

EPHEMERIDES

2 17.9

2 18.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
94902	2001 YX ₁₈		2 17.9	30°13	3°0/16.2	18	464224	2015 BP ₂₄₂		2 17.9	299°53	2°5/20.2	17
1 12	10 30.19	+16 14.6	1.315	2.144	18.1	19.8	1 12	10 25.17	+ 2 31.1	2.064	2.831	14.6	21.2
1 22	10 26.39	+16 49.7	1.248	2.149	13.9	19.5	1 22	10 21.44	+ 2 38.2	1.972	2.830	11.7	20.9
2 1	10 19.34	+17 35.4	1.202	2.154	9.0	19.3	2 1	10 15.62	+ 3 1.8	1.902	2.829	8.3	20.7
2 11	10 9.91	+18 23.6	1.180	2.160	4.2	19.0	2 11	10 8.27	+ 3 40.3	1.858	2.828	4.7	20.5
2 21	9 59.42	+19 5.3	1.184	2.166	4.1	19.0	2 21	10 0.17	+ 4 29.8	1.843	2.826	2.6	20.4
3 2	9 49.47	+19 32.8	1.213	2.172	8.8	19.3	3 2	9 52.24	+ 5 25.1	1.856	2.825	5.2	20.5
3 12	9 41.56	+19 42.1	1.266	2.179	13.6	19.6	3 12	9 45.42	+ 6 20.2	1.897	2.824	8.9	20.7
3 22	9 36.60	+19 32.7	1.340	2.186	17.7	19.9	3 22	9 40.41	+ 7 10.0	1.963	2.823	12.3	21.0
416886	2005 QX ₈₂		2 17.9	168°48	2°2/20.3	17	281589	2008 UH ₁₄₅		2 17.9	214°15	1°5/16.6	17
1 12	10 26.61	+ 1 34.3	2.314	3.067	13.6	22.1	1 12	10 26.44	+13 53.8	2.188	2.988	12.8	21.5
1 22	10 22.27	+ 2 1.4	2.222	3.071	10.9	22.0	1 22	10 22.32	+14 31.5	2.101	2.986	9.8	21.3
2 1	10 16.02	+ 2 45.3	2.152	3.075	7.7	21.8	2 1	10 16.15	+15 18.0	2.038	2.985	6.3	21.1
2 11	10 8.38	+ 3 43.5	2.110	3.078	4.3	21.5	2 11	10 8.48	+16 8.6	2.003	2.983	2.7	20.9
2 21	10 0.07	+ 4 51.9	2.097	3.081	2.2	21.4	2 21	10 0.09	+16 57.7	1.997	2.981	2.3	20.8
3 2	9 51.93	+ 6 4.9	2.115	3.083	4.8	21.6	3 2	9 51.91	+17 39.9	2.021	2.979	5.9	21.1
3 12	9 44.82	+ 7 16.3	2.161	3.084	8.2	21.8	3 12	9 44.85	+18 11.3	2.072	2.977	9.5	21.3
3 22	9 39.35	+ 8 21.0	2.235	3.085	11.4	22.0	3 22	9 39.58	+18 29.8	2.147	2.975	12.6	21.5
55914	1998 FV ₁₄		2 17.9	264°94	3°2/21.4	18	241344	2007 WT ₆		2 17.9	120°43	4°1/13.9	18
1 12	10 23.15	- 1 10.6	2.591	3.331	12.7	19.9	1 12	10 28.52	+23 38.5	2.413	3.222	11.5	20.9
1 22	10 19.55	- 1 2.1	2.480	3.316	10.4	19.7	1 22	10 23.71	+24 26.0	2.341	3.228	8.9	20.7
2 1	10 14.24	- 0 37.6	2.391	3.301	7.7	19.5	2 1	10 16.92	+25 14.4	2.294	3.234	6.2	20.5
2 11	10 7.65	+ 0 2.0	2.328	3.287	4.9	19.3	2 11	10 8.75	+25 57.7	2.274	3.241	4.2	20.4
2 21	10 0.38	+ 0 54.1	2.294	3.271	3.2	19.2	2 21	9 59.99	+26 30.6	2.285	3.247	4.8	20.5
3 2	9 53.16	+ 1 54.7	2.291	3.256	4.7	19.3	3 2	9 51.54	+26 49.4	2.324	3.253	7.2	20.6
3 12	9 46.73	+ 2 58.7	2.316	3.241	7.6	19.4	3 12	9 44.26	+26 52.2	2.390	3.258	9.9	20.8
3 22	9 41.71	+ 4 1.0	2.367	3.225	10.5	19.6	3 22	9 38.76	+26 39.6	2.479	3.264	12.4	21.0
59734	1999 LT ₂		2 17.9	349°71	4°8/14.8	18	45732	2000 GL ₁₃₆		2 17.9	214°11	2°7/14.9	18
1 12	10 23.91	+17 35.9	1.144	1.994	18.8	18.4	1 12	10 25.16	+17 33.2	2.467	3.271	11.4	18.8
1 22	10 22.14	+18 43.8	1.074	1.987	14.5	18.1	1 22	10 21.19	+18 37.0	2.379	3.268	8.7	18.6
2 1	10 16.92	+20 5.3	1.025	1.981	9.6	17.8	2 1	10 15.34	+19 47.4	2.317	3.263	5.7	18.4
2 11	10 9.02	+21 29.7	0.997	1.975	5.3	17.5	2 11	10 8.13	+20 58.8	2.283	3.259	3.1	18.3
2 21	9 59.78	+22 44.0	0.994	1.971	6.1	17.5	2 21	10 0.24	+22 5.2	2.280	3.254	3.5	18.3
3 2	9 50.94	+23 37.0	1.015	1.969	10.9	17.8	3 2	9 52.50	+23 1.1	2.306	3.250	6.4	18.5
3 12	9 44.19	+24 2.4	1.056	1.967	15.8	18.1	3 12	9 45.73	+23 42.9	2.361	3.245	9.4	18.6
3 22	9 40.60	+24 0.0	1.117	1.967	20.2	18.3	3 22	9 40.57	+24 8.9	2.439	3.239	12.1	18.8
52139	6192 P-L		2 17.9	256°20	2°5/20.5	18	381252	2007 TK ₁₂₄		2 18.0	335°35	7°3/11.4	18
1 12	10 23.63	+ 1 16.6	2.341	3.098	13.4	19.5	1 12	10 30.08	+31 29.0	2.043	2.859	13.0	19.9
1 22	10 20.06	+ 1 34.4	2.239	3.090	10.8	19.3	1 22	10 25.52	+32 34.8	1.972	2.855	10.5	19.7
2 1	10 14.63	+ 2 8.7	2.161	3.083	7.7	19.1	2 1	10 18.41	+33 36.3	1.926	2.851	8.3	19.6
2 11	10 7.83	+ 2 57.6	2.108	3.075	4.4	18.8	2 11	10 9.46	+34 25.1	1.905	2.847	7.3	19.5
2 21	10 0.32	+ 3 57.8	2.084	3.067	2.5	18.7	2 21	9 59.70	+34 53.9	1.912	2.843	8.2	19.5
3 2	9 52.91	+ 5 4.0	2.091	3.059	4.8	18.8	3 2	9 50.31	+34 58.7	1.945	2.840	10.4	19.7
3 12	9 46.43	+ 6 10.6	2.125	3.051	8.1	19.0	3 12	9 42.45	+34 39.0	2.002	2.837	13.0	19.8
3 22	9 41.51	+ 7 12.3	2.186	3.043	11.3	19.2	3 22	9 36.87	+33 57.6	2.080	2.834	15.4	20.0
229028	2004 CZ ₃		2 17.9	113°96	1°3/17.2	18	229958	1999 RD ₄₃		2 18.0	140°20	3°9/14.7	18
1 12	10 35.08	+13 3.9	1.471	2.277	17.7	20.4	1 12	10 35.56	+19 23.8	1.990	2.789	14.0	21.8
1 22	10 29.71	+13 28.6	1.404	2.292	13.6	20.2	1 22	10 29.42	+20 37.2	1.923	2.808	10.7	21.6
2 1	10 21.28	+14 5.2	1.359	2.306	8.8	20.0	2 1	10 20.80	+21 56.0	1.882	2.825	7.1	21.5
2 11	10 10.66	+14 47.4	1.339	2.319	3.6	19.7	2 11	10 10.42	+23 12.1	1.869	2.841	4.2	21.3
2 21	9 59.14	+15 27.7	1.346	2.332	2.5	19.7	2 21	9 59.30	+24 17.3	1.887	2.857	4.7	21.4
3 2	9 48.21	+15 59.3	1.382	2.344	7.5	20.0	3 2	9 48.63	+25 5.7	1.934	2.870	7.9	21.6
3 12	9 39.23	+16 17.6	1.443	2.356	12.2	20.3	3 12	9 39.50	+25 34.4	2.008	2.883	11.2	21.8
3 22	9 33.08	+16 21.3	1.526	2.368	16.1	20.6	3 22	9 32.66	+25 43.7	2.106	2.894	14.2	22.0
133188	2003 QW ₅₃		2 17.9	212°53	1°5/16.8	18	172963	2005 MY ₁₄		2 18.0	88°20	3°8/21.3	17
1 12	10 30.86	+13 23.3	2.049	2.843	13.8	20.8	1 12	10 26.97	- 0 20.3	2.455	3.194	13.3	19.9
1 22	10 25.95	+14 3.0	1.953	2.835	10.6	20.6	1 22	10 22.44	- 0 49.1	2.361	3.196	10.9	19.8
2 1	10 18.66	+14 53.1	1.882	2.827	6.9	20.3	2 1	10 16.10	- 1 4.3	2.289	3.198	8.1	19.6
2 11	10 9.58	+15 48.4	1.839	2.818	2.9	20.1	2 11	10 8.44	- 1 6.0	2.245	3.199	5.3	19.4
2 21	9 59.57	+16 42.7	1.825	2.809	2.4	20.0	2 21	10 0.14	- 0 55.5	2.228	3.201	3.8	19.3
3 2	9 49.71	+17 29.7	1.841	2.799	6.4	20.2	3 2	9 52.01	- 0 35.7	2.242	3.203	5.2	19.4
3 12	9 41.09	+18 4.9	1.884	2.788	10.4	20.5	3 12	9 44.84	- 0 10.5	2.284	3.205	7.9	19.6
3 22	9 34.50	+18 25.9	1.952	2.776	13.8	20.7	3 22	9 39.23	+ 0 16.2	2.352	3.207	10.7	19.8
282135	2001 QJ ₁₃₂		2 17.9	191°61	2°6/19.9	18	399552	2003 RM ₂₃		2 18.0	183°29	5°5/22.4	18
1 12	10 31.71	+ 3 39.6	1.812	2.581	16.3	21.0	1 12	10 30.32	- 4 29.8	2.061	2.785	16.0	21.4
1 22	10 26.80	+ 3 35.9	1.720	2.580	13.1	20.8	1 22	10 25.44	- 4 57.2	1.966	2.785	13.4	21.2
2 1	10 19.31	+ 3 49.1	1.650	2.578	9.2	20.6	2 1	10 18.28	- 5 5.3	1.891	2.786	10.3	21.0
2 11	10 9.88	+ 4 17.6	1.605	2.576	5.0	20.3	2 11	10 9.43	- 4 53.1	1.841	2.785	7.3	20.8
2 21	9 59.45	+ 4 57.5	1.589	2.573	2.7	20.1	2 21	9 59.70	- 4 22.0	1.819	2.784	5.5	20.7
3 2	9 49.23	+ 5 43.4	1.601	2.569	6.0	20.3	3 2	9 50.12	- 3 35.8	1.826	2.782	6.6	20.7
3 12	9 40.40	+ 6 29.0	1.641	2.565	10.2	20.6	3 12	9 41.73	- 2 40.5	1.860	2.780	9.5	20.9
3 22	9 33.80	+ 7 8.9	1.705	2.560	14.1	20.8	3 22	9 35.28	- 1 42.6	1.920	2.777	12.7	21.1
437738	2014 EV ₁₉		2 17.9	208°12	2°6/15.2	17	56590	2000 JY ₃₅		2 18.0	260°31	0°3/17.8	18 R

EPHEMERIDES

2 18.0

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
415969	2001 <i>XJ</i> ₂₂₁		2 18.0 115°28	5°1/22.7	18		413156	2002 <i>GS</i> ₄₅		2 18.0 262°32	10°3/27.2	17	
1 12	10 28.83	− 5 8.3	2.203	2.921	15.2	21.7	1 12	10 26.47	−18 4.1	2.019	2.666	18.4	21.4
1 22	10 23.97	− 5 25.6	2.123	2.939	12.7	21.5	1 22	10 22.92	−18 42.4	1.902	2.644	16.6	21.2
2 1	10 17.12	− 5 23.5	2.065	2.956	9.7	21.4	2 1	10 16.95	−18 52.9	1.801	2.622	14.4	21.0
2 11	10 8.86	− 5 2.1	2.032	2.973	6.9	21.2	2 11	10 9.01	−18 30.6	1.720	2.598	12.2	20.8
2 21	9 59.98	− 4 23.5	2.026	2.990	5.1	21.1	2 21	9 59.89	−17 33.1	1.663	2.574	10.6	20.6
3 2	9 51.40	− 3 31.8	2.050	3.006	6.0	21.2	3 2	9 50.64	−16 2.1	1.631	2.550	10.4	20.6
3 12	9 43.97	− 2 33.1	2.102	3.021	8.6	21.4	3 12	9 42.44	−14 4.6	1.625	2.525	11.9	20.6
3 22	9 38.32	− 1 33.4	2.180	3.036	11.4	21.6	3 22	9 36.22	−11 51.1	1.643	2.499	14.4	20.7
457603	2009 <i>BH</i> ₄₀		2 18.0 118°24	0°5/18.4	18		348247	2004 <i>TS</i> ₇		2 18.0 141°55	3°1/14.7	18	
1 12	10 30.39	+ 7 48.6	1.698	2.488	16.4	21.7	1 12	10 29.24	+19 48.1	2.565	3.364	11.2	21.8
1 22	10 25.77	+ 8 17.5	1.624	2.501	12.7	21.5	1 22	10 24.11	+20 45.8	2.492	3.377	8.5	21.6
2 1	10 18.58	+ 9 2.4	1.573	2.514	8.4	21.3	2 1	10 17.13	+21 47.1	2.446	3.390	5.7	21.4
2 11	10 9.54	+ 9 58.6	1.547	2.526	3.7	21.0	2 11	10 8.87	+22 46.3	2.429	3.402	3.3	21.3
2 21	9 59.70	+10 59.5	1.550	2.537	1.4	20.9	2 21	10 0.04	+23 38.0	2.443	3.413	3.8	21.4
3 2	9 50.25	+11 58.1	1.581	2.548	6.1	21.2	3 2	9 51.50	+24 17.8	2.487	3.424	6.3	21.5
3 12	9 42.34	+12 47.9	1.639	2.559	10.5	21.5	3 12	9 44.03	+24 43.2	2.559	3.434	9.1	21.7
3 22	9 36.75	+13 25.2	1.721	2.569	14.3	21.7	3 22	9 38.22	+24 53.8	2.655	3.443	11.6	21.9
208257	2000 <i>VW</i> ₅₇		2 18.0 115°60	7°1/12.3	18		231571	2008 <i>UP</i> ₃		2 18.0 74°15	0°4/17.6	18	
1 12	10 36.66	+28 56.0	1.856	2.666	14.4	20.2	1 12	10 26.08	+10 27.1	2.024	2.820	13.9	21.1
1 22	10 30.52	+30 16.7	1.804	2.686	11.4	20.0	1 22	10 22.12	+11 1.4	1.946	2.828	10.7	20.9
2 1	10 21.60	+31 33.8	1.777	2.706	8.6	19.9	2 1	10 16.05	+11 47.3	1.893	2.837	6.9	20.7
2 11	10 10.76	+32 37.5	1.776	2.725	7.1	19.8	2 11	10 8.47	+12 40.5	1.866	2.846	2.9	20.4
2 21	9 59.21	+33 19.7	1.804	2.743	8.0	19.9	2 21	10 0.22	+13 35.2	1.868	2.855	1.5	20.3
3 2	9 48.31	+33 36.0	1.859	2.760	10.4	20.1	3 2	9 52.26	+14 25.6	1.899	2.863	5.6	20.6
3 12	9 39.28	+33 26.8	1.938	2.777	13.2	20.3	3 12	9 45.52	+15 6.9	1.957	2.872	9.4	20.9
3 22	9 32.85	+32 55.6	2.038	2.793	15.7	20.5	3 22	9 40.66	+15 36.3	2.040	2.881	12.7	21.1
266888	2009 <i>WU</i> ₄₅		2 18.0 219°83	0°8/17.4	18		500282	2012 <i>PP</i> ₁₃		2 18.0 58°51	0°9/18.7	18	
1 12	10 28.71	+12 16.8	2.043	2.838	13.8	21.1	1 12	10 28.11	+ 8 41.7	2.144	2.927	13.6	20.9
1 22	10 24.23	+12 41.1	1.952	2.834	10.6	20.9	1 22	10 23.54	+ 8 37.9	2.061	2.933	10.6	20.7
2 1	10 17.50	+13 15.5	1.885	2.830	6.9	20.7	2 1	10 16.91	+ 8 44.6	2.001	2.939	7.1	20.5
2 11	10 9.10	+13 55.7	1.845	2.825	2.9	20.4	2 11	10 8.82	+ 8 59.2	1.968	2.945	3.3	20.2
2 21	9 59.88	+14 36.3	1.834	2.820	1.8	20.3	2 21	10 0.08	+ 9 18.2	1.965	2.952	1.3	20.1
3 2	9 50.86	+15 12.1	1.852	2.815	5.9	20.6	3 2	9 51.62	+ 9 37.6	1.991	2.959	5.0	20.4
3 12	9 43.06	+15 38.7	1.898	2.810	9.8	20.8	3 12	9 44.33	+ 9 53.9	2.044	2.965	8.7	20.6
3 22	9 37.22	+15 53.7	1.968	2.804	13.3	21.0	3 22	9 38.87	+10 4.2	2.123	2.972	11.9	20.8
506358	2017 <i>QK</i> ₄		2 18.0 226°53	1°8/19.5	17		376161	2011 <i>BU</i> ₁₀₅		2 18.0 128°06	1°1/18.9	18	
1 12	10 27.49	+ 5 7.6	2.114	2.886	14.2	21.9	1 12	10 28.31	+ 6 55.3	2.090	2.868	14.1	21.8
1 22	10 23.22	+ 5 11.8	2.017	2.881	11.2	21.7	1 22	10 23.75	+ 7 6.2	2.007	2.875	11.1	21.6
2 1	10 16.81	+ 5 30.0	1.944	2.875	7.8	21.5	2 1	10 17.08	+ 7 30.2	1.947	2.883	7.5	21.4
2 11	10 8.81	+ 6 0.2	1.897	2.870	4.0	21.2	2 11	10 8.91	+ 8 4.1	1.914	2.890	3.5	21.2
2 21	10 0.00	+ 6 38.7	1.878	2.864	1.9	21.1	2 21	10 0.04	+ 8 43.9	1.910	2.897	1.4	21.0
3 2	9 51.34	+ 7 20.8	1.889	2.858	5.2	21.3	3 2	9 51.45	+ 9 24.5	1.936	2.904	5.1	21.3
3 12	9 43.79	+ 8 1.4	1.928	2.851	9.0	21.5	3 12	9 44.05	+10 1.2	1.990	2.911	8.9	21.5
3 22	9 38.08	+ 8 36.1	1.992	2.845	12.4	21.7	3 22	9 38.53	+10 30.4	2.068	2.917	12.2	21.7
132032	2002 <i>CO</i> ₁₂₃		2 18.0 287°55	0°1/17.9	16		404149	2013 <i>CR</i> ₃₀		2 18.0 281°23	3°8/14.9	18	
1 12	10 26.88	+ 8 44.6	1.547	2.353	17.0	20.2	1 12	10 27.09	+15 44.5	1.483	2.309	16.6	21.5
1 22	10 23.76	+ 9 17.7	1.445	2.332	13.4	19.9	1 22	10 24.00	+17 5.7	1.398	2.298	12.8	21.2
2 1	10 17.76	+10 9.9	1.364	2.310	8.9	19.6	2 1	10 17.92	+18 42.2	1.336	2.287	8.4	20.9
2 11	10 9.41	+11 16.9	1.308	2.288	3.8	19.2	2 11	10 9.47	+20 24.7	1.299	2.277	4.4	20.6
2 21	9 59.69	+12 31.4	1.279	2.267	1.7	19.0	2 21	9 59.75	+22 1.6	1.288	2.266	5.0	20.6
3 2	9 49.95	+13 44.5	1.277	2.245	7.2	19.3	3 2	9 50.18	+23 22.0	1.305	2.255	9.5	20.9
3 12	9 41.62	+14 47.5	1.301	2.223	12.5	19.5	3 12	9 42.25	+24 18.6	1.346	2.244	14.0	21.1
3 22	9 35.81	+15 34.6	1.346	2.202	17.1	19.8	3 22	9 36.99	+24 49.1	1.407	2.233	18.1	21.3
150724	2001 <i>QB</i> ₃₂		2 18.0 77°54	1°6/19.5	18		374166	2004 <i>VX</i> ₄₆		2 18.0 207°88	4°2/13.6	18	
1 12	10 27.59	+ 3 0.5	1.795	2.570	16.2	20.0	1 12	10 28.45	+22 36.8	2.355	3.163	11.8	20.9
1 22	10 23.34	+ 3 48.9	1.732	2.597	12.7	19.8	1 22	10 23.88	+23 42.7	2.271	3.159	9.1	20.7
2 1	10 16.82	+ 4 57.1	1.691	2.624	8.6	19.6	2 1	10 17.20	+24 51.9	2.212	3.154	6.3	20.5
2 11	10 8.76	+ 6 20.2	1.677	2.651	4.3	19.4	2 11	10 8.98	+25 57.5	2.182	3.148	4.4	20.4
2 21	10 0.08	+ 7 51.0	1.691	2.677	1.7	19.3	2 21	10 0.00	+26 53.0	2.181	3.143	5.1	20.4
3 2	9 51.86	+ 9 21.3	1.734	2.703	5.5	19.6	3 2	9 51.21	+27 33.3	2.210	3.136	7.7	20.6
3 12	9 45.06	+10 43.5	1.805	2.729	9.5	19.9	3 12	9 43.54	+27 55.7	2.265	3.130	10.5	20.7
3 22	9 40.33	+11 52.5	1.902	2.754	12.9	20.2	3 22	9 37.70	+28 0.0	2.343	3.123	13.2	20.9
380447	2003 <i>SO</i> ₃₁₂		2 18.0 199°30	1°3/19.2	18		455450	2003 <i>SH</i> ₂₄₅		2 18.0 143°28	1°2/17.1	18	
1 12	10 29.11	+ 6 51.6	2.582	3.346	12.1	21.6	1 12	10 32.04	+12 56.7	2.034	2.825	14.0	22.6
1 22	10 24.03	+ 6 50.4	2.482	3.342	9.5	21.4	1 22	10 26.66	+13 30.7	1.957	2.837	10.7	22.4
2 1	10 17.12	+ 6 59.3	2.407	3.338	6.5	21.2	2 1	10 19.00	+14 14.1	1.904	2.848	6.9	22.2
2 11	10 8.89	+ 7 16.2	2.359	3.334	3.2	21.0	2 11	10 9.71	+15 1.9	1.879	2.859	2.9	21.9
2 21	10 0.00	+ 7 38.4	2.342	3.329	1.4	20.9	2 21	9 59.72	+15 48.3	1.884	2.869	2.1	21.9
3 2	9 51.25	+ 8 2.5	2.356	3.323	4.5	21.1	3 2	9 50.08	+16 27.7	1.918	2.878	6.0	22.2
3 12	9 43.44	+ 8 24.9	2.400	3.317	7.8	21.3	3 12	9 41.79	+16 56.2	1.981	2.886	9.8	22.4
3 22	9 37.18	+ 8 42.9	2.469	3.311	10.7	21.4	3 22	9 35.57	+17 12.1	2.068	2.894	13.1	22.6
387058	2012 <i>TB</i> ₃₇		2 18.0 310°06	3°1/21.1	17		468828	2012 <i>TS</i> ₁₁₈		2 18.0 180°14	3°7/21.8		

EPHEMERIDES

2 18.0

2 18.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
343096	2009 <i>DH</i> ₄₁		2 18.0	12°81'	0°5'/18.4	18	284814	2008 <i>YE</i> ₁₅₂		2 18.0	226°04'	1°3'/16.7	17
1 12	10 26.03	+ 9 24.7	1.994	2.788	14.1	20.5	1 12	10 25.61	+13 45.1	2.543	3.336	11.4	21.5
1 22	10 22.15	+ 9 31.2	1.911	2.790	11.0	20.3	1 22	10 21.47	+14 22.7	2.448	3.330	8.8	21.4
2 1	10 16.11	+ 9 49.0	1.850	2.792	7.3	20.1	2 1	10 15.52	+15 8.3	2.378	3.323	5.7	21.1
2 11	10 8.53	+10 15.0	1.816	2.794	3.2	19.8	2 11	10 8.27	+15 57.6	2.337	3.317	2.4	20.9
2 21	10 0.22	+10 44.9	1.810	2.797	1.2	19.7	2 21	10 0.36	+16 45.9	2.326	3.310	2.0	20.9
3 2	9 52.18	+11 13.9	1.833	2.801	5.4	20.0	3 2	9 52.59	+17 28.6	2.345	3.302	5.3	21.1
3 12	9 45.35	+11 37.8	1.883	2.804	9.3	20.2	3 12	9 45.74	+18 2.1	2.392	3.295	8.5	21.3
3 22	9 40.42	+11 53.5	1.957	2.809	12.7	20.4	3 22	9 40.43	+18 24.2	2.464	3.287	11.3	21.4
93102	Leroy		2 18.0	140°58'	4°2'/14.9	18	495041	2010 <i>WM</i> ₅₄		2 18.0	164°86'	6°1'/12.1	18
1 12	10 33.86	+20 23.8	1.760	2.571	15.0	19.4	1 12	10 32.75	+28 12.9	2.201	3.009	12.5	22.1
1 22	10 28.50	+21 17.7	1.690	2.580	11.5	19.2	1 22	10 27.33	+29 28.4	2.133	3.014	9.9	22.0
2 1	10 20.41	+22 16.3	1.644	2.589	7.7	19.0	2 1	10 19.51	+30 42.5	2.089	3.019	7.4	21.8
2 11	10 10.36	+23 11.7	1.624	2.597	4.6	18.8	2 11	10 9.97	+31 46.7	2.074	3.023	6.1	21.8
2 21	9 59.46	+23 55.8	1.633	2.605	5.1	18.9	2 21	9 59.66	+32 34.0	2.087	3.027	7.0	21.8
3 2	9 49.02	+24 22.9	1.670	2.612	8.5	19.1	3 2	9 49.70	+32 59.9	2.128	3.029	9.3	22.0
3 12	9 40.27	+24 30.3	1.733	2.618	12.2	19.3	3 12	9 41.16	+33 3.0	2.194	3.032	11.9	22.1
3 22	9 34.01	+24 19.1	1.818	2.624	15.4	19.5	3 22	9 34.77	+32 45.4	2.283	3.033	14.3	22.3
30933	Grillparzer		2 18.0	232°72'	2°4'/15.8	18	492472	2014 <i>NB</i> ₃₁		2 18.0	185°55'	2°4'/19.9	18
1 12	10 28.81	+15 57.0	2.107	2.910	13.2	19.2	1 12	10 30.08	+ 3 18.4	1.947	2.712	15.5	22.4
1 22	10 24.38	+16 48.0	2.012	2.899	10.1	19.0	1 22	10 25.39	+ 3 26.1	1.854	2.712	12.4	22.1
2 1	10 17.68	+17 47.9	1.941	2.888	6.6	18.7	2 1	10 18.34	+ 3 50.8	1.784	2.712	8.7	21.9
2 11	10 9.24	+18 50.7	1.898	2.876	3.2	18.5	2 11	10 9.53	+ 4 30.4	1.740	2.711	4.7	21.7
2 21	9 59.90	+19 50.0	1.884	2.864	3.3	18.5	2 21	9 59.84	+ 5 20.9	1.724	2.709	2.4	21.5
3 2	9 50.68	+20 39.3	1.900	2.852	6.8	18.7	3 2	9 50.33	+ 6 16.4	1.738	2.707	5.6	21.7
3 12	9 42.63	+21 14.3	1.943	2.838	10.5	18.9	3 12	9 42.09	+ 7 10.7	1.780	2.704	9.6	21.9
3 22	9 36.53	+21 33.1	2.010	2.825	13.8	19.1	3 22	9 35.89	+ 7 58.6	1.847	2.700	13.2	22.2
59526	1999 <i>JS</i> ₂₃		2 18.0	195°27'	3°4'/21.4	18	340553	2006 <i>KP</i> ₄₈		2 18.0	238°99'	1°8'/16.2	17
1 12	10 26.71	- 1 21.4	2.482	3.216	13.3	19.5	1 12	10 26.31	+15 2.7	2.483	3.279	11.6	21.8
1 22	10 22.31	- 1 17.1	2.381	3.214	10.9	19.3	1 22	10 22.12	+15 48.1	2.384	3.268	8.9	21.6
2 1	10 16.08	- 0 56.4	2.302	3.211	8.0	19.1	2 1	10 16.02	+16 41.3	2.310	3.256	5.8	21.3
2 11	10 8.50	- 0 20.4	2.250	3.207	5.1	18.9	2 11	10 8.51	+17 37.8	2.265	3.244	2.6	21.1
2 21	10 0.23	+ 0 28.4	2.227	3.203	3.4	18.8	2 21	10 0.28	+18 32.2	2.249	3.231	2.5	21.1
3 2	9 52.08	+ 1 25.7	2.234	3.198	4.9	18.9	3 2	9 52.14	+19 19.4	2.264	3.218	5.7	21.3
3 12	9 44.84	+ 2 26.3	2.270	3.193	7.9	19.1	3 12	9 44.94	+19 55.5	2.308	3.205	9.0	21.5
3 22	9 39.15	+ 3 25.0	2.333	3.187	10.8	19.2	3 22	9 39.34	+20 18.7	2.375	3.191	11.9	21.6
520956	2014 <i>YD</i> ₅₉		2 18.0	106°46'	3°6'/14.7	18	477386	2009 <i>VU</i> ₂₅		2 18.0	30°06'	25°8'/16.6	18
1 12	10 27.88	+19 31.6	2.023	2.837	13.3	21.8	1 12	10 25.03	-35 20.1	1.062	1.671	33.7	21.2
1 22	10 23.62	+20 30.0	1.950	2.842	10.1	21.6	1 22	10 23.96	-38 24.5	1.011	1.675	32.4	21.0
2 1	10 17.10	+21 33.6	1.900	2.847	6.7	21.4	2 1	10 18.80	-40 41.1	0.966	1.679	31.0	20.9
2 11	10 8.94	+22 35.8	1.878	2.852	3.9	21.2	2 11	10 10.17	-41 55.5	0.929	1.685	29.4	20.8
2 21	10 0.06	+23 29.4	1.884	2.856	4.5	21.2	2 21	9 59.48	-41 56.4	0.899	1.690	27.8	20.6
3 2	9 51.48	+24 8.8	1.919	2.861	7.6	21.4	3 2	9 48.94	-40 38.2	0.880	1.697	26.6	20.6
3 12	9 44.22	+24 31.0	1.981	2.866	10.9	21.7	3 12	9 40.87	-38 6.9	0.874	1.704	25.9	20.5
3 22	9 38.98	+24 35.4	2.065	2.870	13.8	21.9	3 22	9 36.84	-34 38.9	0.880	1.711	25.9	20.6
29869	Chiarabara		2 18.0	188°48'	5°4'/13.0	18	378813	2008 <i>SC</i> ₂₁₅		2 18.0	81°04'	0°8'/17.4	17
1 12	10 31.38	+28 22.7	2.390	3.196	11.7	18.1	1 12	10 27.44	+12 3.9	2.020	2.818	13.8	21.6
1 22	10 26.04	+29 7.4	2.314	3.196	9.2	18.0	1 22	10 23.20	+12 30.6	1.941	2.825	10.6	21.4
2 1	10 18.54	+29 49.6	2.264	3.195	6.8	17.8	2 1	10 16.79	+13 7.5	1.886	2.831	6.9	21.2
2 11	10 9.51	+30 22.8	2.241	3.195	5.4	17.7	2 11	10 8.83	+13 49.9	1.857	2.838	2.8	20.9
2 21	9 59.83	+30 41.6	2.247	3.194	6.1	17.8	2 21	10 0.18	+14 32.5	1.858	2.844	1.7	20.8
3 2	9 50.49	+30 42.5	2.282	3.194	8.3	17.9	3 2	9 51.82	+15 10.1	1.887	2.851	5.8	21.1
3 12	9 42.44	+30 25.1	2.343	3.193	10.8	18.0	3 12	9 44.71	+15 38.4	1.944	2.857	9.5	21.4
3 22	9 36.35	+29 50.8	2.426	3.192	13.2	18.2	3 22	9 39.53	+15 55.1	2.025	2.864	12.8	21.6
33384	Jacyfang		2 18.0	212°57'	0°7'/17.5	18	29800	Valeriesarge		2 18.0	135°09'	1°2'/17.2	18
1 12	10 32.67	+12 4.8	1.942	2.732	14.6	19.3	1 12	10 34.56	+13 27.0	1.714	2.512	15.9	18.6
1 22	10 27.48	+12 26.5	1.847	2.725	11.3	19.1	1 22	10 29.01	+13 46.8	1.639	2.522	12.3	18.4
2 1	10 19.76	+12 58.9	1.774	2.718	7.4	18.9	2 1	10 20.75	+14 16.4	1.587	2.533	8.0	18.2
2 11	10 10.14	+13 37.6	1.729	2.709	3.1	18.6	2 11	10 10.53	+14 50.5	1.562	2.542	3.3	17.9
2 21	9 59.53	+14 17.0	1.714	2.700	1.8	18.4	2 21	9 59.47	+15 22.9	1.566	2.551	2.2	17.9
3 2	9 49.09	+14 51.5	1.728	2.690	6.3	18.7	3 2	9 48.86	+15 48.0	1.598	2.560	6.8	18.2
3 12	9 39.98	+15 16.4	1.769	2.680	10.5	18.9	3 12	9 39.93	+16 1.9	1.657	2.568	11.1	18.4
3 22	9 33.04	+15 29.4	1.835	2.669	14.2	19.2	3 22	9 33.47	+16 3.2	1.740	2.575	14.7	18.7
7842	Ishitsuka		2 18.0	142°09'	1°8'/19.6	18	368268	2002 <i>CK</i> ₆₈		2 18.0	37°57'	0°3'/18.2	18
1 12	10 30.58	+ 3 44.3	1.912	2.679	15.6	18.7	1 12	10 30.64	+11 0.4	1.623	2.425	16.5	20.8
1 22	10 25.68	+ 4 9.4	1.831	2.691	12.4	18.5	1 22	10 26.09	+10 52.2	1.550	2.434	12.8	20.5
2 1	10 18.44	+ 4 52.2	1.773	2.703	8.5	18.3	2 1	10 18.87	+10 55.1	1.499	2.444	8.4	20.3
2 11	10 9.52	+ 5 49.5	1.741	2.714	4.3	18.1	2 11	10 9.75	+11 5.5	1.474	2.453	3.6	20.0
2 21	9 59.83	+ 6 55.8	1.739	2.725	1.9	17.9	2 21	9 59.81	+11 18.9	1.476	2.464	1.4	19.9
3 2	9 50.45	+ 8 4.5	1.766	2.734	5.5	18.2	3 2	9 50.33	+11 30.4	1.506	2.474	6.3	20.2
3 12	9 42.43	+ 9 8.8	1.821	2.743	9.5	18.4	3 12	9 42.49	+11 36.2	1.562	2.485	10.7	20.5
3 22	9 36.49	+10 3.8	1.901	2.751	13.1	18.7	3 22	9 37.07	+11 33.7	1.641	2.497	14.5	20.8
409667	2005 <i>YH</i> ₁₅₃		2 18.0	140°09'	5°2'/23.5	18	363644	2004 <i>RL</i> ₂₁₆		2 18.0	138°85'	3°7'/21.6	18
1 12	10 29.65	- 7 37.6	2.730	3.416	13.3	20.8							

EPHEMERIDES

2 18.0

2 18.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
346872	2009 <i>FW</i> ₄₆		2 18.0 23°57'	1°17.2	18		412957	2014 <i>QF</i> ₂₇₁		2 18.0 260°01'	5°5'	14.4	18
1 12	10 25.14	+12 49.1	1.894	2.703	14.2	20.7	1 12	10 33.77	+22 35.2	1.546	2.369	16.2	20.8
1 22	10 21.56	+13 16.1	1.821	2.710	10.9	20.4	1 22	10 29.15	+23 29.2	1.463	2.358	12.7	20.5
2 1	10 15.77	+13 53.0	1.770	2.718	7.0	20.2	2 1	10 21.30	+24 28.1	1.401	2.347	8.8	20.3
2 11	10 8.42	+14 35.0	1.746	2.726	2.9	20.0	2 11	10 10.94	+25 22.1	1.365	2.335	5.8	20.1
2 21	10 0.38	+15 16.5	1.750	2.735	2.0	19.9	2 21	9 59.30	+26 1.6	1.356	2.324	6.5	20.1
3 2	9 52.67	+15 52.0	1.782	2.745	6.0	20.2	3 2	9 47.95	+26 19.4	1.373	2.312	10.2	20.3
3 12	9 46.26	+16 17.4	1.840	2.755	9.9	20.5	3 12	9 38.45	+26 12.8	1.415	2.300	14.4	20.5
3 22	9 41.83	+16 30.3	1.922	2.766	13.2	20.7	3 22	9 31.83	+25 43.5	1.477	2.288	18.1	20.7
386525	2009 <i>BR</i> ₁₇₄		2 18.0 157°89'	1°19.3	17		30695	1020 <i>T</i> ₋₃		2 18.0 121°38'	4°5'	21.3	18
1 12	10 23.33	+ 4 36.6	2.555	3.322	12.1	21.5	1 12	10 30.67	- 0 55.8	1.653	2.411	18.1	19.3
1 22	10 19.65	+ 5 13.1	2.462	3.324	9.5	21.3	1 22	10 26.12	- 1 7.5	1.575	2.422	14.7	19.1
2 1	10 14.31	+ 6 3.3	2.394	3.326	6.5	21.1	2 1	10 18.93	- 0 57.2	1.517	2.433	10.8	18.9
2 11	10 7.77	+ 7 4.3	2.354	3.328	3.2	20.9	2 11	10 9.82	- 0 25.6	1.484	2.444	6.8	18.7
2 21	10 0.64	+ 8 11.8	2.343	3.330	1.3	20.7	2 21	9 59.81	+ 0 23.6	1.477	2.454	4.5	18.6
3 2	9 53.68	+ 9 20.7	2.363	3.332	4.3	21.0	3 2	9 50.15	+ 1 24.3	1.498	2.464	6.6	18.7
3 12	9 47.58	+10 25.7	2.413	3.333	7.6	21.2	3 12	9 42.04	+ 2 28.5	1.546	2.474	10.4	19.0
3 22	9 42.91	+11 22.9	2.488	3.335	10.5	21.4	3 22	9 36.28	+ 3 29.0	1.617	2.482	14.2	19.2
309269	2007 <i>RM</i> ₁₀₉		2 18.0 122°32'	0°3'	17.8	18	495209	2013 <i>CB</i> ₁₄₃		2 18.0 255°14'	1°0'	18.7	17
1 12	10 32.12	+10 21.3	1.860	2.649	15.2	21.8	1 12	10 33.19	+ 8 43.5	1.801	2.585	15.8	21.8
1 22	10 26.88	+10 47.8	1.787	2.665	11.7	21.6	1 22	10 28.24	+ 8 37.4	1.694	2.566	12.5	21.5
2 1	10 19.22	+11 26.4	1.738	2.680	7.6	21.4	2 1	10 20.52	+ 8 43.6	1.609	2.548	8.5	21.2
2 11	10 9.86	+12 12.3	1.715	2.695	3.2	21.1	2 11	10 10.61	+ 8 59.8	1.551	2.528	4.0	20.9
2 21	9 59.78	+12 59.7	1.722	2.709	1.5	21.0	2 21	9 59.44	+ 9 21.9	1.521	2.508	1.6	20.7
3 2	9 50.11	+13 42.5	1.758	2.723	6.0	21.4	3 2	9 48.28	+ 9 45.0	1.520	2.487	6.3	21.0
3 12	9 41.93	+14 16.2	1.822	2.736	10.0	21.6	3 12	9 38.45	+10 4.0	1.546	2.466	11.0	21.2
3 22	9 35.93	+14 38.1	1.910	2.748	13.5	21.9	3 22	9 30.95	+10 15.5	1.596	2.444	15.2	21.4
368673	2005 <i>QJ</i> ₁₃		2 18.0 207°67'	0°8'	18.7	16	483681	2005 <i>NV</i> ₃		2 18.0 242°31'	1°5'	16.9	18
1 12	10 29.87	+ 7 56.8	2.319	3.091	13.1	22.5	1 12	10 30.71	+11 42.8	1.618	2.423	16.4	22.3
1 22	10 24.89	+ 8 7.9	2.219	3.085	10.2	22.3	1 22	10 26.61	+12 32.3	1.522	2.409	12.8	22.1
2 1	10 17.86	+ 8 30.3	2.143	3.079	6.9	22.1	2 1	10 19.60	+13 38.1	1.448	2.395	8.4	21.8
2 11	10 9.31	+ 9 1.3	2.095	3.072	3.2	21.9	2 11	10 10.25	+14 54.1	1.399	2.380	3.5	21.4
2 21	9 59.98	+ 9 37.1	2.077	3.064	1.2	21.7	2 21	9 59.59	+16 11.9	1.379	2.364	2.7	21.3
3 2	9 50.78	+10 13.1	2.089	3.055	5.0	21.9	3 2	9 49.00	+17 22.1	1.386	2.348	7.7	21.6
3 12	9 42.62	+10 45.3	2.130	3.046	8.6	22.2	3 12	9 39.88	+18 17.3	1.420	2.331	12.5	21.8
3 22	9 36.21	+11 10.3	2.197	3.037	11.9	22.3	3 22	9 33.30	+18 53.8	1.476	2.313	16.8	22.1
39350	2002 <i>AC</i> ₁₂₀		2 18.0 230°30'	0°6'	17.6	18	304785	2007 <i>MK</i> ₁₉		2 18.0 200°25'	3°4'	20.5	18
1 12	10 28.15	+11 32.2	2.162	2.953	13.3	19.9	1 12	10 31.01	+ 1 49.0	1.829	2.590	16.4	21.0
1 22	10 23.75	+11 57.2	2.066	2.946	10.3	19.7	1 22	10 26.31	+ 1 36.2	1.735	2.588	13.3	20.7
2 1	10 17.20	+12 32.5	1.995	2.938	6.7	19.4	2 1	10 19.07	+ 1 41.0	1.662	2.585	9.6	20.5
2 11	10 9.05	+13 14.1	1.951	2.930	2.8	19.2	2 11	10 9.92	+ 2 2.7	1.615	2.581	5.7	20.3
2 21	10 0.09	+13 57.0	1.936	2.922	1.5	19.1	2 21	9 59.77	+ 2 38.3	1.596	2.577	3.5	20.1
3 2	9 51.29	+14 36.1	1.950	2.914	5.6	19.3	3 2	9 49.78	+ 3 22.6	1.605	2.572	6.1	20.3
3 12	9 43.60	+15 7.0	1.993	2.905	9.4	19.5	3 12	9 41.13	+ 4 9.4	1.641	2.567	10.1	20.5
3 22	9 37.75	+15 27.0	2.060	2.896	12.8	19.7	3 22	9 34.68	+ 4 52.9	1.702	2.561	13.9	20.7
61270	2000 <i>OC</i> ₃₁		2 18.0 236°31'	3°4'	20.6	18	142570	2002 <i>TG</i> ₇₉		2 18.0 141°08'	1°8'	16.3	18
1 12	10 27.81	+ 0 46.5	1.707	2.475	17.2	20.2	1 12	10 29.65	+14 1.2	2.114	2.910	13.4	20.8
1 22	10 24.07	+ 0 54.6	1.611	2.467	13.9	20.0	1 22	10 24.82	+14 55.4	2.038	2.922	10.2	20.6
2 1	10 17.73	+ 1 24.7	1.535	2.459	10.1	19.7	2 1	10 17.83	+15 58.9	1.987	2.933	6.6	20.4
2 11	10 9.38	+ 2 15.4	1.484	2.451	5.9	19.5	2 11	10 9.29	+17 5.8	1.964	2.943	2.9	20.2
2 21	9 59.93	+ 3 22.6	1.459	2.442	3.4	19.3	2 21	10 0.07	+18 9.6	1.970	2.953	2.7	20.2
3 2	9 50.59	+ 4 39.1	1.463	2.433	6.3	19.4	3 2	9 51.15	+19 4.2	2.007	2.962	6.2	20.5
3 12	9 42.59	+ 5 56.5	1.494	2.423	10.6	19.7	3 12	9 43.48	+19 45.4	2.071	2.970	9.8	20.7
3 22	9 36.84	+ 7 7.1	1.549	2.414	14.7	19.9	3 22	9 37.74	+20 11.5	2.160	2.978	12.9	20.9
272925	2006 <i>BS</i> ₂₀₀		2 18.0 105°50'	0°3'	17.8	16	341217	2007 <i>RX</i> ₁₂₈		2 18.0 166°81'	3°3'	14.8	17
1 12	10 28.72	+11 12.6	2.029	2.822	14.0	22.0	1 12	10 29.25	+21 25.0	2.460	3.263	11.5	21.4
1 22	10 24.16	+11 31.3	1.950	2.830	10.8	21.8	1 22	10 24.29	+22 3.6	2.380	3.265	8.8	21.3
2 1	10 17.41	+12 0.4	1.894	2.838	7.0	21.6	2 1	10 17.38	+22 44.5	2.325	3.268	5.9	21.1
2 11	10 9.10	+12 35.6	1.866	2.845	2.9	21.3	2 11	10 9.08	+23 22.3	2.298	3.269	3.6	20.9
2 21	10 0.10	+13 12.2	1.866	2.853	1.4	21.2	2 21	10 0.16	+23 52.0	2.301	3.271	4.0	20.9
3 2	9 51.41	+13 45.0	1.895	2.860	5.6	21.5	3 2	9 51.52	+24 9.8	2.334	3.272	6.6	21.1
3 12	9 43.99	+14 10.0	1.952	2.867	9.4	21.8	3 12	9 43.99	+24 13.7	2.394	3.274	9.5	21.3
3 22	9 38.52	+14 24.8	2.034	2.874	12.7	22.0	3 22	9 38.19	+24 3.6	2.479	3.274	12.1	21.5
323763	2005 <i>PD</i> ₄		2 18.0 161°11'	5°4'	12.6	18	27800	1993 <i>FA</i> ₂₈		2 18.0 102°98'	0°8'	17.6	18
1 12	10 31.71	+26 21.6	2.291	3.098	12.1	21.1	1 12	10 33.31	+12 10.6	1.494	2.301	17.5	18.9
1 22	10 26.41	+27 36.4	2.221	3.105	9.5	20.9	1 22	10 28.42	+12 27.1	1.423	2.311	13.5	18.7
2 1	10 18.87	+28 51.1	2.177	3.111	6.9	20.8	2 1	10 20.55	+12 56.0	1.374	2.320	8.8	18.4
2 11	10 9.72	+29 58.0	2.161	3.116	5.5	20.7	2 11	10 10.53	+13 31.8	1.350	2.330	3.6	18.1
2 21	9 59.84	+30 50.2	2.174	3.121	6.3	20.7	2 21	9 59.56	+14 7.8	1.353	2.340	2.0	18.0
3 2	9 50.28	+31 23.0	2.216	3.125	8.6	20.9	3 2	9 49.10	+14 37.3	1.384	2.349	7.1	18.4
3 12	9 42.03	+31 34.9	2.284	3.129	11.2	21.1	3 12	9 40.49	+14 55.7	1.440	2.358	11.9	18.7
3 22	9 35.78	+31 27.0	2.374	3.131	13.6	21.2	3 22	9 34.58	+15 0.8	1.519	2.367	15.9	18.9
121204	1999 <i>OK</i> ₂		2 18.0 165°16'	8°8'	21.5	18	590	Tomiris		2 18.0 51°95'	3°7'	14.4	18
1 12	10 40												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
185442	2006 XQ ₅₄		2 18.0 103°47'	0°7/17.5	18		504015	2005 JA ₁₂₅		2 18.1 236°69'	3°8/13.5	17	
1 12	10 31.70	+11 46.2	1.989	2.779	14.3	20.8	1 12	10 25.67	+21 36.2	2.589	3.397	10.8	21.5
1 22	10 26.35	+12 12.2	1.922	2.800	11.0	20.6	1 22	10 21.66	+22 50.5	2.499	3.387	8.3	21.3
2 1	10 18.77	+12 48.1	1.878	2.821	7.1	20.4	2 1	10 15.77	+24 9.1	2.435	3.377	5.7	21.1
2 11	10 9.66	+13 29.1	1.862	2.842	2.9	20.2	2 11	10 8.49	+25 25.8	2.400	3.367	3.9	21.0
2 21	9 59.95	+14 9.9	1.875	2.862	1.6	20.2	2 21	10 0.49	+26 34.3	2.395	3.356	4.7	21.0
3 2	9 50.68	+14 45.1	1.918	2.881	5.7	20.5	3 2	9 52.60	+27 29.4	2.419	3.346	7.1	21.2
3 12	9 42.82	+15 11.1	1.989	2.900	9.5	20.7	3 12	9 45.63	+28 7.8	2.471	3.335	9.8	21.3
3 22	9 37.02	+15 25.9	2.085	2.919	12.7	21.0	3 22	9 40.24	+28 28.7	2.546	3.323	12.3	21.5
187081	2005 NX ₆₅		2 18.0 163°05'	0°2/18.2	18		409905	2006 TA ₂₉		2 18.1 21°18'	3°4/20.4	18	
1 12	10 27.55	+ 8 15.8	1.963	2.751	14.5	21.1	1 12	10 23.09	+ 2 27.7	1.199	2.009	20.7	20.6
1 22	10 23.42	+ 8 50.1	1.878	2.754	11.3	20.9	1 22	10 21.03	+ 2 26.1	1.138	2.020	16.5	20.4
2 1	10 17.04	+ 9 38.8	1.815	2.756	7.5	20.6	2 1	10 15.95	+ 2 50.4	1.095	2.033	11.6	20.1
2 11	10 9.02	+10 37.7	1.780	2.758	3.2	20.4	2 11	10 8.67	+ 3 37.8	1.074	2.046	6.5	19.9
2 21	10 0.20	+11 40.9	1.773	2.760	1.3	20.2	2 21	10 0.44	+ 4 41.8	1.077	2.061	3.4	19.8
3 2	9 51.61	+12 41.9	1.795	2.762	5.6	20.5	3 2	9 52.73	+ 5 52.9	1.104	2.078	7.0	20.0
3 12	9 44.25	+13 34.9	1.845	2.763	9.7	20.8	3 12	9 46.89	+ 7 0.9	1.155	2.096	11.9	20.3
3 22	9 38.87	+14 16.0	1.920	2.764	13.2	21.0	3 22	9 43.77	+ 7 58.0	1.228	2.114	16.2	20.6
463534	2013 RQ ₂₃		2 18.0 203°52'	4°0/22.0	18		239384	2007 SZ ₁₁		2 18.1 228°38'	5°9/12.7	18	
1 12	10 24.44	- 3 30.6	2.044	2.786	15.6	21.3	1 12	10 33.20	+25 2.5	1.986	2.797	13.6	20.6
1 22	10 20.99	- 3 10.6	1.949	2.784	12.8	21.1	1 22	10 28.16	+26 22.7	1.898	2.784	10.7	20.4
2 1	10 15.45	- 2 28.1	1.875	2.783	9.6	20.9	2 1	10 20.41	+27 46.1	1.834	2.771	7.7	20.2
2 11	10 8.36	- 1 24.2	1.826	2.782	6.2	20.7	2 11	10 10.57	+29 3.7	1.798	2.757	5.9	20.0
2 21	10 0.48	- 0 2.7	1.804	2.780	4.1	20.6	2 21	9 59.61	+30 6.3	1.790	2.742	6.9	20.1
3 2	9 52.74	+ 1 29.8	1.812	2.779	5.6	20.7	3 2	9 48.79	+30 47.3	1.811	2.726	9.8	20.2
3 12	9 46.09	+ 3 5.4	1.848	2.777	8.9	20.9	3 12	9 39.39	+31 3.6	1.856	2.710	13.0	20.4
3 22	9 41.25	+ 4 36.5	1.909	2.775	12.3	21.1	3 22	9 32.34	+30 56.5	1.924	2.693	16.0	20.5
4981	Sinyavskaya		2 18.1 151°92'	1°3/16.9	18		86654	2000 ED ₁₇₂		2 18.1 248°97'	4°1/20.9	18	
1 12	10 27.43	+13 35.6	2.274	3.070	12.6	17.3	1 12	10 29.46	- 0 5.4	1.754	2.513	17.1	19.8
1 22	10 23.02	+14 9.8	2.191	3.074	9.6	17.1	1 22	10 25.42	- 0 13.1	1.648	2.498	14.1	19.6
2 1	10 16.62	+14 52.4	2.132	3.077	6.2	16.9	2 1	10 18.73	- 0 0.1	1.563	2.481	10.4	19.3
2 11	10 8.80	+15 38.7	2.101	3.081	2.6	16.6	2 11	10 9.91	+ 0 33.7	1.502	2.465	6.4	19.0
2 21	10 0.32	+16 23.7	2.099	3.084	2.1	16.6	2 21	9 59.86	+ 1 25.5	1.468	2.447	4.1	18.8
3 2	9 52.08	+17 2.4	2.128	3.087	5.6	16.8	3 2	9 49.80	+ 2 29.5	1.462	2.430	6.5	18.9
3 12	9 44.94	+17 31.2	2.184	3.090	9.0	17.1	3 12	9 40.99	+ 3 38.0	1.483	2.411	10.8	19.1
3 22	9 39.55	+17 48.1	2.265	3.092	12.1	17.3	3 22	9 34.43	+ 4 43.4	1.528	2.392	14.9	19.3
269997	2000 XH ₃₉		2 18.1 49°03'	4°1/15.7	18		441862	2009 WX ₂₆₀		2 18.1 94°17'	2°2/16.6	17	
1 12	10 36.60	+20 57.8	1.496	2.313	16.9	20.2	1 12	10 33.54	+13 42.5	1.383	2.198	18.2	22.2
1 22	10 30.51	+21 26.2	1.456	2.349	12.8	20.0	1 22	10 28.74	+14 29.5	1.323	2.216	13.9	21.9
2 1	10 21.55	+21 56.8	1.439	2.386	8.5	19.9	2 1	10 20.82	+15 29.5	1.284	2.233	9.0	21.7
2 11	10 10.78	+22 21.5	1.447	2.422	4.7	19.7	2 11	10 10.68	+16 34.3	1.270	2.250	3.9	21.4
2 21	9 59.58	+22 34.0	1.483	2.459	4.9	19.8	2 21	9 59.63	+17 34.5	1.283	2.267	3.3	21.4
3 2	9 49.36	+22 30.6	1.546	2.495	8.4	20.1	3 2	9 49.22	+18 22.0	1.323	2.283	8.1	21.8
3 12	9 41.27	+22 10.8	1.635	2.532	12.1	20.4	3 12	9 40.84	+18 51.7	1.388	2.299	12.7	22.1
3 22	9 35.94	+21 36.7	1.746	2.568	15.3	20.7	3 22	9 35.33	+19 2.6	1.474	2.314	16.7	22.4
10909	1997 XB ₁₀		2 18.1 335°57'	10°9/ 9.7	18		403302	2009 BT ₁₇₃		2 18.1 78°51'	4°6/15.4	18	
1 12	10 28.46	+30 51.1	1.249	2.096	17.8	16.3	1 12	10 36.66	+22 18.6	1.559	2.375	16.4	20.7
1 22	10 25.96	+32 47.6	1.186	2.086	14.6	16.1	1 22	10 30.93	+22 46.8	1.495	2.386	12.7	20.5
2 1	10 19.67	+34 42.6	1.144	2.076	11.8	15.9	2 1	10 22.14	+23 16.7	1.453	2.398	8.6	20.3
2 11	10 10.39	+36 20.1	1.124	2.068	10.9	15.8	2 11	10 11.20	+23 40.3	1.436	2.409	5.1	20.1
2 21	9 59.63	+37 25.7	1.128	2.060	12.5	15.9	2 21	9 59.42	+23 50.4	1.447	2.420	5.4	20.2
3 2	9 49.33	+37 50.5	1.154	2.053	15.6	16.0	3 2	9 48.33	+23 42.5	1.486	2.431	9.0	20.4
3 12	9 41.38	+37 34.0	1.199	2.047	19.0	16.2	3 12	9 39.26	+23 16.1	1.550	2.442	12.9	20.6
3 22	9 36.90	+36 41.9	1.260	2.042	22.2	16.4	3 22	9 33.02	+22 33.4	1.635	2.453	16.3	20.9
125473	Keisaku		2 18.1 153°30'	0°2/17.9	18		89910	2002 ED ₅		2 18.1 132°45'	0°0/18.0	18	
1 12	10 30.70	+ 8 49.5	1.835	2.623	15.4	21.1	1 12	10 28.08	+ 9 23.9	2.431	3.209	12.4	20.6
1 22	10 25.97	+ 9 32.8	1.754	2.631	11.9	20.8	1 22	10 23.31	+ 9 56.0	2.352	3.223	9.5	20.4
2 1	10 18.78	+10 31.3	1.697	2.639	7.8	20.6	2 1	10 16.71	+10 38.4	2.298	3.237	6.2	20.2
2 11	10 9.78	+11 39.9	1.666	2.646	3.3	20.3	2 11	10 8.83	+11 27.4	2.271	3.250	2.6	20.0
2 21	9 59.94	+12 51.5	1.665	2.652	1.5	20.2	2 21	10 0.40	+12 18.4	2.275	3.262	1.1	19.9
3 2	9 50.40	+13 58.8	1.693	2.658	6.1	20.5	3 2	9 52.22	+13 6.6	2.310	3.274	4.7	20.2
3 12	9 42.27	+14 55.6	1.748	2.662	10.3	20.8	3 12	9 45.10	+13 47.9	2.374	3.286	8.1	20.4
3 22	9 36.32	+15 38.1	1.828	2.667	14.0	21.0	3 22	9 39.59	+14 19.7	2.463	3.297	11.0	20.6
144282	2004 CO ₁₀₄		2 18.1 295°69'	3°8/21.0	17		109849	2001 RZ ₁₃₀		2 18.1 164°13'	1°1/16.9	18	
1 12	10 28.05	+ 0 51.7	2.248	2.996	14.1	19.6	1 12	10 26.10	+13 14.6	2.546	3.337	11.5	20.4
1 22	10 23.58	+ 0 18.6	2.148	2.990	11.5	19.4	1 22	10 21.81	+13 48.5	2.459	3.340	8.8	20.2
2 1	10 17.07	- 0 0.9	2.071	2.985	8.5	19.2	2 1	10 15.76	+14 30.1	2.398	3.342	5.7	20.0
2 11	10 9.05	- 0 6.8	2.020	2.979	5.5	19.0	2 11	10 8.45	+15 15.5	2.365	3.344	2.4	19.8
2 21	10 0.25	- 0 0.3	1.998	2.973	3.8	18.9	2 21	10 0.55	+16 0.0	2.362	3.346	1.8	19.7
3 2	9 51.57	+ 0 15.8	2.004	2.968	5.5	19.0	3 2	9 52.85	+16 39.3	2.389	3.348	5.0	19.9
3 12	9 43.92	+ 0 37.3	2.039	2.962	8.6	19.2	3 12	9 46.10	+17 10.0	2.445	3.350	8.2	20.1
3 22	9 37.99	+ 1 0.2	2.099	2.957	11.7	19.4	3 22	9 40.88	+17 30.0	2.526	3.351	11.0	20.3
307672	2003 SD ₃₁₅		2 18.1 57°14'	10°0/20.2	16		56889	2000 QC ₁₃₇		2 18.1 101°65'	2°2/15.9	18	
1 12	10 49.30	+ 2 18.6	0.955	1.742	26.4	20.0	1 12	10 27					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
463612	2013 SZ ₇₉	2 18.1 238°66' 0°1/18.0 17					283617	2002 CH ₁₁₀	2 18.1 7°18' 2°9/16.2 18				
1 12	10 27.62	+10 4.8	2.039	2.830	14.0	21.7	1 12	10 30.88	+18 20.5	1.648	2.466	15.6	19.9
1 22	10 23.46	+10 26.0	1.947	2.826	10.8	21.5	1 22	10 26.44	+18 37.9	1.572	2.466	12.0	19.7
2 1	10 17.10	+10 59.0	1.879	2.821	7.2	21.2	2 1	10 19.25	+19 0.9	1.518	2.467	7.9	19.4
2 11	10 9.09	+11 39.9	1.837	2.817	3.0	21.0	2 11	10 10.04	+19 23.1	1.490	2.468	3.9	19.2
2 21	10 0.27	+12 23.8	1.824	2.812	1.3	20.8	2 21	9 59.94	+19 38.3	1.489	2.470	3.7	19.2
3 2	9 51.63	+13 5.3	1.841	2.807	5.6	21.1	3 2	9 50.26	+19 41.7	1.516	2.473	7.7	19.4
3 12	9 44.17	+13 39.5	1.885	2.802	9.5	21.3	3 12	9 42.24	+19 30.6	1.568	2.475	11.8	19.7
3 22	9 38.62	+14 3.4	1.953	2.797	13.0	21.6	3 22	9 36.70	+19 5.4	1.643	2.479	15.5	19.9
381334	2007 XN ₅₆	2 18.1 338°18' 9°0/22.3 17					422645	1995 UB ₅₆	2 18.1 109°39' 1°3/19.2 18				
1 12	10 32.13	- 6 46.3	1.888	2.603	17.5	19.4	1 12	10 28.36	+ 6 2.0	2.171	2.943	13.8	22.4
1 22	10 27.35	- 8 41.2	1.785	2.588	15.2	19.2	1 22	10 23.71	+ 6 16.7	2.093	2.958	10.8	22.2
2 1	10 19.94	-10 21.6	1.703	2.574	12.6	19.0	2 1	10 17.07	+ 6 44.5	2.039	2.973	7.3	22.0
2 11	10 10.42	-11 42.4	1.645	2.561	10.2	18.8	2 11	10 9.02	+ 7 22.6	2.012	2.987	3.6	21.8
2 21	9 59.66	-12 39.9	1.613	2.549	9.0	18.7	2 21	10 0.37	+ 8 6.7	2.015	3.002	1.5	21.7
3 2	9 48.85	-13 12.5	1.608	2.538	9.8	18.7	3 2	9 52.03	+ 8 51.8	2.047	3.015	4.9	22.0
3 12	9 39.23	-13 23.2	1.629	2.527	12.0	18.8	3 12	9 44.85	+ 9 33.2	2.108	3.029	8.5	22.2
3 22	9 31.79	-13 17.2	1.673	2.518	14.8	18.9	3 22	9 39.47	+10 7.4	2.194	3.042	11.6	22.4
124947	2001 TY ₈₃	2 18.1 240°74' 2°6/19.7 18					501344	2013 YH ₁₀	2 18.1 209°87' 2°4/15.3 17				
1 12	10 30.24	+ 4 38.0	1.520	2.308	18.1	20.4	1 12	10 24.11	+16 3.5	2.461	3.265	11.5	21.0
1 22	10 26.21	+ 4 30.4	1.434	2.305	14.5	20.1	1 22	10 20.45	+17 11.4	2.375	3.263	8.7	20.8
2 1	10 19.28	+ 4 41.4	1.368	2.302	10.1	19.8	2 1	10 14.98	+18 27.2	2.315	3.262	5.7	20.6
2 11	10 10.13	+ 5 9.3	1.326	2.299	5.4	19.6	2 11	10 8.18	+19 45.2	2.284	3.261	2.9	20.5
2 21	9 59.83	+ 5 49.6	1.310	2.296	2.7	19.4	2 21	10 0.73	+20 59.2	2.282	3.259	3.2	20.5
3 2	9 49.76	+ 6 35.9	1.322	2.292	6.6	19.6	3 2	9 53.42	+22 3.6	2.311	3.258	6.1	20.7
3 12	9 41.29	+ 7 20.8	1.360	2.289	11.4	19.9	3 12	9 47.07	+22 54.3	2.367	3.256	9.2	20.8
3 22	9 35.40	+ 7 58.5	1.420	2.286	15.7	20.1	3 22	9 42.28	+23 29.3	2.448	3.255	11.9	21.0
407770	2011 WD ₉₃	2 18.1 20°38' 2°6/16.3 18					409911	2006 TX ₄₃	2 18.1 119°65' 1°2/19.2 18				
1 12	10 24.66	+13 16.2	1.203	2.041	18.9	20.7	1 12	10 29.94	+ 5 43.6	2.094	2.864	14.3	22.1
1 22	10 22.40	+14 14.8	1.142	2.048	14.5	20.5	1 22	10 24.98	+ 6 5.0	2.019	2.882	11.2	21.9
2 1	10 16.94	+15 30.0	1.101	2.055	9.3	20.2	2 1	10 17.92	+ 6 40.7	1.966	2.899	7.6	21.7
2 11	10 9.13	+16 52.7	1.083	2.064	4.1	19.9	2 11	10 9.40	+ 7 27.3	1.941	2.916	3.7	21.5
2 21	10 0.28	+18 11.6	1.090	2.074	3.8	19.9	2 21	10 0.25	+ 8 19.9	1.945	2.932	1.5	21.4
3 2	9 51.94	+19 15.9	1.122	2.084	8.9	20.2	3 2	9 51.43	+ 9 13.1	1.980	2.948	5.0	21.7
3 12	9 45.59	+19 58.8	1.177	2.096	13.8	20.6	3 12	9 43.86	+10 1.6	2.043	2.963	8.7	21.9
3 22	9 42.12	+20 18.4	1.252	2.108	18.0	20.8	3 22	9 38.18	+10 41.7	2.131	2.977	12.0	22.1
231780	2000 BW ₄₀	2 18.1 90°66' 0°5/17.6 18					74664	1999 RW ₉₃	2 18.1 192°01' 0°3/17.8 18				
1 12	10 26.28	+10 42.9	2.112	2.906	13.5	21.1	1 12	10 28.67	+ 9 10.0	1.960	2.749	14.5	20.5
1 22	10 22.26	+11 17.4	2.032	2.913	10.4	20.9	1 22	10 24.38	+ 9 55.6	1.871	2.748	11.3	20.3
2 1	10 16.20	+12 3.1	1.976	2.920	6.7	20.7	2 1	10 17.77	+10 55.9	1.804	2.746	7.4	20.0
2 11	10 8.67	+12 55.5	1.948	2.928	2.8	20.5	2 11	10 9.43	+12 6.1	1.765	2.744	3.1	19.7
2 21	10 0.48	+13 49.3	1.948	2.935	1.5	20.4	2 21	10 0.20	+13 19.6	1.754	2.741	1.5	19.6
3 2	9 52.55	+14 38.7	1.978	2.942	5.5	20.7	3 2	9 51.16	+14 29.2	1.774	2.738	5.9	19.9
3 12	9 45.78	+15 19.3	2.035	2.949	9.1	20.9	3 12	9 43.35	+15 28.7	1.821	2.734	10.1	20.1
3 22	9 40.82	+15 48.1	2.117	2.956	12.3	21.1	3 22	9 37.55	+16 14.4	1.892	2.730	13.6	20.4
340711	2006 SF ₄₇	2 18.1 281°04' 0°3/17.8 17					419987	2011 CK ₂₇	2 18.1 49°94' 1°9/16.5 18				
1 12	10 28.06	+12 10.1	2.331	3.120	12.5	21.0	1 12	10 25.89	+12 34.8	1.682	2.495	15.5	21.2
1 22	10 23.47	+12 16.9	2.242	3.120	9.6	20.8	1 22	10 22.47	+13 36.7	1.613	2.506	11.8	21.0
2 1	10 16.92	+12 31.6	2.176	3.119	6.3	20.5	2 1	10 16.57	+14 51.7	1.568	2.517	7.6	20.7
2 11	10 8.97	+12 50.7	2.139	3.118	2.6	20.3	2 11	10 8.90	+16 12.8	1.548	2.529	3.2	20.5
2 21	10 0.37	+13 10.7	2.131	3.118	1.3	20.2	2 21	10 0.45	+17 31.5	1.557	2.541	2.9	20.5
3 2	9 51.98	+13 27.7	2.153	3.117	5.0	20.5	3 2	9 52.36	+18 39.7	1.594	2.553	7.1	20.8
3 12	9 44.66	+13 38.7	2.203	3.117	8.5	20.7	3 12	9 45.75	+19 31.8	1.656	2.565	11.2	21.0
3 22	9 39.05	+13 41.7	2.278	3.116	11.6	20.9	3 22	9 41.35	+20 5.2	1.741	2.578	14.7	21.3
173140	1995 SH ₁₉	2 18.1 209°04' 0°1/18.2 18 R					271297	2003 UE ₂₉₈	2 18.1 218°01' 0°5/18.5 17				
1 12	10 25.30	+ 9 20.4	2.675	3.453	11.3	21.2	1 12	10 26.53	+ 8 24.7	2.183	2.967	13.4	21.3
1 22	10 21.16	+ 9 44.0	2.578	3.449	8.8	21.0	1 22	10 22.47	+ 8 44.2	2.091	2.965	10.4	21.1
2 1	10 15.33	+10 17.2	2.506	3.445	5.8	20.8	2 1	10 16.37	+ 9 15.8	2.023	2.963	7.0	20.9
2 11	10 8.29	+10 57.1	2.462	3.441	2.5	20.6	2 11	10 8.79	+ 9 56.3	1.983	2.961	3.1	20.7
2 21	10 0.66	+11 39.7	2.449	3.436	1.0	20.5	2 21	10 0.48	+10 41.1	1.971	2.958	1.1	20.5
3 2	9 53.15	+12 21.0	2.466	3.431	4.4	20.7	3 2	9 52.35	+11 25.2	1.988	2.956	5.1	20.8
3 12	9 46.50	+12 57.3	2.512	3.426	7.6	20.9	3 12	9 45.30	+12 4.0	2.034	2.953	8.8	21.0
3 22	9 41.27	+13 25.8	2.584	3.421	10.4	21.1	3 22	9 40.00	+12 34.0	2.105	2.951	12.1	21.2
61080	2000 LW ₁₉	2 18.1 221°62' 0°4/18.5 18					309340	2007 TR ₁₀	2 18.1 144°64' 0°4/18.4 18				
1 12	10 29.36	+ 6 57.4	1.967	2.747	14.8	20.3	1 12	10 30.98	+ 8 2.8	1.986	2.766	14.7	22.3
1 22	10 25.00	+ 7 37.9	1.866	2.737	11.6	20.1	1 22	10 25.98	+ 8 30.2	1.906	2.777	11.4	22.1
2 1	10 18.26	+ 8 35.3	1.788	2.726	7.8	19.8	2 1	10 18.69	+ 9 11.2	1.849	2.787	7.6	21.9
2 11	10 9.66	+ 9 45.6	1.736	2.714	3.5	19.5	2 11	10 9.76	+10 1.9	1.819	2.797	3.3	21.7
2 21	10 0.05	+11 2.7	1.714	2.702	1.3	19.3	2 21	10 0.09	+10 56.7	1.819	2.806	1.2	21.5
3 2	9 50.51	+12 19.3	1.722	2.689	5.8	19.6	3 2	9 50.73	+11 49.5	1.848	2.815	5.5	21.8
3 12	9 42.15	+13 28.3	1.758	2.675	10.1	19.8	3 12	9 42.68	+12 35.2	1.905	2.822	9.5	22.1
3 22	9 35.80	+14 24.8	1.819	2.660	13.9	20.0	3 22	9 36.67	+13 10.1	1.988	2.829	12.9	22.3
255907	2006 SE ₃₂₇	2 18.1 27°76' 1°2/18.9 18					69528	1997 GV ₁₀	2 18.1 25°56' 1°1/18.8 18				
1 12													

EPHEMERIDES

2 18.1

2 18.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
366435	2001 <i>WH</i> ₆₃		2 18.1 130°83	4.4/21.9	18		216431	2009 <i>BH</i> ₁₂₅		2 18.1 231°28	0.3/18.4	17	
1 12	10 28.11	- 2 40.7	2.117	2.853	15.3	21.8	1 12	10 26.00	+ 9 15.3	2.652	3.429	11.5	21.3
1 22	10 23.66	- 2 52.4	2.031	2.862	12.6	21.7	1 22	10 21.73	+ 9 29.8	2.552	3.422	8.9	21.1
2 1	10 17.13	- 2 45.4	1.967	2.871	9.4	21.5	2 1	10 15.75	+ 9 53.6	2.476	3.415	5.9	20.9
2 11	10 9.10	- 2 20.2	1.928	2.880	6.3	21.3	2 11	10 8.51	+10 23.9	2.429	3.407	2.6	20.7
2 21	10 0.37	- 1 39.1	1.916	2.888	4.4	21.2	2 21	10 0.65	+10 57.4	2.412	3.399	1.0	20.5
3 2	9 51.87	- 0 46.8	1.934	2.896	5.7	21.3	3 2	9 52.91	+11 30.2	2.425	3.391	4.4	20.8
3 12	9 44.52	+ 0 10.9	1.980	2.904	8.7	21.5	3 12	9 46.03	+11 58.7	2.467	3.383	7.6	21.0
3 22	9 38.98	+ 1 7.8	2.051	2.911	11.8	21.7	3 22	9 40.59	+12 20.5	2.535	3.374	10.5	21.1
400578	2008 <i>YP</i> ₄₁		2 18.1 115°79	3.5/15.3	18		473184	2015 <i>KD</i> ₆₉		2 18.1 235°87	1.0/16.9	17	
1 12	10 31.19	+16 28.1	1.617	2.432	16.0	21.1	1 12	10 23.30	+12 13.0	2.752	3.542	10.8	21.9
1 22	10 26.69	+17 42.7	1.551	2.445	12.2	20.9	1 22	10 19.64	+13 1.5	2.656	3.536	8.2	21.7
2 1	10 19.41	+19 7.5	1.509	2.458	7.9	20.7	2 1	10 14.37	+13 58.9	2.586	3.530	5.3	21.5
2 11	10 10.13	+20 33.6	1.493	2.470	4.1	20.5	2 11	10 7.93	+15 1.2	2.544	3.524	2.2	21.3
2 21	9 59.96	+21 51.2	1.505	2.482	4.5	20.6	2 21	10 0.91	+16 3.7	2.533	3.518	1.7	21.3
3 2	9 50.25	+22 52.0	1.545	2.493	8.4	20.8	3 2	9 53.99	+17 1.5	2.553	3.512	4.8	21.5
3 12	9 42.23	+23 31.7	1.610	2.504	12.4	21.1	3 12	9 47.87	+17 50.9	2.602	3.506	7.8	21.7
3 22	9 36.73	+23 49.6	1.698	2.515	15.9	21.3	3 22	9 43.10	+18 29.1	2.676	3.499	10.5	21.8
113935	2002 <i>TB</i> ₂₉₂		2 18.1 125°70	2.1/19.6	18		141127	2001 <i>XC</i> ₈₅		2 18.1 22°74	2.2/16.0	18	
1 12	10 33.69	+ 4 33.0	1.703	2.476	17.0	20.4	1 12	10 23.44	+14 31.9	1.918	2.732	13.8	19.1
1 22	10 28.34	+ 4 38.7	1.630	2.492	13.5	20.2	1 22	10 20.35	+15 29.4	1.846	2.740	10.5	18.9
2 1	10 20.36	+ 5 1.8	1.577	2.508	9.3	20.0	2 1	10 15.09	+16 36.8	1.798	2.748	6.8	18.7
2 11	10 10.50	+ 5 39.5	1.550	2.523	4.8	19.8	2 11	10 8.28	+17 47.8	1.777	2.756	3.1	18.5
2 21	9 59.82	+ 6 26.8	1.552	2.538	2.2	19.6	2 21	10 0.78	+18 55.2	1.784	2.766	3.1	18.5
3 2	9 49.57	+ 7 17.1	1.583	2.551	6.0	19.9	3 2	9 53.58	+19 52.4	1.819	2.775	6.7	18.7
3 12	9 40.92	+ 8 4.2	1.641	2.564	10.2	20.2	3 12	9 47.63	+20 34.9	1.881	2.786	10.3	19.0
3 22	9 34.66	+ 8 43.3	1.723	2.576	14.0	20.4	3 22	9 43.60	+21 0.6	1.966	2.796	13.5	19.2
378817	2008 <i>SW</i> ₂₅₀		2 18.1 57°79	0.4/18.4	18		405956	2006 <i>SW</i> ₁₁		2 18.1 86°33	1.7/19.5	18	
1 12	10 26.04	+ 8 16.4	2.016	2.806	14.2	21.8	1 12	10 31.55	+ 4 57.2	1.829	2.602	16.0	21.7
1 22	10 22.22	+ 8 40.9	1.932	2.809	11.0	21.6	1 22	10 26.38	+ 5 9.6	1.766	2.630	12.6	21.5
2 1	10 16.27	+ 9 18.7	1.871	2.812	7.3	21.3	2 1	10 18.90	+ 5 38.1	1.725	2.657	8.5	21.3
2 11	10 8.76	+10 6.1	1.837	2.815	3.2	21.1	2 11	10 9.84	+ 6 19.2	1.711	2.684	4.3	21.1
2 21	10 0.53	+10 58.0	1.831	2.818	1.2	20.9	2 21	10 0.17	+ 7 7.7	1.725	2.711	1.9	21.0
3 2	9 52.52	+11 48.6	1.854	2.821	5.3	21.2	3 2	9 51.01	+ 7 57.8	1.768	2.737	5.4	21.3
3 12	9 45.70	+12 32.7	1.904	2.825	9.2	21.5	3 12	9 43.34	+ 8 43.7	1.839	2.762	9.3	21.5
3 22	9 40.75	+13 6.7	1.979	2.828	12.7	21.7	3 22	9 37.82	+ 9 21.2	1.934	2.787	12.8	21.8
17006	1999 <i>CH</i> ₆₃		2 18.1 243°37	3.5/21.4	18		208324	2001 <i>PR</i> ₁₀		2 18.1 78°35	2.8/14.9	18	
1 12	10 25.85	- 1 47.0	2.169	2.912	14.7	18.1	1 12	10 27.48	+17 8.4	2.359	3.160	12.0	20.2
1 22	10 22.10	- 1 28.3	2.060	2.898	12.1	17.9	1 22	10 22.88	+18 27.9	2.305	3.192	9.0	20.0
2 1	10 16.26	- 0 49.2	1.972	2.884	8.9	17.7	2 1	10 16.45	+19 52.9	2.277	3.223	5.8	19.9
2 11	10 8.81	+ 0 9.3	1.910	2.870	5.6	17.4	2 11	10 8.77	+21 16.7	2.279	3.254	3.2	19.8
2 21	10 0.48	+ 1 23.8	1.876	2.855	3.5	17.3	2 21	10 0.61	+22 32.8	2.311	3.284	3.6	19.8
3 2	9 52.17	+ 2 48.6	1.872	2.840	5.4	17.4	3 2	9 52.83	+23 35.9	2.373	3.314	6.3	20.1
3 12	9 44.83	+ 4 16.3	1.897	2.824	8.9	17.5	3 12	9 46.18	+24 22.9	2.463	3.343	9.2	20.3
3 22	9 39.23	+ 5 39.9	1.948	2.808	12.4	17.7	3 22	9 41.23	+24 53.1	2.577	3.373	11.7	20.5
263598	2008 <i>FX</i> ₁₂₄		2 18.1 159°82	2.1/16.1	18		216323	2007 <i>UF</i> ₄₈		2 18.1 95°52	3.2/14.9	18	
1 12	10 28.44	+14 57.0	2.096	2.898	13.3	21.3	1 12	10 26.95	+19 47.9	2.335	3.143	11.9	20.4
1 22	10 24.03	+15 51.0	2.016	2.902	10.1	21.1	1 22	10 22.67	+20 39.1	2.261	3.150	9.1	20.3
2 1	10 17.43	+16 54.0	1.959	2.906	6.6	20.9	2 1	10 16.42	+21 34.3	2.213	3.158	6.0	20.1
2 11	10 9.25	+18 0.0	1.931	2.909	3.0	20.7	2 11	10 8.81	+22 27.8	2.192	3.166	3.5	19.9
2 21	10 0.33	+19 2.5	1.932	2.913	3.0	20.7	2 21	10 0.59	+23 13.8	2.202	3.174	3.9	20.0
3 2	9 51.65	+19 55.3	1.962	2.915	6.5	20.9	3 2	9 52.64	+23 47.7	2.240	3.181	6.7	20.2
3 12	9 44.19	+20 34.2	2.020	2.918	10.0	21.1	3 12	9 45.82	+24 7.0	2.305	3.189	9.6	20.4
3 22	9 38.64	+20 57.4	2.102	2.920	13.2	21.3	3 22	9 40.74	+24 11.2	2.394	3.196	12.3	20.6
47772	2000 <i>DO</i> ₁₀₇		2 18.1 85°07	0.5/18.5	18		402056	2003 <i>SM</i> ₃₃₈		2 18.1 145°37	2.8/15.9	18	
1 12	10 26.71	+ 8 13.5	2.139	2.923	13.6	19.4	1 12	10 32.67	+17 9.9	1.856	2.661	14.6	22.2
1 22	10 22.53	+ 8 34.9	2.061	2.935	10.6	19.2	1 22	10 27.52	+17 52.8	1.781	2.669	11.2	22.0
2 1	10 16.35	+ 9 8.6	2.007	2.946	7.0	19.0	2 1	10 19.83	+18 42.9	1.730	2.676	7.3	21.8
2 11	10 8.76	+ 9 50.8	1.979	2.957	3.1	18.7	2 11	10 10.31	+19 33.5	1.706	2.683	3.6	21.5
2 21	10 0.55	+10 37.0	1.981	2.968	1.1	18.6	2 21	9 59.98	+20 17.6	1.710	2.690	3.6	21.6
3 2	9 52.62	+11 22.0	2.012	2.979	5.0	18.9	3 2	9 50.03	+20 49.5	1.744	2.696	7.3	21.8
3 12	9 45.84	+12 1.1	2.071	2.991	8.7	19.2	3 12	9 41.59	+21 5.7	1.804	2.701	11.1	22.0
3 22	9 40.84	+12 31.2	2.155	3.001	11.9	19.4	3 22	9 35.43	+21 5.9	1.888	2.706	14.4	22.3
503659	2016 <i>GV</i> ₂₂₂		2 18.1 182°00	0.5/17.4	17		13581	1993 <i>QX</i> ₄		2 18.1 21°37	1.9/19.8	18	
1 12	10 24.36	+10 42.1	2.917	3.697	10.5	22.2	1 12	10 23.77	+ 1 29.6	1.655	2.437	17.1	16.6
1 22	10 20.30	+11 28.9	2.824	3.698	8.0	22.1	1 22	10 20.97	+ 2 24.7	1.571	2.438	13.6	16.4
2 1	10 14.72	+12 24.6	2.756	3.698	5.2	21.9	2 1	10 15.73	+ 3 45.2	1.507	2.440	9.5	16.2
2 11	10 8.05	+13 25.6	2.718	3.698	2.1	21.7	2 11	10 8.65	+ 5 27.1	1.469	2.442	4.9	15.9
2 21	10 0.84	+14 27.6	2.711	3.697	1.3	21.6	2 21	10 0.65	+ 7 22.3	1.458	2.444	2.0	15.7
3 2	9 53.75	+15 26.2	2.735	3.696	4.4	21.8	3 2	9 52.86	+ 9 20.7	1.476	2.447	5.9	16.0
3 12	9 47.44	+16 17.5	2.789	3.695	7.3	22.0	3 12	9 46.42	+11 11.5	1.521	2.450	10.5	16.2
3 22	9 42.42	+16 59.0	2.869	3.693	9.9	22.2	3 22	9 42.15	+12 47.0	1.590	2.453	14.5	16.5
7799	Martinšolc		2 18.1 120°03	2.8/16.2	18		256949	2008 <i>ED</i> ₅₉		2 18.1 14°79	3.6/16.1	18	
1 12	10 31.53												

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
238471	2004 <i>RC</i> ₆₈		2 18.1 115°05	3°0/16.1	18		240519	2004 <i>FP</i> ₅₉		2 18.1 231°61	3°6/22.2	18	
1 12	10 34.74	+17 29.2	1.628	2.438	16.1	20.2	1 12	10 22.95	- 3 26.2	2.455	3.187	13.5	20.8
1 22	10 29.37	+18 5.7	1.560	2.450	12.3	19.9	1 22	10 19.54	- 3 6.2	2.355	3.184	11.1	20.7
2 1	10 21.14	+18 49.3	1.515	2.462	8.1	19.7	2 1	10 14.41	- 2 27.4	2.278	3.182	8.3	20.5
2 11	10 10.88	+19 32.6	1.496	2.474	4.0	19.5	2 11	10 8.00	- 1 31.0	2.226	3.179	5.5	20.3
2 21	9 59.77	+20 8.3	1.505	2.485	3.9	19.5	2 21	10 0.95	- 0 20.0	2.202	3.177	3.6	20.2
3 2	9 49.20	+20 30.5	1.543	2.496	7.9	19.8	3 2	9 54.02	+ 1 0.5	2.209	3.174	4.9	20.2
3 12	9 40.43	+20 36.2	1.606	2.507	12.0	20.0	3 12	9 47.96	+ 2 24.3	2.244	3.171	7.7	20.4
3 22	9 34.28	+20 25.6	1.692	2.517	15.5	20.3	3 22	9 43.37	+ 3 45.3	2.306	3.168	10.6	20.6
28049	Yvonnealex		2 18.1 51°63	5°0/22.2	18		83084	2001 <i>QO</i> ₂₂₇		2 18.1 354°74	6°9/25.4	18	
1 12	10 26.16	- 2 53.8	1.726	2.480	17.5	18.4	1 12	10 21.29	-11 25.9	2.004	2.708	17.0	19.0
1 22	10 22.56	- 3 5.9	1.653	2.494	14.4	18.2	1 22	10 18.71	-11 24.0	1.909	2.705	14.6	18.8
2 1	10 16.60	- 2 55.3	1.599	2.509	10.8	18.0	2 1	10 14.08	-10 54.8	1.832	2.703	11.9	18.6
2 11	10 8.95	- 2 22.4	1.569	2.524	7.2	17.8	2 11	10 7.92	- 9 57.2	1.778	2.702	9.1	18.4
2 21	10 0.55	- 1 30.7	1.565	2.539	5.0	17.7	2 21	10 0.98	- 8 33.3	1.749	2.701	7.1	18.3
3 2	9 52.49	- 0 26.2	1.589	2.554	6.4	17.8	3 2	9 54.19	- 6 48.4	1.748	2.700	7.3	18.3
3 12	9 45.82	+ 0 43.2	1.639	2.570	9.7	18.1	3 12	9 48.47	- 4 51.6	1.774	2.700	9.4	18.4
3 22	9 41.26	+ 1 50.3	1.714	2.586	13.2	18.3	3 22	9 44.52	- 2 52.4	1.825	2.700	12.3	18.6
224659	2006 <i>AR</i>		2 18.1 45°97	4°2/21.6	18		403530	2010 <i>EJ</i> ₁₃₁		2 18.1 318°69	5°5/14.5	18	
1 12	10 25.74	- 1 10.1	1.708	2.472	17.3	20.7	1 12	10 31.66	+21 26.1	1.396	2.227	17.2	21.3
1 22	10 22.30	- 1 14.9	1.631	2.482	14.1	20.5	1 22	10 27.75	+22 26.5	1.323	2.223	13.3	21.0
2 1	10 16.47	- 0 57.6	1.575	2.493	10.4	20.3	2 1	10 20.53	+23 33.3	1.271	2.220	9.1	20.8
2 11	10 8.91	- 0 19.4	1.543	2.504	6.6	20.1	2 11	10 10.79	+24 36.2	1.244	2.216	5.8	20.6
2 21	10 0.56	+ 0 35.8	1.537	2.515	4.3	20.0	2 21	9 59.82	+25 24.8	1.243	2.213	6.6	20.6
3 2	9 52.53	+ 1 41.8	1.558	2.526	6.1	20.2	3 2	9 49.26	+25 50.9	1.267	2.210	10.5	20.8
3 12	9 45.87	+ 2 50.6	1.606	2.538	9.8	20.4	3 12	9 40.69	+25 51.6	1.315	2.207	14.7	21.0
3 22	9 41.34	+ 3 55.2	1.678	2.550	13.4	20.6	3 22	9 35.12	+25 28.3	1.382	2.205	18.6	21.3
2531	Cambridge		2 18.1 7°54	3°8/14.3	18		328295	2008 <i>GP</i> ₁₃₀		2 18.1 10°64	0°5/17.7	18	
1 12	10 25.20	+19 13.3	2.023	2.841	13.1	15.5	1 12	10 24.89	+ 9 37.3	1.469	2.285	17.2	20.4
1 22	10 21.72	+20 26.6	1.946	2.841	10.0	15.3	1 22	10 22.14	+10 17.6	1.394	2.286	13.4	20.2
2 1	10 16.03	+21 46.6	1.894	2.841	6.7	15.1	2 1	10 16.63	+11 15.6	1.340	2.288	8.7	19.9
2 11	10 8.72	+23 6.0	1.869	2.842	4.1	14.9	2 11	10 9.08	+12 25.3	1.310	2.291	3.6	19.6
2 21	10 0.64	+24 16.9	1.873	2.843	4.7	14.9	2 21	10 0.54	+13 38.5	1.307	2.294	1.9	19.5
3 2	9 52.79	+25 13.0	1.905	2.844	7.8	15.1	3 2	9 52.33	+14 46.2	1.330	2.298	7.0	19.8
3 12	9 46.17	+25 50.3	1.963	2.845	11.1	15.3	3 12	9 45.71	+15 41.0	1.379	2.303	11.8	20.1
3 22	9 41.49	+26 8.0	2.044	2.847	14.0	15.5	3 22	9 41.55	+16 18.7	1.449	2.308	15.9	20.4
88980	2001 <i>TQ</i> ₆₄		2 18.1 151°76	2°5/15.7	18		95281	2002 <i>CR</i> ₇₉		2 18.1 32°91	0°1/18.2	18	
1 12	10 29.68	+16 40.1	2.234	3.033	12.6	20.3	1 12	10 28.10	+10 3.2	1.798	2.596	15.3	20.2
1 22	10 24.83	+17 32.9	2.156	3.041	9.6	20.1	1 22	10 24.08	+10 17.3	1.717	2.599	11.9	20.0
2 1	10 17.89	+18 32.4	2.103	3.048	6.3	19.9	2 1	10 17.64	+10 44.0	1.658	2.602	7.8	19.7
2 11	10 9.46	+19 32.8	2.078	3.056	3.1	19.7	2 11	10 9.44	+11 19.1	1.626	2.605	3.3	19.5
2 21	10 0.35	+20 28.1	2.084	3.062	3.2	19.7	2 21	10 0.41	+11 57.5	1.621	2.608	1.3	19.3
3 2	9 51.51	+21 12.8	2.119	3.068	6.4	20.0	3 2	9 51.67	+12 33.4	1.644	2.612	5.9	19.6
3 12	9 43.86	+21 43.5	2.182	3.073	9.7	20.2	3 12	9 44.31	+13 1.8	1.695	2.616	10.2	19.9
3 22	9 38.06	+21 59.0	2.269	3.078	12.6	20.4	3 22	9 39.10	+13 19.8	1.768	2.620	13.8	20.1
32099	2000 <i>KA</i> ₄₈		2 18.1 231°55	2°7/15.3	18		436682	2011 <i>SM</i> ₁₄₃		2 18.1 201°86	5°6/26.1	17	
1 12	10 27.11	+15 10.3	2.105	2.909	13.1	19.1	1 12	10 23.09	-13 58.5	3.249	3.893	12.0	22.6
1 22	10 23.20	+16 28.7	2.011	2.900	10.1	18.9	1 22	10 19.26	-13 57.3	3.139	3.889	10.5	22.5
2 1	10 17.05	+17 58.4	1.943	2.890	6.5	18.6	2 1	10 14.04	-13 37.8	3.049	3.884	8.7	22.4
2 11	10 9.20	+19 32.7	1.902	2.880	3.3	18.4	2 11	10 7.81	-12 59.6	2.983	3.879	7.0	22.2
2 21	10 0.43	+21 3.6	1.891	2.869	3.7	18.4	2 21	10 1.08	-12 3.5	2.945	3.873	5.8	22.1
3 2	9 51.74	+22 23.3	1.910	2.858	7.1	18.6	3 2	9 54.42	-10 52.3	2.936	3.867	5.8	22.1
3 12	9 44.17	+23 26.1	1.957	2.846	10.8	18.8	3 12	9 48.42	- 9 30.5	2.957	3.861	7.0	22.2
3 22	9 38.48	+24 9.7	2.026	2.834	14.0	19.0	3 22	9 43.56	- 8 3.3	3.005	3.854	8.8	22.3
470937	2009 <i>HY</i> ₃₇		2 18.1 286°71	0°1/18.2	17		421719	2014 <i>PV</i> ₃₀		2 18.1 49°97	0°3/17.9	18	
1 12	10 23.76	+ 8 36.1	2.404	3.188	12.3	21.7	1 12	10 26.46	+ 8 23.0	1.492	2.300	17.4	20.5
1 22	10 20.22	+ 9 9.2	2.309	3.183	9.5	21.5	1 22	10 23.26	+ 9 13.0	1.420	2.308	13.5	20.3
2 1	10 14.87	+ 9 54.0	2.237	3.178	6.3	21.2	2 1	10 17.32	+10 22.1	1.369	2.315	8.8	20.0
2 11	10 8.19	+10 47.2	2.194	3.173	2.7	21.0	2 11	10 9.36	+11 44.1	1.343	2.323	3.7	19.7
2 21	10 0.86	+11 44.2	2.180	3.167	1.1	20.9	2 21	10 0.46	+13 10.2	1.344	2.332	1.7	19.6
3 2	9 53.66	+12 39.8	2.195	3.162	4.8	21.1	3 2	9 51.92	+14 30.6	1.373	2.340	6.9	19.9
3 12	9 47.37	+13 29.4	2.240	3.157	8.2	21.3	3 12	9 45.00	+15 37.5	1.427	2.349	11.6	20.2
3 22	9 42.63	+14 9.5	2.309	3.152	11.3	21.5	3 22	9 40.53	+16 26.4	1.503	2.357	15.6	20.5
215861	2005 <i>EM</i> ₁₀₁		2 18.1 295°13	6°5/12.7	18		171385	2006 <i>PW</i> ₇		2 18.1 158°34	3°4/15.1	18	
1 12	10 28.16	+22 57.8	1.555	2.387	15.7	20.2	1 12	10 30.67	+18 16.5	1.977	2.784	13.8	20.7
1 22	10 24.99	+24 28.6	1.469	2.369	12.3	19.9	1 22	10 25.94	+19 20.7	1.901	2.790	10.5	20.5
2 1	10 18.76	+26 7.3	1.406	2.352	8.7	19.7	2 1	10 18.80	+20 31.9	1.849	2.795	6.9	20.3
2 11	10 10.08	+27 42.8	1.369	2.334	6.5	19.5	2 11	10 9.93	+21 42.9	1.825	2.800	3.9	20.1
2 21	10 0.04	+29 3.4	1.358	2.317	7.8	19.5	2 21	10 0.24	+22 45.9	1.830	2.804	4.3	20.1
3 2	9 50.12	+29 59.4	1.372	2.300	11.3	19.7	3 2	9 50.85	+23 34.6	1.864	2.808	7.6	20.3
3 12	9 41.84	+30 26.1	1.410	2.283	15.2	19.9	3 12	9 42.83	+24 5.3	1.925	2.811	11.1	20.6
3 22	9 36.28	+30 23.9	1.467	2.266	18.8	20.1	3 22	9 36.93	+24 17.5	2.008	2.813	14.2	20.8
291047	2005 <i>YK</i> ₅₁		2 18.1 248°93	0°9/18.8	17		482818	2013 <i>WT</i> ₉₉		2 18.1 186°29	14°8/26.8	18	
1 12	10 27.37	+ 7 33											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
208984	2003 <i>AP</i> ₁₁		2 18.1 342°53	10°7/24.3	17		188228	2002 <i>TH</i> ₂₆₇		2 18.1 196°34	3°7/21.2	18	
1 12	10 23.59	-10 0.1	1.617	2.344	19.6	18.6	1 12	10 32.10	-0 48.7	2.052	2.791	15.6	21.1
1 22	10 21.21	-11 42.3	1.517	2.323	17.3	18.3	1 22	10 27.00	-0 48.4	1.951	2.787	12.8	20.9
2 1	10 16.18	-13 3.7	1.436	2.304	14.7	18.1	2 1	10 19.55	-0 29.0	1.872	2.783	9.4	20.7
2 11	10 9.00	-13 58.4	1.376	2.287	12.3	17.9	2 11	10 10.31	+0 8.6	1.818	2.778	5.8	20.5
2 21	10 0.55	-14 22.4	1.338	2.270	10.8	17.8	2 21	10 0.11	+1 1.4	1.794	2.772	3.7	20.3
3 2	9 52.03	-14 15.4	1.323	2.255	11.2	17.8	3 2	9 50.02	+2 4.2	1.799	2.764	5.8	20.4
3 12	9 44.76	-13 42.0	1.331	2.242	13.2	17.8	3 12	9 41.09	+3 10.3	1.833	2.756	9.4	20.6
3 22	9 39.79	-12 50.5	1.360	2.231	16.0	18.0	3 22	9 34.15	+4 13.3	1.893	2.746	13.0	20.8
411336	2010 <i>UN</i> ₅₃		2 18.1 119°17	4°4/14.6	18		81292	2000 <i>FQ</i> ₇₁		2 18.1 111°25	6°3/13.5	18	
1 12	10 33.56	+22 17.1	1.984	2.792	13.7	21.9	1 12	10 37.18	+28 8.7	1.894	2.702	14.2	19.3
1 22	10 28.03	+23 9.0	1.919	2.806	10.5	21.7	1 22	10 30.99	+28 59.8	1.833	2.716	11.2	19.1
2 1	10 20.07	+24 3.0	1.878	2.821	7.2	21.5	2 1	10 22.07	+29 47.7	1.797	2.729	8.2	18.9
2 11	10 10.41	+24 51.9	1.865	2.834	4.6	21.4	2 11	10 11.28	+30 23.8	1.787	2.742	6.4	18.8
2 21	10 0.08	+25 28.7	1.881	2.848	5.1	21.5	2 21	9 59.79	+30 41.5	1.805	2.755	7.1	18.9
3 2	9 50.21	+25 49.0	1.926	2.861	8.0	21.7	3 2	9 48.92	+30 36.9	1.851	2.768	9.6	19.1
3 12	9 41.87	+25 50.9	1.997	2.873	11.2	21.9	3 12	9 39.85	+30 10.4	1.923	2.780	12.5	19.3
3 22	9 35.76	+25 35.5	2.091	2.885	14.1	22.1	3 22	9 33.32	+29 25.3	2.016	2.791	15.2	19.5
317818	2003 <i>SU</i> ₂₆₄		2 18.1 223°95	1°2/17.2	18		33912	Melissanoland		2 18.1 198°51	0°2/17.9	18	
1 12	10 29.42	+11 51.4	1.777	2.579	15.3	21.1	1 12	10 29.79	+8 32.8	1.918	2.704	14.9	18.7
1 22	10 25.29	+12 32.6	1.688	2.573	11.8	20.9	1 22	10 25.38	+9 18.4	1.825	2.701	11.6	18.5
2 1	10 18.59	+13 27.3	1.621	2.567	7.7	20.6	2 1	10 18.55	+10 19.7	1.756	2.697	7.7	18.2
2 11	10 9.92	+14 29.8	1.581	2.561	3.2	20.4	2 11	10 9.89	+11 32.0	1.714	2.693	3.2	17.9
2 21	10 0.23	+15 33.1	1.569	2.555	2.2	20.3	2 21	10 0.29	+12 48.6	1.701	2.688	1.4	17.8
3 2	9 50.73	+16 29.8	1.585	2.548	6.8	20.5	3 2	9 50.84	+14 2.0	1.717	2.682	6.0	18.1
3 12	9 42.60	+17 14.0	1.629	2.540	11.1	20.8	3 12	9 42.64	+15 5.4	1.762	2.676	10.3	18.3
3 22	9 36.73	+17 42.5	1.695	2.533	14.9	21.0	3 22	9 36.53	+15 54.8	1.830	2.669	14.0	18.5
307753	2003 <i>UB</i> ₃₃₄		2 18.1 56°74	0°3/18.3	18		269049	2007 <i>FR</i> ₄₉		2 18.1 307°55	7°8/24.8	18	
1 12	10 30.02	+8 55.1	1.407	2.215	18.3	21.2	1 12	10 24.57	-10 17.0	1.895	2.604	17.6	20.2
1 22	10 25.98	+9 14.1	1.346	2.232	14.2	21.0	1 22	10 21.45	-10 50.0	1.796	2.596	15.3	20.0
2 1	10 19.05	+9 49.8	1.305	2.249	9.3	20.8	2 1	10 16.03	-10 58.1	1.717	2.588	12.5	19.8
2 11	10 10.06	+10 37.0	1.288	2.267	4.0	20.5	2 11	10 8.85	-10 38.8	1.659	2.581	9.8	19.6
2 21	10 0.23	+11 28.3	1.297	2.285	1.5	20.4	2 21	10 0.71	-9 52.3	1.626	2.574	7.9	19.5
3 2	9 50.97	+12 16.0	1.334	2.303	6.8	20.7	3 2	9 52.64	-8 42.4	1.620	2.567	8.2	19.5
3 12	9 43.55	+12 54.0	1.396	2.322	11.5	21.1	3 12	9 45.73	-7 16.5	1.639	2.560	10.5	19.6
3 22	9 38.77	+13 18.6	1.480	2.340	15.5	21.3	3 22	9 40.78	-5 43.7	1.682	2.553	13.4	19.7
370733	2004 <i>RH</i> ₈₇		2 18.1 86°45	1°1/18.9	18		402064	2003 <i>TW</i> ₆		2 18.1 169°78	5°1/13.1	18	
1 12	10 32.81	+8 23.8	2.043	2.818	14.5	21.4	1 12	10 34.34	+25 27.0	2.308	3.109	12.2	22.3
1 22	10 27.17	+8 16.0	1.974	2.841	11.3	21.2	1 22	10 28.50	+26 37.4	2.234	3.115	9.5	22.1
2 1	10 19.36	+8 19.1	1.928	2.863	7.5	21.1	2 1	10 20.38	+27 48.2	2.186	3.120	6.9	22.0
2 11	10 10.08	+8 30.4	1.909	2.885	3.5	20.8	2 11	10 10.59	+28 52.1	2.166	3.124	5.2	21.9
2 21	10 0.23	+8 46.2	1.920	2.907	1.4	20.7	2 21	10 0.04	+29 42.0	2.176	3.127	5.9	21.9
3 2	9 50.83	+9 2.6	1.960	2.928	5.1	21.0	3 2	9 49.80	+30 13.2	2.215	3.129	8.3	22.1
3 12	9 42.80	+9 16.1	2.030	2.949	8.8	21.3	3 12	9 40.87	+30 24.1	2.281	3.130	11.1	22.3
3 22	9 36.77	+9 24.1	2.124	2.970	12.0	21.5	3 22	9 33.99	+30 15.8	2.370	3.131	13.6	22.4
64658	2001 <i>XR</i> ₅₉		2 18.1 196°41	5°7/13.6	18		90518	2004 <i>EL</i> ₆₀		2 18.1 311°59	2°0/17.2	18	
1 12	10 30.00	+21 9.0	1.517	2.345	16.2	19.0	1 12	10 33.00	+15 43.8	1.241	2.068	19.1	19.2
1 22	10 26.24	+22 38.6	1.446	2.345	12.5	18.8	1 22	10 29.28	+15 44.1	1.154	2.053	14.9	18.9
2 1	10 19.44	+24 16.1	1.398	2.345	8.6	18.6	2 1	10 21.90	+15 53.9	1.087	2.038	9.9	18.6
2 11	10 10.33	+25 50.4	1.375	2.344	5.9	18.4	2 11	10 11.56	+16 7.2	1.043	2.024	4.3	18.2
2 21	10 0.08	+27 10.0	1.379	2.344	6.9	18.5	2 21	9 59.59	+16 16.6	1.024	2.010	3.2	18.1
3 2	9 50.19	+28 6.0	1.410	2.343	10.5	18.7	3 2	9 47.85	+16 15.5	1.031	1.997	8.9	18.4
3 12	9 42.07	+28 34.4	1.464	2.343	14.4	18.9	3 12	9 38.16	+15 59.9	1.060	1.984	14.5	18.6
3 22	9 36.69	+28 36.1	1.538	2.342	17.8	19.1	3 22	9 31.79	+15 29.2	1.110	1.972	19.5	18.9
131945	2002 <i>CL</i> ₂₉		2 18.1 89°26	2°4/16.6	18		368610	2004 <i>RG</i> ₂₃₉		2 18.1 68°65	1°4/19.4	18	
1 12	10 36.05	+15 50.5	1.566	2.372	16.8	19.3	1 12	10 26.30	+5 4.6	1.869	2.651	15.4	21.1
1 22	10 30.29	+16 23.7	1.509	2.397	12.8	19.1	1 22	10 22.57	+5 28.1	1.791	2.661	12.1	20.9
2 1	10 21.67	+17 5.1	1.474	2.421	8.3	18.9	2 1	10 16.59	+6 8.3	1.735	2.671	8.2	20.7
2 11	10 11.11	+17 47.5	1.466	2.445	3.7	18.7	2 11	10 9.01	+7 2.0	1.705	2.681	4.0	20.5
2 21	9 59.84	+18 23.8	1.485	2.468	3.3	18.7	2 21	10 0.70	+8 3.6	1.704	2.691	1.6	20.3
3 2	9 49.28	+18 48.0	1.533	2.491	7.5	19.1	3 2	9 52.67	+9 6.6	1.731	2.701	5.4	20.6
3 12	9 40.64	+18 57.1	1.607	2.513	11.7	19.3	3 12	9 45.93	+10 4.6	1.785	2.711	9.4	20.8
3 22	9 34.67	+18 51.2	1.704	2.535	15.2	19.6	3 22	9 41.17	+10 52.9	1.863	2.721	12.9	21.1
411187	2010 <i>JO</i> ₄₀		2 18.1 262°83	0°7/18.6	17		341523	2007 <i>TT</i> ₄₃₂		2 18.1 53°01	6°0/24.4	18	
1 12	10 32.08	+8 22.3	1.826	2.610	15.6	22.0	1 12	10 23.67	-8 48.6	2.207	2.914	15.5	21.0
1 22	10 27.53	+8 31.4	1.713	2.586	12.4	21.8	1 22	10 20.29	-9 0.0	2.118	2.920	13.2	20.8
2 1	10 20.24	+8 54.7	1.622	2.561	8.4	21.5	2 1	10 14.99	-8 49.2	2.050	2.927	10.5	20.7
2 11	10 10.73	+9 29.6	1.557	2.535	3.9	21.1	2 11	10 8.31	-8 15.8	2.005	2.934	7.9	20.5
2 21	9 59.89	+10 11.2	1.521	2.508	1.4	20.9	2 21	10 0.97	-7 21.6	1.987	2.941	6.2	20.4
3 2	9 48.95	+10 53.6	1.513	2.481	6.3	21.2	3 2	9 53.82	-6 11.0	1.996	2.948	6.5	20.4
3 12	9 39.21	+11 30.7	1.533	2.453	11.1	21.4	3 12	9 47.68	-4 50.6	2.033	2.955	8.7	20.6
3 22	9 31.73	+11 58.1	1.576	2.424	15.4	21.6	3 22	9 43.20	-3 27.4	2.096	2.963	11.3	20.8
343140	2009 <i>FL</i> ₃₅		2 18.1 262°20	1°5/16.6	17		393413	2001 <i>QL</i> ₁₀₂		2 18.1 155°65	0°5/17.7	18	
1 12	10 25.48	+14 25.9											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
387120	2012 <i>TB</i> ₁₆₉		2 18.1 119°76	1°3/16.7	17		366772	2004 <i>RE</i> ₃₁₂		2 18.1 56°51	2°6/16.6	18	
1 12	10 25.74	+13 42.5	2.632	3.423	11.2	21.8	1 12	10 33.30	+14 59.8	1.250	2.075	19.1	21.0
1 22	10 21.50	+14 24.1	2.554	3.434	8.5	21.6	1 22	10 28.74	+15 40.0	1.202	2.100	14.6	20.8
2 1	10 15.58	+15 12.9	2.501	3.445	5.5	21.4	2 1	10 20.91	+16 31.5	1.175	2.125	9.4	20.6
2 11	10 8.51	+16 4.6	2.476	3.456	2.3	21.2	2 11	10 10.86	+17 25.6	1.171	2.151	4.2	20.4
2 21	10 0.91	+16 54.7	2.482	3.466	1.9	21.2	2 21	10 0.04	+18 12.9	1.193	2.177	3.6	20.4
3 2	9 53.54	+17 38.7	2.519	3.476	5.0	21.4	3 2	9 50.07	+18 45.9	1.242	2.203	8.4	20.8
3 12	9 47.10	+18 13.5	2.584	3.486	8.0	21.6	3 12	9 42.33	+19 0.9	1.315	2.229	13.1	21.1
3 22	9 42.13	+18 37.1	2.674	3.495	10.6	21.8	3 22	9 37.59	+18 57.7	1.408	2.255	17.0	21.4
234156	2000 <i>GO</i> ₁₆₅		2 18.1 78°92	3°7/21.9	18		72102	2000 <i>YB</i> ₅₂		2 18.1 308°40	0°8/18.7	18	
1 12	10 24.07	- 2 14.5	2.224	2.966	14.4	20.4	1 12	10 28.11	+ 8 22.8	1.492	2.297	17.5	19.3
1 22	10 20.59	- 2 5.3	2.131	2.968	11.8	20.2	1 22	10 24.80	+ 8 29.0	1.401	2.286	13.8	19.0
2 1	10 15.20	- 1 37.2	2.059	2.969	8.8	20.0	2 1	10 18.56	+ 8 51.8	1.331	2.274	9.4	18.7
2 11	10 8.41	- 0 51.2	2.013	2.970	5.7	19.8	2 11	10 10.04	+ 9 27.8	1.284	2.263	4.3	18.4
2 21	10 0.94	+ 0 9.5	1.995	2.971	3.7	19.7	2 21	10 0.28	+10 11.4	1.264	2.252	1.5	18.2
3 2	9 53.63	+ 1 19.8	2.006	2.972	5.2	19.8	3 2	9 50.66	+10 55.4	1.271	2.242	6.8	18.5
3 12	9 47.30	+ 2 33.2	2.046	2.974	8.3	20.0	3 12	9 42.60	+11 32.9	1.303	2.231	11.9	18.7
3 22	9 42.62	+ 3 43.8	2.111	2.975	11.4	20.2	3 22	9 37.11	+11 59.1	1.357	2.222	16.4	19.0
292602	2006 <i>TZ</i> ₁₀₈		2 18.1 133°33	2°7/20.8	17		94582	2001 <i>VW</i> ₄₆		2 18.1 61°28	0°8/18.6	18	
1 12	10 26.93	+ 1 41.4	2.734	3.476	12.0	21.3	1 12	10 32.91	+ 8 14.9	1.304	2.110	19.5	19.3
1 22	10 22.32	+ 1 29.3	2.643	3.484	9.7	21.2	1 22	10 28.31	+ 8 23.4	1.249	2.134	15.2	19.1
2 1	10 16.10	+ 1 29.1	2.576	3.491	7.0	21.0	2 1	10 20.60	+ 8 49.4	1.215	2.158	10.1	18.8
2 11	10 8.73	+ 1 40.0	2.536	3.498	4.2	20.8	2 11	10 10.74	+ 9 28.1	1.204	2.182	4.5	18.6
2 21	10 0.83	+ 1 59.8	2.526	3.505	2.7	20.7	2 21	10 0.09	+10 12.3	1.219	2.207	1.6	18.5
3 2	9 53.11	+ 2 25.6	2.547	3.512	4.3	20.8	3 2	9 50.17	+10 54.4	1.261	2.231	6.9	18.9
3 12	9 46.26	+ 2 53.8	2.597	3.519	7.0	21.0	3 12	9 42.32	+11 27.9	1.328	2.256	11.8	19.2
3 22	9 40.80	+ 3 21.0	2.673	3.525	9.7	21.2	3 22	9 37.33	+11 49.3	1.417	2.280	15.9	19.5
419097	2009 <i>SE</i> ₁₅₆		2 18.1 115°13	0°4/18.5	18		255553	2006 <i>JN</i> ₄₆		2 18.1 292°03	4°2/21.4	17	
1 12	10 27.68	+ 7 31.1	2.010	2.794	14.4	21.9	1 12	10 24.78	- 1 48.3	1.602	2.370	18.1	21.0
1 22	10 23.47	+ 8 4.6	1.931	2.804	11.2	21.7	1 22	10 22.20	- 1 34.9	1.491	2.344	15.0	20.8
2 1	10 17.12	+ 8 52.5	1.876	2.815	7.4	21.5	2 1	10 16.92	- 0 54.3	1.399	2.319	11.2	20.4
2 11	10 9.23	+ 9 50.5	1.847	2.825	3.3	21.2	2 11	10 9.40	+ 0 13.9	1.330	2.293	7.0	20.1
2 21	10 0.63	+10 52.9	1.847	2.835	1.2	21.1	2 21	10 0.51	+ 1 46.2	1.287	2.268	4.2	19.9
3 2	9 52.32	+11 53.7	1.877	2.844	5.3	21.4	3 2	9 51.47	+ 3 34.6	1.271	2.242	6.8	20.0
3 12	9 45.24	+12 47.0	1.934	2.854	9.2	21.6	3 12	9 43.65	+ 5 27.8	1.282	2.216	11.5	20.2
3 22	9 40.06	+13 29.2	2.017	2.863	12.6	21.9	3 22	9 38.15	+ 7 15.1	1.316	2.191	16.1	20.4
379100	2008 <i>YQ</i> ₇		2 18.1 96°23	3°5/14.4	18		400827	2010 <i>JJ</i> ₁₅₇		2 18.1 188°80	4°2/14.7	18	
1 12	10 28.61	+20 26.9	2.362	3.167	11.8	21.0	1 12	10 32.16	+19 35.5	1.836	2.647	14.5	21.5
1 22	10 23.86	+21 31.8	2.301	3.189	9.0	20.8	1 22	10 27.38	+20 43.0	1.756	2.647	11.2	21.3
2 1	10 17.18	+22 39.8	2.267	3.210	6.0	20.7	2 1	10 19.95	+21 57.4	1.700	2.646	7.5	21.1
2 11	10 9.19	+23 44.6	2.261	3.232	3.7	20.6	2 11	10 10.52	+23 10.6	1.671	2.644	4.5	20.9
2 21	10 0.67	+24 40.3	2.285	3.253	4.3	20.6	2 21	10 0.12	+24 14.0	1.671	2.642	5.1	21.0
3 2	9 52.50	+25 22.2	2.338	3.273	6.8	20.8	3 2	9 49.99	+25 0.5	1.699	2.639	8.5	21.1
3 12	9 45.50	+25 48.0	2.419	3.293	9.6	21.0	3 12	9 41.35	+25 26.4	1.753	2.636	12.2	21.4
3 22	9 40.26	+25 57.6	2.523	3.313	12.1	21.2	3 22	9 35.06	+25 31.6	1.830	2.632	15.5	21.6
286192	2001 <i>UM</i> ₆₂		2 18.1 117°71	4°6/15.0	18		453248	2008 <i>SN</i> ₃₈		2 18.1 189°62	0°4/17.8	18	
1 12	10 35.47	+20 57.5	1.587	2.402	16.2	21.4	1 12	10 31.41	+ 9 55.1	1.712	2.507	16.1	22.3
1 22	10 30.11	+21 48.3	1.522	2.414	12.5	21.2	1 22	10 26.89	+10 29.1	1.626	2.507	12.5	22.1
2 1	10 21.75	+22 43.5	1.479	2.425	8.4	21.0	2 1	10 19.68	+11 18.1	1.562	2.506	8.2	21.8
2 11	10 11.24	+23 34.3	1.463	2.435	5.0	20.8	2 11	10 10.44	+12 17.0	1.524	2.504	3.5	21.5
2 21	9 59.84	+24 12.1	1.474	2.445	5.5	20.8	2 21	10 0.17	+13 18.9	1.515	2.502	1.7	21.4
3 2	9 49.01	+24 31.1	1.512	2.455	9.1	21.1	3 2	9 50.13	+14 16.4	1.534	2.499	6.6	21.7
3 12	9 40.08	+24 29.2	1.576	2.465	12.9	21.3	3 12	9 41.57	+15 3.2	1.580	2.496	11.1	22.0
3 22	9 33.90	+24 7.9	1.661	2.474	16.4	21.5	3 22	9 35.37	+15 35.6	1.649	2.492	15.1	22.2
277835	2006 <i>HQ</i> ₆₀		2 18.1 236°77	0°3/18.4	17		150761	2001 <i>QA</i> ₁₈₀		2 18.1 87°73	0°8/17.4	18	
1 12	10 25.39	+ 7 30.4	2.668	3.440	11.5	21.5	1 12	10 27.58	+ 8 25.3	1.861	2.653	15.1	19.6
1 22	10 21.39	+ 8 12.0	2.559	3.425	9.0	21.3	1 22	10 23.50	+ 9 43.0	1.795	2.675	11.6	19.4
2 1	10 15.65	+ 9 6.0	2.474	3.411	6.0	21.1	2 1	10 17.18	+11 16.9	1.752	2.696	7.5	19.2
2 11	10 8.61	+10 9.0	2.418	3.395	2.7	20.9	2 11	10 9.26	+12 59.8	1.737	2.717	3.0	19.0
2 21	10 0.87	+11 16.8	2.392	3.380	1.0	20.7	2 21	10 0.68	+14 43.3	1.752	2.738	1.8	18.9
3 2	9 53.16	+12 24.2	2.398	3.363	4.5	20.9	3 2	9 52.46	+16 18.7	1.797	2.759	6.1	19.3
3 12	9 46.25	+13 26.3	2.433	3.347	7.8	21.1	3 12	9 45.59	+17 39.3	1.869	2.779	10.0	19.5
3 22	9 40.74	+14 19.3	2.494	3.329	10.8	21.3	3 22	9 40.75	+18 41.5	1.966	2.799	13.4	19.8
108937	2001 <i>PF</i> ₂₅		2 18.1 179°23	1°2/19.2	18		265744	2005 <i>VL</i> ₄		2 18.1 139°51	3°3/20.9	18	
1 12	10 29.50	+ 6 13.1	2.379	3.144	13.0	21.1	1 12	10 30.22	+ 1 11.3	2.181	2.928	14.5	20.8
1 22	10 24.60	+ 6 28.0	2.285	3.146	10.2	20.9	1 22	10 25.27	+ 0 54.6	2.094	2.937	11.7	20.7
2 1	10 17.75	+ 6 55.2	2.215	3.147	6.9	20.7	2 1	10 18.24	+ 0 53.0	2.029	2.945	8.5	20.5
2 11	10 9.49	+ 7 32.2	2.173	3.147	3.4	20.5	2 11	10 9.72	+ 1 5.6	1.991	2.953	5.2	20.3
2 21	10 0.53	+ 8 15.1	2.160	3.147	1.4	20.3	2 21	10 0.49	+ 1 30.1	1.982	2.960	3.3	20.2
3 2	9 51.74	+ 8 59.3	2.179	3.146	4.7	20.6	3 2	9 51.50	+ 2 2.5	2.002	2.967	5.3	20.3
3 12	9 43.97	+ 9 40.4	2.226	3.145	8.2	20.8	3 12	9 43.66	+ 2 38.0	2.051	2.974	8.5	20.5
3 22	9 37.87	+10 14.7	2.300	3.143	11.3	21.0	3 22	9 37.63	+ 3 12.1	2.125	2.980	11.7	20.7
190746	2001 <i>QD</i> ₁₅		2 18.1 194°63	1°5/17.1	18		383383	2006 <i>SW</i> ₃₈₄		2 18.1 95°50	3°3/14.5	17</	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
47879	2000 <i>FR</i> ₂₆		2 18.1 93°57'	3°7'/14.9	18		224896	2007 <i>CK</i> ₂₂		2 18.1 228°47'	1°8'/16.3	18	
1 12	10 30.90	+21 49.4	2.192	2.998	12.6	18.6	1 12	10 26.34	+12 5.3	2.093	2.892	13.4	20.5
1 22	10 25.82	+22 25.2	2.121	3.008	9.7	18.5	1 22	10 22.62	+13 19.4	2.000	2.884	10.3	20.3
2 1	10 18.58	+23 3.0	2.075	3.018	6.5	18.3	2 1	10 16.72	+14 47.1	1.931	2.877	6.7	20.0
2 11	10 9.83	+23 36.6	2.056	3.027	4.0	18.1	2 11	10 9.17	+16 22.3	1.889	2.869	2.9	19.8
2 21	10 0.47	+24 0.9	2.066	3.037	4.4	18.2	2 21	10 0.75	+17 57.4	1.878	2.861	2.7	19.7
3 2	9 51.49	+24 11.9	2.106	3.046	7.1	18.4	3 2	9 52.42	+19 24.4	1.897	2.853	6.5	20.0
3 12	9 43.82	+24 7.8	2.172	3.055	10.2	18.6	3 12	9 45.17	+20 37.0	1.943	2.844	10.3	20.2
3 22	9 38.10	+23 49.3	2.263	3.064	12.9	18.8	3 22	9 39.78	+21 31.8	2.014	2.835	13.6	20.4
42109	2001 <i>AX</i> ₄₄		2 18.1 123°57'	2°1'/16.4	18		461731	2005 <i>TB</i> ₁₄₄		2 18.1 112°73'	4°0'/14.8	18	
1 12	10 31.82	+14 36.6	1.897	2.697	14.5	19.5	1 12	10 30.25	+20 19.8	1.895	2.709	14.0	21.7
1 22	10 26.78	+15 26.6	1.827	2.712	11.1	19.3	1 22	10 25.73	+21 15.7	1.824	2.715	10.7	21.5
2 1	10 19.34	+16 25.9	1.781	2.727	7.2	19.1	2 1	10 18.75	+22 16.4	1.776	2.721	7.2	21.2
2 11	10 10.20	+17 28.0	1.762	2.742	3.2	18.8	2 11	10 10.00	+23 14.6	1.755	2.727	4.3	21.1
2 21	10 0.33	+18 25.9	1.773	2.755	2.9	18.8	2 21	10 0.46	+24 2.7	1.762	2.733	4.9	21.1
3 2	9 50.85	+19 13.3	1.813	2.768	6.7	19.1	3 2	9 51.27	+24 35.2	1.797	2.739	8.0	21.3
3 12	9 42.83	+19 46.1	1.880	2.781	10.5	19.4	3 12	9 43.54	+24 49.2	1.859	2.744	11.5	21.5
3 22	9 36.99	+20 3.0	1.971	2.793	13.8	19.6	3 22	9 38.01	+24 44.8	1.943	2.750	14.5	21.8
212332	2005 <i>SC</i> ₁₅₂		2 18.1 164°37'	0°6'/17.5	18		506808	2007 <i>MG</i> ₆		2 18.1 247°67'	5°3'/24.1	17	
1 12	10 28.29	+10 51.6	2.202	2.990	13.2	21.6	1 12	10 27.31	- 9 53.4	3.071	3.738	12.2	23.2
1 22	10 23.85	+11 31.7	2.117	2.994	10.1	21.4	1 22	10 22.73	-10 7.0	2.939	3.713	10.6	23.1
2 1	10 17.35	+12 22.9	2.055	2.998	6.6	21.1	2 1	10 16.52	-10 4.1	2.829	3.687	8.6	22.9
2 11	10 9.36	+13 20.8	2.022	3.001	2.7	20.9	2 11	10 9.03	- 9 43.6	2.745	3.660	6.7	22.7
2 21	10 0.66	+14 19.6	2.018	3.004	1.6	20.8	2 21	10 0.81	- 9 6.0	2.689	3.632	5.4	22.6
3 2	9 52.17	+15 13.9	2.044	3.007	5.4	21.1	3 2	9 52.52	- 8 13.4	2.663	3.604	5.8	22.6
3 12	9 44.80	+15 58.8	2.099	3.009	9.1	21.3	3 12	9 44.86	- 7 9.8	2.667	3.574	7.5	22.6
3 22	9 39.21	+16 31.6	2.178	3.010	12.3	21.5	3 22	9 38.42	- 6 0.4	2.698	3.544	9.8	22.7
197025	2003 <i>UX</i> ₁₂₀		2 18.1 142°83'	0°3'/18.4	16		121626	1999 <i>VR</i> ₁₇₈		2 18.1 60°15'	8°6'/10.2	18	
1 12	10 27.35	+ 8 35.3	2.551	3.325	12.0	22.3	1 12	10 31.11	+32 46.0	1.839	2.659	14.1	19.4
1 22	10 22.78	+ 9 1.8	2.467	3.335	9.3	22.1	1 22	10 26.69	+34 23.5	1.790	2.671	11.5	19.3
2 1	10 16.47	+ 9 38.6	2.407	3.345	6.1	21.9	2 1	10 19.49	+35 54.9	1.765	2.684	9.4	19.2
2 11	10 8.93	+10 22.5	2.376	3.354	2.7	21.7	2 11	10 10.32	+37 9.5	1.766	2.697	8.6	19.2
2 21	10 0.84	+11 9.4	2.375	3.362	1.0	21.6	2 21	10 0.35	+37 59.2	1.792	2.710	9.6	19.3
3 2	9 52.96	+11 54.7	2.404	3.370	4.5	21.8	3 2	9 50.92	+38 19.5	1.844	2.723	11.8	19.4
3 12	9 46.04	+12 34.6	2.463	3.378	7.7	22.1	3 12	9 43.23	+38 10.8	1.919	2.736	14.2	19.6
3 22	9 40.64	+13 6.4	2.548	3.385	10.6	22.2	3 22	9 38.07	+37 37.0	2.013	2.749	16.4	19.8
63131	2000 <i>WG</i> ₁₈₆		2 18.1 283°40'	7°6'/23.7	18		58182	1991 <i>PX</i> ₂		2 18.1 194°72'	0°2'/18.0	18	
1 12	10 26.53	- 7 33.5	1.636	2.370	19.1	19.2	1 12	10 29.56	+10 34.9	2.251	3.034	13.1	20.0
1 22	10 23.38	- 8 9.0	1.538	2.359	16.4	19.0	1 22	10 24.82	+10 54.0	2.158	3.032	10.1	19.8
2 1	10 17.57	- 8 18.6	1.459	2.348	13.1	18.7	2 1	10 18.00	+11 23.2	2.090	3.030	6.7	19.6
2 11	10 9.63	- 7 59.3	1.401	2.338	9.9	18.5	2 11	10 9.67	+11 58.9	2.048	3.028	2.8	19.4
2 21	10 0.50	- 7 11.5	1.368	2.327	7.7	18.4	2 21	10 0.59	+12 36.6	2.037	3.024	1.2	19.2
3 2	9 51.41	- 5 59.5	1.361	2.316	8.4	18.4	3 2	9 51.68	+13 11.7	2.056	3.021	5.2	19.5
3 12	9 43.64	- 4 32.1	1.378	2.306	11.5	18.5	3 12	9 43.87	+13 40.1	2.103	3.017	8.9	19.7
3 22	9 38.18	- 2 59.6	1.420	2.296	15.1	18.7	3 22	9 37.84	+13 59.3	2.175	3.013	12.1	19.9
456682	2007 <i>RV</i> ₁₃₉		2 18.1 124°93'	0°0'/18.1	18		379058	2008 <i>WG</i> ₆₄		2 18.1 73°39'	4°3'/21.9	18	
1 12	10 32.61	+ 9 31.7	1.934	2.717	14.9	22.1	1 12	10 27.69	- 1 50.1	2.121	2.861	15.1	20.8
1 22	10 27.28	+ 9 58.7	1.861	2.735	11.5	21.9	1 22	10 23.32	- 2 8.6	2.045	2.879	12.4	20.6
2 1	10 19.62	+10 38.0	1.812	2.752	7.6	21.7	2 1	10 16.96	- 2 9.6	1.990	2.896	9.2	20.4
2 11	10 10.31	+11 25.2	1.789	2.768	3.2	21.5	2 11	10 9.18	- 1 53.4	1.960	2.914	6.1	20.3
2 21	10 0.31	+12 14.6	1.796	2.783	1.3	21.4	2 21	10 0.80	- 1 22.6	1.958	2.931	4.3	20.2
3 2	9 50.70	+13 0.4	1.832	2.798	5.7	21.7	3 2	9 52.71	- 0 41.3	1.985	2.948	5.6	20.3
3 12	9 42.50	+13 37.7	1.897	2.812	9.6	22.0	3 12	9 45.79	+ 0 5.0	2.040	2.965	8.5	20.5
3 22	9 36.41	+14 3.9	1.986	2.825	13.0	22.2	3 22	9 40.65	+ 0 51.1	2.121	2.983	11.4	20.7
166300	2002 <i>JG</i> ₁₂		2 18.1 297°08'	0°8'/17.6	18		274866	2009 <i>RG</i> ₅₃		2 18.1 123°40'	2°0'/20.0	18	
1 12	10 28.60	+11 33.9	1.505	2.318	17.0	20.4	1 12	10 26.76	+ 3 10.6	2.047	2.814	14.7	21.4
1 22	10 25.25	+11 57.3	1.411	2.302	13.3	20.1	1 22	10 22.79	+ 3 30.0	1.962	2.821	11.7	21.2
2 1	10 18.93	+12 35.6	1.339	2.287	8.8	19.8	2 1	10 16.72	+ 4 6.3	1.899	2.828	8.2	21.0
2 11	10 10.25	+13 23.8	1.291	2.271	3.7	19.5	2 11	10 9.13	+ 4 56.8	1.863	2.834	4.3	20.8
2 21	10 0.26	+14 14.8	1.269	2.256	2.1	19.3	2 21	10 0.81	+ 5 57.1	1.855	2.840	2.1	20.7
3 2	9 50.37	+15 0.7	1.275	2.241	7.4	19.6	3 2	9 52.72	+ 7 1.0	1.877	2.846	5.1	20.9
3 12	9 42.03	+15 34.8	1.305	2.226	12.5	19.9	3 12	9 45.79	+ 8 2.5	1.926	2.852	8.8	21.1
3 22	9 36.29	+15 53.3	1.357	2.212	17.0	20.1	3 22	9 40.69	+ 8 56.6	2.001	2.858	12.2	21.3
506313	2017 <i>OD</i> ₂		2 18.1 207°54'	2°8'/20.5	17		194064	2001 <i>SG</i> ₁₂₉		2 18.1 158°61'	2°3'/20.1	18	
1 12	10 31.03	+ 2 20.2	2.545	3.286	12.8	22.3	1 12	10 31.29	+ 2 43.8	1.934	2.694	15.7	21.6
1 22	10 25.72	+ 2 1.1	2.440	3.280	10.4	22.1	1 22	10 26.40	+ 3 1.1	1.848	2.703	12.5	21.4
2 1	10 18.49	+ 1 53.9	2.358	3.273	7.5	21.9	2 1	10 19.16	+ 3 36.4	1.784	2.710	8.8	21.2
2 11	10 9.85	+ 1 58.1	2.303	3.266	4.5	21.7	2 11	10 10.19	+ 4 27.3	1.746	2.716	4.7	21.0
2 21	10 0.47	+ 2 11.7	2.279	3.258	2.8	21.5	2 21	10 0.38	+ 5 29.0	1.737	2.722	2.3	20.8
3 2	9 51.18	+ 2 31.9	2.285	3.250	4.8	21.7	3 2	9 50.83	+ 6 35.0	1.758	2.727	5.5	21.0
3 12	9 42.82	+ 2 55.2	2.321	3.241	7.9	21.8	3 12	9 42.58	+ 7 38.7	1.808	2.731	9.5	21.3
3 22	9 36.03	+ 3 17.8	2.384	3.231	10.8	22.0	3 22	9 36.39	+ 8 34.6	1.882	2.734	13.1	21.5
306503	1999 <i>VB</i> ₄₇		2 18.1 57°87'	8°1'/13.0	18		2						

EPHEMERIDES

2 18.1

2 18.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
502719	2015 <i>DH</i> ₂₈		2 18.1 64°06'	2.2°/16.0	18		506725	2006 <i>UF</i> ₂₆₀		2 18.2 245°97'	4.3°/21.9	17	
1 12	10 25.58	+14 15.1	2.020	2.827	13.5	21.2	1 12	10 28.70	- 2 59.5	2.204	2.934	14.9	22.6
1 22	10 21.93	+15 19.7	1.949	2.839	10.3	21.0	1 22	10 24.43	- 3 1.6	2.086	2.914	12.4	22.4
2 1	10 16.16	+16 34.1	1.902	2.850	6.6	20.8	2 1	10 17.97	- 2 44.5	1.990	2.893	9.4	22.1
2 11	10 8.88	+17 52.1	1.883	2.862	3.0	20.6	2 11	10 9.78	- 2 7.9	1.919	2.872	6.3	21.9
2 21	10 0.93	+19 6.2	1.892	2.873	3.0	20.6	2 21	10 0.58	- 1 13.9	1.877	2.850	4.3	21.7
3 2	9 53.27	+20 10.0	1.931	2.885	6.5	20.8	3 2	9 51.32	- 0 6.7	1.864	2.827	5.8	21.8
3 12	9 46.83	+20 58.9	1.997	2.897	10.0	21.1	3 12	9 42.99	+ 1 6.9	1.879	2.803	9.1	21.9
3 22	9 42.26	+21 30.8	2.086	2.909	13.1	21.3	3 22	9 36.42	+ 2 20.5	1.921	2.779	12.6	22.1
112470	2002 <i>OK</i> ₁₈		2 18.1 316°85'	7.0°/21.9	18		317555	2002 <i>UH</i> ₇₂		2 18.2 157°22'	3.7°/14.1	18	
1 12	10 27.18	- 1 51.6	1.415	2.189	19.9	19.7	1 12	10 27.92	+22 4.7	2.585	3.389	11.0	21.1
1 22	10 24.39	- 2 53.8	1.315	2.168	16.8	19.4	1 22	10 23.36	+23 3.3	2.508	3.394	8.4	20.9
2 1	10 18.56	- 3 35.7	1.234	2.147	13.0	19.1	2 1	10 16.94	+24 4.4	2.458	3.399	5.8	20.8
2 11	10 10.20	- 3 54.0	1.174	2.127	9.2	18.8	2 11	10 9.21	+25 2.1	2.436	3.404	3.8	20.6
2 21	10 0.31	- 3 47.8	1.137	2.108	7.0	18.6	2 21	10 0.87	+25 51.1	2.444	3.408	4.4	20.7
3 2	9 50.33	- 3 19.8	1.126	2.089	8.7	18.7	3 2	9 52.76	+26 27.0	2.481	3.411	6.7	20.8
3 12	9 41.82	- 2 36.8	1.138	2.071	12.8	18.8	3 12	9 45.67	+26 47.4	2.546	3.415	9.4	21.0
3 22	9 35.97	- 1 47.7	1.172	2.054	17.2	19.0	3 22	9 40.20	+26 52.3	2.635	3.418	11.8	21.2
484724	2008 <i>XG</i> ₂		2 18.2 8°70'	19.8°/28.5	18		200791	2001 <i>XS</i> ₉₁		2 18.2 112°82'	1.9°/16.7	18	
1 12	10 30.95	-18 56.7	1.057	1.767	28.8	20.6	1 12	10 33.46	+13 47.9	1.669	2.472	16.1	21.4
1 22	10 28.31	-22 4.6	0.994	1.767	26.5	20.4	1 22	10 28.33	+14 33.5	1.603	2.489	12.3	21.2
2 1	10 21.69	-24 38.6	0.943	1.768	24.1	20.2	2 1	10 20.51	+15 30.1	1.560	2.506	7.9	21.0
2 11	10 11.70	-26 24.3	0.906	1.769	21.8	20.1	2 11	10 10.78	+16 30.6	1.543	2.523	3.4	20.8
2 21	9 59.71	-27 10.9	0.886	1.771	20.2	20.0	2 21	10 0.26	+17 27.4	1.555	2.539	2.9	20.8
3 2	9 47.78	-26 54.7	0.882	1.774	19.9	20.0	3 2	9 50.23	+18 13.5	1.595	2.554	7.1	21.1
3 12	9 38.09	-25 44.0	0.896	1.778	20.9	20.0	3 12	9 41.89	+18 44.5	1.662	2.569	11.3	21.4
3 22	9 32.16	-23 55.0	0.925	1.783	22.8	20.2	3 22	9 36.00	+18 59.0	1.752	2.583	14.8	21.6
407663	2011 <i>SO</i> ₁₇₉		2 18.2 221°29'	1°0°/18.9	18		500217	2012 <i>HB</i> ₄₈		2 18.2 224°11'	0°3°/17.9	17	
1 12	10 31.26	+ 6 52.4	1.851	2.631	15.6	21.9	1 12	10 27.24	+ 9 35.4	2.236	3.021	13.1	22.1
1 22	10 26.68	+ 7 8.3	1.753	2.622	12.3	21.6	1 22	10 23.14	+10 14.3	2.138	3.013	10.2	21.9
2 1	10 19.56	+ 7 39.9	1.677	2.613	8.4	21.4	2 1	10 17.00	+11 5.6	2.064	3.005	6.7	21.7
2 11	10 10.45	+ 8 24.1	1.627	2.603	4.0	21.1	2 11	10 9.32	+12 5.5	2.017	2.996	2.8	21.4
2 21	10 0.28	+ 9 15.8	1.605	2.593	1.5	20.9	2 21	10 0.83	+13 8.4	2.000	2.987	1.3	21.3
3 2	9 50.22	+10 8.7	1.613	2.581	5.9	21.2	3 2	9 52.45	+14 8.6	2.013	2.978	5.3	21.5
3 12	9 41.44	+10 56.6	1.648	2.570	10.4	21.4	3 12	9 45.08	+15 0.7	2.055	2.968	9.1	21.7
3 22	9 34.84	+11 34.7	1.708	2.557	14.3	21.6	3 22	9 39.45	+15 41.3	2.121	2.958	12.4	21.9
161536	2004 <i>VA</i> ₁₆		2 18.2 60°40'	3°5°/15.6	18		43827	1993 <i>BV</i> ₅		2 18.2 168°86'	0°1°/18.2	18	
1 12	10 29.91	+15 23.3	1.336	2.164	18.0	19.6	1 12	10 31.87	+10 39.4	1.719	2.514	16.0	18.9
1 22	10 26.16	+16 36.2	1.282	2.182	13.7	19.4	1 22	10 27.20	+10 44.5	1.635	2.515	12.5	18.7
2 1	10 19.33	+18 1.5	1.249	2.201	8.8	19.2	2 1	10 19.88	+11 1.6	1.573	2.516	8.3	18.5
2 11	10 10.31	+19 29.0	1.241	2.220	4.3	19.0	2 11	10 10.59	+11 26.6	1.537	2.517	3.6	18.2
2 21	10 0.40	+20 47.5	1.260	2.239	4.6	19.0	2 21	10 0.34	+11 54.6	1.529	2.517	1.4	18.0
3 2	9 51.14	+21 47.8	1.304	2.259	8.9	19.3	3 2	9 50.39	+12 20.0	1.550	2.517	6.2	18.3
3 12	9 43.85	+22 25.2	1.373	2.278	13.3	19.7	3 12	9 41.94	+12 38.1	1.597	2.518	10.7	18.6
3 22	9 39.36	+22 39.3	1.463	2.298	17.0	19.9	3 22	9 35.85	+12 46.3	1.668	2.518	14.6	18.8
154492	2003 <i>FD</i> ₄		2 18.2 89°91'	6°5°/25.4	18		398642	2012 <i>RX</i> ₃₃		2 18.2 44°37'	2°3°/17.0	18	
1 12	10 24.63	-12 26.3	1.962	2.655	17.6	20.2	1 12	10 33.80	+15 13.6	1.109	1.942	20.5	21.2
1 22	10 21.31	-11 55.8	1.872	2.663	15.1	20.0	1 22	10 29.72	+15 29.2	1.053	1.955	15.8	20.9
2 1	10 15.84	-10 54.7	1.801	2.671	12.1	19.8	2 1	10 21.94	+15 56.5	1.016	1.968	10.3	20.7
2 11	10 8.79	- 9 22.7	1.752	2.679	9.0	19.7	2 11	10 11.51	+16 27.6	1.002	1.982	4.5	20.4
2 21	10 0.98	- 7 23.6	1.731	2.687	6.7	19.5	2 21	10 0.01	+16 53.7	1.012	1.997	3.4	20.4
3 2	9 53.39	- 5 5.1	1.738	2.694	6.9	19.6	3 2	9 49.33	+17 7.6	1.047	2.012	8.9	20.7
3 12	9 46.98	- 2 38.1	1.775	2.702	9.3	19.7	3 12	9 41.11	+17 5.3	1.105	2.028	14.1	21.1
3 22	9 42.46	- 0 13.8	1.838	2.710	12.4	19.9	3 22	9 36.24	+16 46.9	1.183	2.044	18.5	21.4
519596	2012 <i>TU</i> ₃₂₈		2 18.2 156°78'	4°2°/13.6	17		58737	1998 <i>EA</i> ₁₀		2 18.2 75°77'	5°2°/14.6	18	
1 12	10 28.54	+24 49.3	2.669	3.474	10.7	21.4	1 12	10 36.03	+24 47.5	1.790	2.601	14.8	18.6
1 22	10 23.77	+25 40.2	2.594	3.478	8.3	21.3	1 22	10 30.15	+25 25.8	1.733	2.620	11.5	18.4
2 1	10 17.17	+26 31.2	2.544	3.482	5.8	21.1	2 1	10 21.58	+26 3.2	1.699	2.639	8.0	18.2
2 11	10 9.27	+27 16.9	2.523	3.485	4.2	21.0	2 11	10 11.19	+26 32.1	1.691	2.657	5.4	18.1
2 21	10 0.81	+27 52.3	2.532	3.489	4.8	21.0	2 21	10 0.16	+26 45.9	1.712	2.675	5.9	18.2
3 2	9 52.58	+28 13.7	2.570	3.492	7.0	21.2	3 2	9 49.79	+26 41.0	1.760	2.694	8.8	18.4
3 12	9 45.40	+28 19.5	2.635	3.494	9.4	21.3	3 12	9 41.23	+26 17.2	1.834	2.712	12.0	18.6
3 22	9 39.83	+28 10.1	2.723	3.497	11.7	21.5	3 22	9 35.18	+25 36.9	1.931	2.730	14.9	18.8
131984	2002 <i>CZ</i> ₇₇		2 18.2 276°47'	1.7°/16.9	18		205262	2000 <i>SJ</i> ₁₆		2 18.2 125°88'	0°3°/18.4	18	
1 12	10 28.75	+12 35.9	1.579	2.391	16.4	20.2	1 12	10 33.82	+ 9 46.2	1.727	2.516	16.2	20.7
1 22	10 25.25	+13 19.1	1.486	2.378	12.7	19.9	1 22	10 28.57	+ 9 52.1	1.651	2.527	12.6	20.4
2 1	10 18.88	+14 17.3	1.415	2.364	8.4	19.6	2 1	10 20.68	+10 10.6	1.597	2.537	8.4	20.2
2 11	10 10.25	+15 24.4	1.370	2.350	3.6	19.3	2 11	10 10.88	+10 37.6	1.569	2.547	3.7	20.0
2 21	10 0.36	+16 32.1	1.351	2.336	2.8	19.2	2 21	10 0.24	+11 8.1	1.569	2.557	1.3	19.8
3 2	9 50.58	+17 31.8	1.360	2.322	7.7	19.4	3 2	9 50.00	+11 36.5	1.599	2.566	6.1	20.1
3 12	9 42.29	+18 16.6	1.394	2.308	12.5	19.7	3 12	9 41.35	+11 58.2	1.655	2.575	10.5	20.4
3 22	9 36.51	+18 43.0	1.450	2.294	16.7	19.9	3 22	9 35.06	+12 10.4	1.735	2.583	14.2	20.7
298886	2004 <i>SU</i> ₄₆		2 18.2 168°56'	2.7°/20.1	18		269069	2007 <i>GT</i> ₄₆		2 18.2 149°26'	1°6°/1		

EPHEMERIDES

2 18.2

2 18.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
30812	1990 OZ ₄		2 18.2 240°33	3°1/20.4	18		41005	1999 UJ ₁₃		2 18.2 225°48	2°9/20.6	18	R
1 12	10 30.24	+ 1 51.8	1.833	2.596	16.3	19.6	1 12	10 29.41	+ 1 21.7	2.089	2.842	14.9	19.7
1 22	10 26.01	+ 1 53.4	1.728	2.582	13.3	19.3	1 22	10 25.00	+ 1 28.5	1.983	2.831	12.1	19.5
2 1	10 19.21	+ 2 14.0	1.644	2.568	9.6	19.1	2 1	10 18.35	+ 1 52.9	1.899	2.820	8.7	19.2
2 11	10 10.38	+ 2 52.8	1.585	2.552	5.5	18.8	2 11	10 9.95	+ 2 33.6	1.842	2.808	5.1	19.0
2 21	10 0 39	+ 3 46.1	1.553	2.536	3.1	18.6	2 21	10 0.60	+ 3 27.4	1.812	2.795	2.9	18.8
3 2	9 50.40	+ 4 48.1	1.550	2.519	6.0	18.7	3 2	9 51.29	+ 4 28.8	1.813	2.781	5.4	19.0
3 12	9 41.62	+ 5 51.4	1.575	2.502	10.4	18.9	3 12	9 43.05	+ 5 31.5	1.842	2.766	9.2	19.2
3 22	9 35.00	+ 6 49.6	1.624	2.484	14.4	19.1	3 22	9 36.67	+ 6 29.7	1.896	2.751	12.8	19.3
104247	2000 EH ₁₃₆		2 18.2 181°74	3°3/14.9	18		122216	2000 NG ₁₂		2 18.2 179°32	4°6/23.1	17	
1 12	10 29.69	+21 15.5	2.442	3.244	11.6	20.0	1 12	10 27.98	- 6 4.9	2.723	3.421	13.0	20.9
1 22	10 24.81	+21 54.6	2.359	3.245	8.9	19.8	1 22	10 23.27	- 6 14.4	2.622	3.424	10.9	20.7
2 1	10 17.94	+22 36.2	2.302	3.245	6.0	19.6	2 1	10 16.86	- 6 7.2	2.543	3.425	8.5	20.6
2 11	10 9.66	+23 15.0	2.273	3.245	3.6	19.5	2 11	10 9.21	- 5 43.3	2.489	3.425	6.1	20.4
2 21	10 0.73	+23 45.9	2.274	3.244	4.0	19.5	2 21	10 0.93	- 5 4.0	2.465	3.425	4.7	20.3
3 2	9 52.05	+24 4.8	2.304	3.244	6.6	19.7	3 2	9 52.76	- 4 12.8	2.471	3.424	5.3	20.4
3 12	9 44.47	+24 9.6	2.362	3.243	9.5	19.8	3 12	9 45.44	- 3 14.2	2.506	3.423	7.5	20.5
3 22	9 38.63	+24 0.3	2.444	3.242	12.2	20.0	3 22	9 39.53	- 2 13.5	2.568	3.420	10.0	20.7
341627	2007 VN ₄		2 18.2 109°36	0°5/17.6	18		329599	2003 EQ ₃₇		2 18.2 357°26	10°5/10.2	18	
1 12	10 25.85	+10 34.2	2.530	3.314	11.8	21.3	1 12	10 25.91	+30 41.5	1.241	2.092	17.6	19.5
1 22	10 21.67	+11 18.5	2.453	3.329	9.0	21.2	1 22	10 23.96	+32 27.5	1.185	2.087	14.3	19.3
2 1	10 15.78	+12 12.4	2.402	3.344	5.8	21.0	2 1	10 18.41	+34 10.3	1.149	2.083	11.6	19.1
2 11	10 8.71	+13 11.9	2.379	3.358	2.4	20.8	2 11	10 10.12	+35 35.2	1.135	2.081	10.5	19.0
2 21	10 1.12	+14 11.8	2.386	3.372	1.3	20.7	2 21	10 0.57	+36 29.1	1.144	2.080	11.9	19.1
3 2	9 53.76	+15 7.5	2.424	3.386	4.7	21.0	3 2	9 51.57	+36 44.5	1.175	2.080	14.9	19.3
3 12	9 47.37	+15 54.8	2.490	3.400	7.9	21.2	3 12	9 44.83	+36 21.4	1.226	2.082	18.2	19.5
3 22	9 42.47	+16 31.3	2.583	3.413	10.6	21.4	3 22	9 41.32	+35 25.5	1.294	2.085	21.2	19.7
377629	2005 SY ₂₆₅		2 18.2 221°03	4°5/22.4	17		278495	2007 VK ₃₃₂		2 18.2 37°22	6°3/24.1	17	
1 12	10 27.05	- 4 10.3	2.266	2.990	14.7	22.4	1 12	10 26.45	- 8 25.9	2.405	3.101	14.6	20.7
1 22	10 23.00	- 4 9.2	2.159	2.982	12.2	22.2	1 22	10 22.36	- 9 8.3	2.309	3.102	12.5	20.5
2 1	10 16.92	- 3 48.4	2.074	2.973	9.3	22.0	2 1	10 16.40	- 9 32.7	2.234	3.102	10.1	20.4
2 11	10 9.30	- 3 8.0	2.014	2.963	6.4	21.8	2 11	10 9.05	- 9 37.5	2.183	3.103	7.8	20.2
2 21	10 0.86	- 2 10.4	1.983	2.953	4.5	21.6	2 21	10 0.99	- 9 22.9	2.158	3.104	6.4	20.1
3 2	9 52.47	- 1 0.1	1.980	2.943	5.6	21.7	3 2	9 53.05	- 8 51.3	2.162	3.104	6.8	20.1
3 12	9 45.04	+ 0 16.4	2.007	2.931	8.6	21.8	3 12	9 46.05	- 8 7.4	2.193	3.105	8.7	20.3
3 22	9 39.28	+ 1 32.6	2.059	2.920	11.8	22.0	3 22	9 40.62	- 7 16.6	2.249	3.105	11.1	20.4
56833	2000 QV ₃₃		2 18.2 128°94	5°4/12.2	18		418052	2007 VC ₁₃₆		2 18.2 311°97	6°2/12.5	17	
1 12	10 29.84	+29 21.6	2.667	3.471	10.7	19.1	1 12	10 27.59	+26 6.7	1.928	2.751	13.4	20.5
1 22	10 24.81	+30 20.5	2.602	3.480	8.5	19.0	1 22	10 24.07	+27 17.1	1.837	2.729	10.6	20.3
2 1	10 17.87	+31 16.6	2.563	3.489	6.4	18.8	2 1	10 17.97	+28 29.7	1.769	2.708	7.8	20.1
2 11	10 9.60	+32 3.6	2.552	3.498	5.4	18.8	2 11	10 9.85	+29 36.1	1.728	2.686	6.2	19.9
2 21	10 0.78	+32 36.6	2.570	3.506	6.0	18.8	2 21	10 0.66	+30 27.6	1.714	2.665	7.2	19.9
3 2	9 52.27	+32 52.3	2.616	3.515	7.9	19.0	3 2	9 51.57	+30 57.8	1.726	2.644	10.0	20.0
3 12	9 44.89	+32 49.9	2.688	3.523	10.1	19.1	3 12	9 43.82	+31 3.6	1.763	2.624	13.2	20.2
3 22	9 39.22	+32 30.6	2.784	3.530	12.1	19.3	3 22	9 38.30	+30 46.0	1.820	2.604	16.3	20.4
186015	2001 QF ₁₃₁		2 18.2 160°75	2°7/20.8	18		114315	2002 XD ₅₆		2 18.2 63°96	1°1/19.3	18	
1 12	10 28.24	+ 0 46.6	2.320	3.066	13.8	21.5	1 12	10 24.79	+ 5 4.4	2.131	2.907	13.9	19.9
1 22	10 23.71	+ 1 0.5	2.229	3.072	11.1	21.3	1 22	10 21.16	+ 5 38.2	2.055	2.922	10.9	19.7
2 1	10 17.25	+ 1 30.7	2.161	3.078	8.0	21.1	2 1	10 15.60	+ 6 27.1	2.002	2.937	7.4	19.5
2 11	10 9.39	+ 2 15.5	2.119	3.084	4.7	20.9	2 11	10 8.69	+ 7 27.6	1.976	2.951	3.6	19.3
2 21	10 0.85	+ 3 11.3	2.107	3.089	2.7	20.8	2 21	10 1.17	+ 8 34.6	1.979	2.966	1.3	19.1
3 2	9 52.50	+ 4 13.1	2.125	3.093	4.8	20.9	3 2	9 53.92	+ 9 41.9	2.012	2.981	4.8	19.4
3 12	9 45.17	+ 5 15.2	2.172	3.096	8.1	21.1	3 12	9 47.78	+10 43.9	2.072	2.996	8.4	19.6
3 22	9 39.50	+ 6 12.7	2.246	3.099	11.2	21.3	3 22	9 43.34	+11 36.2	2.158	3.011	11.6	19.9
501435	2014 AO ₄		2 18.2 95°87	3°5/14.4	18		34034	Shehadeh		2 18.2 198°22	0°1/18.1	18	
1 12	10 26.27	+20 10.7	2.391	3.199	11.6	21.3	1 12	10 29.02	+ 9 51.3	2.328	3.108	12.8	19.9
1 22	10 22.21	+21 14.1	2.319	3.208	8.9	21.2	1 22	10 24.39	+10 16.8	2.233	3.106	9.9	19.6
2 1	10 16.25	+22 21.6	2.272	3.217	5.9	21.0	2 1	10 17.75	+10 53.0	2.162	3.102	6.6	19.4
2 11	10 8.95	+23 27.0	2.254	3.225	3.7	20.9	2 11	10 9.64	+11 36.4	2.119	3.098	2.8	19.2
2 21	10 1.04	+24 24.5	2.265	3.234	4.2	20.9	2 21	10 0.79	+12 22.4	2.106	3.093	1.1	19.0
3 2	9 53.38	+25 9.0	2.306	3.242	6.8	21.1	3 2	9 52.08	+13 6.2	2.123	3.088	5.0	19.3
3 12	9 46.79	+25 37.7	2.373	3.251	9.6	21.3	3 12	9 44.41	+13 43.3	2.169	3.083	8.7	19.5
3 22	9 41.87	+25 50.2	2.464	3.259	12.2	21.5	3 22	9 38.43	+14 10.9	2.240	3.077	11.8	19.7
503733	2016 LT ₂₀		2 18.2 298°30	0°3/17.8	17		349107	2007 GA ₁₈		2 18.2 127°02	4°1/21.9	18	
1 12	10 24.43	+ 8 57.1	2.100	2.892	13.6	21.4	1 12	10 27.22	- 2 15.9	2.176	2.913	14.8	21.3
1 22	10 21.09	+ 9 46.4	2.009	2.888	10.5	21.2	1 22	10 23.05	- 2 23.2	2.088	2.921	12.2	21.2
2 1	10 15.70	+10 50.0	1.941	2.884	6.9	21.0	2 1	10 16.88	- 2 12.4	2.022	2.928	9.1	21.0
2 11	10 8.78	+12 3.4	1.901	2.880	2.9	20.7	2 11	10 9.26	- 1 43.9	1.982	2.935	6.0	20.8
2 21	10 1.09	+13 20.2	1.889	2.876	1.4	20.6	2 21	10 0.95	- 1 0.5	1.969	2.942	4.1	20.7
3 2	9 53.53	+14 33.9	1.907	2.873	5.5	20.8	3 2	9 52.84	- 0 6.6	1.985	2.949	5.5	20.8
3 12	9 47.05	+15 38.2	1.953	2.869	9.3	21.1	3 12	9 45.81	+ 0 51.9	2.030	2.955	8.5	21.0
3 22	9 42.32	+16 29.2	2.023	2.865	12.7	21.3	3 22	9 40.51	+ 1 49.3	2.100	2.961	11.5	21.2
179760	2002 RO ₂₃₀		2 18.2 112°98	1°2/17.1	18		376515	2012 LD ₇		2 18.2 212°02	2°3/20.5	17	
1 12	10 30.75	+12 27.0	1.878	2.675	14.8	21.1	1 12	10 26.					

EPHEMERIDES

2 18.2

2 18.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
462669	2009 <i>TV</i> ₂₀	2 18.2 186°12		4.5°/14.0 16			275494	1993 <i>PA</i>	2 18.2 199°79		1.7°/19.6 18		
1 12	10 31.58	+23 21.1	2.208	3.015	12.5	21.8	1 12	10 29.77	+3 59.9	1.938	2.707	15.4	21.0
1 22	10 26.54	+24 16.9	2.129	3.015	9.7	21.6	1 22	10 25.40	+4 26.0	1.842	2.704	12.2	20.8
2 1	10 19.24	+25 14.6	2.074	3.014	6.8	21.4	2 1	10 18.66	+5 10.2	1.769	2.700	8.5	20.6
2 11	10 10.29	+26 7.5	2.048	3.013	4.7	21.3	2 11	10 10.12	+6 9.7	1.722	2.695	4.3	20.3
2 21	10 0.56	+26 49.0	2.050	3.012	5.3	21.3	2 21	10 0.64	+7 19.2	1.703	2.690	1.8	20.1
3 2	9 51.10	+27 14.3	2.081	3.010	7.9	21.4	3 2	9 51.28	+8 32.0	1.714	2.684	5.5	20.4
3 12	9 42.91	+27 21.2	2.139	3.008	10.9	21.6	3 12	9 43.14	+9 40.9	1.754	2.677	9.7	20.6
3 22	9 36.72	+27 10.5	2.220	3.005	13.6	21.8	3 22	9 37.01	+10 40.4	1.818	2.670	13.5	20.8
76243	2000 <i>EJ</i> ₈₅	2 18.2 302°48		2°2/19.4 18			66325	1999 <i>JF</i> ₅₅	2 18.2 238°81		3°0/15.7 17		
1 12	10 31.93	+7 23.0	1.632	2.421	17.0	19.5	1 12	10 31.08	+16 21.0	1.934	2.738	14.1	19.9
1 22	10 27.60	+6 51.3	1.534	2.407	13.6	19.2	1 22	10 26.62	+17 20.6	1.836	2.723	10.9	19.7
2 1	10 20.40	+6 32.1	1.457	2.393	9.4	18.9	2 1	10 19.60	+18 30.5	1.761	2.708	7.2	19.4
2 11	10 10.95	+6 24.0	1.405	2.379	4.9	18.6	2 11	10 10.58	+19 44.1	1.714	2.691	3.7	19.2
2 21	10 0.26	+6 24.4	1.380	2.366	2.4	18.4	2 21	10 0.44	+20 53.3	1.696	2.675	3.9	19.1
3 2	9 49.66	+6 29.7	1.382	2.352	6.5	18.7	3 2	9 50.36	+21 50.6	1.708	2.657	7.6	19.3
3 12	9 40.53	+6 35.1	1.411	2.339	11.2	18.9	3 12	9 41.54	+22 30.9	1.746	2.639	11.6	19.5
3 22	9 33.87	+6 37.0	1.463	2.327	15.5	19.1	3 22	9 34.88	+22 52.2	1.807	2.620	15.2	19.7
224489	2005 <i>WT</i> ₂	2 18.2 127°62		5°6/23.9 18			61521	2000 <i>QJ</i> ₅₉	2 18.2 241°10		4°5/14.9 18		
1 12	10 26.63	-8 15.1	2.198	2.902	15.6	21.0	1 12	10 33.02	+20 14.5	1.689	2.505	15.4	19.0
1 22	10 22.60	-8 16.8	2.110	2.913	13.2	20.8	1 22	10 28.46	+21 9.7	1.603	2.495	11.9	18.7
2 1	10 16.58	-7 56.1	2.043	2.923	10.4	20.6	2 1	10 20.95	+22 11.8	1.539	2.485	8.1	18.5
2 11	10 9.14	-7 12.8	2.001	2.934	7.6	20.5	2 11	10 11.18	+23 12.4	1.501	2.474	4.9	18.3
2 21	10 1.02	-6 9.2	1.985	2.943	5.8	20.4	2 21	10 0.22	+24 2.6	1.491	2.463	5.4	18.3
3 2	9 53.11	-4 50.3	1.998	2.953	6.3	20.4	3 2	9 49.47	+24 35.2	1.508	2.452	9.1	18.4
3 12	9 46.28	-3 23.3	2.040	2.962	8.6	20.6	3 12	9 40.32	+24 46.4	1.551	2.440	13.1	18.7
3 22	9 41.16	-1 55.4	2.107	2.970	11.4	20.8	3 22	9 33.75	+24 36.5	1.615	2.428	16.7	18.9
233443	2006 <i>HC</i> ₈₇	2 18.2 148°14		0°7/17.5 17			294375	2007 <i>VY</i> ₁₂₅	2 18.2 352°29		0°7/17.7 18		
1 12	10 26.95	+11 14.8	2.201	2.993	13.0	21.4	1 12	10 24.88	+12 6.8	1.692	2.506	15.4	19.7
1 22	10 22.87	+11 50.2	2.116	2.996	10.1	21.2	1 22	10 21.93	+12 20.3	1.608	2.499	11.9	19.4
2 1	10 16.78	+12 36.3	2.055	2.999	6.5	20.9	2 1	10 16.49	+12 45.3	1.545	2.493	7.8	19.2
2 11	10 9.23	+13 28.7	2.021	3.001	2.7	20.7	2 11	10 9.21	+13 17.4	1.508	2.488	3.3	18.9
2 21	10 0.99	+14 22.0	2.017	3.004	1.5	20.6	2 21	10 1.02	+13 51.0	1.498	2.485	1.7	18.8
3 2	9 52.96	+15 10.8	2.043	3.006	5.4	20.9	3 2	9 53.07	+14 20.3	1.514	2.482	6.4	19.1
3 12	9 46.02	+15 50.6	2.096	3.008	9.0	21.1	3 12	9 46.48	+14 40.4	1.557	2.480	10.7	19.3
3 22	9 40.83	+16 18.8	2.174	3.010	12.2	21.3	3 22	9 42.08	+14 48.5	1.622	2.479	14.6	19.5
492476	2014 <i>NJ</i> ₃₇	2 18.2 262°58		1°2/17.0 17			281354	2007 <i>VO</i> ₆₂	2 18.2 160°61		5°1/24.4 17		
1 12	10 26.68	+7 8.0	1.638	2.436	16.6	21.3	1 12	10 25.90	-9 24.9	3.076	3.750	12.1	21.5
1 22	10 23.66	+8 48.0	1.536	2.420	12.9	21.0	1 22	10 21.49	-9 41.7	2.978	3.756	10.3	21.4
2 1	10 17.91	+10 54.7	1.458	2.403	8.5	20.7	2 1	10 15.62	-9 42.4	2.902	3.762	8.3	21.3
2 11	10 9.94	+13 21.2	1.406	2.386	3.5	20.4	2 11	10 8.69	-9 26.7	2.851	3.768	6.4	21.1
2 21	10 0.64	+15 55.9	1.383	2.368	2.5	20.2	2 21	10 1.25	-8 55.5	2.829	3.773	5.2	21.1
3 2	9 51.28	+18 24.9	1.390	2.351	7.7	20.5	3 2	9 53.93	-8 11.4	2.836	3.777	5.4	21.1
3 12	9 43.19	+20 35.7	1.424	2.333	12.7	20.8	3 12	9 47.34	-7 18.3	2.872	3.781	7.0	21.2
3 22	9 37.45	+22 20.8	1.482	2.314	17.0	21.0	3 22	9 41.99	-6 20.8	2.936	3.785	9.0	21.3
363742	2004 <i>XO</i> ₉₇	2 18.2 36°07		5°4/14.8 18			68463	2001 <i>SQ</i> ₁₂₀	2 18.2 46°77		3°5/16.3 18		
1 12	10 29.26	+19 30.6	1.148	1.993	19.2	20.6	1 12	10 37.29	+20 44.0	1.566	2.379	16.5	19.7
1 22	10 26.15	+20 41.9	1.101	2.009	14.6	20.3	1 22	10 31.49	+20 47.7	1.500	2.390	12.7	19.5
2 1	10 19.57	+22 1.2	1.074	2.026	9.8	20.1	2 1	10 22.68	+20 53.5	1.456	2.402	8.4	19.3
2 11	10 10.52	+23 16.4	1.069	2.044	5.9	20.0	2 11	10 11.78	+20 54.7	1.437	2.414	4.4	19.1
2 21	10 0.53	+24 15.7	1.090	2.064	6.5	20.1	2 21	10 0.07	+20 45.9	1.447	2.426	4.2	19.1
3 2	9 51.33	+24 50.6	1.134	2.083	10.6	20.3	3 2	9 49.04	+20 23.5	1.484	2.438	8.1	19.4
3 12	9 44.43	+24 58.6	1.201	2.104	15.0	20.6	3 12	9 40.00	+19 47.0	1.547	2.451	12.2	19.6
3 22	9 40.64	+24 41.7	1.287	2.125	18.8	20.9	3 22	9 33.74	+18 58.3	1.633	2.464	15.7	19.9
337507	2001 <i>SN</i> ₁₃₂	2 18.2 114°06		1°7/16.7 18			64624	2001 <i>XZ</i> ₃₆	2 18.2 233°65		4°7/14.1 17		
1 12	10 29.27	+16 8.8	2.404	3.199	12.0	20.7	1 12	10 33.18	+24 7.2	2.196	3.000	12.6	19.6
1 22	10 24.43	+16 29.6	2.324	3.206	9.2	20.5	1 22	10 27.92	+24 55.4	2.105	2.989	9.9	19.4
2 1	10 17.67	+16 55.7	2.269	3.213	5.9	20.3	2 1	10 20.25	+25 45.1	2.039	2.977	7.0	19.2
2 11	10 9.57	+17 22.8	2.242	3.220	2.7	20.1	2 11	10 10.78	+26 29.5	2.000	2.965	4.8	19.1
2 21	10 0.88	+17 46.7	2.244	3.227	2.3	20.1	2 21	10 0.41	+27 2.2	1.991	2.952	5.4	19.1
3 2	9 52.47	+18 3.5	2.277	3.234	5.5	20.3	3 2	9 50.23	+27 18.1	2.010	2.939	8.2	19.2
3 12	9 45.16	+18 10.9	2.338	3.240	8.7	20.5	3 12	9 41.33	+27 15.3	2.057	2.926	11.3	19.4
3 22	9 39.54	+18 7.8	2.424	3.247	11.5	20.7	3 22	9 34.50	+26 54.5	2.126	2.912	14.2	19.6
460115	2014 <i>PN</i> ₂₈	2 18.2 195°68		0°2/18.0 18			499270	2009 <i>VS</i> ₅₄	2 18.2 325°14		3°5/21.0 17		
1 12	10 30.89	+9 29.8	2.053	2.835	14.2	22.6	1 12	10 25.27	+0 34.1	1.805	2.573	16.4	21.4
1 22	10 26.13	+10 4.0	1.959	2.833	11.0	22.4	1 22	10 22.09	+0 33.5	1.711	2.567	13.3	21.2
2 1	10 19.06	+10 51.4	1.889	2.830	7.3	22.2	2 1	10 16.56	+0 53.1	1.639	2.561	9.7	20.9
2 11	10 10.26	+11 47.6	1.847	2.826	3.1	21.9	2 11	10 9.26	+1 31.7	1.591	2.556	5.9	20.7
2 21	10 0.58	+12 46.9	1.834	2.821	1.3	21.8	2 21	10 1.01	+2 25.7	1.569	2.551	3.5	20.5
3 2	9 51.06	+13 43.2	1.851	2.815	5.7	22.0	3 2	9 52.91	+3 29.4	1.576	2.546	5.9	20.7
3 12	9 42.73	+14 30.9	1.896	2.809	9.7	22.3	3 12	9 46.02	+4 35.2	1.609	2.541	9.8	20.9
3 22	9 36.37	+15 6.6	1.966	2.802	13.2	22.5	3 22	9 41.17	+5 36.5	1.666	2.537	13.5	21.1
54136	2000 <i>HG</i> ₃₅	2 18.2 275°46		3°4/15.7 18			493676	2015 <i>RR</i> ₂₂₂	2 18.2 23°32		0°4/18.4 17		
1 12	10 29.27	+15 38.4	1.454	2.277	17.0	19.7	1 12	10 26.23	+8 1				

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
435999	2009 <i>FE</i> ₄₁		2 18.2	7°52'	6°2'/12.5 17		378758	2008 <i>RF</i> ₁₁₆		2 18.2	126°44'	0°1'/18.1 18	
1 12	10 31.27	+30 4.4	2.274	3.083	12.1	21.4	1 12	10 28.00	+10 5.7	2.215	3.000	13.2	22.1
1 22	10 26.30	+30 55.2	2.203	3.083	9.7	21.2	1 22	10 23.64	+10 28.4	2.132	3.007	10.2	21.9
2 1	10 19.07	+31 42.4	2.156	3.083	7.4	21.1	2 1	10 17.27	+11 1.6	2.072	3.013	6.7	21.7
2 11	10 10.23	+32 18.9	2.137	3.084	6.2	21.0	2 11	10 9.48	+11 41.8	2.041	3.020	2.8	21.4
2 21	10 0 0.70	+32 38.9	2.145	3.085	6.9	21.0	2 21	10 1 0.02	+12 24.1	2.038	3.026	1.2	21.3
3 2	9 51.53	+32 39.0	2.181	3.085	9.0	21.1	3 2	9 52.80	+13 3.8	2.065	3.031	5.1	21.6
3 12	9 43.72	+32 18.7	2.243	3.086	11.5	21.3	3 12	9 45.70	+13 36.6	2.121	3.037	8.7	21.8
3 22	9 37.94	+31 40.0	2.326	3.087	13.8	21.5	3 22	9 40.34	+13 59.9	2.201	3.042	11.9	22.0
10578	1995 <i>LH</i>		2 18.2	195°93'	4°0'/13.4 18		4168	Millan		2 18.2	14°93'	0°2'/18.3 18	
1 12	10 31.23	+24 56.4	2.994	3.788	9.9	20.2	1 12	10 34.54	+14 25.9	1.141	1.969	20.4	17.2
1 22	10 25.76	+25 54.0	2.906	3.784	7.7	20.1	1 22	10 30.24	+13 33.1	1.078	1.976	15.9	16.9
2 1	10 18.50	+26 52.2	2.845	3.779	5.5	19.9	2 1	10 22.32	+12 47.6	1.035	1.984	10.5	16.6
2 11	10 9.96	+27 45.6	2.814	3.773	4.0	19.8	2 11	10 11.77	+12 6.5	1.014	1.994	4.5	16.3
2 21	10 0 0.79	+28 29.3	2.813	3.767	4.6	19.8	2 21	10 0 0.15	+11 26.9	1.018	2.006	1.7	16.2
3 2	9 51.76	+28 59.5	2.844	3.760	6.6	19.9	3 2	9 49.31	+10 46.3	1.048	2.019	7.7	16.6
3 12	9 43.64	+29 14.3	2.902	3.752	9.0	20.1	3 12	9 40.85	+10 2.9	1.101	2.034	13.1	16.9
3 22	9 37.02	+29 13.9	2.985	3.743	11.1	20.2	3 22	9 35.70	+9 16.3	1.175	2.050	17.7	17.2
237034	2008 <i>SQ</i> ₈₅		2 18.2	31°88'	0°8'/20.6 18		294708	2008 <i>BZ</i> ₁₈		2 18.2	282°50'	3°9'/21.5 18	
1 12	10 32.33	+9 48.9	1.227	2.043	20.0	20.4	1 12	10 27.61	-0 36.8	2.505	3.241	13.2	20.3
1 22	10 28.43	+9 36.7	1.158	2.049	15.6	20.1	1 22	10 23.26	-1 8.9	2.395	3.227	10.9	20.1
2 1	10 21.13	+9 40.1	1.109	2.055	10.5	19.9	2 1	10 17.05	-1 28.0	2.307	3.213	8.2	19.9
2 11	10 11.28	+9 55.3	1.082	2.061	4.7	19.5	2 11	10 9.42	-1 33.7	2.246	3.199	5.5	19.7
2 21	10 0 0.27	+10 16.5	1.080	2.068	1.7	19.4	2 21	10 1 0.02	-1 27.1	2.213	3.185	3.9	19.6
3 2	9 49.79	+10 37.0	1.105	2.076	7.4	19.7	3 2	9 52.66	-1 10.4	2.210	3.171	5.3	19.7
3 12	9 41.41	+10 50.9	1.153	2.084	12.8	20.1	3 12	9 45.15	-0 47.3	2.235	3.157	8.0	19.8
3 22	9 36.12	+10 54.8	1.222	2.093	17.4	20.4	3 22	9 39.15	-0 21.8	2.286	3.143	10.9	20.0
40520	1999 <i>RG</i> ₉₅		2 18.2	127°15'	1°8'/16.6 18 R		181634	2006 <i>XW</i> ₂₀		2 18.2	258°25'	4°2'/21.6 18	
1 12	10 31.43	+16 13.5	2.296	3.089	12.5	19.2	1 12	10 26.90	-1 33.4	1.913	2.664	16.2	20.3
1 22	10 26.14	+16 39.4	2.220	3.101	9.6	19.0	1 22	10 23.31	-1 36.4	1.810	2.653	13.3	20.1
2 1	10 18.83	+17 10.9	2.169	3.113	6.2	18.8	2 1	10 17.38	-1 18.7	1.729	2.642	9.9	19.8
2 11	10 10.10	+17 43.2	2.146	3.124	2.8	18.6	2 11	10 9.65	-0 40.6	1.672	2.631	6.4	19.6
2 21	10 0 0.77	+18 11.6	2.153	3.135	2.5	18.6	2 21	10 0 0.93	+0 15.1	1.642	2.619	4.2	19.4
3 2	9 51.77	+18 32.1	2.190	3.146	5.7	18.8	3 2	9 52.25	+1 23.0	1.640	2.607	6.0	19.5
3 12	9 43.97	+18 42.0	2.256	3.156	9.0	19.1	3 12	9 44.71	+2 35.8	1.666	2.596	9.7	19.7
3 22	9 37.99	+18 40.5	2.346	3.166	11.9	19.3	3 22	9 39.14	+3 46.3	1.717	2.584	13.4	19.9
208729	2002 <i>LK</i> ₈		2 18.2	220°57'	2°4'/20.1 18		419220	2009 <i>UN</i> ₁₅₁		2 18.2	124°80'	2°8'/15.5 18	
1 12	10 28.58	+2 44.2	1.916	2.683	15.6	20.7	1 12	10 30.71	+18 14.3	2.298	3.097	12.3	22.2
1 22	10 24.55	+2 59.3	1.819	2.677	12.5	20.5	1 22	10 25.62	+19 6.4	2.228	3.113	9.4	22.0
2 1	10 18.15	+3 33.1	1.743	2.670	8.8	20.2	2 1	10 18.50	+20 3.5	2.184	3.129	6.2	21.9
2 11	10 9.95	+4 23.3	1.692	2.663	4.8	20.0	2 11	10 9.98	+20 59.6	2.168	3.144	3.3	21.7
2 21	10 0 0.79	+5 25.7	1.670	2.655	2.4	19.8	2 21	10 0 0.85	+21 48.9	2.183	3.158	3.5	21.7
3 2	9 51.72	+6 33.8	1.677	2.646	5.6	20.0	3 2	9 52.06	+22 26.6	2.227	3.172	6.4	21.9
3 12	9 43.84	+7 40.5	1.711	2.638	9.7	20.2	3 12	9 44.47	+22 49.9	2.299	3.186	9.5	22.2
3 22	9 37.97	+8 39.9	1.770	2.629	13.5	20.4	3 22	9 38.71	+22 58.5	2.395	3.199	12.2	22.4
234417	2001 <i>RJ</i> ₇₀		2 18.2	128°27'	0°2'/18.1 18		27092	1998 <i>UY</i> ₂₂		2 18.2	114°01'	2°2'/16.6 18	
1 12	10 35.21	+10 56.1	1.697	2.488	16.3	20.4	1 12	10 34.95	+14 43.8	1.665	2.468	16.1	19.7
1 22	10 29.70	+11 7.3	1.623	2.501	12.7	20.2	1 22	10 29.51	+15 29.1	1.601	2.487	12.3	19.5
2 1	10 21.49	+11 30.4	1.571	2.513	8.3	20.0	2 1	10 21.35	+16 24.2	1.560	2.506	8.0	19.3
2 11	10 11.32	+12 0.8	1.545	2.525	3.5	19.7	2 11	10 11.25	+17 22.2	1.545	2.524	3.6	19.1
2 21	10 0 0.30	+12 32.9	1.548	2.536	1.5	19.6	2 21	10 0 0.37	+18 15.0	1.558	2.541	3.1	19.1
3 2	9 49.72	+13 1.1	1.580	2.546	6.3	19.9	3 2	9 50.02	+18 56.1	1.600	2.558	7.3	19.4
3 12	9 40.79	+13 20.8	1.639	2.556	10.7	20.2	3 12	9 41.40	+19 21.6	1.669	2.573	11.4	19.7
3 22	9 34.31	+13 29.7	1.721	2.565	14.5	20.4	3 22	9 35.29	+19 30.5	1.761	2.589	14.9	19.9
209061	2003 <i>QX</i> ₅₀		2 18.2	242°51'	1°7'/16.8 17		274464	2008 <i>SZ</i> ₆₈		2 18.2	198°83'	1°2'/17.2 17	
1 12	10 30.77	+13 8.8	1.913	2.710	14.5	21.6	1 12	10 29.31	+13 30.9	2.135	2.930	13.3	21.4
1 22	10 26.40	+13 53.7	1.812	2.695	11.3	21.3	1 22	10 24.81	+13 55.9	2.047	2.929	10.2	21.1
2 1	10 19.48	+14 50.8	1.734	2.679	7.4	21.1	2 1	10 18.14	+14 29.4	1.983	2.928	6.7	20.9
2 11	10 10.56	+15 54.8	1.683	2.663	3.2	20.8	2 11	10 9.89	+15 7.1	1.946	2.926	2.8	20.7
2 21	10 0 0.54	+16 58.6	1.661	2.645	2.6	20.7	2 21	10 0 0.88	+15 44.0	1.939	2.924	2.0	20.6
3 2	9 50.55	+17 54.9	1.669	2.628	6.8	20.9	3 2	9 52.08	+16 15.0	1.961	2.922	5.8	20.8
3 12	9 41.80	+18 38.2	1.703	2.609	11.1	21.1	3 12	9 44.44	+16 36.4	2.010	2.920	9.5	21.1
3 22	9 35.19	+19 5.3	1.761	2.590	14.9	21.3	3 22	9 38.69	+16 46.3	2.084	2.917	12.7	21.3
28938	2000 <i>SR</i> ₃₁₁		2 18.2	157°71'	7°1'/25.9 18		130966	2000 <i>WA</i> ₁₁₂		2 18.2	136°09'	3°9'/15.2 18	
1 12	10 26.97	-14 10.0	2.866	3.509	13.5	18.0	1 12	10 33.89	+19 46.7	1.775	2.585	15.0	20.4
1 22	10 22.51	-14 57.7	2.769	3.513	11.8	17.9	1 22	10 28.73	+20 38.2	1.704	2.594	11.5	20.2
2 1	10 16.40	-15 27.6	2.692	3.517	10.0	17.7	2 1	10 20.88	+21 35.0	1.657	2.602	7.7	20.0
2 11	10 9.08	-15 37.8	2.639	3.520	8.3	17.6	2 11	10 11.08	+22 29.4	1.637	2.611	4.4	19.8
2 21	10 1 0.16	-15 28.0	2.612	3.524	7.2	17.5	2 21	10 0 0.43	+23 13.6	1.645	2.618	4.8	19.9
3 2	9 53.32	-14 59.7	2.612	3.527	7.2	17.6	3 2	9 50.22	+23 41.7	1.681	2.626	8.2	20.1
3 12	9 46.28	-14 16.7	2.640	3.529	8.3	17.6	3 12	9 41.63	+23 51.0	1.743	2.632	11.9	20.3
3 22	9 40.60	-13 24.0	2.694	3.532	10.0	17.7	3 22	9 35.46	+23 42.0	1.828	2.639	15.2	20.6
331340	2012 <i>BW</i> ₇₅		2 18.2	129°62'	1°1'/17.3 18		244183	2001 <i>XQ</i> ₂₀₃		2 18.2	52°36'	7°8'/9.4 18	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
307983	2004 <i>QN</i> ₆		2 18.2 157°20	0°1/18.2 18			290865	2005 <i>WH</i> ₅₃		2 18.2 146°25	3°6/15.0 18		
1 12	10 32.31	+ 9 9.3	1.968	2.750	14.7	22.4	1 12	10 29.80	+19 35.7	2.007	2.817	13.5	21.1
1 22	10 27.21	+ 9 42.7	1.886	2.758	11.5	22.2	1 22	10 25.36	+20 30.9	1.931	2.821	10.3	20.9
2 1	10 19.76	+10 29.4	1.826	2.766	7.6	22.0	2 1	10 18.59	+21 31.5	1.879	2.824	6.9	20.7
2 11	10 10.60	+11 24.9	1.794	2.773	3.2	21.7	2 11	10 10.11	+22 30.5	1.854	2.827	4.0	20.6
2 21	10 0.62	+12 23.4	1.792	2.779	1.3	21.6	2 21	10 0.86	+23 21.1	1.858	2.830	4.4	20.6
3 2	9 50.92	+13 18.4	1.819	2.785	5.7	21.9	3 2	9 51.89	+23 57.4	1.890	2.833	7.6	20.8
3 12	9 42.55	+14 4.5	1.875	2.789	9.8	22.1	3 12	9 44.25	+24 16.5	1.949	2.836	11.0	21.0
3 22	9 36.25	+14 38.7	1.955	2.793	13.3	22.4	3 22	9 38.67	+24 17.9	2.031	2.838	14.0	21.2
309760	2008 <i>XF</i> ₅₆		2 18.2 71°33	3°1/15.1 18			105869	2000 <i>SJ</i> ₁₇₃		2 18.2 145°20	1°3/17.1 18		
1 12	10 25.94	+17 12.2	2.113	2.924	12.9	20.2	1 12	10 32.42	+16 32.8	2.625	3.410	11.4	19.5
1 22	10 22.29	+18 21.9	2.036	2.927	9.8	20.0	1 22	10 26.69	+16 33.5	2.538	3.414	8.7	19.3
2 1	10 16.52	+19 39.5	1.982	2.930	6.4	19.8	2 1	10 19.11	+16 37.8	2.476	3.418	5.7	19.1
2 11	10 9.21	+20 58.2	1.957	2.933	3.5	19.6	2 11	10 10.25	+16 42.2	2.444	3.422	2.5	18.9
2 21	10 1.16	+22 10.8	1.961	2.936	3.9	19.7	2 21	10 0.82	+16 43.6	2.442	3.426	1.9	18.8
3 2	9 53.33	+23 10.9	1.993	2.939	7.0	19.9	3 2	9 51.67	+16 39.4	2.471	3.429	5.0	19.1
3 12	9 46.66	+23 54.4	2.053	2.942	10.4	20.1	3 12	9 43.57	+16 27.8	2.530	3.433	8.1	19.3
3 22	9 41.83	+24 19.8	2.136	2.945	13.3	20.3	3 22	9 37.11	+16 8.4	2.615	3.436	10.8	19.4
372481	2009 <i>SU</i> ₂₀₉		2 18.2 46°80	2°2/19.9 18			151969	2004 <i>GE</i> ₃₉		2 18.2 306°40	2°6/16.5 18		
1 12	10 26.70	+ 3 46.6	1.771	2.552	16.2	21.2	1 12	10 28.07	+13 52.4	1.276	2.106	18.5	19.6
1 22	10 23.13	+ 3 56.6	1.691	2.558	12.9	20.9	1 22	10 25.44	+14 39.7	1.191	2.092	14.4	19.3
2 1	10 17.19	+ 4 24.7	1.633	2.564	9.0	20.7	2 1	10 19.46	+15 43.9	1.125	2.078	9.5	19.0
2 11	10 9.52	+ 5 8.3	1.599	2.571	4.8	20.5	2 11	10 10.77	+16 57.5	1.083	2.064	4.3	18.6
2 21	10 1.04	+ 6 2.5	1.592	2.578	2.2	20.3	2 21	10 0.55	+18 9.8	1.066	2.050	3.8	18.6
3 2	9 52.83	+ 7 1.0	1.614	2.585	5.6	20.6	3 2	9 50.47	+19 9.9	1.075	2.037	9.2	18.8
3 12	9 45.95	+ 7 57.0	1.663	2.592	9.7	20.8	3 12	9 42.21	+19 50.0	1.106	2.024	14.6	19.1
3 22	9 41.15	+ 8 45.0	1.735	2.599	13.4	21.0	3 22	9 36.97	+20 7.0	1.157	2.012	19.3	19.3
26978	1997 <i>UZ</i> ₄		2 18.2 64°98	2°6/15.9 18			503192	2015 <i>HD</i> ₅		2 18.2 241°69	4°4/22.4 17		
1 12	10 28.66	+17 17.4	2.085	2.891	13.2	17.9	1 12	10 26.03	- 3 7.2	2.408	3.136	13.8	21.4
1 22	10 24.19	+17 59.3	2.022	2.910	10.0	17.7	1 22	10 22.07	- 3 27.1	2.310	3.134	11.5	21.2
2 1	10 17.62	+18 46.8	1.983	2.930	6.5	17.5	2 1	10 16.27	- 3 30.8	2.233	3.132	8.8	21.0
2 11	10 9.61	+19 34.2	1.972	2.949	3.2	17.3	2 11	10 9.11	- 3 18.1	2.182	3.129	6.1	20.8
2 21	10 1.04	+20 15.6	1.990	2.969	3.3	17.4	2 21	10 1.26	- 2 50.7	2.159	3.127	4.4	20.7
3 2	9 52.87	+20 46.3	2.037	2.988	6.4	17.6	3 2	9 53.52	- 2 11.7	2.164	3.124	5.4	20.8
3 12	9 45.99	+21 3.5	2.111	3.008	9.7	17.8	3 12	9 46.69	- 1 26.0	2.198	3.122	8.0	20.9
3 22	9 41.01	+21 6.7	2.208	3.028	12.6	18.1	3 22	9 41.42	- 0 38.6	2.258	3.119	10.8	21.1
378892	2008 <i>UG</i> ₁₃		2 18.2 96°40	0°1/18.1 18			48805	1997 <i>UY</i> ₁₃		2 18.2 132°15	2°2/16.0 18		
1 12	10 27.99	+10 11.8	2.096	2.886	13.7	21.8	1 12	10 27.12	+16 16.3	2.306	3.108	12.2	19.7
1 22	10 23.74	+10 33.9	2.016	2.893	10.6	21.6	1 22	10 22.98	+17 2.6	2.225	3.112	9.3	19.5
2 1	10 17.40	+11 6.9	1.959	2.900	7.0	21.4	2 1	10 16.87	+17 55.6	2.169	3.115	6.1	19.3
2 11	10 9.57	+11 47.1	1.928	2.908	3.0	21.1	2 11	10 9.35	+18 50.2	2.141	3.119	2.9	19.1
2 21	10 1.05	+12 29.5	1.927	2.915	1.2	21.0	2 21	10 1.18	+19 40.7	2.143	3.123	2.9	19.1
3 2	9 52.79	+13 9.0	1.955	2.922	5.3	21.3	3 2	9 53.23	+20 22.1	2.174	3.126	6.0	19.3
3 12	9 45.71	+13 41.3	2.012	2.929	9.0	21.6	3 12	9 46.36	+20 51.0	2.233	3.130	9.3	19.5
3 22	9 40.47	+14 3.5	2.092	2.936	12.3	21.8	3 22	9 41.20	+21 5.9	2.316	3.133	12.2	19.7
488494	2000 <i>JA</i> ₃		2 18.2 286°63	3°2/15.6 17			1542	Schalén		2 18.2 122°64	1°0/19.3 18		
1 12	10 32.55	+14 32.6	1.754	2.557	15.4	22.8	1 12	10 26.13	+ 6 12.2	2.520	3.289	12.2	15.9
1 22	10 28.56	+15 49.1	1.625	2.512	12.1	22.5	1 22	10 21.96	+ 6 30.9	2.435	3.298	9.6	15.8
2 1	10 21.51	+17 24.2	1.519	2.466	8.1	22.1	2 1	10 16.08	+ 7 1.3	2.374	3.306	6.5	15.6
2 11	10 11.74	+19 11.4	1.440	2.418	4.1	21.8	2 11	10 8.99	+ 7 40.7	2.340	3.315	3.1	15.4
2 21	10 0.05	+21 0.5	1.391	2.369	4.4	21.7	2 21	10 1.33	+ 8 25.3	2.336	3.323	1.2	15.2
3 2	9 47.77	+22 39.8	1.370	2.319	9.2	21.8	3 2	9 53.88	+ 9 10.9	2.363	3.331	4.3	15.5
3 12	9 36.49	+23 59.4	1.376	2.268	14.2	22.0	3 12	9 47.36	+ 9 53.2	2.418	3.339	7.5	15.7
3 22	9 27.60	+24 54.3	1.403	2.215	18.9	22.1	3 22	9 42.32	+10 28.9	2.499	3.347	10.4	15.9
438429	2006 <i>WN</i> ₁		2 18.2 171°67	1°9/19.9 18			313026	2000 <i>CF</i> ₄₅		2 18.2 5°40	2°1/20.0 18		
1 12	10 34.80	+ 3 13.5	2.279	3.023	14.1	23.9	1 12	10 18.27	+ 0 36.7	1.183	1.996	20.8	19.8
1 22	10 28.84	+ 3 32.8	2.185	3.031	11.2	23.7	1 22	10 17.68	+ 1 38.7	1.110	1.996	16.6	19.5
2 1	10 20.72	+ 4 7.5	2.114	3.036	7.8	23.5	2 1	10 14.16	+ 3 15.9	1.056	1.997	11.6	19.2
2 11	10 11.00	+ 4 55.0	2.071	3.041	4.2	23.3	2 11	10 8.41	+ 5 23.4	1.024	1.999	5.9	18.9
2 21	10 0.50	+ 5 51.3	2.059	3.044	2.0	23.1	2 21	10 1.53	+ 7 49.9	1.016	2.003	2.2	18.7
3 2	9 50.19	+ 6 51.0	2.078	3.045	4.9	23.3	3 2	9 54.95	+10 19.3	1.034	2.009	7.1	19.0
3 12	9 41.02	+ 7 48.5	2.128	3.045	8.6	23.5	3 12	9 50.07	+12 35.8	1.076	2.016	12.6	19.3
3 22	9 33.70	+ 8 39.2	2.204	3.044	11.9	23.8	3 22	9 47.84	+14 28.4	1.140	2.025	17.3	19.6
97607	2000 <i>ER</i> ₇₇		2 18.2 249°74	1°2/17.1 18			55980	1998 <i>RG</i> ₆₁		2 18.2 120°19	0°8/17.7 18		
1 12	10 26.46	+12 40.4	2.213	3.009	12.8	19.8	1 12	10 35.09	+11 57.9	1.631	2.428	16.7	18.9
1 22	10 22.59	+13 19.4	2.122	3.005	9.9	19.6	1 22	10 29.73	+12 21.1	1.561	2.442	12.9	18.7
2 1	10 16.70	+14 8.5	2.055	3.000	6.4	19.3	2 1	10 21.57	+12 56.3	1.513	2.457	8.4	18.4
2 11	10 9.30	+15 2.9	2.015	2.995	2.7	19.1	2 11	10 11.42	+13 37.9	1.491	2.471	3.5	18.2
2 21	10 1.16	+15 57.3	2.005	2.990	2.0	19.0	2 21	10 0.41	+14 19.3	1.497	2.484	1.9	18.1
3 2	9 53.17	+16 45.9	2.025	2.985	5.7	19.3	3 2	9 49.88	+14 54.1	1.532	2.496	6.7	18.4
3 12	9 46.23	+17 24.5	2.072	2.980	9.3	19.5	3 12	9 41.09	+15 17.7	1.594	2.508	11.1	18.7
3 22	9 41.03	+17 50.5	2.143	2.975	12.5	19.7	3 22	9 34.82	+15 28.1	1.678	2.520	14.9	19.0
325359	2008 <i>MP</i>		2 18.2 272°45	11°5/ 5.6 17			205291	2000 <i>SV</i> ₂₁₀		2 18.2 82°63	1°9/16.7 18		
1 12	10 44.03	+45 27.4</											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
56533	2000 <i>HY</i> ₅₀		2 18.2 264°03	3°4/15.9	18		413822	2006 <i>QO</i> ₁₃₃		2 18.2 204°62	2°1/20.0	17	
1 12	10 31.56	+16 50.0	1.552	2.369	16.4	19.6	1 12	10 30.36	+3 37.0	2.181	2.939	14.2	22.5
1 22	10 27.61	+17 39.6	1.462	2.357	12.7	19.3	1 22	10 25.64	+3 44.2	2.081	2.934	11.4	22.3
2 1	10 20.60	+18 40.3	1.395	2.343	8.4	19.1	2 1	10 18.76	+4 6.5	2.003	2.928	8.0	22.1
2 11	10 11.18	+19 44.3	1.352	2.330	4.3	18.8	2 11	10 10.25	+4 41.9	1.952	2.922	4.3	21.9
2 21	10 0.44	+20 42.5	1.337	2.316	4.4	18.7	2 21	10 0.89	+5 27.1	1.930	2.915	2.2	21.7
3 2	9 49.84	+21 26.4	1.349	2.303	8.7	19.0	3 2	9 51.63	+6 16.9	1.938	2.907	5.1	21.9
3 12	9 40.87	+21 50.6	1.385	2.289	13.4	19.2	3 12	9 43.44	+7 6.1	1.976	2.898	8.8	22.1
3 22	9 34.57	+21 53.9	1.443	2.274	17.4	19.4	3 22	9 37.06	+7 49.8	2.038	2.889	12.3	22.3
84928	Oliversacks		2 18.2 46°08	0°6/18.7	18		56149	1999 <i>CP</i> ₉₈		2 18.2 44°40	1°6/16.8	18	
1 12	10 26.79	+8 11.4	2.069	2.855	14.0	20.1	1 12	10 25.04	+9 8.3	1.439	2.254	17.5	18.7
1 22	10 22.91	+8 28.9	1.983	2.857	10.9	19.8	1 22	10 22.31	+10 39.6	1.378	2.272	13.4	18.5
2 1	10 16.92	+8 59.1	1.920	2.859	7.3	19.6	2 1	10 16.86	+12 31.1	1.340	2.289	8.6	18.2
2 11	10 9.42	+9 38.6	1.884	2.862	3.3	19.4	2 11	10 9.47	+14 33.3	1.327	2.308	3.5	18.0
2 21	10 1.18	+10 22.8	1.877	2.865	1.1	19.2	2 21	10 1.22	+16 34.4	1.341	2.326	2.7	18.0
3 2	9 53.16	+11 6.5	1.899	2.867	5.1	19.5	3 2	9 53.41	+18 22.6	1.383	2.346	7.6	18.3
3 12	9 46.28	+11 44.7	1.948	2.870	9.0	19.7	3 12	9 47.25	+19 49.6	1.451	2.365	12.1	18.6
3 22	9 41.23	+12 14.1	2.022	2.873	12.4	20.0	3 22	9 43.51	+20 51.8	1.541	2.385	15.9	18.9
241029	2006 <i>QY</i> ₈₈		2 18.2 166°58	0°6/17.6	18		288993	2004 <i>TW</i> ₆₁		2 18.2 219°27	5°2/13.5	17	
1 12	10 25.59	+11 15.9	2.800	3.582	10.8	21.4	1 12	10 33.08	+26 4.8	2.232	3.038	12.4	20.7
1 22	10 21.44	+11 53.7	2.711	3.585	8.3	21.2	1 22	10 27.82	+26 56.9	2.148	3.031	9.8	20.5
2 1	10 15.70	+12 39.9	2.647	3.588	5.4	21.0	2 1	10 20.21	+27 49.1	2.089	3.024	7.1	20.3
2 11	10 8.83	+13 31.0	2.611	3.591	2.2	20.8	2 11	10 10.86	+28 34.1	2.058	3.017	5.3	20.2
2 21	10 1.42	+14 22.8	2.607	3.593	1.3	20.7	2 21	10 0.68	+29 5.5	2.055	3.010	6.0	20.2
3 2	9 54.16	+15 11.0	2.633	3.595	4.4	21.0	3 2	9 50.75	+29 18.8	2.081	3.002	8.4	20.4
3 12	9 47.72	+15 52.0	2.689	3.597	7.4	21.2	3 12	9 42.12	+29 12.5	2.134	2.993	11.3	20.5
3 22	9 42.63	+16 23.6	2.770	3.598	10.1	21.3	3 22	9 35.55	+28 47.7	2.209	2.985	14.0	20.7
310023	2009 <i>ST</i> ₁₇₇		2 18.2 120°44	0°4/18.6	18		462856	2010 <i>UR</i> ₁₀₇		2 18.2 87°19	1°1/17.5	18	
1 12	10 29.03	+8 33.3	2.026	2.810	14.3	22.1	1 12	10 34.07	+13 40.8	1.773	2.570	15.5	22.1
1 22	10 24.63	+8 53.8	1.945	2.818	11.1	21.9	1 22	10 28.66	+13 54.1	1.706	2.589	11.9	21.9
2 1	10 18.04	+9 26.9	1.887	2.826	7.4	21.7	2 1	10 20.73	+14 16.1	1.662	2.607	7.7	21.7
2 11	10 9.89	+10 9.0	1.856	2.834	3.3	21.4	2 11	10 11.04	+14 41.9	1.645	2.625	3.2	21.5
2 21	10 1.03	+10 55.0	1.854	2.842	1.1	21.3	2 21	10 0.65	+15 6.0	1.656	2.642	2.0	21.4
3 2	9 52.43	+11 39.6	1.881	2.849	5.3	21.6	3 2	9 50.77	+15 23.5	1.696	2.660	6.3	21.8
3 12	9 45.06	+12 17.8	1.937	2.856	9.2	21.8	3 12	9 42.49	+15 31.2	1.764	2.677	10.3	22.0
3 22	9 39.60	+12 46.4	2.017	2.863	12.5	22.1	3 22	9 36.54	+15 27.9	1.855	2.694	13.8	22.3
493552	2015 <i>HA</i> ₁₇₉		2 18.2 285°82	2°3/20.4	17		312173	2007 <i>UZ</i> ₁₃₅		2 18.2 8°64	4°4/21.1	18	
1 12	10 25.51	+3 12.7	2.363	3.124	13.2	20.9	1 12	10 27.62	+1 0.2	1.425	2.209	19.3	20.4
1 22	10 21.79	+3 12.4	2.256	3.110	10.6	20.7	1 22	10 24.48	+0 35.6	1.345	2.209	15.7	20.1
2 1	10 16.17	+3 25.8	2.171	3.096	7.5	20.5	2 1	10 18.45	+0 33.1	1.284	2.210	11.5	19.9
2 11	10 9.12	+3 51.7	2.113	3.082	4.3	20.2	2 11	10 10.23	+0 52.5	1.246	2.212	7.1	19.6
2 21	10 1.31	+4 27.2	2.084	3.068	2.3	20.1	2 21	10 0.91	+1 30.6	1.233	2.214	4.4	19.5
3 2	9 53.54	+5 8.3	2.085	3.054	4.7	20.2	3 2	9 51.86	+2 21.1	1.246	2.217	7.0	19.6
3 12	9 46.66	+5 50.4	2.113	3.039	8.1	20.4	3 12	9 44.43	+3 15.6	1.284	2.220	11.4	19.9
3 22	9 41.35	+6 29.1	2.167	3.025	11.4	20.6	3 22	9 39.57	+4 6.5	1.344	2.224	15.6	20.1
379093	2008 <i>XK</i> ₄₅		2 18.2 57°25	1°6/16.7	18		98048	2000 <i>RR</i> ₃₂		2 18.2 119°76	4°0/21.3	18	
1 12	10 26.14	+12 51.2	1.967	2.771	13.9	20.6	1 12	10 30.66	-0 21.7	1.739	2.495	17.3	19.7
1 22	10 22.42	+13 47.7	1.901	2.788	10.6	20.4	1 22	10 26.21	-0 27.6	1.660	2.507	14.1	19.5
2 1	10 16.58	+14 54.8	1.859	2.806	6.8	20.2	2 1	10 19.26	-0 12.7	1.601	2.518	10.3	19.3
2 11	10 9.25	+16 6.3	1.844	2.824	2.9	20.0	2 11	10 10.48	+0 22.1	1.567	2.529	6.4	19.1
2 21	10 1.29	+17 15.4	1.858	2.842	2.5	20.0	2 21	10 0.84	+1 12.9	1.560	2.539	4.0	19.0
3 2	9 53.68	+18 15.7	1.901	2.860	6.1	20.3	3 2	9 51.51	+2 13.7	1.582	2.549	6.1	19.1
3 12	9 47.32	+19 2.3	1.971	2.878	9.8	20.5	3 12	9 43.61	+3 16.8	1.630	2.559	9.9	19.3
3 22	9 42.87	+19 33.4	2.065	2.896	12.9	20.7	3 22	9 37.94	+4 15.7	1.703	2.568	13.6	19.6
122676	2000 <i>RS</i> ₁₀₃		2 18.2 45°76	5°5/22.2	18		34680	2001 <i>BR</i> ₂₁		2 18.2 313°17	2°3/16.2	18	
1 12	10 29.25	-2 3.1	1.591	2.350	18.6	19.0	1 12	10 27.40	+15 12.5	1.888	2.698	14.2	19.1
1 22	10 25.20	-2 40.2	1.526	2.370	15.3	18.8	1 22	10 23.70	+16 1.1	1.804	2.695	10.9	18.9
2 1	10 18.58	-2 55.2	1.480	2.390	11.5	18.6	2 1	10 17.64	+16 59.6	1.744	2.692	7.1	18.7
2 11	10 10.15	-2 47.7	1.458	2.411	7.7	18.5	2 11	10 9.81	+18 1.7	1.710	2.689	3.3	18.4
2 21	10 0.95	-2 20.4	1.461	2.433	5.5	18.4	2 21	10 1.10	+19 0.5	1.704	2.686	3.2	18.4
3 2	9 52.21	-1 38.5	1.491	2.455	6.9	18.5	3 2	9 52.61	+19 49.2	1.727	2.683	7.0	18.6
3 12	9 45.04	-0 49.3	1.547	2.477	10.3	18.8	3 12	9 45.40	+20 23.3	1.776	2.681	10.8	18.9
3 22	9 40.18	+0 0.0	1.627	2.500	13.7	19.0	3 22	9 40.26	+20 40.7	1.849	2.678	14.3	19.1
415821	2001 <i>QS</i> ₁₆₆		2 18.2 168°02	3°3/15.5	18		186069	2001 <i>SP</i> ₁₇₇		2 18.2 153°03	3°1/21.5	18	
1 12	10 33.21	+19 57.2	2.204	3.003	12.8	21.6	1 12	10 27.29	-1 31.8	2.284	3.021	14.2	21.6
1 22	10 27.76	+20 37.1	2.124	3.007	9.8	21.4	1 22	10 23.09	-1 7.4	2.193	3.029	11.6	21.4
2 1	10 20.06	+21 20.7	2.068	3.011	6.6	21.2	2 1	10 16.96	-0 24.2	2.125	3.036	8.4	21.2
2 11	10 10.76	+22 2.1	2.040	3.014	3.7	21.0	2 11	10 9.44	+0 36.1	2.083	3.043	5.2	21.0
2 21	10 0.71	+22 35.6	2.043	3.017	3.9	21.0	2 21	10 1.25	+1 49.5	2.070	3.049	3.1	20.9
3 2	9 50.97	+22 56.6	2.075	3.019	6.9	21.2	3 2	9 53.23	+3 10.3	2.088	3.055	4.9	21.0
3 12	9 42.50	+23 2.7	2.134	3.020	10.2	21.4	3 12	9 46.24	+4 31.8	2.134	3.060	8.1	21.2
3 22	9 36.03	+22 53.9	2.218	3.021	13.1	21.6	3 22	9 40.89	+5 48.1	2.207	3.065	11.2	21.4
36577	2000 <i>QX</i> ₁₂₃		2 18.2 180°84	2°6/15.9	18		474065	2016 <i>JJ</i> ₁₀		2 18.2 24°41			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
248663	2006 <i>HN</i> ₁₅₁		2 18.2 270°59	0°1/18.2	18		171928	2001 <i>SK</i> ₁₅₃		2 18.2 158°32	0°8/17.4	18	
1 12	10 30.57	+ 9 50.1	1.688	2.485	16.2	21.0	1 12	10 27.65	+13 3.1	2.769	3.553	10.9	20.6
1 22	10 26.63	+10 8.3	1.585	2.466	12.7	20.7	1 22	10 23.03	+13 28.3	2.683	3.558	8.3	20.5
2 1	10 19.89	+10 41.3	1.503	2.446	8.5	20.4	2 1	10 16.76	+14 0.2	2.621	3.563	5.4	20.3
2 11	10 10.91	+11 25.3	1.447	2.426	3.7	20.1	2 11	10 9.34	+14 35.4	2.588	3.568	2.3	20.1
2 21	10 0.63	+12 14.4	1.418	2.406	1.5	19.9	2 21	10 1.38	+15 10.2	2.586	3.572	1.5	20.0
3 2	9 50.34	+13 1.5	1.418	2.385	6.7	20.1	3 2	9 53.60	+15 40.7	2.615	3.576	4.5	20.3
3 12	9 41.39	+13 40.3	1.444	2.365	11.6	20.4	3 12	9 46.71	+16 4.0	2.673	3.579	7.5	20.4
3 22	9 34.82	+14 6.4	1.492	2.344	15.9	20.6	3 22	9 41.23	+16 18.5	2.757	3.582	10.2	20.6
201888	2004 <i>BB</i> ₂		2 18.2 74°60	4°1/14.1	18		313112	2000 <i>XG</i> ₄₄		2 18.2 83°01	12°0/24.7	17	
1 12	10 27.17	+19 56.6	2.060	2.874	13.0	19.9	1 12	10 43.13	- 9 49.2	1.161	1.888	25.8	20.3
1 22	10 23.25	+21 16.8	1.996	2.888	9.9	19.7	1 22	10 36.80	-11 49.2	1.110	1.917	22.2	20.1
2 1	10 17.16	+22 42.3	1.957	2.902	6.7	19.6	2 1	10 26.66	-13 16.7	1.074	1.946	18.2	19.9
2 11	10 9.53	+24 5.2	1.945	2.916	4.2	19.4	2 11	10 13.75	-14 4.1	1.058	1.975	14.5	19.8
2 21	10 1.23	+25 17.9	1.963	2.930	4.9	19.5	2 21	9 59.72	-14 8.7	1.064	2.003	12.2	19.8
3 2	9 53.25	+26 14.3	2.009	2.944	7.8	19.7	3 2	9 46.52	-13 34.8	1.094	2.030	12.5	19.9
3 12	9 46.53	+26 51.3	2.082	2.958	10.8	19.9	3 12	9 35.90	-12 34.0	1.147	2.057	15.0	20.1
3 22	9 41.74	+27 8.5	2.177	2.972	13.6	20.1	3 22	9 28.85	-11 19.9	1.221	2.082	18.1	20.4
367171	2006 <i>WO</i> ₂₀₀		2 18.2 73°94	4°0/20.9	18		205129	1999 <i>VO</i> ₁₅₇		2 18.2 128°15	3°8/15.4	18	
1 12	10 31.99	+ 1 46.1	1.781	2.542	16.8	21.1	1 12	10 34.58	+20 7.3	1.802	2.610	14.8	20.0
1 22	10 27.15	+ 1 10.5	1.703	2.554	13.6	20.9	1 22	10 29.24	+20 50.3	1.731	2.620	11.4	19.8
2 1	10 19.83	+ 0 51.4	1.646	2.565	9.9	20.7	2 1	10 21.25	+21 37.8	1.684	2.629	7.6	19.6
2 11	10 10.72	+ 0 48.6	1.614	2.577	6.1	20.5	2 11	10 11.34	+22 22.3	1.664	2.638	4.4	19.4
2 21	10 0.78	+ 1 0.0	1.610	2.589	4.0	20.4	2 21	10 0.62	+22 56.8	1.672	2.646	4.6	19.4
3 2	9 51.19	+ 1 21.5	1.634	2.600	6.1	20.5	3 2	9 50.35	+23 15.9	1.709	2.655	8.0	19.6
3 12	9 43.04	+ 1 47.8	1.685	2.612	9.8	20.8	3 12	9 41.70	+23 17.2	1.772	2.662	11.6	19.9
3 22	9 37.10	+ 2 13.9	1.760	2.624	13.3	21.0	3 22	9 35.46	+23 1.6	1.857	2.670	14.9	20.1
232608	2003 <i>US</i> ₉₃		2 18.2 111°10	0°3/18.5	18		434994	2006 <i>UD</i> ₂₁₆		2 18.2 134°82	1°5/16.5	17	
1 12	10 27.83	+ 8 56.0	2.182	2.965	13.4	21.0	1 12	10 27.39	+15 45.5	2.846	3.636	10.5	22.2
1 22	10 23.57	+ 9 16.6	2.099	2.972	10.4	20.8	1 22	10 22.77	+16 18.0	2.766	3.646	8.0	22.1
2 1	10 17.30	+ 9 48.6	2.041	2.980	6.9	20.6	2 1	10 16.55	+16 55.5	2.712	3.656	5.2	21.9
2 11	10 9.59	+10 28.6	2.009	2.987	3.0	20.4	2 11	10 9.24	+17 34.1	2.688	3.666	2.4	21.7
2 21	10 1.22	+11 12.1	2.007	2.994	1.1	20.3	2 21	10 1.43	+18 10.0	2.693	3.675	2.1	21.7
3 2	9 53.10	+11 54.0	2.034	3.001	5.0	20.5	3 2	9 53.84	+18 39.6	2.730	3.684	4.8	21.9
3 12	9 46.09	+12 29.8	2.089	3.008	8.6	20.8	3 12	9 47.13	+19 0.2	2.795	3.693	7.6	22.1
3 22	9 40.84	+12 56.6	2.170	3.015	11.8	21.0	3 22	9 41.82	+19 10.7	2.886	3.701	10.1	22.3
413092	2001 <i>UM</i> ₁₈		2 18.2 73°50	1°1/19.1	18		490996	2011 <i>FR</i> ₁₅₂		2 18.2 33°28	0°3/18.5	17	
1 12	10 28.71	+ 6 3.1	1.757	2.542	16.1	21.5	1 12	10 28.54	+ 9 31.4	1.851	2.645	15.1	21.8
1 22	10 24.59	+ 6 28.6	1.689	2.561	12.6	21.3	1 22	10 24.51	+ 9 41.0	1.770	2.648	11.7	21.6
2 1	10 18.11	+ 7 10.7	1.642	2.580	8.5	21.1	2 1	10 18.13	+10 2.9	1.710	2.652	7.8	21.3
2 11	10 9.96	+ 8 5.2	1.622	2.598	4.0	20.9	2 11	10 10.03	+10 33.5	1.677	2.656	3.4	21.1
2 21	10 1.10	+ 9 6.2	1.629	2.617	1.4	20.7	2 21	10 1.12	+11 8.1	1.672	2.660	1.2	20.9
3 2	9 52.64	+10 6.9	1.666	2.636	5.6	21.1	3 2	9 52.48	+11 41.2	1.695	2.664	5.7	21.2
3 12	9 45.62	+11 0.7	1.729	2.654	9.7	21.3	3 12	9 45.17	+12 8.0	1.746	2.668	9.8	21.5
3 22	9 40.72	+11 43.6	1.816	2.672	13.3	21.6	3 22	9 39.93	+12 25.4	1.820	2.673	13.4	21.7
209918	2005 <i>QY</i> ₃₀		2 18.2 282°19	0°4/18.7	17		156008	2001 <i>RZ</i> ₄₉		2 18.2 246°64	4°8/21.6	18	
1 12	10 23.85	+ 7 14.2	2.442	3.221	12.3	20.4	1 12	10 29.31	- 1 4.0	1.559	2.324	18.7	20.7
1 22	10 20.40	+ 7 52.7	2.349	3.220	9.6	20.2	1 22	10 25.70	- 1 19.8	1.467	2.318	15.4	20.4
2 1	10 15.18	+ 8 44.0	2.281	3.218	6.4	20.0	2 1	10 19.29	- 1 12.4	1.395	2.312	11.5	20.1
2 11	10 8.69	+ 9 44.7	2.239	3.217	2.9	19.8	2 11	10 10.66	- 0 41.5	1.345	2.306	7.4	19.9
2 21	10 1.57	+10 50.0	2.228	3.215	1.0	19.6	2 21	10 0.84	+ 0 10.0	1.322	2.300	4.8	19.7
3 2	9 54.57	+11 54.6	2.246	3.214	4.6	19.9	3 2	9 51.13	+ 1 15.8	1.325	2.293	7.0	19.8
3 12	9 48.47	+12 53.5	2.294	3.213	8.0	20.1	3 12	9 42.87	+ 2 27.2	1.354	2.287	11.2	20.0
3 22	9 43.86	+13 42.9	2.366	3.211	11.0	20.3	3 22	9 37.07	+ 3 35.6	1.406	2.280	15.4	20.3
139953	2001 <i>RF</i> ₁₄₅		2 18.2 91°48	4°8/13.7	18		283486	2001 <i>SW</i> ₂₄		2 18.2 116°88	1°6/17.1	18	
1 12	10 30.60	+25 37.7	2.292	3.100	12.1	19.4	1 12	10 35.33	+13 51.1	1.663	2.463	16.3	20.5
1 22	10 25.70	+26 27.4	2.224	3.109	9.4	19.2	1 22	10 29.89	+14 21.7	1.595	2.479	12.5	20.3
2 1	10 18.67	+27 16.5	2.182	3.119	6.7	19.1	2 1	10 21.69	+15 2.4	1.549	2.495	8.1	20.1
2 11	10 10.16	+27 58.6	2.167	3.128	4.9	19.0	2 11	10 11.54	+15 47.2	1.530	2.510	3.5	19.9
2 21	10 1.03	+28 28.0	2.181	3.137	5.5	19.0	2 21	10 0.57	+16 29.0	1.539	2.524	2.5	19.8
3 2	9 52.27	+28 40.8	2.224	3.146	7.8	19.2	3 2	9 50.10	+17 1.6	1.577	2.538	6.9	20.1
3 12	9 44.78	+28 36.0	2.292	3.155	10.5	19.4	3 12	9 41.35	+17 21.0	1.642	2.552	11.2	20.4
3 22	9 39.20	+28 14.6	2.384	3.164	13.0	19.5	3 22	9 35.11	+17 26.0	1.729	2.564	14.8	20.7
95104	2002 <i>AN</i> ₁₁₆		2 18.2 82°56	1°4/17.2	18		425054	2009 <i>QQ</i> ₃₄		2 18.2 168°08	3°1/21.1	16	
1 12	10 30.67	+11 6.5	1.487	2.296	17.4	19.7	1 12	10 30.83	+ 0 30.2	2.605	3.337	12.8	22.2
1 22	10 26.56	+12 1.2	1.425	2.314	13.4	19.5	1 22	10 25.56	+ 0 18.8	2.510	3.342	10.4	22.0
2 1	10 19.62	+13 11.6	1.384	2.331	8.6	19.2	2 1	10 18.49	+ 0 20.7	2.437	3.347	7.6	21.8
2 11	10 10.66	+14 30.1	1.368	2.348	3.6	19.0	2 11	10 10.11	+ 0 35.1	2.392	3.351	4.7	21.6
2 21	10 0.84	+15 47.4	1.379	2.365	2.4	18.9	2 21	10 1.10	+ 1 0.0	2.377	3.354	3.1	21.5
3 2	9 51.52	+16 54.8	1.419	2.382	7.3	19.3	3 2	9 52.24	+ 1 32.1	2.393	3.357	4.7	21.6
3 12	9 43.95	+17 45.8	1.484	2.399	11.8	19.6	3 12	9 44.31	+ 2 7.3	2.439	3.359	7.5	21.8
3 22	9 38.94	+18 18.0	1.571	2.415	15.6	19.9	3 22	9 37.92	+ 2 41.8	2.511	3.360	10.3	22.0
141721	2002 <i>LY</i> ₁₉		2 18.2 253°84	1°4/17.1	16		385634	2005 <i>QW</i> ₆₅		2 18.2 230°36	1°3/19.4	18	

EPHEMERIDES

2 18.2

2 18.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
458517	2011 CA ₆₈		2 18.2 333°77	1°7/16.7	17		253283	2003 BW ₂₆		2 18.3 27°72	2°1/19.7	18	
1 12	10 23.66	+10 28.6	1.654	2.467	15.7	20.6	1 12	10 25.74	+5 5.1	1.234	2.047	20.0	19.1
1 22	10 21.19	+11 45.9	1.568	2.460	12.1	20.4	1 22	10 23.17	+5 11.3	1.177	2.063	15.8	18.9
2 1	10 16.22	+13 21.9	1.504	2.453	7.9	20.1	2 1	10 17.59	+5 40.0	1.139	2.081	10.8	18.7
2 11	10 9.31	+15 9.6	1.467	2.447	3.3	19.8	2 11	10 9.87	+6 27.1	1.123	2.099	5.4	18.4
2 21	10 1.38	+16 59.1	1.457	2.441	2.8	19.7	2 21	10 1.26	+7 25.3	1.132	2.119	2.2	18.3
3 2	9 53.59	+18 40.0	1.475	2.436	7.3	20.0	3 2	9 53.22	+8 25.9	1.167	2.140	6.7	18.6
3 12	9 47.13	+20 3.7	1.519	2.431	11.8	20.3	3 12	9 47.07	+9 20.1	1.225	2.162	11.6	18.9
3 22	9 42.87	+21 5.7	1.586	2.427	15.7	20.5	3 22	9 43.59	+10 2.0	1.305	2.185	15.9	19.2
88058	2000 VG ₄₀		2 18.2 62°05	1°0/17.6	18		83134	2001 QT ₂₆₀		2 18.3 181°67	1°7/19.9	18	
1 12	10 31.19	+13 21.2	1.797	2.598	15.2	19.6	1 12	10 27.90	+5 3.9	2.579	3.338	12.2	19.6
1 22	10 26.56	+13 33.7	1.723	2.608	11.7	19.4	1 22	10 23.37	+5 0.5	2.483	3.338	9.7	19.4
2 1	10 19.45	+13 55.3	1.672	2.618	7.6	19.2	2 1	10 17.09	+5 8.0	2.412	3.338	6.8	19.2
2 11	10 10.58	+14 21.3	1.648	2.627	3.2	18.9	2 11	10 9.54	+5 25.1	2.367	3.338	3.6	19.0
2 21	10 0.94	+14 46.6	1.651	2.637	1.9	18.8	2 21	10 1.37	+5 48.8	2.353	3.338	1.8	18.9
3 2	9 51.70	+15 6.0	1.683	2.647	6.2	19.1	3 2	9 53.35	+6 16.0	2.369	3.337	4.3	19.1
3 12	9 43.93	+15 16.0	1.742	2.658	10.3	19.4	3 12	9 46.23	+6 42.9	2.414	3.336	7.5	19.3
3 22	9 38.39	+15 15.0	1.824	2.668	13.8	19.6	3 22	9 40.60	+7 6.4	2.485	3.335	10.4	19.5
37132	2000 VB ₃₀		2 18.3 22°47	5°1/13.8	18		252249	2001 QU ₁₀₃		2 18.3 97°99	2°1/16.2	18	
1 12	10 27.11	+21 7.9	1.684	2.511	14.9	17.8	1 12	10 30.44	+14 2.6	2.004	2.802	13.9	20.4
1 22	10 23.80	+22 28.4	1.616	2.514	11.4	17.5	1 22	10 25.68	+15 9.8	1.942	2.826	10.6	20.3
2 1	10 17.85	+23 54.9	1.571	2.518	7.8	17.3	2 1	10 18.72	+16 26.5	1.905	2.850	6.8	20.1
2 11	10 9.96	+25 17.9	1.553	2.523	5.3	17.2	2 11	10 10.23	+17 45.7	1.895	2.874	3.1	19.9
2 21	10 1.17	+26 28.2	1.562	2.528	6.1	17.3	2 21	10 1.13	+19 0.1	1.916	2.897	2.9	19.9
3 2	9 52.72	+27 18.2	1.598	2.533	9.3	17.5	3 2	9 52.43	+20 3.3	1.966	2.919	6.5	20.2
3 12	9 45.81	+27 44.6	1.658	2.539	12.9	17.7	3 12	9 45.07	+20 50.8	2.043	2.941	10.0	20.4
3 22	9 41.23	+27 47.6	1.739	2.545	16.0	17.9	3 22	9 39.71	+21 21.4	2.145	2.963	13.0	20.7
467329	2001 UT ₁₁₁		2 18.3 173°39	1°7/16.2	18		508574	2017 NO ₅		2 18.3 131°55	0°3/18.0	17	
1 12	10 27.83	+16 46.8	3.147	3.933	9.6	22.4	1 12	10 33.32	+13 8.3	2.773	3.544	11.2	21.4
1 22	10 23.00	+17 20.5	3.059	3.937	7.3	22.2	1 22	10 27.27	+12 59.5	2.686	3.554	8.6	21.2
2 1	10 16.68	+17 58.3	2.997	3.940	4.8	22.1	2 1	10 19.49	+12 55.6	2.625	3.563	5.6	21.0
2 11	10 9.30	+18 36.7	2.965	3.942	2.3	21.9	2 11	10 10.51	+12 54.1	2.594	3.572	2.4	20.8
2 21	10 1.44	+19 11.9	2.963	3.943	2.2	21.9	2 21	10 1.03	+12 52.5	2.594	3.581	1.0	20.7
3 2	9 53.72	+19 40.6	2.994	3.945	4.7	22.1	3 2	9 51.82	+12 48.5	2.626	3.590	4.3	21.0
3 12	9 46.80	+20 0.6	3.053	3.945	7.2	22.2	3 12	9 43.60	+12 40.0	2.689	3.598	7.4	21.2
3 22	9 41.15	+20 10.7	3.139	3.945	9.5	22.4	3 22	9 36.94	+12 26.3	2.778	3.606	10.0	21.4
326374	2000 XO ₁₅		2 18.3 138°94	3°4/21.6	18		101706	1999 CB ₁₅₃		2 18.3 173°76	0°7/18.8	18	
1 12	10 28.53	-1 5.8	2.398	3.132	13.7	21.1	1 12	10 33.01	+9 10.0	2.276	3.047	13.3	20.3
1 22	10 23.93	-1 8.0	2.311	3.143	11.2	20.9	1 22	10 27.52	+9 9.1	2.184	3.050	10.4	20.1
2 1	10 17.47	-0 54.1	2.246	3.153	8.2	20.7	2 1	10 19.91	+9 17.8	2.117	3.052	7.0	19.9
2 11	10 9.69	-0 25.2	2.207	3.164	5.2	20.6	2 11	10 10.78	+9 33.6	2.077	3.054	3.2	19.6
2 21	10 1.29	+0 16.1	2.197	3.173	3.4	20.5	2 21	10 0.92	+9 52.9	2.067	3.055	1.1	19.5
3 2	9 53.10	+1 5.6	2.218	3.182	4.9	20.6	3 2	9 51.27	+10 12.0	2.088	3.056	4.9	19.7
3 12	9 45.91	+1 58.2	2.267	3.191	7.8	20.8	3 12	9 42.76	+10 27.4	2.139	3.056	8.6	20.0
3 22	9 40.32	+2 49.1	2.343	3.199	10.7	20.9	3 22	9 36.07	+10 36.5	2.215	3.055	11.8	20.2
385076	2012 UV ₉₃		2 18.3 35°03	2°6/20.4	18		147191	2002 VL ₈₈		2 18.3 63°99	0°3/18.4	18	
1 12	10 27.07	+3 27.5	2.210	2.973	13.9	20.6	1 12	10 30.22	+9 18.8	1.630	2.428	16.6	20.0
1 22	10 22.99	+3 14.1	2.123	2.978	11.1	20.4	1 22	10 26.02	+9 33.6	1.560	2.441	12.9	19.8
2 1	10 16.94	+3 14.1	2.059	2.983	7.9	20.2	2 1	10 19.21	+10 2.6	1.511	2.454	8.5	19.5
2 11	10 9.49	+3 26.3	2.020	2.988	4.5	20.0	2 11	10 10.53	+10 41.3	1.488	2.467	3.7	19.3
2 21	10 1.37	+3 48.1	2.011	2.993	2.6	19.9	2 21	10 1.02	+11 23.9	1.492	2.480	1.3	19.1
3 2	9 53.45	+4 15.6	2.030	2.999	4.9	20.0	3 2	9 51.94	+12 4.0	1.524	2.493	6.1	19.5
3 12	9 46.60	+4 44.5	2.078	3.005	8.2	20.2	3 12	9 44.43	+12 36.0	1.582	2.506	10.5	19.8
3 22	9 41.44	+5 10.9	2.151	3.011	11.3	20.5	3 22	9 39.26	+12 56.9	1.664	2.519	14.3	20.0
116489	2004 BN ₁₂		2 18.3 354°07	0°1/18.4	18		59359	1999 DV		2 18.3 80°38	2°9/16.3	18	
1 12	10 23.28	+9 43.7	2.909	3.689	10.5	20.2	1 12	10 32.57	+15 23.1	1.440	2.258	17.4	18.5
1 22	10 19.66	+10 1.1	2.816	3.688	8.1	20.1	1 22	10 28.17	+16 16.0	1.379	2.274	13.3	18.3
2 1	10 14.57	+10 26.7	2.748	3.687	5.4	19.9	2 1	10 20.77	+17 20.0	1.340	2.289	8.6	18.0
2 11	10 8.42	+10 57.9	2.708	3.686	2.3	19.7	2 11	10 11.22	+18 26.5	1.327	2.305	4.1	17.8
2 21	10 1.78	+11 31.5	2.698	3.686	0.8	19.5	2 21	10 0.77	+19 26.3	1.340	2.321	3.9	17.8
3 2	9 55.26	+12 4.0	2.718	3.685	3.9	19.8	3 2	9 50.90	+20 11.5	1.380	2.337	8.2	18.1
3 12	9 49.51	+12 32.3	2.768	3.685	6.9	20.0	3 12	9 42.92	+20 37.7	1.445	2.353	12.6	18.4
3 22	9 45.00	+12 54.1	2.843	3.685	9.5	20.1	3 22	9 37.67	+20 44.3	1.532	2.368	16.4	18.7
405921	2006 KW ₅₀		2 18.3 193°01	0°0/18.3	18		243789	2000 SD ₆₇		2 18.3 204°81	1°4/17.1	18	
1 12	10 30.84	+8 58.2	2.094	2.874	14.0	22.6	1 12	10 33.35	+13 38.5	2.074	2.863	13.8	21.6
1 22	10 26.11	+9 29.4	2.000	2.872	10.9	22.4	1 22	10 28.14	+14 12.0	1.979	2.857	10.7	21.3
2 1	10 19.14	+10 13.6	1.930	2.869	7.3	22.1	2 1	10 20.54	+14 55.0	1.908	2.851	7.0	21.1
2 11	10 10.49	+11 6.8	1.888	2.866	3.1	21.9	2 11	10 11.12	+15 42.6	1.865	2.844	3.0	20.8
2 21	10 0.99	+12 3.8	1.875	2.862	1.2	21.7	2 21	10 0.78	+16 28.9	1.851	2.836	2.2	20.8
3 2	9 51.63	+12 58.5	1.892	2.858	5.5	22.0	3 2	9 50.58	+17 8.1	1.868	2.827	6.2	21.0
3 12	9 43.43	+13 45.6	1.937	2.853	9.4	22.2	3 12	9 41.61	+17 36.0	1.913	2.818	10.1	21.2
3 22	9 37.15	+14 21.5	2.008	2.847	12.9	22.4	3 22	9 34.69	+17 50.6	1.982	2.807	13.6	21.4
86730	2000 GY ₃₇		2 18.3 196°52	2°3/20.3	18		301660	2010 EO ₁₃₀		2 18.3 275°36	3°2/20.6	18	
1 12	10 31.06	+1 58.1	2.208	2.956	14.3	21.3	1 12	10 27.38	+1 23.0	1.523	2.303	18.4	

EPHEMERIDES

2 18.3

2 18.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
340593	2006 <i>PQ</i> ₃₉		2 18.3 92°73	1.8/16.2	18		97881	2000 <i>QR</i> ₄₅		2 18.3 137°56	0.4/18.6	18	
1 12	10 26.53	+14 16.0	2.545	3.338	11.4	21.1	1 12	10 31.51	+ 8 1.6	1.749	2.537	16.1	20.4
1 22	10 22.27	+15 20.7	2.479	3.361	8.7	20.9	1 22	10 26.94	+ 8 27.4	1.671	2.545	12.6	20.2
2 1	10 16.31	+16 32.9	2.439	3.384	5.6	20.7	2 1	10 19.82	+ 9 8.7	1.614	2.554	8.4	20.0
2 11	10 9.18	+17 47.0	2.427	3.406	2.6	20.6	2 11	10 10.84	+10 1.0	1.584	2.562	3.7	19.7
2 21	10 1.55	+18 57.6	2.447	3.428	2.5	20.6	2 21	10 0.98	+10 58.3	1.581	2.569	1.2	19.5
3 2	9 54.19	+19 59.5	2.497	3.449	5.4	20.8	3 2	9 51.43	+11 53.5	1.608	2.576	6.0	19.9
3 12	9 47.82	+20 49.0	2.576	3.470	8.3	21.0	3 12	9 43.34	+12 40.7	1.662	2.583	10.3	20.1
3 22	9 42.96	+21 24.5	2.679	3.491	10.8	21.2	3 22	9 37.51	+13 15.9	1.739	2.589	14.1	20.4
185210	2006 <i>TN</i> ₅₀		2 18.3 83°99	0.4/18.6	18		168289	2007 <i>SD</i>		2 18.3 168°53	0.4/17.9	18	
1 12	10 29.70	+ 8 23.8	1.734	2.527	16.0	20.8	1 12	10 32.61	+10 33.0	2.106	2.887	13.9	21.3
1 22	10 25.50	+ 8 46.0	1.661	2.539	12.5	20.6	1 22	10 27.41	+11 2.2	2.020	2.893	10.8	21.1
2 1	10 18.82	+ 9 23.0	1.610	2.550	8.3	20.3	2 1	10 19.95	+11 42.7	1.957	2.897	7.1	20.9
2 11	10 10.36	+10 10.4	1.584	2.562	3.7	20.1	2 11	10 10.86	+12 30.1	1.922	2.901	3.0	20.6
2 21	10 1.11	+11 2.2	1.586	2.574	1.2	19.9	2 21	10 0.97	+13 19.0	1.917	2.904	1.4	20.5
3 2	9 52.22	+11 51.9	1.617	2.586	5.9	20.3	3 2	9 51.32	+14 4.0	1.942	2.906	5.5	20.8
3 12	9 44.78	+12 33.8	1.675	2.598	10.1	20.5	3 12	9 42.89	+14 40.4	1.996	2.908	9.4	21.0
3 22	9 39.55	+13 4.2	1.756	2.609	13.8	20.8	3 22	9 36.42	+15 5.5	2.074	2.908	12.7	21.3
234261	2000 <i>VF</i> ₁₁		2 18.3 210°51	7.2/28.3	18		64434	2001 <i>VN</i> ₁₆		2 18.3 8°82	0.3/18.0	18	
1 12	10 24.88	-19 45.3	3.344	3.935	12.4	21.2	1 12	10 19.96	+ 5 31.9	1.296	2.116	18.8	18.0
1 22	10 20.85	-20 11.9	3.232	3.928	11.2	21.1	1 22	10 18.82	+ 6 54.2	1.224	2.118	14.7	17.7
2 1	10 15.36	-20 20.1	3.138	3.921	9.8	21.0	2 1	10 14.88	+ 8 44.5	1.173	2.121	9.7	17.4
2 11	10 8.81	-20 8.2	3.067	3.912	8.4	20.9	2 11	10 8.83	+10 55.2	1.145	2.126	4.1	17.1
2 21	10 1.69	-19 35.7	3.021	3.904	7.4	20.8	2 21	10 1.72	+13 13.8	1.144	2.132	1.8	17.0
3 2	9 54.60	-18 44.1	3.002	3.895	7.2	20.8	3 2	9 54.92	+15 25.7	1.169	2.139	7.4	17.3
3 12	9 48.16	-17 37.1	3.010	3.885	7.9	20.8	3 12	9 49.73	+17 18.5	1.219	2.147	12.6	17.6
3 22	9 42.88	-16 19.4	3.045	3.875	9.2	20.9	3 22	9 47.05	+18 45.2	1.290	2.157	17.0	17.9
100776	1998 <i>FY</i> ₄₆		2 18.3 351°59	1°3/17.5	18		172592	2003 <i>UD</i> ₂₉₈		2 18.3 344°40	0°5/18.6	18	
1 12	10 30.17	+13 12.8	1.378	2.198	17.9	19.5	1 12	10 27.93	+ 8 48.4	1.410	2.221	18.1	20.6
1 22	10 26.67	+13 28.8	1.301	2.195	13.9	19.3	1 22	10 24.88	+ 8 59.5	1.328	2.216	14.2	20.4
2 1	10 20.04	+13 57.5	1.244	2.193	9.2	19.0	2 1	10 18.86	+ 9 27.9	1.267	2.212	9.5	20.1
2 11	10 11.03	+14 33.1	1.210	2.191	3.9	18.7	2 11	10 10.55	+10 9.4	1.229	2.208	4.3	19.7
2 21	10 0.85	+15 8.5	1.203	2.190	2.4	18.6	2 21	10 1.07	+10 57.6	1.217	2.205	1.4	19.5
3 2	9 51.00	+15 36.4	1.222	2.189	7.7	18.9	3 2	9 51.84	+11 44.6	1.232	2.203	6.9	19.9
3 12	9 42.96	+15 51.3	1.265	2.188	12.7	19.2	3 12	9 44.28	+12 23.4	1.271	2.201	12.0	20.2
3 22	9 37.72	+15 51.2	1.330	2.188	17.0	19.4	3 22	9 39.34	+12 49.3	1.332	2.199	16.5	20.4
247658	2002 <i>XN</i> ₆₃		2 18.3 120°95	1°6/16.8	18		430344	2013 <i>YD</i> ₇₃		2 18.3 195°73	0°8/17.3	17	
1 12	10 32.79	+14 20.8	2.222	3.010	13.1	21.2	1 12	10 25.47	+11 41.0	2.635	3.422	11.3	21.6
1 22	10 27.27	+15 0.4	2.153	3.031	10.0	21.0	1 22	10 21.56	+12 25.9	2.543	3.420	8.7	21.4
2 1	10 19.68	+15 47.4	2.109	3.052	6.4	20.8	2 1	10 15.94	+13 20.1	2.475	3.418	5.6	21.2
2 11	10 10.65	+16 36.7	2.093	3.071	2.8	20.6	2 11	10 9.10	+14 19.5	2.437	3.416	2.4	21.0
2 21	10 1.04	+17 22.8	2.107	3.090	2.3	20.6	2 21	10 1.64	+15 19.5	2.428	3.414	1.5	20.9
3 2	9 51.80	+18 0.9	2.151	3.108	5.7	20.9	3 2	9 54.31	+16 15.1	2.450	3.411	4.8	21.1
3 12	9 43.82	+18 27.5	2.225	3.126	9.1	21.1	3 12	9 47.83	+17 2.2	2.501	3.408	8.0	21.3
3 22	9 37.73	+18 41.5	2.323	3.142	12.0	21.3	3 22	9 42.78	+17 38.2	2.577	3.405	10.8	21.5
171547	1999 <i>RH</i> ₁₅₄		2 18.3 138°34	0°4/18.6	18		113355	Gessler		2 18.3 116°14	2°5/20.9	18	
1 12	10 33.05	+ 9 4.0	1.939	2.720	15.0	20.6	1 12	10 25.63	+ 0 47.8	2.343	3.094	13.6	20.8
1 22	10 27.84	+ 9 16.5	1.860	2.731	11.7	20.4	1 22	10 21.79	+ 1 7.4	2.257	3.103	10.9	20.6
2 1	10 20.25	+ 9 41.2	1.803	2.741	7.8	20.2	2 1	10 16.14	+ 1 43.4	2.192	3.112	7.8	20.4
2 11	10 10.97	+10 14.4	1.773	2.751	3.4	20.0	2 11	10 9.19	+ 2 33.9	2.155	3.120	4.5	20.2
2 21	10 0.91	+10 51.2	1.772	2.760	1.2	19.8	2 21	10 1.62	+ 3 34.8	2.146	3.128	2.5	20.1
3 2	9 51.17	+11 26.4	1.801	2.769	5.5	20.1	3 2	9 54.24	+ 4 41.2	2.167	3.137	4.6	20.3
3 12	9 42.81	+11 55.4	1.858	2.777	9.6	20.4	3 12	9 47.83	+ 5 47.2	2.218	3.144	7.8	20.5
3 22	9 36.55	+12 15.2	1.940	2.785	13.1	20.6	3 22	9 42.99	+ 6 48.0	2.294	3.152	10.8	20.7
97018	1999 <i>TB</i> ₂₇₁		2 18.3 213°20	0°2/18.1	18		296014	2008 <i>YR</i> ₁₂₅		2 18.3 44°20	1°5/19.2	18	
1 12	10 32.97	+11 2.4	1.949	2.736	14.7	19.7	1 12	10 31.00	+ 7 24.0	1.343	2.148	19.1	20.7
1 22	10 27.97	+11 13.5	1.855	2.730	11.5	19.4	1 22	10 27.18	+ 7 18.7	1.274	2.157	15.1	20.4
2 1	10 20.49	+11 35.3	1.783	2.724	7.6	19.2	2 1	10 20.27	+ 7 31.2	1.225	2.167	10.2	20.2
2 11	10 11.13	+12 4.1	1.739	2.717	3.3	18.9	2 11	10 11.10	+ 7 58.0	1.200	2.177	4.9	19.9
2 21	10 0.82	+12 35.0	1.723	2.710	1.3	18.7	2 21	10 0.90	+ 8 33.4	1.200	2.187	1.8	19.7
3 2	9 50.67	+13 3.0	1.737	2.703	5.9	19.0	3 2	9 51.18	+ 9 10.3	1.226	2.198	6.8	20.1
3 12	9 41.82	+13 23.5	1.779	2.695	10.1	19.3	3 12	9 43.33	+ 9 42.1	1.278	2.210	11.8	20.4
3 22	9 35.09	+13 34.1	1.845	2.686	13.8	19.5	3 22	9 38.26	+10 4.1	1.351	2.221	16.1	20.7
495354	2014 <i>OD</i> ₆₆		2 18.3 301°36	0°6/17.9	17		372292	2008 <i>VQ</i> ₁₇		2 18.3 48°70	1°5/17.0	18	
1 12	10 29.25	+11 6.0	1.329	2.148	18.5	21.8	1 12	10 28.97	+13 17.3	1.732	2.540	15.4	20.6
1 22	10 26.39	+11 22.2	1.234	2.127	14.6	21.5	1 22	10 24.78	+13 56.9	1.678	2.567	11.7	20.4
2 1	10 20.20	+11 55.3	1.158	2.106	9.8	21.2	2 1	10 18.23	+14 46.5	1.646	2.594	7.5	20.2
2 11	10 11.27	+12 40.5	1.105	2.085	4.2	20.8	2 11	10 10.07	+15 40.0	1.641	2.621	3.2	20.0
2 21	10 0.71	+13 30.4	1.077	2.065	2.0	20.6	2 21	10 1.32	+16 30.6	1.663	2.648	2.4	20.0
3 2	9 50.11	+14 16.3	1.076	2.045	8.0	20.9	3 2	9 53.09	+17 12.2	1.714	2.676	6.4	20.3
3 12	9 41.19	+14 50.3	1.098	2.025	13.8	21.1	3 12	9 46.38	+17 40.9	1.791	2.704	10.3	20.6
3 22	9 35.21	+15 7.9	1.140	2.005	18.8	21.4	3 22	9 41.83	+17 55.0	1.892	2.732	13.5	20.8
66817	1999 <i>UR</i> ₁₅		2 18.3 189°18	0°6/18.8	18		455929						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
127124	2002 <i>GJ</i> ₁₀₂		2 18.3 266°06	2°2/20.5	18		102168	1999 <i>RD</i> ₂₂₇		2 18.3 205°59	2°3/19.9	18	
1 12	10 24.97	+ 1 34.4	2.102	2.865	14.5	20.1	1 12	10 31.49	+ 4 17.8	1.923	2.690	15.6	20.7
1 22	10 21.67	+ 2 5.3	1.999	2.854	11.7	19.9	1 22	10 26.84	+ 4 14.0	1.827	2.686	12.5	20.5
2 1	10 16.30	+ 2 55.4	1.919	2.844	8.3	19.7	2 1	10 19.78	+ 4 25.7	1.754	2.682	8.8	20.3
2 11	10 9.35	+ 4 2.5	1.864	2.834	4.6	19.4	2 11	10 10.87	+ 4 51.2	1.707	2.677	4.7	20.0
2 21	10 1.54	+ 5 22.1	1.838	2.823	2.2	19.2	2 21	10 1.00	+ 5 26.9	1.687	2.672	2.4	19.8
3 2	9 53.79	+ 6 47.6	1.842	2.813	5.1	19.4	3 2	9 51.28	+ 6 7.9	1.697	2.667	5.6	20.0
3 12	9 47.05	+ 8 11.5	1.874	2.802	8.9	19.6	3 12	9 42.79	+ 6 48.3	1.735	2.661	9.7	20.3
3 22	9 42.04	+ 9 27.7	1.931	2.791	12.4	19.8	3 22	9 36.38	+ 7 23.6	1.798	2.654	13.4	20.5
487923	2015 <i>TF</i> ₂₀₄		2 18.3 163°32	1°1/17.5	18		218362	2004 <i>GX</i> ₇₇		2 18.3 330°47	0°3/18.6	18	
1 12	10 33.74	+12 4.0	1.582	2.384	16.9	21.9	1 12	10 22.65	+ 4 6.1	1.559	2.357	17.2	19.2
1 22	10 29.02	+12 35.5	1.503	2.388	13.1	21.6	1 22	10 20.60	+ 5 26.3	1.468	2.349	13.6	19.0
2 1	10 21.39	+13 20.5	1.446	2.391	8.6	21.4	2 1	10 15.97	+ 7 14.2	1.398	2.340	9.2	18.7
2 11	10 11.58	+14 12.9	1.415	2.394	3.6	21.1	2 11	10 9.32	+ 9 23.9	1.354	2.332	4.1	18.4
2 21	10 0.72	+15 5.4	1.411	2.397	2.2	21.0	2 21	10 1.57	+11 45.3	1.337	2.325	1.4	18.1
3 2	9 50.19	+15 50.4	1.435	2.399	7.1	21.3	3 2	9 53.91	+14 5.5	1.349	2.318	6.7	18.5
3 12	9 41.33	+16 22.5	1.485	2.400	11.8	21.6	3 12	9 47.59	+16 12.2	1.387	2.312	11.7	18.7
3 22	9 35.05	+16 39.1	1.558	2.401	15.8	21.8	3 22	9 43.53	+17 56.8	1.449	2.306	16.0	19.0
506336	2017 <i>OX</i> ₂₉		2 18.3 157°53	3°1/21.7	17		65845	1997 <i>AK</i> ₂₂		2 18.3 294°60	3°7/14.6	18	
1 12	10 27.23	- 1 0.4	3.023	3.745	11.4	22.2	1 12	10 25.69	+16 46.2	1.858	2.675	14.1	18.9
1 22	10 22.59	- 1 9.4	2.927	3.752	9.3	22.0	1 22	10 22.71	+18 11.7	1.762	2.657	10.9	18.6
2 1	10 16.47	- 1 6.1	2.855	3.758	6.9	21.9	2 1	10 17.26	+19 49.8	1.690	2.639	7.2	18.4
2 11	10 9.28	- 0 51.0	2.811	3.764	4.5	21.7	2 11	10 9.87	+21 32.7	1.645	2.620	4.1	18.1
2 21	10 1.60	- 0 26.0	2.797	3.770	3.1	21.6	2 21	10 1.37	+23 10.7	1.628	2.602	4.8	18.1
3 2	9 54.05	+ 0 6.2	2.813	3.775	4.2	21.7	3 2	9 52.88	+24 34.6	1.640	2.584	8.4	18.3
3 12	9 47.26	+ 0 42.1	2.859	3.780	6.5	21.9	3 12	9 45.59	+25 37.9	1.678	2.566	12.3	18.5
3 22	9 41.72	+ 1 18.1	2.932	3.784	8.9	22.0	3 22	9 40.40	+26 18.0	1.737	2.548	15.8	18.7
204749	2006 <i>JZ</i> ₁₃		2 18.3 301°96	1°6/19.6	18		191923	2005 <i>SU</i> ₅₁		2 18.3 165°27	1°8/16.9	18	
1 12	10 26.35	+ 5 8.1	1.980	2.759	14.8	20.4	1 12	10 34.52	+13 54.7	1.778	2.575	15.5	21.7
1 22	10 22.79	+ 5 23.4	1.888	2.755	11.7	20.2	1 22	10 29.32	+14 34.9	1.698	2.581	11.9	21.4
2 1	10 17.05	+ 5 54.6	1.817	2.751	8.1	20.0	2 1	10 21.44	+15 25.9	1.641	2.586	7.8	21.2
2 11	10 9.66	+ 6 39.0	1.773	2.747	4.1	19.7	2 11	10 11.58	+16 21.4	1.611	2.590	3.4	20.9
2 21	10 1.44	+ 7 32.1	1.756	2.743	1.7	19.5	2 21	10 0.77	+17 14.2	1.609	2.593	2.7	20.9
3 2	9 53.36	+ 8 28.1	1.769	2.739	5.2	19.8	3 2	9 50.27	+17 57.6	1.637	2.596	7.0	21.2
3 12	9 46.42	+ 9 21.0	1.809	2.735	9.2	20.0	3 12	9 41.31	+18 26.9	1.692	2.598	11.2	21.4
3 22	9 41.35	+10 5.9	1.873	2.732	12.8	20.2	3 22	9 34.71	+18 40.4	1.770	2.599	14.8	21.6
435329	2007 <i>VO</i> ₂₆		2 18.3 20°83	8°9/26.6	18		435593	2008 <i>SL</i> ₉		2 18.3 39°77	2°7/16.6	18	
1 12	10 23.42	-12 57.3	1.808	2.507	18.7	20.0	1 12	10 33.56	+18 33.1	1.721	2.531	15.3	20.0
1 22	10 20.70	-13 45.5	1.731	2.516	16.3	19.9	1 22	10 28.49	+18 41.7	1.653	2.543	11.8	19.8
2 1	10 15.73	-14 6.5	1.671	2.526	13.7	19.7	2 1	10 20.77	+18 54.5	1.608	2.555	7.7	19.6
2 11	10 9.10	-13 57.7	1.632	2.537	11.1	19.6	2 11	10 11.22	+19 6.0	1.590	2.567	3.8	19.4
2 21	10 1.67	-13 19.2	1.616	2.549	9.2	19.5	2 21	10 0.93	+19 10.6	1.599	2.580	3.4	19.4
3 2	9 54.47	-12 15.1	1.625	2.562	9.1	19.5	3 2	9 51.17	+19 4.6	1.636	2.594	7.1	19.7
3 12	9 48.52	-10 52.9	1.660	2.575	10.7	19.6	3 12	9 43.08	+18 46.2	1.700	2.607	11.0	19.9
3 22	9 44.55	- 9 22.0	1.718	2.590	13.1	19.8	3 22	9 37.40	+18 15.9	1.787	2.622	14.5	20.2
52096	2221 <i>P-L</i>		2 18.3 203°88	2°4/20.0	18		144090	2004 <i>BN</i> ₅₆		2 18.3 38°62	2°9/19.9	18	
1 12	10 31.86	+ 3 37.3	1.669	2.443	17.3	21.0	1 12	10 33.93	+ 6 12.8	1.533	2.318	18.0	19.2
1 22	10 27.51	+ 3 42.8	1.578	2.440	13.9	20.7	1 22	10 29.13	+ 5 31.0	1.456	2.325	14.4	19.0
2 1	10 20.41	+ 4 7.6	1.507	2.436	9.8	20.5	2 1	10 21.43	+ 5 3.3	1.399	2.332	10.1	18.7
2 11	10 11.20	+ 4 49.7	1.460	2.432	5.2	20.2	2 11	10 11.59	+ 4 48.8	1.367	2.339	5.5	18.5
2 21	10 0.85	+ 5 44.3	1.442	2.427	2.5	20.0	2 21	10 0.77	+ 4 45.2	1.362	2.347	2.9	18.3
3 2	9 50.66	+ 6 44.7	1.451	2.421	6.2	20.2	3 2	9 50.34	+ 4 48.5	1.385	2.355	6.5	18.6
3 12	9 41.89	+ 7 43.3	1.488	2.415	10.8	20.5	3 12	9 41.62	+ 4 54.1	1.434	2.363	10.9	18.8
3 22	9 35.50	+ 8 34.0	1.548	2.409	14.9	20.7	3 22	9 35.50	+ 4 57.8	1.505	2.372	15.0	19.1
182603	2001 <i>UF</i> ₄₃		2 18.3 140°49	2°9/15.7	18		363276	2002 <i>GB</i> ₉₆		2 18.3 298°97	0°3/18.5	17	
1 12	10 30.94	+17 44.5	2.034	2.838	13.5	20.8	1 12	10 30.13	+ 9 55.9	1.488	2.295	17.5	21.0
1 22	10 26.23	+18 33.6	1.958	2.845	10.4	20.6	1 22	10 26.71	+ 9 57.4	1.389	2.274	13.9	20.7
2 1	10 19.22	+19 29.2	1.907	2.852	6.8	20.4	2 1	10 20.23	+10 13.5	1.309	2.254	9.4	20.4
2 11	10 10.56	+20 24.8	1.882	2.859	3.6	20.2	2 11	10 11.26	+10 41.0	1.254	2.234	4.2	20.0
2 21	10 1.14	+21 13.9	1.887	2.865	3.7	20.2	2 21	10 0.83	+11 14.3	1.226	2.213	1.5	19.8
3 2	9 52.02	+21 50.8	1.922	2.871	7.0	20.4	3 2	9 50.39	+11 46.8	1.223	2.193	7.1	20.1
3 12	9 44.23	+22 12.4	1.983	2.876	10.5	20.6	3 12	9 41.45	+12 12.1	1.246	2.174	12.4	20.3
3 22	9 38.46	+22 18.0	2.067	2.881	13.5	20.9	3 22	9 35.17	+12 25.8	1.291	2.154	17.1	20.5
371946	2008 <i>EU</i> ₁₄₈		2 18.3 228°30	5°6/13.4	17		6423	Harunasan		2 18.3 109°07	1°1/17.3	18	
1 12	10 36.87	+28 3.0	2.324	3.121	12.3	21.9	1 12	10 31.23	+14 25.7	2.447	3.233	12.1	17.7
1 22	10 30.79	+28 49.9	2.233	3.109	9.8	21.7	1 22	10 25.92	+14 41.6	2.372	3.249	9.2	17.6
2 1	10 22.26	+29 35.1	2.167	3.096	7.2	21.6	2 1	10 18.74	+15 3.4	2.323	3.265	6.0	17.4
2 11	10 11.89	+30 11.5	2.129	3.083	5.7	21.4	2 11	10 10.28	+15 27.3	2.302	3.281	2.6	17.2
2 21	10 0.63	+30 32.6	2.120	3.069	6.3	21.5	2 21	10 1.29	+15 49.3	2.311	3.296	1.7	17.1
3 2	9 49.58	+30 34.4	2.141	3.054	8.6	21.6	3 2	9 52.63	+16 6.0	2.351	3.311	5.0	17.4
3 12	9 39.86	+30 15.8	2.188	3.039	11.4	21.7	3 12	9 45.08	+16 14.7	2.420	3.326	8.2	17.6
3 22	9 32.27	+29 38.8	2.258	3.023	14.1	21.9	3 22	9 39.21	+16 14.3	2.514	3.341	11.0	17.8
110334	2001 <i>SM</i> ₂₉₁		2 18.3 248°08	7°0/25.1	18		110101	2001 <i>SG</i> ₁₂₅		2 18.3 303°84	0°8/18.8	18	
1 12													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
205800	2002 <i>CR</i> ₁₅₈		2 18.3 44°86	0°2/18.1	18		456658	2007 <i>RF</i> ₃₇		2 18.3 118°33	0°5/17.9	18	
1 12	10 30.62	+10 16.2	1.275	2.093	19.3	20.5	1 12	10 33.04	+10 38.8	1.849	2.638	15.3	22.0
1 22	10 26.99	+10 33.3	1.214	2.106	14.9	20.3	1 22	10 27.92	+11 10.0	1.778	2.655	11.8	21.8
2 1	10 20.19	+11 6.9	1.172	2.119	9.8	20.0	2 1	10 20.36	+11 53.5	1.730	2.672	7.7	21.6
2 11	10 11.09	+11 51.4	1.153	2.133	4.2	19.7	2 11	10 11.08	+12 44.0	1.709	2.688	3.2	21.3
2 21	10 1.00	+12 38.8	1.160	2.148	1.7	19.6	2 21	10 1.07	+13 35.5	1.717	2.704	1.5	21.2
3 2	9 51.50	+13 21.0	1.193	2.163	7.3	20.0	3 2	9 51.45	+14 21.6	1.754	2.719	5.9	21.6
3 12	9 43.98	+13 51.7	1.251	2.179	12.4	20.3	3 12	9 43.30	+14 57.6	1.818	2.733	10.0	21.8
3 22	9 39.32	+14 7.7	1.329	2.194	16.6	20.6	3 22	9 37.34	+15 21.1	1.907	2.747	13.5	22.1
1372	Harehari		2 18.3 74°70	0°3/18.5	18		464530	2016 <i>CT</i> ₁₆		2 18.3 163°69	1°1/19.2	18	
1 12	10 35.79	+11 44.3	1.886	2.671	15.2	15.5	1 12	10 28.96	+ 6 32.0	1.719	2.507	16.3	21.4
1 22	10 29.91	+11 25.8	1.813	2.687	11.8	15.3	1 22	10 25.13	+ 6 49.2	1.634	2.507	12.8	21.2
2 1	10 21.59	+11 15.5	1.763	2.702	7.8	15.0	2 1	10 18.76	+ 7 23.3	1.570	2.508	8.7	21.0
2 11	10 11.56	+11 10.4	1.739	2.718	3.4	14.8	2 11	10 10.49	+ 8 10.7	1.532	2.508	4.2	20.7
2 21	10 0.85	+11 7.3	1.745	2.733	1.2	14.7	2 21	10 1.26	+ 9 5.9	1.521	2.509	1.4	20.5
3 2	9 50.60	+11 2.7	1.781	2.749	5.6	15.0	3 2	9 52.26	+10 2.2	1.539	2.509	5.9	20.8
3 12	9 41.88	+10 54.1	1.845	2.764	9.6	15.3	3 12	9 44.64	+10 52.8	1.583	2.509	10.3	21.1
3 22	9 35.40	+10 39.9	1.934	2.779	13.0	15.5	3 22	9 39.23	+11 32.9	1.651	2.509	14.3	21.3
169600	2002 <i>GE</i> ₈₁		2 18.3 259°22	0°1/18.3	17		224985	2007 <i>EA</i> ₉₄		2 18.3 153°24	0°2/18.5	18	
1 12	10 28.86	+ 8 18.9	1.767	2.559	15.7	20.4	1 12	10 28.22	+ 8 29.9	2.115	2.898	13.8	20.9
1 22	10 25.20	+ 8 55.2	1.666	2.544	12.4	20.2	1 22	10 24.06	+ 9 0.7	2.029	2.902	10.7	20.7
2 1	10 18.95	+ 9 48.7	1.587	2.528	8.3	19.9	2 1	10 17.79	+ 9 44.5	1.967	2.906	7.1	20.5
2 11	10 10.63	+10 55.3	1.533	2.512	3.6	19.6	2 11	10 10.00	+10 37.4	1.931	2.910	3.1	20.3
2 21	10 1.14	+12 8.5	1.508	2.496	1.4	19.4	2 21	10 1.46	+11 34.1	1.925	2.913	1.1	20.1
3 2	9 51.67	+13 20.2	1.511	2.479	6.4	19.7	3 2	9 53.13	+12 28.9	1.949	2.916	5.2	20.4
3 12	9 43.45	+14 23.0	1.541	2.462	11.0	19.9	3 12	9 45.93	+13 16.6	2.000	2.919	9.0	20.6
3 22	9 37.42	+15 11.8	1.595	2.444	15.2	20.1	3 22	9 40.55	+13 53.7	2.077	2.921	12.3	20.9
407477	2010 <i>UZ</i> ₉₅		2 18.3 108°56	0°6/17.7	18		171817	2001 <i>EB</i> ₂₂		2 18.3 5°63	8°0/23.3	18	
1 12	10 29.44	+ 9 30.1	1.969	2.757	14.5	21.3	1 12	10 24.51	- 4 18.9	1.217	1.997	22.1	19.3
1 22	10 25.02	+10 24.1	1.898	2.775	11.2	21.1	1 22	10 22.58	- 5 18.1	1.143	1.997	18.7	19.0
2 1	10 18.40	+11 31.6	1.851	2.793	7.3	20.9	2 1	10 17.54	- 5 49.1	1.087	1.997	14.7	18.8
2 11	10 10.22	+12 47.1	1.830	2.810	3.0	20.7	2 11	10 10.09	- 5 48.7	1.050	2.000	10.6	18.6
2 21	10 1.36	+14 3.6	1.840	2.826	1.5	20.6	2 21	10 1.41	- 5 17.5	1.036	2.003	8.1	18.5
3 2	9 52.82	+15 14.2	1.879	2.843	5.7	20.9	3 2	9 53.00	- 4 21.1	1.044	2.008	9.1	18.5
3 12	9 45.57	+16 13.2	1.946	2.858	9.6	21.2	3 12	9 46.37	- 3 10.0	1.076	2.014	12.7	18.7
3 22	9 40.29	+16 57.6	2.037	2.873	12.9	21.4	3 22	9 42.55	- 1 55.3	1.128	2.022	16.8	19.0
242113	2002 <i>VN</i> ₉₅		2 18.3 30°06	4°2/15.0	18		309287	2007 <i>RF</i> ₂₀₆		2 18.3 336°62	0°8/17.8	18	
1 12	10 26.88	+19 10.0	1.571	2.399	15.7	19.5	1 12	10 26.44	+10 37.7	1.300	2.124	18.6	20.5
1 22	10 23.58	+20 12.1	1.519	2.418	11.9	19.3	1 22	10 24.06	+11 7.4	1.218	2.115	14.5	20.2
2 1	10 17.66	+21 20.2	1.489	2.438	7.9	19.2	2 1	10 18.53	+11 55.4	1.157	2.107	9.6	19.9
2 11	10 9.92	+22 25.6	1.484	2.459	4.6	19.0	2 11	10 10.54	+12 56.1	1.119	2.099	4.1	19.5
2 21	10 1.48	+23 20.0	1.507	2.481	5.1	19.1	2 21	10 1.23	+14 0.8	1.105	2.093	2.1	19.4
3 2	9 53.58	+23 57.0	1.556	2.503	8.5	19.3	3 2	9 52.14	+14 59.9	1.118	2.087	7.8	19.7
3 12	9 47.32	+24 13.6	1.630	2.526	12.1	19.6	3 12	9 44.80	+15 45.2	1.154	2.082	13.2	20.0
3 22	9 43.41	+24 10.3	1.725	2.550	15.3	19.9	3 22	9 40.27	+16 12.3	1.210	2.077	17.8	20.2
130572	2000 <i>RF</i> ₄₈		2 18.3 141°34	1°7/19.5	18		284920	2010 <i>CM</i> ₄₆		2 18.3 160°13	3°4/14.3	17	
1 12	10 33.09	+ 5 56.1	1.827	2.601	16.0	20.0	1 12	10 25.88	+19 32.6	2.549	3.355	11.1	20.7
1 22	10 28.06	+ 5 55.9	1.745	2.610	12.7	19.7	1 22	10 22.03	+20 47.8	2.469	3.357	8.5	20.6
2 1	10 20.54	+ 6 10.6	1.686	2.618	8.7	19.5	2 1	10 16.35	+22 8.2	2.416	3.360	5.7	20.4
2 11	10 11.19	+ 6 37.6	1.652	2.626	4.4	19.3	2 11	10 9.36	+23 27.8	2.391	3.362	3.5	20.3
2 21	10 0.99	+ 7 12.7	1.647	2.633	1.9	19.1	2 21	10 1.72	+24 40.2	2.396	3.364	4.1	20.3
3 2	9 51.08	+ 7 50.5	1.671	2.640	5.6	19.4	3 2	9 54.24	+25 40.1	2.431	3.366	6.6	20.5
3 12	9 42.60	+ 8 25.4	1.722	2.646	9.8	19.6	3 12	9 47.69	+26 24.2	2.494	3.367	9.4	20.6
3 22	9 36.32	+ 8 53.5	1.798	2.652	13.5	19.9	3 22	9 42.70	+26 51.3	2.580	3.369	11.9	20.8
18899	2000 <i>JQ</i> ₂		2 18.3 184°37	8°8/28.0	18		326342	2000 <i>RT</i> ₁₀₆		2 18.3 188°55	1°0/17.4	18	
1 12	10 31.21	-19 47.2	2.559	3.160	15.7	20.2	1 12	10 29.02	+11 58.6	2.297	3.084	12.7	22.2
1 22	10 26.17	-20 20.4	2.455	3.161	14.1	20.1	1 22	10 24.56	+12 38.1	2.206	3.083	9.8	22.0
2 1	10 19.13	-20 30.0	2.369	3.161	12.3	19.9	2 1	10 18.09	+13 27.6	2.140	3.082	6.4	21.8
2 11	10 10.57	-20 12.9	2.305	3.160	10.5	19.8	2 11	10 10.13	+14 22.8	2.101	3.081	2.7	21.5
2 21	10 1.21	-19 28.1	2.266	3.157	9.2	19.7	2 21	10 1.43	+15 18.3	2.093	3.079	1.7	21.5
3 2	9 51.91	-18 17.9	2.253	3.154	8.9	19.7	3 2	9 52.89	+16 8.6	2.115	3.076	5.4	21.7
3 12	9 43.57	-16 47.7	2.269	3.149	9.9	19.7	3 12	9 45.39	+16 49.3	2.165	3.073	9.0	21.9
3 22	9 36.88	-15 5.3	2.310	3.144	11.6	19.8	3 22	9 39.62	+17 18.0	2.240	3.069	12.1	22.1
337643	2001 <i>TT</i> ₁₂₀		2 18.3 125°09	1°0/19.3	17		297898	2002 <i>CW</i> ₂₃₆		2 18.3 2°20	2°6/16.6	18	
1 12	10 29.08	+ 7 27.7	2.681	3.444	11.7	21.3	1 12	10 18.68	+12 15.7	0.936	1.797	21.1	19.1
1 22	10 24.16	+ 7 27.8	2.596	3.456	9.2	21.2	1 22	10 18.82	+13 11.8	0.876	1.794	16.3	18.8
2 1	10 17.56	+ 7 37.1	2.536	3.467	6.2	21.0	2 1	10 15.41	+14 30.5	0.833	1.792	10.6	18.4
2 11	10 9.81	+ 7 53.5	2.504	3.478	3.0	20.8	2 11	10 9.26	+16 1.9	0.811	1.793	4.6	18.1
2 21	10 1.53	+ 8 14.2	2.502	3.489	1.2	20.7	2 21	10 1.75	+17 32.3	0.810	1.796	4.0	18.1
3 2	9 53.47	+ 8 36.0	2.531	3.499	4.1	20.9	3 2	9 54.71	+18 47.4	0.832	1.801	9.9	18.4
3 12	9 46.34	+ 8 55.7	2.590	3.509	7.2	21.1	3 12	9 49.84	+19 37.6	0.874	1.808	15.5	18.7
3 22	9 40.67	+ 9 10.9	2.675	3.519	9.9	21.3	3 22	9 48.17	+19 59.2	0.934	1.817	20.4	19.1
241402	2008 <i>TF</i> ₁₉₀		2 18.3 52°57	2°7/15.5	18		353299	2010 <i>HF</i> ₇₇		2 18.3 343°77	3°3/20.5	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
82766	2001 <i>QR</i> ₁₁		2 18.3 134°62		1°0/17.3 18		313408	2002 <i>PU</i> ₁₃₈		2 18.3 124°98		1°8/17.7 16	
1 12	10 29.71	+14 9.7	2.538	3.325	11.7	19.1	1 12	10 49.59	+17 42.7	1.211	2.016	20.8	20.2
1 22	10 24.79	+14 26.8	2.455	3.332	9.0	19.0	1 22	10 42.11	+17 9.9	1.140	2.024	16.3	19.9
2 1	10 18.06	+14 50.0	2.397	3.340	5.8	18.8	2 1	10 30.43	+16 40.6	1.088	2.032	10.8	19.6
2 11	10 10.06	+15 15.7	2.368	3.347	2.5	18.6	2 11	10 15.62	+16 8.9	1.061	2.040	4.8	19.3
2 21	10 1.50	+15 40.1	2.369	3.354	1.7	18.5	2 21	9 59.50	+15 29.8	1.061	2.047	2.8	19.2
3 2	9 53.17	+15 59.5	2.400	3.361	4.9	18.7	3 2	9 44.27	+14 41.1	1.089	2.054	8.7	19.5
3 12	9 45.85	+16 11.2	2.460	3.367	8.1	19.0	3 12	9 31.86	+13 43.2	1.143	2.061	14.3	19.9
3 22	9 40.13	+16 13.9	2.546	3.374	10.9	19.2	3 22	9 23.34	+12 38.7	1.219	2.067	19.0	20.2
503331	2016 <i>BT</i> ₁₀		2 18.3 257°64		4°8/21.4 17		14420	Massey		2 18.3 155°99		2°0/16.1 18	
1 12	10 32.03	- 0 10.7	1.934	2.680	16.2	21.8	1 12	10 26.48	+15 0.9	2.531	3.326	11.4	18.1
1 22	10 27.37	- 0 54.6	1.831	2.670	13.4	21.6	1 22	10 22.44	+15 59.7	2.448	3.331	8.7	18.0
2 1	10 20.24	- 1 22.9	1.749	2.659	10.1	21.4	2 1	10 16.60	+17 6.1	2.390	3.335	5.7	17.8
2 11	10 11.18	- 1 34.6	1.693	2.648	6.7	21.2	2 11	10 9.48	+18 15.1	2.361	3.339	2.7	17.6
2 21	10 1.04	- 1 30.6	1.664	2.637	4.8	21.0	2 21	10 1.74	+19 21.1	2.363	3.343	2.6	17.6
3 2	9 50.94	- 1 13.5	1.663	2.626	6.5	21.1	3 2	9 54.17	+20 18.8	2.394	3.346	5.6	17.8
3 12	9 42.03	- 0 48.1	1.690	2.614	10.0	21.3	3 12	9 47.54	+21 4.4	2.455	3.349	8.6	18.0
3 22	9 35.18	- 0 19.9	1.741	2.603	13.5	21.5	3 22	9 42.43	+21 36.1	2.540	3.352	11.3	18.2
270893	2002 <i>TO</i> ₂₄₇		2 18.3 188°70		3°7/15.3 18		140263	2001 <i>SO</i> ₂₆₅		2 18.3 153°29		4°8/24.4 17	
1 12	10 35.64	+18 47.0	1.898	2.699	14.5	22.1	1 12	10 25.09	- 8 52.1	2.978	3.659	12.3	21.5
1 22	10 30.20	+19 47.0	1.814	2.699	11.2	21.8	1 22	10 21.06	- 8 53.6	2.881	3.667	10.5	21.4
2 1	10 22.08	+20 54.2	1.754	2.698	7.5	21.6	2 1	10 15.56	- 8 38.1	2.806	3.674	8.3	21.2
2 11	10 11.94	+22 1.0	1.721	2.695	4.2	21.4	2 11	10 9.00	- 8 5.5	2.757	3.680	6.3	21.1
2 21	10 0.78	+22 59.2	1.718	2.692	4.6	21.4	2 21	10 1.93	- 7 17.5	2.735	3.686	4.9	21.0
3 2	9 49.86	+23 42.0	1.744	2.688	8.0	21.6	3 2	9 54.98	- 6 17.2	2.744	3.692	5.2	21.1
3 12	9 40.40	+24 5.7	1.797	2.682	11.8	21.8	3 12	9 48.78	- 5 9.3	2.781	3.697	6.9	21.2
3 22	9 33.29	+24 10.1	1.873	2.676	15.1	22.0	3 22	9 43.82	- 3 58.7	2.846	3.702	9.0	21.3
427675	2004 <i>CP</i> ₂₈		2 18.3 24°84		1°4/19.3 18		96433	1998 <i>FH</i> ₅₉		2 18.3 246°22		3°9/15.5 18	
1 12	10 30.50	+ 8 28.5	1.797	2.586	15.7	20.6	1 12	10 32.85	+19 16.6	1.741	2.553	15.1	20.0
1 22	10 26.07	+ 8 5.1	1.720	2.593	12.3	20.4	1 22	10 28.35	+20 3.4	1.653	2.544	11.7	19.7
2 1	10 19.23	+ 7 53.1	1.664	2.602	8.4	20.2	2 1	10 21.04	+20 57.1	1.588	2.534	7.9	19.5
2 11	10 10.64	+ 7 50.4	1.634	2.610	4.1	19.9	2 11	10 11.56	+21 50.4	1.550	2.525	4.4	19.3
2 21	10 1.28	+ 7 53.9	1.632	2.619	1.7	19.8	2 21	10 0.96	+22 35.0	1.539	2.515	4.7	19.2
3 2	9 52.27	+ 7 59.8	1.659	2.629	5.5	20.0	3 2	9 50.56	+23 4.3	1.557	2.505	8.4	19.4
3 12	9 44.67	+ 8 4.2	1.712	2.639	9.6	20.3	3 12	9 41.68	+23 14.6	1.600	2.494	12.4	19.6
3 22	9 39.22	+ 8 4.3	1.790	2.650	13.2	20.6	3 22	9 35.25	+23 5.7	1.665	2.483	16.1	19.9
58565	1997 <i>OC</i> ₂		2 18.3 171°22		0°9/18.9 18		337470	2001 <i>SF</i> ₇		2 18.3 97°67		1°7/16.9 18	
1 12	10 31.23	+ 7 20.0	1.598	2.390	17.2	20.0	1 12	10 30.36	+16 6.7	2.296	3.091	12.5	21.0
1 22	10 27.09	+ 7 36.0	1.515	2.391	13.5	19.8	1 22	10 25.51	+16 24.0	2.215	3.097	9.6	20.8
2 1	10 20.17	+ 8 8.9	1.453	2.392	9.1	19.5	2 1	10 18.64	+16 46.6	2.159	3.103	6.2	20.6
2 11	10 11.15	+ 8 55.2	1.416	2.393	4.2	19.2	2 11	10 10.36	+17 10.4	2.131	3.110	2.8	20.4
2 21	10 1.08	+ 9 48.8	1.406	2.394	1.4	19.0	2 21	10 1.44	+17 31.0	2.132	3.116	2.3	20.4
3 2	9 51.26	+10 42.3	1.424	2.394	6.3	19.4	3 2	9 52.81	+17 44.5	2.164	3.122	5.6	20.6
3 12	9 42.98	+11 29.0	1.469	2.394	11.1	19.6	3 12	9 45.32	+17 48.5	2.223	3.128	8.9	20.8
3 22	9 37.15	+12 4.2	1.536	2.394	15.2	19.9	3 22	9 39.61	+17 42.0	2.307	3.134	11.9	21.0
96677	1999 <i>JR</i> ₄₀		2 18.3 192°89		2°9/15.9 18		301071	2008 <i>UZ</i> ₁₇₀		2 18.3 199°68		0°8/17.7 18	
1 12	10 31.95	+16 26.6	1.867	2.672	14.5	20.0	1 12	10 33.58	+11 27.1	1.860	2.650	15.2	22.6
1 22	10 27.37	+17 23.0	1.783	2.671	11.2	19.8	1 22	10 28.62	+11 55.9	1.769	2.646	11.8	22.4
2 1	10 20.22	+18 28.7	1.723	2.669	7.4	19.5	2 1	10 21.06	+12 37.1	1.700	2.642	7.8	22.1
2 11	10 11.14	+19 36.7	1.689	2.667	3.7	19.3	2 11	10 11.53	+13 25.7	1.658	2.638	3.3	21.8
2 21	10 1.09	+20 39.3	1.685	2.664	3.8	19.3	2 21	10 0.98	+14 15.5	1.645	2.632	1.7	21.7
3 2	9 51.26	+21 29.4	1.709	2.660	7.5	19.5	3 2	9 50.60	+15 0.2	1.662	2.626	6.3	22.0
3 12	9 42.82	+22 2.4	1.760	2.656	11.4	19.8	3 12	9 41.59	+15 34.4	1.706	2.619	10.7	22.2
3 22	9 36.61	+22 17.1	1.834	2.652	14.8	20.0	3 22	9 34.81	+15 55.5	1.774	2.611	14.4	22.4
193937	2001 <i>RT</i> ₂₈		2 18.3 87°27		0°5/17.9 18		87511	2000 <i>QA</i> ₁₈₄		2 18.3 91°69		1°2/17.4 18	
1 12	10 34.69	+10 47.8	1.472	2.273	17.9	21.3	1 12	10 31.90	+10 48.1	1.588	2.389	16.8	19.9
1 22	10 29.69	+11 11.3	1.410	2.294	13.8	21.0	1 22	10 27.40	+11 42.0	1.525	2.410	12.9	19.7
2 1	10 21.75	+11 49.0	1.370	2.314	9.1	20.8	2 1	10 20.20	+12 50.6	1.485	2.431	8.4	19.5
2 11	10 11.75	+12 35.0	1.355	2.334	3.8	20.6	2 11	10 11.09	+14 6.9	1.471	2.451	3.5	19.2
2 21	10 0.92	+13 21.9	1.367	2.354	1.7	20.5	2 21	10 1.19	+15 22.4	1.485	2.471	2.2	19.2
3 2	9 50.68	+14 2.7	1.407	2.374	6.8	20.8	3 2	9 51.79	+16 28.6	1.527	2.491	6.8	19.5
3 12	9 42.33	+14 32.0	1.473	2.393	11.5	21.1	3 12	9 44.05	+17 19.8	1.596	2.510	11.2	19.8
3 22	9 36.65	+14 47.5	1.562	2.412	15.4	21.4	3 22	9 38.76	+17 53.3	1.688	2.529	14.9	20.1
444196	2005 <i>SO</i> ₉₃		2 18.3 59°77		3°8/16.2 18		432228	2009 <i>HQ</i> ₂₀		2 18.3 284°55		4°3/22.9 17	
1 12	10 34.96	+17 48.5	1.243	2.071	19.0	20.7	1 12	10 23.79	- 4 54.3	2.531	3.250	13.4	21.9
1 22	10 30.48	+18 27.5	1.188	2.087	14.6	20.5	1 22	10 20.51	- 4 50.6	2.412	3.229	11.3	21.7
2 1	10 22.54	+19 15.1	1.153	2.103	9.6	20.3	2 1	10 15.47	- 4 28.6	2.314	3.208	8.7	21.4
2 11	10 12.15	+20 2.0	1.142	2.120	4.9	20.0	2 11	10 9.07	- 3 48.0	2.242	3.187	6.1	21.2
2 21	10 0.78	+20 38.6	1.156	2.136	4.7	20.1	2 21	10 1.90	- 2 50.9	2.198	3.166	4.4	21.1
3 2	9 50.18	+20 57.9	1.196	2.153	9.2	20.4	3 2	9 54.71	- 1 41.0	2.183	3.144	5.2	21.1
3 12	9 41.86	+20 57.0	1.260	2.170	13.8	20.7	3 12	9 48.28	- 0 24.0	2.197	3.123	7.9	21.2
3 22	9 36.66	+20 37.1	1.344	2.187	17.8	21.0	3 22	9 43.25	+ 0 54.0	2.237	3.101	10.8	21.4
506393	2017 <i>RU</i> ₁₃		2 18.3 162°73		2°6/21.7 18		456915	200					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
275159	2009 VM ₁₁₁		2 18.3 143°81	1°2/19.0	18		124829	2001 SA ₃₂₆		2 18.3 98°63	0°4/18.0	18	
1 12	10 34.64	+ 7 40.4	1.464	2.257	18.4	20.8	1 12	10 31.41	+ 8 33.6	1.558	2.355	17.3	20.5
1 22	10 29.93	+ 7 41.9	1.386	2.263	14.5	20.6	1 22	10 27.12	+ 9 23.6	1.491	2.372	13.4	20.3
2 1	10 22.14	+ 8 0.2	1.329	2.268	9.9	20.3	2 1	10 20.09	+10 31.1	1.447	2.390	8.8	20.1
2 11	10 12.04	+ 8 31.7	1.296	2.273	4.6	20.0	2 11	10 11.10	+11 49.8	1.427	2.407	3.7	19.8
2 21	10 0.83	+ 9 10.7	1.290	2.278	1.6	19.8	2 21	10 1.24	+13 11.0	1.436	2.424	1.6	19.7
3 2	9 49.97	+ 9 50.3	1.312	2.282	6.7	20.2	3 2	9 51.84	+14 25.8	1.473	2.440	6.6	20.1
3 12	9 40.91	+10 24.0	1.359	2.286	11.7	20.5	3 12	9 44.09	+15 27.2	1.537	2.456	11.1	20.4
3 22	9 34.58	+10 47.4	1.429	2.289	16.0	20.7	3 22	9 38.81	+16 11.5	1.623	2.471	15.0	20.6
37607	Regineolsen		2 18.3 259°33	3°3/15.9	18		165375	2000 WL ₁₁₉		2 18.3 102°16	3°1/20.6	18	
1 12	10 32.97	+17 45.6	1.779	2.587	15.0	19.4	1 12	10 33.05	+ 2 17.0	1.735	2.499	17.1	20.9
1 22	10 28.51	+18 29.6	1.680	2.569	11.7	19.2	1 22	10 28.07	+ 2 8.7	1.663	2.517	13.7	20.7
2 1	10 21.23	+19 22.3	1.605	2.551	7.8	18.9	2 1	10 20.57	+ 2 18.8	1.612	2.536	9.8	20.5
2 11	10 11.70	+20 16.8	1.555	2.532	4.1	18.6	2 11	10 11.27	+ 2 45.4	1.586	2.553	5.6	20.3
2 21	10 0.92	+21 5.4	1.534	2.512	4.2	18.6	2 21	10 1.19	+ 3 24.6	1.588	2.571	3.1	20.2
3 2	9 50.18	+21 40.7	1.541	2.492	8.1	18.8	3 2	9 51.51	+ 4 10.6	1.619	2.588	5.8	20.4
3 12	9 40.84	+21 58.4	1.574	2.472	12.4	19.0	3 12	9 43.35	+ 4 56.9	1.676	2.604	9.8	20.6
3 22	9 33.91	+21 57.1	1.629	2.451	16.2	19.2	3 22	9 37.45	+ 5 38.3	1.758	2.620	13.4	20.9
81554	2000 HA ₂₆		2 18.3 181°44	0°1/18.4	18		22518	1998 DG ₃₄		2 18.3 92°43	1°8/17.0	18	
1 12	10 29.46	+ 8 49.0	2.381	3.155	12.7	20.5	1 12	10 34.48	+14 3.1	1.637	2.440	16.3	18.5
1 22	10 24.82	+ 9 20.4	2.288	3.156	9.9	20.3	1 22	10 29.29	+14 38.7	1.575	2.461	12.5	18.3
2 1	10 18.23	+10 3.4	2.220	3.157	6.6	20.1	2 1	10 21.40	+15 24.5	1.536	2.482	8.1	18.1
2 11	10 10.22	+10 54.3	2.179	3.157	2.9	19.9	2 11	10 11.61	+16 13.8	1.523	2.502	3.5	17.8
2 21	10 1.51	+11 48.4	2.169	3.156	1.0	19.7	2 21	10 1.08	+16 59.4	1.538	2.522	2.7	17.8
3 2	9 52.94	+12 40.7	2.189	3.155	4.8	20.0	3 2	9 51.09	+17 35.0	1.581	2.542	7.0	18.1
3 12	9 45.37	+13 26.5	2.238	3.153	8.4	20.2	3 12	9 42.84	+17 56.6	1.651	2.561	11.1	18.4
3 22	9 39.45	+14 2.6	2.313	3.150	11.5	20.4	3 22	9 37.06	+18 3.1	1.744	2.580	14.7	18.7
190738	2001 PR ₅₃		2 18.3 77°84	4°5/15.6	18		519570	2012 SH ₇₀		2 18.3 170°56	4°5/13.4	18	
1 12	10 36.90	+19 51.8	1.377	2.198	17.9	19.9	1 12	10 29.69	+25 6.0	2.544	3.349	11.1	21.2
1 22	10 31.67	+20 39.0	1.323	2.218	13.7	19.7	1 22	10 24.99	+26 5.2	2.468	3.351	8.7	21.1
2 1	10 23.17	+21 31.7	1.290	2.237	9.1	19.5	2 1	10 18.33	+27 4.9	2.417	3.353	6.2	20.9
2 11	10 12.40	+22 20.4	1.282	2.257	5.2	19.3	2 11	10 10.26	+27 58.9	2.395	3.355	4.6	20.8
2 21	10 0.76	+22 56.1	1.301	2.276	5.4	19.4	2 21	10 1.55	+28 41.7	2.402	3.356	5.2	20.9
3 2	9 49.90	+23 12.5	1.346	2.296	9.3	19.7	3 2	9 53.07	+29 9.0	2.438	3.357	7.4	21.0
3 12	9 41.21	+23 7.8	1.416	2.315	13.4	20.0	3 12	9 45.65	+29 19.2	2.501	3.358	10.0	21.2
3 22	9 35.52	+22 43.9	1.506	2.333	17.0	20.2	3 22	9 39.94	+29 12.5	2.587	3.359	12.3	21.3
329184	2012 DR ₂₇		2 18.3 284°25	2°5/16.6	17		462354	2008 RY ₈₆		2 18.3 254°91	1°2/19.3	17	
1 12	10 31.68	+16 35.4	1.780	2.588	15.0	21.2	1 12	10 29.80	+ 7 10.0	2.214	2.987	13.6	21.8
1 22	10 27.43	+17 0.5	1.682	2.571	11.7	21.0	1 22	10 25.36	+ 7 10.2	2.108	2.972	10.8	21.6
2 1	10 20.45	+17 33.7	1.608	2.555	7.7	20.7	2 1	10 18.77	+ 7 22.2	2.025	2.958	7.4	21.3
2 11	10 11.34	+18 9.3	1.559	2.538	3.7	20.4	2 11	10 10.54	+ 7 43.8	1.968	2.943	3.6	21.1
2 21	10 1.08	+18 40.6	1.539	2.521	3.3	20.4	2 21	10 1.42	+ 8 11.6	1.941	2.928	1.4	20.9
3 2	9 50.92	+19 1.7	1.546	2.504	7.4	20.6	3 2	9 52.35	+ 8 41.6	1.944	2.913	5.0	21.1
3 12	9 42.14	+19 8.5	1.580	2.487	11.7	20.8	3 12	9 44.28	+ 9 9.3	1.975	2.897	8.9	21.3
3 22	9 35.70	+18 59.9	1.636	2.471	15.6	21.0	3 22	9 37.98	+ 9 31.1	2.031	2.881	12.3	21.5
517203	2013 VF ₂₆		2 18.3 153°56	0°5/18.8	17		297199	2011 AS ₅₆		2 18.3 65°11	1°2/17.3	18	
1 12	10 27.28	+ 7 55.4	2.349	3.125	12.8	22.3	1 12	10 27.61	+11 33.2	1.794	2.598	15.1	20.9
1 22	10 23.14	+ 8 19.8	2.260	3.129	10.0	22.1	1 22	10 23.96	+12 21.7	1.719	2.606	11.6	20.7
2 1	10 17.12	+ 8 56.0	2.196	3.133	6.7	21.9	2 1	10 17.93	+13 23.3	1.667	2.613	7.5	20.4
2 11	10 9.75	+ 9 40.6	2.159	3.136	3.0	21.7	2 11	10 10.16	+14 32.2	1.641	2.621	3.2	20.2
2 21	10 1.71	+10 29.5	2.151	3.139	1.0	21.5	2 21	10 1.59	+15 40.9	1.644	2.630	2.1	20.1
3 2	9 53.86	+11 17.7	2.174	3.142	4.7	21.8	3 2	9 53.31	+16 42.3	1.675	2.638	6.4	20.4
3 12	9 47.00	+12 0.7	2.225	3.145	8.2	22.0	3 12	9 46.38	+17 30.7	1.732	2.646	10.5	20.7
3 22	9 41.75	+12 35.1	2.302	3.147	11.3	22.2	3 22	9 41.56	+18 3.3	1.813	2.654	14.0	20.9
513025	2017 VN ₃		2 18.3 211°68	8°6/28.9	18		303354	2004 TR ₃₂₇		2 18.3 195°77	1°9/16.7	18	
1 12	10 26.70	-21 58.7	3.110	3.684	13.5	21.3	1 12	10 31.06	+12 48.7	1.798	2.598	15.2	21.4
1 22	10 22.47	-22 52.8	3.003	3.679	12.4	21.2	1 22	10 26.79	+13 48.3	1.712	2.596	11.7	21.2
2 1	10 16.61	-23 28.0	2.914	3.673	11.0	21.0	2 1	10 19.93	+15 1.4	1.648	2.594	7.6	20.9
2 11	10 9.53	-23 41.3	2.846	3.666	9.7	20.9	2 11	10 11.10	+16 21.6	1.612	2.591	3.4	20.6
2 21	10 1.78	-23 31.6	2.803	3.660	8.8	20.9	2 21	10 1.24	+17 40.5	1.604	2.587	2.8	20.6
3 2	9 54.03	-22 59.4	2.784	3.653	8.6	20.8	3 2	9 51.56	+18 50.0	1.625	2.583	7.1	20.8
3 12	9 46.99	-22 8.1	2.792	3.646	9.1	20.9	3 12	9 43.25	+19 43.8	1.673	2.579	11.3	21.1
3 22	9 41.24	-21 2.6	2.825	3.638	10.3	20.9	3 22	9 37.18	+20 19.2	1.744	2.573	15.0	21.3
30883	de Broglie		2 18.3 245°62	0°6/18.8	17		257236	2009 DF ₁₂₅		2 18.3 246°79	0°5/17.9	18	
1 12	10 29.04	+ 7 49.9	2.103	2.882	14.0	19.8	1 12	10 30.74	+10 50.6	1.813	2.608	15.3	21.4
1 22	10 24.89	+ 8 9.9	2.000	2.869	11.0	19.6	1 22	10 26.57	+11 16.5	1.717	2.597	12.0	21.2
2 1	10 18.52	+ 8 43.3	1.919	2.856	7.4	19.3	2 1	10 19.83	+11 55.7	1.643	2.586	7.9	20.9
2 11	10 10.45	+ 9 27.2	1.865	2.843	3.4	19.1	2 11	10 11.08	+12 43.7	1.595	2.574	3.4	20.6
2 21	10 1.44	+10 16.9	1.841	2.829	1.1	18.8	2 21	10 1.24	+13 34.5	1.575	2.562	1.6	20.4
3 2	9 52.48	+11 6.8	1.846	2.814	5.3	19.1	3 2	9 51.50	+14 21.4	1.584	2.550	6.3	20.7
3 12	9 44.58	+11 51.6	1.879	2.799	9.4	19.3	3 12	9 43.06	+14 58.7	1.620	2.537	10.8	20.9
3 22	9 38.52	+12 27.2	1.937	2.784	13.0	19.5	3 22	9 36.82	+15 23.0	1.680	2.525	14.7	21.2
302232	2001 WJ ₅		2 18.3 217°21	13°1/28.9	18		377331	2004 OF ₁₀		2 18.3 145°56	2°8/15.9	18	
1 12	10 32.96	-23 45.6	2.089	2.675	19.2	20.6	1 12	10					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
258126	2001 <i>RV</i> ₁₅		2 18.3 287°70	15°5/ 4.4	18		428946	2008 <i>XG</i> ₄₈		2 18.3 92°87	3°4/21.5	18	
1 12	10 27.28	-29 45.2	1.977	2.531	20.9	20.2	1 12	10 28.21	- 0 3.9	2.317	3.059	13.9	21.2
1 22	10 24.18	-31 26.2	1.882	2.520	19.8	20.1	1 22	10 23.81	- 0 16.6	2.234	3.072	11.3	21.1
2 1	10 18.45	-32 38.0	1.799	2.509	18.5	19.9	2 1	10 17.54	- 0 14.0	2.174	3.085	8.3	20.9
2 11	10 10.57	-33 12.9	1.731	2.499	17.2	19.8	2 11	10 9.95	+ 0 2.9	2.140	3.099	5.2	20.7
2 21	10 1.40	-33 5.7	1.681	2.488	16.1	19.7	2 21	10 1.75	+ 0 31.9	2.135	3.112	3.4	20.6
3 2	9 52.13	-32 14.3	1.650	2.477	15.5	19.6	3 2	9 53.78	+ 1 9.0	2.159	3.124	4.9	20.8
3 12	9 44.06	-30 43.1	1.639	2.467	15.7	19.6	3 12	9 46.84	+ 1 49.4	2.212	3.137	7.9	21.0
3 22	9 38.21	-28 40.8	1.649	2.456	16.7	19.6	3 22	9 41.54	+ 2 28.8	2.290	3.150	10.8	21.2
511854	2015 <i>FE</i> ₃₄₇		2 18.3 117°34	1°7/16.3	18		353400	2011 <i>PN</i> ₇		2 18.3 297°42	1°6/19.3	18	
1 12	10 25.70	+13 57.6	2.701	3.492	10.9	21.5	1 12	10 30.47	+ 6 57.5	1.407	2.208	18.6	21.3
1 22	10 21.70	+15 1.4	2.624	3.505	8.3	21.3	1 22	10 27.03	+ 6 54.5	1.319	2.200	14.8	21.0
2 1	10 16.06	+16 12.8	2.574	3.518	5.3	21.1	2 1	10 20.49	+ 7 9.6	1.251	2.191	10.2	20.7
2 11	10 9.27	+17 26.9	2.552	3.531	2.4	20.9	2 11	10 11.49	+ 7 40.2	1.206	2.182	5.0	20.4
2 21	10 1.96	+18 38.5	2.562	3.543	2.3	20.9	2 21	10 1.15	+ 8 21.0	1.187	2.174	1.9	20.2
3 2	9 54.83	+19 42.5	2.602	3.556	5.1	21.2	3 2	9 50.96	+ 9 4.9	1.194	2.166	6.9	20.5
3 12	9 48.58	+20 35.1	2.672	3.567	8.0	21.4	3 12	9 42.43	+ 9 44.3	1.226	2.158	12.2	20.7
3 22	9 43.73	+21 14.4	2.766	3.579	10.5	21.5	3 22	9 36.62	+10 13.8	1.280	2.150	16.8	21.0
445885	2012 <i>UO</i> ₁₆₃		2 18.3 176°54	2°1/16.9	18		61305	2000 <i>OV</i> ₄₈		2 18.3 146°27	1°7/16.7	18	
1 12	10 35.75	+14 29.5	1.688	2.488	16.1	22.2	1 12	10 30.89	+15 1.3	2.482	3.269	11.9	20.7
1 22	10 30.52	+15 8.1	1.607	2.490	12.4	22.0	1 22	10 25.79	+15 40.2	2.403	3.281	9.1	20.5
2 1	10 22.42	+15 57.4	1.547	2.492	8.1	21.7	2 1	10 18.80	+16 25.6	2.349	3.292	5.9	20.3
2 11	10 12.18	+16 51.0	1.515	2.494	3.6	21.4	2 11	10 10.49	+17 13.1	2.324	3.302	2.7	20.1
2 21	10 0.87	+17 41.2	1.510	2.494	3.0	21.4	2 21	10 1.58	+17 57.5	2.329	3.311	2.3	20.1
3 2	9 49.87	+18 21.1	1.535	2.494	7.4	21.6	3 2	9 52.91	+18 34.5	2.365	3.320	5.4	20.3
3 12	9 40.49	+18 45.8	1.586	2.493	11.7	21.9	3 12	9 45.30	+19 1.0	2.430	3.329	8.5	20.5
3 22	9 33.64	+18 54.1	1.660	2.491	15.6	22.1	3 22	9 39.34	+19 15.5	2.520	3.336	11.3	20.7
387173	2012 <i>TG</i> ₂₅₇		2 18.3 170°41	1°5/16.6	17		428534	2008 <i>AK</i> ₁₂₇		2 18.3 286°29	2°6/15.3	16	
1 12	10 25.65	+13 23.1	2.524	3.317	11.5	21.4	1 12	10 24.34	+15 40.7	2.405	3.209	11.7	21.6
1 22	10 21.84	+14 18.5	2.437	3.318	8.8	21.2	1 22	10 21.08	+16 56.5	2.309	3.197	9.0	21.3
2 1	10 16.26	+15 22.9	2.375	3.319	5.7	21.0	2 1	10 15.92	+18 21.8	2.238	3.185	5.9	21.1
2 11	10 9.39	+16 31.3	2.342	3.321	2.5	20.8	2 11	10 9.33	+19 50.9	2.196	3.173	3.0	20.9
2 21	10 1.90	+17 38.4	2.338	3.322	2.2	20.8	2 21	10 1.97	+21 16.9	2.184	3.160	3.3	20.9
3 2	9 54.55	+18 38.8	2.366	3.322	5.3	21.0	3 2	9 54.66	+22 33.3	2.201	3.148	6.4	21.1
3 12	9 48.11	+19 28.4	2.422	3.323	8.5	21.2	3 12	9 48.25	+23 35.2	2.247	3.136	9.6	21.3
3 22	9 43.17	+20 4.8	2.502	3.323	11.2	21.4	3 22	9 43.40	+24 20.1	2.317	3.124	12.5	21.4
13863	1999 <i>XE</i> ₁₆₆		2 18.3 141°80	0°6/18.9	18		284930	2010 <i>CC</i> ₂₂₅		2 18.3 153°21	7°0/ 8.1	17	
1 12	10 30.10	+ 8 11.7	2.591	3.357	12.0	19.1	1 12	10 30.07	+36 42.0	2.940	3.735	10.0	21.1
1 22	10 25.05	+ 8 24.7	2.507	3.369	9.4	19.0	1 22	10 25.32	+38 20.1	2.884	3.741	8.4	20.9
2 1	10 18.25	+ 8 47.4	2.447	3.381	6.3	18.8	2 1	10 18.59	+39 52.1	2.855	3.748	7.3	20.9
2 11	10 10.21	+ 9 17.0	2.415	3.391	2.9	18.6	2 11	10 10.44	+41 10.9	2.854	3.754	7.1	20.9
2 21	10 1.62	+ 9 50.2	2.414	3.402	1.0	18.4	2 21	10 1.58	+42 11.0	2.880	3.760	7.9	20.9
3 2	9 53.25	+10 23.0	2.444	3.411	4.3	18.7	3 2	9 52.92	+42 49.0	2.934	3.765	9.3	21.0
3 12	9 45.85	+10 51.9	2.504	3.421	7.5	18.9	3 12	9 45.29	+43 4.3	3.011	3.770	10.9	21.2
3 22	9 39.98	+11 14.3	2.589	3.429	10.3	19.1	3 22	9 39.36	+42 58.8	3.109	3.775	12.4	21.3
134513	1999 <i>JN</i> ₄₂		2 18.3 317°59	0°6/17.8	18		88019	2000 <i>UT</i> ₆₆		2 18.3 169°05	3°7/21.7	18	R
1 12	10 26.22	+11 29.9	2.086	2.883	13.5	19.6	1 12	10 29.20	- 0 57.3	2.286	3.023	14.2	20.3
1 22	10 22.70	+11 54.3	1.991	2.873	10.5	19.4	1 22	10 24.71	- 1 9.4	2.192	3.026	11.7	20.1
2 1	10 17.05	+12 29.3	1.920	2.864	6.9	19.1	2 1	10 18.23	- 1 5.3	2.121	3.028	8.7	19.9
2 11	10 9.81	+13 11.2	1.875	2.855	2.9	18.8	2 11	10 10.30	- 0 45.6	2.074	3.030	5.6	19.7
2 21	10 1.74	+13 54.8	1.859	2.846	1.5	18.7	2 21	10 1.64	- 0 12.6	2.057	3.032	3.7	19.6
3 2	9 53.81	+14 34.8	1.872	2.838	5.6	19.0	3 2	9 53.12	+ 0 30.0	2.069	3.034	5.2	19.7
3 12	9 46.95	+15 6.5	1.912	2.829	9.4	19.2	3 12	9 45.62	+ 1 17.0	2.110	3.034	8.2	19.9
3 22	9 41.90	+15 27.2	1.976	2.821	12.8	19.4	3 22	9 39.80	+ 2 3.4	2.176	3.035	11.3	20.1
237850	2002 <i>GC</i> ₆₁		2 18.3 20°13	2°6/16.5	18		370761	2004 <i>RB</i> ₂₅₇		2 18.3 290°35	2°0/16.9	18	
1 12	10 28.60	+14 8.7	1.348	2.174	17.9	20.0	1 12	10 32.10	+16 15.3	1.878	2.682	14.5	20.5
1 22	10 25.55	+14 59.1	1.278	2.177	13.8	19.7	1 22	10 27.46	+16 31.0	1.791	2.677	11.2	20.3
2 1	10 19.41	+16 3.8	1.229	2.180	9.0	19.4	2 1	10 20.30	+16 53.5	1.726	2.672	7.4	20.1
2 11	10 10.94	+17 14.7	1.204	2.184	4.1	19.2	2 11	10 11.26	+17 17.8	1.688	2.666	3.4	19.8
2 21	10 1.35	+18 21.8	1.204	2.188	3.6	19.1	2 21	10 1.29	+17 38.2	1.678	2.661	2.7	19.7
3 2	9 52.16	+19 15.9	1.231	2.192	8.4	19.4	3 2	9 51.56	+17 50.0	1.697	2.656	6.7	20.0
3 12	9 44.79	+19 50.8	1.282	2.198	13.2	19.7	3 12	9 43.21	+17 50.0	1.742	2.652	10.7	20.2
3 22	9 40.18	+20 4.7	1.354	2.203	17.3	20.0	3 22	9 37.06	+17 37.3	1.812	2.647	14.3	20.4
303453	2005 <i>BC</i> ₁₈		2 18.3 356°38	4°6/15.5	18		499985	2011 <i>MO</i> ₆		2 18.3 265°87	5°0/23.3	17	
1 12	10 28.88	+18 50.8	1.252	2.091	18.3	19.8	1 12	10 25.40	- 5 58.1	2.347	3.063	14.5	21.1
1 22	10 26.11	+19 39.7	1.182	2.087	14.1	19.6	1 22	10 21.91	- 6 4.9	2.235	3.048	12.2	20.9
2 1	10 19.96	+20 38.0	1.132	2.085	9.4	19.3	2 1	10 16.49	- 5 52.3	2.144	3.033	9.6	20.7
2 11	10 11.23	+21 36.1	1.106	2.083	5.3	19.0	2 11	10 9.60	- 5 19.5	2.078	3.018	6.9	20.5
2 21	10 1.25	+22 23.5	1.105	2.082	5.6	19.1	2 21	10 1.88	- 4 28.3	2.039	3.003	5.1	20.4
3 2	9 51.68	+22 51.6	1.128	2.082	10.0	19.3	3 2	9 54.17	- 3 22.2	2.028	2.987	5.9	20.4
3 12	9 44.13	+22 56.1	1.174	2.083	14.7	19.6	3 12	9 47.32	- 2 7.5	2.046	2.971	8.4	20.5
3 22	9 39.61	+22 37.6	1.239	2.085	18.8	19.8	3 22	9 42.02	- 0 50.5	2.090	2.955	11.4	20.7
202775	2007 <i>TF</i> ₂₃₅		2 18.3 202°58	0°6/17.7	17								

EPHEMERIDES

2 18.3

2 18.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
237380	1995 <i>VB</i> ₅		2 18.3 179°99	3°4/14.0	18		336844	2011 <i>FA</i> ₃₀		2 18.4 269°82	1°0/17.5	17	
1 12	10 28.29	+23 22.7	3.149	3.945	9.4	21.8	1 12	10 27.21	+11 32.4	2.110	2.905	13.4	21.2
1 22	10 23.55	+24 14.3	3.066	3.946	7.2	21.6	1 22	10 23.54	+12 12.9	2.009	2.891	10.4	21.0
2 1	10 17.24	+25 7.0	3.010	3.947	5.0	21.5	2 1	10 17.68	+13 5.4	1.932	2.876	6.9	20.7
2 11	10 9.81	+25 56.2	2.983	3.947	3.5	21.4	2 11	10 10.16	+14 5.6	1.882	2.861	2.9	20.5
2 21	10 1.85	+26 37.6	2.987	3.947	4.0	21.4	2 21	10 1.73	+15 7.4	1.860	2.847	1.8	20.3
3 2	9 54.05	+27 7.6	3.021	3.946	5.9	21.5	3 2	9 53.36	+16 4.7	1.869	2.832	5.8	20.6
3 12	9 47.06	+27 24.5	3.084	3.945	8.2	21.7	3 12	9 46.02	+16 52.0	1.904	2.817	9.8	20.8
3 22	9 41.40	+27 28.0	3.171	3.943	10.2	21.8	3 22	9 40.50	+17 26.1	1.964	2.801	13.2	21.0
226875	2004 <i>TR</i> ₈₃		2 18.3 121°74	2°1/20.3	18		104411	2000 <i>FM</i> ₅₆		2 18.4 236°53	1°4/17.1	18	
1 12	10 27.66	+ 3 12.3	2.083	2.848	14.6	20.9	1 12	10 29.32	+12 39.8	2.074	2.869	13.6	20.2
1 22	10 23.69	+ 3 25.3	1.997	2.854	11.6	20.7	1 22	10 25.20	+13 26.2	1.976	2.857	10.6	19.9
2 1	10 17.63	+ 3 54.5	1.934	2.860	8.2	20.5	2 1	10 18.80	+14 24.3	1.901	2.846	6.9	19.7
2 11	10 10.06	+ 4 37.5	1.896	2.866	4.4	20.3	2 11	10 10.65	+15 28.9	1.854	2.834	3.0	19.4
2 21	10 1.76	+ 5 30.2	1.887	2.872	2.1	20.1	2 21	10 1.56	+16 33.7	1.837	2.821	2.2	19.3
3 2	9 53.66	+ 6 27.2	1.907	2.877	5.0	20.3	3 2	9 52.54	+17 31.9	1.848	2.808	6.2	19.6
3 12	9 46.68	+ 7 22.6	1.955	2.883	8.6	20.5	3 12	9 44.63	+18 18.4	1.888	2.795	10.1	19.8
3 22	9 41.50	+ 8 11.6	2.029	2.888	12.0	20.8	3 22	9 38.63	+18 50.2	1.951	2.781	13.6	20.0
377039	2002 <i>SW</i> ₆₆		2 18.3 66°60	15°7/26.5	18		234443	2001 <i>SK</i> ₉₄		2 18.4 130°15	1°6/19.5	18	
1 12	10 36.82	-14 31.2	1.148	1.863	26.7	20.6	1 12	10 33.72	+ 5 56.5	1.701	2.478	16.9	21.1
1 22	10 32.60	-17 6.8	1.085	1.873	23.9	20.4	1 22	10 28.77	+ 6 3.6	1.624	2.490	13.3	20.9
2 1	10 24.53	-19 10.4	1.037	1.884	20.8	20.2	2 1	10 21.18	+ 6 27.1	1.568	2.502	9.1	20.7
2 11	10 13.35	-20 30.7	1.006	1.895	17.9	20.0	2 11	10 11.65	+ 7 4.0	1.538	2.513	4.5	20.4
2 21	10 0.52	-21 0.5	0.994	1.906	16.0	20.0	2 21	10 1.24	+ 7 49.0	1.536	2.523	1.7	20.3
3 2	9 48.00	-20 39.7	1.003	1.917	15.9	20.0	3 2	9 51.18	+ 8 35.8	1.563	2.533	5.9	20.6
3 12	9 37.73	-19 37.7	1.032	1.928	17.5	20.1	3 12	9 42.66	+ 9 18.2	1.617	2.542	10.3	20.8
3 22	9 31.01	-18 9.9	1.079	1.939	20.0	20.3	3 22	9 36.48	+ 9 51.9	1.695	2.551	14.1	21.1
473595	2015 <i>XU</i> ₂₄₅		2 18.3 346°22	4°3/21.5	18		235991	2005 <i>FD</i> ₇		2 18.4 259°42	2°5/20.9	18	
1 12	10 26.80	- 0 11.7	1.540	2.314	18.5	20.4	1 12	10 24.69	+ 0 41.3	2.277	3.031	13.8	20.7
1 22	10 23.84	- 0 21.9	1.454	2.311	15.1	20.2	1 22	10 21.34	+ 1 5.7	2.178	3.026	11.2	20.5
2 1	10 18.18	- 0 9.0	1.387	2.308	11.2	19.9	2 1	10 16.08	+ 1 47.7	2.101	3.021	8.0	20.3
2 11	10 10.44	+ 0 26.5	1.343	2.306	6.9	19.7	2 11	10 9.42	+ 2 45.7	2.050	3.016	4.6	20.1
2 21	10 1.61	+ 1 21.1	1.324	2.304	4.3	19.5	2 21	10 2.03	+ 3 55.5	2.028	3.011	2.5	19.9
3 2	9 52.96	+ 2 28.0	1.332	2.303	6.6	19.6	3 2	9 54.73	+ 5 11.6	2.036	3.006	4.7	20.0
3 12	9 45.74	+ 3 38.5	1.366	2.301	10.8	19.9	3 12	9 48.36	+ 6 27.6	2.073	3.001	8.1	20.2
3 22	9 40.89	+ 4 44.4	1.422	2.301	15.0	20.1	3 22	9 43.57	+ 7 37.8	2.135	2.996	11.4	20.4
426954	2013 <i>YH</i> ₂₆		2 18.3 96°29	3°8/14.2	17		335961	2007 <i>TB</i> ₁₅₂		2 18.4 104°16	1°7/20.1	18	
1 12	10 27.10	+20 57.8	2.344	3.153	11.8	20.9	1 12	10 27.95	+ 4 10.8	2.469	3.226	12.8	21.7
1 22	10 23.13	+22 7.7	2.272	3.161	9.0	20.7	1 22	10 23.49	+ 4 19.4	2.389	3.242	10.1	21.5
2 1	10 17.19	+23 21.5	2.226	3.169	6.1	20.5	2 1	10 17.29	+ 4 40.5	2.333	3.258	7.0	21.3
2 11	10 9.85	+24 32.7	2.208	3.178	4.0	20.4	2 11	10 9.87	+ 5 12.1	2.304	3.274	3.7	21.1
2 21	10 1.86	+25 34.7	2.220	3.186	4.6	20.4	2 21	10 1.91	+ 5 50.8	2.305	3.290	1.8	21.0
3 2	9 54.11	+26 22.6	2.261	3.194	7.1	20.6	3 2	9 54.18	+ 6 32.4	2.336	3.305	4.3	21.2
3 12	9 47.44	+26 53.3	2.328	3.202	10.0	20.8	3 12	9 47.44	+ 7 12.7	2.396	3.320	7.4	21.4
3 22	9 42.48	+27 6.5	2.419	3.209	12.5	21.0	3 22	9 42.23	+ 7 48.1	2.482	3.334	10.3	21.6
238772	2005 <i>JZ</i> ₉₄		2 18.3 171°56	4°3/13.8	18		312043	2007 <i>RQ</i> ₂₁₉		2 18.4 99°84	0°5/18.7	18	
1 12	10 29.20	+24 9.7	2.485	3.291	11.3	20.7	1 12	10 33.56	+ 8 6.9	1.768	2.550	16.1	21.6
1 22	10 24.67	+25 5.7	2.407	3.292	8.8	20.5	1 22	10 28.41	+ 8 29.2	1.701	2.573	12.5	21.5
2 1	10 18.18	+26 2.9	2.355	3.293	6.2	20.3	2 1	10 20.78	+ 9 5.8	1.657	2.595	8.3	21.2
2 11	10 10.27	+26 55.1	2.331	3.294	4.4	20.2	2 11	10 11.42	+ 9 52.3	1.640	2.617	3.7	21.0
2 21	10 1.71	+27 36.7	2.337	3.295	5.0	20.3	2 21	10 1.36	+10 42.7	1.651	2.639	1.2	20.9
3 2	9 53.36	+28 3.5	2.371	3.296	7.3	20.4	3 2	9 51.76	+11 30.8	1.691	2.659	5.7	21.2
3 12	9 46.10	+28 13.6	2.432	3.296	9.9	20.6	3 12	9 43.69	+12 11.1	1.759	2.679	9.9	21.5
3 22	9 40.54	+28 7.1	2.517	3.296	12.4	20.7	3 22	9 37.88	+12 40.4	1.851	2.699	13.4	21.8
293306	2007 <i>DR</i> ₃₃		2 18.4 359°50	0°1/18.5	18		111752	2002 <i>CO</i> ₁₁₅		2 18.4 131°83	0°1/18.5	18	
1 12	10 27.10	+ 8 27.5	1.799	2.594	15.4	20.7	1 12	10 28.07	+ 8 38.0	2.019	2.806	14.2	20.6
1 22	10 23.66	+ 8 58.8	1.714	2.594	12.0	20.5	1 22	10 24.11	+ 9 8.9	1.935	2.810	11.1	20.4
2 1	10 17.83	+ 9 45.6	1.652	2.594	8.0	20.2	2 1	10 17.98	+ 9 53.3	1.874	2.814	7.4	20.1
2 11	10 10.21	+10 43.5	1.615	2.594	3.5	19.9	2 11	10 10.26	+10 47.0	1.839	2.817	3.2	19.9
2 21	10 1.71	+11 46.2	1.606	2.594	1.2	19.8	2 21	10 1.77	+11 44.7	1.833	2.821	1.1	19.7
3 2	9 53.41	+12 46.8	1.625	2.594	5.9	20.1	3 2	9 53.49	+12 40.2	1.857	2.824	5.4	20.0
3 12	9 46.40	+13 38.9	1.671	2.594	10.1	20.3	3 12	9 46.38	+13 28.1	1.908	2.828	9.3	20.3
3 22	9 41.45	+14 18.4	1.741	2.595	13.9	20.6	3 22	9 41.16	+14 4.9	1.984	2.831	12.7	20.5
109360	2001 <i>QF</i> ₁₅₆		2 18.4 219°65	0°6/18.9	17		168856	2000 <i>UY</i> ₁₀₁		2 18.4 208°08	1°9/16.8	18	
1 12	10 29.11	+ 9 4.4	2.450	3.224	12.4	20.3	1 12	10 33.84	+14 58.6	2.126	2.916	13.5	21.4
1 22	10 24.54	+ 9 7.0	2.353	3.221	9.7	20.1	1 22	10 28.61	+15 36.8	2.030	2.909	10.4	21.2
2 1	10 18.08	+ 9 18.9	2.281	3.216	6.5	19.9	2 1	10 21.01	+16 23.6	1.958	2.901	6.9	21.0
2 11	10 10.24	+ 9 37.7	2.235	3.212	3.0	19.7	2 11	10 11.62	+17 13.7	1.915	2.893	3.1	20.7
2 21	10 1.71	+10 0.1	2.220	3.208	1.0	19.5	2 21	10 1.29	+18 1.1	1.901	2.883	2.6	20.7
3 2	9 53.32	+10 22.4	2.235	3.203	4.5	19.8	3 2	9 51.08	+18 40.0	1.917	2.873	6.4	20.9
3 12	9 45.89	+10 41.3	2.279	3.198	8.0	20.0	3 12	9 42.07	+19 6.4	1.962	2.862	10.2	21.1
3 22	9 40.05	+10 54.1	2.349	3.194	11.1	20.2	3 22	9 35.05	+19 18.6	2.030	2.850	13.5	21.3
490085	2008 <i>TC</i> ₁₆₈		2 18.4 218°35	2°2/16.8	18		434971	2006 <i>UQ</i> ₁₁₆		2 18.4 135°40	7°0/26.9	17	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
325274	2008 <i>GV</i> ₁₂₉		2 18.4 343°62	6°1/13.4	17		235743	2004 <i>TU</i> ₃₀₃		2 18.4 234°63	0°6/17.9	18	
1 12	10 27.57	+22 3.6	1.497	2.331	16.0	20.6	1 12	10 32.97	+11 10.7	1.762	2.555	15.7	21.3
1 22	10 24.74	+23 29.2	1.424	2.325	12.5	20.3	1 22	10 28.45	+11 33.9	1.665	2.544	12.3	21.1
2 1	10 18.93	+25 1.9	1.374	2.321	8.7	20.1	2 1	10 21.19	+12 10.1	1.590	2.533	8.2	20.8
2 11	10 10.83	+26 30.8	1.348	2.316	6.2	20.0	2 11	10 11.80	+12 54.8	1.542	2.521	3.5	20.5
2 21	10 1.57	+27 44.8	1.349	2.312	7.2	20.0	2 21	10 1.24	+13 42.0	1.521	2.508	1.7	20.3
3 2	9 52.60	+28 35.1	1.375	2.309	10.7	20.2	3 2	9 50.76	+14 24.8	1.530	2.495	6.5	20.6
3 12	9 45.32	+28 57.5	1.425	2.307	14.5	20.4	3 12	9 41.65	+14 57.7	1.565	2.482	11.2	20.8
3 22	9 40.69	+28 53.1	1.494	2.305	18.0	20.6	3 22	9 34.87	+15 17.4	1.624	2.468	15.2	21.1
458316	2010 <i>VC</i> ₈₅		2 18.4 342°38	8°6/24.9	18		83147	2001 <i>QP</i> ₂₆₅		2 18.4 95°77	0°8/19.1	18	
1 12	10 26.46	- 9 34.1	1.660	2.382	19.3	21.1	1 12	10 28.01	+ 7 52.3	2.354	3.128	12.8	19.8
1 22	10 23.49	-10 26.6	1.570	2.378	16.7	20.9	1 22	10 23.69	+ 8 1.9	2.271	3.138	10.0	19.6
2 1	10 17.93	-10 53.3	1.498	2.374	13.7	20.6	2 1	10 17.52	+ 8 22.4	2.212	3.147	6.7	19.4
2 11	10 10.38	-10 50.8	1.447	2.370	10.8	20.5	2 11	10 10.02	+ 8 50.9	2.180	3.156	3.2	19.2
2 21	10 1.72	-10 18.5	1.419	2.367	8.8	20.3	2 21	10 1.92	+ 9 23.8	2.178	3.165	1.1	19.1
3 2	9 53.17	- 9 20.0	1.417	2.365	9.1	20.3	3 2	9 54.05	+ 9 56.9	2.205	3.174	4.5	19.3
3 12	9 45.93	- 8 3.1	1.439	2.362	11.4	20.5	3 12	9 47.20	+10 26.3	2.261	3.183	7.9	19.5
3 22	9 40.92	- 6 37.7	1.485	2.361	14.6	20.6	3 22	9 41.97	+10 49.1	2.343	3.192	11.0	19.8
477912	2011 <i>LO</i> ₁₇		2 18.4 250°39	5°2/24.3	16		63394	2001 <i>JL</i> ₈		2 18.4 241°52	0°3/18.7	18	
1 12	10 28.07	- 9 57.8	3.257	3.918	11.7	23.8	1 12	10 27.71	+ 8 51.4	2.166	2.950	13.5	19.7
1 22	10 23.47	-10 19.0	3.124	3.892	10.1	23.7	1 22	10 23.74	+ 9 9.9	2.074	2.947	10.5	19.5
2 1	10 17.31	-10 25.2	3.013	3.866	8.3	23.5	2 1	10 17.71	+ 9 40.1	2.006	2.945	7.0	19.3
2 11	10 9.96	-10 15.3	2.928	3.839	6.5	23.3	2 11	10 10.16	+10 18.9	1.965	2.943	3.2	19.0
2 21	10 1.89	- 9 49.4	2.871	3.810	5.3	23.2	2 21	10 1.86	+11 1.8	1.952	2.940	1.0	18.9
3 2	9 53.74	- 9 9.3	2.844	3.781	5.6	23.2	3 2	9 53.71	+11 43.7	1.970	2.938	5.0	19.1
3 12	9 46.16	- 8 18.4	2.846	3.752	7.2	23.3	3 12	9 46.63	+12 19.9	2.015	2.935	8.8	19.4
3 22	9 39.71	- 7 21.0	2.877	3.721	9.3	23.4	3 22	9 41.30	+12 47.2	2.085	2.933	12.1	19.6
108791	2001 <i>OX</i> ₆₅		2 18.4 178°29	0°7/19.0	18		176030	2000 <i>SB</i> ₁₂₄		2 18.4 201°13	2°9/15.9	18	
1 12	10 31.22	+ 7 44.2	2.359	3.126	13.0	20.8	1 12	10 33.20	+17 2.5	2.027	2.825	13.8	20.7
1 22	10 26.22	+ 7 57.1	2.266	3.128	10.2	20.6	1 22	10 28.24	+17 55.9	1.937	2.821	10.6	20.5
2 1	10 19.23	+ 8 21.2	2.196	3.130	6.9	20.4	2 1	10 20.84	+18 57.4	1.872	2.816	7.0	20.2
2 11	10 10.78	+ 8 53.8	2.155	3.130	3.2	20.2	2 11	10 11.57	+20 0.5	1.834	2.811	3.6	20.0
2 21	10 1.61	+ 9 30.9	2.143	3.131	1.1	20.0	2 21	10 1.36	+20 58.1	1.826	2.804	3.7	20.0
3 2	9 52.61	+10 8.3	2.162	3.130	4.7	20.3	3 2	9 51.31	+21 43.7	1.848	2.797	7.2	20.2
3 12	9 44.64	+10 41.6	2.211	3.129	8.3	20.5	3 12	9 42.53	+22 13.3	1.897	2.789	10.9	20.4
3 22	9 38.37	+11 7.8	2.285	3.127	11.4	20.7	3 22	9 35.85	+22 25.6	1.969	2.781	14.2	20.6
415472	2014 <i>OE</i> ₉₃		2 18.4 216°34	0°9/19.1	17		121505	Andrewliounis		2 18.4 128°43	1°7/16.8	18	
1 12	10 30.89	+ 6 12.2	1.878	2.655	15.5	22.1	1 12	10 30.22	+15 0.8	2.144	2.940	13.2	20.8
1 22	10 26.61	+ 6 39.7	1.780	2.648	12.3	21.9	1 22	10 25.64	+15 33.4	2.064	2.947	10.1	20.6
2 1	10 19.85	+ 7 24.2	1.705	2.640	8.4	21.6	2 1	10 18.92	+16 13.6	2.009	2.954	6.6	20.4
2 11	10 11.17	+ 8 22.3	1.656	2.632	4.0	21.4	2 11	10 10.67	+16 56.2	1.981	2.960	3.0	20.1
2 21	10 1.45	+ 9 28.6	1.635	2.623	1.3	21.1	2 21	10 1.71	+17 36.0	1.983	2.966	2.4	20.1
3 2	9 51.81	+10 35.9	1.644	2.613	5.7	21.4	3 2	9 53.03	+18 8.0	2.014	2.972	5.9	20.4
3 12	9 43.39	+11 37.3	1.680	2.602	10.1	21.7	3 12	9 45.54	+18 28.7	2.073	2.978	9.5	20.6
3 22	9 37.07	+12 27.8	1.741	2.591	14.0	21.9	3 22	9 39.92	+18 36.7	2.156	2.983	12.6	20.8
257490	1995 <i>UT</i> ₁₇		2 18.4 77°75	1°2/17.5	18		45416	2000 <i>AX</i> ₁₅₁		2 18.4 82°84	3°3/16.0	18	
1 12	10 32.71	+13 18.7	1.602	2.408	16.5	20.7	1 12	10 32.94	+14 35.7	1.322	2.143	18.5	18.7
1 22	10 28.22	+13 37.1	1.528	2.415	12.8	20.5	1 22	10 28.83	+15 49.9	1.265	2.161	14.1	18.5
2 1	10 20.93	+14 6.4	1.475	2.421	8.4	20.2	2 1	10 21.51	+17 18.0	1.230	2.180	9.2	18.3
2 11	10 11.60	+14 41.1	1.448	2.428	3.6	20.0	2 11	10 11.89	+18 49.6	1.219	2.198	4.4	18.0
2 21	10 1.33	+15 14.7	1.448	2.435	2.2	19.9	2 21	10 1.29	+20 13.1	1.236	2.216	4.4	18.1
3 2	9 51.46	+15 41.1	1.477	2.441	6.8	20.2	3 2	9 51.30	+21 18.7	1.278	2.234	8.9	18.4
3 12	9 43.23	+15 56.0	1.531	2.448	11.3	20.5	3 12	9 43.35	+22 1.0	1.345	2.252	13.4	18.7
3 22	9 37.49	+15 57.6	1.608	2.455	15.2	20.7	3 22	9 38.29	+22 19.4	1.433	2.269	17.3	19.0
405352	2003 <i>WM</i> ₂₇		2 18.4 177°24	0°6/17.8	18		332366	2007 <i>EL</i> ₁₃₂		2 18.4 351°83	3°8/21.7	17	
1 12	10 33.09	+11 32.8	2.453	3.227	12.4	22.7	1 12	10 22.97	- 1 42.8	1.592	2.364	18.1	20.7
1 22	10 27.59	+12 2.8	2.361	3.230	9.6	22.5	1 22	10 20.82	- 1 21.4	1.503	2.360	14.8	20.5
2 1	10 20.10	+12 42.0	2.294	3.233	6.3	22.3	2 1	10 16.17	- 0 33.2	1.435	2.356	10.9	20.2
2 11	10 11.15	+13 26.2	2.255	3.234	2.7	22.1	2 11	10 9.63	+ 0 40.4	1.389	2.353	6.7	20.0
2 21	10 1.49	+14 11.0	2.248	3.235	1.4	22.0	2 21	10 2.08	+ 2 14.1	1.370	2.351	3.9	19.8
3 2	9 52.01	+14 51.5	2.272	3.234	5.0	22.3	3 2	9 54.68	+ 3 59.1	1.377	2.350	6.1	19.9
3 12	9 43.56	+15 24.0	2.325	3.233	8.5	22.5	3 12	9 48.59	+ 5 44.7	1.411	2.349	10.4	20.2
3 22	9 36.81	+15 46.2	2.405	3.230	11.5	22.7	3 22	9 44.68	+ 7 21.4	1.469	2.349	14.5	20.4
162548	2000 <i>QH</i> ₂₁₂		2 18.4 212°84	0°9/17.7	18		343045	2009 <i>BV</i> ₁₆₀		2 18.4 351°38	0°9/19.3	17	
1 12	10 33.12	+11 47.7	1.993	2.780	14.4	21.6	1 12	10 24.95	+ 5 55.5	2.210	2.987	13.5	21.5
1 22	10 28.20	+12 18.0	1.896	2.772	11.2	21.4	1 22	10 21.58	+ 6 26.9	2.119	2.987	10.6	21.3
2 1	10 20.83	+12 59.7	1.822	2.764	7.4	21.1	2 1	10 16.27	+ 7 13.0	2.051	2.986	7.2	21.1
2 11	10 11.57	+13 48.3	1.776	2.755	3.1	20.9	2 11	10 9.55	+ 8 10.4	2.010	2.986	3.4	20.8
2 21	10 1.32	+14 37.9	1.759	2.746	1.7	20.7	2 21	10 2.12	+ 9 14.4	1.998	2.985	1.1	20.6
3 2	9 51.17	+15 22.4	1.772	2.735	6.1	21.0	3 2	9 54.83	+10 19.2	2.015	2.985	4.8	20.9
3 12	9 42.26	+15 56.8	1.813	2.724	10.2	21.2	3 12	9 48.54	+11 19.1	2.060	2.985	8.4	21.1
3 22	9 35.42	+16 18.5	1.878	2.712	13.9	21.4	3 22	9 43.88	+12 9.7	2.131	2.984	11.7	21.3
127562	2002 <i>YH</i> ₃₁		2 18.4 65°32	0°9/18.9	17		436346	2010 <i>JC</i> ₃₂		2 18.4 170°91	5°6/24.8	17	</

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
402703	2006 <i>VO</i> ₉₈		2 18.4 100°37'	0°4/18.0	18		429022	2009 <i>BU</i> ₁₃₈		2 18.4 135°62'	0°9/17.4	17	
1 12	10 33.00	+10 33.8	1.963	2.747	14.7	22.0	1 12	10 25.92	+11 10.5	2.500	3.287	11.8	21.3
1 22	10 27.76	+11 2.8	1.897	2.771	11.3	21.8	1 22	10 22.07	+12 2.3	2.416	3.293	9.1	21.1
2 1	10 20.27	+11 43.0	1.854	2.795	7.4	21.6	2 1	10 16.48	+13 4.1	2.356	3.299	5.9	20.9
2 11	10 11.23	+12 29.6	1.839	2.818	3.1	21.4	2 11	10 9.62	+14 11.7	2.326	3.305	2.5	20.7
2 21	10 1.56	+13 16.9	1.853	2.840	1.4	21.3	2 21	10 2.16	+15 19.6	2.325	3.311	1.6	20.6
3 2	9 52.32	+13 59.4	1.897	2.862	5.5	21.6	3 2	9 54.86	+16 22.5	2.355	3.316	4.9	20.9
3 12	9 44.47	+14 32.8	1.968	2.883	9.4	21.9	3 12	9 48.48	+17 16.0	2.413	3.321	8.2	21.1
3 22	9 38.67	+14 54.7	2.065	2.904	12.6	22.1	3 22	9 43.60	+17 57.4	2.497	3.326	11.0	21.3
174373	2002 <i>UW</i> ₃₆		2 18.4 168°75'	0°8/17.7	18		307340	2002 <i>RT</i> ₅₇		2 18.4 213°39'	1°7/19.8	18	
1 12	10 30.16	+11 2.2	1.998	2.788	14.2	20.1	1 12	10 31.02	+ 5 7.6	2.125	2.889	14.3	21.3
1 22	10 25.80	+11 39.5	1.913	2.791	11.0	19.9	1 22	10 26.41	+ 5 15.4	2.024	2.883	11.4	21.0
2 1	10 19.15	+12 28.8	1.851	2.794	7.2	19.7	2 1	10 19.58	+ 5 37.5	1.946	2.875	7.9	20.8
2 11	10 10.83	+13 25.3	1.816	2.796	3.1	19.4	2 11	10 11.05	+ 6 11.9	1.895	2.867	4.1	20.5
2 21	10 1.68	+14 23.0	1.810	2.797	1.6	19.3	2 21	10 1.63	+ 6 54.6	1.873	2.859	1.8	20.4
3 2	9 52.74	+15 15.7	1.834	2.798	5.8	19.6	3 2	9 52.28	+ 7 40.8	1.880	2.850	5.1	20.6
3 12	9 45.03	+15 58.2	1.886	2.799	9.8	19.9	3 12	9 44.02	+ 8 25.0	1.916	2.840	9.0	20.8
3 22	9 39.29	+16 27.7	1.962	2.800	13.2	20.1	3 22	9 37.62	+ 9 2.9	1.978	2.829	12.6	21.0
348565	2005 <i>VW</i> ₇₃		2 18.4 169°90'	2°8/16.1	18		82798	2001 <i>QB</i> ₂₆		2 18.4 81°40'	3°5/15.2	18	
1 12	10 33.86	+15 35.0	1.828	2.628	15.0	21.5	1 12	10 31.57	+21 26.5	2.315	3.117	12.2	19.8
1 22	10 28.92	+16 34.1	1.748	2.633	11.5	21.3	1 22	10 26.42	+22 7.3	2.255	3.139	9.3	19.7
2 1	10 21.35	+17 43.3	1.692	2.637	7.5	21.1	2 1	10 19.27	+22 49.8	2.220	3.161	6.3	19.5
2 11	10 11.82	+18 55.4	1.662	2.640	3.7	20.9	2 11	10 10.78	+23 28.5	2.213	3.183	3.8	19.4
2 21	10 1.33	+20 2.4	1.662	2.642	3.6	20.9	2 21	10 1.78	+23 58.1	2.235	3.205	4.1	19.4
3 2	9 51.11	+20 56.8	1.691	2.644	7.4	21.1	3 2	9 53.18	+24 15.0	2.287	3.227	6.6	19.6
3 12	9 42.35	+21 33.9	1.747	2.644	11.4	21.3	3 12	9 45.84	+24 17.6	2.366	3.248	9.5	19.9
3 22	9 35.89	+21 52.6	1.826	2.644	14.9	21.5	3 22	9 40.32	+24 6.2	2.470	3.269	12.0	20.1
35387	1997 <i>WY</i> ₄₄		2 18.4 86°73'	0°5/18.0	18		455661	2005 <i>BS</i> ₂₂		2 18.4 47°41'	3°4/15.9	18	
1 12	10 32.71	+ 9 28.7	1.549	2.347	17.3	19.3	1 12	10 28.51	+14 0.2	1.261	2.091	18.7	21.0
1 22	10 28.12	+10 10.6	1.488	2.369	13.4	19.1	1 22	10 25.52	+15 24.1	1.208	2.110	14.2	20.7
2 1	10 20.79	+11 8.3	1.448	2.392	8.8	18.9	2 1	10 19.38	+17 3.2	1.177	2.129	9.2	20.5
2 11	10 11.52	+12 15.4	1.434	2.414	3.7	18.6	2 11	10 11.01	+18 46.4	1.170	2.149	4.4	20.3
2 21	10 1.47	+13 23.9	1.448	2.435	1.6	18.5	2 21	10 1.69	+20 21.3	1.189	2.169	4.5	20.4
3 2	9 51.95	+14 25.8	1.490	2.457	6.6	18.9	3 2	9 52.98	+21 37.2	1.234	2.190	9.0	20.7
3 12	9 44.14	+15 14.8	1.558	2.477	11.0	19.2	3 12	9 46.24	+22 28.1	1.302	2.212	13.5	21.0
3 22	9 38.81	+15 47.9	1.650	2.498	14.8	19.5	3 22	9 42.31	+22 53.2	1.391	2.233	17.4	21.3
291881	2006 <i>PJ</i> ₂₂		2 18.4 229°09'	1°1/19.3	17		346695	2008 <i>YC</i> ₁₂₃		2 18.4 317°14'	0°2/18.6	17	
1 12	10 30.89	+ 6 33.7	2.033	2.807	14.6	21.7	1 12	10 25.83	+ 8 33.6	2.115	2.903	13.6	21.2
1 22	10 26.46	+ 6 49.8	1.931	2.796	11.6	21.5	1 22	10 22.40	+ 8 59.7	2.022	2.897	10.7	21.0
2 1	10 19.70	+ 7 20.5	1.850	2.784	7.9	21.2	2 1	10 16.90	+ 9 38.7	1.951	2.891	7.1	20.8
2 11	10 11.13	+ 8 3.2	1.797	2.772	3.8	20.9	2 11	10 9.88	+10 27.2	1.908	2.886	3.2	20.5
2 21	10 1.57	+ 8 53.2	1.772	2.759	1.3	20.7	2 21	10 2.06	+11 20.3	1.893	2.880	1.0	20.3
3 2	9 52.05	+ 9 44.9	1.777	2.746	5.4	21.0	3 2	9 54.38	+12 12.3	1.907	2.875	5.1	20.6
3 12	9 43.65	+10 32.5	1.810	2.732	9.5	21.2	3 12	9 47.74	+12 58.1	1.948	2.870	9.0	20.8
3 22	9 37.18	+11 11.5	1.868	2.718	13.3	21.4	3 22	9 42.84	+13 33.8	2.015	2.866	12.4	21.0
87626	2000 <i>RB</i> ₅₂		2 18.4 72°05'	6°7/23.9	18		165547	2001 <i>DM</i> ₃₇		2 18.4 59°06'	0°1/18.4	18	
1 12	10 29.80	- 7 0.6	1.922	2.639	17.2	19.1	1 12	10 30.64	+ 8 56.3	1.415	2.221	18.3	19.7
1 22	10 25.50	- 7 44.6	1.845	2.654	14.6	19.0	1 22	10 26.79	+ 9 25.9	1.354	2.239	14.2	19.5
2 1	10 18.93	- 8 6.9	1.787	2.669	11.6	18.8	2 1	10 20.05	+10 12.7	1.314	2.258	9.3	19.3
2 11	10 10.72	- 8 5.9	1.753	2.684	8.6	18.7	2 11	10 11.26	+11 10.8	1.297	2.277	4.0	19.0
2 21	10 1.75	- 7 42.8	1.745	2.700	6.8	18.6	2 21	10 1.61	+12 12.4	1.308	2.296	1.4	18.9
3 2	9 53.05	- 7 1.1	1.764	2.715	7.3	18.6	3 2	9 52.48	+13 9.1	1.346	2.315	6.7	19.3
3 12	9 45.62	- 6 7.4	1.810	2.730	9.7	18.8	3 12	9 45.15	+13 54.2	1.409	2.334	11.4	19.6
3 22	9 40.18	- 5 8.7	1.881	2.745	12.5	19.0	3 22	9 40.41	+14 24.2	1.494	2.353	15.4	19.9
311306	2005 <i>JB</i> ₁₁₀		2 18.4 318°42'	0°8/18.9	18		110147	2001 <i>SW</i> ₁₅₄		2 18.4 173°49'	5°1/13.9	18	
1 12	10 25.75	+ 6 50.4	1.458	2.265	17.8	20.5	1 12	10 35.17	+25 53.2	2.263	3.064	12.4	20.5
1 22	10 23.34	+ 7 16.6	1.366	2.251	14.1	20.2	1 22	10 29.49	+26 45.3	2.187	3.067	9.8	20.4
2 1	10 18.09	+ 8 3.8	1.295	2.238	9.6	19.9	2 1	10 21.50	+27 37.0	2.135	3.069	7.0	20.2
2 11	10 10.56	+ 9 8.0	1.247	2.225	4.5	19.6	2 11	10 11.83	+28 21.4	2.112	3.071	5.2	20.1
2 21	10 1.77	+10 22.5	1.225	2.213	1.4	19.4	2 21	10 1.40	+28 52.1	2.118	3.073	5.8	20.1
3 2	9 53.04	+11 38.0	1.229	2.201	6.8	19.7	3 2	9 51.29	+29 5.1	2.152	3.073	8.2	20.3
3 12	9 45.78	+12 45.3	1.258	2.190	12.0	19.9	3 12	9 42.51	+28 59.0	2.214	3.073	11.0	20.4
3 22	9 41.02	+13 37.9	1.309	2.179	16.6	20.2	3 22	9 35.78	+28 35.2	2.298	3.073	13.5	20.6
132377	2002 <i>GJ</i> ₇₉		2 18.4 240°19'	1°0/17.6	18		414794	2010 <i>RV</i> ₁₄₆		2 18.4 202°55'	0°8/17.7	17	
1 12	10 32.06	+12 3.0	1.898	2.691	14.8	20.4	1 12	10 32.04	+11 54.8	2.178	2.962	13.4	23.2
1 22	10 27.59	+12 32.2	1.798	2.678	11.5	20.1	1 22	10 27.15	+12 25.5	2.083	2.957	10.4	23.0
2 1	10 20.57	+13 13.4	1.721	2.664	7.6	19.9	2 1	10 20.03	+13 6.5	2.011	2.952	6.8	22.8
2 11	10 11.55	+14 1.9	1.670	2.650	3.3	19.6	2 11	10 11.24	+13 53.5	1.967	2.946	2.9	22.5
2 21	10 1.43	+14 51.6	1.649	2.635	1.9	19.4	2 21	10 1.59	+14 41.2	1.953	2.940	1.6	22.4
3 2	9 51.37	+15 36.1	1.656	2.620	6.4	19.7	3 2	9 52.07	+15 24.0	1.970	2.932	5.6	22.7
3 12	9 42.55	+16 10.0	1.691	2.604	10.7	19.9	3 12	9 43.67	+15 57.6	2.014	2.924	9.4	22.9
3 22	9 35.88	+16 30.5	1.750	2.588	14.5	20.1	3 22	9 37.15	+16 19.5	2.084	2.916	12.8	23.1
249062	2007 <i>TR</i> ₃₆₀		2 18.4 285°17'	2°2/16.2	17</								

EPHEMERIDES

2 18.4

2 18.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
163635	2002 <i>UL</i> ₂₆		2 18.4 129°47'	0°0'/18.4 18			52231	Sitnik		2 18.4 133°98'	0°5'/18.0 18		
1 12	10 26.69	+ 8 41.3	2.517	3.293	12.0	20.4	1 12	10 33.44	+ 9 24.3	1.770	2.557	15.9	18.5
1 22	10 22.61	+ 9 19.9	2.433	3.303	9.3	20.2	1 22	10 28.51	+10 8.9	1.696	2.571	12.3	18.3
2 1	10 16.80	+10 9.5	2.375	3.313	6.1	20.1	2 1	10 21.03	+11 8.3	1.644	2.585	8.1	18.1
2 11	10 9.76	+11 6.4	2.344	3.322	2.7	19.8	2 11	10 11.70	+12 17.1	1.619	2.598	3.4	17.9
2 21	10 2.15	+12 6.0	2.343	3.331	0.9	19.7	2 21	10 1.51	+13 27.8	1.624	2.611	1.5	17.7
3 2	9 54.72	+13 3.2	2.373	3.340	4.5	20.0	3 2	9 51.69	+14 32.8	1.657	2.622	6.2	18.1
3 12	9 48.22	+13 53.6	2.432	3.348	7.8	20.2	3 12	9 43.34	+15 26.2	1.718	2.633	10.4	18.3
3 22	9 43.21	+14 34.4	2.517	3.356	10.6	20.4	3 22	9 37.27	+16 4.6	1.803	2.643	14.1	18.6
321786	2010 <i>OZ</i> ₉₇		2 18.4 295°61'	1°0'/19.4 17			193791	2001 <i>OE</i> ₇₃		2 18.4 198°36'	0°7'/17.7 18		
1 12	10 24.74	+ 5 31.6	2.213	2.990	13.5	21.3	1 12	10 31.36	+ 9 29.0	1.896	2.683	15.0	20.7
1 22	10 21.50	+ 6 2.2	2.114	2.980	10.7	21.1	1 22	10 26.98	+10 24.8	1.804	2.680	11.7	20.4
2 1	10 16.30	+ 6 48.0	2.037	2.971	7.3	20.8	2 1	10 20.13	+11 36.7	1.734	2.676	7.7	20.2
2 11	10 9.63	+ 7 46.1	1.987	2.962	3.5	20.6	2 11	10 11.37	+12 59.1	1.692	2.671	3.3	19.9
2 21	10 2.18	+ 8 51.8	1.966	2.953	1.2	20.4	2 21	10 1.60	+14 24.5	1.679	2.666	1.7	19.8
3 2	9 54.80	+ 9 59.2	1.974	2.944	4.8	20.6	3 2	9 51.95	+15 44.8	1.696	2.660	6.3	20.1
3 12	9 48.37	+11 2.5	2.010	2.935	8.6	20.8	3 12	9 43.54	+16 52.9	1.741	2.653	10.5	20.3
3 22	9 43.58	+11 56.8	2.072	2.927	11.9	21.0	3 22	9 37.24	+17 44.9	1.810	2.645	14.3	20.5
277971	2006 <i>TP</i> ₄		2 18.4 51°07'	1°3'/17.4 18			408358	2013 <i>GU</i> ₈₉		2 18.4 198°36'	4°2'/14.9 18		
1 12	10 28.59	+11 12.2	1.483	2.296	17.2	20.7	1 12	10 35.55	+22 13.2	2.127	2.927	13.2	21.4
1 22	10 25.16	+12 2.5	1.420	2.311	13.3	20.5	1 22	10 29.99	+23 1.2	2.041	2.923	10.2	21.2
2 1	10 18.98	+13 8.2	1.378	2.326	8.6	20.2	2 1	10 21.97	+23 52.1	1.980	2.919	7.0	21.0
2 11	10 10.81	+14 22.2	1.362	2.342	3.6	20.0	2 11	10 12.13	+24 39.0	1.946	2.915	4.5	20.9
2 21	10 1.79	+15 35.5	1.372	2.358	2.3	19.9	2 21	10 1.38	+25 15.3	1.942	2.909	4.9	20.9
3 2	9 53.22	+16 39.5	1.410	2.375	7.1	20.2	3 2	9 50.87	+25 35.9	1.967	2.903	7.8	21.0
3 12	9 46.32	+17 28.0	1.473	2.391	11.6	20.5	3 12	9 41.70	+25 38.4	2.020	2.897	11.1	21.2
3 22	9 41.87	+17 58.3	1.558	2.408	15.4	20.8	3 22	9 34.66	+25 23.6	2.095	2.889	14.1	21.4
434474	2005 <i>QD</i> ₁₁₇		2 18.4 196°80'	0°2'/18.1 17			307037	2001 <i>XJ</i> ₂₂₀		2 18.4 135°86'	5°9'/24.0 18		
1 12	10 26.31	+10 34.8	3.030	3.804	10.2	22.6	1 12	10 30.43	- 7 53.6	2.324	3.018	15.1	21.5
1 22	10 22.09	+11 0.6	2.932	3.802	7.9	22.4	1 22	10 25.66	- 8 22.3	2.236	3.031	12.8	21.3
2 1	10 16.37	+11 34.3	2.860	3.799	5.2	22.2	2 1	10 18.91	- 8 31.6	2.170	3.042	10.2	21.2
2 11	10 9.57	+12 12.9	2.816	3.795	2.2	22.0	2 11	10 10.74	- 8 20.6	2.128	3.054	7.7	21.0
2 21	10 2.24	+12 53.1	2.804	3.791	0.9	21.9	2 21	10 1.88	- 7 50.2	2.113	3.065	6.0	20.9
3 2	9 55.00	+13 31.2	2.822	3.787	4.0	22.1	3 2	9 53.21	- 7 4.0	2.127	3.075	6.5	21.0
3 12	9 48.50	+14 4.1	2.870	3.782	6.9	22.3	3 12	9 45.57	- 6 7.3	2.169	3.085	8.6	21.1
3 22	9 43.23	+14 29.6	2.945	3.777	9.4	22.5	3 22	9 39.63	- 5 6.3	2.237	3.094	11.1	21.3
296905	Korochantsev		2 18.4 315°46'	1°4'/17.7 18			107672	2001 <i>FE</i> ₆		2 18.4 353°70'	2°3'/16.9 18		
1 12	10 33.04	+13 59.8	1.303	2.124	18.7	21.5	1 12	10 28.74	+14 39.6	1.319	2.147	18.1	19.4
1 22	10 29.39	+14 4.2	1.219	2.114	14.7	21.2	1 22	10 25.88	+15 8.4	1.244	2.143	14.0	19.1
2 1	10 22.29	+14 20.3	1.155	2.104	9.7	20.9	2 1	10 19.84	+15 49.9	1.189	2.140	9.2	18.8
2 11	10 12.46	+14 42.4	1.115	2.095	4.2	20.5	2 11	10 11.35	+16 37.1	1.157	2.138	4.1	18.5
2 21	10 1.17	+15 3.6	1.099	2.086	2.5	20.4	2 21	10 1.65	+17 21.5	1.151	2.136	3.3	18.5
3 2	9 50.12	+15 17.0	1.110	2.078	8.1	20.7	3 2	9 52.28	+17 54.8	1.171	2.135	8.3	18.8
3 12	9 40.99	+15 17.5	1.145	2.070	13.5	21.0	3 12	9 44.75	+18 11.5	1.214	2.135	13.3	19.0
3 22	9 34.91	+15 3.5	1.200	2.062	18.3	21.2	3 22	9 40.05	+18 9.9	1.278	2.136	17.6	19.3
492574	2014 <i>OM</i> ₁₇₉		2 18.4 267°68'	1°8'/17.3 17			295083	2008 <i>EX</i> ₁₃₆		2 18.4 31°52'	0°7'/17.9 18		
1 12	10 33.91	+14 18.0	1.593	2.400	16.6	22.2	1 12	10 28.09	+10 27.8	1.489	2.301	17.3	21.4
1 22	10 29.61	+14 39.8	1.495	2.382	13.0	21.9	1 22	10 24.87	+11 0.9	1.418	2.307	13.4	21.1
2 1	10 22.25	+15 12.8	1.418	2.364	8.6	21.6	2 1	10 18.88	+11 49.7	1.368	2.314	8.8	20.9
2 11	10 12.42	+15 51.5	1.366	2.346	3.8	21.3	2 11	10 10.84	+12 48.5	1.342	2.322	3.7	20.6
2 21	10 1.18	+16 28.8	1.341	2.327	2.7	21.2	2 21	10 1.85	+13 49.4	1.343	2.330	1.8	20.5
3 2	9 49.96	+16 57.7	1.345	2.308	7.6	21.4	3 2	9 53.22	+14 44.4	1.371	2.339	6.8	20.8
3 12	9 40.26	+17 12.8	1.374	2.288	12.6	21.6	3 12	9 46.20	+15 27.1	1.424	2.348	11.5	21.1
3 22	9 33.19	+17 12.2	1.425	2.269	16.9	21.8	3 22	9 41.64	+15 53.9	1.499	2.357	15.5	21.4
456842	2007 <i>UM</i> ₂₅		2 18.4 178°00'	0°4'/18.7 18			169211	2001 <i>RF</i> ₁₁₀		2 18.4 51°25'	2°5'/16.3 18		
1 12	10 31.79	+ 8 7.8	2.060	2.836	14.4	22.7	1 12	10 30.32	+18 13.1	2.214	3.016	12.7	20.1
1 22	10 27.01	+ 8 34.3	1.970	2.838	11.2	22.5	1 22	10 25.72	+18 38.7	2.132	3.018	9.7	19.9
2 1	10 19.96	+ 9 14.3	1.903	2.840	7.5	22.3	2 1	10 19.02	+19 8.9	2.075	3.019	6.4	19.7
2 11	10 11.23	+10 4.1	1.864	2.841	3.4	22.0	2 11	10 10.80	+19 38.6	2.045	3.021	3.3	19.5
2 21	10 1.65	+10 58.4	1.853	2.841	1.1	21.9	2 21	10 1.88	+20 3.0	2.044	3.023	3.1	19.5
3 2	9 52.26	+11 51.3	1.873	2.841	5.3	22.2	3 2	9 53.22	+20 17.8	2.072	3.025	6.2	19.7
3 12	9 44.05	+12 37.5	1.921	2.839	9.3	22.4	3 12	9 45.73	+20 20.6	2.128	3.027	9.6	19.9
3 22	9 37.79	+13 13.3	1.994	2.837	12.8	22.6	3 22	9 40.09	+20 10.8	2.208	3.029	12.5	20.1
147947	4187 <i>T</i> ₋₃		2 18.4 184°49'	1°2'/17.3 18			418215	2008 <i>CS</i> ₁₆₀		2 18.4 163°57'	1°5'/19.8 18		
1 12	10 30.03	+12 5.5	2.226	3.013	13.1	20.4	1 12	10 30.37	+ 5 0.0	2.268	3.030	13.6	21.7
1 22	10 25.53	+12 51.5	2.136	3.013	10.1	20.2	1 22	10 25.67	+ 5 15.7	2.178	3.035	10.8	21.5
2 1	10 18.92	+13 48.2	2.071	3.013	6.6	20.0	2 1	10 18.96	+ 5 45.1	2.112	3.040	7.4	21.3
2 11	10 10.77	+14 50.7	2.033	3.012	2.8	19.7	2 11	10 10.78	+ 6 25.8	2.072	3.045	3.8	21.1
2 21	10 1.83	+15 53.2	2.026	3.011	1.9	19.7	2 21	10 1.89	+ 7 13.6	2.062	3.049	1.6	20.9
3 2	9 53.04	+16 49.6	2.048	3.009	5.6	19.9	3 2	9 53.17	+ 8 3.8	2.083	3.052	4.7	21.1
3 12	9 45.34	+17 35.4	2.100	3.006	9.3	20.1	3 12	9 45.51	+ 8 51.2	2.132	3.055	8.3	21.3
3 22	9 39.42	+18 7.8	2.175	3.003	12.5	20.3	3 22	9 39.58	+ 9 31.9	2.207	3.057	11.5	21.6
428876	2008 <i>UL</i> ₂₄₇		2 18.4 23°30'	1°2'/17.4 17			420992	2013 <i>PG</i> ₃₇		2 18.4 106°78'	1°8'/19.8 18		
1 12	10 27.17	+1											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
181706	1991 <i>UY</i> ₃		2 18.4 89°13	1.8°/19.9	18		142694	2002 <i>TW</i> ₂₄₃		2 18.4 67°75	0.9°/17.8	18	
1 12	10 32.37	+ 4 3.8	1.772	2.542	16.6	19.8	1 12	10 31.71	+12 1.0	1.611	2.415	16.5	20.7
1 22	10 27.51	+ 4 22.6	1.708	2.569	13.1	19.6	1 22	10 27.39	+12 24.9	1.543	2.429	12.7	20.5
2 1	10 20.25	+ 4 59.1	1.665	2.595	9.0	19.4	2 1	10 20.39	+13 0.9	1.497	2.442	8.3	20.3
2 11	10 11.33	+ 5 49.7	1.648	2.620	4.6	19.2	2 11	10 11.48	+13 43.5	1.477	2.456	3.5	20.0
2 21	10 1.73	+ 6 48.9	1.659	2.645	1.9	19.0	2 21	10 1.73	+14 26.2	1.483	2.470	1.9	19.9
3 2	9 52.59	+ 7 49.7	1.699	2.669	5.4	19.3	3 2	9 52.42	+15 2.4	1.518	2.484	6.5	20.3
3 12	9 44.94	+ 8 45.9	1.767	2.693	9.5	19.6	3 12	9 44.73	+15 27.4	1.579	2.498	10.9	20.6
3 22	9 39.46	+ 9 32.6	1.860	2.717	13.0	19.9	3 22	9 39.44	+15 39.0	1.663	2.513	14.6	20.8
459907	2014 <i>MP</i> ₁₃		2 18.4 242°72	2°2/16.6	17		461588	2004 <i>RM</i> ₂₃₅		2 18.4 143°65	3°1/21.6	18	
1 12	10 29.99	+12 32.8	1.675	2.481	15.9	22.0	1 12	10 28.00	- 0 48.1	2.374	3.111	13.8	21.9
1 22	10 26.36	+13 39.1	1.582	2.470	12.3	21.7	1 22	10 23.76	- 0 37.4	2.285	3.120	11.2	21.8
2 1	10 19.98	+15 1.7	1.512	2.459	8.1	21.4	2 1	10 17.66	- 0 9.8	2.218	3.129	8.2	21.6
2 11	10 11.42	+16 33.5	1.468	2.447	3.6	21.1	2 11	10 10.23	+ 0 33.1	2.177	3.137	5.1	21.4
2 21	10 1.64	+18 5.3	1.452	2.435	3.2	21.1	2 21	10 2.15	+ 1 28.1	2.166	3.144	3.1	21.3
3 2	9 51.92	+19 27.2	1.465	2.423	7.7	21.3	3 2	9 54.25	+ 2 30.4	2.184	3.152	4.7	21.4
3 12	9 43.58	+20 31.8	1.503	2.410	12.2	21.5	3 12	9 47.32	+ 3 34.4	2.232	3.159	7.8	21.6
3 22	9 37.60	+21 15.5	1.564	2.397	16.2	21.7	3 22	9 41.97	+ 4 35.0	2.306	3.165	10.7	21.8
158524	2002 <i>GV</i> ₁		2 18.4 252°86	5°1/13.2	17		67952	2000 <i>WH</i> ₁₆₆		2 18.4 146°39	2°1/20.4	18	R
1 12	10 30.24	+24 16.5	2.235	3.044	12.3	20.0	1 12	10 28.42	+ 2 57.1	2.227	2.985	14.0	20.5
1 22	10 25.97	+25 28.1	2.143	3.030	9.6	19.8	1 22	10 24.22	+ 3 10.8	2.139	2.992	11.2	20.3
2 1	10 19.39	+26 42.9	2.077	3.015	6.9	19.6	2 1	10 18.03	+ 3 39.9	2.073	2.998	7.8	20.1
2 11	10 11.06	+27 53.4	2.038	2.999	5.2	19.5	2 11	10 10.41	+ 4 22.2	2.034	3.003	4.3	19.9
2 21	10 1.78	+28 52.1	2.028	2.984	5.9	19.5	2 21	10 2.09	+ 5 13.9	2.024	3.009	2.1	19.8
3 2	9 52.59	+29 33.3	2.047	2.968	8.5	19.6	3 2	9 53.95	+ 6 9.9	2.044	3.014	4.7	20.0
3 12	9 44.53	+29 53.8	2.091	2.951	11.5	19.8	3 12	9 46.86	+ 7 4.6	2.093	3.019	8.2	20.2
3 22	9 38.40	+29 53.7	2.158	2.935	14.3	19.9	3 22	9 41.46	+ 7 53.5	2.167	3.023	11.4	20.4
393415	2001 <i>QX</i> ₁₃₄		2 18.4 94°64	8°3/27.1	17		495422	2014 <i>SS</i> ₁₅₅		2 18.4 248°26	0°8/19.0	17	
1 12	10 30.83	-16 4.5	1.736	2.404	20.3	21.2	1 12	10 32.30	+ 7 35.4	1.922	2.700	15.2	22.1
1 22	10 26.51	-15 49.7	1.665	2.432	17.6	21.1	1 22	10 27.84	+ 7 50.1	1.813	2.681	12.1	21.9
2 1	10 19.70	-15 0.2	1.610	2.458	14.5	20.9	2 1	10 20.83	+ 8 19.5	1.726	2.662	8.2	21.6
2 11	10 11.13	-13 34.6	1.577	2.485	11.2	20.8	2 11	10 11.79	+ 9 0.8	1.666	2.642	3.9	21.3
2 21	10 1.81	-11 36.8	1.569	2.510	8.8	20.7	2 21	10 1.57	+ 9 49.2	1.634	2.622	1.2	21.0
3 2	9 52.92	- 9 15.1	1.589	2.535	8.5	20.7	3 2	9 51.30	+10 38.7	1.632	2.601	5.8	21.3
3 12	9 45.53	- 6 42.2	1.637	2.559	10.4	20.9	3 12	9 42.17	+11 23.2	1.657	2.579	10.3	21.5
3 22	9 40.39	- 4 10.9	1.712	2.582	13.3	21.1	3 22	9 35.13	+11 58.1	1.707	2.556	14.3	21.7
317624	2003 <i>BN</i> ₇₃		2 18.4 357°68	2°1/16.8	18		148324	2000 <i>QH</i> ₈₁		2 18.4 247°26	0°7/19.1	18	
1 12	10 26.45	+15 25.8	1.794	2.609	14.6	19.9	1 12	10 28.90	+ 6 59.3	2.201	2.975	13.6	21.0
1 22	10 23.26	+15 55.6	1.714	2.606	11.2	19.6	1 22	10 24.83	+ 7 24.2	2.093	2.959	10.8	20.7
2 1	10 17.67	+16 34.2	1.656	2.604	7.4	19.4	2 1	10 18.62	+ 8 3.2	2.008	2.943	7.3	20.5
2 11	10 10.31	+17 15.9	1.623	2.603	3.4	19.2	2 11	10 10.75	+ 8 53.3	1.950	2.927	3.4	20.2
2 21	10 2.09	+17 54.7	1.619	2.602	2.9	19.1	2 21	10 1.96	+ 9 50.0	1.922	2.909	1.1	20.0
3 2	9 54.12	+18 24.5	1.642	2.602	6.8	19.4	3 2	9 53.17	+10 47.8	1.923	2.892	5.1	20.3
3 12	9 47.48	+18 41.4	1.690	2.603	10.7	19.6	3 12	9 45.34	+11 40.8	1.953	2.874	9.0	20.5
3 22	9 42.93	+18 43.6	1.762	2.605	14.2	19.8	3 22	9 39.26	+12 25.0	2.008	2.855	12.6	20.6
480893	2002 <i>OV</i> ₇		2 18.4 248°23	11°1/21.8	18		308159	2005 <i>AS</i> ₇₃		2 18.4 124°58	0°9/17.7	18	
1 12	10 42.54	- 4 9.2	1.244	1.991	23.4	20.5	1 12	10 33.64	+11 34.6	1.916	2.704	14.9	21.6
1 22	10 37.19	- 6 28.0	1.156	1.985	20.2	20.2	1 22	10 28.47	+12 10.8	1.844	2.721	11.4	21.4
2 1	10 27.85	- 8 30.4	1.087	1.978	16.4	19.9	2 1	10 20.91	+12 58.3	1.795	2.737	7.5	21.2
2 11	10 15.12	-10 7.9	1.039	1.972	12.9	19.7	2 11	10 11.67	+13 51.8	1.774	2.753	3.2	21.0
2 21	10 0.33	-11 13.2	1.014	1.965	11.1	19.6	2 21	10 1.68	+14 44.9	1.781	2.768	1.7	20.9
3 2	9 45.47	-11 43.4	1.015	1.958	12.4	19.6	3 2	9 52.07	+15 31.6	1.819	2.782	5.9	21.2
3 12	9 32.64	-11 43.3	1.039	1.951	15.9	19.8	3 12	9 43.86	+16 7.3	1.884	2.796	9.9	21.4
3 22	9 23.33	-11 22.3	1.083	1.944	19.9	20.0	3 22	9 37.78	+16 29.8	1.974	2.809	13.3	21.7
173891	2001 <i>UU</i> ₉₁		2 18.4 147°07	2°5/15.4	17		322402	2011 <i>RE</i> ₆		2 18.4 261°97	0°3/18.6	18	
1 12	10 27.64	+18 32.2	2.840	3.635	10.3	20.8	1 12	10 31.86	+ 9 1.6	1.541	2.340	17.4	21.9
1 22	10 23.23	+19 24.8	2.761	3.643	7.9	20.7	1 22	10 28.02	+ 9 14.9	1.447	2.328	13.7	21.6
2 1	10 17.18	+20 21.6	2.709	3.652	5.2	20.5	2 1	10 21.20	+ 9 44.3	1.374	2.316	9.3	21.3
2 11	10 9.98	+21 17.9	2.685	3.659	2.9	20.4	2 11	10 12.01	+10 26.1	1.326	2.304	4.2	21.0
2 21	10 2.24	+22 8.9	2.693	3.667	3.1	20.4	2 21	10 1.50	+11 14.2	1.304	2.292	1.4	20.8
3 2	9 54.68	+22 50.4	2.731	3.674	5.5	20.6	3 2	9 51.07	+12 1.3	1.310	2.279	6.8	21.1
3 12	9 48.00	+23 19.9	2.797	3.680	8.1	20.7	3 12	9 42.14	+12 40.3	1.341	2.267	11.9	21.3
3 22	9 42.72	+23 36.4	2.888	3.686	10.5	20.9	3 22	9 35.79	+13 6.8	1.395	2.254	16.4	21.6
405935	2006 <i>RO</i> ₅		2 18.4 63°80	3°9/15.6	18		20562	1999 <i>RV</i> ₁₂₀		2 18.4 173°80	2°5/20.9	18	R
1 12	10 31.97	+17 58.7	1.529	2.349	16.5	20.6	1 12	10 29.38	+ 0 12.9	2.136	2.882	14.8	18.4
1 22	10 27.72	+19 0.2	1.474	2.369	12.6	20.4	1 22	10 25.10	+ 0 46.4	2.042	2.886	12.0	18.2
2 1	10 20.64	+20 9.3	1.440	2.388	8.3	20.2	2 1	10 18.71	+ 1 39.5	1.970	2.889	8.6	18.0
2 11	10 11.57	+21 17.3	1.432	2.408	4.5	20.0	2 11	10 10.75	+ 2 50.0	1.925	2.891	4.9	17.7
2 21	10 1.70	+22 14.9	1.452	2.428	4.7	20.0	2 21	10 1.98	+ 4 13.1	1.909	2.892	2.5	17.6
3 2	9 52.40	+22 55.4	1.498	2.448	8.4	20.3	3 2	9 53.35	+ 5 41.9	1.923	2.893	5.0	17.7
3 12	9 44.88	+23 15.3	1.569	2.468	12.4	20.6	3 12	9 45.79	+ 7 9.2	1.967	2.893	8.7	18.0
3 22	9 39.92	+23 15.1	1.662	2.488	15.8	20.8	3 22	9 40.02	+ 8 28.7	2.036	2.892	12.1	18.2
110420	2001 <i>TE</i> ₂₀		2 18.4 196°45	5°4/14.2	18		151000	2001 <i>UB</i> ₃₇		2 18.4 44°38	1°2/19.5		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
36521	2000 <i>QR</i> ₇₉		2 18.4 330°24	3°3/16.8	18		83266	2001 <i>RM</i> ₇₇		2 18.4 163°84	4°7/13.2	18	
1 12	10 34.88	+19 52.6	1.486	2.305	16.9	17.4	1 12	10 33.47	+25 57.8	2.637	3.434	11.0	20.5
1 22	10 30.52	+19 49.5	1.396	2.290	13.2	17.1	1 22	10 27.93	+27 4.3	2.564	3.441	8.6	20.3
2 1	10 22.91	+19 49.5	1.328	2.276	8.9	16.8	2 1	10 20.39	+28 10.6	2.517	3.448	6.2	20.2
2 11	10 12.76	+19 46.2	1.284	2.262	4.5	16.5	2 11	10 11.42	+29 10.5	2.498	3.454	4.8	20.1
2 21	10 1.28	+19 33.5	1.267	2.249	4.0	16.4	2 21	10 1.80	+29 57.9	2.510	3.459	5.4	20.1
3 2	9 50.06	+19 7.0	1.277	2.236	8.4	16.7	3 2	9 52.41	+30 28.9	2.552	3.464	7.5	20.3
3 12	9 40.65	+18 25.2	1.311	2.225	13.1	16.9	3 12	9 44.13	+30 41.8	2.621	3.467	9.9	20.4
3 22	9 34.11	+17 29.6	1.367	2.215	17.3	17.1	3 22	9 37.58	+30 37.4	2.713	3.470	12.1	20.6
136468	2005 <i>EF</i> ₂₈₃		2 18.4 200°02	0°1/18.4	18		151761	2003 <i>EG</i> ₁₁		2 18.4 275°50	2°8/16.4	17	
1 12	10 29.32	+ 8 18.4	1.900	2.687	15.0	20.2	1 12	10 34.03	+18 31.3	1.994	2.794	13.9	19.8
1 22	10 25.38	+ 9 1.3	1.810	2.685	11.7	19.9	1 22	10 29.15	+18 53.1	1.889	2.773	10.8	19.6
2 1	10 19.07	+10 0.1	1.742	2.682	7.8	19.7	2 1	10 21.67	+19 20.3	1.807	2.751	7.3	19.3
2 11	10 10.96	+11 10.2	1.701	2.679	3.4	19.4	2 11	10 12.16	+19 47.4	1.753	2.729	3.7	19.0
2 21	10 1.92	+12 24.9	1.688	2.676	1.2	19.3	2 21	10 1.52	+20 8.4	1.727	2.707	3.5	19.0
3 2	9 53.02	+13 36.9	1.705	2.672	5.8	19.6	3 2	9 50.92	+20 18.1	1.731	2.685	7.2	19.2
3 12	9 45.33	+14 39.5	1.750	2.668	10.1	19.8	3 12	9 41.57	+20 13.6	1.762	2.662	11.1	19.3
3 22	9 39.68	+15 28.4	1.818	2.664	13.8	20.0	3 22	9 34.38	+19 54.4	1.816	2.639	14.7	19.5
256356	2006 <i>XZ</i> ₅₆		2 18.4 4°18	2°6/16.8	18		467786	2009 <i>WQ</i> ₁₉₃		2 18.4 19°57	2°9/16.3	16	
1 12	10 31.17	+16 40.8	1.439	2.262	17.2	19.8	1 12	10 28.70	+16 32.8	1.617	2.437	15.7	21.3
1 22	10 27.48	+16 59.4	1.365	2.261	13.3	19.5	1 22	10 25.22	+17 12.6	1.546	2.441	12.1	21.1
2 1	10 20.75	+17 26.3	1.312	2.262	8.8	19.3	2 1	10 19.07	+18 1.1	1.497	2.446	7.9	20.9
2 11	10 11.75	+17 55.1	1.283	2.262	4.1	19.0	2 11	10 10.97	+18 51.6	1.473	2.451	3.9	20.6
2 21	10 1.66	+18 18.5	1.281	2.264	3.5	18.9	2 21	10 1.97	+19 36.4	1.476	2.458	3.7	20.6
3 2	9 51.97	+18 30.3	1.304	2.266	8.0	19.2	3 2	9 53.34	+20 8.9	1.507	2.464	7.6	20.9
3 12	9 44.07	+18 27.0	1.353	2.269	12.6	19.5	3 12	9 46.26	+20 25.2	1.562	2.471	11.7	21.1
3 22	9 38.88	+18 8.1	1.422	2.273	16.6	19.7	3 22	9 41.53	+20 24.3	1.640	2.479	15.3	21.4
107118	2001 <i>AL</i> ₃₉		2 18.4 23°04	2°6/16.7	18		418879	2008 <i>YN</i> ₂₈		2 18.4 30°83	5°6/13.4	18	
1 12	10 28.24	+14 14.5	1.249	2.081	18.7	19.3	1 12	10 27.01	+22 34.1	1.682	2.511	14.8	20.2
1 22	10 25.51	+14 59.4	1.185	2.087	14.4	19.1	1 22	10 23.87	+24 0.6	1.625	2.523	11.4	20.0
2 1	10 19.57	+15 58.5	1.142	2.094	9.4	18.8	2 1	10 18.13	+25 30.8	1.592	2.536	8.0	19.8
2 11	10 11.25	+17 3.3	1.123	2.103	4.2	18.5	2 11	10 10.54	+26 55.1	1.584	2.550	5.8	19.7
2 21	10 1.84	+18 4.0	1.128	2.112	3.6	18.5	2 21	10 2.13	+28 4.1	1.603	2.564	6.6	19.8
3 2	9 52.92	+18 51.3	1.158	2.122	8.5	18.8	3 2	9 54.15	+28 51.1	1.649	2.579	9.6	20.0
3 12	9 45.95	+19 19.4	1.213	2.132	13.4	19.1	3 12	9 47.70	+29 13.5	1.719	2.594	12.8	20.2
3 22	9 41.83	+19 26.7	1.287	2.144	17.6	19.4	3 22	9 43.54	+29 12.3	1.810	2.610	15.7	20.4
291300	2006 <i>BZ</i> ₁₄₁		2 18.4 142°02	0°7/17.8	16		273128	2006 <i>GX</i> ₁₈		2 18.4 27°47	1°3/17.4	18	
1 12	10 30.63	+12 12.7	2.133	2.922	13.5	21.9	1 12	10 27.68	+12 38.6	1.859	2.663	14.6	20.8
1 22	10 26.02	+12 33.0	2.049	2.927	10.4	21.7	1 22	10 24.09	+13 14.3	1.780	2.667	11.3	20.6
2 1	10 19.27	+13 2.6	1.989	2.931	6.8	21.4	2 1	10 18.17	+14 1.2	1.724	2.670	7.3	20.4
2 11	10 10.97	+13 37.3	1.957	2.936	2.9	21.2	2 11	10 10.55	+14 54.0	1.695	2.675	3.1	20.1
2 21	10 1.94	+14 12.3	1.953	2.940	1.5	21.1	2 21	10 2.12	+15 46.4	1.693	2.679	2.1	20.0
3 2	9 53.15	+14 42.8	1.979	2.944	5.4	21.4	3 2	9 53.94	+16 32.0	1.720	2.684	6.2	20.3
3 12	9 45.53	+15 5.1	2.034	2.948	9.1	21.6	3 12	9 47.06	+17 6.1	1.774	2.688	10.2	20.5
3 22	9 39.78	+15 17.0	2.113	2.951	12.4	21.8	3 22	9 42.20	+17 26.1	1.850	2.694	13.7	20.8
154920	2004 <i>SQ</i> ₃₂		2 18.4 186°01	3°3/15.4	18		81551	2000 <i>HC</i> ₂₅		2 18.4 352°33	3°1/16.6	18	
1 12	10 31.42	+19 46.7	2.249	3.050	12.5	20.3	1 12	10 29.49	+16 55.4	1.366	2.195	17.6	18.7
1 22	10 26.63	+20 31.5	2.165	3.050	9.6	20.1	1 22	10 26.42	+17 21.4	1.290	2.190	13.6	18.4
2 1	10 19.69	+21 20.6	2.106	3.049	6.4	19.9	2 1	10 20.20	+17 56.8	1.235	2.185	9.0	18.2
2 11	10 11.16	+22 8.3	2.075	3.049	3.7	19.8	2 11	10 11.57	+18 34.4	1.203	2.182	4.4	17.9
2 21	10 1.88	+22 48.6	2.074	3.047	3.9	19.8	2 21	10 1.76	+19 6.0	1.197	2.180	3.9	17.8
3 2	9 52.81	+23 16.6	2.102	3.046	6.8	19.9	3 2	9 52.29	+19 24.4	1.217	2.178	8.5	18.1
3 12	9 44.91	+23 29.7	2.157	3.044	10.0	20.1	3 12	9 44.63	+19 25.5	1.260	2.177	13.3	18.4
3 22	9 38.88	+23 27.3	2.236	3.042	12.9	20.3	3 22	9 39.78	+19 8.8	1.325	2.178	17.4	18.6
360527	2003 <i>RN</i> ₁₁		2 18.4 180°78	7°1/26.4	18		278971	2008 <i>UL</i> ₁₄₄		2 18.4 297°28	1°8/17.3	18	
1 12	10 29.51	-14 53.7	2.368	3.016	15.9	21.6	1 12	10 29.75	+12 38.7	1.392	2.211	17.9	21.0
1 22	10 25.09	-14 49.2	2.264	3.018	13.9	21.5	1 22	10 26.73	+13 14.9	1.303	2.197	13.9	20.7
2 1	10 18.66	-14 19.0	2.180	3.019	11.5	21.3	2 1	10 20.54	+14 7.2	1.235	2.184	9.2	20.4
2 11	10 10.73	-13 21.7	2.118	3.019	9.1	21.1	2 11	10 11.81	+15 9.3	1.190	2.171	4.0	20.0
2 21	10 2.02	-11 58.4	2.084	3.018	7.4	21.0	2 21	10 1.65	+16 12.3	1.172	2.157	2.8	19.9
3 2	9 53.40	-10 13.6	2.079	3.017	7.3	21.0	3 2	9 51.57	+17 6.9	1.179	2.145	8.1	20.2
3 12	9 45.77	- 8 15.2	2.102	3.014	9.0	21.1	3 12	9 43.16	+17 45.7	1.211	2.132	13.4	20.4
3 22	9 39.81	- 6 11.8	2.154	3.011	11.4	21.3	3 22	9 37.53	+18 5.2	1.264	2.119	17.9	20.7
116273	2003 <i>YX</i> ₄₁		2 18.4 39°17	0°9/17.7	18		149918	2005 <i>SU</i> ₁₀₅		2 18.4 125°52	0°1/18.5	18	
1 12	10 27.74	+11 56.6	1.881	2.683	14.6	20.3	1 12	10 29.81	+ 8 27.9	2.221	2.997	13.4	20.6
1 22	10 24.02	+12 24.2	1.808	2.693	11.2	20.1	1 22	10 25.25	+ 9 3.5	2.143	3.012	10.4	20.4
2 1	10 18.04	+13 2.6	1.758	2.703	7.3	19.9	2 1	10 18.69	+ 9 51.3	2.089	3.026	6.9	20.2
2 11	10 10.45	+13 47.1	1.734	2.714	3.1	19.7	2 11	10 10.71	+10 47.3	2.062	3.040	3.0	20.0
2 21	10 2.13	+14 31.9	1.738	2.725	1.7	19.6	2 21	10 2.09	+11 46.3	2.065	3.053	1.0	19.9
3 2	9 54.14	+15 11.2	1.771	2.737	5.8	19.9	3 2	9 53.72	+12 42.6	2.099	3.066	4.9	20.2
3 12	9 47.43	+15 40.6	1.831	2.749	9.7	20.1	3 12	9 46.48	+13 31.5	2.161	3.078	8.5	20.4
3 22	9 42.72	+15 57.7	1.914	2.761	13.1	20.4	3 22	9 40.98	+14 9.7	2.249	3.089	11.6	20.6
348179	2004 <i>OB</i> ₁₃		2 18.4 182°19	7°6/13.4									

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2 18.4

2 18.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
144506	2004 <i>EY</i> ₇₁		2 18.4 275°03	0°6/18.9	17		182305	2001 <i>OY</i> ₇		2 18.4 192°52	3°4/20.9	18	
1 12	10 29.00	+ 7 57.9	1.796	2.586	15.6	20.8	1 12	10 33.18	+ 1 59.8	2.127	2.873	14.9	20.4
1 22	10 25.37	+ 8 16.7	1.697	2.573	12.3	20.5	1 22	10 28.08	+ 1 33.0	2.030	2.872	12.1	20.2
2 1	10 19.23	+ 8 51.0	1.621	2.560	8.4	20.3	2 1	10 20.73	+ 1 20.1	1.955	2.871	8.8	19.9
2 11	10 11.11	+ 9 37.5	1.569	2.547	3.8	20.0	2 11	10 11.69	+ 1 21.0	1.906	2.869	5.4	19.7
2 21	10 1.91	+10 30.7	1.546	2.534	1.2	19.7	2 21	10 1.78	+ 1 33.7	1.887	2.866	3.4	19.6
3 2	9 52.76	+11 24.1	1.551	2.521	5.9	20.0	3 2	9 51.99	+ 1 54.8	1.897	2.863	5.4	19.7
3 12	9 44.84	+12 11.2	1.583	2.507	10.5	20.3	3 12	9 43.34	+ 2 20.0	1.936	2.860	8.9	19.9
3 22	9 39.06	+12 47.5	1.638	2.494	14.5	20.5	3 22	9 36.57	+ 2 44.8	2.000	2.856	12.2	20.1
500552	2012 <i>UA</i> ₄₁		2 18.4 187°59	4°5/13.7	17		92659	2000 <i>QE</i> ₄₃		2 18.4 87°63	1°5/19.5	18	
1 12	10 30.19	+25 9.2	2.532	3.336	11.2	21.6	1 12	10 30.95	+ 5 21.7	1.538	2.326	17.9	20.1
1 22	10 25.51	+26 1.3	2.453	3.336	8.7	21.5	1 22	10 26.98	+ 5 41.1	1.466	2.339	14.1	19.9
2 1	10 18.86	+26 53.9	2.399	3.335	6.2	21.3	2 1	10 20.25	+ 6 20.0	1.415	2.351	9.6	19.6
2 11	10 10.79	+27 40.8	2.374	3.334	4.6	21.2	2 11	10 11.52	+ 7 14.4	1.388	2.363	4.7	19.4
2 21	10 2.06	+28 16.6	2.377	3.333	5.1	21.2	2 21	10 1.86	+ 8 17.8	1.388	2.376	1.7	19.2
3 2	9 53.54	+28 37.4	2.410	3.332	7.4	21.4	3 2	9 52.57	+ 9 22.4	1.416	2.388	6.1	19.5
3 12	9 46.10	+28 41.5	2.470	3.331	9.9	21.5	3 12	9 44.89	+10 20.4	1.471	2.400	10.8	19.8
3 22	9 40.36	+28 29.3	2.553	3.329	12.3	21.7	3 22	9 39.66	+11 6.7	1.548	2.412	14.8	20.1
273961	2007 <i>KC</i> ₄		2 18.4 126°28	1°9/16.6	18		289451	2005 <i>EO</i> ₅₃		2 18.4 32°98	0°1/18.5	18	
1 12	10 28.07	+13 51.0	2.128	2.926	13.2	20.6	1 12	10 28.47	+ 8 49.4	1.291	2.107	19.1	20.5
1 22	10 24.11	+14 46.0	2.048	2.932	10.1	20.4	1 22	10 25.53	+ 9 13.5	1.226	2.117	14.9	20.3
2 1	10 18.06	+15 50.9	1.993	2.938	6.6	20.2	2 1	10 19.52	+ 9 56.3	1.181	2.127	9.9	20.0
2 11	10 10.48	+16 59.8	1.965	2.944	3.0	20.0	2 11	10 11.26	+10 52.4	1.159	2.139	4.3	19.8
2 21	10 2.17	+18 6.4	1.967	2.949	2.6	20.0	2 21	10 1.97	+11 53.5	1.163	2.151	1.4	19.6
3 2	9 54.07	+19 4.4	1.998	2.955	6.1	20.2	3 2	9 53.14	+12 50.6	1.192	2.163	7.1	20.0
3 12	9 47.12	+19 49.2	2.057	2.960	9.6	20.5	3 12	9 46.16	+13 36.2	1.246	2.177	12.1	20.3
3 22	9 41.97	+20 18.8	2.139	2.965	12.7	20.7	3 22	9 41.91	+14 6.0	1.321	2.191	16.5	20.6
393287	2013 <i>YG</i> ₁₂		2 18.4 89°77	1°2/17.3	18		455381	2002 <i>UT</i> ₅₉		2 18.4 24°75	9°3/11.1	18	
1 12	10 28.44	+13 15.6	2.203	2.997	13.0	21.3	1 12	10 30.58	+29 27.7	1.398	2.235	16.8	20.5
1 22	10 24.27	+13 47.0	2.124	3.005	10.0	21.1	1 22	10 27.41	+31 14.7	1.345	2.241	13.5	20.3
2 1	10 18.09	+14 26.9	2.068	3.012	6.5	20.9	2 1	10 20.88	+32 59.4	1.315	2.247	10.6	20.1
2 11	10 10.46	+15 11.0	2.040	3.020	2.8	20.6	2 11	10 11.88	+34 28.0	1.308	2.255	9.3	20.1
2 21	10 2.18	+15 54.1	2.042	3.027	1.9	20.6	2 21	10 1.76	+35 28.9	1.326	2.263	10.5	20.2
3 2	9 54.13	+16 31.2	2.072	3.034	5.5	20.8	3 2	9 52.21	+35 55.3	1.368	2.271	13.3	20.3
3 12	9 47.21	+16 58.5	2.131	3.041	9.0	21.1	3 12	9 44.74	+35 47.1	1.431	2.280	16.4	20.6
3 22	9 42.03	+17 14.2	2.214	3.049	12.0	21.3	3 22	9 40.26	+35 8.9	1.512	2.290	19.3	20.8
338305	2002 <i>VO</i> ₃		2 18.4 81°48	7°8/26.9	18		467886	2011 <i>EP</i> ₈₃		2 18.4 312°17	1°9/16.9	18	
1 12	10 27.34	-14 27.6	2.352	3.008	15.8	20.5	1 12	10 30.41	+15 22.7	1.893	2.697	14.4	21.1
1 22	10 23.33	-15 7.3	2.270	3.025	13.9	20.4	1 22	10 26.27	+15 47.2	1.806	2.693	11.1	20.8
2 1	10 17.43	-15 24.5	2.208	3.041	11.7	20.2	2 1	10 19.68	+16 19.9	1.742	2.688	7.3	20.6
2 11	10 10.17	-15 17.3	2.168	3.057	9.5	20.1	2 11	10 11.28	+16 55.6	1.705	2.684	3.3	20.3
2 21	10 2.28	-14 46.0	2.153	3.073	8.1	20.1	2 21	10 1.97	+17 28.4	1.696	2.680	2.6	20.3
3 2	9 54.58	-13 53.5	2.165	3.089	7.9	20.1	3 2	9 52.87	+17 52.9	1.716	2.676	6.6	20.5
3 12	9 47.90	-12 45.5	2.204	3.105	9.2	20.2	3 12	9 45.09	+18 5.3	1.762	2.672	10.5	20.7
3 22	9 42.84	-11 28.9	2.267	3.121	11.1	20.3	3 22	9 39.41	+18 4.3	1.832	2.669	14.0	20.9
194282	2001 <i>UE</i> ₄₂		2 18.4 315°36	5°3/15.2	18		285835	2001 <i>DW</i> ₈₃		2 18.4 275°43	3°6/22.3	17	
1 12	10 30.43	+19 47.3	1.260	2.097	18.3	19.4	1 12	10 24.75	- 2 11.9	2.715	3.443	12.4	20.6
1 22	10 27.71	+20 40.8	1.177	2.081	14.3	19.1	1 22	10 21.16	- 2 18.6	2.610	3.436	10.2	20.4
2 1	10 21.43	+21 44.4	1.114	2.065	9.8	18.7	2 1	10 15.96	- 2 10.7	2.528	3.430	7.7	20.2
2 11	10 12.27	+22 48.1	1.074	2.050	5.8	18.5	2 11	10 9.57	- 1 48.5	2.473	3.424	5.2	20.1
2 21	10 1.50	+23 40.3	1.059	2.035	6.3	18.5	2 21	10 2.56	- 1 13.9	2.445	3.417	3.6	20.0
3 2	9 50.89	+24 11.2	1.069	2.021	10.8	18.7	3 2	9 55.62	- 0 30.1	2.447	3.411	4.6	20.0
3 12	9 42.24	+24 15.6	1.101	2.007	15.7	18.9	3 12	9 49.43	+ 0 18.5	2.478	3.404	7.1	20.2
3 22	9 36.77	+23 54.1	1.151	1.995	20.2	19.1	3 22	9 44.56	+ 1 7.5	2.536	3.398	9.8	20.3
80034	1999 <i>JQ</i> ₂₁		2 18.4 209°23	7°4/27.7	18		63587	2001 <i>QH</i> ₄₇		2 18.5 81°59	0°7/17.8	18	
1 12	10 25.87	-17 48.0	3.015	3.629	13.3	19.3	1 12	10 28.66	+12 15.6	2.224	3.015	13.0	19.8
1 22	10 21.94	-18 18.3	2.906	3.623	11.9	19.1	1 22	10 24.44	+12 36.9	2.141	3.020	10.0	19.6
2 1	10 16.43	-18 29.4	2.816	3.617	10.3	19.0	2 1	10 18.23	+13 7.0	2.082	3.025	6.6	19.4
2 11	10 9.74	-18 19.1	2.749	3.611	8.7	18.9	2 11	10 10.57	+13 42.1	2.050	3.030	2.8	19.2
2 21	10 2.43	-17 47.4	2.707	3.605	7.6	18.8	2 21	10 2.24	+14 17.5	2.048	3.035	1.4	19.1
3 2	9 55.14	-16 55.7	2.692	3.598	7.4	18.8	3 2	9 54.13	+14 48.6	2.075	3.040	5.2	19.3
3 12	9 48.57	-15 48.1	2.705	3.590	8.3	18.8	3 12	9 47.12	+15 11.8	2.130	3.044	8.7	19.6
3 22	9 43.26	-14 30.2	2.743	3.583	9.8	18.9	3 22	9 41.83	+15 24.9	2.210	3.049	11.9	19.8
128825	2004 <i>RS</i> ₃₀₈		2 18.4 178°02	1°5/19.5	18		249058	2007 <i>TX</i> ₂₄₄		2 18.5 192°97	1°5/19.7	18	
1 12	10 34.03	+ 6 36.1	1.824	2.599	16.0	20.3	1 12	10 33.98	+ 5 56.6	2.147	2.908	14.3	21.1
1 22	10 29.07	+ 6 36.7	1.736	2.601	12.7	20.1	1 22	10 28.70	+ 5 58.6	2.049	2.906	11.4	20.9
2 1	10 21.54	+ 6 51.8	1.669	2.602	8.7	19.9	2 1	10 21.15	+ 6 13.7	1.974	2.903	7.9	20.6
2 11	10 12.07	+ 7 18.9	1.628	2.603	4.3	19.6	2 11	10 11.90	+ 6 39.6	1.927	2.899	4.0	20.4
2 21	10 1.62	+ 7 53.6	1.616	2.603	1.6	19.4	2 21	10 1.77	+ 7 12.8	1.909	2.895	1.6	20.2
3 2	9 51.39	+ 8 30.5	1.633	2.602	5.7	19.7	3 2	9 51.75	+ 7 48.7	1.921	2.890	5.1	20.4
3 12	9 42.53	+ 9 4.2	1.677	2.601	10.0	19.9	3 12	9 42.88	+ 8 22.4	1.963	2.884	9.0	20.7
3 22	9 35.90	+ 9 30.4	1.746	2.600	13.8	20.2	3 22	9 35.91	+ 8 50.3	2.030	2.877	12.4	20.9
232995	2005 <i>EC</i> ₁₆₂		2 18.4 24°23	4°3/14.8	18		390671	2002 <i>SN</i> ₇₂		2 18.5 277°58	0°6/18.8	18	

EPHEMERIDES

2 18.5

2 18.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
30696	1110 T ₋₃		2 18.5 329°71	4°3/20.9	18		119148	2001 PS ₄₉		2 18.5 336°23	6°8/21.9	18	
1 12	10 29.98	+ 2 5.8	1.359	2.147	19.8	18.1	1 12	10 37.29	- 2 14.4	1.802	2.534	17.7	19.4
1 22	10 26.82	+ 1 36.2	1.274	2.141	16.2	17.9	1 22	10 31.74	- 3 42.6	1.708	2.532	14.9	19.2
2 1	10 20.56	+ 1 27.9	1.208	2.136	11.8	17.6	2 1	10 23.45	- 4 56.0	1.636	2.531	11.6	19.0
2 11	10 11.83	+ 1 41.1	1.164	2.131	7.1	17.3	2 11	10 13.02	- 5 51.2	1.588	2.529	8.5	18.8
2 21	10 1.77	+ 2 12.7	1.145	2.127	4.3	17.1	2 21	10 1.43	- 6 26.6	1.568	2.528	6.8	18.7
3 2	9 51.86	+ 2 56.9	1.151	2.122	7.2	17.3	3 2	9 49.96	- 6 42.7	1.576	2.527	8.0	18.8
3 12	9 43.62	+ 3 45.3	1.182	2.119	12.0	17.5	3 12	9 39.87	- 6 43.4	1.611	2.526	11.0	18.9
3 22	9 38.12	+ 4 30.2	1.234	2.115	16.6	17.8	3 22	9 32.12	- 6 34.0	1.670	2.525	14.3	19.1
508967	2004 VC ₁₇		2 18.5 321°72	25°0/10.6	18 C		456776	2007 TQ ₁₄₅		2 18.5 76°21	2°0/17.1	17	
1 12	10 51.46	-24 24.3	1.459	2.052	26.2	22.0	1 12	10 34.24	+13 49.3	1.544	2.350	17.0	21.5
1 22	10 47.72	-27 13.5	1.270	1.956	25.9	21.6	1 22	10 29.38	+14 30.7	1.487	2.375	13.0	21.3
2 1	10 38.65	-30 4.5	1.093	1.855	25.3	21.1	2 1	10 21.73	+15 23.0	1.453	2.399	8.4	21.1
2 11	10 22.42	-32 46.8	0.931	1.749	25.0	20.6	2 11	10 12.14	+16 19.1	1.444	2.423	3.7	20.9
2 21	9 56.85	-34 58.8	0.788	1.636	25.8	20.1	2 21	10 1.81	+17 11.1	1.463	2.447	2.8	20.9
3 2	9 20.29	-36 1.4	0.665	1.517	29.2	19.7	3 2	9 52.07	+17 52.0	1.510	2.471	7.2	21.2
3 12	8 33.52	-35 1.2	0.567	1.391	36.4	19.4	3 12	9 44.13	+18 17.7	1.582	2.494	11.4	21.5
3 22	7 40.69	-31 9.0	0.492	1.256	48.0	19.2	3 22	9 38.73	+18 27.1	1.678	2.518	15.0	21.8
263781	2008 LT ₅		2 18.5 239°36	3°9/14.7	17		22004	1999 XF ₄₅		2 18.5 221°23	7°2/11.8	18	
1 12	10 30.68	+20 5.1	2.156	2.961	12.8	21.1	1 12	10 34.71	+28 48.4	1.975	2.786	13.6	18.9
1 22	10 26.37	+21 10.3	2.062	2.949	9.9	20.9	1 22	10 29.85	+30 15.2	1.897	2.778	11.0	18.7
2 1	10 19.74	+22 21.8	1.992	2.936	6.8	20.6	2 1	10 22.23	+31 41.8	1.842	2.769	8.4	18.5
2 11	10 11.33	+23 32.8	1.951	2.922	4.2	20.5	2 11	10 12.49	+32 58.3	1.814	2.760	7.2	18.4
2 21	10 1.96	+24 35.9	1.939	2.908	4.7	20.5	2 21	10 1.65	+33 55.8	1.814	2.751	8.1	18.5
3 2	9 52.66	+25 24.7	1.955	2.893	7.7	20.6	3 2	9 51.00	+34 28.0	1.841	2.741	10.6	18.6
3 12	9 44.49	+25 55.3	1.999	2.878	11.1	20.8	3 12	9 41.84	+34 33.1	1.893	2.730	13.5	18.7
3 22	9 38.26	+26 6.7	2.065	2.863	14.1	21.0	3 22	9 35.07	+34 13.2	1.965	2.719	16.2	18.9
150170	1998 BW ₄₅		2 18.5 100°25	0°7/19.1	18		83448	2001 SX ₅₉		2 18.5 14°29	5°0/23.9	18	
1 12	10 33.27	+ 7 59.5	2.128	2.898	14.1	20.2	1 12	10 24.07	- 6 59.8	2.276	2.991	14.9	19.3
1 22	10 27.87	+ 8 11.4	2.059	2.923	11.0	20.0	1 22	10 20.96	- 6 55.3	2.181	2.992	12.5	19.1
2 1	10 20.38	+ 8 34.9	2.013	2.948	7.4	19.8	2 1	10 16.00	- 6 29.5	2.106	2.992	9.8	18.9
2 11	10 11.47	+ 9 6.7	1.995	2.971	3.4	19.6	2 11	10 9.66	- 5 42.4	2.055	2.994	7.0	18.8
2 21	10 1.98	+ 9 42.3	2.007	2.995	1.1	19.5	2 21	10 2.63	- 4 36.3	2.031	2.995	5.2	18.6
3 2	9 52.87	+10 17.2	2.049	3.018	4.9	19.8	3 2	9 55.72	- 3 16.2	2.036	2.996	5.7	18.7
3 12	9 45.04	+10 47.2	2.120	3.040	8.5	20.0	3 12	9 49.73	- 1 48.8	2.070	2.998	8.2	18.8
3 22	9 39.10	+11 9.4	2.216	3.061	11.6	20.3	3 22	9 45.31	- 0 21.1	2.129	2.999	11.0	19.0
371964	2008 FE ₁₀₁		2 18.5 298°50	1°1/19.4	17		266327	2007 DN ₁₇		2 18.5 191°12	1°8/16.8	17	
1 12	10 25.98	+ 5 2.6	1.711	2.500	16.3	21.1	1 12	10 31.16	+15 7.6	2.178	2.973	13.1	21.4
1 22	10 23.18	+ 5 37.2	1.613	2.487	13.0	20.9	1 22	10 26.53	+15 42.7	2.090	2.972	10.1	21.2
2 1	10 17.87	+ 6 32.5	1.536	2.474	8.9	20.6	2 1	10 19.71	+16 25.7	2.026	2.970	6.6	21.0
2 11	10 10.60	+ 7 45.0	1.485	2.461	4.3	20.3	2 11	10 11.29	+17 11.5	1.990	2.969	3.0	20.8
2 21	10 2.22	+ 9 8.5	1.460	2.448	1.4	20.1	2 21	10 2.08	+17 54.5	1.983	2.966	2.5	20.7
3 2	9 53.87	+10 34.6	1.464	2.435	6.0	20.3	3 2	9 53.05	+18 29.6	2.006	2.964	6.0	20.9
3 12	9 46.75	+11 54.6	1.494	2.423	10.6	20.6	3 12	9 45.16	+18 53.0	2.057	2.961	9.6	21.2
3 22	9 41.77	+13 1.9	1.548	2.411	14.8	20.8	3 22	9 39.14	+19 3.3	2.132	2.958	12.8	21.4
164715	1998 FZ ₁₃₉		2 18.5 23°81	5°5/15.9	18		466174	2012 JA ₄₀		2 18.5 142°44	0°6/19.0	16	
1 12	10 36.05	+22 40.9	1.170	2.007	19.4	18.8	1 12	10 28.63	+ 6 58.3	2.347	3.118	13.0	22.1
1 22	10 31.83	+23 0.7	1.113	2.015	15.1	18.6	1 22	10 24.31	+ 7 30.4	2.262	3.127	10.1	21.9
2 1	10 23.85	+23 22.3	1.075	2.024	10.3	18.3	2 1	10 18.11	+ 8 15.3	2.201	3.136	6.8	21.7
2 11	10 13.17	+23 36.0	1.060	2.034	6.2	18.1	2 11	10 10.55	+ 9 9.4	2.168	3.144	3.1	21.5
2 21	10 1.41	+23 33.5	1.069	2.045	6.2	18.2	2 21	10 2.34	+10 8.1	2.164	3.152	0.9	21.3
3 2	9 50.46	+23 9.8	1.104	2.057	10.3	18.4	3 2	9 54.32	+11 6.2	2.191	3.160	4.6	21.6
3 12	9 41.99	+22 25.2	1.161	2.070	14.8	18.7	3 12	9 47.32	+11 58.6	2.247	3.167	8.1	21.8
3 22	9 36.89	+21 23.3	1.237	2.084	18.8	19.0	3 22	9 41.93	+12 41.9	2.329	3.173	11.2	22.0
329098	2011 BL ₁₁₇		2 18.5 90°27	3°8/15.3	18		71396	2000 AV ₁₆₆		2 18.5 114°04	5°5/23.8	18	
1 12	10 31.78	+19 19.2	1.861	2.672	14.4	21.2	1 12	10 27.91	- 6 48.8	2.303	3.010	14.9	19.2
1 22	10 27.23	+20 17.2	1.797	2.686	11.0	21.0	1 22	10 23.82	- 7 9.2	2.215	3.019	12.6	19.1
2 1	10 20.22	+21 20.6	1.756	2.701	7.3	20.8	2 1	10 17.82	- 7 10.3	2.148	3.029	9.9	18.9
2 11	10 11.47	+22 21.9	1.742	2.716	4.2	20.7	2 11	10 10.43	- 6 51.5	2.105	3.038	7.3	18.8
2 21	10 1.97	+23 13.7	1.756	2.730	4.5	20.7	2 21	10 2.37	- 6 14.5	2.090	3.048	5.6	18.7
3 2	9 52.88	+23 50.3	1.799	2.744	7.7	20.9	3 2	9 54.48	- 5 22.8	2.103	3.057	6.1	18.7
3 12	9 45.26	+24 8.5	1.868	2.758	11.2	21.2	3 12	9 47.59	- 4 22.1	2.144	3.065	8.3	18.9
3 22	9 39.83	+24 8.6	1.960	2.772	14.2	21.4	3 22	9 42.33	- 3 18.5	2.211	3.074	11.0	19.0
246112	2007 GJ ₅₄		2 18.5 201°00	1°4/17.1	17		315670	2008 DS ₇₉		2 18.5 62°81	8°7/11.7	18	
1 12	10 28.38	+12 48.1	2.191	2.985	13.0	20.7	1 12	10 35.85	+29 1.8	1.485	2.310	16.6	19.7
1 22	10 24.37	+13 35.5	2.102	2.983	10.0	20.5	1 22	10 30.97	+30 57.9	1.453	2.342	13.2	19.5
2 1	10 18.29	+14 33.4	2.037	2.981	6.6	20.3	2 1	10 22.90	+32 48.7	1.444	2.374	10.1	19.4
2 11	10 10.66	+15 36.7	1.999	2.978	2.9	20.1	2 11	10 12.66	+34 21.2	1.461	2.406	8.7	19.4
2 21	10 2.24	+16 39.5	1.990	2.975	2.1	20.0	2 21	10 1.68	+35 25.2	1.503	2.437	9.7	19.6
3 2	9 53.96	+17 35.7	2.012	2.972	5.8	20.2	3 2	9 51.54	+35 55.8	1.571	2.469	12.2	19.8
3 12	9 46.75	+18 20.5	2.061	2.969	9.4	20.5	3 12	9 43.56	+35 54.3	1.661	2.500	15.0	20.0
3 22	9 41.30	+18 51.5	2.135	2.965	12.6	20.7	3 22	9 38.48	+35 25.7	1.770	2.531	17.5	20.3
487563	2014 WO ₁₆₅		2 18.5 108°67	1°9/16.9	18		211605	2003 SK ₄₂₃		2 18.5 227°86			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
346780	2009 <i>BY</i> ₁₂₀	2 18.5 188°27'		1°6'/19.9 17			189795	McGehee	2 18.5 185°56'		0°3'/18.2 18		
1 12	10 28.99	+ 5 32.3	2.576	3.335	12.3	20.9	1 12	10 27.85	+ 9 22.3	2.136	2.922	13.6	20.6
1 22	10 24.47	+ 5 26.9	2.480	3.334	9.7	20.7	1 22	10 24.01	+10 3.7	2.047	2.922	10.6	20.4
2 1	10 18.16	+ 5 32.0	2.407	3.334	6.8	20.5	2 1	10 18.08	+10 58.0	1.981	2.922	7.0	20.1
2 11	10 10.57	+ 5 46.3	2.362	3.333	3.6	20.3	2 11	10 10.62	+12 1.1	1.943	2.922	3.0	19.9
2 21	10 2.35	+ 6 6.9	2.346	3.332	1.7	20.2	2 21	10 2.37	+13 7.2	1.933	2.921	1.2	19.7
3 2	9 54.24	+ 6 30.8	2.361	3.331	4.2	20.4	3 2	9 54.27	+14 10.0	1.954	2.920	5.3	20.0
3 12	9 47.03	+ 6 54.2	2.406	3.329	7.4	20.6	3 12	9 47.24	+15 4.1	2.002	2.919	9.1	20.2
3 22	9 41.31	+ 7 14.3	2.476	3.328	10.3	20.7	3 22	9 41.98	+15 46.0	2.076	2.918	12.4	20.5
3069	Heyrovský	2 18.5 159°33'		0°8'/19.2 18			96407	1998 <i>EU</i> ₈	2 18.5 355°46'		0°1'/18.4 18		
1 12	10 32.76	+ 6 46.1	2.105	2.873	14.4	18.3	1 12	10 28.85	+10 6.1	1.315	2.133	18.8	19.9
1 22	10 27.72	+ 7 10.5	2.019	2.881	11.3	18.1	1 22	10 26.01	+10 18.4	1.238	2.130	14.7	19.6
2 1	10 20.48	+ 7 48.9	1.956	2.889	7.6	17.9	2 1	10 20.04	+10 47.5	1.181	2.128	9.8	19.3
2 11	10 11.63	+ 8 37.8	1.920	2.896	3.6	17.7	2 11	10 11.65	+11 28.7	1.146	2.126	4.3	19.0
2 21	10 1.99	+ 9 32.3	1.914	2.901	1.1	17.5	2 21	10 2.02	+12 14.7	1.137	2.125	1.5	18.8
3 2	9 52.57	+10 26.6	1.938	2.907	5.1	17.8	3 2	9 52.68	+12 57.4	1.154	2.125	7.3	19.2
3 12	9 44.33	+11 15.3	1.991	2.911	9.0	18.0	3 12	9 45.12	+13 29.8	1.195	2.126	12.5	19.5
3 22	9 38.01	+11 54.7	2.069	2.914	12.4	18.2	3 22	9 40.34	+13 47.8	1.256	2.127	17.1	19.7
421133	2013 <i>RC</i> ₂	2 18.5 143°90'		3°9'/14.9 18			161293	2003 <i>HR</i> ₄₆	2 18.5 291°81'		0°3'/18.3 18		
1 12	10 32.81	+22 7.0	2.274	3.076	12.4	21.2	1 12	10 28.41	+ 8 48.8	1.460	2.267	17.7	20.3
1 22	10 27.67	+22 50.9	2.199	3.083	9.6	21.0	1 22	10 25.59	+ 9 24.0	1.366	2.253	14.0	20.0
2 1	10 20.38	+23 36.9	2.149	3.089	6.5	20.8	2 1	10 19.79	+10 19.0	1.293	2.238	9.4	19.7
2 11	10 11.55	+24 18.9	2.127	3.096	4.2	20.7	2 11	10 11.59	+11 29.1	1.243	2.223	4.1	19.4
2 21	10 2.04	+24 51.3	2.134	3.102	4.5	20.7	2 21	10 2.01	+12 46.5	1.220	2.208	1.6	19.2
3 2	9 52.83	+25 9.7	2.171	3.108	7.1	20.9	3 2	9 52.44	+14 1.3	1.224	2.194	7.2	19.5
3 12	9 44.85	+25 12.3	2.234	3.113	10.1	21.1	3 12	9 44.37	+15 4.7	1.253	2.179	12.5	19.7
3 22	9 38.78	+24 59.4	2.322	3.118	12.8	21.3	3 22	9 38.89	+15 50.9	1.303	2.165	17.1	20.0
113546	2002 <i>TR</i> ₂₇	2 18.5 147°61'		0°4'/18.1 17 R			375449	2008 <i>TL</i> ₉₂	2 18.5 81°57'		0°1'/18.5 17		
1 12	10 28.61	+11 4.7	2.653	3.431	11.5	20.9	1 12	10 27.90	+ 8 56.3	2.042	2.829	14.1	21.7
1 22	10 24.08	+11 31.1	2.568	3.439	8.8	20.7	1 22	10 24.08	+ 9 25.0	1.960	2.835	11.0	21.5
2 1	10 17.86	+12 5.9	2.507	3.446	5.8	20.5	2 1	10 18.12	+10 6.5	1.901	2.841	7.3	21.3
2 11	10 10.42	+12 45.7	2.475	3.453	2.5	20.3	2 11	10 10.63	+10 56.9	1.868	2.847	3.2	21.0
2 21	10 2.43	+13 26.4	2.473	3.460	1.1	20.2	2 21	10 2.39	+11 50.8	1.865	2.853	1.1	20.9
3 2	9 54.61	+14 4.0	2.502	3.467	4.4	20.5	3 2	9 54.37	+12 42.4	1.890	2.858	5.2	21.2
3 12	9 47.70	+14 35.1	2.560	3.472	7.6	20.7	3 12	9 47.51	+13 26.6	1.943	2.864	9.1	21.4
3 22	9 42.24	+14 57.5	2.644	3.478	10.3	20.9	3 22	9 42.47	+13 59.9	2.021	2.870	12.4	21.7
192896	1999 <i>XW</i> ₁₃₇	2 18.5 150°82'		5°7'/24.2 18			36077	1999 <i>RL</i> ₆₁	2 18.5 208°17'		0°6'/17.8 18		
1 12	10 28.15	- 8 2.5	2.396	3.091	14.7	21.2	1 12	10 26.57	+11 46.3	2.860	3.640	10.6	20.1
1 22	10 23.98	- 8 25.0	2.302	3.097	12.5	21.0	1 22	10 22.50	+12 17.1	2.763	3.636	8.2	19.9
2 1	10 17.94	- 8 28.3	2.229	3.102	10.0	20.8	2 1	10 16.83	+12 55.7	2.691	3.631	5.4	19.7
2 11	10 10.51	- 8 11.6	2.181	3.107	7.5	20.7	2 11	10 10.01	+13 39.0	2.648	3.627	2.3	19.5
2 21	10 2.39	- 7 36.0	2.159	3.112	5.9	20.6	2 21	10 2.61	+14 23.0	2.635	3.621	1.2	19.4
3 2	9 54.39	- 6 44.8	2.166	3.116	6.3	20.6	3 2	9 55.30	+15 3.8	2.653	3.616	4.3	19.6
3 12	9 47.34	- 5 43.3	2.202	3.120	8.3	20.8	3 12	9 48.77	+15 37.9	2.700	3.610	7.3	19.8
3 22	9 41.87	- 4 37.8	2.263	3.124	10.8	20.9	3 22	9 43.55	+16 3.3	2.774	3.604	10.0	19.9
407295	2010 <i>JY</i> ₁₀₈	2 18.5 63°86'		6°8'/22.1 18			372927	2011 <i>BO</i> ₂₅	2 18.5 357°82'		0°8'/18.0 18		
1 12	10 45.90	- 1 54.0	1.613	2.338	19.7	20.6	1 12	10 30.74	+13 31.2	1.454	2.270	17.4	19.9
1 22	10 38.02	- 3 29.2	1.556	2.376	16.3	20.4	1 22	10 27.18	+13 25.1	1.375	2.267	13.5	19.6
2 1	10 27.25	- 4 44.9	1.520	2.414	12.4	20.3	2 1	10 20.65	+13 28.8	1.317	2.264	9.0	19.4
2 11	10 14.51	- 5 38.4	1.510	2.452	8.8	20.1	2 11	10 11.86	+13 38.1	1.283	2.263	3.9	19.1
2 21	10 1.09	- 6 8.8	1.528	2.489	6.8	20.1	2 21	10 1.98	+13 47.5	1.275	2.262	1.8	18.9
3 2	9 48.44	- 6 18.6	1.575	2.526	8.0	20.3	3 2	9 52.43	+13 51.8	1.294	2.263	7.0	19.3
3 12	9 37.81	- 6 13.3	1.649	2.562	11.0	20.5	3 12	9 44.58	+13 47.1	1.338	2.264	11.8	19.5
3 22	9 29.95	- 5 59.5	1.748	2.598	14.0	20.8	3 22	9 39.36	+13 31.7	1.403	2.267	16.0	19.8
128003	2003 <i>HM</i> ₅₃	2 18.5 174°46'		6°3'/11.9 18			171479	1994 <i>GP</i> ₄	2 18.5 343°62'		1°1'/19.2 18		
1 12	10 31.24	+27 16.2	2.136	2.948	12.7	20.3	1 12	10 27.16	+ 7 18.7	1.330	2.142	18.9	20.4
1 22	10 26.85	+28 46.5	2.065	2.949	10.1	20.2	1 22	10 24.72	+ 7 26.0	1.248	2.135	15.0	20.2
2 1	10 20.06	+30 17.1	2.020	2.951	7.6	20.0	2 1	10 19.21	+ 7 53.0	1.185	2.129	10.2	19.9
2 11	10 11.49	+31 39.2	2.002	2.952	6.3	19.9	2 11	10 11.32	+ 8 36.1	1.145	2.123	4.9	19.5
2 21	10 2.06	+32 44.8	2.012	2.952	7.2	20.0	2 21	10 2.15	+ 9 29.1	1.130	2.118	1.5	19.3
3 2	9 52.85	+33 28.2	2.050	2.953	9.5	20.1	3 2	9 53.17	+10 23.6	1.141	2.114	6.9	19.6
3 12	9 44.95	+33 47.4	2.113	2.953	12.2	20.3	3 12	9 45.86	+11 11.1	1.176	2.111	12.2	19.9
3 22	9 39.12	+33 43.7	2.197	2.952	14.7	20.5	3 22	9 41.26	+11 46.1	1.232	2.109	16.9	20.2
380506	2004 <i>EM</i> ₆₅	2 18.5 348°86'		9°0'/9.6 18			178001	2006 <i>QK</i> ₁₂₀	2 18.5 198°02'		2°7'/21.2 17		
1 12	10 27.66	+32 16.2	1.759	2.587	14.3	19.8	1 12	10 27.73	+ 1 7.5	2.697	3.436	12.2	21.3
1 22	10 24.75	+34 0.2	1.694	2.580	11.8	19.6	1 22	10 23.46	+ 1 2.4	2.596	3.434	9.9	21.1
2 1	10 19.01	+35 40.8	1.653	2.575	9.7	19.5	2 1	10 17.51	+ 1 10.2	2.518	3.431	7.2	20.9
2 11	10 11.13	+37 6.6	1.637	2.569	9.0	19.4	2 11	10 10.33	+ 1 29.9	2.467	3.428	4.4	20.7
2 21	10 2.18	+38 8.0	1.646	2.565	10.2	19.5	2 21	10 2.51	+ 1 59.4	2.446	3.425	2.7	20.6
3 2	9 53.53	+38 38.7	1.680	2.561	12.5	19.6	3 2	9 54.79	+ 2 35.4	2.455	3.422	4.3	20.7
3 12	9 46.47	+38 37.8	1.735	2.559	15.2	19.8	3 12	9 47.87	+ 3 13.8	2.493	3.418	7.1	20.9
3 22	9 41.92	+38 8.4	1.809	2.557	17.6	19.9	3 22	9 42.34	+ 3 50.8	2.558	3.414	9.9	21.0
87527	2000 <i>QO</i> ₁₉₈	2 18.5 267°73'		2°4'/16.5 17			412248	2013 <i>HT</i> ₃₁	2 18.5 262°64'		3°6'/20.9 16		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
277716	2006 <i>DS</i> ₃₂		2 18.5	79°47'	0.4/18.9	17	200647	2001 <i>SF</i> ₃₂₇		2 18.5	230°26'	0.7/18.9	18 R
1 12	10 27.99	+ 7 57.2	2.009	2.793	14.4	21.1	1 12	10 33.35	+ 8 2.3	1.759	2.543	16.2	21.6
1 22	10 24.18	+ 8 22.2	1.926	2.798	11.2	20.9	1 22	10 28.88	+ 8 16.0	1.661	2.532	12.8	21.4
2 1	10 18.22	+ 9 0.8	1.865	2.804	7.5	20.6	2 1	10 21.69	+ 8 45.0	1.584	2.521	8.7	21.1
2 11	10 10.69	+ 9 49.4	1.832	2.809	3.4	20.4	2 11	10 12.36	+ 9 26.0	1.533	2.510	4.0	20.8
2 21	10 2.40	+10 42.7	1.826	2.814	1.0	20.2	2 21	10 1.84	+10 13.5	1.510	2.498	1.2	20.6
3 2	9 54.32	+11 35.0	1.850	2.820	5.2	20.5	3 2	9 51.37	+11 1.2	1.516	2.485	6.1	20.9
3 12	9 47.40	+12 20.8	1.902	2.825	9.1	20.8	3 12	9 42.23	+11 42.8	1.549	2.472	10.8	21.1
3 22	9 42.35	+12 56.4	1.978	2.830	12.5	21.0	3 22	9 35.38	+12 13.8	1.605	2.458	14.9	21.3
55591	2002 <i>PD</i> ₁₁₆		2 18.5	102°77'	4.4/22.7	18	295662	2008 <i>TH</i> ₄₅		2 18.5	323°77'	2°3/19.9	18
1 12	10 28.15	- 3 23.2	2.333	3.057	14.3	19.1	1 12	10 28.31	+ 4 52.1	1.324	2.126	19.5	20.6
1 22	10 23.97	- 3 40.7	2.246	3.068	11.8	18.9	1 22	10 25.68	+ 4 52.1	1.238	2.118	15.7	20.3
2 1	10 17.92	- 3 41.0	2.181	3.078	9.0	18.7	2 1	10 19.92	+ 5 14.0	1.172	2.110	11.0	20.1
2 11	10 10.51	- 3 24.5	2.141	3.088	6.2	18.6	2 11	10 11.68	+ 5 55.7	1.127	2.102	5.7	19.7
2 21	10 2.46	- 2 52.9	2.130	3.098	4.5	18.5	2 21	10 2.06	+ 6 51.6	1.108	2.095	2.4	19.5
3 2	9 54.59	- 2 9.9	2.147	3.108	5.4	18.6	3 2	9 52.57	+ 7 53.6	1.114	2.088	6.9	19.7
3 12	9 47.71	+ 1 20.8	2.193	3.117	8.0	18.7	3 12	9 44.74	+ 8 52.2	1.145	2.082	12.3	20.0
3 22	9 42.44	- 0 30.6	2.264	3.127	10.7	18.9	3 22	9 39.68	+ 9 40.2	1.197	2.076	17.1	20.3
285698	2000 <i>SG</i> ₂₀₀		2 18.5	215°26'	4.6/12.8	18	252926	2002 <i>NS</i> ₅₉		2 18.5	255°17'	1.2/17.5	16
1 12	10 32.46	+29 25.3	3.216	4.007	9.3	21.9	1 12	10 30.52	+11 42.6	1.844	2.640	15.0	21.9
1 22	10 26.96	+30 10.6	3.127	3.997	7.5	21.7	1 22	10 26.63	+12 23.7	1.743	2.625	11.7	21.6
2 1	10 19.74	+30 53.6	3.065	3.987	5.7	21.6	2 1	10 20.18	+13 18.6	1.666	2.610	7.7	21.3
2 11	10 11.28	+31 29.3	3.031	3.977	4.6	21.5	2 11	10 11.70	+14 22.2	1.614	2.594	3.3	21.0
2 21	10 2.21	+31 53.5	3.028	3.966	5.2	21.5	2 21	10 2.07	+15 27.7	1.591	2.577	2.1	20.9
3 2	9 53.29	+32 3.2	3.054	3.954	6.8	21.6	3 2	9 52.46	+16 27.5	1.597	2.560	6.6	21.2
3 12	9 45.25	+31 57.3	3.108	3.942	8.8	21.7	3 12	9 44.06	+17 15.4	1.630	2.543	11.0	21.4
3 22	9 38.66	+31 36.6	3.186	3.930	10.8	21.9	3 22	9 37.81	+17 47.8	1.686	2.526	14.9	21.6
215903	2005 <i>GO</i> ₁₈₁		2 18.5	10°49'	0.7/18.0	18	86696	2000 <i>FO</i> ₄₉		2 18.5	279°36'	1.6/19.5	18 A
1 12	10 26.38	+ 9 51.4	1.276	2.100	18.9	20.1	1 12	10 32.23	+ 7 5.4	1.481	2.275	18.2	19.1
1 22	10 24.11	+10 26.0	1.206	2.101	14.7	19.8	1 22	10 28.49	+ 6 57.7	1.388	2.264	14.5	18.8
2 1	10 18.77	+11 19.9	1.155	2.104	9.7	19.6	2 1	10 21.69	+ 7 6.7	1.315	2.253	10.0	18.5
2 11	10 11.09	+12 26.6	1.127	2.107	4.2	19.3	2 11	10 12.44	+ 7 30.1	1.266	2.242	5.0	18.2
2 21	10 2.26	+13 37.3	1.124	2.112	1.9	19.1	2 21	10 1.82	+ 8 3.3	1.243	2.230	1.9	17.9
3 2	9 53.78	+14 41.8	1.147	2.117	7.5	19.5	3 2	9 51.27	+ 8 39.8	1.247	2.219	6.7	18.2
3 12	9 47.08	+15 32.2	1.193	2.123	12.7	19.8	3 12	9 42.28	+ 9 12.9	1.276	2.207	11.9	18.5
3 22	9 43.11	+16 4.0	1.261	2.130	17.1	20.0	3 22	9 35.93	+ 9 37.4	1.328	2.196	16.5	18.7
335929	2007 <i>TC</i> ₂₀		2 18.5	115°68'	0.1/18.6	18	54127	2000 <i>HN</i> ₂₉		2 18.5	204°34'	5°3/23.3	18
1 12	10 28.65	+ 9 19.6	2.681	3.452	11.5	21.6	1 12	10 30.07	- 5 47.8	2.323	3.030	14.8	19.3
1 22	10 24.04	+ 9 43.5	2.603	3.469	8.9	21.5	1 22	10 25.63	- 6 10.6	2.219	3.026	12.5	19.1
2 1	10 17.79	+10 16.5	2.550	3.486	5.9	21.3	2 1	10 19.16	- 6 15.1	2.136	3.021	9.8	18.9
2 11	10 10.41	+10 55.3	2.525	3.503	2.6	21.1	2 11	10 11.14	- 6 0.4	2.079	3.015	7.1	18.7
2 21	10 2.52	+11 36.3	2.531	3.519	0.8	21.0	2 21	10 2.30	- 5 27.5	2.048	3.009	5.4	18.6
3 2	9 54.87	+12 15.3	2.568	3.535	4.2	21.3	3 2	9 53.49	- 4 39.8	2.047	3.002	6.1	18.6
3 12	9 48.13	+12 49.0	2.634	3.550	7.2	21.5	3 12	9 45.64	- 3 42.6	2.074	2.995	8.6	18.8
3 22	9 42.82	+13 15.0	2.727	3.565	9.9	21.7	3 22	9 39.44	- 2 42.0	2.128	2.987	11.5	18.9
114888	2003 <i>QT</i> ₁₆		2 18.5	104°15'	0.1/18.6	18	43765	1988 <i>CF</i> ₄		2 18.5	119°23'	3°9/22.6	18
1 12	10 28.74	+ 8 37.6	2.227	3.006	13.3	20.8	1 12	10 26.80	- 3 11.5	2.500	3.224	13.5	19.1
1 22	10 24.47	+ 9 11.1	2.151	3.022	10.3	20.6	1 22	10 22.83	- 3 14.4	2.411	3.233	11.1	19.0
2 1	10 18.25	+ 9 56.7	2.099	3.037	6.8	20.4	2 1	10 17.13	- 3 0.6	2.344	3.242	8.4	18.8
2 11	10 10.65	+10 50.1	2.074	3.052	3.0	20.2	2 11	10 10.18	- 2 30.8	2.302	3.251	5.7	18.6
2 21	10 2.44	+11 46.4	2.079	3.067	1.0	20.1	2 21	10 2.64	- 1 47.4	2.289	3.260	3.9	18.5
3 2	9 54.48	+12 40.2	2.114	3.081	4.8	20.4	3 2	9 55.25	- 0 54.2	2.306	3.268	4.9	18.6
3 12	9 47.62	+13 26.6	2.177	3.095	8.4	20.6	3 12	9 48.76	+ 0 3.7	2.351	3.277	7.4	18.8
3 22	9 42.46	+14 2.8	2.266	3.109	11.5	20.8	3 22	9 43.75	+ 1 1.1	2.422	3.285	10.2	19.0
350404	2012 <i>VN</i> ₃₂		2 18.5	156°97'	1.3/19.5	18	404209	2013 <i>CQ</i> ₁₆₂		2 18.5	342°47'	1°9/17.6	18
1 12	10 33.49	+ 5 15.2	1.702	2.478	16.9	21.2	1 12	10 34.05	+15 48.9	1.257	2.082	19.0	20.8
1 22	10 28.84	+ 5 42.0	1.620	2.486	13.4	21.0	1 22	10 30.34	+15 43.3	1.178	2.075	14.9	20.5
2 1	10 21.53	+ 6 27.6	1.559	2.493	9.2	20.8	2 1	10 23.08	+15 46.3	1.119	2.069	9.9	20.2
2 11	10 12.21	+ 7 28.1	1.524	2.499	4.5	20.5	2 11	10 13.07	+15 52.2	1.083	2.063	4.4	19.8
2 21	10 1.91	+ 8 37.3	1.517	2.504	1.5	20.3	2 21	10 1.64	+15 54.4	1.072	2.058	2.8	19.7
3 2	9 51.85	+ 9 47.5	1.539	2.509	5.9	20.6	3 2	9 50.57	+15 47.1	1.087	2.054	8.3	20.0
3 12	9 43.27	+10 51.2	1.588	2.513	10.4	20.9	3 12	9 41.54	+15 27.0	1.125	2.051	13.6	20.3
3 22	9 37.02	+11 43.1	1.661	2.516	14.4	21.1	3 22	9 35.67	+14 53.8	1.184	2.049	18.3	20.6
468365	2016 <i>EF</i> ₁₉₆		2 18.5	275°48'	6.9/12.6	17	464740	2003 <i>NO</i> ₅		2 18.5	247°80'	5°7/23.8	17
1 12	10 35.43	+28 54.5	1.994	2.803	13.6	21.1	1 12	10 28.25	- 7 23.9	2.418	3.117	14.5	21.7
1 22	10 30.53	+29 57.8	1.899	2.780	11.0	20.9	1 22	10 24.25	- 7 45.9	2.303	3.101	12.4	21.5
2 1	10 22.81	+31 0.6	1.828	2.756	8.4	20.7	2 1	10 18.28	- 7 49.2	2.208	3.084	9.9	21.3
2 11	10 12.85	+31 53.9	1.783	2.733	6.9	20.6	2 11	10 10.79	- 7 32.7	2.138	3.067	7.4	21.1
2 21	10 1.67	+32 29.2	1.765	2.708	7.8	20.6	2 21	10 2.42	- 6 56.9	2.095	3.050	5.8	21.0
3 2	9 50.57	+32 40.6	1.775	2.684	10.4	20.7	3 2	9 54.00	- 6 4.6	2.080	3.032	6.3	21.0
3 12	9 40.89	+32 26.3	1.810	2.659	13.5	20.8	3 12	9 46.41	- 5 1.2	2.094	3.014	8.6	21.1
3 22	9 33.62	+31 48.2	1.866	2.635	16.4	20.9	3 22	9 40.37	- 3 52.8	2.134	2.995	11.4	21.2
450420	2005 <i>UF</i> ₁₂		2 18.5	173°56'	6.1/13.9	18	346719	2009 <i>AO</i> ₁₂		2 18.5	332°55'	1°0/17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
179170	2001 <i>TD</i> ₉₁		2 18.5 173°10	2°4/16.1	18		348928	2006 <i>TQ</i> ₄₁		2 18.5 189°84	2°7/15.0	17	
1 12	10 30.29	+18 42.6	2.602	3.397	11.2	20.7	1 12	10 29.22	+21 17.7	3.275	4.065	9.2	22.3
1 22	10 25.51	+19 13.0	2.517	3.398	8.6	20.5	1 22	10 24.38	+21 59.7	3.186	4.064	7.1	22.2
2 1	10 18.89	+19 47.1	2.457	3.400	5.7	20.4	2 1	10 18.03	+22 43.7	3.123	4.061	4.8	22.0
2 11	10 10.97	+20 20.5	2.425	3.401	3.0	20.2	2 11	10 10.59	+23 25.5	3.089	4.059	3.0	21.9
2 21	10 2.42	+20 48.6	2.424	3.401	3.0	20.2	2 21	10 2.63	+24 1.4	3.087	4.055	3.2	21.9
3 2	9 54.07	+21 7.9	2.453	3.402	5.7	20.4	3 2	9 54.79	+24 28.0	3.116	4.051	5.3	22.0
3 12	9 46.71	+21 16.0	2.510	3.402	8.6	20.5	3 12	9 47.71	+24 43.4	3.173	4.047	7.6	22.2
3 22	9 40.92	+21 12.1	2.592	3.402	11.2	20.7	3 22	9 41.88	+24 47.1	3.257	4.042	9.7	22.3
245495	2005 <i>QY</i> ₇₆		2 18.5 224°25	1°5/16.7	18		426612	2013 <i>SY</i> ₄₆		2 18.5 182°75	0°1/18.5	17	
1 12	10 27.19	+15 2.4	2.969	3.755	10.1	21.7	1 12	10 28.98	+ 9 15.8	2.142	2.925	13.6	21.8
1 22	10 23.00	+15 41.5	2.868	3.745	7.8	21.5	1 22	10 24.91	+ 9 46.4	2.053	2.926	10.6	21.6
2 1	10 17.21	+16 26.8	2.793	3.735	5.1	21.3	2 1	10 18.73	+10 29.4	1.986	2.926	7.1	21.3
2 11	10 10.25	+17 14.6	2.747	3.725	2.3	21.1	2 11	10 11.00	+11 20.9	1.947	2.926	3.1	21.1
2 21	10 2.68	+18 0.7	2.731	3.714	2.0	21.1	2 21	10 2.48	+12 15.7	1.937	2.925	1.1	20.9
3 2	9 55.17	+18 41.2	2.747	3.702	4.7	21.2	3 2	9 54.12	+13 8.2	1.957	2.924	5.2	21.2
3 12	9 48.41	+19 13.0	2.791	3.690	7.6	21.4	3 12	9 46.85	+13 53.2	2.005	2.923	9.0	21.4
3 22	9 42.94	+19 34.2	2.862	3.678	10.1	21.6	3 22	9 41.36	+14 27.4	2.078	2.922	12.3	21.7
500393	2012 <i>TC</i> ₈₉		2 18.5 229°45	1°1/19.7	18		363389	2002 <i>XH</i> ₄₃		2 18.5 103°97	6°0/24.2	18	
1 12	10 25.51	+ 4 26.9	2.361	3.128	13.0	21.2	1 12	10 31.56	- 7 56.8	2.097	2.797	16.4	21.9
1 22	10 22.06	+ 5 4.8	2.264	3.124	10.3	21.0	1 22	10 26.75	- 8 15.2	2.022	2.821	13.8	21.8
2 1	10 16.76	+ 5 58.0	2.190	3.120	7.1	20.8	2 1	10 19.83	- 8 11.5	1.967	2.844	10.9	21.6
2 11	10 10.10	+ 7 3.6	2.143	3.117	3.5	20.6	2 11	10 11.43	- 7 45.2	1.937	2.867	8.0	21.5
2 21	10 2.72	+ 8 16.9	2.125	3.113	1.2	20.4	2 21	10 2.36	- 6 58.4	1.933	2.889	6.1	21.4
3 2	9 55.44	+ 9 32.0	2.138	3.109	4.5	20.6	3 2	9 53.60	- 5 55.8	1.958	2.910	6.6	21.5
3 12	9 49.05	+10 43.1	2.180	3.104	8.0	20.8	3 12	9 46.05	- 4 44.2	2.011	2.931	8.8	21.7
3 22	9 44.19	+11 45.5	2.248	3.100	11.2	21.0	3 22	9 40.36	- 3 30.7	2.090	2.951	11.6	21.9
48858	1998 <i>HS</i> ₃		2 18.5 140°48	6°2/13.5	18		353655	2011 <i>UM</i> ₁₂₈		2 18.5 156°74	3°1/22.2	17	
1 12	10 35.90	+25 53.4	1.866	2.676	14.3	19.9	1 12	10 25.31	- 1 37.3	2.949	3.673	11.6	21.7
1 22	10 30.65	+27 5.8	1.800	2.685	11.3	19.7	1 22	10 21.48	- 1 40.2	2.851	3.676	9.5	21.5
2 1	10 22.67	+28 18.5	1.759	2.694	8.2	19.5	2 1	10 16.16	- 1 29.8	2.777	3.679	7.1	21.4
2 11	10 12.72	+29 22.3	1.744	2.702	6.2	19.4	2 11	10 9.79	- 1 6.7	2.729	3.681	4.7	21.2
2 21	10 1.88	+30 9.0	1.757	2.710	7.0	19.5	2 21	10 2.90	- 0 33.0	2.710	3.684	3.2	21.1
3 2	9 51.45	+30 33.0	1.798	2.717	9.6	19.7	3 2	9 56.10	+ 0 8.3	2.722	3.686	4.2	21.2
3 12	9 42.66	+30 33.1	1.864	2.723	12.7	19.9	3 12	9 50.03	+ 0 53.3	2.763	3.688	6.5	21.3
3 22	9 36.31	+30 11.4	1.951	2.730	15.5	20.1	3 22	9 45.18	+ 1 38.1	2.830	3.690	9.0	21.5
397187	2006 <i>BO</i> ₂₂		2 18.5 260°75	1°8/17.1	18		78921	2003 <i>SP</i> ₁₀₈		2 18.5 177°45	0°9/19.3	18	
1 12	10 29.24	+11 26.6	1.551	2.361	16.8	21.4	1 12	10 32.41	+ 7 7.6	1.962	2.737	15.0	20.7
1 22	10 26.05	+12 28.8	1.463	2.353	13.0	21.1	1 22	10 27.74	+ 7 22.1	1.873	2.739	11.9	20.5
2 1	10 20.01	+13 48.9	1.397	2.344	8.6	20.9	2 1	10 20.70	+ 7 50.7	1.806	2.740	8.1	20.2
2 11	10 11.71	+15 19.9	1.356	2.336	3.7	20.6	2 11	10 11.89	+ 8 30.3	1.765	2.741	3.8	20.0
2 21	10 2.18	+16 52.4	1.343	2.328	2.8	20.5	2 21	10 2.19	+ 9 16.2	1.753	2.741	1.2	19.8
3 2	9 52.75	+18 15.9	1.357	2.319	7.7	20.7	3 2	9 52.67	+10 2.6	1.771	2.741	5.4	20.1
3 12	9 44.79	+19 22.3	1.397	2.311	12.5	21.0	3 12	9 44.39	+10 44.1	1.817	2.740	9.5	20.3
3 22	9 39.31	+20 7.5	1.458	2.302	16.6	21.2	3 22	9 38.13	+11 16.7	1.888	2.738	13.1	20.5
499955	2011 <i>OP</i> ₄₅		2 18.5 171°18	2°9/14.8	17		194220	2001 <i>TK</i> ₁₃₉		2 18.5 237°75	5°3/14.9	18	
1 12	10 27.68	+20 10.6	3.018	3.813	9.8	22.5	1 12	10 35.08	+21 28.5	1.546	2.365	16.4	20.1
1 22	10 23.32	+21 8.2	2.935	3.816	7.5	22.4	1 22	10 30.69	+22 27.9	1.466	2.359	12.8	19.8
2 1	10 17.38	+22 9.1	2.878	3.819	5.0	22.2	2 1	10 23.12	+23 33.5	1.408	2.353	8.8	19.6
2 11	10 10.31	+23 8.6	2.851	3.821	3.1	22.1	2 11	10 13.09	+24 35.9	1.375	2.346	5.7	19.4
2 21	10 2.69	+24 2.0	2.855	3.823	3.4	22.1	2 21	10 1.78	+25 25.1	1.370	2.339	6.2	19.4
3 2	9 55.20	+24 45.3	2.889	3.825	5.6	22.3	3 2	9 50.74	+25 53.3	1.390	2.332	9.8	19.6
3 12	9 48.51	+25 16.0	2.952	3.826	8.1	22.4	3 12	9 41.47	+25 57.4	1.436	2.325	13.9	19.8
3 22	9 43.15	+25 33.3	3.039	3.827	10.3	22.6	3 22	9 35.00	+25 38.4	1.502	2.317	17.7	20.0
120528	1994 <i>PD</i> ₁₂		2 18.5 168°86	0°3/18.8	18 R		341513	2007 <i>TB</i> ₄₂₀		2 18.5 124°46	2°5/16.5	18	
1 12	10 28.31	+ 8 0.7	2.299	3.075	13.0	20.7	1 12	10 36.34	+20 9.9	2.521	3.307	11.8	20.6
1 22	10 24.22	+ 8 32.7	2.209	3.078	10.2	20.5	1 22	10 30.09	+20 18.3	2.442	3.318	9.1	20.5
2 1	10 18.18	+ 9 17.2	2.143	3.080	6.8	20.3	2 1	10 21.86	+20 28.1	2.388	3.328	6.0	20.3
2 11	10 10.72	+10 10.6	2.104	3.082	3.1	20.1	2 11	10 12.26	+20 35.2	2.364	3.338	3.2	20.1
2 21	10 2.55	+11 8.2	2.095	3.083	0.9	19.9	2 21	10 2.11	+20 35.8	2.370	3.348	3.0	20.1
3 2	9 54.53	+12 4.5	2.117	3.085	4.8	20.2	3 2	9 52.30	+20 27.3	2.408	3.358	5.7	20.3
3 12	9 47.51	+12 54.5	2.166	3.086	8.4	20.4	3 12	9 43.67	+20 8.5	2.474	3.367	8.7	20.5
3 22	9 42.14	+13 34.9	2.242	3.086	11.5	20.6	3 22	9 36.84	+19 39.7	2.566	3.376	11.3	20.7
403818	2011 <i>UY</i> ₁₄₄		2 18.5 189°02	2°6/20.3	18		51547	2001 <i>FX</i> ₁₅₉		2 18.5 234°02	2°3/20.1	18	
1 12	10 34.53	+ 3 53.2	1.948	2.707	15.7	21.5	1 12	10 31.20	+ 3 38.9	1.558	2.338	18.0	20.3
1 22	10 29.42	+ 3 42.8	1.854	2.706	12.6	21.2	1 22	10 27.53	+ 3 50.2	1.465	2.331	14.5	20.1
2 1	10 21.84	+ 3 47.4	1.781	2.705	8.9	21.0	2 1	10 20.98	+ 4 22.8	1.392	2.324	10.2	19.8
2 11	10 12.40	+ 4 5.8	1.734	2.703	5.0	20.8	2 11	10 12.16	+ 5 14.5	1.343	2.316	5.4	19.5
2 21	10 1.98	+ 4 34.7	1.717	2.701	2.6	20.6	2 21	10 2.08	+ 6 20.0	1.321	2.308	2.3	19.3
3 2	9 51.71	+ 5 9.5	1.728	2.697	5.5	20.8	3 2	9 52.07	+ 7 31.5	1.327	2.299	6.4	19.5
3 12	9 42.69	+ 5 44.9	1.768	2.693	9.5	21.0	3 12	9 43.51	+ 8 40.1	1.359	2.290	11.3	19.8
3 22	9 35.75	+ 6 16.2	1.833	2.689	13.2	21.2	3 22	9 37.41	+ 9 39.0	1.414	2.281	15.7	20.0
247663	2002 <i>XO</i> ₈₃		2 18.5 109°92	3°1/15.8	18		84731	2002 <i>WP</i> ₁₀		2 18.5 355°16	2°1/16.9	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
500047	2011 <i>SQ</i> ₂₆₂		2 18.5 241°87	3°9/23.3	17		48055	2001 <i>EQ</i> ₃		2 18.5 277°55	0°6/18.1	18	
1 12	10 24.17	- 5 46.1	2.628	3.340	13.2	22.0	1 12	10 30.59	+ 9 43.3	1.372	2.182	18.5	19.5
1 22	10 20.87	- 5 21.7	2.522	3.334	11.0	21.8	1 22	10 27.49	+10 16.8	1.284	2.173	14.5	19.2
2 1	10 15.92	- 4 37.9	2.437	3.328	8.4	21.6	2 1	10 21.20	+11 9.5	1.217	2.164	9.7	18.9
2 11	10 9.74	- 3 35.5	2.377	3.322	5.8	21.4	2 11	10 12.36	+12 16.1	1.174	2.154	4.2	18.6
2 21	10 2.92	- 2 17.2	2.347	3.316	4.0	21.3	2 21	10 2.09	+13 28.2	1.157	2.144	1.8	18.4
3 2	9 56.16	- 0 47.8	2.346	3.310	4.8	21.4	3 2	9 51.93	+14 35.8	1.166	2.135	7.6	18.7
3 12	9 50.17	+ 0 46.3	2.376	3.304	7.3	21.5	3 12	9 43.44	+15 30.2	1.200	2.125	13.0	19.0
3 22	9 45.53	+ 2 19.0	2.433	3.298	10.0	21.7	3 22	9 37.74	+16 6.5	1.255	2.116	17.7	19.2
489180	2006 <i>GG</i> ₅₄		2 18.5 241°05	3°6/15.5	17		43334	2000 <i>QM</i> ₁₁₇		2 18.5 86°37	0°9/17.8	18	
1 12	10 33.83	+18 37.9	1.936	2.739	14.2	22.3	1 12	10 28.30	+ 3 15.3	1.077	1.890	22.3	18.1
1 22	10 29.18	+19 32.6	1.838	2.723	11.0	22.1	1 22	10 26.19	+ 5 20.0	1.009	1.899	17.5	17.8
2 1	10 21.89	+20 35.4	1.763	2.707	7.4	21.8	2 1	10 20.53	+ 8 4.6	0.961	1.908	11.5	17.5
2 11	10 12.52	+21 39.2	1.716	2.690	4.2	21.6	2 11	10 12.09	+11 17.8	0.937	1.917	4.9	17.2
2 21	10 1.98	+22 36.0	1.698	2.673	4.4	21.6	2 21	10 2.21	+14 40.0	0.939	1.926	2.4	17.1
3 2	9 51.48	+23 18.9	1.709	2.655	7.9	21.7	3 2	9 52.68	+17 48.3	0.968	1.935	9.1	17.5
3 12	9 42.26	+23 43.5	1.746	2.636	11.8	21.9	3 12	9 45.24	+20 24.7	1.021	1.944	15.0	17.8
3 22	9 35.25	+23 48.8	1.806	2.617	15.3	22.1	3 22	9 41.01	+22 21.4	1.095	1.952	20.0	18.1
61441	2000 <i>QW</i> ₂₃		2 18.5 63°23	1°0/17.8	18		91559	1999 <i>RM</i> ₂₂₆		2 18.5 69°94	1°9/17.1	18	
1 12	10 30.85	+12 29.5	1.783	2.583	15.3	19.4	1 12	10 33.24	+16 0.7	1.881	2.682	14.6	19.8
1 22	10 26.68	+12 52.6	1.707	2.591	11.8	19.1	1 22	10 28.34	+16 18.7	1.810	2.695	11.2	19.6
2 1	10 20.04	+13 26.4	1.654	2.598	7.8	18.9	2 1	10 21.03	+16 43.4	1.763	2.708	7.3	19.4
2 11	10 11.60	+14 6.1	1.627	2.606	3.3	18.7	2 11	10 12.02	+17 9.5	1.742	2.721	3.4	19.2
2 21	10 2.33	+14 45.7	1.628	2.615	1.8	18.6	2 21	10 2.28	+17 31.6	1.750	2.734	2.6	19.2
3 2	9 53.39	+15 19.3	1.657	2.623	6.2	18.9	3 2	9 52.94	+17 45.1	1.787	2.747	6.4	19.4
3 12	9 45.85	+15 42.5	1.714	2.631	10.3	19.1	3 12	9 45.05	+17 47.3	1.851	2.760	10.2	19.7
3 22	9 40.49	+15 53.1	1.793	2.640	13.9	19.4	3 22	9 39.32	+17 37.5	1.938	2.773	13.5	19.9
343015	2009 <i>BU</i> ₉₃		2 18.5 109°19	0°1/18.4	18		170234	2003 <i>QG</i> ₂₃		2 18.5 95°96	2°4/20.5	18	
1 12	10 27.00	+ 8 50.3	2.535	3.311	12.0	21.4	1 12	10 30.22	+ 2 26.3	1.670	2.442	17.3	20.4
1 22	10 22.96	+ 9 32.3	2.456	3.326	9.3	21.3	1 22	10 26.31	+ 2 47.3	1.595	2.456	13.8	20.2
2 1	10 17.22	+10 25.1	2.402	3.340	6.1	21.1	2 1	10 19.86	+ 3 29.2	1.541	2.470	9.7	19.9
2 11	10 10.28	+11 24.9	2.376	3.354	2.6	20.9	2 11	10 11.57	+ 4 29.0	1.512	2.483	5.3	19.7
2 21	10 2.79	+12 26.8	2.381	3.368	0.9	20.8	2 21	10 2.41	+ 5 40.7	1.510	2.496	2.4	19.5
3 2	9 55.50	+13 25.9	2.416	3.382	4.4	21.1	3 2	9 53.57	+ 6 56.6	1.537	2.509	5.7	19.8
3 12	9 49.14	+14 17.8	2.480	3.395	7.6	21.3	3 12	9 46.17	+ 8 8.7	1.591	2.521	10.0	20.1
3 22	9 44.25	+14 59.6	2.570	3.408	10.4	21.5	3 22	9 41.00	+ 9 10.7	1.668	2.534	13.8	20.3
1704	Wachmann		2 18.5 331°77	0°8/19.0	18		225591	2000 <i>WL</i> ₁₀₃		2 18.5 120°63	3°3/15.1	18	
1 12	10 29.54	+ 8 1.5	1.262	2.076	19.6	16.0	1 12	10 29.47	+17 30.3	2.170	2.973	12.8	20.3
1 22	10 26.81	+ 8 8.5	1.181	2.070	15.6	15.7	1 22	10 25.27	+18 48.5	2.099	2.985	9.8	20.1
2 1	10 20.79	+ 8 35.0	1.119	2.063	10.6	15.4	2 1	10 18.95	+20 14.0	2.053	2.998	6.5	19.9
2 11	10 12.17	+ 9 17.6	1.079	2.057	4.9	15.0	2 11	10 11.11	+21 39.6	2.035	3.009	3.7	19.8
2 21	10 2.13	+10 9.2	1.064	2.052	1.5	14.8	2 21	10 2.56	+22 58.0	2.047	3.021	4.0	19.8
3 2	9 52.29	+11 1.2	1.075	2.047	7.3	15.1	3 2	9 54.25	+24 2.7	2.089	3.032	7.0	20.0
3 12	9 44.26	+11 45.1	1.109	2.043	12.9	15.4	3 12	9 47.11	+24 49.8	2.158	3.043	10.1	20.2
3 22	9 39.14	+12 15.4	1.164	2.040	17.7	15.7	3 22	9 41.79	+25 18.3	2.251	3.053	13.0	20.4
493048	2014 <i>SO</i> ₂₆₅		2 18.5 242°62	0°7/17.9	17		212316	2005 <i>QP</i> ₆₀		2 18.5 241°47	0°5/18.9	17	
1 12	10 30.79	+ 9 47.9	1.916	2.704	14.8	22.2	1 12	10 28.80	+ 9 4.9	2.796	3.563	11.2	21.1
1 22	10 26.80	+10 34.8	1.813	2.689	11.6	22.0	1 22	10 24.33	+ 9 11.3	2.688	3.551	8.8	20.9
2 1	10 20.31	+11 37.4	1.732	2.673	7.7	21.7	2 1	10 18.17	+ 9 26.2	2.605	3.539	5.9	20.7
2 11	10 11.85	+12 51.0	1.678	2.657	3.3	21.4	2 11	10 10.75	+ 9 47.3	2.550	3.526	2.7	20.5
2 21	10 2.25	+14 8.6	1.652	2.639	1.6	21.2	2 21	10 2.67	+10 11.7	2.525	3.513	0.8	20.3
3 2	9 52.63	+15 22.5	1.657	2.621	6.2	21.5	3 2	9 54.64	+10 36.1	2.531	3.499	4.1	20.5
3 12	9 44.14	+16 25.7	1.689	2.603	10.6	21.7	3 12	9 47.39	+10 57.2	2.567	3.486	7.3	20.7
3 22	9 37.71	+17 13.8	1.744	2.584	14.5	21.9	3 22	9 41.50	+11 12.8	2.630	3.472	10.1	20.9
522675	2016 <i>GG</i> ₂₆₇		2 18.5 181°80	4°8/12.8	16		285437	1999 <i>VJ</i> ₁₄₈		2 18.5 139°69	3°4/15.7	18	
1 12	10 29.96	+26 4.8	2.657	3.459	10.8	21.5	1 12	10 33.16	+18 0.5	1.871	2.677	14.5	21.0
1 22	10 25.41	+27 15.2	2.579	3.460	8.4	21.3	1 22	10 28.45	+18 57.5	1.798	2.685	11.1	20.8
2 1	10 18.94	+28 26.1	2.528	3.460	6.2	21.2	2 1	10 21.22	+20 1.8	1.748	2.693	7.4	20.6
2 11	10 11.08	+29 31.0	2.505	3.460	4.9	21.1	2 11	10 12.15	+21 5.9	1.726	2.701	4.0	20.4
2 21	10 2.54	+30 24.0	2.512	3.460	5.5	21.1	2 21	10 2.22	+22 2.2	1.732	2.708	4.2	20.4
3 2	9 54.17	+31 0.9	2.548	3.459	7.6	21.3	3 2	9 52.62	+22 44.3	1.766	2.715	7.6	20.6
3 12	9 46.79	+31 19.7	2.611	3.457	9.9	21.4	3 12	9 44.44	+23 8.7	1.828	2.721	11.2	20.9
3 22	9 41.04	+31 20.7	2.697	3.455	12.1	21.6	3 22	9 38.49	+23 14.9	1.912	2.727	14.4	21.1
76188	2000 <i>EY</i> ₄₀		2 18.5 313°17	0°4/18.8	18		33849	2000 <i>HL</i> ₁₃		2 18.5 232°66	0°6/19.0	18	
1 12	10 27.10	+ 8 24.3	2.073	2.859	13.9	19.6	1 12	10 32.79	+ 7 49.6	1.788	2.571	16.0	20.4
1 22	10 23.58	+ 8 46.0	1.980	2.854	10.9	19.3	1 22	10 28.45	+ 8 6.6	1.689	2.560	12.6	20.1
2 1	10 17.93	+ 9 20.6	1.910	2.849	7.3	19.1	2 1	10 21.46	+ 8 39.2	1.612	2.549	8.6	19.9
2 11	10 10.71	+10 4.9	1.866	2.844	3.3	18.9	2 11	10 12.37	+ 9 24.0	1.560	2.537	4.0	19.6
2 21	10 2.66	+10 54.1	1.851	2.839	1.0	18.7	2 21	10 2.11	+10 15.6	1.536	2.524	1.2	19.3
3 2	9 54.74	+11 42.7	1.865	2.834	5.1	18.9	3 2	9 51.89	+11 7.4	1.542	2.511	6.0	19.6
3 12	9 47.88	+12 25.3	1.906	2.830	9.1	19.2	3 12	9 42.95	+11 53.1	1.574	2.497	10.6	19.8
3 22	9 42.81	+12 58.4	1.972	2.825	12.5	19.4	3 22	9 36.25	+12 27.9	1.631	2.483	14.7	20.1
495383	2014 <i>QO</i> ₉₈		2 18.5 224°77	2°6/20.4	17		200359						

EPHEMERIDES

2 18.5

2 18.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
148836	2001 UN ₁₉₆	2 18.5 172°55'		0°4'/18.1 18			369626	2011 DO ₁₈	2 18.5 53°01'		3°6'/16.2 18		
1 12	10 27.76	+11 8.3	2.847	3.623	10.8	21.2	1 12	10 35.04	+20 29.4	1.777	2.586	15.0	19.9
1 22	10 23.43	+11 35.6	2.755	3.625	8.3	21.1	1 22	10 29.93	+20 50.6	1.709	2.597	11.6	19.7
2 1	10 17.50	+12 10.9	2.689	3.628	5.5	20.9	2 1	10 22.17	+21 14.7	1.663	2.608	7.7	19.5
2 11	10 10.43	+12 51.0	2.651	3.629	2.4	20.7	2 11	10 12.55	+21 35.5	1.644	2.619	4.3	19.4
2 21	10 2.80	+13 32.1	2.644	3.631	1.0	20.6	2 21	10 2.16	+21 47.0	1.653	2.630	4.2	19.4
3 2	9 55.30	+14 10.4	2.667	3.632	4.2	20.8	3 2	9 52.25	+21 44.9	1.690	2.641	7.5	19.6
3 12	9 48.61	+14 42.6	2.720	3.632	7.2	21.0	3 12	9 43.96	+21 27.9	1.753	2.653	11.2	19.8
3 22	9 43.25	+15 6.5	2.800	3.633	9.8	21.2	3 22	9 38.05	+20 56.6	1.839	2.665	14.5	20.1
38414	1999 RT ₂₁₃	2 18.5 163°95'		0°0'/18.6 18			173146	1995 UM	2 18.5 71°30'		3°7'/21.3 18		
1 12	10 28.86	+ 8 52.3	2.192	2.973	13.5	20.3	1 12	10 30.33	+ 0 44.4	1.595	2.364	18.2	19.9
1 22	10 24.76	+ 9 24.3	2.104	2.976	10.5	20.1	1 22	10 26.51	+ 0 39.1	1.521	2.376	14.7	19.7
2 1	10 18.63	+10 8.8	2.040	2.978	7.0	19.9	2 1	10 20.07	+ 0 55.5	1.467	2.389	10.6	19.5
2 11	10 10.99	+11 1.8	2.003	2.981	3.1	19.7	2 11	10 11.70	+ 1 32.0	1.437	2.402	6.4	19.3
2 21	10 2.61	+11 58.3	1.995	2.983	1.0	19.5	2 21	10 2.42	+ 2 24.2	1.434	2.415	3.7	19.1
3 2	9 54.40	+12 52.6	2.017	2.984	5.0	19.8	3 2	9 53.48	+ 3 25.3	1.457	2.428	6.1	19.3
3 12	9 47.25	+13 39.7	2.067	2.986	8.7	20.0	3 12	9 46.05	+ 4 27.5	1.508	2.441	10.2	19.6
3 22	9 41.83	+14 16.3	2.143	2.987	12.0	20.3	3 22	9 40.93	+ 5 23.9	1.582	2.454	14.0	19.8
300132	2006 VY ₅₀	2 18.5 208°30'		8°1'/29.3 18			461587	2004 RL ₁₈₀	2 18.5 136°99'		3°9'/22.8 18		
1 12	10 27.81	-22 33.1	3.377	3.937	12.7	21.9	1 12	10 28.16	- 4 3.5	2.427	3.145	14.0	22.0
1 22	10 23.44	-23 22.6	3.267	3.931	11.6	21.8	1 22	10 23.97	- 3 52.8	2.338	3.157	11.5	21.8
2 1	10 17.54	-23 54.3	3.174	3.924	10.4	21.6	2 1	10 17.98	- 3 23.5	2.271	3.168	8.7	21.7
2 11	10 10.48	-24 5.5	3.103	3.916	9.2	21.5	2 11	10 10.68	- 2 36.8	2.230	3.178	5.8	21.5
2 21	10 2.78	-23 55.1	3.056	3.908	8.3	21.5	2 21	10 2.76	- 1 35.5	2.217	3.189	4.0	21.4
3 2	9 55.07	-23 23.8	3.036	3.900	8.1	21.4	3 2	9 55.01	- 0 24.3	2.234	3.198	4.9	21.5
3 12	9 48.00	-22 34.4	3.041	3.891	8.6	21.5	3 12	9 48.20	+ 0 50.6	2.281	3.207	7.6	21.7
3 22	9 42.10	-21 31.5	3.071	3.881	9.6	21.5	3 22	9 42.93	+ 2 3.6	2.355	3.216	10.4	21.9
55616	2002 TA ₇₈	2 18.5 29°21'		1°0'/19.3 18			137104	1998 YU ₃₀	2 18.5 38°13'		3°8'/15.8 18		
1 12	10 27.95	+ 7 29.0	1.939	2.725	14.8	18.5	1 12	10 28.79	+16 4.7	1.314	2.145	18.0	19.1
1 22	10 24.27	+ 7 36.3	1.858	2.730	11.6	18.3	1 22	10 25.80	+17 16.3	1.262	2.164	13.7	18.9
2 1	10 18.39	+ 7 56.9	1.799	2.736	7.9	18.1	2 1	10 19.77	+18 39.5	1.231	2.183	9.0	18.7
2 11	10 10.90	+ 8 27.8	1.766	2.742	3.8	17.9	2 11	10 11.58	+20 3.8	1.225	2.203	4.6	18.5
2 21	10 2.66	+ 9 4.7	1.761	2.749	1.2	17.7	2 21	10 2.49	+21 18.6	1.244	2.223	4.8	18.5
3 2	9 54.65	+ 9 42.4	1.785	2.756	5.1	18.0	3 2	9 53.98	+22 14.7	1.290	2.245	8.9	18.8
3 12	9 47.85	+10 15.8	1.836	2.763	9.1	18.2	3 12	9 47.38	+22 47.6	1.359	2.267	13.2	19.1
3 22	9 42.95	+10 41.4	1.911	2.771	12.6	18.5	3 22	9 43.47	+22 57.2	1.448	2.289	16.9	19.4
210041	2006 OP ₁₄	2 18.5 145°85'		0°5'/19.1 17			497998	2007 EH ₅₀	2 18.5 281°30'		0°5'/18.9 17		
1 12	10 26.33	+ 6 39.5	2.987	3.747	10.7	21.4	1 12	10 29.17	+ 8 31.9	1.908	2.695	14.9	21.9
1 22	10 22.23	+ 7 18.7	2.898	3.757	8.3	21.3	1 22	10 25.45	+ 8 46.5	1.810	2.684	11.8	21.6
2 1	10 16.66	+ 8 8.4	2.835	3.767	5.6	21.1	2 1	10 19.36	+ 9 14.8	1.734	2.673	8.0	21.4
2 11	10 10.05	+ 9 5.7	2.801	3.776	2.6	20.9	2 11	10 11.42	+ 9 53.6	1.684	2.662	3.7	21.1
2 21	10 2.95	+10 6.7	2.797	3.785	0.8	20.8	2 21	10 2.49	+10 38.0	1.662	2.650	1.1	20.9
3 2	9 55.98	+11 7.1	2.825	3.793	3.7	21.0	3 2	9 53.63	+11 22.3	1.669	2.639	5.6	21.2
3 12	9 49.76	+12 3.0	2.884	3.801	6.6	21.2	3 12	9 45.94	+12 0.7	1.703	2.628	9.9	21.4
3 22	9 44.77	+12 51.3	2.969	3.808	9.2	21.4	3 22	9 40.24	+12 29.5	1.761	2.616	13.7	21.6
222292	2000 SS ₁₆₆	2 18.5 185°07'		2°8'/21.1 18			333089	2011 UD ₁₇₅	2 18.5 234°45'		0°5'/18.9 18		
1 12	10 29.92	+ 1 17.0	2.342	3.086	13.7	20.6	1 12	10 33.99	+ 8 54.6	1.792	2.576	15.9	21.4
1 22	10 25.46	+ 1 15.0	2.245	3.086	11.1	20.4	1 22	10 29.38	+ 9 2.1	1.693	2.565	12.6	21.1
2 1	10 19.05	+ 1 27.9	2.170	3.086	8.1	20.2	2 1	10 22.08	+ 9 23.1	1.616	2.554	8.5	20.9
2 11	10 11.18	+ 1 54.6	2.122	3.085	4.8	20.0	2 11	10 12.67	+ 9 54.5	1.565	2.542	3.9	20.6
2 21	10 2.57	+ 2 32.4	2.103	3.083	2.8	19.9	2 21	10 2.08	+10 31.3	1.542	2.530	1.2	20.3
3 2	9 54.07	+ 3 17.0	2.114	3.082	4.8	20.0	3 2	9 51.55	+11 7.8	1.548	2.517	6.0	20.6
3 12	9 46.53	+ 4 3.6	2.153	3.079	8.0	20.2	3 12	9 42.34	+11 38.3	1.581	2.504	10.6	20.9
3 22	9 40.63	+ 4 47.6	2.219	3.077	11.1	20.4	3 22	9 35.39	+11 59.1	1.638	2.490	14.7	21.1
471346	2011 QP ₄₄	2 18.5 250°55'		0°8'/19.3 17			419964	2011 BW ₁₁₇	2 18.5 90°02'		1°1'/17.7 18		
1 12	10 30.96	+ 8 25.3	2.729	3.491	11.6	22.1	1 12	10 34.23	+12 48.1	1.957	2.746	14.6	22.1
1 22	10 26.09	+ 8 22.4	2.614	3.473	9.1	21.9	1 22	10 28.89	+13 15.0	1.895	2.772	11.2	21.9
2 1	10 19.40	+ 8 28.1	2.523	3.455	6.2	21.7	2 1	10 21.28	+13 51.0	1.855	2.797	7.3	21.7
2 11	10 11.33	+ 8 40.3	2.461	3.436	3.0	21.4	2 11	10 12.12	+14 31.0	1.843	2.822	3.1	21.5
2 21	10 2.52	+ 8 56.6	2.430	3.417	1.0	21.3	2 21	10 2.35	+15 9.6	1.860	2.846	1.8	21.4
3 2	9 53.70	+ 9 13.7	2.429	3.397	4.2	21.5	3 2	9 53.03	+15 41.6	1.907	2.870	5.7	21.7
3 12	9 45.68	+ 9 28.7	2.459	3.377	7.5	21.6	3 12	9 45.13	+16 3.5	1.982	2.894	9.4	22.0
3 22	9 39.09	+ 9 39.0	2.515	3.357	10.5	21.8	3 22	9 39.30	+16 13.6	2.081	2.917	12.6	22.3
109568	2001 QE ₂₆₇	2 18.5 84°55'		2°4'/20.1 18			505119	2012 DU ₈₃	2 18.5 268°56'		9°5'/10.0 17		
1 12	10 36.27	+ 5 54.7	1.802	2.570	16.4	19.2	1 12	10 47.46	+39 55.6	2.260	3.033	13.3	22.3
1 22	10 30.71	+ 5 24.1	1.727	2.586	13.0	19.0	1 22	10 39.99	+41 0.6	2.163	3.004	11.5	22.1
2 1	10 22.63	+ 5 6.6	1.675	2.602	9.1	18.8	2 1	10 29.21	+41 56.5	2.090	2.973	10.0	21.9
2 11	10 12.75	+ 5 0.9	1.648	2.619	4.9	18.6	2 11	10 15.83	+42 32.9	2.043	2.942	9.5	21.8
2 21	10 2.08	+ 5 4.3	1.650	2.635	2.5	18.5	2 21	10 1.08	+42 41.1	2.023	2.910	10.3	21.8
3 2	9 51.82	+ 5 13.0	1.681	2.650	5.6	18.7	3 2	9 46.53	+42 16.4	2.030	2.877	12.2	21.9
3 12	9 43.07	+ 5 22.8	1.740	2.666	9.6	19.0	3 12	9 33.77	+41 19.9	2.062	2.844	14.6	22.0
3 22	9 36.58	+ 5 30.1	1.823	2.681	13.1	19.2	3 22	9 23.88	+39 56.7	2.114	2.809	16.8	22.1
209417	2004 FH ₃₂	2 18.5 330°58'		9°4'/ 7.4 18			458841	2011 UA ₅₃	2 18.5 97°52'		0°8'/17.9 18		
1 12	10 26.18	+32 34.7	1.839	2.666	13.8								

EPHEMERIDES

2 18.5

2 18.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
189044	2000 <i>PB</i> ₃		2 18.5 138°24	5°2/23.9	18		319831	2006 <i>VE</i> ₁₂₇		2 18.6 280°55	2°1/20.5	17	
1 12	10 29.75	- 7 3.0	2.433	3.130	14.4	20.6	1 12	10 27.80	+ 4 7.3	2.471	3.229	12.7	20.9
1 22	10 25.21	- 7 18.7	2.344	3.143	12.2	20.5	1 22	10 23.86	+ 4 1.5	2.360	3.213	10.2	20.7
2 1	10 18.82	- 7 15.6	2.276	3.154	9.6	20.3	2 1	10 18.05	+ 4 7.9	2.273	3.197	7.3	20.4
2 11	10 11.08	- 6 53.4	2.233	3.165	7.0	20.2	2 11	10 10.82	+ 4 25.2	2.212	3.181	4.1	20.2
2 21	10 2.69	- 6 13.7	2.218	3.176	5.3	20.1	2 21	10 2.81	+ 4 51.0	2.180	3.164	2.1	20.0
3 2	9 54.46	- 5 20.1	2.233	3.186	5.8	20.1	3 2	9 54.81	+ 5 21.7	2.178	3.148	4.5	20.2
3 12	9 47.20	- 4 18.1	2.276	3.195	8.0	20.3	3 12	9 47.64	+ 5 53.4	2.205	3.132	7.8	20.4
3 22	9 41.52	- 3 13.5	2.345	3.204	10.6	20.4	3 22	9 41.96	+ 6 22.1	2.258	3.115	11.0	20.5
354071	2001 <i>UD</i> ₈₃		2 18.5 91°71	3°5/16.1	18		465806	2010 <i>CF</i> ₁₅₃		2 18.6 132°67	0°1/18.5	17	
1 12	10 35.31	+16 51.0	1.511	2.323	17.0	21.2	1 12	10 32.13	+11 18.8	2.266	3.046	13.1	21.5
1 22	10 30.51	+17 48.9	1.452	2.343	13.0	21.0	1 22	10 27.18	+11 21.2	2.180	3.051	10.2	21.3
2 1	10 22.74	+18 55.8	1.415	2.362	8.5	20.8	2 1	10 20.19	+11 31.9	2.118	3.056	6.8	21.1
2 11	10 12.87	+20 3.1	1.404	2.381	4.4	20.6	2 11	10 11.71	+11 47.8	2.083	3.061	3.0	20.8
2 21	10 2.12	+21 1.4	1.421	2.400	4.3	20.6	2 21	10 2.55	+12 5.4	2.078	3.066	1.0	20.7
3 2	9 51.94	+21 43.5	1.465	2.418	8.3	20.9	3 2	9 53.61	+12 20.7	2.103	3.070	4.9	21.0
3 12	9 43.62	+22 5.7	1.534	2.436	12.4	21.2	3 12	9 45.79	+12 30.7	2.157	3.075	8.5	21.2
3 22	9 37.97	+22 7.9	1.625	2.453	16.0	21.5	3 22	9 39.74	+12 33.3	2.236	3.079	11.6	21.4
337776	2001 <i>UM</i> ₁₇₂		2 18.5 37°14	2°9/16.1	18		108857	2001 <i>OV</i> ₉₅		2 18.6 226°08	5°8/22.9	18	
1 12	10 29.12	+18 2.0	1.931	2.742	13.9	20.3	1 12	10 30.90	- 4 30.1	1.990	2.715	16.4	19.7
1 22	10 25.18	+18 40.0	1.864	2.754	10.6	20.1	1 22	10 26.70	- 5 5.7	1.890	2.709	13.8	19.5
2 1	10 18.97	+19 23.6	1.821	2.767	7.0	19.9	2 1	10 20.17	- 5 22.1	1.811	2.703	10.8	19.3
2 11	10 11.17	+20 6.8	1.804	2.780	3.6	19.7	2 11	10 11.82	- 5 17.8	1.755	2.697	7.8	19.1
2 21	10 2.68	+20 43.5	1.816	2.794	3.6	19.8	2 21	10 2.48	- 4 53.7	1.727	2.691	5.8	19.0
3 2	9 54.55	+21 8.7	1.855	2.808	6.8	20.0	3 2	9 53.19	- 4 13.0	1.726	2.684	6.8	19.0
3 12	9 47.76	+21 19.4	1.922	2.823	10.3	20.2	3 12	9 45.00	- 3 21.6	1.753	2.677	9.7	19.2
3 22	9 42.97	+21 15.3	2.011	2.838	13.4	20.5	3 22	9 38.75	- 2 26.3	1.804	2.670	12.9	19.4
379626	2011 <i>DN</i> ₉		2 18.6 262°55	0°2/18.4	17		406881	2009 <i>CB</i> ₅₇		2 18.6 341°42	2°1/17.3	18	
1 12	10 27.76	+ 8 59.9	2.030	2.818	14.1	21.2	1 12	10 34.03	+15 36.9	1.464	2.279	17.4	20.9
1 22	10 24.22	+ 9 36.3	1.934	2.810	11.1	21.0	1 22	10 29.88	+15 50.8	1.385	2.276	13.5	20.7
2 1	10 18.46	+10 26.8	1.861	2.801	7.4	20.7	2 1	10 22.62	+16 14.0	1.326	2.273	8.9	20.4
2 11	10 11.03	+11 27.4	1.814	2.793	3.2	20.4	2 11	10 12.97	+16 40.3	1.292	2.271	4.1	20.1
2 21	10 2.70	+12 32.2	1.796	2.784	1.2	20.3	2 21	10 2.13	+17 2.9	1.284	2.269	3.0	20.0
3 2	9 54.44	+13 34.8	1.808	2.776	5.5	20.5	3 2	9 51.61	+17 15.6	1.304	2.268	7.7	20.3
3 12	9 47.27	+14 29.3	1.847	2.767	9.5	20.8	3 12	9 42.87	+17 14.3	1.348	2.266	12.5	20.6
3 22	9 41.94	+15 11.6	1.911	2.758	13.1	21.0	3 22	9 36.88	+16 58.3	1.414	2.265	16.7	20.8
244469	2002 <i>RC</i> ₂₃₇		2 18.6 80°02	4°3/14.6	18		32704	2140 <i>T</i> ₋₂		2 18.6 257°60	4°1/14.5	18	
1 12	10 31.08	+22 33.5	2.123	2.932	12.9	20.6	1 12	10 31.85	+24 11.8	2.557	3.357	11.2	18.1
1 22	10 26.57	+23 26.7	2.056	2.943	9.9	20.5	1 22	10 27.00	+24 51.4	2.462	3.343	8.8	17.9
2 1	10 19.83	+24 22.0	2.014	2.955	6.9	20.3	2 1	10 20.12	+25 31.9	2.391	3.328	6.2	17.7
2 11	10 11.54	+25 12.7	1.999	2.966	4.6	20.2	2 11	10 11.72	+26 7.8	2.349	3.313	4.3	17.5
2 21	10 2.57	+25 52.4	2.012	2.978	5.0	20.2	2 21	10 2.54	+26 34.0	2.336	3.298	4.7	17.5
3 2	9 53.93	+26 16.6	2.054	2.989	7.6	20.4	3 2	9 53.49	+26 46.4	2.352	3.282	7.1	17.7
3 12	9 46.59	+26 23.2	2.123	3.000	10.6	20.6	3 12	9 45.44	+26 43.2	2.396	3.267	9.8	17.8
3 22	9 41.21	+26 12.7	2.214	3.012	13.3	20.8	3 22	9 39.09	+26 24.5	2.464	3.251	12.4	18.0
497533	2006 <i>BB</i> ₂₃₆		2 18.6 100°40	2°9/15.9	18		131364	2001 <i>KR</i> ₇		2 18.6 161°04	4°3/14.1	18	
1 12	10 29.99	+17 16.9	2.005	2.811	13.6	21.3	1 12	10 29.85	+22 45.4	2.381	3.186	11.8	20.0
1 22	10 25.86	+18 9.7	1.931	2.818	10.5	21.1	1 22	10 25.50	+23 50.4	2.304	3.189	9.1	19.8
2 1	10 19.46	+19 9.8	1.880	2.825	6.9	20.9	2 1	10 19.12	+24 58.0	2.253	3.192	6.3	19.7
2 11	10 11.41	+20 10.6	1.856	2.832	3.6	20.7	2 11	10 11.27	+26 1.8	2.230	3.195	4.4	19.6
2 21	10 2.60	+21 5.2	1.861	2.839	3.7	20.8	2 21	10 2.70	+26 55.4	2.236	3.197	5.0	19.6
3 2	9 54.05	+21 48.0	1.895	2.846	6.9	21.0	3 2	9 54.33	+27 34.0	2.271	3.199	7.4	19.7
3 12	9 46.77	+22 15.0	1.956	2.853	10.4	21.2	3 12	9 47.06	+27 55.0	2.333	3.201	10.1	19.9
3 22	9 41.47	+22 25.5	2.040	2.859	13.5	21.4	3 22	9 41.53	+27 58.4	2.419	3.203	12.7	20.1
208976	2002 <i>YC</i> ₅		2 18.6 34°55	10°7/13.5	18		496181	2011 <i>CM</i> ₁₁₂		2 18.6 232°48	1°8/20.0	17	
1 12	10 49.32	+40 29.7	1.622	2.413	17.0	19.3	1 12	10 31.65	+ 5 30.5	2.321	3.080	13.4	22.3
1 22	10 41.10	+41 3.8	1.587	2.441	14.3	19.1	1 22	10 26.92	+ 5 23.0	2.215	3.070	10.7	22.1
2 1	10 29.38	+41 21.0	1.574	2.469	12.0	19.1	2 1	10 20.13	+ 5 27.3	2.132	3.059	7.5	21.9
2 11	10 15.54	+41 10.8	1.585	2.498	10.8	19.1	2 11	10 11.75	+ 5 41.8	2.077	3.048	4.0	21.7
2 21	10 1.38	+40 28.1	1.621	2.528	11.2	19.2	2 21	10 2.53	+ 6 3.9	2.051	3.036	1.8	21.5
3 2	9 48.69	+39 13.7	1.683	2.558	12.9	19.3	3 2	9 53.35	+ 6 29.7	2.055	3.024	4.7	21.7
3 12	9 38.79	+37 33.7	1.768	2.589	15.0	19.5	3 12	9 45.13	+ 6 55.3	2.088	3.012	8.4	21.9
3 22	9 32.27	+35 36.4	1.874	2.620	17.2	19.8	3 22	9 38.60	+ 7 17.1	2.147	2.999	11.7	22.1
457723	2009 <i>FM</i> ₆₃		2 18.6 325°54	0°1/18.6	16		324504	2006 <i>UQ</i> ₃₃₄		2 18.6 2°47	1°4/19.5	18	
1 12	10 27.70	+ 8 44.3	1.422	2.232	18.0	21.4	1 12	10 27.06	+ 6 42.3	1.380	2.188	18.6	20.5
1 22	10 25.09	+ 9 8.1	1.335	2.223	14.2	21.2	1 22	10 24.53	+ 6 45.8	1.303	2.187	14.7	20.2
2 1	10 19.54	+ 9 50.7	1.268	2.213	9.5	20.9	2 1	10 19.09	+ 7 8.4	1.245	2.186	10.1	19.9
2 11	10 11.65	+10 47.5	1.225	2.204	4.3	20.5	2 11	10 11.43	+ 7 46.8	1.210	2.187	5.0	19.6
2 21	10 2.49	+11 51.3	1.208	2.196	1.4	20.3	2 21	10 2.64	+ 8 35.2	1.200	2.188	1.7	19.4
3 2	9 53.45	+12 53.3	1.217	2.188	7.0	20.6	3 2	9 54.11	+ 9 25.9	1.217	2.190	6.5	19.7
3 12	9 45.96	+13 45.2	1.251	2.181	12.2	20.9	3 12	9 47.21	+10 11.0	1.258	2.194	11.5	20.0
3 22	9 41.05	+14 21.9	1.306	2.174	16.7	21.2	3 22	9 42.86	+10 45.1	1.320	2.198	15.9	20.3
68877	2002 <i>JW</i> ₄₂		2 18.6 126°02	4°1/23.3	18		283168	2009 <i>DT</i> ₁₁₇		2 18.6 183°02	1°7/20.9	18	

EPHEMERIDES

2 18.6

2 18.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
327474	2005 YW ₁₈		2 18.6 170°50	0°5/19.0	18		328631	2009 SG ₁₉₀		2 18.6 256°75	2°4/20.5	17	
1 12	10 29.91	+ 8 3.3	2.051	2.831	14.3	21.4	1 12	10 29.57	+ 3 34.3	1.954	2.721	15.3	21.1
1 22	10 25.75	+ 8 22.3	1.963	2.833	11.2	21.2	1 22	10 25.72	+ 3 34.1	1.854	2.712	12.4	20.8
2 1	10 19.41	+ 8 54.4	1.897	2.834	7.5	21.0	2 1	10 19.54	+ 3 50.2	1.776	2.703	8.8	20.6
2 11	10 11.44	+ 9 36.2	1.858	2.835	3.5	20.7	2 11	10 11.57	+ 4 20.9	1.724	2.693	4.9	20.3
2 21	10 2.66	+ 10 22.9	1.848	2.836	1.0	20.6	2 21	10 2.63	+ 5 2.9	1.699	2.684	2.4	20.2
3 2	9 54.05	+ 11 9.1	1.867	2.836	5.1	20.8	3 2	9 53.74	+ 5 51.0	1.703	2.674	5.3	20.3
3 12	9 46.59	+ 11 49.7	1.914	2.837	9.1	21.1	3 12	9 45.97	+ 6 39.0	1.735	2.664	9.4	20.5
3 22	9 40.99	+ 12 20.9	1.986	2.837	12.5	21.3	3 22	9 40.14	+ 7 21.9	1.791	2.655	13.1	20.8
383627	2007 RO ₄₂		2 18.6 268°32	1°3/19.6	17		313162	2001 FS		2 18.6 300°28	1°1/17.6	17	
1 12	10 29.55	+ 6 56.1	2.202	2.974	13.7	21.0	1 12	10 26.16	+ 8 36.2	1.564	2.371	16.8	20.2
1 22	10 25.34	+ 6 54.0	2.108	2.972	10.8	20.8	1 22	10 23.96	+ 9 43.9	1.453	2.340	13.3	19.9
2 1	10 19.07	+ 7 3.5	2.038	2.970	7.4	20.5	2 1	10 18.93	+ 11 15.8	1.363	2.309	8.9	19.6
2 11	10 11.27	+ 7 22.6	1.994	2.968	3.7	20.3	2 11	10 11.53	+ 13 6.9	1.299	2.279	3.8	19.2
2 21	10 2.72	+ 7 48.0	1.978	2.965	1.4	20.1	2 21	10 2.59	+ 15 7.9	1.261	2.248	2.2	19.0
3 2	9 54.29	+ 8 15.5	1.993	2.963	4.8	20.4	3 2	9 53.39	+ 17 6.5	1.252	2.217	7.7	19.3
3 12	9 46.92	+ 8 40.9	2.036	2.961	8.4	20.6	3 12	9 45.38	+ 18 51.0	1.268	2.187	13.0	19.5
3 22	9 41.27	+ 9 1.0	2.103	2.959	11.8	20.8	3 22	9 39.76	+ 20 13.6	1.306	2.157	17.8	19.7
205755	2002 CN ₂₅		2 18.6 277°63	8°5/21.6	17		258182	2001 ST ₁₇₉		2 18.6 155°74	1°9/16.6	18	
1 12	10 41.06	- 3 30.6	1.708	2.430	18.9	20.2	1 12	10 32.33	+ 15 20.8	2.421	3.208	12.2	21.2
1 22	10 35.41	- 5 19.0	1.594	2.408	16.2	19.9	1 22	10 27.26	+ 16 7.0	2.340	3.217	9.3	21.0
2 1	10 26.53	- 6 55.4	1.500	2.386	13.1	19.6	2 1	10 20.21	+ 17 0.3	2.284	3.226	6.1	20.8
2 11	10 14.90	- 8 14.5	1.430	2.363	10.0	19.4	2 11	10 11.74	+ 17 55.5	2.256	3.234	2.9	20.6
2 21	10 1.45	- 9 11.9	1.388	2.340	8.5	19.2	2 21	10 2.61	+ 18 47.3	2.260	3.241	2.5	20.6
3 2	9 47.65	- 9 45.7	1.373	2.317	9.8	19.3	3 2	9 53.69	+ 19 30.6	2.293	3.248	5.6	20.8
3 12	9 35.08	- 9 58.0	1.386	2.293	13.0	19.4	3 12	9 45.84	+ 20 2.0	2.356	3.253	8.8	21.0
3 22	9 25.07	- 9 54.6	1.421	2.269	16.7	19.5	3 22	9 39.68	+ 20 20.3	2.444	3.258	11.7	21.2
415719	1999 HN ₇		2 18.6 332°51	4°3/15.7	18		465914	2010 VQ ₁₅₂		2 18.6 128°34	6°1/25.0	18	
1 12	10 28.33	+ 19 5.9	1.387	2.220	17.1	20.4	1 12	10 32.84	- 10 31.7	2.598	3.261	14.3	22.0
1 22	10 25.85	+ 19 45.9	1.301	2.203	13.3	20.2	1 22	10 27.44	- 11 0.1	2.514	3.283	12.3	21.8
2 1	10 20.20	+ 20 34.7	1.235	2.186	9.0	19.9	2 1	10 20.22	- 11 9.5	2.451	3.303	10.0	21.7
2 11	10 12.02	+ 21 24.1	1.194	2.170	5.1	19.6	2 11	10 11.72	- 10 58.9	2.413	3.323	7.7	21.6
2 21	10 2.45	+ 22 4.8	1.177	2.155	5.2	19.6	2 21	10 2.63	- 10 29.2	2.403	3.342	6.3	21.5
3 2	9 53.02	+ 22 28.4	1.186	2.141	9.5	19.7	3 2	9 53.73	- 9 43.4	2.422	3.360	6.4	21.5
3 12	9 45.28	+ 22 30.3	1.218	2.129	14.2	20.0	3 12	9 45.83	- 8 46.5	2.470	3.377	8.1	21.7
3 22	9 40.34	+ 22 10.2	1.270	2.117	18.4	20.2	3 22	9 39.48	- 7 44.1	2.545	3.393	10.2	21.8
389192	2009 CG ₁₅		2 18.6 38°08	0°6/18.1	18		491596	2012 SC ₆₀		2 18.6 157°08	0°0/18.6	17	
1 12	10 27.29	+ 10 45.9	1.929	2.726	14.4	21.2	1 12	10 27.95	+ 9 17.9	2.740	3.511	11.3	22.3
1 22	10 23.78	+ 11 16.6	1.855	2.737	11.1	21.0	1 22	10 23.66	+ 9 45.9	2.651	3.517	8.8	22.1
2 1	10 18.09	+ 11 59.0	1.804	2.748	7.3	20.8	2 1	10 17.74	+ 10 23.2	2.586	3.523	5.8	22.0
2 11	10 10.84	+ 12 48.6	1.780	2.759	3.1	20.6	2 11	10 10.64	+ 11 6.8	2.550	3.528	2.6	21.7
2 21	10 2.88	+ 13 39.7	1.784	2.771	1.4	20.5	2 21	10 2.98	+ 11 52.8	2.545	3.532	0.8	21.6
3 2	9 55.20	+ 14 26.2	1.817	2.784	5.5	20.8	3 2	9 55.46	+ 12 37.1	2.570	3.537	4.1	21.9
3 12	9 48.75	+ 15 3.5	1.876	2.796	9.4	21.0	3 12	9 48.78	+ 13 15.9	2.625	3.541	7.2	22.1
3 22	9 44.20	+ 15 28.6	1.960	2.809	12.7	21.3	3 22	9 43.48	+ 13 46.6	2.706	3.544	10.0	22.3
498313	2007 VG ₁₄₆		2 18.6 103°20	6°0/24.6	17		42213	2001 DU ₅₁		2 18.6 86°26	6°7/13.8	18	
1 12	10 27.78	- 8 43.1	2.466	3.156	14.4	21.7	1 12	10 40.53	+ 26 57.5	1.694	2.502	15.6	18.9
1 22	10 23.75	- 9 16.8	2.375	3.163	12.3	21.5	1 22	10 34.22	+ 28 9.2	1.651	2.533	12.2	18.7
2 1	10 17.91	- 9 32.2	2.303	3.170	10.0	21.4	2 1	10 25.00	+ 29 18.2	1.631	2.563	8.9	18.6
2 11	10 10.74	- 9 28.0	2.257	3.176	7.7	21.2	2 11	10 13.83	+ 30 14.5	1.637	2.593	6.8	18.5
2 21	10 2.91	- 9 5.0	2.237	3.183	6.2	21.1	2 21	10 2.01	+ 30 50.0	1.671	2.622	7.4	18.6
3 2	9 55.19	- 8 25.8	2.245	3.189	6.4	21.2	3 2	9 50.97	+ 31 0.7	1.733	2.650	10.0	18.9
3 12	9 48.39	- 7 35.3	2.281	3.196	8.2	21.3	3 12	9 41.95	+ 30 46.9	1.819	2.678	13.0	19.1
3 22	9 43.10	- 6 39.1	2.342	3.202	10.6	21.4	3 22	9 35.64	+ 30 12.4	1.927	2.705	15.7	19.3
295573	2008 SQ ₁₀₂		2 18.6 240°96	2°6/20.5	18		333332	2001 RF ₂		2 18.6 85°75	6°0/25.0	18	
1 12	10 31.78	+ 2 38.5	1.755	2.521	16.8	21.8	1 12	10 33.06	- 10 12.4	2.756	3.416	13.6	21.4
1 22	10 27.82	+ 2 48.3	1.650	2.507	13.7	21.6	1 22	10 27.40	- 10 56.5	2.685	3.450	11.7	21.2
2 1	10 21.18	+ 3 18.2	1.566	2.493	9.8	21.3	2 1	10 20.08	- 11 23.3	2.635	3.484	9.5	21.1
2 11	10 12.38	+ 4 6.8	1.508	2.477	5.4	21.0	2 11	10 11.62	- 11 31.8	2.611	3.516	7.4	21.1
2 21	10 2.33	+ 5 9.7	1.476	2.461	2.6	20.8	2 21	10 2.69	- 11 22.4	2.615	3.549	6.1	21.0
3 2	9 52.23	+ 6 20.1	1.473	2.445	6.0	21.0	3 2	9 54.02	- 10 57.6	2.648	3.580	6.3	21.1
3 12	9 43.35	+ 7 30.0	1.498	2.427	10.6	21.2	3 12	9 46.33	- 10 21.5	2.710	3.611	7.7	21.2
3 22	9 36.69	+ 8 32.5	1.546	2.409	14.8	21.4	3 22	9 40.12	- 9 39.0	2.799	3.642	9.5	21.4
368596	2004 RG ₁₀₁		2 18.6 116°92	1°9/20.6	18		97821	2000 OV ₅₀		2 18.6 134°31	3°4/15.7	18	
1 12	10 29.95	+ 2 26.4	2.541	3.285	12.8	22.1	1 12	10 35.89	+ 18 33.6	1.960	2.758	14.2	20.3
1 22	10 25.19	+ 2 49.7	2.464	3.308	10.2	21.9	1 22	10 30.42	+ 19 29.3	1.891	2.774	10.9	20.1
2 1	10 18.71	+ 3 27.0	2.409	3.329	7.1	21.7	2 1	10 22.48	+ 20 30.9	1.846	2.789	7.2	19.9
2 11	10 11.04	+ 4 15.8	2.383	3.351	3.9	21.6	2 11	10 12.78	+ 21 31.2	1.829	2.803	4.0	19.7
2 21	10 2.84	+ 5 12.2	2.387	3.371	1.9	21.5	2 21	10 2.31	+ 22 22.9	1.841	2.816	4.1	19.7
3 2	9 54.88	+ 6 11.6	2.422	3.391	4.1	21.6	3 2	9 52.21	+ 23 0.3	1.882	2.828	7.3	20.0
3 12	9 47.88	+ 7 9.0	2.486	3.410	7.2	21.9	3 12	9 43.57	+ 23 20.4	1.951	2.840	10.8	20.2
3 22	9 42.40	+ 8 0.5	2.578	3.428	10.0	22.1	3 22	9 37.13	+ 23 23.2	2.042	2.850	13.9	20.4
362221	2009 HW ₇₈		2 18.6 230°61	8°2/11.7	18		326727	2003 GT ₁₀		2 18.6 288°19	0°1/18.7	18	
1 12	10												

EPHEMERIDES

2 18.6

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
353585	2011 TV		2 18.6 159°89	3°5/22.9	17		504170	2006 SC ₃₇₈		2 18.6 212°72	2°0/20.9	17	
1 12	10 25.59	- 3 59.4	2.924	3.636	12.0	22.6	1 12	10 25.72	+ 1 25.3	2.709	3.454	12.1	22.8
1 22	10 21.77	- 3 54.1	2.826	3.640	9.9	22.4	1 22	10 22.06	+ 1 50.7	2.606	3.449	9.7	22.6
2 1	10 16.47	- 3 33.7	2.751	3.644	7.5	22.2	2 1	10 16.77	+ 2 30.6	2.525	3.444	6.9	22.4
2 11	10 10.09	- 2 58.7	2.702	3.648	5.1	22.1	2 11	10 10.27	+ 3 23.3	2.473	3.438	4.0	22.2
2 21	10 3.18	- 2 11.4	2.682	3.651	3.6	22.0	2 21	10 3.15	+ 4 25.3	2.449	3.433	2.0	22.1
3 2	9 56.36	- 1 15.1	2.692	3.654	4.4	22.1	3 2	9 56.09	+ 5 32.2	2.457	3.427	4.0	22.2
3 12	9 50.28	- 0 14.5	2.732	3.657	6.6	22.2	3 12	9 49.78	+ 6 38.9	2.494	3.421	7.0	22.4
3 22	9 45.42	+ 0 46.1	2.799	3.660	9.0	22.4	3 22	9 44.80	+ 7 40.9	2.558	3.414	9.9	22.5
26780	2313 T ₋₂		2 18.6 259°64	0°0/18.6	18		200565	2001 OE ₅₆		2 18.6 248°86	5°3/12.9	17	
1 12	10 29.64	+ 9 1.5	1.842	2.633	15.3	18.9	1 12	10 29.52	+25 34.8	2.333	3.142	11.8	20.4
1 22	10 25.95	+ 9 28.7	1.747	2.624	12.0	18.6	1 22	10 25.47	+26 48.2	2.250	3.135	9.3	20.3
2 1	10 19.79	+10 10.7	1.674	2.615	8.0	18.4	2 1	10 19.26	+28 3.2	2.192	3.127	6.8	20.1
2 11	10 11.72	+11 3.5	1.627	2.605	3.6	18.1	2 11	10 11.43	+29 12.6	2.162	3.119	5.3	20.0
2 21	10 2.63	+12 1.1	1.608	2.596	1.2	17.9	2 21	10 2.78	+30 9.4	2.161	3.111	6.1	20.0
3 2	9 53.61	+12 57.0	1.617	2.586	5.9	18.2	3 2	9 54.26	+30 48.4	2.188	3.103	8.4	20.1
3 12	9 45.82	+13 44.7	1.654	2.576	10.3	18.4	3 12	9 46.83	+31 7.0	2.241	3.095	11.1	20.3
3 22	9 40.10	+14 20.2	1.714	2.566	14.1	18.6	3 22	9 41.22	+31 5.6	2.317	3.087	13.6	20.5
256463	2007 DJ ₁₂		2 18.6 72°56	5°5/22.6	18		507475	2012 TZ ₂₅₈		2 18.6 179°04	0°7/17.8	17	
1 12	10 32.67	- 2 45.6	1.795	2.534	17.5	20.3	1 12	10 28.67	+12 33.0	3.067	3.842	10.1	22.9
1 22	10 28.04	- 3 26.9	1.722	2.551	14.5	20.1	1 22	10 24.07	+13 0.6	2.973	3.843	7.8	22.7
2 1	10 20.97	- 3 48.2	1.668	2.569	11.0	19.9	2 1	10 17.95	+13 34.8	2.905	3.844	5.1	22.6
2 11	10 12.15	- 3 48.8	1.639	2.587	7.6	19.8	2 11	10 10.75	+14 12.5	2.866	3.845	2.2	22.4
2 21	10 2.53	- 3 30.4	1.636	2.605	5.5	19.7	2 21	10 3.02	+14 50.0	2.858	3.845	1.2	22.3
3 2	9 53.24	- 2 57.1	1.661	2.622	6.7	19.8	3 2	9 55.40	+15 24.1	2.882	3.844	4.1	22.5
3 12	9 45.35	- 2 15.1	1.713	2.640	9.7	20.0	3 12	9 48.53	+15 51.7	2.936	3.843	6.9	22.7
3 22	9 39.60	- 1 31.0	1.790	2.657	12.9	20.2	3 22	9 42.93	+16 11.1	3.016	3.842	9.4	22.8
111496	2001 YX ₅₈		2 18.6 359°13	3°7/15.2	18		151566	2002 TJ ₁₆₉		2 18.6 92°66	7°8/25.8	18 R	
1 12	10 28.01	+20 18.5	2.113	2.925	12.8	19.2	1 12	10 30.28	-11 33.2	1.879	2.570	18.3	20.4
1 22	10 24.33	+21 7.8	2.034	2.924	9.9	19.0	1 22	10 26.18	-12 3.1	1.804	2.589	15.8	20.2
2 1	10 18.49	+22 1.6	1.979	2.923	6.7	18.8	2 1	10 19.75	-12 6.6	1.746	2.607	12.9	20.0
2 11	10 11.06	+22 53.7	1.951	2.923	4.0	18.6	2 11	10 11.64	-11 41.8	1.711	2.625	10.0	19.9
2 21	10 2.87	+23 37.7	1.951	2.923	4.4	18.7	2 21	10 2.73	-10 50.2	1.700	2.643	8.0	19.8
3 2	9 54.90	+24 8.4	1.980	2.923	7.2	18.8	3 2	9 54.10	- 9 36.5	1.717	2.661	8.1	19.9
3 12	9 48.09	+24 23.0	2.035	2.924	10.4	19.0	3 12	9 46.77	- 8 8.8	1.760	2.678	10.0	20.0
3 22	9 43.15	+24 20.9	2.113	2.925	13.3	19.2	3 22	9 41.48	- 6 36.2	1.828	2.695	12.7	20.2
331202	2011 BZ ₂₀		2 18.6 340°32	1°1/17.7	18		366754	2004 PW ₈₄		2 18.6 113°16	0°7/19.3	18	
1 12	10 28.32	+11 21.8	1.788	2.590	15.2	21.3	1 12	10 29.63	+ 5 53.9	2.447	3.208	12.7	21.2
1 22	10 24.92	+12 3.6	1.703	2.588	11.8	21.0	1 22	10 25.04	+ 6 35.0	2.372	3.231	10.0	21.1
2 1	10 19.07	+12 58.9	1.641	2.586	7.8	20.8	2 1	10 18.68	+ 7 29.1	2.321	3.252	6.7	20.9
2 11	10 11.39	+14 2.5	1.605	2.585	3.3	20.5	2 11	10 11.08	+ 8 32.4	2.298	3.273	3.2	20.7
2 21	10 2.76	+15 7.4	1.597	2.584	1.9	20.4	2 21	10 2.93	+ 9 40.0	2.306	3.294	0.9	20.5
3 2	9 54.32	+16 6.2	1.618	2.583	6.3	20.7	3 2	9 55.03	+10 46.6	2.345	3.314	4.3	20.8
3 12	9 47.16	+16 53.0	1.664	2.582	10.6	20.9	3 12	9 48.13	+11 47.2	2.413	3.333	7.6	21.1
3 22	9 42.11	+17 24.5	1.734	2.581	14.3	21.2	3 22	9 42.78	+12 38.3	2.508	3.351	10.5	21.3
61861	2000 QA ₂₀₇		2 18.6 201°23	3°7/15.7	18		87057	2000 KD ₃₅		2 18.6 215°16	2°1/16.5	18	
1 12	10 36.04	+21 39.4	2.110	2.908	13.3	19.9	1 12	10 30.26	+14 33.8	2.235	3.028	12.8	20.7
1 22	10 30.53	+22 7.0	2.025	2.906	10.3	19.7	1 22	10 26.01	+15 29.5	2.140	3.021	9.9	20.5
2 1	10 22.59	+22 36.7	1.963	2.904	7.0	19.5	2 1	10 19.62	+16 35.0	2.070	3.013	6.5	20.3
2 11	10 12.87	+23 2.6	1.930	2.901	4.2	19.3	2 11	10 11.61	+17 44.8	2.027	3.005	3.1	20.0
2 21	10 2.31	+23 19.0	1.925	2.898	4.3	19.3	2 21	10 2.74	+18 52.3	2.015	2.997	2.8	20.0
3 2	9 52.01	+23 21.7	1.950	2.895	7.3	19.5	3 2	9 53.94	+19 51.3	2.033	2.987	6.2	20.2
3 12	9 43.06	+23 9.1	2.003	2.891	10.6	19.7	3 12	9 46.17	+20 37.1	2.078	2.978	9.7	20.4
3 22	9 36.22	+22 41.7	2.079	2.887	13.7	19.9	3 22	9 40.18	+21 7.4	2.148	2.968	12.9	20.6
320406	2007 UC ₁₃₄		2 18.6 99°10	1°5/20.3	18		221139	2005 TH ₃		2 18.6 144°92	5°5/12.8	18	
1 12	10 25.60	+ 2 37.9	2.409	3.166	13.0	20.7	1 12	10 35.59	+28 25.7	2.507	3.302	11.5	21.3
1 22	10 22.08	+ 3 21.4	2.323	3.176	10.4	20.5	1 22	10 29.82	+29 32.3	2.442	3.316	9.1	21.2
2 1	10 16.81	+ 4 21.0	2.260	3.186	7.2	20.3	2 1	10 21.93	+30 36.7	2.403	3.328	6.9	21.0
2 11	10 10.28	+ 5 33.5	2.225	3.196	3.8	20.1	2 11	10 12.53	+31 32.0	2.392	3.340	5.6	21.0
2 21	10 3.15	+ 6 54.0	2.219	3.205	1.5	20.0	2 21	10 2.48	+32 12.2	2.411	3.351	6.2	21.0
3 2	9 56.17	+ 8 16.7	2.244	3.215	4.2	20.2	3 2	9 52.75	+32 33.6	2.459	3.361	8.2	21.2
3 12	9 50.10	+ 9 35.5	2.298	3.224	7.6	20.4	3 12	9 44.26	+32 35.2	2.533	3.370	10.5	21.3
3 22	9 45.52	+10 45.6	2.379	3.233	10.6	20.6	3 22	9 37.66	+32 18.6	2.630	3.379	12.7	21.5
450536	2006 BM ₁₆₂		2 18.6 105°92	1°3/17.5	15		344558	2002 XQ ₁₃		2 18.6 107°38	2°1/16.2	18	
1 12	10 34.28	+10 51.8	1.715	2.507	16.2	22.2	1 12	10 28.54	+15 38.5	2.539	3.331	11.5	21.3
1 22	10 29.36	+11 53.7	1.652	2.531	12.4	22.0	1 22	10 24.24	+16 37.8	2.469	3.350	8.7	21.2
2 1	10 21.86	+13 9.6	1.612	2.555	8.1	21.8	2 1	10 18.17	+17 43.7	2.424	3.368	5.7	21.0
2 11	10 12.54	+14 32.4	1.598	2.577	3.4	21.6	2 11	10 10.87	+18 51.0	2.408	3.385	2.8	20.8
2 21	10 2.44	+15 53.7	1.614	2.599	2.2	21.6	2 21	10 3.02	+19 54.0	2.423	3.402	2.7	20.9
3 2	9 52.79	+17 5.3	1.659	2.621	6.5	21.9	3 2	9 55.40	+20 47.8	2.468	3.419	5.5	21.1
3 12	9 44.71	+18 1.5	1.731	2.641	10.7	22.2	3 12	9 48.76	+21 29.2	2.541	3.435	8.4	21.3
3 22	9 38.94	+18 39.8	1.826	2.661	14.2	22.4	3 22	9 43.66	+21 56.6	2.640	3.451	11.0	21.5
14208	1999 CR ₆₄		2 18.6 176°36	4°4/23.0	18 R		433221	2012 UJ ₁₄₀		2 18.6 236°46	2°4/20.7	17	
1 12	10 28.70	- 4 51.6	2.293	3.009	14.7	18.0	1 12						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
54104	2000 <i>HN</i> ₇		2 18.6 333°90	1°4/17.6	18		281285	2007 <i>RV</i> ₁₁₈		2 18.6 78°77	4°8/24.5	18	
1 12	10 28.43	+12 14.1	1.512	2.327	16.9	19.1	1 12	10 27.62	- 8 25.3	2.449	3.142	14.5	20.5
1 22	10 25.52	+12 45.9	1.428	2.319	13.2	18.9	1 22	10 23.48	- 8 10.7	2.377	3.172	12.1	20.4
2 1	10 19.77	+13 32.1	1.364	2.312	8.7	18.6	2 1	10 17.65	- 7 35.4	2.325	3.202	9.5	20.3
2 11	10 11.81	+14 27.1	1.325	2.305	3.8	18.3	2 11	10 10.64	- 6 40.3	2.299	3.232	6.8	20.2
2 21	10 2.69	+15 23.2	1.313	2.299	2.3	18.2	2 21	10 3.15	- 5 28.5	2.301	3.261	5.0	20.1
3 2	9 53.74	+16 12.3	1.327	2.294	7.2	18.4	3 2	9 55.93	- 4 5.2	2.333	3.290	5.3	20.2
3 12	9 46.31	+16 48.0	1.366	2.289	12.0	18.7	3 12	9 49.70	- 2 36.7	2.394	3.318	7.4	20.3
3 22	9 41.35	+17 7.1	1.427	2.284	16.2	18.9	3 22	9 44.97	- 1 9.5	2.482	3.346	9.9	20.5
456726	2007 <i>SO</i> ₇		2 18.6 90°24	0°4/18.3	18		122132	2000 <i>JO</i> ₃₄		2 18.6 19°89	5°7/15.1	18	
1 12	10 32.74	+ 9 36.2	1.632	2.426	16.7	22.1	1 12	10 33.44	+21 9.4	1.272	2.105	18.4	19.6
1 22	10 28.33	+10 12.3	1.566	2.445	13.0	21.9	1 22	10 29.93	+22 8.5	1.207	2.107	14.3	19.3
2 1	10 21.28	+11 3.4	1.521	2.463	8.6	21.7	2 1	10 22.91	+23 14.3	1.162	2.110	9.8	19.1
2 11	10 12.34	+12 3.8	1.502	2.481	3.7	21.4	2 11	10 13.24	+24 16.0	1.141	2.113	6.2	18.9
2 21	10 2.57	+13 6.2	1.511	2.499	1.4	21.3	2 21	10 2.30	+25 2.4	1.144	2.116	6.7	18.9
3 2	9 53.23	+14 3.1	1.549	2.516	6.2	21.6	3 2	9 51.86	+25 25.4	1.173	2.120	10.6	19.2
3 12	9 45.47	+14 48.5	1.613	2.533	10.6	21.9	3 12	9 43.54	+25 22.1	1.225	2.125	15.0	19.4
3 22	9 40.06	+15 19.5	1.700	2.550	14.3	22.2	3 22	9 38.35	+24 54.5	1.296	2.130	18.9	19.7
251813	1999 <i>TY</i> ₇₆		2 18.6 229°08	0°7/19.2	17		354076	2001 <i>UK</i> ₁₇₉		2 18.6 109°63	3°1/20.9	18	
1 12	10 31.73	+ 7 5.5	2.071	2.843	14.4	22.3	1 12	10 35.82	+ 2 9.9	1.717	2.475	17.5	21.2
1 22	10 27.34	+ 7 27.2	1.967	2.831	11.4	22.0	1 22	10 30.55	+ 2 1.5	1.645	2.496	14.0	21.0
2 1	10 20.63	+ 8 3.3	1.885	2.819	7.8	21.8	2 1	10 22.69	+ 2 11.8	1.594	2.516	10.0	20.8
2 11	10 12.12	+ 8 50.9	1.830	2.806	3.7	21.5	2 11	10 12.96	+ 2 38.8	1.569	2.535	5.8	20.6
2 21	10 2.60	+ 9 45.2	1.804	2.792	1.1	21.3	2 21	10 2.41	+ 3 18.7	1.571	2.554	3.1	20.4
3 2	9 53.10	+10 40.4	1.808	2.778	5.3	21.5	3 2	9 52.27	+ 4 5.5	1.602	2.572	5.8	20.6
3 12	9 44.66	+11 30.5	1.841	2.763	9.4	21.8	3 12	9 43.67	+ 4 52.6	1.661	2.589	9.8	20.9
3 22	9 38.12	+12 11.3	1.898	2.747	13.1	22.0	3 22	9 37.40	+ 5 34.6	1.744	2.606	13.5	21.2
346151	2007 <i>VF</i> ₂₅₃		2 18.6 174°47	6°1/11.2	17		151942	2004 <i>FL</i> ₉₅		2 18.6 251°06	2°7/16.7	18	
1 12	10 30.07	+29 55.6	2.542	3.348	11.1	20.8	1 12	10 32.46	+14 4.5	1.535	2.346	16.9	20.8
1 22	10 25.74	+31 20.3	2.472	3.349	8.9	20.7	1 22	10 28.80	+14 59.7	1.444	2.334	13.1	20.5
2 1	10 19.36	+32 43.2	2.428	3.350	7.0	20.6	2 1	10 22.08	+16 9.9	1.374	2.322	8.7	20.2
2 11	10 11.47	+33 56.8	2.412	3.351	6.1	20.5	2 11	10 12.92	+17 27.8	1.330	2.309	4.1	19.9
2 21	10 2.84	+34 54.7	2.425	3.352	6.9	20.6	2 21	10 2.37	+18 43.8	1.313	2.296	3.6	19.8
3 2	9 54.39	+35 32.5	2.465	3.352	8.8	20.7	3 2	9 51.86	+19 48.3	1.323	2.282	8.2	20.1
3 12	9 47.02	+35 48.6	2.531	3.352	11.0	20.8	3 12	9 42.89	+20 34.1	1.359	2.268	13.1	20.3
3 22	9 41.40	+35 44.2	2.618	3.352	13.1	21.0	3 22	9 36.55	+20 58.6	1.416	2.254	17.3	20.5
466834	2015 <i>BV</i> ₂₁₈		2 18.6 80°68	2°0/17.0	18		146093	2000 <i>KA</i> ₄₃		2 18.6 15°43	2°2/17.0	18	
1 12	10 32.95	+15 56.6	1.933	2.733	14.3	21.5	1 12	10 26.51	+12 39.8	1.345	2.171	17.9	19.4
1 22	10 28.14	+16 21.6	1.862	2.746	11.0	21.3	1 22	10 24.21	+13 33.1	1.277	2.175	13.8	19.1
2 1	10 20.99	+16 53.4	1.815	2.759	7.2	21.1	2 1	10 18.94	+14 42.5	1.229	2.180	9.0	18.8
2 11	10 12.17	+17 26.8	1.795	2.773	3.3	20.9	2 11	10 11.46	+16 0.2	1.206	2.186	4.0	18.6
2 21	10 2.64	+17 56.0	1.803	2.786	2.7	20.9	2 21	10 2.90	+17 16.1	1.208	2.193	3.1	18.5
3 2	9 53.48	+18 16.4	1.840	2.799	6.3	21.1	3 2	9 54.69	+18 20.6	1.236	2.200	7.9	18.8
3 12	9 45.71	+18 24.8	1.904	2.812	10.0	21.4	3 12	9 48.20	+19 6.6	1.288	2.209	12.7	19.1
3 22	9 40.04	+18 20.5	1.993	2.825	13.2	21.6	3 22	9 44.31	+19 31.3	1.361	2.218	16.8	19.4
321634	2009 <i>WU</i> ₂₁₁		2 18.6 161°89	0°8/17.8	18		51968	2001 <i>QR</i> ₂₈₄		2 18.6 21°25	5°9/22.6	18	
1 12	10 29.35	+11 17.8	2.144	2.932	13.5	21.3	1 12	10 28.45	- 2 3.3	1.455	2.223	19.7	17.3
1 22	10 25.28	+11 55.8	2.058	2.935	10.4	21.1	1 22	10 25.45	- 2 44.2	1.380	2.229	16.3	17.1
2 1	10 19.10	+12 44.9	1.995	2.937	6.8	20.9	2 1	10 19.65	- 3 1.6	1.323	2.236	12.4	16.9
2 11	10 11.37	+13 40.6	1.961	2.940	2.9	20.6	2 11	10 11.76	- 2 54.6	1.288	2.243	8.4	16.7
2 21	10 2.88	+14 37.1	1.955	2.942	1.5	20.5	2 21	10 2.81	- 2 25.0	1.278	2.251	5.9	16.6
3 2	9 54.56	+15 28.9	1.979	2.943	5.4	20.8	3 2	9 54.14	- 1 38.2	1.294	2.260	7.3	16.7
3 12	9 47.34	+16 11.0	2.031	2.945	9.2	21.0	3 12	9 47.03	- 0 42.6	1.334	2.270	11.0	16.9
3 22	9 41.91	+16 40.8	2.107	2.946	12.4	21.2	3 22	9 42.36	+ 0 13.7	1.396	2.280	14.8	17.1
72668	2001 <i>FG</i> ₅₁		2 18.6 207°01	0°8/17.9	18 R		374052	2004 <i>PM</i> ₃₅		2 18.6 199°19	0°4/18.3	17	
1 12	10 29.38	+11 59.4	2.217	3.005	13.1	19.8	1 12	10 33.52	+12 13.7	2.102	2.886	13.8	20.8
1 22	10 25.26	+12 26.3	2.127	3.004	10.1	19.6	1 22	10 28.55	+12 18.6	2.011	2.885	10.8	20.6
2 1	10 19.07	+13 2.8	2.060	3.002	6.7	19.4	2 1	10 21.31	+12 31.9	1.943	2.883	7.2	20.4
2 11	10 11.36	+13 45.0	2.021	3.000	2.9	19.1	2 11	10 12.39	+12 50.3	1.902	2.881	3.1	20.1
2 21	10 2.89	+14 27.9	2.011	2.998	1.5	19.0	2 21	10 2.63	+13 9.5	1.891	2.878	1.2	20.0
3 2	9 54.56	+15 6.5	2.031	2.996	5.3	19.3	3 2	9 53.05	+13 25.2	1.910	2.876	5.4	20.2
3 12	9 47.29	+15 36.6	2.079	2.993	8.9	19.5	3 12	9 44.66	+13 34.1	1.956	2.873	9.3	20.5
3 22	9 41.77	+15 55.7	2.152	2.991	12.2	19.7	3 22	9 38.22	+13 34.3	2.028	2.870	12.7	20.7
321202	2008 <i>YH</i> ₂₃		2 18.6 211°72	3°6/21.9	17		203433	2001 <i>YE</i> ₆		2 18.6 96°69	1°9/17.2	18	
1 12	10 29.13	- 0 36.7	2.463	3.196	13.4	20.7	1 12	10 35.51	+13 10.7	1.624	2.424	16.6	21.0
1 22	10 24.85	- 0 55.2	2.362	3.193	11.0	20.5	1 22	10 30.45	+14 0.1	1.564	2.448	12.7	20.8
2 1	10 18.71	- 0 59.4	2.283	3.189	8.2	20.3	2 1	10 22.67	+15 1.2	1.526	2.471	8.3	20.6
2 11	10 11.19	- 0 49.5	2.231	3.186	5.4	20.1	2 11	10 12.96	+16 6.8	1.515	2.494	3.7	20.3
2 21	10 2.94	- 0 27.2	2.207	3.182	3.6	20.0	2 21	10 2.48	+17 8.7	1.532	2.516	2.7	20.3
3 2	9 54.76	+ 0 4.4	2.213	3.178	4.9	20.1	3 2	9 52.51	+17 59.6	1.577	2.538	7.0	20.6
3 12	9 47.48	+ 0 40.8	2.248	3.174	7.8	20.2	3 12	9 44.25	+18 34.9	1.649	2.559	11.1	20.9
3 22	9 41.71	+ 1 17.8	2.309	3.169	10.7	20.4	3 22	9 38.45	+18 53.2	1.744	2.579	14.7	21.2
433134	2012 <i>TW</i> ₁₉₉		2 18.6 123°82	4°4/23.7	17		183299	2002 <i>UD</i> ₁₉		2 18.6 50°53	3°5/16.1	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
458753	2011 <i>QW</i> ₉₆		2 18.6	80°89	1°2/19.5	18	431196	2006 <i>SU</i> ₁₀₈		2 18.6	160°55	5°6/11.3	18
1 12	10 33.43	+ 6 18.2	1.503	2.291	18.2	22.7	1 12	10 31.44	+31 59.3	3.011	3.806	9.8	21.4
1 22	10 29.05	+ 6 33.3	1.438	2.311	14.3	22.5	1 22	10 26.45	+33 6.6	2.944	3.812	7.9	21.3
2 1	10 21.86	+ 7 6.7	1.393	2.330	9.7	22.3	2 1	10 19.66	+34 10.3	2.903	3.818	6.3	21.2
2 11	10 12.65	+ 7 54.2	1.373	2.349	4.7	22.0	2 11	10 11.60	+35 4.3	2.891	3.823	5.6	21.2
2 21	10 2.57	+ 8 49.3	1.380	2.368	1.5	21.9	2 21	10 2.95	+35 44.0	2.908	3.827	6.3	21.2
3 2	9 52.96	+ 9 44.4	1.415	2.387	6.1	22.2	3 2	9 54.50	+36 6.1	2.953	3.831	7.8	21.3
3 12	9 45.05	+10 32.5	1.476	2.405	10.7	22.5	3 12	9 47.02	+36 9.8	3.024	3.835	9.7	21.5
3 22	9 39.66	+11 9.2	1.561	2.424	14.7	22.8	3 22	9 41.09	+35 56.3	3.117	3.838	11.4	21.6
81697	2000 <i>JD</i> ₁₇		2 18.6	277°41	4°3/22.1	18	112789	2002 <i>PR</i> ₁₆₃		2 18.6	282°54	1°0/17.9	18
1 12	10 27.65	- 1 54.1	1.863	2.613	16.6	20.2	1 12	10 30.05	+11 8.0	1.651	2.454	16.2	20.1
1 22	10 24.47	- 1 55.3	1.757	2.598	13.7	20.0	1 22	10 26.72	+11 42.4	1.552	2.437	12.7	19.8
2 1	10 18.90	- 1 34.8	1.672	2.583	10.3	19.7	2 1	10 20.62	+12 32.1	1.475	2.420	8.5	19.5
2 11	10 11.45	- 0 52.5	1.611	2.568	6.7	19.5	2 11	10 12.29	+13 32.3	1.423	2.403	3.7	19.2
2 21	10 2.90	+ 0 8.7	1.576	2.553	4.3	19.3	2 21	10 2.68	+14 35.7	1.399	2.386	1.9	19.0
3 2	9 54.32	+ 1 23.3	1.569	2.538	6.0	19.4	3 2	9 53.06	+15 34.3	1.402	2.369	6.9	19.3
3 12	9 46.83	+ 2 43.3	1.589	2.523	9.8	19.6	3 12	9 44.77	+16 21.1	1.431	2.351	11.7	19.5
3 22	9 41.31	+ 4 1.0	1.634	2.507	13.6	19.7	3 22	9 38.82	+16 51.8	1.483	2.334	16.0	19.8
467343	2002 <i>TT</i> ₃₆₄		2 18.6	155°50	4°6/13.8	17	400557	2008 <i>WL</i> ₄₅		2 18.6	238°22	3°9/21.4	18
1 12	10 31.75	+25 22.9	2.509	3.310	11.3	21.9	1 12	10 31.83	+ 0 36.2	1.685	2.446	17.6	21.3
1 22	10 26.91	+26 18.1	2.435	3.315	8.9	21.7	1 22	10 27.94	+ 0 23.6	1.587	2.437	14.5	21.1
2 1	10 20.06	+27 13.5	2.386	3.320	6.4	21.6	2 1	10 21.34	+ 0 31.4	1.510	2.429	10.7	20.8
2 11	10 11.78	+28 2.8	2.365	3.324	4.7	21.5	2 11	10 12.58	+ 0 59.3	1.456	2.419	6.6	20.5
2 21	10 2.85	+28 40.6	2.373	3.328	5.3	21.5	2 21	10 2.60	+ 1 44.3	1.429	2.410	3.9	20.3
3 2	9 54.15	+29 2.7	2.411	3.332	7.4	21.7	3 2	9 52.65	+ 2 40.8	1.430	2.400	6.3	20.5
3 12	9 46.55	+29 7.6	2.476	3.335	10.0	21.8	3 12	9 44.02	+ 3 41.3	1.458	2.390	10.6	20.7
3 22	9 40.69	+28 55.8	2.563	3.338	12.3	22.0	3 22	9 37.66	+ 4 38.4	1.509	2.379	14.7	20.9
217216	2002 <i>VR</i> ₂₆		2 18.6	19°55	9°3/27.3	18	51501	2001 <i>FN</i> ₈₆		2 18.6	218°26	0°6/18.2	18
1 12	10 24.91	-13 47.5	1.816	2.507	18.9	19.8	1 12	10 33.21	+ 9 48.8	1.702	2.494	16.3	19.9
1 22	10 22.26	-14 39.5	1.737	2.514	16.6	19.6	1 22	10 29.00	+10 26.5	1.609	2.486	12.8	19.7
2 1	10 17.33	-15 4.3	1.674	2.523	14.0	19.4	2 1	10 22.02	+11 20.2	1.537	2.479	8.5	19.4
2 11	10 10.68	-14 58.8	1.632	2.532	11.4	19.3	2 11	10 12.87	+12 25.0	1.492	2.470	3.7	19.1
2 21	10 3.18	-14 22.7	1.613	2.542	9.6	19.2	2 21	10 2.52	+13 33.8	1.474	2.461	1.6	18.9
3 2	9 55.86	-13 19.5	1.619	2.552	9.4	19.2	3 2	9 52.25	+14 38.3	1.485	2.452	6.6	19.2
3 12	9 49.75	-11 56.9	1.649	2.564	10.8	19.3	3 12	9 43.35	+15 31.5	1.523	2.442	11.3	19.4
3 22	9 45.61	-10 24.1	1.704	2.576	13.2	19.5	3 22	9 36.81	+16 9.4	1.584	2.431	15.4	19.7
468433	2001 <i>TZ</i> ₁₄₃		2 18.6	97°15	5°2/13.5	18	262203	2006 <i>SC</i> ₁₉₃		2 18.6	260°87	1°6/20.2	17
1 12	10 31.97	+26 50.8	2.376	3.181	11.8	21.4	1 12	10 26.15	+ 4 2.6	2.462	3.223	12.7	20.9
1 22	10 27.14	+27 45.6	2.310	3.191	9.3	21.3	1 22	10 22.63	+ 4 22.3	2.359	3.215	10.1	20.8
2 1	10 20.22	+28 39.2	2.270	3.202	6.8	21.1	2 1	10 17.31	+ 4 55.9	2.279	3.206	7.1	20.5
2 11	10 11.85	+29 24.9	2.257	3.212	5.2	21.0	2 11	10 10.64	+ 5 41.4	2.226	3.197	3.8	20.3
2 21	10 2.84	+29 57.3	2.272	3.223	5.8	21.1	2 21	10 3.25	+ 6 35.2	2.201	3.188	1.6	20.1
3 2	9 54.15	+30 12.4	2.317	3.233	7.9	21.2	3 2	9 55.91	+ 7 32.5	2.207	3.178	4.3	20.3
3 12	9 46.68	+30 9.2	2.387	3.243	10.4	21.4	3 12	9 49.41	+ 8 28.2	2.242	3.169	7.7	20.5
3 22	9 41.06	+29 49.0	2.480	3.253	12.7	21.6	3 22	9 44.37	+ 9 18.0	2.303	3.160	10.8	20.7
362137	2009 <i>DZ</i> ₈₀		2 18.6	265°71	1°1/19.5	16	346028	2007 <i>TS</i> ₃₆₃		2 18.6	164°85	5°1/12.9	17
1 12	10 30.61	+ 6 24.3	1.776	2.558	16.1	21.7	1 12	10 30.45	+26 52.4	2.543	3.347	11.1	20.8
1 22	10 26.93	+ 6 39.8	1.671	2.541	12.8	21.4	1 22	10 25.96	+27 56.8	2.469	3.350	8.8	20.7
2 1	10 20.64	+ 7 12.2	1.588	2.524	8.9	21.1	2 1	10 19.48	+29 0.9	2.421	3.352	6.5	20.5
2 11	10 12.26	+ 7 59.1	1.531	2.506	4.3	20.8	2 11	10 11.57	+29 58.0	2.400	3.354	5.1	20.5
2 21	10 2.66	+ 8 55.2	1.501	2.488	1.4	20.5	2 21	10 2.98	+30 42.4	2.409	3.356	5.8	20.5
3 2	9 53.01	+ 9 54.0	1.499	2.470	5.9	20.8	3 2	9 54.59	+31 9.9	2.446	3.357	7.8	20.6
3 12	9 44.56	+10 48.3	1.524	2.452	10.6	21.0	3 12	9 47.28	+31 18.9	2.510	3.358	10.2	20.8
3 22	9 38.28	+11 32.6	1.573	2.433	14.8	21.2	3 22	9 41.66	+31 10.1	2.596	3.360	12.5	20.9
383735	2007 <i>VA</i> ₁₁		2 18.6	59°35	12°8/ 3.8	18	284120	2005 <i>UM</i> ₁₉₀		2 18.6	235°45	1°4/19.6	18
1 12	10 42.33	+52 10.9	2.159	2.914	14.4	20.1	1 12	10 32.74	+ 6 2.6	1.647	2.429	17.1	21.8
1 22	10 36.40	+53 57.7	2.140	2.933	13.4	20.1	1 22	10 28.74	+ 6 15.2	1.550	2.419	13.7	21.6
2 1	10 26.90	+55 23.7	2.143	2.951	12.9	20.1	2 1	10 21.92	+ 6 46.0	1.475	2.409	9.5	21.3
2 11	10 14.88	+56 19.2	2.168	2.970	13.0	20.1	2 11	10 12.86	+ 7 32.1	1.424	2.399	4.7	21.0
2 21	10 1.94	+56 38.7	2.214	2.988	13.7	20.2	2 21	10 2.55	+ 8 28.2	1.400	2.388	1.6	20.7
3 2	9 49.89	+56 21.2	2.280	3.007	14.8	20.3	3 2	9 52.26	+ 9 27.0	1.405	2.376	6.2	21.0
3 12	9 40.27	+55 30.7	2.363	3.026	15.9	20.4	3 12	9 43.35	+10 21.1	1.436	2.364	11.1	21.2
3 22	9 33.90	+54 13.9	2.462	3.045	17.0	20.6	3 22	9 36.82	+11 4.9	1.491	2.352	15.4	21.5
19699	1999 <i>SC</i> ₇		2 18.6	239°50	3°8/15.0	18	253428	2003 <i>QW</i> ₅₉		2 18.6	229°41	3°3/16.0	18
1 12	10 33.19	+21 40.9	2.412	3.209	11.9	19.0	1 12	10 35.89	+18 41.5	2.030	2.827	13.8	21.3
1 22	10 28.25	+22 28.1	2.312	3.193	9.3	18.8	1 22	10 30.73	+19 23.8	1.932	2.814	10.8	21.1
2 1	10 21.13	+23 18.8	2.238	3.177	6.4	18.5	2 1	10 23.00	+20 12.7	1.858	2.800	7.2	20.8
2 11	10 12.35	+24 7.1	2.192	3.161	4.1	18.4	2 11	10 13.26	+21 1.7	1.812	2.786	4.0	20.6
2 21	10 2.68	+24 47.1	2.175	3.143	4.4	18.4	2 21	10 2.44	+21 43.9	1.794	2.771	4.0	20.5
3 2	9 53.06	+25 13.9	2.188	3.125	7.1	18.5	3 2	9 51.68	+22 13.4	1.806	2.755	7.4	20.7
3 12	9 44.48	+25 24.7	2.229	3.107	10.2	18.7	3 12	9 42.19	+22 26.6	1.846	2.739	11.1	20.9
3 22	9 37.69	+25 19.2	2.294	3.088	13.0	18.8	3 22	9 34.84	+22 22.8	1.909	2.721	14.6	21.1
167691	2004 <i>QG</i> ₉		2 18.6	202°53	9°7/14.8	18	43328	2000 <i>OU</i> ₁₅		2 18.6	77°19	0°1/	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
235933	2005 <i>EP</i> ₁₁₉		2 18.6	45°53'	21.4°/13.7	17	163176	2002 <i>CL</i> ₂₄₁		2 18.6	45°50'	4.2°/21.6	18
1 12	11 4.53	+49 38.0	0.826	1.640	27.4	18.8	1 12	10 29.82	+0 6.8	1.472	2.245	19.2	20.0
1 22	10 56.96	+51 7.9	0.803	1.655	24.7	18.7	1 22	10 26.56	-0 3.8	1.393	2.250	15.7	19.7
2 1	10 41.69	+52 1.4	0.794	1.671	22.5	18.6	2 1	10 20.45	+0 9.2	1.333	2.254	11.5	19.5
2 11	10 21.33	+51 53.8	0.800	1.688	21.4	18.6	2 11	10 12.19	+0 45.0	1.295	2.259	7.1	19.3
2 21	10 0.24	+50 33.1	0.823	1.705	21.8	18.7	2 21	10 2.84	+1 39.6	1.284	2.264	4.2	19.1
3 2	9 42.75	+48 4.9	0.864	1.724	23.3	18.9	3 2	9 53.72	+2 45.8	1.298	2.270	6.6	19.2
3 12	9 31.29	+44 49.4	0.920	1.743	25.4	19.1	3 12	9 46.16	+3 54.6	1.339	2.275	10.9	19.5
3 22	9 26.09	+41 8.8	0.992	1.762	27.7	19.3	3 22	9 41.08	+4 57.9	1.402	2.281	15.1	19.8
18617	Puntel		2 18.6	353°52'	1°3'/19.4	18	424726	2008 <i>SP</i> ₂₀₈		2 18.6	78°60'	5°6'/13.3	18
1 12	10 32.21	+7 58.0	1.195	2.008	20.6	17.6	1 12	10 31.23	+25 41.8	2.096	2.907	12.9	21.2
1 22	10 29.12	+7 49.6	1.119	2.006	16.3	17.3	1 22	10 26.89	+26 51.6	2.032	2.918	10.1	21.0
2 1	10 22.54	+8 0.2	1.061	2.004	11.2	17.0	2 1	10 20.25	+28 1.6	1.993	2.928	7.3	20.9
2 11	10 13.22	+8 26.6	1.026	2.003	5.4	16.7	2 11	10 11.97	+29 4.0	1.981	2.938	5.6	20.8
2 21	10 2.46	+9 2.7	1.014	2.002	1.7	16.5	2 21	10 2.95	+29 51.8	1.997	2.949	6.3	20.8
3 2	9 51.99	+9 40.6	1.028	2.002	7.4	16.8	3 2	9 54.26	+30 20.1	2.041	2.959	8.7	21.0
3 12	9 43.49	+10 12.4	1.066	2.002	13.1	17.1	3 12	9 46.90	+30 27.4	2.110	2.969	11.4	21.2
3 22	9 38.08	+10 33.0	1.124	2.003	18.0	17.4	3 22	9 41.57	+30 14.7	2.201	2.980	13.9	21.4
142662	2002 <i>TN</i> ₂₀₈		2 18.6	197°48'	2°5'/16.2	17	496497	2014 <i>UE</i> ₁₅		2 18.6	57°00'	2°2'/20.3	18
1 12	10 34.37	+17 54.7	2.507	3.293	11.8	21.9	1 12	10 30.01	+4 18.1	1.692	2.471	16.9	21.3
1 22	10 28.95	+18 37.1	2.413	3.289	9.1	21.7	1 22	10 26.27	+4 20.1	1.615	2.481	13.4	21.1
2 1	10 21.49	+19 24.9	2.344	3.284	6.1	21.5	2 1	10 20.02	+4 39.8	1.559	2.490	9.4	20.9
2 11	10 12.49	+20 12.8	2.304	3.279	3.2	21.3	2 11	10 11.92	+5 14.9	1.528	2.499	5.0	20.6
2 21	10 2.72	+20 55.6	2.295	3.272	3.1	21.3	2 21	10 2.95	+6 0.6	1.523	2.509	2.2	20.5
3 2	9 53.06	+21 28.6	2.316	3.264	6.0	21.5	3 2	9 54.26	+6 50.6	1.547	2.519	5.6	20.7
3 12	9 44.42	+21 48.8	2.367	3.256	9.2	21.6	3 12	9 46.97	+7 38.4	1.597	2.529	9.8	21.0
3 22	9 37.49	+21 55.2	2.442	3.247	12.0	21.8	3 22	9 41.86	+8 18.8	1.671	2.539	13.6	21.2
172604	2003 <i>WB</i> ₆₆		2 18.6	27°99'	1°8'/17.5	18	118486	2000 <i>CN</i> ₃₀		2 18.6	39°06'	0°8'/19.2	18
1 12	10 33.81	+14 50.0	1.485	2.297	17.3	20.0	1 12	10 30.64	+7 11.3	1.292	2.099	19.6	19.5
1 22	10 29.64	+15 3.5	1.410	2.300	13.4	19.7	1 22	10 27.56	+7 29.8	1.220	2.104	15.5	19.2
2 1	10 22.46	+15 26.8	1.357	2.304	8.8	19.5	2 1	10 21.30	+8 9.0	1.167	2.109	10.5	18.9
2 11	10 13.04	+15 54.0	1.329	2.308	3.9	19.2	2 11	10 12.61	+9 4.6	1.137	2.115	4.9	18.6
2 21	10 2.55	+16 18.4	1.327	2.313	2.6	19.1	2 21	10 2.73	+10 8.7	1.133	2.121	1.4	18.4
3 2	9 52.45	+16 34.0	1.352	2.317	7.3	19.4	3 2	9 53.19	+11 12.0	1.154	2.127	7.0	18.8
3 12	9 44.10	+16 36.9	1.403	2.322	12.0	19.7	3 12	9 45.47	+12 5.9	1.200	2.133	12.3	19.1
3 22	9 38.41	+16 25.8	1.475	2.328	16.0	19.9	3 22	9 40.56	+12 44.9	1.268	2.140	16.8	19.4
17063	Papaloizou		2 18.6	26°49'	0°1'/18.7	18	369355	2009 <i>TT</i> ₂₇		2 18.6	148°98'	1°6'/20.4	17
1 12	10 33.74	+10 37.8	1.453	2.257	18.0	17.3	1 12	10 29.71	+3 18.9	2.561	3.308	12.6	22.8
1 22	10 29.67	+10 38.8	1.375	2.258	14.1	17.1	1 22	10 25.17	+3 44.4	2.472	3.319	10.0	22.6
2 1	10 22.55	+10 53.5	1.317	2.260	9.5	16.8	2 1	10 18.87	+4 23.6	2.407	3.330	7.0	22.4
2 11	10 13.12	+11 17.7	1.283	2.262	4.2	16.5	2 11	10 11.32	+5 14.1	2.370	3.340	3.7	22.2
2 21	10 2.53	+11 45.5	1.276	2.264	1.3	16.3	2 21	10 3.16	+6 12.0	2.363	3.349	1.6	22.1
3 2	9 52.25	+12 10.8	1.296	2.266	6.7	16.6	3 2	9 55.16	+7 12.6	2.387	3.357	4.1	22.3
3 12	9 43.70	+12 27.9	1.341	2.269	11.7	16.9	3 12	9 48.06	+8 10.9	2.441	3.365	7.3	22.5
3 22	9 37.82	+12 33.9	1.409	2.272	16.0	17.2	3 22	9 42.45	+9 2.9	2.522	3.372	10.2	22.7
153038	2000 <i>QT</i>		2 18.6	160°21'	0°6'/18.1	18	389767	2011 <i>SW</i> ₂₁₆		2 18.6	174°54'	3°0'/22.2	17
1 12	10 34.14	+12 29.5	2.385	3.161	12.6	20.5	1 12	10 24.96	-2 15.1	2.682	3.410	12.6	21.5
1 22	10 28.71	+12 41.2	2.298	3.168	9.8	20.3	1 22	10 21.53	-1 51.5	2.583	3.411	10.3	21.3
2 1	10 21.26	+13 0.4	2.235	3.174	6.5	20.1	2 1	10 16.49	-1 11.1	2.506	3.412	7.6	21.1
2 11	10 12.36	+13 23.7	2.201	3.179	2.8	19.9	2 11	10 10.28	-0 15.5	2.456	3.412	4.8	20.9
2 21	10 2.78	+13 47.0	2.196	3.184	1.2	19.8	2 21	10 3.48	+0 52.3	2.435	3.412	3.0	20.8
3 2	9 53.42	+14 6.6	2.223	3.188	4.9	20.1	3 2	9 56.76	+2 7.7	2.445	3.413	4.2	20.9
3 12	9 45.14	+14 19.2	2.279	3.191	8.4	20.3	3 12	9 50.82	+3 25.0	2.484	3.413	6.9	21.1
3 22	9 38.59	+14 23.4	2.361	3.194	11.4	20.5	3 22	9 46.19	+4 39.3	2.550	3.413	9.7	21.2
83567	2001 <i>SF</i> ₂₁₈		2 18.6	34°32'	0°6'/19.2	18	470854	2008 <i>YX</i> ₅₂		2 18.6	105°16'	4°1'/13.9	18
1 12	10 25.53	+6 13.2	2.191	2.969	13.5	19.3	1 12	10 28.09	+20 57.5	2.356	3.163	11.8	21.1
1 22	10 22.32	+6 55.5	2.103	2.971	10.6	19.2	1 22	10 24.24	+22 23.8	2.286	3.173	9.1	20.9
2 1	10 17.17	+7 52.9	2.038	2.974	7.2	18.9	2 1	10 18.41	+23 54.5	2.242	3.183	6.2	20.7
2 11	10 10.60	+9 1.5	2.001	2.977	3.4	18.7	2 11	10 11.16	+25 22.6	2.226	3.193	4.2	20.6
2 21	10 3.32	+10 16.0	1.992	2.980	0.9	18.5	2 21	10 3.21	+26 40.9	2.240	3.203	4.9	20.7
3 2	9 56.18	+11 30.1	2.013	2.983	4.8	18.8	3 2	9 55.46	+27 43.6	2.284	3.212	7.4	20.9
3 12	9 50.03	+12 37.8	2.062	2.986	8.4	19.0	3 12	9 48.76	+28 27.6	2.354	3.221	10.1	21.1
3 22	9 45.51	+13 34.6	2.137	2.990	11.7	19.2	3 22	9 43.74	+28 52.3	2.448	3.230	12.6	21.2
269077	2007 <i>GH</i> ₇₃		2 18.6	24°79'	7°0'/24.6	18	465928	2010 <i>WY</i> ₅₇		2 18.6	24°04'	2°2'/17.1	16
1 12	10 25.93	-7 45.5	1.667	2.400	18.9	20.0	1 12	10 28.42	+13 39.6	1.406	2.229	17.5	21.0
1 22	10 23.23	-8 10.1	1.586	2.406	16.1	19.8	1 22	10 25.56	+14 21.9	1.340	2.236	13.5	20.8
2 1	10 18.08	-8 7.9	1.524	2.412	12.8	19.6	2 1	10 19.79	+15 17.6	1.295	2.245	8.8	20.5
2 11	10 11.09	-7 37.5	1.483	2.419	9.4	19.4	2 11	10 11.89	+16 19.2	1.274	2.254	3.9	20.3
2 21	10 3.18	-6 40.9	1.467	2.427	7.2	19.3	2 21	10 2.99	+17 18.1	1.279	2.264	3.0	20.2
3 2	9 55.47	-5 23.6	1.477	2.435	7.6	19.3	3 2	9 54.49	+18 6.0	1.311	2.275	7.6	20.5
3 12	9 49.07	-3 54.6	1.512	2.444	10.3	19.5	3 12	9 47.70	+18 37.2	1.367	2.286	12.2	20.8
3 22	9 44.78	-2 23.6	1.571	2.453	13.6	19.7	3 22	9 43.45	+18 49.8	1.444	2.298	16.2	21.1
467474	2006 <i>RK</i> ₅		2 18.6	129°64'	4°0'/23.9	17	191945	2005 <i>UC</i> ₇₂		2 18.6	205°13'	1°6'/17.6	18
1 12	10 26.57	-6 48.6	3.119	3.807	11.7	22.							

EPHEMERIDES

2 18.6

2 18.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
337820	2001 VA ₁₈		2 18.6	96°86	3°7/14.8	18	205769	2002 CC ₆₂		2 18.6	9°01	5°9/15.3	18
1 12	10 31.54	+22 35.3	2.543	3.342	11.3	20.8	1 12	10 31.20	+21 19.9	1.134	1.979	19.4	19.5
1 22	10 26.58	+23 22.8	2.480	3.361	8.7	20.7	1 22	10 28.56	+22 9.5	1.073	1.980	15.1	19.3
2 1	10 19.77	+24 11.5	2.442	3.381	6.0	20.6	2 1	10 22.23	+23 5.5	1.031	1.982	10.4	19.0
2 11	10 11.69	+24 55.9	2.433	3.400	3.9	20.4	2 11	10 13.09	+23 56.6	1.011	1.985	6.5	18.8
2 21	10 3.08	+25 31.0	2.454	3.419	4.2	20.5	2 21	10 2.66	+24 31.8	1.015	1.990	6.8	18.8
3 2	9 54.80	+25 53.1	2.504	3.438	6.5	20.7	3 2	9 52.78	+24 42.9	1.043	1.995	11.0	19.1
3 12	9 47.61	+26 0.6	2.582	3.456	9.1	20.9	3 12	9 45.17	+24 27.6	1.093	2.002	15.6	19.4
3 22	9 42.08	+25 53.8	2.684	3.474	11.4	21.1	3 22	9 40.84	+23 48.2	1.161	2.010	19.7	19.6
303898	2005 TY ₁₁₃		2 18.6	241°80	7°0/9.9	17	374566	2006 BG ₂₃₀		2 18.6	135°70	0°8/17.9	18
1 12	10 37.04	+38 27.4	3.048	3.826	10.1	21.5	1 12	10 32.01	+12 39.7	2.120	2.907	13.6	21.3
1 22	10 30.98	+39 23.5	2.965	3.810	8.6	21.4	1 22	10 27.36	+12 57.6	2.036	2.913	10.5	21.1
2 1	10 22.81	+40 12.5	2.906	3.794	7.4	21.2	2 1	10 20.53	+13 24.4	1.977	2.918	6.9	20.9
2 11	10 13.10	+40 48.2	2.875	3.777	7.0	21.2	2 11	10 12.12	+13 55.8	1.944	2.923	3.0	20.7
2 21	10 2.63	+41 5.4	2.873	3.760	7.6	21.2	2 21	10 2.97	+14 27.2	1.941	2.927	1.5	20.6
3 2	9 52.36	+41 1.3	2.897	3.742	9.0	21.3	3 2	9 54.04	+14 53.9	1.967	2.932	5.4	20.8
3 12	9 43.20	+40 36.0	2.947	3.724	10.7	21.4	3 12	9 46.29	+15 12.2	2.021	2.936	9.1	21.1
3 22	9 35.84	+39 51.5	3.019	3.705	12.4	21.5	3 22	9 40.42	+15 20.2	2.100	2.940	12.4	21.3
116069	2003 WR ₁₂₀		2 18.6	98°29	5°2/13.5	18	426964	2013 YD ₆₀		2 18.6	335°12	1°0/17.8	17
1 12	10 31.44	+25 16.1	2.206	3.015	12.5	19.5	1 12	10 28.86	+13 5.0	2.132	2.927	13.3	20.9
1 22	10 26.94	+26 22.9	2.141	3.025	9.7	19.3	1 22	10 25.01	+13 22.8	2.042	2.923	10.3	20.7
2 1	10 20.23	+27 30.1	2.101	3.036	7.0	19.1	2 1	10 19.03	+13 49.2	1.975	2.918	6.8	20.5
2 11	10 11.96	+28 30.3	2.088	3.047	5.3	19.1	2 11	10 11.49	+14 20.3	1.935	2.915	3.0	20.3
2 21	10 2.99	+29 17.1	2.104	3.057	5.9	19.1	2 21	10 3.16	+14 51.5	1.924	2.911	1.6	20.1
3 2	9 54.33	+29 45.8	2.148	3.068	8.2	19.3	3 2	9 54.99	+15 17.9	1.942	2.907	5.4	20.4
3 12	9 46.93	+29 54.6	2.218	3.078	10.9	19.5	3 12	9 47.90	+15 35.9	1.988	2.904	9.2	20.6
3 22	9 41.46	+29 44.6	2.310	3.088	13.4	19.6	3 22	9 42.61	+15 43.4	2.058	2.901	12.5	20.8
2011	Veteraniya		2 18.6	159°82	0°6/18.2	18	333775	2011 EJ ₆₅		2 18.6	252°40	0°3/18.4	17
1 12	10 35.21	+11 42.9	1.925	2.710	14.9	17.4	1 12	10 27.65	+ 8 31.4	2.230	3.011	13.2	21.9
1 22	10 30.05	+12 0.9	1.842	2.716	11.6	17.2	1 22	10 24.09	+ 9 21.1	2.126	2.998	10.4	21.7
2 1	10 22.43	+12 29.4	1.781	2.721	7.7	17.0	2 1	10 18.48	+10 25.4	2.045	2.984	6.9	21.4
2 11	10 12.99	+13 4.1	1.747	2.726	3.3	16.7	2 11	10 11.29	+11 40.1	1.992	2.970	3.0	21.2
2 21	10 2.67	+13 39.6	1.742	2.730	1.4	16.6	2 21	10 3.21	+12 59.5	1.968	2.956	1.1	21.0
3 2	9 52.60	+14 10.5	1.767	2.733	5.8	16.9	3 2	9 55.13	+14 16.9	1.975	2.941	5.2	21.3
3 12	9 43.88	+14 32.6	1.820	2.736	9.9	17.1	3 12	9 47.98	+15 26.0	2.010	2.926	9.1	21.5
3 22	9 37.31	+14 43.6	1.897	2.739	13.5	17.4	3 22	9 42.49	+16 22.6	2.070	2.911	12.5	21.6
163375	2002 PT ₄₈		2 18.6	71°55	3°6/21.7	18	109992	2001 SV ₅₉		2 18.6	180°46	3°3/21.9	18
1 12	10 29.70	+ 0 19.2	2.153	2.898	14.7	19.4	1 12	10 28.97	- 1 41.1	2.304	3.037	14.2	20.5
1 22	10 25.53	- 0 2.2	2.065	2.905	12.0	19.2	1 22	10 24.91	- 1 24.1	2.207	3.038	11.7	20.3
2 1	10 19.30	- 0 7.9	2.000	2.911	8.9	19.0	2 1	10 18.89	- 0 48.6	2.131	3.039	8.6	20.1
2 11	10 11.57	+ 0 1.4	1.960	2.918	5.6	18.8	2 11	10 11.42	+ 0 4.3	2.081	3.039	5.4	19.9
2 21	10 3.11	+ 0 23.7	1.948	2.925	3.7	18.7	2 21	10 3.19	+ 1 10.9	2.060	3.039	3.3	19.8
3 2	9 54.82	+ 0 55.3	1.965	2.931	5.2	18.8	3 2	9 55.06	+ 2 26.1	2.070	3.038	4.8	19.9
3 12	9 47.60	+ 1 31.2	2.009	2.938	8.3	19.0	3 12	9 47.87	+ 3 43.4	2.108	3.036	8.0	20.1
3 22	9 42.13	+ 2 6.7	2.080	2.945	11.5	19.2	3 22	9 42.30	+ 4 56.9	2.173	3.034	11.2	20.3
131919	2002 BM ₂₄		2 18.6	46°08	1°3/19.6	18	423717	2006 BP ₇₅		2 18.7	303°74	1°1/17.8	17
1 12	10 28.41	+ 4 41.6	1.354	2.154	19.3	19.5	1 12	10 31.16	+13 14.9	1.933	2.729	14.4	21.5
1 22	10 25.63	+ 5 16.8	1.284	2.163	15.2	19.3	1 22	10 27.02	+13 31.9	1.844	2.725	11.2	21.3
2 1	10 19.91	+ 6 15.9	1.233	2.172	10.4	19.0	2 1	10 20.49	+13 58.2	1.778	2.721	7.4	21.1
2 11	10 11.98	+ 7 34.1	1.206	2.182	5.1	18.7	2 11	10 12.18	+14 29.5	1.738	2.718	3.2	20.8
2 21	10 2.98	+ 9 3.0	1.205	2.192	1.5	18.5	2 21	10 2.96	+15 0.6	1.727	2.714	1.8	20.7
3 2	9 54.32	+10 31.9	1.230	2.203	6.5	18.9	3 2	9 53.92	+15 26.2	1.745	2.710	5.9	20.9
3 12	9 47.36	+11 51.0	1.280	2.214	11.6	19.2	3 12	9 46.12	+15 42.3	1.790	2.707	10.0	21.2
3 22	9 42.98	+12 53.7	1.353	2.225	16.0	19.5	3 22	9 40.36	+15 46.9	1.859	2.703	13.5	21.4
202739	2007 LP ₂₉		2 18.6	279°53	3°6/20.9	18	519093	2010 LT ₈₇		2 18.7	112°67	5°0/13.7	18
1 12	10 31.22	+ 2 16.1	1.554	2.329	18.3	20.8	1 12	10 32.06	+25 51.5	2.369	3.174	11.8	21.1
1 22	10 27.87	+ 2 0.5	1.450	2.310	15.0	20.6	1 22	10 27.27	+26 48.9	2.302	3.184	9.3	20.9
2 1	10 21.57	+ 2 4.9	1.365	2.291	10.9	20.3	2 1	10 20.39	+27 45.9	2.260	3.194	6.7	20.8
2 11	10 12.85	+ 2 29.2	1.304	2.271	6.5	20.0	2 11	10 12.03	+28 35.9	2.246	3.204	5.0	20.7
2 21	10 2.66	+ 3 10.6	1.268	2.251	3.6	19.7	2 21	10 3.03	+29 13.1	2.260	3.213	5.6	20.8
3 2	9 52.32	+ 4 3.4	1.260	2.232	6.7	19.8	3 2	9 54.32	+29 33.5	2.303	3.223	7.8	20.9
3 12	9 43.32	+ 4 59.5	1.277	2.211	11.5	20.1	3 12	9 46.82	+29 35.7	2.373	3.232	10.3	21.1
3 22	9 36.78	+ 5 51.5	1.317	2.191	16.2	20.3	3 22	9 41.14	+29 20.7	2.466	3.241	12.7	21.3
304031	2006 DM ₈₁		2 18.6	230°97	0°6/18.2	17	157906	1999 TZ ₁₄₇		2 18.7	129°84	2°0/16.7	18
1 12	10 33.78	+11 2.4	1.908	2.694	15.0	21.9	1 12	10 31.38	+15 33.7	2.372	3.162	12.3	20.8
1 22	10 29.21	+11 27.9	1.807	2.682	11.7	21.6	1 22	10 26.62	+16 16.4	2.296	3.175	9.4	20.6
2 1	10 22.07	+12 6.0	1.730	2.670	7.8	21.4	2 1	10 19.91	+17 5.8	2.245	3.188	6.1	20.5
2 11	10 12.93	+12 52.2	1.679	2.657	3.4	21.1	2 11	10 11.82	+17 56.8	2.223	3.200	2.9	20.3
2 21	10 2.67	+13 40.9	1.656	2.644	1.5	20.9	2 21	10 3.10	+18 44.2	2.230	3.212	2.5	20.3
3 2	9 52.44	+14 25.6	1.664	2.630	6.1	21.2	3 2	9 54.63	+19 23.2	2.268	3.223	5.6	20.5
3 12	9 43.43	+15 1.0	1.698	2.615	10.5	21.4	3 12	9 47.24	+19 50.5	2.334	3.234	8.8	20.7
3 22	9 36.55	+15 23.9	1.757	2.599	14.3	21.6	3 22	9 41.54	+20 4.9	2.425	3.244	11.6	20.9
233075	2005 NX ₁₄		2 18.6	216°78	1°7/16.5	18	372419	2009 RE ₆₀		2 18.7	151°73	0°8/19.2	18
1 12	10 26.97	+14 57.0	2.947	3.734	10.2	21.0	1 12						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
25198	Kylienicole		2 18.7	92°72	0°5/19.1	18	282594	2005 <i>EF</i> ₂₇₅		2 18.7	267°12	0°6/18.1	17
1 12	10 28.66	+ 7 51.8	2.123	2.903	13.9	19.1	1 12	10 28.01	+10 59.2	2.182	2.971	13.2	20.7
1 22	10 24.77	+ 8 15.3	2.040	2.909	10.9	18.9	1 22	10 24.33	+11 32.6	2.090	2.967	10.3	20.5
2 1	10 18.82	+ 8 51.6	1.980	2.916	7.3	18.7	2 1	10 18.59	+12 17.2	2.022	2.964	6.8	20.3
2 11	10 11.39	+ 9 37.4	1.946	2.923	3.4	18.5	2 11	10 11.32	+13 8.9	1.981	2.960	2.9	20.0
2 21	10 3.23	+10 27.7	1.942	2.930	0.9	18.3	2 21	10 3.27	+14 2.2	1.969	2.957	1.4	19.9
3 2	9 55.28	+11 17.2	1.967	2.937	4.9	18.6	3 2	9 55.34	+14 51.8	1.987	2.953	5.3	20.2
3 12	9 48.41	+12 0.9	2.020	2.943	8.6	18.9	3 12	9 48.44	+15 32.7	2.033	2.949	9.0	20.4
3 22	9 43.31	+12 35.2	2.098	2.950	11.9	19.1	3 22	9 43.25	+16 2.1	2.103	2.945	12.3	20.6
83903	2001 <i>UR</i> ₁₆₆		2 18.7	339°39	0°5/19.2	17	413110	2001 <i>VZ</i> ₄₉		2 18.7	90°58	0°7/18.1	18
1 12	10 23.95	+ 7 50.6	2.911	3.683	10.7	19.9	1 12	10 36.03	+12 3.9	2.020	2.801	14.4	21.6
1 22	10 20.65	+ 8 11.5	2.814	3.679	8.4	19.8	1 22	10 30.29	+12 23.5	1.958	2.831	11.1	21.4
2 1	10 15.87	+ 8 41.9	2.742	3.676	5.6	19.6	2 1	10 22.33	+12 52.3	1.920	2.860	7.3	21.2
2 11	10 10.03	+ 9 19.5	2.697	3.673	2.6	19.4	2 11	10 12.87	+13 25.5	1.910	2.888	3.1	21.0
2 21	10 3.65	+10 0.8	2.682	3.670	0.7	19.2	2 21	10 2.84	+13 58.2	1.929	2.916	1.4	20.9
3 2	9 57.37	+10 42.4	2.698	3.668	3.7	19.4	3 2	9 53.28	+14 25.7	1.978	2.943	5.4	21.3
3 12	9 51.79	+11 20.5	2.743	3.665	6.7	19.6	3 12	9 45.12	+14 44.6	2.056	2.969	9.1	21.5
3 22	9 47.41	+11 52.4	2.814	3.663	9.3	19.8	3 22	9 39.01	+14 53.3	2.158	2.995	12.2	21.8
303414	2004 <i>YB</i> ₁₄		2 18.7	23°63	0°3/18.8	18	408456	2013 <i>HQ</i> ₃₇		2 18.7	64°05	2°5/17.2	18
1 12	10 29.73	+ 8 59.6	1.289	2.104	19.2	20.5	1 12	10 36.40	+16 20.5	1.460	2.272	17.5	21.2
1 22	10 26.83	+ 9 13.2	1.220	2.109	15.1	20.3	1 22	10 31.60	+16 38.8	1.396	2.285	13.5	21.0
2 1	10 20.81	+ 9 44.9	1.170	2.115	10.1	20.0	2 1	10 23.72	+17 5.4	1.352	2.298	8.9	20.8
2 11	10 12.43	+10 30.0	1.143	2.122	4.6	19.7	2 11	10 13.63	+17 33.5	1.333	2.312	4.2	20.5
2 21	10 2.91	+11 20.9	1.142	2.130	1.3	19.5	2 21	10 2.60	+17 56.0	1.341	2.325	3.2	20.5
3 2	9 53.78	+12 9.3	1.166	2.138	7.0	19.9	3 2	9 52.11	+18 7.2	1.377	2.339	7.6	20.8
3 12	9 46.47	+12 47.7	1.214	2.147	12.2	20.2	3 12	9 43.53	+18 4.0	1.438	2.353	12.1	21.1
3 22	9 41.93	+13 11.9	1.284	2.157	16.6	20.5	3 22	9 37.71	+17 46.3	1.521	2.366	16.0	21.3
410474	2008 <i>CY</i> ₂₁₄		2 18.7	32°30	1°8/19.9	18	377823	2006 <i>BS</i> ₈₆		2 18.7	314°97	1°6/17.3	18
1 12	10 29.26	+ 5 51.0	1.330	2.134	19.4	20.9	1 12	10 28.54	+12 48.3	1.958	2.757	14.1	21.1
1 22	10 26.26	+ 5 52.7	1.265	2.146	15.3	20.7	1 22	10 24.98	+13 35.1	1.872	2.756	10.9	20.8
2 1	10 20.29	+ 6 14.4	1.220	2.159	10.5	20.5	2 1	10 19.13	+14 33.5	1.810	2.755	7.2	20.6
2 11	10 12.14	+ 6 52.8	1.198	2.173	5.3	20.2	2 11	10 11.59	+15 38.0	1.775	2.754	3.2	20.4
2 21	10 3.01	+ 7 41.6	1.200	2.188	1.9	20.0	2 21	10 3.19	+16 41.9	1.768	2.753	2.3	20.3
3 2	9 54.32	+ 8 32.8	1.229	2.203	6.4	20.4	3 2	9 54.95	+17 38.4	1.791	2.752	6.2	20.5
3 12	9 47.39	+ 9 18.8	1.283	2.219	11.3	20.7	3 12	9 47.89	+18 22.5	1.840	2.752	10.1	20.8
3 22	9 43.08	+ 9 53.9	1.359	2.236	15.6	21.0	3 22	9 42.76	+18 51.3	1.913	2.751	13.5	21.0
124751	2001 <i>SR</i> ₂₁₇		2 18.7	217°88	5°8/13.5	18	236303	2006 <i>AT</i> ₁₀₀		2 18.7	153°76	1°0/17.8	18
1 12	10 36.41	+27 19.0	2.184	2.985	12.8	20.6	1 12	10 34.19	+11 6.0	1.978	2.761	14.6	21.6
1 22	10 31.03	+28 17.5	2.099	2.977	10.2	20.4	1 22	10 29.22	+11 54.3	1.897	2.771	11.3	21.4
2 1	10 23.13	+29 15.6	2.039	2.969	7.6	20.3	2 1	10 21.87	+12 55.2	1.840	2.780	7.4	21.2
2 11	10 13.35	+30 5.4	2.006	2.960	5.9	20.1	2 11	10 12.78	+14 3.0	1.810	2.789	3.2	20.9
2 21	10 2.63	+30 39.9	2.002	2.951	6.6	20.2	2 21	10 2.84	+15 11.1	1.810	2.797	1.8	20.8
3 2	9 52.10	+30 54.3	2.027	2.941	9.0	20.3	3 2	9 53.14	+16 12.5	1.841	2.803	5.9	21.1
3 12	9 42.91	+30 46.9	2.077	2.931	11.8	20.4	3 12	9 44.73	+17 1.9	1.899	2.809	9.9	21.4
3 22	9 35.87	+30 19.5	2.150	2.920	14.5	20.6	3 22	9 38.38	+17 36.7	1.982	2.814	13.3	21.6
340756	2006 <i>ST</i> ₂₈₉		2 18.7	192°77	8°5/6.4	18	56966	2000 <i>ST</i> ₈₆		2 18.7	292°93	1°7/17.3	18
1 12	10 37.62	+45 11.7	3.048	3.811	10.4	21.3	1 12	10 28.58	+12 33.9	1.826	2.629	14.9	19.0
1 22	10 31.64	+46 30.1	2.991	3.809	9.3	21.2	1 22	10 25.44	+13 20.3	1.719	2.605	11.6	18.8
2 1	10 23.34	+47 37.8	2.959	3.806	8.6	21.1	2 1	10 19.75	+14 20.9	1.635	2.581	7.7	18.5
2 11	10 13.38	+48 27.8	2.953	3.803	8.6	21.1	2 11	10 12.00	+15 30.5	1.577	2.556	3.4	18.2
2 21	10 2.64	+48 55.2	2.972	3.800	9.2	21.2	2 21	10 3.03	+16 41.8	1.547	2.532	2.5	18.0
3 2	9 52.18	+48 57.6	3.017	3.796	10.4	21.3	3 2	9 53.97	+17 46.8	1.545	2.507	6.9	18.3
3 12	9 43.03	+48 35.7	3.083	3.792	11.7	21.4	3 12	9 46.03	+18 38.8	1.569	2.483	11.4	18.5
3 22	9 35.90	+47 52.7	3.168	3.787	12.9	21.5	3 22	9 40.20	+19 13.7	1.617	2.458	15.4	18.6
285976	2001 <i>RT</i> ₁₁₆		2 18.7	261°02	1°0/17.8	18	108925	2001 <i>PD</i> ₂₁		2 18.7	97°78	1°5/19.9	18
1 12	10 30.39	+11 40.1	1.868	2.664	14.9	21.0	1 12	10 32.05	+ 5 1.1	1.942	2.710	15.4	20.4
1 22	10 26.62	+12 14.2	1.772	2.653	11.6	20.8	1 22	10 27.44	+ 5 15.6	1.869	2.730	12.1	20.2
2 1	10 20.37	+13 1.1	1.699	2.642	7.7	20.5	2 1	10 20.60	+ 5 45.6	1.819	2.749	8.4	20.0
2 11	10 12.20	+13 56.0	1.652	2.631	3.4	20.2	2 11	10 12.17	+ 6 28.0	1.795	2.768	4.3	19.8
2 21	10 2.98	+14 52.6	1.633	2.620	1.8	20.1	2 21	10 3.04	+ 7 17.9	1.800	2.786	1.6	19.6
3 2	9 53.82	+15 44.1	1.644	2.609	6.2	20.3	3 2	9 54.24	+ 8 9.6	1.834	2.805	5.0	19.9
3 12	9 45.88	+16 24.7	1.681	2.597	10.5	20.6	3 12	9 46.73	+ 8 57.4	1.896	2.822	8.9	20.1
3 22	9 40.01	+16 51.2	1.741	2.586	14.3	20.8	3 22	9 41.20	+ 9 37.1	1.983	2.840	12.3	20.4
320412	2007 <i>VZ</i> ₁		2 18.7	103°65	3°0/20.9	18	196549	2003 <i>QR</i> ₃		2 18.7	227°04	1°9/16.7	17
1 12	10 33.04	+ 2 28.7	1.712	2.477	17.3	21.3	1 12	10 28.61	+13 47.4	2.297	3.090	12.5	20.8
1 22	10 28.58	+ 2 22.6	1.635	2.490	13.9	21.1	1 22	10 24.77	+14 46.9	2.201	3.082	9.7	20.6
2 1	10 21.55	+ 2 35.2	1.579	2.503	9.9	20.9	2 1	10 18.89	+15 56.8	2.130	3.074	6.3	20.4
2 11	10 12.65	+ 3 4.7	1.548	2.516	5.7	20.7	2 11	10 11.47	+17 11.7	2.087	3.065	2.9	20.1
2 21	10 2.87	+ 3 46.9	1.545	2.528	3.0	20.6	2 21	10 3.23	+18 25.3	2.074	3.057	2.6	20.1
3 2	9 53.40	+ 4 36.0	1.570	2.540	5.7	20.8	3 2	9 55.04	+19 31.2	2.091	3.047	5.9	20.3
3 12	9 45.37	+ 5 25.2	1.621	2.552	9.8	21.0	3 12	9 47.82	+20 24.4	2.137	3.038	9.4	20.5
3 22	9 39.59	+ 6 8.9	1.697	2.564	13.6	21.3	3 22	9 42.27	+21 2.3	2.206	3.028	12.5	20.7
175436	2006 <i>QW</i> ₂₉		2 18.7	189°41	1°3/17.5	18	359676	2011 <i>SJ</i> ₁₁₉		2 18.7	65°38	1°2/19.6	18

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
172015	2001 <i>UJ</i> ₁₀₅		2 18.7 235°31'	4.8/13.5	17		163259	2002 <i>GS</i> ₄₀		2 18.7 337°63'	1.5/19.6	18	
1 12	10 30.60	+25 37.2	2.466	3.271	11.4	20.2	1 12	10 29.20	+7 2.0	1.334	2.142	19.1	20.1
1 22	10 26.21	+26 34.8	2.383	3.265	9.0	20.1	1 22	10 26.54	+6 59.1	1.251	2.134	15.2	19.8
2 1	10 19.77	+27 33.0	2.325	3.260	6.5	19.9	2 1	10 20.76	+7 14.9	1.186	2.127	10.5	19.5
2 11	10 11.83	+28 25.4	2.296	3.254	4.9	19.8	2 11	10 12.51	+7 47.0	1.144	2.121	5.2	19.2
2 21	10 3.14	+29 6.2	2.295	3.248	5.5	19.8	2 21	10 2.92	+8 29.6	1.127	2.115	1.7	18.9
3 2	9 54.61	+29 31.0	2.323	3.242	7.7	19.9	3 2	9 53.49	+9 15.3	1.136	2.110	6.8	19.2
3 12	9 47.14	+29 37.7	2.377	3.236	10.3	20.1	3 12	9 45.71	+9 56.0	1.169	2.105	12.2	19.5
3 22	9 41.41	+29 26.9	2.454	3.230	12.8	20.2	3 22	9 40.67	+10 26.1	1.223	2.102	16.9	19.7
341377	2007 <i>TX</i> ₁₁₅		2 18.7 36°75'	0°2/18.5	18		28117	1998 <i>SK</i> ₅₇		2 18.7 282°75'	3°3/16.7	18	
1 12	10 27.30	+9 43.2	2.133	2.921	13.5	21.2	1 12	10 34.50	+16 51.1	1.409	2.228	17.7	18.4
1 22	10 23.75	+10 12.0	2.049	2.925	10.5	21.0	1 22	10 30.72	+17 24.3	1.323	2.216	13.8	18.1
2 1	10 18.17	+10 52.4	1.989	2.930	7.0	20.7	2 1	10 23.59	+18 8.0	1.257	2.205	9.3	17.8
2 11	10 11.13	+11 40.7	1.956	2.934	3.1	20.5	2 11	10 13.80	+18 54.7	1.215	2.193	4.6	17.5
2 21	10 3.36	+12 31.8	1.951	2.939	1.0	20.4	2 21	10 2.53	+19 35.5	1.200	2.181	4.1	17.5
3 2	9 55.79	+13 20.1	1.976	2.944	5.0	20.6	3 2	9 51.40	+20 2.3	1.210	2.170	8.8	17.7
3 12	9 49.28	+14 1.0	2.029	2.949	8.8	20.9	3 12	9 42.05	+20 10.0	1.245	2.158	13.7	17.9
3 22	9 44.49	+14 31.2	2.106	2.955	12.0	21.1	3 22	9 35.62	+19 58.0	1.301	2.147	18.1	18.2
283916	2004 <i>FB</i> ₁₂₅		2 18.7 248°13'	2°4/17.2	18		418304	2008 <i>FU</i> ₄₉		2 18.7 306°94'	1°8/17.3	18	
1 12	10 37.11	+15 45.5	1.646	2.448	16.3	21.5	1 12	10 31.34	+14 4.3	1.731	2.536	15.5	21.9
1 22	10 32.33	+16 10.9	1.549	2.433	12.8	21.2	1 22	10 27.46	+14 35.6	1.647	2.533	12.0	21.6
2 1	10 24.47	+16 45.9	1.473	2.417	8.5	20.9	2 1	10 20.96	+15 17.6	1.585	2.530	7.9	21.4
2 11	10 14.14	+17 24.6	1.423	2.401	4.0	20.6	2 11	10 12.47	+16 4.7	1.549	2.528	3.6	21.1
2 21	10 2.40	+17 59.5	1.401	2.384	3.2	20.5	2 21	10 2.96	+16 50.0	1.540	2.525	2.5	21.0
3 2	9 50.69	+18 23.8	1.407	2.367	7.7	20.8	3 2	9 53.66	+17 27.1	1.560	2.523	6.8	21.3
3 12	9 40.50	+18 33.0	1.439	2.349	12.4	21.0	3 12	9 45.76	+17 51.0	1.606	2.520	11.1	21.5
3 22	9 32.93	+18 25.6	1.494	2.331	16.6	21.2	3 22	9 40.12	+17 59.9	1.674	2.518	14.8	21.8
239742	2009 <i>FO</i> ₃₀		2 18.7 272°22'	3°6/22.6	17		244207	2002 <i>AW</i> ₇		2 18.7 161°89'	2°5/16.3	18	
1 12	10 25.33	-2 59.7	2.574	3.300	13.1	20.6	1 12	10 33.66	+14 51.8	2.061	2.852	13.8	21.3
1 22	10 22.02	-2 50.1	2.459	3.284	10.8	20.4	1 22	10 28.80	+16 2.1	1.980	2.860	10.6	21.1
2 1	10 16.98	-2 23.1	2.367	3.268	8.2	20.2	2 1	10 21.61	+17 22.6	1.924	2.867	7.0	20.9
2 11	10 10.61	-1 39.4	2.301	3.252	5.5	20.0	2 11	10 12.69	+18 46.5	1.897	2.874	3.4	20.7
2 21	10 3.51	-0 41.2	2.262	3.236	3.6	19.9	2 21	10 2.91	+20 5.9	1.899	2.879	3.3	20.7
3 2	9 56.39	+0 27.2	2.254	3.220	4.7	19.9	3 2	9 53.33	+21 13.7	1.932	2.883	6.7	20.9
3 12	9 50.03	+1 40.4	2.275	3.204	7.5	20.1	3 12	9 44.98	+22 5.1	1.992	2.887	10.3	21.2
3 22	9 45.03	+2 52.8	2.322	3.188	10.4	20.2	3 22	9 38.63	+22 38.3	2.077	2.889	13.5	21.4
242849	2006 <i>EX</i> ₅₉		2 18.7 248°23'	2°9/20.9	18		204205	2004 <i>CX</i> ₉		2 18.7 28°19'	3°0/21.0	18	
1 12	10 30.28	+1 33.3	1.763	2.527	16.8	21.0	1 12	10 29.96	+2 53.0	2.069	2.829	14.8	19.9
1 22	10 26.71	+1 43.6	1.660	2.515	13.7	20.8	1 22	10 25.85	+2 31.2	1.981	2.832	12.0	19.7
2 1	10 20.55	+2 14.8	1.579	2.503	9.9	20.5	2 1	10 19.61	+2 23.6	1.915	2.835	8.6	19.5
2 11	10 12.35	+3 5.7	1.522	2.490	5.7	20.2	2 11	10 11.79	+2 29.3	1.874	2.839	5.1	19.3
2 21	10 2.96	+4 12.1	1.492	2.476	2.9	20.0	2 21	10 3.19	+2 46.1	1.861	2.843	3.0	19.1
3 2	9 53.54	+5 27.2	1.491	2.463	5.8	20.2	3 2	9 54.76	+3 10.2	1.877	2.847	5.1	19.3
3 12	9 45.33	+6 42.6	1.517	2.448	10.3	20.4	3 12	9 47.44	+3 37.0	1.921	2.851	8.6	19.5
3 22	9 39.25	+7 51.2	1.567	2.434	14.4	20.6	3 22	9 41.94	+4 2.1	1.990	2.855	11.9	19.7
498912	2009 <i>AK</i> ₃₄		2 18.7 334°16'	2°4/20.6	17		459978	2014 <i>OE</i> ₂₄		2 18.7 112°80'	0°2/18.8	18	
1 12	10 30.05	+4 13.8	2.169	2.931	14.2	21.2	1 12	10 33.20	+8 16.4	1.842	2.623	15.6	22.6
1 22	10 25.86	+3 57.6	2.075	2.929	11.4	21.0	1 22	10 28.51	+8 46.4	1.769	2.640	12.2	22.4
2 1	10 19.59	+3 54.3	2.004	2.928	8.1	20.8	2 1	10 21.41	+9 30.8	1.719	2.657	8.1	22.2
2 11	10 11.78	+4 2.7	1.958	2.926	4.6	20.6	2 11	10 12.57	+10 25.0	1.695	2.673	3.6	21.9
2 21	10 3.17	+4 20.4	1.941	2.925	2.4	20.4	2 21	10 2.96	+11 23.0	1.700	2.688	1.0	21.8
3 2	9 54.68	+4 43.6	1.954	2.924	4.9	20.6	3 2	9 53.69	+12 18.2	1.735	2.704	5.5	22.1
3 12	9 47.25	+5 8.2	1.994	2.922	8.4	20.8	3 12	9 45.81	+13 4.9	1.797	2.718	9.7	22.4
3 22	9 41.56	+5 30.1	2.060	2.921	11.7	21.0	3 22	9 40.04	+13 39.7	1.883	2.732	13.2	22.6
503029	2015 <i>FT</i> ₁₄₀		2 18.7 181°26'	1°6/20.5	17		501599	2014 <i>QA</i> ₃₀₀		2 18.7 250°82'	1°2/17.7	17	
1 12	10 26.10	+3 13.4	2.641	3.394	12.1	21.8	1 12	10 31.42	+10 58.0	1.760	2.556	15.7	22.1
1 22	10 22.45	+3 36.6	2.544	3.395	9.7	21.6	1 22	10 27.67	+11 44.2	1.660	2.541	12.3	21.9
2 1	10 17.15	+4 13.4	2.471	3.395	6.8	21.4	2 1	10 21.25	+12 46.0	1.583	2.526	8.1	21.6
2 11	10 10.64	+5 1.6	2.425	3.395	3.7	21.2	2 11	10 12.68	+13 58.3	1.531	2.511	3.6	21.3
2 21	10 3.52	+5 57.6	2.409	3.395	1.6	21.1	2 21	10 2.88	+15 13.5	1.508	2.495	2.0	21.1
3 2	9 56.50	+6 57.0	2.423	3.394	4.0	21.2	3 2	9 53.06	+16 23.3	1.514	2.478	6.8	21.4
3 12	9 50.27	+7 55.0	2.467	3.394	7.1	21.4	3 12	9 44.50	+17 20.4	1.546	2.461	11.4	21.6
3 22	9 45.40	+8 47.4	2.537	3.393	10.0	21.6	3 22	9 38.16	+18 0.7	1.601	2.444	15.4	21.8
221245	2005 <i>UC</i> ₂₃₈		2 18.7 153°94'	2°8/16.0	18		401082	2011 <i>UT</i> ₁₁₆		2 18.7 213°87'	2°0/17.2	18	
1 12	10 31.23	+16 54.3	2.163	2.961	13.0	20.6	1 12	10 35.73	+14 57.8	1.798	2.594	15.3	21.7
1 22	10 26.81	+17 50.1	2.083	2.967	10.0	20.4	1 22	10 30.85	+15 27.1	1.707	2.589	11.9	21.4
2 1	10 20.22	+18 53.3	2.028	2.972	6.6	20.2	2 1	10 23.23	+16 6.0	1.639	2.582	7.9	21.2
2 11	10 12.04	+19 57.6	2.001	2.977	3.4	20.0	2 11	10 13.50	+16 48.7	1.597	2.576	3.6	20.9
2 21	10 3.09	+20 56.5	2.004	2.982	3.4	20.0	2 21	10 2.66	+17 28.5	1.584	2.568	2.7	20.8
3 2	9 54.36	+21 44.2	2.036	2.986	6.6	20.2	3 2	9 51.97	+17 59.2	1.600	2.560	6.9	21.1
3 12	9 46.78	+22 16.9	2.095	2.989	9.9	20.4	3 12	9 42.70	+18 16.3	1.643	2.552	11.2	21.3
3 22	9 41.07	+22 33.5	2.178	2.993	12.9	20.6	3 22	9 35.77	+18 18.5	1.709	2.543	15.0	21.5
494157	2016 <i>DP</i> ₁₅		2 18.7 107°15'	0°1/18.7	18		429921	2012 <i>TT</i> ₂₁₀		2 18.7 119°56'	1°5/16.9	17	
1 12	10 29.80	+											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
213992	2004 <i>BN</i> ₄₄		2 18.7 16°24	0°9/17.9	18		490680	2010 <i>KR</i> ₈₄		2 18.7 206°53	0°1/18.6	17	
1 12	10 22.65	+ 8 53.9	1.450	2.268	17.3	18.7	1 12	10 31.70	+ 8 45.3	2.163	2.938	13.8	22.8
1 22	10 20.99	+ 9 57.0	1.385	2.278	13.4	18.5	1 22	10 27.27	+ 9 24.5	2.064	2.932	10.8	22.6
2 1	10 16.74	+11 19.4	1.341	2.289	8.7	18.2	2 1	10 20.64	+10 17.3	1.989	2.926	7.2	22.4
2 11	10 10.60	+12 53.8	1.322	2.302	3.7	18.0	2 11	10 12.32	+11 19.8	1.941	2.918	3.2	22.1
2 21	10 3.57	+14 30.5	1.329	2.316	1.9	17.9	2 21	10 3.10	+12 26.4	1.923	2.911	1.1	21.9
3 2	9 56.88	+15 59.2	1.362	2.331	6.8	18.2	3 2	9 53.94	+13 30.7	1.935	2.902	5.3	22.2
3 12	9 51.65	+17 11.9	1.421	2.347	11.3	18.5	3 12	9 45.82	+14 26.9	1.976	2.892	9.2	22.4
3 22	9 48.68	+18 4.0	1.502	2.365	15.2	18.8	3 22	9 39.50	+15 11.4	2.042	2.882	12.7	22.6
412069	2013 <i>EN</i> ₁₀₈		2 18.7 295°56	0°7/18.2	16		293830	2007 <i>RQ</i> ₂₀₄		2 18.7 230°64	2°2/20.3	18	
1 12	10 31.15	+11 18.6	1.506	2.313	17.3	21.8	1 12	10 32.43	+ 4 5.8	1.835	2.603	16.2	21.2
1 22	10 27.92	+11 36.8	1.408	2.295	13.6	21.5	1 22	10 28.25	+ 4 8.6	1.735	2.594	13.0	20.9
2 1	10 21.67	+12 9.9	1.331	2.276	9.2	21.2	2 1	10 21.52	+ 4 28.5	1.657	2.584	9.2	20.7
2 11	10 12.96	+12 53.3	1.278	2.258	4.0	20.9	2 11	10 12.80	+ 5 3.9	1.604	2.574	5.0	20.4
2 21	10 2.80	+13 40.4	1.252	2.240	1.7	20.7	2 21	10 2.95	+ 5 50.5	1.578	2.564	2.2	20.2
3 2	9 52.62	+14 23.3	1.253	2.221	7.2	20.9	3 2	9 53.13	+ 6 42.8	1.582	2.553	5.6	20.4
3 12	9 43.89	+14 55.3	1.278	2.204	12.4	21.2	3 12	9 44.52	+ 7 34.0	1.612	2.541	10.0	20.6
3 22	9 37.76	+15 12.4	1.325	2.186	17.0	21.4	3 22	9 38.03	+ 8 18.6	1.668	2.529	14.0	20.8
412294	2013 <i>JP</i> ₃₉		2 18.7 310°97	5°2/22.5	18		359650	2011 <i>ST</i> ₄		2 18.7 111°63	0°0/18.7	18	
1 12	10 29.48	- 2 27.4	1.652	2.406	18.2	21.7	1 12	10 36.88	+10 13.3	1.718	2.502	16.4	21.4
1 22	10 26.13	- 2 47.2	1.563	2.404	15.2	21.5	1 22	10 31.51	+10 24.9	1.647	2.520	12.8	21.2
2 1	10 20.17	- 2 44.2	1.492	2.401	11.5	21.3	2 1	10 23.48	+10 48.8	1.598	2.537	8.5	21.0
2 11	10 12.17	- 2 17.9	1.445	2.399	7.7	21.0	2 11	10 13.54	+11 20.8	1.575	2.553	3.8	20.8
2 21	10 3.08	- 1 30.7	1.423	2.398	5.2	20.9	2 21	10 2.77	+11 55.1	1.581	2.569	1.1	20.6
3 2	9 54.10	- 0 28.1	1.428	2.396	6.7	21.0	3 2	9 52.43	+12 26.2	1.616	2.585	5.9	21.0
3 12	9 46.45	+ 0 41.6	1.460	2.394	10.4	21.2	3 12	9 43.68	+12 49.3	1.678	2.599	10.2	21.3
3 22	9 41.04	+ 1 50.4	1.515	2.392	14.3	21.4	3 22	9 37.31	+13 1.9	1.765	2.614	14.0	21.5
430519	2001 <i>YA</i> ₉₄		2 18.7 96°91	8°5/ 9.8	18		5762	Wänke		2 18.7 153°30	1°9/20.3	18	
1 12	10 36.89	+39 8.0	2.392	3.182	12.2	21.5	1 12	10 32.10	+ 3 36.7	1.843	2.609	16.2	18.3
1 22	10 31.26	+40 19.0	2.340	3.191	10.4	21.4	1 22	10 27.80	+ 3 56.7	1.758	2.616	12.9	18.1
2 1	10 23.16	+41 20.4	2.312	3.200	9.0	21.4	2 1	10 21.07	+ 4 35.2	1.694	2.622	9.0	17.8
2 11	10 13.33	+42 4.0	2.310	3.209	8.5	21.3	2 11	10 12.52	+ 5 29.2	1.656	2.627	4.8	17.6
2 21	10 2.79	+42 24.2	2.334	3.218	9.3	21.4	2 21	10 3.06	+ 6 33.6	1.646	2.633	1.9	17.4
3 2	9 52.72	+42 18.2	2.384	3.227	10.8	21.5	3 2	9 53.80	+ 7 41.5	1.666	2.637	5.4	17.7
3 12	9 44.18	+41 47.2	2.457	3.236	12.6	21.6	3 12	9 45.82	+ 8 45.9	1.713	2.641	9.6	17.9
3 22	9 37.89	+40 54.9	2.550	3.245	14.3	21.8	3 22	9 39.93	+ 9 41.2	1.785	2.645	13.3	18.1
34359	2000 <i>RN</i> ₂₆		2 18.7 206°52	3°7/22.4	18		493500	2015 <i>BM</i> ₁₀		2 18.7 257°51	2°6/16.4	18	
1 12	10 27.21	- 2 4.1	2.595	3.321	13.0	19.2	1 12	10 30.66	+16 49.0	2.004	2.808	13.7	21.6
1 22	10 23.36	- 2 13.5	2.495	3.320	10.7	19.1	1 22	10 26.60	+17 30.1	1.920	2.806	10.6	21.4
2 1	10 17.80	- 2 7.7	2.417	3.318	8.1	18.9	2 1	10 20.23	+18 18.8	1.860	2.805	7.0	21.2
2 11	10 10.97	- 1 47.3	2.365	3.316	5.4	18.7	2 11	10 12.14	+19 9.1	1.826	2.803	3.5	21.0
2 21	10 3.48	- 1 14.1	2.341	3.313	3.7	18.6	2 21	10 3.18	+19 54.6	1.821	2.801	3.3	21.0
3 2	9 56.07	- 0 31.4	2.347	3.311	4.7	18.7	3 2	9 54.42	+20 29.7	1.845	2.799	6.7	21.2
3 12	9 49.47	+ 0 16.2	2.382	3.309	7.3	18.8	3 12	9 46.88	+20 50.6	1.895	2.798	10.4	21.4
3 22	9 44.28	+ 1 4.1	2.443	3.306	10.1	19.0	3 22	9 41.31	+20 56.1	1.969	2.796	13.6	21.6
322796	2001 <i>QR</i> ₂₃₇		2 18.7 111°86	0°9/19.6	18		143153	2002 <i>XV</i> ₄₈		2 18.7 147°69	0°7/19.4	18	
1 12	10 30.41	+ 5 11.4	2.092	2.859	14.5	21.3	1 12	10 32.36	+ 6 53.9	2.318	3.081	13.3	20.8
1 22	10 26.09	+ 5 52.1	2.016	2.877	11.4	21.1	1 22	10 27.44	+ 7 17.2	2.233	3.093	10.5	20.7
2 1	10 19.69	+ 6 48.5	1.963	2.895	7.7	20.9	2 1	10 20.53	+ 7 52.9	2.172	3.103	7.1	20.5
2 11	10 11.80	+ 7 56.7	1.938	2.912	3.7	20.7	2 11	10 12.20	+ 8 37.9	2.139	3.114	3.4	20.2
2 21	10 3.25	+ 9 10.8	1.941	2.929	1.1	20.5	2 21	10 3.18	+ 9 27.8	2.135	3.123	1.0	20.1
3 2	9 54.95	+10 24.5	1.975	2.946	4.8	20.8	3 2	9 54.37	+10 17.5	2.163	3.132	4.6	20.4
3 12	9 47.81	+11 31.4	2.038	2.961	8.6	21.1	3 12	9 46.61	+11 2.3	2.219	3.140	8.1	20.6
3 22	9 42.48	+12 27.4	2.127	2.977	11.9	21.3	3 22	9 40.55	+11 38.9	2.302	3.147	11.3	20.8
128942	2004 <i>TC</i> ₁₂₆		2 18.7 123°08	3°6/15.4	18		481486	2007 <i>CX</i> ₄₁		2 18.7 303°57	1°9/18.3	18	
1 12	10 31.94	+19 46.7	2.109	2.913	13.1	20.0	1 12	10 51.57	+19 1.5	1.051	1.866	22.7	20.2
1 22	10 27.40	+20 40.1	2.036	2.922	10.1	19.8	1 22	10 45.10	+18 8.5	0.973	1.863	18.0	19.9
2 1	10 20.63	+21 38.3	1.987	2.930	6.8	19.6	2 1	10 33.75	+17 14.9	0.913	1.859	12.2	19.6
2 11	10 12.25	+22 34.6	1.966	2.938	4.0	19.5	2 11	10 18.49	+16 14.7	0.876	1.855	5.6	19.2
2 21	10 3.12	+23 22.6	1.974	2.946	4.2	19.5	2 21	10 1.25	+15 3.5	0.865	1.852	2.8	19.0
3 2	9 54.27	+23 56.9	2.010	2.954	7.1	19.7	3 2	9 44.65	+13 40.8	0.880	1.848	9.4	19.4
3 12	9 46.66	+24 14.7	2.074	2.961	10.3	19.9	3 12	9 31.11	+12 9.8	0.919	1.845	15.9	19.7
3 22	9 41.01	+24 15.8	2.161	2.968	13.2	20.1	3 22	9 22.02	+10 35.2	0.978	1.842	21.3	20.0
331144	2010 <i>VR</i> ₁₉₃		2 18.7 128°57	0°1/18.6	18		251014	2006 <i>QR</i> ₄		2 18.7 175°78	0°6/19.2	18	
1 12	10 32.16	+ 8 42.8	2.233	3.006	13.5	21.7	1 12	10 32.09	+ 7 13.1	2.164	2.933	14.0	21.7
1 22	10 27.31	+ 9 21.4	2.156	3.023	10.5	21.5	1 22	10 27.47	+ 7 39.8	2.073	2.936	11.0	21.5
2 1	10 20.44	+10 12.0	2.103	3.040	7.0	21.3	2 1	10 20.70	+ 8 20.1	2.005	2.938	7.4	21.3
2 11	10 12.14	+11 10.5	2.078	3.056	3.1	21.1	2 11	10 12.33	+ 9 10.6	1.964	2.940	3.5	21.0
2 21	10 3.18	+12 11.4	2.083	3.071	1.0	21.0	2 21	10 3.14	+10 6.5	1.952	2.940	1.0	20.8
3 2	9 54.47	+13 9.1	2.119	3.086	4.9	21.3	3 2	9 54.09	+11 1.9	1.971	2.941	4.9	21.1
3 12	9 46.88	+13 58.8	2.183	3.100	8.5	21.5	3 12	9 46.13	+11 51.6	2.019	2.940	8.8	21.4
3 22	9 41.06	+14 37.4	2.274	3.113	11.6	21.8	3 22	9 39.98	+12 31.8	2.092	2.939	12.2	21.6
502865	2015 <i>DT</i> ₂₀₂		2 18.7 143°74	3°5/22.1	17		289192	2004 <i>WT</i> ₅		2 18.7 19°43	1°3/19.5	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
124194	2001 OY ₇₂		2 18.7 110°48	0°6/19.1	18		210993	2001 XH ₈		2 18.7 358°35	2°5/16.0	18	
1 12	10 36.58	+ 8 26.8	1.643	2.426	17.1	19.7	1 12	10 24.94	+14 9.7	2.049	2.857	13.3	19.5
1 22	10 31.39	+ 8 37.2	1.572	2.443	13.4	19.5	1 22	10 22.17	+15 27.4	1.966	2.855	10.2	19.3
2 1	10 23.47	+ 9 2.2	1.523	2.460	9.0	19.3	2 1	10 17.31	+16 56.8	1.907	2.854	6.7	19.1
2 11	10 13.57	+ 9 37.8	1.500	2.477	4.2	19.0	2 11	10 10.88	+18 31.2	1.876	2.854	3.3	18.9
2 21	10 2.79	+10 18.1	1.505	2.493	1.1	18.8	2 21	10 3.64	+20 2.7	1.873	2.853	3.3	18.9
3 2	9 52.44	+10 56.9	1.538	2.508	5.9	19.2	3 2	9 56.52	+21 23.6	1.900	2.854	6.7	19.1
3 12	9 43.73	+11 28.7	1.599	2.523	10.4	19.5	3 12	9 50.47	+22 28.4	1.954	2.854	10.2	19.3
3 22	9 37.46	+11 50.2	1.683	2.537	14.3	19.8	3 22	9 46.19	+23 14.3	2.031	2.855	13.4	19.5
430915	2005 SX ₂₇₈		2 18.7 194°31	2°3/21.7	17		407450	2010 US ₂₁		2 18.7 114°47	2°0/16.9	18	
1 12	10 25.71	+ 0 2.7	3.159	3.888	10.8	22.3	1 12	10 32.99	+14 8.8	2.043	2.835	13.9	21.9
1 22	10 21.90	+ 0 16.3	3.055	3.886	8.8	22.2	1 22	10 28.17	+15 2.7	1.974	2.854	10.7	21.7
2 1	10 16.69	+ 0 42.4	2.974	3.883	6.4	22.0	2 1	10 21.13	+16 5.7	1.929	2.872	6.9	21.5
2 11	10 10.47	+ 1 19.8	2.921	3.880	3.9	21.8	2 11	10 12.50	+17 11.7	1.913	2.891	3.2	21.3
2 21	10 3.72	+ 2 6.1	2.898	3.877	2.3	21.7	2 21	10 3.18	+18 14.1	1.925	2.908	2.6	21.3
3 2	9 57.04	+ 2 58.0	2.906	3.873	3.6	21.8	3 2	9 54.18	+19 6.7	1.968	2.925	6.1	21.6
3 12	9 50.99	+ 3 51.5	2.943	3.870	6.1	22.0	3 12	9 46.47	+19 45.4	2.038	2.941	9.7	21.8
3 22	9 46.07	+ 4 43.0	3.009	3.865	8.6	22.1	3 22	9 40.72	+20 8.7	2.132	2.957	12.8	22.1
171035	2005 EV ₇₁		2 18.7 72°07	3°5/16.4	18		432892	2011 MH ₄		2 18.7 183°58	3°7/22.7	17	
1 12	10 35.72	+18 30.4	1.539	2.352	16.7	20.1	1 12	10 27.90	- 2 46.9	2.753	3.470	12.5	21.6
1 22	10 31.09	+19 3.1	1.470	2.360	12.9	19.9	1 22	10 23.80	- 2 58.5	2.653	3.471	10.4	21.5
2 1	10 23.46	+19 42.5	1.422	2.368	8.6	19.6	2 1	10 18.07	- 2 55.6	2.575	3.470	7.9	21.3
2 11	10 13.62	+20 20.9	1.399	2.376	4.5	19.4	2 11	10 11.13	- 2 38.5	2.523	3.470	5.4	21.2
2 21	10 2.78	+20 50.8	1.404	2.383	4.2	19.4	2 21	10 3.58	- 2 8.9	2.500	3.469	3.8	21.0
3 2	9 52.39	+21 5.9	1.436	2.391	8.2	19.6	3 2	9 56.10	- 1 29.8	2.506	3.468	4.6	21.1
3 12	9 43.80	+21 3.5	1.493	2.399	12.4	19.9	3 12	9 49.40	- 0 45.3	2.542	3.467	7.0	21.2
3 22	9 37.87	+20 44.1	1.572	2.407	16.1	20.2	3 22	9 44.02	+ 0 0.3	2.605	3.466	9.6	21.4
48290	2002 JH		2 18.7 218°02	6°2/12.8	18 R		467544	2007 TU ₃₂		2 18.7 105°46	2°6/15.9	18	
1 12	10 36.86	+27 34.9	2.174	2.975	12.9	20.0	1 12	10 30.98	+18 29.8	2.553	3.347	11.4	21.5
1 22	10 31.53	+28 49.9	2.088	2.965	10.3	19.8	1 22	10 26.19	+19 13.2	2.485	3.365	8.7	21.3
2 1	10 23.61	+30 5.5	2.026	2.954	7.8	19.6	2 1	10 19.61	+20 0.5	2.442	3.384	5.8	21.1
2 11	10 13.70	+31 12.9	1.992	2.942	6.3	19.5	2 11	10 11.78	+20 46.8	2.428	3.402	3.1	21.0
2 21	10 2.73	+32 4.3	1.987	2.930	7.0	19.5	2 21	10 3.41	+21 27.2	2.443	3.420	3.1	21.0
3 2	9 51.89	+32 33.8	2.010	2.917	9.5	19.7	3 2	9 55.32	+21 57.7	2.490	3.437	5.7	21.2
3 12	9 42.36	+32 39.4	2.059	2.903	12.3	19.8	3 12	9 48.26	+22 15.9	2.564	3.454	8.5	21.4
3 22	9 35.01	+32 22.7	2.130	2.888	15.0	20.0	3 22	9 42.79	+22 21.2	2.663	3.471	11.0	21.6
308866	2006 SU ₁₅		2 18.7 173°03	0°2/18.9	17		244944	2003 YQ ₇₈		2 18.7 329°05	7°6/23.1	18	
1 12	10 28.82	+ 9 29.6	2.723	3.494	11.4	20.9	1 12	10 34.10	- 4 31.9	1.653	2.387	19.0	19.8
1 22	10 24.49	+ 9 45.6	2.630	3.495	8.9	20.7	1 22	10 29.83	- 5 50.4	1.562	2.384	16.1	19.6
2 1	10 18.50	+10 10.3	2.561	3.497	5.9	20.5	2 1	10 22.73	- 6 49.7	1.490	2.381	12.8	19.4
2 11	10 11.29	+10 41.2	2.521	3.498	2.7	20.3	2 11	10 13.42	- 7 26.5	1.441	2.378	9.6	19.2
2 21	10 3.50	+11 14.6	2.511	3.499	0.7	20.1	2 21	10 2.87	- 7 39.1	1.417	2.375	7.7	19.1
3 2	9 55.83	+11 47.0	2.532	3.500	4.1	20.4	3 2	9 52.37	- 7 29.2	1.420	2.372	8.6	19.1
3 12	9 49.00	+12 14.9	2.582	3.500	7.2	20.6	3 12	9 43.26	- 7 2.3	1.448	2.370	11.5	19.3
3 22	9 43.55	+12 36.0	2.658	3.500	10.0	20.8	3 22	9 36.53	- 6 25.7	1.499	2.368	14.9	19.5
457041	2008 CW ₂₀₁		2 18.7 183°78	10°0/ 8.4	16		451036	2008 WT ₁₃₃		2 18.7 102°53	2°1/17.3	18	
1 12	10 49.80	+46 18.5	2.545	3.296	12.6	21.6	1 12	10 37.53	+14 51.2	1.595	2.395	16.8	21.3
1 22	10 41.43	+47 28.3	2.487	3.296	11.2	21.5	1 22	10 32.25	+15 21.1	1.529	2.413	12.9	21.1
2 1	10 30.01	+48 24.1	2.452	3.296	10.3	21.4	2 1	10 24.09	+16 0.6	1.486	2.430	8.5	20.9
2 11	10 16.43	+48 56.7	2.443	3.296	10.0	21.4	2 11	10 13.88	+16 43.0	1.469	2.447	3.9	20.6
2 21	10 1.99	+49 0.0	2.460	3.294	10.7	21.4	2 21	10 2.79	+17 21.1	1.480	2.464	2.8	20.6
3 2	9 48.22	+48 31.9	2.501	3.292	12.0	21.5	3 2	9 52.22	+17 48.8	1.519	2.480	7.1	20.9
3 12	9 36.44	+47 35.1	2.566	3.289	13.5	21.6	3 12	9 43.42	+18 2.2	1.584	2.496	11.4	21.2
3 22	9 27.51	+46 15.1	2.651	3.286	15.0	21.7	3 22	9 37.19	+18 0.7	1.672	2.511	15.1	21.5
378920	2008 UP ₉₅		2 18.7 26°66	0°5/19.1	18		425931	2011 GD ₅₆		2 18.7 295°67	2°0/16.9	17	
1 12	10 26.53	+ 7 22.9	1.627	2.427	16.6	21.0	1 12	10 28.20	+13 53.6	1.927	2.731	14.2	21.3
1 22	10 23.72	+ 7 51.4	1.557	2.437	13.0	20.8	1 22	10 24.90	+14 43.5	1.834	2.721	11.0	21.1
2 1	10 18.45	+ 8 37.0	1.507	2.448	8.7	20.5	2 1	10 19.26	+15 45.1	1.764	2.710	7.2	20.8
2 11	10 11.38	+ 9 35.0	1.483	2.460	4.0	20.3	2 11	10 11.80	+16 52.5	1.721	2.700	3.3	20.6
2 21	10 3.48	+10 39.0	1.485	2.473	1.1	20.1	2 21	10 3.38	+17 58.7	1.706	2.690	2.8	20.5
3 2	9 55.89	+11 41.2	1.515	2.487	5.7	20.4	3 2	9 55.02	+18 56.6	1.720	2.680	6.6	20.7
3 12	9 49.69	+12 35.0	1.571	2.501	10.1	20.7	3 12	9 47.83	+19 40.7	1.761	2.670	10.6	20.9
3 22	9 45.63	+13 15.8	1.650	2.516	13.9	21.0	3 22	9 42.60	+20 8.2	1.824	2.660	14.1	21.1
405349	2003 VU ₆		2 18.7 108°82	0°1/18.8	18		348973	2006 UJ ₉₇		2 18.7 207°39	3°7/14.3	17	
1 12	10 34.72	+ 8 51.7	1.927	2.704	15.2	22.2	1 12	10 29.98	+23 33.0	2.944	3.740	10.0	21.9
1 22	10 29.53	+ 9 19.2	1.858	2.727	11.8	22.0	1 22	10 25.42	+24 24.3	2.856	3.735	7.8	21.7
2 1	10 22.03	+ 9 59.7	1.812	2.749	7.8	21.8	2 1	10 19.14	+25 17.2	2.793	3.729	5.5	21.5
2 11	10 12.89	+10 48.6	1.793	2.770	3.5	21.6	2 11	10 11.62	+26 6.5	2.759	3.723	3.8	21.4
2 21	10 3.05	+11 40.3	1.803	2.791	1.0	21.5	2 21	10 3.47	+26 47.6	2.756	3.716	4.2	21.4
3 2	9 53.59	+12 28.7	1.843	2.811	5.3	21.8	3 2	9 55.42	+27 16.6	2.783	3.709	6.3	21.6
3 12	9 45.52	+13 8.9	1.911	2.831	9.3	22.1	3 12	9 48.21	+27 31.5	2.837	3.702	8.7	21.7
3 22	9 39.52	+13 37.9	2.004	2.849	12.7	22.3	3 22	9 42.41	+27 32.0	2.916	3.694	10.9	21.8
132003	2002 CB ₉₉		2 18.7 268°88	2°4/17.1	18		79009	4707 P-L		2 18.7 40°48	0°3/18.9	18	
1 12	10 34.00	+15 32.2	1.616	2.424	16.3	19.9	1 12						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
120262	2004 <i>GP</i> ₂₉		2 18.7 132°03	3°1/21.2	18		522073	2015 <i>XJ</i> ₄₁₉		2 18.7 190°98	3°6/21.6	16	
1 12	10 33.99	+ 0 45.2	1.754	2.508	17.3	20.3	1 12	10 33.86	+ 0 19.5	2.300	3.032	14.3	22.0
1 22	10 29.33	+ 0 55.4	1.675	2.523	14.0	20.1	1 22	10 28.77	- 0 5.7	2.200	3.031	11.7	21.8
2 1	10 22.12	+ 1 26.6	1.617	2.536	10.0	19.9	2 1	10 21.57	- 0 16.7	2.122	3.029	8.7	21.6
2 11	10 13.03	+ 2 16.5	1.584	2.549	5.8	19.7	2 11	10 12.79	- 0 13.5	2.070	3.027	5.6	21.4
2 21	10 3.05	+ 3 20.5	1.579	2.562	3.1	19.5	2 21	10 3.18	+ 0 2.1	2.048	3.024	3.7	21.3
3 2	9 53.35	+ 4 31.5	1.603	2.573	5.7	19.7	3 2	9 53.64	+ 0 27.0	2.055	3.020	5.2	21.4
3 12	9 45.06	+ 5 41.7	1.654	2.584	9.7	20.0	3 12	9 45.11	+ 0 57.0	2.092	3.016	8.3	21.6
3 22	9 38.99	+ 6 44.6	1.730	2.594	13.5	20.2	3 22	9 38.30	+ 1 27.6	2.155	3.012	11.5	21.8
279344	2009 <i>YM</i> ₁₃		2 18.7 50°70	1°9/20.3	18		124410	2001 <i>QW</i> ₂₁₁		2 18.7 46°72	1°1/18.2	18	
1 12	10 28.61	+ 4 26.0	1.902	2.676	15.4	21.0	1 12	10 36.54	+13 24.4	1.226	2.044	19.9	19.1
1 22	10 25.01	+ 4 34.9	1.822	2.684	12.3	20.8	1 22	10 32.24	+13 23.4	1.165	2.057	15.4	18.8
2 1	10 19.17	+ 5 0.1	1.763	2.693	8.6	20.6	2 1	10 24.47	+13 34.6	1.124	2.071	10.2	18.6
2 11	10 11.70	+ 5 39.0	1.729	2.701	4.5	20.3	2 11	10 14.18	+13 52.0	1.105	2.085	4.5	18.3
2 21	10 3.45	+ 6 27.1	1.724	2.710	1.9	20.2	2 21	10 2.80	+14 8.8	1.112	2.099	2.0	18.2
3 2	9 55.42	+ 7 18.7	1.746	2.719	5.1	20.4	3 2	9 52.06	+14 18.6	1.145	2.114	7.6	18.6
3 12	9 48.60	+ 8 7.9	1.797	2.728	9.0	20.7	3 12	9 43.50	+14 17.4	1.202	2.130	12.8	18.9
3 22	9 43.69	+ 8 49.8	1.872	2.737	12.5	20.9	3 22	9 38.03	+14 3.8	1.280	2.146	17.1	19.2
458786	2011 <i>SB</i> ₁₃₃		2 18.7 62°68	0°9/18.1	18		381683	2009 <i>BT</i> ₁₅₉		2 18.7 2°43	4°6/16.1	18	
1 12	10 32.36	+10 20.7	1.397	2.205	18.4	21.0	1 12	10 36.77	+24 12.7	1.747	2.558	15.1	20.0
1 22	10 28.56	+10 59.9	1.337	2.224	14.2	20.8	1 22	10 31.66	+24 17.1	1.670	2.557	11.8	19.8
2 1	10 21.80	+11 55.5	1.298	2.243	9.3	20.5	2 1	10 23.74	+24 20.3	1.616	2.557	8.2	19.6
2 11	10 12.91	+13 0.6	1.283	2.262	4.0	20.3	2 11	10 13.77	+24 15.9	1.587	2.557	5.1	19.4
2 21	10 3.11	+14 6.7	1.294	2.281	1.8	20.2	2 21	10 2.92	+23 58.5	1.587	2.559	5.1	19.4
3 2	9 53.82	+15 5.0	1.333	2.301	6.9	20.5	3 2	9 52.52	+23 25.0	1.614	2.561	8.2	19.6
3 12	9 46.33	+15 49.1	1.396	2.320	11.7	20.9	3 12	9 43.81	+22 35.4	1.667	2.565	11.8	19.8
3 22	9 41.46	+16 16.0	1.482	2.339	15.7	21.2	3 22	9 37.61	+21 32.2	1.743	2.569	15.2	20.0
148799	2001 <i>UQ</i> ₈₁		2 18.7 125°21	1°8/20.3	18		309243	2007 <i>RM</i> ₂₈		2 18.7 161°63	1°6/17.3	18	
1 12	10 30.33	+ 3 58.8	2.009	2.774	15.0	20.6	1 12	10 34.76	+13 35.3	2.058	2.845	14.0	22.2
1 22	10 26.23	+ 4 13.5	1.925	2.782	12.0	20.4	1 22	10 29.67	+14 17.4	1.976	2.852	10.8	22.0
2 1	10 19.93	+ 4 44.4	1.863	2.791	8.4	20.2	2 1	10 22.24	+15 9.3	1.917	2.858	7.1	21.8
2 11	10 12.04	+ 5 28.8	1.827	2.798	4.4	19.9	2 11	10 13.09	+16 5.4	1.886	2.864	3.2	21.6
2 21	10 3.36	+ 6 22.4	1.820	2.806	1.9	19.8	2 21	10 3.11	+16 59.5	1.885	2.869	2.3	21.5
3 2	9 54.88	+ 7 19.4	1.842	2.813	5.0	20.0	3 2	9 53.35	+17 45.6	1.914	2.873	6.0	21.8
3 12	9 47.56	+ 8 13.8	1.892	2.820	8.8	20.2	3 12	9 44.85	+18 19.3	1.971	2.877	9.8	22.0
3 22	9 42.11	+ 9 0.8	1.967	2.827	12.3	20.5	3 22	9 38.35	+18 38.9	2.052	2.879	13.1	22.2
496408	2013 <i>WQ</i> ₉		2 18.7 209°45	3°0/21.8	17		429944	2012 <i>UZ</i> ₄		2 18.7 255°62	0°7/17.9	17	
1 12	10 30.20	- 0 36.8	2.751	3.474	12.4	22.9	1 12	10 27.54	+10 57.9	2.340	3.126	12.5	21.5
1 22	10 25.64	- 0 38.8	2.641	3.466	10.1	22.8	1 22	10 23.93	+11 38.3	2.242	3.117	9.7	21.3
2 1	10 19.34	- 0 27.0	2.553	3.458	7.5	22.6	2 1	10 18.39	+12 29.9	2.168	3.109	6.4	21.0
2 11	10 11.74	- 0 1.9	2.493	3.449	4.8	22.4	2 11	10 11.39	+13 28.5	2.122	3.100	2.8	20.8
2 21	10 3.44	+ 0 34.3	2.463	3.440	3.1	22.2	2 21	10 3.61	+14 28.9	2.105	3.092	1.4	20.7
3 2	9 55.15	+ 1 18.4	2.463	3.429	4.4	22.3	3 2	9 55.89	+15 25.5	2.118	3.083	5.1	20.9
3 12	9 47.63	+ 2 6.0	2.494	3.418	7.2	22.5	3 12	9 49.09	+16 13.6	2.160	3.074	8.7	21.1
3 22	9 41.47	+ 2 52.8	2.551	3.406	10.0	22.6	3 22	9 43.87	+16 49.9	2.226	3.065	11.8	21.3
243035	2006 <i>VT</i> ₀₅		2 18.7 222°20	6°2/10.7	18		386220	2007 <i>WL</i> ₆₂		2 18.7 99°75	2°1/20.9	18	
1 12	10 31.54	+32 48.1	2.866	3.662	10.2	21.1	1 12	10 29.15	+ 2 57.6	2.526	3.275	12.7	21.5
1 22	10 26.87	+34 1.5	2.787	3.654	8.4	20.9	1 22	10 24.80	+ 2 59.1	2.445	3.290	10.2	21.4
2 1	10 20.23	+35 11.6	2.734	3.646	6.8	20.8	2 1	10 18.73	+ 3 13.4	2.386	3.306	7.2	21.2
2 11	10 12.15	+36 11.9	2.710	3.637	6.2	20.7	2 11	10 11.45	+ 3 38.8	2.355	3.321	4.1	21.0
2 21	10 3.33	+36 56.7	2.713	3.627	6.9	20.8	2 21	10 3.62	+ 4 12.4	2.353	3.336	2.1	20.9
3 2	9 54.63	+37 22.2	2.745	3.617	8.5	20.9	3 2	9 55.98	+ 4 50.3	2.381	3.351	4.1	21.1
3 12	9 46.90	+37 27.4	2.802	3.607	10.5	21.0	3 12	9 49.28	+ 5 28.3	2.438	3.365	7.2	21.3
3 22	9 40.80	+37 13.4	2.880	3.597	12.3	21.1	3 22	9 44.04	+ 6 3.0	2.522	3.380	10.0	21.5
412330	2013 <i>KX</i> ₁₃		2 18.7 164°14	3°5/15.0	18		59532	1999 <i>JD</i> ₂₆		2 18.7 257°03	8°3/11.2	18	
1 12	10 31.61	+18 7.8	2.214	3.013	12.7	21.0	1 12	10 35.95	+32 46.0	1.958	2.766	13.8	19.7
1 22	10 27.17	+19 28.9	2.135	3.019	9.8	20.8	1 22	10 31.22	+34 6.2	1.883	2.757	11.4	19.5
2 1	10 20.56	+20 57.5	2.081	3.024	6.6	20.6	2 1	10 23.60	+35 22.3	1.832	2.748	9.3	19.3
2 11	10 12.33	+22 26.3	2.056	3.028	3.9	20.4	2 11	10 13.80	+36 24.4	1.806	2.739	8.3	19.2
2 21	10 3.29	+23 47.7	2.061	3.032	4.2	20.5	2 21	10 2.90	+37 3.8	1.807	2.729	9.2	19.3
3 2	9 54.40	+24 55.0	2.095	3.035	7.2	20.6	3 2	9 52.26	+37 15.3	1.834	2.720	11.4	19.4
3 12	9 46.64	+25 44.1	2.158	3.038	10.3	20.8	3 12	9 43.19	+36 58.2	1.885	2.710	14.1	19.5
3 22	9 40.72	+26 13.9	2.243	3.039	13.2	21.0	3 22	9 36.63	+36 15.8	1.955	2.700	16.6	19.7
426478	2013 <i>RW</i> ₆		2 18.7 12°14	2°1/20.3	18		291382	2006 <i>CY</i> ₂₀		2 18.7 272°29	2°2/20.1	18	
1 12	10 29.54	+ 4 32.2	1.802	2.578	16.1	21.2	1 12	10 32.66	+ 5 24.3	1.561	2.346	17.8	20.7
1 22	10 25.93	+ 4 32.2	1.715	2.579	12.9	21.0	1 22	10 28.96	+ 5 14.8	1.465	2.334	14.4	20.5
2 1	10 19.92	+ 4 48.7	1.649	2.580	9.0	20.8	2 1	10 22.32	+ 5 22.8	1.389	2.321	10.1	20.2
2 11	10 12.10	+ 5 19.7	1.609	2.580	4.9	20.5	2 11	10 13.34	+ 5 46.6	1.336	2.309	5.4	19.9
2 21	10 3.36	+ 6 1.0	1.596	2.582	2.1	20.3	2 21	10 3.01	+ 6 22.3	1.310	2.297	2.3	19.7
3 2	9 54.78	+ 6 47.0	1.611	2.583	5.4	20.5	3 2	9 52.68	+ 7 3.6	1.312	2.284	6.3	19.9
3 12	9 47.46	+ 7 31.6	1.653	2.585	9.6	20.8	3 12	9 43.78	+ 7 43.8	1.339	2.272	11.3	20.1
3 22	9 42.19	+ 8 9.7	1.719	2.586	13.4	21.0	3 22	9 37.35	+ 8 17.0	1.389	2.259	15.8	20.3
397428	2007 <i>BZ</i> ₄₂		2 18.7 11°69	0°8/19.2	18								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
187351	2005 <i>UK</i> ₂₁₃		2 18.7 159°48	1.4/17.4	18		125937	2001 <i>XF</i> ₂₄₀		2 18.7 304°43	6.8/12.3	18	
1 12	10 30.71	+12 33.7	2.203	2.990	13.2	21.2	1 12	10 29.27	+24 44.8	1.741	2.566	14.6	18.8
1 22	10 26.42	+13 23.3	2.118	2.996	10.2	21.0	1 22	10 26.27	+26 24.0	1.659	2.553	11.5	18.5
2 1	10 20.03	+14 23.2	2.059	3.001	6.6	20.8	2 1	10 20.49	+28 8.7	1.601	2.540	8.5	18.3
2 11	10 12.10	+15 28.4	2.026	3.005	2.9	20.5	2 11	10 12.51	+29 48.2	1.569	2.527	6.8	18.2
2 21	10 3.42	+16 32.7	2.024	3.009	2.0	20.5	2 21	10 3.33	+31 11.7	1.564	2.515	7.9	18.2
3 2	9 54.91	+17 30.2	2.052	3.013	5.6	20.7	3 2	9 54.23	+32 10.7	1.586	2.503	10.8	18.4
3 12	9 47.48	+18 16.2	2.108	3.016	9.2	20.9	3 12	9 46.54	+32 41.0	1.631	2.491	14.2	18.5
3 22	9 41.82	+18 48.3	2.189	3.018	12.3	21.1	3 22	9 41.24	+32 43.5	1.696	2.479	17.3	18.7
415355	2013 <i>JF</i> ₄₃		2 18.7 289°22	0°5/19.0	16		447655	2006 <i>WA</i>		2 18.7 163°34	28°6/24.7	15	
1 12	10 30.88	+ 8 33.4	1.589	2.385	17.0	21.4	1 12	11 22.54	+62 32.9	0.920	1.679	29.1	22.1
1 22	10 27.58	+ 8 45.5	1.489	2.368	13.5	21.1	1 22	11 18.91	+66 29.4	0.919	1.687	28.6	22.1
2 1	10 21.42	+ 9 13.9	1.411	2.351	9.2	20.8	2 1	11 2.32	+69 38.5	0.931	1.694	28.8	22.2
2 11	10 12.95	+ 9 55.4	1.356	2.334	4.3	20.5	2 11	10 32.88	+71 31.0	0.954	1.699	29.4	22.2
2 21	10 3.13	+10 44.3	1.329	2.317	1.2	20.2	2 21	9 57.50	+71 47.8	0.986	1.702	30.5	22.3
3 2	9 53.28	+11 33.3	1.329	2.300	6.5	20.5	3 2	9 27.43	+70 31.6	1.027	1.705	31.7	22.5
3 12	9 44.78	+12 15.4	1.354	2.283	11.5	20.8	3 12	9 9.36	+68 5.7	1.075	1.706	32.9	22.6
3 22	9 38.69	+12 45.6	1.402	2.266	16.0	21.0	3 22	9 2.95	+64 55.5	1.127	1.705	34.1	22.7
239230	2006 <i>SW</i> ₉₀		2 18.7 207°76	3°3/14.9	18		43524	2001 <i>DQ</i> ₃₀		2 18.7 200°12	1°2/17.7	18	
1 12	10 31.22	+22 44.3	2.941	3.734	10.1	21.3	1 12	10 31.07	+11 13.2	1.868	2.661	15.0	19.4
1 22	10 26.36	+23 24.6	2.850	3.728	7.8	21.1	1 22	10 27.16	+12 2.4	1.779	2.659	11.6	19.2
2 1	10 19.78	+24 6.3	2.785	3.722	5.4	20.9	2 1	10 20.79	+13 5.5	1.714	2.657	7.7	18.9
2 11	10 11.94	+24 44.8	2.749	3.715	3.6	20.8	2 11	10 12.56	+14 17.0	1.675	2.654	3.3	18.7
2 21	10 3.49	+25 15.7	2.743	3.709	3.8	20.8	2 21	10 3.35	+15 29.6	1.665	2.651	2.0	18.6
3 2	9 55.15	+25 35.6	2.768	3.701	6.0	20.9	3 2	9 54.26	+16 35.9	1.684	2.647	6.3	18.8
3 12	9 47.67	+25 42.5	2.821	3.693	8.4	21.1	3 12	9 46.41	+17 29.7	1.730	2.644	10.5	19.1
3 22	9 41.62	+25 36.1	2.899	3.685	10.7	21.2	3 22	9 40.64	+18 7.5	1.800	2.639	14.1	19.3
53388	1999 <i>JZ</i> ₉₅		2 18.7 87°58	4°1/14.7	18		362053	2009 <i>BF</i> ₄₃		2 18.7 37°18	0°9/18.2	18	
1 12	10 30.48	+18 21.6	1.880	2.690	14.2	18.4	1 12	10 31.67	+11 20.8	1.201	2.024	19.9	20.7
1 22	10 26.57	+19 52.8	1.817	2.707	10.9	18.2	1 22	10 28.51	+11 41.8	1.143	2.038	15.4	20.5
2 1	10 20.27	+21 31.5	1.778	2.723	7.3	18.1	2 1	10 22.03	+12 19.1	1.104	2.053	10.2	20.2
2 11	10 12.24	+23 9.2	1.767	2.739	4.4	17.9	2 11	10 13.14	+13 6.1	1.088	2.068	4.4	20.0
2 21	10 3.41	+24 36.5	1.785	2.755	5.0	18.0	2 21	10 3.21	+13 54.3	1.097	2.085	1.9	19.8
3 2	9 54.89	+25 46.2	1.831	2.771	8.0	18.2	3 2	9 53.85	+14 35.1	1.132	2.102	7.5	20.2
3 12	9 47.73	+26 34.2	1.904	2.786	11.4	18.4	3 12	9 46.53	+15 2.2	1.190	2.120	12.6	20.6
3 22	9 42.65	+27 0.0	1.999	2.801	14.3	18.7	3 22	9 42.13	+15 13.0	1.269	2.138	17.0	20.9
4088	Baggesen		2 18.7 187°83	4°3/15.5	18		266906	2009 <i>WN</i> ₁₉₃		2 18.7 253°28	1°6/17.4	18	
1 12	10 34.74	+20 19.7	1.777	2.586	15.0	16.7	1 12	10 30.70	+13 56.2	1.968	2.766	14.1	20.8
1 22	10 30.16	+21 10.9	1.698	2.586	11.6	16.5	1 22	10 26.73	+14 29.9	1.880	2.763	11.0	20.6
2 1	10 22.84	+22 7.7	1.642	2.585	7.9	16.3	2 1	10 20.43	+15 13.4	1.816	2.760	7.2	20.3
2 11	10 13.46	+23 2.3	1.612	2.585	4.8	16.1	2 11	10 12.37	+16 1.6	1.778	2.757	3.2	20.1
2 21	10 3.06	+23 46.7	1.611	2.584	5.0	16.1	2 21	10 3.41	+16 48.3	1.769	2.753	2.3	20.0
3 2	9 52.92	+24 14.7	1.637	2.582	8.3	16.3	3 2	9 54.62	+17 27.7	1.788	2.750	6.2	20.2
3 12	9 44.30	+24 23.2	1.690	2.581	12.1	16.5	3 12	9 47.02	+17 55.4	1.835	2.747	10.1	20.5
3 22	9 38.06	+24 12.3	1.764	2.579	15.4	16.7	3 22	9 41.41	+18 9.1	1.905	2.744	13.5	20.7
389221	2009 <i>DY</i> ₁₁₈		2 18.7 1°31	1°5/17.5	17		10466	Marius-loan		2 18.7 54°12	2°0/19.9	18	
1 12	10 30.83	+15 16.0	2.240	3.033	12.8	21.3	1 12	10 33.31	+ 6 10.6	1.398	2.192	19.1	18.3
1 22	10 26.48	+15 31.2	2.153	3.033	9.9	21.1	1 22	10 29.45	+ 6 1.2	1.326	2.200	15.2	18.1
2 1	10 20.05	+15 52.6	2.090	3.033	6.5	20.9	2 1	10 22.55	+ 6 10.1	1.273	2.209	10.5	17.8
2 11	10 12.12	+16 16.3	2.055	3.033	2.9	20.7	2 11	10 13.38	+ 6 34.5	1.244	2.219	5.4	17.5
2 21	10 3.47	+16 37.8	2.048	3.033	2.0	20.6	2 21	10 3.13	+ 7 9.3	1.241	2.228	2.1	17.4
3 2	9 55.01	+16 53.1	2.072	3.034	5.5	20.8	3 2	9 53.24	+ 7 47.8	1.265	2.238	6.4	17.6
3 12	9 47.64	+16 59.2	2.123	3.034	9.0	21.0	3 12	9 45.11	+ 8 22.9	1.314	2.248	11.3	18.0
3 22	9 42.03	+16 54.8	2.199	3.035	12.1	21.2	3 22	9 39.66	+ 8 49.6	1.385	2.258	15.6	18.2
369578	2011 <i>BY</i> ₈₉		2 18.7 170°62	0°9/19.5	16		257182	2008 <i>JZ</i> ₃₄		2 18.7 338°46	10°7/11.9	18	
1 12	10 33.63	+ 7 55.7	2.337	3.100	13.2	21.4	1 12	10 40.44	+35 53.1	1.505	2.320	16.9	19.2
1 22	10 28.51	+ 7 54.1	2.244	3.103	10.4	21.2	1 22	10 35.53	+36 56.6	1.438	2.312	14.2	19.0
2 1	10 21.34	+ 8 2.7	2.175	3.106	7.1	21.0	2 1	10 26.86	+37 50.8	1.392	2.305	11.8	18.9
2 11	10 12.69	+ 8 19.3	2.134	3.108	3.5	20.7	2 11	10 15.37	+38 22.8	1.369	2.299	10.7	18.8
2 21	10 3.30	+ 8 40.7	2.122	3.110	1.1	20.6	2 21	10 2.59	+38 22.9	1.370	2.293	11.5	18.8
3 2	9 54.07	+ 9 3.0	2.142	3.111	4.6	20.8	3 2	9 50.43	+37 46.6	1.395	2.288	13.9	18.9
3 12	9 45.88	+ 9 22.5	2.190	3.112	8.1	21.0	3 12	9 40.61	+36 36.3	1.443	2.283	16.8	19.1
3 22	9 39.41	+ 9 36.6	2.265	3.112	11.3	21.2	3 22	9 34.16	+34 59.1	1.509	2.279	19.6	19.3
1095	Tulipa		2 18.7 348°23	2°3/21.1	18		26996	1997 <i>YH</i> ₃		2 18.7 139°72	0°1/18.8	18	
1 12	10 26.14	+ 1 27.5	2.207	2.963	14.1	15.3	1 12	10 32.62	+ 9 14.5	2.160	2.935	13.8	19.3
1 22	10 22.91	+ 1 50.0	2.113	2.963	11.4	15.1	1 22	10 27.86	+ 9 36.5	2.077	2.945	10.8	19.1
2 1	10 17.73	+ 2 29.8	2.041	2.962	8.1	14.9	2 1	10 20.98	+10 10.0	2.019	2.955	7.2	18.9
2 11	10 11.12	+ 3 25.1	1.995	2.962	4.6	14.7	2 11	10 12.56	+10 51.2	1.987	2.964	3.2	18.7
2 21	10 3.76	+ 4 31.5	1.977	2.961	2.3	14.5	2 21	10 3.41	+11 35.4	1.985	2.973	0.9	18.5
3 2	9 56.51	+ 5 43.5	1.989	2.961	4.6	14.7	3 2	9 54.49	+12 17.4	2.014	2.982	5.0	18.8
3 12	9 50.20	+ 6 54.8	2.029	2.960	8.1	14.9	3 12	9 46.72	+12 52.8	2.070	2.990	8.7	19.1
3 22	9 45.51	+ 7 59.8	2.096	2.960	11.4	15.1	3 22	9 40.77	+13 18.7	2.152	2.997	11.9	19.3
243572	1996 <i>GA</i> ₉		2 18.7 230°01	2°2/17.0	17		241063	2006 <i>SL</i> ₂₁₅		2 18.7 185°65	2°0/16.4	17	
1 12	10 33.81	+14											

EPHEMERIDES

2 18.7

2 18.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
345595	2006 <i>SQ</i> ₈₉		2 18.7 162°15'	2°9'/22.1 17			381967	2010 <i>EL</i> ₁₁₂		2 18.7 344°96'	2°9'/16.4 17		
1 12	10 26.65	- 0 58.5	2.706	3.437	12.4	21.7	1 12	10 28.63	+17 6.6	1.834	2.647	14.4	20.8
1 22	10 22.90	- 0 50.2	2.609	3.439	10.1	21.5	1 22	10 25.35	+17 45.7	1.750	2.641	11.1	20.6
2 1	10 17.54	- 0 27.0	2.535	3.442	7.5	21.3	2 1	10 19.64	+18 32.8	1.689	2.636	7.4	20.4
2 11	10 11.01	+ 0 9.8	2.488	3.444	4.7	21.2	2 11	10 12.08	+19 21.6	1.654	2.631	3.8	20.1
2 21	10 3.88	+ 0 57.7	2.469	3.447	2.9	21.1	2 21	10 3.60	+20 5.4	1.647	2.627	3.6	20.1
3 2	9 56.85	+ 1 52.8	2.481	3.448	4.2	21.1	3 2	9 55.29	+20 38.0	1.667	2.623	7.1	20.3
3 12	9 50.60	+ 2 50.3	2.522	3.450	6.9	21.3	3 12	9 48.27	+20 55.4	1.713	2.620	11.0	20.5
3 22	9 45.66	+ 3 45.9	2.590	3.452	9.6	21.5	3 22	9 43.33	+20 56.4	1.782	2.617	14.4	20.8
87871	2000 <i>SX</i> ₂₆₂		2 18.7 129°23'	1°4'/17.3 18			78751	2002 <i>TW</i> ₂₈₆		2 18.7 116°34'	3°4'/22.1 18		
1 12	10 31.11	+12 58.0	2.269	3.056	12.9	20.4	1 12	10 29.28	- 0 43.5	2.430	3.163	13.6	19.4
1 22	10 26.61	+13 46.6	2.193	3.069	9.9	20.2	1 22	10 25.07	- 0 54.9	2.341	3.172	11.1	19.2
2 1	10 20.10	+14 44.4	2.140	3.082	6.5	20.0	2 1	10 19.05	- 0 51.2	2.274	3.180	8.2	19.1
2 11	10 12.16	+15 46.5	2.116	3.094	2.9	19.8	2 11	10 11.71	- 0 33.1	2.234	3.189	5.3	18.9
2 21	10 3.56	+16 46.9	2.122	3.106	2.0	19.7	2 21	10 3.72	- 0 2.9	2.221	3.197	3.5	18.8
3 2	9 55.18	+17 40.2	2.158	3.118	5.4	20.0	3 2	9 55.89	+ 0 35.9	2.239	3.205	4.7	18.9
3 12	9 47.88	+18 22.1	2.222	3.129	8.9	20.2	3 12	9 48.98	+ 1 18.5	2.285	3.213	7.5	19.1
3 22	9 42.31	+18 50.6	2.311	3.139	11.8	20.4	3 22	9 43.60	+ 2 0.6	2.358	3.220	10.4	19.3
100143	1993 <i>TD</i> ₁₁		2 18.7 136°35'	1°0'/19.6 18			195397	2002 <i>GB</i> ₁₆		2 18.7 244°02'	3°5'/15.7 18		
1 12	10 32.24	+ 6 29.5	2.163	2.929	14.1	20.7	1 12	10 33.24	+20 17.3	2.184	2.984	12.9	20.3
1 22	10 27.55	+ 6 47.1	2.080	2.940	11.1	20.5	1 22	10 28.58	+20 56.0	2.092	2.975	10.0	20.1
2 1	10 20.77	+ 7 18.0	2.020	2.951	7.6	20.3	2 1	10 21.63	+21 39.0	2.023	2.965	6.8	19.9
2 11	10 12.48	+ 7 59.1	1.988	2.962	3.7	20.1	2 11	10 12.94	+22 20.4	1.982	2.954	4.0	19.7
2 21	10 3.47	+ 8 46.0	1.984	2.972	1.1	19.9	2 21	10 3.35	+22 54.2	1.970	2.944	4.1	19.7
3 2	9 54.67	+ 9 33.4	2.011	2.982	4.7	20.2	3 2	9 53.88	+23 15.4	1.987	2.933	7.0	19.8
3 12	9 47.00	+10 16.5	2.067	2.991	8.5	20.4	3 12	9 45.57	+23 21.2	2.032	2.922	10.4	20.0
3 22	9 41.13	+10 51.6	2.148	2.999	11.7	20.7	3 22	9 39.18	+23 11.2	2.100	2.910	13.5	20.2
175063	2004 <i>GS</i> ₁		2 18.7 329°34'	0°1'/18.6 17			16904	1998 <i>DQ</i> ₁₅		2 18.8 18°52'	3°8'/22.5 18		
1 12	10 27.55	+10 5.3	2.057	2.848	13.9	20.5	1 12	10 25.89	- 2 1.3	2.134	2.876	14.9	18.3
1 22	10 24.21	+10 25.2	1.963	2.841	10.8	20.3	1 22	10 22.78	- 1 59.6	2.043	2.879	12.3	18.1
2 1	10 18.73	+10 56.8	1.892	2.833	7.2	20.1	2 1	10 17.70	- 1 38.9	1.974	2.882	9.2	17.9
2 11	10 11.64	+11 36.6	1.848	2.826	3.2	19.8	2 11	10 11.16	- 1 0.0	1.929	2.885	6.0	17.7
2 21	10 3.70	+12 19.8	1.831	2.819	1.0	19.6	2 21	10 3.88	- 0 6.0	1.912	2.888	3.9	17.6
3 2	9 55.86	+13 0.9	1.844	2.813	5.2	19.9	3 2	9 56.73	+ 0 58.2	1.923	2.891	5.1	17.7
3 12	9 49.08	+13 35.1	1.884	2.807	9.2	20.1	3 12	9 50.56	+ 2 6.1	1.962	2.895	8.2	17.8
3 22	9 44.08	+13 59.1	1.948	2.801	12.6	20.3	3 22	9 46.05	+ 3 11.7	2.027	2.899	11.4	18.0
341398	2007 <i>TC</i> ₁₅₁		2 18.7 130°63'	0°6'/18.2 18			96941	1999 <i>TF</i> ₁₅₃		2 18.8 13°34'	3°1'/16.2 18		
1 12	10 30.89	+12 3.8	2.597	3.374	11.7	21.5	1 12	10 29.61	+16 53.4	1.769	2.582	14.9	18.8
1 22	10 26.16	+12 23.6	2.515	3.385	9.0	21.4	1 22	10 26.14	+17 42.4	1.693	2.584	11.5	18.6
2 1	10 19.67	+12 50.9	2.458	3.396	5.9	21.2	2 1	10 20.16	+18 40.1	1.639	2.586	7.6	18.4
2 11	10 11.94	+13 22.3	2.428	3.407	2.6	21.0	2 11	10 12.31	+19 39.6	1.611	2.588	3.9	18.2
2 21	10 3.64	+13 54.0	2.429	3.417	1.1	20.9	2 21	10 3.55	+20 33.3	1.611	2.590	3.8	18.2
3 2	9 55.54	+14 22.2	2.461	3.426	4.5	21.1	3 2	9 55.03	+21 14.5	1.638	2.593	7.4	18.4
3 12	9 48.39	+14 43.7	2.522	3.436	7.6	21.3	3 12	9 47.88	+21 39.1	1.691	2.596	11.3	18.6
3 22	9 42.74	+14 56.7	2.609	3.445	10.4	21.5	3 22	9 42.90	+21 45.8	1.767	2.599	14.7	18.8
341469	2007 <i>TV</i> ₃₁₉		2 18.7 192°74'	1°3'/20.2 17			318063	2004 <i>FM</i> ₁₂₂		2 18.8 308°36'	6°8'/22.6 18		
1 12	10 27.89	+ 4 41.9	2.689	3.444	11.9	21.8	1 12	10 31.29	- 2 37.2	1.623	2.374	18.6	20.3
1 22	10 23.90	+ 4 59.7	2.590	3.442	9.5	21.6	1 22	10 27.93	- 3 41.3	1.518	2.354	15.8	20.0
2 1	10 18.23	+ 5 29.7	2.515	3.440	6.6	21.4	2 1	10 21.73	- 4 27.3	1.433	2.335	12.4	19.8
2 11	10 11.34	+ 6 9.7	2.467	3.438	3.4	21.2	2 11	10 13.20	- 4 52.1	1.370	2.316	8.9	19.5
2 21	10 3.81	+ 6 56.3	2.449	3.436	1.4	21.0	2 21	10 3.24	- 4 54.7	1.331	2.298	6.8	19.3
3 2	9 56.37	+ 7 45.5	2.462	3.433	4.0	21.2	3 2	9 53.12	- 4 36.9	1.320	2.280	8.1	19.4
3 12	9 49.71	+ 8 32.9	2.505	3.430	7.1	21.4	3 12	9 44.23	- 4 4.3	1.333	2.262	11.6	19.5
3 22	9 44.42	+ 9 15.0	2.574	3.426	10.0	21.6	3 22	9 37.69	- 3 24.3	1.368	2.245	15.5	19.7
155077	2005 <i>SX</i> ₁₀₃		2 18.7 66°82'	5°0'/15.6 18			281495	2008 <i>SD</i> ₂₈₂		2 18.8 192°89'	0°1'/18.9 17		
1 12	10 39.89	+24 5.1	1.713	2.519	15.6	19.5	1 12	10 28.61	+ 8 41.6	2.245	3.024	13.2	21.2
1 22	10 33.87	+24 36.6	1.659	2.543	12.1	19.4	1 22	10 24.80	+ 9 8.9	2.154	3.024	10.3	21.0
2 1	10 25.06	+25 7.7	1.628	2.566	8.4	19.2	2 1	10 19.00	+ 9 48.3	2.086	3.023	6.9	20.8
2 11	10 14.35	+25 30.7	1.623	2.590	5.5	19.1	2 11	10 11.74	+10 36.3	2.045	3.023	3.1	20.6
2 21	10 2.98	+25 39.2	1.646	2.614	5.6	19.1	2 21	10 3.72	+11 28.2	2.034	3.022	0.9	20.4
3 2	9 52.31	+25 29.6	1.697	2.637	8.5	19.3	3 2	9 55.82	+12 18.8	2.052	3.021	4.8	20.7
3 12	9 43.52	+25 1.8	1.774	2.660	11.9	19.6	3 12	9 48.92	+13 3.0	2.099	3.020	8.5	20.9
3 22	9 37.30	+24 18.4	1.874	2.684	14.9	19.8	3 22	9 43.67	+13 37.7	2.170	3.019	11.7	21.1
269672	1995 <i>UR</i> ₁₅		2 18.7 71°15'	2°8'/16.3 18			219650	2001 <i>US</i> ₁₃₄		2 18.8 343°25'	2°8'/20.9 18		
1 12	10 30.36	+16 25.3	1.916	2.722	14.2	20.7	1 12	10 29.31	+ 2 24.1	1.816	2.583	16.3	20.7
1 22	10 26.50	+17 15.7	1.839	2.727	10.9	20.5	1 22	10 25.81	+ 2 26.0	1.726	2.583	13.2	20.5
2 1	10 20.28	+18 14.5	1.786	2.731	7.2	20.3	2 1	10 19.93	+ 2 46.4	1.657	2.582	9.4	20.3
2 11	10 12.33	+19 15.1	1.759	2.736	3.6	20.1	2 11	10 12.23	+ 3 23.7	1.614	2.581	5.4	20.0
2 21	10 3.54	+20 10.6	1.761	2.741	3.4	20.1	2 21	10 3.57	+ 4 13.8	1.597	2.581	2.8	19.9
3 2	9 54.98	+20 54.7	1.791	2.746	6.9	20.3	3 2	9 55.05	+ 5 11.0	1.609	2.580	5.5	20.0
3 12	9 47.72	+21 23.4	1.848	2.751	10.6	20.5	3 12	9 47.75	+ 6 8.2	1.647	2.580	9.5	20.3
3 22	9 42.48	+21 35.2	1.928	2.755	13.8	20.7	3 22	9 42.47	+ 6 59.6	1.710	2.580	13.3	20.5
65220	2002 <i>EH</i> ₂₂		2 18.7 140°21'	0°8'/17.9 18									

EPHEMERIDES

2 18.8

2 18.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
19828	2000 <i>SB</i> ₂₁₄		2 18.8	11°51'	10°0'/11.3	18	333104	2011 <i>UF</i> ₃₀₈		2 18.8	172°57'	1°3'/19.9	18
1 12	10 29.54	+27 48.2	1.185	2.033	18.4	16.8	1 12	10 31.78	+ 4 33.5	1.860	2.630	15.9	21.6
1 22	10 27.53	+29 48.0	1.132	2.035	14.8	16.5	1 22	10 27.69	+ 5 5.4	1.771	2.633	12.6	21.4
2 1	10 21.80	+31 48.8	1.100	2.038	11.5	16.4	2 1	10 21.16	+ 5 55.9	1.704	2.635	8.7	21.2
2 11	10 13.23	+33 34.3	1.090	2.042	10.0	16.3	2 11	10 12.80	+ 7 1.5	1.663	2.637	4.4	20.9
2 21	10 3.30	+34 50.1	1.104	2.047	11.3	16.4	2 21	10 3.47	+ 8 16.4	1.651	2.638	1.4	20.7
3 2	9 53.88	+35 27.0	1.140	2.053	14.5	16.6	3 2	9 54.29	+ 9 33.0	1.668	2.639	5.4	21.0
3 12	9 46.71	+35 24.1	1.196	2.060	18.0	16.8	3 12	9 46.35	+10 44.0	1.713	2.639	9.7	21.2
3 22	9 42.82	+34 46.5	1.269	2.068	21.2	17.0	3 22	9 40.46	+11 43.9	1.782	2.639	13.5	21.4
124861	2001 <i>TB</i> ₂₈		2 18.8	353°17'	3°3'/20.5	18	381699	2009 <i>DY</i> ₁₂₇		2 18.8	345°94'	12°8'/29.6	17
1 12	10 29.99	+ 5 0.0	1.189	1.997	20.9	19.2	1 12	10 29.88	-22 33.3	2.117	2.718	18.7	19.7
1 22	10 27.55	+ 4 27.4	1.111	1.993	16.9	18.9	1 22	10 26.33	-24 25.8	2.024	2.712	17.3	19.5
2 1	10 21.73	+ 4 15.1	1.052	1.989	12.1	18.6	2 1	10 20.38	-25 54.9	1.947	2.707	15.7	19.4
2 11	10 13.23	+ 4 22.3	1.013	1.986	6.8	18.3	2 11	10 12.53	-26 54.4	1.889	2.702	14.2	19.2
2 21	10 3.28	+ 4 45.3	0.998	1.984	3.4	18.1	2 21	10 3.53	-27 20.1	1.852	2.698	13.1	19.2
3 2	9 53.54	+ 5 17.8	1.008	1.983	7.3	18.3	3 2	9 54.43	-27 11.0	1.837	2.694	12.8	19.1
3 12	9 45.67	+ 5 51.5	1.041	1.983	12.6	18.6	3 12	9 46.35	-26 30.6	1.844	2.691	13.4	19.2
3 22	9 40.78	+ 6 19.6	1.094	1.984	17.5	18.9	3 22	9 40.20	-25 26.1	1.873	2.689	14.6	19.2
133179	2003 <i>QV</i> ₄₈		2 18.8	212°85'	2°5'/16.5	18	68627	2002 <i>BF</i> ₁₇		2 18.8	258°01'	1°4'/19.6	18
1 12	10 33.63	+15 24.0	2.067	2.860	13.7	20.8	1 12	10 34.55	+ 7 38.6	1.688	2.470	16.8	19.6
1 22	10 29.03	+16 18.9	1.972	2.853	10.6	20.6	1 22	10 30.25	+ 7 29.5	1.590	2.459	13.4	19.3
2 1	10 22.03	+17 23.7	1.901	2.844	7.0	20.4	2 1	10 23.14	+ 7 34.4	1.513	2.448	9.3	19.1
2 11	10 13.17	+18 32.3	1.858	2.835	3.5	20.1	2 11	10 13.79	+ 7 51.0	1.461	2.436	4.6	18.8
2 21	10 3.31	+19 37.5	1.845	2.825	3.2	20.1	2 21	10 3.18	+ 8 15.5	1.436	2.424	1.6	18.5
3 2	9 53.51	+20 32.7	1.861	2.815	6.7	20.3	3 2	9 52.59	+ 8 42.4	1.440	2.411	6.0	18.8
3 12	9 44.87	+21 12.8	1.905	2.803	10.5	20.5	3 12	9 43.37	+ 9 6.4	1.470	2.399	10.8	19.0
3 22	9 38.20	+21 36.1	1.973	2.791	13.9	20.7	3 22	9 36.51	+ 9 23.1	1.524	2.386	15.1	19.2
16680	Minamitanemachi		2 18.8	4°32'	9°5'/13.2	18	324013	2005 <i>UO</i> ₃₁₃		2 18.8	197°27'	1°6'/20.4	17
1 12	10 36.75	+32 1.7	1.376	2.204	17.5	16.5	1 12	10 29.63	+ 2 56.1	2.438	3.188	13.1	21.4
1 22	10 32.66	+32 56.7	1.315	2.203	14.3	16.3	1 22	10 25.47	+ 3 29.4	2.336	3.185	10.5	21.2
2 1	10 24.93	+33 44.8	1.275	2.204	11.3	16.1	2 1	10 19.43	+ 4 18.4	2.258	3.181	7.4	21.0
2 11	10 14.52	+34 14.2	1.258	2.205	9.6	16.0	2 11	10 11.96	+ 5 20.7	2.206	3.176	3.9	20.8
2 21	10 2.96	+34 15.3	1.266	2.208	10.3	16.1	2 21	10 3.73	+ 6 32.0	2.185	3.171	1.6	20.6
3 2	9 52.08	+33 43.8	1.297	2.212	12.9	16.2	3 2	9 55.55	+ 7 46.7	2.194	3.165	4.4	20.8
3 12	9 43.50	+32 41.6	1.350	2.216	16.2	16.5	3 12	9 48.25	+ 8 58.9	2.234	3.159	7.8	21.0
3 22	9 38.14	+31 15.0	1.422	2.222	19.2	16.7	3 22	9 42.47	+10 3.9	2.300	3.151	11.0	21.2
174499	2003 <i>BY</i> ₃₈		2 18.8	139°75'	2°6'/21.5	17	130759	2000 <i>SX</i> ₂₇₈		2 18.8	109°84'	0°3'/19.0	18
1 12	10 30.10	+ 1 18.7	2.851	3.583	11.8	20.6	1 12	10 34.45	+ 7 37.6	1.833	2.610	15.8	20.5
1 22	10 25.41	+ 1 8.1	2.760	3.592	9.6	20.4	1 22	10 29.56	+ 8 10.8	1.764	2.631	12.4	20.3
2 1	10 19.13	+ 1 9.2	2.692	3.602	7.0	20.2	2 1	10 22.24	+ 8 59.0	1.716	2.652	8.3	20.1
2 11	10 11.72	+ 1 21.2	2.652	3.611	4.3	20.1	2 11	10 13.20	+ 9 57.6	1.696	2.673	3.8	19.8
2 21	10 3.77	+ 1 42.0	2.641	3.620	2.6	20.0	2 21	10 3.40	+11 0.2	1.704	2.692	1.0	19.7
3 2	9 55.95	+ 2 8.8	2.661	3.628	4.0	20.1	3 2	9 53.97	+12 0.0	1.742	2.711	5.5	20.0
3 12	9 48.94	+ 2 38.1	2.712	3.636	6.6	20.3	3 12	9 45.95	+12 51.2	1.808	2.729	9.6	20.3
3 22	9 43.25	+ 3 6.5	2.789	3.644	9.2	20.4	3 22	9 40.08	+13 30.2	1.898	2.747	13.1	20.6
460389	2014 <i>ST</i> ₆₅		2 18.8	63°16'	3°1'/16.8	18	239236	2006 <i>SH</i> ₂₀₆		2 18.8	200°70'	1°2'/17.4	17
1 12	10 35.69	+17 33.4	1.537	2.349	16.8	21.4	1 12	10 29.03	+14 14.6	2.918	3.699	10.4	21.6
1 22	10 31.16	+18 0.6	1.465	2.355	13.0	21.2	1 22	10 24.68	+14 46.7	2.822	3.696	8.0	21.5
2 1	10 23.64	+18 35.2	1.415	2.361	8.6	20.9	2 1	10 18.73	+15 25.1	2.751	3.692	5.3	21.3
2 11	10 13.90	+19 10.2	1.391	2.368	4.3	20.7	2 11	10 11.59	+16 6.3	2.709	3.687	2.4	21.1
2 21	10 3.13	+19 38.1	1.393	2.375	3.8	20.7	2 21	10 3.86	+16 46.3	2.698	3.682	1.7	21.0
3 2	9 52.78	+19 52.9	1.423	2.381	7.9	20.9	3 2	9 56.21	+17 21.4	2.718	3.677	4.5	21.2
3 12	9 44.20	+19 51.5	1.478	2.388	12.2	21.2	3 12	9 49.34	+17 48.4	2.767	3.671	7.4	21.4
3 22	9 38.26	+19 33.9	1.555	2.395	16.0	21.4	3 22	9 43.77	+18 5.7	2.842	3.665	10.0	21.5
155301	2005 <i>YU</i> ₄₃		2 18.8	121°55'	0°5'/18.3	18	317266	2002 <i>EQ</i> ₆₃		2 18.8	303°34'	0°9'/19.3	16
1 12	10 30.30	+10 15.6	2.022	2.809	14.2	20.9	1 12	10 30.26	+ 7 56.8	1.451	2.253	18.1	21.2
1 22	10 26.28	+10 51.8	1.940	2.816	11.0	20.7	1 22	10 27.42	+ 8 3.1	1.354	2.236	14.4	20.9
2 1	10 20.06	+11 40.3	1.882	2.823	7.3	20.5	2 1	10 21.54	+ 8 27.1	1.277	2.218	9.9	20.6
2 11	10 12.23	+12 36.6	1.851	2.829	3.2	20.2	2 11	10 13.18	+ 9 6.0	1.224	2.201	4.8	20.3
2 21	10 3.62	+13 34.7	1.848	2.836	1.3	20.1	2 21	10 3.36	+ 9 54.1	1.196	2.184	1.3	20.0
3 2	9 55.21	+14 28.6	1.876	2.842	5.4	20.4	3 2	9 53.48	+10 43.8	1.195	2.168	6.7	20.3
3 12	9 47.97	+15 13.2	1.930	2.848	9.3	20.6	3 12	9 45.07	+11 27.3	1.219	2.152	12.1	20.5
3 22	9 42.62	+15 45.3	2.010	2.854	12.7	20.8	3 22	9 39.25	+11 58.9	1.264	2.136	16.9	20.8
287499	2003 <i>BJ</i> ₃₈		2 18.8	28°36'	1°1'/19.7	18	468556	2006 <i>UY</i> ₃₇		2 18.8	294°74'	5°1'/24.0	17
1 12	10 30.49	+ 7 56.3	2.128	2.904	14.0	20.4	1 12	10 26.15	- 6 27.5	2.441	3.150	14.1	21.3
1 22	10 26.29	+ 7 48.2	2.042	2.908	11.0	20.2	1 22	10 22.82	- 6 42.0	2.338	3.143	12.0	21.2
2 1	10 20.00	+ 7 51.0	1.979	2.912	7.5	19.9	2 1	10 17.69	- 6 38.1	2.255	3.137	9.5	21.0
2 11	10 12.19	+ 8 2.5	1.942	2.917	3.7	19.7	2 11	10 11.20	- 6 15.3	2.197	3.131	6.9	20.8
2 21	10 3.65	+ 8 19.4	1.934	2.922	1.2	19.5	2 21	10 3.98	- 5 34.8	2.165	3.125	5.2	20.7
3 2	9 55.29	+ 8 37.9	1.956	2.927	4.7	19.8	3 2	9 56.80	- 4 40.1	2.163	3.119	5.7	20.7
3 12	9 48.05	+ 8 54.1	2.005	2.932	8.5	20.0	3 12	9 50.44	- 3 36.5	2.188	3.114	7.9	20.8
3 22	9 42.58	+ 9 5.1	2.079	2.937	11.8	20.2	3 22	9 45.54	- 2 29.8	2.239	3.108	10.6	21.0
102873	1999 <i>WK</i> ₁₁		2 18.8	252°41'	4°0'/15.3	17	46961	1998 <i>SC</i> ₁₃₂		2 18.8	230°49'	1°1'/19.	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
228322	2000 <i>QU</i> ₂₀₃		2 18.8 189°47'	2°7/16.2	16		49677	1999 <i>TB</i> ₃		2 18.8 281°07'	0°3/18.6	18	
1 12	10 35.37	+19 22.4	2.534	3.321	11.7	21.5	1 12	10 33.04	+10 8.9	1.362	2.171	18.7	19.8
1 22	10 29.83	+19 53.8	2.444	3.320	9.0	21.4	1 22	10 29.77	+10 24.7	1.273	2.159	14.8	19.5
2 1	10 22.26	+20 28.7	2.378	3.318	6.1	21.2	2 1	10 23.20	+10 57.7	1.202	2.147	10.0	19.2
2 11	10 13.20	+21 2.3	2.342	3.315	3.3	21.0	2 11	10 13.96	+11 43.4	1.156	2.135	4.5	18.9
2 21	10 3.42	+21 29.7	2.336	3.312	3.2	21.0	2 21	10 3.18	+12 34.5	1.135	2.123	1.5	18.6
3 2	9 53.81	+21 46.9	2.361	3.308	5.9	21.1	3 2	9 52.44	+13 22.5	1.140	2.111	7.4	18.9
3 12	9 45.24	+21 51.7	2.414	3.304	9.0	21.3	3 12	9 43.37	+13 59.6	1.170	2.099	12.9	19.2
3 22	9 38.37	+21 43.8	2.493	3.299	11.7	21.5	3 22	9 37.15	+14 21.4	1.221	2.087	17.8	19.5
148884	2001 <i>WO</i> ₁₄		2 18.8 138°78'	0°9/17.9	18		240061	2001 <i>XT</i> ₆₉		2 18.8 101°25'	4°2/14.3	18	
1 12	10 33.14	+12 26.5	2.204	2.987	13.3	21.3	1 12	10 29.91	+22 55.3	2.418	3.222	11.6	20.4
1 22	10 28.26	+12 54.7	2.124	2.997	10.3	21.1	1 22	10 25.72	+23 56.8	2.347	3.231	9.0	20.2
2 1	10 21.27	+13 32.1	2.067	3.007	6.8	20.9	2 1	10 19.56	+25 0.3	2.301	3.240	6.3	20.0
2 11	10 12.77	+14 14.1	2.039	3.017	3.0	20.6	2 11	10 12.01	+25 59.7	2.284	3.248	4.4	19.9
2 21	10 3.56	+14 55.7	2.040	3.026	1.6	20.6	2 21	10 3.80	+26 48.9	2.295	3.257	4.8	20.0
3 2	9 54.58	+15 32.0	2.071	3.035	5.3	20.8	3 2	9 55.82	+27 23.6	2.336	3.265	7.1	20.1
3 12	9 46.76	+15 59.2	2.131	3.043	8.9	21.1	3 12	9 48.90	+27 41.4	2.403	3.274	9.8	20.3
3 22	9 40.74	+16 15.2	2.216	3.051	12.0	21.3	3 22	9 43.67	+27 42.3	2.494	3.282	12.2	20.5
211819	2004 <i>EX</i> ₁₇		2 18.8 303°75'	0°7/18.0	17		162163	1999 <i>ER</i>		2 18.8 228°06'	0°0/18.8	18	
1 12	10 25.30	+ 8 42.1	2.183	2.971	13.3	19.8	1 12	10 32.88	+ 8 25.4	1.936	2.715	15.0	21.4
1 22	10 22.45	+ 9 46.7	2.083	2.959	10.4	19.6	1 22	10 28.63	+ 8 59.5	1.834	2.703	11.9	21.2
2 1	10 17.60	+11 7.1	2.007	2.948	6.9	19.4	2 1	10 21.90	+ 9 49.2	1.754	2.691	8.0	20.9
2 11	10 11.21	+12 38.3	1.958	2.937	3.0	19.1	2 11	10 13.22	+10 50.3	1.701	2.678	3.6	20.6
2 21	10 3.98	+14 13.7	1.939	2.926	1.4	19.0	2 21	10 3.42	+11 57.0	1.676	2.664	1.1	20.4
3 2	9 56.76	+15 45.9	1.950	2.915	5.4	19.2	3 2	9 53.60	+13 2.2	1.682	2.650	5.7	20.7
3 12	9 50.47	+17 7.9	1.989	2.905	9.2	19.4	3 12	9 44.93	+13 59.3	1.715	2.635	10.1	20.9
3 22	9 45.80	+18 15.1	2.053	2.894	12.6	19.6	3 22	9 38.28	+14 43.8	1.773	2.619	14.0	21.1
155767	2000 <i>SZ</i> ₂₂₈		2 18.8 122°20'	2°2/16.9	18		62547	2000 <i>SW</i> ₂₆₁		2 18.8 115°81'	3°2/21.9	18	
1 12	10 32.60	+15 49.5	2.005	2.802	13.9	20.3	1 12	10 27.78	- 1 11.5	2.021	2.768	15.5	20.2
1 22	10 28.12	+16 23.0	1.926	2.808	10.7	20.1	1 22	10 24.38	- 0 50.7	1.932	2.773	12.7	20.0
2 1	10 21.32	+17 4.0	1.870	2.814	7.1	19.9	2 1	10 18.86	- 0 9.1	1.864	2.777	9.3	19.8
2 11	10 12.83	+17 47.1	1.842	2.819	3.4	19.7	2 11	10 11.76	+ 0 51.6	1.820	2.782	5.7	19.6
2 21	10 3.54	+18 26.4	1.842	2.825	2.8	19.7	2 21	10 3.86	+ 2 7.0	1.805	2.786	3.2	19.4
3 2	9 54.50	+18 56.5	1.872	2.830	6.3	19.9	3 2	9 56.10	+ 3 30.7	1.819	2.790	5.1	19.6
3 12	9 46.73	+19 13.9	1.928	2.835	10.0	20.1	3 12	9 49.41	+ 4 55.2	1.861	2.794	8.6	19.8
3 22	9 40.96	+19 17.4	2.009	2.840	13.2	20.4	3 22	9 44.50	+ 6 13.7	1.929	2.798	12.1	20.0
238102	2003 <i>HL</i> ₃₇		2 18.8 295°53'	5°2/22.4	18		201708	2003 <i>UJ</i> ₁₆₃		2 18.8 80°41'	2°6/16.3	18	
1 12	10 29.48	- 2 1.4	1.501	2.265	19.4	20.0	1 12	10 30.12	+16 31.3	2.067	2.869	13.4	20.5
1 22	10 26.59	- 2 19.7	1.409	2.257	16.1	19.8	1 22	10 26.12	+17 22.6	1.995	2.880	10.3	20.4
2 1	10 20.85	- 2 13.4	1.335	2.249	12.2	19.5	2 1	10 19.94	+18 21.3	1.946	2.891	6.8	20.2
2 11	10 12.82	- 1 41.5	1.284	2.241	8.1	19.3	2 11	10 12.21	+19 21.3	1.925	2.902	3.4	20.0
2 21	10 3.50	- 0 46.6	1.257	2.234	5.3	19.1	2 21	10 3.75	+20 16.0	1.933	2.913	3.3	20.0
3 2	9 54.20	+ 0 24.9	1.257	2.226	7.0	19.2	3 2	9 55.55	+20 59.9	1.970	2.923	6.5	20.2
3 12	9 46.31	+ 1 43.7	1.282	2.219	11.2	19.4	3 12	9 48.56	+21 29.2	2.034	2.934	9.9	20.4
3 22	9 40.86	+ 3 0.3	1.329	2.212	15.5	19.6	3 22	9 43.44	+21 42.8	2.121	2.945	12.9	20.6
48281	2002 <i>EN</i> ₁₅₃		2 18.8 246°59'	0°7/18.2	17		57528	2001 <i>SM</i> ₃₄₃		2 18.8 81°03'	8°4/11.3	18	
1 12	10 33.09	+11 1.2	1.848	2.638	15.3	20.6	1 12	10 34.71	+30 56.1	1.761	2.577	14.8	18.8
1 22	10 28.94	+11 29.0	1.748	2.624	12.0	20.3	1 22	10 30.37	+32 33.9	1.706	2.587	12.0	18.6
2 1	10 22.18	+12 10.1	1.669	2.610	8.0	20.1	2 1	10 23.10	+34 8.0	1.675	2.597	9.5	18.5
2 11	10 13.36	+13 0.1	1.617	2.595	3.5	19.8	2 11	10 13.69	+35 27.2	1.669	2.607	8.4	18.5
2 21	10 3.36	+13 52.8	1.593	2.580	1.5	19.6	2 21	10 3.32	+36 22.2	1.690	2.617	9.4	18.6
3 2	9 53.36	+14 41.5	1.598	2.564	6.2	19.8	3 2	9 53.40	+36 47.6	1.736	2.627	11.7	18.7
3 12	9 44.58	+15 20.4	1.630	2.548	10.7	20.1	3 12	9 45.21	+36 43.1	1.805	2.637	14.3	18.9
3 22	9 37.95	+15 45.9	1.686	2.532	14.6	20.3	3 22	9 39.60	+36 12.5	1.894	2.646	16.8	19.1
16293	4613 <i>P-L</i>		2 18.8 222°01'	1°4/17.5	17		345823	2007 <i>HV</i> ₇₀		2 18.8 237°25'	3°3/22.1	17	
1 12	10 32.87	+13 41.8	2.332	3.115	12.7	20.7	1 12	10 29.31	- 1 26.1	2.541	3.267	13.2	21.5
1 22	10 28.16	+14 16.7	2.230	3.105	9.8	20.4	1 22	10 25.25	- 1 22.6	2.425	3.252	10.9	21.3
2 1	10 21.33	+15 0.5	2.153	3.093	6.5	20.2	2 1	10 19.33	- 1 3.0	2.332	3.237	8.2	21.1
2 11	10 12.87	+15 48.7	2.103	3.081	2.9	20.0	2 11	10 11.97	- 0 27.9	2.265	3.220	5.3	20.8
2 21	10 3.53	+16 36.1	2.084	3.069	2.0	19.9	2 21	10 3.80	+ 0 20.5	2.227	3.204	3.3	20.7
3 2	9 54.22	+17 17.4	2.095	3.056	5.5	20.1	3 2	9 55.58	+ 1 18.3	2.220	3.186	4.7	20.8
3 12	9 45.90	+17 48.5	2.135	3.042	9.2	20.3	3 12	9 48.14	+ 2 20.2	2.241	3.169	7.7	20.9
3 22	9 39.30	+18 7.3	2.200	3.027	12.4	20.5	3 22	9 42.15	+ 3 21.1	2.290	3.150	10.7	21.1
497500	2006 <i>AQ</i> ₈₆		2 18.8 194°67'	10°2/ 1.6	17		15944	1998 <i>AH</i> ₅		2 18.8 11°52'	0°2/18.6	18	
1 12	10 33.81	-26 26.4	2.953	3.477	14.9	22.0	1 12	10 27.02	+ 9 41.2	1.945	2.739	14.4	17.5
1 22	10 28.67	-27 38.2	2.847	3.474	13.9	21.9	1 22	10 23.88	+10 9.3	1.862	2.741	11.2	17.3
2 1	10 21.58	-28 29.2	2.758	3.470	12.6	21.8	2 1	10 18.56	+10 50.4	1.802	2.743	7.5	17.1
2 11	10 12.98	-28 55.4	2.689	3.465	11.5	21.7	2 11	10 11.63	+11 40.2	1.768	2.746	3.3	16.9
2 21	10 3.49	-28 54.4	2.643	3.460	10.6	21.6	2 21	10 3.91	+12 33.2	1.762	2.750	1.1	16.7
3 2	9 53.93	-28 26.0	2.621	3.453	10.2	21.5	3 2	9 56.36	+13 23.4	1.784	2.753	5.4	17.0
3 12	9 45.15	-27 33.2	2.623	3.446	10.6	21.6	3 12	9 49.96	+14 5.5	1.834	2.758	9.3	17.2
3 22	9 37.85	-26 21.6	2.650	3.438	11.6	21.6	3 22	9 45.41	+14 36.0	1.907	2.762	12.8	17.5
251069	2006 <i>SB</i> ₃₇		2 18.8 47°09'	1°1/18.1	18								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
323863	2005 <i>SG</i> ₁₄₈		2 18.8 227°42'	1°3'/17.6	17		235361	2003 <i>UT</i> ₃₆₅		2 18.8 337°49'	0°6'/19.3	17	
1 12	10 31.92	+12 55.4	2.196	2.983	13.2	22.1	1 12	10 29.08	+7 53.2	2.093	2.873	14.0	21.3
1 22	10 27.56	+13 31.3	2.097	2.973	10.3	21.8	1 22	10 25.34	+8 10.7	2.003	2.872	11.0	21.1
2 1	10 20.99	+14 17.3	2.021	2.963	6.8	21.6	2 1	10 19.49	+8 41.1	1.936	2.872	7.5	20.9
2 11	10 12.74	+15 8.8	1.973	2.952	3.0	21.3	2 11	10 12.06	+9 21.2	1.895	2.872	3.5	20.6
2 21	10 3.58	+16 0.2	1.955	2.941	1.9	21.2	2 21	10 3.84	+10 6.6	1.883	2.871	0.9	20.4
3 2	9 54.46	+16 46.0	1.967	2.929	5.7	21.5	3 2	9 55.74	+10 51.9	1.900	2.871	4.9	20.7
3 12	9 46.38	+17 21.4	2.006	2.916	9.5	21.7	3 12	9 48.72	+11 32.1	1.945	2.870	8.8	20.9
3 22	9 40.10	+17 44.0	2.071	2.903	12.8	21.9	3 22	9 43.47	+12 3.5	2.015	2.870	12.2	21.1
499738	2011 <i>BC</i> ₅₉		2 18.8 280°98'	1°7'/17.6	17		254707	2005 <i>NR</i> ₆		2 18.8 150°16'	2°2'/20.5	18	
1 12	10 35.53	+16 6.2	1.941	2.735	14.4	20.8	1 12	10 32.05	+3 57.7	1.996	2.758	15.2	20.9
1 22	10 30.66	+16 10.7	1.842	2.722	11.3	20.6	1 22	10 27.70	+3 58.8	1.908	2.763	12.2	20.7
2 1	10 23.22	+16 21.2	1.766	2.709	7.5	20.3	2 1	10 21.08	+4 15.4	1.842	2.767	8.6	20.5
2 11	10 13.78	+16 33.3	1.717	2.695	3.5	20.1	2 11	10 12.78	+4 45.5	1.802	2.772	4.7	20.3
2 21	10 3.28	+16 42.0	1.697	2.682	2.3	20.0	2 21	10 3.64	+5 25.4	1.790	2.776	2.2	20.1
3 2	9 52.89	+16 43.1	1.706	2.669	6.3	20.2	3 2	9 54.66	+6 10.0	1.808	2.779	5.1	20.3
3 12	9 43.77	+16 33.7	1.743	2.655	10.5	20.4	3 12	9 46.85	+6 53.7	1.854	2.783	8.9	20.6
3 22	9 36.82	+16 12.9	1.803	2.642	14.1	20.6	3 22	9 40.97	+7 31.8	1.924	2.786	12.4	20.8
233097	2005 <i>SL</i> ₂₄		2 18.8 105°84'	1°8'/17.4	18		497713	2006 <i>SG</i> ₁₁₆		2 18.8 169°45'	0°6'/18.1	17	
1 12	10 35.02	+11 54.4	1.540	2.340	17.3	20.7	1 12	10 28.72	+11 51.4	2.858	3.634	10.8	22.2
1 22	10 30.52	+12 52.8	1.475	2.359	13.3	20.5	1 22	10 24.45	+12 18.6	2.767	3.637	8.3	22.0
2 1	10 23.16	+14 6.0	1.432	2.377	8.7	20.3	2 1	10 18.59	+12 53.3	2.701	3.640	5.5	21.8
2 11	10 13.71	+15 26.2	1.415	2.394	3.8	20.0	2 11	10 11.58	+13 32.3	2.664	3.642	2.4	21.6
2 21	10 3.33	+16 44.0	1.426	2.411	2.6	20.0	2 21	10 4.00	+14 11.7	2.657	3.644	1.1	21.5
3 2	9 53.39	+17 50.8	1.465	2.428	7.2	20.3	3 2	9 56.54	+14 47.9	2.681	3.645	4.2	21.7
3 12	9 45.15	+18 40.4	1.530	2.444	11.6	20.6	3 12	9 49.87	+15 17.7	2.734	3.646	7.2	21.9
3 22	9 39.44	+19 10.7	1.618	2.459	15.4	20.8	3 22	9 44.52	+15 38.9	2.814	3.647	9.8	22.1
147612	2004 <i>GP</i> ₈₈		2 18.8 191°86'	3°3'/15.1	18		427394	1995 <i>SJ</i> ₇₆		2 18.8 178°00'	1°4'/20.4	17	
1 12	10 30.05	+21 35.0	2.749	3.546	10.6	20.8	1 12	10 26.88	+3 51.1	2.598	3.354	12.2	21.8
1 22	10 25.62	+22 19.3	2.664	3.545	8.2	20.6	1 22	10 23.23	+4 16.4	2.502	3.354	9.7	21.7
2 1	10 19.42	+23 6.0	2.604	3.544	5.6	20.5	2 1	10 17.88	+4 55.1	2.430	3.355	6.8	21.5
2 11	10 11.95	+23 50.3	2.573	3.542	3.5	20.3	2 11	10 11.30	+5 45.0	2.385	3.355	3.6	21.3
2 21	10 3.84	+24 27.3	2.572	3.540	3.8	20.4	2 21	10 4.09	+6 42.3	2.369	3.355	1.4	21.1
3 2	9 55.88	+24 53.3	2.601	3.538	6.1	20.5	3 2	9 56.97	+7 42.3	2.384	3.355	4.0	21.3
3 12	9 48.81	+25 5.9	2.657	3.536	8.7	20.7	3 12	9 50.66	+8 40.3	2.428	3.355	7.2	21.5
3 22	9 43.23	+25 4.8	2.738	3.533	11.1	20.8	3 22	9 45.73	+9 32.2	2.499	3.355	10.1	21.7
88797	2001 <i>SL</i> ₁₁₉		2 18.8 275°45'	3°7'/21.2	18		108918	2001 <i>PZ</i> ₁₄		2 18.8 52°41'	3°8'/22.4	18	
1 12	10 31.31	+1 36.6	1.517	2.292	18.7	20.1	1 12	10 27.63	-1 25.6	2.159	2.901	14.8	18.9
1 22	10 28.11	+1 25.0	1.417	2.276	15.3	19.8	1 22	10 24.11	-1 31.3	2.072	2.907	12.2	18.7
2 1	10 21.96	+1 35.0	1.337	2.261	11.2	19.5	2 1	10 18.61	-1 19.1	2.006	2.914	9.1	18.5
2 11	10 13.39	+2 6.5	1.279	2.246	6.7	19.2	2 11	10 11.66	-0 49.9	1.966	2.921	5.9	18.4
2 21	10 3.37	+2 56.2	1.247	2.230	3.7	19.0	2 21	10 4.00	-0 6.5	1.952	2.928	3.8	18.2
3 2	9 53.27	+3 57.8	1.242	2.214	6.6	19.1	3 2	9 56.48	+0 46.7	1.968	2.936	5.1	18.3
3 12	9 44.53	+5 2.6	1.263	2.199	11.5	19.3	3 12	9 49.98	+1 43.7	2.011	2.943	8.1	18.5
3 22	9 38.28	+6 2.4	1.306	2.183	16.1	19.5	3 22	9 45.14	+2 39.1	2.080	2.951	11.2	18.7
423170	2004 <i>FO</i> ₈₂		2 18.8 253°45'	6°3'/13.9	17		264212	2010 <i>PF</i> ₃₇		2 18.8 39°98'	0°6'/19.4	18	
1 12	10 37.85	+27 11.3	1.942	2.746	14.1	21.0	1 12	10 26.62	+4 27.8	1.487	2.282	18.1	19.7
1 22	10 32.67	+28 3.9	1.853	2.733	11.2	20.8	1 22	10 24.15	+5 28.6	1.417	2.294	14.2	19.5
2 1	10 24.65	+28 56.3	1.788	2.720	8.3	20.6	2 1	10 19.03	+6 53.2	1.368	2.307	9.6	19.2
2 11	10 14.45	+29 39.9	1.749	2.706	6.4	20.5	2 11	10 11.94	+8 35.7	1.343	2.320	4.5	19.0
2 21	10 3.11	+30 6.9	1.739	2.692	7.0	20.5	2 21	10 3.92	+10 26.7	1.345	2.333	1.1	18.7
3 2	9 51.94	+30 11.7	1.756	2.677	9.7	20.6	3 2	9 56.19	+12 15.1	1.375	2.347	6.1	19.1
3 12	9 42.27	+29 52.9	1.798	2.662	12.9	20.8	3 12	9 49.95	+13 50.7	1.431	2.362	10.9	19.4
3 22	9 35.02	+29 12.7	1.863	2.647	15.9	20.9	3 22	9 46.01	+15 7.4	1.511	2.377	14.9	19.7
466847	2015 <i>BA</i> ₂₇₄		2 18.8 168°87'	4°8'/22.5	18		61504	2000 <i>QS</i> ₅₃		2 18.8 214°71'	1°2'/17.9	18	
1 12	10 34.29	-2 28.5	2.180	2.901	15.3	21.2	1 12	10 35.37	+12 46.1	1.931	2.718	14.8	20.1
1 22	10 29.27	-3 5.1	2.085	2.905	12.7	21.1	1 22	10 30.55	+13 15.0	1.835	2.710	11.5	19.9
2 1	10 22.06	-3 25.4	2.012	2.908	9.7	20.9	2 1	10 23.17	+13 54.7	1.762	2.702	7.7	19.6
2 11	10 13.20	-3 28.8	1.964	2.910	6.7	20.7	2 11	10 13.81	+14 40.6	1.715	2.694	3.4	19.4
2 21	10 3.48	-3 16.3	1.944	2.912	4.9	20.6	2 21	10 3.37	+15 26.4	1.698	2.684	1.9	19.2
3 2	9 53.86	-2 50.8	1.954	2.914	5.9	20.6	3 2	9 53.01	+16 6.1	1.711	2.674	6.2	19.5
3 12	9 45.33	-2 17.0	1.992	2.915	8.8	20.8	3 12	9 43.90	+16 34.8	1.751	2.663	10.4	19.7
3 22	9 38.61	-1 40.2	2.055	2.915	11.8	21.0	3 22	9 36.93	+16 50.0	1.815	2.652	14.2	19.9
427579	2003 <i>QY</i> ₁₄		2 18.8 185°16'	1°7'/20.5	17		159362	2007 <i>GX</i> ₄₄		2 18.8 210°43'	0°1'/18.9	18	
1 12	10 30.77	+4 12.5	2.682	3.429	12.1	22.2	1 12	10 29.81	+8 41.2	2.247	3.024	13.3	20.9
1 22	10 26.14	+4 17.1	2.583	3.429	9.7	22.1	1 22	10 25.81	+9 8.4	2.152	3.020	10.4	20.7
2 1	10 19.77	+4 33.3	2.507	3.428	6.8	21.9	2 1	10 19.77	+9 47.9	2.080	3.016	7.0	20.5
2 11	10 12.12	+4 59.5	2.459	3.427	3.7	21.7	2 11	10 12.21	+10 36.1	2.035	3.012	3.2	20.3
2 21	10 3.81	+5 32.9	2.441	3.425	1.7	21.5	2 21	10 3.84	+11 28.5	2.019	3.007	0.9	20.1
3 2	9 55.59	+6 9.8	2.453	3.423	4.0	21.7	3 2	9 55.57	+12 19.5	2.034	3.003	4.8	20.3
3 12	9 48.20	+6 46.3	2.496	3.421	7.1	21.9	3 12	9 48.28	+13 4.3	2.077	2.997	8.6	20.6
3 22	9 42.22	+7 19.0	2.566	3.417	10.0	22.1	3 22	9 42.66	+13 39.4	2.145	2.992	11.9	20.8
190776	2001 <i>QY</i> ₂₄₇		2 18.8 125°34'	0°5'/19.2	18		134068	2004 <i>XS</i> ₆₁		2 18.8 140°79'	1°5'/20.1	18	
1 12	10 35.65	+7 24.2	1.849</										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
472466	2015 <i>BJ</i> ₄₂₅		2 18.8 266°48	1°1/17.6	17		378772	2008 <i>RN</i> ₁₄₆		2 18.8 125°55	4°5/22.9	17	
1 12	10 26.87	+10 4.0	2.210	2.998	13.1	22.0	1 12	10 31.43	- 3 12.4	2.342	3.061	14.4	21.2
1 22	10 23.66	+11 10.0	2.112	2.989	10.2	21.8	1 22	10 26.87	- 3 39.5	2.253	3.070	12.0	21.0
2 1	10 18.43	+12 30.4	2.038	2.980	6.7	21.5	2 1	10 20.37	- 3 50.3	2.186	3.079	9.2	20.9
2 11	10 11.65	+14 0.1	1.992	2.970	2.9	21.3	2 11	10 12.46	- 3 44.5	2.144	3.088	6.4	20.7
2 21	10 4.01	+15 32.3	1.975	2.961	1.7	21.2	2 21	10 3.84	- 3 23.7	2.130	3.097	4.6	20.6
3 2	9 56.40	+16 59.7	1.989	2.952	5.6	21.4	3 2	9 55.37	- 2 51.0	2.145	3.105	5.5	20.7
3 12	9 49.72	+18 15.8	2.031	2.942	9.3	21.6	3 12	9 47.88	- 2 11.1	2.189	3.114	8.0	20.8
3 22	9 44.70	+19 16.5	2.098	2.933	12.6	21.8	3 22	9 42.02	- 1 29.0	2.259	3.121	10.8	21.0
250238	2002 <i>XF</i> ₇₈		2 18.8 82°95	2°3/17.0	18		464004	2014 <i>WE</i> ₇₃		2 18.8 338°32	5°7/14.6	18	
1 12	10 35.94	+15 21.1	1.791	2.588	15.4	20.7	1 12	10 32.80	+23 32.8	1.646	2.467	15.4	20.4
1 22	10 30.73	+16 3.0	1.734	2.616	11.8	20.5	1 22	10 29.05	+24 27.7	1.570	2.462	12.1	20.2
2 1	10 23.02	+16 52.9	1.700	2.643	7.7	20.3	2 1	10 22.38	+25 25.9	1.516	2.458	8.6	19.9
2 11	10 13.60	+17 44.4	1.693	2.670	3.6	20.1	2 11	10 13.51	+26 18.3	1.487	2.453	5.9	19.8
2 21	10 3.51	+18 30.6	1.714	2.697	2.9	20.1	2 21	10 3.53	+26 56.4	1.484	2.449	6.5	19.8
3 2	9 53.93	+19 5.6	1.765	2.723	6.6	20.4	3 2	9 53.83	+27 13.7	1.508	2.446	9.6	20.0
3 12	9 45.92	+19 26.2	1.842	2.749	10.4	20.7	3 12	9 45.74	+27 7.8	1.557	2.443	13.3	20.2
3 22	9 40.16	+19 31.8	1.943	2.774	13.6	20.9	3 22	9 40.18	+26 40.0	1.626	2.440	16.6	20.4
499140	2009 <i>RL</i> ₁		2 18.8 187°93	1°9/20.8	17		436903	2012 <i>TP</i> ₇₀		2 18.8 102°01	1°0/17.9	17	
1 12	10 31.60	+ 2 46.2	2.850	3.584	11.7	23.7	1 12	10 33.46	+14 28.8	2.671	3.447	11.4	21.7
1 22	10 26.71	+ 2 58.1	2.746	3.584	9.4	23.5	1 22	10 28.06	+14 38.9	2.596	3.467	8.8	21.6
2 1	10 20.13	+ 3 22.3	2.666	3.582	6.7	23.3	2 1	10 20.93	+14 54.2	2.547	3.486	5.8	21.4
2 11	10 12.31	+ 3 57.2	2.614	3.580	3.8	23.1	2 11	10 12.62	+15 11.3	2.527	3.505	2.5	21.2
2 21	10 3.85	+ 4 39.9	2.592	3.576	1.9	23.0	2 21	10 3.82	+15 26.9	2.538	3.523	1.5	21.2
3 2	9 55.44	+ 5 26.6	2.603	3.572	3.9	23.1	3 2	9 55.29	+15 37.8	2.579	3.542	4.5	21.4
3 12	9 47.81	+ 6 13.4	2.644	3.567	6.9	23.3	3 12	9 47.77	+15 41.8	2.650	3.559	7.5	21.6
3 22	9 41.52	+ 6 56.4	2.712	3.561	9.6	23.5	3 22	9 41.79	+15 38.0	2.748	3.577	10.1	21.8
429963	2012 <i>VR</i> ₆₄		2 18.8 202°79	5°5/12.8	17		264722	2002 <i>CB</i> ₇₅		2 18.8 294°74	0°7/19.3	17	
1 12	10 32.46	+28 35.9	2.556	3.357	11.2	21.7	1 12	10 33.67	+ 9 48.1	1.871	2.655	15.3	20.1
1 22	10 27.76	+29 36.1	2.479	3.355	8.9	21.5	1 22	10 29.32	+ 9 34.3	1.771	2.642	12.1	19.9
2 1	10 21.00	+30 34.8	2.426	3.352	6.8	21.4	2 1	10 22.42	+ 9 30.9	1.692	2.629	8.3	19.6
2 11	10 12.73	+31 25.5	2.401	3.349	5.5	21.3	2 11	10 13.52	+ 9 35.5	1.640	2.616	3.9	19.3
2 21	10 3.74	+32 2.3	2.405	3.346	6.1	21.3	2 21	10 3.52	+ 9 44.5	1.615	2.603	1.1	19.1
3 2	9 54.94	+32 21.4	2.438	3.343	8.1	21.4	3 2	9 53.57	+ 9 53.8	1.620	2.590	5.6	19.4
3 12	9 47.21	+32 21.2	2.496	3.339	10.5	21.6	3 12	9 44.85	+ 9 59.5	1.651	2.578	10.0	19.6
3 22	9 41.23	+32 3.0	2.578	3.335	12.7	21.7	3 22	9 38.24	+ 9 58.6	1.707	2.565	13.9	19.8
262954	2007 <i>DN</i> ₇₅		2 18.8 13°93	2°0/17.5	18		429384	2010 <i>ON</i> ₇₀		2 18.8 285°67	1°6/17.4	17	
1 12	10 32.54	+15 23.3	1.597	2.408	16.3	20.5	1 12	10 31.36	+15 30.6	2.252	3.045	12.8	21.5
1 22	10 28.68	+15 40.3	1.521	2.410	12.6	20.3	1 22	10 27.05	+15 48.2	2.157	3.037	9.9	21.3
2 1	10 22.03	+16 6.1	1.466	2.412	8.4	20.0	2 1	10 20.62	+16 12.2	2.086	3.028	6.5	21.1
2 11	10 13.30	+16 35.1	1.436	2.415	3.8	19.8	2 11	10 12.62	+16 38.6	2.042	3.020	3.0	20.9
2 21	10 3.58	+17 0.8	1.434	2.419	2.7	19.7	2 21	10 3.80	+17 2.6	2.027	3.011	2.2	20.8
3 2	9 54.17	+17 17.5	1.459	2.423	7.0	20.0	3 2	9 55.09	+17 20.0	2.042	3.003	5.6	21.0
3 12	9 46.33	+17 21.4	1.509	2.427	11.4	20.2	3 12	9 47.44	+17 27.8	2.085	2.995	9.2	21.2
3 22	9 40.92	+17 11.4	1.582	2.432	15.2	20.5	3 22	9 41.54	+17 24.4	2.152	2.987	12.3	21.4
259441	2003 <i>SH</i> ₃₇		2 18.8 229°42	4°3/22.1	18		82034	2000 <i>SE</i> ₁₃₄		2 18.8 262°55	5°5/24.9	18	
1 12	10 31.96	- 1 9.8	1.855	2.600	16.8	21.3	1 12	10 26.09	- 8 43.8	2.530	3.222	14.1	20.2
1 22	10 28.00	- 1 23.8	1.754	2.592	13.9	21.1	1 22	10 22.77	- 8 54.5	2.424	3.216	12.0	20.0
2 1	10 21.55	- 1 17.9	1.674	2.584	10.4	20.8	2 1	10 17.69	- 8 45.8	2.339	3.209	9.7	19.8
2 11	10 13.13	- 0 52.1	1.618	2.575	6.8	20.6	2 11	10 11.29	- 8 17.0	2.278	3.203	7.3	19.6
2 21	10 3.60	- 0 8.6	1.590	2.566	4.4	20.4	2 21	10 4.17	- 7 29.3	2.243	3.196	5.7	19.5
3 2	9 54.08	+ 0 47.7	1.589	2.557	6.1	20.5	3 2	9 57.08	- 6 26.1	2.238	3.190	5.9	19.5
3 12	9 45.72	+ 1 49.6	1.616	2.547	9.8	20.7	3 12	9 50.79	- 5 12.7	2.260	3.183	7.9	19.6
3 22	9 39.42	+ 2 50.3	1.667	2.537	13.6	20.9	3 22	9 45.90	- 3 55.3	2.309	3.176	10.4	19.8
434809	2006 <i>RO</i> ₈₂		2 18.8 167°71	2°6/21.7	17		244489	2002 <i>TD</i> ₃₉		2 18.8 127°18	1°7/17.4	18	
1 12	10 26.68	+ 0 8.2	2.563	3.303	12.8	22.0	1 12	10 34.28	+13 57.6	2.047	2.835	14.0	21.0
1 22	10 23.10	+ 0 22.3	2.467	3.304	10.4	21.8	1 22	10 29.32	+14 35.7	1.972	2.850	10.8	21.0
2 1	10 17.82	+ 0 51.8	2.393	3.305	7.6	21.6	2 1	10 22.10	+15 22.6	1.922	2.863	7.1	20.6
2 11	10 11.31	+ 1 35.2	2.345	3.306	4.6	21.4	2 11	10 13.24	+16 12.9	1.898	2.876	3.2	20.4
2 21	10 4.15	+ 2 29.4	2.327	3.307	2.6	21.3	2 21	10 3.65	+17 0.8	1.905	2.889	2.3	20.4
3 2	9 57.08	+ 3 29.9	2.338	3.308	4.2	21.4	3 2	9 54.34	+17 40.5	1.941	2.901	5.9	20.6
3 12	9 50.83	+ 4 31.7	2.379	3.309	7.2	21.6	3 12	9 46.32	+18 8.4	2.005	2.913	9.6	20.9
3 22	9 45.97	+ 5 30.1	2.446	3.309	10.0	21.8	3 22	9 40.27	+18 22.7	2.093	2.924	12.8	21.1
483603	2004 <i>RR</i> ₇₇		2 18.8 193°61	8°9/11.3	18		120270	2004 <i>GW</i> ₈₀		2 18.8 169°06	1°7/20.1	18	
1 12	10 48.09	+37 21.5	2.188	2.965	13.6	21.6	1 12	10 33.38	+ 3 50.8	1.731	2.500	16.9	21.2
1 22	10 40.45	+38 31.6	2.115	2.963	11.5	21.5	1 22	10 29.15	+ 4 18.2	1.644	2.505	13.5	21.0
2 1	10 29.72	+39 33.1	2.066	2.959	9.6	21.4	2 1	10 22.31	+ 5 5.7	1.579	2.508	9.4	20.7
2 11	10 16.70	+40 16.0	2.044	2.955	8.9	21.3	2 11	10 13.46	+ 6 10.0	1.538	2.511	4.9	20.4
2 21	10 2.64	+40 32.4	2.050	2.950	9.6	21.3	2 21	10 3.57	+ 7 25.1	1.526	2.513	1.7	20.2
3 2	9 49.02	+40 18.7	2.083	2.943	11.4	21.4	3 2	9 53.83	+ 8 43.1	1.543	2.514	5.7	20.5
3 12	9 37.27	+39 36.3	2.141	2.936	13.7	21.6	3 12	9 45.45	+ 9 56.0	1.587	2.515	10.2	20.8
3 22	9 28.28	+38 30.1	2.221	2.928	15.8	21.7	3 22	9 39.30	+10 57.7	1.655	2.515	14.2	21.0
23994	Mayhan		2 18.8 74°85	1°3/17.9	18		87661	2000 <i>RU</i> ₉₅		2 18.8 138°46	3°7/15.6	18	

EPHEMERIDES

2 18.8

2 18.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
172410	2003 <i>CB</i> ₂		2 18.8 281 ^o .79	8 ^o .6/25.6	18		110249	2001 <i>SG</i> ₂₃₆		2 18.8 10 ^o .45	1 ^o .9/17.5	18	
1 12	10 32.92	-13 54.6	2.512	3.155	15.2	19.4	1 12	10 31.01	+13 58.9	1.553	2.366	16.6	19.3
1 22	10 28.23	-15 18.8	2.402	3.143	13.5	19.3	1 22	10 27.61	+14 27.4	1.477	2.367	12.9	19.1
2 1	10 21.46	-16 26.2	2.311	3.131	11.7	19.1	2 1	10 21.41	+15 7.3	1.421	2.368	8.5	18.8
2 11	10 13.06	-17 12.9	2.244	3.119	9.9	19.0	2 11	10 13.09	+15 52.8	1.391	2.370	3.8	18.5
2 21	10 3.67	-17 36.7	2.203	3.107	8.8	18.9	2 21	10 3.73	+16 36.4	1.387	2.372	2.6	18.5
3 2	9 54.16	-17 37.4	2.189	3.095	8.8	18.9	3 2	9 54.64	+17 11.2	1.410	2.375	7.1	18.7
3 12	9 45.45	-17 17.9	2.201	3.083	10.1	18.9	3 12	9 47.11	+17 32.2	1.459	2.379	11.6	19.0
3 22	9 38.32	-16 43.4	2.238	3.071	12.0	19.0	3 22	9 42.00	+17 37.4	1.530	2.383	15.5	19.3
303442	2005 <i>AF</i> ₆₅		2 18.8 341 ^o .19	1 ^o .0/18.1	18		503804	2017 <i>HB</i> ₃₂		2 18.8 166 ^o .77	0 ^o .1/18.9	18	
1 12	10 26.76	+ 9 59.8	1.288	2.110	18.8	20.7	1 12	10 31.63	+ 8 5.9	2.318	3.087	13.2	21.8
1 22	10 24.93	+10 39.2	1.207	2.102	14.8	20.4	1 22	10 27.11	+ 8 42.4	2.228	3.092	10.3	21.7
2 1	10 20.00	+11 38.9	1.145	2.094	9.9	20.1	2 1	10 20.60	+ 9 31.6	2.162	3.097	6.9	21.4
2 11	10 12.59	+12 53.1	1.107	2.087	4.3	19.8	2 11	10 12.61	+10 29.5	2.124	3.101	3.1	21.2
2 21	10 3.81	+14 12.2	1.093	2.081	2.0	19.6	2 21	10 3.88	+11 31.2	2.116	3.104	0.8	21.0
3 2	9 55.17	+15 25.6	1.105	2.075	7.6	19.9	3 2	9 55.29	+12 31.2	2.139	3.107	4.7	21.3
3 12	9 48.19	+16 23.9	1.140	2.071	13.0	20.2	3 12	9 47.70	+13 24.2	2.191	3.109	8.3	21.5
3 22	9 43.94	+17 2.1	1.196	2.067	17.7	20.5	3 22	9 41.77	+14 6.8	2.268	3.110	11.5	21.7
152661	1998 <i>DS</i> ₁		2 18.8 69 ^o .83	1 ^o .6/20.1	18		150150	1996 <i>TV</i> ₂₃		2 18.8 32 ^o .59	1 ^o .8/20.3	18	
1 12	10 32.39	+ 5 9.0	1.767	2.541	16.4	19.7	1 12	10 29.25	+ 4 37.3	1.767	2.545	16.3	19.9
1 22	10 28.04	+ 5 19.3	1.701	2.565	13.0	19.6	1 22	10 25.87	+ 4 49.0	1.683	2.548	13.0	19.7
2 1	10 21.31	+ 5 46.1	1.657	2.588	8.9	19.4	2 1	10 20.08	+ 5 18.3	1.620	2.551	9.1	19.5
2 11	10 12.90	+ 6 26.1	1.638	2.611	4.6	19.2	2 11	10 12.47	+ 6 2.6	1.582	2.555	4.7	19.2
2 21	10 3.78	+ 7 14.0	1.648	2.634	1.7	19.0	2 21	10 3.93	+ 6 56.9	1.572	2.558	1.8	19.0
3 2	9 55.05	+ 8 3.8	1.685	2.658	5.2	19.3	3 2	9 55.58	+ 7 54.7	1.589	2.562	5.4	19.3
3 12	9 47.73	+ 8 49.5	1.751	2.680	9.3	19.6	3 12	9 48.49	+ 8 49.3	1.634	2.566	9.6	19.5
3 22	9 42.52	+ 9 26.7	1.840	2.703	12.8	19.8	3 22	9 43.47	+ 9 35.4	1.702	2.570	13.4	19.8
463485	2013 <i>QW</i> ₂₃		2 18.8 212 ^o .86	0 ^o .8/18.1	17		262707	2006 <i>XE</i> ₅		2 18.8 162 ^o .13	4 ^o .1/22.9	18	
1 12	10 33.36	+12 25.3	2.156	2.939	13.6	21.7	1 12	10 32.99	- 3 44.2	2.635	3.338	13.3	21.1
1 22	10 28.68	+12 44.8	2.061	2.934	10.6	21.5	1 22	10 27.89	- 3 57.7	2.539	3.346	11.1	20.9
2 1	10 21.77	+13 13.7	1.989	2.929	7.0	21.2	2 1	10 20.98	- 3 55.5	2.465	3.354	8.5	20.8
2 11	10 13.16	+13 47.8	1.944	2.923	3.1	21.0	2 11	10 12.76	- 3 37.9	2.417	3.361	5.8	20.6
2 21	10 3.68	+14 22.5	1.929	2.916	1.5	20.8	2 21	10 3.86	- 3 6.4	2.399	3.366	4.2	20.5
3 2	9 54.30	+14 52.7	1.944	2.909	5.4	21.1	3 2	9 55.08	- 2 24.4	2.412	3.371	5.0	20.6
3 12	9 46.02	+15 14.5	1.987	2.902	9.3	21.3	3 12	9 47.18	- 1 36.4	2.454	3.375	7.4	20.7
3 22	9 39.60	+15 25.6	2.055	2.894	12.6	21.5	3 22	9 40.76	- 0 47.1	2.523	3.379	10.0	20.9
492927	2014 <i>RY</i> ₄₀		2 18.8 198 ^o .18	3 ^o .2/15.9	18		466750	2015 <i>AQ</i> ₁₀₆		2 18.8 90 ^o .56	1 ^o .2/17.7	18	
1 12	10 35.02	+17 52.6	2.054	2.850	13.7	22.2	1 12	10 29.99	+11 57.6	2.015	2.808	14.0	21.6
1 22	10 30.16	+18 48.5	1.965	2.846	10.6	22.0	1 22	10 26.10	+12 42.2	1.939	2.818	10.8	21.4
2 1	10 22.85	+19 51.9	1.901	2.843	7.1	21.8	2 1	10 20.03	+13 38.1	1.886	2.829	7.1	21.2
2 11	10 13.68	+20 56.1	1.864	2.838	3.9	21.6	2 11	10 12.38	+14 39.8	1.860	2.839	3.1	20.9
2 21	10 3.53	+21 54.0	1.856	2.832	3.9	21.6	2 21	10 3.98	+15 41.1	1.863	2.849	1.9	20.9
3 2	9 53.51	+22 39.1	1.878	2.826	7.2	21.8	3 2	9 55.81	+16 35.9	1.896	2.860	5.7	21.1
3 12	9 44.72	+23 7.4	1.928	2.819	10.8	22.0	3 12	9 48.82	+17 19.1	1.956	2.870	9.4	21.4
3 22	9 37.98	+23 18.0	2.001	2.812	14.0	22.1	3 22	9 43.71	+17 48.4	2.040	2.880	12.7	21.6
286531	2002 <i>CB</i> ₈₇		2 18.8 55 ^o .10	0 ^o .5/18.5	18		328316	2008 <i>HB</i> ₅₇		2 18.8 239 ^o .81	0 ^o .4/19.2	18	
1 12	10 34.59	+10 35.0	1.282	2.093	19.5	20.7	1 12	10 28.17	+ 5 53.7	1.907	2.687	15.2	20.8
1 22	10 30.60	+10 54.2	1.226	2.113	15.2	20.5	1 22	10 24.96	+ 6 45.0	1.814	2.684	12.0	20.6
2 1	10 23.41	+11 29.4	1.189	2.134	10.0	20.3	2 1	10 19.46	+ 7 55.0	1.744	2.680	8.1	20.3
2 11	10 13.93	+12 14.5	1.176	2.155	4.4	20.0	2 11	10 12.21	+ 9 19.5	1.700	2.676	3.8	20.0
2 21	10 3.50	+13 1.4	1.188	2.176	1.5	19.9	2 21	10 4.01	+10 51.6	1.684	2.672	0.9	19.8
3 2	9 53.68	+13 42.2	1.227	2.198	7.0	20.3	3 2	9 55.88	+12 23.1	1.698	2.668	5.4	20.1
3 12	9 45.87	+14 10.8	1.291	2.220	12.0	20.6	3 12	9 48.86	+13 46.1	1.739	2.664	9.7	20.4
3 22	9 40.90	+14 24.7	1.376	2.241	16.2	20.9	3 22	9 43.76	+14 55.2	1.805	2.660	13.4	20.6
284414	2006 <i>UC</i> ₂₃₀		2 18.8 169 ^o .02	1 ^o .1/17.6	17		195517	2002 <i>JX</i> ₁		2 18.8 243 ^o .48	3 ^o .7/15.2	18	
1 12	10 28.10	+12 52.7	2.786	3.567	10.9	21.5	1 12	10 32.40	+21 1.6	2.378	3.176	12.0	20.4
1 22	10 24.07	+13 33.1	2.696	3.570	8.4	21.3	1 22	10 27.90	+21 51.8	2.281	3.162	9.3	20.2
2 1	10 18.42	+14 21.3	2.632	3.572	5.5	21.1	2 1	10 21.26	+22 46.4	2.208	3.148	6.4	20.0
2 11	10 11.58	+15 13.4	2.596	3.575	2.4	20.9	2 11	10 12.97	+23 39.3	2.164	3.133	4.0	19.8
2 21	10 4.16	+16 4.9	2.591	3.576	1.6	20.8	2 21	10 3.81	+24 24.5	2.149	3.118	4.3	19.8
3 2	9 56.84	+16 51.7	2.617	3.578	4.5	21.1	3 2	9 54.69	+24 56.8	2.164	3.103	7.0	20.0
3 12	9 50.33	+17 30.1	2.671	3.579	7.5	21.2	3 12	9 46.58	+25 13.2	2.206	3.087	10.1	20.1
3 22	9 45.16	+17 58.1	2.752	3.580	10.1	21.4	3 22	9 40.22	+25 13.2	2.271	3.071	12.9	20.3
25587	1999 <i>XL</i> ₂₂₇		2 18.8 206 ^o .08	2 ^o .6/16.7	18		412093	2013 <i>FL</i> ₂₀		2 18.8 274 ^o .74	0 ^o .8/18.2	16	
1 12	10 34.79	+14 28.3	1.821	2.617	15.2	19.4	1 12	10 31.44	+10 38.1	1.639	2.438	16.5	21.7
1 22	10 30.31	+15 28.4	1.730	2.612	11.8	19.2	1 22	10 28.07	+11 11.5	1.540	2.422	13.0	21.4
2 1	10 23.15	+16 41.0	1.663	2.606	7.8	18.9	2 1	10 21.88	+12 0.8	1.463	2.406	8.7	21.1
2 11	10 13.90	+17 59.0	1.622	2.600	3.8	18.7	2 11	10 13.43	+13 1.2	1.411	2.390	3.9	20.8
2 21	10 3.49	+19 14.1	1.610	2.592	3.3	18.6	2 21	10 3.65	+14 5.6	1.386	2.373	1.7	20.6
3 2	9 53.16	+20 18.2	1.628	2.584	7.3	18.9	3 2	9 53.84	+15 5.8	1.389	2.356	6.8	20.9
3 12	9 44.16	+21 5.2	1.672	2.575	11.5	19.1	3 12	9 45.34	+15 54.6	1.417	2.339	11.7	21.1
3 22	9 37.42	+21 33.1	1.740	2.565	15.2	19.3	3 22	9 39.21	+16 27.5	1.469	2.322	16.	

EPHEMERIDES

2 18.8

2 18.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
401032	2011 <i>SR</i> ₁₃₅		2 18.8 262°52	0°4/19.1	18		121280	1999 <i>RY</i> ₁₄₃		2 18.8 125°70	1°1/19.9	18	
1 12	10 36.07	+10 0.3	1.571	2.363	17.4	21.5	1 12	10 30.98	+6 14.9	2.192	2.959	13.9	20.5
1 22	10 31.77	+9 55.7	1.474	2.350	13.8	21.2	1 22	10 26.68	+6 27.5	2.108	2.968	11.0	20.3
2 1	10 24.41	+10 4.3	1.397	2.337	9.4	20.9	2 1	10 20.34	+6 53.2	2.046	2.976	7.5	20.1
2 11	10 14.58	+10 22.9	1.345	2.323	4.4	20.6	2 11	10 12.53	+7 29.2	2.011	2.985	3.8	19.8
2 21	10 3.33	+10 46.4	1.321	2.309	1.1	20.3	2 21	10 4.00	+8 11.5	2.005	2.993	1.2	19.7
3 2	9 52.09	+11 9.0	1.324	2.295	6.6	20.6	3 2	9 55.65	+8 55.1	2.029	3.000	4.6	19.9
3 12	9 42.34	+11 25.4	1.353	2.280	11.7	20.9	3 12	9 48.38	+9 35.3	2.082	3.008	8.3	20.2
3 22	9 35.17	+11 31.9	1.405	2.266	16.2	21.1	3 22	9 42.83	+10 8.3	2.160	3.015	11.5	20.4
436762	2012 <i>FP</i> ₂₃		2 18.8 327°76	16°8/4.7	17		59884	1999 <i>RW</i> ₁₂₃		2 18.8 130°97	0°1/18.7	18	R
1 12	10 28.56	-25 22.8	1.290	1.935	27.2	21.2	1 12	10 30.70	+9 33.5	2.146	2.926	13.7	19.6
1 22	10 26.69	-26 48.8	1.212	1.935	25.2	21.0	1 22	10 26.54	+10 0.0	2.062	2.933	10.7	19.4
2 1	10 21.42	-27 32.8	1.145	1.935	22.8	20.8	2 1	10 20.30	+10 38.2	2.001	2.939	7.1	19.2
2 11	10 13.36	-27 24.2	1.091	1.935	20.3	20.6	2 11	10 12.52	+11 24.1	1.967	2.945	3.2	18.9
2 21	10 3.67	-26 16.2	1.053	1.934	18.0	20.5	2 21	10 4.00	+12 12.9	1.963	2.951	0.9	18.8
3 2	9 53.99	-24 9.2	1.034	1.934	16.8	20.4	3 2	9 55.66	+12 59.1	1.988	2.957	5.0	19.1
3 12	9 46.09	-21 14.5	1.036	1.934	17.2	20.4	3 12	9 48.42	+13 38.1	2.042	2.962	8.7	19.3
3 22	9 41.22	-17 51.0	1.058	1.934	19.1	20.5	3 22	9 42.94	+14 6.8	2.120	2.967	12.0	19.5
465847	2010 <i>PJ</i> ₄₁		2 18.8 107°42	4°7/15.2	18		377830	2006 <i>BD</i> ₁₁₁		2 18.8 205°66	1°4/17.5	17	
1 12	10 36.96	+22 35.8	1.914	2.718	14.3	21.4	1 12	10 30.83	+13 29.8	2.186	2.976	13.2	21.5
1 22	10 31.61	+23 27.4	1.851	2.734	11.1	21.2	1 22	10 26.71	+14 5.5	2.096	2.974	10.2	21.3
2 1	10 23.72	+24 21.2	1.811	2.750	7.7	21.0	2 1	10 20.46	+14 50.6	2.029	2.972	6.7	21.1
2 11	10 14.03	+25 9.4	1.798	2.765	5.0	20.9	2 11	10 12.62	+15 40.2	1.990	2.969	3.0	20.9
2 21	10 3.57	+25 45.0	1.814	2.781	5.3	20.9	2 21	10 3.97	+16 28.9	1.981	2.966	2.0	20.8
3 2	9 53.55	+26 3.3	1.858	2.795	8.1	21.1	3 2	9 55.44	+17 11.2	2.001	2.962	5.6	21.0
3 12	9 45.07	+26 2.5	1.929	2.810	11.3	21.4	3 12	9 47.97	+17 43.0	2.048	2.959	9.3	21.2
3 22	9 38.86	+25 43.9	2.022	2.824	14.2	21.6	3 22	9 42.28	+18 2.0	2.121	2.955	12.5	21.4
224936	2007 <i>DX</i> ₆₄		2 18.8 151°56	0°7/19.6	18		287557	2003 <i>FG</i> ₇		2 18.8 193°34	0°4/19.2	18	
1 12	10 30.28	+6 10.8	2.303	3.068	13.4	21.6	1 12	10 35.89	+8 48.9	1.936	2.710	15.2	21.1
1 22	10 26.07	+6 44.0	2.215	3.076	10.5	21.4	1 22	10 30.90	+9 0.5	1.843	2.709	12.0	20.9
2 1	10 19.91	+7 31.0	2.151	3.083	7.2	21.2	2 1	10 23.41	+9 24.8	1.772	2.706	8.1	20.7
2 11	10 12.32	+8 28.4	2.114	3.089	3.4	21.0	2 11	10 14.00	+9 58.6	1.727	2.703	3.8	20.4
2 21	10 4.03	+9 31.4	2.107	3.095	0.9	20.8	2 21	10 3.58	+10 37.0	1.711	2.700	1.0	20.2
3 2	9 55.89	+10 34.4	2.131	3.101	4.5	21.1	3 2	9 53.27	+11 14.6	1.726	2.695	5.5	20.5
3 12	9 48.73	+11 32.0	2.183	3.106	8.1	21.3	3 12	9 44.23	+11 46.2	1.768	2.690	9.8	20.7
3 22	9 43.21	+12 20.4	2.261	3.111	11.3	21.5	3 22	9 37.28	+12 8.5	1.835	2.684	13.5	20.9
131403	2001 <i>LS</i> ₃		2 18.8 289°43	4°6/22.4	18		192383	1996 <i>JD</i> ₁₀		2 18.8 12°52	2°5/20.6	18	
1 12	10 30.37	-1 56.6	2.219	2.950	14.8	19.8	1 12	10 25.63	+2 28.8	1.165	1.974	21.2	19.8
1 22	10 26.56	-2 25.5	2.094	2.921	12.4	19.6	1 22	10 24.17	+2 50.5	1.095	1.976	17.1	19.6
2 1	10 20.55	-2 38.8	1.991	2.892	9.5	19.3	2 1	10 19.53	+3 41.4	1.042	1.980	12.1	19.3
2 11	10 12.76	-2 35.3	1.913	2.862	6.6	19.1	2 11	10 12.41	+4 58.2	1.010	1.984	6.5	19.0
2 21	10 3.87	-2 15.7	1.862	2.833	4.7	18.9	2 21	10 4.02	+6 32.7	1.002	1.989	2.5	18.8
3 2	9 54.78	-1 42.8	1.840	2.803	5.9	18.9	3 2	9 55.90	+8 12.7	1.019	1.995	6.9	19.1
3 12	9 46.50	-1 1.3	1.845	2.773	9.0	19.1	3 12	9 49.56	+9 45.6	1.060	2.002	12.4	19.4
3 22	9 39.88	-0 16.6	1.876	2.743	12.5	19.2	3 22	9 46.04	+11 2.2	1.121	2.011	17.2	19.7
307538	2003 <i>DP</i> ₇		2 18.8 303°44	0°8/18.3	16		107460	2001 <i>DV</i> ₂₆		2 18.8 313°85	1°5/17.8	18	
1 12	10 37.83	+14 28.2	2.288	3.064	13.1	20.5	1 12	10 29.77	+12 13.9	1.466	2.280	17.3	19.8
1 22	10 32.41	+14 16.9	2.154	3.023	10.4	20.2	1 22	10 27.04	+12 47.6	1.376	2.267	13.6	19.6
2 1	10 24.52	+14 10.5	2.043	2.981	7.0	19.9	2 1	10 21.33	+13 37.0	1.307	2.254	9.1	19.3
2 11	10 14.59	+14 5.8	1.961	2.938	3.2	19.6	2 11	10 13.23	+14 36.1	1.262	2.242	4.0	18.9
2 21	10 3.36	+13 59.5	1.909	2.896	1.4	19.4	2 21	10 3.79	+15 36.9	1.244	2.230	2.4	18.8
3 2	9 51.86	+13 48.1	1.888	2.853	5.6	19.6	3 2	9 54.40	+16 30.7	1.251	2.218	7.5	19.1
3 12	9 41.26	+13 29.2	1.896	2.809	9.7	19.8	3 12	9 46.50	+17 10.2	1.284	2.207	12.5	19.3
3 22	9 32.48	+13 1.7	1.930	2.766	13.5	19.9	3 22	9 41.18	+17 31.8	1.337	2.197	16.9	19.5
200328	2000 <i>GN</i> ₇₀		2 18.8 244°19	4°5/22.3	18		397817	2008 <i>RW</i> ₁₃₄		2 18.8 124°19	2°5/17.1	18	
1 12	10 31.76	-2 4.5	1.803	2.546	17.3	20.7	1 12	10 38.00	+15 29.5	1.671	2.469	16.3	22.0
1 22	10 28.05	-2 8.8	1.696	2.532	14.4	20.5	1 22	10 32.74	+16 9.3	1.601	2.484	12.6	21.7
2 1	10 21.75	-1 50.8	1.608	2.517	10.9	20.2	2 1	10 24.66	+16 58.3	1.555	2.498	8.3	21.5
2 11	10 13.36	-1 10.1	1.545	2.502	7.1	20.0	2 11	10 14.53	+17 49.7	1.534	2.512	3.9	21.3
2 21	10 3.71	-0 9.4	1.508	2.485	4.5	19.8	2 21	10 3.49	+18 35.9	1.542	2.525	3.2	21.3
3 2	9 53.96	+1 5.8	1.500	2.469	6.2	19.8	3 2	9 52.85	+19 10.2	1.578	2.537	7.2	21.5
3 12	9 45.35	+2 27.1	1.519	2.451	10.2	20.0	3 12	9 43.89	+19 28.9	1.641	2.549	11.4	21.8
3 22	9 38.84	+3 46.2	1.563	2.434	14.2	20.2	3 22	9 37.42	+19 31.3	1.727	2.560	15.0	22.1
325091	2008 <i>DE</i> ₅₃		2 18.8 126°56	3°3/21.9	18		303255	2004 <i>RZ</i> ₄₃		2 18.8 142°36	0°1/18.8	18	
1 12	10 29.84	-1 4.8	1.986	2.730	15.9	21.0	1 12	10 35.67	+9 31.5	1.773	2.556	16.1	21.8
1 22	10 26.03	-0 46.8	1.900	2.740	12.9	20.8	1 22	10 30.82	+9 52.3	1.694	2.566	12.6	21.5
2 1	10 20.04	-0 8.1	1.836	2.749	9.5	20.6	2 1	10 23.36	+10 26.6	1.637	2.574	8.4	21.3
2 11	10 12.43	+0 49.5	1.797	2.757	5.8	20.4	2 11	10 13.97	+11 10.1	1.605	2.583	3.8	21.0
2 21	10 4.01	+2 1.6	1.785	2.766	3.3	20.3	2 21	10 3.64	+11 56.9	1.603	2.591	1.1	20.9
3 2	9 55.76	+3 21.9	1.803	2.774	5.1	20.4	3 2	9 53.58	+12 40.7	1.629	2.598	5.8	21.2
3 12	9 48.66	+4 42.9	1.850	2.782	8.7	20.7	3 12	9 44.96	+13 16.0	1.683	2.604	10.2	21.5
3 22	9 43.40	+5 57.8	1.921	2.789	12.2	20.9	3 22	9 38.60	+13 39.6	1.761	2.610	13.9	21.7
401022	2011 <i>SN</i> ₄₆		2 18.8 101°51	1°6/20.2	18		205337	2000 <i>VN</i> ₇					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
495843	2001 <i>XV</i> ₁₂₄		2 18.8	71°83	7°0/12.8	18	204120	2003 <i>WM</i> ₁₆₆		2 18.8	136°46	16°2/28.6	18
1 12	10 33.76	+26 32.1	1.726	2.545	14.9	20.7	1 12	10 39.81	-19 27.1	1.349	2.009	25.6	20.1
1 22	10 29.56	+28 4.9	1.673	2.561	11.8	20.6	1 22	10 35.33	-21 50.0	1.277	2.017	23.3	20.0
2 1	10 22.58	+29 37.4	1.644	2.578	8.7	20.4	2 1	10 27.18	-23 41.3	1.219	2.025	20.8	19.8
2 11	10 13.61	+30 59.2	1.640	2.594	7.0	20.4	2 11	10 16.00	-24 50.5	1.178	2.033	18.4	19.6
2 21	10 3.76	+32 1.0	1.664	2.611	7.9	20.4	2 21	10 3.06	-25 9.9	1.156	2.040	16.6	19.6
3 2	9 54.36	+32 36.9	1.714	2.627	10.4	20.6	3 2	9 50.15	-24 38.4	1.155	2.046	16.2	19.5
3 12	9 46.64	+32 45.6	1.788	2.643	13.4	20.8	3 12	9 39.14	-23 24.0	1.174	2.052	17.3	19.6
3 22	9 41.36	+32 29.7	1.883	2.660	16.0	21.1	3 22	9 31.35	-21 40.7	1.213	2.057	19.3	19.8
429942	2012 <i>TF</i> ₃₁₃		2 18.8	203°79	4°6/24.1	17	218755	2005 <i>VB</i> ₅₁		2 18.8	69°69	2°1/20.7	18
1 12	10 27.36	- 6 54.5	2.675	3.372	13.3	21.3	1 12	10 28.84	+ 2 27.8	1.798	2.568	16.4	20.3
1 22	10 23.65	- 6 56.3	2.570	3.368	11.2	21.2	1 22	10 25.46	+ 2 55.3	1.720	2.579	13.1	20.1
2 1	10 18.26	- 6 40.3	2.486	3.365	8.8	21.0	2 1	10 19.76	+ 3 42.8	1.664	2.591	9.2	19.9
2 11	10 11.61	- 6 6.2	2.427	3.361	6.4	20.8	2 11	10 12.36	+ 4 47.2	1.633	2.603	5.0	19.7
2 21	10 4.29	- 5 15.8	2.396	3.356	4.8	20.7	2 21	10 4.13	+ 6 2.8	1.629	2.615	2.1	19.5
3 2	9 57.01	- 4 12.6	2.394	3.351	5.2	20.8	3 2	9 56.13	+ 7 22.0	1.654	2.627	5.2	19.7
3 12	9 50.50	- 3 1.7	2.422	3.346	7.3	20.9	3 12	9 49.40	+ 8 37.2	1.707	2.639	9.3	20.0
3 22	9 45.32	- 1 48.7	2.477	3.341	9.9	21.0	3 22	9 44.65	+ 9 42.4	1.784	2.651	12.9	20.2
463899	2014 <i>US</i> ₁₀₈		2 18.8	93°69	11°4/ 1.3	18	321699	2010 <i>EO</i> ₁₄₀		2 18.8	277°18	2°2/16.5	18
1 12	10 29.17	-21 4.1	1.969	2.591	19.4	20.9	1 12	10 27.82	+14 44.6	2.223	3.022	12.7	20.5
1 22	10 25.83	-22 6.0	1.882	2.596	17.6	20.8	1 22	10 24.44	+15 43.8	2.131	3.014	9.8	20.3
2 1	10 20.11	-22 39.2	1.810	2.600	15.6	20.6	2 1	10 19.00	+16 52.8	2.062	3.007	6.5	20.1
2 11	10 12.56	-22 39.0	1.756	2.605	13.5	20.5	2 11	10 12.02	+18 6.0	2.022	2.999	3.1	19.8
2 21	10 4.02	-22 3.1	1.724	2.609	11.9	20.4	2 21	10 4.21	+19 17.1	2.011	2.992	2.9	19.8
3 2	9 55.55	-20 53.5	1.716	2.613	11.4	20.4	3 2	9 56.46	+20 19.5	2.029	2.984	6.1	20.0
3 12	9 48.25	-19 17.0	1.731	2.618	12.1	20.4	3 12	9 49.69	+21 8.5	2.075	2.977	9.6	20.2
3 22	9 42.94	-17 23.2	1.771	2.622	13.8	20.5	3 22	9 44.61	+21 41.5	2.145	2.969	12.7	20.4
331916	2004 <i>RA</i> ₁₇₀		2 18.8	179°60	3°7/22.4	17	142034	2002 <i>QJ</i> ₈		2 18.8	218°33	1°8/17.3	18
1 12	10 30.27	- 1 44.7	2.314	3.043	14.3	21.3	1 12	10 33.51	+14 9.5	2.036	2.827	14.0	21.2
1 22	10 26.13	- 1 50.9	2.217	3.044	11.8	21.2	1 22	10 29.04	+14 49.5	1.941	2.820	10.9	21.0
2 1	10 20.01	- 1 40.2	2.141	3.045	8.8	21.0	2 1	10 22.18	+15 39.6	1.870	2.812	7.2	20.7
2 11	10 12.43	- 1 13.1	2.091	3.045	5.8	20.8	2 11	10 13.49	+16 34.3	1.825	2.803	3.3	20.5
2 21	10 4.08	- 0 32.0	2.070	3.045	3.8	20.7	2 21	10 3.80	+17 27.4	1.810	2.794	2.5	20.4
3 2	9 55.80	+ 0 19.1	2.078	3.044	5.0	20.7	3 2	9 54.19	+18 12.7	1.825	2.785	6.3	20.6
3 12	9 48.48	+ 1 14.7	2.115	3.043	8.0	20.9	3 12	9 45.73	+18 45.4	1.867	2.775	10.2	20.8
3 22	9 42.76	+ 2 9.4	2.178	3.042	11.1	21.1	3 22	9 39.25	+19 3.4	1.933	2.764	13.7	21.0
101106	1998 <i>RA</i> ₄₃		2 18.8	87°60	4°1/22.4	18	5805	Glasgow		2 18.8	345°65	7°5/23.4	18
1 12	10 30.24	- 2 17.0	1.755	2.503	17.5	20.0	1 12	10 31.11	- 4 19.6	1.579	2.324	19.3	16.3
1 22	10 26.59	- 2 10.9	1.677	2.516	14.4	19.8	1 22	10 27.79	- 5 29.5	1.490	2.319	16.4	16.1
2 1	10 20.53	- 1 41.8	1.619	2.530	10.7	19.6	2 1	10 21.68	- 6 18.8	1.419	2.314	13.0	15.8
2 11	10 12.70	- 0 50.7	1.586	2.543	6.8	19.4	2 11	10 13.37	- 6 44.3	1.370	2.310	9.7	15.6
2 21	10 4.01	+ 0 18.1	1.579	2.556	4.2	19.3	2 21	10 3.82	- 6 45.1	1.345	2.306	7.6	15.5
3 2	9 55.56	+ 1 37.5	1.600	2.570	5.8	19.4	3 2	9 54.32	- 6 23.5	1.346	2.303	8.4	15.5
3 12	9 48.43	+ 2 59.2	1.648	2.582	9.4	19.7	3 12	9 46.19	- 5 45.7	1.372	2.301	11.4	15.7
3 22	9 43.38	+ 4 15.7	1.721	2.595	13.0	19.9	3 22	9 40.42	- 4 59.8	1.421	2.299	14.9	15.9
453898	2011 <i>UY</i> ₂₆₇		2 18.8	105°33	0°9/19.5	18	468897	2013 <i>YN</i> ₉₂		2 18.8	75°24	1°9/16.9	17
1 12	10 34.97	+ 7 2.0	1.748	2.525	16.5	21.8	1 12	10 27.89	+13 27.8	2.171	2.968	13.0	21.3
1 22	10 30.18	+ 7 19.6	1.677	2.544	13.0	21.6	1 22	10 24.46	+14 27.8	2.087	2.970	10.0	21.1
2 1	10 22.85	+ 7 52.6	1.628	2.562	8.8	21.4	2 1	10 18.98	+15 38.2	2.028	2.972	6.6	20.9
2 11	10 13.71	+ 8 37.3	1.605	2.580	4.2	21.2	2 11	10 11.99	+16 53.6	1.996	2.974	3.0	20.7
2 21	10 3.74	+ 9 27.8	1.609	2.597	1.1	21.0	2 21	10 4.23	+18 7.3	1.993	2.976	2.5	20.6
3 2	9 54.14	+10 17.7	1.643	2.614	5.5	21.3	3 2	9 56.61	+19 12.7	2.020	2.978	5.9	20.9
3 12	9 46.00	+11 1.1	1.704	2.630	9.8	21.6	3 12	9 50.02	+20 5.1	2.075	2.981	9.4	21.1
3 22	9 40.10	+11 34.2	1.790	2.646	13.5	21.9	3 22	9 45.14	+20 41.7	2.154	2.983	12.5	21.3
47677	2000 <i>CO</i> ₇₁		2 18.8	25°50	2°6/21.1	18	206336	2003 <i>OC</i> ₂₇		2 18.9	129°19	1°5/19.9	18
1 12	10 26.11	+ 0 38.9	1.457	2.240	18.9	18.3	1 12	10 35.53	+ 6 27.8	1.783	2.555	16.4	21.1
1 22	10 23.92	+ 1 15.2	1.380	2.246	15.3	18.1	1 22	10 30.68	+ 6 25.4	1.702	2.565	13.0	20.9
2 1	10 19.04	+ 2 18.7	1.323	2.252	10.9	17.9	2 1	10 23.26	+ 6 37.8	1.643	2.574	9.0	20.6
2 11	10 12.13	+ 3 46.1	1.289	2.259	6.0	17.6	2 11	10 13.94	+ 7 2.2	1.610	2.583	4.6	20.4
2 21	10 4.17	+ 5 29.9	1.281	2.267	2.6	17.4	2 21	10 3.70	+ 7 34.4	1.605	2.592	1.6	20.2
3 2	9 56.44	+ 7 19.4	1.300	2.275	6.0	17.6	3 2	9 53.73	+ 8 8.9	1.629	2.600	5.5	20.5
3 12	9 50.17	+ 9 3.4	1.345	2.283	10.7	17.9	3 12	9 45.17	+ 8 40.3	1.680	2.608	9.7	20.7
3 22	9 46.22	+10 33.1	1.413	2.292	15.0	18.2	3 22	9 38.83	+ 9 4.7	1.756	2.615	13.5	21.0
160903	Shiokaze		2 18.8	61°12	0°9/18.2	18	455780	2005 <i>QX</i> ₂₁		2 18.9	7°81	0°1/18.8	18
1 12	10 31.45	+11 27.2	1.709	2.508	15.9	20.8	1 12	10 35.06	+11 49.8	1.612	2.409	16.8	20.6
1 22	10 27.64	+11 57.0	1.634	2.516	12.4	20.6	1 22	10 30.67	+11 37.8	1.529	2.409	13.2	20.4
2 1	10 21.29	+12 39.5	1.582	2.525	8.2	20.4	2 1	10 23.45	+11 36.1	1.468	2.410	8.9	20.1
2 11	10 13.05	+13 29.5	1.555	2.534	3.6	20.1	2 11	10 14.09	+11 41.1	1.433	2.411	4.0	19.9
2 21	10 3.93	+14 20.4	1.556	2.543	1.6	20.0	2 21	10 3.67	+11 48.3	1.424	2.412	1.1	19.6
3 2	9 55.09	+15 5.4	1.585	2.552	6.2	20.3	3 2	9 53.51	+11 53.1	1.443	2.414	6.2	20.0
3 12	9 47.67	+15 39.4	1.640	2.561	10.4	20.6	3 12	9 44.92	+11 51.7	1.489	2.416	10.8	20.3
3 22	9 42.46	+15 59.5	1.719	2.570	14.1	20.8	3 22	9 38.78	+11 41.9	1.558	2.418	14.9	20.5
370720	2004 <i>RW</i> ₃₉		2 18.8	154°00	1°7/17.4	16	229174	2004 <i>TA</i> ₁₅₁		2 18.9	102°81	0°5/18.4	18
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291237	2006 <i>BG</i> ₃₃		2 18.9 165°03	1.7/17.5	18		435257	2007 <i>TN</i> ₁₄₁		2 18.9 79°81	7.7/11.3	18	
1 12	10 37.32	+14 33.4	1.976	2.762	14.5	21.1	1 12	10 36.13	+34 47.3	2.278	3.076	12.5	21.1
1 22	10 31.91	+15 2.9	1.892	2.768	11.3	20.9	1 22	10 30.84	+35 59.4	2.230	3.094	10.3	21.0
2 1	10 24.02	+15 41.0	1.832	2.773	7.4	20.7	2 1	10 23.16	+37 4.2	2.206	3.112	8.4	20.9
2 11	10 14.28	+16 22.3	1.800	2.778	3.4	20.4	2 11	10 13.83	+37 53.8	2.208	3.130	7.7	20.8
2 21	10 3.64	+17 0.9	1.797	2.781	2.3	20.4	2 21	10 3.84	+38 22.1	2.238	3.148	8.4	20.9
3 2	9 53.25	+17 31.3	1.824	2.784	6.2	20.6	3 2	9 54.32	+38 26.3	2.294	3.166	10.0	21.1
3 12	9 44.19	+17 49.6	1.879	2.787	10.1	20.8	3 12	9 46.27	+38 6.7	2.374	3.183	12.0	21.2
3 22	9 37.28	+17 54.6	1.958	2.788	13.5	21.1	3 22	9 40.37	+37 26.6	2.476	3.201	13.9	21.4
147717	2005 <i>LS</i> ₇		2 18.9 174°67	4.0/22.8	18		496907	2001 <i>QQ</i> ₂₂₉		2 18.9 184°83	1.3/20.1	17	
1 12	10 31.37	- 3 13.8	2.330	3.049	14.5	21.1	1 12	10 32.96	+ 5 31.0	2.554	3.304	12.6	23.1
1 22	10 26.96	- 3 15.0	2.233	3.052	12.0	20.9	1 22	10 28.01	+ 5 41.8	2.454	3.304	10.0	22.9
2 1	10 20.58	- 2 58.0	2.157	3.054	9.1	20.7	2 1	10 21.19	+ 6 4.5	2.379	3.304	6.9	22.7
2 11	10 12.71	- 2 23.3	2.107	3.056	6.1	20.5	2 11	10 12.98	+ 6 36.8	2.331	3.303	3.6	22.5
2 21	10 4.07	- 1 33.4	2.085	3.057	4.1	20.4	2 21	10 4.05	+ 7 15.4	2.314	3.301	1.3	22.3
3 2	9 55.51	- 0 32.7	2.093	3.058	5.2	20.5	3 2	9 55.20	+ 7 56.2	2.328	3.298	4.2	22.5
3 12	9 47.90	+ 0 33.1	2.130	3.057	8.0	20.6	3 12	9 47.25	+ 8 35.0	2.372	3.294	7.6	22.7
3 22	9 41.92	+ 1 38.1	2.194	3.057	11.1	20.8	3 22	9 40.82	+ 9 8.4	2.442	3.290	10.6	22.9
281326	2007 <i>TR</i> ₁₉₁		2 18.9 162°23	0.6/18.1	17		167556	2004 <i>BZ</i> ₂₃		2 18.9 80°31	1.2/17.7	18	
1 12	10 28.21	+10 9.0	2.539	3.317	11.9	20.9	1 12	10 29.42	+12 26.8	2.167	2.958	13.2	20.2
1 22	10 24.37	+10 59.1	2.450	3.320	9.2	20.8	1 22	10 25.54	+13 7.3	2.090	2.969	10.2	20.0
2 1	10 18.76	+12 0.1	2.385	3.324	6.1	20.6	2 1	10 19.64	+13 57.6	2.038	2.980	6.7	19.8
2 11	10 11.86	+13 7.7	2.349	3.327	2.7	20.3	2 11	10 12.29	+14 52.8	2.012	2.991	2.9	19.6
2 21	10 4.31	+14 16.9	2.343	3.330	1.2	20.2	2 21	10 4.25	+15 47.4	2.016	3.002	1.8	19.5
3 2	9 56.87	+15 22.1	2.368	3.332	4.6	20.5	3 2	9 56.43	+16 35.9	2.050	3.013	5.4	19.8
3 12	9 50.28	+16 18.9	2.422	3.334	7.9	20.7	3 12	9 49.70	+17 13.9	2.111	3.024	8.9	20.0
3 22	9 45.16	+17 4.0	2.501	3.336	10.8	20.9	3 22	9 44.70	+17 39.1	2.197	3.035	12.0	20.2
381440	2008 <i>QP</i> ₁₀		2 18.9 216°69	1.2/17.8	17		1395	Aribeda		2 18.9 153°92	3.5/22.6	18	
1 12	10 33.39	+13 59.2	2.304	3.088	12.8	21.3	1 12	10 27.87	- 2 6.9	2.652	3.375	12.8	17.0
1 22	10 28.61	+14 17.3	2.208	3.082	9.9	21.1	1 22	10 24.02	- 2 14.0	2.555	3.377	10.6	16.8
2 1	10 21.71	+14 42.8	2.136	3.076	6.6	20.9	2 1	10 18.50	- 2 6.3	2.480	3.380	8.0	16.7
2 11	10 13.23	+15 11.7	2.091	3.069	3.0	20.6	2 11	10 11.76	- 1 44.2	2.432	3.382	5.3	16.5
2 21	10 3.93	+15 39.7	2.076	3.062	1.7	20.5	2 21	10 4.40	- 1 9.7	2.412	3.385	3.6	16.4
3 2	9 54.74	+16 2.2	2.092	3.055	5.3	20.8	3 2	9 57.13	- 0 26.2	2.422	3.387	4.5	16.5
3 12	9 46.58	+16 16.1	2.136	3.048	8.9	21.0	3 12	9 50.65	+ 0 21.9	2.461	3.389	7.1	16.6
3 22	9 40.17	+16 19.5	2.205	3.040	12.1	21.2	3 22	9 45.53	+ 1 10.0	2.527	3.391	9.7	16.8
191591	2004 <i>FR</i> ₃₈		2 18.9 257°49	1.7/19.9	18		102546	1999 <i>UQ</i> ₁₅		2 18.9 88°65	1.8/20.3	18	
1 12	10 30.90	+ 5 59.2	1.571	2.355	17.8	20.8	1 12	10 31.38	+ 3 37.7	1.675	2.450	17.2	19.6
1 22	10 30.14	+ 6 1.3	1.471	2.340	14.3	20.5	1 22	10 27.59	+ 4 3.8	1.602	2.464	13.7	19.4
2 1	10 23.40	+ 6 21.4	1.392	2.325	10.0	20.2	2 1	10 21.27	+ 4 50.1	1.549	2.479	9.5	19.1
2 11	10 14.23	+ 6 57.4	1.336	2.310	5.1	19.9	2 11	10 13.10	+ 5 52.8	1.521	2.494	4.9	18.9
2 21	10 3.63	+ 7 44.5	1.307	2.294	1.8	19.6	2 21	10 4.05	+ 7 5.7	1.521	2.508	1.8	18.7
3 2	9 52.96	+ 8 35.9	1.306	2.278	6.3	19.9	3 2	9 55.29	+ 8 20.9	1.550	2.522	5.5	19.0
3 12	9 43.66	+ 9 23.9	1.331	2.262	11.5	20.1	3 12	9 47.95	+ 9 30.6	1.605	2.537	9.8	19.3
3 22	9 36.85	+10 2.8	1.379	2.246	16.0	20.3	3 22	9 42.80	+10 29.1	1.685	2.550	13.7	19.6
464969	2005 <i>XE</i> ₅₅		2 18.9 109°82	4.3/22.7	18		416964	2005 <i>SG</i> ₂₅₂		2 18.9 132°85	0.5/19.4	18	
1 12	10 33.75	- 2 28.4	2.257	2.977	14.9	21.4	1 12	10 32.77	+ 7 43.8	2.230	2.997	13.7	22.0
1 22	10 28.69	- 2 50.0	2.178	2.977	12.2	21.2	1 22	10 28.04	+ 8 4.3	2.148	3.010	10.7	21.8
2 1	10 21.63	- 2 54.7	2.120	3.017	9.2	21.0	2 1	10 21.26	+ 8 36.8	2.090	3.023	7.2	21.6
2 11	10 13.14	- 2 42.9	2.089	3.037	6.2	20.9	2 11	10 13.02	+ 9 18.0	2.059	3.035	3.4	21.4
2 21	10 3.99	- 2 16.5	2.085	3.056	4.3	20.8	2 21	10 4.08	+10 3.6	2.058	3.046	0.9	21.2
3 2	9 55.09	- 1 39.3	2.112	3.074	5.3	20.9	3 2	9 55.36	+10 48.5	2.088	3.057	4.6	21.5
3 12	9 47.28	- 0 56.4	2.167	3.092	8.0	21.1	3 12	9 47.73	+11 28.0	2.146	3.068	8.3	21.8
3 22	9 41.21	- 0 12.8	2.248	3.109	10.9	21.3	3 22	9 41.85	+11 59.0	2.229	3.077	11.5	22.0
370810	2004 <i>TP</i> ₂₄₅		2 18.9 117°29	2.6/16.7	18		457010	2008 <i>CO</i> ₈₇		2 18.9 44°21	3.4/16.7	18	
1 12	10 32.79	+17 2.6	1.995	2.795	13.9	20.8	1 12	10 33.45	+16 50.7	1.379	2.201	17.8	20.5
1 22	10 28.41	+17 37.3	1.915	2.798	10.7	20.6	1 22	10 29.70	+17 33.0	1.322	2.217	13.7	20.3
2 1	10 21.69	+18 18.7	1.858	2.801	7.1	20.4	2 1	10 22.87	+18 24.4	1.285	2.234	9.1	20.1
2 11	10 13.24	+19 1.1	1.828	2.805	3.6	20.2	2 11	10 13.84	+19 16.8	1.273	2.251	4.6	19.9
2 21	10 3.96	+19 38.5	1.827	2.808	3.2	20.2	2 21	10 3.87	+20 1.3	1.288	2.269	4.1	19.9
3 2	9 54.90	+20 5.5	1.855	2.811	6.6	20.4	3 2	9 54.45	+20 30.7	1.328	2.287	8.2	20.2
3 12	9 47.12	+20 18.9	1.909	2.814	10.2	20.6	3 12	9 46.92	+20 41.4	1.393	2.306	12.6	20.5
3 22	9 41.35	+20 17.7	1.988	2.816	13.4	20.8	3 22	9 42.11	+20 33.5	1.479	2.325	16.3	20.8
31616	1999 <i>GM</i> ₁₇		2 18.9 256°88	4.6/13.9	18		42635	1998 <i>FS</i> ₆₀		2 18.9 323°71	0.5/19.2	18	
1 12	10 30.10	+23 31.7	2.310	3.117	12.0	17.7	1 12	10 29.21	+ 8 9.4	1.392	2.200	18.4	19.1
1 22	10 26.18	+24 36.9	2.228	3.113	9.4	17.5	1 22	10 26.73	+ 8 24.0	1.304	2.189	14.6	18.8
2 1	10 20.15	+25 44.7	2.172	3.109	6.7	17.3	2 1	10 21.22	+ 8 57.6	1.235	2.178	10.0	18.5
2 11	10 12.54	+26 48.5	2.143	3.106	4.8	17.2	2 11	10 13.28	+ 9 46.3	1.190	2.168	4.7	18.2
2 21	10 4.15	+27 41.6	2.143	3.102	5.3	17.3	2 21	10 3.97	+10 43.6	1.170	2.158	1.2	17.9
3 2	9 55.89	+28 18.8	2.171	3.098	7.7	17.4	3 2	9 54.72	+11 40.9	1.176	2.149	6.8	18.2
3 12	9 48.70	+28 37.5	2.226	3.094	10.6	17.6	3 12	9 47.00	+12 29.9	1.206	2.140	12.1	18.5
3 22	9 43.28	+28 37.6	2.303	3.090	13.2	17.7	3 22	9 41.90	+13 5.0	1.258	2.132	16.8	18.7
186846	2004 <i>GP</i> ₈		2 18.9 203°88	1.2/17.8	16		2839						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
423211	2004 <i>RO</i> ₁₁₂		2 18.9 133°69	4°3/23.5	16		371675	2007 <i>DV</i> ₁₁		2 18.9 163°69	4°5/20.3	15	
1 12	10 32.33	- 5 4.0	2.724	3.419	13.1	22.2	1 12	10 49.88	+ 6 29.4	1.235	2.010	22.2	21.1
1 22	10 27.32	- 5 20.7	2.636	3.436	10.9	22.1	1 22	10 43.24	+ 5 3.7	1.154	2.014	18.0	20.9
2 1	10 20.61	- 5 21.7	2.571	3.452	8.5	21.9	2 1	10 32.50	+ 3 49.6	1.091	2.017	13.0	20.6
2 11	10 12.69	- 5 7.1	2.531	3.468	6.0	21.8	2 11	10 18.46	+ 2 48.6	1.052	2.020	7.6	20.3
2 21	10 4.19	- 4 38.4	2.521	3.483	4.4	21.7	2 21	10 2.67	+ 2 1.7	1.040	2.022	4.6	20.1
3 2	9 55.85	- 3 58.7	2.541	3.497	5.0	21.8	3 2	9 47.21	+ 1 27.8	1.055	2.023	8.3	20.3
3 12	9 48.39	- 3 12.3	2.591	3.511	7.1	21.9	3 12	9 34.12	+ 1 3.8	1.096	2.024	13.7	20.6
3 22	9 42.35	- 2 23.9	2.667	3.523	9.5	22.1	3 22	9 24.69	+ 0 45.0	1.159	2.025	18.5	20.9
317780	2003 <i>SU</i> ₁₄₇		2 18.9 188°96	3°6/22.5	17		48417	1988 <i>CQ</i> ₂		2 18.9 14°51	0°6/18.4	18	
1 12	10 29.55	- 2 2.1	2.506	3.230	13.4	20.8	1 12	10 25.86	+ 10 9.8	1.497	2.311	17.0	17.9
1 22	10 25.46	- 2 7.2	2.406	3.229	11.1	20.6	1 22	10 23.66	+ 10 41.8	1.428	2.319	13.2	17.7
2 1	10 19.54	- 1 56.4	2.328	3.228	8.4	20.5	2 1	10 18.84	+ 11 29.4	1.381	2.327	8.8	17.4
2 11	10 12.27	- 1 30.3	2.275	3.227	5.5	20.3	2 11	10 12.09	+ 12 27.3	1.357	2.337	3.9	17.2
2 21	10 4.29	- 0 50.9	2.251	3.225	3.7	20.2	2 21	10 4.42	+ 13 27.9	1.360	2.348	1.5	17.0
3 2	9 56.37	- 0 2.0	2.257	3.223	4.8	20.2	3 2	9 57.06	+ 14 23.2	1.389	2.360	6.4	17.4
3 12	9 49.30	+ 0 51.5	2.292	3.220	7.5	20.4	3 12	9 51.17	+ 15 6.9	1.443	2.373	10.9	17.7
3 22	9 43.69	+ 1 44.6	2.354	3.217	10.4	20.6	3 22	9 47.53	+ 15 35.1	1.520	2.387	14.8	17.9
109146	2001 <i>QS</i> ₅₇		2 18.9 46°26	1°0/18.0	18		410514	2008 <i>EC</i> ₁₂₈		2 18.9 123°24	5°1/14.8	18	
1 12	10 28.89	+ 7 47.9	1.394	2.201	18.5	18.2	1 12	10 39.33	+ 25 17.4	2.074	2.871	13.6	20.9
1 22	10 26.00	+ 9 8.9	1.341	2.227	14.2	18.0	1 22	10 33.35	+ 26 4.3	2.009	2.887	10.6	20.7
2 1	10 20.32	+ 10 50.5	1.309	2.254	9.3	17.8	2 1	10 24.89	+ 26 50.6	1.968	2.901	7.6	20.5
2 11	10 12.68	+ 12 43.8	1.302	2.282	4.0	17.5	2 11	10 14.68	+ 27 29.1	1.954	2.915	5.4	20.4
2 21	10 4.21	+ 14 37.3	1.323	2.310	1.9	17.5	2 21	10 3.74	+ 27 53.3	1.970	2.929	5.7	20.5
3 2	9 56.23	+ 16 19.7	1.371	2.338	6.9	17.8	3 2	9 53.24	+ 27 59.4	2.014	2.942	8.2	20.6
3 12	9 49.93	+ 17 42.6	1.444	2.367	11.5	18.2	3 12	9 44.25	+ 27 46.4	2.085	2.955	11.1	20.8
3 22	9 46.06	+ 18 42.3	1.540	2.396	15.3	18.5	3 22	9 37.49	+ 27 16.2	2.179	2.967	13.8	21.0
54640	2000 <i>SK</i> ₁₈₉		2 18.9 6°30	3°7/21.6	18		290536	2005 <i>UF</i> ₆₇		2 18.9 118°84	6°8/12.2	18	
1 12	10 30.75	+ 1 51.7	2.055	2.808	15.1	18.6	1 12	10 35.11	+ 28 51.9	2.069	2.876	13.2	20.8
1 22	10 26.75	+ 1 14.4	1.964	2.809	12.3	18.4	1 22	10 30.31	+ 30 19.9	2.010	2.888	10.6	20.7
2 1	10 20.58	+ 0 51.1	1.895	2.810	9.1	18.2	2 1	10 23.00	+ 31 46.0	1.976	2.901	8.1	20.6
2 11	10 12.79	+ 0 41.7	1.851	2.812	5.7	18.0	2 11	10 13.89	+ 33 0.9	1.969	2.913	6.9	20.5
2 21	10 4.17	+ 0 44.8	1.836	2.814	3.7	17.9	2 21	10 3.95	+ 33 57.0	1.990	2.925	7.6	20.6
3 2	9 55.68	+ 0 57.4	1.848	2.816	5.4	18.0	3 2	9 54.35	+ 34 29.1	2.038	2.937	9.8	20.7
3 12	9 48.28	+ 1 15.2	1.888	2.819	8.7	18.2	3 12	9 46.19	+ 34 36.3	2.111	2.948	12.3	20.9
3 22	9 42.70	+ 1 34.0	1.953	2.822	11.9	18.4	3 22	9 40.21	+ 34 20.8	2.206	2.958	14.7	21.1
160709	2000 <i>QC</i> ₃₀		2 18.9 151°46	1°4/17.7	18		273748	2007 <i>EL</i> ₁₃₀		2 18.9 309°61	1°3/17.9	17	
1 12	10 33.58	+ 11 33.7	1.852	2.642	15.2	20.2	1 12	10 31.90	+ 13 21.4	1.809	2.609	15.1	21.5
1 22	10 29.20	+ 12 25.7	1.772	2.650	11.8	20.0	1 22	10 28.07	+ 13 42.4	1.721	2.603	11.8	21.3
2 1	10 22.33	+ 13 31.1	1.715	2.657	7.8	19.7	2 1	10 21.70	+ 14 13.8	1.654	2.598	7.8	21.0
2 11	10 13.60	+ 14 43.7	1.685	2.664	3.4	19.5	2 11	10 13.39	+ 14 50.7	1.613	2.592	3.5	20.7
2 21	10 3.95	+ 15 56.2	1.684	2.670	2.1	19.4	2 21	10 4.06	+ 15 27.2	1.601	2.587	2.0	20.6
3 2	9 54.51	+ 17 0.9	1.712	2.675	6.3	19.7	3 2	9 54.88	+ 15 57.5	1.616	2.582	6.3	20.9
3 12	9 46.39	+ 17 52.3	1.767	2.680	10.4	19.9	3 12	9 46.99	+ 16 17.0	1.658	2.577	10.5	21.1
3 22	9 40.40	+ 18 27.4	1.847	2.684	13.9	20.2	3 22	9 41.25	+ 16 23.5	1.723	2.572	14.3	21.3
100747	1998 <i>EO</i> ₄		2 18.9 269°04	0°7/18.4	18		467870	2011 <i>BN</i> ₉₃		2 18.9 41°16	0°1/18.9	18	
1 12	10 31.54	+ 9 8.4	1.432	2.237	18.2	20.5	1 12	10 26.96	+ 6 0.0	1.552	2.349	17.3	21.2
1 22	10 28.61	+ 9 52.2	1.338	2.222	14.4	20.2	1 22	10 24.39	+ 7 7.5	1.484	2.364	13.5	21.0
2 1	10 22.57	+ 10 57.0	1.263	2.207	9.7	19.9	2 1	10 19.26	+ 8 36.5	1.438	2.379	9.0	20.8
2 11	10 13.95	+ 12 17.4	1.213	2.192	4.3	19.5	2 11	10 12.27	+ 10 20.4	1.417	2.395	4.1	20.5
2 21	10 3.81	+ 13 44.7	1.190	2.177	1.7	19.3	2 21	10 4.39	+ 12 9.8	1.423	2.411	1.1	20.3
3 2	9 53.60	+ 15 8.1	1.193	2.162	7.4	19.6	3 2	9 56.80	+ 13 53.9	1.457	2.428	6.1	20.7
3 12	9 44.89	+ 16 18.0	1.221	2.146	12.8	19.8	3 12	9 50.65	+ 15 23.8	1.518	2.445	10.7	21.0
3 22	9 38.83	+ 17 8.4	1.271	2.131	17.6	20.1	3 22	9 46.70	+ 16 34.2	1.602	2.462	14.5	21.3
145322	2005 <i>LP</i> ₂₂		2 18.9 230°44	0°3/19.3	17		283514	2001 <i>TL</i> ₂₆		2 18.9 121°00	2°2/20.5	18	
1 12	10 28.46	+ 8 15.0	2.793	3.558	11.2	21.5	1 12	10 35.07	+ 3 50.9	1.697	2.464	17.3	21.6
1 22	10 24.48	+ 8 37.6	2.687	3.549	8.8	21.3	1 22	10 30.45	+ 3 58.6	1.621	2.479	13.8	21.4
2 1	10 18.84	+ 9 10.2	2.605	3.538	6.0	21.1	2 1	10 23.21	+ 4 24.8	1.565	2.492	9.7	21.2
2 11	10 11.96	+ 9 50.2	2.552	3.528	2.8	20.9	2 11	10 14.02	+ 5 6.8	1.535	2.505	5.2	21.0
2 21	10 4.41	+ 10 34.1	2.529	3.517	0.7	20.7	2 21	10 3.92	+ 5 59.5	1.532	2.518	2.2	20.8
3 2	9 56.89	+ 11 17.8	2.536	3.506	4.0	20.9	3 2	9 54.10	+ 6 56.2	1.558	2.530	5.6	21.0
3 12	9 50.11	+ 11 57.6	2.574	3.494	7.2	21.1	3 12	9 45.76	+ 7 49.9	1.612	2.542	9.9	21.3
3 22	9 44.64	+ 12 30.4	2.637	3.482	10.0	21.3	3 22	9 39.70	+ 8 35.3	1.689	2.553	13.8	21.6
286530	2002 <i>CZ</i> ₈₅		2 18.9 64°02	0°0/18.9	18		463629	2013 <i>TP</i> ₃₆		2 18.9 183°16	0°3/18.6	17	
1 12	10 35.18	+ 9 44.7	1.375	2.177	18.9	20.9	1 12	10 29.53	+ 9 2.4	2.156	2.937	13.6	21.5
1 22	10 31.00	+ 9 58.0	1.313	2.195	14.8	20.7	1 22	10 25.77	+ 9 44.6	2.065	2.937	10.7	21.3
2 1	10 23.75	+ 10 27.2	1.271	2.213	9.9	20.5	2 1	10 19.92	+ 10 40.0	1.998	2.937	7.1	21.1
2 11	10 14.27	+ 11 7.1	1.253	2.231	4.4	20.2	2 11	10 12.52	+ 11 44.5	1.959	2.937	3.2	20.8
2 21	10 3.83	+ 11 50.5	1.261	2.249	1.2	20.0	2 21	10 4.32	+ 12 52.4	1.948	2.936	1.0	20.6
3 2	9 53.90	+ 12 30.0	1.296	2.267	6.6	20.4	3 2	9 56.21	+ 13 57.3	1.968	2.935	5.1	20.9
3 12	9 45.84	+ 12 59.6	1.357	2.286	11.5	20.8	3 12	9 49.14	+ 14 53.7	2.015	2.934	8.9	21.2
3 22	9 40.50	+ 13 16.2	1.440	2.304	15.6	21.1	3 22	9 43.79	+ 15 37.9	2.088	2.933	12.2	21.4
266849	2009 <i>UH</i> ₆₁		2 18.9 88°52	3°4/16.0	18		333345 </						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
226233	2002 <i>WG</i> ₂₀		2 18.9	5°16	0°6/19.5	17	256257	2006 <i>WA</i> ₄₉		2 18.9	147°55	2°8/16.2	18
1 12	10 25.71	+ 8 11.8	2.512	3.288	12.0	20.3	1 12	10 34.05	+17 12.1	2.295	3.085	12.6	21.5
1 22	10 22.48	+ 8 23.8	2.422	3.289	9.4	20.1	1 22	10 29.09	+18 9.4	2.218	3.097	9.7	21.3
2 1	10 17.55	+ 8 46.0	2.355	3.290	6.4	19.9	2 1	10 22.03	+19 13.2	2.166	3.108	6.4	21.1
2 11	10 11.40	+ 9 15.9	2.316	3.292	3.0	19.7	2 11	10 13.45	+20 17.4	2.143	3.118	3.4	21.0
2 21	10 4.64	+ 9 50.0	2.306	3.294	0.8	19.5	2 21	10 4.14	+21 15.8	2.150	3.127	3.3	21.0
3 2	9 58.01	+10 24.3	2.326	3.297	4.1	19.8	3 2	9 55.06	+22 3.0	2.187	3.136	6.3	21.2
3 12	9 52.21	+10 55.0	2.374	3.300	7.4	20.0	3 12	9 47.09	+22 35.6	2.252	3.144	9.5	21.4
3 22	9 47.81	+11 19.2	2.447	3.303	10.3	20.2	3 22	9 40.92	+22 52.4	2.342	3.151	12.3	21.6
375770	2009 <i>SU</i> ₁₄₉		2 18.9	225°18	1°0/18.1	17	4538	<i>Vishyanand</i>		2 18.9	110°88	2°2/20.7	18
1 12	10 34.39	+12 58.9	2.283	3.063	13.0	22.6	1 12	10 33.28	+ 3 10.8	1.796	2.560	16.6	17.2
1 22	10 29.50	+13 19.1	2.181	3.052	10.2	22.4	1 22	10 28.93	+ 3 22.4	1.719	2.574	13.3	17.0
2 1	10 22.43	+13 47.8	2.102	3.041	6.8	22.1	2 1	10 22.14	+ 3 52.4	1.664	2.589	9.3	16.8
2 11	10 13.68	+14 21.1	2.051	3.029	3.0	21.9	2 11	10 13.56	+ 4 38.1	1.633	2.603	5.1	16.6
2 21	10 4.03	+14 54.5	2.031	3.017	1.5	21.7	2 21	10 4.13	+ 5 34.5	1.631	2.617	2.2	16.4
3 2	9 54.41	+15 23.2	2.040	3.004	5.3	22.0	3 2	9 54.97	+ 6 35.1	1.658	2.630	5.3	16.6
3 12	9 45.81	+15 43.4	2.078	2.991	9.1	22.2	3 12	9 47.16	+ 7 33.0	1.712	2.643	9.4	16.9
3 22	9 38.98	+15 53.0	2.142	2.977	12.4	22.4	3 22	9 41.47	+ 8 23.1	1.791	2.655	13.1	17.2
321668	2010 <i>CH</i> ₉₄		2 18.9	306°15	0°6/18.5	18	368767	2005 <i>VX</i> ₁₃₅		2 18.9	136°21	2°3/20.9	18
1 12	10 30.64	+ 9 45.7	1.360	2.171	18.6	20.8	1 12	10 31.24	+ 2 56.9	2.090	2.846	14.8	21.8
1 22	10 27.96	+10 17.3	1.274	2.162	14.7	20.5	1 22	10 27.09	+ 3 1.5	2.002	2.852	11.9	21.6
2 1	10 22.14	+11 8.0	1.207	2.153	9.9	20.2	2 1	10 20.81	+ 3 21.8	1.937	2.859	8.5	21.4
2 11	10 13.78	+12 12.6	1.164	2.144	4.4	19.9	2 11	10 12.95	+ 3 56.1	1.897	2.865	4.8	21.2
2 21	10 3.98	+13 22.8	1.147	2.135	1.6	19.7	2 21	10 4.29	+ 4 40.6	1.886	2.870	2.3	21.0
3 2	9 54.26	+14 28.7	1.156	2.126	7.4	20.0	3 2	9 55.80	+ 5 30.3	1.904	2.876	4.8	21.2
3 12	9 46.15	+15 21.8	1.189	2.118	12.7	20.3	3 12	9 48.39	+ 6 19.5	1.951	2.881	8.5	21.4
3 22	9 40.77	+15 56.8	1.243	2.110	17.4	20.5	3 22	9 42.78	+ 7 3.5	2.023	2.886	11.8	21.7
3454	<i>Lieske</i>		2 18.9	53°09	3°2/21.1	18 R	311579	2006 <i>HM</i> ₅		2 18.9	253°20	4°7/15.3	18
1 12	10 30.97	+ 1 31.9	1.254	2.044	21.0	16.4	1 12	10 34.24	+19 55.5	1.650	2.464	15.7	20.8
1 22	10 28.02	+ 1 42.3	1.191	2.060	16.9	16.1	1 22	10 30.34	+20 58.3	1.565	2.456	12.3	20.6
2 1	10 21.95	+ 2 19.5	1.147	2.077	12.1	15.9	2 1	10 23.50	+22 9.3	1.502	2.447	8.4	20.3
2 11	10 13.55	+ 3 20.6	1.124	2.094	6.8	15.7	2 11	10 14.33	+23 19.7	1.465	2.437	5.2	20.1
2 21	10 4.09	+ 4 38.3	1.126	2.111	3.2	15.5	2 21	10 3.90	+24 20.1	1.456	2.428	5.5	20.1
3 2	9 55.06	+ 6 2.6	1.154	2.129	6.6	15.7	3 2	9 53.60	+25 2.3	1.473	2.418	9.1	20.3
3 12	9 47.87	+ 7 22.4	1.207	2.147	11.5	16.1	3 12	9 44.80	+25 22.0	1.516	2.408	13.1	20.5
3 22	9 43.43	+ 8 29.9	1.281	2.165	15.9	16.4	3 22	9 38.53	+25 19.0	1.579	2.398	16.8	20.7
436842	2012 <i>SX</i> ₁₆		2 18.9	34°13	6°9/13.5	18	252689	2002 <i>BU</i> ₂₁		2 18.9	7°90	15°6/31.3	17
1 12	10 38.64	+32 14.8	2.140	2.938	13.1	20.9	1 12	10 26.52	+40 57.2	1.287	2.125	17.9	18.4
1 22	10 32.91	+32 53.0	2.074	2.944	10.7	20.7	1 22	10 25.99	+44 40.8	1.256	2.127	16.2	18.3
2 1	10 24.63	+33 25.2	2.032	2.950	8.3	20.6	2 1	10 21.48	+48 7.3	1.249	2.130	15.6	18.3
2 11	10 14.60	+33 43.8	2.016	2.957	7.0	20.5	2 11	10 13.67	+50 56.6	1.264	2.134	16.3	18.3
2 21	10 3.84	+33 43.3	2.027	2.963	7.5	20.5	2 21	10 4.07	+52 54.7	1.301	2.140	18.0	18.5
3 2	9 53.56	+33 20.7	2.067	2.970	9.4	20.7	3 2	9 54.80	+53 55.9	1.355	2.147	20.1	18.6
3 12	9 44.84	+32 36.8	2.131	2.977	11.9	20.8	3 12	9 47.96	+54 3.8	1.424	2.156	22.1	18.8
3 22	9 38.40	+31 35.0	2.219	2.984	14.2	21.0	3 22	9 44.78	+53 27.3	1.505	2.166	23.8	19.0
234961	2002 <i>WO</i> ₁₄		2 18.9	110°17	0°7/19.7	18	205505	2001 <i>RV</i> ₅₉		2 18.9	153°50	0°4/18.5	17
1 12	10 29.03	+ 5 55.3	2.617	3.376	12.1	20.8	1 12	10 28.26	+ 9 47.4	2.578	3.353	11.8	21.2
1 22	10 24.86	+ 6 29.0	2.539	3.395	9.5	20.6	1 22	10 24.42	+10 27.8	2.489	3.358	9.2	21.0
2 1	10 19.04	+ 7 14.6	2.484	3.413	6.4	20.4	2 1	10 18.85	+11 18.6	2.425	3.362	6.1	20.8
2 11	10 12.04	+ 8 8.9	2.457	3.431	3.1	20.2	2 11	10 12.02	+12 16.1	2.388	3.366	2.7	20.6
2 21	10 4.52	+ 9 7.8	2.461	3.448	0.9	20.1	2 21	10 4.56	+13 15.6	2.382	3.370	1.0	20.5
3 2	9 57.17	+10 6.6	2.495	3.465	3.9	20.3	3 2	9 57.21	+14 12.1	2.407	3.373	4.4	20.7
3 12	9 50.71	+11 0.8	2.559	3.482	7.1	20.6	3 12	9 50.72	+15 1.3	2.460	3.376	7.7	20.9
3 22	9 45.65	+11 47.0	2.650	3.498	9.9	20.8	3 22	9 45.65	+15 40.5	2.540	3.379	10.5	21.1
98227	2000 <i>SO</i> ₁₄₇		2 18.9	34°94	2°5/20.5	18	297443	2000 <i>SC</i> ₁₉₇		2 18.9	126°37	2°6/17.2	18
1 12	10 30.00	+ 3 56.9	1.272	2.071	20.3	19.2	1 12	10 37.88	+16 24.0	1.719	2.517	15.9	20.4
1 22	10 27.29	+ 3 59.9	1.205	2.082	16.2	19.0	1 22	10 32.69	+16 54.2	1.646	2.528	12.3	20.2
2 1	10 21.49	+ 4 26.3	1.158	2.093	11.4	18.7	2 1	10 24.74	+17 32.2	1.595	2.538	8.1	20.0
2 11	10 13.37	+ 5 13.1	1.132	2.105	6.1	18.5	2 11	10 14.75	+18 11.7	1.571	2.548	3.9	19.8
2 21	10 4.15	+ 6 13.6	1.132	2.118	2.5	18.3	2 21	10 3.84	+18 45.6	1.575	2.557	3.2	19.7
3 2	9 55.31	+ 7 19.1	1.157	2.132	6.5	18.6	3 2	9 53.29	+19 8.3	1.607	2.566	7.1	20.0
3 12	9 48.25	+ 8 20.0	1.206	2.146	11.5	18.9	3 12	9 44.35	+19 16.3	1.667	2.575	11.2	20.3
3 22	9 43.90	+ 9 9.7	1.277	2.160	16.0	19.2	3 22	9 37.85	+19 9.2	1.749	2.583	14.8	20.5
231097	2005 <i>SB</i> ₂₅		2 18.9	84°12	0°5/18.6	18	30465	2000 <i>OY</i> ₁₃		2 18.9	98°35	0°9/19.8	18
1 12	10 32.78	+ 8 0.8	1.389	2.190	18.8	20.6	1 12	10 30.12	+ 7 23.0	2.374	3.142	12.9	18.4
1 22	10 29.22	+ 8 54.6	1.324	2.206	14.7	20.3	1 22	10 25.96	+ 7 27.9	2.286	3.147	10.2	18.2
2 1	10 22.65	+10 8.9	1.279	2.221	9.8	20.1	2 1	10 19.92	+ 7 43.8	2.221	3.153	7.0	18.0
2 11	10 13.86	+11 36.9	1.258	2.237	4.3	19.8	2 11	10 12.51	+ 8 8.1	2.184	3.158	3.4	17.8
2 21	10 4.03	+13 8.6	1.264	2.252	1.5	19.7	2 21	10 4.43	+ 8 37.6	2.175	3.163	1.0	17.6
3 2	9 54.59	+14 33.4	1.297	2.267	6.9	20.1	3 2	9 56.51	+ 9 8.1	2.197	3.168	4.3	17.9
3 12	9 46.90	+15 42.8	1.356	2.282	11.8	20.4	3 12	9 49.54	+ 9 35.7	2.247	3.173	7.7	18.1
3 22	9 41.84	+16 32.5	1.438	2.296	16.0	20.7	3 22	9 44.16	+ 9 57.5	2.324	3.178	10.8	18.3
32253	2000 <i>OP</i> ₅₁		2 18.9	115°00	3°0/21.4	18	299911						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
197534	2004 <i>EL</i> ₆₁		2 18.9	19°66	0°7/19.5	18	7952	1992 <i>XB</i>		2 18.9	82°87	4°5/23.4	18
1 12	10 28.25	+ 7 56.0	1.819	2.609	15.4	19.9	1 12	10 31.20	- 4 16.2	2.327	3.040	14.6	18.1
1 22	10 25.08	+ 8 8.4	1.740	2.615	12.1	19.7	1 22	10 26.71	- 4 33.1	2.252	3.065	12.1	17.9
2 1	10 19.61	+ 8 35.1	1.683	2.621	8.2	19.5	2 1	10 20.35	- 4 32.2	2.199	3.090	9.3	17.8
2 11	10 12.44	+ 9 12.4	1.652	2.628	3.9	19.2	2 11	10 12.69	- 4 13.9	2.172	3.114	6.5	17.6
2 21	10 4.45	+ 9 55.4	1.648	2.636	1.0	19.0	2 21	10 4.45	- 3 40.3	2.172	3.138	4.6	17.6
3 2	9 56.68	+10 38.4	1.672	2.644	5.2	19.4	3 2	9 56.45	- 2 55.3	2.201	3.161	5.3	17.6
3 12	9 50.15	+11 15.7	1.722	2.652	9.4	19.6	3 12	9 49.48	- 2 4.2	2.259	3.185	7.7	17.8
3 22	9 45.58	+11 43.6	1.797	2.662	13.0	19.9	3 22	9 44.13	- 1 12.2	2.343	3.208	10.4	18.0
201045	2002 <i>EM</i> ₁₇		2 18.9	35°99	0°3/18.7	18	378724	2008 <i>QO</i> ₂₂		2 18.9	223°82	3°4/21.9	17
1 12	10 30.79	+ 9 12.2	1.266	2.081	19.5	20.0	1 12	10 31.27	+ 0 0.8	2.298	3.034	14.2	21.1
1 22	10 27.97	+ 9 39.4	1.201	2.091	15.3	19.7	1 22	10 27.06	- 0 11.8	2.193	3.027	11.7	20.9
2 1	10 21.98	+10 25.6	1.156	2.101	10.2	19.5	2 1	10 20.81	- 0 9.0	2.111	3.019	8.6	20.7
2 11	10 13.62	+11 25.0	1.133	2.112	4.6	19.2	2 11	10 13.01	+ 0 8.7	2.054	3.012	5.5	20.5
2 21	10 4.14	+12 28.8	1.136	2.124	1.4	19.0	2 21	10 4.34	+ 0 39.3	2.026	3.003	3.5	20.4
3 2	9 55.07	+13 27.6	1.165	2.137	7.0	19.4	3 2	9 55.70	+ 1 19.2	2.027	2.995	5.0	20.4
3 12	9 47.85	+14 13.7	1.218	2.150	12.2	19.7	3 12	9 47.97	+ 2 3.3	2.057	2.986	8.2	20.6
3 22	9 43.39	+14 42.9	1.292	2.163	16.6	20.0	3 22	9 41.87	+ 2 46.7	2.113	2.977	11.4	20.8
165303	2000 <i>UO</i> ₂₀		2 18.9	167°36	1°9/17.3	18	503131	2015 <i>FF</i> ₃₈₀		2 18.9	233°92	3°8/22.3	17
1 12	10 35.16	+13 59.2	1.983	2.772	14.4	21.2	1 12	10 29.46	- 1 1.3	2.289	3.024	14.3	20.7
1 22	10 30.33	+14 44.2	1.899	2.777	11.1	21.0	1 22	10 25.62	- 1 16.3	2.191	3.022	11.7	20.5
2 1	10 23.07	+15 39.4	1.840	2.781	7.3	20.8	2 1	10 19.81	- 1 15.4	2.115	3.020	8.8	20.3
2 11	10 14.01	+16 38.9	1.807	2.785	3.4	20.5	2 11	10 12.54	- 0 58.8	2.064	3.018	5.8	20.1
2 21	10 4.04	+17 35.9	1.804	2.788	2.5	20.5	2 21	10 4.48	- 0 28.5	2.041	3.016	3.8	20.0
3 2	9 54.26	+18 24.1	1.830	2.790	6.3	20.7	3 2	9 56.50	+ 0 11.7	2.048	3.014	5.1	20.1
3 12	9 45.75	+18 59.0	1.885	2.791	10.2	21.0	3 12	9 49.44	+ 0 57.0	2.082	3.012	8.0	20.3
3 22	9 39.30	+19 18.6	1.963	2.792	13.6	21.2	3 22	9 43.97	+ 1 42.2	2.143	3.010	11.1	20.4
130596	2000 <i>RV</i> ₉₁		2 18.9	71°28	5°1/23.1	18	195473	2002 <i>GY</i> ₁₂₅		2 18.9	252°06	2°9/21.7	17
1 12	10 30.60	- 4 12.5	1.505	2.256	19.8	19.6	1 12	10 29.87	+ 0 6.1	2.509	3.243	13.2	21.3
1 22	10 27.30	- 4 8.4	1.435	2.273	16.4	19.4	1 22	10 25.91	+ 0 12.5	2.389	3.223	10.8	21.1
2 1	10 21.27	- 3 36.3	1.383	2.290	12.4	19.2	2 1	10 20.04	+ 0 34.4	2.292	3.202	8.0	20.9
2 11	10 13.24	- 2 36.8	1.353	2.307	8.2	19.0	2 11	10 12.68	+ 1 11.2	2.221	3.181	4.9	20.7
2 21	10 4.26	- 1 14.9	1.349	2.324	5.3	18.9	2 21	10 4.44	+ 2 0.5	2.179	3.159	2.9	20.5
3 2	9 55.60	+ 0 20.8	1.372	2.341	6.6	19.0	3 2	9 56.11	+ 2 58.0	2.168	3.137	4.6	20.6
3 12	9 48.47	+ 1 59.6	1.421	2.358	10.3	19.3	3 12	9 48.53	+ 3 58.5	2.185	3.114	7.8	20.7
3 22	9 43.71	+ 3 31.9	1.494	2.375	14.2	19.6	3 22	9 42.41	+ 4 57.0	2.230	3.090	11.0	20.9
460647	2014 <i>UJ</i> ₁₂₆		2 18.9	45°88	5°0/22.4	18	1742	Schaifers		2 18.9	134°80	0°1/18.9	18 A
1 12	10 31.76	- 1 3.0	1.621	2.378	18.4	20.6	1 12	10 29.99	+ 8 50.5	2.303	3.078	13.0	16.3
1 22	10 28.04	- 1 37.0	1.546	2.389	15.2	20.4	1 22	10 25.95	+ 9 19.4	2.217	3.085	10.2	16.1
2 1	10 21.71	- 1 50.1	1.490	2.401	11.4	20.2	2 1	10 19.97	+ 9 59.8	2.155	3.091	6.8	15.9
2 11	10 13.43	- 1 42.0	1.457	2.413	7.5	20.0	2 11	10 12.58	+10 48.3	2.121	3.098	3.1	15.7
2 21	10 4.22	- 1 15.2	1.451	2.426	5.0	19.9	2 21	10 4.50	+11 39.9	2.115	3.103	0.8	15.5
3 2	9 55.27	- 0 34.5	1.471	2.439	6.5	20.0	3 2	9 56.56	+12 29.8	2.140	3.109	4.6	15.8
3 12	9 47.76	+ 0 13.0	1.518	2.452	10.1	20.2	3 12	9 49.62	+13 13.1	2.194	3.115	8.2	16.0
3 22	9 42.51	+ 1 0.3	1.588	2.466	13.7	20.5	3 22	9 44.30	+13 46.9	2.273	3.120	11.3	16.3
162947	2001 <i>QY</i> ₃₈		2 18.9	92°89	0°9/17.9	18	163560	2002 <i>TL</i> ₁₂₄		2 18.9	324°60	5°0/23.4	18
1 12	10 29.18	+10 48.2	2.398	3.179	12.4	19.6	1 12	10 28.94	- 4 7.9	2.175	2.899	15.2	19.3
1 22	10 25.16	+11 41.8	2.327	3.199	9.6	19.4	1 22	10 25.34	- 4 32.1	2.079	2.897	12.8	19.2
2 1	10 19.33	+12 45.8	2.279	3.219	6.3	19.2	2 1	10 19.70	- 4 38.0	2.002	2.896	9.9	19.0
2 11	10 12.23	+13 55.2	2.260	3.239	2.7	19.0	2 11	10 12.52	- 4 25.0	1.951	2.894	7.0	18.8
2 21	10 4.55	+15 4.5	2.272	3.258	1.4	18.9	2 21	10 4.51	- 3 54.6	1.926	2.892	5.1	18.7
3 2	9 57.09	+16 8.1	2.313	3.277	4.8	19.2	3 2	9 56.55	- 3 10.3	1.930	2.891	5.9	18.7
3 12	9 50.61	+17 1.7	2.384	3.296	8.1	19.4	3 12	9 49.57	- 2 17.6	1.961	2.889	8.5	18.9
3 22	9 45.68	+17 42.7	2.480	3.314	10.9	19.7	3 22	9 44.26	- 1 22.5	2.017	2.888	11.5	19.0
327000	2004 <i>RZ</i> ₅		2 18.9	116°87	3°8/15.5	18	221886	2008 <i>HJ</i> ₆₁		2 18.9	166°85	3°1/16.1	18
1 12	10 35.20	+21 25.7	2.246	3.042	12.7	21.2	1 12	10 33.68	+18 29.7	2.131	2.928	13.2	20.8
1 22	10 29.99	+22 14.1	2.179	3.059	9.8	21.1	1 22	10 29.06	+19 16.5	2.049	2.931	10.2	20.6
2 1	10 22.61	+23 5.1	2.136	3.075	6.7	20.9	2 1	10 22.18	+20 9.1	1.992	2.934	6.8	20.4
2 11	10 13.72	+23 52.4	2.122	3.091	4.2	20.8	2 11	10 13.62	+21 1.4	1.962	2.936	3.8	20.3
2 21	10 4.17	+24 30.1	2.136	3.106	4.3	20.8	2 21	10 4.23	+21 47.1	1.962	2.938	3.7	20.3
3 2	9 54.94	+24 53.9	2.181	3.120	6.9	21.0	3 2	9 55.05	+22 20.8	1.991	2.940	6.8	20.4
3 12	9 46.96	+25 1.6	2.253	3.135	9.9	21.2	3 12	9 47.06	+22 39.3	2.047	2.941	10.1	20.7
3 22	9 40.88	+24 53.8	2.348	3.148	12.5	21.4	3 22	9 40.99	+22 41.9	2.127	2.942	13.2	20.8
323776	2005 <i>QW</i> ₄₈		2 18.9	175°48	1°6/17.4	18	498981	2009 <i>BE</i> ₁₅₄		2 18.9	354°42	2°3/16.5	17
1 12	10 32.17	+13 23.2	2.095	2.885	13.7	21.9	1 12	10 27.87	+15 0.3	2.245	3.043	12.6	21.5
1 22	10 27.91	+14 7.0	2.009	2.887	10.6	21.7	1 22	10 24.48	+16 1.8	2.159	3.043	9.7	21.3
2 1	10 21.42	+15 1.0	1.946	2.888	7.0	21.5	2 1	10 19.10	+17 12.6	2.099	3.043	6.4	21.1
2 11	10 13.27	+15 59.8	1.911	2.889	3.2	21.2	2 11	10 12.23	+18 26.9	2.066	3.043	3.2	20.9
2 21	10 4.27	+16 57.3	1.905	2.890	2.2	21.2	2 21	10 4.59	+19 38.2	2.062	3.043	2.9	20.9
3 2	9 55.41	+17 47.4	1.929	2.890	5.9	21.4	3 2	9 57.07	+20 40.4	2.088	3.043	6.1	21.1
3 12	9 47.89	+18 25.6	1.981	2.890	9.6	21.6	3 12	9 50.54	+21 28.7	2.141	3.043	9.4	21.3
3 22	9 41.64	+18 49.6	2.056	2.889	12.9	21.8	3 22	9 45.66	+22 1.1	2.219	3.043	12.4	21.5
354857	2005 <i>YH</i> ₂₀₈		2 18.9	88°14	4°1/16.1	17	250133	2002 <i>QD</i> ₆₄		2 18.9	149°78	0°9/18.2	18
1 12													

EPHEMERIDES

2 18.9

2 18.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291067	2005 <i>YN</i> ₉₂		2 18.9 288°01	0°8/18.2	18		118755	2000 <i>QT</i> ₁₉₈		2 18.9 304°95	3°5/16.7	18	
1 12	10 29.42	+10 37.9	1.938	2.731	14.5	20.8	1 12	10 38.03	+20 34.7	1.831	2.633	14.9	19.1
1 22	10 26.01	+11 16.2	1.847	2.726	11.3	20.6	1 22	10 32.84	+20 50.3	1.747	2.630	11.6	18.9
2 1	10 20.30	+12 7.7	1.779	2.721	7.5	20.4	2 1	10 24.91	+21 8.9	1.686	2.628	7.9	18.7
2 11	10 12.84	+13 7.9	1.737	2.716	3.3	20.1	2 11	10 14.93	+21 24.3	1.652	2.625	4.4	18.5
2 21	10 4.44	+14 10.5	1.724	2.711	1.5	19.9	2 21	10 3.96	+21 30.6	1.645	2.623	4.1	18.4
3 2	9 56.13	+15 8.8	1.739	2.706	5.7	20.2	3 2	9 53.27	+21 23.5	1.668	2.621	7.5	18.6
3 12	9 48.95	+15 57.0	1.782	2.701	9.8	20.5	3 12	9 44.10	+21 1.2	1.717	2.619	11.3	18.9
3 22	9 43.70	+16 31.6	1.848	2.697	13.4	20.7	3 22	9 37.30	+20 24.6	1.789	2.617	14.7	19.1
416581	2004 <i>GP</i> ₈₁		2 18.9 113°92	4°1/22.8	18		202641	2006 <i>JE</i> ₁₅		2 18.9 148°27	0°3/19.3	17	
1 12	10 30.89	- 3 6.1	2.029	2.760	16.0	21.1	1 12	10 29.95	+ 8 5.1	2.361	3.132	12.9	21.5
1 22	10 26.86	- 2 59.6	1.947	2.774	13.2	20.9	1 22	10 25.90	+ 8 30.8	2.272	3.137	10.1	21.3
2 1	10 20.68	- 2 32.2	1.885	2.788	9.9	20.7	2 1	10 19.94	+ 9 8.3	2.208	3.142	6.8	21.1
2 11	10 12.94	- 1 44.9	1.849	2.801	6.5	20.6	2 11	10 12.60	+ 9 54.2	2.170	3.146	3.2	20.9
2 21	10 4.43	- 0 41.4	1.840	2.815	4.1	20.4	2 21	10 4.57	+10 44.2	2.163	3.151	0.7	20.7
3 2	9 56.12	+ 0 32.6	1.860	2.828	5.4	20.5	3 2	9 56.67	+11 33.2	2.185	3.155	4.5	21.0
3 12	9 48.95	+ 1 49.9	1.909	2.840	8.5	20.8	3 12	9 49.72	+12 16.8	2.236	3.159	8.0	21.2
3 22	9 43.60	+ 3 3.8	1.983	2.852	11.8	21.0	3 22	9 44.36	+12 51.6	2.313	3.162	11.1	21.4
402543	2006 <i>HP</i> ₆₆		2 18.9 166°94	1°7/17.5	18		387451	2013 <i>WS</i> ₇₂		2 18.9 32°80	4°9/14.3	18	
1 12	10 34.87	+13 39.1	2.073	2.859	13.9	22.3	1 12	10 30.41	+22 46.0	2.012	2.825	13.3	20.2
1 22	10 30.01	+14 22.0	1.988	2.864	10.8	22.1	1 22	10 26.74	+23 54.4	1.940	2.829	10.4	20.1
2 1	10 22.83	+15 14.8	1.928	2.868	7.1	21.8	2 1	10 20.74	+25 6.2	1.892	2.833	7.3	19.9
2 11	10 13.93	+16 12.0	1.895	2.872	3.3	21.6	2 11	10 13.02	+26 13.7	1.871	2.837	5.1	19.8
2 21	10 4.17	+17 7.3	1.891	2.876	2.3	21.5	2 21	10 4.46	+27 9.4	1.878	2.841	5.6	19.8
3 2	9 54.58	+17 54.6	1.918	2.878	6.0	21.8	3 2	9 56.14	+27 47.5	1.913	2.845	8.3	20.0
3 12	9 46.20	+18 29.6	1.972	2.880	9.7	22.0	3 12	9 49.07	+28 5.2	1.974	2.850	11.3	20.2
3 22	9 39.78	+18 50.2	2.052	2.881	13.1	22.2	3 22	9 43.99	+28 2.8	2.057	2.855	14.1	20.3
103834	2000 <i>DY</i> ₂₈		2 18.9 94°99	0°3/19.1	18		482462	2012 <i>HB</i> ₅₇		2 18.9 359°86	15°3/ 4.1	18	
1 12	10 32.28	+ 8 0.0	1.757	2.543	16.1	20.0	1 12	10 24.20	-23 21.6	1.144	1.827	28.3	20.9
1 22	10 28.26	+ 8 29.3	1.683	2.555	12.6	19.8	1 22	10 23.60	-24 15.7	1.067	1.825	26.0	20.6
2 1	10 21.77	+ 9 14.0	1.630	2.567	8.5	19.6	2 1	10 19.61	-24 21.0	1.001	1.824	23.1	20.4
2 11	10 13.47	+10 9.8	1.603	2.580	3.9	19.3	2 11	10 12.84	-23 26.7	0.948	1.824	19.9	20.2
2 21	10 4.30	+11 10.2	1.603	2.592	0.9	19.1	2 21	10 4.46	-21 27.4	0.911	1.824	16.9	20.0
3 2	9 55.40	+12 8.3	1.633	2.603	5.6	19.5	3 2	9 56.15	-18 27.0	0.895	1.825	15.3	19.9
3 12	9 47.88	+12 57.9	1.690	2.615	9.9	19.8	3 12	9 49.67	-14 42.3	0.900	1.827	16.0	19.9
3 22	9 42.49	+13 35.1	1.770	2.627	13.6	20.0	3 22	9 46.26	-10 38.4	0.927	1.829	18.7	20.1
445318	2010 <i>FF</i> ₅₇		2 18.9 30°00	4°9/16.3	18		376272	2011 <i>FY</i> ₄₃		2 18.9 72°05	2°6/16.9	18	
1 12	10 35.27	+19 37.1	1.151	1.986	19.8	20.4	1 12	10 32.90	+16 57.6	1.960	2.761	14.1	21.0
1 22	10 31.91	+20 17.1	1.092	1.994	15.4	20.1	1 22	10 28.61	+17 29.9	1.881	2.764	10.9	20.8
2 1	10 24.84	+21 4.7	1.053	2.003	10.4	19.9	2 1	10 21.96	+18 8.9	1.825	2.768	7.2	20.5
2 11	10 15.00	+21 49.8	1.036	2.012	5.9	19.7	2 11	10 13.56	+18 49.1	1.796	2.772	3.6	20.3
2 21	10 3.92	+22 21.9	1.044	2.022	5.7	19.7	2 21	10 4.33	+19 24.3	1.795	2.776	3.1	20.3
3 2	9 53.44	+22 33.3	1.076	2.033	10.0	19.9	3 2	9 55.33	+19 49.3	1.823	2.780	6.5	20.5
3 12	9 45.26	+22 21.5	1.130	2.044	14.7	20.2	3 12	9 47.62	+20 0.8	1.878	2.784	10.2	20.7
3 22	9 40.34	+21 48.3	1.205	2.057	18.9	20.5	3 22	9 41.94	+19 57.9	1.957	2.789	13.5	21.0
302033	2000 <i>SQ</i> ₂₇₇		2 18.9 94°61	3°9/16.2	18		278192	2007 <i>ED</i> ₄		2 18.9 270°57	0°5/18.5	17	
1 12	10 36.94	+18 23.8	1.606	2.414	16.4	20.9	1 12	10 31.64	+11 4.7	1.927	2.716	14.7	21.1
1 22	10 32.12	+19 18.2	1.545	2.432	12.6	20.7	1 22	10 27.75	+11 24.7	1.835	2.712	11.5	20.9
2 1	10 24.42	+20 19.8	1.506	2.450	8.4	20.5	2 1	10 21.48	+11 56.2	1.767	2.707	7.7	20.6
2 11	10 14.67	+21 20.1	1.492	2.467	4.6	20.3	2 11	10 13.40	+12 35.3	1.724	2.702	3.4	20.4
2 21	10 4.02	+22 10.5	1.507	2.484	4.6	20.4	2 21	10 4.36	+13 16.7	1.710	2.698	1.2	20.2
3 2	9 53.85	+22 44.5	1.549	2.500	8.1	20.6	3 2	9 55.44	+13 54.5	1.725	2.693	5.6	20.5
3 12	9 45.41	+22 58.8	1.617	2.517	12.0	20.9	3 12	9 47.70	+14 24.0	1.767	2.688	9.8	20.7
3 22	9 39.53	+22 53.9	1.708	2.532	15.5	21.1	3 22	9 41.95	+14 42.1	1.833	2.684	13.4	20.9
40685	1999 <i>RL</i> ₂₁₇		2 18.9 118°22	0°1/18.9	18		108112	2001 <i>FC</i> ₁₉₅		2 18.9 208°48	1°9/17.5	18	
1 12	10 32.87	+ 7 33.1	1.866	2.644	15.6	19.5	1 12	10 33.52	+13 57.3	1.772	2.571	15.4	20.3
1 22	10 28.58	+ 8 23.1	1.791	2.660	12.1	19.3	1 22	10 29.43	+14 32.3	1.687	2.569	12.0	20.1
2 1	10 21.91	+ 9 29.2	1.739	2.676	8.1	19.1	2 1	10 22.71	+15 18.2	1.624	2.567	7.9	19.9
2 11	10 13.52	+10 46.2	1.714	2.691	3.7	18.9	2 11	10 13.98	+16 9.3	1.587	2.565	3.6	19.6
2 21	10 4.31	+12 7.0	1.718	2.706	1.0	18.7	2 21	10 4.21	+16 58.6	1.578	2.563	2.5	19.5
3 2	9 55.36	+13 23.9	1.751	2.720	5.5	19.0	3 2	9 54.61	+17 39.5	1.598	2.561	6.7	19.8
3 12	9 47.72	+14 30.2	1.813	2.734	9.6	19.3	3 12	9 46.37	+18 7.1	1.644	2.558	10.9	20.0
3 22	9 42.13	+15 22.0	1.899	2.747	13.2	19.6	3 22	9 40.36	+18 19.2	1.714	2.555	14.6	20.2
425360	2010 <i>BX</i> ₇₇		2 18.9 40°07	8°3/ 9.9	18		352689	2008 <i>SM</i> ₆₀		2 18.9 156°95	0°8/19.6	18	
1 12	10 32.09	+33 36.5	2.080	2.891	13.0	20.5	1 12	10 36.87	+ 7 14.5	1.930	2.697	15.5	21.9
1 22	10 28.23	+35 15.8	2.023	2.896	10.8	20.3	1 22	10 31.67	+ 7 30.7	1.845	2.706	12.3	21.7
2 1	10 21.81	+36 50.0	1.990	2.901	9.0	20.2	2 1	10 24.00	+ 8 1.1	1.782	2.714	8.4	21.5
2 11	10 13.51	+38 9.5	1.983	2.906	8.3	20.2	2 11	10 14.50	+ 8 42.4	1.747	2.721	4.0	21.3
2 21	10 4.31	+39 6.4	2.003	2.911	9.3	20.2	2 21	10 4.09	+ 9 29.5	1.740	2.728	1.0	21.0
3 2	9 55.38	+39 35.8	2.048	2.917	11.2	20.4	3 2	9 53.88	+10 16.4	1.763	2.734	5.3	21.4
3 12	9 47.88	+39 37.3	2.116	2.923	13.4	20.5	3 12	9 44.99	+10 57.7	1.815	2.738	9.5	21.6
3 22	9 42.57	+39 13.7	2.203	2.929	15.5	20.7	3 22	9 38.20	+11 29.7	1.892	2.742	13.1	21.8
230935	2004 <i>WC</i> ₈		2 18.9 76°23	1°7/20.4									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
164689	1997 SC ₇		2 18.9 219°06	0°4/18.5	17		60834	2000 HL ₄₉		2 18.9 318°86	4°4/16.2	18	
1 12	10 30.51	+10 55.5	2.604	3.378	11.7	21.7	1 12	10 30.23	+17 17.7	1.207	2.043	18.9	19.3
1 22	10 26.25	+11 21.4	2.502	3.370	9.2	21.5	1 22	10 28.31	+18 7.4	1.120	2.024	14.9	19.0
2 1	10 20.16	+11 56.5	2.425	3.362	6.1	21.3	2 1	10 22.82	+19 11.1	1.054	2.005	10.1	18.7
2 11	10 12.72	+12 37.4	2.376	3.353	2.7	21.1	2 11	10 14.36	+20 19.9	1.010	1.987	5.5	18.4
2 21	10 4.55	+13 20.1	2.357	3.344	1.0	20.9	2 21	10 4.12	+21 22.1	0.990	1.970	5.4	18.3
3 2	9 56.43	+14 0.1	2.369	3.335	4.5	21.2	3 2	9 53.85	+22 6.4	0.994	1.953	10.2	18.5
3 12	9 49.14	+14 33.8	2.410	3.325	7.8	21.4	3 12	9 45.43	+22 25.8	1.020	1.938	15.6	18.7
3 22	9 43.30	+14 58.3	2.477	3.315	10.8	21.5	3 22	9 40.16	+22 18.9	1.065	1.923	20.4	19.0
133672	2003 UR ₁₈₉		2 18.9 124°24	0°2/19.1	18		353394	2011 OY ₂₀		2 18.9 214°35	0°3/19.2	18	
1 12	10 30.34	+ 8 35.9	2.325	3.098	13.0	20.3	1 12	10 37.02	+ 9 1.3	1.879	2.653	15.6	22.1
1 22	10 26.19	+ 9 1.6	2.241	3.107	10.2	20.2	1 22	10 32.09	+ 9 13.2	1.779	2.645	12.4	21.9
2 1	10 20.14	+ 9 38.7	2.181	3.116	6.8	20.0	2 1	10 24.51	+ 9 38.4	1.702	2.637	8.4	21.6
2 11	10 12.69	+10 23.8	2.148	3.125	3.1	19.7	2 11	10 14.85	+10 13.4	1.651	2.627	3.9	21.3
2 21	10 4.58	+11 12.2	2.145	3.133	0.8	19.6	2 21	10 4.02	+10 53.3	1.629	2.617	0.9	21.1
3 2	9 56.63	+11 59.1	2.172	3.141	4.5	19.9	3 2	9 53.23	+11 32.3	1.637	2.606	5.7	21.4
3 12	9 49.68	+12 40.1	2.227	3.149	8.0	20.1	3 12	9 43.68	+12 4.8	1.672	2.594	10.2	21.6
3 22	9 44.33	+13 12.0	2.308	3.157	11.1	20.3	3 22	9 36.31	+12 27.4	1.732	2.582	14.1	21.9
20706	1999 WY ₃		2 18.9 274°86	2°1/17.5	18		500256	2012 KP ₃₄		2 18.9 180°21	2°0/16.9	17	
1 12	10 32.59	+12 44.1	1.431	2.243	17.8	17.4	1 12	10 31.28	+15 1.7	2.358	3.147	12.4	22.0
1 22	10 29.52	+13 30.8	1.340	2.230	14.0	17.1	1 22	10 27.02	+15 51.3	2.270	3.148	9.5	21.8
2 1	10 23.27	+14 34.4	1.269	2.216	9.3	16.8	2 1	10 20.76	+16 48.9	2.207	3.149	6.3	21.6
2 11	10 14.43	+15 48.2	1.223	2.202	4.3	16.4	2 11	10 13.02	+17 49.6	2.172	3.149	3.0	21.4
2 21	10 4.08	+17 2.9	1.203	2.188	3.0	16.3	2 21	10 4.52	+18 47.5	2.167	3.149	2.6	21.3
3 2	9 53.71	+18 8.1	1.209	2.174	8.1	16.6	3 2	9 56.14	+19 37.2	2.192	3.148	5.7	21.6
3 12	9 44.89	+18 56.0	1.241	2.160	13.2	16.8	3 12	9 48.75	+20 14.7	2.246	3.147	9.0	21.8
3 22	9 38.79	+19 22.8	1.293	2.146	17.8	17.0	3 22	9 43.02	+20 38.2	2.324	3.146	12.0	21.9
318674	2005 PE ₁₁		2 18.9 252°96	1°0/18.1	17		49413	1998 XZ ₆₂		2 18.9 81°33	3°4/21.3	18	
1 12	10 31.51	+11 21.4	1.920	2.711	14.7	21.6	1 12	10 37.08	+ 2 16.9	1.779	2.532	17.1	18.6
1 22	10 27.77	+11 58.7	1.822	2.700	11.5	21.4	1 22	10 31.78	+ 1 53.5	1.712	2.558	13.8	18.4
2 1	10 21.59	+12 49.1	1.747	2.688	7.7	21.1	2 1	10 23.99	+ 1 47.2	1.666	2.584	9.9	18.2
2 11	10 13.50	+13 48.0	1.698	2.676	3.4	20.8	2 11	10 14.45	+ 1 56.6	1.646	2.609	5.9	18.0
2 21	10 4.35	+14 48.9	1.677	2.664	1.7	20.7	2 21	10 4.18	+ 2 18.7	1.653	2.634	3.4	17.9
3 2	9 55.22	+15 45.0	1.686	2.652	6.0	20.9	3 2	9 54.32	+ 2 48.8	1.689	2.659	5.6	18.1
3 12	9 47.22	+16 30.4	1.722	2.639	10.3	21.1	3 12	9 45.95	+ 3 21.2	1.753	2.683	9.3	18.4
3 22	9 41.22	+17 1.5	1.781	2.626	14.0	21.3	3 22	9 39.80	+ 3 51.1	1.842	2.707	12.7	18.6
6430	1964 UP		2 18.9 220°72	1°1/19.7	18		105218	2000 OJ ₅₇		2 18.9 96°19	1°5/19.9	18	
1 12	10 36.01	+ 6 58.6	1.667	2.445	17.1	18.1	1 12	10 36.55	+ 7 27.3	1.963	2.730	15.3	19.4
1 22	10 31.62	+ 7 5.7	1.571	2.438	13.7	17.8	1 22	10 31.26	+ 7 11.3	1.886	2.745	12.1	19.2
2 1	10 24.37	+ 7 29.3	1.496	2.430	9.5	17.5	2 1	10 23.62	+ 7 7.0	1.830	2.760	8.3	19.0
2 11	10 14.83	+ 8 6.4	1.446	2.421	4.7	17.2	2 11	10 14.30	+ 7 12.2	1.801	2.774	4.2	18.8
2 21	10 4.00	+ 8 52.0	1.424	2.412	1.3	17.0	2 21	10 4.21	+ 7 23.6	1.802	2.789	1.5	18.6
3 2	9 53.19	+ 9 39.5	1.430	2.402	6.0	17.3	3 2	9 54.43	+ 7 37.5	1.832	2.803	5.0	18.9
3 12	9 43.77	+10 22.0	1.464	2.392	10.9	17.5	3 12	9 45.97	+ 7 49.8	1.890	2.816	8.9	19.1
3 22	9 36.74	+10 54.8	1.520	2.380	15.2	17.7	3 22	9 39.56	+ 7 57.6	1.973	2.830	12.4	19.4
52661	1998 BT ₈		2 18.9 306°99	0°1/18.9	18		248810	2006 SC ₁₆₃		2 18.9 202°55	5°8/12.3	17	
1 12	10 36.47	+12 36.6	2.277	3.051	13.2	18.3	1 12	10 34.47	+31 39.5	2.785	3.578	10.6	21.3
1 22	10 31.03	+12 17.5	2.181	3.048	10.4	18.1	1 22	10 29.34	+32 34.9	2.708	3.575	8.6	21.1
2 1	10 23.42	+12 4.3	2.109	3.045	7.0	17.9	2 1	10 22.22	+33 26.8	2.656	3.571	6.8	21.0
2 11	10 14.21	+11 54.5	2.064	3.041	3.2	17.6	2 11	10 13.65	+34 8.9	2.631	3.567	5.8	20.9
2 21	10 4.19	+11 45.5	2.050	3.038	0.8	17.4	2 21	10 4.39	+34 36.1	2.636	3.563	6.4	21.0
3 2	9 54.34	+11 34.6	2.067	3.035	4.8	17.7	3 2	9 55.32	+34 45.1	2.669	3.559	8.1	21.1
3 12	9 45.59	+11 19.6	2.113	3.033	8.5	17.9	3 12	9 47.29	+34 35.1	2.728	3.554	10.2	21.2
3 22	9 38.67	+10 59.2	2.184	3.030	11.8	18.1	3 22	9 40.96	+34 7.5	2.810	3.549	12.1	21.3
291113	2005 YQ ₁₇₈		2 18.9 54°29	0°9/19.4	18		238428	2004 GW ₇₈		2 18.9 281°01	3°5/22.8	18	
1 12	10 35.98	+ 9 2.7	1.381	2.180	19.0	21.1	1 12	10 26.37	- 3 0.2	2.388	3.117	13.9	20.6
1 22	10 31.87	+ 8 53.2	1.307	2.186	15.0	20.8	1 22	10 23.20	- 2 45.5	2.288	3.115	11.5	20.4
2 1	10 24.59	+ 8 58.9	1.253	2.193	10.3	20.6	2 1	10 18.22	- 2 12.2	2.210	3.112	8.6	20.2
2 11	10 14.90	+ 9 16.4	1.223	2.199	4.9	20.3	2 11	10 11.88	- 1 21.2	2.157	3.110	5.7	20.0
2 21	10 4.02	+ 9 40.3	1.218	2.206	1.3	20.0	2 21	10 4.84	- 0 15.5	2.133	3.108	3.6	19.9
3 2	9 53.49	+10 4.5	1.241	2.213	6.5	20.4	3 2	9 57.85	+ 1 0.0	2.138	3.106	4.7	19.9
3 12	9 44.77	+10 23.0	1.288	2.221	11.7	20.7	3 12	9 51.70	+ 2 19.1	2.172	3.104	7.6	20.1
3 22	9 38.83	+10 32.2	1.358	2.228	16.0	21.0	3 22	9 47.02	+ 3 35.7	2.232	3.102	10.6	20.3
193104	2000 GL ₁₂₈		2 18.9 287°06	4°1/21.9	18		98055	2000 RR ₃₈		2 18.9 71°31	1°9/17.6	18	
1 12	10 29.77	- 0 24.0	1.465	2.237	19.4	20.6	1 12	10 35.57	+12 34.4	1.460	2.265	17.9	19.0
1 22	10 27.10	- 0 24.4	1.372	2.228	16.0	20.3	1 22	10 31.14	+13 23.7	1.406	2.291	13.7	18.8
2 1	10 21.53	+ 0 0.8	1.298	2.219	11.8	20.0	2 1	10 23.81	+14 26.4	1.372	2.317	9.0	18.6
2 11	10 13.61	+ 0 51.3	1.246	2.210	7.3	19.7	2 11	10 14.42	+15 34.6	1.364	2.343	4.0	18.4
2 21	10 4.33	+ 2 3.3	1.219	2.200	4.1	19.5	2 21	10 4.21	+16 39.5	1.384	2.369	2.6	18.4
3 2	9 55.02	+ 3 28.7	1.218	2.191	6.6	19.6	3 2	9 54.57	+17 32.9	1.431	2.395	7.1	18.7
3 12	9 47.13	+ 4 57.1	1.243	2.182	11.3	19.9	3 12	9 46.73	+18 9.8	1.503	2.420	11.5	19.0
3 22	9 41.71	+ 6 18.9	1.291	2.173	15.9	20.1	3 22	9 41.49	+18 28.7	1.598	2.445	15.3	19.3
50395	2000 CR ₉₄		2 18.9 13°95	5°8/15.9	18		4573	Piešťany		2 18.9 327°86	2°7/21.0	18	
1 12	10 38.81	+24 30.6	1.408	2.230	17.6	17.7	1 12	10 30.					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
168484	1999 <i>RP</i> ₁₂₅		2 18.9 134°00	0°3/19.2	18		375247	2008 <i>GG</i> ₅₄		2 18.9 203°26	5°1/13.6	17	
1 12	10 36.69	+ 9 18.1	2.002	2.774	14.9	20.3	1 12	10 36.21	+26 56.9	2.576	3.368	11.3	22.4
1 22	10 31.38	+ 9 29.3	1.923	2.787	11.6	20.1	1 22	10 30.85	+27 56.9	2.490	3.363	9.0	22.2
2 1	10 23.73	+ 9 52.2	1.866	2.800	7.8	19.8	2 1	10 23.34	+28 56.8	2.429	3.357	6.7	22.1
2 11	10 14.37	+10 23.0	1.836	2.812	3.6	19.6	2 11	10 14.24	+29 49.9	2.397	3.350	5.2	22.0
2 21	10 4.22	+10 57.2	1.836	2.824	0.9	19.4	2 21	10 4.32	+30 30.2	2.395	3.342	5.7	22.0
3 2	9 54.34	+11 29.6	1.865	2.835	5.1	19.7	3 2	9 54.53	+30 53.3	2.422	3.334	7.8	22.1
3 12	9 45.75	+11 55.9	1.924	2.845	9.1	20.0	3 12	9 45.80	+30 57.6	2.476	3.325	10.3	22.2
3 22	9 39.20	+12 13.3	2.007	2.855	12.6	20.2	3 22	9 38.85	+30 43.8	2.553	3.315	12.7	22.4
51275	2000 <i>JW</i> ₇₈		2 18.9 164°71	4°4/14.5	18		157564	2005 <i>UQ</i> ₁₃₂		2 18.9 174°57	1°5/17.6	18	
1 12	10 32.21	+23 37.6	2.407	3.208	11.8	19.6	1 12	10 35.18	+11 39.1	1.902	2.687	15.0	20.8
1 22	10 27.76	+24 32.2	2.328	3.210	9.2	19.4	1 22	10 30.55	+12 37.3	1.816	2.691	11.7	20.6
2 1	10 21.25	+25 28.6	2.275	3.212	6.5	19.2	2 1	10 23.41	+13 49.2	1.754	2.694	7.7	20.3
2 11	10 13.24	+26 20.4	2.250	3.213	4.5	19.1	2 11	10 14.35	+15 8.7	1.718	2.696	3.5	20.1
2 21	10 4.51	+27 1.8	2.254	3.215	4.9	19.1	2 21	10 4.29	+16 28.1	1.712	2.697	2.2	20.0
3 2	9 55.96	+27 28.4	2.287	3.216	7.3	19.3	3 2	9 54.37	+17 39.4	1.736	2.698	6.3	20.2
3 12	9 48.49	+27 38.1	2.346	3.217	10.0	19.4	3 12	9 45.72	+18 36.6	1.788	2.697	10.5	20.5
3 22	9 42.76	+27 30.9	2.430	3.218	12.5	19.6	3 22	9 39.18	+19 16.7	1.864	2.696	14.1	20.7
423252	2004 <i>TU</i> ₁₉₄		2 18.9 193°02	2°8/16.7	17		237367	1994 <i>PY</i> ₃₅		2 18.9 170°28	0°5/19.6	18	
1 12	10 29.08	+17 51.0	2.033	2.832	13.7	20.9	1 12	10 30.01	+ 6 31.8	2.638	3.397	12.0	21.3
1 22	10 29.08	+18 24.1	1.949	2.832	10.6	20.7	1 22	10 25.79	+ 7 7.5	2.544	3.401	9.4	21.1
2 1	10 22.30	+19 3.2	1.889	2.831	7.1	20.5	2 1	10 19.84	+ 7 55.4	2.475	3.405	6.4	20.9
2 11	10 13.77	+19 42.7	1.855	2.831	3.7	20.2	2 11	10 12.62	+ 8 52.3	2.433	3.408	3.1	20.7
2 21	10 4.37	+20 16.5	1.851	2.830	3.4	20.2	2 21	10 4.76	+ 9 54.0	2.422	3.410	0.7	20.5
3 2	9 55.17	+20 39.5	1.875	2.830	6.6	20.4	3 2	9 56.98	+10 55.5	2.442	3.412	4.1	20.8
3 12	9 47.20	+20 48.7	1.927	2.829	10.2	20.6	3 12	9 50.03	+11 52.2	2.492	3.413	7.3	21.0
3 22	9 41.23	+20 43.2	2.002	2.828	13.4	20.8	3 22	9 44.49	+12 40.6	2.568	3.413	10.2	21.2
417626	2006 <i>WD</i> ₁₆₄		2 18.9 202°25	1°6/20.3	16		285186	1996 <i>TK</i> ₃₉		2 18.9 110°72	5°9/14.2	18	
1 12	10 31.72	+ 4 40.9	2.022	2.786	15.0	22.1	1 12	10 39.62	+27 46.9	2.084	2.882	13.5	20.3
1 22	10 27.70	+ 4 55.9	1.926	2.784	12.0	21.9	1 22	10 33.68	+28 38.7	2.024	2.899	10.7	20.1
2 1	10 21.42	+ 5 26.9	1.853	2.781	8.4	21.6	2 1	10 25.24	+29 28.0	1.987	2.915	7.9	20.0
2 11	10 13.40	+ 6 11.3	1.805	2.777	4.4	21.4	2 11	10 15.06	+30 7.2	1.978	2.931	6.0	19.9
2 21	10 4.46	+ 7 4.9	1.787	2.773	1.6	21.2	2 21	10 4.16	+30 29.7	1.997	2.947	6.5	19.9
3 2	9 55.59	+ 8 1.9	1.797	2.769	5.0	21.4	3 2	9 53.73	+30 32.0	2.044	2.962	8.7	20.1
3 12	9 47.81	+ 8 56.1	1.836	2.765	9.0	21.6	3 12	9 44.85	+30 13.7	2.118	2.976	11.4	20.3
3 22	9 41.90	+ 9 42.7	1.900	2.760	12.6	21.8	3 22	9 38.21	+29 37.3	2.215	2.991	14.0	20.5
38980	Gaoyaojie		2 18.9 143°37	3°3/16.0	18		399648	2004 <i>RN</i> ₈₆		2 18.9 128°14	0°8/18.3	18	
1 12	10 37.03	+18 17.7	2.107	2.898	13.6	19.6	1 12	10 37.34	+11 17.3	1.878	2.659	15.4	21.9
1 22	10 31.62	+19 15.2	2.034	2.912	10.5	19.4	1 22	10 32.04	+11 49.1	1.805	2.677	11.9	21.7
2 1	10 23.88	+20 18.8	1.985	2.925	7.0	19.2	2 1	10 24.25	+12 32.6	1.755	2.693	7.9	21.5
2 11	10 14.44	+21 21.6	1.965	2.938	3.9	19.1	2 11	10 14.66	+13 22.5	1.731	2.709	3.5	21.3
2 21	10 4.22	+22 16.8	1.974	2.949	3.9	19.1	2 21	10 4.26	+14 12.6	1.737	2.724	1.5	21.2
3 2	9 54.27	+22 58.5	2.013	2.960	6.9	19.3	3 2	9 54.18	+14 56.9	1.773	2.738	5.8	21.5
3 12	9 45.63	+23 23.7	2.081	2.970	10.2	19.5	3 12	9 45.52	+15 30.5	1.836	2.752	9.8	21.8
3 22	9 39.02	+23 31.9	2.172	2.979	13.2	19.7	3 22	9 39.04	+15 51.2	1.924	2.764	13.3	22.0
459962	2014 <i>NN</i> ₆₃		2 18.9 82°34	8°8/27.6	18		46643	Yanase		2 18.9 65°64	4°7/23.6	18	
1 12	10 33.16	-14 50.8	1.964	2.623	18.5	20.8	1 12	10 28.38	- 4 33.5	2.137	2.861	15.5	18.7
1 22	10 28.71	-15 38.0	1.894	2.649	16.2	20.7	1 22	10 24.91	- 4 42.8	2.050	2.870	12.9	18.5
2 1	10 21.97	-15 58.6	1.842	2.676	13.6	20.5	2 1	10 19.44	- 4 32.1	1.984	2.878	9.9	18.3
2 11	10 13.59	-15 50.0	1.811	2.701	11.0	20.4	2 11	10 12.50	- 4 1.6	1.942	2.887	6.9	18.2
2 21	10 4.44	-15 12.5	1.805	2.727	9.2	20.4	2 21	10 4.81	- 3 13.6	1.927	2.896	4.9	18.0
3 2	9 55.59	-14 10.1	1.825	2.752	8.9	20.4	3 2	9 57.27	- 2 12.8	1.941	2.905	5.6	18.1
3 12	9 48.01	-12 50.0	1.871	2.777	10.3	20.5	3 12	9 50.74	- 1 5.5	1.983	2.914	8.3	18.3
3 22	9 42.43	-11 21.2	1.942	2.801	12.4	20.7	3 22	9 45.88	+ 0 2.0	2.050	2.923	11.3	18.5
54330	2000 <i>KH</i> ₇		2 18.9 223°49	4°8/13.5	18		44660	1999 <i>RQ</i> ₁₆₉		2 18.9 121°83	2°0/20.4	18	
1 12	10 30.53	+24 26.7	2.451	3.255	11.5	19.1	1 12	10 35.24	+ 4 10.0	1.510	2.288	18.6	19.7
1 22	10 26.54	+25 38.8	2.368	3.251	9.0	18.9	1 22	10 31.04	+ 4 22.1	1.435	2.299	14.9	19.5
2 1	10 20.50	+26 53.2	2.311	3.246	6.5	18.8	2 1	10 23.94	+ 4 54.9	1.379	2.310	10.4	19.3
2 11	10 12.95	+28 3.0	2.282	3.241	4.9	18.7	2 11	10 14.64	+ 5 45.2	1.348	2.320	5.5	19.0
2 21	10 4.60	+29 1.9	2.282	3.236	5.5	18.7	2 21	10 4.26	+ 6 47.1	1.343	2.330	2.0	18.8
3 2	9 56.35	+29 44.5	2.310	3.230	7.7	18.8	3 2	9 54.17	+ 7 52.4	1.366	2.339	6.0	19.1
3 12	9 49.09	+30 8.3	2.365	3.224	10.4	19.0	3 12	9 45.69	+ 8 53.1	1.416	2.348	10.8	19.4
3 22	9 43.52	+30 13.3	2.443	3.219	12.8	19.1	3 22	9 39.73	+ 9 43.2	1.489	2.357	15.0	19.7
130534	2000 <i>QX</i> ₂₀₄		2 18.9 114°15	0°8/19.6	18		387165	2012 <i>TN</i> ₂₄₇		2 18.9 216°89	0°8/18.3	17	
1 12	10 35.37	+ 6 12.5	1.876	2.644	15.8	21.1	1 12	10 31.69	+12 59.7	2.412	3.194	12.3	21.2
1 22	10 30.45	+ 6 42.2	1.804	2.666	12.5	21.0	1 22	10 27.28	+13 12.2	2.319	3.192	9.6	21.0
2 1	10 23.14	+ 7 27.6	1.755	2.687	8.5	20.8	2 1	10 20.92	+13 32.1	2.251	3.190	6.4	20.8
2 11	10 14.12	+ 8 24.8	1.732	2.707	4.1	20.5	2 11	10 13.15	+13 55.9	2.211	3.189	2.8	20.5
2 21	10 4.33	+ 9 27.7	1.738	2.726	1.0	20.3	2 21	10 4.65	+14 19.8	2.200	3.187	1.3	20.4
3 2	9 54.87	+10 29.7	1.774	2.745	5.2	20.7	3 2	9 56.28	+14 39.8	2.219	3.185	4.8	20.7
3 12	9 46.78	+11 24.5	1.839	2.763	9.3	20.9	3 12	9 48.88	+14 52.8	2.267	3.183	8.2	20.9
3 22	9 40.77	+12 8.3	1.928	2.780	12.8	21.2	3 22	9 43.08	+14 57.0	2.340	3.181	11.3	21.1
436284	2010 <i>CW</i> ₁₈₅		2 18.9 173°59	9°4/ 5.7	16		239214	2006 <i>QA</i> ₅₆		2 18.9 244°10	0°0/18.9	17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
44018	1997 <i>WL</i> ₃₆		2 18.9 124° 97'	2° 6'/21.1	18		199394	2006 <i>BU</i> ₂₆₄		2 18.9 106° 67'	0° 1'/18.9	18	
1 12	10 35.43	+ 2 14.5	1.860	2.613	16.5	19.2	1 12	10 30.39	+ 8 48.4	2.127	2.906	13.9	21.1
1 22	10 30.59	+ 2 19.0	1.782	2.629	13.3	19.0	1 22	10 26.47	+ 9 25.3	2.047	2.917	10.8	21.0
2 1	10 23.32	+ 2 41.6	1.725	2.645	9.5	18.8	2 1	10 20.48	+10 14.9	1.991	2.928	7.2	20.8
2 11	10 14.27	+ 3 20.1	1.694	2.660	5.4	18.6	2 11	10 12.99	+11 13.2	1.961	2.938	3.2	20.5
2 21	10 4.38	+ 4 10.3	1.691	2.674	2.6	18.5	2 21	10 4.77	+12 14.5	1.961	2.949	0.9	20.4
3 2	9 54.75	+ 5 6.2	1.717	2.688	5.3	18.7	3 2	9 56.74	+13 12.9	1.990	2.959	4.9	20.7
3 12	9 46.46	+ 6 1.3	1.771	2.701	9.2	18.9	3 12	9 49.81	+14 3.2	2.048	2.969	8.7	20.9
3 22	9 40.27	+ 6 50.1	1.851	2.713	12.8	19.2	3 22	9 44.61	+14 42.1	2.130	2.979	11.9	21.1
104857	2000 <i>HT</i> ₇₇		2 18.9 339° 20'	4° 8'/23.2	18		342954	2009 <i>AS</i> ₄₈		2 18.9 37° 52'	2° 8'/21.4	18	
1 12	10 28.29	- 3 24.7	2.057	2.790	15.7	19.0	1 12	10 30.44	+ 2 28.3	2.185	2.938	14.3	20.3
1 22	10 25.03	- 3 44.6	1.960	2.787	13.1	18.8	1 22	10 26.48	+ 2 12.4	2.095	2.941	11.6	20.2
2 1	10 19.65	- 3 45.3	1.885	2.784	10.1	18.6	2 1	10 20.50	+ 2 10.7	2.027	2.945	8.4	20.0
2 11	10 12.65	- 3 26.5	1.833	2.781	7.0	18.4	2 11	10 13.01	+ 2 22.2	1.985	2.948	5.0	19.8
2 21	10 4.78	- 2 49.9	1.808	2.778	4.9	18.2	2 21	10 4.76	+ 2 44.4	1.970	2.952	2.8	19.6
3 2	9 56.97	- 1 59.6	1.811	2.776	5.8	18.3	3 2	9 56.65	+ 3 13.7	1.986	2.956	4.8	19.8
3 12	9 50.16	- 1 1.7	1.842	2.774	8.7	18.4	3 12	9 49.54	+ 3 45.3	2.029	2.960	8.1	20.0
3 22	9 45.09	- 0 2.4	1.897	2.772	11.9	18.6	3 22	9 44.12	+ 4 15.0	2.097	2.964	11.3	20.2
67372	2000 <i>NU</i> ₁₂		2 18.9 49° 31'	3° 2'/22.1	18		425753	2011 <i>BR</i> ₁₆₁		2 18.9 45° 13'	5° 1'/22.6	18	
1 12	10 28.92	- 6 22.7	1.214	1.977	23.1	17.6	1 12	10 32.29	- 1 11.5	1.618	2.374	18.5	20.6
1 22	10 26.46	- 4 36.6	1.158	2.008	18.7	17.4	1 22	10 28.48	- 1 48.4	1.547	2.390	15.2	20.4
2 1	10 20.95	- 2 8.2	1.120	2.039	13.5	17.2	2 1	10 22.08	- 2 4.4	1.496	2.406	11.4	20.2
2 11	10 13.27	+ 0 55.1	1.106	2.071	7.7	17.0	2 11	10 13.78	- 1 59.2	1.468	2.422	7.6	20.0
2 21	10 4.66	+ 4 17.9	1.118	2.103	3.3	16.8	2 21	10 4.58	- 1 35.2	1.465	2.440	5.1	19.9
3 2	9 56.59	+ 7 40.2	1.160	2.136	6.3	17.1	3 2	9 55.70	- 0 57.2	1.490	2.457	6.5	20.0
3 12	9 50.38	+10 43.5	1.229	2.168	11.4	17.4	3 12	9 48.27	- 0 12.2	1.541	2.475	9.9	20.3
3 22	9 46.82	+13 16.2	1.322	2.201	15.9	17.8	3 22	9 43.10	+ 0 33.0	1.615	2.493	13.5	20.5
323459	2004 <i>JW</i> ₁₇		2 18.9 323° 44'	9° 3'/24.9	18		273931	2007 <i>JY</i> ₄		2 18.9 170° 47'	3° 2'/16.0	18	
1 12	10 27.25	- 8 12.1	1.498	2.236	20.5	20.5	1 12	10 32.04	+18 22.5	2.103	2.904	13.3	20.7
1 22	10 25.27	- 9 20.1	1.397	2.215	17.9	20.3	1 22	10 27.93	+19 13.2	2.021	2.905	10.2	20.5
2 1	10 20.45	-10 3.6	1.312	2.195	14.8	20.0	2 1	10 21.56	+20 10.2	1.963	2.906	6.9	20.3
2 11	10 13.26	-10 17.6	1.248	2.176	11.6	19.8	2 11	10 13.52	+21 7.3	1.932	2.906	3.8	20.1
2 21	10 4.59	- 9 59.8	1.206	2.158	9.5	19.6	2 21	10 4.64	+21 58.0	1.931	2.907	3.8	20.1
3 2	9 55.71	- 9 11.8	1.187	2.140	9.8	19.6	3 2	9 55.93	+22 36.5	1.958	2.907	6.9	20.3
3 12	9 48.07	- 8 0.9	1.193	2.124	12.5	19.7	3 12	9 48.39	+22 59.4	2.013	2.908	10.2	20.5
3 22	9 42.82	- 6 37.7	1.220	2.108	16.2	19.8	3 22	9 42.74	+23 5.8	2.091	2.908	13.3	20.7
378722	2008 <i>QG</i> ₁₇		2 18.9 191° 66'	0° 5'/18.5	17		97147	1999 <i>VY</i> ₁₄₈		2 18.9 195° 20'	1° 5'/17.6	18	
1 12	10 33.15	+11 42.3	2.491	3.264	12.2	22.1	1 12	10 30.79	+13 15.3	2.231	3.020	13.0	20.4
1 22	10 28.36	+11 59.8	2.395	3.263	9.5	21.9	1 22	10 26.80	+13 55.6	2.141	3.019	10.1	20.2
2 1	10 21.64	+12 25.6	2.324	3.261	6.4	21.7	2 1	10 20.75	+14 45.4	2.076	3.017	6.6	20.0
2 11	10 13.48	+12 56.5	2.281	3.258	2.8	21.5	2 11	10 13.14	+15 40.1	2.038	3.016	3.0	19.7
2 21	10 4.60	+13 28.2	2.268	3.255	1.1	21.3	2 21	10 4.74	+16 34.0	2.029	3.014	2.0	19.7
3 2	9 55.81	+13 56.9	2.286	3.252	4.6	21.6	3 2	9 56.45	+17 21.6	2.050	3.012	5.5	19.9
3 12	9 47.97	+14 18.9	2.333	3.248	8.1	21.8	3 12	9 49.18	+17 58.5	2.099	3.010	9.1	20.1
3 22	9 41.70	+14 32.2	2.406	3.244	11.1	22.0	3 22	9 43.62	+18 22.3	2.173	3.007	12.2	20.3
453236	2008 <i>PQ</i> ₈		2 18.9 206° 13'	1° 8'/20.3	18		214234	2005 <i>EQ</i> ₁₆₄		2 18.9 232° 40'	0° 5'/18.6	16	
1 12	10 36.20	+ 4 49.5	1.895	2.655	16.0	22.3	1 12	10 32.93	+10 1.1	2.027	2.808	14.4	21.8
1 22	10 31.44	+ 4 56.7	1.795	2.650	12.8	22.0	1 22	10 28.80	+10 34.8	1.926	2.797	11.3	21.6
2 1	10 24.10	+ 5 20.3	1.717	2.643	9.0	21.8	2 1	10 22.29	+11 21.9	1.847	2.785	7.6	21.3
2 11	10 14.75	+ 5 58.1	1.665	2.636	4.8	21.5	2 11	10 13.93	+12 18.2	1.795	2.773	3.4	21.0
2 21	10 4.26	+ 6 45.8	1.641	2.628	1.8	21.3	2 21	10 4.52	+13 18.0	1.772	2.760	1.2	20.8
3 2	9 53.79	+ 7 37.6	1.647	2.619	5.4	21.5	3 2	9 55.10	+14 14.8	1.779	2.746	5.6	21.1
3 12	9 44.51	+ 8 27.1	1.682	2.609	9.8	21.7	3 12	9 46.76	+15 2.8	1.813	2.732	9.8	21.3
3 22	9 37.35	+ 9 9.2	1.741	2.598	13.7	22.0	3 22	9 40.32	+15 38.3	1.873	2.717	13.5	21.5
416282	2003 <i>KE</i> ₃₁		2 18.9 226° 58'	0° 1'/19.0	17		377634	2005 <i>TL</i> ₅₂		2 18.9 181° 81'	14° 8'/1.3	18 R	
1 12	10 33.31	+ 7 31.7	2.133	2.902	14.2	23.1	1 12	10 34.45	-21 29.0	1.452	2.098	24.5	20.9
1 22	10 29.00	+ 8 15.1	2.025	2.888	11.2	22.8	1 22	10 31.11	-23 1.2	1.369	2.099	22.4	20.7
2 1	10 22.39	+ 9 14.3	1.940	2.874	7.6	22.6	2 1	10 24.49	-23 58.9	1.298	2.100	20.0	20.5
2 11	10 13.96	+10 25.4	1.882	2.858	3.5	22.3	2 11	10 15.15	-24 13.1	1.244	2.100	17.5	20.3
2 21	10 4.46	+11 42.8	1.854	2.842	0.9	22.1	2 21	10 4.19	-23 38.2	1.209	2.099	15.5	20.2
3 2	9 54.89	+12 59.3	1.857	2.825	5.3	22.3	3 2	9 53.18	-22 14.6	1.195	2.098	14.8	20.1
3 12	9 46.30	+14 8.3	1.888	2.807	9.4	22.5	3 12	9 43.78	-20 11.4	1.203	2.096	15.8	20.2
3 22	9 39.52	+15 5.0	1.945	2.788	13.1	22.7	3 22	9 37.21	-17 43.5	1.232	2.093	17.9	20.3
94681	2001 <i>XA</i> ₂₄		2 18.9 156° 11'	1° 2'/18.1	18		135088	2001 <i>QV</i> ₅₇		2 18.9 212° 43'	1° 2'/17.7	17	
1 12	10 37.02	+12 24.1	1.934	2.716	14.9	20.6	1 12	10 28.42	+11 49.1	2.490	3.273	11.9	20.5
1 22	10 31.85	+12 55.7	1.852	2.725	11.6	20.4	1 22	10 24.79	+12 41.8	2.395	3.270	9.2	20.3
2 1	10 24.20	+13 38.0	1.793	2.733	7.7	20.2	2 1	10 19.32	+13 45.0	2.325	3.266	6.1	20.1
2 11	10 14.71	+14 25.9	1.762	2.740	3.4	20.0	2 11	10 12.48	+14 54.0	2.283	3.262	2.7	19.8
2 21	10 4.31	+15 13.4	1.759	2.746	1.8	19.8	2 21	10 4.92	+16 3.6	2.272	3.257	1.7	19.8
3 2	9 54.14	+15 54.3	1.787	2.751	5.9	20.1	3 2	9 57.42	+17 8.1	2.291	3.253	5.0	20.0
3 12	9 45.31	+16 24.2	1.843	2.756	10.0	20.4	3 12	9 50.76	+18 2.7	2.338	3.248	8.3	20.2
3 22	9 38.61	+16 40.9	1.923	2.760	13.5	20.6	3 22	9 45.58	+18 44.6	2.411	3.243	11.3	20.4
170230	2003 <i>QK</i> ₂₀		2 18.9 128° 76'	0° 8'/18.3	18		188747	2005 <i>UU</i> ₁₆₅	</				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
154796	2004 <i>PX</i> ₇₄		2 18.9 157°35'	1°0/19.9	18		294306	2007 <i>VO</i> ₂₅		2 18.9 248°01'	4°1/15.7	18	
1 12	10 29.62	+ 5 25.8	1.994	2.767	14.9	20.7	1 12	10 33.45	+18 12.4	1.713	2.523	15.4	20.9
1 22	10 26.10	+ 5 55.8	1.905	2.769	11.8	20.5	1 22	10 29.72	+19 18.9	1.625	2.514	12.0	20.7
2 1	10 20.39	+ 6 42.3	1.838	2.770	8.1	20.3	2 1	10 23.18	+20 35.3	1.560	2.505	8.1	20.4
2 11	10 13.02	+ 7 41.9	1.797	2.771	4.0	20.1	2 11	10 14.44	+21 53.6	1.521	2.495	4.7	20.2
2 21	10 4.79	+ 8 49.4	1.784	2.772	1.1	19.8	2 21	10 4.46	+23 4.3	1.510	2.485	4.9	20.2
3 2	9 56.67	+ 9 58.1	1.801	2.773	5.0	20.1	3 2	9 54.55	+23 59.1	1.527	2.475	8.5	20.4
3 12	9 49.64	+11 1.5	1.845	2.774	9.0	20.4	3 12	9 46.03	+24 32.8	1.569	2.464	12.6	20.6
3 22	9 44.44	+11 54.9	1.915	2.775	12.6	20.6	3 22	9 39.88	+24 44.1	1.633	2.454	16.2	20.8
265323	2004 <i>NA</i> ₂₃		2 18.9 190°37'	1°5/20.4	17		225175	2008 <i>HG</i> ₁₁		2 18.9 185°44'	3°5/22.8	18	
1 12	10 34.43	+ 5 42.2	2.672	3.417	12.2	20.9	1 12	10 29.94	- 3 10.6	2.431	3.149	13.9	21.5
1 22	10 29.21	+ 5 38.3	2.570	3.416	9.7	20.8	1 22	10 25.97	- 2 54.8	2.329	3.149	11.5	21.3
2 1	10 22.16	+ 5 44.6	2.491	3.414	6.8	20.6	2 1	10 20.12	- 2 20.3	2.250	3.149	8.7	21.1
2 11	10 13.74	+ 5 59.5	2.441	3.411	3.6	20.3	2 11	10 12.87	- 1 28.2	2.196	3.148	5.7	21.0
2 21	10 4.62	+ 6 20.6	2.421	3.407	1.5	20.2	2 21	10 4.87	- 0 21.5	2.171	3.146	3.6	20.8
3 2	9 55.55	+ 6 44.4	2.433	3.403	4.1	20.4	3 2	9 56.92	+ 0 54.9	2.177	3.144	4.7	20.9
3 12	9 47.35	+ 7 7.7	2.475	3.398	7.3	20.6	3 12	9 49.83	+ 2 14.9	2.212	3.141	7.6	21.1
3 22	9 40.61	+ 7 27.3	2.544	3.393	10.2	20.7	3 22	9 44.25	+ 3 32.3	2.274	3.138	10.6	21.2
21048	1990 <i>SV</i> ₉		2 18.9 166°57'	0°3/18.8	18		427430	2000 <i>SM</i> ₃₄₃		2 18.9 231°10'	3°4/23.1	17	
1 12	10 35.12	+ 8 41.5	1.565	2.355	17.5	19.6	1 12	10 27.14	- 3 42.3	2.843	3.554	12.3	21.9
1 22	10 31.02	+ 9 20.9	1.484	2.359	13.8	19.3	1 22	10 23.58	- 3 28.3	2.730	3.544	10.2	21.7
2 1	10 24.02	+ 10 18.3	1.423	2.363	9.3	19.1	2 1	10 18.43	- 2 58.0	2.639	3.534	7.8	21.5
2 11	10 14.77	+ 11 28.4	1.388	2.365	4.2	18.8	2 11	10 12.08	- 2 12.0	2.575	3.523	5.2	21.3
2 21	10 4.35	+ 12 43.1	1.380	2.368	1.3	18.5	2 21	10 5.08	- 1 12.8	2.540	3.512	3.5	21.2
3 2	9 54.11	+ 13 53.6	1.400	2.369	6.5	18.9	3 2	9 58.06	- 0 4.1	2.535	3.501	4.3	21.2
3 12	9 45.41	+ 14 52.3	1.447	2.370	11.4	19.2	3 12	9 51.73	+ 1 9.0	2.560	3.489	6.8	21.4
3 22	9 39.19	+ 15 34.6	1.516	2.371	15.6	19.4	3 22	9 46.62	+ 2 21.5	2.613	3.477	9.4	21.5
226101	2002 <i>PL</i> ₃₂		2 18.9 275°81'	0°7/19.5	18		280755	2005 <i>QN</i> ₇₀		2 19.0 165°12'	1°2/19.9	18	
1 12	10 31.73	+ 6 31.8	1.402	2.200	18.8	20.3	1 12	10 34.35	+ 4 43.4	1.770	2.539	16.6	21.3
1 22	10 28.97	+ 6 57.8	1.305	2.184	15.1	20.0	1 22	10 30.07	+ 5 18.3	1.684	2.545	13.2	21.0
2 1	10 23.06	+ 7 46.3	1.228	2.167	10.4	19.7	2 1	10 23.21	+ 6 12.6	1.619	2.549	9.1	20.8
2 11	10 14.52	+ 8 54.0	1.173	2.150	5.0	19.3	2 11	10 14.37	+ 7 22.6	1.580	2.553	4.6	20.5
2 21	10 4.37	+ 10 13.6	1.145	2.133	1.2	19.0	2 21	10 4.51	+ 8 41.8	1.569	2.557	1.3	20.3
3 2	9 54.09	+ 11 35.2	1.143	2.116	6.9	19.3	3 2	9 54.78	+ 10 2.1	1.588	2.559	5.5	20.6
3 12	9 45.27	+ 12 48.5	1.166	2.099	12.6	19.6	3 12	9 46.38	+ 11 15.6	1.634	2.561	10.0	20.9
3 22	9 39.14	+ 13 46.2	1.211	2.082	17.5	19.8	3 22	9 40.16	+ 12 16.7	1.705	2.562	14.0	21.1
435314	2007 <i>UV</i> ₉₉		2 18.9 112°96'	6°0/26.0	18		4187	Shulnazaria		2 19.0 321°88'	0°3/19.3	18	
1 12	10 29.31	- 11 22.3	2.715	3.377	13.8	21.4	1 12	10 28.39	+ 8 32.1	2.040	2.825	14.2	17.4
1 22	10 25.20	- 11 45.3	2.627	3.392	11.9	21.3	1 22	10 25.19	+ 8 51.6	1.944	2.816	11.2	17.2
2 1	10 19.44	- 11 49.5	2.560	3.407	9.8	21.1	2 1	10 19.82	+ 9 24.3	1.870	2.807	7.6	16.9
2 11	10 12.49	- 11 34.1	2.516	3.422	7.7	21.0	2 11	10 12.81	+ 10 6.9	1.822	2.799	3.5	16.7
2 21	10 4.95	- 11 0.0	2.500	3.436	6.2	21.0	2 21	10 4.90	+ 10 54.6	1.803	2.791	0.8	16.4
3 2	9 57.54	- 10 10.0	2.512	3.451	6.2	21.0	3 2	9 57.05	+ 11 42.0	1.813	2.784	5.0	16.7
3 12	9 50.96	- 9 9.0	2.552	3.464	7.6	21.1	3 12	9 50.22	+ 12 23.5	1.849	2.776	9.1	17.0
3 22	9 45.75	- 8 2.3	2.619	3.478	9.6	21.2	3 22	9 45.17	+ 12 55.4	1.911	2.769	12.6	17.2
85343	1995 <i>SX</i> ₅₃		2 18.9 72°37'	3°6/21.3	18		245099	2004 <i>PQ</i> ₃₇		2 19.0 251°38'	0°2/19.2	17	
1 12	10 41.64	+ 3 16.4	1.922	2.664	16.4	19.0	1 12	10 35.09	+ 10 17.5	2.124	2.899	14.0	20.8
1 22	10 35.14	+ 2 21.9	1.852	2.691	13.2	18.9	1 22	10 30.36	+ 10 16.5	2.019	2.885	11.1	20.6
2 1	10 26.20	+ 1 40.8	1.804	2.717	9.6	18.7	2 1	10 23.29	+ 10 25.2	1.936	2.871	7.5	20.4
2 11	10 15.55	+ 1 13.2	1.783	2.744	5.9	18.5	2 11	10 14.41	+ 10 40.8	1.880	2.857	3.5	20.1
2 21	10 4.20	+ 0 57.7	1.791	2.770	3.6	18.4	2 21	10 4.50	+ 10 59.7	1.854	2.842	0.8	19.8
3 2	9 53.29	+ 0 52.0	1.830	2.796	5.6	18.6	3 2	9 54.60	+ 11 17.6	1.857	2.827	5.1	20.1
3 12	9 43.88	+ 0 52.2	1.897	2.822	9.0	18.8	3 12	9 45.75	+ 11 30.6	1.889	2.811	9.2	20.3
3 22	9 36.66	+ 0 54.6	1.990	2.847	12.2	19.1	3 22	9 38.78	+ 11 36.1	1.946	2.795	12.8	20.5
428412	2007 <i>TX</i> ₉₇		2 18.9 355°96'	7°4/26.8	17		460648	2014 <i>UT</i> ₁₂₆		2 19.0 342°61'	5°9/23.2	18	
1 12	10 23.73	- 12 24.5	1.855	2.554	18.3	21.0	1 12	10 31.29	- 3 23.7	1.688	2.431	18.3	21.0
1 22	10 21.80	- 12 25.7	1.760	2.551	15.9	20.8	1 22	10 27.88	- 4 1.8	1.598	2.429	15.3	20.8
2 1	10 17.67	- 11 57.2	1.683	2.548	13.1	20.6	2 1	10 21.86	- 4 18.5	1.527	2.428	11.9	20.6
2 11	10 11.84	- 10 57.1	1.627	2.546	10.1	20.4	2 11	10 13.82	- 4 12.2	1.479	2.426	8.3	20.4
2 21	10 5.10	- 9 27.2	1.595	2.545	7.8	20.3	2 21	10 4.65	- 3 44.2	1.456	2.425	6.0	20.2
3 2	9 58.43	- 7 33.2	1.590	2.545	7.6	20.3	3 2	9 55.56	- 2 58.5	1.460	2.424	7.0	20.3
3 12	9 52.83	- 5 25.0	1.612	2.545	9.7	20.4	3 12	9 47.74	- 2 2.4	1.490	2.423	10.3	20.4
3 22	9 49.07	- 3 13.6	1.660	2.546	12.7	20.6	3 22	9 42.11	- 1 3.6	1.543	2.422	14.0	20.7
109335	2001 <i>QP</i> ₁₄₃		2 18.9 197°19'	1°4/20.5	18		159368	1979 <i>QB</i>		2 19.0 121°63'	0°3/18.7	18	
1 12	10 27.61	+ 3 43.5	2.381	3.139	13.1	20.9	1 12	10 38.79	+ 10 4.4	2.259	3.021	13.7	22.0
1 22	10 24.19	+ 4 12.2	2.285	3.138	10.5	20.7	1 22	10 32.67	+ 10 37.0	2.189	3.049	10.6	21.8
2 1	10 18.94	+ 4 55.9	2.212	3.138	7.3	20.5	2 1	10 24.45	+ 11 19.8	2.142	3.076	7.0	21.6
2 11	10 12.32	+ 5 52.1	2.166	3.137	3.9	20.3	2 11	10 14.77	+ 12 8.6	2.124	3.101	3.1	21.4
2 21	10 5.00	+ 6 56.6	2.150	3.136	1.4	20.1	2 21	10 4.47	+ 12 58.2	2.137	3.125	1.0	21.3
3 2	9 57.74	+ 8 4.1	2.163	3.135	4.2	20.3	3 2	9 54.50	+ 13 43.3	2.182	3.148	4.8	21.6
3 12	9 51.35	+ 9 8.9	2.205	3.134	7.7	20.5	3 12	9 45.77	+ 14 20.1	2.257	3.170	8.4	21.9
3 22	9 46.45	+ 10 6.4	2.274	3.133	10.8	20.7	3 22	9 38.91	+ 14 46.2	2.357	3.191	11.4	22.1
399657	2004 <i>RJ</i> ₁₈₃		2 18.9 165°										