 27	4 42.57	+21 38.9	1.686	2.618	8.6	21.4	12 27	4 47.80	+14 3.0	2.520	3.440	6.8	20.5
1 6	4 34.91	+21 10.4	1.757	2.621	12.5	21.7	1 6	4 41.62	+14 24.8	2.583	3.432	9.6	20.7
1 16	4 30.13	+20 48.7	1.850	2.624	15.8	21.9	1 16	4 37.22	+14 52.0	2.670	3.424	12.0	20.8
<b>151731</b>	2003 <i>BA</i> <sub>86</sub>	12 8.6 213°14'	1°0'	8.9	18		<b>113138</b>	2002 <i>RZ</i> <sub>87</sub>	12 8.6 109°82'	4°1'	7.8	18	
11 7	5 31.19	+26 55.1	1.670	2.518	14.3	20.0	11 7	5 32.11	+13 31.0	1.690	2.535	14.4	20.0
11 17	5 24.32	+26 34.8	1.596	2.516	10.4	19.8	11 17	5 24.47	+12 52.3	1.643	2.557	10.5	19.8
11 27	5 14.83	+26 6.0	1.547	2.512	5.9	19.5	11 27	5 14.68	+12 18.8	1.620	2.579	6.6	19.6
12 7	5 3.81	+25 28.4	1.525	2.509	1.4	19.2	12 7	5 3.78	+11 53.2	1.626	2.600	4.1	19.5
12 17	4 52.61	+24 44.2	1.532	2.505	4.2	19.4	12 17	4 53.03	+11 37.8	1.660	2.620	6.0	19.7
12 27	4 42.71	+23 57.3	1.567	2.501	8.9	19.7	12 27	4 43.61	+11 33.9	1.723	2.640	9.6	19.9
1 6	4 35.23	+23 12.9	1.627	2.497	13.1	19.9	1 6	4 36.44	+11 41.6	1.811	2.658	13.0	20.2
1 16	4 30.79	+22 35.2	1.709	2.493	16.6	20.1	1 16	4 31.98	+11 59.8	1.920	2.677	15.9	20.4
<b>413795</b>	2006 <i>HB</i> <sub>119</sub>	12 8.6 309°66'	5°5'	6.6	17		<b>295628</b>	2008 <i>SP</i> <sub>236</sub>	12 8.6 35°64'	5°2'	6.7	18	
11 7	5 23.54	+7 57.1	2.242	3.079	11.6	21.0	11 7	5 23.74	+9 15.0	2.191	3.032	11.7	20.5
11 17	5 18.18	+6 55.2	2.173	3.076	9.0	20.8	11 17	5 18.31	+8 9.2	2.129	3.035	8.9	20.4
11 27	5 11.20	+6 0.3	2.130	3.072	6.6	20.7	11 27	5 11.26	+7 9.6	2.093	3.039	6.4	20.2
12 7	5 3.30	+5 16.0	2.115	3.069	5.5	20.6	12 7	5 3.32	+6 20.2	2.084	3.042	5.2	20.1
12 17	4 55.29	+4 45.4	2.128	3.066	6.7	20.7	12 17	4 55.34	+5 44.0	2.105	3.046	6.5	20.2
12 27	4 48.04	+4 30.3	2.170	3.063	9.2	20.8	12 27	4 48.18	+5 22.9	2.153	3.050	9.0	20.4
1 6	4 42.28	+4 30.6	2.236	3.060	11.8	21.0	1 6	4 42.55	+5 17.1	2.227	3.054	11.7	20.6
1 16	4 38.49	+4 44.9	2.324	3.057	14.1	21.2	1 16	4 38.92	+5 25.3	2.322	3.058	14.1	20.8
<b>327478</b>	2005 <i>YR</i> <sub>58</sub>	12 8.6 297°30'	2°0'	8.1	17		<b>310390</b>	1998 <i>HC</i> <sub>2</sub>	12 8.6 328°80'	5°8'	6.7	17	
11 7	5 25.41	+18 10.4	2.016	2.868	12.1	20.9	11 7	5 23.10	+13 26.7	1.391	2.261	15.4	20.1
11 17	5 19.90	+17 50.1	1.929	2.850	8.8	20.7	11 17	5 18.96	+12 11.5	1.305	2.231	11.7	19.8
11 27	5 12.33	+17 30.1	1.866	2.831	5.1	20.4	11 27	5 12.13	+10 57.4	1.241	2.202	7.8	19.5
12 7	5 3.47	+17 11.7	1.831	2.813	2.0	20.2	12 7	5 3.49	+9 50.7	1.202	2.174	5.8	19.3
12 17	4 54.30	+16 56.6	1.825	2.795	4.3	20.3	12 17	4 54.32	+8 57.6	1.189	2.147	8.1	19.4
12 27	4 45.92	+16 46.5	1.848	2.777	8.2	20.5	12 27	4 46.14	+8 23.7	1.200	2.121	12.4	19.6
1 6	4 39.27	+16 43.1	1.897	2.758	11.9	20.7	1 6	4 40.21	+8 11.0	1.233	2.096	16.9	19.8
1 16	4 34.98	+16 47.2	1.968	2.741	15.1	20.9	1 16	4 37.40	+8 19.1	1.284	2.073	20.8	19.9
<b>361379</b>	2006 <i>VK</i> <sub>38</sub>	12 8.6 0°62'	0°1'	8.6	17		<b>212386</b>	2006 <i>HP</i> <sub>86</sub>	12 8.6 129°57'	1°0'	8.7	17	
11 7	5 27.44	+23 42.5	1.764	2.618	13.4	21.9	11 7	5 34.96	+24 19.7	1.507	2.357	15.5	20.8
11 17	5 21.48	+23 34.8	1.695	2.618	9.7	21.7	11 17	5 27.14	+24 41.1	1.449	2.369	11.2	20.6
11 27	5 13.21	+23 23.2	1.650	2.618	5.4	21.4	11 27	5 16.43	+24 58.3	1.414	2.380	6.3	20.3
12 7	5 3.59	+23 7.6	1.633	2.618	0.8	21.1	12 7	5 4.06	+25 9.1	1.406	2.391	1.4	20.0
12 17	4 53.80	+22 49.1	1.644	2.618	3.9	21.3	12 17	4 51.59	+25 12.9	1.427	2.401	4.5	20.3
12 27	4 45.13	+22 30.2	1.683	2.618	8.3	21.6	12 27	4 40.63	+25 11.5	1.476	2.410	9.4	20.6
1 6	4 38.57	+22 13.8	1.748	2.619	12.2	21.8	1 6	4 32.40	+25 8.5	1.550	2.419	13.6	20.9
1 16	4 34.75	+22 2.1	1.834	2.620	15.5	22.1	1 16	4 27.54	+25 7.0	1.645	2.427	17.2	21.1
<b>328813</b>	2009 <i>VB</i> <sub>79</sub>	12 8.6 49°24'	6°8'	10.3	17		<b>144703</b>	2004 <i>GY</i> <sub>15</sub>	12 8.6 240°51'	3°7'	7.5	18	
11 7	5 31.69	+41 5.4	1.976	2.786	14.0	20.5	11 7	5 26.35	+13 0.0	2.161	3.004	11.7	21.0
11 17	5 24.69	+41 53.0	1.919	2.797	11.2	20.3	11 17	5 20.35	+12 24.1	2.080	2.993	8.7	20.8
11 27	5 15.03	+42 24.1	1.884	2.809	8.6	20.2	11 27	5 12.49	+11 51.9	2.026	2.982	5.6	20.6
12 7	5 3.84	+42 34.3	1.876	2.822	6.9	20.1	12 7	5 3.52	+11 25.9	1.999	2.971	3.7	20.4
12 17	4 52.53	+42 22.2	1.895	2.834	7.3	20.2	12 17	4 54.34	+11 8.2	2.002	2.960	5.3	20.5
12 27	4 42.59	+41 50.8	1.941	2.847	9.3	20.3	12 27	4 45.94	+11 0.6	2.034	2.948	8.5	20.7
1 6	4 35.16	+41 5.8	2.012	2.860	11.9	20.5	1 6	4 39.15	+11 3.6	2.092	2.936	11.7	20.9
1 16	4 30.83	+40 14.2	2.105	2.873	14.4	20.7	1 16	4 34.54	+11 17.0	2.173	2.924	14.5	21.0
<b>77248</b>	2001 <i>FD</i> <sub>44</sub>	12 8.6 173°20'	3°3'	9.3	18		<b>287751</b>	2003 <i>SU</i> <sub>35</sub>	12 8.6 80°43'	3°7'	9.4	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>280023</b>	2001 <i>WH</i> <sub>101</sub>	12 8.6 55°68'	1°3'	8.1	17		<b>515912</b>	2015 <i>PQ</i> <sub>293</sub>	12 8.6 137°81'	3°9'	9.8	18	
11 7	5 24.33	+20 17.2	2.334	3.182	10.8	20.6	11 7	5 33.05	+34 55.1	2.119	2.939	12.8	21.7
11 17	5 18.69	+19 43.9	2.272	3.192	7.7	20.5	11 17	5 25.27	+35 2.8	2.054	2.951	9.7	21.5
11 27	5 11.45	+19 9.1	2.235	3.201	4.3	20.3	11 27	5 15.23	+34 58.0	2.014	2.962	6.4	21.4
12 7	5 3.37	+18 34.6	2.228	3.211	1.4	20.1	12 7	5 3.97	+34 38.5	2.002	2.972	4.0	21.2
12 17	4 55.28	+18 2.1	2.250	3.220	3.5	20.2	12 17	4 52.70	+34 4.8	2.020	2.982	4.8	21.3
12 27	4 48.04	+17 33.9	2.302	3.230	6.8	20.5	12 27	4 42.69	+33 20.2	2.068	2.992	7.8	21.5
1 6	4 42.35	+17 11.8	2.382	3.240	9.9	20.7	1 6	4 34.88	+32 30.0	2.142	3.001	10.9	21.7
1 16	4 38.65	+16 56.8	2.484	3.250	12.5	20.9	1 16	4 29.81	+31 39.3	2.241	3.009	13.6	21.9
<b>132860</b>	2002 <i>RJ</i> <sub>70</sub>	12 8.6 212°61'	5°6'	6.5	18		<b>279551</b>	2011 <i>CK</i> <sub>42</sub>	12 8.6 237°70'	0°7'	8.4	18	
11 7	5 23.49	+4 33.1	2.696	3.516	10.4	20.4	11 7	5 31.28	+21 55.6	1.819	2.666	13.4	21.7
11 17	5 17.95	+3 40.6	2.623	3.511	8.2	20.3	11 17	5 24.36	+21 37.7	1.733	2.653	9.7	21.4
11 27	5 11.03	+2 56.1	2.577	3.506	6.4	20.2	11 27	5 14.94	+21 16.4	1.672	2.638	5.4	21.2
12 7	5 3.33	+2 22.9	2.559	3.500	5.6	20.1	12 7	5 3.96	+20 52.1	1.639	2.623	1.0	20.8
12 17	4 55.51	+2 3.1	2.571	3.494	6.5	20.2	12 17	4 52.62	+20 26.4	1.635	2.608	4.2	21.0
12 27	4 48.31	+1 57.9	2.610	3.487	8.5	20.3	12 27	4 42.28	+20 1.9	1.660	2.591	8.8	21.3
1 6	4 42.34	+2 6.8	2.676	3.481	10.6	20.4	1 6	4 34.07	+19 41.8	1.712	2.574	12.9	21.5
1 16	4 38.05	+2 28.4	2.763	3.473	12.6	20.6	1 16	4 28.70	+19 28.6	1.785	2.556	16.4	21.7
<b>323013</b>	2002 <i>PT</i> <sub>161</sub>	12 8.6 114°62'	1°5'	8.2	18		<b>69186</b>	6783 <i>P-L</i>	12 8.6 40°56'	2°9'	9.1	18	
11 7	5 25.66	+17 34.6	2.813	3.650	9.5	22.3	11 7	5 29.84	+29 10.1	1.558	2.411	15.0	19.1
11 17	5 19.36	+17 24.7	2.756	3.670	6.8	22.1	11 17	5 23.48	+29 37.7	1.505	2.423	11.0	18.9
11 27	5 11.73	+17 15.7	2.727	3.690	3.9	22.0	11 27	5 14.43	+29 56.5	1.475	2.437	6.7	18.7
12 7	5 3.42	+17 8.4	2.727	3.709	1.5	21.8	12 7	5 3.87	+30 4.1	1.471	2.451	3.1	18.5
12 17	4 55.11	+17 3.4	2.759	3.727	3.2	22.0	12 17	4 53.24	+29 59.8	1.494	2.465	4.8	18.6
12 27	4 47.55	+17 1.6	2.822	3.745	6.0	22.2	12 27	4 44.05	+29 46.3	1.545	2.480	9.0	18.9
1 6	4 41.30	+17 3.7	2.913	3.763	8.6	22.4	1 6	4 37.43	+29 27.9	1.621	2.495	12.8	19.2
1 16	4 36.78	+17 10.2	3.029	3.780	10.8	22.6	1 16	4 33.95	+29 9.1	1.717	2.511	16.1	19.4
<b>76451</b>	2000 <i>FB</i> <sub>36</sub>	12 8.6 186°82'	3°4'	8.1	18		<b>337991</b>	2002 <i>CB</i> <sub>284</sub>	12 8.6 306°02'	1°1'	8.4	18	
11 7	5 25.29	+11 4.8	2.400	3.237	10.9	19.3	11 7	5 28.23	+20 55.6	1.485	2.347	15.0	21.4
11 17	5 19.40	+11 5.4	2.328	3.237	8.1	19.2	11 17	5 22.58	+20 44.2	1.406	2.333	10.9	21.2
11 27	5 11.90	+11 12.4	2.282	3.237	5.3	19.0	11 27	5 14.12	+20 31.2	1.351	2.319	6.1	20.9
12 7	5 3.46	+11 26.9	2.265	3.237	3.4	18.9	12 7	5 3.86	+20 17.0	1.321	2.306	1.3	20.5
12 17	4 54.86	+11 49.0	2.278	3.236	4.7	18.9	12 17	4 53.19	+20 3.1	1.319	2.292	4.8	20.7
12 27	4 46.98	+12 18.7	2.320	3.236	7.5	19.1	12 27	4 43.66	+19 51.8	1.343	2.280	9.9	21.0
1 6	4 40.54	+12 55.1	2.390	3.236	10.3	19.3	1 6	4 36.56	+19 46.0	1.392	2.267	14.5	21.2
1 16	4 36.04	+13 37.3	2.483	3.235	12.8	19.5	1 16	4 32.66	+19 47.4	1.460	2.255	18.4	21.4
<b>445609</b>	2011 <i>ST</i> <sub>128</sub>	12 8.6 11°30'	1°6'	8.3	17		<b>232562</b>	2003 <i>SE</i> <sub>275</sub>	12 8.6 60°07'	3°9'	7.1	18	
11 7	5 27.18	+19 29.4	1.571	2.432	14.4	21.1	11 7	5 26.42	+14 53.5	2.002	2.850	12.3	19.8
11 17	5 21.45	+19 14.5	1.507	2.433	10.4	20.9	11 17	5 20.23	+13 37.5	1.952	2.869	9.0	19.6
11 27	5 13.27	+18 59.5	1.467	2.435	5.9	20.6	11 27	5 12.32	+12 24.1	1.929	2.887	5.7	19.5
12 7	5 3.67	+18 45.6	1.453	2.437	1.7	20.4	12 7	5 3.57	+11 17.3	1.934	2.906	3.9	19.4
12 17	4 53.90	+18 34.3	1.467	2.439	4.6	20.6	12 17	4 54.93	+10 20.8	1.969	2.925	5.6	19.6
12 27	4 45.35	+18 27.5	1.508	2.442	9.2	20.8	12 27	4 47.36	+9 37.7	2.033	2.944	8.6	19.8
1 6	4 39.05	+18 27.0	1.573	2.445	13.3	21.1	1 6	4 41.55	+9 9.2	2.122	2.964	11.6	20.0
1 16	4 35.63	+18 33.8	1.660	2.449	16.8	21.3	1 16	4 37.95	+8 54.7	2.233	2.983	14.2	20.2
<b>28105</b>	Santalo	12 8.6 187°87'	4°3'	9.4	18		<b>320102</b>	2007 <i>EK</i> <sub>117</sub>	12 8.6 286°92'	4°6'	7.4	17	
11 7	5 32.70	+34 40.3	2.201	3.021	12.4	19.6	11 7	5 24.72	+10 28.6	2.103	2.946	12.0	21.0
11 17	5 25.21	+35 22.4	2.125	3.021	9.5	19.4	11 17	5 19.21	+9 48.7	2.029	2.939	9.1	20.8
11 27	5 15.33	+35 54.3	2.075	3.020	6.5	19.2	11 27	5 11.90	+9 14.8	1.981	2.933	6.2	20.6
12 7	5 3.97	+36 12.4	2.052	3.018	4.4	19.1	12 7	5 3.54	+8 49.9	1.961	2.926	4.6	20.5
12 17	4 52.32	+36 14.8	2.059	3.016	5.3	19.1	12 17	4 55.01	+8 36.2	1.969	2.920	6.0	20.6
12 27	4 41.68	+36 3.2	2.096	3.014	8.0	19.3	12 27	4 47.28	+8 35.2	2.005	2.914	8.9	20.7
1 6	4 33.13	+35 41.4	2.159	3.011	11.1	19.5	1 6	4 41.14	+8 46.8	2.066	2.907	11.9	20.9
1 16	4 27.34	+35 14.5	2.246	3.008	13.7	19.6	1 16	4 37.15	+9 9.7	2.150	2.901	14.6	21.1
<b>28533</b>	Iansohl	12 8.6 259°66'	0°3'	8.5	18		<b>153719</b>	2001 <i>UW</i> <sub>104</sub>	12 8.6 286°36'	3°7'	9.0	18	
11 7	5 30.60	+22 49.8	1.668	2.521	14.2	19.5	11 7	5 32.57	+29 52.9	1.550	2.397	15.3	19.9
11 17	5 24.08	+22 38.2	1.583	2.505	10.3	19.3	11 17	5 25.82	+30 40.6	1.478	2.393	11.4	19.6
11 27	5 14.86	+22 22.7	1.523	2.490	5.8	19.0	11 27	5 15.98	+31 20.6	1.430	2.389	7.2	19.4
12 7	5 3.92	+22 3.3	1.489	2.473	0.8	18.6	12 7	5 4.14	+31 48.3	1.408	2.385	3.9	19.2
12 17	4 52.56	+21 41.1	1.484	2.457	4.3	18.8	12 17	4 51.87	+32 0.9	1.414	2.382	5.6	19.3
12 27	4 42.26	+21 18.9	1.506	2.440	9.2	19.0	12 27	4 40.90	+31 59.9	1.447	2.378	9.8	19.5
1 6	4 34.25	+21 0.1	1.554	2.423	13.6	19.3	1 6	4 32.64	+31 49.6	1.504	2.374	13.9	19.8
1 16	4 29.30	+20 47.6	1.624	2.405	17.4	19.5	1 16	4 27.90	+31 35.5	1.582	2.370	17.5	20.0
<b>265237</b>	2004 <i>DE</i> <sub>51</sub>	12 8.6 312°72'	5°5'	7.8	18		<b>234441</b>	2001 <i>SG</i> <sub>85</sub>	12 8.6 47°32'	4°3'	9.9	17	
11 7	5 28.31	+11 24.5	1.357	2.217	16.3	20.4	11 7	5 28.44	+35 45.1	2.125	2.950	12.6	20.6
11 17	5 22.60	+10 53.4	1.289	2.209	12.3	20.1	11 17	5 22.01	+36 2.3	2.066	2.964	9.6	20.5
11 27	5 14.08	+10 31.0	1.243	2.202	8.1	19.9	11 27	5 13.46	+36 7.2	2.032	2.978	6.6	20.3
12 7	5 3.81	+10 21.2	1.222	2.194	5.5	19.7	12 7	5 3.75	+35 57.7	2.026	2.993	4.4	20.2
12 17	4 53.21	+10 26.3	1.227	2.187	7.5	19.8	12 17	4 54.02	+35 34.1	2.048	3.007	5.1	20.3
12 27	4 43.85	+10 47.4	1.258	2.181	11.8	20.0	12 27	4 45.46	+34 59.0	2.099	3.022	7.7	20.5
1 6	4 36.97	+11 23.2	1.311	2.174	16.0	20.2	1 6	4 38.96	+34 17.1	2.176	3.037	10.6	20.7
1 16	4 33.32	+12 11.3	1.383	2.168	19.7	20.5	1 16	4 35.04	+33 33.2	2.276	3.053	13.1	20.9
<b>189105</b>	2001 <i>ST</i> <sub>105</sub>	12 8.6 64°47'	0°3'	8.7	18		<b>517942</b>	2015 <i>TR</i> <sub>294</sub>	12 8.6 72°68'				

EPHEMERIDES

12 8.6

12 8.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>329522</b>	2002 <i>SR</i> <sub>25</sub>	12 8.6 76°85	4.6/ 9.3 18				<b>81841</b>	2000 <i>KT</i> <sub>53</sub>	12 8.6 130°45	4.8/ 8.0 18			
11 7	5 37.92	+31 58.5	1.401	2.243	16.9	20.7	11 7	5 28.08	+7 16.0	2.257	3.084	11.9	19.9
11 17	5 29.41	+32 46.5	1.361	2.271	12.6	20.5	11 17	5 21.38	+7 8.3	2.197	3.096	9.1	19.8
11 27	5 17.72	+33 21.2	1.343	2.299	8.0	20.3	11 27	5 13.02	+7 10.0	2.164	3.108	6.3	19.6
12 7	5 4.36	+33 37.9	1.352	2.326	4.7	20.2	12 7	5 3.73	+7 22.6	2.158	3.119	4.8	19.6
12 17	4 51.16	+33 35.5	1.388	2.353	6.1	20.3	12 17	4 54.40	+7 46.5	2.183	3.130	5.8	19.6
12 27	4 39.94	+33 17.8	1.451	2.380	10.0	20.6	12 27	4 45.92	+8 21.2	2.237	3.141	8.4	19.8
1 6	4 31.93	+32 51.4	1.538	2.406	13.8	20.9	1 6	4 39.04	+9 5.1	2.318	3.151	11.1	20.0
1 16	4 27.65	+32 22.9	1.647	2.432	17.0	21.2	1 16	4 34.23	+9 56.4	2.422	3.161	13.5	20.2
<b>442757</b>	2012 <i>WU</i> <sub>33</sub>	12 8.6 79°28	1.2/ 8.4 18				<b>240963</b>	2006 <i>HC</i> <sub>85</sub>	12 8.6 141°88	3.3/ 9.4 18			
11 7	5 30.09	+19 28.5	1.614	2.469	14.4	21.0	11 7	5 32.48	+32 28.8	2.127	2.953	12.5	20.9
11 17	5 23.44	+19 32.2	1.557	2.480	10.4	20.8	11 17	5 24.91	+32 49.3	2.061	2.964	9.4	20.8
11 27	5 14.36	+19 36.6	1.524	2.491	5.8	20.6	11 27	5 15.11	+32 59.8	2.021	2.974	6.0	20.6
12 7	5 3.90	+19 41.5	1.518	2.502	1.4	20.3	12 7	5 4.03	+32 57.9	2.009	2.983	3.5	20.4
12 17	4 53.37	+19 47.4	1.540	2.513	4.4	20.5	12 17	4 52.87	+32 43.4	2.027	2.992	4.5	20.5
12 27	4 44.11	+19 55.2	1.590	2.524	8.9	20.8	12 27	4 42.85	+32 18.7	2.075	3.000	7.6	20.7
1 6	4 37.16	+20 6.3	1.666	2.534	12.9	21.1	1 6	4 34.95	+31 47.9	2.149	3.008	10.8	20.9
1 16	4 33.11	+20 21.8	1.763	2.545	16.2	21.3	1 16	4 29.73	+31 15.6	2.247	3.015	13.6	21.1
<b>264195</b>	2010 <i>HX</i> <sub>66</sub>	12 8.6 97°02	1.0/ 8.9 18				<b>471943</b>	2013 <i>RO</i> <sub>33</sub>	12 8.6 158°10	0.5/ 8.5 16			
11 7	5 29.57	+26 21.5	1.925	2.770	12.9	20.9	11 7	5 33.96	+22 39.5	1.647	2.494	14.6	22.1
11 17	5 22.79	+26 12.5	1.865	2.782	9.3	20.7	11 17	5 26.24	+22 24.0	1.582	2.502	10.5	21.9
11 27	5 13.88	+25 57.2	1.830	2.795	5.2	20.5	11 27	5 15.94	+22 4.6	1.542	2.508	5.8	21.6
12 7	5 3.83	+25 35.5	1.824	2.807	1.3	20.2	12 7	5 4.16	+21 41.5	1.530	2.514	0.9	21.3
12 17	4 53.77	+25 8.5	1.846	2.820	3.6	20.4	12 17	4 52.31	+21 16.3	1.547	2.519	4.3	21.5
12 27	4 44.90	+24 39.1	1.898	2.832	7.6	20.7	12 27	4 41.81	+20 52.1	1.592	2.524	9.0	21.8
1 6	4 38.10	+24 10.9	1.977	2.844	11.2	20.9	1 6	4 33.77	+20 32.2	1.663	2.527	13.1	22.1
1 16	4 33.90	+23 46.6	2.078	2.855	14.2	21.2	1 16	4 28.80	+20 19.1	1.756	2.530	16.6	22.3
<b>361799</b>	2008 <i>CR</i> <sub>18</sub>	12 8.6 91°94	3.1/ 9.3 18				<b>7932</b>	Plimpton	12 8.6 172°88	1.4/ 8.3 18			
11 7	5 30.01	+31 12.3	1.956	2.793	13.0	20.8	11 7	5 30.84	+19 17.3	1.948	2.792	12.8	18.7
11 17	5 23.30	+31 34.2	1.890	2.799	9.7	20.6	11 17	5 23.73	+19 5.3	1.877	2.795	9.2	18.5
11 27	5 14.28	+31 47.0	1.849	2.806	6.1	20.3	11 27	5 14.47	+18 53.1	1.833	2.798	5.2	18.3
12 7	5 3.89	+31 48.3	1.835	2.812	3.3	20.2	12 7	5 3.96	+18 41.3	1.817	2.800	1.6	18.0
12 17	4 53.37	+31 37.8	1.850	2.818	4.5	20.3	12 17	4 53.32	+18 30.9	1.831	2.802	4.1	18.2
12 27	4 44.00	+31 17.6	1.894	2.824	8.0	20.5	12 27	4 43.71	+18 23.7	1.874	2.802	8.1	18.5
1 6	4 36.78	+30 51.8	1.964	2.830	11.4	20.7	1 6	4 36.09	+18 21.3	1.944	2.802	11.8	18.7
1 16	4 32.32	+30 24.8	2.057	2.836	14.3	20.9	1 16	4 31.02	+18 24.9	2.037	2.802	14.9	18.9
<b>138158</b>	2000 <i>ED</i> <sub>82</sub>	12 8.6 321°20	4.3/ 9.3 18				<b>184177</b>	2004 <i>MA</i> <sub>31</sub>	12 8.6 142°37	0.1/ 8.6 18			
11 7	5 30.87	+32 33.6	1.743	2.582	14.3	19.6	11 7	5 27.84	+23 5.8	2.430	3.270	10.7	20.9
11 17	5 24.36	+33 13.8	1.670	2.579	10.8	19.3	11 17	5 21.26	+23 6.7	2.363	3.279	7.7	20.7
11 27	5 15.07	+33 43.9	1.621	2.575	7.1	19.1	11 27	5 12.98	+23 5.0	2.322	3.288	4.2	20.5
12 7	5 4.04	+34 0.1	1.599	2.572	4.4	19.0	12 7	5 3.75	+23 0.5	2.311	3.296	0.6	20.2
12 17	4 52.66	+34 0.4	1.605	2.569	5.6	19.0	12 17	4 54.44	+22 53.7	2.331	3.304	3.0	20.4
12 27	4 42.49	+33 46.6	1.638	2.566	9.1	19.2	12 27	4 45.98	+22 45.9	2.381	3.311	6.5	20.7
1 6	4 34.76	+33 23.6	1.696	2.563	12.8	19.4	1 6	4 39.12	+22 39.0	2.459	3.318	9.6	20.9
1 16	4 30.22	+32 56.7	1.776	2.560	16.0	19.7	1 16	4 34.35	+22 34.4	2.561	3.325	12.2	21.1
<b>407224</b>	2009 <i>VB</i> <sub>93</sub>	12 8.6 34°73	3.8/ 7.2 18				<b>274425</b>	2008 <i>SA</i> <sub>21</sub>	12 8.6 60°53	2.2/ 8.1 18			
11 7	5 25.31	+15 16.1	1.968	2.819	12.4	20.6	11 7	5 25.66	+17 23.3	2.073	2.923	11.9	21.0
11 17	5 19.61	+14 6.4	1.906	2.825	9.1	20.4	11 17	5 19.80	+16 58.7	2.017	2.937	8.6	20.8
11 27	5 12.09	+12 58.2	1.871	2.831	5.7	20.2	11 27	5 12.19	+16 35.6	1.986	2.951	5.0	20.7
12 7	5 3.59	+11 55.5	1.864	2.837	3.8	20.1	12 7	5 3.63	+16 15.4	1.984	2.965	2.2	20.5
12 17	4 55.08	+11 2.1	1.886	2.844	5.5	20.2	12 17	4 55.08	+15 59.6	2.011	2.979	4.2	20.7
12 27	4 47.56	+10 21.3	1.936	2.851	8.8	20.4	12 27	4 47.49	+15 49.9	2.067	2.994	7.6	20.9
1 6	4 41.80	+9 54.4	2.011	2.858	12.0	20.6	1 6	4 41.62	+15 47.2	2.150	3.008	10.8	21.1
1 16	4 38.29	+9 41.4	2.109	2.865	14.7	20.8	1 16	4 37.93	+15 51.8	2.255	3.023	13.5	21.3
<b>71292</b>	2000 <i>AO</i> <sub>57</sub>	12 8.6 8°37	2.6/ 8.3 18				<b>14408</b>	1991 <i>PC</i> <sub>16</sub>	12 8.6 89°72	0.1/ 8.6 18			
11 7	5 26.16	+17 0.1	1.282	2.154	16.3	18.5	11 7	5 26.87	+23 4.3	2.378	3.221	10.8	18.8
11 17	5 21.14	+16 58.0	1.225	2.156	11.8	18.2	11 17	5 20.52	+22 59.7	2.322	3.239	7.7	18.6
11 27	5 13.30	+17 0.2	1.190	2.158	6.8	18.0	11 27	5 12.54	+22 52.4	2.292	3.258	4.3	18.4
12 7	5 3.78	+17 7.7	1.179	2.162	2.7	17.7	12 7	5 3.69	+22 42.6	2.291	3.276	0.6	18.2
12 17	4 54.07	+17 20.9	1.194	2.166	5.5	17.9	12 17	4 54.86	+22 30.9	2.321	3.294	3.0	18.4
12 27	4 45.75	+17 40.5	1.235	2.172	10.4	18.2	12 27	4 46.94	+22 19.0	2.380	3.311	6.5	18.7
1 6	4 40.01	+18 6.7	1.298	2.179	14.9	18.5	1 6	4 40.63	+22 8.7	2.467	3.329	9.5	18.9
1 16	4 37.54	+18 39.0	1.381	2.187	18.7	18.8	1 16	4 36.38	+22 1.6	2.579	3.346	12.0	19.1
<b>132508</b>	2002 <i>JM</i> <sub>38</sub>	12 8.6 82°08	6.7/ 9.7 18				<b>359789</b>	2011 <i>UP</i> <sub>183</sub>	12 8.6 71°02	0.2/ 8.7 18			
11 7	5 37.90	+38 24.9	1.755	2.570	15.2	19.4	11 7	5 28.52	+24 41.2	1.811	2.662	13.3	21.0
11 17	5 29.34	+39 37.8	1.708	2.594	12.0	19.3	11 17	5 22.21	+24 20.3	1.745	2.666	9.6	20.8
11 27	5 17.74	+40 34.4	1.686	2.618	8.8	19.1	11 27	5 13.66	+23 54.0	1.704	2.671	5.3	20.5
12 7	5 4.40	+41 8.6	1.690	2.642	6.8	19.1	12 7	5 3.86	+23 22.6	1.691	2.676	0.8	20.2
12 17	4 50.99	+41 18.0	1.722	2.666	7.5	19.1	12 17	4 53.99	+22 48.2	1.706	2.680	3.8	20.5
12 27	4 39.23	+41 5.4	1.782	2.689	9.9	19.3	12 27	4 45.28	+22 14.0	1.751	2.685	8.1	20.7
1 6	4 30.40	+40 37.5	1.866	2.712	12.8	19.6	1 6	4 38.69	+21 43.3	1.821	2.690	11.9	21.0
1 16	4 25.11	+40 1.8	1.972	2.735	15.4	19.8	1 16	4 34.77	+21 19.0	1.913	2.695	15.1	21.2
<b>410891</b>	2009 <i>SQ</i> <sub>71</sub>	12 8.6 359°13	0.8/ 8.4 17				<b>446431</b>	2014 <i>JH</i> <sub>35</sub>	12 8.6 149°74	2.0/ 8.2 18			
11 7	5 26.08												



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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>356573</b>	2011 <i>SU</i> <sub>244</sub>	12 8.6 59° 97'	2.7°/ 9.5 17				<b>116893</b>	2004 <i>FC</i> <sub>137</sub>	12 8.6 194° 61'	3° 0'/ 7.9 18			
11 7	5 32.38	+31 49.6	1.553	2.398	15.4	20.6	11 7	5 26.93	+13 15.9	2.421	3.258	10.8	21.0
11 17	5 25.09	+31 23.9	1.505	2.419	11.3	20.4	11 17	5 20.64	+13 1.1	2.345	3.256	8.0	20.8
11 27	5 15.21	+30 44.6	1.480	2.441	6.9	20.2	11 27	5 12.69	+12 50.4	2.296	3.253	5.0	20.6
12 7	5 4.07	+29 51.7	1.482	2.462	3.0	20.0	12 7	5 3.77	+12 45.0	2.276	3.250	3.0	20.5
12 17	4 53.18	+28 48.3	1.512	2.484	4.6	20.2	12 17	4 54.70	+12 46.1	2.286	3.246	4.5	20.5
12 27	4 43.99	+27 40.4	1.570	2.506	8.8	20.5	12 27	4 46.35	+12 54.3	2.326	3.242	7.4	20.7
1 6	4 37.47	+26 34.6	1.654	2.528	12.7	20.8	1 6	4 39.47	+13 9.9	2.393	3.238	10.4	20.9
1 16	4 34.08	+25 36.0	1.759	2.550	15.9	21.0	1 16	4 34.57	+13 32.3	2.484	3.233	12.9	21.1
<b>42598</b>	1997 <i>UD</i> <sub>8</sub>	12 8.6 206° 55'	3.7°/ 9.4 18				<b>229762</b>	2007 <i>UK</i> <sub>126</sub>	12 8.6 345° 33'	0° 5'/ 6.7 18			
11 7	5 33.68	+32 44.4	1.991	2.819	13.2	19.4	11 7	5 4.69	+2 29.3	40.785	41.590	0.8	19.6
11 17	5 26.11	+33 10.3	1.911	2.814	10.0	19.2	11 17	5 3.99	+2 26.7	40.710	41.582	0.6	19.6
11 27	5 15.97	+33 25.9	1.856	2.808	6.5	19.0	11 27	5 3.22	+2 24.8	40.661	41.574	0.5	19.5
12 7	5 4.23	+33 28.1	1.829	2.802	3.9	18.8	12 7	5 2.41	+2 23.7	40.641	41.566	0.5	19.5
12 17	4 52.17	+33 15.6	1.831	2.795	5.0	18.9	12 17	5 1.60	+2 23.5	40.650	41.559	0.5	19.5
12 27	4 41.22	+32 50.8	1.862	2.788	8.4	19.1	12 27	5 0.81	+2 24.2	40.688	41.551	0.7	19.6
1 6	4 32.52	+32 18.2	1.920	2.780	11.9	19.3	1 6	5 0.09	+2 25.9	40.752	41.543	0.8	19.6
1 16	4 26.79	+31 43.2	2.001	2.771	14.9	19.5	1 16	4 59.44	+2 28.4	40.842	41.535	1.0	19.6
<b>173400</b>	2000 <i>DQ</i> <sub>41</sub>	12 8.6 23° 01'	5° 5'/ 9.9 18				<b>354443</b>	2003 <i>YE</i> <sub>112</sub>	12 8.6 28° 34'	3° 6'/ 9.1 18			
11 7	5 31.43	+36 14.2	1.630	2.464	15.3	19.8	11 7	5 29.98	+28 47.1	1.207	2.074	17.5	19.4
11 17	5 24.88	+36 44.1	1.565	2.467	11.8	19.6	11 17	5 24.13	+29 31.8	1.164	2.089	12.8	19.2
11 27	5 15.39	+36 58.8	1.524	2.470	8.2	19.4	11 27	5 15.04	+30 7.0	1.142	2.106	7.8	19.0
12 7	5 4.15	+36 54.5	1.507	2.474	5.7	19.2	12 7	5 4.11	+30 28.7	1.144	2.124	3.8	18.8
12 17	4 52.72	+36 30.1	1.518	2.477	6.5	19.3	12 17	4 53.16	+30 35.4	1.172	2.143	5.7	19.0
12 27	4 42.78	+35 49.3	1.556	2.482	9.7	19.5	12 27	4 44.03	+30 29.9	1.224	2.163	10.3	19.3
1 6	4 35.56	+34 58.7	1.618	2.486	13.2	19.7	1 6	4 38.02	+30 17.4	1.300	2.184	14.7	19.6
1 16	4 31.73	+34 5.5	1.701	2.491	16.4	19.9	1 16	4 35.70	+30 3.2	1.395	2.206	18.3	19.9
<b>134825</b>	2000 <i>GL</i> <sub>153</sub>	12 8.6 268° 88'	7° 7'/ 10.4 17				<b>459396</b>	2012 <i>KJ</i> <sub>30</sub>	12 8.6 101° 57'	2° 2'/ 8.4 17			
11 7	5 34.19	+42 59.5	1.905	2.707	14.7	19.8	11 7	5 26.78	+14 25.5	2.339	3.179	11.1	21.1
11 17	5 26.93	+43 48.0	1.832	2.703	12.1	19.6	11 17	5 20.60	+14 44.2	2.268	3.182	8.1	21.0
11 27	5 16.59	+44 18.6	1.781	2.699	9.5	19.4	11 27	5 12.70	+15 7.7	2.223	3.184	4.8	20.8
12 7	5 4.34	+44 25.5	1.756	2.695	7.8	19.3	12 7	5 3.78	+15 35.8	2.207	3.186	2.3	20.6
12 17	4 51.74	+44 6.4	1.757	2.691	8.2	19.3	12 17	4 54.69	+16 8.1	2.221	3.189	3.9	20.7
12 27	4 40.55	+43 23.9	1.785	2.687	10.3	19.5	12 27	4 46.34	+16 44.1	2.266	3.191	7.1	20.9
1 6	4 32.09	+42 25.0	1.838	2.683	13.0	19.6	1 6	4 39.52	+17 23.3	2.338	3.193	10.2	21.1
1 16	4 27.14	+41 17.9	1.912	2.678	15.7	19.8	1 16	4 34.74	+18 5.2	2.434	3.195	12.8	21.3
<b>490061</b>	2008 <i>TT</i> <sub>96</sub>	12 8.6 123° 81'	1° 6'/ 8.1 17				<b>411188</b>	2010 <i>JC</i> <sub>43</sub>	12 8.6 196° 94'	3° 8'/ 9.1 18			
11 7	5 25.33	+19 9.3	2.440	3.284	10.5	21.9	11 7	5 33.50	+31 57.8	2.120	2.946	12.6	21.6
11 17	5 19.42	+18 36.4	2.373	3.291	7.5	21.7	11 17	5 25.94	+32 48.2	2.042	2.944	9.5	21.4
11 27	5 11.96	+18 2.9	2.332	3.297	4.3	21.5	11 27	5 15.89	+33 30.8	1.990	2.941	6.2	21.2
12 7	5 3.65	+17 30.2	2.321	3.303	1.6	21.3	12 7	5 4.27	+34 1.6	1.966	2.938	3.9	21.1
12 17	4 55.30	+17 0.1	2.340	3.309	3.6	21.5	12 17	4 52.26	+34 18.2	1.972	2.934	5.0	21.1
12 27	4 47.75	+16 34.8	2.390	3.315	6.8	21.7	12 27	4 41.22	+34 21.5	2.008	2.929	8.1	21.3
1 6	4 41.70	+16 15.7	2.466	3.321	9.8	21.9	1 6	4 32.28	+34 14.8	2.070	2.925	11.4	21.5
1 16	4 37.58	+16 3.8	2.566	3.326	12.3	22.1	1 16	4 26.16	+34 2.7	2.156	2.919	14.2	21.7
<b>302628</b>	2002 <i>RB</i> <sub>31</sub>	12 8.6 52° 55'	7° 1'/ 10.7 18				<b>51795</b>	2001 <i>MR</i> <sub>26</sub>	12 8.6 250° 22'	2° 7'/ 8.2 18			
11 7	5 33.85	+41 1.1	1.635	2.453	16.1	20.0	11 7	5 30.05	+16 59.6	1.594	2.448	14.6	19.3
11 17	5 26.61	+41 28.7	1.579	2.464	12.8	19.8	11 17	5 23.68	+16 40.5	1.518	2.439	10.7	19.0
11 27	5 16.29	+41 36.0	1.545	2.476	9.5	19.6	11 27	5 14.70	+16 23.4	1.465	2.430	6.3	18.7
12 7	5 4.27	+41 18.8	1.536	2.489	7.3	19.5	12 7	5 4.10	+16 9.8	1.440	2.421	2.8	18.5
12 17	4 52.26	+40 36.8	1.553	2.501	7.7	19.6	12 17	4 53.15	+16 1.6	1.443	2.411	5.3	18.6
12 27	4 42.02	+39 34.9	1.597	2.514	10.2	19.8	12 27	4 43.32	+16 0.5	1.473	2.402	9.8	18.9
1 6	4 34.76	+38 21.6	1.666	2.527	13.3	20.0	1 6	4 35.75	+16 7.8	1.527	2.392	14.1	19.1
1 16	4 31.06	+37 5.5	1.756	2.540	16.2	20.2	1 16	4 31.18	+16 24.0	1.603	2.382	17.7	19.3
<b>281795</b>	2009 <i>UW</i> <sub>137</sub>	12 8.6 305° 46'	3° 6'/ 9.3 18				<b>330775</b>	2008 <i>TL</i> <sub>6</sub>	12 8.6 84° 93'	7° 3'/ 9.9 18			
11 7	5 28.73	+32 20.3	2.119	2.952	12.3	20.3	11 7	5 37.20	+44 51.9	2.473	3.247	12.5	20.8
11 17	5 22.48	+32 56.3	2.040	2.945	9.3	20.1	11 17	5 28.59	+46 14.7	2.422	3.269	10.4	20.7
11 27	5 13.93	+33 23.8	1.986	2.939	6.1	19.9	11 27	5 17.35	+47 21.3	2.396	3.292	8.5	20.6
12 7	5 3.96	+33 40.0	1.960	2.932	3.8	19.7	12 7	5 4.49	+48 6.3	2.397	3.313	7.4	20.5
12 17	4 53.66	+33 43.3	1.963	2.926	4.8	19.8	12 17	4 51.34	+48 27.2	2.427	3.335	7.7	20.6
12 27	4 44.29	+33 35.1	1.994	2.920	7.9	20.0	12 27	4 39.37	+48 25.5	2.485	3.356	9.0	20.7
1 6	4 36.89	+33 18.8	2.052	2.914	11.1	20.2	1 6	4 29.75	+48 6.1	2.568	3.377	10.9	20.9
1 16	4 32.13	+32 58.5	2.132	2.908	14.0	20.4	1 16	4 23.16	+47 35.4	2.674	3.398	12.7	21.0
<b>438484</b>	2007 <i>EG</i> <sub>224</sub>	12 8.6 198° 36'	0° 9'/ 8.4 18				<b>138282</b>	2000 <i>GA</i> <sub>30</sub>	12 8.6 187° 84'	4° 4'/ 7.3 18			
11 7	5 30.49	+21 15.1	1.868	2.715	13.1	22.4	11 7	5 26.73	+10 49.6	2.253	3.089	11.6	19.9
11 17	5 23.64	+20 59.5	1.793	2.713	9.5	22.2	11 17	5 20.54	+10 1.9	2.182	3.089	8.7	19.7
11 27	5 14.52	+20 41.6	1.744	2.710	5.3	21.9	11 27	5 12.66	+9 19.3	2.138	3.088	5.9	19.6
12 7	5 4.03	+20 22.0	1.723	2.707	1.1	21.6	12 7	5 3.81	+8 44.7	2.122	3.087	4.4	19.5
12 17	4 53.36	+20 2.1	1.731	2.703	4.0	21.8	12 17	4 54.85	+8 20.5	2.136	3.085	5.8	19.6
12 27	4 43.74	+19 44.1	1.768	2.699	8.3	22.1	12 27	4 46.69	+8 8.5	2.178	3.083	8.5	19.7
1 6	4 36.17	+19 30.7	1.832	2.694	12.2	22.3	1 6	4 40.09	+8 9.0	2.247	3.080	11.4	19.9
1 16	4 31.28	+19 23.6	1.917	2.689	15.4	22.5	1 16	4 35.56	+8 21.0	2.338	3.077	13.9	20.1
<b>40881</b>	1999 <i>TY</i> <sub>125</sub>	12 8.6 143° 99'	2° 8'/ 9.4 18				<b>171530</b>	1999 <i>JN</i> <sub>102</sub>	12 8.6				

EPHEMERIDES

12 8.7

12 8.7

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>473181</b>	2015 <i>KL</i> <sub>67</sub>	12 8.7 63°40'	2°5'	8.4	18		<b>159370</b>	1994 <i>JA</i> <sub>2</sub>	12 8.7 69°42'	2°9'	8.0	18	
11 7	5 31.03	+16 8.2	1.403	2.262	15.9	20.6	11 7	5 29.29	+17 12.4	1.564	2.421	14.7	19.8
11 17	5 24.40	+16 16.5	1.349	2.273	11.5	20.3	11 17	5 22.84	+16 38.3	1.513	2.435	10.6	19.6
11 27	5 15.05	+16 30.0	1.319	2.285	6.7	20.1	11 27	5 14.07	+16 6.1	1.485	2.450	6.2	19.4
12 7	5 4.16	+16 48.5	1.315	2.297	2.6	19.9	12 7	5 4.04	+15 38.1	1.484	2.464	2.9	19.2
12 17	4 53.18	+17 11.9	1.338	2.309	5.3	20.1	12 17	4 54.06	+15 16.7	1.511	2.479	5.3	19.4
12 27	4 43.63	+17 40.0	1.388	2.321	9.9	20.4	12 27	4 45.40	+15 4.2	1.565	2.493	9.4	19.7
1 6	4 36.65	+18 12.7	1.462	2.333	14.2	20.7	1 6	4 39.04	+15 1.7	1.644	2.508	13.3	19.9
1 16	4 32.86	+18 49.8	1.557	2.345	17.7	20.9	1 16	4 35.49	+15 9.1	1.744	2.523	16.5	20.2
<b>475176</b>	2005 <i>UQ</i> <sub>471</sub>	12 8.7 4°46'	1°9'	8.9	18		<b>458108</b>	2010 <i>CU</i> <sub>55</sub>	12 8.7 3°80'	18°0'	9.8	18	
11 7	5 30.53	+26 56.0	1.385	2.245	16.1	21.3	11 7	5 22.01	-18 30.2	1.355	2.122	21.4	19.4
11 17	5 24.41	+27 7.8	1.321	2.244	11.7	21.1	11 17	5 17.96	-19 26.1	1.317	2.121	19.8	19.3
11 27	5 15.23	+27 12.4	1.279	2.244	6.8	20.8	11 27	5 11.50	-19 41.6	1.294	2.122	18.6	19.2
12 7	5 4.21	+27 7.6	1.262	2.245	2.2	20.5	12 7	5 3.68	-19 9.7	1.288	2.126	18.0	19.2
12 17	4 52.93	+26 53.5	1.272	2.246	4.8	20.7	12 17	4 55.80	-17 48.5	1.300	2.132	18.2	19.3
12 27	4 43.12	+26 33.1	1.308	2.247	9.8	21.0	12 27	4 49.17	-15 42.5	1.331	2.140	19.1	19.3
1 6	4 36.10	+26 11.2	1.368	2.248	14.4	21.3	1 6	4 44.80	-13 1.6	1.380	2.150	20.5	19.5
1 16	4 32.58	+25 52.0	1.449	2.250	18.2	21.5	1 16	4 43.26	-9 57.8	1.447	2.162	22.0	19.6
<b>120735</b>	Ogawakiyoshi	12 8.7 41°07'	0°1'	8.6	18		<b>24693</b>	1990 <i>SB</i> <sub>2</sub>	12 8.7 4°70'	27°1'	15.9	18	
11 7	5 30.40	+23 15.7	1.189	2.060	17.4	18.6	11 7	5 13.36	-22 16.6	0.756	1.572	29.9	15.5
11 17	5 24.20	+23 8.6	1.147	2.077	12.5	18.3	11 17	5 12.80	-24 11.3	0.738	1.569	28.8	15.4
11 27	5 14.98	+22 57.4	1.126	2.095	6.9	18.1	11 27	5 8.98	-25 0.7	0.729	1.570	27.9	15.3
12 7	5 4.15	+22 42.1	1.130	2.114	1.0	17.7	12 7	5 3.33	-24 34.2	0.730	1.575	27.3	15.3
12 17	4 53.43	+22 24.4	1.159	2.134	4.9	18.1	12 17	4 57.60	-22 49.6	0.742	1.585	27.1	15.4
12 27	4 44.54	+22 7.6	1.214	2.154	10.2	18.4	12 27	4 53.55	-19 54.6	0.766	1.598	27.4	15.5
1 6	4 38.62	+21 55.2	1.292	2.175	14.8	18.8	1 6	4 52.41	-16 6.6	0.803	1.615	28.2	15.6
1 16	4 36.19	+21 49.5	1.389	2.196	18.5	19.1	1 16	4 54.73	-11 46.3	0.853	1.636	29.2	15.8
<b>186494</b>	2002 <i>TO</i> <sub>277</sub>	12 8.7 110°73'	0°9'	8.8	18		<b>117480</b>	2005 <i>BO</i> <sub>28</sub>	12 8.7 353°58'	4°8'	8.6	18	
11 7	5 33.80	+25 37.7	1.616	2.463	14.8	20.9	11 7	5 32.35	+29 17.9	1.371	2.226	16.5	18.3
11 17	5 26.13	+25 32.2	1.562	2.480	10.7	20.7	11 17	5 26.16	+30 49.3	1.304	2.222	12.4	18.0
11 27	5 15.89	+25 20.3	1.531	2.497	6.0	20.5	11 27	5 16.49	+32 15.9	1.260	2.219	8.0	17.8
12 7	5 4.28	+25 1.4	1.528	2.512	1.3	20.2	12 7	5 4.46	+33 30.1	1.241	2.216	4.9	17.6
12 17	4 52.73	+24 36.7	1.554	2.528	4.1	20.4	12 17	4 51.77	+34 25.8	1.250	2.214	6.7	17.7
12 27	4 42.66	+24 9.6	1.609	2.543	8.7	20.8	12 27	4 40.43	+35 1.8	1.284	2.213	10.9	18.0
1 6	4 35.13	+23 44.0	1.688	2.557	12.7	21.0	1 6	4 32.09	+35 21.8	1.342	2.213	15.2	18.2
1 16	4 30.68	+23 23.4	1.790	2.571	16.0	21.3	1 16	4 27.68	+35 31.5	1.419	2.214	18.8	18.4
<b>418514</b>	2008 <i>ST</i> <sub>40</sub>	12 8.7 77°95'	4°3'	9.8	17		<b>126005</b>	2001 <i>YT</i> <sub>49</sub>	12 8.7 301°40'	1°6'	8.9	18	
11 7	5 29.45	+35 39.1	2.246	3.068	12.1	21.3	11 7	5 29.77	+26 37.6	1.489	2.346	15.3	19.7
11 17	5 22.80	+36 6.2	2.181	3.076	9.3	21.2	11 17	5 23.92	+26 43.6	1.408	2.331	11.2	19.4
11 27	5 14.03	+36 22.0	2.141	3.085	6.4	21.0	11 27	5 15.06	+26 42.7	1.349	2.315	6.5	19.1
12 7	5 4.03	+36 23.9	2.128	3.093	4.4	20.9	12 7	5 4.24	+26 33.3	1.317	2.300	1.9	18.7
12 17	4 53.91	+36 11.5	2.144	3.101	5.1	20.9	12 17	4 52.93	+26 15.2	1.311	2.285	4.7	18.9
12 27	4 44.85	+35 46.7	2.189	3.110	7.6	21.1	12 27	4 42.81	+25 51.3	1.332	2.270	9.7	19.1
1 6	4 37.77	+35 13.7	2.261	3.118	10.4	21.3	1 6	4 35.27	+25 26.2	1.378	2.256	14.4	19.4
1 16	4 33.24	+34 37.3	2.356	3.126	12.9	21.5	1 16	4 31.14	+25 4.4	1.443	2.242	18.4	19.6
<b>182680</b>	2001 <i>VV</i> <sub>7</sub>	12 8.7 314°29'	3°7'	9.1	17		<b>49078</b>	1998 <i>RX</i> <sub>59</sub>	12 8.7 176°29'	2°5'	8.1	18	
11 7	5 29.95	+31 1.0	1.823	2.664	13.7	19.7	11 7	5 30.73	+18 2.9	1.716	2.566	13.9	19.1
11 17	5 23.68	+31 43.9	1.745	2.656	10.3	19.5	11 17	5 23.89	+17 28.0	1.648	2.568	10.1	18.9
11 27	5 14.77	+32 18.9	1.692	2.649	6.6	19.3	11 27	5 14.70	+16 53.0	1.605	2.569	5.9	18.6
12 7	5 4.16	+32 42.3	1.666	2.641	3.8	19.1	12 7	5 4.16	+16 20.2	1.589	2.570	2.5	18.4
12 17	4 53.14	+32 52.1	1.668	2.634	5.1	19.1	12 17	4 53.48	+15 52.0	1.602	2.571	5.0	18.6
12 27	4 43.18	+32 49.3	1.699	2.628	8.8	19.3	12 27	4 43.97	+15 31.3	1.644	2.571	9.2	18.8
1 6	4 35.48	+32 37.8	1.754	2.621	12.4	19.6	1 6	4 36.63	+15 19.8	1.711	2.570	13.1	19.1
1 16	4 30.80	+32 22.1	1.831	2.615	15.6	19.8	1 16	4 32.08	+15 18.4	1.799	2.569	16.4	19.3
<b>215763</b>	2004 <i>FB</i> <sub>95</sub>	12 8.7 332°82'	4°9'	8.3	18		<b>63428</b>	2001 <i>MC</i> <sub>1</sub>	12 8.7 61°60'	2°2'	8.5	18	
11 7	5 27.42	+ 9 44.0	1.615	2.465	14.7	20.2	11 7	5 31.83	+15 57.0	1.643	2.492	14.5	18.5
11 17	5 21.72	+ 9 46.1	1.543	2.457	11.1	20.0	11 17	5 24.42	+16 11.7	1.606	2.525	10.4	18.3
11 27	5 13.61	+ 9 59.5	1.495	2.450	7.4	19.8	11 27	5 14.83	+16 30.6	1.593	2.557	6.0	18.1
12 7	5 3.99	+10 25.7	1.472	2.444	4.9	19.6	12 7	5 4.16	+16 53.1	1.608	2.590	2.3	18.0
12 17	4 54.05	+11 5.1	1.477	2.437	6.5	19.7	12 17	4 53.65	+17 18.7	1.652	2.622	4.6	18.2
12 27	4 45.10	+11 56.4	1.509	2.431	10.2	19.9	12 27	4 44.54	+17 47.3	1.724	2.654	8.6	18.5
1 6	4 38.24	+12 57.5	1.566	2.426	14.0	20.1	1 6	4 37.72	+18 18.7	1.823	2.686	12.2	18.8
1 16	4 34.17	+14 5.5	1.643	2.421	17.4	20.3	1 16	4 33.65	+18 52.8	1.943	2.718	15.2	19.1
<b>105356</b>	2000 <i>QF</i> <sub>108</sub>	12 8.7 91°75'	2°6'	7.9	18	R	<b>47351</b>	1999 <i>XO</i> <sub>57</sub>	12 8.7 244°83'	0°6'	8.6	18	
11 7	5 23.84	+14 31.5	2.556	3.398	10.2	20.0	11 7	5 29.63	+20 17.7	1.870	2.719	13.0	19.5
11 17	5 18.35	+14 14.9	2.489	3.403	7.4	19.9	11 17	5 23.17	+20 32.2	1.792	2.712	9.4	19.3
11 27	5 11.41	+14 1.4	2.449	3.408	4.5	19.7	11 27	5 14.38	+20 47.1	1.739	2.705	5.3	19.0
12 7	5 3.65	+13 52.2	2.437	3.414	2.6	19.6	12 7	5 4.13	+21 1.8	1.714	2.698	1.0	18.7
12 17	4 55.81	+13 48.4	2.455	3.419	4.0	19.7	12 17	4 53.56	+21 15.8	1.718	2.691	3.9	18.9
12 27	4 48.68	+13 50.9	2.504	3.424	6.8	19.9	12 27	4 43.93	+21 29.8	1.751	2.683	8.3	19.1
1 6	4 42.88	+13 59.8	2.579	3.429	9.5	20.1	1 6	4 36.29	+21 44.9	1.810	2.676	12.2	19.4
1 16	4 38.89	+14 15.1	2.678	3.434	11.9	20.2	1 16	4 31.32	+22 2.5	1.891	2.668	15.4	19.6
<b>385722</b>	2005 <i>UR</i> <sub>200</sub>	12 8.7 302°94'	0°2'	8.7	18		<b>259656</b>	2003 <i>WH</i> <sub>117</sub>	12 8.7 325°31'	4°7'	9.2	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>331451</b>	2012 <i>HM</i> <sub>16</sub>	12	8.7 147°35	3°2/ 7.7	18		<b>22488</b>	Martyschwartz	12	8.7 134°81	2°3/ 9.1	18	
11 7	5 24.36	+11 20.0	2.897	3.729	9.4	21.0	11 7	5 29.17	+28 40.9	2.269	3.104	11.5	19.0
11 17	5 18.55	+10 57.9	2.832	3.737	7.0	20.8	11 17	5 22.56	+29 12.4	2.198	3.108	8.5	18.9
11 27	5 11.47	+10 40.2	2.794	3.746	4.6	20.7	11 27	5 13.94	+29 38.3	2.153	3.112	5.1	18.7
12 7	5 3.69	+10 28.5	2.785	3.754	3.2	20.6	12 7	5 4.11	+29 56.2	2.137	3.116	2.4	18.5
12 17	4 55.86	+10 23.8	2.807	3.761	4.3	20.7	12 17	4 54.07	+30 5.4	2.151	3.120	3.8	18.6
12 27	4 48.66	+10 26.7	2.860	3.768	6.6	20.9	12 27	4 44.93	+30 6.7	2.194	3.123	7.1	18.8
1 6	4 42.66	+10 37.3	2.940	3.775	8.9	21.0	1 6	4 37.59	+30 2.7	2.265	3.127	10.2	19.0
1 16	4 38.27	+10 55.1	3.044	3.781	11.0	21.2	1 16	4 32.62	+29 56.3	2.359	3.130	12.9	19.2
<b>116152</b>	2003 <i>WX</i> <sub>165</sub>	12	8.7	2°51 1°9/ 8.1	17 R		<b>485469</b>	2011 <i>SO</i> <sub>37</sub>	12	8.7 353°58	7°5/ 6.6	18	
11 7	5 24.54	+19 38.0	1.801	2.660	13.0	18.6	11 7	5 24.97	+ 8 18.7	1.457	2.314	15.6	20.8
11 17	5 19.40	+19 0.2	1.734	2.659	9.3	18.3	11 17	5 20.02	+ 6 59.7	1.397	2.310	12.1	20.6
11 27	5 12.19	+18 21.3	1.692	2.659	5.3	18.1	11 27	5 12.67	+ 5 50.4	1.359	2.307	8.9	20.4
12 7	5 3.80	+17 43.2	1.677	2.660	2.0	17.9	12 7	5 3.93	+ 4 57.0	1.346	2.304	7.5	20.3
12 17	4 55.31	+17 8.7	1.691	2.661	4.4	18.1	12 17	4 55.02	+ 4 24.7	1.359	2.302	9.1	20.4
12 27	4 47.83	+16 40.6	1.732	2.663	8.4	18.3	12 27	4 47.27	+ 4 15.8	1.397	2.301	12.4	20.6
1 6	4 42.27	+16 21.1	1.798	2.666	12.1	18.5	1 6	4 41.69	+ 4 29.3	1.457	2.301	15.8	20.8
1 16	4 39.17	+16 11.3	1.886	2.669	15.3	18.8	1 16	4 38.92	+ 5 1.9	1.535	2.302	18.9	21.0
<b>517334</b>	2014 <i>JS</i> <sub>53</sub>	12	8.7 177°08	0°9/ 8.4	18		<b>307059</b>	2001 <i>YL</i> <sub>88</sub>	12	8.7 241°37	1°9/ 9.1	18	
11 7	5 28.86	+20 55.2	2.236	3.078	11.4	22.6	11 7	5 31.11	+28 24.5	1.707	2.553	14.2	20.2
11 17	5 22.17	+20 37.5	2.163	3.080	8.2	22.4	11 17	5 24.47	+28 20.0	1.631	2.548	10.4	20.0
11 27	5 13.62	+20 18.1	2.116	3.081	4.6	22.2	11 27	5 15.18	+28 6.5	1.579	2.543	6.1	19.7
12 7	5 4.01	+19 57.4	2.098	3.082	1.1	21.9	12 7	5 4.30	+27 43.0	1.555	2.537	2.1	19.4
12 17	4 54.29	+19 37.0	2.111	3.083	3.5	22.1	12 17	4 53.18	+27 10.3	1.559	2.532	4.3	19.6
12 27	4 45.46	+19 18.7	2.154	3.083	7.2	22.3	12 27	4 43.28	+26 31.7	1.591	2.526	8.7	19.8
1 6	4 38.33	+19 4.5	2.224	3.082	10.5	22.5	1 6	4 35.75	+25 52.4	1.649	2.520	12.8	20.0
1 16	4 33.45	+18 55.9	2.318	3.081	13.3	22.7	1 16	4 31.28	+25 16.7	1.728	2.514	16.3	20.3
<b>184934</b>	2005 <i>VD</i> <sub>42</sub>	12	8.7 75°36	2°6/ 8.3	18		<b>279608</b>	2011 <i>EY</i> <sub>24</sub>	12	8.7 314°02	4°2/ 9.4	18	
11 7	5 27.65	+14 44.3	1.981	2.827	12.5	19.9	11 7	5 28.70	+33 44.1	2.096	2.927	12.5	20.6
11 17	5 21.41	+14 48.7	1.920	2.837	9.1	19.7	11 17	5 22.60	+34 23.4	2.015	2.917	9.6	20.4
11 27	5 13.24	+14 57.9	1.884	2.846	5.4	19.5	11 27	5 14.14	+34 53.4	1.958	2.907	6.5	20.2
12 7	5 3.96	+15 12.1	1.877	2.856	2.6	19.3	12 7	5 4.16	+35 10.8	1.928	2.897	4.3	20.0
12 17	4 54.58	+15 31.5	1.899	2.866	4.5	19.5	12 17	4 53.81	+35 13.9	1.927	2.888	5.2	20.1
12 27	4 46.17	+15 56.2	1.949	2.876	8.0	19.7	12 27	4 44.38	+35 3.9	1.955	2.879	8.1	20.2
1 6	4 39.56	+16 25.9	2.027	2.885	11.4	19.9	1 6	4 36.96	+34 44.4	2.008	2.870	11.3	20.4
1 16	4 35.30	+17 0.1	2.127	2.895	14.2	20.2	1 16	4 32.24	+34 20.0	2.084	2.861	14.2	20.6
<b>213916</b>	2003 <i>UW</i> <sub>149</sub>	12	8.7 111°31	2°7/ 8.2	18		<b>29340</b>	1995 <i>BF</i>	12	8.7 289°51	2°1/ 8.3	18	
11 7	5 33.10	+16 54.4	1.503	2.356	15.4	20.6	11 7	5 27.56	+17 47.0	1.799	2.653	13.2	18.9
11 17	5 25.67	+16 35.1	1.451	2.372	11.2	20.4	11 17	5 21.80	+17 32.9	1.714	2.636	9.7	18.6
11 27	5 15.69	+16 18.4	1.423	2.388	6.5	20.2	11 27	5 13.70	+17 20.0	1.653	2.618	5.6	18.3
12 7	5 4.33	+16 5.8	1.422	2.403	2.8	20.0	12 7	5 4.10	+17 9.6	1.619	2.601	2.2	18.1
12 17	4 52.99	+15 58.6	1.449	2.417	5.3	20.2	12 17	4 54.11	+17 2.9	1.614	2.584	4.7	18.2
12 27	4 43.11	+15 58.7	1.503	2.431	9.7	20.5	12 27	4 45.01	+17 1.6	1.637	2.567	8.9	18.4
1 6	4 35.74	+16 7.0	1.582	2.445	13.8	20.7	1 6	4 37.85	+17 7.0	1.685	2.550	13.0	18.6
1 16	4 31.43	+16 23.4	1.682	2.458	17.1	21.0	1 16	4 33.36	+17 19.8	1.755	2.533	16.4	18.8
<b>460561</b>	2014 <i>TF</i> <sub>69</sub>	12	8.7 78°48	1°6/ 8.9	17		<b>392616</b>	2011 <i>TX</i> <sub>15</sub>	12	8.7 140°64	11°1/ 4.9	18	
11 7	5 27.88	+26 34.5	2.276	3.116	11.3	21.4	11 7	5 27.47	- 9 38.2	2.214	2.980	14.1	21.7
11 17	5 21.56	+27 2.2	2.209	3.123	8.2	21.2	11 17	5 21.03	-11 13.6	2.172	2.991	12.5	21.6
11 27	5 13.34	+27 25.6	2.168	3.130	4.8	21.0	11 27	5 12.94	-12 28.5	2.153	3.002	11.4	21.6
12 7	5 4.00	+27 43.1	2.156	3.138	1.7	20.8	12 7	5 3.96	-13 17.5	2.158	3.012	11.1	21.6
12 17	4 54.50	+27 54.0	2.173	3.145	3.4	20.9	12 17	4 54.96	-13 37.5	2.188	3.021	11.7	21.6
12 27	4 45.88	+27 59.1	2.221	3.152	6.8	21.1	12 27	4 46.84	-13 28.7	2.242	3.030	13.0	21.7
1 6	4 38.98	+28 0.5	2.296	3.159	10.0	21.3	1 6	4 40.33	-12 54.3	2.317	3.038	14.5	21.9
1 16	4 34.36	+28 0.5	2.394	3.167	12.7	21.5	1 16	4 35.88	-11 59.2	2.410	3.046	15.9	22.0
<b>485367</b>	2011 <i>DW</i> <sub>26</sub>	12	8.7 186°00	6°1/ 6.9	18		<b>43752</b>	Maryosipova	12	8.7 19°12	1°3/ 8.9	18	
11 7	5 23.81	+ 0 42.4	2.852	3.657	10.3	21.9	11 7	5 27.92	+26 27.4	1.087	1.964	18.2	17.8
11 17	5 18.21	+ 0 8.9	2.784	3.656	8.4	21.8	11 17	5 22.87	+26 17.3	1.039	1.971	13.2	17.5
11 27	5 11.32	- 0 13.8	2.742	3.656	6.8	21.7	11 27	5 14.48	+25 58.3	1.011	1.980	7.5	17.2
12 7	5 3.70	- 0 23.4	2.728	3.655	6.1	21.7	12 7	5 4.20	+25 30.0	1.006	1.990	1.8	16.9
12 17	4 55.98	- 0 18.5	2.743	3.653	6.8	21.7	12 17	4 53.90	+24 55.0	1.026	2.001	5.1	17.2
12 27	4 48.85	+ 0 1.3	2.785	3.652	8.4	21.8	12 27	4 45.45	+24 18.2	1.069	2.014	10.7	17.5
1 6	4 42.89	+ 0 34.5	2.854	3.650	10.3	21.9	1 6	4 40.16	+23 45.2	1.135	2.027	15.7	17.9
1 16	4 38.52	+ 1 19.0	2.946	3.647	12.1	22.1	1 16	4 38.61	+23 20.0	1.220	2.042	19.7	18.2
<b>80757</b>	2000 <i>CS</i> <sub>52</sub>	12	8.7 155°60	3°5/ 9.7	18		<b>195931</b>	2002 <i>RG</i> <sub>115</sub>	12	8.7 24°76	0°1/ 8.7	17	
11 7	5 34.99	+33 42.7	2.091	2.911	12.9	19.3	11 7	5 25.91	+24 15.3	1.949	2.801	12.4	19.8
11 17	5 26.80	+33 52.1	2.022	2.921	9.7	19.1	11 17	5 20.29	+23 58.3	1.885	2.807	8.9	19.6
11 27	5 16.27	+33 49.5	1.980	2.930	6.3	18.9	11 27	5 12.67	+23 36.8	1.846	2.813	5.0	19.4
12 7	5 4.43	+33 33.0	1.965	2.938	3.7	18.8	12 7	5 3.93	+23 11.5	1.834	2.819	0.7	19.1
12 17	4 52.53	+33 2.5	1.981	2.945	4.7	18.8	12 17	4 55.13	+22 43.9	1.852	2.826	3.5	19.3
12 27	4 41.89	+32 21.3	2.026	2.951	7.8	19.0	12 27	4 47.36	+22 16.6	1.898	2.833	7.5	19.6
1 6	4 33.50	+31 34.6	2.099	2.957	11.1	19.3	1 6	4 41.47	+21 52.3	1.970	2.841	11.1	19.8
1 16	4 27.93	+30 47.7	2.196	2.962	13.9	19.5	1 16	4 38.00	+21 33.3	2.065	2.849	14.1	20.0
<b>215296</b>	2001 <i>SY</i> <sub>25</sub>	12	8.7 60°28	2°3/ 8.2	18		<b>400734</b>	2009 <i>SL</i> <sub>344</sub>	12	8.7 21°22	8°0/ 11.7	16	
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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>172151</b>	2002 LL <sub>43</sub>	12	8.7	65°25	1°2/ 8.3	18	<b>53095</b>	1998 YU <sub>16</sub>	12	8.7	310°44	0°1/ 8.7	18
11 7	5 30.35	+23 19.0	1.625	2.479	14.4	19.2	11 7	5 29.16	+23 32.0	1.402	2.265	15.7	18.6
11 17	5 23.52	+22 15.3	1.572	2.495	10.3	19.0	11 17	5 23.54	+23 21.1	1.325	2.252	11.4	18.3
11 27	5 14.42	+21 5.9	1.544	2.512	5.7	18.8	11 27	5 14.92	+23 5.4	1.271	2.239	6.4	18.0
12 7	5 4.18	+19 53.9	1.544	2.528	1.3	18.5	12 7	5 4.37	+22 44.9	1.242	2.227	1.0	17.6
12 17	4 54.10	+18 44.0	1.572	2.544	4.4	18.8	12 17	4 53.39	+22 21.0	1.240	2.215	4.7	17.8
12 27	4 45.44	+17 41.3	1.629	2.561	8.8	19.1	12 27	4 43.67	+21 56.8	1.264	2.203	10.1	18.1
1 6	4 39.10	+16 49.7	1.712	2.577	12.7	19.4	1 6	4 36.57	+21 36.6	1.312	2.192	14.9	18.3
1 16	4 35.57	+16 11.4	1.816	2.594	15.9	19.6	1 16	4 32.86	+21 23.3	1.380	2.181	18.9	18.6
<b>269172</b>	2008 FK <sub>61</sub>	12	8.7	82°62	1°2/ 8.5	18	<b>66743</b>	1999 TW <sub>124</sub>	12	8.7	111°05	1°5/ 8.4	18
11 7	5 33.34	+19 54.2	1.429	2.285	15.9	20.3	11 7	5 30.26	+19 38.4	1.857	2.704	13.2	20.1
11 17	5 25.95	+19 53.9	1.383	2.306	11.4	20.1	11 17	5 23.37	+19 19.5	1.799	2.719	9.4	19.9
11 27	5 15.88	+19 53.5	1.360	2.327	6.3	19.9	11 27	5 14.37	+19 0.1	1.767	2.733	5.3	19.7
12 7	5 4.40	+19 53.1	1.363	2.347	1.5	19.6	12 7	5 4.25	+18 41.1	1.763	2.747	1.6	19.4
12 17	4 53.01	+19 53.3	1.395	2.368	4.7	19.9	12 17	4 54.13	+18 24.1	1.789	2.760	4.1	19.6
12 27	4 43.21	+19 55.7	1.453	2.388	9.5	20.2	12 27	4 45.16	+18 11.1	1.844	2.773	8.1	19.9
1 6	4 36.06	+20 2.0	1.537	2.407	13.7	20.5	1 6	4 38.24	+18 3.9	1.924	2.786	11.7	20.2
1 16	4 32.11	+20 13.5	1.641	2.427	17.1	20.8	1 16	4 33.89	+18 3.4	2.027	2.798	14.7	20.4
<b>516168</b>	2016 PP <sub>75</sub>	12	8.7	41°42	9°2/ 10.7	18	<b>484423</b>	2007 YY <sub>73</sub>	12	8.7	45°04	0°1/ 8.7	18
11 7	5 36.29	+41 4.4	1.201	2.037	19.6	20.1	11 7	5 28.50	+24 10.7	1.792	2.644	13.4	21.2
11 17	5 29.19	+42 8.4	1.163	2.056	15.7	20.0	11 17	5 22.33	+23 50.1	1.725	2.646	9.6	20.9
11 27	5 18.09	+42 47.8	1.144	2.077	11.9	19.8	11 27	5 13.91	+23 24.4	1.682	2.649	5.4	20.7
12 7	5 4.74	+42 55.0	1.147	2.098	9.4	19.7	12 7	5 4.19	+22 54.4	1.667	2.652	0.8	20.4
12 17	4 51.51	+42 28.6	1.174	2.121	9.8	19.8	12 17	4 54.37	+22 21.7	1.681	2.654	3.8	20.6
12 27	4 40.70	+41 35.1	1.225	2.143	12.5	20.0	12 27	4 45.69	+21 49.5	1.723	2.657	8.2	20.9
1 6	4 33.78	+40 25.8	1.299	2.166	15.8	20.3	1 6	4 39.11	+21 21.2	1.790	2.660	12.0	21.1
1 16	4 31.26	+39 11.8	1.391	2.190	18.9	20.6	1 16	4 35.22	+20 59.3	1.880	2.663	15.3	21.3
<b>98896</b>	2001 BK <sub>44</sub>	12	8.7	332°85	11°9/ 6.8	18	<b>416449</b>	2003 VZ <sub>6</sub>	12	8.7	42°32	1°2/ 8.9	17
11 7	5 25.92	- 4 33.5	1.519	2.336	17.1	19.0	11 7	5 27.34	+25 56.2	1.987	2.835	12.4	21.3
11 17	5 20.69	- 5 35.7	1.459	2.328	14.7	18.8	11 17	5 21.36	+26 7.9	1.926	2.844	9.0	21.1
11 27	5 13.09	- 6 14.5	1.418	2.319	12.7	18.6	11 27	5 13.32	+26 14.8	1.890	2.855	5.1	20.9
12 7	5 4.03	- 6 23.2	1.401	2.312	11.9	18.6	12 7	5 4.12	+26 16.0	1.882	2.865	1.4	20.7
12 17	4 54.73	- 5 58.1	1.406	2.305	12.8	18.6	12 17	4 54.83	+26 11.5	1.902	2.876	3.6	20.8
12 27	4 46.47	- 5 0.2	1.435	2.299	14.9	18.7	12 27	4 46.57	+26 3.1	1.952	2.887	7.4	21.1
1 6	4 40.33	- 3 34.8	1.485	2.293	17.5	18.9	1 6	4 40.24	+25 53.4	2.028	2.898	10.8	21.3
1 16	4 36.95	- 1 49.0	1.553	2.288	20.0	19.1	1 16	4 36.37	+25 44.7	2.126	2.909	13.8	21.5
<b>28535</b>	Sungjanet	12	8.7	215°92	0°7/ 8.8	18	<b>156891</b>	2003 EY <sub>21</sub>	12	8.7	283°59	2°9/ 8.2	18
11 7	5 31.90	+23 57.7	1.608	2.459	14.6	19.4	11 7	5 29.36	+16 23.5	1.551	2.408	14.8	20.5
11 17	5 25.14	+24 10.4	1.536	2.457	10.6	19.2	11 17	5 23.43	+16 8.4	1.470	2.392	10.9	20.2
11 27	5 15.63	+24 19.5	1.487	2.454	6.0	18.9	11 27	5 14.78	+15 56.4	1.411	2.376	6.5	19.9
12 7	5 4.41	+24 23.6	1.466	2.451	1.1	18.5	12 7	5 4.37	+15 49.0	1.379	2.360	3.0	19.7
12 17	4 52.89	+24 22.5	1.473	2.447	4.3	18.8	12 17	4 53.50	+15 47.7	1.375	2.344	5.5	19.8
12 27	4 42.58	+24 17.9	1.508	2.444	9.1	19.0	12 27	4 43.64	+15 54.1	1.398	2.328	10.1	20.0
1 6	4 34.70	+24 12.8	1.568	2.440	13.4	19.3	1 6	4 36.06	+16 9.2	1.445	2.312	14.6	20.2
1 16	4 29.98	+24 10.2	1.650	2.436	17.0	19.5	1 16	4 31.54	+16 33.0	1.512	2.296	18.3	20.4
<b>132725</b>	2002 PO <sub>10</sub>	12	8.7	184°17	4°2/ 7.4	17	<b>156665</b>	2002 JM <sub>101</sub>	12	8.7	133°42	0°4/ 8.6	18
11 7	5 24.37	+ 8 38.6	2.709	3.539	10.1	20.8	11 7	5 26.69	+21 44.9	2.800	3.636	9.6	21.3
11 17	5 18.70	+ 8 7.5	2.638	3.539	7.7	20.6	11 17	5 20.32	+21 36.6	2.735	3.650	6.8	21.1
11 27	5 11.65	+ 7 42.5	2.594	3.538	5.4	20.5	11 27	5 12.54	+21 26.7	2.698	3.663	3.8	20.9
12 7	5 3.81	+ 7 25.8	2.578	3.538	4.2	20.4	12 7	5 4.00	+21 15.3	2.692	3.676	0.7	20.7
12 17	4 55.87	+ 7 18.9	2.592	3.537	5.2	20.4	12 17	4 55.43	+21 3.3	2.716	3.689	2.8	20.9
12 27	4 48.57	+ 7 22.5	2.636	3.536	7.5	20.6	12 27	4 47.60	+20 51.9	2.772	3.701	5.8	21.1
1 6	4 42.51	+ 7 36.4	2.706	3.534	9.8	20.7	1 6	4 41.13	+20 42.5	2.856	3.712	8.5	21.3
1 16	4 38.14	+ 7 59.6	2.800	3.532	12.0	20.9	1 16	4 36.45	+20 36.4	2.965	3.723	10.8	21.5
<b>49027</b>	1998 QA <sub>99</sub>	12	8.7	112°82	3°1/ 8.2	18	<b>301770</b>	2010 JK <sub>87</sub>	12	8.7	180°09	2°6/ 7.8	18
11 7	5 31.62	+15 43.5	1.608	2.459	14.7	18.6	11 7	5 29.15	+18 17.4	1.999	2.844	12.4	20.9
11 17	5 24.54	+15 22.8	1.554	2.473	10.7	18.4	11 17	5 22.52	+17 18.6	1.928	2.845	9.0	20.7
11 27	5 15.09	+15 5.7	1.523	2.486	6.3	18.2	11 27	5 13.92	+16 18.3	1.883	2.846	5.3	20.5
12 7	5 4.33	+14 53.9	1.520	2.499	3.1	18.0	12 7	5 4.22	+15 19.6	1.867	2.846	2.6	20.3
12 17	4 53.55	+14 48.8	1.545	2.511	5.3	18.2	12 17	4 54.44	+14 25.9	1.881	2.846	4.7	20.4
12 27	4 44.09	+14 51.8	1.597	2.524	9.5	18.5	12 27	4 45.67	+13 40.9	1.924	2.845	8.4	20.7
1 6	4 36.92	+15 3.5	1.675	2.535	13.3	18.7	1 6	4 38.76	+13 6.9	1.994	2.844	11.9	20.9
1 16	4 32.62	+15 23.4	1.774	2.546	16.5	19.0	1 16	4 34.24	+12 45.0	2.086	2.843	14.8	21.1
<b>264072</b>	2009 ST <sub>169</sub>	12	8.7	143°17	5°1/ 7.2	18	<b>140119</b>	2001 SV <sub>138</sub>	12	8.7	30°87	2°5/ 8.1	18
11 7	5 25.41	+ 9 30.4	2.112	2.952	12.1	20.4	11 7	5 27.08	+17 35.0	1.776	2.631	13.3	20.0
11 17	5 19.74	+ 8 38.3	2.047	2.953	9.2	20.2	11 17	5 21.26	+17 1.4	1.712	2.633	9.7	19.8
11 27	5 12.32	+ 7 52.7	2.006	2.954	6.5	20.1	11 27	5 13.30	+16 28.7	1.672	2.636	5.7	19.6
12 7	5 3.93	+ 7 17.1	1.994	2.955	5.1	20.0	12 7	5 4.13	+15 59.1	1.659	2.639	2.6	19.4
12 17	4 55.43	+ 6 54.2	2.010	2.956	6.4	20.1	12 17	4 54.85	+15 34.8	1.675	2.643	4.8	19.5
12 27	4 47.78	+ 6 45.5	2.054	2.957	9.1	20.2	12 27	4 46.64	+15 18.2	1.718	2.646	8.8	19.8
1 6	4 41.73	+ 6 50.8	2.123	2.957	11.9	20.4	1 6	4 40.41	+15 10.7	1.787	2.650	12.4	20.0
1 16	4 37.79	+ 7 9.0	2.215	2.958	14.5	20.6	1 16	4 36.74	+15 12.8	1.878	2.654	15.6	20.2
<b>451585</b>	2012 BD <sub>29</sub>	12	8.7	32°62	2°3/ 8.3	18	<b>28858</b>	2000 JK <sub>59</sub>	12	8.7	110°00	0°4/ 8.6	18
11 7	5 27.34	+16 49.2	1.767	2.621	13.4	21.0							

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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>421082</b>	2013 <i>QK</i> <sub>41</sub>		12 8.7 127°33	7.5/ 6.6	18		<b>202148</b>	2004 <i>TX</i> <sub>317</sub>		12 8.7 103°68	3.0/ 7.9	16	
11 7	5 23.80	- 2 42.8	2.617	3.413	11.3	21.6	11 7	5 31.07	+16 48.2	1.785	2.632	13.6	21.1
11 17	5 18.29	- 3 33.3	2.563	3.421	9.5	21.4	11 17	5 23.90	+16 2.4	1.735	2.652	9.9	21.0
11 27	5 11.45	- 4 10.2	2.533	3.428	8.1	21.4	11 27	5 14.66	+15 18.3	1.709	2.672	5.8	20.8
12 7	5 3.87	- 4 30.3	2.529	3.435	7.5	21.3	12 7	5 4.38	+14 38.3	1.712	2.691	3.0	20.6
12 17	4 56.24	- 4 31.7	2.553	3.442	8.2	21.4	12 17	4 54.19	+14 5.3	1.744	2.710	5.1	20.8
12 27	4 49.28	- 4 14.5	2.604	3.449	9.6	21.5	12 27	4 45.26	+13 41.8	1.805	2.728	8.8	21.1
1 6	4 43.61	- 3 40.4	2.679	3.456	11.4	21.6	1 6	4 38.43	+13 29.1	1.892	2.745	12.3	21.3
1 16	4 39.62	- 2 52.4	2.775	3.462	13.0	21.8	1 16	4 34.18	+13 27.3	2.000	2.762	15.2	21.6
<b>244336</b>	2002 <i>JJ</i> <sub>86</sub>		12 8.7 161°14	0.8/ 8.4	18		<b>219243</b>	1999 <i>XG</i> <sub>53</sub>		12 8.7 32°55	0.5/ 8.7	18	
11 7	5 26.38	+21 4.5	2.602	3.442	10.1	21.6	11 7	5 32.15	+21 37.1	1.194	2.062	17.5	19.6
11 17	5 20.23	+20 42.7	2.530	3.446	7.2	21.4	11 17	5 25.88	+22 21.0	1.140	2.069	12.7	19.3
11 27	5 12.56	+20 19.1	2.485	3.451	4.0	21.2	11 27	5 16.29	+23 5.7	1.108	2.076	7.1	19.0
12 7	5 4.03	+19 54.5	2.470	3.454	1.0	21.0	12 7	5 4.66	+23 47.5	1.100	2.085	1.2	18.7
12 17	4 55.44	+19 30.4	2.486	3.458	3.1	21.2	12 17	4 52.77	+24 23.9	1.119	2.094	5.0	19.0
12 27	4 47.60	+19 8.4	2.533	3.461	6.3	21.4	12 27	4 42.54	+24 54.5	1.163	2.103	10.6	19.3
1 6	4 41.20	+18 50.3	2.607	3.464	9.2	21.6	1 6	4 35.38	+25 21.2	1.230	2.114	15.4	19.6
1 16	4 36.68	+18 37.5	2.706	3.466	11.7	21.8	1 16	4 32.01	+25 46.6	1.317	2.124	19.3	19.9
<b>276846</b>	2004 <i>RJ</i> <sub>48</sub>		12 8.7 121°81	0.2/ 8.7	18		<b>167386</b>	2003 <i>WB</i> <sub>79</sub>		12 8.7 84°56	1.3/ 9.0	18	
11 7	5 32.28	+23 31.2	1.817	2.662	13.5	21.4	11 7	5 32.38	+26 37.0	1.758	2.602	13.9	20.3
11 17	5 24.95	+23 33.3	1.757	2.675	9.7	21.2	11 17	5 25.01	+26 36.9	1.708	2.625	10.0	20.1
11 27	5 15.34	+23 31.8	1.723	2.689	5.4	21.0	11 27	5 15.35	+26 30.1	1.684	2.648	5.7	19.9
12 7	5 4.45	+23 26.2	1.717	2.702	0.8	20.7	12 7	5 4.49	+26 15.9	1.687	2.670	1.6	19.7
12 17	4 53.51	+23 16.9	1.741	2.714	3.8	20.9	12 17	4 53.72	+25 55.2	1.719	2.692	3.9	19.9
12 27	4 43.82	+23 6.0	1.793	2.726	8.1	21.2	12 27	4 44.35	+25 31.1	1.780	2.714	8.0	20.2
1 6	4 36.32	+22 56.2	1.872	2.738	11.8	21.5	1 6	4 37.29	+25 7.1	1.867	2.735	11.7	20.5
1 16	4 31.60	+22 49.9	1.974	2.749	14.9	21.7	1 16	4 33.06	+24 46.5	1.976	2.756	14.8	20.7
<b>351353</b>	2005 <i>BA</i>		12 8.7 345°66	10.6/ 7.9	18		<b>422351</b>	2014 <i>SF</i> <sub>229</sub>		12 8.7 2°66	2.9/ 9.3	17	
11 7	5 26.09	- 0 28.3	1.339	2.178	17.8	20.1	11 7	5 27.61	+30 13.1	1.842	2.688	13.3	20.2
11 17	5 21.11	- 1 6.2	1.278	2.170	14.7	19.8	11 17	5 21.90	+30 35.3	1.773	2.687	9.9	20.0
11 27	5 13.48	- 1 21.1	1.236	2.162	12.0	19.7	11 27	5 13.81	+30 49.1	1.728	2.687	6.1	19.8
12 7	5 4.20	- 1 7.2	1.218	2.156	10.6	19.6	12 7	5 4.29	+30 52.5	1.710	2.688	3.1	19.6
12 17	4 54.61	- 0 22.0	1.222	2.150	11.6	19.6	12 17	4 54.54	+30 44.9	1.719	2.689	4.5	19.7
12 27	4 46.18	+ 0 52.7	1.251	2.146	14.3	19.8	12 27	4 45.88	+30 28.3	1.757	2.690	8.2	19.9
1 6	4 40.10	+ 2 30.6	1.301	2.142	17.5	19.9	1 6	4 39.36	+30 6.5	1.820	2.693	11.8	20.2
1 16	4 37.08	+ 4 24.2	1.369	2.140	20.6	20.2	1 16	4 35.63	+29 43.6	1.906	2.695	14.9	20.4
<b>488180</b>	2015 <i>XL</i> <sub>86</sub>		12 8.7 264°78	2.1/ 8.6	18		<b>207767</b>	2007 <i>TN</i> <sub>34</sub>		12 8.7 125°66	1.5/ 8.4	18	
11 7	5 28.66	+14 2.1	2.312	3.149	11.3	20.9	11 7	5 29.42	+19 38.6	1.910	2.757	12.8	20.8
11 17	5 22.14	+14 35.6	2.233	3.145	8.3	20.7	11 17	5 22.82	+19 19.3	1.847	2.766	9.2	20.6
11 27	5 13.76	+15 15.1	2.181	3.142	4.9	20.5	11 27	5 14.15	+18 59.5	1.809	2.774	5.2	20.3
12 7	5 4.24	+15 59.7	2.159	3.139	2.2	20.3	12 7	5 4.33	+18 40.1	1.799	2.782	1.6	20.1
12 17	4 54.46	+16 48.4	2.168	3.136	3.9	20.4	12 17	4 54.43	+18 22.7	1.819	2.790	4.1	20.3
12 27	4 45.38	+17 39.9	2.207	3.133	7.2	20.6	12 27	4 45.61	+18 9.1	1.868	2.798	8.0	20.6
1 6	4 37.84	+18 33.2	2.274	3.130	10.4	20.8	1 6	4 38.75	+18 1.3	1.943	2.805	11.6	20.8
1 16	4 32.44	+19 27.7	2.366	3.126	13.2	21.0	1 16	4 34.40	+18 0.2	2.040	2.812	14.6	21.0
<b>444170</b>	2005 <i>JZ</i> <sub>135</sub>		12 8.7 219°17	5.9/ 6.8	18		<b>369860</b>	2012 <i>JE</i> <sub>65</sub>		12 8.7 106°03	2.1/ 7.9	17	
11 7	5 27.02	+ 6 29.3	2.241	3.069	11.9	21.4	11 7	5 25.61	+18 22.0	2.352	3.197	10.8	20.9
11 17	5 20.90	+ 5 31.9	2.166	3.061	9.4	21.2	11 17	5 19.79	+17 35.3	2.284	3.201	7.8	20.7
11 27	5 13.04	+ 4 42.4	2.116	3.052	7.0	21.1	11 27	5 12.36	+16 48.0	2.242	3.206	4.5	20.5
12 7	5 4.14	+ 4 4.5	2.094	3.043	5.9	21.0	12 7	5 4.06	+16 2.2	2.229	3.210	2.1	20.3
12 17	4 55.06	+ 3 41.2	2.101	3.034	7.1	21.0	12 17	4 55.71	+15 20.5	2.247	3.214	3.9	20.5
12 27	4 46.72	+ 3 34.1	2.136	3.024	9.5	21.2	12 27	4 48.19	+14 45.4	2.294	3.217	7.2	20.7
1 6	4 39.92	+ 3 42.9	2.196	3.013	12.2	21.3	1 6	4 42.19	+14 18.6	2.369	3.221	10.2	20.9
1 16	4 35.17	+ 4 5.8	2.278	3.002	14.6	21.5	1 16	4 38.17	+14 1.0	2.467	3.225	12.7	21.1
<b>134751</b>	2000 <i>BJ</i> <sub>34</sub>		12 8.7 29°61	10.5/ 8.1	18		<b>335742</b>	2007 <i>EW</i> <sub>11</sub>		12 8.7 307°70	2.1/ 8.4	18 R	
11 7	5 28.34	- 5 50.0	1.806	2.602	15.7	19.4	11 7	5 28.83	+18 44.9	1.343	2.209	16.1	20.5
11 17	5 22.09	- 6 18.1	1.748	2.603	13.4	19.3	11 17	5 23.48	+18 34.4	1.262	2.190	11.8	20.2
11 27	5 13.77	- 6 23.4	1.711	2.604	11.4	19.1	11 27	5 15.03	+18 25.1	1.203	2.171	6.8	19.9
12 7	5 4.25	- 6 1.7	1.698	2.605	10.5	19.1	12 7	5 4.51	+18 17.9	1.170	2.153	2.2	19.6
12 17	4 54.59	- 5 11.8	1.710	2.606	11.1	19.1	12 17	4 53.40	+18 14.2	1.162	2.135	5.4	19.7
12 27	4 45.93	- 3 55.7	1.748	2.607	12.9	19.3	12 27	4 43.42	+18 16.1	1.180	2.117	10.8	20.0
1 6	4 39.15	- 2 18.8	1.810	2.609	15.2	19.4	1 6	4 36.03	+18 25.3	1.222	2.100	15.8	20.2
1 16	4 34.85	- 0 27.6	1.892	2.610	17.4	19.6	1 16	4 32.13	+18 42.8	1.282	2.084	20.1	20.4
<b>321061</b>	2008 <i>RS</i> <sub>139</sub>		12 8.7 92°50	0.6/ 8.6	18		<b>445710</b>	2011 <i>UO</i> <sub>245</sub>		12 8.7 85°30	1.2/ 8.9	18	
11 7	5 32.78	+21 29.7	1.641	2.490	14.5	20.7	11 7	5 31.60	+25 8.8	1.810	2.656	13.5	21.3
11 17	5 25.37	+21 27.9	1.591	2.512	10.4	20.5	11 17	5 24.52	+25 30.7	1.756	2.673	9.8	21.1
11 27	5 15.56	+21 24.3	1.566	2.533	5.7	20.2	11 27	5 15.14	+25 48.3	1.726	2.691	5.5	20.9
12 7	5 4.50	+21 18.7	1.569	2.553	1.0	20.0	12 7	5 4.48	+25 59.8	1.724	2.708	1.5	20.6
12 17	4 53.50	+21 12.0	1.600	2.573	4.1	20.2	12 17	4 53.77	+26 4.8	1.752	2.725	3.8	20.9
12 27	4 43.91	+21 5.9	1.660	2.593	8.6	20.6	12 27	4 44.31	+26 4.8	1.808	2.742	7.9	21.1
1 6	4 36.70	+21 2.9	1.745	2.612	12.5	20.8	1 6	4 37.06	+26 2.6	1.891	2.759	11.6	21.4
1 16	4 32.39	+21 4.5	1.853	2.631	15.6	21.1	1 16	4 32.58	+26 0.7	1.996	2.775	14.6	21.6
<b>184320</b>	2005 <i>GK</i> <sub>7</sub>		12 8.7 227°68	1.4									

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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>268655</b>	2006 <i>DW</i> <sub>215</sub>	12 8.7 177°10	3°3/ 7.7 17				<b>171056</b>	2005 <i>ED</i> <sub>121</sub>	12 8.7 201°04	5°5/10.7 18			
11 7	5 24.79	+13 8.2	2.474	3.314	10.5	20.6	11 7	5 30.79	+41 47.7	2.549	3.343	11.7	20.2
11 17	5 19.17	+12 32.6	2.403	3.314	7.8	20.5	11 17	5 23.84	+42 6.5	2.472	3.342	9.4	20.0
11 27	5 12.02	+12 0.4	2.359	3.315	5.0	20.3	11 27	5 14.77	+42 10.9	2.419	3.340	7.1	19.9
12 7	5 4.02	+11 33.7	2.343	3.315	3.3	20.2	12 7	5 4.48	+41 58.1	2.394	3.339	5.6	19.8
12 17	4 55.92	+11 14.5	2.358	3.315	4.7	20.3	12 17	4 54.05	+41 27.6	2.397	3.337	5.9	19.8
12 27	4 48.53	+11 4.0	2.402	3.315	7.4	20.4	12 27	4 44.64	+40 41.7	2.429	3.335	7.7	19.9
1 6	4 42.53	+11 2.9	2.473	3.315	10.2	20.6	1 6	4 37.18	+39 45.3	2.488	3.333	10.0	20.0
1 16	4 38.39	+11 10.8	2.566	3.315	12.6	20.8	1 16	4 32.23	+38 43.9	2.571	3.331	12.3	20.2
<b>457517</b>	2008 <i>WK</i> <sub>3</sub>	12 8.7 222°65	2°9/ 7.5 17				<b>207170</b>	2005 <i>CO</i> <sub>58</sub>	12 8.7 247°24	0°1/ 8.7 18			
11 7	5 24.88	+15 5.4	2.595	3.435	10.1	21.3	11 7	5 29.75	+23 43.3	2.014	2.858	12.4	21.0
11 17	5 19.19	+14 13.8	2.518	3.431	7.4	21.1	11 17	5 23.27	+23 25.9	1.927	2.845	9.0	20.8
11 27	5 12.03	+13 23.4	2.467	3.426	4.6	20.9	11 27	5 14.55	+23 3.9	1.865	2.830	5.1	20.5
12 7	5 4.03	+12 36.5	2.446	3.420	2.9	20.8	12 7	5 4.46	+22 37.6	1.831	2.816	0.8	20.2
12 17	4 55.93	+11 55.7	2.456	3.415	4.4	20.9	12 17	4 54.07	+22 8.2	1.827	2.801	3.7	20.4
12 27	4 48.51	+11 23.1	2.496	3.410	7.1	21.1	12 27	4 44.58	+21 38.4	1.853	2.785	7.9	20.6
1 6	4 42.43	+11 0.3	2.563	3.404	9.9	21.2	1 6	4 36.98	+21 11.4	1.905	2.770	11.7	20.8
1 16	4 38.15	+10 47.5	2.653	3.398	12.3	21.4	1 16	4 31.94	+20 50.0	1.980	2.753	15.0	21.0
<b>152639</b>	1997 <i>PT</i>	12 8.7 80°80	2°2/ 8.3 18				<b>79205</b>	1993 <i>UN</i> <sub>8</sub>	12 8.7 50°91	8°6/ 6.7 18			
11 7	5 32.60	+18 13.9	1.509	2.363	15.3	20.6	11 7	5 26.58	+ 3 21.8	1.643	2.479	15.1	18.7
11 17	5 25.28	+17 53.7	1.465	2.387	11.0	20.4	11 17	5 20.87	+ 2 4.1	1.597	2.491	12.1	18.5
11 27	5 15.53	+17 34.8	1.445	2.410	6.2	20.2	11 27	5 13.10	+ 1 1.1	1.574	2.503	9.6	18.4
12 7	5 4.55	+17 18.6	1.452	2.434	2.3	20.0	12 7	5 4.22	+ 0 18.6	1.576	2.515	8.6	18.4
12 17	4 53.71	+17 6.7	1.487	2.457	4.9	20.2	12 17	4 55.35	+ 0 0.0	1.604	2.527	9.7	18.5
12 27	4 44.38	+17 1.0	1.550	2.480	9.3	20.5	12 27	4 47.62	+ 0 6.0	1.658	2.540	12.1	18.7
1 6	4 37.53	+17 2.7	1.637	2.503	13.2	20.8	1 6	4 41.89	+ 0 34.0	1.734	2.553	14.8	18.9
1 16	4 33.64	+17 12.3	1.746	2.525	16.4	21.1	1 16	4 38.66	+ 1 19.7	1.829	2.566	17.3	19.1
<b>346890</b>	2009 <i>RP</i> <sub>30</sub>	12 8.7 161°99	2°8/ 8.0 18				<b>340914</b>	2007 <i>DU</i> <sub>72</sub>	12 8.7 197°55	0°6/ 8.9 18			
11 7	5 31.48	+17 5.8	1.723	2.571	14.0	21.4	11 7	5 31.99	+24 42.8	1.898	2.741	13.1	22.0
11 17	5 24.48	+16 28.8	1.658	2.576	10.2	21.2	11 17	5 24.92	+24 43.7	1.822	2.739	9.5	21.8
11 27	5 15.16	+15 52.7	1.617	2.581	6.0	21.0	11 27	5 15.48	+24 40.0	1.771	2.736	5.4	21.6
12 7	5 4.51	+15 19.9	1.605	2.584	2.9	20.8	12 7	5 4.61	+24 30.9	1.748	2.732	1.0	21.3
12 17	4 53.77	+14 52.9	1.621	2.588	5.1	20.9	12 17	4 53.49	+24 16.8	1.755	2.728	3.8	21.5
12 27	4 44.21	+14 34.4	1.666	2.590	9.2	21.2	12 27	4 43.43	+23 59.8	1.791	2.724	8.1	21.7
1 6	4 36.82	+14 25.8	1.736	2.593	13.1	21.4	1 6	4 35.48	+23 43.1	1.853	2.718	11.9	21.9
1 16	4 32.19	+14 27.7	1.827	2.594	16.3	21.7	1 16	4 30.28	+23 29.6	1.938	2.713	15.2	22.1
<b>510144</b>	2010 <i>VE</i> <sub>78</sub>	12 8.7 51°38	3°9/ 8.1 18				<b>196104</b>	2002 <i>TC</i> <sub>134</sub>	12 8.7 41°09	1°1/ 8.4 18			
11 7	5 31.50	+16 43.3	1.094	1.966	18.4	21.0	11 7	5 25.90	+21 23.9	2.063	2.913	11.9	18.9
11 17	5 25.11	+15 58.8	1.054	1.984	13.4	20.8	11 17	5 20.19	+20 47.7	2.001	2.922	8.5	18.7
11 27	5 15.64	+15 18.1	1.036	2.002	7.9	20.5	11 27	5 12.67	+20 8.9	1.965	2.931	4.8	18.5
12 7	5 4.58	+14 44.9	1.041	2.021	4.0	20.4	12 7	5 4.17	+19 29.4	1.957	2.940	1.3	18.3
12 17	4 53.68	+14 22.6	1.072	2.041	6.7	20.6	12 17	4 55.65	+18 51.3	1.978	2.950	3.7	18.5
12 27	4 44.68	+14 13.9	1.127	2.061	11.7	20.9	12 27	4 48.11	+18 17.6	2.029	2.960	7.4	18.7
1 6	4 38.72	+14 19.1	1.204	2.081	16.2	21.3	1 6	4 42.31	+17 50.4	2.105	2.970	10.8	19.0
1 16	4 36.31	+14 37.0	1.300	2.101	19.9	21.6	1 16	4 38.74	+17 31.3	2.205	2.980	13.6	19.2
<b>262281</b>	2006 <i>SR</i> <sub>363</sub>	12 8.7 82°33	1°6/ 8.9 18				<b>157376</b>	2004 <i>TN</i> <sub>155</sub>	12 8.7 129°42	0°6/ 8.6 18			
11 7	5 30.07	+26 17.9	1.885	2.731	13.1	20.6	11 7	5 27.12	+21 34.7	2.186	3.031	11.5	20.9
11 17	5 23.58	+26 44.2	1.817	2.733	9.5	20.4	11 17	5 21.08	+21 25.8	2.116	3.034	8.3	20.7
11 27	5 14.73	+27 5.9	1.773	2.736	5.5	20.2	11 27	5 13.20	+21 15.2	2.071	3.037	4.6	20.5
12 7	5 4.48	+27 20.8	1.757	2.739	1.9	19.9	12 7	5 4.26	+21 3.1	2.056	3.040	0.9	20.2
12 17	4 53.99	+27 28.3	1.770	2.742	3.9	20.1	12 17	4 55.19	+20 50.5	2.070	3.043	3.4	20.4
12 27	4 44.57	+27 29.4	1.811	2.745	7.9	20.3	12 27	4 47.00	+20 39.1	2.113	3.045	7.1	20.7
1 6	4 37.24	+27 26.8	1.879	2.748	11.6	20.6	1 6	4 40.50	+20 30.7	2.184	3.048	10.4	20.9
1 16	4 32.64	+27 23.6	1.970	2.751	14.8	20.8	1 16	4 36.22	+20 26.6	2.278	3.050	13.3	21.1
<b>296281</b>	2009 <i>DL</i> <sub>61</sub>	12 8.7 177°73	0°6/ 8.8 18				<b>20046</b>	1993 <i>FE</i> <sub>15</sub>	12 8.7 313°37	7°3/ 7.3 18			
11 7	5 29.95	+24 5.4	1.924	2.770	12.8	21.0	11 7	5 26.41	+ 7 8.3	1.513	2.364	15.5	17.5
11 17	5 23.41	+24 17.7	1.852	2.770	9.3	20.8	11 17	5 21.28	+ 6 19.6	1.438	2.347	12.1	17.3
11 27	5 14.61	+24 26.7	1.805	2.771	5.2	20.5	11 27	5 13.62	+ 5 42.1	1.384	2.331	8.9	17.0
12 7	5 4.46	+24 31.5	1.786	2.771	1.0	20.2	12 7	5 4.35	+ 5 21.0	1.356	2.315	7.3	16.9
12 17	4 54.09	+24 31.7	1.797	2.771	3.7	20.4	12 17	4 54.68	+ 5 19.9	1.353	2.299	8.8	17.0
12 27	4 44.73	+24 28.9	1.837	2.771	7.8	20.7	12 27	4 45.98	+ 5 40.2	1.376	2.284	12.2	17.1
1 6	4 37.38	+24 25.4	1.903	2.771	11.6	20.9	1 6	4 39.42	+ 6 20.3	1.421	2.269	15.9	17.3
1 16	4 32.68	+24 23.5	1.992	2.770	14.7	21.1	1 16	4 35.73	+ 7 16.7	1.485	2.255	19.2	17.5
<b>145132</b>	2005 <i>GZ</i> <sub>157</sub>	12 8.7 147°99	1°9/ 8.3 18				<b>516505</b>	2006 <i>AC</i> <sub>38</sub>	12 8.7 338°06	8°7/ 8.5 18			
11 7	5 28.80	+17 25.1	2.250	3.090	11.4	21.1	11 7	5 26.20	+ 4 33.1	1.162	2.022	18.5	20.4
11 17	5 22.15	+17 10.5	2.184	3.099	8.2	20.9	11 17	5 21.73	+ 4 20.8	1.092	2.006	14.7	20.1
11 27	5 13.73	+16 57.1	2.145	3.108	4.8	20.7	11 27	5 14.14	+ 4 29.8	1.042	1.990	10.9	19.9
12 7	5 4.32	+16 45.8	2.134	3.116	2.0	20.5	12 7	5 4.47	+ 5 5.1	1.015	1.976	8.7	19.7
12 17	4 54.83	+16 37.8	2.155	3.123	3.9	20.7	12 17	4 54.22	+ 6 8.2	1.011	1.963	10.0	19.7
12 27	4 46.24	+16 34.1	2.205	3.130	7.3	20.9	12 27	4 45.16	+ 7 36.2	1.030	1.952	13.8	19.9
1 6	4 39.30	+16 35.9	2.282	3.136	10.5	21.1	1 6	4 38.75	+ 9 22.9	1.071	1.942	18.2	20.1
1 16	4 34.51	+16 43.7	2.383	3.142	13.1	21.3	1 16	4 35.89	+11 20.7	1.130	1.934	22.1	20.4
<b>294089</b>	2007 <i>TP</i> <sub>211</sub>	12 8.7 106°69	0°6/ 8.9 18				<b>205215</b>	2000 <i>JH</i> <sub>94</sub>	12 8.7 166°04	2°6/ 8.1 18		</	

EPHEMERIDES

12 8.7

12 8.8

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>50763</b>	2000 <i>EV</i> <sub>185</sub>	12	8.7	89°01'	0°3'	8.7	18	<b>296290</b>	2009 <i>DE</i> <sub>82</sub>	12	8.7	169°57'	3°6'	9.2	17
11 7	5 29.60	+22 28.6	1.796	2.646	13.4	20.4	11 7	5 35.43	+29 33.2	1.367	2.218	16.8	21.6		
11 17	5 23.15	+22 23.3	1.734	2.655	9.6	20.1	11 17	5 28.31	+30 11.2	1.302	2.219	12.5	21.3		
11 27	5 14.45	+22 15.4	1.697	2.663	5.4	19.9	11 27	5 17.76	+30 40.1	1.259	2.220	7.7	21.1		
12 7	5 4.48	+22 4.8	1.687	2.672	0.8	19.6	12 7	5 5.06	+30 55.3	1.242	2.221	3.8	20.9		
12 17	4 54.42	+21 52.6	1.706	2.680	3.8	19.9	12 17	4 51.98	+30 54.8	1.251	2.221	5.7	21.0		
12 27	4 45.50	+21 40.6	1.754	2.688	8.1	20.1	12 27	4 40.48	+30 40.9	1.287	2.221	10.4	21.2		
1 6	4 38.69	+21 31.4	1.828	2.696	11.9	20.4	1 6	4 32.07	+30 19.5	1.346	2.221	14.9	21.5		
1 16	4 34.56	+21 26.7	1.923	2.704	15.1	20.6	1 16	4 27.52	+29 56.7	1.426	2.221	18.7	21.8		
<b>473609</b>	2015 <i>XB</i> <sub>269</sub>	12	8.7	38°66'	0°2'	8.8	18	<b>47214</b>	1999 <i>TD</i> <sub>293</sub>	12	8.7	221°31'	2°0'	8.2	18
11 7	5 27.76	+23 52.4	1.905	2.756	12.8	21.3	11 7	5 31.88	+20 12.9	1.722	2.571	14.0	19.3		
11 17	5 21.79	+23 46.4	1.839	2.760	9.2	21.0	11 17	5 24.97	+19 25.1	1.644	2.564	10.1	19.1		
11 27	5 13.69	+23 36.7	1.797	2.764	5.1	20.8	11 27	5 15.59	+18 33.9	1.591	2.556	5.8	18.8		
12 7	5 4.37	+23 23.1	1.783	2.768	0.8	20.5	12 7	5 4.72	+17 41.4	1.565	2.547	2.1	18.5		
12 17	4 54.93	+23 6.7	1.798	2.772	3.6	20.7	12 17	4 53.61	+16 51.3	1.569	2.538	4.8	18.7		
12 27	4 46.52	+22 49.5	1.842	2.777	7.7	21.0	12 27	4 43.63	+16 7.7	1.601	2.529	9.3	19.0		
1 6	4 40.07	+22 34.2	1.911	2.782	11.4	21.2	1 6	4 35.85	+15 33.9	1.659	2.518	13.4	19.2		
1 16	4 36.16	+22 23.0	2.004	2.787	14.5	21.4	1 16	4 30.94	+15 12.0	1.738	2.508	16.9	19.4		
<b>290263</b>	2005 <i>SN</i> <sub>126</sub>	12	8.7	61°82'	0°7'	8.6	18	<b>292945</b>	2006 <i>VB</i> <sub>94</sub>	12	8.7	67°81'	2°6'	8.1	18
11 7	5 33.96	+20 55.6	1.293	2.154	16.9	20.6	11 7	5 27.47	+17 0.8	1.876	2.727	12.9	20.9		
11 17	5 26.59	+21 0.3	1.255	2.181	12.1	20.4	11 17	5 21.53	+16 29.4	1.810	2.730	9.4	20.7		
11 27	5 16.39	+21 4.1	1.240	2.208	6.7	20.2	11 27	5 13.55	+15 59.3	1.769	2.733	5.5	20.5		
12 7	5 4.76	+21 6.3	1.251	2.236	1.2	19.9	12 7	5 4.40	+15 32.6	1.756	2.736	2.7	20.3		
12 17	4 53.34	+21 7.5	1.289	2.263	4.7	20.2	12 17	4 55.14	+15 11.4	1.771	2.739	4.7	20.4		
12 27	4 43.72	+21 9.5	1.353	2.290	9.7	20.6	12 27	4 46.88	+14 57.7	1.815	2.742	8.5	20.7		
1 6	4 36.97	+21 14.5	1.442	2.318	14.0	20.9	1 6	4 40.51	+14 52.8	1.885	2.745	12.0	20.9		
1 16	4 33.59	+21 24.0	1.551	2.345	17.5	21.2	1 16	4 36.58	+14 57.0	1.977	2.748	15.0	21.1		
<b>306148</b>	2010 <i>KZ</i> <sub>61</sub>	12	8.7	147°80'	0°5'	8.6	18	<b>96219</b>	1993 <i>SH</i> <sub>5</sub>	12	8.8	53°51'	0°3'	8.8	18
11 7	5 29.87	+22 12.4	2.417	3.254	10.9	22.1	11 7	5 28.98	+23 49.8	1.821	2.671	13.3	19.3		
11 17	5 22.82	+21 53.6	2.351	3.265	7.8	21.9	11 17	5 22.55	+23 48.4	1.774	2.695	9.5	19.1		
11 27	5 14.09	+21 32.2	2.312	3.276	4.3	21.7	11 27	5 14.04	+23 43.4	1.752	2.719	5.2	18.9		
12 7	5 4.43	+21 8.6	2.302	3.287	0.8	21.4	12 7	5 4.46	+23 34.5	1.758	2.743	0.9	18.7		
12 17	4 54.75	+20 44.2	2.324	3.296	3.2	21.6	12 17	4 54.94	+23 22.8	1.793	2.767	3.6	18.9		
12 27	4 45.97	+20 21.0	2.377	3.305	6.6	21.9	12 27	4 46.66	+23 10.2	1.856	2.791	7.7	19.2		
1 6	4 38.82	+20 1.0	2.457	3.314	9.7	22.1	1 6	4 40.46	+22 59.1	1.945	2.816	11.2	19.5		
1 16	4 33.79	+19 46.0	2.562	3.321	12.3	22.3	1 16	4 36.82	+22 51.7	2.057	2.840	14.1	19.7		
<b>484258</b>	2007 <i>GN</i> <sub>47</sub>	12	8.7	189°93'	0°1'	8.8	18	<b>171358</b>	2006 <i>KT</i> <sub>85</sub>	12	8.8	71°03'	1°0'	8.8	18
11 7	5 26.50	+23 22.1	2.963	3.797	9.2	22.8	11 7	5 33.99	+22 46.2	1.654	2.501	14.5	19.1		
11 17	5 20.31	+23 18.5	2.882	3.795	6.6	22.6	11 17	5 26.45	+23 38.1	1.604	2.523	10.4	18.9		
11 27	5 12.69	+23 12.3	2.829	3.793	3.7	22.4	11 27	5 16.35	+24 28.4	1.579	2.545	5.8	18.7		
12 7	5 4.23	+23 3.6	2.806	3.791	0.6	22.1	12 7	5 4.82	+25 13.8	1.582	2.566	1.3	18.4		
12 17	4 55.65	+22 52.8	2.815	3.788	2.6	22.3	12 17	4 53.22	+25 52.0	1.615	2.588	4.1	18.7		
12 27	4 47.69	+22 41.1	2.855	3.784	5.6	22.5	12 27	4 42.97	+26 23.0	1.676	2.610	8.5	19.0		
1 6	4 41.00	+22 30.1	2.923	3.780	8.3	22.7	1 6	4 35.16	+26 48.6	1.763	2.631	12.3	19.3		
1 16	4 36.04	+22 21.3	3.017	3.776	10.6	22.9	1 16	4 30.37	+27 11.2	1.873	2.653	15.5	19.5		
<b>392330</b>	2010 <i>ER</i> <sub>93</sub>	12	8.7	221°17'	3°6'	9.5	18	<b>320998</b>	2008 <i>KK</i> <sub>12</sub>	12	8.8	118°08'	0°6'	8.9	18
11 7	5 32.98	+32 12.6	1.913	2.744	13.5	22.1	11 7	5 28.60	+24 20.8	2.286	3.126	11.3	21.2		
11 17	5 25.88	+32 38.3	1.833	2.738	10.2	21.9	11 17	5 22.11	+24 29.1	2.221	3.136	8.1	21.0		
11 27	5 16.15	+32 54.1	1.778	2.732	6.6	21.6	11 27	5 13.78	+24 34.0	2.182	3.146	4.6	20.8		
12 7	5 4.78	+32 56.9	1.750	2.725	3.8	21.4	12 7	5 4.43	+24 34.9	2.172	3.156	0.9	20.5		
12 17	4 53.06	+32 45.4	1.752	2.717	5.0	21.5	12 17	4 54.98	+24 32.1	2.193	3.166	3.1	20.7		
12 27	4 42.44	+32 21.9	1.782	2.710	8.5	21.7	12 27	4 46.44	+24 26.8	2.243	3.176	6.7	21.0		
1 6	4 34.10	+31 50.9	1.838	2.702	12.1	21.9	1 6	4 39.60	+24 20.9	2.321	3.185	9.9	21.2		
1 16	4 28.76	+31 17.7	1.917	2.693	15.3	22.1	1 16	4 34.97	+24 16.6	2.423	3.194	12.6	21.4		
<b>275014</b>	2009 <i>UW</i> <sub>11</sub>	12	8.7	126°20'	0°9'	8.9	18	<b>371314</b>	2006 <i>GZ</i> <sub>51</sub>	12	8.8	227°42'	10°0'	11.7	17
11 7	5 28.88	+24 39.2	2.331	3.170	11.1	20.2	11 7	5 41.75	+57 49.2	2.747	3.442	13.2	21.0		
11 17	5 22.34	+25 4.8	2.263	3.177	8.0	20.0	11 17	5 32.73	+58 58.0	2.671	3.435	11.9	20.9		
11 27	5 13.93	+25 27.5	2.220	3.184	4.6	19.8	11 27	5 20.24	+59 46.1	2.617	3.428	10.8	20.8		
12 7	5 4.42	+25 46.0	2.207	3.191	1.2	19.6	12 7	5 5.44	+60 7.2	2.586	3.420	10.1	20.8		
12 17	4 54.76	+25 59.6	2.224	3.197	3.2	19.8	12 17	4 50.11	+59 58.1	2.579	3.412	10.1	20.8		
12 27	4 45.93	+26 8.8	2.272	3.204	6.7	20.0	12 27	4 36.20	+59 20.1	2.597	3.404	10.9	20.8		
1 6	4 38.77	+26 15.5	2.347	3.210	9.9	20.2	1 6	4 25.30	+58 19.1	2.638	3.395	12.0	20.9		
1 16	4 33.83	+26 21.4	2.446	3.216	12.5	20.4	1 16	4 18.25	+57 3.0	2.700	3.386	13.4	21.0		
<b>372720</b>	2009 <i>XU</i> <sub>20</sub>	12	8.7	322°36'	5°7'	9.9	18	<b>332619</b>	2008 <i>TO</i> <sub>98</sub>	12	8.8	191°21'	3°7'	7.5	17
11 7	5 29.10	+37 45.6	1.939	2.763	13.7	20.7	11 7	5 24.71	+11 35.8	2.584	3.420	10.3	21.9		
11 17	5 23.28	+38 18.5	1.854	2.747	10.8	20.5	11 17	5 19.11	+10 57.9	2.511	3.419	7.7	21.7		
11 27	5 14.80	+38 37.9	1.792	2.731	7.8	20.3	11 27	5 12.05	+10 24.2	2.466	3.418	5.1	21.6		
12 7	5 4.58	+38 39.8	1.756	2.716	5.8	20.2	12 7	5 4.17	+9 56.9	2.449	3.416	3.7	21.5		
12 17	4 53.95	+38 22.4	1.747	2.701	6.4	20.2	12 17	4 56.18	+9 38.0	2.462	3.415	4.9	21.5		
12 27	4 44.37	+37 47.8	1.766	2.686	9.1	20.3	12 27	4 48.86	+9 28.7	2.505	3.413	7.4	21.7		
1 6	4 37.06	+37 1.4	1.810	2.673	12.3	20.5	1 6	4 42.86	+9 29.3	2.574	3.411	10.0	21.9		
1 16	4 32.79	+36 9.4	1.876	2.659	15.3	20.6	1 16	4 38.63	+9 39.4	2.667	3.409	12.3	22.0		
<b>261006</b>	2005 <i>ST</i> <sub>98</sub>	12	8.7	18°02'	6°3'	6.6	18	<b>300362</b>							

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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>306748</b>	2000 <i>XU</i> <sub>50</sub>	12 8.8	67°78'	6°9/ 9.6	18		<b>108665</b>	2001 <i>NB</i> <sub>22</sub>	12 8.8	41°08'	2°2/ 8.5	18	
11 7	5 37.15	+36 48.8	1.545	2.373	16.3	19.1	11 7	5 30.46	+18 31.2	1.175	2.046	17.5	18.3
11 17	5 29.39	+38 8.5	1.495	2.390	12.8	18.9	11 17	5 24.40	+18 21.6	1.133	2.063	12.6	18.1
11 27	5 18.28	+39 12.9	1.468	2.407	9.2	18.8	11 27	5 15.36	+18 14.1	1.112	2.080	7.2	17.8
12 7	5 5.14	+39 54.9	1.466	2.424	7.0	18.7	12 7	5 4.72	+18 9.7	1.116	2.099	2.3	17.6
12 17	4 51.77	+40 11.2	1.491	2.441	7.8	18.8	12 17	4 54.14	+18 9.7	1.145	2.118	5.4	17.9
12 27	4 40.09	+40 4.1	1.543	2.458	10.6	19.0	12 27	4 45.30	+18 15.4	1.200	2.138	10.6	18.2
1 6	4 31.53	+39 40.5	1.619	2.475	13.9	19.2	1 6	4 39.35	+18 28.0	1.277	2.158	15.1	18.5
1 16	4 26.78	+39 8.5	1.715	2.492	16.8	19.4	1 16	4 36.84	+18 47.6	1.373	2.179	18.8	18.8
<b>408452</b>	2013 <i>HX</i> <sub>26</sub>	12 8.8	86°45'	5°7/ 8.2	18		<b>196872</b>	2003 <i>SS</i> <sub>292</sub>	12 8.8	354°30'	0°2/ 8.8	17	
11 7	5 27.55	+3 46.1	2.285	3.103	12.1	21.0	11 7	5 26.35	+25 21.1	1.853	2.705	12.9	19.4
11 17	5 21.12	+3 37.7	2.236	3.123	9.4	20.8	11 17	5 20.89	+24 51.3	1.781	2.703	9.4	19.1
11 27	5 13.14	+3 41.3	2.211	3.144	7.0	20.7	11 27	5 13.27	+24 15.2	1.733	2.700	5.3	18.9
12 7	5 4.34	+3 58.2	2.215	3.164	5.7	20.7	12 7	5 4.41	+23 33.5	1.714	2.698	0.9	18.6
12 17	4 55.55	+4 29.0	2.248	3.184	6.5	20.8	12 17	4 55.42	+22 48.7	1.722	2.697	3.7	18.8
12 27	4 47.63	+5 12.5	2.310	3.203	8.7	20.9	12 27	4 47.47	+22 4.4	1.760	2.696	7.9	19.0
1 6	4 41.24	+6 6.4	2.398	3.223	11.0	21.1	1 6	4 41.51	+21 24.2	1.822	2.696	11.7	19.3
1 16	4 36.84	+7 8.1	2.509	3.242	13.2	21.3	1 16	4 38.09	+20 51.1	1.908	2.696	14.9	19.5
<b>169838</b>	2002 <i>QU</i> <sub>109</sub>	12 8.8	24°60'	0°3/ 8.8	18		<b>495713</b>	2016 <i>CG</i> <sub>92</sub>	12 8.8	28°12'	6°4/ 10.4	17	
11 7	5 29.00	+24 3.2	1.556	2.414	14.7	20.6	11 7	5 30.86	+41 21.8	2.177	2.981	13.1	20.5
11 17	5 23.07	+23 57.0	1.493	2.418	10.6	20.4	11 17	5 24.27	+42 2.5	2.110	2.985	10.5	20.4
11 27	5 14.57	+23 46.2	1.454	2.422	5.9	20.1	11 27	5 15.23	+42 28.1	2.067	2.990	8.1	20.2
12 7	5 4.57	+23 30.8	1.441	2.426	1.0	19.8	12 7	5 4.72	+42 34.6	2.050	2.994	6.5	20.1
12 17	4 54.43	+23 11.9	1.456	2.431	4.1	20.0	12 17	4 54.01	+42 20.7	2.061	2.999	6.8	20.2
12 27	4 45.57	+22 52.3	1.499	2.436	8.9	20.3	12 27	4 44.47	+41 48.7	2.099	3.005	8.7	20.3
1 6	4 39.09	+22 35.2	1.565	2.442	13.1	20.6	1 6	4 37.15	+41 3.8	2.163	3.010	11.2	20.5
1 16	4 35.61	+22 23.3	1.653	2.448	16.6	20.8	1 16	4 32.69	+40 12.1	2.249	3.016	13.6	20.6
<b>434345</b>	2004 <i>RD</i> <sub>17</sub>	12 8.8	87°33'	0°6/ 8.9	16		<b>389742</b>	2011 <i>SY</i> <sub>124</sub>	12 8.8	188°34'	5°3/ 9.8	18	
11 7	5 33.37	+24 54.0	1.626	2.475	14.7	21.9	11 7	5 35.26	+38 4.0	2.309	3.114	12.4	21.8
11 17	5 25.88	+24 47.5	1.578	2.497	10.5	21.7	11 17	5 27.34	+38 49.3	2.232	3.113	9.8	21.6
11 27	5 15.96	+24 35.6	1.554	2.519	5.9	21.5	11 27	5 16.94	+39 22.3	2.179	3.112	7.1	21.5
12 7	5 4.77	+24 17.8	1.557	2.541	1.1	21.2	12 7	5 4.99	+39 38.8	2.155	3.110	5.4	21.4
12 17	4 53.69	+23 55.6	1.588	2.563	4.0	21.5	12 17	4 52.72	+39 37.1	2.160	3.107	5.9	21.4
12 27	4 44.10	+23 31.9	1.649	2.584	8.5	21.8	12 27	4 41.48	+39 18.5	2.195	3.104	8.2	21.5
1 6	4 36.96	+23 10.4	1.735	2.604	12.4	22.1	1 6	4 32.36	+38 47.7	2.256	3.100	10.9	21.7
1 16	4 32.80	+22 53.8	1.842	2.625	15.6	22.4	1 16	4 26.07	+38 10.3	2.341	3.095	13.5	21.9
<b>76634</b>	2000 <i>HH</i> <sub>9</sub>	12 8.8	276°90'	0°4/ 8.6	18		<b>445566</b>	2011 <i>QM</i> <sub>24</sub>	12 8.8	117°51'	4°5/ 7.8	18	
11 7	5 26.14	+21 49.0	2.387	3.230	10.7	20.3	11 7	5 29.29	+11 12.1	1.939	2.779	13.0	22.5
11 17	5 20.46	+21 42.4	2.296	3.214	7.8	20.1	11 17	5 22.65	+10 34.0	1.884	2.793	9.7	22.3
11 27	5 12.97	+21 33.9	2.232	3.198	4.4	19.9	11 27	5 14.10	+10 2.4	1.854	2.807	6.4	22.2
12 7	5 4.35	+21 23.8	2.196	3.181	0.8	19.6	12 7	5 4.53	+9 40.0	1.852	2.821	4.6	22.1
12 17	4 55.46	+21 12.7	2.191	3.164	3.2	19.7	12 17	4 54.96	+9 28.7	1.880	2.834	6.0	22.2
12 27	4 47.24	+21 2.2	2.216	3.147	6.8	19.9	12 27	4 46.43	+9 29.8	1.935	2.846	9.0	22.4
1 6	4 40.52	+20 53.8	2.268	3.131	10.1	20.1	1 6	4 39.74	+9 42.7	2.016	2.859	12.1	22.6
1 16	4 35.88	+20 49.3	2.343	3.114	13.0	20.3	1 16	4 35.40	+10 6.2	2.119	2.870	14.8	22.8
<b>151587</b>	2002 <i>UT</i> <sub>19</sub>	12 8.8	29°86'	1°6/ 8.7	18		<b>8883</b>	Miyazakihayao	12 8.8	18°63'	0°1/ 8.8	18	
11 7	5 31.16	+17 51.7	1.233	2.100	17.2	19.7	11 7	5 31.94	+22 50.0	1.364	2.225	16.2	17.8
11 17	5 25.08	+18 17.0	1.178	2.106	12.4	19.4	11 17	5 25.57	+22 57.2	1.300	2.225	11.7	17.5
11 27	5 15.88	+18 47.1	1.145	2.113	7.0	19.1	11 27	5 16.16	+23 1.6	1.258	2.226	6.6	17.2
12 7	5 4.81	+19 20.4	1.136	2.120	1.8	18.8	12 7	5 4.88	+23 2.2	1.242	2.227	1.0	16.9
12 17	4 53.50	+19 55.6	1.154	2.128	5.1	19.1	12 17	4 53.32	+22 59.2	1.253	2.227	4.6	17.1
12 27	4 43.73	+20 31.9	1.198	2.137	10.5	19.4	12 27	4 43.19	+22 54.5	1.290	2.228	9.9	17.4
1 6	4 36.81	+21 9.5	1.264	2.146	15.2	19.7	1 6	4 35.82	+22 51.4	1.351	2.230	14.6	17.7
1 16	4 33.46	+21 48.7	1.351	2.155	19.1	20.0	1 16	4 31.92	+22 52.5	1.432	2.231	18.5	18.0
<b>254767</b>	2005 <i>QZ</i> <sub>25</sub>	12 8.8	96°81'	1°1/ 8.5	18		<b>175810</b>	1999 <i>RA</i> <sub>187</sub>	12 8.8	106°54'	2°8/ 9.3	18	
11 7	5 28.20	+19 55.6	1.998	2.846	12.3	20.9	11 7	5 36.05	+29 36.2	1.535	2.377	15.7	20.5
11 17	5 22.00	+19 50.3	1.933	2.853	8.9	20.7	11 17	5 28.15	+29 48.9	1.481	2.395	11.5	20.3
11 27	5 13.81	+19 44.7	1.894	2.859	5.0	20.5	11 27	5 17.38	+29 51.4	1.451	2.411	6.9	20.0
12 7	5 4.48	+19 39.3	1.882	2.866	1.3	20.2	12 7	5 5.04	+29 41.2	1.447	2.428	3.0	19.8
12 17	4 55.03	+19 34.8	1.900	2.873	3.7	20.4	12 17	4 52.72	+29 18.7	1.472	2.443	4.8	20.0
12 27	4 46.57	+19 32.5	1.948	2.879	7.6	20.7	12 27	4 42.04	+28 47.6	1.525	2.459	9.1	20.3
1 6	4 39.94	+19 33.8	2.021	2.886	11.1	20.9	1 6	4 34.17	+28 13.6	1.603	2.474	13.2	20.6
1 16	4 35.70	+19 39.8	2.118	2.892	14.1	21.1	1 16	4 29.66	+27 41.8	1.702	2.488	16.5	20.8
<b>484026</b>	2006 <i>DL</i> <sub>164</sub>	12 8.8	206°06'	3°2/ 9.6	18		<b>412023</b>	2013 <i>CE</i> <sub>33</sub>	12 8.8	15°27'	11°9/ 8.4	18	
11 7	5 28.95	+33 27.7	2.672	3.491	10.5	21.9	11 7	5 28.54	-7 56.8	1.663	2.455	17.0	20.2
11 17	5 22.40	+33 48.8	2.590	3.487	7.9	21.7	11 17	5 22.45	-8 30.1	1.608	2.456	14.7	20.0
11 27	5 14.01	+34 1.6	2.535	3.483	5.2	21.6	11 27	5 14.15	-8 37.2	1.573	2.458	12.8	19.9
12 7	5 4.52	+34 4.1	2.508	3.479	3.3	21.4	12 7	5 4.56	-8 13.2	1.562	2.459	11.9	19.8
12 17	4 54.82	+33 55.7	2.512	3.474	4.0	21.5	12 17	4 54.84	-7 16.5	1.574	2.462	12.4	19.9
12 27	4 45.88	+33 37.7	2.546	3.469	6.5	21.6	12 27	4 46.19	-5 49.9	1.611	2.464	14.1	20.0
1 6	4 38.54	+33 13.3	2.608	3.463	9.2	21.8	1 6	4 39.57	-3 59.8	1.670	2.467	16.3	20.2
1 16	4 33.35	+32 45.8	2.694	3.458	11.6	22.0	1 16	4 35.58	-1 54.0	1.749	2.470	18.5	20.3
<b>157356</b>	2004 <i>TH</i> <sub>94</sub>	12 8.8	39°74'	4°3/ 7.5	18		<b>141753</b>	2002 <i>LL</i> <sub>53</sub>	12 8.8	60°78'	6°2/ 8.7	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>36056</b>	1999 <i>RX</i> <sub>32</sub>	12	8.8 359°68	1.4/ 8.5	18		<b>78907</b>	2003 <i>SR</i> <sub>90</sub>	12	8.8 86°50	0.8/ 8.7	18	
11 7	5 26.98	+19 20.3	1.886	2.739	12.8	17.7	11 7	5 36.06	+20 5.2	1.372	2.226	16.5	19.5
11 17	5 21.30	+19 13.3	1.816	2.738	9.2	17.5	11 17	5 28.13	+20 22.9	1.328	2.250	11.8	19.3
11 27	5 13.51	+19 6.6	1.771	2.738	5.2	17.3	11 27	5 17.36	+20 40.9	1.307	2.273	6.6	19.1
12 7	5 4.47	+19 0.8	1.754	2.737	1.5	17.0	12 7	5 5.07	+20 57.8	1.312	2.296	1.2	18.8
12 17	4 55.25	+18 56.9	1.765	2.737	4.0	17.2	12 17	4 52.86	+21 12.9	1.345	2.319	4.6	19.1
12 27	4 46.99	+18 56.1	1.805	2.738	8.0	17.4	12 27	4 42.35	+21 27.4	1.406	2.341	9.6	19.4
1 6	4 40.60	+18 59.8	1.871	2.738	11.7	17.7	1 6	4 34.68	+21 42.9	1.492	2.363	13.9	19.7
1 16	4 36.70	+19 8.9	1.958	2.739	14.8	17.9	1 16	4 30.40	+22 1.0	1.598	2.385	17.4	20.0
<b>184635</b>	2005 <i>SG</i> <sub>12</sub>	12	8.8 112°99	0.6/ 8.7	18		<b>49310</b>	1998 <i>VD</i> <sub>17</sub>	12	8.8 349°18	9.6/ 4.8	18	
11 7	5 33.47	+20 45.5	1.643	2.492	14.5	20.6	11 7	5 26.60	+ 4 3.1	1.594	2.434	15.3	17.8
11 17	5 26.08	+20 56.9	1.587	2.506	10.4	20.4	11 17	5 21.14	+ 1 54.1	1.536	2.431	12.5	17.6
11 27	5 16.18	+21 7.7	1.554	2.521	5.8	20.1	11 27	5 13.45	- 0 3.6	1.502	2.428	10.3	17.5
12 7	5 4.87	+21 17.1	1.550	2.534	1.0	19.8	12 7	5 4.49	- 1 41.1	1.494	2.426	9.7	17.4
12 17	4 53.49	+21 25.0	1.574	2.548	4.1	20.1	12 17	4 55.39	- 2 51.3	1.512	2.424	11.1	17.5
12 27	4 43.43	+21 32.5	1.627	2.560	8.7	20.4	12 27	4 47.38	- 3 30.8	1.554	2.422	13.7	17.7
1 6	4 35.75	+21 41.3	1.705	2.573	12.7	20.7	1 6	4 41.40	- 3 40.6	1.618	2.421	16.5	17.8
1 16	4 31.04	+21 53.2	1.806	2.585	16.0	20.9	1 16	4 38.04	- 3 24.7	1.699	2.421	19.0	18.0
<b>313246</b>	2001 <i>UN</i> <sub>138</sub>	12	8.8 352°37	2.4/ 8.2	18		<b>144010</b>	2004 <i>AG</i> <sub>22</sub>	12	8.8 172°04	1.1/ 9.1	18	
11 7	5 26.99	+18 10.4	1.738	2.594	13.5	20.8	11 7	5 30.21	+26 51.5	2.268	3.104	11.5	20.5
11 17	5 21.39	+17 36.5	1.670	2.592	9.8	20.5	11 17	5 23.35	+26 45.7	2.194	3.107	8.4	20.3
11 27	5 13.59	+17 2.8	1.626	2.591	5.7	20.3	11 27	5 14.56	+26 34.1	2.147	3.109	4.8	20.1
12 7	5 4.49	+16 31.4	1.608	2.590	2.5	20.1	12 7	5 4.65	+26 16.0	2.128	3.111	1.3	19.9
12 17	4 55.22	+16 4.8	1.619	2.589	4.8	20.2	12 17	4 54.62	+25 52.2	2.140	3.113	3.3	20.0
12 27	4 47.00	+15 45.6	1.658	2.588	8.9	20.5	12 27	4 45.53	+25 25.0	2.182	3.114	6.9	20.3
1 6	4 40.79	+15 35.5	1.722	2.588	12.7	20.7	1 6	4 38.22	+24 57.4	2.251	3.114	10.2	20.5
1 16	4 37.18	+15 35.1	1.807	2.588	15.9	20.9	1 16	4 33.24	+24 32.4	2.345	3.114	13.0	20.7
<b>179013</b>	2001 <i>RL</i> <sub>61</sub>	12	8.8 24°66	6.2/ 8.0	18		<b>451812</b>	2013 <i>HK</i> <sub>56</sub>	12	8.8 2°32	3.1/ 9.5	17	
11 7	5 26.51	+ 8 22.9	1.501	2.354	15.4	19.6	11 7	5 30.27	+31 28.6	1.898	2.736	13.3	21.6
11 17	5 21.14	+ 7 54.7	1.448	2.361	11.8	19.4	11 17	5 23.85	+31 42.5	1.827	2.736	10.0	21.3
11 27	5 13.45	+ 7 38.5	1.419	2.370	8.2	19.2	11 27	5 15.01	+31 46.7	1.779	2.736	6.3	21.1
12 7	5 4.46	+ 7 37.5	1.415	2.379	6.2	19.1	12 7	5 4.73	+31 39.0	1.759	2.736	3.3	20.9
12 17	4 55.39	+ 7 53.2	1.436	2.390	7.6	19.2	12 17	4 54.25	+31 19.1	1.768	2.736	4.6	21.0
12 27	4 47.51	+ 8 25.4	1.484	2.400	10.9	19.4	12 27	4 44.90	+30 49.8	1.805	2.736	8.1	21.2
1 6	4 41.79	+ 9 11.4	1.555	2.412	14.3	19.7	1 6	4 37.73	+30 15.4	1.868	2.737	11.7	21.5
1 16	4 38.81	+10 8.1	1.647	2.424	17.4	19.9	1 16	4 33.38	+29 40.7	1.953	2.737	14.8	21.7
<b>295574</b>	2008 <i>SV</i> <sub>103</sub>	12	8.8 141°65	1.9/ 9.1	18		<b>413436</b>	2005 <i>AB</i> <sub>68</sub>	12	8.8 336°83	4.7/ 9.9	16	
11 7	5 32.18	+27 21.6	1.709	2.555	14.2	20.9	11 7	5 28.11	+35 19.9	1.796	2.632	14.1	20.3
11 17	5 25.32	+27 36.0	1.642	2.559	10.4	20.7	11 17	5 22.60	+35 35.8	1.717	2.621	10.8	20.0
11 27	5 15.86	+27 43.7	1.599	2.562	6.1	20.4	11 27	5 14.45	+35 38.3	1.660	2.610	7.4	19.8
12 7	5 4.84	+27 42.7	1.583	2.565	2.1	20.2	12 7	5 4.66	+35 24.5	1.630	2.599	4.9	19.6
12 17	4 53.62	+27 32.8	1.596	2.568	4.2	20.3	12 17	4 54.55	+34 53.9	1.627	2.590	5.7	19.7
12 27	4 43.65	+27 16.3	1.637	2.571	8.6	20.6	12 27	4 45.59	+34 9.4	1.651	2.581	8.9	19.8
1 6	4 36.04	+26 57.2	1.703	2.574	12.5	20.9	1 6	4 38.94	+33 16.8	1.700	2.572	12.5	20.0
1 16	4 31.46	+26 39.4	1.792	2.576	15.9	21.1	1 16	4 35.33	+32 22.2	1.771	2.565	15.7	20.2
<b>76256</b>	2000 <i>ET</i> <sub>04</sub>	12	8.8 286°00	0.2/ 8.7	18		<b>521380</b>	2015 <i>MS</i> <sub>141</sub>	12	8.8 12°89	0.9/ 8.6	18	
11 7	5 28.85	+24 10.4	1.808	2.658	13.3	19.0	11 7	5 28.50	+22 6.4	1.389	2.254	15.7	20.7
11 17	5 22.88	+23 41.4	1.722	2.643	9.7	18.7	11 17	5 22.93	+21 43.3	1.328	2.256	11.3	20.5
11 27	5 14.51	+23 6.4	1.661	2.628	5.4	18.4	11 27	5 14.61	+21 16.8	1.290	2.258	6.3	20.2
12 7	5 4.65	+22 26.1	1.628	2.612	0.8	18.1	12 7	5 4.68	+20 48.2	1.277	2.262	1.2	19.9
12 17	4 54.47	+21 42.7	1.623	2.597	3.9	18.3	12 17	4 54.59	+20 19.7	1.291	2.265	4.7	20.1
12 27	4 45.29	+20 59.8	1.647	2.582	8.5	18.5	12 27	4 45.90	+19 54.8	1.331	2.270	9.7	20.4
1 6	4 38.17	+20 21.4	1.697	2.566	12.6	18.7	1 6	4 39.74	+19 36.6	1.395	2.275	14.2	20.7
1 16	4 33.81	+19 50.8	1.768	2.551	16.1	18.9	1 16	4 36.77	+19 27.2	1.479	2.280	17.9	21.0
<b>92788</b>	2000 <i>QO</i> <sub>144</sub>	12	8.8 314°38	1.3/ 8.9	18		<b>144650</b>	2004 <i>FX</i> <sub>105</sub>	12	8.8 99°69	1.7/ 8.6	18	
11 7	5 30.16	+24 49.8	1.452	2.311	15.5	18.4	11 7	5 29.75	+17 11.9	1.954	2.799	12.7	19.5
11 17	5 24.41	+25 13.5	1.375	2.299	11.3	18.1	11 17	5 23.14	+17 24.2	1.892	2.810	9.2	19.3
11 27	5 15.63	+25 33.9	1.321	2.287	6.5	17.8	11 27	5 14.48	+17 39.3	1.856	2.820	5.2	19.1
12 7	5 4.84	+25 48.4	1.292	2.276	1.7	17.5	12 7	5 4.65	+17 57.0	1.848	2.831	1.8	18.9
12 17	4 53.53	+25 56.0	1.290	2.265	4.6	17.6	12 17	4 54.70	+18 16.9	1.870	2.841	4.0	19.1
12 27	4 43.41	+25 57.7	1.315	2.254	9.8	17.9	12 27	4 45.75	+18 39.4	1.922	2.852	7.8	19.3
1 6	4 35.86	+25 56.9	1.364	2.244	14.4	18.1	1 6	4 38.69	+19 4.6	1.999	2.862	11.3	19.6
1 16	4 31.75	+25 56.9	1.433	2.234	18.4	18.4	1 16	4 34.08	+19 32.7	2.100	2.872	14.3	19.8
<b>168764</b>	2000 <i>QH</i> <sub>220</sub>	12	8.8 29°76	5.5/ 8.1	18		<b>493064</b>	2014 <i>SD</i> <sub>287</sub>	12	8.8 58°56	1.6/ 9.1	17	
11 7	5 30.17	+12 25.6	1.159	2.027	18.0	19.3	11 7	5 28.54	+27 1.6	2.058	2.901	12.2	21.3
11 17	5 24.36	+11 52.3	1.106	2.031	13.4	19.0	11 17	5 22.30	+27 20.0	1.998	2.913	8.9	21.1
11 27	5 15.48	+11 28.3	1.074	2.036	8.6	18.8	11 27	5 14.02	+27 33.1	1.962	2.925	5.2	20.9
12 7	5 4.80	+11 17.2	1.066	2.041	5.5	18.6	12 7	5 4.58	+27 39.3	1.955	2.937	1.8	20.7
12 17	4 53.95	+11 21.5	1.083	2.047	7.7	18.8	12 17	4 55.04	+27 38.7	1.977	2.949	3.6	20.9
12 27	4 44.67	+11 42.0	1.124	2.053	12.2	19.0	12 27	4 46.52	+27 32.5	2.028	2.962	7.2	21.1
1 6	4 38.24	+12 17.0	1.187	2.059	16.7	19.3	1 6	4 39.90	+27 23.5	2.106	2.974	10.6	21.4
1 16	4 35.33	+13 3.8	1.268	2.066	20.5	19.6	1 16	4 35.73	+27 14.5	2.207	2.987	13.4	21.6
<b>299444</b>	2006 <i>BB</i> <sub>11</sub>	12	8.8 2°71	1.1/ 9.1	18		<b>138456</b>	2000 <i>JD</i> <sub>21</sub>	12	8.8 141°18	3.9/		

EPHEMERIDES

12 8.8

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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>282</b>	Clorinde	12	8.8	354°38	7°0/ 7.9	18	<b>234563</b>	2001 XC <sub>23</sub>	12	8.8	8°30	6°1/11.1	18
11 7	5 28.48	+ 8 21.8	1.298	2.156	17.0	14.0	11 7	5 30.90	+39 2.8	1.113	1.965	19.7	19.1
11 17	5 22.98	+ 7 45.2	1.238	2.154	13.1	13.8	11 17	5 25.50	+38 27.5	1.055	1.966	15.3	18.8
11 27	5 14.69	+ 7 21.7	1.200	2.152	9.2	13.6	11 27	5 16.30	+37 23.8	1.017	1.968	10.6	18.6
12 7	5 4.71	+ 7 15.6	1.185	2.151	7.0	13.5	12 7	5 5.01	+35 49.8	1.001	1.972	6.7	18.4
12 17	4 54.46	+ 7 29.4	1.196	2.150	8.6	13.6	12 17	4 53.82	+33 50.4	1.010	1.978	7.1	18.4
12 27	4 45.52	+ 8 3.3	1.231	2.150	12.4	13.8	12 27	4 44.87	+31 37.7	1.043	1.985	11.3	18.7
1 6	4 39.08	+ 8 54.4	1.289	2.150	16.4	14.0	1 6	4 39.49	+29 26.1	1.100	1.993	16.0	19.0
1 16	4 35.86	+ 9 58.5	1.365	2.151	19.9	14.2	1 16	4 38.17	+27 26.6	1.176	2.003	20.0	19.3
<b>50182</b>	2000 AB <sub>168</sub>	12	8.8	220°30	2°7/ 8.2	18	<b>436464</b>	2011 DG <sub>11</sub>	12	8.8	284°67	4°0/ 9.6	18
11 7	5 25.74	+13 36.4	2.447	3.286	10.7	18.4	11 7	5 33.25	+32 8.2	1.433	2.280	16.3	21.0
11 17	5 20.01	+13 31.3	2.372	3.284	7.8	18.2	11 17	5 26.87	+32 20.3	1.354	2.268	12.4	20.7
11 27	5 12.67	+13 30.5	2.323	3.281	4.9	18.0	11 27	5 17.12	+32 19.3	1.297	2.255	7.9	20.4
12 7	5 4.38	+13 34.9	2.303	3.279	2.8	17.9	12 7	5 5.19	+32 1.6	1.265	2.242	4.2	20.1
12 17	4 55.92	+13 45.2	2.312	3.276	4.2	18.0	12 17	4 52.75	+31 26.4	1.259	2.229	5.7	20.2
12 27	4 48.14	+14 1.7	2.352	3.273	7.1	18.2	12 27	4 41.73	+30 37.9	1.280	2.216	10.3	20.4
1 6	4 41.77	+14 24.3	2.419	3.270	10.0	18.3	1 6	4 33.64	+29 43.3	1.325	2.203	14.9	20.7
1 16	4 37.30	+14 52.6	2.509	3.267	12.6	18.5	1 16	4 29.31	+28 50.2	1.391	2.191	18.9	20.9
<b>39475</b>	1978 VE <sub>8</sub>	12	8.8	314°63	0°5/ 8.9	18	<b>515548</b>	2014 GK <sub>57</sub>	12	8.8	135°38	1°2/ 9.0	18
11 7	5 27.36	+24 1.2	2.048	2.895	12.1	18.8	11 7	5 31.43	+26 4.5	2.009	2.849	12.6	22.1
11 17	5 21.57	+24 7.9	1.971	2.890	8.8	18.6	11 17	5 24.44	+26 16.7	1.944	2.858	9.2	21.9
11 27	5 13.71	+24 11.5	1.919	2.884	4.9	18.3	11 27	5 15.28	+26 23.8	1.903	2.867	5.3	21.7
12 7	5 4.57	+24 11.4	1.894	2.879	0.9	18.0	12 7	5 4.86	+26 24.6	1.892	2.875	1.5	21.5
12 17	4 55.18	+24 7.6	1.900	2.874	3.4	18.2	12 17	4 54.32	+26 19.0	1.910	2.883	3.6	21.6
12 27	4 46.67	+24 1.7	1.934	2.869	7.4	18.5	12 27	4 44.84	+26 8.8	1.957	2.890	7.5	21.9
1 6	4 39.96	+23 55.8	1.994	2.864	11.0	18.7	1 6	4 37.37	+25 56.8	2.031	2.897	11.0	22.1
1 16	4 35.68	+23 51.9	2.078	2.859	14.1	18.9	1 16	4 32.49	+25 45.9	2.129	2.903	14.0	22.4
<b>371317</b>	2006 HS <sub>21</sub>	12	8.8	283°95	0°4/ 8.7	18	<b>478625</b>	2012 TH <sub>174</sub>	12	8.8	294°52	2°4/ 8.2	18
11 7	5 30.06	+21 22.6	1.657	2.511	14.2	21.0	11 7	5 29.49	+19 29.4	1.522	2.381	14.9	21.5
11 17	5 23.92	+21 30.5	1.580	2.503	10.3	20.7	11 17	5 23.56	+18 45.2	1.449	2.373	10.9	21.3
11 27	5 15.19	+21 37.8	1.528	2.495	5.8	20.5	11 27	5 15.00	+17 58.9	1.399	2.366	6.3	21.0
12 7	5 4.81	+21 43.5	1.502	2.487	1.0	20.1	12 7	5 4.84	+17 13.0	1.376	2.358	2.4	20.7
12 17	4 54.06	+21 47.8	1.505	2.479	4.2	20.3	12 17	4 54.41	+16 31.1	1.381	2.351	5.2	20.9
12 27	4 44.37	+21 51.9	1.536	2.471	8.9	20.6	12 27	4 45.17	+15 57.1	1.412	2.344	9.9	21.1
1 6	4 36.91	+21 57.6	1.591	2.464	13.2	20.8	1 6	4 38.28	+15 34.1	1.468	2.337	14.3	21.4
1 16	4 32.41	+22 6.8	1.668	2.456	16.7	21.1	1 16	4 34.42	+15 23.3	1.544	2.330	17.9	21.6
<b>157869</b>	1999 EQ <sub>8</sub>	12	8.8	200°02	0°6/ 8.9	18	<b>289599</b>	2005 GH <sub>6</sub>	12	8.8	339°00	3°8/ 6.9	18
11 7	5 31.87	+24 42.8	1.939	2.781	12.9	21.6	11 7	5 29.18	+23 23.7	1.227	2.097	17.0	18.0
11 17	5 24.88	+24 41.6	1.862	2.778	9.4	21.4	11 17	5 23.76	+20 49.8	1.150	2.081	12.4	17.6
11 27	5 15.57	+24 35.7	1.810	2.775	5.3	21.1	11 27	5 15.24	+17 57.2	1.097	2.065	7.2	17.3
12 7	5 4.86	+24 24.5	1.786	2.771	1.0	20.8	12 7	5 4.89	+14 55.9	1.071	2.051	3.8	17.1
12 17	4 53.91	+24 8.5	1.792	2.766	3.7	21.0	12 17	4 54.35	+12 0.3	1.073	2.039	7.4	17.2
12 27	4 43.98	+23 49.9	1.828	2.761	7.9	21.3	12 27	4 45.35	+9 25.5	1.103	2.027	12.8	17.5
1 6	4 36.10	+23 31.7	1.890	2.755	11.7	21.5	1 6	4 39.16	+7 21.3	1.155	2.017	17.8	17.8
1 16	4 30.92	+23 17.0	1.975	2.749	15.0	21.7	1 16	4 36.45	+5 51.1	1.225	2.009	21.8	18.0
<b>120162</b>	2003 HN <sub>36</sub>	12	8.8	79°06	1°2/ 8.5	18	<b>494913</b>	2008 VO <sub>40</sub>	12	8.8	248°72	0°6/ 9.0	17
11 7	5 27.94	+20 4.9	1.972	2.821	12.4	20.3	11 7	5 26.77	+26 34.0	2.407	3.246	10.8	21.0
11 17	5 21.86	+19 52.1	1.908	2.828	8.9	20.1	11 17	5 20.83	+26 6.7	2.331	3.246	7.8	20.8
11 27	5 13.79	+19 38.7	1.870	2.836	5.0	19.8	11 27	5 13.17	+25 33.4	2.282	3.246	4.4	20.6
12 7	5 4.59	+19 25.4	1.859	2.843	1.3	19.6	12 7	5 4.55	+24 54.5	2.261	3.245	1.0	20.4
12 17	4 55.31	+19 13.4	1.878	2.851	3.8	19.8	12 17	4 55.85	+24 11.7	2.271	3.245	3.0	20.5
12 27	4 47.02	+19 4.3	1.926	2.858	7.7	20.1	12 27	4 48.00	+23 27.9	2.311	3.245	6.5	20.8
1 6	4 40.57	+18 59.7	2.000	2.866	11.2	20.3	1 6	4 41.74	+22 46.1	2.379	3.244	9.6	21.0
1 16	4 36.52	+19 0.7	2.097	2.873	14.2	20.5	1 16	4 37.56	+22 9.1	2.471	3.244	12.3	21.2
<b>304979</b>	2007 TQ <sub>186</sub>	12	8.8	34°98	8°8/ 7.0	18	<b>72542</b>	2001 DE <sub>105</sub>	12	8.8	261°03	0°2/ 8.8	18
11 7	5 26.83	+ 5 4.1	1.377	2.227	16.7	20.2	11 7	5 30.05	+23 59.2	1.841	2.689	13.2	20.2
11 17	5 21.41	+ 3 45.7	1.335	2.240	13.2	20.0	11 17	5 23.77	+23 51.1	1.758	2.677	9.6	20.0
11 27	5 13.62	+ 2 42.9	1.316	2.254	10.2	19.9	11 27	5 15.09	+23 38.5	1.699	2.665	5.4	19.7
12 7	5 4.57	+ 2 2.1	1.320	2.269	8.8	19.9	12 7	5 4.88	+23 21.4	1.668	2.652	0.9	19.4
12 17	4 55.56	+ 1 47.0	1.350	2.284	10.1	20.0	12 17	4 54.34	+23 0.5	1.665	2.640	3.8	19.6
12 27	4 47.89	+ 1 58.1	1.403	2.300	12.9	20.2	12 27	4 44.77	+22 38.3	1.692	2.627	8.3	19.8
1 6	4 42.51	+ 2 32.0	1.478	2.316	16.0	20.4	1 6	4 37.25	+22 17.9	1.744	2.614	12.4	20.0
1 16	4 39.94	+ 3 23.8	1.572	2.333	18.7	20.7	1 16	4 32.50	+22 2.3	1.819	2.600	15.8	20.2
<b>34800</b>	2001 SD <sub>59</sub>	12	8.8	247°11	5°3/ 7.5	18	<b>79330</b>	1996 RR <sub>24</sub>	12	8.8	120°11	4°4/ 7.7	18
11 7	5 29.52	+10 51.9	1.790	2.633	13.8	19.5	11 7	5 27.73	+10 23.4	2.172	3.008	12.0	20.2
11 17	5 23.27	+10 4.4	1.710	2.620	10.5	19.2	11 17	5 21.46	+ 9 46.5	2.115	3.021	9.0	20.0
11 27	5 14.75	+ 9 22.8	1.654	2.606	7.1	19.0	11 27	5 13.49	+ 9 16.1	2.083	3.033	6.1	19.9
12 7	5 4.79	+ 8 50.7	1.625	2.592	5.3	18.9	12 7	5 4.62	+ 8 54.6	2.079	3.045	4.5	19.8
12 17	4 54.50	+ 8 31.5	1.625	2.578	6.9	18.9	12 17	4 55.71	+ 8 43.9	2.105	3.057	5.7	19.9
12 27	4 45.11	+ 8 27.2	1.652	2.563	10.3	19.1	12 27	4 47.70	+ 8 44.9	2.160	3.068	8.4	20.1
1 6	4 37.66	+ 8 38.0	1.704	2.548	13.9	19.3	1 6	4 41.30	+ 8 57.2	2.241	3.079	11.2	20.3
1 16	4 32.82	+ 9 2.7	1.777	2.532	17.1	19.5	1 16	4 37.01	+ 9 19.7	2.344	3.089	13.7	20.5
<b>415352</b>	2013 JN <sub>37</sub>	12	8.8	107°69	0°8/ 8.9	18	<b>163660</b>	2002 VQ <sub>116</sub>	12	8.8	192°26	1°4/ 9.3	18
11 7	5 29.98	+24 26.0	2.653	3.484	10.2	21.7	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>477320</b>	2009 SV <sub>349</sub>	12	8.8 127°29	4.2/ 9.5	16		<b>437924</b>	2002 OE <sub>16</sub>	12	8.8 63°13	0.3/ 8.9	18	
11 7	5 37.69	+32 28.8	1.793	2.620	14.5	22.0	11 7	5 33.06	+25 54.1	1.572	2.422	15.0	20.4
11 17	5 29.31	+33 13.6	1.734	2.636	10.9	21.8	11 17	5 25.65	+25 14.5	1.531	2.451	10.7	20.2
11 27	5 18.15	+33 47.7	1.700	2.652	7.1	21.6	11 27	5 15.90	+24 27.7	1.514	2.480	6.0	20.0
12 7	5 5.36	+34 6.6	1.694	2.666	4.3	21.5	12 7	5 5.04	+23 35.3	1.525	2.509	1.0	19.8
12 17	4 52.45	+34 8.8	1.717	2.680	5.4	21.6	12 17	4 54.48	+22 40.7	1.564	2.538	4.0	20.1
12 27	4 40.95	+33 56.6	1.769	2.694	8.8	21.8	12 27	4 45.51	+21 48.7	1.631	2.567	8.5	20.4
1 6	4 32.06	+33 34.9	1.847	2.706	12.3	22.0	1 6	4 39.04	+21 3.6	1.724	2.596	12.4	20.7
1 16	4 26.41	+33 9.6	1.947	2.718	15.3	22.3	1 16	4 35.48	+20 28.0	1.840	2.624	15.5	21.0
<b>97408</b>	2000 AV <sub>138</sub>	12	8.8 340°91	2.3/ 8.7	18		<b>463818</b>	2014 TX <sub>22</sub>	12	8.8 21°17	1.5/ 9.1	17	
11 7	5 29.92	+15 32.7	1.525	2.382	15.0	18.1	11 7	5 28.17	+26 29.3	2.104	2.947	12.0	21.5
11 17	5 23.96	+15 56.7	1.455	2.377	11.0	17.9	11 17	5 22.17	+26 52.9	2.034	2.949	8.8	21.3
11 27	5 15.31	+16 27.4	1.408	2.373	6.5	17.6	11 27	5 14.11	+27 12.0	1.988	2.951	5.1	21.1
12 7	5 4.97	+17 4.4	1.387	2.369	2.5	17.4	12 7	5 4.81	+27 25.1	1.971	2.954	1.8	20.8
12 17	4 54.24	+17 46.4	1.394	2.366	4.9	17.5	12 17	4 55.29	+27 31.7	1.984	2.956	3.6	21.0
12 27	4 44.60	+18 32.3	1.428	2.363	9.6	17.8	12 27	4 46.68	+27 32.6	2.025	2.959	7.2	21.2
1 6	4 37.26	+19 21.1	1.488	2.360	13.9	18.0	1 6	4 39.88	+27 30.2	2.093	2.962	10.6	21.4
1 16	4 32.98	+20 12.2	1.568	2.358	17.5	18.3	1 16	4 35.51	+27 27.0	2.184	2.965	13.5	21.6
<b>157715</b>	2006 AW <sub>79</sub>	12	8.8 330°16	0.1/ 8.8	17		<b>343765</b>	2011 FN <sub>130</sub>	12	8.8 165°15	3.7/ 9.6	18	
11 7	5 27.25	+22 37.8	1.895	2.746	12.7	19.8	11 7	5 35.03	+32 30.1	1.770	2.602	14.4	21.2
11 17	5 21.68	+22 44.6	1.818	2.739	9.2	19.6	11 17	5 27.50	+32 48.6	1.701	2.606	10.8	21.0
11 27	5 13.89	+22 49.6	1.766	2.732	5.2	19.3	11 27	5 17.22	+32 55.7	1.656	2.609	7.0	20.8
12 7	5 4.74	+22 52.2	1.741	2.726	0.8	19.0	12 7	5 5.30	+32 48.1	1.637	2.612	3.9	20.6
12 17	4 55.30	+22 52.4	1.745	2.720	3.6	19.2	12 17	4 53.18	+32 25.6	1.648	2.615	5.1	20.7
12 27	4 46.77	+22 51.7	1.778	2.714	7.9	19.5	12 27	4 42.40	+31 51.3	1.687	2.617	8.8	20.9
1 6	4 40.15	+22 51.8	1.837	2.709	11.7	19.7	1 6	4 34.13	+31 10.6	1.752	2.618	12.5	21.2
1 16	4 36.09	+22 54.6	1.917	2.703	14.9	19.9	1 16	4 29.03	+30 29.4	1.839	2.619	15.7	21.4
<b>175728</b>	1998 BT <sub>5</sub>	12	8.8 34°84	5°/ 8.4	18		<b>523367</b>	2017 CU <sub>34</sub>	12	8.8 54°46	1°/ 8.7	18	
11 7	5 30.61	+12 32.1	1.116	1.986	18.4	20.2	11 7	5 28.26	+18 10.8	2.106	2.951	11.9	21.2
11 17	5 24.79	+12 20.2	1.068	1.994	13.6	19.9	11 17	5 22.12	+18 32.1	2.038	2.955	8.6	21.0
11 27	5 15.82	+12 19.0	1.041	2.003	8.6	19.7	11 27	5 14.04	+18 55.6	1.995	2.960	4.9	20.8
12 7	5 5.04	+12 30.6	1.036	2.013	5.0	19.5	12 7	5 4.80	+19 20.9	1.981	2.965	1.3	20.5
12 17	4 54.13	+12 55.6	1.057	2.024	7.2	19.7	12 17	4 55.37	+19 47.1	1.997	2.969	3.6	20.7
12 27	4 44.89	+13 33.4	1.102	2.035	11.9	20.0	12 27	4 46.79	+20 14.3	2.042	2.974	7.3	21.0
1 6	4 38.58	+14 21.7	1.169	2.047	16.5	20.3	1 6	4 39.93	+20 42.7	2.115	2.979	10.7	21.2
1 16	4 35.85	+15 17.8	1.255	2.059	20.3	20.6	1 16	4 35.35	+21 12.6	2.211	2.984	13.6	21.4
<b>369148</b>	2008 RU <sub>142</sub>	12	8.8 151°27	5°/ 7.0	18		<b>515630</b>	2014 LJ <sub>23</sub>	12	8.8 130°80	2°/ 8.3	18	
11 7	5 24.81	+ 2 40.5	2.902	3.711	10.0	22.3	11 7	5 29.09	+14 7.4	2.416	3.250	11.0	22.4
11 17	5 19.07	+ 1 57.6	2.842	3.719	8.0	22.2	11 17	5 22.34	+14 0.3	2.356	3.266	8.0	22.2
11 27	5 12.10	+ 1 23.9	2.808	3.727	6.3	22.1	11 27	5 14.00	+13 56.9	2.322	3.281	4.9	22.0
12 7	5 4.44	+ 1 1.9	2.802	3.735	5.6	22.0	12 7	5 4.78	+13 58.1	2.318	3.295	2.7	21.9
12 17	4 56.74	+ 0 53.3	2.826	3.742	6.3	22.1	12 17	4 55.52	+14 4.5	2.345	3.309	4.1	22.0
12 27	4 49.64	+ 0 58.7	2.878	3.749	8.0	22.2	12 27	4 47.08	+14 16.5	2.402	3.322	7.1	22.2
1 6	4 43.72	+ 1 17.0	2.957	3.755	9.9	22.4	1 6	4 40.17	+14 34.2	2.487	3.335	9.9	22.4
1 16	4 39.35	+ 1 46.5	3.058	3.761	11.6	22.5	1 16	4 35.26	+14 57.3	2.595	3.347	12.4	22.6
<b>203001</b>	1999 VL <sub>197</sub>	12	8.8 23°25	4°/ 8.8	18		<b>69407</b>	1995 SZ <sub>83</sub>	12	8.8 180°54	1°/ 9.0	18	
11 7	5 33.84	+28 48.3	1.326	2.181	16.9	19.2	11 7	5 31.28	+25 38.1	1.852	2.696	13.3	20.1
11 17	5 27.39	+30 24.0	1.270	2.189	12.6	19.0	11 17	5 24.59	+25 41.4	1.780	2.697	9.7	19.8
11 27	5 17.48	+31 53.9	1.238	2.197	8.1	18.7	11 27	5 15.52	+25 39.5	1.733	2.697	5.5	19.6
12 7	5 5.34	+33 10.4	1.230	2.206	4.8	18.6	12 7	5 5.04	+25 31.3	1.714	2.697	1.4	19.3
12 17	4 52.74	+34 7.5	1.250	2.216	6.5	18.7	12 17	4 54.34	+25 17.3	1.724	2.697	3.8	19.5
12 27	4 41.67	+34 44.5	1.296	2.226	10.7	19.0	12 27	4 44.74	+24 59.6	1.762	2.697	8.0	19.7
1 6	4 33.67	+35 5.5	1.365	2.238	14.9	19.3	1 6	4 37.27	+24 41.5	1.827	2.696	11.9	20.0
1 16	4 29.59	+35 16.3	1.454	2.250	18.4	19.5	1 16	4 32.56	+24 26.1	1.914	2.695	15.1	20.2
<b>115207</b>	2003 SJ <sub>119</sub>	12	8.8 66°62	1°/ 9.3	18		<b>374752</b>	2006 SZ <sub>207</sub>	12	8.8 20°42	5°/ 10.1	18	
11 7	5 28.44	+28 45.7	2.130	2.969	12.0	19.6	11 7	5 33.77	+34 56.7	1.195	2.048	18.6	20.3
11 17	5 22.22	+28 26.6	2.062	2.975	8.8	19.4	11 17	5 27.54	+35 13.9	1.137	2.051	14.2	20.0
11 27	5 14.03	+27 59.3	2.019	2.981	5.1	19.2	11 27	5 17.58	+35 12.7	1.100	2.054	9.5	19.8
12 7	5 4.77	+27 24.1	2.004	2.987	1.7	19.0	12 7	5 5.37	+34 48.6	1.085	2.058	5.9	19.6
12 17	4 55.45	+26 42.3	2.020	2.993	3.4	19.1	12 17	4 52.99	+34 1.9	1.096	2.063	7.0	19.7
12 27	4 47.16	+25 57.3	2.065	2.999	7.1	19.4	12 27	4 42.58	+32 58.8	1.131	2.068	11.2	19.9
1 6	4 40.73	+25 12.9	2.136	3.005	10.4	19.6	1 6	4 35.65	+31 49.0	1.189	2.073	15.7	20.2
1 16	4 36.68	+24 32.5	2.232	3.011	13.3	19.8	1 16	4 32.86	+30 41.5	1.266	2.079	19.6	20.5
<b>368025</b>	2012 GS <sub>2</sub>	12	8.8 154°21	1.4/ 9.2	17		<b>247056</b>	2000 QW <sub>1</sub>	12	8.8 39°56	4°/ 11.3	18	
11 7	5 28.15	+27 32.3	2.638	3.470	10.2	21.6	11 7	5 44.09	+42 1.5	0.925	1.768	23.5	18.2
11 17	5 21.77	+27 43.4	2.566	3.476	7.4	21.4	11 17	5 34.36	+39 44.3	0.886	1.794	17.9	17.9
11 27	5 13.73	+27 49.4	2.520	3.481	4.4	21.2	11 27	5 20.67	+36 46.5	0.868	1.821	11.5	17.7
12 7	5 4.72	+27 49.6	2.504	3.486	1.6	21.0	12 7	5 5.72	+33 15.0	0.873	1.850	5.8	17.5
12 17	4 55.59	+27 43.8	2.519	3.490	3.0	21.1	12 17	4 52.19	+29 28.3	0.906	1.879	6.3	17.6
12 27	4 47.22	+27 33.4	2.564	3.494	6.1	21.3	12 27	4 42.14	+25 50.8	0.966	1.910	11.7	18.0
1 6	4 40.35	+27 20.5	2.637	3.498	9.0	21.5	1 6	4 36.41	+22 41.2	1.050	1.941	16.8	18.4
1 16	4 35.49	+27 7.5	2.735	3.502	11.4	21.7	1 16	4 34.98	+20 8.0	1.155	1.972	20.9	18.8
<b>271612</b>	2004 PP <sub>24</sub>	12	8.8 121°31	2°/ 8.4	18		<b>329504</b>	2002 RN <sub>142</sub>	12	8.8 58°64	3°/ 7.8	18	
11 7	5 32.15	+16 40.9	1.842	2.685	13.4	20							

EPHEMERIDES

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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>268024</b>	2004 <i>NP</i> <sub>30</sub>	12 8.8 116°83	1.2°/ 8.6 18				<b>515496</b>	2014 <i>DD</i> <sub>69</sub>	12 8.8 335°66	3°0/ 8.5 18			
11 7	5 32.60	+19 48.6	1.789	2.634	13.7	20.9	11 7	5 29.29	+15 45.3	1.450	2.310	15.5	21.3
11 17	5 25.33	+19 41.6	1.732	2.650	9.8	20.6	11 17	5 23.59	+15 38.7	1.382	2.305	11.4	21.0
11 27	5 15.82	+19 34.4	1.701	2.666	5.5	20.4	11 27	5 15.17	+15 37.1	1.336	2.301	6.8	20.7
12 7	5 5.08	+19 27.1	1.697	2.681	1.4	20.2	12 7	5 5.07	+15 41.6	1.316	2.297	3.1	20.5
12 17	4 54.33	+19 20.8	1.724	2.696	4.1	20.4	12 17	4 54.62	+15 53.0	1.323	2.293	5.5	20.7
12 27	4 44.78	+19 16.9	1.779	2.710	8.3	20.7	12 27	4 45.35	+16 12.1	1.357	2.290	10.1	20.9
1 6	4 37.40	+19 17.2	1.860	2.723	12.0	20.9	1 6	4 38.46	+16 38.8	1.414	2.287	14.5	21.2
1 16	4 32.73	+19 22.8	1.963	2.736	15.1	21.2	1 16	4 34.68	+17 12.8	1.492	2.284	18.2	21.4
<b>412381</b>	2013 <i>PN</i> <sub>58</sub>	12 8.8 200°52	1°8/ 8.2 17				<b>359247</b>	2009 <i>FZ</i> <sub>7</sub>	12 8.8 338°90	12°0/ 6.1 18			
11 7	5 26.29	+18 17.9	2.453	3.295	10.5	21.7	11 7	5 23.51	+ 0 4.0	1.254	2.103	18.1	20.2
11 17	5 20.46	+17 46.4	2.377	3.293	7.6	21.5	11 17	5 19.66	- 1 22.2	1.190	2.085	15.3	20.0
11 27	5 13.02	+17 14.7	2.328	3.291	4.4	21.3	11 27	5 13.08	- 2 28.6	1.145	2.069	12.9	19.8
12 7	5 4.65	+16 44.2	2.308	3.289	1.9	21.1	12 7	5 4.75	- 3 5.8	1.121	2.053	12.1	19.7
12 17	4 56.17	+16 16.8	2.318	3.286	3.7	21.3	12 17	4 55.99	- 3 7.7	1.120	2.040	13.3	19.8
12 27	4 48.42	+15 54.3	2.359	3.284	6.9	21.5	12 27	4 48.32	- 2 32.8	1.140	2.027	16.0	19.9
1 6	4 42.12	+15 38.4	2.426	3.281	9.9	21.6	1 6	4 43.01	- 1 25.7	1.180	2.016	19.3	20.1
1 16	4 37.75	+15 29.8	2.517	3.277	12.5	21.8	1 16	4 40.82	+ 0 6.5	1.236	2.007	22.4	20.2
<b>275239</b>	2009 <i>XH</i>	12 8.8 356°21	0°6/ 8.7 17				<b>501544</b>	2014 <i>JH</i> <sub>56</sub>	12 8.8 334°47	20°3/ 1.1 17			
11 7	5 25.80	+21 46.3	1.718	2.577	13.5	20.9	11 7	5 30.31	- 9 32.8	1.005	1.827	23.6	20.5
11 17	5 20.75	+21 38.1	1.648	2.573	9.7	20.7	11 17	5 24.82	-12 58.2	0.970	1.824	21.6	20.4
11 27	5 13.43	+21 27.9	1.603	2.570	5.5	20.4	11 27	5 16.00	-15 47.6	0.953	1.822	20.4	20.3
12 7	5 4.73	+21 16.3	1.584	2.568	1.0	20.1	12 7	5 5.20	-17 44.0	0.954	1.820	20.5	20.3
12 17	4 55.82	+21 4.3	1.593	2.567	3.9	20.3	12 17	4 54.16	-18 37.3	0.973	1.818	21.8	20.4
12 27	4 47.94	+20 53.9	1.629	2.566	8.3	20.6	12 27	4 44.78	-18 27.6	1.007	1.817	23.8	20.5
1 6	4 42.08	+20 47.3	1.691	2.567	12.3	20.8	1 6	4 38.44	-17 24.1	1.055	1.815	26.0	20.7
1 16	4 38.88	+20 45.9	1.774	2.568	15.6	21.0	1 16	4 35.84	-15 39.8	1.113	1.814	28.1	20.9
<b>324725</b>	2007 <i>EA</i> <sub>151</sub>	12 8.8 266°37	1°1/ 8.6 17				<b>248740</b>	2006 <i>QO</i> <sub>136</sub>	12 8.8 157°65	2°8/ 9.8 18			
11 7	5 27.46	+19 51.3	2.113	2.960	11.8	21.3	11 7	5 32.74	+33 7.4	2.361	3.180	11.7	21.1
11 17	5 21.60	+19 45.4	2.036	2.955	8.5	21.1	11 17	5 25.22	+32 59.0	2.289	3.188	8.7	20.9
11 27	5 13.79	+19 39.2	1.984	2.949	4.8	20.8	11 27	5 15.72	+32 40.0	2.243	3.195	5.6	20.7
12 7	5 4.79	+19 33.2	1.960	2.944	1.3	20.6	12 7	5 5.14	+32 9.1	2.226	3.201	3.0	20.6
12 17	4 55.57	+19 28.2	1.966	2.938	3.6	20.8	12 17	4 54.52	+31 27.4	2.239	3.207	3.9	20.6
12 27	4 47.18	+19 25.4	2.001	2.933	7.4	21.0	12 27	4 44.96	+30 37.9	2.284	3.212	6.9	20.8
1 6	4 40.47	+19 26.1	2.063	2.927	10.9	21.2	1 6	4 37.31	+29 45.2	2.356	3.216	9.9	21.0
1 16	4 36.06	+19 31.6	2.148	2.922	13.9	21.4	1 16	4 32.08	+28 53.6	2.453	3.220	12.6	21.2
<b>478479</b>	2012 <i>QL</i> <sub>48</sub>	12 8.8 25°70	5°4/10.5 16				<b>289932</b>	2005 <i>NR</i> <sub>33</sub>	12 8.8 116°36	0°1/ 8.8 18			
11 7	5 32.61	+36 16.3	1.196	2.048	18.6	20.5	11 7	5 29.42	+23 14.7	1.987	2.833	12.5	21.7
11 17	5 26.51	+36 4.0	1.143	2.056	14.3	20.3	11 17	5 23.06	+23 11.9	1.920	2.838	9.0	21.5
11 27	5 16.86	+35 30.1	1.110	2.064	9.5	20.0	11 27	5 14.63	+23 6.1	1.878	2.844	5.0	21.3
12 7	5 5.26	+34 32.2	1.101	2.074	5.7	19.9	12 7	5 4.99	+22 56.9	1.865	2.849	0.8	21.0
12 17	4 53.75	+33 13.3	1.117	2.085	6.6	19.9	12 17	4 55.21	+22 45.3	1.881	2.855	3.5	21.2
12 27	4 44.31	+31 42.0	1.158	2.097	10.8	20.2	12 27	4 46.45	+22 32.9	1.926	2.860	7.5	21.4
1 6	4 38.26	+30 9.1	1.222	2.109	15.2	20.5	1 6	4 39.59	+22 22.2	1.997	2.865	11.1	21.7
1 16	4 36.11	+28 43.4	1.306	2.122	19.0	20.8	1 16	4 35.21	+22 15.1	2.092	2.870	14.1	21.9
<b>352999</b>	2009 <i>BL</i> <sub>125</sub>	12 8.8 324°61	5°4/ 9.9 18				<b>108831</b>	2001 <i>OT</i> <sub>82</sub>	12 8.8 49°73	1°0/ 8.9 18			
11 7	5 32.08	+35 39.0	1.616	2.451	15.4	20.5	11 7	5 33.14	+24 9.1	1.235	2.099	17.3	19.2
11 17	5 25.82	+36 8.4	1.542	2.445	11.9	20.3	11 17	5 26.51	+24 29.8	1.191	2.117	12.5	19.0
11 27	5 16.50	+36 23.5	1.491	2.439	8.3	20.1	11 27	5 16.78	+24 46.2	1.169	2.136	7.0	18.7
12 7	5 5.25	+36 20.0	1.465	2.433	5.6	19.9	12 7	5 5.32	+24 56.2	1.171	2.155	1.5	18.4
12 17	4 53.64	+35 56.6	1.466	2.427	6.4	19.9	12 17	4 53.88	+24 59.5	1.200	2.175	4.7	18.7
12 27	4 43.38	+35 16.3	1.494	2.422	9.8	20.1	12 27	4 44.22	+24 58.3	1.255	2.195	9.9	19.0
1 6	4 35.82	+34 25.8	1.546	2.417	13.6	20.3	1 6	4 37.56	+24 56.2	1.333	2.215	14.5	19.4
1 16	4 31.73	+33 32.3	1.620	2.413	16.9	20.6	1 16	4 34.48	+24 56.2	1.431	2.236	18.2	19.7
<b>475215</b>	2005 <i>VX</i> <sub>46</sub>	12 8.8 61°24	4°5/ 9.4 18				<b>12841</b>	1997 <i>GD</i> <sub>8</sub>	12 8.8 250°22	0°2/ 8.9 18 R			
11 7	5 34.91	+31 31.8	1.396	2.243	16.7	20.9	11 7	5 32.42	+23 34.5	1.695	2.543	14.2	18.9
11 17	5 27.89	+32 19.9	1.342	2.255	12.5	20.6	11 17	5 25.78	+23 31.3	1.610	2.529	10.3	18.6
11 27	5 17.62	+32 56.7	1.311	2.267	8.1	20.4	11 27	5 16.42	+23 24.1	1.549	2.515	5.9	18.3
12 7	5 5.42	+33 17.3	1.305	2.280	4.7	20.3	12 7	5 5.30	+23 12.2	1.516	2.500	1.0	17.9
12 17	4 53.03	+33 19.7	1.326	2.292	6.0	20.4	12 17	4 53.73	+22 56.3	1.511	2.485	4.1	18.1
12 27	4 42.33	+33 6.6	1.373	2.305	10.1	20.7	12 27	4 43.20	+22 38.6	1.535	2.470	9.0	18.4
1 6	4 34.66	+32 44.0	1.444	2.318	14.1	20.9	1 6	4 34.94	+22 22.6	1.584	2.454	13.4	18.6
1 16	4 30.70	+32 18.2	1.536	2.331	17.6	21.2	1 16	4 29.72	+22 11.2	1.654	2.437	17.1	18.8
<b>139851</b>	2001 <i>RC</i> <sub>57</sub>	12 8.8 6°61	2°9/ 8.4 18				<b>108395</b>	2001 <i>KR</i> <sub>27</sub>	12 8.8 112°05	0°8/ 8.9 18			
11 7	5 26.58	+16 45.4	1.452	2.317	15.2	19.7	11 7	5 28.52	+24 31.0	2.454	3.291	10.7	19.4
11 17	5 21.52	+16 27.2	1.391	2.318	11.0	19.4	11 17	5 22.16	+24 55.5	2.386	3.300	7.7	19.2
11 27	5 13.93	+16 12.3	1.353	2.319	6.5	19.2	11 27	5 14.04	+25 17.5	2.345	3.309	4.4	19.0
12 7	5 4.84	+16 2.4	1.341	2.322	2.9	19.0	12 7	5 4.90	+25 35.5	2.333	3.317	1.1	18.8
12 17	4 55.55	+15 59.1	1.354	2.325	5.3	19.1	12 17	4 55.60	+25 49.0	2.352	3.325	3.0	19.0
12 27	4 47.47	+16 3.9	1.395	2.329	9.8	19.4	12 27	4 47.10	+25 58.6	2.402	3.334	6.4	19.2
1 6	4 41.69	+16 17.4	1.458	2.334	13.9	19.7	1 6	4 40.16	+26 5.8	2.479	3.342	9.4	19.4
1 16	4 38.83	+16 39.3	1.543	2.339	17.5	19.9	1 16	4 35.31	+26 12.3	2.580	3.349	12.0	19.6
<b>96107</b>	4109 <i>T</i> -2	12 8.8 13°66	6°4/ 7.9 18				<b>398052</b>	2009 <i>GS</i> <sub>3</sub>	12 8.8 185°97	3°5/ 7.8 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>45059</b>	1999 <i>XT</i> <sub>29</sub>		12 8.8 40°46'	4.1/ 7.9	18		<b>257338</b>	2009 <i>JO</i> <sub>10</sub>		12 8.9 218°97'	1.0/ 8.6	18	
11 7	5 30.16	+16 27.0	1.204	2.073	17.3	18.2	11 7	5 29.19	+20 32.9	2.035	2.880	12.3	21.3
11 17	5 24.30	+15 32.8	1.155	2.083	12.7	18.0	11 17	5 22.93	+20 21.0	1.958	2.876	8.9	21.1
11 27	5 15.53	+14 41.5	1.128	2.093	7.7	17.7	11 27	5 14.61	+20 7.9	1.906	2.871	5.0	20.8
12 7	5 5.14	+13 57.3	1.125	2.104	4.2	17.5	12 7	5 5.03	+19 54.1	1.883	2.866	1.2	20.5
12 17	4 54.75	+13 24.6	1.148	2.115	6.7	17.7	12 17	4 55.23	+19 40.7	1.889	2.861	3.7	20.7
12 27	4 45.97	+13 6.4	1.195	2.127	11.4	18.0	12 27	4 46.33	+19 29.4	1.924	2.856	7.7	21.0
1 6	4 39.97	+13 3.7	1.266	2.139	15.8	18.3	1 6	4 39.23	+19 22.2	1.986	2.850	11.3	21.2
1 16	4 37.30	+13 15.5	1.355	2.151	19.5	18.6	1 16	4 34.55	+19 20.4	2.071	2.844	14.4	21.4
<b>517854</b>	2015 <i>RW</i> <sub>218</sub>		12 8.8 83°53'	5.3/ 9.9	18		<b>386049</b>	2007 <i>ET</i> <sub>220</sub>		12 8.9 220°54'	1.2/ 9.1	18	
11 7	5 33.99	+36 18.1	1.849	2.673	14.3	21.4	11 7	5 32.72	+26 4.2	1.948	2.787	13.0	22.0
11 17	5 26.78	+37 0.3	1.790	2.684	11.0	21.2	11 17	5 25.71	+26 11.2	1.865	2.779	9.5	21.8
11 27	5 16.87	+37 29.1	1.754	2.696	7.7	21.0	11 27	5 16.28	+26 12.8	1.807	2.770	5.5	21.5
12 7	5 5.37	+37 40.2	1.745	2.708	5.5	20.9	12 7	5 5.32	+26 7.8	1.778	2.761	1.5	21.3
12 17	4 53.71	+37 32.4	1.763	2.719	6.1	21.0	12 17	4 54.02	+25 55.9	1.778	2.751	3.8	21.4
12 27	4 43.41	+37 8.2	1.810	2.731	8.9	21.2	12 27	4 43.69	+25 39.2	1.807	2.740	8.0	21.6
1 6	4 35.59	+36 33.2	1.882	2.742	12.1	21.4	1 6	4 35.43	+25 21.0	1.863	2.729	11.9	21.9
1 16	4 30.91	+35 53.4	1.977	2.753	14.9	21.6	1 16	4 29.93	+25 4.5	1.942	2.717	15.1	22.1
<b>177257</b>	2003 <i>WP</i> <sub>32</sub>		12 8.8 87°09'	2.3/ 9.2	18		<b>72426</b>	2001 <i>CA</i> <sub>40</sub>		12 8.9 65°54'	3.8/ 8.8	18	
11 7	5 36.39	+27 8.9	1.382	2.233	16.6	20.2	11 7	5 31.89	+11 10.3	1.626	2.470	14.9	19.1
11 17	5 28.75	+27 38.4	1.333	2.251	12.1	20.0	11 17	5 25.12	+11 35.9	1.565	2.478	11.1	18.9
11 27	5 18.02	+28 0.6	1.306	2.269	7.1	19.8	11 27	5 15.91	+12 11.9	1.528	2.487	6.9	18.7
12 7	5 5.55	+28 12.0	1.305	2.287	2.6	19.6	12 7	5 5.25	+12 58.1	1.519	2.495	3.9	18.6
12 17	4 53.04	+28 12.0	1.332	2.304	4.9	19.7	12 17	4 54.39	+13 53.1	1.538	2.504	5.5	18.7
12 27	4 42.27	+28 3.1	1.385	2.322	9.6	20.1	12 27	4 44.68	+14 54.6	1.586	2.512	9.4	18.9
1 6	4 34.46	+27 50.1	1.464	2.339	13.9	20.4	1 6	4 37.16	+16 0.5	1.659	2.521	13.3	19.2
1 16	4 30.22	+27 37.6	1.562	2.355	17.5	20.6	1 16	4 32.50	+17 8.8	1.754	2.530	16.5	19.4
<b>435523</b>	2008 <i>KW</i> <sub>4</sub>		12 8.8 19°51'	6.5/ 7.9	18		<b>124917</b>	2001 <i>TJ</i> <sub>66</sub>		12 8.9 46°78'	0.7/ 8.9	18	
11 7	5 28.97	+10 4.4	1.257	2.118	17.2	20.2	11 7	5 32.44	+24 27.4	1.230	2.095	17.3	19.6
11 17	5 23.45	+9 23.1	1.202	2.121	13.1	20.0	11 17	5 25.98	+24 31.6	1.187	2.114	12.5	19.3
11 27	5 15.10	+8 53.0	1.169	2.125	8.9	19.8	11 27	5 16.47	+24 30.5	1.165	2.133	7.0	19.1
12 7	5 5.10	+8 38.5	1.160	2.129	6.5	19.7	12 7	5 5.32	+24 23.2	1.169	2.153	1.4	18.8
12 17	4 54.92	+8 42.3	1.176	2.133	8.2	19.8	12 17	4 54.25	+24 10.7	1.199	2.174	4.6	19.1
12 27	4 46.14	+9 5.1	1.216	2.138	12.2	20.0	12 27	4 44.97	+23 56.0	1.254	2.195	9.9	19.4
1 6	4 39.94	+9 44.5	1.279	2.144	16.2	20.3	1 6	4 38.66	+23 43.1	1.333	2.216	14.4	19.8
1 16	4 36.99	+10 37.1	1.361	2.150	19.8	20.5	1 16	4 35.85	+23 34.9	1.432	2.238	18.1	20.1
<b>143942</b>	2003 <i>YF</i> <sub>115</sub>		12 8.8 58°42'	4.7/ 9.4	18		<b>152716</b>	1998 <i>SR</i> <sub>125</sub>		12 8.9 86°93'	2.9/ 9.4	18	
11 7	5 36.49	+30 50.0	1.228	2.082	18.1	19.5	11 7	5 30.58	+30 48.8	2.224	3.055	11.9	19.7
11 17	5 29.28	+31 47.5	1.182	2.098	13.5	19.3	11 17	5 23.84	+31 19.6	2.163	3.069	8.8	19.5
11 27	5 18.50	+32 33.5	1.157	2.116	8.6	19.0	11 27	5 15.06	+31 42.8	2.128	3.083	5.6	19.3
12 7	5 5.63	+33 1.9	1.157	2.133	4.9	18.9	12 7	5 5.11	+31 55.9	2.121	3.097	3.0	19.2
12 17	4 52.67	+33 10.3	1.183	2.151	6.4	19.0	12 17	4 55.04	+31 58.4	2.144	3.111	4.1	19.3
12 27	4 41.67	+33 1.7	1.235	2.169	10.8	19.3	12 27	4 45.97	+31 51.6	2.196	3.124	7.1	19.5
1 6	4 34.06	+32 42.8	1.310	2.187	15.1	19.6	1 6	4 38.79	+31 38.6	2.276	3.138	10.1	19.7
1 16	4 30.48	+32 20.5	1.404	2.206	18.6	19.9	1 16	4 34.04	+31 23.1	2.379	3.152	12.8	19.9
<b>372961</b>	2011 <i>BH</i> <sub>104</sub>		12 8.8 196°92'	1.4/ 9.3	18		<b>152581</b>	1994 <i>SE</i> <sub>5</sub>		12 8.9 251°94'	0.8/ 9.0	17	
11 7	5 27.84	+28 3.6	2.604	3.436	10.3	21.8	11 7	5 28.44	+25 18.5	2.164	3.006	11.8	21.1
11 17	5 21.65	+28 2.7	2.524	3.434	7.5	21.6	11 17	5 22.38	+25 22.3	2.085	3.001	8.5	20.9
11 27	5 13.76	+27 55.9	2.471	3.432	4.4	21.4	11 27	5 14.30	+25 22.0	2.032	2.996	4.9	20.6
12 7	5 4.88	+27 42.8	2.448	3.429	1.6	21.2	12 7	5 5.00	+25 16.7	2.007	2.991	1.2	20.4
12 17	4 55.84	+27 23.7	2.454	3.427	3.0	21.3	12 17	4 55.47	+25 6.8	2.013	2.986	3.3	20.5
12 27	4 47.57	+27 0.3	2.492	3.424	6.2	21.5	12 27	4 46.80	+24 53.9	2.047	2.981	7.1	20.8
1 6	4 40.79	+26 35.3	2.557	3.420	9.1	21.7	1 6	4 39.87	+24 40.4	2.108	2.976	10.6	21.0
1 16	4 36.04	+26 11.3	2.647	3.417	11.7	21.9	1 16	4 35.29	+24 28.7	2.193	2.971	13.6	21.2
<b>468449</b>	2003 <i>MF</i> <sub>1</sub>		12 8.9 114°22'	0.3/ 8.9	16		<b>339161</b>	2004 <i>TS</i> <sub>61</sub>		12 8.9 32°86'	4.0/ 9.4	18	
11 7	5 38.13	+24 57.4	1.818	2.653	14.0	22.3	11 7	5 32.29	+29 41.1	1.148	2.013	18.3	20.3
11 17	5 29.13	+24 39.5	1.770	2.682	10.0	22.1	11 17	5 26.28	+30 25.1	1.106	2.029	13.5	20.0
11 27	5 17.88	+24 15.6	1.747	2.710	5.6	21.9	11 27	5 16.82	+30 58.1	1.085	2.048	8.4	19.8
12 7	5 5.51	+23 45.8	1.753	2.737	1.0	21.7	12 7	5 5.40	+31 15.6	1.088	2.067	4.3	19.6
12 17	4 53.35	+23 12.0	1.789	2.763	3.7	21.9	12 17	4 53.96	+31 16.3	1.116	2.087	6.0	19.8
12 27	4 42.69	+22 37.7	1.856	2.787	8.0	22.2	12 27	4 44.48	+31 3.5	1.168	2.108	10.6	20.1
1 6	4 34.44	+22 6.5	1.950	2.811	11.7	22.5	1 6	4 38.29	+30 43.5	1.243	2.130	15.0	20.4
1 16	4 29.07	+21 41.5	2.067	2.833	14.7	22.8	1 16	4 35.96	+30 22.2	1.338	2.152	18.7	20.8
<b>254787</b>	2005 <i>QP</i> <sub>65</sub>		12 8.9 40°90'	3.1/ 8.1	18		<b>466985</b>	2016 <i>BW</i> <sub>33</sub>		12 8.9 337°53'	3.7/ 9.9	17	
11 7	5 28.19	+17 37.4	1.534	2.394	14.8	19.5	11 7	5 29.10	+34 2.9	2.094	2.923	12.6	21.0
11 17	5 22.33	+16 46.8	1.489	2.413	10.7	19.2	11 17	5 23.02	+34 10.5	2.018	2.920	9.6	20.8
11 27	5 14.22	+15 57.7	1.467	2.431	6.3	19.0	11 27	5 14.70	+34 6.8	1.966	2.917	6.3	20.6
12 7	5 4.94	+15 13.2	1.471	2.451	3.1	18.9	12 7	5 5.07	+33 49.9	1.942	2.914	3.8	20.4
12 17	4 55.76	+14 36.7	1.503	2.471	5.3	19.1	12 17	4 55.24	+33 19.9	1.946	2.911	4.6	20.5
12 27	4 47.91	+14 11.1	1.563	2.492	9.4	19.4	12 27	4 46.44	+32 39.6	1.979	2.909	7.7	20.7
1 6	4 42.29	+13 57.6	1.646	2.513	13.1	19.6	1 6	4 39.65	+31 53.4	2.039	2.906	10.9	20.8
1 16	4 39.39	+13 56.1	1.750	2.534	16.2	19.9	1 16	4 35.46	+31 6.4	2.122	2.904	13.8	21.0
<b>7169</b>	Linda		12 8.9 83°95'	1.3/ 9.2	18 A		<b>447494</b>	2006 <i>RK</i> <sub>71</sub>		12 8.9 103°41'	2.1/ 8.4	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>363193</b>	2001 UC <sub>10</sub>	12	8.9 101°50	0°4/ 8.8 16			<b>183581</b>	2003 SY <sub>84</sub>	12	8.9 103°54	9°7/ 6.3 17	R	
11 7	5 37.77	+22 2.8	1.422	2.271	16.3	22.1	11 7	5 30.93	- 6 49.7	2.302	3.072	13.5	20.0
11 17	5 29.41	+22 1.5	1.377	2.296	11.7	21.9	11 17	5 23.55	- 8 17.8	2.274	3.104	11.6	20.0
11 27	5 18.24	+21 57.5	1.355	2.321	6.5	21.7	11 27	5 14.67	- 9 26.9	2.271	3.136	10.2	19.9
12 7	5 5.61	+21 50.2	1.360	2.344	1.1	21.4	12 7	5 5.08	-10 12.4	2.294	3.167	9.7	19.9
12 17	4 53.13	+21 40.5	1.393	2.367	4.4	21.7	12 17	4 55.62	-10 32.1	2.344	3.196	10.3	20.0
12 27	4 42.38	+21 30.9	1.455	2.389	9.4	22.0	12 27	4 47.15	-10 26.5	2.419	3.225	11.6	20.2
1 6	4 34.46	+21 24.4	1.541	2.411	13.7	22.3	1 6	4 40.31	- 9 58.7	2.517	3.253	13.1	20.3
1 16	4 29.90	+21 23.3	1.649	2.431	17.1	22.6	1 16	4 35.49	- 9 13.2	2.635	3.279	14.5	20.5
<b>410107</b>	2007 EW <sub>172</sub>	12	8.9 188°82	4°4/ 7.5 18			<b>161680</b>	2006 GD <sub>15</sub>	12	8.9 110°22	0°9/ 9.1 18		
11 7	5 26.06	+10 39.2	2.313	3.150	11.3	21.3	11 7	5 28.01	+25 39.2	2.592	3.427	10.3	20.5
11 17	5 20.37	+ 9 54.5	2.243	3.149	8.5	21.1	11 17	5 21.71	+25 50.3	2.528	3.440	7.4	20.3
11 27	5 13.06	+ 9 15.0	2.199	3.149	5.8	21.0	11 27	5 13.78	+25 57.7	2.491	3.453	4.2	20.2
12 7	5 4.81	+ 8 43.5	2.183	3.148	4.4	20.9	12 7	5 4.96	+26 0.5	2.483	3.466	1.2	19.9
12 17	4 56.45	+ 8 22.4	2.197	3.147	5.6	20.9	12 17	4 56.06	+25 58.9	2.506	3.479	2.9	20.1
12 27	4 48.83	+ 8 13.1	2.240	3.146	8.2	21.1	12 27	4 47.95	+25 53.9	2.560	3.492	6.0	20.3
1 6	4 42.67	+21 30.9	2.308	3.145	11.0	21.3	1 6	4 41.33	+25 47.4	2.641	3.504	8.9	20.5
1 16	4 38.48	+ 8 29.5	2.399	3.144	13.4	21.5	1 16	4 36.70	+25 41.4	2.747	3.516	11.3	20.7
<b>161808</b>	2006 VT <sub>119</sub>	12	8.9 104°60	0°3/ 8.8 18			<b>291569</b>	2006 FW <sub>31</sub>	12	8.9 164°72	0°5/ 8.9 18		
11 7	5 29.33	+22 19.6	1.969	2.815	12.6	21.0	11 7	5 31.54	+24 1.7	1.999	2.841	12.6	21.9
11 17	5 23.01	+22 13.1	1.903	2.822	9.0	20.8	11 17	5 24.67	+24 7.3	1.929	2.844	9.1	21.7
11 27	5 14.63	+22 4.3	1.863	2.829	5.0	20.5	11 27	5 15.62	+24 9.4	1.883	2.848	5.1	21.5
12 7	5 5.06	+21 53.2	1.851	2.836	0.8	20.2	12 7	5 5.27	+24 7.1	1.866	2.851	1.0	21.2
12 17	4 55.39	+21 40.7	1.869	2.843	3.5	20.5	12 17	4 54.75	+24 0.8	1.879	2.853	3.5	21.4
12 27	4 46.72	+21 28.6	1.915	2.849	7.6	20.7	12 27	4 45.22	+23 52.1	1.922	2.855	7.6	21.6
1 6	4 39.96	+21 19.1	1.988	2.856	11.2	21.0	1 6	4 37.66	+23 43.3	1.991	2.857	11.2	21.9
1 16	4 35.67	+21 13.9	2.084	2.862	14.2	21.2	1 16	4 32.67	+23 37.0	2.084	2.858	14.3	22.1
<b>334320</b>	2001 WT <sub>59</sub>	12	8.9 3°80	1°9/ 8.3 18			<b>78867</b>	2003 QE <sub>81</sub>	12	8.9 41°90	0°7/ 8.7 18		
11 7	5 26.92	+21 0.5	1.521	2.384	14.7	20.1	11 7	5 23.57	+20 27.0	2.889	3.730	9.2	19.6
11 17	5 21.71	+20 8.4	1.456	2.383	10.6	19.9	11 17	5 18.42	+20 20.8	2.817	3.733	6.6	19.4
11 27	5 14.05	+19 12.7	1.416	2.383	6.0	19.6	11 27	5 11.93	+20 14.1	2.772	3.737	3.7	19.2
12 7	5 4.98	+18 16.4	1.401	2.385	2.0	19.4	12 7	5 4.67	+20 7.2	2.756	3.740	0.9	19.0
12 17	4 55.78	+17 23.7	1.414	2.386	4.8	19.6	12 17	4 57.32	+20 0.8	2.771	3.744	2.7	19.2
12 27	4 47.82	+16 38.8	1.454	2.389	9.4	19.8	12 27	4 50.57	+19 55.8	2.817	3.748	5.6	19.4
1 6	4 42.11	+16 5.1	1.518	2.392	13.6	20.1	1 6	4 45.02	+19 53.2	2.890	3.751	8.3	19.6
1 16	4 39.26	+15 44.0	1.603	2.396	17.1	20.3	1 16	4 41.10	+19 53.9	2.988	3.755	10.6	19.7
<b>330929</b>	2009 SU <sub>191</sub>	12	8.9 120°00	4°3/ 9.7 18			<b>328386</b>	2008 RE <sub>83</sub>	12	8.9 121°08	1°1/ 8.6 18		
11 7	5 37.14	+32 51.3	1.597	2.432	15.6	21.3	11 7	5 26.99	+20 1.7	2.404	3.246	10.7	21.6
11 17	5 29.22	+33 21.1	1.539	2.445	11.8	21.1	11 17	5 21.02	+19 44.8	2.337	3.253	7.7	21.5
11 27	5 18.31	+33 38.3	1.504	2.457	7.6	20.9	11 27	5 13.43	+19 27.2	2.296	3.261	4.4	21.3
12 7	5 5.66	+33 39.0	1.496	2.469	4.5	20.7	12 7	5 4.92	+19 9.6	2.285	3.268	1.2	21.0
12 17	4 52.90	+33 22.5	1.516	2.481	5.6	20.8	12 17	4 56.34	+18 53.2	2.304	3.276	3.3	21.2
12 27	4 41.74	+32 52.3	1.563	2.492	9.3	21.1	12 27	4 48.56	+18 39.6	2.353	3.283	6.6	21.4
1 6	4 33.40	+32 14.4	1.636	2.503	13.1	21.3	1 6	4 42.29	+18 30.2	2.430	3.290	9.7	21.6
1 16	4 28.53	+31 35.4	1.730	2.513	16.4	21.6	1 16	4 38.01	+18 26.0	2.530	3.297	12.3	21.8
<b>120211</b>	2004 ES <sub>39</sub>	12	8.9 123°65	0°7/ 8.7 18			<b>346614</b>	2008 WG <sub>84</sub>	12	8.9 90°48	1°3/ 9.1 18		
11 7	5 33.77	+21 44.8	1.820	2.662	13.6	20.5	11 7	5 32.95	+26 4.1	1.678	2.525	14.4	20.6
11 17	5 26.18	+21 31.1	1.763	2.680	9.8	20.3	11 17	5 25.89	+26 12.1	1.623	2.540	10.4	20.4
11 27	5 16.36	+21 14.9	1.731	2.696	5.4	20.1	11 27	5 16.33	+26 14.2	1.591	2.555	6.0	20.2
12 7	5 5.33	+20 56.6	1.728	2.712	1.1	19.8	12 7	5 5.39	+26 9.0	1.587	2.570	1.6	20.0
12 17	4 54.32	+20 37.6	1.755	2.728	3.9	20.1	12 17	4 54.41	+25 57.0	1.611	2.585	4.0	20.2
12 27	4 44.56	+20 20.1	1.811	2.742	8.1	20.3	12 27	4 44.78	+25 40.6	1.664	2.600	8.3	20.5
1 6	4 36.98	+20 6.6	1.893	2.756	11.8	20.6	1 6	4 37.53	+25 23.5	1.743	2.614	12.2	20.7
1 16	4 32.13	+19 59.0	1.998	2.769	14.9	20.8	1 16	4 33.24	+25 8.9	1.843	2.629	15.5	21.0
<b>187227</b>	2005 SJ <sub>143</sub>	12	8.9 355°63	0°1/ 8.9 18			<b>38329</b>	1999 RO <sub>129</sub>	12	8.9 99°63	1°0/ 9.1 18		
11 7	5 28.69	+22 59.1	1.884	2.734	12.9	21.2	11 7	5 29.35	+26 0.6	2.122	2.963	12.0	19.4
11 17	5 22.75	+23 4.4	1.813	2.733	9.3	21.0	11 17	5 22.96	+26 2.3	2.057	2.972	8.7	19.2
11 27	5 14.59	+23 7.2	1.766	2.733	5.2	20.8	11 27	5 14.60	+25 59.1	2.018	2.981	5.0	19.0
12 7	5 5.09	+23 7.1	1.747	2.732	0.9	20.4	12 7	5 5.12	+25 50.3	2.007	2.991	1.3	18.8
12 17	4 55.36	+23 4.3	1.757	2.732	3.6	20.7	12 17	4 55.55	+25 36.3	2.026	3.000	3.3	18.9
12 27	4 46.62	+23 0.2	1.796	2.732	7.8	20.9	12 27	4 46.96	+25 19.2	2.075	3.009	7.1	19.2
1 6	4 39.84	+22 57.0	1.861	2.732	11.6	21.1	1 6	4 40.21	+25 1.6	2.150	3.018	10.4	19.4
1 16	4 35.64	+22 56.6	1.948	2.732	14.8	21.4	1 16	4 35.83	+24 46.1	2.249	3.026	13.3	19.6
<b>469721</b>	2005 LX <sub>37</sub>	12	8.9 127°16	2°4/ 8.5 16			<b>451269</b>	2010 PS <sub>23</sub>	12	8.9 72°20	4°3/ 8.0 16		
11 7	5 34.00	+16 11.4	1.748	2.591	14.1	22.4	11 7	5 30.42	+11 51.4	1.839	2.680	13.5	21.9
11 17	5 26.42	+16 9.0	1.692	2.607	10.2	22.2	11 17	5 23.53	+11 16.5	1.801	2.711	10.0	21.8
11 27	5 16.55	+16 10.1	1.660	2.622	6.0	22.0	11 27	5 14.78	+10 48.6	1.788	2.742	6.5	21.6
12 7	5 5.39	+16 15.0	1.656	2.637	2.5	21.8	12 7	5 5.13	+10 29.8	1.802	2.772	4.4	21.6
12 17	4 54.18	+16 24.1	1.682	2.651	4.7	21.9	12 17	4 55.63	+10 21.9	1.846	2.803	5.8	21.7
12 27	4 44.19	+16 38.1	1.736	2.664	8.7	22.2	12 27	4 47.33	+10 25.6	1.917	2.833	8.9	22.0
1 6	4 36.40	+16 57.4	1.817	2.676	12.4	22.5	1 6	4 40.99	+10 40.1	2.015	2.862	11.9	22.2
1 16	4 31.37	+17 22.1	1.920	2.688	15.6	22.7	1 16	4 37.03	+11 4.2	2.134	2.891	14.5	22.5
<b>131376</b>	2001 KX <sub>31</sub>	12	8.9 120°98	2°9/ 9.2 18			<b>69707</b>	1998 HP <sub>79</sub>	12	8.9 131°38	1°6/ 9.2 18		
11 7	5 32.75	+30 56.5	2.779	3.595	10.2	19.9							

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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>187444</b>	2005 WQ <sub>102</sub>	12 8.9 30°86	5°7/ 7.6 18				<b>296302</b>	2009 DN <sub>123</sub>	12 8.9 175°23	6°2/ 7.9 18			
11 7	5 26.31	+ 9 17.5	1.742	2.589	13.9	19.9	11 7	5 28.63	+ 5 24.2	1.981	2.809	13.3	20.6
11 17	5 20.92	+ 8 31.2	1.686	2.597	10.6	19.7	11 17	5 22.47	+ 5 0.9	1.915	2.810	10.4	20.4
11 27	5 13.50	+ 7 53.7	1.655	2.604	7.4	19.5	11 27	5 14.37	+ 4 49.3	1.873	2.811	7.6	20.3
12 7	5 4.95	+ 7 28.8	1.649	2.612	5.7	19.4	12 7	5 5.13	+ 4 52.1	1.858	2.812	6.2	20.2
12 17	4 56.33	+ 7 19.0	1.671	2.621	7.0	19.5	12 17	4 55.72	+ 5 10.7	1.871	2.812	7.2	20.2
12 27	4 48.72	+ 7 25.1	1.719	2.629	10.0	19.7	12 27	4 47.18	+ 5 44.8	1.912	2.812	9.8	20.4
1 6	4 43.01	+ 7 46.1	1.792	2.639	13.2	19.9	1 6	4 40.36	+ 6 32.4	1.978	2.812	12.7	20.6
1 16	4 39.71	+ 8 19.9	1.885	2.648	16.0	20.2	1 16	4 35.83	+ 7 30.6	2.066	2.812	15.3	20.8
<b>305048</b>	2007 UT <sub>23</sub>	12 8.9 173°17	0°1/ 8.9 18				<b>35358</b>	Lorifini	12 8.9 3°55	11°0/ 10.7 18			
11 7	5 31.07	+22 39.9	2.324	3.160	11.3	21.8	11 7	5 29.41	+41 32.6	1.006	1.860	21.2	17.5
11 17	5 24.09	+22 45.1	2.250	3.163	8.1	21.6	11 17	5 25.51	+42 52.8	0.954	1.858	17.4	17.3
11 27	5 15.22	+22 48.0	2.202	3.166	4.6	21.4	11 27	5 17.05	+43 47.7	0.921	1.857	13.7	17.1
12 7	5 5.24	+22 48.2	2.184	3.168	0.7	21.1	12 7	5 5.62	+44 7.1	0.907	1.859	11.3	16.9
12 17	4 55.08	+22 45.9	2.196	3.170	3.1	21.3	12 17	4 53.70	+43 46.5	0.915	1.863	11.6	17.0
12 27	4 45.77	+22 42.3	2.240	3.171	6.8	21.6	12 27	4 44.06	+42 51.1	0.944	1.868	14.5	17.1
1 6	4 38.14	+22 39.0	2.311	3.171	10.1	21.8	1 6	4 38.59	+41 33.2	0.992	1.876	18.1	17.4
1 16	4 32.75	+22 38.0	2.406	3.171	12.9	22.0	1 16	4 38.03	+40 6.1	1.057	1.885	21.7	17.7
<b>141759</b>	2002 LC <sub>61</sub>	12 8.9 185°81	3°8/ 8.2 18				<b>112146</b>	2002 JZ <sub>64</sub>	12 8.9 285°62	3°2/ 8.4 18			
11 7	5 32.25	+14 21.1	1.571	2.420	15.0	20.7	11 7	5 31.48	+16 37.3	1.381	2.241	16.1	19.7
11 17	5 25.53	+13 56.7	1.503	2.420	11.1	20.5	11 17	5 25.66	+16 16.1	1.295	2.218	12.0	19.4
11 27	5 16.25	+13 37.0	1.460	2.420	6.9	20.3	11 27	5 16.70	+15 57.5	1.231	2.195	7.2	19.1
12 7	5 5.41	+13 24.4	1.442	2.420	3.9	20.1	12 7	5 5.57	+15 43.5	1.192	2.172	3.3	18.8
12 17	4 54.34	+13 20.7	1.453	2.419	5.9	20.2	12 17	4 53.72	+15 36.1	1.179	2.149	6.0	18.9
12 27	4 44.44	+13 27.1	1.492	2.417	10.1	20.4	12 27	4 42.90	+15 37.7	1.193	2.126	11.2	19.1
1 6	4 36.84	+13 44.1	1.555	2.415	14.1	20.7	1 6	4 34.60	+15 49.7	1.230	2.103	16.2	19.3
1 16	4 32.21	+14 10.8	1.639	2.413	17.5	20.9	1 16	4 29.77	+16 12.6	1.286	2.079	20.5	19.6
<b>418652</b>	2008 TZ <sub>83</sub>	12 8.9 100°18	5°1/ 7.2 14 C				<b>127452</b>	2002 PN <sub>156</sub>	12 8.9 88°96	0°6/ 8.7 18			
11 7	5 25.94	+ 7 6.7	2.553	3.378	10.7	22.2	11 7	5 27.13	+21 25.2	2.283	3.127	11.2	20.6
11 17	5 20.04	+ 6 12.1	2.503	3.397	8.3	22.0	11 17	5 21.25	+21 18.0	2.216	3.134	8.0	20.4
11 27	5 12.79	+ 5 25.2	2.479	3.416	6.1	21.9	11 27	5 13.63	+21 9.2	2.175	3.140	4.5	20.2
12 7	5 4.83	+ 4 48.8	2.484	3.435	5.1	21.9	12 7	5 5.01	+20 59.4	2.162	3.147	0.9	19.9
12 17	4 56.89	+ 4 24.9	2.518	3.453	6.0	22.0	12 17	4 56.29	+20 49.2	2.180	3.153	3.2	20.1
12 27	4 49.72	+ 4 14.6	2.582	3.471	8.0	22.1	12 27	4 48.40	+20 40.1	2.227	3.159	6.7	20.3
1 6	4 43.89	+ 4 17.4	2.671	3.488	10.3	22.3	1 6	4 42.12	+20 33.7	2.301	3.166	10.0	20.6
1 16	4 39.81	+ 4 31.9	2.783	3.506	12.3	22.5	1 16	4 37.93	+20 31.3	2.399	3.172	12.7	20.8
<b>145993</b>	2000 CA <sub>10</sub>	12 8.9 295°89	1°3/ 9.2 18				<b>152942</b>	2000 FN <sub>10</sub>	12 8.9 221°01	13°3/ 10.0 18			
11 7	5 31.48	+26 50.0	1.411	2.268	16.0	20.4	11 7	6 2.82	+57 46.0	2.073	2.766	17.0	21.4
11 17	5 25.70	+26 41.2	1.325	2.248	11.8	20.1	11 17	5 50.42	+59 40.3	1.988	2.751	15.5	21.2
11 27	5 16.70	+26 23.6	1.262	2.228	6.9	19.8	11 27	5 31.74	+61 10.3	1.923	2.734	14.1	21.1
12 7	5 5.53	+25 56.0	1.224	2.208	1.8	19.4	12 7	5 8.12	+62 1.3	1.882	2.716	13.3	21.0
12 17	4 53.74	+25 19.2	1.213	2.188	4.7	19.5	12 17	4 42.64	+62 3.2	1.866	2.696	13.5	21.0
12 27	4 43.17	+24 37.3	1.228	2.168	10.2	19.8	12 27	4 19.33	+61 16.7	1.873	2.674	14.7	21.0
1 6	4 35.29	+23 56.1	1.267	2.148	15.2	20.0	1 6	4 1.31	+59 53.2	1.904	2.650	16.4	21.1
1 16	4 31.02	+23 21.0	1.326	2.129	19.5	20.2	1 16	3 49.88	+58 8.7	1.953	2.625	18.3	21.2
<b>35227</b>	1995 FR <sub>5</sub>	12 8.9 74°03	0°2/ 8.8 18				<b>378157</b>	2006 VQ <sub>150</sub>	12 8.9 72°96	0°7/ 8.7 18			
11 7	5 33.71	+22 15.6	1.505	2.357	15.4	19.3	11 7	5 34.03	+23 18.7	1.321	2.180	16.7	20.5
11 17	5 26.47	+22 20.4	1.459	2.381	11.0	19.1	11 17	5 26.93	+22 42.9	1.274	2.199	12.0	20.3
11 27	5 16.64	+22 22.8	1.437	2.404	6.1	18.9	11 27	5 16.98	+22 1.9	1.250	2.217	6.7	20.0
12 7	5 5.45	+22 22.1	1.442	2.427	1.0	18.6	12 7	5 5.54	+21 17.4	1.251	2.236	1.2	19.7
12 17	4 54.34	+22 18.8	1.475	2.450	4.1	18.9	12 17	4 54.25	+20 32.7	1.280	2.254	4.7	20.0
12 27	4 44.75	+22 15.0	1.536	2.472	8.9	19.2	12 27	4 44.69	+19 52.7	1.335	2.273	9.8	20.4
1 6	4 37.71	+22 13.1	1.622	2.495	12.9	19.5	1 6	4 37.96	+19 21.1	1.415	2.291	14.3	20.7
1 16	4 33.75	+22 15.0	1.729	2.517	16.2	19.8	1 16	4 34.57	+19 0.3	1.515	2.309	17.9	20.9
<b>439510</b>	2014 BS <sub>26</sub>	12 8.9 220°86	0°9/ 9.1 18				<b>38519</b>	1999 TB <sub>253</sub>	12 8.9 149°00	4°7/ 7.8 18			
11 7	5 32.85	+25 28.4	1.851	2.693	13.4	22.1	11 7	5 26.43	+ 8 54.0	2.312	3.144	11.4	19.0
11 17	5 25.92	+25 29.3	1.770	2.686	9.8	21.8	11 17	5 20.66	+ 8 21.7	2.246	3.148	8.7	18.8
11 27	5 16.48	+25 24.9	1.714	2.678	5.6	21.6	11 27	5 13.27	+ 7 56.5	2.205	3.151	6.1	18.7
12 7	5 5.48	+25 14.1	1.685	2.669	1.3	21.2	12 7	5 4.96	+ 7 40.9	2.193	3.155	4.7	18.6
12 17	4 54.14	+24 57.2	1.686	2.660	3.8	21.4	12 17	4 56.54	+ 7 36.4	2.210	3.158	5.8	18.7
12 27	4 43.84	+24 36.6	1.716	2.650	8.3	21.7	12 27	4 48.88	+ 7 44.0	2.256	3.161	8.3	18.8
1 6	4 35.68	+24 15.7	1.772	2.640	12.3	21.9	1 6	4 42.68	+ 8 2.8	2.328	3.164	11.0	19.0
1 16	4 30.38	+23 57.8	1.851	2.630	15.7	22.1	1 16	4 38.44	+ 8 31.7	2.423	3.167	13.3	19.2
<b>191623</b>	2004 NB <sub>1</sub>	12 8.9 174°47	3°4/ 8.3 18				<b>315033</b>	2007 CE <sub>8</sub>	12 8.9 347°38	2°9/ 9.6 17			
11 7	5 31.13	+14 9.6	1.826	2.669	13.5	20.6	11 7	5 29.91	+30 52.7	1.850	2.690	13.5	20.7
11 17	5 24.43	+13 49.8	1.757	2.671	10.0	20.4	11 17	5 23.82	+31 2.4	1.777	2.688	10.1	20.4
11 27	5 15.53	+13 34.4	1.713	2.673	6.2	20.2	11 27	5 15.30	+31 2.6	1.729	2.687	6.3	20.2
12 7	5 5.31	+13 25.3	1.697	2.674	3.5	20.0	12 7	5 5.30	+30 51.4	1.707	2.685	3.1	20.0
12 17	4 54.91	+13 23.9	1.711	2.675	5.3	20.1	12 17	4 55.08	+30 28.7	1.714	2.684	4.4	20.1
12 27	4 45.53	+13 31.1	1.752	2.675	9.0	20.4	12 27	4 45.97	+29 57.4	1.749	2.683	8.1	20.3
1 6	4 38.12	+13 47.3	1.820	2.675	12.6	20.6	1 6	4 39.05	+29 21.9	1.809	2.682	11.8	20.5
1 16	4 33.31	+14 11.8	1.909	2.674	15.7	20.8	1 16	4 34.94	+28 46.7	1.893	2.681	15.0	20.8
<b>377995</b>	2006 RE <sub>45</sub>	12 8.9 123°51	1°7/ 9.2 18				<b>71586</b>	2000 DV <sub>66</sub>	12 8.9 21°44	0°1/ 8.9 18			
11 7	5 35.83	+26 33.9	1.591	2.436									

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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>97760</b>	2000 <i>JT</i> <sub>12</sub>	12	8.9 161°31'	1.2°/ 9.2 18			<b>121286</b>	1999 <i>RG</i> <sub>161</sub>	12	8.9 127°52'	1.2°/ 8.6 18		
11 7	5 27.52	+27 4.6	2.762	3.594	9.8	20.3	11 7	5 31.39	+20 20.9	1.940	2.784	12.8	19.8
11 17	5 21.38	+27 15.4	2.688	3.598	7.1	20.2	11 17	5 24.47	+20 0.8	1.879	2.796	9.2	19.6
11 27	5 13.67	+27 21.7	2.640	3.601	4.2	20.0	11 27	5 15.49	+19 39.5	1.844	2.808	5.2	19.4
12 7	5 5.03	+27 22.7	2.622	3.604	1.4	19.8	12 7	5 5.36	+19 17.7	1.836	2.820	1.4	19.2
12 17	4 56.25	+27 18.5	2.635	3.607	2.8	19.9	12 17	4 55.20	+18 57.2	1.859	2.831	3.9	19.4
12 27	4 48.17	+27 10.1	2.678	3.610	5.8	20.1	12 27	4 46.12	+18 40.0	1.911	2.841	7.8	19.6
1 6	4 41.50	+26 59.5	2.750	3.612	8.6	20.3	1 6	4 39.02	+18 28.0	1.989	2.852	11.4	19.9
1 16	4 36.71	+26 48.8	2.846	3.614	11.0	20.4	1 16	4 34.41	+18 22.7	2.091	2.861	14.4	20.1
<b>115893</b>	2003 <i>VA</i> <sub>4</sub>	12	8.9 293°11'	1.9°/ 9.5 18			<b>264811</b>	2002 <i>PD</i> <sub>81</sub>	12	8.9 145°52'	2.8°/ 8.4 17		
11 7	5 31.39	+29 40.2	1.733	2.576	14.1	19.4	11 7	5 26.80	+13 12.6	2.456	3.293	10.7	20.4
11 17	5 25.22	+29 16.3	1.636	2.550	10.5	19.1	11 17	5 20.91	+13 9.0	2.386	3.296	7.9	20.2
11 27	5 16.27	+28 40.3	1.562	2.524	6.3	18.8	11 27	5 13.44	+13 9.9	2.343	3.300	4.9	20.1
12 7	5 5.49	+27 51.4	1.515	2.497	2.3	18.4	12 7	5 5.04	+13 16.3	2.328	3.304	2.9	19.9
12 17	4 54.21	+26 51.0	1.497	2.471	4.3	18.5	12 17	4 56.51	+13 28.7	2.344	3.307	4.2	20.0
12 27	4 43.95	+25 43.8	1.507	2.444	8.9	18.7	12 27	4 48.68	+13 47.3	2.390	3.310	7.0	20.2
1 6	4 35.98	+24 36.1	1.543	2.417	13.4	18.9	1 6	4 42.26	+14 11.9	2.463	3.313	9.9	20.4
1 16	4 31.13	+23 34.1	1.601	2.391	17.2	19.1	1 16	4 37.74	+14 41.9	2.559	3.316	12.4	20.6
<b>454577</b>	2014 <i>PE</i> <sub>18</sub>	12	8.9 43°50'	0.4°/ 8.8 17			<b>149834</b>	2005 <i>OT</i> <sub>14</sub>	12	8.9 56°71'	0.6°/ 9.0 18		
11 7	5 28.38	+21 49.9	1.836	2.687	13.1	20.9	11 7	5 34.12	+24 51.7	1.253	2.115	17.3	19.6
11 17	5 22.48	+21 49.3	1.775	2.696	9.4	20.7	11 17	5 27.12	+24 45.4	1.213	2.138	12.4	19.4
11 27	5 14.43	+21 47.1	1.739	2.705	5.3	20.5	11 27	5 17.14	+24 33.0	1.195	2.162	7.0	19.2
12 7	5 5.16	+21 43.1	1.730	2.715	0.9	20.2	12 7	5 5.62	+24 14.1	1.202	2.186	1.3	18.9
12 17	4 55.78	+21 38.2	1.750	2.725	3.7	20.4	12 17	4 54.28	+23 50.5	1.235	2.211	4.6	19.2
12 27	4 47.46	+21 33.7	1.799	2.735	7.8	20.7	12 27	4 44.80	+23 26.0	1.295	2.235	9.7	19.5
1 6	4 41.13	+21 31.5	1.874	2.745	11.5	21.0	1 6	4 38.28	+23 4.8	1.379	2.260	14.2	19.9
1 16	4 37.35	+21 33.2	1.970	2.756	14.6	21.2	1 16	4 35.24	+22 49.9	1.482	2.284	17.8	20.2
<b>289753</b>	2005 <i>JL</i> <sub>63</sub>	12	8.9 185°81'	5.4°/ 9.5 18			<b>24934</b>	Natecovert	12	8.9 22°55'	6.7°/ 9.2 18		
11 7	5 41.25	+ 6 33.6	1.250	2.086	19.0	19.9	11 7	5 34.34	+34 11.5	1.384	2.228	17.0	17.0
11 17	5 32.79	+ 7 39.5	1.181	2.087	14.5	19.7	11 17	5 27.96	+35 43.7	1.328	2.235	13.1	16.8
11 27	5 20.72	+ 9 8.8	1.133	2.087	9.5	19.4	11 27	5 18.05	+37 4.1	1.295	2.242	9.3	16.6
12 7	5 6.23	+10 59.7	1.112	2.086	5.6	19.2	12 7	5 5.84	+38 4.6	1.286	2.251	6.8	16.5
12 17	4 51.09	+13 6.0	1.120	2.085	7.2	19.3	12 17	4 53.15	+38 40.3	1.304	2.260	7.8	16.6
12 27	4 37.35	+15 19.3	1.156	2.084	12.0	19.5	12 27	4 42.03	+38 51.8	1.347	2.269	11.2	16.8
1 6	4 26.67	+17 32.2	1.218	2.083	16.9	19.8	1 6	4 34.07	+38 45.1	1.413	2.280	14.8	17.1
1 16	4 19.98	+19 39.9	1.301	2.081	21.0	20.1	1 16	4 30.07	+38 28.0	1.499	2.291	18.1	17.3
<b>366631</b>	2003 <i>SZ</i> <sub>82</sub>	12	8.9 64°28'	5.7°/ 7.6 15			<b>343757</b>	2011 <i>FM</i> <sub>63</sub>	12	8.9 125°02'	0.5°/ 8.8 18		
11 7	5 26.69	+ 7 16.7	2.052	2.886	12.6	21.3	11 7	5 33.38	+21 38.0	1.793	2.637	13.7	21.9
11 17	5 20.85	+ 6 30.8	2.007	2.907	9.7	21.2	11 17	5 26.07	+21 36.1	1.734	2.651	9.9	21.7
11 27	5 13.34	+ 5 54.5	1.986	2.928	7.0	21.0	11 27	5 16.46	+21 32.3	1.700	2.665	5.5	21.4
12 7	5 4.98	+ 5 30.9	1.993	2.948	5.7	21.0	12 7	5 5.55	+21 26.4	1.693	2.678	1.0	21.1
12 17	4 56.65	+ 5 21.9	2.028	2.969	6.7	21.1	12 17	4 54.58	+21 19.1	1.716	2.690	3.8	21.4
12 27	4 49.27	+ 5 28.0	2.091	2.990	9.1	21.3	12 27	4 44.82	+21 12.1	1.769	2.702	8.1	21.7
1 6	4 43.54	+ 5 47.9	2.179	3.011	11.7	21.5	1 6	4 37.25	+21 7.7	1.847	2.713	12.0	21.9
1 16	4 39.90	+ 6 19.5	2.289	3.032	14.1	21.7	1 16	4 32.43	+21 7.6	1.948	2.724	15.1	22.2
<b>23010</b>	Kathyfinch	12	8.9 169°44'	2.5°/ 9.3 18			<b>388052</b>	2005 <i>SB</i> <sub>279</sub>	12	8.9 13°84'	7.3°/ 10.5 18		
11 7	5 35.47	+28 57.4	1.744	2.581	14.3	19.6	11 7	5 30.57	+37 3.5	1.050	1.911	20.0	20.1
11 17	5 27.91	+29 16.9	1.674	2.585	10.6	19.4	11 17	5 25.74	+37 35.8	1.001	1.915	15.6	19.9
11 27	5 17.63	+29 28.2	1.628	2.588	6.4	19.1	11 27	5 16.90	+37 46.1	0.970	1.921	11.0	19.6
12 7	5 5.71	+29 28.7	1.610	2.590	2.8	18.9	12 7	5 5.66	+37 29.0	0.961	1.929	7.6	19.5
12 17	4 53.53	+29 17.9	1.621	2.592	4.5	19.0	12 17	4 54.27	+36 44.0	0.974	1.938	8.3	19.6
12 27	4 42.62	+28 58.0	1.661	2.594	8.6	19.3	12 27	4 45.04	+35 38.1	1.011	1.949	12.1	19.8
1 6	4 34.16	+28 33.7	1.727	2.594	12.6	19.5	1 6	4 39.52	+34 22.3	1.069	1.961	16.5	20.1
1 16	4 28.84	+28 9.5	1.815	2.595	15.9	19.7	1 16	4 38.32	+33 7.0	1.146	1.974	20.3	20.4
<b>330187</b>	2006 <i>DW</i> <sub>76</sub>	12	8.9 354°07'	1.4°/ 8.6 17			<b>299050</b>	2005 <i>BS</i> <sub>49</sub>	12	8.9 308°71'	7.7°/ 10.9 17		
11 7	5 26.93	+19 9.2	2.003	2.853	12.2	21.1	11 7	5 34.72	+41 53.6	1.638	2.452	16.2	20.7
11 17	5 21.37	+19 0.1	1.932	2.852	8.9	20.9	11 17	5 28.07	+42 22.4	1.561	2.442	13.2	20.5
11 27	5 13.82	+18 51.5	1.885	2.850	5.0	20.7	11 27	5 18.03	+42 31.0	1.504	2.432	10.1	20.3
12 7	5 5.10	+18 44.0	1.866	2.850	1.6	20.4	12 7	5 5.85	+42 13.6	1.473	2.423	7.9	20.1
12 17	4 56.19	+18 38.4	1.877	2.849	3.8	20.6	12 17	4 53.29	+41 28.5	1.467	2.413	8.2	20.1
12 27	4 48.15	+18 36.1	1.916	2.849	7.7	20.8	12 27	4 42.28	+40 19.6	1.488	2.404	10.8	20.2
1 6	4 41.87	+18 38.5	1.981	2.848	11.2	21.1	1 6	4 34.27	+38 55.8	1.532	2.396	14.1	20.4
1 16	4 37.91	+18 46.2	2.069	2.848	14.2	21.3	1 16	4 30.04	+37 26.9	1.599	2.387	17.3	20.6
<b>280444</b>	2004 <i>BG</i> <sub>119</sub>	12	8.9 258°42'	3.5°/ 9.2 18			<b>366586</b>	2002 <i>TP</i> <sub>212</sub>	12	8.9 87°53'	1.2°/ 9.1 18		
11 7	5 35.22	+29 36.0	1.641	2.481	15.0	20.9	11 7	5 30.07	+25 33.9	2.421	3.255	10.9	20.4
11 17	5 28.28	+30 20.3	1.554	2.466	11.2	20.6	11 17	5 23.33	+26 5.7	2.363	3.274	7.9	20.2
11 27	5 18.16	+30 58.0	1.492	2.450	7.1	20.3	11 27	5 14.81	+26 33.8	2.332	3.293	4.6	20.0
12 7	5 5.86	+31 24.4	1.455	2.433	3.7	20.1	12 7	5 5.30	+26 56.9	2.330	3.313	1.5	19.8
12 17	4 52.85	+31 36.6	1.448	2.416	5.3	20.2	12 17	4 55.69	+27 13.9	2.359	3.332	3.1	20.0
12 27	4 40.90	+31 35.3	1.468	2.399	9.7	20.4	12 27	4 46.96	+27 25.6	2.419	3.350	6.4	20.2
1 6	4 31.50	+31 24.5	1.513	2.382	13.9	20.6	1 6	4 39.87	+27 33.6	2.506	3.369	9.3	20.5
1 16	4 25.58	+31 9.8	1.579	2.364	17.7	20.8	1 16	4 34.93	+27 39.9	2.618	3.387	11.8	20.7
<b>288049</b>	2003 <i>UE</i> <sub>283</sub>	12	8.9 51°69'	6.0°/ 7.3 18			<b>58782</b>	1998 <i>FY</i> <sub>72</sub>	12	8.9 324°40'	0.4°/ 8.8 18		



EPHEMERIDES

12 8.9

12 8.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>91464</b>	1999 RZ <sub>77</sub>		12 8.9 144°55	3°3/ 9.6	18		<b>154600</b>	2003 PJ <sub>2</sub>		12 8.9 92°96	0°7/ 8.7	18	
11 7	5 30.89	+32 11.3	2.205	3.033	12.1	19.9	11 7	5 28.96	+20 53.8	2.335	3.175	11.1	20.2
11 17	5 24.27	+32 35.8	2.133	3.036	9.1	19.7	11 17	5 22.45	+20 47.6	2.281	3.196	7.9	20.1
11 27	5 15.49	+32 51.5	2.087	3.039	5.9	19.5	11 27	5 14.29	+20 40.3	2.253	3.218	4.4	19.9
12 7	5 5.43	+32 56.0	2.068	3.042	3.4	19.3	12 7	5 5.25	+20 32.2	2.255	3.239	1.0	19.7
12 17	4 55.16	+32 48.7	2.079	3.045	4.3	19.4	12 17	4 56.22	+20 24.1	2.287	3.260	3.1	19.9
12 27	4 45.85	+32 31.4	2.120	3.047	7.4	19.6	12 27	4 48.11	+20 17.2	2.349	3.280	6.5	20.1
1 6	4 38.47	+32 7.6	2.187	3.050	10.5	19.8	1 6	4 41.61	+20 13.1	2.439	3.301	9.6	20.4
1 16	4 33.59	+31 41.3	2.277	3.052	13.2	20.0	1 16	4 37.19	+20 12.7	2.553	3.320	12.1	20.6
<b>481563</b>	2007 RV <sub>324</sub>		12 8.9 78°56	7°6/10.9	18		<b>249153</b>	2008 AO <sub>95</sub>		12 8.9 108°92	4°2/ 8.3	18	
11 7	5 38.05	+42 12.0	1.729	2.534	15.9	20.7	11 7	5 29.53	+ 9 51.8	2.144	2.976	12.2	20.5
11 17	5 30.04	+42 59.4	1.678	2.553	12.8	20.5	11 17	5 22.92	+ 9 38.0	2.090	2.994	9.2	20.3
11 27	5 18.89	+43 26.9	1.650	2.572	9.8	20.4	11 27	5 14.59	+ 9 31.9	2.061	3.011	6.1	20.1
12 7	5 5.97	+43 29.1	1.646	2.590	7.8	20.3	12 7	5 5.31	+ 9 34.9	2.060	3.027	4.3	20.1
12 17	4 53.02	+43 4.8	1.670	2.609	8.1	20.4	12 17	4 56.00	+ 9 47.8	2.089	3.044	5.4	20.2
12 27	4 41.83	+42 18.1	1.720	2.627	10.2	20.5	12 27	4 47.61	+10 10.5	2.147	3.060	8.2	20.4
1 6	4 33.66	+41 17.1	1.795	2.645	13.0	20.7	1 6	4 40.89	+10 42.1	2.232	3.075	11.1	20.6
1 16	4 29.09	+40 10.2	1.891	2.663	15.6	21.0	1 16	4 36.32	+11 21.1	2.340	3.090	13.6	20.8
<b>244360</b>	2002 NK <sub>27</sub>		12 8.9 142°18	8°4/13.0	17		<b>143940</b>	2003 YW <sub>113</sub>		12 8.9 20°92	0°6/ 8.9	18	
11 7	5 40.72	+55 55.7	2.991	3.693	12.1	20.5	11 7	5 32.34	+23 22.6	1.226	2.092	17.3	19.9
11 17	5 31.43	+56 34.4	2.927	3.704	10.7	20.4	11 17	5 26.36	+23 40.1	1.167	2.094	12.6	19.6
11 27	5 19.49	+56 53.2	2.885	3.713	9.4	20.4	11 27	5 17.07	+23 54.7	1.129	2.097	7.1	19.3
12 7	5 6.06	+56 48.0	2.867	3.723	8.6	20.3	12 7	5 5.75	+24 4.6	1.116	2.100	1.3	18.9
12 17	4 52.59	+56 17.2	2.875	3.732	8.5	20.3	12 17	4 54.13	+24 9.1	1.129	2.104	4.8	19.2
12 27	4 40.58	+55 23.2	2.910	3.740	9.2	20.4	12 27	4 44.07	+24 10.1	1.167	2.109	10.4	19.5
1 6	4 31.13	+54 11.8	2.970	3.748	10.3	20.5	1 6	4 37.00	+24 10.9	1.228	2.113	15.3	19.8
1 16	4 24.83	+52 49.7	3.053	3.756	11.7	20.6	1 16	4 33.65	+24 14.4	1.309	2.119	19.3	20.1
<b>129162</b>	2005 GF <sub>65</sub>		12 8.9 357°15	9°4/ 7.4	18		<b>288000</b>	2003 UW <sub>191</sub>		12 8.9 32°99	3°1/ 9.5	18	
11 7	5 25.26	- 5 38.9	2.151	2.942	13.6	18.9	11 7	5 31.28	+29 41.3	1.304	2.163	16.9	20.0
11 17	5 19.97	- 6 18.4	2.091	2.940	11.7	18.8	11 17	5 25.34	+29 54.5	1.256	2.177	12.5	19.7
11 27	5 12.99	- 6 39.3	2.053	2.939	10.1	18.7	11 27	5 16.33	+29 56.8	1.230	2.192	7.6	19.5
12 7	5 5.02	- 6 37.6	2.040	2.939	9.4	18.6	12 7	5 5.61	+29 45.9	1.228	2.208	3.4	19.3
12 17	4 56.92	- 6 11.5	2.053	2.938	10.0	18.7	12 17	4 54.88	+29 22.5	1.252	2.225	5.1	19.5
12 27	4 49.59	- 5 21.9	2.091	2.938	11.5	18.7	12 27	4 45.85	+28 50.7	1.302	2.242	9.7	19.8
1 6	4 43.76	- 4 12.1	2.152	2.939	13.5	18.9	1 6	4 39.73	+28 16.3	1.376	2.260	14.0	20.1
1 16	4 39.96	- 2 47.0	2.234	2.939	15.4	19.0	1 16	4 37.09	+27 44.4	1.470	2.279	17.6	20.3
<b>326866</b>	2003 UW <sub>240</sub>		12 8.9 77°79	2°6/ 9.4	18		<b>254924</b>	2005 SL <sub>121</sub>		12 8.9 53°00	5°9/ 7.3	18	
11 7	5 36.15	+28 51.5	1.318	2.170	17.2	20.8	11 7	5 27.48	+ 9 41.6	1.758	2.604	13.9	20.3
11 17	5 28.76	+29 1.6	1.269	2.188	12.6	20.6	11 17	5 21.72	+ 8 34.2	1.709	2.618	10.6	20.1
11 27	5 18.19	+29 1.4	1.243	2.205	7.5	20.3	11 27	5 13.99	+ 7 35.0	1.684	2.632	7.4	20.0
12 7	5 5.88	+28 48.4	1.241	2.223	3.0	20.1	12 7	5 5.22	+ 6 48.3	1.685	2.646	5.9	19.9
12 17	4 53.60	+28 23.4	1.267	2.240	5.0	20.3	12 17	4 56.46	+ 6 17.5	1.714	2.661	7.2	20.0
12 27	4 43.17	+27 50.7	1.319	2.257	9.8	20.6	12 27	4 48.78	+ 6 4.4	1.770	2.676	10.1	20.2
1 6	4 35.81	+27 16.3	1.396	2.274	14.2	20.9	1 6	4 43.01	+ 6 8.4	1.851	2.691	13.2	20.5
1 16	4 32.10	+26 45.5	1.492	2.291	17.9	21.2	1 16	4 39.63	+ 6 27.2	1.952	2.706	15.8	20.7
<b>127690</b>	2003 EJ <sub>17</sub>		12 8.9 258°70	1°4/ 9.2	18		<b>110159</b>	2001 SF <sub>160</sub>		12 8.9 9°50	1°1/ 8.7	18	
11 7	5 32.53	+26 34.8	1.712	2.558	14.2	20.4	11 7	5 28.32	+21 19.0	1.681	2.537	13.9	19.6
11 17	5 26.01	+26 40.0	1.627	2.544	10.4	20.1	11 17	5 22.69	+20 57.4	1.614	2.537	10.0	19.4
11 27	5 16.75	+26 38.9	1.567	2.530	6.1	19.9	11 27	5 14.72	+20 33.5	1.572	2.539	5.7	19.2
12 7	5 5.69	+26 30.0	1.533	2.516	1.8	19.6	12 7	5 5.38	+20 8.6	1.556	2.540	1.3	18.9
12 17	4 54.18	+26 13.0	1.528	2.502	4.1	19.7	12 17	4 55.86	+19 44.3	1.568	2.542	4.1	19.1
12 27	4 43.72	+25 50.4	1.551	2.487	8.8	19.9	12 27	4 47.46	+19 23.4	1.609	2.544	8.6	19.3
1 6	4 35.56	+25 26.3	1.600	2.472	13.1	20.2	1 6	4 41.18	+19 8.4	1.674	2.547	12.6	19.6
1 16	4 30.48	+25 4.7	1.670	2.457	16.8	20.4	1 16	4 37.62	+19 0.9	1.761	2.550	15.9	19.8
<b>195641</b>	2002 NU <sub>27</sub>		12 8.9 133°65	7°5/12.4	18		<b>105110</b>	2000 LT <sub>16</sub>		12 8.9 140°55	3°2/ 8.3	18	
11 7	5 37.45	+51 20.7	2.860	3.595	11.9	20.1	11 7	5 28.97	+12 4.2	2.468	3.298	10.9	20.5
11 17	5 28.90	+51 48.6	2.795	3.606	10.2	20.0	11 17	5 22.41	+11 52.4	2.405	3.311	8.1	20.4
11 27	5 18.02	+51 58.0	2.753	3.617	8.6	19.9	11 27	5 14.29	+11 45.6	2.369	3.322	5.2	20.2
12 7	5 5.85	+51 45.4	2.736	3.628	7.6	19.8	12 7	5 5.29	+11 45.0	2.362	3.334	3.3	20.1
12 17	4 53.69	+51 9.9	2.747	3.638	7.6	19.8	12 17	4 56.23	+11 51.4	2.385	3.344	4.5	20.2
12 27	4 42.84	+50 14.0	2.786	3.648	8.5	19.9	12 27	4 47.94	+12 5.1	2.439	3.354	7.2	20.4
1 6	4 34.27	+49 3.4	2.851	3.658	10.0	20.0	1 6	4 41.10	+12 25.9	2.520	3.364	10.0	20.6
1 16	4 28.52	+47 44.4	2.939	3.667	11.6	20.2	1 16	4 36.20	+12 53.1	2.626	3.373	12.3	20.8
<b>21761</b>	1999 RB <sub>201</sub>		12 8.9 70°07	3°1/ 7.9	18		<b>99202</b>	2001 HR <sub>18</sub>		12 8.9 81°38	3°2/ 9.3	18	
11 7	5 31.48	+18 28.3	1.573	2.427	14.8	18.7	11 7	5 33.76	+31 11.3	2.418	3.239	11.4	18.7
11 17	5 24.70	+17 20.8	1.525	2.446	10.7	18.5	11 17	5 26.10	+32 9.5	2.366	3.265	8.5	18.5
11 27	5 15.65	+16 12.9	1.502	2.466	6.3	18.3	11 27	5 16.45	+33 0.2	2.340	3.291	5.5	18.4
12 7	5 5.46	+15 8.7	1.506	2.486	3.1	18.2	12 7	5 5.65	+33 40.2	2.345	3.316	3.3	18.3
12 17	4 55.41	+14 12.7	1.539	2.506	5.4	18.4	12 17	4 54.74	+34 7.7	2.380	3.342	4.2	18.4
12 27	4 46.76	+13 28.6	1.600	2.526	9.4	18.7	12 27	4 44.79	+34 23.5	2.445	3.367	6.9	18.6
1 6	4 40.41	+12 58.7	1.685	2.545	13.2	18.9	1 6	4 36.67	+34 30.1	2.539	3.391	9.6	18.8
1 16	4 36.83	+12 43.0	1.791	2.565	16.3	19.2	1 16	4 30.94	+34 30.9	2.656	3.416	11.9	19.0
<b>154173</b>	2002 GL <sub>78</sub>		12 8.9 156°20	3°0/ 9.8	18		<b>520358</b>	2014 GL <sub>64</sub>		12 8.9 163°06	1°1/ 8.7	18	
11 7	5 30.35	+33 24.6	2.766	3.582	10.								

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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>38157</b>	1999 <i>JC</i> <sub>72</sub>		12 8.9 75°85	3°1/ 8.6 18			<b>227026</b>	2004 <i>YA</i> <sub>26</sub>		12 8.9 10°64	2°1/ 9.6 17		
11 7	5 34.70	+15 56.0	1.283	2.141	17.2	18.4	11 7	5 28.64	+30 8.6	2.136	2.973	12.1	20.4
11 17	5 27.48	+15 47.1	1.240	2.162	12.5	18.2	11 17	5 22.64	+30 0.1	2.063	2.973	8.9	20.2
11 27	5 17.40	+15 43.2	1.219	2.183	7.4	18.0	11 27	5 14.60	+29 42.9	2.015	2.974	5.4	20.0
12 7	5 5.81	+15 45.3	1.223	2.204	3.3	17.8	12 7	5 5.39	+29 16.4	1.995	2.975	2.3	19.8
12 17	4 54.29	+15 54.2	1.255	2.225	5.7	18.0	12 17	4 56.05	+28 41.5	2.004	2.976	3.6	19.9
12 27	4 44.44	+16 10.3	1.313	2.246	10.4	18.3	12 27	4 47.69	+28 1.0	2.042	2.977	7.1	20.1
1 6	4 37.41	+16 33.9	1.395	2.266	14.7	18.6	1 6	4 41.19	+27 18.9	2.108	2.978	10.5	20.4
1 16	4 33.72	+17 4.2	1.496	2.286	18.2	18.9	1 16	4 37.10	+26 39.0	2.197	2.979	13.4	20.6
<b>440168</b>	2003 <i>WD</i> <sub>143</sub>		12 8.9 337°13	0°7/ 8.9 18			<b>516910</b>	2011 <i>UE</i> <sub>99</sub>		12 8.9 100°47	2°2/ 9.4 18		
11 7	5 29.99	+22 8.2	1.426	2.288	15.6	20.2	11 7	5 31.99	+28 43.2	1.860	2.700	13.5	21.7
11 17	5 24.56	+22 50.7	1.352	2.277	11.4	19.9	11 17	5 25.26	+28 57.2	1.796	2.709	9.9	21.5
11 27	5 16.11	+23 34.5	1.300	2.268	6.5	19.6	11 27	5 16.15	+29 3.7	1.757	2.717	5.9	21.3
12 7	5 5.65	+24 16.6	1.274	2.259	1.3	19.3	12 7	5 5.65	+29 0.7	1.745	2.725	2.5	21.1
12 17	4 54.63	+24 54.5	1.275	2.251	4.5	19.5	12 17	4 55.01	+28 48.4	1.762	2.734	4.0	21.2
12 27	4 44.71	+25 27.4	1.303	2.243	9.7	19.8	12 27	4 45.55	+28 29.0	1.808	2.742	7.9	21.4
1 6	4 37.32	+25 56.4	1.355	2.237	14.4	20.0	1 6	4 38.27	+28 6.2	1.879	2.750	11.6	21.7
1 16	4 33.33	+26 23.7	1.427	2.231	18.3	20.3	1 16	4 33.78	+27 44.0	1.974	2.757	14.6	21.9
<b>139261</b>	2001 <i>HQ</i> <sub>51</sub>		12 8.9 225°85	0°5/ 9.0 18			<b>421030</b>	2013 <i>PK</i> <sub>65</sub>		12 8.9 326°11	1°7/ 9.5 17		
11 7	5 33.18	+23 51.1	1.553	2.404	15.1	20.5	11 7	5 28.06	+29 9.8	1.998	2.841	12.6	20.9
11 17	5 26.54	+23 58.2	1.480	2.400	11.0	20.2	11 17	5 22.39	+28 50.4	1.918	2.832	9.3	20.7
11 27	5 17.06	+24 1.7	1.431	2.397	6.2	20.0	11 27	5 14.54	+28 21.9	1.862	2.823	5.5	20.5
12 7	5 5.79	+24 0.3	1.408	2.393	1.2	19.6	12 7	5 5.40	+27 44.2	1.833	2.815	2.0	20.2
12 17	4 54.16	+23 53.9	1.414	2.388	4.2	19.8	12 17	4 56.05	+26 58.7	1.834	2.807	3.6	20.3
12 27	4 43.75	+23 44.6	1.447	2.384	9.2	20.1	12 27	4 47.67	+26 8.8	1.863	2.800	7.5	20.5
1 6	4 35.83	+23 35.7	1.505	2.379	13.7	20.4	1 6	4 41.23	+25 19.1	1.919	2.793	11.2	20.7
1 16	4 31.14	+23 30.2	1.584	2.374	17.4	20.6	1 16	4 37.31	+24 33.4	1.998	2.786	14.3	20.9
<b>370389</b>	2002 <i>TP</i> <sub>145</sub>		12 8.9 38°48	5°8/ 11.1 16			<b>453767</b>	2011 <i>EM</i> <sub>86</sub>		12 8.9 231°56	6°4/ 6.8 18		
11 7	5 31.85	+41 13.3	2.152	2.955	13.2	20.2	11 7	5 24.65	- 0 25.5	2.903	3.701	10.3	21.9
11 17	5 25.11	+41 23.1	2.084	2.961	10.5	20.0	11 17	5 19.26	- 1 8.4	2.825	3.690	8.5	21.8
11 27	5 16.01	+41 16.4	2.040	2.967	7.9	19.9	11 27	5 12.56	- 1 40.7	2.773	3.679	7.0	21.7
12 7	5 5.60	+40 50.4	2.022	2.973	6.0	19.8	12 7	5 5.07	- 1 59.4	2.749	3.667	6.4	21.6
12 17	4 55.14	+40 5.3	2.032	2.979	6.2	19.8	12 17	4 57.41	- 2 2.7	2.753	3.655	7.1	21.6
12 27	4 45.92	+39 4.6	2.071	2.986	8.3	19.9	12 27	4 50.26	- 1 49.9	2.785	3.643	8.7	21.7
1 6	4 38.95	+37 54.5	2.136	2.993	10.9	20.1	1 6	4 44.22	- 1 22.3	2.842	3.630	10.5	21.8
1 16	4 34.76	+36 41.3	2.224	2.999	13.5	20.3	1 16	4 39.73	- 0 41.7	2.922	3.617	12.3	22.0
<b>328436</b>	2008 <i>TC</i> <sub>21</sub>		12 8.9 114°86	0°1/ 8.9 18			<b>178163</b>	2006 <i>UL</i> <sub>32</sub>		12 8.9 231°77	1°7/ 8.5 18		
11 7	5 27.56	+23 36.1	2.637	3.474	10.1	21.9	11 7	5 28.79	+19 16.2	1.985	2.832	12.5	20.5
11 17	5 21.41	+23 31.8	2.573	3.487	7.2	21.7	11 17	5 22.78	+18 51.8	1.910	2.829	9.0	20.3
11 27	5 13.74	+23 24.7	2.536	3.500	4.0	21.5	11 27	5 14.72	+18 26.8	1.861	2.825	5.2	20.0
12 7	5 5.23	+23 14.8	2.529	3.513	0.7	21.3	12 7	5 5.43	+18 2.5	1.839	2.822	1.8	19.8
12 17	4 56.66	+23 2.8	2.552	3.526	2.7	21.5	12 17	4 55.94	+17 40.6	1.847	2.818	4.0	19.9
12 27	4 48.87	+22 50.1	2.606	3.538	5.9	21.7	12 27	4 47.37	+17 23.2	1.884	2.814	7.9	20.2
1 6	4 42.51	+22 38.4	2.688	3.551	8.8	21.9	1 6	4 40.60	+17 12.2	1.947	2.810	11.5	20.4
1 16	4 38.04	+22 29.2	2.795	3.562	11.2	22.1	1 16	4 36.23	+17 8.7	2.032	2.806	14.6	20.6
<b>298139</b>	2002 <i>RV</i> <sub>290</sub>		12 8.9 114°70	1°0/ 9.1 18			<b>107648</b>	2001 <i>ER</i> <sub>20</sub>		12 8.9 351°33	4°0/ 8.1 18		
11 7	5 32.84	+25 6.4	2.067	2.903	12.4	21.2	11 7	5 24.83	+16 51.0	1.145	2.025	17.2	18.5
11 17	5 25.54	+25 23.3	2.008	2.921	9.0	21.0	11 17	5 21.01	+16 5.9	1.082	2.015	12.7	18.2
11 27	5 16.17	+25 36.1	1.975	2.938	5.1	20.8	11 27	5 14.14	+15 22.7	1.040	2.007	7.7	17.9
12 7	5 5.64	+25 43.4	1.971	2.955	1.3	20.6	12 7	5 5.36	+14 45.8	1.020	2.000	4.0	17.7
12 17	4 55.03	+25 45.0	1.997	2.971	3.4	20.8	12 17	4 56.23	+14 19.1	1.025	1.995	6.6	17.9
12 27	4 45.51	+25 42.4	2.053	2.986	7.2	21.1	12 27	4 48.46	+14 6.4	1.054	1.992	11.7	18.1
1 6	4 37.95	+25 37.8	2.137	3.001	10.6	21.3	1 6	4 43.38	+14 8.9	1.104	1.990	16.5	18.4
1 16	4 32.90	+25 33.9	2.244	3.016	13.4	21.5	1 16	4 41.73	+14 25.8	1.172	1.990	20.6	18.7
<b>322462</b>	2011 <i>UV</i> <sub>57</sub>		12 8.9 175°75	1°3/ 8.7 18			<b>461146</b>	2015 <i>TC</i> <sub>111</sub>		12 8.9 25°37	0°3/ 8.9 18		
11 7	5 30.13	+19 37.2	2.085	2.927	12.1	21.4	11 7	5 30.09	+20 7.1	1.647	2.501	14.2	20.4
11 17	5 23.64	+19 26.0	2.013	2.929	8.8	21.1	11 17	5 24.07	+20 44.8	1.586	2.508	10.3	20.2
11 27	5 15.15	+19 14.4	1.966	2.930	5.0	20.9	11 27	5 15.58	+21 24.2	1.549	2.515	5.8	19.9
12 7	5 5.48	+19 3.0	1.948	2.931	1.4	20.7	12 7	5 5.58	+22 3.5	1.538	2.523	1.0	19.6
12 17	4 55.65	+18 52.8	1.960	2.932	3.7	20.8	12 17	4 55.34	+22 40.9	1.557	2.531	3.9	19.8
12 27	4 46.71	+18 45.3	2.001	2.932	7.5	21.1	12 27	4 46.21	+23 15.7	1.603	2.540	8.5	20.1
1 6	4 39.56	+18 42.2	2.070	2.932	11.0	21.3	1 6	4 39.28	+23 48.5	1.675	2.550	12.5	20.4
1 16	4 34.75	+18 44.4	2.161	2.931	14.0	21.5	1 16	4 35.22	+24 20.5	1.768	2.559	15.8	20.6
<b>409795</b>	2006 <i>GM</i> <sub>25</sub>		12 8.9 23°11	3°7/ 9.6 17			<b>290858</b>	2005 <i>WW</i> <sub>44</sub>		12 8.9 9°31	1°5/ 9.1 17		
11 7	5 30.22	+32 30.1	2.123	2.953	12.4	20.7	11 7	5 30.08	+25 36.6	1.962	2.806	12.7	20.8
11 17	5 23.96	+33 9.7	2.053	2.956	9.4	20.5	11 17	5 23.89	+26 6.6	1.890	2.806	9.3	20.5
11 27	5 15.44	+33 40.7	2.007	2.958	6.2	20.3	11 27	5 15.43	+26 33.0	1.843	2.806	5.4	20.3
12 7	5 5.54	+34 0.2	1.989	2.960	3.8	20.2	12 7	5 5.57	+26 53.8	1.824	2.807	1.7	20.1
12 17	4 55.37	+34 6.7	2.000	2.963	4.7	20.3	12 17	4 55.42	+27 8.0	1.834	2.808	3.7	20.2
12 27	4 46.16	+34 1.5	2.039	2.966	7.7	20.5	12 27	4 46.22	+27 16.3	1.874	2.808	7.6	20.5
1 6	4 38.90	+33 47.8	2.105	2.969	10.8	20.7	1 6	4 38.97	+27 20.7	1.939	2.809	11.3	20.7
1 16	4 34.24	+33 29.8	2.194	2.972	13.5	20.9	1 16	4 34.34	+27 23.9	2.028	2.810	14.3	20.9
<b>191757</b>	2004 <i>SP</i> <sub>60</sub>		12 8.9 131°79	1°1/ 9.1 18			<b>271552</b>	2004 <i>JW</i> <sub>25</sub>		12 8.9 241°33	1°3/ 8.6 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>251507</b>	2008 <i>FJ</i> <sub>3</sub>		12 8.9 159°19	1.2°/ 9.2 18			<b>48065</b>	2001 <i>EK</i> <sub>17</sub>		12 8.9 235°13	6°8/ 7.5 18		
11 7	5 30.27	+25 58.4	2.056	2.897	12.3	20.9	11 7	5 26.48	- 1 53.4	2.781	3.572	10.9	20.0
11 17	5 23.88	+26 9.7	1.984	2.899	9.0	20.7	11 17	5 20.65	- 2 18.3	2.700	3.559	9.1	19.8
11 27	5 15.35	+26 16.4	1.937	2.900	5.2	20.5	11 27	5 13.39	- 2 30.4	2.645	3.546	7.5	19.7
12 7	5 5.55	+26 17.3	1.918	2.902	1.5	20.2	12 7	5 5.26	- 2 27.3	2.616	3.533	6.8	19.6
12 17	4 55.53	+26 12.2	1.929	2.903	3.5	20.4	12 17	4 56.93	- 2 7.4	2.616	3.519	7.4	19.7
12 27	4 46.47	+26 2.8	1.970	2.904	7.3	20.6	12 27	4 49.13	- 1 30.8	2.645	3.505	9.0	19.7
1 6	4 39.29	+25 51.6	2.037	2.905	10.9	20.8	1 6	4 42.52	- 0 39.5	2.699	3.490	10.9	19.9
1 16	4 34.61	+25 41.5	2.127	2.906	13.9	21.0	1 16	4 37.55	+ 0 23.9	2.776	3.475	12.8	20.0
<b>28141</b>	1998 <i>TC</i>		12 8.9 323°59	4°4/10.3 18			<b>136586</b>	1992 <i>UC</i> <sub>7</sub>		12 8.9 121°11	1°3/ 8.7 18		
11 7	5 32.64	+34 55.6	1.360	2.206	17.1	16.9	11 7	5 34.39	+20 36.5	1.632	2.480	14.7	21.0
11 17	5 26.70	+34 34.9	1.283	2.195	13.1	16.6	11 17	5 26.99	+20 17.9	1.576	2.494	10.6	20.7
11 27	5 17.36	+33 54.6	1.228	2.184	8.6	16.3	11 27	5 17.12	+19 57.7	1.543	2.509	6.0	20.5
12 7	5 5.91	+32 52.2	1.197	2.173	4.8	16.1	12 7	5 5.88	+19 36.9	1.539	2.522	1.5	20.2
12 17	4 54.14	+31 29.7	1.193	2.164	5.8	16.1	12 17	4 54.63	+19 16.9	1.563	2.536	4.3	20.5
12 27	4 43.99	+29 54.6	1.215	2.154	10.3	16.4	12 27	4 44.73	+19 0.4	1.616	2.548	8.8	20.8
1 6	4 36.90	+28 17.2	1.261	2.146	15.0	16.6	1 6	4 37.20	+18 49.7	1.694	2.560	12.8	21.0
1 16	4 33.60	+26 46.5	1.328	2.138	19.1	16.8	1 16	4 32.60	+18 46.3	1.794	2.572	16.1	21.3
<b>136559</b>	1035 <i>T</i> <sub>-3</sub>		12 8.9 196°10	0°9/ 8.7 18			<b>488604</b>	2002 <i>RW</i> <sub>112</sub>		12 8.9 112°46	5°4/11.4 17		
11 7	5 33.88	+23 6.1	1.513	2.365	15.4	20.2	11 7	5 33.75	+43 16.3	2.711	3.492	11.4	21.8
11 17	5 26.96	+22 27.8	1.443	2.364	11.2	20.0	11 17	5 26.05	+43 23.9	2.648	3.508	9.2	21.7
11 27	5 17.25	+21 43.6	1.396	2.363	6.3	19.7	11 27	5 16.41	+43 16.4	2.610	3.524	7.0	21.5
12 7	5 5.87	+20 54.9	1.376	2.361	1.3	19.3	12 7	5 5.76	+42 51.5	2.599	3.539	5.6	21.5
12 17	4 54.30	+20 5.0	1.385	2.359	4.5	19.6	12 17	4 55.17	+42 9.6	2.618	3.554	5.7	21.5
12 27	4 44.07	+19 18.5	1.421	2.356	9.6	19.9	12 27	4 45.71	+41 13.4	2.666	3.569	7.2	21.6
1 6	4 36.39	+18 39.9	1.482	2.353	14.1	20.1	1 6	4 38.20	+40 8.1	2.742	3.584	9.3	21.8
1 16	4 31.91	+18 12.1	1.564	2.350	17.8	20.4	1 16	4 33.11	+38 59.0	2.843	3.598	11.3	21.9
<b>454773</b>	2014 <i>WO</i> <sub>318</sub>		12 8.9 111°55	2°4/ 8.5 17			<b>326643</b>	2002 <i>ST</i> <sub>47</sub>		12 8.9 90°81	4°8/10.2 17		
11 7	5 27.44	+14 41.5	2.310	3.150	11.2	20.7	11 7	5 32.17	+38 0.5	2.451	3.257	11.7	20.8
11 17	5 21.53	+14 42.1	2.242	3.154	8.2	20.5	11 17	5 25.13	+38 37.7	2.391	3.273	9.2	20.7
11 27	5 13.91	+14 46.7	2.199	3.159	5.0	20.3	11 27	5 16.01	+39 2.9	2.356	3.289	6.6	20.5
12 7	5 5.31	+14 55.9	2.185	3.164	2.5	20.2	12 7	5 5.72	+39 13.2	2.350	3.305	4.9	20.5
12 17	4 56.56	+15 10.0	2.202	3.168	4.0	20.3	12 17	4 55.30	+39 7.8	2.372	3.321	5.3	20.5
12 27	4 48.56	+15 29.2	2.247	3.173	7.2	20.5	12 27	4 45.91	+38 48.4	2.424	3.337	7.4	20.7
1 6	4 42.08	+15 53.4	2.320	3.177	10.2	20.7	1 6	4 38.42	+38 19.1	2.503	3.352	9.8	20.9
1 16	4 37.62	+16 22.3	2.417	3.181	12.8	20.9	1 16	4 33.40	+37 44.4	2.605	3.367	12.0	21.0
<b>487951</b>	2015 <i>TN</i> <sub>251</sub>		12 8.9 72°90	2°3/ 8.4 18			<b>429786</b>	2012 <i>HO</i> <sub>21</sub>		12 8.9 169°47	3°3/ 8.5 18		
11 7	5 28.87	+17 41.4	1.843	2.693	13.1	20.9	11 7	5 33.75	+14 17.5	1.814	2.654	13.8	22.0
11 17	5 22.84	+17 16.4	1.782	2.701	9.5	20.7	11 17	5 26.44	+14 4.7	1.746	2.658	10.2	21.8
11 27	5 14.73	+16 52.6	1.746	2.709	5.6	20.5	11 27	5 16.83	+13 56.5	1.703	2.662	6.2	21.6
12 7	5 5.44	+16 31.7	1.737	2.718	2.4	20.3	12 7	5 5.87	+13 54.3	1.688	2.666	3.3	21.4
12 17	4 56.07	+16 15.2	1.757	2.726	4.4	20.5	12 17	4 54.70	+13 58.9	1.703	2.668	5.1	21.5
12 27	4 47.74	+16 5.2	1.805	2.734	8.3	20.7	12 27	4 44.60	+14 11.3	1.747	2.670	9.0	21.7
1 6	4 41.35	+16 2.7	1.879	2.743	11.9	21.0	1 6	4 36.57	+14 31.5	1.816	2.671	12.7	22.0
1 16	4 37.42	+16 8.3	1.975	2.751	14.9	21.2	1 16	4 31.21	+14 59.0	1.908	2.671	15.8	22.2
<b>273117</b>	2006 <i>FP</i> <sub>41</sub>		12 8.9 345°59	2°5/ 8.3 17			<b>445672</b>	2011 <i>UX</i> <sub>92</sub>		12 8.9 107°70	4°3/ 7.8 15		
11 7	5 26.22	+16 49.7	2.003	2.853	12.2	20.8	11 7	5 30.29	+12 35.6	1.985	2.824	12.8	22.0
11 17	5 20.91	+16 25.1	1.931	2.850	8.9	20.6	11 17	5 23.59	+11 42.6	1.933	2.842	9.5	21.8
11 27	5 13.68	+16 2.2	1.883	2.847	5.3	20.4	11 27	5 15.06	+10 54.4	1.906	2.860	6.2	21.7
12 7	5 5.30	+15 42.7	1.864	2.844	2.5	20.2	12 7	5 5.56	+10 14.3	1.908	2.877	4.3	21.6
12 17	4 56.73	+15 28.2	1.873	2.841	4.4	20.3	12 17	4 56.11	+ 9 44.8	1.939	2.894	5.7	21.7
12 27	4 49.01	+15 20.5	1.911	2.839	8.0	20.5	12 27	4 47.69	+ 9 27.9	1.999	2.911	8.8	21.9
1 6	4 42.99	+15 20.4	1.974	2.837	11.4	20.7	1 6	4 41.10	+ 9 23.7	2.085	2.927	11.8	22.1
1 16	4 39.23	+15 28.4	2.060	2.836	14.4	20.9	1 16	4 36.79	+ 9 31.5	2.193	2.943	14.4	22.4
<b>275</b>	<i>Sapientia</i>		12 8.9 281°33	2°2/ 8.5 18			<b>27267</b>	<i>Wiberg</i>		12 8.9 305°54	1°2/ 8.9 18		
11 7	5 28.50	+17 5.1	1.959	2.806	12.6	13.3	11 7	5 31.93	+18 32.2	1.388	2.248	16.0	17.9
11 17	5 22.75	+16 52.2	1.872	2.789	9.2	13.1	11 17	5 26.06	+18 59.0	1.311	2.235	11.8	17.6
11 27	5 14.83	+16 41.1	1.809	2.772	5.5	12.8	11 27	5 17.07	+19 30.3	1.256	2.222	6.8	17.3
12 7	5 5.51	+16 33.0	1.774	2.756	2.3	12.6	12 7	5 5.97	+20 4.9	1.226	2.210	1.6	17.0
12 17	4 55.82	+16 28.9	1.769	2.738	4.4	12.7	12 17	4 54.23	+20 41.0	1.224	2.198	4.8	17.2
12 27	4 46.90	+16 30.3	1.792	2.721	8.3	12.9	12 27	4 43.60	+21 17.8	1.248	2.186	10.2	17.4
1 6	4 39.74	+16 38.2	1.841	2.704	12.1	13.1	1 6	4 35.52	+21 55.5	1.296	2.175	15.1	17.7
1 16	4 35.04	+16 53.1	1.912	2.687	15.4	13.3	1 16	4 30.92	+22 35.0	1.364	2.164	19.2	17.9
<b>25576</b>	1999 <i>XL</i> <sub>213</sub>		12 8.9 77°22	6°2/ 8.6 18			<b>409184</b>	2003 <i>UN</i> <sub>299</sub>		12 8.9 78°89	5°0/ 7.4 18		
11 7	5 33.48	+ 7 55.6	1.383	2.228	16.9	18.5	11 7	5 26.68	+ 9 18.2	2.219	3.054	11.8	21.4
11 17	5 26.46	+ 7 43.8	1.338	2.247	12.9	18.3	11 17	5 20.89	+ 8 23.0	2.167	3.070	9.0	21.2
11 27	5 16.84	+ 7 46.1	1.315	2.266	8.8	18.2	11 27	5 13.52	+ 7 34.9	2.141	3.086	6.3	21.1
12 7	5 5.81	+ 8 4.6	1.318	2.285	6.3	18.1	12 7	5 5.32	+ 6 56.8	2.143	3.102	5.0	21.0
12 17	4 54.80	+ 8 39.4	1.348	2.303	7.6	18.2	12 17	4 57.12	+ 6 31.4	2.174	3.118	6.1	21.1
12 27	4 45.25	+ 9 28.8	1.404	2.322	11.2	18.5	12 27	4 49.78	+ 6 19.8	2.233	3.134	8.5	21.3
1 6	4 38.22	+10 29.5	1.483	2.340	14.9	18.7	1 6	4 43.98	+ 6 21.8	2.318	3.150	11.1	21.5
1 16	4 34.28	+11 37.8	1.584	2.358	18.0	19.0	1 16	4 40.15	+ 6 35.9	2.425	3.166	13.4	21.7
<b>196963</b>	2003 <i>UD</i> <sub>56</sub>		12 8.9 132°44	1°8/ 9.3 18			<b>15111</b>	<i>Winters</i>		12 8.9 22°55	4°5/ 9.4 18		
11 7	5 30.00												

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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>185874</b>	2000 <i>KW</i> <sub>4</sub>	12 8.9 241°35'	2.2°/ 8.6 18				<b>79624</b>	1998 <i>RN</i> <sub>64</sub>	12 8.9 106°67'	1.8°/ 8.6 18			
11 7	5 44.97	+19 10.1	1.138	1.989	19.4	19.4	11 7	5 34.06	+19 0.4	1.630	2.478	14.7	19.9
11 17	5 36.55	+21 29.7	1.066	1.986	14.3	19.0	11 17	5 26.72	+18 44.7	1.578	2.496	10.6	19.6
11 27	5 23.56	+24 3.6	1.018	1.983	8.3	18.7	11 27	5 16.97	+18 29.4	1.549	2.514	6.0	19.4
12 7	5 7.14	+26 39.9	0.996	1.980	2.4	18.3	12 7	5 5.93	+18 15.3	1.549	2.532	2.0	19.2
12 17	4 49.39	+29 4.0	1.004	1.976	6.2	18.6	12 17	4 54.90	+18 3.8	1.577	2.548	4.5	19.4
12 27	4 33.03	+31 6.3	1.040	1.973	12.5	18.9	12 27	4 45.21	+17 56.8	1.633	2.565	8.8	19.7
1 6	4 20.34	+32 45.3	1.100	1.970	18.0	19.2	1 6	4 37.86	+17 55.9	1.715	2.581	12.7	20.0
1 16	4 12.61	+34 5.5	1.180	1.966	22.4	19.5	1 16	4 33.39	+18 1.9	1.819	2.596	16.0	20.2
<b>228043</b>	2008 <i>GQ</i> <sub>138</sub>	12 8.9 158°22'	3.0°/ 8.3 18				<b>411608</b>	2011 <i>JU</i> <sub>24</sub>	12 8.9 345°35'	5.7°/ 7.3 17			
11 7	5 32.29	+17 0.8	1.649	2.498	14.5	21.4	11 7	5 24.90	+ 6 36.4	2.245	3.077	11.8	20.6
11 17	5 25.54	+16 22.4	1.584	2.502	10.6	21.2	11 17	5 19.76	+ 5 47.1	2.177	3.075	9.2	20.4
11 27	5 16.38	+15 45.1	1.544	2.506	6.3	20.9	11 27	5 12.99	+ 5 6.3	2.135	3.073	6.9	20.3
12 7	5 5.82	+15 11.5	1.530	2.510	3.1	20.7	12 7	5 5.27	+ 4 37.3	2.120	3.071	5.7	20.2
12 17	4 55.12	+14 44.2	1.545	2.513	5.2	20.9	12 17	4 57.42	+ 4 22.6	2.133	3.070	6.7	20.3
12 27	4 45.60	+14 25.9	1.588	2.515	9.4	21.1	12 27	4 50.29	+ 4 23.2	2.174	3.069	9.1	20.4
1 6	4 38.30	+14 18.2	1.657	2.517	13.4	21.4	1 6	4 44.60	+ 4 38.5	2.240	3.068	11.6	20.6
1 16	4 33.83	+14 21.3	1.746	2.519	16.7	21.6	1 16	4 40.85	+ 5 6.7	2.328	3.067	14.0	20.8
<b>368353</b>	2002 <i>QC</i> <sub>117</sub>	12 8.9 157°35'	2.9°/ 9.9 17				<b>15837</b>	Mariovalori	12 8.9 236°74'	0.6°/ 8.8 18			
11 7	5 29.69	+33 20.0	2.487	3.308	11.1	21.8	11 7	5 27.33	+21 20.4	2.481	3.321	10.5	19.3
11 17	5 23.24	+33 19.2	2.412	3.311	8.3	21.6	11 17	5 21.51	+21 12.0	2.398	3.314	7.6	19.1
11 27	5 14.94	+33 8.7	2.363	3.314	5.4	21.4	11 27	5 14.00	+21 2.1	2.341	3.306	4.3	18.9
12 7	5 5.58	+32 47.3	2.342	3.316	3.1	21.3	12 7	5 5.45	+20 51.1	2.314	3.298	0.9	18.7
12 17	4 56.11	+32 15.6	2.352	3.318	3.8	21.3	12 17	4 56.69	+20 39.6	2.317	3.290	3.0	18.8
12 27	4 47.54	+31 35.9	2.391	3.320	6.6	21.5	12 27	4 48.62	+20 29.1	2.350	3.282	6.5	19.0
1 6	4 40.67	+30 52.0	2.459	3.322	9.5	21.7	1 6	4 41.99	+20 21.1	2.411	3.273	9.6	19.2
1 16	4 36.02	+30 7.8	2.550	3.323	12.0	21.9	1 16	4 37.35	+20 17.0	2.495	3.264	12.3	19.4
<b>350486</b>	1999 <i>TV</i> <sub>125</sub>	12 8.9 42°22'	7.0°/10.5 18				<b>149951</b>	Hildakowalski	12 8.9 104°42'	0.9°/ 8.9 18			
11 7	5 35.36	+37 57.5	1.355	2.191	17.7	19.6	11 7	5 34.54	+19 56.5	1.592	2.440	14.9	20.3
11 17	5 28.57	+38 43.0	1.310	2.209	13.9	19.4	11 17	5 27.22	+20 8.2	1.537	2.456	10.8	20.1
11 27	5 18.33	+39 9.4	1.286	2.228	10.0	19.2	11 27	5 17.34	+20 20.3	1.506	2.471	6.1	19.8
12 7	5 6.15	+39 11.1	1.286	2.247	7.3	19.1	12 7	5 6.00	+20 32.0	1.502	2.487	1.3	19.5
12 17	4 53.96	+38 47.2	1.311	2.267	7.8	19.2	12 17	4 54.58	+20 43.1	1.528	2.501	4.2	19.8
12 27	4 43.73	+38 2.7	1.362	2.288	10.8	19.4	12 27	4 44.50	+20 54.4	1.581	2.516	8.8	20.1
1 6	4 36.79	+37 6.4	1.436	2.308	14.3	19.7	1 6	4 36.84	+21 7.5	1.660	2.530	12.9	20.4
1 16	4 33.69	+36 6.8	1.531	2.330	17.5	20.0	1 16	4 32.19	+21 23.6	1.761	2.543	16.2	20.6
<b>213899</b>	2003 <i>US</i> <sub>29</sub>	12 8.9 88°93'	0.4°/ 8.9 18				<b>445622</b>	2011 <i>SZ</i> <sub>190</sub>	12 8.9 18°03'	7.9°/ 9.8 17			
11 7	5 38.27	+22 17.7	1.425	2.274	16.4	20.4	11 7	5 33.53	+37 23.9	1.349	2.189	17.6	20.3
11 17	5 30.01	+22 45.9	1.381	2.300	11.8	20.2	11 17	5 27.63	+38 50.3	1.296	2.196	13.9	20.1
11 27	5 18.89	+23 11.9	1.361	2.327	6.6	20.0	11 27	5 18.07	+40 0.6	1.264	2.204	10.3	19.9
12 7	5 6.23	+23 33.4	1.368	2.352	1.1	19.7	12 7	5 6.18	+40 47.0	1.255	2.212	8.1	19.8
12 17	4 53.64	+23 49.4	1.403	2.377	4.3	20.0	12 17	4 53.85	+41 4.9	1.272	2.222	8.8	19.9
12 27	4 42.75	+24 0.9	1.466	2.402	9.2	20.3	12 27	4 43.22	+40 56.5	1.313	2.233	11.7	20.0
1 6	4 34.70	+24 10.8	1.554	2.426	13.5	20.7	1 6	4 35.87	+40 29.1	1.377	2.244	15.1	20.3
1 16	4 30.03	+24 21.6	1.664	2.449	16.9	20.9	1 16	4 32.59	+39 51.5	1.460	2.257	18.3	20.5
<b>457963</b>	2009 <i>VL</i> <sub>78</sub>	12 8.9 31°48'	4.5°/ 7.9 16				<b>439562</b>	2014 <i>DR</i> <sub>72</sub>	12 8.9 177°32'	1.5°/ 8.7 18			
11 7	5 26.76	+13 40.7	1.584	2.442	14.5	20.8	11 7	5 31.44	+18 24.8	1.956	2.799	12.8	21.1
11 17	5 21.43	+12 48.1	1.540	2.460	10.7	20.6	11 17	5 24.77	+18 25.9	1.884	2.800	9.3	20.9
11 27	5 13.97	+12 1.1	1.520	2.479	6.8	20.4	11 27	5 15.93	+18 28.4	1.837	2.801	5.3	20.7
12 7	5 5.41	+11 23.4	1.525	2.498	4.5	20.3	12 7	5 5.80	+18 32.4	1.819	2.802	1.7	20.4
12 17	4 56.90	+10 57.9	1.558	2.519	6.2	20.4	12 17	4 55.43	+18 38.1	1.830	2.802	3.9	20.6
12 27	4 49.59	+10 46.4	1.618	2.540	9.7	20.7	12 27	4 46.01	+18 46.5	1.871	2.802	7.9	20.9
1 6	4 44.35	+10 48.9	1.701	2.562	13.1	21.0	1 6	4 38.48	+18 58.4	1.938	2.801	11.6	21.1
1 16	4 41.65	+11 3.8	1.805	2.584	16.0	21.2	1 16	4 33.46	+19 14.8	2.028	2.800	14.7	21.3
<b>203180</b>	2001 <i>BU</i> <sub>11</sub>	12 8.9 190°06'	2.0°/ 8.7 18				<b>262114</b>	2006 <i>SV</i> <sub>6</sub>	12 8.9 36°45'	1.9°/ 9.4 18			
11 7	5 31.25	+16 59.2	1.767	2.614	13.7	20.0	11 7	5 33.17	+28 39.7	1.228	2.089	17.6	19.7
11 17	5 24.81	+17 3.6	1.696	2.614	10.0	19.8	11 17	5 26.96	+28 19.9	1.172	2.095	12.9	19.4
11 27	5 16.02	+17 11.3	1.650	2.614	5.8	19.5	11 27	5 17.45	+27 48.1	1.137	2.102	7.6	19.1
12 7	5 5.79	+17 22.4	1.631	2.613	2.2	19.3	12 7	5 6.05	+27 3.8	1.126	2.109	2.4	18.8
12 17	4 55.27	+17 36.9	1.641	2.612	4.4	19.4	12 17	4 54.57	+26 9.8	1.142	2.117	4.9	19.0
12 27	4 45.77	+17 55.5	1.680	2.611	8.6	19.7	12 27	4 44.88	+25 12.3	1.183	2.125	10.2	19.4
1 6	4 38.31	+18 18.3	1.744	2.610	12.5	19.9	1 6	4 38.26	+24 18.3	1.247	2.133	15.0	19.7
1 16	4 33.57	+18 45.8	1.830	2.609	15.8	20.2	1 16	4 35.35	+23 33.0	1.332	2.142	19.0	19.9
<b>230287</b>	2001 <i>XE</i> <sub>228</sub>	12 8.9 18°93'	2.6°/ 9.5 18				<b>148080</b>	1999 <i>AQ</i> <sub>17</sub>	12 8.9 192°61'	4.5°/ 8.1 18			
11 7	5 31.19	+29 3.4	1.253	2.116	17.3	19.2	11 7	5 28.60	+ 9 22.3	2.213	3.044	11.9	20.5
11 17	5 25.57	+29 6.2	1.196	2.120	12.7	19.0	11 17	5 22.47	+ 9 2.8	2.140	3.043	9.1	20.3
11 27	5 16.69	+28 58.0	1.161	2.125	7.6	18.7	11 27	5 14.55	+ 8 50.8	2.093	3.041	6.2	20.1
12 7	5 5.90	+28 37.1	1.149	2.131	3.0	18.5	12 7	5 5.57	+ 8 48.2	2.074	3.039	4.5	20.0
12 17	4 54.94	+28 4.5	1.163	2.137	5.0	18.6	12 17	4 56.40	+ 8 56.4	2.085	3.037	5.6	20.1
12 27	4 45.63	+27 24.8	1.203	2.145	10.1	18.9	12 27	4 47.99	+ 9 15.5	2.124	3.035	8.4	20.2
1 6	4 39.31	+26 44.3	1.265	2.153	14.7	19.2	1 6	4 41.14	+ 9 45.0	2.190	3.032	11.3	20.4
1 16	4 36.64	+26 8.2	1.348	2.162	18.6	19.5	1 16	4 36.38	+10 23.3	2.279	3.028	13.9	20.6
<b>300637</b>	2007 <i>UZ</i> <sub>55</sub>	12 8.9 97°27'	1.1°/ 9.2 18				<b>153368</b>	2001 <i>QP</i> <sub>5</sub>	12 8.9 35°29'	4.3°/ 9.9 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>228456</b>	2001 <i>QF</i> <sub>258</sub>	12	8.9 165°25	3°2/ 8.1 18			<b>76149</b>	2000 <i>EY</i> <sub>17</sub>	12	8.9 155°89	6°6/ 10.3 18		
11 7	5 32.16	+16 0.8	1.944	2.784	13.0	20.8	11 7	5 36.74	+41 4.7	2.138	2.935	13.5	19.5
11 17	5 25.14	+15 13.0	1.877	2.790	9.5	20.6	11 17	5 29.00	+42 0.3	2.069	2.940	10.9	19.3
11 27	5 16.07	+14 26.4	1.835	2.795	5.8	20.4	11 27	5 18.50	+42 40.9	2.023	2.944	8.4	19.2
12 7	5 5.83	+13 43.8	1.822	2.799	3.2	20.3	12 7	5 6.29	+43 1.6	2.005	2.948	6.7	19.1
12 17	4 55.49	+13 8.0	1.839	2.802	5.1	20.4	12 17	4 53.74	+42 59.9	2.015	2.952	7.1	19.1
12 27	4 46.18	+12 41.7	1.885	2.805	8.7	20.6	12 27	4 42.38	+42 37.6	2.053	2.955	9.1	19.2
1 6	4 38.79	+12 26.4	1.957	2.807	12.1	20.8	1 6	4 33.43	+42 0.3	2.117	2.958	11.7	19.4
1 16	4 33.86	+12 22.4	2.052	2.808	15.0	21.0	1 16	4 27.59	+41 14.5	2.203	2.961	14.1	19.6
<b>80401</b>	1999 <i>XO</i> <sub>179</sub>	12	8.9 219°53	1°3/ 9.1 18			<b>434495</b>	2005 <i>SV</i> <sub>35</sub>	12	8.9 152°56	0°1/ 8.9 18		
11 7	5 34.29	+25 0.9	1.629	2.475	14.7	19.0	11 7	5 33.98	+22 44.9	1.792	2.635	13.8	21.4
11 17	5 27.42	+25 27.6	1.554	2.471	10.8	18.7	11 17	5 26.77	+22 51.7	1.725	2.642	10.0	21.1
11 27	5 17.70	+25 50.9	1.503	2.467	6.3	18.4	11 27	5 17.13	+22 55.9	1.683	2.648	5.6	20.9
12 7	5 6.14	+26 8.0	1.479	2.462	1.7	18.1	12 7	5 6.05	+22 56.7	1.669	2.654	0.9	20.6
12 17	4 54.15	+26 17.6	1.483	2.457	4.2	18.3	12 17	4 54.79	+22 54.2	1.685	2.659	3.8	20.8
12 27	4 43.31	+26 20.9	1.516	2.452	9.0	18.6	12 27	4 44.67	+22 50.0	1.730	2.664	8.2	21.1
1 6	4 34.90	+26 20.7	1.574	2.446	13.3	18.8	1 6	4 36.74	+22 46.5	1.801	2.668	12.1	21.3
1 16	4 29.69	+26 20.6	1.653	2.440	16.9	19.0	1 16	4 31.65	+22 46.0	1.894	2.672	15.4	21.6
<b>303055</b>	2003 <i>YN</i> <sub>111</sub>	12	8.9 15°71	1°9/ 9.8 17			<b>183582</b>	2003 <i>SM</i> <sub>127</sub>	12	8.9 158°91	0°2/ 8.9 18		
11 7	5 34.19	+32 11.6	1.693	2.529	14.8	19.8	11 7	5 38.39	+24 55.4	1.338	2.190	17.0	20.2
11 17	5 26.98	+31 8.8	1.620	2.530	10.9	19.5	11 17	5 30.49	+24 18.5	1.276	2.196	12.4	20.0
11 27	5 17.19	+29 49.7	1.571	2.531	6.6	19.3	11 27	5 19.38	+23 33.1	1.236	2.202	7.0	19.7
12 7	5 6.01	+28 15.4	1.550	2.532	2.4	19.0	12 7	5 6.43	+22 40.1	1.222	2.206	1.2	19.3
12 17	4 54.87	+26 30.8	1.559	2.533	4.1	19.2	12 17	4 53.38	+21 43.1	1.236	2.211	4.7	19.6
12 27	4 45.19	+24 43.6	1.597	2.534	8.5	19.4	12 27	4 42.05	+20 48.0	1.278	2.214	10.2	19.9
1 6	4 38.01	+23 1.9	1.663	2.536	12.7	19.7	1 6	4 33.74	+20 0.6	1.344	2.217	15.1	20.2
1 16	4 33.87	+21 32.1	1.751	2.537	16.1	19.9	1 16	4 29.08	+19 24.9	1.430	2.219	19.0	20.5
<b>155508</b>	1999 <i>RF</i> <sub>22</sub>	12	8.9 35°32	2°0/ 9.4 18			<b>136401</b>	2004 <i>YV</i> <sub>19</sub>	12	8.9 260°93	3°5/ 8.4 18		
11 7	5 30.33	+27 34.6	1.520	2.375	15.2	19.5	11 7	5 26.76	+11 29.6	2.359	3.195	11.1	20.4
11 17	5 24.30	+27 45.9	1.476	2.396	11.0	19.3	11 17	5 21.14	+11 21.1	2.281	3.189	8.3	20.2
11 27	5 15.72	+27 49.6	1.454	2.418	6.5	19.1	11 27	5 13.83	+11 18.6	2.228	3.182	5.4	20.0
12 7	5 5.77	+27 44.4	1.458	2.441	2.3	18.9	12 7	5 5.50	+11 23.4	2.204	3.175	3.5	19.9
12 17	4 55.86	+27 30.8	1.490	2.464	4.2	19.1	12 17	4 56.95	+11 36.2	2.209	3.169	4.7	19.9
12 27	4 47.40	+27 11.7	1.549	2.488	8.5	19.4	12 27	4 49.06	+11 57.3	2.244	3.162	7.6	20.1
1 6	4 41.42	+26 51.1	1.633	2.513	12.4	19.7	1 6	4 42.58	+12 26.2	2.306	3.155	10.5	20.3
1 16	4 38.43	+26 32.5	1.738	2.538	15.7	20.0	1 16	4 38.06	+13 2.0	2.391	3.148	13.1	20.4
<b>113016</b>	2002 <i>RO</i> <sub>41</sub>	12	8.9 45°97	1°6/ 9.2 18			<b>345047</b>	2005 <i>GC</i> <sub>2</sub>	12	8.9 306°60	4°1/ 8.8 18		
11 7	5 31.55	+26 4.7	1.571	2.423	14.9	19.5	11 7	5 30.63	+11 15.5	1.668	2.513	14.5	20.1
11 17	5 25.28	+26 24.5	1.514	2.433	10.8	19.3	11 17	5 24.55	+11 26.8	1.594	2.507	10.9	19.9
11 27	5 16.36	+26 39.0	1.479	2.444	6.3	19.1	11 27	5 16.01	+11 48.1	1.543	2.500	7.0	19.6
12 7	5 5.90	+26 46.0	1.472	2.455	1.9	18.8	12 7	5 5.89	+12 20.1	1.518	2.493	4.2	19.5
12 17	4 55.27	+26 45.4	1.492	2.466	4.2	19.0	12 17	4 55.38	+13 2.5	1.522	2.487	5.7	19.5
12 27	4 45.97	+26 38.9	1.539	2.477	8.7	19.3	12 27	4 45.81	+13 54.2	1.554	2.481	9.6	19.8
1 6	4 39.10	+26 29.9	1.612	2.489	12.7	19.6	1 6	4 38.31	+14 53.0	1.612	2.475	13.5	20.0
1 16	4 35.31	+26 21.9	1.705	2.501	16.1	19.8	1 16	4 33.59	+15 57.1	1.691	2.469	16.9	20.2
<b>301899</b>	1998 <i>SA</i> <sub>46</sub>	12	8.9 47°33	4°3/ 9.7 18			<b>229638</b>	2006 <i>FN</i> <sub>8</sub>	12	8.9 345°94	4°3/ 7.8 17		
11 7	5 33.63	+32 7.1	1.491	2.336	16.0	20.6	11 7	5 25.89	+12 23.5	2.021	2.867	12.3	20.4
11 17	5 26.97	+32 45.4	1.441	2.352	12.0	20.4	11 17	5 20.67	+11 37.7	1.951	2.864	9.2	20.2
11 27	5 17.35	+33 11.9	1.414	2.370	7.7	20.2	11 27	5 13.61	+10 56.4	1.907	2.861	6.1	20.0
12 7	5 6.06	+33 22.8	1.413	2.387	4.5	20.0	12 7	5 5.47	+10 22.8	1.889	2.859	4.3	19.8
12 17	4 54.68	+33 17.0	1.439	2.406	5.6	20.1	12 17	4 57.16	+9 59.4	1.900	2.857	5.7	19.9
12 27	4 44.89	+32 57.6	1.491	2.424	9.4	20.4	12 27	4 49.68	+9 48.1	1.939	2.855	8.7	20.1
1 6	4 37.88	+32 30.1	1.568	2.443	13.2	20.7	1 6	4 43.83	+9 49.3	2.004	2.853	11.9	20.3
1 16	4 34.25	+32 0.5	1.666	2.462	16.4	20.9	1 16	4 40.16	+10 2.1	2.090	2.852	14.6	20.5
<b>471980</b>	2013 <i>TP</i> <sub>115</sub>	12	8.9 98°23	2°4/ 8.5 17			<b>181477</b>	2006 <i>TN</i> <sub>87</sub>	12	8.9 9°15	0°7/ 8.8 18		
11 7	5 35.17	+18 49.1	1.454	2.306	15.9	21.8	11 7	5 28.90	+22 22.0	1.683	2.538	13.9	20.5
11 17	5 27.66	+18 15.1	1.406	2.326	11.5	21.6	11 17	5 23.22	+21 57.5	1.616	2.538	10.1	20.3
11 27	5 17.55	+17 41.2	1.382	2.346	6.6	21.4	11 27	5 15.17	+21 29.5	1.573	2.539	5.7	20.1
12 7	5 6.07	+17 9.6	1.384	2.366	2.5	21.1	12 7	5 5.74	+20 59.2	1.556	2.541	1.1	19.8
12 17	4 54.69	+16 42.8	1.414	2.385	5.1	21.4	12 17	4 56.14	+20 28.5	1.568	2.542	4.0	20.0
12 27	4 44.86	+16 23.7	1.472	2.403	9.6	21.7	12 27	4 47.66	+20 0.5	1.608	2.545	8.5	20.2
1 6	4 37.62	+16 14.1	1.555	2.422	13.8	22.0	1 6	4 41.32	+19 38.2	1.673	2.547	12.5	20.5
1 16	4 33.49	+16 14.7	1.658	2.439	17.1	22.2	1 16	4 37.72	+19 23.5	1.759	2.550	15.9	20.7
<b>41273</b>	1999 <i>XL</i> <sub>72</sub>	12	8.9 58°44	0°6/ 8.9 18			<b>244824</b>	2003 <i>TV</i> <sub>53</sub>	12	8.9 315°62	1°7/ 9.2 18		
11 7	5 29.43	+19 47.5	2.013	2.858	12.4	18.9	11 7	5 31.98	+25 44.3	1.670	2.519	14.3	20.0
11 17	5 23.26	+20 8.6	1.950	2.868	8.9	18.7	11 17	5 25.70	+26 13.7	1.598	2.516	10.5	19.8
11 27	5 15.07	+20 30.7	1.912	2.877	5.0	18.5	11 27	5 16.72	+26 39.2	1.549	2.513	6.1	19.5
12 7	5 5.69	+20 52.9	1.902	2.887	1.0	18.3	12 7	5 6.02	+26 58.2	1.527	2.510	2.0	19.3
12 17	4 56.14	+21 14.5	1.922	2.896	3.4	18.5	12 17	4 54.94	+27 9.4	1.534	2.507	4.2	19.4
12 27	4 47.53	+21 35.8	1.972	2.906	7.4	18.7	12 27	4 44.97	+27 13.6	1.568	2.505	8.7	19.7
1 6	4 40.72	+21 57.5	2.048	2.916	10.8	19.0	1 6	4 37.31	+27 13.8	1.628	2.502	12.8	19.9
1 16	4 36.30	+22 20.3	2.147	2.926	13.8	19.2	1 16	4 32.70	+27 13.3	1.709	2.500	16.3	20.1
<b>29802</b>	Rikhavshah	12	8.9 315°73	3°3/ 8.4 18			<b>128235</b>	2003 <i>ST</i> <sub>150</sub>	12	8.9 17°95	1°4/ 9.2 18		

EPHEMERIDES

12 8.9

12 9.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>200220</b>	1999 <i>TC</i> <sub>225</sub>		12 8.9 71°02'	3°2'	9.7 18		<b>198636</b>	2005 <i>AM</i> <sub>57</sub>		12 8.9 303°82'	2°9'	8.2 18	
11 7	5 33.22	+30 55.2	1.643	2.484	14.9	20.7	11 7	5 26.20	+15 25.9	2.137	2.983	11.7	20.2
11 17	5 26.54	+31 11.5	1.580	2.492	11.1	20.5	11 17	5 20.92	+14 54.7	2.056	2.972	8.6	20.0
11 27	5 17.11	+31 17.4	1.541	2.499	6.9	20.2	11 27	5 13.79	+14 25.7	2.000	2.961	5.3	19.8
12 7	5 6.07	+31 10.4	1.529	2.507	3.5	20.1	12 7	5 5.53	+14 0.8	1.973	2.950	3.0	19.6
12 17	4 54.87	+30 50.3	1.544	2.514	4.8	20.2	12 17	4 57.03	+13 42.1	1.974	2.939	4.6	19.7
12 27	4 45.03	+30 20.3	1.587	2.522	8.8	20.4	12 27	4 49.26	+13 31.4	2.004	2.928	8.0	19.9
1 6	4 37.71	+29 45.5	1.656	2.530	12.6	20.7	1 6	4 43.06	+13 29.6	2.060	2.918	11.3	20.1
1 16	4 33.55	+29 11.2	1.746	2.537	16.0	20.9	1 16	4 39.01	+13 36.9	2.139	2.907	14.1	20.3
<b>306165</b>	2010 <i>MF</i> <sub>84</sub>		12 8.9 201°53'	2°0'	9.7 18		<b>421960</b>	2014 <i>QZ</i> <sub>269</sub>		12 8.9 82°19'	5°1'	8.0 18	
11 7	5 33.62	+30 31.4	2.209	3.035	12.1	21.2	11 7	5 27.18	+ 8 1.4	2.140	2.973	12.2	20.4
11 17	5 26.26	+30 11.3	2.126	3.031	9.0	21.0	11 17	5 21.42	+ 7 33.2	2.081	2.983	9.4	20.2
11 27	5 16.76	+29 41.1	2.068	3.026	5.5	20.7	11 27	5 13.96	+ 7 13.8	2.048	2.993	6.6	20.0
12 7	5 6.00	+29 0.4	2.040	3.021	2.2	20.5	12 7	5 5.55	+ 7 5.6	2.043	3.003	5.1	20.0
12 17	4 55.10	+28 10.3	2.043	3.014	3.6	20.6	12 17	4 57.06	+ 7 9.8	2.066	3.013	6.1	20.0
12 27	4 45.20	+27 14.4	2.076	3.008	7.2	20.8	12 27	4 49.41	+ 7 26.9	2.117	3.023	8.7	20.2
1 6	4 37.25	+26 17.6	2.137	3.000	10.7	21.0	1 6	4 43.33	+ 7 55.6	2.194	3.033	11.4	20.4
1 16	4 31.82	+25 24.1	2.222	2.993	13.6	21.2	1 16	4 39.32	+ 8 34.1	2.294	3.043	13.9	20.6
<b>203991</b>	2003 <i>SN</i> <sub>319</sub>		12 8.9 97°89'	1°5'	9.3 18		<b>81604</b>	2000 <i>HG</i> <sub>63</sub>		12 8.9 183°56'	1°8'	9.3 18	
11 7	5 33.80	+26 38.3	1.814	2.655	13.7	21.3	11 7	5 31.44	+27 36.2	1.994	2.833	12.7	19.9
11 17	5 26.55	+26 52.1	1.759	2.673	10.0	21.1	11 17	5 24.92	+27 51.6	1.921	2.833	9.4	19.7
11 27	5 16.95	+26 59.9	1.728	2.690	5.8	20.9	11 27	5 16.12	+28 1.0	1.872	2.833	5.6	19.5
12 7	5 6.03	+27 0.1	1.725	2.708	1.8	20.7	12 7	5 5.94	+28 2.8	1.851	2.833	2.1	19.2
12 17	4 55.07	+26 52.8	1.752	2.725	3.8	20.8	12 17	4 55.51	+27 56.6	1.860	2.833	3.7	19.4
12 27	4 45.38	+26 40.1	1.807	2.742	7.9	21.1	12 27	4 46.06	+27 44.0	1.898	2.832	7.6	19.6
1 6	4 37.93	+26 25.4	1.889	2.758	11.5	21.4	1 6	4 38.61	+27 28.3	1.962	2.831	11.2	19.8
1 16	4 33.29	+26 11.9	1.993	2.774	14.6	21.6	1 16	4 33.78	+27 12.7	2.050	2.831	14.3	20.0
<b>179993</b>	2002 <i>XT</i> <sub>81</sub>		12 8.9 20°54'	3°9'	9.9 18		<b>166364</b>	2002 <i>LY</i> <sub>24</sub>		12 8.9 190°91'	1°6'	8.7 18	
11 7	5 29.53	+32 0.5	1.243	2.104	17.4	19.1	11 7	5 30.92	+18 31.2	2.005	2.848	12.5	20.9
11 17	5 24.36	+32 6.8	1.195	2.116	13.0	18.9	11 17	5 24.40	+18 23.1	1.931	2.847	9.1	20.7
11 27	5 16.01	+31 58.8	1.168	2.128	8.2	18.6	11 27	5 15.77	+18 15.8	1.882	2.846	5.3	20.5
12 7	5 5.88	+31 34.5	1.164	2.142	4.3	18.5	12 7	5 5.88	+18 9.8	1.861	2.844	1.8	20.2
12 17	4 55.73	+30 55.1	1.186	2.158	5.6	18.6	12 17	4 55.76	+18 5.9	1.871	2.842	3.9	20.4
12 27	4 47.34	+30 6.1	1.233	2.175	10.0	18.9	12 27	4 46.55	+18 5.5	1.909	2.839	7.9	20.6
1 6	4 41.92	+29 14.5	1.303	2.193	14.3	19.2	1 6	4 39.16	+18 9.7	1.974	2.837	11.5	20.8
1 16	4 40.03	+28 26.3	1.394	2.211	17.9	19.5	1 16	4 34.22	+18 19.4	2.062	2.833	14.5	21.1
<b>521237</b>	2015 <i>HL</i> <sub>189</sub>		12 8.9 324°73'	0°3'	9.1 18		<b>148193</b>	2000 <i>BQ</i> <sub>45</sub>		12 8.9 225°92'	0°7'	9.1 18	
11 7	5 32.28	+25 43.3	1.367	2.226	16.3	20.6	11 7	5 33.52	+25 2.2	1.768	2.612	13.9	21.6
11 17	5 26.19	+25 11.0	1.298	2.222	11.9	20.3	11 17	5 26.69	+25 2.0	1.688	2.604	10.2	21.4
11 27	5 17.06	+24 29.8	1.252	2.219	6.8	20.0	11 27	5 17.24	+24 56.7	1.631	2.595	5.8	21.1
12 7	5 6.08	+23 40.5	1.231	2.215	1.2	19.7	12 7	5 6.15	+24 45.2	1.602	2.587	1.3	20.8
12 17	4 54.85	+22 46.1	1.237	2.212	4.5	19.9	12 17	4 54.68	+24 28.1	1.603	2.577	3.9	20.9
12 27	4 45.06	+21 52.2	1.269	2.209	9.9	20.2	12 27	4 44.27	+24 7.6	1.632	2.567	8.5	21.2
1 6	4 38.02	+21 4.3	1.326	2.206	14.7	20.5	1 6	4 36.08	+23 47.3	1.687	2.557	12.7	21.4
1 16	4 34.42	+20 26.7	1.402	2.204	18.7	20.7	1 16	4 30.85	+23 30.6	1.764	2.546	16.2	21.6
<b>411132</b>	2009 <i>WD</i> <sub>218</sub>		12 8.9 345°85'	8°2'	5.7 17		<b>418392</b>	2008 <i>HT</i> <sub>66</sub>		12 8.9 149°38'	1°0'	8.9 17	
11 7	5 24.01	+ 7 30.8	1.552	2.405	15.0	20.4	11 7	5 44.57	+18 9.5	1.202	2.049	18.8	20.5
11 17	5 19.78	+ 5 41.0	1.484	2.393	11.9	20.2	11 17	5 35.85	+20 7.6	1.135	2.053	13.8	20.2
11 27	5 13.30	+ 3 58.6	1.440	2.381	9.2	20.0	11 27	5 22.98	+22 17.4	1.092	2.057	7.9	19.9
12 7	5 5.44	+ 2 31.8	1.421	2.370	8.3	19.9	12 7	5 7.18	+24 29.3	1.076	2.060	1.6	19.5
12 17	4 57.34	+ 1 27.2	1.429	2.361	9.8	20.0	12 17	4 50.47	+26 32.0	1.089	2.063	5.4	19.8
12 27	4 50.20	+ 0 49.3	1.460	2.353	12.8	20.1	12 27	4 35.27	+28 18.5	1.131	2.065	11.5	20.1
1 6	4 45.03	+ 0 38.0	1.514	2.346	16.0	20.3	1 6	4 23.54	+29 47.5	1.194	2.067	16.8	20.5
1 16	4 42.46	+ 0 50.6	1.585	2.341	18.8	20.5	1 16	4 16.35	+31 2.4	1.284	2.069	21.0	20.8
<b>490956</b>	2011 <i>DG</i> <sub>14</sub>		12 8.9 195°29'	2°5'	8.3 18		<b>148746</b>	2001 <i>TP</i> <sub>139</sub>		12 8.9 181°97'	0°5'	9.1 18	
11 7	5 26.35	+14 42.6	2.694	3.529	9.9	22.5	11 7	5 34.17	+24 10.1	2.095	2.930	12.4	21.1
11 17	5 20.65	+14 23.9	2.617	3.528	7.3	22.4	11 17	5 26.74	+24 17.6	2.019	2.931	9.0	20.9
11 27	5 13.49	+14 8.0	2.567	3.525	4.5	22.2	11 27	5 17.09	+24 21.5	1.969	2.932	5.1	20.6
12 7	5 5.46	+13 55.8	2.547	3.523	2.5	22.0	12 7	5 6.11	+24 20.8	1.947	2.932	1.0	20.3
12 17	4 57.30	+13 48.7	2.556	3.520	3.8	22.1	12 17	4 54.89	+24 15.5	1.957	2.931	3.4	20.5
12 27	4 49.75	+13 47.4	2.597	3.517	6.6	22.3	12 27	4 44.63	+24 7.1	1.997	2.929	7.4	20.8
1 6	4 43.47	+13 52.6	2.664	3.514	9.3	22.5	1 6	4 36.29	+23 58.1	2.064	2.926	11.0	21.0
1 16	4 38.94	+14 4.2	2.756	3.510	11.7	22.6	1 16	4 30.51	+23 51.0	2.154	2.923	14.1	21.2
<b>369733</b>	2012 <i>EK</i> <sub>11</sub>		12 8.9 160°31'	4°7'	7.7 18		<b>138368</b>	2000 <i>GE</i> <sub>140</sub>		12 9.0 119°24'	1°4'	8.7 18	
11 7	5 26.31	+ 7 54.1	2.500	3.327	10.9	21.2	11 7	5 30.68	+18 25.1	2.297	3.134	11.4	20.4
11 17	5 20.64	+ 7 18.0	2.433	3.330	8.4	21.0	11 17	5 23.84	+18 21.4	2.238	3.152	8.2	20.2
11 27	5 13.47	+ 6 49.2	2.392	3.333	6.0	20.9	11 27	5 15.29	+18 18.5	2.206	3.169	4.7	20.0
12 7	5 5.46	+ 6 30.0	2.379	3.336	4.8	20.8	12 7	5 5.79	+18 16.8	2.203	3.186	1.5	19.8
12 17	4 57.34	+ 6 22.0	2.396	3.339	5.7	20.9	12 17	4 56.25	+18 16.7	2.231	3.202	3.4	20.0
12 27	4 49.90	+ 6 26.2	2.442	3.341	8.0	21.0	12 27	4 47.61	+18 19.2	2.290	3.218	6.8	20.2
1 6	4 43.80	+ 6 42.0	2.514	3.344	10.4	21.2	1 6	4 40.61	+18 25.2	2.375	3.233	9.9	20.5
1 16	4 39.51	+ 7 8.1	2.609	3.345	12.7	21.4	1 16	4 35.75	+18 35.4	2.485	3.248	12.5	20.7
<b>52258</b>	1981 <i>EE</i> <sub>44</sub>		12 8.9 3°73'	4°3'	7.9 18		<b>144382</b>	2004 <i>DZ</i> <sub>62</sub>		12 9.0 92°30'	2°7'	8.5 18	