

EPHEMERIDES

3 9.9

3 10.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
153377	2001 QY ₂₂		3 9.9 153°78	0°1/10.1 18			322828	2001 SD ₂₉₄		3 9.9 149°07	0°8/10.9 18		
2 1	11 49.46	+ 0 9.6	1.887	2.666	15.5	20.7	2 1	11 47.19	- 1 48.4	2.508	3.265	12.7	22.1
2 11	11 44.87	+ 0 46.2	1.805	2.675	12.2	20.4	2 11	11 42.51	- 1 18.1	2.421	3.278	10.0	21.9
2 21	11 37.95	+ 1 39.1	1.744	2.684	8.2	20.2	2 21	11 36.08	- 0 34.3	2.358	3.289	6.8	21.8
3 2	11 29.27	+ 2 44.3	1.710	2.691	3.8	20.0	3 2	11 28.37	+ 0 20.0	2.323	3.300	3.4	21.6
3 12	11 19.77	+ 3 55.2	1.705	2.698	0.9	19.8	3 12	11 20.08	+ 1 20.5	2.317	3.310	0.9	21.4
3 22	11 10.50	+ 5 4.4	1.729	2.704	5.4	20.1	3 22	11 11.96	+ 2 21.8	2.343	3.319	4.1	21.6
4 1	11 2.46	+ 6 5.0	1.781	2.710	9.7	20.4	4 1	11 4.74	+ 3 18.8	2.398	3.328	7.4	21.8
4 11	10 56.43	+ 6 52.0	1.858	2.714	13.3	20.6	4 11	10 59.01	+ 4 7.2	2.480	3.335	10.4	22.1
110065	2001 SU ₁₀₉		3 9.9 51°76	6°5/ 3.7 18			345628	2006 SO ₃₀₀		3 9.9 114°37	1°8/ 7.7 17		
2 1	11 53.09	+24 38.5	2.301	3.104	12.3	18.5	2 1	11 44.44	+ 7 59.1	2.744	3.535	10.8	21.9
2 11	11 47.31	+25 16.1	2.229	3.105	9.9	18.3	2 11	11 40.21	+ 8 42.0	2.670	3.552	8.3	21.8
2 21	11 39.35	+25 48.8	2.181	3.105	7.7	18.2	2 21	11 34.44	+ 9 31.4	2.621	3.568	5.4	21.6
3 2	11 29.82	+26 10.0	2.160	3.106	6.6	18.1	3 2	11 27.59	+10 23.0	2.602	3.583	2.6	21.4
3 12	11 19.66	+26 14.1	2.168	3.107	7.2	18.2	3 12	11 20.28	+11 12.1	2.612	3.598	2.2	21.4
3 22	11 9.84	+25 58.0	2.203	3.107	9.2	18.3	3 22	11 13.18	+11 54.5	2.653	3.613	4.9	21.6
4 1	11 1.29	+25 21.5	2.264	3.108	11.6	18.4	4 1	11 6.89	+12 26.8	2.722	3.628	7.7	21.8
4 11	10 54.67	+24 26.7	2.348	3.109	13.9	18.6	4 11	11 1.94	+12 47.1	2.817	3.642	10.2	22.0
289890	2005 MK ₃₂		3 9.9 210°60	1°2/ 8.5 17			170232	2003 QG ₂₂		3 9.9 162°29	2°2/12.1 18		
2 1	11 45.06	+ 6 51.7	2.991	3.774	10.2	21.2	2 1	11 47.38	- 5 12.1	1.926	2.686	15.9	20.9
2 11	11 40.68	+ 7 17.9	2.891	3.767	7.9	21.0	2 11	11 43.30	- 4 53.5	1.837	2.691	12.8	20.7
2 21	11 34.78	+ 7 50.5	2.817	3.760	5.2	20.9	2 21	11 36.95	- 4 15.4	1.769	2.695	9.1	20.5
3 2	11 27.76	+ 8 26.6	2.771	3.753	2.3	20.6	3 2	11 28.87	- 3 19.8	1.727	2.699	5.1	20.3
3 12	11 20.19	+ 9 2.1	2.756	3.745	1.6	20.6	3 12	11 19.95	- 2 11.7	1.712	2.703	2.2	20.1
3 22	11 12.69	+ 9 33.4	2.772	3.737	4.4	20.8	3 22	11 11.18	- 0 57.9	1.727	2.706	5.0	20.3
4 1	11 5.88	+ 9 57.5	2.817	3.729	7.2	20.9	4 1	11 3.55	+ 0 13.9	1.769	2.708	9.0	20.5
4 11	11 0.29	+10 11.9	2.888	3.720	9.8	21.1	4 11	10 57.85	+ 1 17.0	1.837	2.710	12.7	20.7
422789	2001 WC ₁₇		3 9.9 107°02	0°5/ 9.5 18			246037	2006 UB ₁₅₀		3 9.9 141°19	4°5/ 3.5 17		
2 1	11 48.48	+ 3 9.6	2.005	2.791	14.4	21.9	2 1	11 43.45	+17 25.9	2.736	3.547	10.3	21.4
2 11	11 43.87	+ 3 37.4	1.932	2.808	11.2	21.7	2 11	11 39.58	+18 43.4	2.666	3.555	8.0	21.2
2 21	11 37.12	+ 4 17.3	1.882	2.825	7.4	21.5	2 21	11 34.11	+20 2.5	2.623	3.562	5.8	21.1
3 2	11 28.85	+ 5 5.0	1.859	2.841	3.3	21.2	3 2	11 27.47	+21 17.3	2.608	3.569	4.5	21.0
3 12	11 19.93	+ 5 54.6	1.865	2.857	1.2	21.1	3 12	11 20.31	+22 21.8	2.622	3.576	5.2	21.1
3 22	11 11.31	+ 6 40.3	1.900	2.873	5.3	21.4	3 22	11 13.32	+23 11.5	2.666	3.582	7.3	21.2
4 1	11 3.88	+ 7 17.2	1.963	2.888	9.1	21.7	4 1	11 7.14	+23 43.8	2.736	3.589	9.5	21.4
4 11	10 58.31	+ 7 41.8	2.050	2.903	12.4	21.9	4 11	11 2.33	+23 58.0	2.829	3.594	11.6	21.5
89549	2001 XS ₉₇		3 9.9 149°08	0°7/10.7 18			354706	2005 RO ₂₉		3 9.9 212°11	5°5/18.9 18		
2 1	11 47.92	- 0 26.6	2.382	3.146	13.0	20.2	2 1	11 42.38	-22 7.6	3.313	3.939	12.1	21.5
2 11	11 42.64	- 0 5.5	2.295	3.157	10.3	20.1	2 11	11 38.63	-22 8.2	3.196	3.931	10.6	21.4
2 21	11 36.41	+ 0 28.3	2.232	3.166	7.0	19.9	2 21	11 33.45	-21 50.5	3.097	3.923	8.9	21.2
3 2	11 28.52	+ 1 12.0	2.196	3.175	3.4	19.6	3 2	11 27.19	-21 13.3	3.023	3.914	7.2	21.1
3 12	11 20.01	+ 2 1.2	2.191	3.184	0.8	19.5	3 12	11 20.38	-20 17.6	2.975	3.905	5.9	21.0
3 22	11 11.67	+ 2 50.8	2.215	3.191	4.3	19.7	3 22	11 13.60	-19 6.0	2.956	3.896	5.6	21.0
4 1	11 4.28	+ 3 36.0	2.269	3.198	7.8	20.0	4 1	11 7.43	-17 42.8	2.967	3.886	6.6	21.0
4 11	10 58.48	+ 4 12.7	2.348	3.205	10.9	20.2	4 11	11 2.39	-16 13.6	3.005	3.875	8.4	21.1
284382	2006 SV ₃₅₂		3 9.9 108°81	1°5/11.9 18			334629	2002 VU ₇₈		3 9.9 112°88	0°8/11.1 18		
2 1	11 43.86	- 3 41.9	2.658	3.410	12.1	21.4	2 1	11 44.62	- 2 3.9	2.748	3.504	11.7	21.9
2 11	11 39.84	- 3 27.4	2.574	3.424	9.7	21.3	2 11	11 40.32	- 1 33.3	2.670	3.526	9.2	21.8
2 21	11 34.24	- 3 0.0	2.513	3.438	6.8	21.1	2 21	11 34.51	- 0 50.6	2.616	3.547	6.3	21.6
3 2	11 27.50	- 2 21.6	2.479	3.452	3.7	20.9	3 2	11 27.62	+ 0 1.5	2.590	3.567	3.2	21.4
3 12	11 20.27	- 1 35.8	2.475	3.466	1.5	20.8	3 12	11 20.29	+ 0 58.9	2.594	3.587	0.9	21.3
3 22	11 13.20	- 0 46.8	2.501	3.479	3.7	20.9	3 22	11 13.16	+ 1 56.9	2.629	3.606	3.7	21.5
4 1	11 6.95	+ 0 0.8	2.557	3.492	6.7	21.2	4 1	11 6.84	+ 2 51.0	2.694	3.625	6.7	21.8
4 11	11 2.04	+ 0 42.8	2.639	3.505	9.5	21.4	4 11	11 1.84	+ 3 37.6	2.786	3.643	9.3	22.0
124191	2001 OO ₆₃		3 9.9 136°88	3°9/ 6.5 18			288683	2004 PG ₉₆		3 9.9 233°05	0°7/10.6 17		
2 1	11 51.21	+10 44.4	1.730	2.539	15.4	20.5	2 1	11 48.91	- 0 35.1	1.818	2.597	15.9	21.9
2 11	11 46.40	+11 50.3	1.661	2.552	11.8	20.3	2 11	11 44.83	- 0 13.1	1.715	2.585	12.7	21.7
2 21	11 39.03	+13 5.0	1.616	2.564	7.9	20.0	2 21	11 38.22	+ 0 26.5	1.634	2.572	8.8	21.4
3 2	11 29.77	+14 20.3	1.597	2.575	4.5	19.9	3 2	11 29.56	+ 1 20.9	1.578	2.558	4.2	21.1
3 12	11 19.70	+15 27.1	1.607	2.586	4.7	19.9	3 12	11 19.76	+ 2 24.4	1.551	2.544	1.0	20.8
3 22	11 9.98	+16 18.1	1.644	2.596	8.2	20.1	3 22	11 9.95	+ 3 29.8	1.552	2.529	5.7	21.1
4 1	11 1.72	+16 48.7	1.708	2.605	12.0	20.4	4 1	11 1.27	+ 4 29.5	1.580	2.513	10.3	21.4
4 11	10 55.71	+16 57.9	1.793	2.613	15.3	20.6	4 11	10 54.67	+ 5 17.1	1.632	2.497	14.4	21.6
64955	2001 YO ₁₂₈		3 9.9 149°87	2°8/ 7.5 18			241557	2010 GL ₃₁		3 10.0 350°80	5°1/ 6.2 18		
2 1	11 52.22	+ 9 18.4	1.896	2.695	14.6	20.1	2 1	11 45.47	+11 9.2	1.233	2.075	18.4	20.8
2 11	11 46.98	+10 3.6	1.820	2.705	11.3	19.9	2 11	11 43.06	+12 14.9	1.163	2.071	14.3	20.5
2 21	11 39.32	+10 57.4	1.768	2.715	7.5	19.6	2 21	11 37.43	+13 33.1	1.113	2.068	9.6	20.2
3 2	11 29.89	+11 53.3	1.743	2.724	3.8	19.4	3 2	11 29.26	+14 53.6	1.086	2.066	5.7	20.0
3 12	11 19.67	+12 44.1	1.748	2.732	3.5	19.4	3 12	11 19.86	+16 3.8	1.084	2.064	6.2	20.0
3 22	11 9.75	+13 23.5	1.781	2.739	7.0	19.7	3 22	11 10.76	+16 53.1	1.106	2.063	10.5	20.3
4 1	11 1.17	+13 47.3	1.841	2.746	10.8	19.9	4 1	11 3.42	+17 15.4	1.150	2.063	15.2	20.5
4 11	10 54.69	+13 53.7	1.925	2.752	14.1	20.1	4 11	10 58.89	+17 9.5	1.213	2.063	19.3	20.8
157343	2004 TU ₆₁		3 9.9 157°81	0°3/10.3 18			64430	2001 VK ₉		3 10.0 18°65	2°0/ 8.2 18		

EPHEMERIDES

3 10.0

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
419840	2010 XA ₈₅		3 10.0 202°89	3°5/ 6.5 16			344506	2002 QN ₁₅₂		3 10.0 119°44	2°2/ 8.3 18		
2 1	11 46.85	+10 22.0	1.958	2.768	13.8	21.1	2 1	11 53.12	+ 6 46.4	1.539	2.344	17.2	21.5
2 11	11 42.91	+11 24.1	1.874	2.766	10.7	20.8	2 11	11 48.15	+ 7 25.3	1.472	2.360	13.3	21.3
2 21	11 36.71	+12 35.3	1.814	2.763	7.1	20.6	2 21	11 40.35	+ 8 16.5	1.426	2.374	8.7	21.0
3 2	11 28.78	+13 48.7	1.781	2.760	4.0	20.4	3 2	11 30.46	+ 9 13.3	1.406	2.388	4.0	20.8
3 12	11 20.01	+14 56.4	1.776	2.756	4.2	20.4	3 12	11 19.68	+10 7.1	1.413	2.402	3.0	20.8
3 22	11 11.40	+15 51.2	1.800	2.752	7.5	20.6	3 22	11 9.34	+10 50.5	1.448	2.415	7.4	21.1
4 1	11 3.92	+16 28.2	1.850	2.748	11.1	20.8	4 1	11 0.65	+11 17.8	1.509	2.427	11.8	21.3
4 11	10 58.34	+16 45.3	1.922	2.743	14.4	21.0	4 11	10 54.48	+11 26.9	1.592	2.439	15.6	21.6
200714	2001 UP ₁₆₅		3 10.0 216°85	3°0/ 7.1 18			506053	2015 KC ₁₂₉		3 10.0 222°27	0°7/ 9.1 17		
2 1	11 49.46	+ 8 18.7	1.875	2.678	14.6	20.8	2 1	11 42.27	+ 3 38.0	2.698	3.482	11.2	22.2
2 11	11 45.14	+ 9 20.7	1.782	2.670	11.3	20.6	2 11	11 38.73	+ 4 16.9	2.602	3.478	8.7	22.0
2 21	11 38.34	+10 34.7	1.712	2.660	7.5	20.3	2 21	11 33.61	+ 5 5.6	2.530	3.473	5.7	21.8
3 2	11 29.59	+11 54.1	1.669	2.650	3.9	20.1	3 2	11 27.32	+ 6 0.9	2.486	3.468	2.5	21.6
3 12	11 19.81	+13 10.4	1.655	2.639	3.8	20.1	3 12	11 20.45	+ 6 58.0	2.472	3.463	1.2	21.4
3 22	11 10.09	+14 15.4	1.670	2.627	7.5	20.3	3 22	11 13.65	+ 7 52.1	2.487	3.458	4.4	21.7
4 1	11 1.55	+15 2.9	1.711	2.614	11.6	20.5	4 1	11 7.59	+ 8 39.0	2.532	3.452	7.6	21.9
4 11	10 55.06	+15 29.8	1.775	2.601	15.2	20.7	4 11	11 2.81	+ 9 15.2	2.603	3.447	10.3	22.0
21192	Seccisergio		3 10.0 270°48	3°8/ 6.4 18			18653	Christagünt		3 10.0 330°94	9°2/ 3.2 18		
2 1	11 45.74	+ 9 45.2	1.690	2.509	15.3	18.8	2 1	11 47.31	+20 44.8	1.253	2.100	17.8	17.7
2 11	11 42.52	+10 53.1	1.601	2.498	11.8	18.5	2 11	11 44.75	+22 1.4	1.181	2.086	14.4	17.5
2 21	11 36.73	+12 13.1	1.535	2.486	7.9	18.3	2 21	11 38.74	+23 19.6	1.129	2.073	11.0	17.2
3 2	11 28.90	+13 37.7	1.494	2.474	4.4	18.0	3 2	11 29.96	+24 26.5	1.099	2.060	9.2	17.1
3 12	11 20.00	+14 57.1	1.481	2.462	4.7	18.0	3 12	11 19.78	+25 8.7	1.093	2.049	10.4	17.1
3 22	11 11.16	+16 2.3	1.495	2.450	8.5	18.2	3 22	11 9.85	+25 17.7	1.109	2.038	13.8	17.3
4 1	11 3.58	+16 46.7	1.534	2.438	12.7	18.4	4 1	11 1.80	+24 50.9	1.146	2.028	17.7	17.5
4 11	10 58.15	+17 7.6	1.595	2.426	16.4	18.6	4 11	10 56.76	+23 51.3	1.201	2.020	21.4	17.7
429532	2011 BW ₉₅		3 10.0 251°49	5°3/14.3 17			521280	2015 HW ₁₉₄		3 10.0 302°68	5°4/16.6 16		
2 1	11 49.83	-10 17.7	2.085	2.808	15.9	21.3	2 1	11 40.69	-15 54.3	2.294	2.996	15.2	21.8
2 11	11 45.29	-11 4.8	1.979	2.799	13.4	21.1	2 11	11 37.99	-15 55.5	2.183	2.983	13.0	21.6
2 21	11 38.41	-11 35.4	1.893	2.789	10.4	20.9	2 21	11 33.39	-15 34.3	2.092	2.970	10.4	21.4
3 2	11 29.64	-11 47.4	1.831	2.779	7.4	20.7	3 2	11 27.32	-14 49.6	2.024	2.958	7.7	21.2
3 12	11 19.81	-11 41.2	1.797	2.769	5.4	20.5	3 12	11 20.44	-13 43.0	1.982	2.946	5.7	21.1
3 22	11 9.92	-11 19.5	1.791	2.758	6.2	20.6	3 22	11 13.57	-12 19.1	1.968	2.934	5.8	21.1
4 1	11 1.02	-10 47.1	1.813	2.747	9.1	20.7	4 1	11 7.53	-10 44.8	1.981	2.922	8.1	21.2
4 11	10 53.99	-10 10.4	1.860	2.736	12.4	20.9	4 11	11 3.03	- 9 8.3	2.021	2.910	11.0	21.3
294148	2007 TR ₃₁₈		3 10.0 319°13	5°7/16.5 17			345388	2006 BD ₁₁₈		3 10.0 225°98	1°3/11.3 17		
2 1	11 41.24	-15 28.5	2.133	2.843	16.0	20.3	2 1	11 45.30	- 2 4.8	2.189	2.957	13.9	21.7
2 11	11 38.53	-15 37.5	2.030	2.835	13.7	20.1	2 11	11 41.50	- 1 51.1	2.090	2.952	11.1	21.4
2 21	11 33.80	-15 23.5	1.946	2.827	10.9	19.9	2 21	11 35.69	- 1 22.4	2.014	2.947	7.8	21.2
3 2	11 27.50	-14 45.3	1.884	2.820	8.1	19.7	3 2	11 28.34	- 0 41.0	1.964	2.941	4.0	21.0
3 12	11 20.36	-13 44.4	1.849	2.813	6.0	19.6	3 12	11 20.20	+ 0 9.0	1.943	2.935	1.3	20.8
3 22	11 13.26	-12 25.7	1.840	2.806	6.2	19.5	3 22	11 12.13	+ 1 2.0	1.951	2.929	4.6	21.0
4 1	11 7.08	-10 56.3	1.859	2.800	8.5	19.7	4 1	11 4.99	+ 1 52.5	1.987	2.923	8.3	21.2
4 11	11 2.56	- 9 24.7	1.904	2.794	11.5	19.8	4 11	10 59.50	+ 2 35.3	2.048	2.917	11.8	21.4
471131	2010 DZ ₅₀		3 10.0 270°67	2°5/ 6.7 16			13556	1992 OY ₇		3 10.0 217°18	3°3/14.1 18		
2 1	11 42.16	+ 7 58.3	2.457	3.258	11.6	22.1	2 1	11 45.45	- 9 40.3	2.871	3.584	12.2	18.7
2 11	11 38.95	+ 9 10.9	2.351	3.239	8.9	21.9	2 11	11 41.18	- 9 44.0	2.757	3.574	10.1	18.5
2 21	11 33.94	+10 34.3	2.270	3.219	5.9	21.7	2 21	11 35.26	- 9 33.1	2.665	3.564	7.7	18.3
3 2	11 27.53	+12 3.1	2.218	3.199	3.1	21.5	3 2	11 28.10	- 9 7.7	2.600	3.553	5.1	18.2
3 12	11 20.36	+13 30.5	2.196	3.178	3.2	21.4	3 12	11 20.27	- 8 29.8	2.564	3.542	3.4	18.0
3 22	11 13.18	+14 49.7	2.204	3.158	6.2	21.6	3 22	11 12.44	- 7 42.6	2.558	3.530	4.2	18.1
4 1	11 6.75	+15 55.2	2.239	3.137	9.5	21.8	4 1	11 5.28	- 6 50.5	2.582	3.518	6.7	18.2
4 11	11 1.74	+16 43.5	2.299	3.116	12.5	21.9	4 11	10 59.40	- 5 58.6	2.633	3.505	9.3	18.3
127883	2003 GB ₆		3 10.0 347°79	4°0/ 7.5 18			266197	2006 VX ₁₆₈		3 10.0 69°79	0°0/ 9.8 18		
2 1	11 49.16	+10 44.3	1.253	2.088	18.7	19.4	2 1	11 46.85	+ 1 14.3	1.656	2.452	16.6	20.9
2 11	11 45.93	+11 12.9	1.180	2.083	14.5	19.2	2 11	11 43.10	+ 1 42.6	1.587	2.467	12.9	20.7
2 21	11 39.37	+11 51.4	1.126	2.080	9.8	18.9	2 21	11 36.89	+ 2 27.1	1.538	2.482	8.7	20.5
3 2	11 30.19	+12 31.9	1.095	2.077	5.1	18.6	3 2	11 28.88	+ 3 23.2	1.516	2.498	3.9	20.3
3 12	11 19.71	+13 4.7	1.089	2.074	4.8	18.6	3 12	11 20.09	+ 4 24.0	1.520	2.513	1.0	20.1
3 22	11 9.54	+13 21.8	1.107	2.073	9.3	18.8	3 22	11 11.64	+ 5 21.9	1.552	2.528	5.8	20.4
4 1	11 1.21	+13 18.2	1.149	2.071	14.3	19.1	4 1	11 4.58	+ 6 10.1	1.611	2.544	10.1	20.7
4 11	10 55.77	+12 52.9	1.210	2.071	18.6	19.4	4 11	10 59.66	+ 6 44.1	1.692	2.559	13.9	21.0
30158	Mabdulla		3 10.0 237°41	0°5/ 9.4 18			522216	2016 AS ₂₆₃		3 10.0 339°46	1°8/11.4 17		
2 1	11 44.13	+ 3 4.2	2.466	3.249	12.1	20.1	2 1	11 43.36	- 1 44.8	1.438	2.240	18.3	21.0
2 11	11 40.36	+ 3 36.1	2.365	3.240	9.5	19.9	2 11	11 41.05	- 1 47.6	1.350	2.231	14.7	20.7
2 21	11 34.80	+ 4 19.0	2.288	3.231	6.3	19.7	2 21	11 35.96	- 1 30.4	1.281	2.222	10.4	20.4
3 2	11 27.90	+ 5 9.6	2.239	3.221	2.8	19.5	3 2	11 28.64	- 0 55.1	1.235	2.214	5.4	20.1
3 12	11 20.29	+ 6 3.0	2.219	3.211	1.1	19.3	3 12	11 20.12	- 0 6.9	1.214	2.207	1.9	19.9
3 22	11 12.74	+ 6 54.2	2.229	3.201	4.7	19.6	3 22	11 11.67	+ 0 46.5	1.219	2.200	6.1	20.1
4 1	11 6.00	+ 7 38.4	2.267	3.191	8.1	19.8	4 1	11 4.61	+ 1 36.7	1.249	2.195	11.1	20.4
4 11	11 0.69	+ 8 11.8	2.331	3.180	11.2	19.9	4 11	10 59.94	+ 2 16.3	1.300	2.190	15.7	20.6
249584	1995 UP ₁₀		3 10.0 163°45	2°1/12.0 18			116027	2003 WV ₈₈		3 10.0 61°23	0°6/ 9.5 18		
2 1	11 46.76	- 4 51.7	1.924	2.686	15.8								

EPHEMERIDES

3 10.0

3 10.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
97065	1999 VV ₂₀		3 10.0 54°29	8°6/ 1.8 18			251798	1999 TG ₃₅		3 10.0 111°85	6°8/ 7.2 17		
2 1	11 50.55	+26 20.3	1.839	2.658	14.2	18.6	2 1	12 8.61	+19 2.3	1.207	2.021	20.5	20.2
2 11	11 45.90	+27 34.0	1.786	2.668	11.7	18.4	2 11	12 1.11	+19 12.6	1.144	2.031	16.3	19.9
2 21	11 38.69	+28 41.4	1.757	2.678	9.5	18.3	2 21	11 49.45	+19 20.1	1.100	2.042	11.6	19.7
3 2	11 29.66	+29 32.9	1.753	2.689	8.6	18.3	3 2	11 34.70	+19 14.3	1.080	2.052	7.6	19.5
3 12	11 19.92	+30 0.7	1.775	2.699	9.5	18.3	3 12	11 18.75	+18 46.4	1.087	2.061	7.5	19.5
3 22	11 10.67	+30 0.9	1.821	2.710	11.7	18.5	3 22	11 3.74	+17 53.2	1.120	2.070	11.3	19.7
4 1	11 2.96	+29 33.7	1.891	2.721	14.1	18.7	4 1	10 51.47	+16 37.1	1.178	2.079	15.8	20.0
4 11	10 57.52	+28 42.4	1.980	2.732	16.4	18.8	4 11	10 43.01	+15 3.7	1.256	2.088	19.9	20.3
376520	2012 LC ₂₅		3 10.0 189°42	2°1/ 7.5 17			157661	2005 YV ₅₀		3 10.0 242°81	5°6/ 3.1 18		
2 1	11 43.48	+ 5 6.2	2.126	2.925	13.3	20.9	2 1	11 45.71	+17 17.6	2.225	3.041	12.2	20.8
2 11	11 40.12	+ 6 24.2	2.038	2.924	10.2	20.7	2 11	11 41.96	+18 50.1	2.136	3.027	9.6	20.6
2 21	11 34.77	+ 7 55.8	1.975	2.924	6.7	20.5	2 21	11 36.09	+20 27.4	2.073	3.013	7.0	20.4
3 2	11 27.92	+ 9 34.9	1.940	2.922	3.1	20.3	3 2	11 28.59	+22 1.5	2.037	2.998	5.6	20.3
3 12	11 20.33	+11 13.4	1.934	2.921	2.8	20.3	3 12	11 20.22	+23 23.6	2.031	2.983	6.6	20.3
3 22	11 12.85	+12 43.4	1.958	2.920	6.3	20.5	3 22	11 11.88	+24 27.0	2.052	2.967	9.1	20.4
4 1	11 6.34	+13 58.4	2.010	2.918	9.9	20.7	4 1	11 4.51	+25 7.5	2.099	2.951	12.0	20.6
4 11	11 1.48	+14 54.5	2.086	2.915	13.1	20.9	4 11	10 58.86	+25 24.2	2.167	2.935	14.7	20.7
400283	2007 SY ₃		3 10.0 158°47	1°6/ 8.4 18			502200	2015 BY ₇₁		3 10.0 174°18	1°7/ 11.8 17		
2 1	11 49.60	+ 5 33.8	2.056	2.846	14.0	22.2	2 1	11 45.72	- 3 14.1	2.269	3.029	13.7	21.7
2 11	11 44.83	+ 6 21.4	1.974	2.854	10.8	22.0	2 11	11 41.71	- 3 3.7	2.175	3.031	11.0	21.5
2 21	11 37.88	+ 7 20.3	1.916	2.862	7.1	21.8	2 21	11 35.78	- 2 38.4	2.104	3.032	7.7	21.3
3 2	11 29.31	+ 8 25.2	1.886	2.868	3.2	21.6	3 2	11 28.39	- 2 0.2	2.059	3.033	4.2	21.1
3 12	11 19.99	+ 9 29.4	1.885	2.874	2.3	21.5	3 12	11 20.28	- 1 13.0	2.043	3.034	1.7	20.9
3 22	11 10.89	+10 26.3	1.914	2.879	6.0	21.8	3 22	11 12.29	- 0 21.8	2.056	3.034	4.4	21.1
4 1	11 2.93	+11 10.6	1.970	2.884	9.7	22.0	4 1	11 5.22	+ 0 27.9	2.097	3.034	7.9	21.3
4 11	10 56.83	+11 39.3	2.051	2.887	13.0	22.2	4 11	10 59.76	+ 1 11.1	2.165	3.034	11.2	21.5
426818	2013 TU ₁₄₅		3 10.0 182°13	2°1/ 7.4 15			47502	2000 AN ₅₄		3 10.0 314°84	6°2/ 3.0 18		
2 1	11 46.91	+ 8 37.4	2.613	3.403	11.3	22.7	2 1	11 44.38	+18 14.8	1.989	2.814	13.1	19.0
2 11	11 42.34	+ 9 25.4	2.523	3.404	8.7	22.6	2 11	11 41.05	+19 42.9	1.916	2.811	10.3	18.8
2 21	11 36.02	+10 20.7	2.459	3.405	5.7	22.4	2 21	11 35.51	+21 13.9	1.867	2.808	7.6	18.6
3 2	11 28.43	+11 18.5	2.424	3.404	2.9	22.2	3 2	11 28.31	+22 39.1	1.845	2.805	6.2	18.5
3 12	11 20.22	+12 13.6	2.419	3.403	2.7	22.2	3 12	11 20.31	+23 49.7	1.851	2.803	7.2	18.6
3 22	11 12.13	+13 1.1	2.444	3.402	5.5	22.3	3 22	11 12.49	+24 39.2	1.883	2.800	9.7	18.7
4 1	11 4.88	+13 37.0	2.498	3.399	8.5	22.5	4 1	11 5.80	+25 4.2	1.939	2.797	12.6	18.9
4 11	10 59.07	+13 59.3	2.577	3.396	11.2	22.7	4 11	11 0.98	+25 4.7	2.017	2.795	15.3	19.1
334452	2002 NE ₆₃		3 10.0 192°67	1°3/ 8.7 17			108804	2001 OP ₇₃		3 10.0 173°87	0°2/ 10.3 18		
2 1	11 45.57	+ 5 37.8	2.283	3.075	12.7	21.6	2 1	11 44.96	- 1 27.6	2.253	3.022	13.5	20.0
2 11	11 41.57	+ 6 11.3	2.193	3.074	9.8	21.4	2 11	11 41.14	- 0 31.5	2.160	3.025	10.7	19.8
2 21	11 35.65	+ 6 54.5	2.127	3.073	6.5	21.2	2 21	11 35.39	+ 0 41.2	2.091	3.028	7.2	19.6
3 2	11 28.30	+ 7 43.3	2.089	3.072	2.9	20.9	3 2	11 28.22	+ 2 6.6	2.049	3.029	3.4	19.4
3 12	11 20.25	+ 8 32.2	2.080	3.070	1.8	20.9	3 12	11 20.34	+ 3 38.4	2.038	3.031	0.7	19.2
3 22	11 12.34	+ 9 16.1	2.100	3.068	5.3	21.1	3 22	11 12.57	+ 5 9.4	2.056	3.031	4.7	19.5
4 1	11 5.36	+ 9 50.3	2.148	3.067	8.8	21.3	4 1	11 5.74	+ 6 32.6	2.104	3.031	8.5	19.7
4 11	10 59.98	+10 11.9	2.221	3.064	11.9	21.5	4 11	11 0.50	+ 7 42.7	2.177	3.031	11.7	19.9
297698	2001 VX ₄₁		3 10.0 174°66	2°2/ 12.0 18			193352	2000 UL ₃₀		3 10.0 168°21	16°9/ 24.9 18		
2 1	11 49.40	- 4 34.8	1.876	2.636	16.2	21.6	2 1	12 11.23	+42 35.9	1.432	2.212	19.5	20.5
2 11	11 45.00	- 4 24.5	1.785	2.639	13.1	21.4	2 11	12 3.68	+44 43.5	1.396	2.217	17.9	20.4
2 21	11 38.20	- 3 55.2	1.715	2.642	9.3	21.2	2 21	11 51.41	+46 27.5	1.380	2.222	17.0	20.3
3 2	11 29.54	- 3 8.7	1.671	2.643	5.2	21.0	3 2	11 35.63	+47 30.4	1.383	2.226	17.1	20.3
3 12	11 19.96	- 2 9.7	1.654	2.644	2.2	20.8	3 12	11 18.58	+47 40.8	1.407	2.228	18.2	20.4
3 22	11 10.50	- 1 4.7	1.666	2.645	5.2	20.9	3 22	11 2.77	+46 57.1	1.450	2.230	19.9	20.5
4 1	11 2.24	- 0 1.1	1.706	2.644	9.3	21.2	4 1	10 50.22	+45 26.2	1.511	2.231	21.8	20.7
4 11	10 56.01	+ 0 54.4	1.771	2.643	13.1	21.4	4 11	10 41.96	+43 19.7	1.585	2.230	23.5	20.9
29954	1999 JK ₈₉		3 10.0 187°80	0°6/ 10.8 18			154541	2003 GU ₁₄		3 10.0 284°51	7°2/ 1.8 17		
2 1	11 42.31	- 1 28.7	2.509	3.278	12.3	18.7	2 1	11 44.35	+19 4.5	1.826	2.656	13.8	20.0
2 11	11 38.89	- 0 52.9	2.414	3.278	9.7	18.5	2 11	11 41.34	+20 54.4	1.750	2.647	11.0	19.8
2 21	11 33.79	- 0 3.2	2.342	3.277	6.7	18.3	2 21	11 35.90	+22 48.5	1.698	2.637	8.4	19.6
3 2	11 27.44	+ 0 57.3	2.298	3.276	3.3	18.1	3 2	11 28.56	+24 36.3	1.673	2.628	7.2	19.5
3 12	11 20.49	+ 2 4.2	2.283	3.276	0.8	17.9	3 12	11 20.25	+26 6.7	1.675	2.619	8.5	19.6
3 22	11 13.62	+ 3 11.9	2.298	3.275	4.1	18.2	3 22	11 12.06	+27 11.8	1.703	2.610	11.2	19.7
4 1	11 7.56	+ 4 15.1	2.341	3.273	7.5	18.4	4 1	11 5.08	+27 47.5	1.754	2.601	14.3	19.9
4 11	11 2.87	+ 5 9.1	2.411	3.272	10.5	18.6	4 11	11 0.16	+27 53.9	1.824	2.591	17.1	20.1
213202	2000 TC ₄		3 10.0 83°33	0°9/ 9.3 18			54708	2001 HH ₁₈		3 10.0 111°84	7°0/ 2.9 18		
2 1	11 51.10	+ 3 35.4	1.533	2.334	17.5	21.2	2 1	11 46.72	+ 8 33.6	1.208	2.045	19.1	18.2
2 11	11 46.49	+ 4 4.3	1.472	2.356	13.5	21.0	2 11	11 44.04	+11 48.1	1.150	2.057	14.5	18.0
2 21	11 39.17	+ 4 47.8	1.432	2.378	8.9	20.8	2 21	11 38.11	+15 24.7	1.116	2.070	9.8	17.8
3 2	11 29.92	+ 5 40.4	1.416	2.399	3.9	20.5	3 2	11 29.65	+19 3.4	1.109	2.082	7.1	17.6
3 12	11 19.90	+ 6 34.3	1.428	2.421	1.6	20.4	3 12	11 20.00	+22 21.4	1.130	2.094	9.0	17.8
3 22	11 10.36	+ 7 22.0	1.468	2.442	6.4	20.8	3 22	11 10.74	+25 0.6	1.177	2.105	13.2	18.0
4 1	11 2.46	+ 7 57.4	1.534	2.462	10.9	21.1	4 1	11 3.33	+26 52.3	1.247	2.116	17.5	18.3
4 11	10 56.95	+ 8 17.2	1.623	2.483	14.7	21.3	4 11	10 58.79	+27 57.1	1.335	2.126	21.0	18.6
187543	2006 UV ₁₉₁		3 10.0 321°51	4°1/ 14.6 18			329835	2004 SY ₁₀		3 10.0 235°22	3°3/ 5.9 18		
2 1	11 43.67	-10 27.2	2.382										

EPHEMERIDES

3 10.0

3 10.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
142430	2002 SA ₄₄		3 10.0 193°82	0°8/ 9.2 18			216110	2006 RA ₈₅		3 10.0 264°79	0°8/10.7 17		
2 1	11 47.48	+ 3 14.0	2.061	2.848	14.1	21.0	2 1	11 46.19	- 1 1.4	1.805	2.588	15.9	21.1
2 11	11 43.31	+ 3 53.1	1.969	2.846	11.0	20.8	2 11	11 42.82	- 0 37.7	1.700	2.571	12.7	20.9
2 21	11 36.97	+ 4 45.4	1.900	2.844	7.3	20.6	2 21	11 36.98	+ 0 4.3	1.616	2.554	8.8	20.6
3 2	11 28.99	+ 5 46.7	1.859	2.841	3.2	20.3	3 2	11 29.13	+ 1 2.1	1.557	2.536	4.3	20.3
3 12	11 20.17	+ 6 50.6	1.846	2.838	1.5	20.2	3 12	11 20.15	+ 2 10.0	1.525	2.518	1.0	20.0
3 22	11 11.47	+ 7 50.7	1.863	2.834	5.5	20.5	3 22	11 11.11	+ 3 20.6	1.522	2.500	5.6	20.3
4 1	11 3.82	+ 8 40.8	1.907	2.830	9.5	20.7	4 1	11 3.14	+ 4 25.8	1.546	2.482	10.3	20.5
4 11	10 57.97	+ 9 17.1	1.976	2.825	13.0	20.9	4 11	10 57.19	+ 5 19.0	1.593	2.463	14.4	20.7
391548	2007 TD ₂₇		3 10.0 166°91	1°2/11.5 17			135424	2001 UW ₈₄		3 10.0 100°12	0°6/ 9.4 18		
2 1	11 43.53	- 2 58.0	2.445	3.206	12.8	21.7	2 1	11 43.76	+ 3 13.8	2.375	3.161	12.4	20.3
2 11	11 39.88	- 2 33.4	2.351	3.208	10.2	21.5	2 11	11 40.06	+ 3 46.6	2.291	3.168	9.6	20.1
2 21	11 34.48	- 1 54.4	2.280	3.210	7.1	21.3	2 21	11 34.59	+ 4 30.2	2.231	3.174	6.4	19.9
3 2	11 27.79	- 1 3.3	2.236	3.212	3.7	21.1	3 2	11 27.85	+ 5 20.9	2.198	3.181	2.8	19.7
3 12	11 20.47	- 0 4.4	2.222	3.213	1.2	20.9	3 12	11 20.51	+ 6 13.5	2.195	3.187	1.1	19.6
3 22	11 13.26	+ 0 57.2	2.237	3.215	4.1	21.2	3 22	11 13.32	+ 7 3.0	2.221	3.194	4.7	19.9
4 1	11 6.89	+ 1 56.0	2.280	3.216	7.4	21.4	4 1	11 7.04	+ 7 44.7	2.276	3.200	8.1	20.1
4 11	11 1.95	+ 2 47.3	2.350	3.216	10.5	21.6	4 11	11 2.23	+ 8 15.3	2.355	3.207	11.0	20.3
88968	2001 TN ₅₇		3 10.0 238°11	1°7/11.5 18			63313	2001 FV ₂₈		3 10.0 206°86	3°7/ 6.2 18		
2 1	11 47.32	- 3 17.3	1.659	2.438	17.3	20.4	2 1	11 51.08	+13 18.3	2.276	3.075	12.5	19.8
2 11	11 43.85	- 2 58.4	1.562	2.429	13.9	20.2	2 11	11 45.94	+14 6.5	2.184	3.068	9.7	19.6
2 21	11 37.74	- 2 18.2	1.485	2.419	9.8	19.9	2 21	11 38.66	+14 59.6	2.117	3.061	6.6	19.4
3 2	11 29.48	- 1 18.9	1.432	2.409	5.2	19.6	3 2	11 29.75	+15 51.8	2.078	3.053	4.1	19.2
3 12	11 20.05	- 0 6.0	1.406	2.398	1.7	19.4	3 12	11 20.03	+16 36.6	2.069	3.044	4.4	19.2
3 22	11 10.62	+ 1 12.2	1.408	2.387	5.8	19.6	3 22	11 10.42	+17 8.6	2.090	3.035	7.2	19.3
4 1	11 2.43	+ 2 26.6	1.436	2.375	10.6	19.8	4 1	11 1.85	+17 24.4	2.138	3.024	10.4	19.5
4 11	10 56.45	+ 3 29.4	1.488	2.364	14.9	20.1	4 11	10 55.05	+17 23.0	2.209	3.013	13.3	19.7
16071	1999 RW ₁₂₅		3 10.0 15°42	2°3/11.9 18			269937	2000 RY ₃₉		3 10.1 125°41	3°3/13.3 18		
2 1	11 45.26	- 3 13.6	1.679	2.461	17.0	17.4	2 1	11 49.55	- 7 17.3	2.279	3.012	14.4	21.5
2 11	11 42.04	- 3 21.0	1.596	2.463	13.6	17.2	2 11	11 44.60	- 7 32.2	2.194	3.027	11.8	21.3
2 21	11 36.34	- 3 10.2	1.533	2.466	9.7	16.9	2 21	11 37.66	- 7 31.1	2.131	3.041	8.7	21.2
3 2	11 28.76	- 2 42.8	1.494	2.469	5.4	16.7	3 2	11 29.25	- 7 14.7	2.093	3.054	5.5	21.0
3 12	11 20.25	- 2 3.1	1.482	2.473	2.3	16.5	3 12	11 20.17	- 6 45.4	2.085	3.067	3.3	20.9
3 22	11 11.92	- 1 17.3	1.497	2.477	5.4	16.7	3 22	11 11.28	- 6 7.5	2.106	3.080	4.7	21.0
4 1	11 4.85	- 0 32.4	1.538	2.482	9.7	16.9	4 1	11 3.42	- 5 26.0	2.156	3.092	7.7	21.2
4 11	10 59.88	+ 0 5.4	1.602	2.487	13.6	17.2	4 11	10 57.26	- 4 46.2	2.231	3.104	10.8	21.4
469205	2016 GA ₂₁₅		3 10.0 202°11	0°7/ 9.1 18			232738	2004 FJ ₃₄		3 10.1 330°96	3°8/14.9 18		
2 1	11 42.95	+ 0 50.1	2.353	3.133	12.7	21.2	2 1	11 40.19	-12 56.4	2.198	2.923	15.1	20.3
2 11	11 39.55	+ 2 4.6	2.257	3.130	9.9	21.0	2 11	11 37.61	-12 19.7	2.096	2.919	12.7	20.1
2 21	11 34.34	+ 3 34.8	2.185	3.127	6.6	20.8	2 21	11 33.15	-11 18.6	2.015	2.915	9.7	19.9
3 2	11 27.77	+ 5 16.0	2.141	3.123	2.9	20.5	3 2	11 27.26	- 9 54.0	1.958	2.912	6.4	19.7
3 12	11 20.50	+ 7 1.2	2.128	3.119	1.4	20.4	3 12	11 20.65	- 8 10.3	1.929	2.909	4.0	19.5
3 22	11 13.30	+ 8 42.8	2.145	3.115	5.1	20.6	3 22	11 14.12	- 6 14.4	1.929	2.906	4.8	19.6
4 1	11 6.95	+10 13.9	2.192	3.110	8.7	20.9	4 1	11 8.48	- 4 15.1	1.959	2.903	7.8	19.7
4 11	11 2.07	+11 29.4	2.264	3.105	11.8	21.1	4 11	11 4.40	- 2 21.5	2.015	2.901	11.1	19.9
28033	1998 EE ₉		3 10.0 70°51	1°0/ 9.0 18			208614	2002 CE ₂₇₀		3 10.1 252°31	2°1/ 8.1 17		
2 1	11 47.08	+ 6 2.4	2.228	3.019	13.0	17.9	2 1	11 45.83	+ 4 41.5	1.669	2.477	15.9	20.6
2 11	11 42.74	+ 6 16.0	2.143	3.023	10.1	17.7	2 11	11 42.66	+ 5 43.3	1.577	2.466	12.4	20.4
2 21	11 36.44	+ 6 37.9	2.083	3.028	6.6	17.5	2 21	11 36.91	+ 7 2.5	1.506	2.455	8.2	20.1
3 2	11 28.70	+ 7 4.5	2.049	3.032	3.0	17.3	3 2	11 29.11	+ 8 32.6	1.461	2.444	3.7	19.8
3 12	11 20.28	+ 7 31.3	2.045	3.036	1.5	17.2	3 12	11 20.19	+10 4.4	1.443	2.432	2.9	19.7
3 22	11 12.06	+ 7 53.7	2.069	3.040	5.1	17.4	3 22	11 11.31	+11 28.1	1.453	2.420	7.4	20.0
4 1	11 4.84	+ 8 8.1	2.122	3.044	8.7	17.6	4 1	11 3.65	+12 35.4	1.489	2.408	11.9	20.2
4 11	10 59.29	+ 8 12.0	2.199	3.049	11.8	17.8	4 11	10 58.15	+13 21.1	1.548	2.396	15.9	20.4
212132	2005 EV ₂₃₀		3 10.0 234°79	0°7/ 9.4 16			42887	1999 RV ₁₅₅		3 10.1 197°17	1°6/11.4 18		
2 1	11 49.83	+ 3 57.1	1.946	2.734	14.7	21.3	2 1	11 51.41	- 2 53.5	1.893	2.655	16.0	19.7
2 11	11 45.39	+ 4 18.3	1.845	2.723	11.6	21.0	2 11	11 46.65	- 2 39.4	1.795	2.652	12.9	19.4
2 21	11 38.54	+ 4 51.9	1.767	2.710	7.8	20.8	2 21	11 39.40	- 2 7.4	1.718	2.648	9.0	19.2
3 2	11 29.79	+ 5 34.2	1.715	2.698	3.5	20.5	3 2	11 30.19	- 1 19.4	1.668	2.643	4.8	18.9
3 12	11 20.00	+ 6 19.5	1.692	2.684	1.4	20.3	3 12	11 19.93	- 0 20.5	1.645	2.637	1.6	18.7
3 22	11 10.22	+ 7 1.6	1.698	2.670	5.8	20.5	3 22	11 9.73	+ 0 42.8	1.652	2.630	5.3	18.9
4 1	11 1.54	+ 7 34.9	1.731	2.656	10.1	20.8	4 1	11 0.71	+ 1 43.2	1.688	2.622	9.6	19.2
4 11	10 54.83	+ 7 55.3	1.788	2.641	13.9	21.0	4 11	10 53.74	+ 2 34.3	1.748	2.613	13.6	19.4
69682	1998 HA ₁₉		3 10.0 323°37	1°8/11.4 18			115742	2003 UV ₁₈₉		3 10.1 116°02	4°6/ 5.1 18		
2 1	11 43.68	- 2 15.3	1.378	2.181	18.9	19.3	2 1	11 47.72	+16 13.2	2.214	3.025	12.4	20.1
2 11	11 41.52	- 2 12.1	1.288	2.169	15.3	19.0	2 11	11 43.25	+17 8.8	2.145	3.034	9.6	19.9
2 21	11 36.44	- 1 46.7	1.216	2.157	10.8	18.7	2 21	11 36.77	+18 6.5	2.100	3.043	6.8	19.7
3 2	11 28.97	- 1 1.0	1.167	2.145	5.7	18.3	3 2	11 28.84	+18 59.9	2.083	3.052	4.8	19.6
3 12	11 20.18	- 0 0.7	1.142	2.134	1.9	18.1	3 12	11 20.29	+19 42.5	2.094	3.060	5.3	19.7
3 22	11 11.40	+ 1 5.6	1.143	2.124	6.4	18.3	3 22	11 12.00	+20 9.6	2.134	3.068	7.8	19.8
4 1	11 4.04	+ 2 8.1	1.168	2.115	11.7	18.6	4 1	11 4.82	+20 18.6	2.200	3.076	10.6	20.0
4 11	10 59.18	+ 2 58.3	1.214	2.106	16.5	18.8	4 11	10 59.39	+20 9.5	2.289	3.084	13.2	20.2
161272	2003 FD ₈₃		3 10.0 279°72	3°5/ 7.2 18			307585	2003 HA ₄₉		3 10.1 289°26	0°9/ 9.4 16		
2 1	11 47.02	+ 8 18.8	1.506	2.328									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
4176	Sudek		3 10.1 43°95	1.1/ 8.9	18		497201	2004 TA ₂₅₉		3 10.1 217°77	0.3/10.4	17	
2 1	11 43.85	+ 4 37.0	1.983	2.784	14.0	16.5	2 1	11 46.38	+ 0 18.1	2.515	3.282	12.4	22.9
2 11	11 40.44	+ 5 12.9	1.909	2.795	10.8	16.3	2 11	11 42.13	+ 0 44.0	2.409	3.273	9.8	22.7
2 21	11 34.99	+ 6 0.2	1.859	2.806	7.1	16.1	2 21	11 36.06	+ 1 22.3	2.327	3.263	6.6	22.5
3 2	11 28.06	+ 6 54.3	1.834	2.818	3.1	15.9	3 2	11 28.59	+ 2 10.3	2.272	3.252	3.2	22.3
3 12	11 20.48	+ 7 48.8	1.838	2.830	1.7	15.8	3 12	11 20.40	+ 3 3.7	2.248	3.241	0.7	22.0
3 22	11 13.14	+ 8 37.7	1.871	2.842	5.6	16.1	3 22	11 12.22	+ 3 57.6	2.254	3.229	4.3	22.3
4 1	11 6.89	+ 9 15.9	1.930	2.854	9.3	16.3	4 1	11 4.84	+ 4 47.0	2.289	3.217	7.8	22.5
4 11	11 2.40	+ 9 40.3	2.013	2.867	12.5	16.6	4 11	10 58.91	+ 5 27.5	2.350	3.204	11.0	22.7
415947	2001 WS ₉₇		3 10.1 196°84	5.7/ 3.2	16		53993	2000 GN ₈₃		3 10.1 214°44	4.0/ 5.9	18	
2 1	11 49.04	+19 44.0	2.379	3.187	11.7	21.5	2 1	11 50.71	+14 9.8	2.280	3.080	12.4	19.2
2 11	11 44.31	+21 0.7	2.300	3.184	9.3	21.3	2 11	11 45.69	+14 58.2	2.188	3.072	9.7	19.0
2 21	11 37.53	+22 18.5	2.246	3.180	7.0	21.2	2 21	11 38.53	+15 51.0	2.120	3.063	6.7	18.8
3 2	11 29.23	+23 29.9	2.220	3.175	5.7	21.1	3 2	11 29.74	+16 42.1	2.080	3.054	4.3	18.6
3 12	11 20.19	+24 27.7	2.223	3.170	6.5	21.1	3 12	11 20.13	+17 25.1	2.071	3.043	4.6	18.6
3 22	11 11.29	+25 6.8	2.255	3.164	8.8	21.3	3 22	11 10.63	+17 54.7	2.090	3.032	7.4	18.7
4 1	11 3.41	+25 24.6	2.312	3.158	11.3	21.4	4 1	11 2.15	+18 7.6	2.137	3.021	10.5	18.9
4 11	10 57.24	+25 21.2	2.392	3.150	13.7	21.6	4 11	10 55.43	+18 2.9	2.207	3.008	13.4	19.1
173837	2001 TP ₉₆		3 10.1 122°83	0.0/ 9.9	17		297468	2000 SV ₃₄₃		3 10.1 67°01	2.0/11.6	18	
2 1	11 45.64	+ 2 24.4	2.603	3.378	11.8	20.6	2 1	11 49.80	- 3 9.9	1.413	2.200	19.4	20.2
2 11	11 41.31	+ 2 43.1	2.520	3.389	9.2	20.5	2 11	11 45.72	- 3 0.9	1.354	2.225	15.4	20.0
2 21	11 35.34	+ 3 11.5	2.460	3.399	6.1	20.3	2 21	11 38.82	- 2 30.1	1.314	2.249	10.7	19.8
3 2	11 28.17	+ 3 46.6	2.429	3.410	2.8	20.1	3 2	11 29.88	- 1 40.9	1.297	2.274	5.6	19.6
3 12	11 20.48	+ 4 24.4	2.427	3.420	0.7	19.9	3 12	11 20.12	- 0 40.1	1.307	2.299	2.0	19.4
3 22	11 12.95	+ 5 0.8	2.456	3.430	4.1	20.2	3 22	11 10.88	+ 0 23.5	1.343	2.323	5.8	19.7
4 1	11 6.28	+ 5 31.9	2.513	3.440	7.3	20.4	4 1	11 3.34	+ 1 21.6	1.405	2.347	10.5	20.1
4 11	11 1.00	+ 5 54.6	2.597	3.449	10.1	20.6	4 11	10 58.29	+ 2 7.5	1.490	2.372	14.6	20.4
240016	2001 TU ₁₆₄		3 10.1 125°23	1.9/ 7.7	18		243810	2000 SS ₂₃₃		3 10.1 112°87	3.6/ 6.8	18	
2 1	11 45.88	+ 8 57.0	2.654	3.447	11.1	21.0	2 1	11 51.08	+10 19.6	1.740	2.549	15.3	21.1
2 11	11 41.45	+ 9 32.7	2.577	3.459	8.5	20.8	2 11	11 46.29	+11 20.9	1.677	2.567	11.8	20.9
2 21	11 35.40	+10 14.3	2.524	3.470	5.6	20.7	2 21	11 39.01	+12 30.6	1.637	2.585	7.8	20.7
3 2	11 28.19	+10 57.7	2.501	3.482	2.7	20.5	3 2	11 29.93	+13 40.9	1.623	2.602	4.3	20.5
3 12	11 20.48	+11 38.0	2.507	3.493	2.4	20.5	3 12	11 20.11	+14 43.2	1.638	2.619	4.4	20.5
3 22	11 12.96	+12 11.3	2.543	3.503	5.1	20.7	3 22	11 10.70	+15 30.6	1.680	2.634	7.8	20.8
4 1	11 6.30	+12 34.4	2.608	3.514	8.0	20.9	4 1	11 2.74	+15 58.9	1.749	2.650	11.5	21.0
4 11	11 1.03	+12 45.5	2.698	3.524	10.6	21.1	4 11	10 56.98	+16 6.8	1.840	2.664	14.8	21.3
61207	2000 OZ ₇		3 10.1 199°78	3.6/14.2	18		162893	2001 GK ₃		3 10.1 237°86	14.6/22.5	18	
2 1	11 48.24	-10 7.3	2.743	3.450	12.8	19.9	2 1	11 47.74	+28 12.1	1.204	2.052	18.4	19.4
2 11	11 43.43	-10 18.8	2.633	3.446	10.7	19.8	2 11	11 45.66	+31 57.8	1.156	2.047	15.9	19.2
2 21	11 36.85	-10 15.3	2.545	3.440	8.1	19.6	2 21	11 39.77	+35 39.5	1.131	2.041	14.6	19.1
3 2	11 28.93	- 9 56.5	2.484	3.434	5.5	19.4	3 2	11 30.68	+38 53.5	1.130	2.035	15.3	19.2
3 12	11 20.28	- 9 24.3	2.451	3.427	3.7	19.3	3 12	11 19.87	+41 19.8	1.152	2.029	17.6	19.3
3 22	11 11.65	- 8 41.7	2.449	3.419	4.5	19.3	3 22	11 9.28	+42 48.2	1.193	2.023	20.5	19.4
4 1	11 3.78	- 7 53.5	2.477	3.411	7.0	19.5	4 1	11 0.80	+43 18.6	1.250	2.016	23.3	19.6
4 11	10 57.28	- 7 4.6	2.532	3.401	9.7	19.6	4 11	10 55.75	+42 58.9	1.319	2.009	25.8	19.8
433732	2015 AZ ₁₄₉		3 10.1 114°34	1.0/11.1	18		164706	1998 DJ ₁₉		3 10.1 79°67	0.3/ 9.8	18	
2 1	11 49.33	- 0 59.3	2.280	3.042	13.6	22.1	2 1	11 51.65	+ 3 38.5	1.516	2.316	17.6	20.4
2 11	11 44.34	- 0 49.9	2.203	3.061	10.8	21.9	2 11	11 47.14	+ 3 44.6	1.445	2.328	13.8	20.2
2 21	11 37.43	- 0 27.8	2.149	3.081	7.4	21.7	2 21	11 39.81	+ 4 4.5	1.395	2.340	9.2	20.0
3 2	11 29.15	+ 0 4.6	2.122	3.099	3.7	21.5	3 2	11 30.38	+ 4 34.0	1.369	2.352	4.1	19.7
3 12	11 20.27	+ 0 43.2	2.125	3.117	1.1	21.4	3 12	11 20.01	+ 5 6.7	1.371	2.364	1.2	19.5
3 22	11 11.66	+ 1 23.2	2.157	3.134	4.3	21.6	3 22	11 10.02	+ 5 36.0	1.400	2.375	6.3	19.9
4 1	11 4.10	+ 1 59.9	2.219	3.151	7.8	21.9	4 1	11 1.63	+ 5 56.3	1.454	2.387	11.0	20.2
4 11	10 58.21	+ 2 29.3	2.306	3.167	10.9	22.1	4 11	10 55.72	+ 6 3.8	1.531	2.399	15.1	20.5
148808	2001 US ₁₀₈		3 10.1 143°68	1.0/11.2	18		350464	1998 QN ₄₇		3 10.1 177°93	1.2/ 8.9	18	
2 1	11 47.09	- 2 9.5	2.287	3.048	13.6	20.5	2 1	11 50.17	+ 3 42.8	1.928	2.715	14.9	21.6
2 11	11 42.71	- 1 44.9	2.201	3.059	10.8	20.3	2 11	11 45.55	+ 4 31.4	1.841	2.718	11.6	21.4
2 21	11 36.41	- 1 5.7	2.138	3.069	7.4	20.1	2 21	11 38.57	+ 5 34.3	1.776	2.720	7.7	21.2
3 2	11 28.72	- 0 14.7	2.102	3.079	3.8	19.9	3 2	11 29.80	+ 6 46.2	1.739	2.721	3.4	20.9
3 12	11 20.37	+ 0 43.6	2.095	3.088	1.1	19.7	3 12	11 20.14	+ 7 59.7	1.731	2.722	1.9	20.8
3 22	11 12.21	+ 1 43.4	2.119	3.096	4.3	20.0	3 22	11 10.63	+ 9 7.4	1.752	2.721	6.1	21.1
4 1	11 5.02	+ 2 39.3	2.171	3.104	7.9	20.2	4 1	11 2.31	+10 2.9	1.801	2.719	10.2	21.3
4 11	10 59.44	+ 3 26.4	2.250	3.112	11.1	20.4	4 11	10 55.98	+10 41.9	1.874	2.717	13.8	21.5
218691	2005 TF ₇₅		3 10.1 85°18	5.4/16.2	18		244141	2001 WV		3 10.1 184°94	3.2/14.1	18	
2 1	11 46.94	-15 17.1	2.003	2.707	17.0	20.5	2 1	11 43.34	- 9 30.6	2.656	3.379	12.8	20.5
2 11	11 42.82	-15 17.4	1.930	2.734	14.3	20.3	2 11	11 39.67	- 9 27.7	2.555	3.379	10.6	20.4
2 21	11 36.57	-14 53.2	1.877	2.760	11.2	20.2	2 21	11 34.35	- 9 8.8	2.476	3.379	8.0	20.2
3 2	11 28.79	-14 4.5	1.847	2.786	8.0	20.0	3 2	11 27.80	- 8 34.5	2.423	3.379	5.2	20.0
3 12	11 20.37	-12 54.7	1.844	2.812	5.7	19.9	3 12	11 20.63	- 7 47.2	2.398	3.378	3.3	19.9
3 22	11 12.26	-11 30.1	1.869	2.837	5.9	20.0	3 22	11 13.53	- 6 51.1	2.403	3.377	4.2	19.9
4 1	11 5.36	- 9 58.9	1.923	2.862	8.4	20.2	4 1	11 7.18	- 5 51.2	2.437	3.376	6.8	20.1
4 11	11 0.31	- 8 29.4	2.002	2.886	11.3	20.4	4 11	11 2.17	- 4 52.8	2.497	3.374	9.6	20.3
145408	2005 NJ ₈₄		3 10.1 91°96	2.5/12.7	17		1139	Atami		3 10.1 80°66	7.6/16.8	18	R
2 1	11 45.41	- 5 9.3	2.427	3.174	13.3	20.5	2 1						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
200710	2001 UN ₁₅₃		3 10.1 145°09	4°6/ 6.0	18		92347	2000 GV ₁₆₀		3 10.1 272°59	5°0/ 5.7	18	
2 1	11 52.22	+13 15.9	1.742	2.554	15.2	20.4	2 1	11 46.76	+10 57.3	1.484	2.312	16.6	20.3
2 11	11 47.31	+14 17.3	1.672	2.563	11.8	20.2	2 11	11 43.81	+12 17.2	1.397	2.298	12.9	20.0
2 21	11 39.79	+15 25.0	1.625	2.572	8.0	20.0	2 21	11 37.95	+13 50.7	1.332	2.284	8.8	19.7
3 2	11 30.35	+16 30.6	1.605	2.580	5.0	19.8	3 2	11 29.72	+15 28.5	1.292	2.270	5.4	19.5
3 12	11 20.05	+17 25.4	1.613	2.587	5.4	19.8	3 12	11 20.19	+16 58.6	1.279	2.256	6.0	19.5
3 22	11 10.08	+18 2.6	1.648	2.594	8.7	20.0	3 22	11 10.70	+18 10.1	1.291	2.242	10.1	19.7
4 1	11 1.58	+18 18.6	1.709	2.600	12.3	20.3	4 1	11 2.62	+18 55.5	1.327	2.227	14.5	19.9
4 11	10 55.36	+18 13.1	1.792	2.606	15.6	20.5	4 11	10 57.03	+19 12.3	1.383	2.213	18.5	20.1
281665	2008 VG ₂₃		3 10.1 125°54	4°6/ 4.8	17		335563	2006 BQ ₂₅₃		3 10.1 225°26	1°5/ 11.5	17	
2 1	11 46.72	+16 10.1	2.256	3.068	12.2	21.3	2 1	11 47.06	- 1 50.9	2.103	2.871	14.4	20.8
2 11	11 42.50	+17 12.4	2.185	3.075	9.4	21.2	2 11	11 43.00	- 1 51.2	2.007	2.868	11.5	20.6
2 21	11 36.31	+18 17.2	2.139	3.082	6.6	21.0	2 21	11 36.82	- 1 37.4	1.934	2.865	8.1	20.4
3 2	11 28.69	+19 18.0	2.121	3.089	4.8	20.9	3 2	11 29.02	- 1 11.0	1.886	2.862	4.3	20.1
3 12	11 20.45	+20 8.0	2.132	3.096	5.4	20.9	3 12	11 20.38	- 0 36.0	1.866	2.858	1.6	19.9
3 22	11 12.43	+20 42.3	2.171	3.103	7.8	21.1	3 22	11 11.82	+ 0 2.9	1.876	2.854	4.7	20.1
4 1	11 5.47	+20 58.1	2.236	3.109	10.6	21.3	4 1	11 4.27	+ 0 40.2	1.913	2.851	8.5	20.4
4 11	11 0.20	+20 55.3	2.323	3.115	13.1	21.5	4 11	10 58.46	+ 1 11.2	1.976	2.847	12.0	20.6
433267	2012 XW ₁₃₄		3 10.1 231°17	5°0/ 3.8	17		215114	1998 DJ ₈		3 10.1 21°37	0°9/ 10.7	18	
2 1	11 45.33	+18 39.6	2.510	3.322	11.1	20.9	2 1	11 45.82	+ 0 6.2	1.270	2.084	19.7	20.3
2 11	11 41.33	+19 42.5	2.429	3.317	8.7	20.7	2 11	11 43.19	+ 0 11.1	1.200	2.088	15.6	20.0
2 21	11 35.51	+20 46.4	2.374	3.312	6.4	20.6	2 21	11 37.51	+ 0 36.5	1.148	2.094	10.7	19.8
3 2	11 28.34	+21 45.3	2.346	3.307	5.0	20.5	3 2	11 29.46	+ 1 18.7	1.119	2.100	5.2	19.5
3 12	11 20.53	+22 33.0	2.347	3.301	5.7	20.5	3 12	11 20.28	+ 2 10.5	1.114	2.107	1.2	19.2
3 22	11 12.85	+23 4.9	2.377	3.296	7.9	20.6	3 22	11 11.42	+ 3 3.2	1.134	2.115	6.6	19.6
4 1	11 6.07	+23 18.5	2.432	3.290	10.4	20.8	4 1	11 4.24	+ 3 47.9	1.178	2.123	11.8	19.9
4 11	11 0.81	+23 13.4	2.510	3.285	12.7	20.9	4 11	10 59.73	+ 4 18.3	1.244	2.132	16.4	20.2
331252	2011 CE ₂		3 10.1 64°56	4°1/ 5.8	17		353412	2011 QH ₁₃		3 10.1 241°17	5°6/ 16.1	18	
2 1	11 45.00	+11 21.1	1.836	2.656	14.2	20.4	2 1	11 47.08	-15 3.8	2.637	3.320	13.8	20.9
2 11	11 41.66	+12 34.8	1.761	2.657	10.9	20.2	2 11	11 42.75	-15 44.5	2.525	3.311	11.9	20.7
2 21	11 36.02	+13 57.3	1.709	2.659	7.4	20.0	2 21	11 36.55	-16 8.9	2.433	3.301	9.6	20.6
3 2	11 28.65	+15 20.8	1.683	2.660	4.5	19.8	3 2	11 28.89	-16 15.3	2.366	3.290	7.4	20.4
3 12	11 20.46	+16 36.4	1.685	2.662	5.0	19.9	3 12	11 20.41	-16 3.8	2.326	3.280	5.8	20.3
3 22	11 12.46	+17 36.4	1.715	2.663	8.2	20.1	3 22	11 11.88	-15 36.5	2.315	3.269	6.0	20.3
4 1	11 5.67	+18 15.8	1.770	2.665	11.8	20.3	4 1	11 4.10	-14 57.3	2.332	3.258	7.8	20.4
4 11	11 0.83	+18 32.9	1.848	2.667	14.9	20.5	4 11	10 57.75	-14 11.8	2.375	3.247	10.2	20.5
43318	2000 JO ₃₇		3 10.1 263°15	3°5/ 13.3	18		272710	2005 YC ₂₉		3 10.1 5°22	2°6/ 8.0	18	
2 1	11 45.41	- 7 28.9	1.898	2.652	16.3	19.0	2 1	11 42.60	+ 7 14.6	1.366	2.199	17.5	20.4
2 11	11 42.07	- 7 31.1	1.796	2.642	13.4	18.8	2 11	11 40.50	+ 7 51.5	1.296	2.199	13.5	20.2
2 21	11 36.41	- 7 13.1	1.715	2.632	9.9	18.5	2 21	11 35.60	+ 8 41.9	1.245	2.200	8.9	19.9
3 2	11 28.90	- 6 35.1	1.657	2.622	6.2	18.3	3 2	11 28.56	+ 9 39.0	1.219	2.202	4.2	19.6
3 12	11 20.38	- 5 40.3	1.626	2.612	3.5	18.1	3 12	11 20.51	+10 33.6	1.217	2.206	3.4	19.6
3 22	11 11.86	- 4 34.6	1.624	2.602	5.3	18.2	3 22	11 12.74	+11 17.1	1.241	2.211	7.9	19.8
4 1	11 4.38	- 3 25.5	1.648	2.591	9.2	18.4	4 1	11 6.49	+11 43.1	1.288	2.216	12.5	20.1
4 11	10 58.81	- 2 20.6	1.697	2.580	13.0	18.6	4 11	11 2.65	+11 48.6	1.356	2.223	16.6	20.4
217942	2001 TF ₁₄₆		3 10.1 221°89	2°4/ 7.6	17		506377	2017 QF ₃₁		3 10.1 216°26	2°9/ 13.3	17	
2 1	11 46.57	+ 7 26.7	2.046	2.847	13.6	20.9	2 1	11 47.01	- 7 34.3	2.531	3.261	13.2	22.6
2 11	11 42.70	+ 8 19.8	1.954	2.841	10.5	20.7	2 11	11 42.68	- 7 30.9	2.420	3.252	10.9	22.4
2 21	11 36.66	+ 9 23.9	1.886	2.834	7.0	20.5	2 21	11 36.48	- 7 11.7	2.331	3.241	8.1	22.2
3 2	11 28.95	+10 33.3	1.845	2.827	3.4	20.2	3 2	11 28.85	- 6 37.2	2.268	3.231	5.0	21.9
3 12	11 20.38	+11 40.8	1.833	2.819	3.0	20.2	3 12	11 20.44	- 5 50.2	2.235	3.219	2.9	21.8
3 22	11 11.90	+12 39.6	1.849	2.811	6.6	20.4	3 22	11 12.02	- 4 54.7	2.231	3.207	4.3	21.9
4 1	11 4.45	+13 24.1	1.893	2.802	10.3	20.6	4 1	11 4.39	- 3 56.2	2.257	3.194	7.4	22.0
4 11	10 58.80	+13 51.2	1.960	2.794	13.7	20.8	4 11	10 58.21	- 3 0.2	2.310	3.181	10.5	22.2
309254	2007 RL ₄₄		3 10.1 101°33	1°8/ 11.5	18		230533	2002 XE ₉₅		3 10.1 69°40	3°3/ 7.7	18	
2 1	11 50.91	- 2 0.5	1.648	2.425	17.4	21.4	2 1	11 49.79	+ 7 38.8	1.275	2.101	18.9	20.5
2 11	11 46.40	- 2 4.7	1.572	2.438	13.9	21.2	2 11	11 46.13	+ 8 32.9	1.217	2.116	14.5	20.3
2 21	11 39.25	- 1 51.4	1.517	2.450	9.7	21.0	2 21	11 39.33	+ 9 41.1	1.179	2.131	9.6	20.0
3 2	11 30.13	- 1 22.9	1.487	2.463	5.1	20.7	3 2	11 30.22	+10 54.4	1.164	2.147	4.6	19.8
3 12	11 20.12	- 0 43.9	1.483	2.475	1.9	20.6	3 12	11 20.14	+12 1.7	1.175	2.162	4.1	19.8
3 22	11 10.40	- 0 0.8	1.508	2.487	5.5	20.8	3 22	11 10.58	+12 53.7	1.212	2.177	8.7	20.1
4 1	11 2.13	+ 0 39.6	1.559	2.498	9.9	21.1	4 1	11 2.88	+13 24.2	1.272	2.193	13.4	20.4
4 11	10 56.15	+ 1 11.5	1.634	2.510	13.8	21.4	4 11	10 57.93	+13 31.4	1.353	2.208	17.4	20.7
296311	2009 DS ₁₃₁		3 10.1 70°06	0°7/ 9.4	17		190818	2001 SR ₂		3 10.1 114°57	2°3/ 8.2	18	
2 1	11 46.78	+ 5 5.0	2.300	3.087	12.7	21.0	2 1	11 53.20	+ 7 26.4	1.670	2.471	16.2	20.5
2 11	11 42.46	+ 5 16.3	2.216	3.094	9.9	20.8	2 11	11 48.04	+ 8 4.4	1.603	2.489	12.5	20.2
2 21	11 36.26	+ 5 36.2	2.157	3.100	6.6	20.6	2 21	11 40.25	+ 8 53.0	1.559	2.506	8.2	20.0
3 2	11 28.68	+ 6 1.3	2.124	3.107	2.9	20.4	3 2	11 30.55	+ 9 45.8	1.541	2.523	3.9	19.8
3 12	11 20.47	+ 6 27.4	2.121	3.113	1.2	20.3	3 12	11 20.06	+10 35.0	1.551	2.539	3.0	19.8
3 22	11 12.45	+ 6 50.3	2.147	3.120	4.8	20.5	3 22	11 10.00	+11 13.9	1.589	2.555	7.0	20.1
4 1	11 5.40	+ 7 6.2	2.202	3.126	8.3	20.8	4 1	11 1.48	+11 37.7	1.654	2.570	11.1	20.3
4 11	10 59.95	+ 7 12.6	2.281	3.133	11.3	21.0	4 11	10 55.29	+11 44.4	1.742	2.584	14.7	20.6
297197	2011 AE ₃₀		3 10.1 49°64	1°0/ 10.9	18		165666	2001 NF ₁		3 10.1 133°26	1°5/ 8.2	18	
2 1	11 47.49	- 0 2.8											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
415330	2013 <i>HS</i> ₅₃		3 10.1 216°55	3°4/13.2	16		454103	2013 <i>CZ</i> ₃		3 10.1 17°90	0°5/ 9.7	18	
2 1	11 47.51	- 7 46.5	1.907	2.655	16.4	22.9	2 1	11 43.51	+ 0 34.0	1.247	2.067	19.6	21.1
2 11	11 43.68	- 7 44.6	1.807	2.649	13.5	22.7	2 11	11 41.48	+ 1 20.5	1.175	2.070	15.4	20.9
2 21	11 37.48	- 7 22.0	1.727	2.643	10.0	22.4	2 21	11 36.44	+ 2 30.9	1.122	2.072	10.3	20.6
3 2	11 29.40	- 6 38.9	1.671	2.636	6.2	22.2	3 2	11 29.02	+ 3 59.4	1.092	2.076	4.6	20.3
3 12	11 20.31	- 5 39.0	1.642	2.628	3.5	22.0	3 12	11 20.45	+ 5 35.2	1.087	2.080	1.5	20.1
3 22	11 11.23	- 4 28.2	1.642	2.620	5.3	22.1	3 22	11 12.15	+ 7 6.0	1.107	2.084	7.3	20.4
4 1	11 3.24	- 3 14.4	1.670	2.611	9.2	22.3	4 1	11 5.49	+ 8 21.1	1.150	2.089	12.7	20.8
4 11	10 57.20	- 2 5.5	1.722	2.602	13.0	22.5	4 11	11 1.46	+ 9 13.5	1.215	2.095	17.3	21.0
181544	2006 <i>UH</i> ₁₉₁		3 10.1 143°40	2°3/13.2	17		109499	2001 <i>QV</i> ₂₃₁		3 10.1 83°61	3°4/13.6	18	
2 1	11 45.05	- 6 34.0	3.056	3.783	11.2	22.0	2 1	11 44.58	- 9 5.2	1.791	2.543	17.1	19.8
2 11	11 40.68	- 6 33.2	2.962	3.793	9.1	21.9	2 11	11 41.36	- 8 45.8	1.710	2.554	14.0	19.6
2 21	11 34.87	- 6 20.1	2.893	3.803	6.7	21.7	2 21	11 35.84	- 8 2.6	1.649	2.566	10.4	19.4
3 2	11 28.01	- 5 55.8	2.850	3.813	4.1	21.6	3 2	11 28.60	- 6 57.0	1.612	2.577	6.4	19.2
3 12	11 20.67	- 5 22.6	2.838	3.822	2.3	21.4	3 12	11 20.57	- 5 34.3	1.603	2.588	3.5	19.0
3 22	11 13.44	- 4 43.8	2.856	3.831	3.5	21.5	3 22	11 12.75	- 4 2.4	1.621	2.600	5.2	19.2
4 1	11 6.91	- 4 3.1	2.903	3.839	6.0	21.7	4 1	11 6.15	- 2 30.4	1.666	2.611	9.0	19.4
4 11	11 1.57	- 3 24.5	2.979	3.847	8.5	21.9	4 11	11 1.50	- 1 6.6	1.737	2.622	12.6	19.6
430936	2005 <i>UV</i> ₉₂		3 10.1 214°80	0°3/ 9.8	17		94344	2001 <i>QN</i> ₈₃		3 10.1 221°97	1°3/11.2	18	
2 1	11 48.05	+ 2 47.0	2.145	2.927	13.7	22.4	2 1	11 51.16	- 1 22.8	1.896	2.665	15.8	20.0
2 11	11 43.74	+ 3 7.5	2.048	2.922	10.8	22.2	2 11	11 46.58	- 1 15.1	1.793	2.655	12.6	19.7
2 21	11 37.32	+ 3 39.9	1.974	2.916	7.2	21.9	2 21	11 39.48	- 0 51.3	1.711	2.644	8.8	19.5
3 2	11 29.26	+ 4 20.9	1.927	2.909	3.3	21.7	3 2	11 30.37	- 0 13.3	1.655	2.632	4.5	19.2
3 12	11 20.36	+ 5 5.5	1.910	2.902	1.0	21.5	3 12	11 20.14	+ 0 34.4	1.627	2.620	1.3	18.9
3 22	11 11.54	+ 5 48.3	1.921	2.895	5.1	21.8	3 22	11 9.88	+ 1 25.7	1.629	2.606	5.3	19.2
4 1	11 3.72	+ 6 24.1	1.961	2.887	9.0	22.0	4 1	11 0.75	+ 2 13.9	1.658	2.592	9.8	19.4
4 11	10 57.63	+ 6 49.1	2.025	2.879	12.4	22.2	4 11	10 53.65	+ 2 53.1	1.712	2.577	13.8	19.6
388263	2006 <i>QG</i> ₄₉		3 10.1 176°07	1°5/ 7.9	18		32331	2000 <i>QK</i> ₆₅		3 10.1 139°84	3°0/ 5.9	18	
2 1	11 42.70	+ 5 30.5	2.916	3.702	10.4	21.6	2 1	11 43.78	+ 12 10.4	2.749	3.552	10.5	18.7
2 11	11 38.99	+ 6 35.5	2.825	3.704	8.0	21.5	2 11	11 39.89	+ 13 11.5	2.673	3.560	8.0	18.6
2 21	11 33.81	+ 7 49.5	2.760	3.705	5.2	21.3	2 21	11 34.43	+ 14 17.2	2.622	3.568	5.4	18.4
3 2	11 27.56	+ 9 8.4	2.724	3.706	2.4	21.1	3 2	11 27.85	+ 15 22.5	2.600	3.576	3.3	18.3
3 12	11 20.78	+ 10 26.7	2.720	3.707	2.0	21.1	3 12	11 20.76	+ 16 22.0	2.608	3.583	3.6	18.3
3 22	11 14.09	+ 11 39.4	2.746	3.707	4.7	21.2	3 22	11 13.83	+ 17 11.0	2.646	3.590	5.9	18.5
4 1	11 8.09	+ 12 42.1	2.802	3.707	7.5	21.4	4 1	11 7.68	+ 17 46.4	2.712	3.597	8.5	18.6
4 11	11 3.29	+ 13 31.7	2.883	3.707	10.0	21.6	4 11	11 2.85	+ 18 6.7	2.802	3.603	10.9	18.8
134885	2000 <i>SZ</i> ₃₈		3 10.1 143°53	3°8/ 5.4	18		159899	2004 <i>TB</i> ₂₈₂		3 10.1 124°18	4°1/14.4	18	
2 1	11 48.09	+ 17 4.0	2.877	3.676	10.2	20.1	2 1	11 44.86	- 10 21.8	2.101	2.833	15.5	20.1
2 11	11 43.08	+ 17 42.2	2.802	3.684	7.9	19.9	2 11	11 41.32	- 10 24.6	2.009	2.838	12.9	19.9
2 21	11 36.47	+ 18 20.9	2.754	3.693	5.6	19.8	2 21	11 35.71	- 10 7.1	1.938	2.842	9.8	19.7
3 2	11 28.74	+ 18 55.5	2.734	3.701	3.9	19.7	3 2	11 28.54	- 9 29.7	1.891	2.846	6.5	19.6
3 12	11 20.52	+ 19 21.6	2.744	3.709	4.3	19.7	3 12	11 20.60	- 8 35.2	1.871	2.850	4.2	19.4
3 22	11 12.52	+ 19 35.9	2.784	3.716	6.3	19.9	3 22	11 12.77	- 7 29.0	1.880	2.854	5.1	19.5
4 1	11 5.37	+ 19 36.7	2.852	3.723	8.6	20.0	4 1	11 5.95	- 6 17.9	1.916	2.858	8.2	19.7
4 11	10 59.60	+ 19 23.8	2.944	3.730	10.8	20.2	4 11	11 0.85	- 5 9.2	1.978	2.861	11.4	19.9
310419	1999 <i>UO</i> ₃₃		3 10.1 78°46	1°5/ 8.9	18		55821	1995 <i>JA</i> ₁		3 10.1 192°59	7°0/ 2.7	18	
2 1	11 50.41	+ 5 14.1	1.583	2.388	16.8	21.3	2 1	11 51.48	+ 23 20.1	2.128	2.939	12.9	18.9
2 11	11 45.95	+ 5 47.3	1.521	2.408	13.0	21.1	2 11	11 46.48	+ 24 29.1	2.057	2.937	10.4	18.8
2 21	11 38.89	+ 6 33.3	1.481	2.429	8.5	20.9	2 21	11 39.15	+ 25 35.7	2.009	2.936	8.1	18.6
3 2	11 29.94	+ 7 26.3	1.466	2.449	3.8	20.6	3 2	11 30.09	+ 26 31.5	1.988	2.934	7.1	18.6
3 12	11 20.24	+ 8 18.3	1.479	2.470	2.2	20.6	3 12	11 20.24	+ 27 9.2	1.995	2.932	7.9	18.6
3 22	11 11.00	+ 9 2.3	1.519	2.490	6.6	20.9	3 22	11 10.66	+ 27 24.1	2.029	2.929	10.1	18.7
4 1	11 3.30	+ 9 32.8	1.585	2.510	10.9	21.2	4 1	11 2.32	+ 27 14.7	2.088	2.926	12.6	18.9
4 11	10 57.92	+ 9 47.0	1.674	2.529	14.6	21.5	4 11	10 55.99	+ 26 42.7	2.167	2.922	15.1	19.0
215014	2008 <i>SM</i> ₁		3 10.1 151°02	1°9/12.5	17		498471	2008 <i>CA</i> ₅₁		3 10.1 12°07	2°0/ 8.6	17	
2 1	11 45.17	- 5 49.7	2.688	3.427	12.3	21.5	2 1	11 48.40	+ 9 31.8	1.698	2.511	15.5	20.3
2 11	11 40.98	- 5 26.5	2.596	3.436	9.9	21.3	2 11	11 44.38	+ 9 27.3	1.625	2.517	12.0	20.1
2 21	11 35.17	- 4 48.7	2.527	3.446	7.1	21.1	2 21	11 37.87	+ 9 28.9	1.574	2.523	7.9	19.9
3 2	11 28.19	- 3 58.0	2.485	3.454	4.1	20.9	3 2	11 29.52	+ 9 32.4	1.548	2.531	3.7	19.6
3 12	11 20.65	- 2 58.2	2.473	3.462	1.9	20.8	3 12	11 20.38	+ 9 32.6	1.550	2.539	2.6	19.6
3 22	11 13.24	- 1 53.9	2.492	3.470	3.8	20.9	3 22	11 11.57	+ 9 25.3	1.579	2.549	6.5	19.8
4 1	11 6.62	- 0 50.3	2.540	3.476	6.7	21.1	4 1	11 4.14	+ 9 7.9	1.634	2.560	10.6	20.1
4 11	11 1.35	+ 0 7.7	2.616	3.483	9.6	21.3	4 11	10 58.88	+ 8 38.9	1.712	2.571	14.1	20.3
170332	2003 <i>SF</i> ₁₀₃		3 10.1 155°88	0°5/10.6	18		27418	2000 <i>ET</i> ₁₅₁		3 10.1 325°14	8°7/18.8	18	
2 1	11 48.98	- 0 32.6	2.043	2.815	14.7	21.4	2 1	11 43.42	- 20 31.5	1.979	2.658	17.9	17.6
2 11	11 44.46	- 0 4.7	1.957	2.823	11.6	21.2	2 11	11 40.64	- 21 24.5	1.877	2.649	15.9	17.4
2 21	11 37.76	+ 0 38.4	1.894	2.830	7.9	21.0	2 21	11 35.54	- 21 53.4	1.792	2.640	13.5	17.3
3 2	11 29.44	+ 1 33.4	1.857	2.837	3.8	20.8	3 2	11 28.58	- 21 54.2	1.728	2.631	11.0	17.1
3 12	11 20.35	+ 2 34.9	1.850	2.843	0.8	20.5	3 12	11 20.57	- 21 25.9	1.687	2.623	9.2	16.9
3 22	11 11.44	+ 3 36.4	1.872	2.848	4.9	20.9	3 22	11 12.51	- 20 30.9	1.672	2.615	8.8	16.9
4 1	11 3.64	+ 4 31.7	1.922	2.853	8.9	21.1	4 1	11 5.46	- 19 15.3	1.681	2.607	10.3	17.0
4 11	10 57.68	+ 5 15.9	1.997	2.857	12.4	21.3	4 11	11 0.31	- 17 48.3	1.714	2.600	12.8	17.1
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
128857	2004 SV ₁₉		3 10.1 255°50	4.6/13.4	17		238801	2005 LF ₃₆		3 10.1 57°54	3.9/5.9	17	
2 1	11 50.40	- 7 22.4	1.671	2.426	18.1	20.3	2 1	11 45.86	+13 43.3	2.177	2.989	12.5	20.2
2 11	11 46.44	- 7 56.7	1.569	2.414	15.1	20.0	2 11	11 41.97	+14 34.7	2.099	2.991	9.7	20.0
2 21	11 39.66	- 8 11.7	1.486	2.401	11.4	19.8	2 21	11 36.07	+15 30.6	2.046	2.992	6.6	19.8
3 2	11 30.55	- 8 6.0	1.426	2.388	7.4	19.5	3 2	11 28.69	+16 24.8	2.020	2.994	4.2	19.7
3 12	11 20.10	- 7 41.0	1.392	2.375	4.7	19.3	3 12	11 20.62	+17 10.8	2.022	2.996	4.6	19.7
3 22	11 9.53	- 7 1.2	1.386	2.361	6.4	19.4	3 22	11 12.75	+17 43.5	2.053	2.998	7.3	19.9
4 1	11 0.19	- 6 13.7	1.406	2.348	10.5	19.6	4 1	11 5.92	+17 59.5	2.110	2.999	10.4	20.1
4 11	10 53.15	- 5 26.5	1.449	2.334	14.7	19.8	4 11	11 0.79	+17 57.8	2.189	3.001	13.2	20.3
100151	1993 TT ₁₇		3 10.1 149°79	0.6/9.4	18		3044	Saltykov		3 10.1 232°47	5.6/16.7	18	
2 1	11 48.65	+ 3 27.8	2.237	3.017	13.3	21.0	2 1	11 44.61	-16 25.9	2.517	3.199	14.4	17.2
2 11	11 43.98	+ 3 59.2	2.154	3.027	10.3	20.8	2 11	11 40.94	-16 40.9	2.404	3.190	12.4	17.1
2 21	11 37.34	+ 4 41.7	2.094	3.036	6.9	20.6	2 21	11 35.41	-16 36.1	2.312	3.180	10.0	16.9
3 2	11 29.23	+ 5 31.4	2.062	3.044	3.0	20.4	3 2	11 28.44	-16 10.2	2.244	3.169	7.6	16.7
3 12	11 20.46	+ 6 22.9	2.059	3.051	1.2	20.3	3 12	11 20.67	-15 24.2	2.202	3.159	5.8	16.6
3 22	11 11.88	+ 7 10.8	2.087	3.058	5.0	20.5	3 22	11 12.89	-14 21.4	2.189	3.148	5.9	16.6
4 1	11 4.32	+ 7 50.2	2.142	3.065	8.6	20.8	4 1	11 5.88	-13 7.3	2.203	3.136	7.8	16.7
4 11	10 58.45	+ 8 17.8	2.223	3.070	11.8	21.0	4 11	11 0.35	-11 48.9	2.245	3.124	10.4	16.8
222286	2000 SR ₁₀₃		3 10.1 205°86	0.7/9.4	17		457392	2008 TX ₆₃		3 10.1 188°96	0.3/10.3	18	
2 1	11 49.48	+ 4 49.0	2.258	3.040	13.1	21.0	2 1	11 49.96	+ 0 17.5	1.774	2.557	16.2	22.9
2 11	11 44.73	+ 5 5.0	2.162	3.036	10.2	20.8	2 11	11 45.68	+ 0 44.6	1.684	2.556	12.8	22.6
2 21	11 37.92	+ 5 30.4	2.089	3.032	6.8	20.6	2 21	11 38.87	+ 1 28.8	1.616	2.555	8.7	22.4
3 2	11 29.55	+ 6 2.0	2.044	3.026	3.1	20.4	3 2	11 30.08	+ 2 26.5	1.573	2.553	4.1	22.1
3 12	11 20.38	+ 6 34.9	2.029	3.021	1.3	20.2	3 12	11 20.29	+ 3 31.2	1.558	2.551	0.9	21.8
3 22	11 11.31	+ 7 4.6	2.043	3.015	5.1	20.5	3 22	11 10.61	+ 4 35.4	1.572	2.548	5.7	22.2
4 1	11 3.22	+ 7 26.7	2.086	3.008	8.8	20.7	4 1	11 2.18	+ 5 31.7	1.613	2.544	10.2	22.4
4 11	10 56.81	+ 7 38.3	2.154	3.001	12.1	20.9	4 11	10 55.89	+ 6 14.7	1.678	2.540	14.2	22.7
119304	2001 SQ ₃₃		3 10.1 329°62	2.2/8.6	18		297743	2001 XH ₁₃		3 10.1 77°83	5.6/16.2	17	
2 1	11 45.03	+ 7 24.9	1.339	2.169	17.9	18.6	2 1	11 48.14	-14 24.3	2.441	3.132	14.6	20.4
2 11	11 42.79	+ 7 38.8	1.247	2.149	14.1	18.3	2 11	11 43.50	-15 6.7	2.358	3.150	12.4	20.3
2 21	11 37.49	+ 8 5.3	1.176	2.129	9.5	18.0	2 21	11 36.99	-15 31.4	2.296	3.168	9.9	20.2
3 2	11 29.63	+ 8 39.3	1.127	2.111	4.4	17.7	3 2	11 29.09	-15 37.0	2.258	3.186	7.4	20.0
3 12	11 20.33	+ 9 12.6	1.103	2.093	3.0	17.5	3 12	11 20.54	-15 24.6	2.248	3.204	5.8	19.9
3 22	11 11.01	+ 9 37.4	1.103	2.077	8.1	17.8	3 22	11 12.16	-14 56.9	2.265	3.222	5.9	20.0
4 1	11 3.16	+ 9 46.9	1.127	2.061	13.4	18.0	4 1	11 4.72	-14 18.5	2.311	3.240	7.7	20.1
4 11	10 57.95	+ 9 37.5	1.171	2.047	18.1	18.2	4 11	10 58.88	-13 35.3	2.383	3.257	10.1	20.3
193889	2001 QW ₂₀₈		3 10.1 206°69	0.0/9.9	18		20894	Krumeich		3 10.1 226°19	2.4/7.7	18	
2 1	11 50.83	+ 1 45.3	1.742	2.528	16.3	21.3	2 1	11 47.08	+ 8 39.0	2.060	2.863	13.5	19.4
2 11	11 46.45	+ 2 5.2	1.649	2.524	12.8	21.1	2 11	11 43.08	+ 9 19.1	1.972	2.859	10.4	19.2
2 21	11 39.44	+ 2 40.6	1.578	2.519	8.7	20.8	2 21	11 36.92	+10 8.0	1.907	2.855	6.9	19.0
3 2	11 30.36	+ 3 27.9	1.532	2.514	4.0	20.5	3 2	11 29.13	+11 0.4	1.869	2.851	3.4	18.8
3 12	11 20.19	+ 4 21.0	1.515	2.508	1.0	20.2	3 12	11 20.53	+11 49.8	1.860	2.846	3.0	18.7
3 22	11 10.11	+ 5 12.7	1.526	2.501	5.9	20.6	3 22	11 12.05	+12 30.4	1.880	2.841	6.5	18.9
4 1	11 1.30	+ 5 56.2	1.563	2.494	10.6	20.8	4 1	11 4.63	+12 57.4	1.926	2.837	10.1	19.1
4 11	10 54.68	+ 6 26.6	1.625	2.486	14.6	21.1	4 11	10 59.01	+13 8.6	1.996	2.832	13.4	19.3
26222	1997 WC ₄₅		3 10.1 189°76	3.4/14.3	18		416953	2005 SE ₁₀₆		3 10.1 61°21	1.5/8.9	18	
2 1	11 43.95	-10 12.0	2.598	3.318	13.2	18.8	2 1	11 48.65	+ 5 54.5	1.682	2.487	15.9	21.6
2 11	11 40.23	-10 8.2	2.496	3.317	10.9	18.7	2 11	11 44.59	+ 6 17.9	1.610	2.498	12.3	21.4
2 21	11 34.80	- 9 47.5	2.416	3.316	8.3	18.5	2 21	11 38.03	+ 6 52.6	1.561	2.509	8.2	21.1
3 2	11 28.10	- 9 10.5	2.361	3.315	5.5	18.3	3 2	11 29.63	+ 7 33.6	1.537	2.520	3.6	20.9
3 12	11 20.74	- 8 19.6	2.334	3.313	3.5	18.2	3 12	11 20.42	+ 8 14.1	1.541	2.532	2.1	20.8
3 22	11 13.45	- 7 19.0	2.337	3.311	4.4	18.2	3 22	11 11.54	+ 8 47.8	1.572	2.543	6.4	21.1
4 1	11 6.93	- 6 14.2	2.370	3.309	7.0	18.4	4 1	11 4.04	+ 9 9.7	1.629	2.555	10.6	21.4
4 11	11 1.78	- 5 10.7	2.428	3.306	9.8	18.6	4 11	10 58.71	+ 9 16.9	1.709	2.566	14.2	21.6
434850	2006 SV ₁₅₇		3 10.1 242°98	0.7/10.9	17		474587	2004 HD ₂₅		3 10.1 322°42	6.2/4.2	17	
2 1	11 42.17	- 2 16.6	2.516	3.281	12.4	21.9	2 1	11 48.36	+20 26.1	2.004	2.823	13.2	20.9
2 11	11 38.92	- 1 34.7	2.411	3.272	9.8	21.7	2 11	11 44.24	+21 14.1	1.922	2.811	10.5	20.7
2 21	11 33.98	- 0 37.7	2.329	3.263	6.8	21.5	2 21	11 37.78	+22 1.7	1.863	2.800	7.9	20.5
3 2	11 27.74	+ 0 31.7	2.275	3.253	3.4	21.3	3 2	11 29.54	+22 41.2	1.830	2.790	6.3	20.4
3 12	11 20.83	+ 1 48.6	2.251	3.244	0.8	21.0	3 12	11 20.44	+23 5.7	1.824	2.779	7.0	20.4
3 22	11 13.95	+ 3 7.3	2.256	3.234	4.1	21.3	3 22	11 11.52	+23 10.1	1.845	2.769	9.5	20.6
4 1	11 7.83	+ 4 21.6	2.291	3.224	7.6	21.5	4 1	11 3.80	+22 52.5	1.891	2.760	12.4	20.7
4 11	11 3.06	+ 5 26.6	2.352	3.213	10.7	21.7	4 11	10 58.07	+22 13.9	1.959	2.751	15.2	20.9
297575	2001 RM ₁₁₆		3 10.1 234°73	1.3/9.2	18		457533	2008 WV ₈₁		3 10.1 107°29	2.0/8.4	18	
2 1	11 52.28	+ 5 29.3	1.611	2.411	16.8	20.7	2 1	11 50.81	+ 5 21.0	1.639	2.441	16.5	22.0
2 11	11 47.84	+ 5 44.5	1.519	2.403	13.2	20.5	2 11	11 46.26	+ 6 13.5	1.574	2.460	12.7	21.8
2 21	11 40.53	+ 6 12.2	1.449	2.395	8.8	20.2	2 21	11 39.12	+ 7 19.4	1.532	2.479	8.3	21.6
3 2	11 30.91	+ 6 47.9	1.403	2.386	4.0	19.9	3 2	11 30.12	+ 8 32.1	1.515	2.497	3.8	21.3
3 12	11 20.07	+ 7 24.9	1.385	2.377	1.9	19.7	3 12	11 20.33	+ 9 42.8	1.526	2.515	2.7	21.3
3 22	11 9.30	+ 7 56.4	1.395	2.368	6.8	20.0	3 22	11 10.94	+10 43.5	1.565	2.532	6.9	21.6
4 1	10 59.93	+ 8 16.5	1.431	2.358	11.7	20.3	4 1	11 3.06	+11 28.1	1.631	2.549	11.1	21.9
4 11	10 52.99	+ 8 21.5	1.489	2.348	15.9	20.5	4 11	10 57.44	+11 53.8	1.719	2.565	14.7	22.1
55138	2001 QL ₁₈₅		3 10.1 199°39	1.9/11.9	18		168028	2005 JK ₉₄		3 10.1 156°11	3.4/6.1	17	
2 1	11 47.67	- 3 46.9	2.173	2.929	14.4								

EPHEMERIDES

3 10.1

3 10.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
99665	2002 <i>HW</i> ₁₆		3 10.1 226°88	1.1°/11.3	18		226889	2004 <i>TY</i> ₁₃₄		3 10.1 228°79	1.7°/ 8.5	17	
2 1	11 47.56	- 1 4.2	2.521	3.280	12.5	20.2	2 1	11 47.01	+ 6 21.8	2.044	2.842	13.8	20.8
2 11	11 43.11	- 0 58.2	2.413	3.269	10.0	20.0	2 11	11 43.06	+ 6 55.7	1.953	2.837	10.7	20.6
2 21	11 36.80	- 0 40.2	2.328	3.258	7.0	19.8	2 21	11 36.94	+ 7 40.0	1.886	2.832	7.1	20.4
3 2	11 29.06	- 0 12.0	2.270	3.246	3.6	19.6	3 2	11 29.17	+ 8 30.1	1.845	2.828	3.2	20.1
3 12	11 20.55	+ 0 22.9	2.242	3.234	1.1	19.4	3 12	11 20.57	+ 9 19.8	1.833	2.823	2.2	20.0
3 22	11 12.05	+ 1 0.5	2.244	3.221	4.1	19.6	3 22	11 12.08	+10 3.1	1.850	2.817	6.0	20.3
4 1	11 4.35	+ 1 36.3	2.275	3.208	7.6	19.8	4 1	11 4.64	+10 35.0	1.893	2.812	9.8	20.5
4 11	10 58.10	+ 2 6.2	2.333	3.194	10.8	19.9	4 11	10 59.00	+10 52.4	1.961	2.806	13.2	20.7
133849	2003 <i>YY</i> ₇₈		3 10.1 137°64	0°8/10.9	18		167590	2004 <i>BR</i> ₁₀₅		3 10.1 81°18	2°1/12.2	18	
2 1	11 50.35	- 0 32.3	2.056	2.824	14.7	20.3	2 1	11 47.75	- 3 14.4	2.179	2.937	14.3	19.9
2 11	11 45.47	- 0 16.9	1.975	2.837	11.6	20.2	2 11	11 43.37	- 3 24.9	2.096	2.949	11.4	19.8
2 21	11 38.42	+ 0 12.8	1.915	2.850	8.0	19.9	2 21	11 36.99	- 3 21.5	2.035	2.960	8.1	19.6
3 2	11 29.78	+ 0 53.8	1.883	2.861	3.9	19.7	3 2	11 29.13	- 3 5.6	2.000	2.972	4.6	19.4
3 12	11 20.40	+ 1 41.3	1.879	2.872	0.9	19.5	3 12	11 20.60	- 2 40.2	1.994	2.984	2.1	19.2
3 22	11 11.25	+ 2 29.6	1.906	2.883	4.8	19.8	3 22	11 12.26	- 2 9.7	2.017	2.995	4.4	19.4
4 1	11 3.26	+ 3 13.0	1.960	2.892	8.7	20.1	4 1	11 4.96	- 1 38.8	2.068	3.006	7.9	19.6
4 11	10 57.11	+ 3 47.2	2.040	2.901	12.1	20.3	4 11	10 59.35	- 1 12.2	2.145	3.018	11.1	19.8
197191	2003 <i>VE</i>		3 10.1 34°33	18°0/24.7	18		501404	2013 <i>YE</i> ₉₅		3 10.1 291°04	4°6/ 4.5	17	
2 1	11 46.52	-28 18.6	1.052	1.749	29.7	19.7	2 1	11 43.58	+15 6.5	2.266	3.082	12.0	21.2
2 11	11 45.13	-30 38.5	0.988	1.754	27.4	19.5	2 11	11 40.21	+16 21.4	2.187	3.080	9.3	21.1
2 21	11 39.75	-32 18.0	0.935	1.759	24.6	19.3	2 21	11 34.93	+17 40.7	2.133	3.078	6.5	20.9
3 2	11 30.91	-33 4.1	0.895	1.765	21.8	19.1	3 2	11 28.22	+18 57.7	2.107	3.076	4.7	20.8
3 12	11 20.07	-32 48.3	0.870	1.771	19.3	19.0	3 12	11 20.81	+20 5.0	2.109	3.074	5.4	20.8
3 22	11 9.29	-31 30.6	0.861	1.778	18.1	19.0	3 22	11 13.55	+20 56.9	2.140	3.071	7.9	20.9
4 1	11 0.70	-29 21.7	0.870	1.786	18.5	19.0	4 1	11 7.23	+21 29.6	2.196	3.069	10.7	21.1
4 11	10 55.83	-26 42.1	0.897	1.794	20.4	19.1	4 11	11 2.50	+21 42.1	2.275	3.067	13.3	21.3
354583	2004 <i>VX</i> ₃₂		3 10.1 203°58	4°0/ 6.3	18		172111	2002 <i>GV</i> ₈₇		3 10.1 268°59	1°8/ 8.5	16	
2 1	11 50.50	+11 33.0	1.917	2.724	14.2	21.5	2 1	11 46.11	+ 4 23.8	1.669	2.475	16.0	20.3
2 11	11 45.97	+12 35.8	1.831	2.720	11.0	21.3	2 11	11 43.01	+ 5 14.6	1.572	2.461	12.5	20.1
2 21	11 38.99	+13 47.1	1.768	2.714	7.5	21.0	2 21	11 37.30	+ 6 22.4	1.497	2.446	8.3	19.8
3 2	11 30.13	+14 59.6	1.732	2.709	4.4	20.8	3 2	11 29.48	+ 7 41.5	1.447	2.430	3.8	19.5
3 12	11 20.31	+16 4.9	1.724	2.702	4.7	20.8	3 12	11 20.50	+ 9 3.5	1.425	2.415	2.5	19.4
3 22	11 10.62	+16 55.8	1.746	2.695	8.0	21.0	3 22	11 11.50	+10 19.0	1.430	2.399	7.1	19.6
4 1	11 2.12	+17 27.4	1.793	2.687	11.7	21.2	4 1	11 3.69	+11 19.8	1.461	2.384	11.8	19.8
4 11	10 55.67	+17 37.9	1.863	2.678	15.0	21.4	4 11	10 58.04	+12 0.8	1.514	2.368	15.9	20.0
201717	2003 <i>UM</i> ₁₈₃		3 10.1 143°31	0°4/ 9.7	18		193115	2000 <i>GY</i> ₁₇₀		3 10.1 349°55	0°4/10.4	18	
2 1	11 46.19	+ 2 53.3	2.268	3.051	13.1	21.0	2 1	11 49.79	+ 2 52.9	1.234	2.051	19.9	19.9
2 11	11 42.11	+ 3 18.4	2.182	3.056	10.2	20.8	2 11	11 46.61	+ 2 38.6	1.156	2.047	15.8	19.6
2 21	11 36.12	+ 3 54.7	2.119	3.061	6.8	20.6	2 21	11 40.07	+ 2 40.2	1.096	2.044	10.8	19.3
3 2	11 28.73	+ 4 38.7	2.083	3.065	3.0	20.3	3 2	11 30.83	+ 2 54.5	1.059	2.041	5.1	19.0
3 12	11 20.66	+ 5 25.4	2.077	3.070	1.0	20.2	3 12	11 20.19	+ 3 15.8	1.046	2.039	1.1	18.7
3 22	11 12.76	+ 6 9.6	2.100	3.074	4.8	20.5	3 22	11 9.74	+ 3 36.8	1.058	2.038	7.1	19.1
4 1	11 5.80	+ 6 46.7	2.151	3.078	8.3	20.7	4 1	11 1.07	+ 3 50.6	1.094	2.037	12.7	19.4
4 11	11 0.45	+ 7 13.1	2.228	3.081	11.5	20.9	4 11	10 55.33	+ 3 52.2	1.150	2.037	17.5	19.7
365141	2009 <i>DN</i> ₅₅		3 10.1 335°50	1°4/ 9.0	16		23025	1999 <i>WR</i> ₉		3 10.1 347°97	3°0/13.4	18	
2 1	11 44.06	+ 4 1.6	1.309	2.134	18.5	21.2	2 1	11 43.11	- 6 52.7	2.382	3.127	13.6	17.7
2 11	11 41.96	+ 4 33.4	1.227	2.125	14.5	20.9	2 11	11 39.75	- 7 2.2	2.284	3.124	11.1	17.6
2 21	11 36.85	+ 5 23.8	1.164	2.117	9.7	20.6	2 21	11 34.59	- 6 56.4	2.207	3.122	8.2	17.4
3 2	11 29.32	+ 6 27.1	1.125	2.109	4.3	20.3	3 2	11 28.07	- 6 36.0	2.157	3.120	5.2	17.2
3 12	11 20.50	+ 7 34.1	1.110	2.102	2.2	20.1	3 12	11 20.85	- 6 3.4	2.134	3.118	3.1	17.0
3 22	11 11.80	+ 8 34.7	1.120	2.096	7.7	20.4	3 22	11 13.70	- 5 22.7	2.139	3.116	4.4	17.1
4 1	11 4.64	+ 9 20.2	1.154	2.090	13.0	20.7	4 1	11 7.38	- 4 38.7	2.173	3.115	7.4	17.3
4 11	11 0.07	+ 9 45.0	1.208	2.085	17.6	20.9	4 11	11 2.52	- 3 56.6	2.233	3.114	10.4	17.5
135397	2001 <i>TZ</i> ₂₀₈		3 10.1 216°35	1°9/ 7.8	18		408007	2012 <i>DH</i> ₉₄		3 10.1 119°98	2°6/ 7.6	18	
2 1	11 44.19	+ 7 21.3	2.543	3.337	11.5	20.9	2 1	11 47.19	+ 6 54.3	1.809	2.615	15.0	21.8
2 11	11 40.44	+ 8 8.5	2.449	3.332	8.8	20.8	2 11	11 43.35	+ 7 58.9	1.736	2.625	11.5	21.6
2 21	11 34.96	+ 9 4.1	2.380	3.327	5.8	20.6	2 21	11 37.17	+ 9 15.7	1.686	2.635	7.5	21.4
3 2	11 28.20	+10 3.8	2.339	3.321	2.8	20.3	3 2	11 29.27	+10 37.6	1.663	2.645	3.7	21.2
3 12	11 20.79	+11 2.2	2.328	3.315	2.4	20.3	3 12	11 20.59	+11 56.3	1.668	2.654	3.3	21.2
3 22	11 13.46	+11 54.0	2.347	3.309	5.3	20.5	3 22	11 12.16	+13 3.7	1.701	2.663	7.0	21.4
4 1	11 6.93	+12 35.0	2.394	3.303	8.5	20.7	4 1	11 4.99	+13 54.0	1.761	2.672	10.9	21.6
4 11	11 1.80	+13 2.5	2.466	3.296	11.3	20.8	4 11	10 59.81	+14 24.4	1.844	2.680	14.3	21.9
501376	2013 <i>YS</i> ₅₁		3 10.1 83°86	5°0/ 3.9	17		112294	2002 <i>LU</i> ₃₆		3 10.1 251°98	0°8/10.8	18	
2 1	11 44.10	+16 25.5	2.225	3.043	12.1	21.2	2 1	11 47.14	- 1 12.5	1.921	2.697	15.3	20.7
2 11	11 40.62	+17 44.7	2.153	3.046	9.4	21.0	2 11	11 43.49	- 0 46.4	1.813	2.681	12.2	20.5
2 21	11 35.18	+19 7.2	2.105	3.048	6.7	20.8	2 21	11 37.47	- 0 2.4	1.727	2.663	8.5	20.2
3 2	11 28.31	+20 25.8	2.085	3.050	5.1	20.7	3 2	11 29.53	+ 0 56.7	1.666	2.645	4.2	19.9
3 12	11 20.77	+21 33.0	2.094	3.053	5.9	20.8	3 12	11 20.50	+ 2 5.6	1.634	2.627	0.9	19.6
3 22	11 13.40	+22 23.0	2.130	3.055	8.3	20.9	3 22	11 11.40	+ 3 17.1	1.630	2.608	5.3	19.9
4 1	11 7.03	+22 52.5	2.192	3.058	11.1	21.1	4 1	11 3.30	+ 4 23.7	1.654	2.588	9.8	20.1
4 11	11 2.30	+23 1.0	2.275	3.060	13.6	21.3	4 11	10 57.10	+ 5 18.8	1.702	2.568	13.8	20.3
210920	2001 <i>SV</i> ₃₁₃		3 10.1 66°56	5°7/ 3.8	18		26156	1994 <i>WT</i>		3 10.1 153°13	2°5/ 7		

EPHEMERIDES

3 10.1

3 10.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
301607	2010 <i>CP</i> ₁₅₃	3 10.1 269°79 0°6/ 9.8 17											
2 1	11 53.39	+ 4 46.2	1.555	2.353	17.3	20.8	494991	2010 <i>CM</i> ₂₂₉	3 10.1 157°82 11°0/23.4 18				
2 11	11 49.02	+ 4 43.2	1.454	2.336	13.8	20.5	2 1	11 49.02	-30 31.8	2.065	2.654	19.4	21.5
2 21	11 41.57	+ 4 52.2	1.373	2.318	9.4	20.2	2 11	11 45.03	-31 17.7	1.973	2.661	17.7	21.3
3 2	11 31.55	+ 5 9.9	1.317	2.300	4.3	19.9	2 21	11 38.51	-31 33.7	1.894	2.668	15.7	21.2
3 12	11 20.03	+ 5 30.7	1.288	2.281	1.4	19.6	3 2	11 30.01	-31 14.7	1.834	2.674	13.6	21.0
3 22	11 8.42	+ 5 48.5	1.287	2.262	6.8	19.9	3 12	11 20.47	-30 18.6	1.795	2.679	11.9	20.9
4 1	10 58.17	+ 5 57.4	1.311	2.243	12.1	20.2	3 22	11 11.04	-28 47.9	1.780	2.683	11.0	20.9
4 11	10 50.48	+ 5 53.6	1.358	2.224	16.7	20.4	4 1	11 2.84	-26 49.9	1.790	2.687	11.5	20.9
							4 11	10 56.77	-24 35.7	1.825	2.690	13.1	21.0
303358	2004 <i>TO</i> ₃₄₆	3 10.1 196°37 0°0/10.0 18											
2 1	11 51.10	+ 2 6.8	1.870	2.652	15.5	21.2	444628	2006 <i>WQ</i> ₁	3 10.1 219°68 13°3/28.7 18				
2 11	11 46.48	+ 2 25.4	1.777	2.650	12.2	21.0	2 1	11 58.82	+19 12.5	0.965	1.811	22.0	21.6
2 21	11 39.38	+ 2 57.9	1.707	2.647	8.2	20.7	2 11	11 55.49	+22 30.4	0.897	1.801	17.9	21.3
3 2	11 30.36	+ 3 41.0	1.662	2.644	3.8	20.5	2 21	11 47.29	+26 6.7	0.849	1.789	14.4	21.0
3 12	11 20.35	+ 4 28.9	1.646	2.640	0.9	20.2	3 2	11 34.67	+29 35.3	0.825	1.775	13.4	20.9
3 22	11 10.44	+ 5 15.3	1.660	2.635	5.6	20.6	3 12	11 19.33	+32 26.2	0.823	1.758	16.0	21.0
4 1	11 1.74	+ 5 54.0	1.700	2.629	10.0	20.8	3 22	11 3.85	+34 18.2	0.842	1.740	20.5	21.1
4 11	10 55.09	+ 6 20.7	1.765	2.623	13.8	21.0	4 1	10 50.95	+35 4.8	0.879	1.720	25.3	21.4
							4 11	10 42.51	+34 53.3	0.928	1.698	29.6	21.6
202914	1997 <i>PA</i>	3 10.1 197°20 2°6/12.5 17											
2 1	11 52.21	- 5 16.6	2.170	2.910	14.9	21.0	138726	2000 <i>SY</i> ₁₇₆	3 10.1 184°34 5°1/16.7 18				
2 11	11 47.05	- 5 21.7	2.066	2.907	12.1	20.8	2 1	11 42.95	-15 43.7	2.615	3.303	13.8	19.8
2 21	11 39.64	- 5 10.9	1.984	2.902	8.8	20.6	2 11	11 39.54	-15 54.5	2.513	3.303	11.8	19.6
3 2	11 30.45	- 4 44.8	1.929	2.897	5.2	20.4	2 21	11 34.42	-15 46.5	2.431	3.303	9.5	19.4
3 12	11 20.32	- 4 6.3	1.903	2.890	2.7	20.2	3 2	11 28.01	-15 18.8	2.373	3.302	7.1	19.3
3 22	11 10.22	+ 3 20.2	1.906	2.883	4.8	20.3	3 12	11 20.96	-14 33.1	2.343	3.302	5.3	19.2
4 1	11 1.12	+ 2 32.3	1.939	2.875	8.5	20.5	3 22	11 13.95	-13 32.9	2.340	3.302	5.4	19.2
4 11	10 53.85	- 1 48.3	1.998	2.865	12.0	20.7	4 1	11 7.73	-12 23.4	2.366	3.301	7.2	19.3
							4 11	11 2.87	-11 10.9	2.419	3.301	9.7	19.4
370730	2004 <i>RQ</i> ₇₅	3 10.1 204°89 0°8/ 9.2 17											
2 1	11 47.08	+ 4 6.2	2.522	3.301	12.0	22.4	430347	2013 <i>YK</i> ₁₀₄	3 10.1 65°84 4°6/ 4.7 17				
2 11	11 42.70	+ 4 40.4	2.423	3.296	9.3	22.2	2 1	11 44.48	+15 35.7	2.255	3.071	12.0	21.0
2 21	11 36.51	+ 5 24.8	2.348	3.289	6.2	22.0	2 11	11 40.86	+16 42.8	2.184	3.077	9.3	20.9
3 2	11 28.95	+ 6 15.7	2.301	3.283	2.8	21.8	2 21	11 35.34	+17 53.3	2.138	3.082	6.5	20.7
3 12	11 20.69	+ 7 8.4	2.284	3.275	1.3	21.7	3 2	11 28.42	+19 0.3	2.119	3.088	4.7	20.6
3 22	11 12.49	+ 7 57.8	2.297	3.267	4.8	21.9	3 12	11 20.88	+19 57.1	2.129	3.094	5.3	20.6
4 1	11 5.11	+ 8 39.3	2.340	3.259	8.2	22.1	3 22	11 13.54	+20 38.5	2.167	3.100	7.7	20.8
4 11	10 59.20	+ 9 9.6	2.408	3.249	11.2	22.3	4 1	11 7.20	+21 1.3	2.231	3.106	10.5	21.0
							4 11	11 2.47	+21 5.0	2.317	3.112	13.0	21.2
121050	1999 <i>CX</i> ₄₉	3 10.1 328°78 6°7/ 4.9 18											
2 1	11 45.43	+14 17.9	1.237	2.083	18.1	18.6	55431	2001 <i>TG</i> ₅₅	3 10.1 208°81 1°7/12.1 18				
2 11	11 43.33	+15 33.2	1.162	2.072	14.2	18.3	2 1	11 44.48	- 3 32.5	2.423	3.180	13.0	19.6
2 21	11 37.94	+16 58.6	1.108	2.061	10.0	18.0	2 11	11 40.76	- 3 25.4	2.326	3.179	10.5	19.4
3 2	11 29.90	+18 22.7	1.076	2.051	6.9	17.8	2 21	11 35.26	- 3 4.3	2.252	3.178	7.4	19.2
3 12	11 20.47	+19 31.9	1.068	2.041	7.9	17.9	3 2	11 28.41	- 2 31.0	2.203	3.176	4.1	19.0
3 22	11 11.21	+20 15.6	1.084	2.032	11.9	18.0	3 12	11 20.88	- 1 48.8	2.184	3.175	1.7	18.8
4 1	11 3.69	+20 27.9	1.122	2.024	16.3	18.3	3 22	11 13.43	- 1 2.2	2.194	3.173	4.1	19.0
4 11	10 59.01	+20 8.6	1.177	2.017	20.4	18.5	4 1	11 6.81	- 0 16.3	2.233	3.171	7.4	19.2
							4 11	11 1.65	+ 0 24.4	2.298	3.169	10.5	19.4
170141	2003 <i>AQ</i> ₇₆	3 10.1 31°30 7°6/ 3.9 18											
2 1	11 48.89	+21 39.6	1.586	2.417	15.5	19.1	472370	2015 <i>BX</i> ₅₉	3 10.1 323°70 4°0/ 5.9 18				
2 11	11 44.85	+22 40.8	1.543	2.438	12.3	18.9	2 1	11 43.33	+10 43.5	1.825	2.647	14.2	20.4
2 21	11 38.17	+23 38.4	1.523	2.460	9.3	18.8	2 11	11 40.53	+11 57.6	1.743	2.641	11.0	20.2
3 2	11 29.68	+24 22.9	1.527	2.484	7.6	18.7	2 21	11 35.43	+13 21.9	1.684	2.634	7.4	20.0
3 12	11 20.58	+24 46.4	1.557	2.507	8.4	18.8	3 2	11 28.58	+14 48.7	1.651	2.629	4.4	19.8
3 22	11 12.08	+24 45.1	1.611	2.532	10.8	19.0	3 12	11 20.83	+16 9.0	1.645	2.623	4.9	19.8
4 1	11 5.25	+24 18.8	1.689	2.557	13.7	19.3	3 22	11 13.22	+17 14.5	1.667	2.618	8.2	20.0
4 11	11 0.74	+23 30.4	1.788	2.583	16.3	19.5	4 1	11 6.73	+17 59.7	1.715	2.613	11.9	20.2
							4 11	11 2.15	+18 22.1	1.784	2.608	15.2	20.4
465141	2007 <i>BH</i> ₃₇	3 10.1 26°44 1°1/11.0 18											
2 1	11 46.35	- 0 36.5	1.654	2.444	16.8	21.4	117662	2005 <i>EU</i> ₁₉₈	3 10.1 268°37 0°5/10.6 17				
2 11	11 43.00	- 0 28.6	1.572	2.447	13.3	21.2	2 1	11 47.87	+ 0 15.9	1.824	2.608	15.7	21.1
2 21	11 37.14	- 0 3.5	1.511	2.451	9.2	21.0	2 11	11 44.24	+ 0 31.9	1.716	2.588	12.6	20.9
3 2	11 29.35	+ 0 35.8	1.475	2.454	4.6	20.7	2 21	11 38.10	+ 1 4.3	1.629	2.568	8.7	20.6
3 12	11 20.62	+ 1 23.8	1.465	2.458	1.2	20.5	3 2	11 29.90	+ 1 50.6	1.567	2.547	4.2	20.3
3 22	11 12.08	+ 2 13.7	1.482	2.462	5.5	20.8	3 12	11 20.51	+ 2 45.4	1.533	2.526	0.9	20.0
4 1	11 4.84	+ 2 58.5	1.526	2.466	10.0	21.0	3 22	11 11.00	+ 3 42.1	1.527	2.505	5.7	20.3
4 11	10 59.74	+ 3 32.4	1.593	2.471	14.0	21.3	4 1	11 2.54	+ 4 33.4	1.548	2.483	10.3	20.5
							4 11	10 56.10	+ 5 13.2	1.593	2.461	14.5	20.7
380454	2003 <i>TC</i> ₃₅	3 10.1 155°20 3°9/14.9 16											
2 1	11 44.67	-11 50.8	2.503	3.215	13.8	22.5	424747	2008 <i>SC</i> ₃₀₅	3 10.1 98°29 1°8/12.4 18				
2 11	11 40.85	-11 45.1	2.407	3.221	11.5	22.4	2 1	11 43.48	- 6 19.2	2.183	2.936	14.4	21.3
2 21	11 35.27	-11 20.9	2.332	3.226	8.8	22.2	2 11	11 40.10	- 5 36.1	2.100	2.950	11.6	21.2
3 2	11 28.38	-10 38.7	2.282	3.231	6.0	22.0	2 21	11 34.83	- 4 33.8	2.039	2.963	8.2	21.0
3 12	11 20.85	- 9 40.9	2.260	3.236	4.0	21.9	3 2	11 28.20	- 3 15.1	2.004	2.976	4.6	20.8
3 22	11 13.42	- 8 32.3	2.268	3.240	4.6	21.9	3 12	11 20.95	- 1 45.7	1.999	2.989	1.8	20.6
4 1	11 6.83	- 7 18.8	2.305	3.244	7.2	22.1	3 22	11 13.88	- 0 12.6	2.022	3.002	4.3	20.8
4 11	11 1.69	- 6 6.5	2.368	3.247	9.9	22.3	4 1	11 7.78	+ 1 16.8	2.075	3.014	7.8	21.0
							4 11	11 3.27					

EPHEMERIDES

3 10.1

3 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
244704	2003 <i>QM</i> ₂₆		3 10.1 247°42	2.4/11.9	16		384126	2008 <i>YN</i> ₁₁		3 10.2 45°33	4.3/5.8	18	
2 1	11 51.63	- 3 11.1	1.933	2.693	15.8	21.2	2 1	11 45.32	+12 59.4	1.853	2.674	14.1	20.4
2 11	11 47.07	- 3 23.8	1.822	2.675	12.9	21.0	2 11	11 41.86	+14 2.8	1.789	2.685	10.8	20.2
2 21	11 39.96	- 3 20.9	1.731	2.657	9.3	20.7	2 21	11 36.16	+15 11.9	1.748	2.697	7.3	20.0
3 2	11 30.76	- 3 3 1	1.666	2.638	5.2	20.4	3 2	11 28.85	+16 19.2	1.734	2.709	4.6	19.9
3 12	11 20.33	- 2 33.2	1.629	2.619	2.4	20.2	3 12	11 20.84	+17 16.8	1.747	2.721	5.1	19.9
3 22	11 9.76	- 1 55.9	1.621	2.598	5.3	20.4	3 22	11 13.14	+17 58.4	1.787	2.734	8.1	20.1
4 1	11 0.23	- 1 17.4	1.640	2.578	9.7	20.6	4 1	11 6.67	+18 20.3	1.853	2.747	11.4	20.3
4 11	10 52.69	- 0 43.6	1.685	2.556	13.7	20.8	4 11	11 2.12	+18 21.9	1.941	2.760	14.3	20.6
78614	2002 <i>SF</i> ₅₈		3 10.1 80°46	5°6/4.2	18		456828	2007 <i>TS</i> ₄₂₅		3 10.2 356°24	2°5/8.3	16	
2 1	11 47.61	+18 49.5	2.142	2.958	12.6	19.3	2 1	11 45.75	+ 6 48.5	1.319	2.148	18.2	21.2
2 11	11 43.34	+19 52.8	2.080	2.969	9.9	19.1	2 11	11 43.21	+ 7 24.7	1.245	2.145	14.2	20.9
2 21	11 37.00	+20 56.3	2.042	2.981	7.2	19.0	2 21	11 37.65	+ 8 15.7	1.190	2.143	9.4	20.7
3 2	11 29.18	+21 52.8	2.031	2.992	5.6	18.9	3 2	11 29.73	+ 9 14.7	1.158	2.142	4.4	20.4
3 12	11 20.74	+22 35.6	2.048	3.004	6.3	18.9	3 12	11 20.63	+10 12.0	1.152	2.141	3.3	20.3
3 22	11 12.60	+23 0.0	2.093	3.015	8.6	19.1	3 22	11 11.77	+10 58.5	1.171	2.141	8.1	20.6
4 1	11 5.62	+23 4.0	2.163	3.026	11.3	19.3	4 1	11 4.51	+11 27.1	1.213	2.142	13.1	20.8
4 11	11 0.44	+22 48.1	2.254	3.038	13.7	19.5	4 11	10 59.86	+11 34.3	1.276	2.144	17.4	21.1
375430	2008 <i>TA</i> ₃₃		3 10.1 113°30	0°7/9.4	18		8016	1990 <i>QW</i> ₁₀		3 10.2 262°87	0°9/9.5	18	
2 1	11 45.29	+ 3 2.4	2.126	2.915	13.6	21.7	2 1	11 50.68	+ 4 17.1	1.617	2.417	16.7	18.1
2 11	11 41.58	+ 3 38.4	2.043	2.921	10.6	21.5	2 11	11 46.75	+ 4 33.4	1.517	2.401	13.2	17.8
2 21	11 35.87	+ 4 26.7	1.984	2.927	7.0	21.3	2 21	11 39.96	+ 5 3.8	1.439	2.385	8.9	17.5
3 2	11 28.70	+ 5 23.1	1.951	2.933	3.1	21.1	3 2	11 30.83	+ 5 44.3	1.386	2.368	4.1	17.2
3 12	11 20.84	+ 6 21.9	1.947	2.939	1.2	21.0	3 12	11 20.36	+ 6 28.4	1.359	2.352	1.6	16.9
3 22	11 13.15	+ 7 17.1	1.972	2.945	5.1	21.2	3 22	11 9.84	+ 7 8.7	1.360	2.335	6.7	17.2
4 1	11 6.47	+ 8 3.2	2.025	2.950	8.8	21.5	4 1	11 0.60	+ 7 38.5	1.388	2.317	11.7	17.5
4 11	11 1.45	+ 8 36.5	2.102	2.956	12.1	21.7	4 11	10 53.72	+ 7 53.2	1.437	2.300	16.1	17.7
299507	2006 <i>CN</i> ₅		3 10.1 326°75	2°2/8.3	18		334220	2001 <i>TV</i> ₁₁		3 10.2 162°90	3°2/13.9	18	
2 1	11 44.70	+ 4 1.9	1.395	2.215	17.9	20.4	2 1	11 45.39	-10 19.3	2.294	3.019	14.6	22.1
2 11	11 42.26	+ 5 6.4	1.315	2.212	13.9	20.1	2 11	11 41.59	- 9 51.2	2.198	3.025	12.0	21.9
2 21	11 36.96	+ 6 31.1	1.257	2.209	9.2	19.8	2 21	11 35.87	- 9 2.4	2.124	3.030	9.0	21.7
3 2	11 29.39	+ 8 8.5	1.222	2.206	4.2	19.5	3 2	11 28.72	- 7 54.2	2.075	3.034	5.7	21.6
3 12	11 20.67	+ 9 47.5	1.214	2.203	3.1	19.4	3 12	11 20.88	- 6 30.6	2.054	3.038	3.3	21.4
3 22	11 12.11	+11 16.5	1.231	2.201	8.0	19.7	3 22	11 13.14	- 4 57.9	2.064	3.041	4.5	21.5
4 1	11 5.02	+12 26.0	1.273	2.199	12.9	20.0	4 1	11 6.33	- 3 23.6	2.103	3.044	7.6	21.7
4 11	11 0.39	+13 10.6	1.336	2.197	17.2	20.2	4 11	11 1.10	- 1 54.9	2.169	3.046	10.8	21.9
52532	1996 <i>TP</i> ₈		3 10.1 56°32	2°3/7.9	18		348808	2006 <i>QR</i> ₁₄₂		3 10.2 139°96	6°1/18.8	17	
2 1	11 48.83	+10 7.7	2.160	2.960	13.1	18.9	2 1	11 48.68	-21 42.5	3.287	3.902	12.3	21.9
2 11	11 44.27	+10 26.2	2.080	2.965	10.1	18.7	2 11	11 43.59	-22 24.6	3.190	3.916	10.9	21.8
2 21	11 37.64	+10 50.2	2.023	2.969	6.7	18.5	2 21	11 36.95	-22 50.5	3.114	3.929	9.2	21.7
3 2	11 29.50	+11 15.4	1.993	2.974	3.3	18.3	3 2	11 29.16	-22 58.4	3.062	3.941	7.6	21.6
3 12	11 20.67	+11 36.6	1.992	2.978	2.8	18.3	3 12	11 20.79	-22 48.3	3.037	3.953	6.4	21.5
3 22	11 12.07	+11 49.5	2.020	2.983	6.0	18.5	3 22	11 12.48	-22 21.8	3.041	3.964	6.2	21.5
4 1	11 4.54	+11 51.1	2.076	2.988	9.4	18.7	4 1	11 4.87	-21 42.4	3.073	3.975	7.0	21.6
4 11	10 58.78	+11 40.1	2.156	2.992	12.5	18.9	4 11	10 58.50	-20 54.7	3.131	3.985	8.5	21.7
381635	2008 <i>YM</i> ₄₇		3 10.1 45°38	0°9/9.2	18		376207	2011 <i>DD</i> ₁₂		3 10.2 191°45	1°1/8.9	17	
2 1	11 45.30	+ 4 19.7	1.902	2.701	14.6	20.9	2 1	11 45.26	+ 3 14.3	2.135	2.925	13.5	21.6
2 11	11 41.74	+ 4 48.2	1.830	2.714	11.3	20.7	2 11	11 41.63	+ 4 6.8	2.045	2.924	10.5	21.4
2 21	11 36.04	+ 5 28.3	1.780	2.727	7.5	20.5	2 21	11 35.98	+ 5 12.8	1.978	2.922	7.0	21.1
3 2	11 28.78	+ 6 15.6	1.757	2.740	3.3	20.2	3 2	11 28.81	+ 6 27.7	1.938	2.921	3.1	20.9
3 12	11 20.84	+ 7 3.9	1.761	2.753	1.5	20.1	3 12	11 20.87	+ 7 44.8	1.928	2.919	1.7	20.8
3 22	11 13.16	+ 7 47.2	1.794	2.767	5.5	20.4	3 22	11 13.03	+ 8 57.1	1.947	2.917	5.5	21.0
4 1	11 6.65	+ 8 20.5	1.854	2.781	9.4	20.7	4 1	11 6.17	+ 9 58.6	1.994	2.914	9.2	21.2
4 11	11 1.97	+ 8 40.4	1.937	2.795	12.8	20.9	4 11	11 0.97	+10 45.0	2.065	2.911	12.6	21.4
222301	2000 <i>SD</i> ₂₇₃		3 10.1 157°19	0°6/9.6	17		498696	2008 <i>SV</i> ₃₀₆		3 10.2 220°63	1°5/8.6	17	
2 1	11 48.40	+ 3 39.8	2.324	3.103	12.9	21.4	2 1	11 48.30	+ 6 46.8	2.353	3.142	12.5	22.0
2 11	11 43.79	+ 4 4.5	2.237	3.109	10.0	21.3	2 11	11 43.83	+ 7 13.6	2.256	3.134	9.7	21.8
2 21	11 37.27	+ 4 39.5	2.174	3.115	6.7	21.1	2 21	11 37.38	+ 7 49.0	2.182	3.126	6.4	21.6
3 2	11 29.32	+ 5 21.3	2.139	3.121	3.0	20.8	3 2	11 29.44	+ 8 28.8	2.136	3.118	3.0	21.3
3 12	11 20.71	+ 6 4.9	2.133	3.126	1.1	20.7	3 12	11 20.73	+ 9 8.1	2.119	3.109	2.0	21.2
3 22	11 12.26	+ 6 45.5	2.158	3.130	4.8	21.0	3 22	11 12.09	+ 9 42.1	2.132	3.099	5.4	21.4
4 1	11 4.78	+ 7 18.7	2.211	3.134	8.3	21.2	4 1	11 4.36	+10 6.5	2.174	3.090	8.9	21.6
4 11	10 58.91	+ 7 41.1	2.289	3.138	11.4	21.4	4 11	10 58.21	+10 18.9	2.241	3.080	12.0	21.8
310273	Paulsmeyers		3 10.2 188°41	2°1/8.2	18		498686	2008 <i>SL</i> ₂₆₇		3 10.2 114°47	0°3/9.8	17	
2 1	11 50.18	+ 6 32.3	1.922	2.718	14.6	21.5	2 1	11 45.52	+ 2 5.1	2.134	2.919	13.7	22.0
2 11	11 45.69	+ 7 20.9	1.835	2.718	11.3	21.3	2 11	11 41.75	+ 2 38.7	2.052	2.927	10.7	21.8
2 21	11 38.82	+ 8 21.5	1.770	2.717	7.5	21.1	2 21	11 36.00	+ 3 25.1	1.992	2.934	7.1	21.6
3 2	11 30.13	+ 9 28.1	1.733	2.715	3.5	20.8	3 2	11 28.79	+ 4 20.4	1.959	2.941	3.2	21.3
3 12	11 20.52	+10 33.5	1.724	2.712	2.8	20.7	3 12	11 20.90	+ 5 19.0	1.955	2.948	1.0	21.2
3 22	11 11.06	+11 30.3	1.744	2.709	6.6	21.0	3 22	11 13.17	+ 6 15.0	1.981	2.955	4.9	21.5
4 1	11 2.77	+12 13.0	1.792	2.705	10.6	21.2	4 1	11 6.46	+ 7 2.8	2.034	2.962	8.7	21.7
4 11	10 56.46	+12 38.2	1.863	2.700	14.1	21.4	4 11	11 1.41	+ 7 38.5	2.112	2.968	11.9	21.9
75463	1999 <i>XV</i> ₁₅₇		3 10.2 108°98	0°6/9.5	18		388368	2006 <i>UD</i> ₅₂		3 10.2 78°69	0°0/9.9	17	

EPHEMERIDES

3 10.2

3 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
399413	2001 <i>UW</i> ₃₉		3 10.2 116°27'	0°2/ 9.9 18			427671	2004 <i>BR</i> ₁₃₂		3 10.2 269°32'	3°7/ 5.7 17		
2 1	11 51.41	+ 1 20.4	1.724	2.508	16.5	21.7	2 1	11 43.28	+11 2.1	2.171	2.984	12.6	21.0
2 11	11 46.68	+ 1 54.9	1.653	2.527	12.9	21.5	2 11	11 40.09	+12 19.6	2.091	2.984	9.6	20.8
2 21	11 39.45	+ 2 45.3	1.604	2.546	8.6	21.2	2 21	11 34.95	+13 45.4	2.035	2.984	6.5	20.6
3 2	11 30.40	+ 3 46.8	1.582	2.563	3.9	21.0	3 2	11 28.35	+15 12.4	2.007	2.983	3.9	20.4
3 12	11 20.56	+ 4 52.3	1.587	2.580	1.0	20.8	3 12	11 21.05	+16 33.1	2.008	2.983	4.4	20.5
3 22	11 11.07	+ 5 54.1	1.621	2.596	5.7	21.2	3 22	11 13.87	+17 40.6	2.037	2.983	7.3	20.6
4 1	11 3.00	+ 6 45.6	1.683	2.612	10.1	21.5	4 1	11 7.65	+18 30.1	2.093	2.983	10.4	20.8
4 11	10 57.10	+ 7 22.4	1.768	2.627	13.8	21.7	4 11	11 3.05	+18 59.5	2.172	2.983	13.3	21.0
518700	2008 <i>YM</i> ₁₇₅		3 10.2 352°25'	4°3/14.4 17			209118	2003 <i>SN</i> ₁₇₄		3 10.2 252°53'	0°0/ 9.9 16		
2 1	11 45.11	- 9 39.9	2.130	2.865	15.3	21.0	2 1	11 50.69	+ 2 23.9	1.782	2.570	15.9	21.7
2 11	11 41.60	-10 1.8	2.034	2.863	12.7	20.8	2 11	11 46.49	+ 2 33.3	1.680	2.555	12.6	21.4
2 21	11 36.03	-10 5.7	1.959	2.862	9.7	20.6	2 21	11 39.65	+ 2 56.6	1.599	2.540	8.6	21.1
3 2	11 28.87	- 9 51.1	1.908	2.862	6.6	20.4	3 2	11 30.68	+ 3 30.9	1.543	2.524	4.0	20.8
3 12	11 20.89	- 9 20.1	1.884	2.861	4.4	20.2	3 12	11 20.50	+ 4 10.7	1.515	2.508	0.9	20.5
3 22	11 12.97	- 8 36.6	1.887	2.860	5.3	20.3	3 22	11 10.27	+ 4 49.9	1.516	2.492	5.9	20.9
4 1	11 6.00	- 7 46.4	1.919	2.860	8.2	20.5	4 1	11 1.20	+ 5 22.2	1.543	2.475	10.6	21.1
4 11	11 0.73	- 6 55.9	1.975	2.860	11.4	20.7	4 11	10 54.28	+ 5 42.7	1.594	2.458	14.7	21.3
387198	2012 <i>TJ</i> ₃₀₄		3 10.2 67°82'	0°8/ 9.3 17			327357	2005 <i>UR</i> ₂₃₆		3 10.2 164°51'	4°4/15.5 18		
2 1	11 44.74	+ 3 50.1	2.237	3.027	13.0	21.1	2 1	11 45.73	-13 47.3	2.403	3.104	14.6	21.5
2 11	11 40.97	+ 4 24.6	2.166	3.045	10.0	20.9	2 11	11 41.81	-13 36.4	2.304	3.109	12.3	21.3
2 21	11 35.36	+ 5 9.6	2.118	3.062	6.6	20.8	2 21	11 36.02	-13 4.6	2.227	3.114	9.5	21.1
3 2	11 28.46	+ 6 1.0	2.097	3.080	2.9	20.6	3 2	11 28.83	-12 12.0	2.174	3.118	6.7	21.0
3 12	11 21.00	+ 6 53.3	2.105	3.097	1.3	20.5	3 12	11 20.94	-11 1.4	2.149	3.121	4.6	20.8
3 22	11 13.79	+ 7 41.3	2.143	3.115	4.9	20.7	3 22	11 13.16	- 9 38.0	2.154	3.124	5.0	20.9
4 1	11 7.55	+ 8 20.3	2.208	3.132	8.3	21.0	4 1	11 6.26	- 8 8.5	2.188	3.127	7.5	21.0
4 11	11 2.89	+ 8 47.4	2.298	3.150	11.3	21.2	4 11	11 0.90	- 6 40.3	2.249	3.129	10.4	21.2
58629	1997 <i>VL</i> ₈		3 10.2 87°50'	1°3/ 8.9 18			88471	2001 <i>QL</i> ₁₁₁		3 10.2 339°56'	5°0/14.3 18		
2 1	11 51.10	+ 5 24.0	1.903	2.694	14.9	20.1	2 1	11 46.76	- 9 16.6	1.686	2.438	18.1	19.8
2 11	11 46.08	+ 5 56.1	1.841	2.721	11.5	19.9	2 11	11 43.49	- 9 48.1	1.594	2.435	15.1	19.6
2 21	11 38.84	+ 6 38.6	1.803	2.748	7.5	19.7	2 21	11 37.63	- 9 58.2	1.522	2.432	11.5	19.3
3 2	11 30.05	+ 7 26.5	1.791	2.773	3.4	19.5	3 2	11 29.73	- 9 45.8	1.472	2.430	7.8	19.1
3 12	11 20.66	+ 8 13.4	1.808	2.799	1.9	19.5	3 12	11 20.73	- 9 12.8	1.448	2.428	5.2	19.0
3 22	11 11.68	+ 8 53.4	1.854	2.824	5.7	19.8	3 22	11 11.78	- 8 24.2	1.451	2.426	6.3	19.0
4 1	11 4.03	+ 9 22.1	1.928	2.849	9.5	20.0	4 1	11 4.06	- 7 27.3	1.479	2.424	9.9	19.2
4 11	10 58.37	+ 9 37.1	2.026	2.873	12.8	20.3	4 11	10 58.51	- 6 30.8	1.531	2.423	13.7	19.4
403803	2011 <i>UH</i> ₄₉		3 10.2 87°02'	2°1/ 8.5 18			501470	2014 <i>BM</i> ₂₀		3 10.2 71°80'	4°8/ 4.4 18		
2 1	11 50.57	+ 6 31.3	1.529	2.339	17.1	21.9	2 1	11 44.97	+15 45.4	2.199	3.015	12.3	20.9
2 11	11 46.38	+ 7 6.3	1.461	2.351	13.2	21.6	2 11	11 41.24	+17 2.9	2.140	3.033	9.5	20.8
2 21	11 39.44	+ 7 53.8	1.415	2.364	8.7	21.4	2 21	11 35.60	+18 23.2	2.106	3.050	6.7	20.6
3 2	11 30.45	+ 8 47.3	1.393	2.376	4.0	21.2	3 2	11 28.59	+19 39.0	2.100	3.067	4.9	20.6
3 12	11 20.56	+ 9 38.8	1.398	2.388	2.8	21.1	3 12	11 21.02	+20 43.1	2.122	3.084	5.6	20.6
3 22	11 11.04	+10 20.7	1.431	2.400	7.2	21.4	3 22	11 13.72	+21 30.3	2.172	3.101	8.0	20.8
4 1	11 3.09	+10 47.4	1.489	2.412	11.6	21.7	4 1	11 7.48	+21 57.8	2.248	3.118	10.6	21.0
4 11	10 57.55	+10 56.3	1.569	2.424	15.4	21.9	4 11	11 2.89	+22 5.1	2.346	3.135	13.1	21.2
218686	2005 <i>TK</i> ₅₄		3 10.2 104°60'	1°7/ 8.4 18			473232	2015 <i>KE</i> ₁₅₆		3 10.2 300°67'	2°3/13.1 16		
2 1	11 46.86	+ 5 14.7	1.971	2.768	14.2	21.1	2 1	11 40.52	- 9 21.9	2.265	3.006	14.3	21.3
2 11	11 42.89	+ 6 8.9	1.899	2.783	11.0	20.9	2 11	11 38.05	- 8 23.9	2.142	2.982	11.8	21.0
2 21	11 36.80	+ 7 14.9	1.850	2.797	7.2	20.7	2 21	11 33.70	- 7 1.4	2.042	2.959	8.6	20.8
3 2	11 29.16	+ 8 27.1	1.829	2.812	3.3	20.5	3 2	11 27.85	- 5 16.1	1.968	2.935	5.1	20.5
3 12	11 20.85	+ 9 38.0	1.836	2.826	2.3	20.4	3 12	11 21.16	- 3 12.9	1.923	2.912	2.3	20.3
3 22	11 12.80	+10 40.9	1.873	2.839	6.0	20.7	3 22	11 14.39	- 0 59.8	1.909	2.889	4.4	20.4
4 1	11 5.90	+11 30.2	1.936	2.853	9.7	20.9	4 1	11 8.39	+ 1 13.6	1.924	2.865	8.2	20.6
4 11	11 0.83	+12 3.0	2.024	2.866	12.9	21.2	4 11	11 3.88	+ 3 18.1	1.967	2.842	11.8	20.8
500591	2012 <i>UY</i> ₁₀₁		3 10.2 185°40'	2°2/13.0 17			330380	2006 <i>XJ</i> ₄		3 10.2 23°38'	6°6/15.5 18		
2 1	11 43.73	- 6 46.5	2.740	3.475	12.2	22.2	2 1	11 45.06	-11 59.3	1.453	2.207	20.4	20.1
2 11	11 40.00	- 6 28.8	2.639	3.475	9.9	22.1	2 11	11 42.45	-12 42.3	1.376	2.214	17.2	19.9
2 21	11 34.68	- 5 56.3	2.560	3.475	7.2	21.9	2 21	11 37.05	-12 59.0	1.318	2.221	13.5	19.7
3 2	11 28.17	- 5 10.3	2.508	3.474	4.3	21.7	3 2	11 29.47	-12 47.4	1.280	2.230	9.6	19.5
3 12	11 21.07	- 4 14.0	2.486	3.473	2.2	21.5	3 12	11 20.81	-12 9.1	1.266	2.239	6.9	19.4
3 22	11 14.04	- 3 11.9	2.493	3.471	3.7	21.6	3 22	11 12.34	-11 10.1	1.276	2.248	7.4	19.4
4 1	11 7.73	- 2 8.9	2.531	3.469	6.6	21.8	4 1	11 5.33	- 9 59.7	1.312	2.259	10.6	19.6
4 11	11 2.70	- 1 10.0	2.595	3.467	9.4	22.0	4 11	11 0.73	- 8 48.4	1.369	2.270	14.3	19.9
13112	Montmorency		3 10.2 84°25'	0°4/ 9.8 18			125682	2001 <i>XV</i> ₈₃		3 10.2 110°45'	1°4/ 8.9 18		
2 1	11 46.11	+ 3 0.1	2.054	2.844	14.0	18.7	2 1	11 49.18	+ 3 10.7	1.627	2.426	16.7	20.7
2 11	11 42.34	+ 3 23.2	1.969	2.846	10.9	18.5	2 11	11 45.14	+ 4 6.7	1.557	2.441	12.9	20.5
2 21	11 36.48	+ 3 58.4	1.906	2.849	7.3	18.3	2 21	11 38.54	+ 5 19.0	1.510	2.457	8.5	20.2
3 2	11 29.06	+ 4 42.0	1.869	2.851	3.3	18.1	3 2	11 30.04	+ 6 41.1	1.488	2.471	3.8	20.0
3 12	11 20.89	+ 5 28.6	1.861	2.854	1.0	17.9	3 12	11 20.70	+ 8 4.1	1.495	2.486	2.1	19.9
3 22	11 12.87	+ 6 12.6	1.882	2.856	5.1	18.2	3 22	11 11.70	+ 9 19.0	1.529	2.500	6.6	20.2
4 1	11 5.89	+ 6 48.8	1.930	2.859	9.0	18.4	4 1	11 4.14	+10 18.6	1.590	2.513	11.0	20.5
4 11	11 0.66	+ 7 13.4	2.002	2.861	12.4	18.6	4 11	10 58.80	+10 58.9	1.673	2.526	14.7	20.8
472149	2014 <i>CK</i> ₂₀		3 10.2 324°13'	6°6/15.4 17			70552	1999 <i>TF</i> ₁₃₉		3 10.2 38°59'	0°3/10.5 1		

EPHEMERIDES

3 10.2

3 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
246040	2006 <i>UN</i> ₁₇₆	3 10.2 190°81	0°2/ 9.8 17				341722	2007 <i>VM</i> ₂₁₅	3 10.2 224°44	6°7/ 2.5 17			
2 1	11 42.75	+ 1 13.7	2.664	3.439	11.5	21.4	2 1	11 49.22	+24 17.6	2.350	3.159	11.8	21.2
2 11	11 39.28	+ 1 59.8	2.568	3.438	9.0	21.2	2 11	11 44.60	+25 18.9	2.278	3.157	9.6	21.0
2 21	11 34.22	+ 2 57.9	2.497	3.437	6.0	21.0	2 21	11 37.91	+26 16.9	2.230	3.154	7.6	20.9
3 2	11 27.98	+ 4 4.4	2.454	3.435	2.7	20.8	3 2	11 29.70	+27 4.5	2.210	3.152	6.7	20.8
3 12	11 21.16	+ 5 14.6	2.441	3.434	0.8	20.7	3 12	11 20.81	+27 35.4	2.217	3.149	7.5	20.9
3 22	11 14.41	+ 6 23.0	2.458	3.432	4.2	20.9	3 22	11 12.13	+27 45.5	2.251	3.147	9.4	21.0
4 1	11 8.40	+ 7 24.7	2.505	3.429	7.4	21.1	4 1	11 4.56	+27 33.7	2.310	3.144	11.7	21.1
4 11	11 3.68	+ 8 15.6	2.577	3.427	10.3	21.3	4 11	10 58.75	+27 1.1	2.391	3.141	13.9	21.3
173992	2001 <i>XM</i> ₁₇₈	3 10.2 110°19	5°0/ 3.1 18				247436	2002 <i>ES</i> ₃	3 10.2 275°91	0°2/10.4 16			
2 1	11 44.95	+19 5.2	2.635	3.446	10.7	20.7	2 1	11 45.14	- 0 36.7	1.583	2.379	17.2	20.9
2 11	11 40.96	+20 25.1	2.575	3.461	8.3	20.5	2 11	11 42.41	+ 0 2.0	1.488	2.368	13.7	20.6
2 21	11 35.29	+21 45.2	2.540	3.475	6.2	20.4	2 21	11 37.03	+ 1 2.1	1.414	2.357	9.4	20.3
3 2	11 28.44	+22 59.2	2.534	3.490	5.0	20.4	3 2	11 29.51	+ 2 19.9	1.364	2.346	4.4	20.0
3 12	11 21.07	+24 0.9	2.557	3.503	5.8	20.4	3 12	11 20.82	+ 3 47.8	1.341	2.334	0.9	19.7
3 22	11 13.90	+24 46.0	2.608	3.517	7.7	20.6	3 22	11 12.13	+ 5 16.1	1.345	2.323	6.2	20.1
4 1	11 7.63	+25 12.3	2.685	3.530	9.9	20.7	4 1	11 4.67	+ 6 35.0	1.375	2.312	11.2	20.3
4 11	11 2.78	+25 19.8	2.785	3.543	12.0	20.9	4 11	10 59.44	+ 7 37.0	1.428	2.300	15.6	20.5
281697	2008 <i>WD</i> ₆₀	3 10.2 69°74	2°0/12.3 18				9776	1993 <i>VL</i> ₃	3 10.2 47°38	1°7/ 8.4 18			
2 1	11 46.85	- 4 53.5	2.080	2.837	14.9	20.7	2 1	11 45.29	+ 6 21.5	2.060	2.861	13.6	17.7
2 11	11 42.66	- 4 35.3	2.015	2.867	11.9	20.5	2 11	11 41.72	+ 7 0.9	1.977	2.863	10.5	17.5
2 21	11 36.51	- 4 0.1	1.972	2.897	8.4	20.4	2 21	11 36.08	+ 7 50.6	1.917	2.864	6.9	17.3
3 2	11 29.00	- 3 10.7	1.954	2.926	4.7	20.2	3 2	11 28.90	+ 8 45.7	1.883	2.866	3.2	17.1
3 12	11 20.95	- 2 11.8	1.966	2.956	2.0	20.1	3 12	11 20.98	+ 9 40.1	1.878	2.867	2.3	17.0
3 22	11 13.23	- 1 9.5	2.006	2.985	4.3	20.3	3 22	11 13.22	+10 27.5	1.902	2.869	5.9	17.2
4 1	11 6.64	- 0 10.0	2.075	3.014	7.8	20.5	4 1	11 6.50	+11 3.2	1.953	2.871	9.5	17.5
4 11	11 1.76	+ 0 41.6	2.169	3.042	11.0	20.8	4 11	11 1.49	+11 24.1	2.027	2.873	12.8	17.7
506335	2017 <i>OC</i> ₂₉	3 10.2 201°49	5°5/16.3 17				371178	2005 <i>YS</i> ₈₂	3 10.2 160°73	2°7/12.8 17			
2 1	11 47.17	-15 17.4	2.497	3.183	14.4	21.6	2 1	11 46.73	- 5 27.7	2.042	2.797	15.2	21.0
2 11	11 42.98	-15 40.2	2.390	3.179	12.4	21.4	2 11	11 42.91	- 5 30.7	1.949	2.798	12.4	20.8
2 21	11 36.86	-15 44.2	2.304	3.175	9.9	21.3	2 21	11 36.94	- 5 16.6	1.878	2.800	9.0	20.6
3 2	11 29.26	-15 28.2	2.241	3.170	7.4	21.1	3 2	11 29.33	- 4 46.5	1.832	2.801	5.3	20.4
3 12	11 20.87	-14 53.0	2.206	3.165	5.7	21.0	3 12	11 20.88	- 4 3.7	1.814	2.802	2.7	20.2
3 22	11 12.47	-14 1.9	2.199	3.159	5.8	21.0	3 22	11 12.54	- 3 13.5	1.824	2.803	4.8	20.4
4 1	11 4.90	-13 0.1	2.221	3.153	7.8	21.1	4 1	11 5.23	- 2 22.0	1.862	2.803	8.4	20.6
4 11	10 58.84	-11 54.0	2.269	3.146	10.4	21.2	4 11	10 59.70	- 1 35.3	1.925	2.804	11.9	20.8
109117	2001 <i>QE</i> ₄₂	3 10.2 146°47	1°0/11.3 18				214883	Yuanxikun	3 10.2 107°94	2°7/ 7.9 18			
2 1	11 48.64	- 1 42.6	2.237	2.998	13.9	20.4	2 1	11 53.88	+ 9 10.3	1.777	2.576	15.5	20.9
2 11	11 44.08	- 1 24.3	2.150	3.008	11.0	20.2	2 11	11 48.49	+ 9 46.9	1.712	2.597	11.9	20.7
2 21	11 37.54	- 0 51.7	2.087	3.018	7.6	20.0	2 21	11 40.61	+10 31.6	1.670	2.617	7.9	20.5
3 2	11 29.53	- 0 7.5	2.050	3.027	3.9	19.8	3 2	11 30.94	+11 18.2	1.655	2.636	3.9	20.3
3 12	11 20.83	+ 0 43.8	2.043	3.035	1.1	19.6	3 12	11 20.56	+11 59.5	1.669	2.655	3.3	20.3
3 22	11 12.30	+ 1 36.9	2.066	3.043	4.4	19.9	3 22	11 10.61	+12 29.5	1.711	2.673	6.9	20.5
4 1	11 4.78	+ 2 26.3	2.117	3.050	8.0	20.1	4 1	11 2.14	+12 44.6	1.780	2.691	10.8	20.8
4 11	10 58.93	+ 3 7.4	2.194	3.057	11.3	20.3	4 11	10 55.88	+12 43.3	1.872	2.708	14.1	21.0
164476	2006 <i>EM</i> ₂₅	3 10.2 272°59	0°3/10.4 16				281358	2007 <i>VJ</i> ₂₈₇	3 10.2 20°41	1°3/ 8.8 18			
2 1	11 46.94	+ 0 4.4	1.587	2.382	17.2	21.1	2 1	11 40.62	+ 2 41.5	1.823	2.630	14.9	20.0
2 11	11 43.90	+ 0 30.2	1.486	2.365	13.7	20.8	2 11	11 38.32	+ 3 45.2	1.748	2.636	11.5	19.8
2 21	11 38.10	+ 1 15.7	1.406	2.349	9.5	20.5	2 21	11 33.91	+ 5 4.9	1.694	2.643	7.6	19.6
3 2	11 30.04	+ 2 17.8	1.351	2.332	4.5	20.2	3 2	11 27.93	+ 6 34.6	1.667	2.651	3.3	19.4
3 12	11 20.67	+ 3 29.8	1.322	2.315	0.9	19.9	3 12	11 21.21	+ 8 6.2	1.668	2.659	1.9	19.3
3 22	11 11.23	+ 4 43.1	1.320	2.298	6.3	20.2	3 22	11 14.69	+ 9 31.0	1.696	2.668	6.0	19.5
4 1	11 3.00	+ 5 48.4	1.343	2.280	11.4	20.4	4 1	11 9.26	+10 41.9	1.752	2.677	10.0	19.8
4 11	10 57.06	+ 6 38.6	1.390	2.263	15.9	20.7	4 11	11 5.61	+11 34.3	1.830	2.687	13.5	20.0
147680	2004 <i>OL</i> ₂	3 10.2 247°31	4°2/15.2 18				107864	2001 <i>FT</i> ₈₀	3 10.2 323°57	3°1/12.4 18			
2 1	11 44.47	-11 54.6	2.716	3.422	12.9	20.5	2 1	11 48.85	- 3 33.8	1.556	2.336	18.2	19.3
2 11	11 40.70	-12 12.5	2.606	3.414	10.9	20.3	2 11	11 45.34	- 4 1.0	1.465	2.330	14.8	19.1
2 21	11 35.25	-12 14.8	2.518	3.406	8.5	20.2	2 21	11 39.02	- 4 10.2	1.394	2.324	10.7	18.8
3 2	11 28.50	-12 0.9	2.454	3.397	6.1	20.0	3 2	11 30.44	- 4 1.7	1.347	2.319	6.3	18.6
3 12	11 21.05	-11 32.1	2.419	3.389	4.4	19.9	3 12	11 20.64	- 3 38.4	1.325	2.314	3.1	18.3
3 22	11 13.60	-10 51.5	2.412	3.380	4.8	19.9	3 22	11 10.89	- 3 5.8	1.330	2.309	6.0	18.5
4 1	11 6.86	-10 3.5	2.435	3.371	7.0	20.0	4 1	11 2.48	- 2 30.8	1.360	2.305	10.5	18.7
4 11	11 1.43	- 9 13.1	2.483	3.362	9.6	20.1	4 11	10 56.45	- 2 0.4	1.413	2.301	14.8	19.0
471824	2012 <i>XU</i> ₃₅	3 10.2 212°81	4°4/ 4.6 17				500351	2012 <i>TQ</i> ₁₀	3 10.2 133°91	3°1/14.1 17			
2 1	11 45.27	+16 45.5	2.536	3.346	11.0	21.3	2 1	11 43.27	- 9 38.8	2.545	3.271	13.3	21.9
2 11	11 41.36	+17 44.8	2.456	3.344	8.6	21.2	2 11	11 39.78	- 9 25.3	2.450	3.277	10.9	21.7
2 21	11 35.66	+18 46.3	2.400	3.341	6.1	21.0	2 21	11 34.60	- 8 54.5	2.377	3.283	8.2	21.5
3 2	11 28.66	+19 44.3	2.373	3.339	4.5	20.9	3 2	11 28.18	- 8 7.3	2.331	3.288	5.3	21.4
3 12	11 21.03	+20 32.7	2.374	3.336	5.1	20.9	3 12	11 21.17	- 7 7.0	2.312	3.294	3.2	21.2
3 22	11 13.54	+21 7.0	2.404	3.333	7.3	21.1	3 22	11 14.26	- 5 58.4	2.323	3.299	4.2	21.3
4 1	11 6.91	+21 24.4	2.460	3.330	9.9	21.2	4 1	11 8.15	- 4 47.0	2.363	3.304	6.9	21.5
4 11	11 1.76	+21 24.3	2.540	3.326	12.3	21.4	4 11	11 3.42	- 3 38.8	2.430	3.309	9.7	21.7
36021	1999 <i>NH</i> ₄₉	3 10.2 315°98	4°3/13.4 18				201447	2003 <i>FQ</i> ₅₀	3 10.2 69°77	3°1/12.6 18			</

EPHEMERIDES

3 10.2

3 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
27580	Angelataylor		3 10.2 105°39	2°6/ 7.5 18			422673	1999 VF ₁₁₇		3 10.2 146°99	3°2/ 6.4 16		
2 1	11 46.96	+ 8 21.0	1.987	2.792	13.9	19.3	2 1	11 48.79	+12 51.3	2.570	3.366	11.3	22.1
2 11	11 43.02	+ 9 13.6	1.914	2.802	10.7	19.1	2 11	11 43.93	+13 38.6	2.494	3.377	8.7	21.9
2 21	11 36.93	+10 15.5	1.864	2.812	7.0	18.9	2 21	11 37.30	+14 29.8	2.443	3.387	5.9	21.8
3 2	11 29.29	+11 20.5	1.841	2.822	3.5	18.7	3 2	11 29.41	+15 19.7	2.421	3.396	3.5	21.6
3 12	11 20.93	+12 21.5	1.847	2.832	3.2	18.7	3 12	11 20.95	+16 3.1	2.429	3.405	3.7	21.6
3 22	11 12.82	+13 12.2	1.881	2.841	6.6	18.9	3 22	11 12.70	+16 35.6	2.467	3.413	6.2	21.8
4 1	11 5.85	+13 47.9	1.942	2.851	10.1	19.2	4 1	11 5.38	+16 54.4	2.533	3.421	8.9	22.0
4 11	11 0.71	+14 6.3	2.026	2.860	13.3	19.4	4 11	10 59.56	+16 58.4	2.624	3.428	11.4	22.2
381469	2008 RE ₁₂₉		3 10.2 192°49	1°0/ 9.2 17			352739	2008 TJ ₅₆		3 10.2 22°40	1°1/ 9.5 18		
2 1	11 46.29	+ 4 39.6	2.282	3.070	12.8	21.8	2 1	11 48.65	+ 4 23.2	1.238	2.061	19.6	20.7
2 11	11 42.30	+ 5 9.5	2.192	3.070	10.0	21.6	2 11	11 45.64	+ 4 38.9	1.168	2.064	15.3	20.5
2 21	11 36.39	+ 5 49.6	2.125	3.069	6.6	21.4	2 21	11 39.40	+ 5 11.2	1.117	2.068	10.2	20.2
3 2	11 29.04	+ 6 36.0	2.085	3.067	3.0	21.1	3 2	11 30.65	+ 5 54.7	1.089	2.072	4.6	19.9
3 12	11 20.98	+ 7 23.7	2.074	3.066	1.5	21.0	3 12	11 20.68	+ 6 40.7	1.085	2.077	1.9	19.7
3 22	11 13.04	+ 8 7.4	2.093	3.064	5.1	21.3	3 22	11 11.03	+ 7 20.6	1.106	2.083	7.5	20.1
4 1	11 6.01	+ 8 42.3	2.140	3.062	8.6	21.5	4 1	11 3.17	+ 7 46.9	1.151	2.089	12.8	20.4
4 11	11 0.58	+ 9 5.4	2.212	3.060	11.8	21.7	4 11	10 58.12	+ 7 55.4	1.217	2.095	17.4	20.6
310327	2011 UX ₁₇₇		3 10.2 185°18	1°9/ 8.4 18			38848	2000 SN ₆₈		3 10.2 120°55	1°8/ 8.8 18		
2 1	11 50.44	+ 5 58.7	1.967	2.760	14.4	22.0	2 1	11 52.53	+ 6 37.3	1.662	2.463	16.3	20.2
2 11	11 45.86	+ 6 45.7	1.879	2.760	11.2	21.8	2 11	11 47.77	+ 7 1.5	1.588	2.473	12.7	20.0
2 21	11 38.96	+ 7 44.6	1.815	2.760	7.4	21.5	2 21	11 40.35	+ 7 36.7	1.536	2.482	8.4	19.8
3 2	11 30.28	+ 8 50.0	1.777	2.759	3.4	21.3	3 2	11 30.95	+ 8 17.5	1.509	2.491	3.8	19.5
3 12	11 20.71	+ 9 54.8	1.768	2.757	2.5	21.2	3 12	11 20.63	+ 8 56.9	1.510	2.500	2.4	19.4
3 22	11 11.27	+10 51.9	1.789	2.754	6.3	21.4	3 22	11 10.64	+ 9 28.5	1.539	2.509	6.7	19.7
4 1	11 2.97	+11 35.7	1.837	2.751	10.3	21.7	4 1	11 2.11	+ 9 47.3	1.594	2.517	11.0	20.0
4 11	10 56.63	+12 2.8	1.909	2.747	13.8	21.9	4 11	10 55.90	+ 9 50.8	1.673	2.525	14.8	20.3
467657	2008 TB ₁₅₀		3 10.2 201°98	0°2/ 9.9 17			245362	2005 EC ₃₃₁		3 10.2 285°46	5°0/ 15.6 17		
2 1	11 45.27	+ 1 30.3	2.278	3.057	13.1	22.3	2 1	11 43.96	-13 5.5	2.217	2.932	15.3	20.1
2 11	11 41.55	+ 2 6.8	2.183	3.055	10.3	22.1	2 11	11 40.71	-13 18.9	2.116	2.928	12.9	19.9
2 21	11 35.92	+ 2 56.5	2.111	3.052	6.9	21.9	2 21	11 35.48	-13 11.9	2.035	2.924	10.2	19.7
3 2	11 28.84	+ 3 55.8	2.067	3.049	3.1	21.6	3 2	11 28.70	-12 43.9	1.978	2.921	7.3	19.5
3 12	11 21.03	+ 4 59.3	2.052	3.045	0.9	21.4	3 12	11 21.12	-11 56.7	1.947	2.917	5.2	19.4
3 22	11 13.30	+ 6 1.1	2.067	3.041	4.8	21.7	3 22	11 13.56	-10 54.6	1.944	2.913	5.6	19.4
4 1	11 6.47	+ 6 55.6	2.110	3.037	8.4	21.9	4 1	11 6.91	- 9 43.8	1.969	2.909	8.1	19.6
4 11	11 1.20	+ 7 38.5	2.178	3.033	11.7	22.1	4 11	11 1.86	- 8 31.7	2.019	2.906	11.1	19.7
130282	2000 EZ ₂		3 10.2 176°82	0°4/ 10.6 18			312718	2010 RG ₄₄		3 10.2 34°31	3°6/ 13.0 18		
2 1	11 45.45	+ 0 18.9	2.475	3.245	12.5	21.0	2 1	11 47.70	- 6 3.0	1.577	2.347	18.4	20.6
2 11	11 41.49	+ 0 42.7	2.382	3.246	9.8	20.8	2 11	11 44.32	- 6 19.2	1.493	2.349	15.0	20.4
2 21	11 35.77	+ 1 18.6	2.311	3.247	6.7	20.6	2 21	11 38.25	- 6 14.3	1.428	2.352	11.0	20.1
3 2	11 28.74	+ 2 3.8	2.269	3.248	3.2	20.4	3 2	11 30.07	- 5 48.5	1.386	2.355	6.7	19.9
3 12	11 21.06	+ 2 53.9	2.255	3.248	0.6	20.1	3 12	11 20.82	- 5 5.6	1.371	2.358	3.6	19.7
3 22	11 13.49	+ 3 44.1	2.272	3.249	4.2	20.4	3 22	11 11.71	- 4 12.0	1.381	2.361	5.8	19.8
4 1	11 6.74	+ 4 29.6	2.318	3.248	7.6	20.6	4 1	11 3.96	- 3 15.7	1.418	2.364	10.1	20.1
4 11	11 1.44	+ 5 6.5	2.389	3.248	10.6	20.8	4 11	10 58.50	- 2 24.8	1.478	2.367	14.2	20.3
437331	2013 RZ ₄₇		3 10.2 88°65	0°5/ 10.7 17			133183	2003 QU ₅₁		3 10.2 304°09	0°4/ 9.9 17		
2 1	11 45.41	- 0 27.0	1.953	2.735	14.9	21.4	2 1	11 49.05	+ 3 55.0	1.383	2.195	18.4	20.1
2 11	11 41.90	+ 0 2.1	1.871	2.742	11.7	21.2	2 11	11 46.19	+ 3 53.3	1.278	2.168	14.7	19.7
2 21	11 36.25	+ 0 47.0	1.811	2.749	8.0	20.9	2 21	11 40.11	+ 4 6.4	1.192	2.140	10.1	19.4
3 2	11 29.01	+ 1 44.2	1.777	2.757	3.8	20.7	3 2	11 31.20	+ 4 31.3	1.129	2.112	4.7	19.0
3 12	11 21.01	+ 2 47.8	1.771	2.764	0.8	20.5	3 12	11 20.53	+ 5 1.9	1.092	2.085	1.3	18.7
3 22	11 13.20	+ 3 51.2	1.793	2.771	4.9	20.8	3 22	11 9.55	+ 5 30.8	1.080	2.058	7.3	19.0
4 1	11 6.49	+ 4 47.8	1.844	2.778	9.0	21.1	4 1	10 59.89	+ 5 50.4	1.092	2.031	13.2	19.2
4 11	11 1.57	+ 5 32.7	1.918	2.786	12.5	21.3	4 11	10 52.93	+ 5 55.2	1.124	2.005	18.3	19.4
499991	2011 OA ₁₅		3 10.2 167°43	6°8/ 26.5 18			202943	1999 EO		3 10.2 348°04	0°8/ 9.4 17		
2 1	11 46.84	+32 10.4	3.336	4.127	9.1	22.4	2 1	11 42.31	+ 2 46.9	1.840	2.643	14.9	20.5
2 11	11 42.29	+33 40.0	3.282	4.132	7.8	22.3	2 11	11 39.73	+ 3 24.8	1.753	2.638	11.6	20.2
2 21	11 36.16	+35 3.2	3.254	4.137	7.0	22.3	2 21	11 34.95	+ 4 17.7	1.687	2.634	7.8	20.0
3 2	11 28.87	+36 14.0	3.254	4.141	6.9	22.3	3 2	11 28.49	+ 5 21.1	1.647	2.630	3.5	19.7
3 12	11 21.05	+37 7.5	3.282	4.145	7.7	22.3	3 12	11 21.18	+ 6 28.1	1.635	2.627	1.4	19.6
3 22	11 13.36	+37 41.0	3.336	4.148	8.9	22.4	3 22	11 13.98	+ 7 31.5	1.650	2.624	5.7	19.8
4 1	11 6.46	+37 53.7	3.413	4.150	10.3	22.5	4 1	11 7.85	+ 8 24.5	1.691	2.622	9.9	20.1
4 11	11 0.86	+37 46.7	3.510	4.152	11.6	22.6	4 11	11 3.55	+ 9 2.4	1.756	2.621	13.6	20.3
372449	2009 SP ₁₀₀		3 10.2 194°22	1°1/ 11.5 17			371003	2005 TB ₁₀₉		3 10.2 231°11	0°3/ 10.5 17		
2 1	11 45.16	- 3 29.6	2.211	2.973	14.0	21.9	2 1	11 49.25	+ 1 5.6	2.268	3.038	13.4	22.8
2 11	11 41.55	- 2 50.9	2.113	2.971	11.2	21.7	2 11	11 44.77	+ 1 21.1	2.160	3.025	10.7	22.5
2 21	11 35.96	- 1 54.7	2.038	2.969	7.8	21.5	2 21	11 38.19	+ 1 49.0	2.076	3.012	7.3	22.3
3 2	11 28.88	- 0 43.8	1.990	2.966	4.0	21.2	3 2	11 29.97	+ 2 26.7	2.018	2.998	3.5	22.0
3 12	11 21.04	+ 0 36.6	1.971	2.963	1.1	21.0	3 12	11 20.85	+ 3 10.1	1.990	2.983	0.7	21.8
3 22	11 13.27	+ 1 59.6	1.982	2.960	4.5	21.2	3 22	11 11.71	+ 3 53.8	1.991	2.967	4.7	22.1
4 1	11 6.42	+ 3 18.3	2.021	2.956	8.3	21.5	4 1	11 3.45	+ 4 32.9	2.022	2.951	8.6	22.3
4 11	11 1.17	+ 4 26.7	2.086	2.952	11.7	21.7	4 11	10 56.85	+ 5 2.9	2.077	2.934	12.1	22.5
17802	1998 FA ₇₁		3 10.2 113°42	3°8/ 6.3 18			88716	2001 SG ₂₂		3 10.2 182°90</			

EPHEMERIDES

3 10.2

3 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
34166	Neildeshmukh		3 10.2 261°49	4°1/13.6	18		363790	2005 <i>JE</i> ₄₆		3 10.2 176°17	3°8/13.9	18	
2 1	11 46.83	- 8 21.8	1.651	2.409	18.2	18.2	2 1	11 56.49	-10 48.6	2.238	2.939	15.5	22.6
2 11	11 43.73	- 8 28.7	1.550	2.398	15.1	18.0	2 11	11 50.37	-10 37.1	2.135	2.946	12.9	22.5
2 21	11 37.96	- 8 12.3	1.469	2.387	11.3	17.7	2 21	11 41.93	-10 4.8	2.054	2.950	9.7	22.2
3 2	11 30.01	- 7 31.9	1.411	2.375	7.2	17.5	3 2	11 31.70	- 9 11.9	1.999	2.953	6.3	22.0
3 12	11 20.83	- 6 30.8	1.379	2.364	4.2	17.2	3 12	11 20.55	- 8 1.6	1.974	2.954	3.9	21.9
3 22	11 11.60	- 5 15.4	1.374	2.352	6.0	17.3	3 22	11 9.48	- 6 39.7	1.980	2.953	5.1	22.0
4 1	11 3.56	- 3 55.1	1.394	2.340	10.2	17.5	4 1	10 59.50	- 5 13.7	2.017	2.950	8.4	22.2
4 11	10 57.72	- 2 39.4	1.439	2.328	14.5	17.7	4 11	10 51.42	- 3 51.4	2.082	2.946	11.8	22.4
312990	1999 <i>TQ</i> ₇₇		3 10.2 125°54	0°3/10.5	18		369827	2012 <i>HV</i> ₇₉		3 10.2 335°45	0°8/10.8	18	
2 1	11 49.84	+ 0 19.7	1.946	2.722	15.2	21.7	2 1	11 46.75	+ 0 47.7	1.562	2.361	17.3	20.4
2 11	11 45.28	+ 0 47.0	1.869	2.737	11.9	21.5	2 11	11 43.67	+ 0 47.9	1.473	2.354	13.7	20.2
2 21	11 38.48	+ 1 29.1	1.814	2.751	8.1	21.3	2 21	11 37.89	+ 1 4.4	1.406	2.348	9.5	19.9
3 2	11 30.04	+ 2 22.4	1.785	2.765	3.8	21.0	3 2	11 29.97	+ 1 34.3	1.362	2.342	4.6	19.6
3 12	11 20.87	+ 3 21.0	1.785	2.778	0.7	20.8	3 12	11 20.92	+ 2 12.5	1.344	2.337	1.0	19.3
3 22	11 11.94	+ 4 18.2	1.815	2.791	5.1	21.1	3 22	11 11.96	+ 2 52.1	1.352	2.332	5.9	19.7
4 1	11 4.22	+ 5 8.2	1.872	2.803	9.1	21.4	4 1	11 4.32	+ 3 26.3	1.387	2.328	10.7	19.9
4 11	10 58.42	+ 5 46.4	1.954	2.815	12.6	21.6	4 11	10 58.95	+ 3 49.4	1.443	2.324	15.0	20.2
66246	1999 <i>FC</i> ₃₀		3 10.2 314°51	1°1/ 9.3	18		396690	2002 <i>TC</i> ₁₀₆		3 10.2 120°17	1°1/11.1	18	
2 1	11 42.75	+ 1 45.6	1.338	2.158	18.5	19.2	2 1	11 50.62	- 2 4.2	1.557	2.338	18.1	21.9
2 11	11 41.05	+ 2 34.4	1.248	2.143	14.6	18.9	2 11	11 46.47	- 1 37.4	1.483	2.352	14.3	21.7
2 21	11 36.42	+ 3 46.5	1.178	2.129	9.8	18.5	2 21	11 39.60	- 0 49.9	1.429	2.366	9.9	21.5
3 2	11 29.38	+ 5 16.6	1.131	2.115	4.4	18.2	3 2	11 30.67	+ 0 14.5	1.400	2.378	4.9	21.2
3 12	11 20.97	+ 6 54.9	1.109	2.101	1.9	18.0	3 12	11 20.80	+ 1 28.5	1.398	2.391	1.2	21.0
3 22	11 12.56	+ 8 29.0	1.113	2.089	7.6	18.3	3 22	11 11.23	+ 2 43.4	1.423	2.402	5.8	21.3
4 1	11 5.55	+ 9 47.8	1.140	2.076	13.1	18.5	4 1	11 3.15	+ 3 50.4	1.476	2.414	10.5	21.6
4 11	11 1.06	+10 43.4	1.188	2.065	17.9	18.8	4 11	10 57.44	+ 4 43.2	1.551	2.424	14.6	21.9
330459	2007 <i>EL</i> ₁₂₈		3 10.2 236°34	0°3/10.5	17		54817	2001 <i>NB</i>		3 10.2 175°44	7°7/19.4	18	
2 1	11 45.05	- 0 25.1	2.089	2.867	14.2	21.8	2 1	11 48.62	-22 53.8	2.495	3.125	15.6	19.1
2 11	11 41.64	+ 0 12.3	1.989	2.859	11.2	21.6	2 11	11 44.22	-23 29.6	2.393	3.128	13.8	19.0
2 21	11 36.14	+ 1 5.8	1.913	2.851	7.7	21.3	2 21	11 37.80	-23 43.3	2.309	3.130	11.8	18.8
3 2	11 29.03	+ 2 12.2	1.862	2.843	3.6	21.1	3 2	11 29.81	-23 32.3	2.248	3.132	9.7	18.7
3 12	11 21.07	+ 3 25.7	1.841	2.834	0.7	20.8	3 12	11 20.98	-22 56.1	2.211	3.133	8.1	18.6
3 22	11 13.15	+ 4 39.5	1.848	2.825	4.9	21.1	3 22	11 12.19	-21 57.5	2.201	3.133	7.7	18.5
4 1	11 6.17	+ 5 46.7	1.884	2.816	9.0	21.3	4 1	11 4.30	-20 41.6	2.219	3.132	8.8	18.6
4 11	11 0.88	+ 6 41.7	1.944	2.807	12.5	21.5	4 11	10 58.03	-19 16.0	2.263	3.131	10.8	18.7
319566	2006 <i>SH</i> ₄₉		3 10.2 127°32	0°5/10.6	18		522438	2016 <i>CE</i> ₃₁₈		3 10.2 286°29	7°5/ 3.1	17	
2 1	11 50.78	+ 0 52.4	1.933	2.709	15.2	21.9	2 1	11 51.67	+22 14.1	1.905	2.721	13.9	20.9
2 11	11 46.05	+ 1 3.9	1.853	2.721	12.0	21.7	2 11	11 47.31	+23 18.7	1.812	2.697	11.3	20.6
2 21	11 39.03	+ 1 29.1	1.795	2.732	8.2	21.5	2 21	11 40.27	+24 23.2	1.741	2.673	8.8	20.4
3 2	11 30.31	+ 2 4.8	1.763	2.743	3.9	21.3	3 2	11 31.07	+25 18.5	1.697	2.648	7.5	20.3
3 12	11 20.81	+ 2 46.0	1.760	2.754	0.8	21.1	3 12	11 20.70	+25 55.6	1.679	2.624	8.4	20.3
3 22	11 11.55	+ 3 27.0	1.787	2.764	5.0	21.4	3 22	11 10.35	+26 8.2	1.688	2.599	11.0	20.4
4 1	11 3.50	+ 4 2.3	1.841	2.773	9.1	21.7	4 1	11 1.24	+25 53.4	1.720	2.575	14.1	20.5
4 11	10 57.41	+ 4 27.6	1.919	2.782	12.7	21.9	4 11	10 54.34	+25 12.6	1.773	2.550	17.1	20.7
109929	2001 <i>SH</i> ₃₃		3 10.2 195°64	0°3/ 9.8	18		269196	2008 <i>GK</i> ₁₄₅		3 10.2 226°60	1°4/ 8.7	18	
2 1	11 45.11	+ 2 48.4	3.104	3.872	10.2	21.5	2 1	11 47.34	+ 5 7.8	2.300	3.086	12.8	21.4
2 11	11 40.88	+ 3 17.2	3.003	3.869	8.0	21.3	2 11	11 43.25	+ 5 50.9	2.198	3.075	10.0	21.2
2 21	11 35.22	+ 3 54.7	2.927	3.865	5.3	21.1	2 21	11 37.16	+ 6 45.2	2.120	3.064	6.6	21.0
3 2	11 28.49	+ 4 38.1	2.879	3.861	2.4	20.9	3 2	11 29.52	+ 7 46.4	2.069	3.052	3.0	20.7
3 12	11 21.23	+ 5 23.7	2.863	3.856	0.7	20.7	3 12	11 21.06	+ 8 48.7	2.049	3.039	1.9	20.6
3 22	11 14.02	+ 6 7.9	2.877	3.850	3.7	21.0	3 22	11 12.61	+ 9 46.2	2.058	3.025	5.5	20.8
4 1	11 7.45	+ 6 46.9	2.922	3.844	6.6	21.2	4 1	11 5.03	+10 33.4	2.095	3.011	9.1	21.0
4 11	11 2.03	+ 7 17.9	2.993	3.837	9.1	21.3	4 11	10 59.05	+11 6.7	2.157	2.997	12.4	21.2
169670	2002 <i>JT</i> ₈₇		3 10.2 274°82	0°8/10.8	16		336443	2008 <i>UN</i> ₃₀₅		3 10.2 265°58	3°0/13.5	17	
2 1	11 47.01	- 0 30.2	1.627	2.418	17.0	20.7	2 1	11 43.42	- 8 30.5	2.084	2.830	15.2	21.5
2 11	11 43.84	- 0 13.2	1.531	2.407	13.6	20.4	2 11	11 40.44	- 8 11.4	1.979	2.820	12.5	21.3
2 21	11 38.01	+ 0 22.4	1.456	2.396	9.4	20.1	2 21	11 35.40	- 7 31.2	1.896	2.811	9.3	21.1
3 2	11 30.04	+ 1 13.8	1.405	2.385	4.6	19.8	3 2	11 28.75	- 6 30.8	1.837	2.802	5.8	20.8
3 12	11 20.88	+ 2 15.2	1.381	2.374	1.0	19.5	3 12	11 21.22	- 5 14.2	1.806	2.792	3.1	20.6
3 22	11 11.72	+ 3 18.5	1.384	2.363	5.9	19.8	3 22	11 13.71	- 3 47.7	1.804	2.783	4.7	20.7
4 1	11 3.80	+ 4 15.8	1.413	2.352	10.8	20.1	4 1	11 7.12	- 2 19.1	1.829	2.773	8.4	20.9
4 11	10 58.09	+ 5 0.2	1.465	2.341	15.1	20.3	4 11	11 2.19	- 0 56.4	1.881	2.763	11.9	21.1
141692	2002 <i>JN</i> ₁₄₆		3 10.2 257°01	1°3/ 8.9	17		215147	1999 <i>VK</i> ₆₆		3 10.2 95°69	4°2/ 6.7	18	
2 1	11 46.96	+ 3 9.8	1.898	2.691	14.9	21.3	2 1	11 51.45	+12 14.7	1.678	2.492	15.6	20.8
2 11	11 43.51	+ 4 4.0	1.790	2.671	11.7	21.0	2 11	11 46.88	+13 8.2	1.614	2.507	12.0	20.6
2 21	11 37.65	+ 5 15.2	1.705	2.650	7.8	20.7	2 21	11 39.71	+14 8.1	1.574	2.522	8.1	20.4
3 2	11 29.85	+ 6 38.6	1.647	2.629	3.5	20.4	3 2	11 30.67	+15 6.7	1.559	2.536	4.8	20.2
3 12	11 20.92	+ 8 6.7	1.617	2.608	2.0	20.3	3 12	11 20.84	+15 55.6	1.572	2.550	4.9	20.2
3 22	11 11.89	+ 9 30.8	1.615	2.585	6.4	20.5	3 22	11 11.42	+16 28.3	1.612	2.565	8.3	20.5
4 1	11 3.85	+10 42.8	1.641	2.563	10.8	20.7	4 1	11 3.48	+16 41.2	1.678	2.578	12.0	20.7
4 11	10 57.72	+11 37.1	1.691	2.539	14.8	20.9	4 11	10 57.82	+16 34.0	1.766	2.592	15.2	20.9
306895	2001 <i>TT</i> ₁₂₇		3 10.2 23°20	18°2/ 1.2	18		314208	2005 <i>MX</i> ₃₀		3 10.2 319°18			

EPHEMERIDES

3 10.2

3 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
163692	2003 <i>CY</i> ₁₈		3 10.2 272°09	7°6/5.2	18		503487	2016 <i>EA</i> ₁₈₁		3 10.2 321°00	0°6/10.6	17	
2 1	11 57.82	+ 9 18.7	1.034	1.865	22.0	20.5	2 1	11 45.39	+ 1 29.9	1.463	2.271	17.8	20.7
2 11	11 55.25	+11 9.0	0.922	1.824	17.7	20.1	2 11	11 42.99	+ 1 27.6	1.363	2.250	14.2	20.4
2 21	11 47.96	+13 35.9	0.828	1.781	12.6	19.6	2 21	11 37.72	+ 1 41.8	1.284	2.229	9.9	20.1
3 2	11 35.75	+16 30.3	0.756	1.734	8.0	19.2	3 2	11 30.05	+ 2 10.1	1.227	2.209	4.8	19.8
3 12	11 19.48	+19 31.5	0.709	1.686	9.6	19.0	3 12	11 20.97	+ 2 47.2	1.196	2.189	1.0	19.4
3 22	11 1.22	+22 12.0	0.685	1.634	16.5	19.1	3 22	11 11.77	+ 3 25.9	1.191	2.171	6.4	19.8
4 1	10 43.95	+24 8.3	0.682	1.580	24.3	19.3	4 1	11 3.84	+ 3 58.7	1.210	2.153	11.7	20.0
4 11	10 30.49	+25 10.5	0.693	1.524	31.6	19.5	4 11	10 58.33	+ 4 19.3	1.250	2.136	16.5	20.2
190167	2005 <i>UW</i> ₁₅₈		3 10.2 209°88	3°4/7.0	18		522521	2016 <i>EP</i> ₂₃₅		3 10.2 345°14	2°4/8.3	17	
2 1	11 50.67	+ 8 38.9	1.815	2.618	15.0	21.2	2 1	11 46.94	+ 7 46.3	1.670	2.484	15.7	21.3
2 11	11 46.40	+ 9 47.8	1.724	2.612	11.7	21.0	2 11	11 43.60	+ 8 17.3	1.588	2.481	12.2	21.1
2 21	11 39.58	+11 9.2	1.657	2.604	7.8	20.7	2 21	11 37.71	+ 8 59.1	1.527	2.477	8.1	20.9
3 2	11 30.73	+12 35.8	1.616	2.596	4.2	20.5	3 2	11 29.87	+ 9 45.9	1.492	2.475	3.9	20.6
3 12	11 20.81	+13 58.5	1.604	2.587	4.1	20.5	3 12	11 21.05	+10 30.6	1.484	2.472	3.0	20.5
3 22	11 10.95	+15 8.4	1.621	2.577	7.9	20.7	3 22	11 12.39	+11 6.2	1.502	2.470	7.0	20.8
4 1	11 2.30	+15 59.1	1.664	2.566	11.9	20.9	4 1	11 5.03	+11 27.3	1.546	2.468	11.3	21.0
4 11	10 55.77	+16 27.7	1.730	2.554	15.6	21.1	4 11	10 59.81	+11 31.2	1.613	2.467	15.1	21.2
189465	1999 <i>RO</i> ₂₀₀		3 10.2 229°60	4°7/14.9	17		265620	2005 <i>SJ</i> ₁₃₂		3 10.2 84°79	4°2/6.9	18	
2 1	11 48.92	-11 37.3	2.454	3.159	14.2	20.6	2 1	11 53.73	+14 31.5	1.814	2.622	14.8	20.4
2 11	11 44.46	-12 6.1	2.341	3.148	12.0	20.4	2 11	11 48.53	+14 58.0	1.742	2.630	11.5	20.2
2 21	11 37.99	-12 18.5	2.249	3.137	9.4	20.2	2 21	11 40.79	+15 27.5	1.693	2.638	7.9	20.0
3 2	11 29.93	-12 13.5	2.182	3.125	6.7	20.0	3 2	11 31.19	+15 53.5	1.670	2.646	4.8	19.8
3 12	11 20.98	-11 51.8	2.143	3.112	4.8	19.8	3 12	11 20.78	+16 9.3	1.676	2.654	4.8	19.9
3 22	11 11.96	-11 16.4	2.133	3.099	5.4	19.8	3 22	11 10.74	+16 10.4	1.709	2.661	7.9	20.0
4 1	11 3.75	-10 31.9	2.152	3.086	7.9	20.0	4 1	11 2.14	+15 54.6	1.769	2.669	11.5	20.3
4 11	10 57.07	- 9 44.2	2.197	3.072	10.8	20.1	4 11	10 55.75	+15 22.2	1.852	2.677	14.7	20.5
369318	2009 <i>SS</i> ₁₁₈		3 10.2 212°30	1°3/11.5	17		309130	2006 <i>XU</i> ₂₅		3 10.2 146°25	0°4/9.9	18	
2 1	11 47.28	- 2 26.5	2.208	2.970	14.0	22.0	2 1	11 48.47	+ 1 59.7	2.085	2.866	14.1	21.2
2 11	11 43.26	- 2 9.8	2.107	2.964	11.2	21.8	2 11	11 44.16	+ 2 34.5	2.002	2.874	11.0	21.0
2 21	11 37.20	- 1 37.8	2.028	2.958	7.9	21.5	2 21	11 37.75	+ 3 22.6	1.942	2.883	7.4	20.8
3 2	11 29.56	- 0 52.5	1.976	2.951	4.1	21.3	3 2	11 29.78	+ 4 20.0	1.909	2.891	3.3	20.5
3 12	11 21.08	+ 0 1.6	1.952	2.944	1.3	21.1	3 12	11 21.09	+ 5 20.8	1.905	2.898	1.0	20.4
3 22	11 12.64	+ 0 59.2	1.958	2.937	4.5	21.3	3 22	11 12.57	+ 6 18.7	1.931	2.905	5.1	20.7
4 1	11 5.12	+ 1 54.2	1.993	2.929	8.3	21.5	4 1	11 5.13	+ 7 8.0	1.984	2.911	8.9	20.9
4 11	10 59.24	+ 2 41.3	2.053	2.920	11.8	21.7	4 11	10 59.45	+ 7 44.8	2.063	2.917	12.3	21.1
393885	2005 <i>TU</i> ₇₆		3 10.2 131°29	4°1/6.5	18		17673	Houkidaïsen		3 10.2 257°25	2°1/7.7	18	
2 1	11 51.17	+ 9 55.7	1.631	2.443	16.1	20.9	2 1	11 44.13	+ 7 58.9	2.516	3.312	11.5	19.4
2 11	11 46.80	+11 13.3	1.564	2.456	12.4	20.7	2 11	11 40.59	+ 8 46.8	2.416	3.300	8.9	19.2
2 21	11 39.76	+12 41.7	1.520	2.468	8.3	20.4	2 21	11 35.29	+ 9 43.2	2.341	3.287	5.9	19.0
3 2	11 30.75	+14 11.8	1.502	2.480	4.7	20.3	3 2	11 28.66	+10 43.6	2.293	3.275	2.9	18.8
3 12	11 20.84	+15 33.4	1.512	2.492	4.9	20.3	3 12	11 21.32	+11 42.4	2.276	3.262	2.6	18.7
3 22	11 11.28	+16 37.8	1.550	2.502	8.5	20.5	3 22	11 14.01	+12 34.5	2.288	3.248	5.6	18.9
4 1	11 3.20	+17 19.7	1.613	2.512	12.4	20.8	4 1	11 7.48	+13 15.2	2.328	3.235	8.7	19.1
4 11	10 57.44	+17 37.6	1.698	2.521	15.9	21.0	4 11	11 2.33	+13 41.8	2.392	3.222	11.6	19.2
497469	2005 <i>YD</i> ₁₄₅		3 10.2 52°67	6°0/15.2	18		13529	Yokaboshi		3 10.2 35°04	2°5/11.9	18	
2 1	11 49.58	-11 29.7	1.849	2.577	17.5	20.6	2 1	11 49.50	- 2 11.2	1.252	2.052	20.6	16.9
2 11	11 45.44	-12 21.6	1.765	2.585	14.8	20.4	2 11	11 46.33	- 2 30.3	1.180	2.058	16.6	16.6
2 21	11 38.85	-12 53.6	1.699	2.593	11.6	20.2	2 21	11 39.93	- 2 28.1	1.127	2.065	11.8	16.3
3 2	11 30.36	-13 3.7	1.657	2.601	8.3	20.1	3 2	11 30.99	- 2 6.1	1.096	2.072	6.4	16.1
3 12	11 20.92	-12 52.6	1.641	2.610	6.1	19.9	3 12	11 20.82	- 1 29.6	1.089	2.080	2.5	15.8
3 22	11 11.61	-12 23.9	1.652	2.618	6.7	20.0	3 22	11 10.95	- 0 46.3	1.107	2.088	6.5	16.1
4 1	11 3.51	-11 43.5	1.689	2.627	9.4	20.2	4 1	11 2.85	- 0 5.0	1.149	2.097	11.7	16.4
4 11	10 57.46	-10 59.0	1.751	2.636	12.6	20.4	4 11	10 57.55	+ 0 26.8	1.212	2.106	16.3	16.7
432826	2011 <i>HU</i> ₈		3 10.2 353°91	0°7/10.9	17		298876	2004 <i>SW</i> ₂₃		3 10.2 234°04	3°1/7.8	18	
2 1	11 40.93	- 2 8.9	1.620	2.416	16.8	20.9	2 1	11 53.60	+10 7.3	1.777	2.579	15.3	21.2
2 11	11 38.99	- 1 27.5	1.534	2.413	13.4	20.6	2 11	11 48.81	+10 40.2	1.682	2.568	12.0	20.9
2 21	11 34.66	- 0 24.1	1.468	2.410	9.2	20.4	2 21	11 41.28	+11 21.8	1.610	2.556	8.1	20.6
3 2	11 28.47	+ 0 57.4	1.427	2.407	4.5	20.1	3 2	11 31.58	+12 6.1	1.563	2.543	4.2	20.4
3 12	11 21.33	+ 2 29.5	1.413	2.406	0.9	19.8	3 12	11 20.69	+12 45.5	1.545	2.530	3.8	20.3
3 22	11 14.31	+ 4 2.6	1.425	2.405	5.6	20.1	3 22	11 9.85	+13 13.4	1.555	2.516	7.6	20.5
4 1	11 8.47	+ 5 27.1	1.464	2.405	10.3	20.4	4 1	11 0.29	+13 24.9	1.592	2.502	11.9	20.7
4 11	11 4.65	+ 6 35.6	1.525	2.405	14.4	20.6	4 11	10 52.99	+13 18.3	1.651	2.487	15.7	20.9
493697	2015 <i>TM</i> ₇₀		3 10.2 144°05	1°1/9.4	18		242095	2002 <i>TN</i> ₃₇₆		3 10.2 174°72	5°9/2.7	17	
2 1	11 53.65	+ 4 57.4	1.511	2.312	17.7	21.7	2 1	11 47.35	+21 39.1	2.504	3.314	11.2	21.1
2 11	11 49.03	+ 5 13.4	1.434	2.318	13.8	21.5	2 11	11 43.07	+22 52.3	2.433	3.316	8.9	20.9
2 21	11 41.46	+ 5 42.7	1.377	2.323	9.3	21.2	2 21	11 36.91	+24 4.6	2.387	3.317	6.9	20.8
3 2	11 31.61	+ 6 20.6	1.345	2.328	4.2	21.0	3 2	11 29.37	+25 9.1	2.369	3.318	5.9	20.7
3 12	11 20.67	+ 6 59.9	1.340	2.332	1.8	20.8	3 12	11 21.19	+25 59.3	2.380	3.319	6.6	20.8
3 22	11 10.00	+ 7 33.3	1.363	2.336	6.8	21.1	3 22	11 13.19	+26 31.1	2.418	3.319	8.6	20.9
4 1	11 0.92	+ 7 55.0	1.411	2.340	11.6	21.4	4 1	11 6.14	+26 42.2	2.482	3.319	10.9	21.1
4 11	10 54.40	+ 8 1.6	1.482	2.343	15.8	21.7	4 11	11 0.67	+26 33.2	2.567	3.319	13.0	21.2
140435	2001 <i>TX</i> ₁₀₃		3 10.2 219°90	2									

EPHEMERIDES

3 10.2

3 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
219818	2002 <i>BN</i> ₂₃		3 10.2 103°28'	4.4/ 6.4	18		458464	2011 <i>BG</i> ₄₄		3 10.2 262°25'	2°0/12.1	17	
2 1	11 52.40	+14 57.7	1.954	2.761	14.0	20.1	2 1	11 46.04	- 3 46.4	1.963	2.730	15.4	21.2
2 11	11 47.28	+15 38.1	1.887	2.774	10.8	19.9	2 11	11 42.61	- 3 38.4	1.864	2.722	12.4	21.0
2 21	11 39.84	+16 21.5	1.843	2.787	7.5	19.7	2 21	11 36.95	- 3 12.9	1.785	2.714	8.8	20.7
3 2	11 30.72	+17 0.9	1.826	2.799	4.8	19.6	3 2	11 29.54	- 2 31.6	1.732	2.705	4.9	20.5
3 12	11 20.92	+17 29.8	1.838	2.812	5.0	19.6	3 12	11 21.18	- 1 38.4	1.706	2.697	2.0	20.2
3 22	11 11.48	+17 43.5	1.878	2.824	7.8	19.8	3 22	11 12.84	- 0 39.5	1.709	2.689	4.9	20.4
4 1	11 3.36	+17 39.6	1.945	2.836	11.1	20.0	4 1	11 5.51	+ 0 18.5	1.739	2.680	8.9	20.6
4 11	10 57.28	+17 18.3	2.034	2.847	14.0	20.2	4 11	10 59.99	+ 1 9.1	1.794	2.671	12.7	20.9
9436	Shudo		3 10.2 301°59'	2°3/ 8.4	18		465950	2011 <i>BR</i> ₃₃		3 10.2 123°04'	2°3/ 7.8	17	
2 1	11 45.55	+ 5 48.8	1.532	2.349	16.7	17.4	2 1	11 46.05	+ 6 40.9	1.950	2.753	14.1	21.6
2 11	11 42.94	+ 6 33.3	1.439	2.333	13.1	17.1	2 11	11 42.47	+ 7 40.7	1.872	2.759	10.9	21.3
2 21	11 37.56	+ 7 33.9	1.366	2.317	8.7	16.8	2 21	11 36.72	+ 8 52.1	1.817	2.765	7.2	21.1
3 2	11 29.94	+ 8 44.5	1.318	2.301	4.1	16.5	3 2	11 29.36	+10 9.0	1.789	2.771	3.4	20.9
3 12	11 21.05	+ 9 56.5	1.296	2.285	3.0	16.4	3 12	11 21.23	+11 23.5	1.790	2.776	3.0	20.9
3 22	11 12.15	+11 0.2	1.300	2.270	7.7	16.6	3 22	11 13.29	+12 28.6	1.819	2.782	6.5	21.1
4 1	11 4.52	+11 47.7	1.329	2.254	12.5	16.8	4 1	11 6.46	+13 18.5	1.875	2.787	10.2	21.3
4 11	10 59.20	+12 14.2	1.379	2.240	16.8	17.0	4 11	11 1.46	+13 50.1	1.954	2.792	13.5	21.6
199868	2007 <i>EF</i> ₁₄₅		3 10.2 235°30'	1°6/ 8.9	17		27687	1981 <i>EM</i> ₂₃		3 10.2 99°79'	1°0/ 9.1	18	
2 1	11 51.28	+ 5 6.8	1.761	2.556	15.8	21.4	2 1	11 48.41	+ 6 9.2	2.551	3.333	11.8	19.3
2 11	11 47.06	+ 5 44.4	1.661	2.543	12.4	21.2	2 11	11 43.61	+ 6 28.6	2.477	3.352	9.1	19.1
2 21	11 40.16	+ 6 36.2	1.583	2.528	8.3	20.9	2 21	11 37.11	+ 6 55.2	2.428	3.371	6.0	18.9
3 2	11 31.09	+ 7 37.3	1.531	2.513	3.8	20.6	3 2	11 29.42	+ 7 25.4	2.407	3.389	2.7	18.7
3 12	11 20.81	+ 8 40.2	1.507	2.498	2.3	20.4	3 12	11 21.23	+ 7 55.2	2.416	3.407	1.5	18.7
3 22	11 10.48	+ 9 37.0	1.512	2.481	6.8	20.7	3 22	11 13.28	+ 8 20.6	2.455	3.425	4.6	18.9
4 1	11 1.35	+10 20.9	1.543	2.464	11.4	20.9	4 1	11 6.25	+ 8 38.4	2.523	3.442	7.6	19.1
4 11	10 54.39	+10 47.3	1.597	2.446	15.5	21.1	4 11	11 0.69	+ 8 46.5	2.617	3.459	10.4	19.3
399315	1996 <i>TP</i> ₂₅		3 10.2 141°27'	1°4/ 8.9	18		415956	2001 <i>XY</i> ₇₅		3 10.2 137°36'	2°5/ 7.4	18	
2 1	11 51.29	+ 5 7.2	1.952	2.740	14.7	22.0	2 1	11 49.16	+ 9 9.3	2.445	3.235	12.0	22.4
2 11	11 46.46	+ 5 43.7	1.874	2.752	11.4	21.8	2 11	11 44.32	+10 3.8	2.371	3.251	9.2	22.2
2 21	11 39.34	+ 6 31.7	1.819	2.763	7.5	21.5	2 21	11 37.67	+11 5.2	2.322	3.266	6.1	22.1
3 2	11 30.54	+ 7 26.1	1.792	2.774	3.4	21.3	3 2	11 29.71	+12 8.2	2.301	3.281	3.2	21.9
3 12	11 20.96	+ 8 20.4	1.793	2.784	1.9	21.2	3 12	11 21.18	+13 6.9	2.311	3.295	3.0	21.9
3 22	11 11.63	+ 9 8.3	1.823	2.793	5.9	21.5	3 22	11 12.86	+13 56.2	2.352	3.308	5.8	22.1
4 1	11 3.53	+ 9 44.6	1.881	2.801	9.8	21.7	4 1	11 5.52	+14 32.3	2.420	3.320	8.8	22.3
4 11	10 57.38	+10 6.3	1.964	2.809	13.2	22.0	4 11	10 59.73	+14 53.4	2.514	3.331	11.5	22.5
161999	1989 <i>RC</i>		3 10.2 244°73'	1°6/ 8.4	18		286340	2001 <i>XS</i> ₄₃		3 10.2 118°80'	2°1/12.5	17	
2 1	11 50.94	+ 5 11.8	2.473	3.248	12.3	24.0	2 1	11 46.99	- 4 4.1	2.588	3.333	12.6	20.6
2 11	11 46.08	+ 6 7.2	2.351	3.222	9.6	23.7	2 11	11 42.62	- 4 11.5	2.497	3.342	10.1	20.5
2 21	11 39.16	+ 7 15.0	2.253	3.195	6.5	23.5	2 21	11 36.54	- 4 6.5	2.430	3.350	7.3	20.3
3 2	11 30.54	+ 8 30.8	2.184	3.166	3.0	23.2	3 2	11 29.21	- 3 50.1	2.389	3.358	4.2	20.1
3 12	11 20.93	+ 9 48.6	2.146	3.135	2.1	23.1	3 12	11 21.28	- 3 25.1	2.378	3.366	2.1	20.0
3 22	11 11.15	+11 1.7	2.140	3.104	5.7	23.3	3 22	11 13.47	- 2 55.1	2.397	3.374	3.9	20.1
4 1	11 2.11	+12 4.1	2.164	3.071	9.3	23.4	4 1	11 6.49	- 2 24.0	2.444	3.382	6.9	20.3
4 11	10 54.59	+12 51.8	2.213	3.036	12.7	23.6	4 11	11 0.92	- 1 56.0	2.518	3.389	9.7	20.5
248667	2006 <i>JX</i> ₁₆		3 10.2 245°79'	0°1/10.4	17		317035	2001 <i>RZ</i> ₇		3 10.2 196°05'	2°5/13.0	18	
2 1	11 44.83	+ 0 30.6	2.432	3.205	12.6	21.7	2 1	11 44.99	- 7 46.7	2.077	2.824	15.3	21.3
2 11	11 41.22	+ 1 3.1	2.325	3.192	9.9	21.5	2 11	11 41.63	- 7 12.8	1.979	2.822	12.4	21.1
2 21	11 35.78	+ 1 48.7	2.241	3.178	6.8	21.3	2 21	11 36.19	- 6 17.3	1.902	2.820	9.1	20.9
3 2	11 28.92	+ 2 44.7	2.184	3.164	3.2	21.0	3 2	11 29.15	- 5 2.0	1.850	2.818	5.3	20.6
3 12	11 21.30	+ 3 46.3	2.157	3.150	0.6	20.8	3 12	11 21.28	- 3 31.9	1.827	2.815	2.5	20.4
3 22	11 13.67	+ 4 48.0	2.160	3.136	4.4	21.0	3 22	11 13.48	- 1 54.4	1.832	2.812	4.6	20.6
4 1	11 6.83	+ 5 44.3	2.191	3.121	8.0	21.2	4 1	11 6.65	- 0 17.6	1.867	2.809	8.4	20.8
4 11	11 1.42	+ 6 30.7	2.248	3.106	11.3	21.4	4 11	11 1.52	+ 1 10.6	1.928	2.805	12.0	21.0
28110	1998 <i>SG</i> ₃₀		3 10.2 297°79'	0°9/ 9.6	18		21178	1994 <i>CJ</i> ₁₇		3 10.2 115°05'	3°5/ 6.9	18	
2 1	11 48.54	+ 3 44.7	1.350	2.164	18.6	19.2	2 1	11 48.91	+ 8 57.5	1.705	2.517	15.5	19.0
2 11	11 45.64	+ 4 2.2	1.261	2.153	14.7	18.9	2 11	11 44.95	+10 8.1	1.637	2.529	11.9	18.8
2 21	11 39.58	+ 4 36.7	1.192	2.141	10.0	18.6	2 21	11 38.50	+11 29.6	1.591	2.541	7.9	18.6
3 2	11 30.94	+ 5 24.0	1.146	2.129	4.6	18.2	3 2	11 30.20	+12 54.0	1.572	2.552	4.2	18.4
3 12	11 20.85	+ 6 16.2	1.125	2.118	1.7	18.0	3 12	11 21.07	+14 11.8	1.581	2.563	4.3	18.4
3 22	11 10.76	+ 7 4.3	1.130	2.107	7.4	18.3	3 22	11 12.25	+15 15.1	1.617	2.574	7.8	18.7
4 1	11 2.20	+ 7 40.0	1.159	2.096	12.8	18.6	4 1	11 4.79	+15 58.3	1.680	2.584	11.7	18.9
4 11	10 56.32	+ 7 58.0	1.209	2.085	17.6	18.8	4 11	10 59.47	+16 19.5	1.764	2.594	15.1	19.1
458748	2011 <i>QJ</i> ₇₂		3 10.2 144°77'	0°0/10.1	18		501056	2013 <i>SO</i> ₁₄		3 10.3 205°08'	0°7/10.9	17	
2 1	11 52.72	+ 1 42.2	1.934	2.710	15.3	22.2	2 1	11 45.16	- 1 38.0	2.015	2.790	14.7	22.0
2 11	11 47.60	+ 2 5.4	1.854	2.722	12.0	22.0	2 11	11 41.80	- 1 3.1	1.922	2.789	11.7	21.8
2 21	11 40.13	+ 2 42.4	1.796	2.734	8.1	21.8	2 21	11 36.31	- 0 11.1	1.851	2.787	8.0	21.5
3 2	11 30.91	+ 3 29.3	1.764	2.745	3.7	21.6	3 2	11 29.21	+ 0 55.0	1.806	2.785	4.0	21.3
3 12	11 20.89	+ 4 20.3	1.762	2.755	0.8	21.4	3 12	11 21.28	+ 2 9.3	1.789	2.782	0.8	21.0
3 22	11 11.11	+ 5 9.2	1.790	2.765	5.3	21.7	3 22	11 13.44	+ 3 24.8	1.802	2.780	4.9	21.3
4 1	11 2.59	+ 5 50.3	1.845	2.773	9.4	22.0	4 1	11 6.59	+ 4 34.3	1.842	2.777	8.9	21.5
4 11	10 56.07	+ 6 19.4	1.925	2.781	12.9	22.2	4 11	11 1.49	+ 5 32.0	1.907	2.774	12.5	21.8
432558	2010 <i>JQ</i> ₇₉		3 10.2 247°35'	5°3/ 3.3	17		55237	2001 <i>RK</i> ₈₁		3 10.3 190°22'	0°4/ 9.8	17	

EPHEMERIDES

3 10.3

3 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
264692	2002 <i>AU</i> ₄₁		3 10.3 37°34'	2.1/12.0	18		397526	2007 <i>TN</i> ₁₇₄		3 10.3 163°02'	0.3/9.9	18	
2 1	11 45.87	- 3 22.0	1.523	2.310	18.2	20.2	2 1	11 49.69	+ 1 27.5	2.021	2.799	14.6	22.1
2 11	11 42.85	- 3 19.9	1.453	2.323	14.5	20.0	2 11	11 45.24	+ 2 5.6	1.935	2.805	11.4	21.9
2 21	11 37.24	- 2 57.3	1.403	2.337	10.3	19.7	2 21	11 38.59	+ 2 58.2	1.871	2.811	7.7	21.7
3 2	11 29.67	- 2 16.7	1.376	2.351	5.6	19.5	3 2	11 30.28	+ 4 1.3	1.835	2.816	3.5	21.4
3 12	11 21.23	- 1 23.8	1.375	2.366	2.1	19.3	3 12	11 21.15	+ 5 8.5	1.827	2.820	0.9	21.2
3 22	11 13.08	- 0 26.0	1.400	2.381	5.5	19.6	3 22	11 12.19	+ 6 13.1	1.850	2.824	5.2	21.5
4 1	11 6.36	+ 0 28.5	1.451	2.397	9.9	19.9	4 1	11 4.33	+ 7 8.8	1.900	2.827	9.3	21.8
4 11	11 1.86	+ 1 13.1	1.526	2.413	13.9	20.1	4 11	10 58.31	+ 7 51.1	1.975	2.829	12.7	22.0
425689	2011 <i>AK</i> ₅₇		3 10.3 202°99'	2.8/12.8	17		424728	2008 <i>SL</i> ₂₂₇		3 10.3 225°48'	2.1/12.2	17	
2 1	11 47.36	- 5 33.3	1.936	2.693	15.9	21.6	2 1	11 47.30	- 3 31.2	2.109	2.869	14.6	21.0
2 11	11 43.63	- 5 37.9	1.842	2.692	12.9	21.4	2 11	11 43.40	- 3 33.6	2.012	2.866	11.8	20.8
2 21	11 37.63	- 5 24.4	1.769	2.691	9.4	21.2	2 21	11 37.39	- 3 20.7	1.937	2.863	8.4	20.6
3 2	11 29.86	- 4 53.9	1.721	2.690	5.6	21.0	3 2	11 29.75	- 2 54.0	1.888	2.860	4.7	20.4
3 12	11 21.18	- 4 9.8	1.701	2.689	2.9	20.8	3 12	11 21.26	- 2 16.8	1.867	2.857	2.1	20.2
3 22	11 12.57	- 3 17.5	1.708	2.687	5.0	20.9	3 22	11 12.84	- 1 34.0	1.875	2.854	4.6	20.3
4 1	11 5.04	- 2 23.7	1.743	2.686	8.8	21.2	4 1	11 5.39	- 0 51.1	1.910	2.850	8.3	20.6
4 11	10 59.38	- 1 34.8	1.803	2.684	12.5	21.4	4 11	10 59.66	- 0 13.7	1.971	2.847	11.8	20.8
353478	2011 <i>SM</i> ₃₇		3 10.3 59°56'	1.9/12.8	17		298826	2004 <i>RY</i> ₁₀₂		3 10.3 104°16'	2.3/11.9	18	
2 1	11 41.80	- 6 3.3	2.488	3.237	12.9	21.0	2 1	11 53.39	- 2 50.4	1.619	2.390	18.0	21.8
2 11	11 38.71	- 5 37.3	2.401	3.247	10.4	20.8	2 11	11 48.56	- 3 1.5	1.546	2.406	14.4	21.6
2 21	11 33.98	- 4 55.2	2.336	3.257	7.5	20.6	2 21	11 41.02	- 2 54.5	1.492	2.421	10.2	21.3
3 2	11 28.06	- 3 59.2	2.297	3.266	4.3	20.5	3 2	11 31.44	- 2 31.2	1.463	2.437	5.6	21.1
3 12	11 21.58	- 2 53.4	2.287	3.276	2.0	20.3	3 12	11 20.93	- 1 56.1	1.461	2.451	2.3	20.9
3 22	11 15.23	- 1 43.1	2.307	3.286	3.8	20.5	3 22	11 10.73	- 1 15.4	1.487	2.466	5.5	21.2
4 1	11 9.68	- 0 33.9	2.355	3.296	6.9	20.7	4 1	11 2.05	- 0 35.9	1.539	2.480	9.9	21.5
4 11	11 5.48	+ 0 28.9	2.430	3.306	9.8	20.9	4 11	10 55.72	- 0 3.7	1.616	2.493	13.8	21.7
313019	1999 <i>WR</i> ₁₉		3 10.3 128°56'	0.0/10.1	18		512536	2016 <i>SN</i> ₄		3 10.3 270°35'	6.1/17.7	17	
2 1	11 50.46	+ 1 16.4	1.943	2.721	15.1	21.8	2 1	11 43.92	- 18 38.6	2.671	3.336	14.0	21.3
2 11	11 45.83	+ 1 44.1	1.865	2.735	11.8	21.6	2 11	11 40.56	- 18 58.9	2.548	3.316	12.2	21.2
2 21	11 38.94	+ 2 26.0	1.810	2.749	8.0	21.3	2 21	11 35.41	- 18 59.8	2.445	3.297	10.2	21.0
3 2	11 30.39	+ 3 18.2	1.782	2.762	3.7	21.1	3 2	11 28.84	- 18 39.5	2.365	3.277	8.0	20.8
3 12	11 21.09	+ 4 14.6	1.782	2.775	0.8	20.9	3 12	11 21.46	- 17 58.4	2.311	3.257	6.4	20.7
3 22	11 12.04	+ 5 8.9	1.811	2.787	5.2	21.2	3 22	11 13.98	- 16 58.8	2.285	3.236	6.3	20.6
4 1	11 4.20	+ 5 55.2	1.869	2.798	9.2	21.5	4 1	11 7.19	- 15 45.7	2.287	3.216	7.8	20.7
4 11	10 58.29	+ 6 29.2	1.951	2.809	12.7	21.7	4 11	11 1.75	- 14 25.6	2.315	3.195	10.1	20.8
522234	2016 <i>AR</i> ₂₆₉		3 10.3 215°85'	6.6/2.4	17		316280	2010 <i>PO</i> ₆₁		3 10.3 224°26'	0.2/10.1	17	
2 1	11 47.33	+ 19 45.1	2.075	2.893	12.9	20.9	2 1	11 48.97	+ 1 22.8	2.018	2.798	14.6	21.7
2 11	11 43.56	+ 21 23.1	1.999	2.888	10.2	20.8	2 11	11 44.88	+ 1 54.4	1.917	2.788	11.5	21.4
2 21	11 37.54	+ 23 3.4	1.948	2.883	7.8	20.6	2 21	11 38.50	+ 2 40.9	1.837	2.777	7.8	21.2
3 2	11 29.80	+ 24 37.0	1.924	2.877	6.6	20.5	3 2	11 30.32	+ 3 38.9	1.785	2.766	3.6	20.9
3 12	11 21.20	+ 25 54.6	1.929	2.872	7.7	20.6	3 12	11 21.15	+ 4 42.6	1.761	2.754	0.9	20.7
3 22	11 12.72	+ 26 49.7	1.960	2.865	10.1	20.7	3 22	11 11.98	+ 5 45.2	1.766	2.741	5.3	21.0
4 1	11 5.34	+ 27 19.0	2.016	2.859	12.8	20.9	4 1	11 3.82	+ 6 40.2	1.799	2.728	9.6	21.2
4 11	10 59.82	+ 27 22.7	2.092	2.852	15.4	21.0	4 11	10 57.50	+ 7 22.5	1.857	2.714	13.3	21.4
39375	2002 <i>CW</i> ₁₀₀		3 10.3 331°13'	1.7/9.0	18		493512	2015 <i>CH</i> ₃		3 10.3 158°35'	0.9/11.3	17	
2 1	11 44.43	+ 4 42.0	1.262	2.091	18.9	18.4	2 1	11 45.78	- 1 52.0	2.233	3.000	13.7	21.5
2 11	11 42.57	+ 5 12.1	1.178	2.079	14.8	18.1	2 11	11 42.03	- 1 26.9	2.142	3.003	10.9	21.3
2 21	11 37.59	+ 6 0.5	1.114	2.067	10.0	17.8	2 21	11 36.35	- 0 46.8	2.074	3.006	7.5	21.1
3 2	11 30.06	+ 7 1.4	1.072	2.056	4.5	17.4	3 2	11 29.23	+ 0 5.4	2.032	3.009	3.8	20.9
3 12	11 21.13	+ 8 5.6	1.054	2.046	2.5	17.2	3 12	11 21.40	+ 1 5.2	2.019	3.012	1.0	20.7
3 22	11 12.26	+ 9 2.7	1.061	2.037	8.0	17.5	3 22	11 13.68	+ 2 6.7	2.036	3.014	4.4	20.9
4 1	11 4.93	+ 9 43.7	1.091	2.028	13.4	17.8	4 1	11 6.89	+ 3 4.1	2.081	3.017	8.0	21.2
4 11	11 0.29	+ 10 3.2	1.141	2.021	18.2	18.1	4 11	11 1.68	+ 3 52.4	2.152	3.018	11.3	21.4
417156	2005 <i>WM</i> ₂₀		3 10.3 157°07'	6.1/17.2	15		432997	2012 <i>QR</i> ₂₂		3 10.3 190°92'	1.2/11.7	17	
2 1	11 47.46	- 17 9.6	2.310	2.990	15.6	21.3	2 1	11 44.81	- 2 53.9	2.417	3.176	13.0	22.2
2 11	11 43.39	- 17 31.7	2.214	2.996	13.4	21.1	2 11	11 41.17	- 2 30.4	2.320	3.176	10.4	22.0
2 21	11 37.31	- 17 32.5	2.137	3.001	10.9	20.9	2 21	11 35.73	- 1 52.3	2.246	3.175	7.3	21.8
3 2	11 29.67	- 17 10.3	2.084	3.006	8.3	20.8	3 2	11 28.94	- 1 1.8	2.198	3.173	3.8	21.6
3 12	11 21.25	- 16 26.2	2.057	3.010	6.4	20.7	3 12	11 21.47	- 0 3.3	2.180	3.172	1.2	21.4
3 22	11 12.91	- 15 24.1	2.057	3.014	6.4	20.7	3 22	11 14.07	+ 0 58.2	2.191	3.170	4.1	21.6
4 1	11 5.50	- 14 10.1	2.086	3.018	8.2	20.8	4 1	11 7.50	+ 1 57.0	2.231	3.168	7.5	21.8
4 11	10 59.75	- 12 51.6	2.141	3.021	10.8	20.9	4 11	11 2.37	+ 2 48.2	2.297	3.165	10.7	22.0
500506	2012 <i>TF</i> ₂₈₇		3 10.3 123°97'	1.6/8.4	17		11490	1988 <i>TE</i>		3 10.3 163°30'	0.6/10.9	18	
2 1	11 45.61	+ 6 54.4	2.475	3.267	11.8	21.8	2 1	11 49.98	- 0 38.9	2.141	2.907	14.3	19.1
2 11	11 41.64	+ 7 31.1	2.393	3.274	9.1	21.6	2 11	11 45.36	- 0 13.9	2.052	2.914	11.3	18.9
2 21	11 35.94	+ 8 15.8	2.336	3.281	6.0	21.4	2 21	11 38.62	+ 0 25.6	1.986	2.920	7.7	18.7
3 2	11 28.97	+ 9 4.3	2.306	3.288	2.8	21.2	3 2	11 30.30	+ 1 16.6	1.946	2.925	3.8	18.4
3 12	11 21.43	+ 9 51.4	2.306	3.295	2.0	21.1	3 12	11 21.20	+ 2 14.2	1.936	2.929	0.8	18.2
3 22	11 14.04	+ 10 32.6	2.336	3.301	5.1	21.4	3 22	11 12.24	+ 3 12.2	1.956	2.933	4.7	18.5
4 1	11 7.51	+ 11 3.8	2.393	3.308	8.2	21.6	4 1	11 4.33	+ 4 4.9	2.004	2.936	8.5	18.7
4 11	11 2.44	+ 11 22.8	2.476	3.314	11.0	21.8	4 11	10 58.17	+ 4 47.4	2.078	2.938	12.0	19.0
406348	2007 <i>RL</i> ₁₂₇		3 10.3 231°06'	1.2/9.2	17		170133	2003 <i>AB</i> ₃₆					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
415814	2001 PQ ₆₇		3 10.3 194°15	2°5/ 7.6 15			341704	2007 VX ₁₆₈		3 10.3 57°21	1°8/12.2 17		
2 1	11 51.68	+10 26.7	2.461	3.249	12.0	22.2	2 1	11 44.54	- 3 42.7	2.185	2.948	14.1	20.8
2 11	11 46.44	+11 1.5	2.368	3.246	9.3	22.0	2 11	11 41.08	- 3 32.0	2.101	2.958	11.3	20.7
2 21	11 39.24	+11 42.0	2.300	3.243	6.2	21.8	2 21	11 35.72	- 3 5.9	2.040	2.967	8.0	20.5
3 2	11 30.56	+12 23.7	2.260	3.239	3.3	21.6	3 2	11 28.95	- 2 26.3	2.004	2.977	4.4	20.3
3 12	11 21.15	+13 1.2	2.251	3.234	3.0	21.6	3 12	11 21.52	- 1 37.4	1.996	2.987	1.8	20.1
3 22	11 11.84	+13 30.0	2.272	3.228	5.9	21.8	3 22	11 14.25	- 0 44.5	2.017	2.997	4.2	20.3
4 1	11 3.47	+13 46.5	2.321	3.222	9.1	22.0	4 1	11 7.94	+ 0 6.8	2.066	3.007	7.8	20.5
4 11	10 56.71	+13 49.3	2.396	3.215	11.9	22.2	4 11	11 3.21	+ 0 51.3	2.140	3.017	11.0	20.7
140862	2001 VB ₃		3 10.3 206°63	3°7/ 5.9 18			22525	1998 FB ₁₂		3 10.3 203°58	0°3/10.5 18		
2 1	11 47.93	+15 5.1	2.539	3.341	11.3	20.1	2 1	11 52.04	+ 0 32.8	1.745	2.525	16.5	18.6
2 11	11 43.48	+15 46.3	2.454	3.339	8.7	20.0	2 11	11 47.62	+ 0 54.6	1.651	2.521	13.1	18.4
2 21	11 37.21	+16 30.1	2.393	3.336	6.1	19.8	2 21	11 40.54	+ 1 33.2	1.578	2.516	9.0	18.1
3 2	11 29.60	+17 11.5	2.361	3.333	4.0	19.6	3 2	11 31.34	+ 2 25.4	1.530	2.511	4.3	17.8
3 12	11 21.35	+17 45.0	2.358	3.329	4.3	19.7	3 12	11 21.01	+ 3 24.9	1.511	2.504	0.8	17.5
3 22	11 13.24	+18 6.6	2.384	3.326	6.7	19.8	3 22	11 10.72	+ 4 24.3	1.520	2.497	5.8	17.9
4 1	11 6.01	+18 13.5	2.438	3.322	9.4	20.0	4 1	11 1.69	+ 5 16.4	1.556	2.488	10.5	18.1
4 11	11 0.29	+18 5.1	2.515	3.318	11.9	20.1	4 11	10 54.85	+ 5 55.4	1.616	2.479	14.6	18.3
147716	2005 KY ₁₂		3 10.3 182°58	0°2/10.5 18 R			149452	2003 CM ₁₇		3 10.3 281°39	4°3/ 5.5 17		
2 1	11 44.23	+ 0 54.3	3.034	3.798	10.5	21.6	2 1	11 44.44	+10 24.6	1.843	2.662	14.2	19.9
2 11	11 40.30	+ 1 21.1	2.936	3.798	8.2	21.4	2 11	11 41.68	+11 54.2	1.747	2.643	11.0	19.6
2 21	11 34.94	+ 1 57.6	2.863	3.798	5.6	21.2	2 21	11 36.54	+13 36.9	1.675	2.625	7.5	19.4
3 2	11 28.52	+ 2 41.4	2.818	3.798	2.6	21.0	3 2	11 29.50	+15 24.5	1.629	2.606	4.6	19.1
3 12	11 21.58	+ 3 28.7	2.804	3.797	0.5	20.8	3 12	11 21.39	+17 6.9	1.612	2.588	5.3	19.1
3 22	11 14.72	+ 4 15.8	2.820	3.796	3.5	21.1	3 22	11 13.24	+18 34.3	1.622	2.569	8.8	19.3
4 1	11 8.50	+ 4 58.7	2.867	3.794	6.4	21.3	4 1	11 6.13	+19 39.5	1.658	2.550	12.6	19.5
4 11	11 3.43	+ 5 34.4	2.939	3.792	9.0	21.4	4 11	11 0.95	+20 19.2	1.715	2.531	16.1	19.7
505430	2013 RR ₇₀		3 10.3 229°38	4°7/14.9 17			387409	2013 TM ₃		3 10.3 167°64	2°9/ 7.2 18		
2 1	11 48.05	-11 12.3	2.181	2.899	15.4	21.9	2 1	11 46.38	+ 9 7.8	2.108	2.912	13.2	21.1
2 11	11 44.07	-11 34.0	2.074	2.891	13.0	21.7	2 11	11 42.64	+10 5.5	2.026	2.914	10.2	20.9
2 21	11 37.92	-11 37.0	1.987	2.882	10.1	21.4	2 21	11 36.84	+11 12.1	1.967	2.915	6.7	20.7
3 2	11 30.06	-11 20.3	1.925	2.873	7.0	21.2	3 2	11 29.50	+12 21.7	1.937	2.917	3.6	20.5
3 12	11 21.24	-10 45.4	1.890	2.864	4.9	21.1	3 12	11 21.42	+13 27.1	1.935	2.918	3.5	20.5
3 22	11 12.39	- 9 56.1	1.884	2.854	5.6	21.1	3 22	11 13.48	+14 22.0	1.961	2.919	6.6	20.7
4 1	11 4.45	- 8 58.2	1.905	2.844	8.4	21.3	4 1	11 6.56	+15 1.5	2.015	2.919	10.1	20.9
4 11	10 58.22	- 7 58.7	1.952	2.833	11.6	21.4	4 11	11 1.35	+15 23.4	2.092	2.920	13.1	21.1
190062	2004 RZ ₃₁₅		3 10.3 209°39	0°8/ 9.5 17			457044	2008 CA ₂₀₆		3 10.3 292°98	8°1/ 1.6 16		
2 1	11 49.46	+ 4 46.8	2.288	3.069	13.0	20.9	2 1	11 45.42	+18 54.3	1.613	2.448	15.1	21.2
2 11	11 44.90	+ 5 5.8	2.191	3.064	10.2	20.7	2 11	11 42.79	+20 56.2	1.540	2.439	12.0	21.0
2 21	11 38.31	+ 5 34.4	2.117	3.059	6.8	20.5	2 21	11 37.44	+23 3.8	1.491	2.431	9.2	20.8
3 2	11 30.17	+ 6 9.3	2.071	3.053	3.1	20.2	3 2	11 29.94	+25 4.5	1.467	2.422	8.1	20.7
3 12	11 21.24	+ 6 45.5	2.055	3.047	1.3	20.1	3 12	11 21.31	+26 45.6	1.469	2.413	9.5	20.8
3 22	11 12.39	+ 7 18.4	2.068	3.040	5.0	20.3	3 22	11 12.80	+27 57.4	1.497	2.405	12.4	20.9
4 1	11 4.47	+ 7 43.6	2.110	3.033	8.7	20.5	4 1	11 5.63	+28 35.4	1.547	2.396	15.7	21.1
4 11	10 58.19	+ 7 58.1	2.177	3.026	11.9	20.7	4 11	11 0.77	+28 40.2	1.615	2.388	18.7	21.3
2925	Beatty		3 10.3 22°08	1°6/11.4 18 R			369972	1996 RT ₁₄		3 10.3 175°25	0°2/10.0 15		
2 1	11 43.73	- 1 54.2	1.134	1.953	21.2	16.5	2 1	11 49.55	+ 2 46.8	2.602	3.369	12.0	23.1
2 11	11 42.03	- 1 47.8	1.071	1.961	16.9	16.2	2 11	11 44.65	+ 3 9.0	2.508	3.373	9.4	23.0
2 21	11 37.14	- 1 16.6	1.026	1.971	11.8	15.9	2 21	11 37.97	+ 3 41.0	2.438	3.375	6.3	22.8
3 2	11 29.80	- 0 24.0	1.002	1.982	6.0	15.7	3 2	11 29.97	+ 4 19.8	2.396	3.377	2.9	22.5
3 12	11 21.33	+ 0 41.8	1.001	1.994	1.6	15.4	3 12	11 21.33	+ 5 1.2	2.385	3.378	0.8	22.4
3 22	11 13.22	+ 1 50.1	1.025	2.007	6.6	15.8	3 22	11 12.79	+ 5 40.8	2.405	3.379	4.3	22.6
4 1	11 6.90	+ 2 50.5	1.071	2.022	12.0	16.1	4 1	11 5.09	+ 6 14.6	2.455	3.378	7.6	22.8
4 11	11 3.33	+ 3 34.8	1.138	2.037	16.7	16.4	4 11	10 58.85	+ 6 39.4	2.530	3.377	10.5	23.0
374612	2006 DU ₂₁₂		3 10.3 214°41	1°0/ 9.3 17			306198	2011 PF ₁₀		3 10.3 159°66	0°5/11.0 18		
2 1	11 47.61	+ 4 43.4	2.196	2.984	13.3	21.6	2 1	11 43.79	- 0 53.0	2.969	3.728	10.8	21.5
2 11	11 43.54	+ 5 10.1	2.103	2.980	10.4	21.3	2 11	11 39.98	- 0 24.8	2.876	3.733	8.5	21.3
2 21	11 37.43	+ 5 47.3	2.032	2.976	6.9	21.1	2 21	11 34.74	+ 0 14.2	2.806	3.738	5.9	21.2
3 2	11 29.78	+ 6 31.3	1.989	2.971	3.1	20.9	3 2	11 28.45	+ 1 1.7	2.765	3.742	2.9	21.0
3 12	11 21.33	+ 7 16.6	1.975	2.967	1.5	20.7	3 12	11 21.65	+ 1 54.0	2.753	3.747	0.6	20.8
3 22	11 12.97	+ 7 58.0	1.990	2.962	5.2	21.0	3 22	11 14.94	+ 2 47.0	2.773	3.750	3.5	21.0
4 1	11 5.57	+ 8 30.6	2.033	2.957	8.9	21.2	4 1	11 8.91	+ 3 36.5	2.822	3.754	6.4	21.2
4 11	10 59.83	+ 8 51.1	2.101	2.951	12.2	21.4	4 11	11 4.04	+ 4 19.0	2.898	3.757	9.0	21.4
35920	1999 JJ ₁₀₁		3 10.3 22°35	6°3/ 6.1 18			321266	2009 DK ₈₇		3 10.3 357°97	2°1/ 8.3 17		
2 1	11 50.61	+15 5.6	1.247	2.085	18.5	18.3	2 1	11 44.78	+ 7 40.0	1.839	2.651	14.5	20.5
2 11	11 47.27	+15 58.2	1.185	2.089	14.4	18.1	2 11	11 41.71	+ 8 10.4	1.757	2.648	11.3	20.2
2 21	11 40.59	+16 56.2	1.143	2.094	10.1	17.8	2 21	11 36.38	+ 8 50.5	1.697	2.647	7.5	20.0
3 2	11 31.37	+17 49.3	1.124	2.099	6.7	17.7	3 2	11 29.34	+ 9 35.3	1.663	2.646	3.5	19.8
3 12	11 21.02	+18 26.3	1.130	2.105	7.1	17.7	3 12	11 21.47	+10 18.1	1.657	2.645	2.7	19.7
3 22	11 11.11	+18 39.7	1.160	2.111	10.8	17.9	3 22	11 13.75	+10 53.0	1.678	2.646	6.4	19.9
4 1	11 3.13	+18 26.4	1.212	2.119	15.1	18.2	4 1	11 7.17	+11 14.9	1.725	2.647	10.3	20.2
4 11	10 58.04	+17 47.9	1.284	2.126	18.9	18.4	4 11	11 2.48	+11 21.3	1.794	2.648	13.8	20.4
326180	2012 BY ₁₃₁		3 10.3 111°83	0°5/10.8 18			75019	1999 UZ ₇		3 10.3 87°86	3°5/ 7.4 18		
2 1	11 47.39	- 1 32.9	1.789	2.569	16								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
141810	2002 <i>NB</i> ₄₀		3 10.3 179°63	0°6/ 9.6	17		506203	2016 <i>GR</i> ₂₁₁		3 10.3 217°11	1°5/12.1	17	
2 1	11 49.48	+ 2 57.0	2.282	3.058	13.2	21.7	2 1	11 45.25	- 4 58.2	2.329	3.081	13.7	22.4
2 11	11 44.88	+ 3 33.0	2.190	3.060	10.3	21.5	2 11	11 41.68	- 4 20.4	2.224	3.074	11.0	22.2
2 21	11 38.28	+ 4 20.9	2.121	3.061	6.9	21.3	2 21	11 36.20	- 3 24.6	2.141	3.066	7.8	21.9
3 2	11 30.16	+ 5 16.8	2.080	3.061	3.1	21.0	3 2	11 29.25	- 2 13.2	2.084	3.057	4.3	21.7
3 12	11 21.30	+ 6 15.4	2.069	3.061	1.1	20.9	3 12	11 21.52	- 0 50.8	2.057	3.048	1.5	21.5
3 22	11 12.54	+ 7 10.8	2.088	3.060	5.0	21.1	3 22	11 13.80	+ 0 36.2	2.059	3.039	4.2	21.7
4 1	11 4.74	+ 7 57.8	2.136	3.058	8.6	21.4	4 1	11 6.92	+ 2 0.7	2.092	3.029	7.9	21.9
4 11	10 58.58	+ 8 32.7	2.209	3.056	11.8	21.6	4 11	11 1.54	+ 3 16.5	2.150	3.018	11.3	22.1
288262	2003 <i>YZ</i> ₁₄₂		3 10.3 62°27	4°0/ 6.4	18		288617	2004 <i>NB</i> ₁₂		3 10.3 242°83	2°4/ 8.1	18	
2 1	11 48.85	+14 18.5	2.102	2.911	13.0	20.4	2 1	11 49.16	+ 5 54.7	1.706	2.510	15.8	21.2
2 11	11 44.53	+14 57.9	2.026	2.915	10.1	20.2	2 11	11 45.55	+ 6 52.2	1.609	2.496	12.4	21.0
2 21	11 38.08	+15 40.9	1.973	2.918	7.0	20.0	2 21	11 39.27	+ 8 5.5	1.534	2.482	8.3	20.7
3 2	11 30.06	+16 21.3	1.948	2.922	4.4	19.9	3 2	11 30.83	+ 9 28.4	1.484	2.467	3.9	20.4
3 12	11 21.33	+16 53.0	1.951	2.926	4.6	19.9	3 12	11 21.18	+10 51.8	1.463	2.451	3.1	20.3
3 22	11 12.83	+17 11.2	1.982	2.929	7.3	20.1	3 22	11 11.48	+12 6.5	1.469	2.435	7.5	20.5
4 1	11 5.44	+17 13.1	2.040	2.933	10.5	20.3	4 1	11 2.98	+13 4.6	1.502	2.418	12.0	20.7
4 11	10 59.87	+16 58.3	2.120	2.937	13.4	20.4	4 11	10 56.65	+13 41.4	1.557	2.401	16.1	20.9
283397	2000 <i>RV</i> ₁₀₀		3 10.3 89°07	7°2/21.8	18		388801	2008 <i>BK</i> ₇		3 10.3 345°20	1°3/11.7	17	
2 1	11 43.84	-26 38.2	2.679	3.283	15.1	20.2	2 1	11 43.96	- 2 4.3	2.235	3.004	13.6	21.0
2 11	11 40.33	-26 37.4	2.589	3.300	13.4	20.0	2 11	11 40.69	- 1 55.9	2.140	3.002	10.9	20.8
2 21	11 35.11	-26 12.2	2.517	3.318	11.5	19.9	2 21	11 35.53	- 1 33.3	2.067	2.999	7.6	20.6
3 2	11 28.65	-25 21.1	2.466	3.336	9.5	19.8	3 2	11 28.93	- 0 58.7	2.021	2.997	4.0	20.4
3 12	11 21.63	-24 5.3	2.440	3.353	7.9	19.7	3 12	11 21.60	- 0 15.9	2.003	2.995	1.3	20.2
3 22	11 14.79	-22 28.7	2.441	3.370	7.2	19.7	3 22	11 14.35	+ 0 30.2	2.013	2.993	4.3	20.4
4 1	11 8.83	-20 37.6	2.471	3.387	7.9	19.8	4 1	11 7.97	+ 1 14.3	2.052	2.991	7.9	20.6
4 11	11 4.32	-18 40.1	2.528	3.404	9.5	19.9	4 11	11 3.14	+ 1 51.5	2.115	2.990	11.2	20.8
84847	2003 <i>AW</i> ₂₈		3 10.3 95°43	4°1/ 5.1	18		186554	2002 <i>XW</i> ₂₈		3 10.3 45°86	2°8/ 8.0	18	
2 1	11 44.57	+13 47.0	2.332	3.144	11.8	19.9	2 1	11 47.58	+ 7 34.0	1.489	2.308	17.0	20.2
2 11	11 41.01	+15 2.6	2.263	3.154	9.1	19.8	2 11	11 44.27	+ 8 20.0	1.425	2.320	13.1	20.0
2 21	11 35.62	+16 23.0	2.218	3.163	6.3	19.6	2 21	11 38.25	+ 9 18.0	1.382	2.333	8.6	19.7
3 2	11 28.90	+17 41.4	2.202	3.173	4.3	19.5	3 2	11 30.24	+10 21.0	1.363	2.346	4.2	19.5
3 12	11 21.59	+18 50.9	2.215	3.183	4.8	19.6	3 12	11 21.35	+11 19.9	1.371	2.359	3.5	19.5
3 22	11 14.46	+19 46.0	2.256	3.192	7.3	19.7	3 22	11 12.82	+12 6.7	1.406	2.373	7.6	19.8
4 1	11 8.27	+20 23.0	2.324	3.202	10.0	19.9	4 1	11 5.81	+12 35.9	1.465	2.386	11.9	20.0
4 11	11 3.62	+20 40.9	2.415	3.211	12.5	20.1	4 11	11 1.12	+12 45.1	1.546	2.401	15.6	20.3
166141	2002 <i>DF</i> ₁₅		3 10.3 4°64	0°4/ 9.9	18		80286	1999 <i>XZ</i> ₄₃		3 10.3 146°07	0°7/10.9	18	
2 1	11 39.48	- 1 32.3	1.184	2.008	20.2	20.1	2 1	11 51.41	- 0 9.3	1.503	2.293	18.3	19.9
2 11	11 38.71	- 0 25.3	1.111	2.007	15.9	19.8	2 11	11 47.41	+ 0 3.3	1.423	2.298	14.5	19.7
2 21	11 34.97	+ 1 11.8	1.057	2.007	10.8	19.5	2 21	11 40.51	+ 0 34.6	1.363	2.302	10.0	19.4
3 2	11 28.87	+ 3 12.4	1.025	2.008	4.9	19.2	3 2	11 31.37	+ 1 21.2	1.327	2.307	4.9	19.1
3 12	11 21.58	+ 5 23.6	1.018	2.011	1.4	18.9	3 12	11 21.10	+ 2 16.6	1.317	2.310	1.0	18.9
3 22	11 14.49	+ 7 30.2	1.035	2.014	7.4	19.3	3 22	11 11.04	+ 3 12.7	1.335	2.314	6.1	19.2
4 1	11 8.97	+ 9 18.0	1.076	2.018	13.0	19.6	4 1	11 2.49	+ 4 1.6	1.379	2.317	11.0	19.5
4 11	11 6.02	+10 38.1	1.138	2.024	17.8	19.9	4 11	10 56.40	+ 4 37.3	1.445	2.320	15.3	19.8
246427	2007 <i>VK</i> ₅₆		3 10.3 257°76	3°7/ 6.9	17		433947	1995 <i>UZ</i> ₁₂		3 10.3 225°40	2°1/13.2	17	
2 1	11 49.23	+ 9 44.5	1.767	2.578	15.1	21.1	2 1	11 43.74	- 6 57.8	2.924	3.654	11.6	22.7
2 11	11 45.55	+10 44.3	1.669	2.560	11.8	20.9	2 11	11 40.10	- 6 37.5	2.810	3.644	9.5	22.5
2 21	11 39.24	+11 56.1	1.594	2.542	8.0	20.6	2 21	11 34.94	- 6 2.7	2.720	3.633	6.9	22.3
3 2	11 30.81	+13 12.7	1.544	2.523	4.4	20.3	3 2	11 28.62	- 5 14.6	2.657	3.622	4.2	22.1
3 12	11 21.17	+14 25.1	1.522	2.504	4.4	20.3	3 12	11 21.68	- 4 16.3	2.623	3.610	2.1	21.9
3 22	11 11.47	+15 24.8	1.528	2.485	8.2	20.5	3 22	11 14.74	- 3 11.8	2.620	3.598	3.6	22.0
4 1	11 2.93	+16 5.2	1.560	2.465	12.4	20.7	4 1	11 8.43	- 2 6.1	2.647	3.585	6.4	22.2
4 11	10 56.52	+16 23.2	1.613	2.444	16.2	20.9	4 11	11 3.30	- 1 4.0	2.701	3.572	9.1	22.3
210540	1999 <i>RW</i>		3 10.3 211°34	2°8/12.9	17		455319	2002 <i>KM</i> ₈		3 10.3 315°54	9°2/ 1.9	17	
2 1	11 50.88	- 5 50.5	2.146	2.888	15.0	21.2	2 1	11 43.55	+17 47.7	1.258	2.109	17.5	20.4
2 11	11 46.27	- 5 56.1	2.040	2.880	12.3	21.0	2 11	11 42.39	+19 38.1	1.165	2.075	14.1	20.1
2 21	11 39.41	- 5 45.3	1.956	2.873	9.0	20.8	2 21	11 37.91	+21 41.3	1.093	2.041	10.8	19.8
3 2	11 30.79	- 5 18.3	1.897	2.864	5.4	20.5	3 2	11 30.49	+23 43.7	1.044	2.007	9.2	19.6
3 12	11 21.19	- 4 38.3	1.867	2.854	2.9	20.3	3 12	11 21.23	+25 28.4	1.018	1.974	11.0	19.6
3 22	11 11.56	- 3 49.7	1.867	2.844	4.8	20.4	3 22	11 11.69	+26 40.6	1.015	1.942	15.0	19.7
4 1	11 2.90	- 2 58.7	1.895	2.833	8.5	20.6	4 1	11 3.62	+27 11.5	1.032	1.911	19.5	19.9
4 11	10 56.01	- 2 11.2	1.949	2.821	12.1	20.8	4 11	10 58.45	+27 0.2	1.064	1.880	23.7	20.0
333760	2011 <i>BS</i> ₈₃		3 10.3 298°28	7°3/15.7	17		81563	2000 <i>HO</i> ₃₀		3 10.3 249°56	7°9/ 1.2	18	
2 1	11 48.26	-13 36.6	1.855	2.573	17.8	20.2	2 1	11 48.90	+22 54.5	1.971	2.790	13.4	19.6
2 11	11 44.91	-14 37.4	1.739	2.549	15.4	20.0	2 11	11 45.09	+24 35.8	1.892	2.777	10.9	19.4
2 21	11 38.95	-15 19.1	1.641	2.525	12.5	19.7	2 21	11 38.80	+26 17.7	1.837	2.764	8.8	19.2
3 2	11 30.76	-15 38.0	1.566	2.501	9.6	19.5	3 2	11 30.55	+27 50.0	1.809	2.751	7.9	19.1
3 12	11 21.16	-15 32.5	1.516	2.477	7.5	19.3	3 12	11 21.28	+29 2.8	1.808	2.737	9.1	19.2
3 22	11 11.25	-15 4.3	1.492	2.453	7.9	19.3	3 22	11 12.08	+29 49.2	1.832	2.722	11.5	19.3
4 1	11 2.28	-14 18.6	1.494	2.429	10.6	19.4	4 1	11 4.07	+30 6.3	1.880	2.708	14.3	19.4
4 11	10 55.34	-13 23.7	1.519	2.406	14.0	19.5	4 11	10 58.10	+29 55.0	1.947	2.693	16.8	19.6
125731	2001 <i>XK</i> ₁₁₂		3 10.3 87°91	1°7/11.9	18		375272	2008 <i>HE</i> ₃₈		3 10.3 221°68			

EPHEMERIDES

3 10.3

3 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
503781	2016 <i>QN</i> ₆₈		3 10.3 276°23	0°3/10.7	17		371153	2005 <i>XJ</i> ₅₄		3 10.3 120°89	0°7/11.0	16	
2 1	11 43.13	- 0 5.1	2.450	3.224	12.5	21.6	2 1	11 48.13	- 0 34.8	2.048	2.820	14.6	22.5
2 11	11 39.93	+ 0 24.6	2.347	3.214	9.8	21.4	2 11	11 44.02	- 0 17.4	1.965	2.830	11.6	22.3
2 21	11 34.97	+ 1 7.5	2.267	3.204	6.7	21.2	2 21	11 37.79	+ 0 14.5	1.904	2.839	7.9	22.1
3 2	11 28.67	+ 2 0.7	2.214	3.194	3.2	21.0	3 2	11 30.00	+ 0 57.9	1.870	2.848	3.9	21.9
3 12	11 21.68	+ 2 59.9	2.190	3.184	0.6	20.7	3 12	11 21.46	+ 1 48.0	1.864	2.857	0.9	21.7
3 22	11 14.70	+ 3 59.7	2.196	3.173	4.2	21.0	3 22	11 13.11	+ 2 38.8	1.888	2.866	4.7	22.0
4 1	11 8.49	+ 4 54.7	2.230	3.163	7.7	21.2	4 1	11 5.83	+ 3 24.8	1.939	2.874	8.6	22.2
4 11	11 3.67	+ 5 40.5	2.290	3.153	10.9	21.4	4 11	11 0.33	+ 4 1.1	2.015	2.882	12.0	22.4
42061	2000 <i>YE</i> ₁₁₆		3 10.3 151°20	1°7/ 8.6	18 R		517651	2015 <i>BJ</i> ₅₄₃		3 10.3 260°64	1°0/11.4	17	
2 1	11 50.66	+ 5 51.9	2.065	2.854	14.0	19.7	2 1	11 45.02	- 2 4.9	2.024	2.798	14.7	21.9
2 11	11 45.95	+ 6 37.7	1.985	2.864	10.8	19.6	2 11	11 41.77	- 1 40.6	1.928	2.793	11.7	21.7
2 21	11 39.06	+ 7 34.4	1.929	2.873	7.1	19.3	2 21	11 36.41	- 0 59.5	1.854	2.788	8.2	21.4
3 2	11 30.56	+ 8 36.8	1.900	2.881	3.3	19.1	3 2	11 29.42	- 0 4.2	1.806	2.784	4.2	21.2
3 12	11 21.31	+ 9 38.1	1.900	2.889	2.3	19.1	3 12	11 21.58	+ 1 0.1	1.786	2.779	1.1	20.9
3 22	11 12.27	+10 32.0	1.930	2.896	5.9	19.3	3 22	11 13.79	+ 2 7.1	1.794	2.774	4.7	21.2
4 1	11 4.35	+11 13.3	1.988	2.903	9.6	19.5	4 1	11 6.98	+ 3 9.9	1.831	2.769	8.8	21.4
4 11	10 58.28	+11 39.3	2.070	2.908	12.9	19.8	4 11	11 1.89	+ 4 2.6	1.891	2.764	12.4	21.6
390448	2013 <i>YG</i> ₇₆		3 10.3 39°43	5°7/ 3.9	17		351482	2005 <i>QJ</i> ₇₉		3 10.3 168°80	0°9/11.1	18	
2 1	11 45.25	+17 48.3	2.034	2.856	12.9	20.4	2 1	11 51.60	- 1 32.3	1.832	2.602	16.2	22.1
2 11	11 41.86	+19 3.9	1.970	2.864	10.1	20.2	2 11	11 47.06	- 1 6.9	1.744	2.607	12.9	21.8
2 21	11 36.35	+20 21.4	1.930	2.872	7.4	20.1	2 21	11 40.04	- 0 23.7	1.678	2.612	8.9	21.6
3 2	11 29.30	+21 32.9	1.917	2.880	5.7	20.0	3 2	11 31.12	+ 0 34.2	1.637	2.615	4.4	21.3
3 12	11 21.58	+22 30.5	1.932	2.888	6.5	20.0	3 12	11 21.24	+ 1 40.8	1.625	2.618	1.0	21.1
3 22	11 14.09	+23 8.8	1.973	2.897	8.9	20.2	3 22	11 11.50	+ 2 48.8	1.642	2.620	5.3	21.4
4 1	11 7.74	+23 25.1	2.039	2.906	11.7	20.4	4 1	11 2.99	+ 3 50.8	1.687	2.621	9.7	21.7
4 11	11 3.17	+23 19.6	2.127	2.915	14.3	20.6	4 11	10 56.56	+ 4 40.7	1.756	2.621	13.5	21.9
3774	Megumi		3 10.3 326°20	4°3/14.4	18		362025	2008 <i>YR</i> ₆₂		3 10.3 73°39	0°2/10.5	18	
2 1	11 46.17	- 9 21.8	2.157	2.891	15.1	16.0	2 1	11 49.51	- 0 5.9	1.429	2.227	18.7	21.5
2 11	11 42.57	- 9 46.9	2.059	2.887	12.6	15.8	2 11	11 45.82	+ 0 26.7	1.367	2.246	14.6	21.3
2 21	11 36.90	- 9 54.6	1.981	2.884	9.7	15.6	2 21	11 39.32	+ 1 19.3	1.324	2.266	9.9	21.0
3 2	11 29.63	- 9 44.4	1.927	2.881	6.5	15.4	3 2	11 30.76	+ 2 26.7	1.305	2.286	4.6	20.8
3 12	11 21.50	- 9 18.1	1.900	2.878	4.4	15.3	3 12	11 21.33	+ 3 40.4	1.313	2.306	0.9	20.5
3 22	11 13.39	- 8 39.4	1.902	2.875	5.2	15.3	3 22	11 12.32	+ 4 51.0	1.348	2.326	6.1	21.0
4 1	11 6.22	- 7 53.8	1.931	2.872	8.2	15.5	4 1	11 4.92	+ 5 50.3	1.408	2.346	10.9	21.3
4 11	11 0.71	- 7 7.6	1.985	2.870	11.3	15.7	4 11	10 59.96	+ 6 32.9	1.491	2.365	15.0	21.6
500600	2012 <i>UW</i> ₁₁₉		3 10.3 96°57	9°2/25.3	17		115811	2003 <i>UH</i> ₂₄₀		3 10.3 132°88	0°0/10.2	18	
2 1	11 45.35	-32 48.3	2.738	3.283	15.7	21.6	2 1	11 46.79	+ 1 36.2	2.255	3.033	13.3	20.6
2 11	11 41.66	-33 21.0	2.649	3.299	14.4	21.5	2 11	11 42.80	+ 1 58.2	2.169	3.038	10.4	20.5
2 21	11 36.11	-33 29.0	2.576	3.315	12.9	21.4	2 21	11 36.90	+ 2 32.3	2.105	3.044	7.0	20.3
3 2	11 29.18	-33 9.6	2.521	3.330	11.3	21.3	3 2	11 29.57	+ 3 15.1	2.069	3.050	3.3	20.0
3 12	11 21.60	-32 21.9	2.489	3.346	10.0	21.2	3 12	11 21.56	+ 4 1.9	2.062	3.055	0.7	19.8
3 22	11 14.17	-31 8.3	2.480	3.361	9.3	21.2	3 22	11 13.70	+ 4 47.6	2.084	3.060	4.5	20.1
4 1	11 7.65	-29 33.7	2.498	3.376	9.4	21.3	4 1	11 6.78	+ 5 27.2	2.134	3.065	8.2	20.3
4 11	11 2.67	-27 45.7	2.540	3.391	10.4	21.3	4 11	11 1.45	+ 5 56.9	2.210	3.069	11.3	20.6
272535	2005 <i>UZ</i> ₃₀₆		3 10.3 184°13	1°7/ 8.5	16		171573	1999 <i>UH</i> ₄₃		3 10.3 88°19	2°9/12.9	18	
2 1	11 49.02	+ 6 43.8	2.348	3.135	12.5	21.9	2 1	11 51.46	- 5 49.5	1.734	2.491	17.5	20.3
2 11	11 44.49	+ 7 21.6	2.258	3.135	9.7	21.7	2 11	11 46.85	- 5 50.0	1.666	2.516	14.1	20.1
2 21	11 38.01	+ 8 8.2	2.191	3.135	6.4	21.5	2 21	11 39.77	- 5 30.4	1.618	2.540	10.1	19.9
3 2	11 30.08	+ 8 59.4	2.153	3.134	3.0	21.3	3 2	11 30.92	- 4 52.4	1.595	2.564	5.9	19.7
3 12	11 21.42	+ 9 49.7	2.144	3.133	2.1	21.2	3 12	11 21.31	- 4 1.0	1.599	2.587	2.9	19.6
3 22	11 12.87	+10 33.6	2.165	3.131	5.4	21.4	3 22	11 12.05	- 3 2.7	1.631	2.610	5.2	19.8
4 1	11 5.26	+11 7.0	2.215	3.128	8.8	21.6	4 1	11 4.20	- 2 4.9	1.691	2.633	9.1	20.1
4 11	10 59.23	+11 27.1	2.290	3.125	11.9	21.8	4 11	10 58.50	- 1 14.2	1.775	2.655	12.7	20.3
359803	2011 <i>UJ</i> ₂₄₅		3 10.3 288°93	2°3/ 8.6	18		17952	Folsom		3 10.3 303°42	4°8/13.8	18	
2 1	11 49.89	+ 6 57.4	1.497	2.310	17.2	20.8	2 1	11 47.10	- 7 54.2	1.477	2.246	19.5	19.0
2 11	11 46.32	+ 7 29.1	1.415	2.307	13.4	20.5	2 11	11 44.38	- 8 21.3	1.382	2.235	16.2	18.7
2 21	11 39.86	+ 8 13.8	1.353	2.303	9.0	20.3	2 21	11 38.76	- 8 25.4	1.306	2.225	12.3	18.5
3 2	11 31.12	+ 9 5.5	1.317	2.299	4.2	20.0	3 2	11 30.73	- 8 5.0	1.251	2.215	8.0	18.2
3 12	11 21.21	+ 9 55.9	1.306	2.296	3.0	19.9	3 12	11 21.32	- 7 22.3	1.221	2.205	4.9	18.0
3 22	11 11.45	+10 36.8	1.323	2.293	7.5	20.2	3 22	11 11.84	- 6 23.5	1.217	2.195	6.6	18.0
4 1	11 3.17	+11 2.0	1.364	2.289	12.3	20.4	4 1	11 3.68	- 5 17.4	1.237	2.186	10.9	18.2
4 11	10 57.34	+11 8.3	1.427	2.286	16.4	20.6	4 11	10 57.96	- 4 14.0	1.280	2.177	15.4	18.5
295296	2008 <i>GE</i> ₁₀₈		3 10.3 356°31	4°4/ 7.1	18		192573	1998 <i>XL</i>		3 10.3 154°67	5°3/ 5.4	18	
2 1	11 51.57	+13 17.0	1.547	2.367	16.4	20.9	2 1	11 53.30	+14 52.2	1.826	2.635	14.7	20.2
2 11	11 47.49	+13 47.8	1.471	2.366	12.8	20.7	2 11	11 48.36	+16 5.5	1.756	2.644	11.4	20.0
2 21	11 40.54	+14 24.1	1.416	2.365	8.7	20.4	2 21	11 40.87	+17 23.9	1.709	2.652	8.0	19.8
3 2	11 31.38	+14 58.7	1.387	2.364	5.2	20.2	3 2	11 31.48	+18 38.7	1.689	2.659	5.5	19.7
3 12	11 21.17	+15 23.3	1.383	2.364	5.1	20.2	3 12	11 21.22	+19 40.9	1.698	2.666	6.1	19.8
3 22	11 11.22	+15 31.9	1.407	2.364	8.7	20.4	3 22	11 11.25	+20 23.6	1.735	2.672	9.0	19.9
4 1	11 2.82	+15 21.1	1.454	2.364	12.8	20.6	4 1	11 2.66	+20 43.3	1.797	2.676	12.4	20.2
4 11	10 56.88	+14 50.7	1.524	2.365	16.5	20.9	4 11	10 56.27	+20 40.1	1.881	2.681	15.4	20.4
217917	2001 <i>SN</i> ₃₁₃		3 10.3 137°55	1°5/ 8.6	18		170959	2005 <i>BN</i> ₃₁		3 10.3 183°41	2°5/ 7.8	18	

EPHEMERIDES

3 10.3

3 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
406510	2007 VG ₁₅₁		3 10.3 135°84	0°6/10.9	18		278755	2008 SG ₁₁₁		3 10.3 316°26	1°7/ 8.6	17	
2 1	11 50.58	- 0 38.7	1.943	2.714	15.3	22.3	2 1	11 45.64	+ 5 39.9	1.976	2.776	14.1	20.7
2 11	11 46.03	- 0 15.3	1.863	2.727	12.1	22.1	2 11	11 42.28	+ 6 22.2	1.889	2.775	10.9	20.5
2 21	11 39.20	+ 0 23.8	1.804	2.739	8.3	21.8	2 21	11 36.76	+ 7 16.4	1.826	2.773	7.2	20.3
3 2	11 30.69	+ 1 15.1	1.772	2.750	4.1	21.6	3 2	11 29.61	+ 8 17.2	1.789	2.772	3.3	20.0
3 12	11 21.39	+ 2 13.1	1.768	2.761	0.8	21.4	3 12	11 21.64	+ 9 18.1	1.780	2.770	2.2	19.9
3 22	11 12.31	+ 3 11.3	1.794	2.771	4.9	21.7	3 22	11 13.79	+10 12.3	1.800	2.769	6.0	20.2
4 1	11 4.41	+ 4 3.3	1.847	2.781	9.0	22.0	4 1	11 6.98	+10 54.4	1.846	2.767	9.8	20.4
4 11	10 58.44	+ 4 44.3	1.926	2.790	12.6	22.2	4 11	11 1.96	+11 20.7	1.916	2.766	13.3	20.6
26108	1991 LF ₂		3 10.3 98°56	0°2/10.6	18		215068	2009 DU ₁₂₉		3 10.3 266°88	1°4/12.1	17	
2 1	11 45.90	+ 0 27.2	2.193	2.970	13.6	18.5	2 1	11 42.54	- 4 32.3	2.534	3.287	12.6	21.1
2 11	11 42.15	+ 0 53.9	2.111	2.979	10.7	18.3	2 11	11 39.48	- 3 58.1	2.422	3.274	10.2	20.8
2 21	11 36.48	+ 1 33.9	2.051	2.989	7.3	18.1	2 21	11 34.71	- 3 7.6	2.334	3.260	7.2	20.6
3 2	11 29.39	+ 2 23.9	2.019	2.999	3.4	17.8	3 2	11 28.63	- 2 3.1	2.272	3.245	3.9	20.4
3 12	11 21.65	+ 3 18.7	2.015	3.008	0.6	17.6	3 12	11 21.84	- 0 48.5	2.240	3.231	1.4	20.2
3 22	11 14.08	+ 4 12.8	2.041	3.018	4.5	17.9	3 22	11 15.04	+ 0 30.5	2.237	3.216	3.9	20.3
4 1	11 7.48	+ 5 0.8	2.094	3.027	8.2	18.2	4 1	11 8.94	+ 1 47.8	2.264	3.202	7.3	20.5
4 11	11 2.48	+ 5 38.4	2.173	3.036	11.4	18.4	4 11	11 4.17	+ 2 57.8	2.317	3.187	10.5	20.7
495867	2004 NZ ₁₅		3 10.3 199°16	3°9/15.0	17		437425	2013 XE ₂₀		3 10.3 289°59	6°6/29.9	18	
2 1	11 48.77	-11 46.5	2.857	3.551	12.6	23.0	2 1	11 43.60	+21 9.3	2.328	3.148	11.6	20.4
2 11	11 44.07	-11 57.0	2.746	3.547	10.6	22.8	2 11	11 40.52	+22 58.9	2.257	3.145	9.3	20.3
2 21	11 37.67	-11 52.0	2.655	3.541	8.2	22.6	2 21	11 35.49	+24 49.6	2.211	3.141	7.3	20.1
3 2	11 29.95	-11 31.3	2.592	3.535	5.8	22.5	3 2	11 29.00	+26 32.9	2.193	3.138	6.6	20.1
3 12	11 21.53	-10 56.4	2.557	3.528	4.0	22.3	3 12	11 21.77	+28 0.4	2.204	3.134	7.6	20.1
3 22	11 13.11	-10 10.4	2.552	3.520	4.5	22.4	3 22	11 14.63	+29 6.2	2.242	3.131	9.7	20.3
4 1	11 5.38	- 9 17.8	2.577	3.511	6.8	22.5	4 1	11 8.40	+29 47.1	2.304	3.128	12.1	20.4
4 11	10 58.97	- 8 23.6	2.630	3.502	9.3	22.6	4 11	11 3.77	+30 3.1	2.387	3.124	14.3	20.6
310921	2003 SS ₁₃₅		3 10.3 94°13	1°3/ 9.2	18		406450	2007 TP ₃₉₇		3 10.3 245°53	5°1/ 5.6	18	
2 1	11 50.94	+ 4 30.6	1.653	2.452	16.5	21.0	2 1	11 48.48	+12 24.7	1.674	2.494	15.4	20.8
2 11	11 46.60	+ 5 5.4	1.586	2.469	12.8	20.8	2 11	11 45.06	+13 44.1	1.589	2.485	12.0	20.6
2 21	11 39.71	+ 5 53.6	1.540	2.485	8.5	20.6	2 21	11 38.96	+15 13.7	1.527	2.475	8.3	20.4
3 2	11 30.94	+ 6 49.6	1.519	2.502	3.8	20.4	3 2	11 30.75	+16 44.7	1.491	2.466	5.4	20.2
3 12	11 21.36	+ 7 46.0	1.527	2.518	1.9	20.3	3 12	11 21.41	+18 6.5	1.482	2.456	6.0	20.2
3 22	11 12.13	+ 8 35.3	1.562	2.534	6.3	20.6	3 22	11 12.14	+19 9.8	1.500	2.446	9.4	20.3
4 1	11 4.34	+ 9 11.8	1.624	2.550	10.6	20.9	4 1	11 4.16	+19 48.8	1.543	2.435	13.3	20.5
4 11	10 58.78	+ 9 32.2	1.709	2.565	14.3	21.1	4 11	10 58.40	+20 1.7	1.607	2.424	16.9	20.8
1826	Miller		3 10.3 85°67	4°4/15.1	18		409992	2006 VT ₁₅₂		3 10.3 118°13	0°9/ 9.3	18	
2 1	11 46.24	-11 12.6	2.252	2.972	14.9	16.2	2 1	11 49.74	+ 3 7.2	2.183	2.962	13.6	22.7
2 11	11 42.47	-11 30.5	2.163	2.980	12.5	16.0	2 11	11 45.03	+ 3 55.9	2.112	2.984	10.6	22.6
2 21	11 36.74	-11 30.0	2.094	2.989	9.6	15.8	2 21	11 38.34	+ 4 56.6	2.064	3.005	7.0	22.4
3 2	11 29.55	-11 10.8	2.049	2.997	6.7	15.6	3 2	11 30.24	+ 6 4.4	2.044	3.026	3.1	22.2
3 12	11 21.63	-10 35.0	2.032	3.006	4.6	15.5	3 12	11 21.54	+ 7 13.1	2.054	3.046	1.4	22.1
3 22	11 13.83	- 9 46.7	2.043	3.014	5.2	15.6	3 22	11 13.11	+ 8 16.4	2.094	3.065	5.1	22.4
4 1	11 6.97	- 8 51.6	2.082	3.022	7.7	15.7	4 1	11 5.76	+ 9 9.0	2.163	3.083	8.6	22.6
4 11	11 1.71	- 7 56.0	2.147	3.031	10.6	15.9	4 11	11 0.12	+ 9 47.7	2.256	3.100	11.7	22.8
106656	2000 WE ₁₄₂		3 10.3 151°96	3°5/ 6.7	18		467770	2009 VL ₄₇		3 10.3 281°83	3°7/13.9	17	
2 1	11 48.83	+ 8 48.6	1.832	2.638	14.8	20.0	2 1	11 44.42	- 9 0.8	1.926	2.673	16.3	21.0
2 11	11 44.88	+10 9.4	1.756	2.646	11.4	19.8	2 11	11 41.55	- 8 55.3	1.823	2.663	13.5	20.8
2 21	11 38.55	+11 41.6	1.704	2.653	7.6	19.6	2 21	11 36.44	- 8 27.9	1.739	2.652	10.1	20.6
3 2	11 30.43	+13 17.5	1.680	2.659	4.2	19.4	3 2	11 29.54	- 7 38.8	1.680	2.642	6.5	20.3
3 12	11 21.46	+14 47.3	1.684	2.664	4.3	19.4	3 12	11 21.66	- 6 31.4	1.648	2.632	3.8	20.1
3 22	11 12.68	+16 2.9	1.716	2.670	7.8	19.7	3 22	11 13.75	- 5 11.9	1.643	2.621	5.2	20.2
4 1	11 5.14	+16 58.1	1.775	2.674	11.5	19.9	4 1	11 6.84	- 3 48.4	1.665	2.611	8.9	20.4
4 11	10 59.61	+17 30.7	1.856	2.678	14.8	20.1	4 11	11 1.74	- 2 29.2	1.713	2.601	12.6	20.6
71849	2000 UB ₁₀₂		3 10.3 15°41	2°9/12.4	18		153655	2001 TQ ₁₁₈		3 10.3 76°45	3°3/12.8	18	
2 1	11 48.23	- 3 42.9	1.407	2.195	19.4	19.1	2 1	11 55.64	- 4 8.3	1.796	2.548	17.1	20.2
2 11	11 45.18	- 3 59.4	1.327	2.196	15.7	18.9	2 11	11 50.07	- 4 49.1	1.724	2.570	13.8	20.0
2 21	11 39.19	- 3 54.9	1.266	2.198	11.3	18.6	2 21	11 41.96	- 5 14.1	1.672	2.592	10.0	19.8
3 2	11 30.87	- 3 30.3	1.227	2.201	6.4	18.3	3 2	11 31.99	- 5 23.6	1.646	2.613	6.0	19.6
3 12	11 21.36	- 2 50.0	1.213	2.203	2.9	18.1	3 12	11 21.20	- 5 19.8	1.648	2.634	3.3	19.5
3 22	11 12.00	- 2 1.3	1.225	2.206	6.0	18.3	3 22	11 10.75	- 5 6.6	1.679	2.655	5.4	19.7
4 1	11 4.15	- 1 12.4	1.262	2.210	10.9	18.6	4 1	11 1.73	- 4 49.3	1.737	2.676	9.1	19.9
4 11	10 58.82	- 0 31.4	1.321	2.214	15.3	18.9	4 11	10 54.92	- 4 33.2	1.820	2.697	12.6	20.2
309281	2007 RL ₁₄₉		3 10.3 249°50	4°1/13.6	18		466214	2012 SZ ₁		3 10.3 172°09	2°7/14.3	18	
2 1	11 49.27	- 7 38.7	1.730	2.483	17.6	20.6	2 1	11 44.26	-10 6.2	3.153	3.861	11.3	22.7
2 11	11 45.66	- 7 56.5	1.628	2.472	14.6	20.3	2 11	11 40.35	- 9 44.8	3.050	3.865	9.3	22.6
2 21	11 39.41	- 7 53.5	1.546	2.461	11.0	20.1	2 21	11 35.04	- 9 8.6	2.969	3.868	7.0	22.4
3 2	11 30.99	- 7 29.3	1.487	2.450	7.0	19.8	3 2	11 28.70	- 8 18.7	2.916	3.870	4.5	22.3
3 12	11 21.33	- 6 46.1	1.455	2.439	4.2	19.6	3 12	11 21.86	- 7 17.7	2.892	3.873	2.8	22.1
3 22	11 11.59	- 5 49.5	1.449	2.427	5.9	19.7	3 22	11 15.08	- 6 9.5	2.899	3.874	3.5	22.2
4 1	11 3.00	- 4 47.2	1.470	2.415	10.0	19.9	4 1	11 8.93	- 4 58.8	2.937	3.875	5.8	22.3
4 11	10 56.57	- 3 47.6	1.516	2.402	14.1	20.1	4 11	11 3.89	- 3 50.4	3.002	3.875	8.3	22.5
208904	2002 TS ₁₇₀		3 10.3 109°74	11°5/21.9	18		467451	2006 CK ₁₄		3 10.3 38°13	2°6/ 7.8	16	
2 1	11 46.45	-27 0.7	1.307	1.984	25.								

EPHEMERIDES

3 10.3

3 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
99384	2001 YP ₁₁₃		3 10.3 201°85	11°0/18.3	18		461432	2001 WT ₁₅		3 10.3 129°00	9°4/25.0	18	
2 1	11 58.53	-22 54.4	2.012	2.643	18.9	18.9	2 1	11 53.39	-34 7.3	2.972	3.480	15.1	21.5
2 11	11 52.95	-24 43.4	1.910	2.640	17.0	18.7	2 11	11 47.81	-35 1.8	2.886	3.503	13.9	21.4
2 21	11 44.44	-26 12.1	1.826	2.636	14.9	18.5	2 21	11 40.25	-35 33.7	2.815	3.525	12.5	21.3
3 2	11 33.43	-27 13.7	1.764	2.632	12.7	18.4	3 2	11 31.20	-35 39.6	2.764	3.546	11.2	21.2
3 12	11 20.87	-27 43.4	1.726	2.627	11.3	18.3	3 12	11 21.41	-35 18.1	2.736	3.566	10.0	21.2
3 22	11 8.02	-27 40.4	1.713	2.621	11.1	18.3	3 22	11 11.75	-34 30.5	2.732	3.585	9.4	21.2
4 1	10 56.29	-27 8.5	1.726	2.615	12.3	18.3	4 1	11 3.04	-33 20.8	2.754	3.603	9.6	21.2
4 11	10 46.84	-26 16.4	1.762	2.609	14.4	18.4	4 11	10 55.97	-31 55.8	2.801	3.620	10.4	21.3
273090	2006 EX ₄₆		3 10.3 238°37	1°4/ 8.9	17		341359	Gregneumann		3 10.3 146°21	1°7/12.1	17	
2 1	11 46.41	+ 5 16.8	2.068	2.863	13.7	21.2	2 1	11 47.97	- 2 39.6	2.455	3.208	13.0	21.5
2 11	11 42.81	+ 5 54.4	1.977	2.859	10.7	21.0	2 11	11 43.61	- 2 42.6	2.363	3.213	10.4	21.4
2 21	11 37.09	+ 6 43.5	1.910	2.856	7.1	20.8	2 21	11 37.43	- 2 33.1	2.293	3.218	7.4	21.2
3 2	11 29.78	+ 7 39.4	1.869	2.852	3.2	20.6	3 2	11 29.89	- 2 12.7	2.250	3.222	4.1	21.0
3 12	11 21.64	+ 8 36.0	1.857	2.848	1.9	20.5	3 12	11 21.68	- 1 44.3	2.236	3.227	1.7	20.8
3 22	11 13.60	+ 9 27.1	1.874	2.844	5.7	20.7	3 22	11 13.58	- 1 11.8	2.252	3.231	4.0	21.0
4 1	11 6.56	+10 7.3	1.918	2.840	9.5	20.9	4 1	11 6.34	- 0 39.7	2.297	3.235	7.3	21.2
4 11	11 1.24	+10 33.0	1.986	2.836	12.9	21.1	4 11	11 0.59	- 0 12.0	2.368	3.238	10.3	21.4
252250	2001 QG ₁₀₇		3 10.3 126°16	13°0/28.4	18		270146	2001 SX ₃₆		3 10.3 126°46	1°3/ 9.0	18	
2 1	11 52.96	-38 35.7	2.376	2.870	18.8	20.3	2 1	11 50.78	+ 5 41.3	2.188	2.972	13.4	21.8
2 11	11 48.33	-40 5.8	2.293	2.884	17.7	20.2	2 11	11 45.88	+ 6 12.8	2.112	2.988	10.4	21.7
2 21	11 41.08	-41 9.0	2.224	2.897	16.4	20.1	2 21	11 38.97	+ 6 53.7	2.060	3.003	6.9	21.5
3 2	11 31.74	-41 39.2	2.169	2.910	15.1	20.0	3 2	11 30.58	+ 7 39.6	2.036	3.018	3.1	21.3
3 12	11 21.24	-41 32.9	2.134	2.923	13.9	20.0	3 12	11 21.56	+ 8 24.9	2.041	3.032	1.8	21.2
3 22	11 10.75	-40 50.0	2.118	2.935	13.2	19.9	3 22	11 12.77	+ 9 4.4	2.076	3.045	5.3	21.4
4 1	11 1.48	-39 34.7	2.125	2.946	13.1	19.9	4 1	11 5.07	+ 9 33.9	2.139	3.058	8.8	21.7
4 11	10 54.36	-37 55.1	2.153	2.957	13.6	20.0	4 11	10 59.11	+ 9 50.7	2.227	3.070	11.9	21.9
61670	2000 QA ₁₁₉		3 10.3 226°36	1°6/11.9	18		303293	2004 SU ₄		3 10.3 199°97	0°6/10.9	18	
2 1	11 47.13	- 3 17.3	2.131	2.892	14.5	20.2	2 1	11 51.35	- 0 0.2	1.891	2.665	15.6	21.9
2 11	11 43.36	- 3 5.1	2.029	2.885	11.7	19.9	2 11	11 46.92	+ 0 16.4	1.796	2.662	12.4	21.6
2 21	11 37.50	- 2 36.6	1.950	2.878	8.3	19.7	2 21	11 40.04	+ 0 48.6	1.722	2.658	8.6	21.4
3 2	11 29.99	- 1 53.9	1.896	2.871	4.5	19.5	3 2	11 31.23	+ 1 33.5	1.675	2.654	4.2	21.1
3 12	11 21.61	- 1 0.8	1.871	2.863	1.6	19.3	3 12	11 21.41	+ 2 25.9	1.655	2.648	0.8	20.8
3 22	11 13.25	- 0 3.2	1.875	2.855	4.5	19.4	3 22	11 11.63	+ 3 19.3	1.665	2.642	5.3	21.2
4 1	11 5.82	+ 0 53.0	1.907	2.846	8.4	19.7	4 1	11 3.00	+ 4 7.1	1.702	2.636	9.6	21.4
4 11	11 0.08	+ 1 41.9	1.965	2.838	12.0	19.9	4 11	10 56.37	+ 4 44.1	1.764	2.629	13.5	21.6
402970	2007 UB ₄₉		3 10.3 139°12	4°1/ 6.6	18		501391	2013 YR ₇₅		3 10.4 69°91	2°7/ 7.1	18	
2 1	11 51.26	+11 44.2	1.804	2.613	14.9	21.7	2 1	11 43.97	+ 8 34.2	2.214	3.019	12.6	21.3
2 11	11 46.80	+12 43.6	1.732	2.621	11.5	21.5	2 11	11 40.70	+ 9 37.8	2.138	3.026	9.7	21.1
2 21	11 39.85	+13 50.5	1.683	2.630	7.8	21.3	2 21	11 35.56	+10 50.3	2.085	3.033	6.4	20.9
3 2	11 31.06	+14 57.2	1.661	2.637	4.6	21.1	3 2	11 29.04	+12 5.8	2.060	3.040	3.4	20.7
3 12	11 21.43	+15 55.5	1.666	2.645	4.8	21.1	3 12	11 21.87	+13 17.3	2.064	3.047	3.3	20.7
3 22	11 12.07	+16 38.5	1.700	2.652	8.0	21.3	3 22	11 14.86	+14 18.8	2.097	3.054	6.3	20.9
4 1	11 4.04	+17 2.0	1.760	2.658	11.6	21.6	4 1	11 8.79	+15 5.4	2.157	3.061	9.5	21.1
4 11	10 58.13	+17 4.9	1.842	2.664	14.9	21.8	4 11	11 4.28	+15 34.8	2.241	3.068	12.4	21.3
399408	2001 TB ₁₄₃		3 10.3 152°61	2°5/ 7.9	18		42979	1999 TR ₂₂₀		3 10.4 221°75	3°1/13.3	18	R
2 1	11 52.91	+ 7 50.5	1.989	2.781	14.3	22.6	2 1	11 48.18	- 7 12.3	1.954	2.701	16.1	19.8
2 11	11 47.82	+ 8 42.2	1.912	2.792	11.1	22.4	2 11	11 44.45	- 7 6.9	1.851	2.694	13.2	19.6
2 21	11 40.41	+ 9 43.7	1.857	2.802	7.3	22.2	2 21	11 38.40	- 6 41.4	1.769	2.686	9.7	19.3
3 2	11 31.30	+10 48.9	1.831	2.812	3.6	22.0	3 2	11 30.49	- 5 56.3	1.712	2.678	6.0	19.1
3 12	11 21.39	+11 50.6	1.834	2.820	3.1	22.0	3 12	11 21.56	- 4 55.3	1.682	2.669	3.1	18.9
3 22	11 11.71	+12 42.2	1.866	2.828	6.6	22.2	3 22	11 12.62	- 3 44.4	1.681	2.659	5.1	19.0
4 1	11 3.26	+13 18.8	1.926	2.834	10.3	22.4	4 1	11 4.70	- 2 31.1	1.707	2.650	9.0	19.2
4 11	10 56.77	+13 38.1	2.011	2.840	13.5	22.7	4 11	10 58.65	- 1 23.2	1.759	2.639	12.8	19.4
27130	Dipaola		3 10.3 143°95	1°5/ 8.7	18		135353	2001 TH ₇₅		3 10.4 123°42	0°4/ 9.8	17	
2 1	11 49.05	+ 5 7.7	2.155	2.942	13.5	18.8	2 1	11 45.92	+ 2 58.0	2.722	3.495	11.4	21.0
2 11	11 44.64	+ 5 55.6	2.075	2.952	10.5	18.6	2 11	11 41.77	+ 3 27.5	2.640	3.509	8.8	20.8
2 21	11 38.19	+ 6 54.5	2.019	2.963	6.9	18.4	2 21	11 36.05	+ 4 6.4	2.583	3.522	5.9	20.7
3 2	11 30.24	+ 7 59.4	1.990	2.972	3.2	18.2	3 2	11 29.20	+ 4 51.3	2.554	3.535	2.7	20.5
3 12	11 21.60	+ 9 4.0	1.991	2.981	2.0	18.1	3 12	11 21.85	+ 5 38.0	2.555	3.548	0.8	20.3
3 22	11 13.14	+10 2.0	2.022	2.990	5.5	18.4	3 22	11 14.65	+ 6 22.3	2.586	3.560	4.0	20.6
4 1	11 5.74	+10 48.3	2.081	2.997	9.1	18.6	4 1	11 8.24	+ 7 0.2	2.647	3.571	7.1	20.8
4 11	11 0.05	+11 19.8	2.164	3.005	12.3	18.8	4 11	11 3.14	+ 7 28.9	2.734	3.583	9.8	21.0
273045	2006 DX ₁₃₈		3 10.3 163°03	1°8/ 8.3	17		458757	2011 RX ₁₆		3 10.4 196°27	0°5/ 9.9	17	
2 1	11 46.74	+ 6 32.9	2.279	3.072	12.7	21.2	2 1	11 49.89	+ 1 10.3	1.974	2.752	14.9	22.9
2 11	11 42.80	+ 7 19.0	2.194	3.075	9.8	21.0	2 11	11 45.67	+ 1 57.1	1.879	2.749	11.7	22.7
2 21	11 36.95	+ 8 14.8	2.133	3.078	6.5	20.8	2 21	11 39.14	+ 3 0.2	1.806	2.746	7.9	22.4
3 2	11 29.68	+ 9 15.3	2.099	3.081	3.1	20.6	3 2	11 30.80	+ 4 15.5	1.760	2.741	3.6	22.2
3 12	11 21.72	+10 14.7	2.095	3.083	2.3	20.5	3 12	11 21.52	+ 5 36.0	1.743	2.736	1.1	22.0
3 22	11 13.88	+11 7.2	2.120	3.086	5.5	20.7	3 22	11 12.28	+ 6 53.9	1.756	2.730	5.5	22.3
4 1	11 6.99	+11 48.1	2.174	3.087	9.0	20.9	4 1	11 4.12	+ 8 2.1	1.797	2.723	9.7	22.5
4 11	11 1.67	+12 14.7	2.251	3.089	12.0	21.1	4 11	10 57.84	+ 8 55.2	1.863	2.715	13.5	22.7
439109	2011 SB ₇₅		3 10.3 242°63	2°7/13.3	17		384166	2009 BR ₂₀		3 10.4 322°62	3°9/13.9	17	
2 1	11 45.96	- 6 5.6	2.518	3.258	13								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
264415	2000 <i>PR</i> ₁₀		3 10.4 242°46	4.6/ 4.6	18		473115	2015 <i>HU</i> ₁₇₅		3 10.4 290°39	0.6/ 9.6	18	
2 1	11 47.85	+14 31.8	2.368	3.173	11.9	20.7	2 1	11 42.83	+ 2 5.8	2.372	3.156	12.5	20.8
2 11	11 43.85	+15 54.6	2.268	3.154	9.3	20.5	2 11	11 39.76	+ 2 52.4	2.278	3.154	9.8	20.6
2 21	11 37.82	+17 24.2	2.193	3.135	6.6	20.3	2 21	11 34.93	+ 3 51.8	2.209	3.151	6.5	20.4
3 2	11 30.18	+18 53.6	2.147	3.116	4.7	20.1	3 2	11 28.78	+ 5 0.2	2.166	3.148	2.9	20.2
3 12	11 21.64	+20 14.9	2.131	3.095	5.4	20.1	3 12	11 21.96	+ 6 11.8	2.153	3.145	1.1	20.0
3 22	11 13.05	+21 21.3	2.144	3.074	8.0	20.3	3 22	11 15.21	+ 7 20.7	2.169	3.143	4.7	20.3
4 1	11 5.31	+22 8.2	2.184	3.052	11.0	20.4	4 1	11 9.27	+ 8 21.4	2.214	3.140	8.2	20.5
4 11	10 59.15	+22 33.6	2.247	3.029	13.8	20.6	4 11	11 4.75	+ 9 9.6	2.284	3.137	11.3	20.7
130736	2000 <i>ST</i> ₂₄₁		3 10.4 149°74	2.1/ 8.6	18		331794	2003 <i>MG</i> ₆		3 10.4 234°97	3.4/14.1	17	
2 1	11 53.29	+ 7 28.6	1.773	2.570	15.6	19.8	2 1	11 47.18	- 9 8.2	2.518	3.239	13.5	21.1
2 11	11 48.44	+ 7 58.3	1.694	2.577	12.1	19.6	2 11	11 43.18	- 9 10.8	2.402	3.225	11.2	20.9
2 21	11 41.01	+ 8 38.1	1.638	2.583	8.1	19.4	2 21	11 37.29	- 8 56.9	2.308	3.211	8.5	20.7
3 2	11 31.64	+ 9 22.5	1.607	2.589	3.8	19.2	3 2	11 29.92	- 8 26.7	2.239	3.196	5.6	20.5
3 12	11 21.37	+10 4.6	1.606	2.595	2.7	19.1	3 12	11 21.73	- 7 42.2	2.200	3.180	3.5	20.4
3 22	11 11.33	+10 37.9	1.632	2.600	6.7	19.3	3 22	11 13.47	- 6 47.3	2.189	3.164	4.5	20.4
4 1	11 2.66	+10 57.8	1.686	2.604	10.8	19.6	4 1	11 5.95	- 5 47.5	2.208	3.147	7.4	20.5
4 11	10 56.17	+11 1.9	1.762	2.608	14.4	19.8	4 11	10 59.86	- 4 48.5	2.253	3.130	10.5	20.7
273797	2007 <i>FV</i> ₁₈		3 10.4 254°51	0.2/10.2	17		379937	2012 <i>LG</i> ₈		3 10.4 216°81	4.0/15.0	17	
2 1	11 46.08	+ 1 14.9	1.953	2.739	14.7	21.7	2 1	11 46.50	-11 44.3	2.484	3.193	14.0	21.7
2 11	11 42.74	+ 1 47.5	1.858	2.733	11.6	21.4	2 11	11 42.64	-11 44.5	2.373	3.185	11.7	21.5
2 21	11 37.18	+ 2 35.5	1.785	2.726	7.9	21.2	2 21	11 36.92	-11 26.3	2.284	3.176	9.1	21.3
3 2	11 29.89	+ 3 35.1	1.738	2.719	3.7	20.9	3 2	11 29.74	-10 49.5	2.219	3.167	6.2	21.1
3 12	11 21.70	+ 4 40.4	1.719	2.712	0.8	20.7	3 12	11 21.77	- 9 56.2	2.183	3.158	4.2	21.0
3 22	11 13.56	+ 5 44.3	1.728	2.705	5.3	21.0	3 22	11 13.78	- 8 50.7	2.176	3.148	4.8	21.0
4 1	11 6.43	+ 6 40.3	1.765	2.697	9.5	21.2	4 1	11 6.57	- 7 38.7	2.198	3.137	7.4	21.1
4 11	11 1.10	+ 7 23.3	1.826	2.690	13.2	21.4	4 11	11 0.83	- 6 26.8	2.246	3.126	10.4	21.3
459312	2012 <i>GY</i> ₃₃		3 10.4 353°53	1.2/ 9.6	18		502324	2015 <i>BM</i> ₁₆₄		3 10.4 161°17	2.5/ 7.7	17	
2 1	11 54.54	+ 7 39.8	1.529	2.334	17.3	20.2	2 1	11 47.57	+ 8 42.3	2.178	2.977	13.0	21.9
2 11	11 49.92	+ 7 21.8	1.446	2.332	13.6	19.9	2 11	11 43.56	+ 9 30.6	2.095	2.980	10.0	21.7
2 21	11 42.31	+ 7 11.5	1.383	2.329	9.2	19.7	2 21	11 37.53	+10 27.4	2.036	2.983	6.7	21.5
3 2	11 32.35	+ 7 5.0	1.345	2.328	4.2	19.4	3 2	11 29.99	+11 27.2	2.005	2.986	3.4	21.3
3 12	11 21.22	+ 6 57.7	1.334	2.327	1.8	19.2	3 12	11 21.73	+12 23.7	2.003	2.988	3.1	21.3
3 22	11 10.29	+ 6 45.0	1.351	2.326	6.6	19.5	3 22	11 13.62	+13 10.9	2.030	2.990	6.2	21.5
4 1	11 0.92	+ 6 23.7	1.393	2.326	11.4	19.8	4 1	11 6.51	+13 44.4	2.084	2.992	9.6	21.7
4 11	10 54.10	+ 5 52.0	1.458	2.326	15.6	20.0	4 11	11 1.08	+14 2.0	2.162	2.993	12.6	21.9
1415	Malautra		3 10.4 323°94	1.2/11.1	18		243116	2007 <i>RT</i> ₁₆₅		3 10.4 293°43	1.2/11.3	15	
2 1	11 48.88	+ 0 19.3	1.290	2.097	19.8	15.3	2 1	11 45.61	- 2 9.7	1.459	2.255	18.4	20.9
2 11	11 46.11	+ 0 11.4	1.205	2.089	15.8	15.1	2 11	11 43.42	- 1 49.3	1.353	2.230	14.9	20.6
2 21	11 40.12	+ 0 22.6	1.139	2.082	11.1	14.8	2 21	11 38.32	- 1 5.2	1.265	2.205	10.6	20.3
3 2	11 31.48	+ 0 50.5	1.095	2.075	5.6	14.4	3 2	11 30.71	+ 0 0.9	1.201	2.180	5.4	19.9
3 12	11 21.38	+ 1 29.4	1.076	2.069	1.3	14.1	3 12	11 21.55	+ 1 22.9	1.162	2.155	1.3	19.6
3 22	11 11.32	+ 2 11.3	1.081	2.063	6.7	14.4	3 22	11 12.12	+ 2 51.3	1.149	2.130	6.4	19.8
4 1	11 2.85	+ 2 47.9	1.111	2.057	12.2	14.7	4 1	11 3.88	+ 4 14.8	1.161	2.105	12.0	20.1
4 11	10 57.14	+ 3 12.1	1.162	2.052	17.1	15.0	4 11	10 58.05	+ 5 23.8	1.194	2.080	17.1	20.3
4779	Whitley		3 10.4 11°51	0.1/10.5	18		160167	2001 <i>UH</i> ₁₃₁		3 10.4 12°45	2.9/ 7.9	18	
2 1	11 43.88	+ 1 10.8	2.024	2.813	14.2	17.0	2 1	11 47.59	+ 8 31.3	1.621	2.437	16.0	20.2
2 11	11 40.84	+ 1 32.1	1.939	2.815	11.2	16.8	2 11	11 44.28	+ 9 11.5	1.544	2.438	12.4	20.0
2 21	11 35.78	+ 2 7.0	1.876	2.817	7.6	16.6	2 21	11 38.37	+10 2.5	1.489	2.439	8.2	19.8
3 2	11 29.19	+ 2 52.2	1.839	2.820	3.6	16.3	3 2	11 30.49	+10 57.7	1.459	2.441	4.1	19.5
3 12	11 21.86	+ 3 42.4	1.830	2.823	0.7	16.1	3 12	11 21.64	+11 49.1	1.456	2.443	3.5	19.5
3 22	11 14.65	+ 4 31.9	1.849	2.826	4.8	16.4	3 22	11 13.00	+12 29.2	1.480	2.445	7.4	19.7
4 1	11 8.44	+ 5 14.9	1.895	2.830	8.7	16.6	4 1	11 5.71	+12 52.9	1.529	2.448	11.6	20.0
4 11	11 3.91	+ 5 47.1	1.965	2.835	12.1	16.9	4 11	11 0.61	+12 57.6	1.600	2.451	15.3	20.2
55520	2001 <i>VM</i> ₄₄		3 10.4 226°92	8.2/ 1.1	18		306977	2001 <i>VB</i> ₈₂		3 10.4 210°33	5.2/15.7	17	
2 1	11 50.33	+25 8.7	2.012	2.828	13.3	18.3	2 1	11 47.44	-13 10.9	2.170	2.879	15.7	21.0
2 11	11 46.14	+26 40.2	1.942	2.822	10.9	18.2	2 11	11 43.67	-13 28.2	2.067	2.875	13.3	20.8
2 21	11 39.48	+28 9.0	1.896	2.816	9.0	18.0	2 21	11 37.76	-13 25.0	1.984	2.871	10.5	20.6
3 2	11 30.96	+29 25.3	1.876	2.810	8.3	18.0	3 2	11 30.18	-13 0.3	1.924	2.866	7.5	20.5
3 12	11 21.52	+30 20.4	1.882	2.804	9.3	18.0	3 12	11 21.69	-12 15.5	1.892	2.861	5.4	20.3
3 22	11 12.26	+30 48.7	1.914	2.797	11.5	18.1	3 22	11 13.19	-11 14.8	1.887	2.855	5.8	20.3
4 1	11 4.25	+30 48.4	1.970	2.790	14.0	18.3	4 1	11 5.63	-10 4.6	1.910	2.850	8.4	20.5
4 11	10 58.31	+30 21.6	2.044	2.783	16.3	18.5	4 11	10 59.77	- 8 52.6	1.959	2.843	11.5	20.6
410053	2007 <i>AJ</i> ₂₇		3 10.4 100°33	1.9/ 8.4	18		90298	2003 <i>EA</i> ₃₂		3 10.4 261°55	2.1/12.3	18	
2 1	11 47.73	+ 4 58.9	1.950	2.745	14.4	21.3	2 1	11 46.12	- 4 30.2	1.965	2.728	15.5	20.2
2 11	11 43.77	+ 6 2.8	1.881	2.764	11.1	21.1	2 11	11 42.85	- 4 17.2	1.861	2.717	12.5	20.0
2 21	11 37.67	+ 7 19.2	1.837	2.783	7.3	20.9	2 21	11 37.33	- 3 45.7	1.778	2.705	9.0	19.7
3 2	11 30.03	+ 8 41.8	1.819	2.801	3.4	20.7	3 2	11 30.02	- 2 56.9	1.721	2.693	5.1	19.5
3 12	11 21.72	+10 2.6	1.830	2.819	2.4	20.6	3 12	11 21.72	- 1 55.3	1.690	2.681	2.1	19.2
3 22	11 13.68	+11 14.4	1.871	2.837	6.1	20.9	3 22	11 13.39	- 0 47.1	1.689	2.669	4.8	19.4
4 1	11 6.81	+12 11.4	1.938	2.854	9.8	21.2	4 1	11 6.04	+ 0 20.5	1.714	2.656	9.0	19.6
4 11	11 1.77	+12 50.5	2.030	2.871	13.0	21.4	4 11	11 0.48	+ 1 20.4	1.765	2.644	12.8	19.8
162951	2001 <i>QU</i> ₅₅		3 10.4 109°10	2.0/ 7.8	18		504938	2011 <i>CC</i> ₇₈		3 10.4 44°24	1.0/ 9.2	18	</

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
329329	2000 <i>WW</i> ₃₇		3 10.4 186°43	3°9/15.3	17		95197	2002 <i>BV</i> ₁₆		3 10.4 334°33	1°2/11.4	18	
2 1	11 46.59	-12 33.7	2.671	3.369	13.3	21.7	2 1	11 47.44	-0 27.6	1.750	2.535	16.2	19.7
2 11	11 42.52	-12 26.3	2.565	3.369	11.2	21.6	2 11	11 44.07	-0 30.2	1.659	2.531	13.0	19.5
2 21	11 36.72	-12 0.8	2.480	3.368	8.6	21.4	2 21	11 38.23	-0 17.3	1.589	2.526	9.1	19.2
3 2	11 29.61	-11 17.5	2.421	3.367	6.0	21.2	3 2	11 30.47	+0 8.9	1.544	2.522	4.6	19.0
3 12	11 21.83	-10 18.6	2.391	3.364	4.0	21.1	3 12	11 21.68	+0 44.0	1.525	2.518	1.3	18.7
3 22	11 14.08	-9 8.3	2.390	3.361	4.5	21.1	3 22	11 12.97	+1 22.0	1.534	2.514	5.2	19.0
4 1	11 7.09	-7 52.4	2.420	3.358	6.9	21.3	4 1	11 5.43	+1 56.9	1.569	2.511	9.7	19.2
4 11	11 1.47	-6 36.9	2.476	3.354	9.6	21.4	4 11	10 59.92	+2 23.2	1.628	2.508	13.7	19.4
336700	2010 <i>CK</i> ₂₈		3 10.4 89°87	5°6/15.9	17		13855	1999 <i>XX</i> ₁₀₅		3 10.4 171°68	1°8/ 8.5	18	
2 1	11 47.33	-13 8.9	2.130	2.841	15.9	21.0	2 1	11 48.34	+5 5.5	2.047	2.839	14.0	19.0
2 11	11 43.59	-13 42.5	2.034	2.842	13.5	20.8	2 11	11 44.32	+6 2.3	1.962	2.842	10.8	18.8
2 21	11 37.70	-13 56.5	1.958	2.843	10.7	20.6	2 21	11 38.14	+7 11.8	1.900	2.845	7.2	18.6
3 2	11 30.15	-13 49.5	1.906	2.845	7.8	20.4	3 2	11 30.34	+8 28.5	1.865	2.847	3.3	18.4
3 12	11 21.72	-13 22.6	1.880	2.846	5.8	20.3	3 12	11 21.72	+9 45.1	1.859	2.849	2.3	18.3
3 22	11 13.33	-12 39.3	1.882	2.847	6.1	20.3	3 22	11 13.24	+10 54.3	1.883	2.850	6.0	18.5
4 1	11 5.91	-11 45.2	1.910	2.848	8.5	20.5	4 1	11 5.81	+11 50.3	1.935	2.850	9.8	18.7
4 11	11 0.23	-10 47.7	1.964	2.849	11.4	20.6	4 11	11 0.16	+12 29.3	2.010	2.850	13.1	19.0
371021	2005 <i>UM</i> ₆₃		3 10.4 89°75	0°0/10.3	17		27849	Suyumbika		3 10.4 222°13	2°3/ 8.4	18	
2 1	11 47.56	+1 0.1	1.876	2.661	15.3	21.6	2 1	11 52.44	+7 21.5	1.863	2.658	15.0	18.8
2 11	11 43.82	+1 26.5	1.798	2.671	12.0	21.4	2 11	11 47.91	+8 0.9	1.767	2.649	11.7	18.6
2 21	11 37.83	+2 7.8	1.741	2.681	8.1	21.2	2 21	11 40.81	+8 51.6	1.693	2.638	7.9	18.3
3 2	11 30.17	+3 0.1	1.710	2.691	3.8	21.0	3 2	11 31.68	+9 48.2	1.646	2.627	3.8	18.0
3 12	11 21.73	+3 57.4	1.708	2.701	0.7	20.7	3 12	11 21.45	+10 43.5	1.627	2.615	2.9	17.9
3 22	11 13.50	+4 53.1	1.734	2.711	5.2	21.1	3 22	11 11.22	+11 30.2	1.637	2.602	6.9	18.2
4 1	11 6.43	+5 40.9	1.787	2.721	9.3	21.4	4 1	11 2.16	+12 2.6	1.674	2.589	11.1	18.4
4 11	11 1.25	+6 16.4	1.864	2.730	12.8	21.6	4 11	10 55.19	+12 17.7	1.735	2.575	14.8	18.6
16419	Kovalev		3 10.4 158°87	1°6/ 9.0	18		198988	2005 <i>VN</i> ₉₉		3 10.4 156°17	3°5/13.2	18	
2 1	11 52.88	+5 45.5	1.772	2.566	15.7	18.6	2 1	11 52.61	-6 36.4	1.728	2.479	17.7	20.8
2 11	11 48.15	+6 17.2	1.692	2.572	12.3	18.4	2 11	11 48.10	-6 48.0	1.641	2.486	14.5	20.6
2 21	11 40.86	+7 0.8	1.633	2.577	8.2	18.2	2 21	11 40.94	-6 39.4	1.574	2.492	10.7	20.3
3 2	11 31.62	+7 51.2	1.600	2.582	3.8	17.9	3 2	11 31.72	-6 10.8	1.532	2.497	6.5	20.1
3 12	11 21.44	+8 41.2	1.596	2.586	2.2	17.8	3 12	11 21.45	-5 25.8	1.516	2.502	3.5	19.9
3 22	11 11.47	+9 24.1	1.620	2.590	6.4	18.1	3 22	11 11.31	-4 30.5	1.528	2.506	5.6	20.1
4 1	11 2.83	+9 54.4	1.671	2.593	10.6	18.4	4 1	11 2.49	-3 32.5	1.568	2.510	9.6	20.3
4 11	10 56.37	+10 9.1	1.746	2.595	14.4	18.6	4 11	10 55.90	-2 39.3	1.632	2.513	13.5	20.5
369771	2012 <i>GR</i> ₁₃		3 10.4 345°07	2°6/ 7.7	18		326690	2002 <i>XY</i> ₁₀₇		3 10.4 32°07	12°1/28.8	18	
2 1	11 42.11	+4 13.1	1.572	2.389	16.3	20.3	2 1	11 48.26	+27 42.8	1.286	2.129	17.7	19.7
2 11	11 40.16	+5 37.7	1.489	2.385	12.6	20.0	2 11	11 45.52	+29 47.4	1.252	2.144	14.8	19.6
2 21	11 35.70	+7 21.8	1.429	2.381	8.3	19.7	2 21	11 39.46	+31 41.7	1.239	2.160	12.7	19.5
3 2	11 29.30	+9 17.7	1.395	2.378	3.9	19.5	3 2	11 31.00	+33 10.8	1.248	2.176	12.1	19.5
3 12	11 21.89	+11 14.1	1.387	2.375	3.4	19.4	3 12	11 21.63	+34 3.1	1.280	2.194	13.4	19.6
3 22	11 14.59	+12 59.6	1.407	2.373	7.7	19.7	3 22	11 12.91	+34 14.1	1.333	2.212	15.7	19.8
4 1	11 8.51	+14 24.8	1.452	2.371	12.1	19.9	4 1	11 6.21	+33 45.6	1.405	2.231	18.3	20.0
4 11	11 4.53	+15 24.5	1.519	2.369	16.1	20.2	4 11	11 2.33	+32 43.8	1.494	2.251	20.6	20.3
417595	2006 <i>VS</i> ₉₄		3 10.4 32°51	4°8/ 6.7	18		464966	2005 <i>WQ</i> ₁₆₅		3 10.4 163°39	2°3/ 7.9	16	
2 1	11 47.53	+11 43.3	1.329	2.164	17.8	20.8	2 1	11 49.00	+8 27.9	2.263	3.056	12.8	22.6
2 11	11 44.59	+12 39.7	1.274	2.177	13.7	20.6	2 11	11 44.59	+9 13.8	2.179	3.061	9.8	22.4
2 21	11 38.70	+13 44.8	1.238	2.191	9.2	20.4	2 21	11 38.19	+10 7.9	2.120	3.066	6.5	22.2
3 2	11 30.63	+14 49.2	1.227	2.206	5.4	20.2	3 2	11 30.32	+11 5.1	2.089	3.070	3.3	22.0
3 12	11 21.66	+15 42.3	1.241	2.221	5.6	20.3	3 12	11 21.75	+11 59.1	2.087	3.073	2.8	21.9
3 22	11 13.14	+16 16.5	1.280	2.237	9.3	20.5	3 22	11 13.33	+12 44.5	2.115	3.076	5.9	22.1
4 1	11 6.34	+16 27.4	1.342	2.254	13.4	20.8	4 1	11 5.89	+13 17.0	2.171	3.078	9.3	22.3
4 11	11 2.07	+16 14.8	1.424	2.272	17.1	21.1	4 11	11 0.10	+13 34.5	2.251	3.080	12.3	22.5
206331	2003 <i>OK</i> ₈		3 10.4 186°03	0°1/10.5	18		60784	2000 <i>GC</i> ₁₇₈		3 10.4 288°26	4°0/13.2	18	
2 1	11 51.39	+1 18.2	1.971	2.747	15.0	21.0	2 1	11 47.64	-6 28.6	1.454	2.229	19.4	19.1
2 11	11 46.81	+1 37.1	1.879	2.747	11.9	20.8	2 11	11 45.02	-6 46.9	1.352	2.211	16.1	18.9
2 21	11 39.90	+2 10.0	1.809	2.747	8.1	20.5	2 21	11 39.41	-6 42.1	1.268	2.193	12.0	18.5
3 2	11 31.18	+2 53.6	1.765	2.745	3.8	20.3	3 2	11 31.25	-6 13.1	1.206	2.174	7.5	18.2
3 12	11 21.53	+3 42.6	1.750	2.744	0.7	20.0	3 12	11 21.52	-5 22.8	1.169	2.156	4.1	18.0
3 22	11 11.98	+4 30.9	1.765	2.741	5.2	20.4	3 22	11 11.58	-4 17.5	1.157	2.137	6.5	18.1
4 1	11 3.54	+5 12.6	1.807	2.738	9.4	20.6	4 1	11 2.90	-3 7.0	1.170	2.119	11.4	18.3
4 11	10 57.03	+5 43.2	1.874	2.734	13.0	20.8	4 11	10 56.71	-2 1.4	1.206	2.101	16.2	18.5
461431	2001 <i>VR</i> ₂₁		3 10.4 174°37	10°6/25.4	18		371944	2008 <i>EW</i> ₁₄₀		3 10.4 298°54	0°0/10.4	17	
2 1	11 59.40	+39 45.9	2.448	3.215	12.6	21.7	2 1	11 53.50	+4 13.4	1.665	2.457	16.7	20.9
2 11	11 52.93	+41 15.3	2.401	3.218	11.4	21.6	2 11	11 49.08	+3 54.0	1.566	2.444	13.3	20.7
2 21	11 43.87	+42 31.0	2.377	3.221	10.7	21.6	2 21	11 41.82	+3 44.6	1.489	2.431	9.1	20.4
3 2	11 32.93	+43 23.9	2.378	3.223	10.7	21.6	3 2	11 32.23	+3 42.9	1.437	2.418	4.3	20.1
3 12	11 21.23	+43 47.9	2.404	3.224	11.5	21.7	3 12	11 21.35	+3 44.8	1.411	2.405	0.8	19.8
3 22	11 9.94	+43 40.6	2.452	3.225	12.8	21.7	3 22	11 10.44	+3 45.7	1.414	2.392	6.0	20.1
4 1	11 0.18	+43 3.3	2.522	3.225	14.3	21.9	4 1	11 0.81	+3 41.4	1.444	2.380	10.8	20.4
4 11	10 52.71	+42 0.5	2.609	3.224	15.7	22.0	4 11	10 53.52	+3 28.3	1.496	2.367	15.1	20.6
394834	2008 <i>SF</i> ₁₆₃		3 10.4 249°65	0°4/ 9.9	17		107235	2001 <i>BR</i> ₅₄		3 10.4 53°39	3°9/13.7	18	
2 1	11 49.12	+0 50.4	1.665	2.45									

EPHEMERIDES

3 10.4

3 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
247423	2002 CW ₂₈₇		3 10.4 230°50	1°9/12.5	18		231158	2005 UW ₆₆		3 10.4 101°82	0°4/9.9	18	
2 1	11 46.22	- 3 41.3	2.654	3.401	12.3	20.7	2 1	11 47.08	+ 0 29.9	2.030	2.810	14.5	21.5
2 11	11 42.22	- 3 45.9	2.551	3.396	9.9	20.5	2 11	11 43.21	+ 1 25.5	1.958	2.829	11.3	21.3
2 21	11 36.53	- 3 38.4	2.471	3.392	7.1	20.3	2 21	11 37.30	+ 2 36.5	1.908	2.848	7.5	21.1
3 2	11 29.55	- 3 19.8	2.417	3.387	4.1	20.1	3 2	11 29.91	+ 3 57.9	1.886	2.867	3.4	20.9
3 12	11 21.91	- 2 52.8	2.393	3.382	1.9	20.0	3 12	11 21.88	+ 5 22.7	1.893	2.885	0.9	20.7
3 22	11 14.29	- 2 20.9	2.399	3.378	3.8	20.1	3 22	11 14.08	+ 6 43.4	1.929	2.903	5.0	21.1
4 1	11 7.42	- 1 48.1	2.434	3.373	6.9	20.3	4 1	11 7.39	+ 7 53.6	1.993	2.921	8.8	21.3
4 11	11 1.88	- 1 18.6	2.495	3.367	9.8	20.5	4 11	11 2.43	+ 8 48.7	2.083	2.938	12.1	21.6
99728	2002 JX ₅₄		3 10.4 287°33	1°5/9.2	17		124943	2001 TW ₇₉		3 10.4 5°85	3°6/13.3	18	
2 1	11 48.10	+ 4 41.4	1.572	2.379	16.8	19.9	2 1	11 44.12	- 7 15.2	1.296	2.084	20.7	19.5
2 11	11 45.06	+ 5 11.8	1.473	2.361	13.2	19.6	2 11	11 42.28	- 7 10.8	1.217	2.084	17.0	19.2
2 21	11 39.22	+ 5 57.9	1.396	2.343	8.9	19.3	2 21	11 37.46	- 6 37.7	1.155	2.084	12.5	19.0
3 2	11 31.07	+ 6 54.8	1.343	2.326	4.1	18.9	3 2	11 30.25	- 5 36.6	1.114	2.085	7.5	18.7
3 12	11 21.58	+ 7 55.0	1.316	2.308	2.1	18.8	3 12	11 21.78	- 4 13.5	1.098	2.086	3.7	18.4
3 22	11 12.01	+ 8 49.9	1.316	2.290	7.0	19.0	3 22	11 13.45	- 2 38.6	1.106	2.089	6.3	18.6
4 1	11 3.68	+ 9 31.8	1.342	2.272	12.0	19.2	4 1	11 6.65	- 1 4.0	1.139	2.091	11.2	18.9
4 11	10 57.65	+ 9 55.6	1.389	2.254	16.4	19.5	4 11	11 2.40	+ 0 18.8	1.193	2.094	15.9	19.2
344834	2004 FH ₈₃		3 10.4 307°30	0°3/10.6	18		58933	1998 ON ₁₀		3 10.4 152°44	0°5/10.9	18	R
2 1	11 46.39	+ 0 4.5	1.271	2.083	19.7	20.7	2 1	11 50.22	- 0 17.1	2.284	3.047	13.6	20.9
2 11	11 44.25	+ 0 26.1	1.185	2.073	15.8	20.4	2 11	11 45.49	+ 0 7.9	2.197	3.057	10.7	20.7
2 21	11 38.95	+ 1 10.7	1.117	2.063	10.9	20.1	2 21	11 38.78	+ 0 46.3	2.134	3.067	7.3	20.5
3 2	11 31.01	+ 2 14.9	1.071	2.053	5.2	19.7	3 2	11 30.62	+ 1 34.9	2.097	3.076	3.6	20.3
3 12	11 21.60	+ 3 30.4	1.050	2.043	0.9	19.4	3 12	11 21.75	+ 2 29.1	2.091	3.084	0.7	20.1
3 22	11 12.18	+ 4 46.6	1.054	2.034	7.0	19.8	3 22	11 13.05	+ 3 23.3	2.114	3.091	4.4	20.4
4 1	11 4.29	+ 5 52.7	1.081	2.025	12.7	20.1	4 1	11 5.32	+ 4 12.3	2.167	3.098	8.0	20.6
4 11	10 59.12	+ 6 40.3	1.129	2.017	17.8	20.3	4 11	10 59.24	+ 4 51.8	2.245	3.103	11.3	20.8
54911	2001 OM ₈₃		3 10.4 108°79	4°6/4.1	18		498892	2008 YB ₁₄₄		3 10.4 176°11	3°2/6.3	17	
2 1	11 47.27	+17 53.9	2.665	3.470	10.7	19.2	2 1	11 44.88	+10 55.5	2.402	3.206	11.8	21.5
2 11	11 42.88	+19 7.6	2.607	3.490	8.3	19.1	2 11	11 41.35	+12 2.6	2.319	3.207	9.1	21.4
2 21	11 36.83	+20 21.8	2.574	3.511	6.1	19.0	2 21	11 36.02	+13 16.9	2.261	3.207	6.1	21.2
3 2	11 29.62	+21 30.6	2.571	3.531	4.7	18.9	3 2	11 29.34	+14 32.3	2.231	3.208	3.6	21.0
3 12	11 21.92	+22 28.1	2.597	3.551	5.3	19.0	3 12	11 22.01	+15 42.3	2.231	3.208	3.8	21.0
3 22	11 14.44	+23 10.2	2.652	3.570	7.2	19.1	3 22	11 14.78	+16 41.2	2.260	3.208	6.5	21.2
4 1	11 7.87	+23 34.6	2.734	3.588	9.5	19.3	4 1	11 8.41	+17 24.6	2.316	3.208	9.5	21.4
4 11	11 2.73	+23 41.2	2.839	3.607	11.6	19.5	4 11	11 3.52	+17 50.6	2.396	3.208	12.2	21.6
345654	2006 TS ₄₁		3 10.4 118°93	2°4/7.3	17		470533	2008 DF ₂₃		3 10.4 68°36	12°5/14.0	16	
2 1	11 46.47	+10 20.5	2.739	3.532	10.8	21.6	2 1	12 14.82	- 8 41.2	0.890	1.658	29.4	20.9
2 11	11 42.21	+11 3.4	2.665	3.546	8.3	21.5	2 11	12 7.88	-11 58.7	0.836	1.678	25.1	20.7
2 21	11 36.37	+11 51.4	2.615	3.560	5.5	21.1	2 21	11 55.66	-14 56.6	0.797	1.699	20.0	20.5
3 2	11 29.41	+12 40.0	2.595	3.573	2.9	21.1	3 2	11 39.00	-17 19.8	0.777	1.720	15.2	20.3
3 12	11 21.96	+13 24.4	2.604	3.587	2.8	21.1	3 12	11 20.13	-18 56.5	0.780	1.740	12.6	20.2
3 22	11 14.69	+14 0.6	2.644	3.599	5.3	21.3	3 22	11 1.94	-19 43.8	0.806	1.761	13.7	20.3
4 1	11 8.22	+14 25.6	2.712	3.612	8.0	21.5	4 1	10 47.13	-19 50.4	0.854	1.782	17.2	20.6
4 11	11 3.09	+14 37.8	2.805	3.624	10.4	21.7	4 11	10 37.29	-19 33.2	0.920	1.802	21.2	20.9
26591	Robertreeves		3 10.4 246°39	1°5/8.9	18		456829	2007 TE ₄₂₇		3 10.4 39°05	1°9/8.9	16	
2 1	11 48.09	+ 4 58.5	1.927	2.723	14.6	18.3	2 1	11 48.46	+ 5 28.9	1.292	2.115	18.9	21.2
2 11	11 44.41	+ 5 37.4	1.830	2.712	11.4	18.1	2 11	11 45.43	+ 6 0.3	1.231	2.127	14.7	21.0
2 21	11 38.40	+ 6 29.3	1.756	2.701	7.6	17.8	2 21	11 39.37	+ 6 46.9	1.188	2.140	9.7	20.8
3 2	11 30.55	+ 7 29.6	1.708	2.690	3.5	17.5	3 2	11 31.03	+ 7 42.1	1.170	2.153	4.4	20.5
3 12	11 21.72	+ 8 31.4	1.688	2.679	2.0	17.4	3 12	11 21.69	+ 8 36.6	1.176	2.167	2.6	20.4
3 22	11 12.89	+ 9 27.8	1.697	2.667	6.1	17.7	3 22	11 12.77	+ 9 21.5	1.208	2.182	7.5	20.7
4 1	11 5.11	+10 12.4	1.732	2.655	10.3	17.9	4 1	11 5.56	+ 9 50.3	1.264	2.197	12.3	21.1
4 11	10 59.22	+10 41.3	1.791	2.642	14.0	18.1	4 11	11 0.97	+ 9 59.8	1.341	2.213	16.5	21.3
168271	2007 PE ₆		3 10.4 136°83	2°6/8.1	18		175150	2005 EZ ₃₂		3 10.4 317°42	0°3/10.2	17	
2 1	11 55.13	+ 9 38.0	2.005	2.795	14.3	20.4	2 1	11 46.68	+ 2 39.4	1.401	2.213	18.2	20.8
2 11	11 49.50	+10 9.7	1.930	2.810	11.0	20.2	2 11	11 44.24	+ 2 49.7	1.308	2.197	14.5	20.5
2 21	11 41.54	+10 48.4	1.880	2.823	7.4	20.0	2 21	11 38.83	+ 3 17.3	1.235	2.182	9.9	20.2
3 2	11 31.88	+11 28.5	1.856	2.836	3.7	19.8	3 2	11 30.96	+ 3 58.5	1.185	2.167	4.6	19.8
3 12	11 21.49	+12 3.9	1.863	2.848	3.1	19.7	3 12	11 21.67	+ 4 46.6	1.160	2.153	1.1	19.5
3 22	11 11.39	+12 29.3	1.898	2.860	6.4	20.0	3 22	11 12.33	+ 5 33.3	1.160	2.139	6.8	19.9
4 1	11 2.59	+12 41.1	1.962	2.870	10.1	20.2	4 1	11 4.36	+ 6 10.4	1.185	2.126	12.2	20.1
4 11	10 55.80	+12 38.2	2.050	2.880	13.3	20.4	4 11	10 58.90	+ 6 31.9	1.231	2.114	16.9	20.4
204226	2004 CK ₁₀₂		3 10.4 86°04	3°8/14.6	17		10933	1998 DC ₂₄		3 10.4 51°64	1°8/12.3	18	
2 1	11 46.52	- 9 43.4	2.269	2.996	14.7	20.5	2 1	11 44.32	- 6 46.1	1.543	2.318	18.5	17.0
2 11	11 42.68	- 9 54.1	2.184	3.009	12.1	20.3	2 11	11 41.65	- 5 49.4	1.480	2.343	14.8	16.8
2 21	11 36.92	- 9 47.0	2.119	3.021	9.2	20.1	2 21	11 36.52	- 4 26.2	1.437	2.368	10.4	16.6
3 2	11 29.75	- 9 22.4	2.079	3.033	6.1	20.0	3 2	11 29.62	- 2 41.6	1.419	2.393	5.6	16.4
3 12	11 21.89	- 8 43.1	2.067	3.045	3.9	19.9	3 12	11 21.98	- 0 44.5	1.427	2.419	1.8	16.2
3 22	11 14.18	- 7 53.3	2.083	3.058	4.8	19.9	3 22	11 14.70	+ 1 13.6	1.463	2.445	5.2	16.5
4 1	11 7.42	- 6 58.7	2.128	3.070	7.5	20.1	4 1	11 8.80	+ 3 2.1	1.527	2.471	9.7	16.8
4 11	11 2.24	- 6 5.3	2.199	3.082	10.5	20.3	4 11	11 5.00	+ 4 32.8	1.614	2.497	13.6	17.1
255693	2006 QP ₆₂		3 10.4 223°23	1°9/8.5	16		165357	2000 WJ ₇₄		3 10.4 50°21	2°7/1		

EPHEMERIDES

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3 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
91002	1998 <i>BZ</i> ₁₁		3 10.4 54°35'	1.4/11.4	18		166095	2002 <i>CW</i> ₁₄₂		3 10.4 297°70'	3.6/13.1	18	
2 1	11 50.24	- 1 17.7	1.303	2.102	20.0	18.9	2 1	11 47.66	- 5 49.1	1.492	2.268	19.0	20.0
2 11	11 46.72	- 1 12.7	1.243	2.122	15.9	18.7	2 11	11 44.84	- 6 4.3	1.398	2.258	15.6	19.8
2 21	11 40.17	- 0 46.6	1.202	2.142	11.0	18.4	2 21	11 39.15	- 5 57.4	1.323	2.249	11.5	19.5
3 2	11 31.39	- 0 3.1	1.183	2.162	5.6	18.2	3 2	11 31.10	- 5 28.1	1.270	2.239	7.0	19.2
3 12	11 21.64	+ 0 50.7	1.190	2.183	1.4	18.0	3 12	11 21.70	- 4 39.9	1.242	2.230	3.6	19.0
3 22	11 12.36	+ 1 46.1	1.223	2.204	6.1	18.3	3 22	11 12.26	- 3 39.6	1.240	2.221	6.1	19.1
4 1	11 4.83	+ 2 34.5	1.280	2.225	11.1	18.7	4 1	11 4.13	- 2 36.1	1.264	2.212	10.8	19.3
4 11	10 59.94	+ 3 9.6	1.360	2.246	15.4	19.0	4 11	10 58.40	- 1 38.6	1.309	2.203	15.3	19.5
497831	2006 <i>UZ</i> ₂₀		3 10.4 167°39'	3.3/15.1	17		287491	2003 <i>BK</i> ₁₉		3 10.4 63°09'	5.2/6.5	18	
2 1	11 43.96	-11 39.5	2.899	3.603	12.2	22.0	2 1	11 50.65	+11 32.9	1.278	2.110	18.5	20.3
2 11	11 40.34	-11 28.4	2.797	3.607	10.2	21.9	2 11	11 47.22	+12 42.8	1.222	2.123	14.3	20.1
2 21	11 35.20	-11 0.9	2.718	3.610	7.8	21.7	2 21	11 40.61	+14 2.7	1.186	2.137	9.7	19.9
3 2	11 28.93	-10 17.9	2.664	3.612	5.3	21.6	3 2	11 31.64	+15 22.1	1.173	2.151	5.8	19.7
3 12	11 22.11	- 9 21.6	2.639	3.615	3.5	21.4	3 12	11 21.65	+16 29.0	1.186	2.165	6.1	19.7
3 22	11 15.36	- 8 16.0	2.644	3.617	4.0	21.5	3 22	11 12.15	+17 14.3	1.224	2.179	9.9	20.0
4 1	11 9.28	- 7 6.2	2.678	3.618	6.3	21.6	4 1	11 4.49	+17 33.3	1.285	2.194	14.2	20.3
4 11	11 4.41	- 5 57.3	2.741	3.620	8.8	21.8	4 11	10 59.58	+17 26.1	1.366	2.208	18.0	20.5
259144	2002 <i>XW</i> ₈₁		3 10.4 101°53'	7.0/3.4	18		386571	2009 <i>DS</i> ₁₂₉		3 10.4 31°25'	2.1/12.8	17	
2 1	11 51.66	+20 27.9	1.880	2.696	14.1	20.3	2 1	11 42.40	- 6 5.3	2.105	2.864	14.7	21.3
2 11	11 47.02	+21 54.4	1.828	2.714	11.1	20.2	2 11	11 39.68	- 5 37.1	2.017	2.869	11.9	21.1
2 21	11 39.97	+23 20.0	1.799	2.732	8.4	20.0	2 21	11 35.03	- 4 49.9	1.951	2.875	8.5	20.9
3 2	11 31.19	+24 35.2	1.796	2.750	7.0	20.0	3 2	11 28.94	- 3 45.9	1.910	2.881	4.9	20.7
3 12	11 21.70	+25 31.6	1.821	2.767	7.8	20.1	3 12	11 22.15	- 2 30.0	1.897	2.887	2.1	20.5
3 22	11 12.61	+26 3.8	1.873	2.783	10.2	20.2	3 22	11 15.49	- 1 8.9	1.913	2.894	4.3	20.7
4 1	11 4.92	+26 10.2	1.949	2.800	12.9	20.4	4 1	11 9.75	+ 0 10.3	1.957	2.901	7.9	20.9
4 11	10 59.34	+25 52.6	2.046	2.816	15.4	20.6	4 11	11 5.60	+ 1 21.1	2.026	2.908	11.3	21.1
434511	2005 <i>SW</i> ₁₂₆		3 10.4 235°93'	0.2/10.1	17		42646	1998 <i>FF</i> ₆₉		3 10.4 12°95'	0.2/10.6	18	
2 1	11 45.01	+ 2 35.3	2.748	3.522	11.3	22.0	2 1	11 45.63	+ 0 44.2	1.279	2.094	19.5	18.7
2 11	11 41.25	+ 2 59.7	2.644	3.513	8.8	21.8	2 11	11 43.42	+ 1 1.4	1.206	2.096	15.4	18.5
2 21	11 35.87	+ 3 33.9	2.565	3.504	5.9	21.6	2 21	11 38.20	+ 1 39.3	1.152	2.099	10.5	18.2
3 2	11 29.28	+ 4 15.0	2.514	3.495	2.7	21.4	3 2	11 30.60	+ 2 33.7	1.121	2.103	5.0	17.9
3 12	11 22.06	+ 4 59.3	2.492	3.485	0.7	21.2	3 12	11 21.83	+ 3 36.4	1.114	2.107	0.9	17.6
3 22	11 14.85	+ 5 42.3	2.501	3.475	4.0	21.5	3 22	11 13.29	+ 4 37.9	1.132	2.112	6.6	18.0
4 1	11 8.35	+ 6 20.1	2.538	3.465	7.2	21.6	4 1	11 6.34	+ 5 29.0	1.174	2.118	11.9	18.3
4 11	11 3.10	+ 6 49.2	2.602	3.455	10.1	21.8	4 11	11 1.97	+ 6 3.2	1.237	2.125	16.5	18.6
121304	1999 <i>RA</i> ₂₀₆		3 10.4 209°60'	2.3/12.9	17		429945	2012 <i>UP</i> ₈		3 10.4 199°79'	0.9/11.5	17	
2 1	11 48.53	- 5 14.8	2.553	3.291	12.9	20.4	2 1	11 43.94	- 2 39.8	2.411	3.173	13.0	21.6
2 11	11 44.15	- 5 15.6	2.446	3.284	10.5	20.2	2 11	11 40.64	- 2 4.6	2.314	3.172	10.3	21.4
2 21	11 37.92	- 5 2.5	2.361	3.277	7.7	20.0	2 21	11 35.58	- 1 14.1	2.240	3.170	7.2	21.2
3 2	11 30.27	- 4 36.5	2.303	3.270	4.6	19.8	3 2	11 29.18	- 0 11.1	2.192	3.169	3.7	21.0
3 12	11 21.87	- 4 0.1	2.274	3.262	2.3	19.6	3 12	11 22.12	+ 0 59.6	2.174	3.167	0.9	20.7
3 22	11 13.46	- 3 17.4	2.275	3.253	4.0	19.7	3 22	11 15.11	+ 2 12.4	2.186	3.165	4.0	21.0
4 1	11 5.83	- 2 33.1	2.306	3.244	7.2	19.9	4 1	11 8.90	+ 3 21.3	2.226	3.162	7.6	21.2
4 11	10 59.64	- 1 51.9	2.363	3.234	10.3	20.1	4 11	11 4.11	+ 4 21.1	2.293	3.160	10.7	21.4
288595	2004 <i>JP</i> ₂₇		3 10.4 249°87'	5.8/2.6	17		464155	2014 <i>YW</i> ₃₅		3 10.4 86°89'	0.3/10.7	18	
2 1	11 47.71	+22 35.5	2.688	3.494	10.6	20.6	2 1	11 48.75	+ 1 3.7	1.817	2.602	15.7	21.5
2 11	11 43.50	+23 40.2	2.602	3.481	8.5	20.5	2 11	11 44.91	+ 1 17.7	1.735	2.608	12.4	21.3
2 21	11 37.46	+24 43.9	2.541	3.467	6.7	20.3	2 21	11 38.70	+ 1 46.4	1.675	2.614	8.5	21.1
3 2	11 30.04	+25 40.3	2.507	3.453	5.8	20.2	3 2	11 30.71	+ 2 26.3	1.640	2.620	4.0	20.8
3 12	11 21.92	+26 23.4	2.503	3.439	6.5	20.3	3 12	11 21.84	+ 3 12.1	1.633	2.626	0.7	20.6
3 22	11 13.86	+26 49.0	2.526	3.424	8.4	20.4	3 22	11 13.16	+ 3 57.3	1.654	2.632	5.2	20.9
4 1	11 6.65	+26 55.0	2.575	3.410	10.6	20.5	4 1	11 5.67	+ 4 36.0	1.702	2.638	9.5	21.2
4 11	11 0.90	+26 41.4	2.646	3.395	12.7	20.6	4 11	11 0.17	+ 5 3.6	1.774	2.644	13.2	21.4
82261	2001 <i>KZ</i> ₁₂		3 10.4 293°08'	0.3/10.1	18		380645	2004 <i>XA</i> ₁₃₈		3 10.4 189°61'	2.5/7.3	17	
2 1	11 47.35	+ 0 48.8	1.363	2.171	18.9	19.6	2 1	11 47.66	+ 9 44.3	2.636	3.427	11.2	22.0
2 11	11 44.72	+ 1 24.4	1.280	2.167	14.9	19.3	2 11	11 43.35	+10 35.7	2.545	3.426	8.6	21.8
2 21	11 39.10	+ 2 21.7	1.217	2.163	10.2	19.1	2 21	11 37.31	+11 33.9	2.480	3.424	5.8	21.6
3 2	11 31.05	+ 3 36.2	1.176	2.159	4.7	18.7	3 2	11 29.98	+12 34.0	2.443	3.422	3.1	21.4
3 12	11 21.71	+ 4 59.0	1.162	2.155	1.1	18.5	3 12	11 22.00	+13 30.5	2.437	3.419	3.0	21.4
3 22	11 12.46	+ 6 19.3	1.173	2.151	6.9	18.8	3 22	11 14.11	+14 18.6	2.460	3.415	5.6	21.6
4 1	11 4.71	+ 7 27.1	1.209	2.147	12.2	19.1	4 1	11 7.01	+14 54.4	2.512	3.411	8.6	21.8
4 11	10 59.51	+ 8 15.2	1.266	2.144	16.9	19.4	4 11	11 1.31	+15 15.8	2.590	3.406	11.2	21.9
377130	2003 <i>GX</i> ₃₄		3 10.4 267°78'	5.6/4.0	17		210982	2001 <i>VZ</i> ₁₂₅		3 10.4 123°31'	1.4/12.2	18	
2 1	11 48.18	+16 36.6	2.134	2.947	12.8	20.6	2 1	11 45.28	- 3 35.4	2.657	3.407	12.2	21.3
2 11	11 44.45	+17 57.2	2.034	2.923	10.1	20.4	2 11	11 41.42	- 3 17.3	2.569	3.418	9.7	21.2
2 21	11 38.46	+19 23.7	1.959	2.899	7.3	20.2	2 21	11 35.96	- 2 46.1	2.504	3.428	6.9	21.0
3 2	11 30.64	+20 48.3	1.910	2.875	5.6	20.1	3 2	11 29.33	- 2 3.8	2.466	3.439	3.8	20.8
3 12	11 21.79	+22 2.2	1.891	2.850	6.4	20.2	3 12	11 22.14	- 1 14.1	2.458	3.449	1.4	20.6
3 22	11 12.86	+22 58.3	1.899	2.824	9.2	20.2	3 22	11 15.08	- 0 21.3	2.480	3.459	3.6	20.8
4 1	11 4.86	+23 31.8	1.933	2.798	12.3	20.3	4 1	11 8.80	+ 0 29.8	2.531	3.469	6.7	21.0
4 11	10 58.65	+23 41.3	1.988	2.772	15.3	20.4	4 11	11 3.84	+ 1 15.0	2.609	3.478	9.5	21.2
426200	2012 <i>KU</i> ₂		3 10.4 319°28'	1.6/8.9	17		412104	2013 <i>GK</i> ₆		3 10.4 237°81'			

EPHEMERIDES

3 10.4

3 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
114437	2003 AR ₁₂		3 10.4 149°58	3°3/ 6.3 18			368229	2001 TV ₂₁₇		3 10.4 151°91	5°6/16.5 16		
2 1	11 48.95	+10 41.0	2.405	3.200	12.0	20.2	2 1	11 47.39	-15 10.8	2.124	2.823	16.3	21.8
2 11	11 44.45	+11 58.8	2.329	3.212	9.2	20.0	2 11	11 43.67	-15 21.4	2.029	2.828	13.9	21.6
2 21	11 38.08	+13 23.7	2.279	3.223	6.2	19.8	2 21	11 37.82	-15 9.3	1.955	2.834	11.0	21.4
3 2	11 30.34	+14 49.3	2.258	3.234	3.7	19.7	3 2	11 30.32	-14 33.5	1.903	2.838	8.1	21.2
3 12	11 21.96	+16 8.6	2.268	3.244	3.9	19.7	3 12	11 22.00	-13 35.8	1.878	2.843	5.9	21.1
3 22	11 13.75	+17 15.4	2.307	3.253	6.6	19.9	3 22	11 13.75	-12 21.3	1.881	2.847	6.0	21.1
4 1	11 6.48	+18 5.6	2.375	3.261	9.5	20.1	4 1	11 6.50	-10 57.0	1.911	2.851	8.4	21.3
4 11	11 0.78	+18 37.5	2.466	3.268	12.2	20.3	4 11	11 1.01	-9 31.3	1.968	2.854	11.3	21.4
291207	2006 AB ₈₂		3 10.4 166°03	1°3/11.8 17			272918	2006 BX ₁₈₅		3 10.4 239°09	0°0/10.3 17		
2 1	11 47.36	-2 45.1	2.221	2.981	14.0	21.6	2 1	11 45.94	+0 59.8	2.089	2.870	14.1	21.3
2 11	11 43.44	-2 27.7	2.128	2.984	11.2	21.4	2 11	11 42.53	+1 32.1	1.994	2.866	11.1	21.1
2 21	11 37.54	-1 55.1	2.058	2.987	7.9	21.2	2 21	11 37.05	+2 18.9	1.921	2.861	7.5	20.8
3 2	11 30.14	-1 9.5	2.014	2.989	4.2	21.0	3 2	11 29.97	+3 16.7	1.875	2.856	3.5	20.6
3 12	11 21.99	-0 15.3	1.999	2.991	1.3	20.8	3 12	11 22.06	+4 19.9	1.857	2.850	0.7	20.3
3 22	11 13.94	+0 42.0	2.014	2.993	4.3	21.0	3 22	11 14.21	+5 22.1	1.868	2.845	4.9	20.6
4 1	11 6.82	+1 36.6	2.057	2.994	8.0	21.2	4 1	11 7.30	+6 17.2	1.908	2.840	8.9	20.9
4 11	11 1.32	+2 23.4	2.125	2.995	11.3	21.4	4 11	11 2.07	+7 0.3	1.971	2.834	12.4	21.1
160941	2002 AM ₉		3 10.4 69°42	5°3/16.1 17			433069	2012 TX ₃₁		3 10.4 152°79	2°5/13.8 17		
2 1	11 47.52	-13 32.6	2.461	3.158	14.4	19.9	2 1	11 44.64	-8 20.7	2.722	3.448	12.5	22.0
2 11	11 43.45	-14 11.5	2.365	3.162	12.2	19.7	2 11	11 40.95	-8 1.6	2.626	3.454	10.2	21.8
2 21	11 37.50	-14 33.4	2.290	3.167	9.7	19.5	2 21	11 35.68	-7 26.6	2.552	3.460	7.5	21.7
3 2	11 30.12	-14 37.1	2.240	3.172	7.2	19.4	3 2	11 29.24	-6 37.2	2.505	3.466	4.7	21.5
3 12	11 22.00	-14 23.4	2.217	3.177	5.5	19.3	3 12	11 22.22	-5 36.6	2.486	3.471	2.6	21.4
3 22	11 13.92	-13 54.9	2.221	3.182	5.7	19.3	3 22	11 15.28	-4 29.2	2.498	3.476	3.7	21.4
4 1	11 6.69	-13 16.1	2.254	3.187	7.6	19.4	4 1	11 9.08	-3 20.4	2.540	3.480	6.5	21.6
4 11	11 0.96	-12 32.6	2.313	3.192	10.1	19.6	4 11	11 4.16	-2 15.4	2.609	3.485	9.3	21.8
267294	2001 SX ₁₇₆		3 10.4 146°63	1°2/12.0 18			310744	2002 QH ₁₁₀		3 10.4 283°28	2°0/11.9 17		
2 1	11 47.43	-4 56.4	2.587	3.328	12.7	21.9	2 1	11 48.76	-2 25.6	1.650	2.430	17.3	21.3
2 11	11 43.12	-4 9.4	2.498	3.341	10.2	21.8	2 11	11 45.41	-2 30.5	1.554	2.420	14.0	21.1
2 21	11 37.12	-3 6.5	2.431	3.354	7.1	21.6	2 21	11 39.40	-2 17.3	1.478	2.411	10.0	20.8
3 2	11 29.88	-1 50.5	2.393	3.366	3.8	21.4	3 2	11 31.21	-1 47.4	1.426	2.402	5.4	20.5
3 12	11 22.06	-0 26.4	2.385	3.377	1.2	21.2	3 12	11 21.83	-1 5.1	1.401	2.392	2.0	20.3
3 22	11 14.38	+1 0.0	2.409	3.387	3.8	21.4	3 22	11 12.42	-0 16.7	1.402	2.383	5.5	20.5
4 1	11 7.53	+2 22.6	2.463	3.397	7.0	21.6	4 1	11 4.22	+0 30.4	1.430	2.374	10.2	20.7
4 11	11 2.08	+3 36.0	2.544	3.405	10.0	21.8	4 11	10 58.22	+1 9.4	1.481	2.365	14.5	20.9
57853	2001 XG ₉₈		3 10.4 186°89	1°8/ 8.4 18			246944	1999 RD ₁₀₉		3 10.4 181°99	1°0/11.8 17		
2 1	11 49.57	+7 16.2	2.463	3.248	12.1	19.7	2 1	11 46.57	-3 8.3	2.849	3.593	11.6	21.8
2 11	11 44.95	+7 54.9	2.371	3.247	9.4	19.6	2 11	11 42.38	-2 38.2	2.747	3.595	9.2	21.6
2 21	11 38.46	+8 41.9	2.303	3.246	6.2	19.4	2 21	11 36.61	-1 55.0	2.670	3.595	6.5	21.4
3 2	11 30.55	+9 32.8	2.264	3.245	3.0	19.1	3 2	11 29.67	-1 1.1	2.621	3.595	3.4	21.2
3 12	11 21.94	+10 22.3	2.254	3.242	2.2	19.1	3 12	11 22.14	-0 0.2	2.602	3.594	1.0	21.0
3 22	11 13.42	+11 5.4	2.275	3.239	5.3	19.3	3 22	11 14.66	+1 3.1	2.614	3.592	3.5	21.2
4 1	11 5.77	+11 37.9	2.325	3.236	8.6	19.5	4 1	11 7.88	+2 4.1	2.656	3.590	6.6	21.4
4 11	10 59.65	+11 57.4	2.399	3.231	11.5	19.7	4 11	11 2.35	+2 58.3	2.726	3.586	9.4	21.6
239111	2006 HQ ₈₀		3 10.4 229°25	4°8/16.4 17			352119	2007 EO ₁₃₉		3 10.4 260°21	3°1/ 7.9 17		
2 1	11 45.12	-14 54.6	2.556	3.247	14.0	21.4	2 1	11 51.33	+8 14.4	1.544	2.356	16.8	22.0
2 11	11 41.62	-14 57.5	2.444	3.238	12.0	21.2	2 11	11 47.72	+8 58.3	1.449	2.340	13.2	21.7
2 21	11 36.31	-14 40.8	2.352	3.228	9.5	21.0	2 21	11 41.13	+9 55.7	1.376	2.325	8.9	21.4
3 2	11 29.59	-14 4.0	2.284	3.219	7.0	20.8	3 2	11 32.09	+10 59.8	1.327	2.309	4.5	21.1
3 12	11 22.11	-13 8.5	2.243	3.208	5.1	20.7	3 12	11 21.66	+12 1.6	1.305	2.292	3.8	21.0
3 22	11 14.61	-11 58.2	2.232	3.198	5.2	20.7	3 22	11 11.16	+12 51.8	1.310	2.275	8.2	21.2
4 1	11 7.85	-10 38.9	2.249	3.187	7.4	20.8	4 1	11 2.01	+13 23.5	1.340	2.258	13.0	21.5
4 11	11 2.49	-9 17.4	2.292	3.176	10.1	21.0	4 11	10 55.31	+13 33.4	1.391	2.241	17.3	21.7
226007	2002 ED ₁₉		3 10.4 358°72	7°7/16.9 18			269955	2000 SR ₂₁₈		3 10.4 183°54	0°4/ 9.9 16		
2 1	11 44.83	-15 4.2	1.612	2.341	19.6	19.4	2 1	11 46.46	+0 54.0	2.602	3.369	12.0	21.5
2 11	11 42.44	-15 56.7	1.523	2.339	16.9	19.2	2 11	11 42.46	+1 48.0	2.505	3.370	9.4	21.4
2 21	11 37.42	-16 24.0	1.452	2.337	13.8	18.9	2 21	11 36.75	+2 55.0	2.432	3.370	6.3	21.2
3 2	11 30.27	-16 22.7	1.402	2.336	10.5	18.7	3 2	11 29.76	+4 11.2	2.388	3.369	2.9	20.9
3 12	11 21.97	-15 52.7	1.375	2.336	8.1	18.6	3 12	11 22.13	+5 31.2	2.375	3.368	0.8	20.8
3 22	11 13.69	-14 58.3	1.373	2.337	8.1	18.6	3 22	11 14.55	+6 49.2	2.392	3.365	4.3	21.0
4 1	11 6.65	-13 47.3	1.396	2.338	10.5	18.7	4 1	11 7.75	+7 59.5	2.440	3.363	7.7	21.2
4 11	11 1.82	-12 30.0	1.441	2.341	13.8	18.9	4 11	11 2.31	+8 58.0	2.513	3.359	10.6	21.4
142852	2002 VM ₂₄		3 10.4 73°25	0°8/ 9.7 18			26021	4177 P-L		3 10.4 292°81	1°4/11.4 18 R		
2 1	11 49.34	+3 3.8	1.648	2.446	16.6	20.2	2 1	11 50.60	-0 4.4	1.624	2.410	17.3	19.1
2 11	11 45.47	+3 36.4	1.581	2.463	12.9	20.0	2 11	11 46.90	-0 17.6	1.528	2.400	13.9	18.8
2 21	11 39.10	+4 23.8	1.536	2.480	8.6	19.8	2 21	11 40.43	-0 15.6	1.453	2.390	9.8	18.5
3 2	11 30.89	+5 20.6	1.516	2.498	3.9	19.5	3 2	11 31.72	+0 0.0	1.402	2.380	5.1	18.2
3 12	11 21.89	+6 19.5	1.523	2.515	1.4	19.4	3 12	11 21.74	+0 25.2	1.378	2.370	1.4	18.0
3 22	11 13.22	+7 13.1	1.558	2.533	5.9	19.7	3 22	11 11.75	+0 54.2	1.380	2.361	5.7	18.2
4 1	11 5.94	+7 55.2	1.619	2.550	10.3	20.0	4 1	11 3.01	+1 20.8	1.409	2.351	10.5	18.5
4 11	11 0.81	+8 21.8	1.703	2.567	14.0	20.3	4 11	10 56.56	+1 39.3	1.461	2.342	14.9	18.7
206797	2004 DL ₃₇		3 10.4 21°24	3°0/ 8.4 18			36403	2000 OW ₄₇		3 10.4 223°95	0°2/10.2 17		
2 1	11 53.84	+12 20.6	1.682	2.492	15.8	19.5	2 1	11 51.81	+2 2.1	2.077	2.851	14.4	

EPHEMERIDES

3 10.4

3 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
277456	2005 <i>UQ</i> ₅₁₂		3 10.4 178°98	2°1/ 8.0 16			458921	2011 <i>UL</i> ₂₇₉		3 10.4 184°79	4°0/ 6.8 18		
2 1	11 49.91	+ 8 36.0	2.506	3.292	11.9	22.1	2 1	11 52.99	+12 8.4	1.866	2.670	14.6	21.9
2 11	11 45.17	+ 9 17.2	2.417	3.294	9.2	21.9	2 11	11 48.28	+13 0.6	1.784	2.671	11.4	21.7
2 21	11 38.58	+10 5.5	2.352	3.296	6.1	21.7	2 21	11 41.05	+14 0.0	1.726	2.671	7.8	21.5
3 2	11 30.62	+10 56.5	2.316	3.296	3.1	21.5	3 2	11 31.90	+14 59.3	1.694	2.670	4.6	21.3
3 12	11 21.98	+11 44.9	2.311	3.296	2.6	21.5	3 12	11 21.80	+15 50.7	1.690	2.669	4.7	21.3
3 22	11 13.45	+12 25.6	2.335	3.296	5.5	21.7	3 22	11 11.87	+16 27.5	1.715	2.667	7.9	21.5
4 1	11 5.80	+12 55.0	2.388	3.294	8.6	21.9	4 1	11 3.21	+16 45.6	1.766	2.664	11.6	21.7
4 11	10 59.66	+13 10.9	2.466	3.292	11.4	22.1	4 11	10 56.66	+16 43.7	1.840	2.661	14.9	21.9
173953	2001 <i>XL</i> ₁₁		3 10.4 162°23	4°2/16.2 17			381199	2007 <i>RT</i> ₄₅		3 10.4 135°01	1°2/11.8 17		
2 1	11 47.22	-14 8.2	3.158	3.834	11.8	21.3	2 1	11 48.70	- 1 35.7	2.532	3.286	12.6	21.3
2 11	11 42.77	-14 26.6	3.056	3.840	10.0	21.2	2 11	11 44.18	- 1 34.0	2.443	3.295	10.1	21.2
2 21	11 36.82	-14 30.3	2.976	3.846	8.0	21.1	2 21	11 37.89	- 1 20.7	2.377	3.304	7.0	21.0
3 2	11 29.77	-14 19.0	2.921	3.851	5.9	20.9	3 2	11 30.31	- 0 57.5	2.338	3.313	3.7	20.8
3 12	11 22.15	-13 53.8	2.895	3.855	4.4	20.8	3 12	11 22.11	- 0 27.8	2.329	3.321	1.2	20.6
3 22	11 14.58	-13 17.3	2.899	3.860	4.6	20.8	3 22	11 14.03	+ 0 4.8	2.350	3.329	3.8	20.8
4 1	11 7.66	-12 33.1	2.933	3.863	6.2	21.0	4 1	11 6.81	+ 0 35.8	2.401	3.337	7.1	21.0
4 11	11 1.91	-11 45.7	2.993	3.866	8.3	21.1	4 11	11 1.03	+ 1 1.7	2.477	3.344	10.0	21.2
160293	2003 <i>DK</i> ₂₄		3 10.4 325°75	10°4/28.3 18			55715	3536 <i>T</i> ₋₃		3 10.4 134°64	2°2/ 8.4 18		
2 1	11 42.06	+22 8.3	1.379	2.229	16.3	18.9	2 1	11 51.30	+ 7 53.1	2.009	2.803	14.1	20.7
2 11	11 40.95	+24 22.8	1.302	2.206	13.4	18.7	2 11	11 46.65	+ 8 28.5	1.932	2.813	10.9	20.5
2 21	11 36.82	+26 42.7	1.246	2.183	11.1	18.5	2 21	11 39.76	+ 9 12.7	1.878	2.823	7.3	20.3
3 2	11 30.15	+28 52.9	1.215	2.161	10.5	18.4	3 2	11 31.23	+10 0.4	1.851	2.832	3.5	20.0
3 12	11 22.04	+30 37.6	1.208	2.139	12.3	18.4	3 12	11 21.94	+10 45.4	1.852	2.840	2.7	20.0
3 22	11 13.91	+31 45.3	1.222	2.119	15.5	18.5	3 22	11 12.88	+11 21.8	1.883	2.849	6.1	20.2
4 1	11 7.25	+32 10.6	1.256	2.100	19.0	18.7	4 1	11 4.98	+11 45.6	1.942	2.856	9.8	20.5
4 11	11 3.20	+31 55.1	1.306	2.082	22.2	18.8	4 11	10 58.98	+11 54.4	2.024	2.864	13.0	20.7
377864	2006 <i>BZ</i> ₂₅₄		3 10.4 3°83	0°4/10.0 17			340125	2005 <i>XH</i> ₅		3 10.4 293°08	9°6/15.2 17		
2 1	11 45.49	+ 1 47.6	1.895	2.686	14.9	21.3	2 1	12 1.19	-16 47.7	2.081	2.743	17.6	19.9
2 11	11 42.36	+ 2 23.1	1.808	2.686	11.7	21.0	2 11	11 55.30	-18 48.3	1.955	2.717	15.6	19.7
2 21	11 37.02	+ 3 13.8	1.743	2.686	7.9	20.8	2 21	11 46.39	-20 36.7	1.849	2.691	13.3	19.5
3 2	11 30.00	+ 4 15.5	1.704	2.686	3.6	20.5	3 2	11 34.75	-22 6.4	1.767	2.665	11.1	19.3
3 12	11 22.12	+ 5 21.6	1.694	2.687	1.0	20.3	3 12	11 21.21	-23 11.9	1.713	2.639	9.7	19.1
3 22	11 14.36	+ 6 25.2	1.711	2.687	5.4	20.7	3 22	11 6.98	-23 50.1	1.686	2.612	10.1	19.1
4 1	11 7.66	+ 7 19.5	1.755	2.687	9.5	20.9	4 1	10 53.50	-24 2.3	1.688	2.586	12.0	19.1
4 11	11 2.78	+ 7 59.9	1.823	2.688	13.1	21.1	4 11	10 42.09	-23 54.4	1.714	2.560	14.7	19.2
309222	2007 <i>PU</i> ₂₁		3 10.4 107°84	2°5/ 7.6 18			303832	2005 <i>SB</i> ₁₃₀		3 10.4 236°47	1°9/13.2 18		
2 1	11 49.01	+ 3 25.2	1.833	2.625	15.3	20.8	2 1	11 43.83	- 6 52.5	3.114	3.841	11.0	21.7
2 11	11 44.98	+ 5 16.9	1.767	2.649	11.8	20.6	2 11	11 40.25	- 6 28.9	2.995	3.826	9.0	21.5
2 21	11 38.67	+ 7 25.2	1.725	2.671	7.7	20.4	2 21	11 35.22	- 5 51.3	2.899	3.811	6.6	21.3
3 2	11 30.70	+ 9 41.4	1.712	2.693	3.6	20.2	3 2	11 29.08	- 5 1.2	2.830	3.795	4.0	21.1
3 12	11 22.01	+11 54.1	1.728	2.715	3.2	20.2	3 12	11 22.34	- 4 1.2	2.791	3.778	2.0	21.0
3 22	11 13.61	+13 53.0	1.775	2.735	7.0	20.4	3 22	11 15.57	- 2 55.4	2.783	3.761	3.3	21.0
4 1	11 6.46	+15 30.3	1.850	2.755	10.8	20.7	4 1	11 9.37	- 1 48.4	2.805	3.744	6.1	21.2
4 11	11 1.26	+16 42.4	1.949	2.774	14.0	21.0	4 11	11 4.25	- 0 44.8	2.856	3.726	8.7	21.3
15958	1998 <i>BE</i> ₃₃		3 10.4 70°05	0°2/10.2 18			235943	2005 <i>EF</i> ₁₄₁		3 10.4 1°89	7°4/16.9 17		
2 1	11 47.87	- 0 27.6	1.771	2.555	16.1	18.6	2 1	11 45.69	-14 54.9	1.757	2.478	18.5	19.4
2 11	11 44.04	+ 0 33.5	1.713	2.586	12.5	18.4	2 11	11 42.90	-15 50.3	1.667	2.477	16.0	19.2
2 21	11 37.98	+ 1 52.1	1.676	2.616	8.4	18.2	2 21	11 37.64	-16 22.8	1.596	2.476	13.0	19.0
3 2	11 30.35	+ 3 22.3	1.666	2.647	3.8	18.0	3 2	11 30.40	-16 29.2	1.545	2.477	9.9	18.9
3 12	11 22.10	+ 4 55.8	1.684	2.677	0.9	17.8	3 12	11 22.08	-16 9.6	1.519	2.478	7.7	18.7
3 22	11 14.23	+ 6 23.8	1.731	2.707	5.3	18.2	3 22	11 13.79	-15 27.4	1.518	2.479	7.7	18.7
4 1	11 7.65	+ 7 39.1	1.806	2.736	9.4	18.5	4 1	11 6.64	-14 29.2	1.542	2.482	10.0	18.9
4 11	11 3.02	+ 8 37.1	1.905	2.766	12.8	18.8	4 11	11 1.54	-13 24.1	1.590	2.485	13.0	19.0
134666	1999 <i>VM</i> ₁₅₆		3 10.4 204°10	0°4/10.8 17			263464	2008 <i>ET</i> ₃₅		3 10.4 195°52	1°2/ 9.1 18		
2 1	11 50.01	- 0 0.7	2.150	2.918	14.2	21.2	2 1	11 47.09	+ 2 57.4	2.104	2.890	13.8	20.6
2 11	11 45.67	+ 0 23.9	2.050	2.913	11.2	21.0	2 11	11 43.42	+ 3 55.5	2.012	2.888	10.8	20.4
2 21	11 39.18	+ 1 3.0	1.973	2.907	7.7	20.7	2 21	11 37.66	+ 5 8.1	1.942	2.885	7.2	20.2
3 2	11 31.01	+ 1 53.6	1.922	2.901	3.8	20.5	3 2	11 30.30	+ 6 30.4	1.900	2.882	3.3	19.9
3 12	11 21.95	+ 2 50.8	1.901	2.894	0.6	20.2	3 12	11 22.12	+ 7 55.3	1.888	2.879	1.7	19.8
3 22	11 12.91	+ 3 48.6	1.909	2.886	4.8	20.5	3 22	11 14.00	+ 9 15.3	1.905	2.875	5.6	20.0
4 1	11 4.83	+ 4 40.9	1.946	2.878	8.8	20.7	4 1	11 6.84	+10 23.7	1.950	2.871	9.4	20.3
4 11	10 58.47	+ 5 22.9	2.008	2.869	12.3	20.9	4 11	11 1.37	+11 16.1	2.019	2.866	12.8	20.5
155149	2005 <i>UE</i> ₆₁		3 10.4 145°60	0°6/10.9 18			498787	2008 <i>UJ</i> ₁₆₈		3 10.4 40°03	1°7/ 8.7 17		
2 1	11 47.98	- 0 26.3	2.065	2.838	14.5	21.1	2 1	11 46.56	+ 6 10.8	2.023	2.821	13.9	21.6
2 11	11 44.07	- 0 3.0	1.978	2.843	11.5	20.9	2 11	11 43.03	+ 6 49.1	1.938	2.823	10.8	21.4
2 21	11 38.05	+ 0 35.1	1.913	2.848	7.9	20.6	2 21	11 37.40	+ 7 38.1	1.877	2.824	7.1	21.1
3 2	11 30.45	+ 1 25.0	1.875	2.853	3.9	20.4	3 2	11 30.16	+ 8 32.8	1.843	2.825	3.3	20.9
3 12	11 22.07	+ 2 21.3	1.865	2.858	0.7	20.2	3 12	11 22.15	+ 9 27.0	1.837	2.826	2.2	20.8
3 22	11 13.82	+ 3 18.1	1.884	2.862	4.7	20.5	3 22	11 14.27	+10 14.5	1.859	2.828	5.8	21.1
4 1	11 6.60	+ 4 9.3	1.931	2.866	8.6	20.7	4 1	11 7.43	+10 50.1	1.909	2.829	9.6	21.3
4 11	11 1.11	+ 4 50.2	2.004	2.870	12.1	20.9	4 11	11 2.33	+11 10.9	1.982	2.831	12.9	21.5
406424	2007 <i>TJ</i> ₁₈₂		3 10.4 152°26	3°6/ 6.7 18			96713	1999 <i>KG</i> ₅		3 10.4 61°17			

EPHEMERIDES

3 10.4

3 10.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
79275	1995 <i>SB</i> ₂₁		3 10.4 119°40	3°8/14.9	18		205848	2002 <i>ER</i> ₄₇		3 10.5 35°94	0°8/11.1	18	
2 1	11 45.48	-10 45.2	2.497	3.213	13.7	19.5	2 1	11 46.72	-0 48.9	1.201	2.014	20.6	20.7
2 11	11 41.81	-10 50.1	2.403	3.220	11.4	19.3	2 11	11 44.36	-0 32.1	1.139	2.027	16.3	20.5
2 21	11 36.38	-10 37.8	2.331	3.227	8.7	19.2	2 21	11 38.87	+0 7.7	1.096	2.040	11.2	20.2
3 2	11 29.64	-10 8.7	2.284	3.234	5.9	19.0	3 2	11 31.00	+1 6.2	1.074	2.055	5.5	20.0
3 12	11 22.26	-9 25.1	2.264	3.240	3.9	18.9	3 12	11 22.06	+2 14.5	1.077	2.070	1.0	19.7
3 22	11 14.96	-8 31.0	2.274	3.247	4.5	18.9	3 22	11 13.50	+3 22.5	1.104	2.086	6.5	20.1
4 1	11 8.47	-7 31.8	2.312	3.253	7.0	19.1	4 1	11 6.70	+4 20.3	1.156	2.102	11.8	20.4
4 11	11 3.41	-6 33.3	2.377	3.259	9.8	19.3	4 11	11 2.58	+5 1.0	1.228	2.119	16.3	20.8
454651	2014 <i>QZ</i> ₂₇₆		3 10.4 113°12	2°0/12.0	18		321164	2008 <i>VU</i> ₁₉		3 10.5 101°45	0°5/9.9	18	
2 1	11 52.26	-2 42.6	1.717	2.486	17.2	21.3	2 1	11 46.26	+2 23.1	2.151	2.935	13.6	21.3
2 11	11 47.80	-2 46.4	1.638	2.498	13.8	21.0	2 11	11 42.63	+2 56.5	2.068	2.942	10.6	21.1
2 21	11 40.76	-2 32.7	1.580	2.509	9.7	20.8	2 21	11 37.04	+3 42.4	2.008	2.949	7.1	20.9
3 2	11 31.78	-2 3.4	1.547	2.521	5.3	20.6	3 2	11 29.99	+4 37.0	1.975	2.956	3.3	20.7
3 12	11 21.86	-1 23.2	1.541	2.532	2.0	20.6	3 12	11 22.24	+5 34.6	1.970	2.963	0.9	20.5
3 22	11 12.18	-0 38.1	1.563	2.543	5.2	20.6	3 22	11 14.64	+6 29.4	1.995	2.970	4.8	20.8
4 1	11 3.85	+0 5.1	1.612	2.553	9.5	20.9	4 1	11 8.02	+7 16.0	2.047	2.976	8.5	21.0
4 11	10 57.70	+0 40.6	1.686	2.563	13.4	21.2	4 11	11 3.01	+7 50.4	2.125	2.983	11.8	21.2
93273	2000 <i>SE</i> ₁₇₇		3 10.4 65°67	5°5/16.2	18		502639	2015 <i>CD</i> ₃₅		3 10.5 274°12	5°4/4.5	17	
2 1	11 46.50	-14 8.1	1.832	2.552	17.9	19.1	2 1	11 47.26	+15 55.7	2.020	2.837	13.2	21.1
2 11	11 43.17	-14 15.6	1.757	2.571	15.1	18.9	2 11	11 43.83	+17 11.1	1.929	2.821	10.4	20.8
2 21	11 37.56	-13 57.9	1.701	2.591	11.8	18.7	2 21	11 38.12	+18 32.1	1.862	2.805	7.5	20.6
3 2	11 30.24	-13 14.6	1.667	2.610	8.4	18.6	3 2	11 30.60	+19 51.0	1.822	2.789	5.5	20.5
3 12	11 22.16	-12 9.0	1.659	2.630	5.8	18.5	3 12	11 22.12	+20 59.1	1.810	2.773	6.3	20.5
3 22	11 14.31	-10 47.5	1.678	2.650	6.1	18.5	3 22	11 13.65	+21 49.3	1.825	2.757	9.0	20.6
4 1	11 7.66	-9 18.8	1.725	2.669	8.7	18.7	4 1	11 6.20	+22 17.1	1.865	2.740	12.3	20.8
4 11	11 2.96	-7 51.9	1.796	2.689	11.9	18.9	4 11	11 0.59	+22 21.5	1.927	2.724	15.3	20.9
433654	2014 <i>BN</i> ₁₁		3 10.5 93°97	2°6/7.2	18		82683	2001 <i>PZ</i> ₂₆		3 10.5 150°87	0°2/10.2	18	R
2 1	11 44.85	+8 37.7	2.305	3.106	12.3	21.0	2 1	11 46.21	+2 8.3	2.671	3.442	11.6	20.5
2 11	11 41.39	+9 40.7	2.229	3.116	9.4	20.8	2 11	11 42.19	+2 36.4	2.582	3.449	9.1	20.4
2 21	11 36.12	+10 52.1	2.178	3.125	6.2	20.6	2 21	11 36.55	+3 14.7	2.517	3.455	6.1	20.2
3 2	11 29.51	+12 6.1	2.155	3.135	3.3	20.5	3 2	11 29.71	+4 0.0	2.480	3.461	2.8	20.0
3 12	11 22.30	+13 16.2	2.161	3.144	3.2	20.5	3 12	11 22.31	+4 48.2	2.473	3.466	0.6	19.8
3 22	11 15.24	+14 16.5	2.196	3.153	6.0	20.7	3 22	11 15.01	+5 34.8	2.497	3.472	4.0	20.1
4 1	11 9.09	+15 2.5	2.259	3.163	9.2	20.9	4 1	11 8.48	+6 15.6	2.549	3.476	7.2	20.3
4 11	11 4.45	+15 31.9	2.346	3.172	11.9	21.1	4 11	11 3.28	+6 47.3	2.628	3.481	10.0	20.5
171448	Guchaohao		3 10.5 245°32	1°6/8.9	17		495182	2012 <i>SX</i> ₁₀		3 10.5 166°53	0°5/11.2	17	
2 1	11 50.64	+4 46.8	1.876	2.667	15.1	21.9	2 1	11 47.41	-0 1.0	3.303	4.052	10.0	22.1
2 11	11 46.66	+5 29.4	1.770	2.649	11.9	21.7	2 11	11 42.78	+0 14.1	3.207	4.058	7.9	21.9
2 21	11 40.17	+6 26.5	1.687	2.631	8.0	21.4	2 21	11 36.77	+0 38.0	3.135	4.064	5.4	21.8
3 2	11 31.62	+7 33.4	1.630	2.612	3.7	21.1	3 2	11 29.78	+1 8.8	3.092	4.068	2.7	21.6
3 12	11 21.88	+8 42.7	1.602	2.593	2.2	20.9	3 12	11 22.30	+1 43.5	3.080	4.073	0.6	21.4
3 22	11 12.03	+9 46.7	1.602	2.572	6.5	21.2	3 22	11 14.90	+2 18.9	3.099	4.076	3.2	21.6
4 1	11 3.22	+10 38.3	1.630	2.551	10.9	21.4	4 1	11 8.12	+2 51.9	3.149	4.079	5.9	21.8
4 11	10 56.41	+11 12.7	1.681	2.529	14.9	21.6	4 11	11 2.44	+3 19.5	3.227	4.081	8.3	22.0
269573	2009 <i>WC</i> ₁₇₉		3 10.5 195°28	1°9/8.6	17		364597	2007 <i>RC</i> ₁₇₈		3 10.5 105°66	3°6/7.7	18	
2 1	11 49.33	+7 27.5	2.007	2.804	14.0	20.7	2 1	11 53.47	+10 38.6	1.625	2.434	16.2	21.4
2 11	11 45.23	+7 56.1	1.921	2.804	10.9	20.4	2 11	11 48.86	+11 17.7	1.556	2.445	12.6	21.1
2 21	11 38.90	+8 33.8	1.858	2.803	7.3	20.2	2 21	11 41.52	+12 4.7	1.508	2.456	8.5	20.9
3 2	11 30.89	+9 16.0	1.821	2.802	3.5	20.0	3 2	11 32.15	+12 52.8	1.487	2.466	4.5	20.7
3 12	11 22.04	+9 56.5	1.813	2.802	2.4	19.9	3 12	11 21.87	+13 33.7	1.492	2.476	4.1	20.7
3 22	11 13.31	+10 29.8	1.833	2.801	6.0	20.1	3 22	11 11.93	+14 0.9	1.525	2.486	7.8	20.9
4 1	11 5.68	+10 51.4	1.880	2.799	9.8	20.3	4 1	11 3.50	+14 10.5	1.584	2.496	11.8	21.2
4 11	10 59.88	+10 58.7	1.952	2.798	13.2	20.6	4 11	10 57.43	+14 1.3	1.665	2.505	15.4	21.4
208258	2000 <i>VQ</i> ₆₁		3 10.5 201°78	1°7/8.6	18		115052	2003 <i>RD</i> ₆		3 10.5 285°90	12°0/21.0	18	
2 1	11 49.97	+5 0.5	2.100	2.886	13.8	21.6	2 1	11 43.93	-29 14.6	1.123	1.810	28.7	20.2
2 11	11 45.71	+5 57.0	2.004	2.882	10.8	21.4	2 11	11 43.90	-29 5.6	0.996	1.771	26.6	19.8
2 21	11 39.25	+7 6.6	1.933	2.876	7.2	21.2	2 21	11 40.06	-27 53.7	0.878	1.731	23.4	19.4
3 2	11 31.07	+8 24.0	1.888	2.870	3.3	20.9	3 2	11 32.37	-25 15.1	0.775	1.690	19.1	19.0
3 12	11 22.00	+9 42.0	1.873	2.863	2.3	20.8	3 12	11 21.67	-20 47.4	0.690	1.648	14.3	18.5
3 22	11 12.96	+10 53.5	1.888	2.855	6.0	21.0	3 22	11 9.65	-14 23.1	0.630	1.604	12.0	18.1
4 1	11 4.91	+11 52.1	1.932	2.846	9.9	21.2	4 1	10 58.70	-6 27.0	0.599	1.560	16.2	18.1
4 11	10 58.63	+12 33.8	1.999	2.836	13.3	21.4	4 11	10 51.15	+2 0.1	0.596	1.516	24.1	18.3
79462	1997 <i>YB</i> ₁₃		3 10.5 64°77	0°4/10.0	18		120124	2003 <i>FO</i> ₉₈		3 10.5 5°90	3°5/13.3	18	
2 1	11 47.37	+2 28.6	2.061	2.846	14.1	20.4	2 1	11 49.25	-5 37.1	1.768	2.528	17.0	19.8
2 11	11 43.41	+2 58.4	1.995	2.869	11.0	20.3	2 11	11 45.56	-6 2.9	1.678	2.528	14.0	19.5
2 21	11 37.48	+3 40.2	1.952	2.893	7.3	20.1	2 21	11 39.37	-6 10.8	1.608	2.528	10.3	19.3
3 2	11 30.13	+4 29.9	1.935	2.917	3.3	19.9	3 2	11 31.21	-6 0.9	1.562	2.529	6.4	19.1
3 12	11 22.20	+5 21.8	1.947	2.940	0.9	19.7	3 12	11 22.03	-5 35.8	1.543	2.529	3.6	18.9
3 22	11 14.56	+6 10.3	1.988	2.964	4.8	20.1	3 22	11 12.91	-5 0.3	1.551	2.530	5.4	19.0
4 1	11 8.01	+6 50.3	2.057	2.987	8.5	20.3	4 1	11 4.98	-4 20.9	1.586	2.531	9.3	19.2
4 11	11 3.17	+7 18.5	2.151	3.010	11.6	20.6	4 11	10 59.11	-3 44.1	1.645	2.532	13.1	19.5
531	Zerlina		3 10.5 296°74	7°7/20.3	18	A	264731	2002 <i>CF</i> ₉₂		3 10.5 316°07	3°8/13.2	17	
2 1	11 43.02	-24 57.1	2.053	2.698	18.2	16.7	2 1						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
274466	2008 <i>SU</i> ₆₉		3 10.5 225°16	0°1/10.5 17			430105	2013 <i>SZ</i> ₈₆		3 10.5 123°07	1°3/11.9 17		
2 1	11 48.18	+ 1 47.0	2.134	2.912	13.9	21.1	2 1	11 47.51	- 2 33.7	2.185	2.946	14.1	21.6
2 11	11 44.25	+ 2 1.4	2.039	2.909	11.0	20.9	2 11	11 43.60	- 2 18.2	2.099	2.955	11.3	21.5
2 21	11 38.23	+ 2 28.2	1.967	2.905	7.5	20.6	2 21	11 37.70	- 1 47.6	2.035	2.964	7.9	21.3
3 2	11 30.60	+ 3 4.3	1.921	2.902	3.5	20.4	3 2	11 30.34	- 1 4.5	1.997	2.972	4.2	21.0
3 12	11 22.15	+ 3 45.1	1.904	2.898	0.6	20.1	3 12	11 22.26	- 0 13.1	1.988	2.980	1.3	20.8
3 22	11 13.76	+ 4 25.4	1.917	2.894	4.8	20.4	3 22	11 14.33	+ 0 41.2	2.008	2.988	4.3	21.1
4 1	11 6.34	+ 5 0.0	1.957	2.890	8.6	20.7	4 1	11 7.36	+ 1 32.5	2.057	2.995	7.9	21.3
4 11	11 0.60	+ 5 24.9	2.022	2.885	12.1	20.9	4 11	11 2.03	+ 2 16.0	2.131	3.003	11.2	21.5
211167	2002 <i>HT</i> ₈		3 10.5 224°00	3°2/ 7.7 18			135679	2002 <i>NW</i> ₅₁		3 10.5 188°47	0°2/10.6 18		
2 1	11 51.28	+ 9 29.4	1.817	2.621	15.0	21.0	2 1	11 49.78	+ 0 27.2	2.159	2.929	14.0	20.9
2 11	11 47.12	+10 14.4	1.727	2.614	11.7	20.8	2 11	11 45.47	+ 0 55.5	2.064	2.928	11.1	20.7
2 21	11 40.41	+11 9.1	1.661	2.607	7.9	20.5	2 21	11 39.05	+ 1 38.0	1.991	2.927	7.6	20.5
3 2	11 31.71	+12 7.3	1.620	2.600	4.1	20.3	3 2	11 31.01	+ 2 31.5	1.946	2.925	3.6	20.2
3 12	11 21.96	+13 1.3	1.607	2.592	3.8	20.3	3 12	11 22.14	+ 3 30.6	1.929	2.922	0.6	20.0
3 22	11 12.28	+13 43.7	1.623	2.583	7.4	20.4	3 22	11 13.32	+ 4 29.4	1.943	2.919	4.8	20.3
4 1	11 3.80	+14 9.6	1.664	2.575	11.4	20.7	4 1	11 5.48	+ 5 21.9	1.985	2.915	8.7	20.5
4 11	10 57.42	+14 16.4	1.729	2.565	15.1	20.9	4 11	10 59.35	+ 6 3.5	2.052	2.911	12.1	20.7
135412	2001 <i>UC</i> ₂₁		3 10.5 108°55	4°1/15.0 18			125100	2001 <i>UA</i> ₃₄		3 10.5 138°94	5°1/ 5.9 18		
2 1	11 47.00	-10 42.2	2.440	3.155	14.0	19.7	2 1	11 51.67	+12 51.1	1.640	2.456	15.8	19.8
2 11	11 43.04	-10 59.2	2.348	3.164	11.7	19.6	2 11	11 47.53	+14 8.7	1.572	2.465	12.3	19.6
2 21	11 37.26	-10 59.5	2.278	3.172	9.0	19.4	2 21	11 40.70	+15 34.4	1.526	2.472	8.4	19.4
3 2	11 30.10	-10 42.9	2.232	3.180	6.2	19.2	3 2	11 31.82	+16 58.7	1.506	2.480	5.5	19.2
3 12	11 22.26	-10 11.4	2.214	3.188	4.2	19.1	3 12	11 22.00	+18 11.5	1.513	2.487	5.9	19.2
3 22	11 14.52	- 9 28.6	2.225	3.196	4.8	19.2	3 22	11 12.45	+19 4.7	1.548	2.493	9.2	19.4
4 1	11 7.63	- 8 39.6	2.265	3.204	7.2	19.3	4 1	11 4.36	+19 33.6	1.608	2.499	12.9	19.7
4 11	11 2.22	- 7 50.0	2.330	3.212	10.0	19.5	4 11	10 58.57	+19 37.9	1.688	2.505	16.3	19.9
271278	2003 <i>UC</i> ₂₁₇		3 10.5 225°77	2°9/13.9 17			192658	1999 <i>RU</i> ₁₃₀		3 10.5 211°46	3°2/13.6 17		
2 1	11 46.17	- 8 22.8	2.522	3.249	13.3	21.9	2 1	11 50.36	- 6 47.8	2.381	3.111	14.0	20.8
2 11	11 42.45	- 8 13.7	2.411	3.240	11.0	21.7	2 11	11 45.81	- 7 6.6	2.275	3.106	11.5	20.7
2 21	11 36.92	- 7 47.8	2.322	3.229	8.2	21.5	2 21	11 39.24	- 7 10.8	2.191	3.100	8.6	20.4
3 2	11 29.98	- 7 5.7	2.259	3.219	5.2	21.3	3 2	11 31.11	- 7 0.5	2.133	3.094	5.4	20.2
3 12	11 22.28	- 6 10.4	2.224	3.208	3.0	21.2	3 12	11 22.12	- 6 37.6	2.104	3.087	3.2	20.1
3 22	11 14.55	- 5 6.2	2.219	3.196	4.2	21.2	3 22	11 13.11	- 6 5.7	2.104	3.080	4.6	20.2
4 1	11 7.56	- 3 58.8	2.243	3.184	7.2	21.4	4 1	11 4.95	- 5 29.3	2.133	3.072	7.7	20.3
4 11	11 1.98	- 2 54.2	2.294	3.172	10.3	21.6	4 11	10 58.36	- 4 53.7	2.189	3.064	10.8	20.5
415005	2011 <i>FM</i> ₁₀₅		3 10.5 41°87	3°3/ 7.7 18			410017	2006 <i>WO</i> ₁₅₈		3 10.5 149°76	1°0/ 9.4 18		
2 1	11 47.38	+ 8 11.7	1.444	2.267	17.2	20.4	2 1	11 51.03	+ 4 37.2	2.137	2.919	13.8	21.8
2 11	11 44.25	+ 9 8.9	1.391	2.289	13.2	20.2	2 11	11 46.35	+ 5 7.1	2.054	2.928	10.7	21.6
2 21	11 38.43	+10 17.5	1.360	2.311	8.7	20.0	2 21	11 39.57	+ 5 47.7	1.995	2.936	7.2	21.4
3 2	11 30.69	+11 29.2	1.353	2.334	4.4	19.8	3 2	11 31.22	+ 6 34.8	1.962	2.944	3.3	21.1
3 12	11 22.18	+12 34.4	1.372	2.358	3.9	19.8	3 12	11 22.12	+ 7 22.8	1.959	2.951	1.5	21.0
3 22	11 14.13	+13 24.9	1.418	2.382	7.8	20.1	3 22	11 13.20	+ 8 6.0	1.986	2.957	5.2	21.3
4 1	11 7.63	+13 55.7	1.488	2.407	11.9	20.4	4 1	11 5.34	+ 8 39.8	2.041	2.963	9.0	21.5
4 11	11 3.44	+14 5.2	1.579	2.431	15.5	20.7	4 11	10 59.24	+ 9 1.0	2.120	2.968	12.2	21.7
400536	2008 <i>UD</i> ₁₁₁		3 10.5 221°73	0°6/10.9 14 C			63600	2001 <i>QY</i> ₆₅		3 10.5 338°50	2°7/13.0 18		
2 1	11 52.39	+ 0 5.7	1.797	2.572	16.2	22.4	2 1	11 47.75	- 4 52.6	2.176	2.928	14.5	18.4
2 11	11 48.09	+ 0 19.6	1.697	2.563	13.0	22.2	2 11	11 43.91	- 5 9.3	2.080	2.926	11.8	18.2
2 21	11 41.16	+ 0 49.8	1.618	2.554	9.0	21.9	2 21	11 38.02	- 5 11.2	2.005	2.925	8.6	18.0
3 2	11 32.11	+ 1 33.6	1.564	2.543	4.4	21.6	3 2	11 30.54	- 4 59.1	1.956	2.923	5.2	17.8
3 12	11 21.88	+ 2 25.7	1.539	2.532	0.8	21.3	3 12	11 22.24	- 4 35.5	1.935	2.922	2.7	17.7
3 22	11 11.61	+ 3 19.2	1.542	2.520	5.5	21.6	3 22	11 13.98	- 4 4.3	1.942	2.921	4.5	17.8
4 1	11 2.50	+ 4 7.2	1.573	2.508	10.2	21.8	4 1	11 6.66	- 3 30.6	1.977	2.920	7.9	18.0
4 11	10 55.50	+ 4 43.9	1.627	2.495	14.3	22.1	4 11	10 59.98	- 2 59.4	2.038	2.919	11.3	18.2
30642	6532 <i>P-L</i>		3 10.5 171°48	1°1/ 9.3 16			142246	2002 <i>RR</i> ₁₀₀		3 10.5 67°68	1°8/12.3 18		
2 1	11 50.94	+ 5 16.8	2.437	3.213	12.4	21.2	2 1	11 48.07	- 6 20.0	1.616	2.382	18.2	20.2
2 11	11 46.04	+ 5 46.5	2.347	3.218	9.7	21.0	2 11	11 44.48	- 5 29.5	1.556	2.413	14.5	20.0
2 21	11 39.24	+ 6 25.2	2.281	3.222	6.5	20.8	2 21	11 38.45	- 4 14.8	1.516	2.444	10.2	19.8
3 2	11 31.02	+ 7 9.3	2.243	3.225	3.0	20.6	3 2	11 30.69	- 2 40.5	1.501	2.475	5.5	19.6
3 12	11 22.11	+ 7 53.7	2.236	3.227	1.5	20.5	3 12	11 22.24	- 0 55.0	1.514	2.506	1.8	19.4
3 22	11 13.32	+ 8 33.6	2.259	3.228	4.9	20.7	3 22	11 14.21	+ 0 51.5	1.555	2.536	5.1	19.7
4 1	11 5.44	+ 9 4.9	2.311	3.229	8.3	20.9	4 1	11 7.59	+ 2 29.4	1.624	2.566	9.3	20.0
4 11	10 59.11	+ 9 24.8	2.388	3.229	11.3	21.1	4 11	11 3.08	+ 3 51.2	1.717	2.596	13.1	20.3
172032	2001 <i>VW</i> ₁₃₂		3 10.5 173°21	3°2/14.3 18			461153	2015 <i>TC</i> ₁₁₅		3 10.5 210°59	1°4/11.6 18		
2 1	11 46.07	- 8 42.0	2.618	3.341	13.0	20.6	2 1	11 47.86	- 3 21.0	1.486	2.272	18.6	21.6
2 11	11 42.22	- 8 49.3	2.518	3.343	10.7	20.4	2 11	11 44.96	- 2 51.8	1.400	2.270	15.0	21.3
2 21	11 36.67	- 8 41.6	2.440	3.344	8.1	20.2	2 21	11 39.24	- 1 58.6	1.333	2.269	10.5	21.1
3 2	11 29.83	- 8 19.2	2.388	3.344	5.3	20.0	3 2	11 31.27	- 0 44.3	1.289	2.267	5.5	20.8
3 12	11 22.33	- 7 44.3	2.365	3.345	3.3	19.9	3 12	11 22.11	+ 0 43.8	1.272	2.265	1.4	20.5
3 22	11 14.87	- 7 0.6	2.371	3.346	4.2	20.0	3 22	11 13.02	+ 2 15.8	1.281	2.262	5.9	20.8
4 1	11 8.17	- 6 12.6	2.405	3.346	6.8	20.1	4 1	11 5.30	+ 3 41.0	1.317	2.260	11.0	21.1
4 11	11 2.82	- 5 25.5	2.467	3.346	9.6	20.3	4 11	10 59.94	+ 4 50.9	1.375	2.257	15.5	21.3
488747	2004 <i>RM</i> ₃₄₆		3 10.5 208°93	2°7/13.1 17			89346	2001 <i>VH</i> ₆₆		3 10.5 114°60	4		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
409197	2003 <i>UB</i> ₃₇₇		3 10.5	69°22	0°3/10.7	18	284101	2005 <i>QV</i> ₆₈		3 10.5	225°85	1°7/ 8.4	17
2 1	11 49.68	+ 0 58.4	1.556	2.350	17.5	21.6	2 1	11 48.79	+ 9 9.1	2.921	3.703	10.4	21.2
2 11	11 46.14	+ 1 12.5	1.477	2.355	13.9	21.4	2 11	11 44.16	+ 9 31.0	2.818	3.693	8.1	21.1
2 21	11 39.87	+ 1 43.5	1.418	2.359	9.5	21.1	2 21	11 37.90	+ 9 58.1	2.741	3.683	5.4	20.9
3 2	11 31.50	+ 2 27.9	1.383	2.364	4.5	20.9	3 2	11 30.43	+10 27.0	2.692	3.672	2.7	20.7
3 12	11 22.08	+ 3 19.1	1.375	2.368	0.7	20.6	3 12	11 22.33	+10 53.8	2.674	3.661	2.1	20.6
3 22	11 12.85	+ 4 9.7	1.394	2.373	5.8	21.0	3 22	11 14.26	+11 15.0	2.686	3.649	4.7	20.8
4 1	11 5.01	+ 4 52.5	1.439	2.377	10.6	21.2	4 1	11 6.89	+11 27.7	2.728	3.637	7.6	20.9
4 11	10 59.47	+ 5 21.9	1.506	2.382	14.8	21.5	4 11	11 0.79	+11 30.1	2.796	3.625	10.2	21.1
163239	2002 <i>EU</i> ₁₅₆		3 10.5	85°77	0°4/10.1	18	198569	2004 <i>XE</i> ₁₆₈		3 10.5	354°42	1°7/ 8.9	17
2 1	11 51.17	+ 1 19.4	1.542	2.335	17.7	21.4	2 1	11 43.33	+ 4 53.1	1.577	2.393	16.3	19.9
2 11	11 47.09	+ 1 56.5	1.478	2.356	13.8	21.2	2 11	11 41.20	+ 5 32.5	1.495	2.389	12.7	19.6
2 21	11 40.33	+ 2 51.0	1.435	2.377	9.3	21.0	2 21	11 36.57	+ 6 27.0	1.435	2.385	8.5	19.4
3 2	11 31.62	+ 3 57.6	1.417	2.398	4.3	20.7	3 2	11 29.98	+ 7 30.9	1.399	2.382	3.9	19.1
3 12	11 22.08	+ 5 8.1	1.426	2.419	1.0	20.5	3 12	11 22.40	+ 8 36.2	1.389	2.380	2.3	19.0
3 22	11 12.93	+ 6 13.9	1.462	2.439	6.0	20.9	3 22	11 14.94	+ 9 34.4	1.406	2.379	6.7	19.2
4 1	11 5.29	+ 7 7.6	1.525	2.459	10.6	21.2	4 1	11 8.72	+10 18.5	1.448	2.379	11.2	19.5
4 11	10 59.97	+ 7 44.8	1.611	2.478	14.5	21.5	4 11	11 4.59	+10 44.2	1.512	2.380	15.2	19.7
150682	2001 <i>OS</i> ₄₉		3 10.5	129°52	0°7/ 9.7	18	414886	2010 <i>WB</i> ₄₆		3 10.5	200°36	10°2/28.6	18
2 1	11 48.87	+ 2 28.5	2.147	2.926	13.8	21.1	2 1	11 53.17	+29 38.9	1.856	2.668	14.4	21.0
2 11	11 44.64	+ 3 14.2	2.068	2.940	10.8	20.9	2 11	11 48.75	+31 18.7	1.797	2.667	12.2	20.8
2 21	11 38.39	+ 4 12.7	2.013	2.954	7.2	20.7	2 21	11 41.56	+32 51.2	1.761	2.665	10.6	20.7
3 2	11 30.66	+ 5 19.6	1.986	2.967	3.2	20.5	3 2	11 32.27	+34 5.2	1.750	2.664	10.2	20.7
3 12	11 22.26	+ 6 28.7	1.987	2.980	1.2	20.3	3 12	11 22.02	+34 51.5	1.764	2.662	11.3	20.8
3 22	11 14.05	+ 7 33.5	2.019	2.992	5.0	20.6	3 22	11 12.06	+35 5.2	1.802	2.660	13.3	20.9
4 1	11 6.87	+ 8 28.4	2.079	3.003	8.7	20.9	4 1	11 3.62	+34 46.0	1.862	2.658	15.6	21.0
4 11	11 1.39	+ 9 9.6	2.164	3.014	11.9	21.1	4 11	10 57.54	+33 57.7	1.939	2.656	17.7	21.2
21251	1995 <i>YX</i> ₃		3 10.5	159°00	5°1/ 4.1	18	309052	2006 <i>UU</i> ₂₆₇		3 10.5	109°68	0°1/10.4	18
2 1	11 48.00	+17 16.0	2.353	3.162	11.8	19.2	2 1	11 52.64	+ 2 8.6	2.021	2.795	14.7	21.6
2 11	11 43.92	+18 36.1	2.280	3.167	9.3	19.0	2 11	11 47.61	+ 2 27.4	1.948	2.816	11.5	21.4
2 21	11 37.90	+19 58.7	2.233	3.172	6.7	18.9	2 21	11 40.40	+ 2 58.5	1.899	2.836	7.8	21.2
3 2	11 30.44	+21 16.7	2.214	3.176	5.2	18.8	3 2	11 31.61	+ 3 38.2	1.876	2.856	3.6	21.0
3 12	11 22.30	+22 22.8	2.224	3.180	5.9	18.8	3 12	11 22.15	+ 4 21.1	1.882	2.875	0.7	20.8
3 22	11 14.31	+23 11.8	2.263	3.184	8.1	19.0	3 22	11 12.97	+ 5 1.8	1.918	2.894	4.9	21.1
4 1	11 7.29	+23 40.5	2.327	3.187	10.7	19.1	4 1	11 4.99	+ 5 35.3	1.982	2.912	8.7	21.4
4 11	11 1.88	+23 48.6	2.414	3.189	13.1	19.3	4 11	10 58.90	+ 5 58.1	2.071	2.929	12.1	21.6
113626	2002 <i>TZ</i> ₆₅		3 10.5	28°73	0°4/10.9	18	505931	2015 <i>FK</i> ₁₉		3 10.5	242°17	4°0/ 5.4	17
2 1	11 45.52	+ 0 19.2	2.045	2.826	14.3	19.8	2 1	11 44.86	+13 12.7	2.367	3.176	11.8	21.7
2 11	11 42.24	+ 0 40.4	1.958	2.829	11.3	19.6	2 11	11 41.53	+14 25.7	2.282	3.172	9.1	21.5
2 21	11 36.91	+ 1 15.8	1.894	2.832	7.7	19.4	2 21	11 36.35	+15 44.8	2.222	3.167	6.3	21.3
3 2	11 30.02	+ 2 2.3	1.855	2.835	3.7	19.2	3 2	11 29.76	+17 3.5	2.190	3.162	4.2	21.2
3 12	11 22.38	+ 2 54.6	1.845	2.838	0.6	18.9	3 12	11 22.47	+18 14.8	2.187	3.157	4.7	21.2
3 22	11 14.85	+ 3 47.0	1.863	2.842	4.7	19.2	3 22	11 15.25	+19 12.9	2.213	3.152	7.2	21.3
4 1	11 8.31	+ 4 33.6	1.909	2.845	8.6	19.5	4 1	11 8.89	+19 53.6	2.265	3.147	10.1	21.5
4 11	11 3.45	+ 5 9.8	1.979	2.849	12.0	19.7	4 11	11 4.01	+20 15.1	2.341	3.142	12.7	21.7
8360	1990 <i>FD</i> ₁		3 10.5	346°62	8°5/ 1.8	18	174160	2002 <i>PA</i> ₆₆		3 10.5	119°03	4°1/14.2	18
2 1	11 44.90	+19 58.1	1.520	2.359	15.6	15.9	2 1	11 50.97	- 8 52.9	1.876	2.613	17.0	20.9
2 11	11 42.69	+21 50.9	1.454	2.354	12.5	15.7	2 11	11 46.69	- 9 8.9	1.793	2.625	14.0	20.7
2 21	11 37.70	+23 46.9	1.410	2.350	9.7	15.5	2 21	11 40.02	- 9 4.8	1.730	2.637	10.6	20.5
3 2	11 30.53	+25 33.6	1.392	2.346	8.5	15.5	3 2	11 31.53	- 8 40.3	1.690	2.648	6.9	20.3
3 12	11 22.28	+26 58.5	1.398	2.342	9.8	15.5	3 12	11 22.16	- 7 58.6	1.678	2.659	4.3	20.1
3 22	11 14.22	+27 53.0	1.429	2.340	12.7	15.7	3 22	11 12.95	- 7 4.9	1.694	2.670	5.4	20.2
4 1	11 7.59	+28 13.3	1.481	2.338	15.9	15.9	4 1	11 4.94	- 6 6.2	1.737	2.680	8.8	20.4
4 11	11 3.31	+28 0.9	1.552	2.336	18.9	16.1	4 11	10 58.92	- 5 10.0	1.805	2.690	12.3	20.7
133632	2003 <i>UA</i> ₁₄₁		3 10.5	152°49	4°1/ 6.6	18	507977	2015 <i>BH</i> ₉₈		3 10.5	56°11	8°7/17.5	17
2 1	11 52.52	+12 19.9	1.943	2.746	14.2	20.6	2 1	11 53.81	-18 0.6	2.017	2.690	17.8	20.6
2 11	11 47.77	+13 19.6	1.868	2.754	11.0	20.4	2 11	11 49.10	-19 28.9	1.923	2.692	15.6	20.4
2 21	11 40.65	+14 25.8	1.818	2.762	7.5	20.2	2 21	11 41.82	-20 37.6	1.848	2.695	13.1	20.3
3 2	11 31.77	+15 31.4	1.794	2.769	4.5	20.1	3 2	11 32.49	-21 22.2	1.795	2.698	10.7	20.1
3 12	11 22.08	+16 28.4	1.799	2.776	4.7	20.1	3 12	11 21.97	-21 40.3	1.768	2.701	9.0	20.0
3 22	11 12.61	+17 10.5	1.833	2.782	7.7	20.3	3 22	11 11.39	-21 32.9	1.766	2.704	8.9	20.0
4 1	11 4.39	+17 33.7	1.893	2.787	11.2	20.5	4 1	11 1.90	-21 4.4	1.791	2.707	10.4	20.1
4 11	10 58.16	+17 37.2	1.976	2.791	14.3	20.7	4 11	10 54.44	-20 22.4	1.840	2.710	12.8	20.2
22653	1998 <i>QW</i> ₂		3 10.5	342°54	23°2/17.1	18	259217	2003 <i>BK</i> ₁₆		3 10.5	75°10	1°3/ 9.4	18
2 1	12 19.04	-46 0.5	1.906	2.316	24.6	17.9	2 1	11 52.26	+ 4 59.4	1.716	2.511	16.1	20.1
2 11	12 13.37	-50 37.8	1.823	2.305	24.2	17.7	2 11	11 47.61	+ 5 27.4	1.656	2.536	12.5	20.0
2 21	12 2.02	-54 56.0	1.756	2.296	23.8	17.6	2 21	11 40.51	+ 6 7.1	1.617	2.561	8.3	19.8
3 2	11 44.00	-58 38.8	1.706	2.287	23.5	17.6	3 2	11 31.68	+ 6 53.3	1.604	2.586	3.8	19.5
3 12	11 19.47	-61 28.6	1.672	2.279	23.2	17.5	3 12	11 22.16	+ 7 39.2	1.620	2.611	1.8	19.5
3 22	10 50.57	-63 12.3	1.654	2.273	23.2	17.5	3 22	11 13.05	+ 8 18.3	1.663	2.636	5.9	19.8
4 1	10 21.66	-63 46.9	1.649	2.267	23.4	17.5	4 1	11 5.37	+ 8 45.8	1.734	2.660	10.0	20.1
4 11	9 57.45	-63 23.8	1.657	2.262	23.8	17.5	4 11	10 59.83	+ 8 59.0	1.828	2.684	13.5	20.3
375662	2009 <i>DB</i> ₄₈		3 10.5	54°19	3°1/13.6	18	326951	2004 <i>FV</i> ₁₅					

EPHEMERIDES

3 10.5

3 10.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
425347	2010 <i>BP</i> ₃₂		3 10.5 349°80	0°4/10.8	17		244768	2003 <i>SP</i> ₁₂₆		3 10.5 210°73	3°6/13.8	18	
2 1	11 44.33	+ 0 32.4	1.786	2.579	15.6	20.7	2 1	11 49.67	- 7 57.7	1.904	2.646	16.6	20.8
2 11	11 41.70	+ 0 48.8	1.697	2.574	12.4	20.4	2 11	11 45.84	- 8 3.3	1.804	2.642	13.7	20.6
2 21	11 36.77	+ 1 20.9	1.629	2.570	8.5	20.2	2 21	11 39.59	- 7 48.7	1.725	2.637	10.2	20.3
3 2	11 30.06	+ 2 5.7	1.586	2.566	4.1	19.9	3 2	11 31.44	- 7 14.0	1.669	2.632	6.5	20.1
3 12	11 22.43	+ 2 57.6	1.570	2.563	0.7	19.6	3 12	11 22.22	- 6 22.2	1.641	2.626	3.7	19.9
3 22	11 14.87	+ 3 49.8	1.581	2.561	5.2	20.0	3 22	11 13.00	- 5 18.9	1.641	2.619	5.3	20.0
4 1	11 8.40	+ 4 35.8	1.619	2.559	9.5	20.2	4 1	11 4.84	- 4 11.5	1.669	2.612	9.0	20.2
4 11	11 3.81	+ 5 10.2	1.680	2.558	13.4	20.4	4 11	10 58.62	- 3 7.8	1.722	2.605	12.8	20.4
384241	2009 <i>DG</i> ₇₆		3 10.5 350°07	2°0/ 8.3	17		473734	2016 <i>CL</i> ₂₂₂		3 10.5 306°99	1°0/11.3	17	
2 1	11 43.96	+ 6 16.8	1.964	2.770	14.0	21.2	2 1	11 45.95	- 0 50.2	1.512	2.309	17.8	20.9
2 11	11 41.18	+ 7 5.5	1.879	2.767	10.8	21.0	2 11	11 43.65	- 0 40.7	1.410	2.289	14.4	20.7
2 21	11 36.28	+ 8 6.0	1.816	2.765	7.2	20.7	2 21	11 38.56	- 0 11.4	1.328	2.268	10.1	20.3
3 2	11 29.79	+ 9 12.8	1.780	2.762	3.4	20.5	3 2	11 31.11	+ 0 35.8	1.268	2.248	5.2	20.0
3 12	11 22.48	+ 10 18.9	1.772	2.760	2.6	20.4	3 12	11 22.26	+ 1 35.2	1.234	2.228	1.1	19.7
3 22	11 15.28	+ 11 17.4	1.791	2.759	6.2	20.6	3 22	11 13.24	+ 2 38.9	1.227	2.208	6.1	19.9
4 1	11 9.08	+ 12 2.6	1.838	2.758	9.9	20.9	4 1	11 5.40	+ 3 37.8	1.244	2.189	11.3	20.2
4 11	11 4.60	+ 12 31.0	1.907	2.757	13.3	21.1	4 11	10 59.86	+ 4 24.0	1.283	2.170	16.1	20.4
11969	Gay-Lussac		3 10.5 94°67	1°1/11.6	18		34433	2000 <i>SE</i> ₃₇		3 10.5 292°76	1°1/ 9.3	18	
2 1	11 47.99	- 1 23.5	2.022	2.793	14.8	18.7	2 1	11 45.00	+ 4 40.8	2.263	3.054	12.8	19.6
2 11	11 44.16	- 1 12.0	1.938	2.801	11.8	18.5	2 11	11 41.75	+ 5 14.7	2.164	3.043	10.0	19.3
2 21	11 38.20	- 0 45.5	1.877	2.809	8.2	18.3	2 21	11 36.58	+ 5 59.5	2.089	3.033	6.7	19.1
3 2	11 30.65	- 0 6.6	1.841	2.818	4.2	18.1	3 2	11 29.93	+ 6 51.5	2.040	3.022	3.1	18.9
3 12	11 22.34	+ 0 40.1	1.833	2.826	1.1	17.8	3 12	11 22.50	+ 7 45.1	2.020	3.012	1.6	18.7
3 22	11 14.18	+ 1 28.8	1.854	2.834	4.6	18.1	3 22	11 15.09	+ 8 34.8	2.030	3.001	5.1	19.0
4 1	11 7.08	+ 2 13.8	1.903	2.842	8.4	18.3	4 1	11 8.51	+ 9 15.5	2.067	2.991	8.8	19.2
4 11	11 1.74	+ 2 50.3	1.977	2.850	11.9	18.6	4 11	11 3.46	+ 9 43.6	2.128	2.981	12.0	19.3
206220	2002 <i>VS</i> ₅₆		3 10.5 97°36	0°9/ 9.4	18		424652	2008 <i>QS</i> ₂₀		3 10.5 275°74	5°1/15.1	17	
2 1	11 46.98	+ 3 47.9	2.502	3.281	12.1	21.4	2 1	11 47.46	- 11 8.6	1.995	2.722	16.4	20.7
2 11	11 42.82	+ 4 31.3	2.432	3.304	9.3	21.2	2 11	11 44.11	- 11 34.2	1.887	2.709	13.9	20.4
2 21	11 36.99	+ 5 24.4	2.385	3.326	6.2	21.1	2 21	11 38.45	- 11 40.1	1.799	2.696	10.8	20.2
3 2	11 29.98	+ 6 23.2	2.367	3.349	2.8	20.9	3 2	11 30.92	- 11 24.6	1.734	2.682	7.6	20.0
3 12	11 22.47	+ 7 22.4	2.379	3.371	1.3	20.8	3 12	11 22.31	- 10 49.0	1.695	2.669	5.3	19.8
3 22	11 15.17	+ 8 16.9	2.421	3.392	4.5	21.1	3 22	11 13.59	- 9 57.4	1.683	2.656	5.9	19.8
4 1	11 8.76	+ 9 2.4	2.492	3.413	7.6	21.3	4 1	11 5.81	- 8 56.0	1.699	2.642	9.0	20.0
4 11	11 3.78	+ 9 36.2	2.589	3.434	10.4	21.5	4 11	10 59.84	- 7 52.7	1.740	2.628	12.4	20.1
8828	1988 <i>RC</i> ₇		3 10.5 127°14	0°7/11.2	18		117183	2004 <i>RY</i> ₇₈		3 10.5 44°23	2°2/12.4	18	
2 1	11 49.14	- 2 46.0	1.982	2.746	15.3	17.6	2 1	11 44.56	- 6 9.3	1.288	2.080	20.6	18.9
2 11	11 45.03	- 1 56.3	1.903	2.763	12.1	17.4	2 11	11 42.59	- 5 32.4	1.220	2.092	16.6	18.6
2 21	11 38.77	- 0 48.0	1.846	2.779	8.3	17.2	2 21	11 37.70	- 4 25.7	1.170	2.104	11.8	18.4
3 2	11 30.91	+ 0 34.7	1.816	2.794	4.1	17.0	3 2	11 30.57	- 2 53.0	1.142	2.117	6.5	18.1
3 12	11 22.31	+ 2 5.1	1.815	2.808	0.7	16.8	3 12	11 22.39	- 1 3.5	1.139	2.131	2.2	17.9
3 22	11 13.92	+ 3 35.1	1.844	2.822	4.8	17.1	3 22	11 14.51	+ 0 50.3	1.162	2.145	5.9	18.2
4 1	11 6.65	+ 4 57.1	1.901	2.835	8.8	17.4	4 1	11 8.20	+ 2 35.6	1.210	2.159	11.1	18.5
4 11	11 1.21	+ 6 5.4	1.984	2.847	12.3	17.6	4 11	11 4.36	+ 4 2.4	1.280	2.174	15.6	18.8
480199	2015 <i>FB</i> ₃₄₃		3 10.5 272°66	6°7/ 3.3	17		211462	2003 <i>BE</i> ₉₂		3 10.5 233°51	2°1/12.7	18	
2 1	11 56.31	+ 26 6.9	2.540	3.331	11.6	21.0	2 1	11 48.11	- 3 44.3	2.505	3.251	12.9	20.3
2 11	11 50.45	+ 26 48.5	2.444	3.309	9.6	20.9	2 11	11 43.94	- 3 56.2	2.403	3.248	10.5	20.1
2 21	11 42.38	+ 27 25.7	2.373	3.288	7.7	20.7	2 21	11 37.94	- 3 55.7	2.323	3.244	7.6	19.9
3 2	11 32.62	+ 27 51.6	2.330	3.266	6.7	20.6	3 2	11 30.54	- 3 43.6	2.270	3.239	4.4	19.7
3 12	11 22.00	+ 28 0.3	2.315	3.244	7.4	20.6	3 12	11 22.40	- 3 22.5	2.246	3.235	2.1	19.6
3 22	11 11.48	+ 27 48.2	2.329	3.222	9.2	20.7	3 22	11 14.29	- 2 55.8	2.252	3.231	4.0	19.7
4 1	11 1.99	+ 27 14.2	2.368	3.200	11.6	20.8	4 1	11 6.97	- 2 27.6	2.287	3.226	7.2	19.9
4 11	10 54.31	+ 26 20.1	2.431	3.177	13.8	20.9	4 11	11 1.08	- 2 2.2	2.348	3.222	10.2	20.0
456732	2007 <i>TP</i> ₉		3 10.5 131°52	0°8/ 9.8	18		374136	2004 <i>TW</i> ₁₃₂		3 10.5 194°90	3°3/14.1	17	
2 1	11 53.17	+ 3 45.9	1.906	2.689	15.2	22.1	2 1	11 48.60	- 8 39.1	2.491	3.213	13.6	21.7
2 11	11 48.25	+ 4 12.0	1.830	2.703	11.9	21.9	2 11	11 44.36	- 8 44.9	2.387	3.211	11.3	21.5
2 21	11 40.98	+ 4 50.3	1.775	2.716	7.9	21.7	2 21	11 38.25	- 8 34.7	2.305	3.208	8.5	21.3
3 2	11 31.96	+ 5 36.4	1.747	2.729	3.6	21.4	3 2	11 30.70	- 8 8.7	2.248	3.205	5.5	21.1
3 12	11 22.15	+ 6 24.2	1.749	2.741	1.3	21.3	3 12	11 22.38	- 7 29.4	2.220	3.201	3.4	21.0
3 22	11 12.58	+ 7 7.6	1.779	2.753	5.5	21.6	3 22	11 14.08	- 6 40.5	2.221	3.196	4.4	21.0
4 1	11 4.26	+ 7 41.4	1.837	2.763	9.5	21.9	4 1	11 6.58	- 5 47.3	2.252	3.191	7.3	21.2
4 11	10 57.96	+ 8 2.1	1.920	2.774	13.1	22.1	4 11	11 0.54	- 4 55.4	2.309	3.186	10.3	21.4
43658	2002 <i>FV</i>		3 10.5 229°87	0°7/ 9.9	18		192656	1999 <i>RF</i> ₁₂₁		3 10.5 249°65	1°7/12.5	18	
2 1	11 51.91	+ 3 45.6	1.913	2.697	15.1	20.0	2 1	11 46.16	- 5 23.0	2.399	3.145	13.5	21.1
2 11	11 47.57	+ 4 6.9	1.812	2.687	11.9	19.8	2 11	11 42.65	- 4 50.3	2.280	3.126	10.9	20.8
2 21	11 40.76	+ 4 41.0	1.735	2.676	8.1	19.5	2 21	11 37.23	- 3 59.7	2.184	3.106	7.9	20.6
3 2	11 31.99	+ 5 24.2	1.683	2.664	3.7	19.2	3 2	11 30.28	- 2 52.9	2.114	3.086	4.4	20.4
3 12	11 22.12	+ 6 10.6	1.660	2.652	1.3	19.0	3 12	11 22.45	- 1 34.0	2.074	3.065	1.7	20.1
3 22	11 12.24	+ 6 54.0	1.665	2.640	5.7	19.3	3 22	11 14.53	- 0 8.8	2.063	3.043	4.2	20.3
4 1	11 3.43	+ 7 28.5	1.699	2.626	10.1	19.5	4 1	11 7.34	+ 1 15.6	2.083	3.021	7.8	20.5
4 11	10 56.61	+ 7 49.9	1.756	2.613	13.9	19.7	4 11	11 1.60	+ 2 32.7	2.128	2.998	11.3	20.6
127571	2003 <i>AM</i> ₁₇		3 10.5 237°34	10°9/15.7	18		228023	2008 <i>FZ</i> ₆₉		3 10.5 209°20	4°		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
123051	2000 <i>SN</i> ₂₉₅		3 10.5	85°38	5°5/ 5.8	18	500357	2012 <i>TT</i> ₁₈		3 10.5	132°40	0°1/10.4	17
2 1	11 56.67	+18 55.9	1.977	2.780	14.0	19.2	2 1	11 46.43	+ 1 49.2	2.721	3.489	11.5	22.9
2 11	11 50.74	+19 37.2	1.922	2.803	11.0	19.0	2 11	11 42.35	+ 2 18.0	2.636	3.501	9.0	22.7
2 21	11 42.46	+20 17.4	1.891	2.827	7.9	18.9	2 21	11 36.70	+ 2 56.9	2.575	3.512	6.0	22.6
3 2	11 32.57	+20 49.4	1.887	2.850	5.8	18.8	3 2	11 29.91	+ 3 42.7	2.543	3.523	2.8	22.4
3 12	11 22.09	+21 6.8	1.911	2.873	6.1	18.9	3 12	11 22.58	+ 4 31.4	2.540	3.533	0.6	22.2
3 22	11 12.10	+21 6.1	1.963	2.895	8.5	19.1	3 22	11 15.37	+ 5 18.6	2.568	3.543	3.9	22.5
4 1	11 3.57	+20 46.2	2.042	2.917	11.3	19.3	4 1	11 8.94	+ 6 0.1	2.625	3.553	7.0	22.7
4 11	10 57.15	+20 8.8	2.143	2.939	13.9	19.5	4 11	11 3.80	+ 6 32.9	2.708	3.562	9.7	22.9
139859	2001 <i>RR</i> ₆₄		3 10.5	63°95	2°6/13.1	18	153920	2001 <i>YW</i> ₂₀		3 10.5	125°07	1°0/ 9.6	18
2 1	11 47.98	- 4 50.5	2.246	2.995	14.2	19.6	2 1	11 49.42	+ 4 13.5	1.937	2.727	14.7	21.2
2 11	11 44.00	- 5 4.7	2.154	2.999	11.5	19.5	2 11	11 45.39	+ 4 42.0	1.856	2.734	11.5	21.0
2 21	11 38.05	- 5 4.4	2.085	3.003	8.4	19.3	2 21	11 39.11	+ 5 22.6	1.797	2.740	7.7	20.8
3 2	11 30.60	- 4 50.5	2.041	3.008	5.0	19.1	3 2	11 31.14	+ 6 10.8	1.764	2.746	3.5	20.6
3 12	11 22.41	- 4 25.7	2.025	3.012	2.6	18.9	3 12	11 22.35	+ 7 0.6	1.759	2.751	1.5	20.4
3 22	11 14.31	- 3 54.0	2.038	3.017	4.3	19.0	3 22	11 13.74	+ 7 45.7	1.784	2.757	5.5	20.7
4 1	11 7.13	- 3 20.1	2.080	3.022	7.6	19.2	4 1	11 6.25	+ 8 20.9	1.835	2.762	9.5	21.0
4 11	11 1.55	- 2 49.1	2.147	3.026	10.8	19.4	4 11	11 0.64	+ 8 42.7	1.911	2.767	13.0	21.2
10607	Amandahatton		3 10.5	235°25	6°7/ 2.9	18	328712	2009 <i>TA</i> ₁₃		3 10.5	159°94	7°2/ 1.8	18
2 1	11 51.00	+21 44.4	2.211	3.020	12.5	18.3	2 1	11 53.64	+26 18.4	2.436	3.234	11.8	21.5
2 11	11 46.61	+23 1.1	2.127	3.008	10.1	18.1	2 11	11 48.30	+27 33.5	2.373	3.241	9.7	21.4
2 21	11 39.96	+24 18.1	2.068	2.996	7.8	17.9	2 21	11 40.85	+28 44.1	2.335	3.248	7.9	21.3
3 2	11 31.55	+25 27.2	2.035	2.984	6.7	17.8	3 2	11 31.88	+29 42.3	2.325	3.254	7.2	21.2
3 12	11 22.24	+26 20.4	2.031	2.971	7.5	17.8	3 12	11 22.24	+30 21.9	2.343	3.259	8.0	21.3
3 22	11 13.00	+26 52.1	2.054	2.957	9.8	18.0	3 22	11 12.85	+30 38.9	2.387	3.264	9.8	21.4
4 1	11 4.82	+26 59.7	2.101	2.943	12.4	18.1	4 1	11 4.59	+30 32.5	2.457	3.268	11.8	21.5
4 11	10 58.47	+26 43.8	2.170	2.929	14.9	18.2	4 11	10 58.13	+30 4.4	2.547	3.271	13.8	21.7
341742	2007 <i>VB</i> ₂₆₆		3 10.5	101°62	5°4/16.8	17	327893	2007 <i>BC</i> ₅₈		3 10.5	41°90	3°2/ 7.6	18
2 1	11 45.59	-15 16.7	2.418	3.110	14.7	20.6	2 1	11 45.63	+ 6 53.5	1.447	2.270	17.2	19.9
2 11	11 42.10	-15 36.2	2.322	3.114	12.6	20.4	2 11	11 43.04	+ 8 6.1	1.388	2.285	13.2	19.7
2 21	11 36.76	-15 36.3	2.246	3.119	10.1	20.3	2 21	11 37.78	+ 9 33.1	1.349	2.301	8.7	19.5
3 2	11 30.00	-15 15.9	2.193	3.123	7.5	20.1	3 2	11 30.56	+11 5.5	1.336	2.318	4.4	19.2
3 12	11 22.53	-14 36.6	2.167	3.127	5.6	20.0	3 12	11 22.47	+12 32.5	1.349	2.335	4.0	19.3
3 22	11 15.11	-13 41.8	2.169	3.132	5.7	20.0	3 22	11 14.74	+13 44.6	1.389	2.353	8.0	19.5
4 1	11 8.52	-12 37.0	2.199	3.136	7.6	20.1	4 1	11 8.48	+14 35.0	1.453	2.371	12.2	19.8
4 11	11 3.43	-11 29.0	2.255	3.140	10.1	20.3	4 11	11 4.48	+15 1.4	1.538	2.389	15.8	20.1
239924	2000 <i>UR</i> ₄₀		3 10.5	195°15	2°9/ 7.6	18	105267	2000 <i>QB</i> ₂₂		3 10.5	130°62	0°3/10.8	18
2 1	11 52.10	+ 9 9.3	2.132	2.924	13.5	21.6	2 1	11 53.23	+ 0 51.2	1.803	2.580	16.2	20.9
2 11	11 47.38	+10 2.3	2.040	2.921	10.5	21.3	2 11	11 48.48	+ 1 6.0	1.725	2.593	12.8	20.7
2 21	11 40.43	+11 4.4	1.973	2.917	7.0	21.1	2 21	11 41.25	+ 1 35.7	1.668	2.605	8.7	20.5
3 2	11 31.77	+12 9.7	1.934	2.913	3.7	20.9	3 2	11 32.16	+ 2 16.8	1.637	2.616	4.2	20.2
3 12	11 22.22	+13 11.3	1.924	2.908	3.4	20.9	3 12	11 22.19	+ 3 3.6	1.634	2.627	0.7	20.0
3 22	11 12.74	+14 2.5	1.944	2.902	6.6	21.1	3 22	11 12.46	+ 3 49.8	1.660	2.638	5.3	20.3
4 1	11 4.30	+14 38.7	1.992	2.895	10.2	21.3	4 1	11 4.03	+ 4 29.2	1.714	2.648	9.6	20.6
4 11	10 57.67	+14 57.4	2.063	2.887	13.4	21.5	4 11	10 57.70	+ 4 57.3	1.791	2.657	13.3	20.9
263661	2008 <i>GS</i> ₁₀₃		3 10.5	61°88	1°2/11.8	18	498246	2007 <i>UF</i> ₉₀		3 10.5	90°14	0°1/10.3	17
2 1	11 44.89	- 5 6.8	1.608	2.386	17.7	20.3	2 1	11 47.28	+ 2 1.2	2.354	3.129	12.9	22.2
2 11	11 42.24	- 4 10.8	1.535	2.401	14.2	20.1	2 11	11 43.22	+ 2 26.8	2.278	3.146	10.0	22.0
2 21	11 37.15	- 2 50.0	1.484	2.417	9.9	19.9	2 21	11 37.38	+ 3 3.4	2.225	3.164	6.7	21.8
3 2	11 30.24	- 1 9.0	1.456	2.433	5.1	19.7	3 2	11 30.24	+ 3 47.7	2.200	3.181	3.1	21.6
3 12	11 22.50	+ 0 43.5	1.456	2.449	1.3	19.4	3 12	11 22.54	+ 4 34.8	2.204	3.197	0.6	21.5
3 22	11 15.02	+ 2 36.8	1.484	2.465	5.2	19.8	3 22	11 15.02	+ 5 19.9	2.238	3.214	4.3	21.8
4 1	11 8.82	+ 4 20.4	1.539	2.481	9.8	20.0	4 1	11 8.44	+ 5 58.4	2.301	3.231	7.7	22.0
4 11	11 4.68	+ 5 46.6	1.618	2.498	13.7	20.3	4 11	11 3.37	+ 6 27.1	2.389	3.247	10.7	22.2
21897	1999 <i>VG</i> ₇		3 10.5	225°80	0°4/10.1	17	436742	2011 <i>VG</i> ₁₆		3 10.5	244°49	5°2/ 3.4	17
2 1	11 47.37	+ 2 37.5	2.111	2.895	13.9	19.6	2 1	11 49.40	+21 57.0	2.897	3.696	10.1	21.6
2 11	11 43.70	+ 3 4.0	2.018	2.892	10.9	19.4	2 11	11 44.79	+22 51.3	2.805	3.680	8.1	21.4
2 21	11 37.95	+ 3 43.1	1.948	2.888	7.4	19.2	2 21	11 38.44	+23 44.7	2.737	3.664	6.2	21.3
3 2	11 30.60	+ 4 31.2	1.904	2.885	3.4	18.9	3 2	11 30.78	+24 31.7	2.699	3.647	5.2	21.2
3 12	11 22.43	+ 5 22.9	1.888	2.881	0.9	18.7	3 12	11 22.43	+25 6.9	2.689	3.630	5.8	21.2
3 22	11 14.33	+ 6 12.5	1.902	2.878	5.0	19.0	3 22	11 14.13	+25 26.4	2.708	3.613	7.7	21.3
4 1	11 7.18	+ 6 54.4	1.944	2.874	8.9	19.2	4 1	11 6.59	+25 28.4	2.754	3.595	9.8	21.4
4 11	11 1.72	+ 7 24.7	2.010	2.870	12.3	19.4	4 11	11 0.43	+25 12.7	2.822	3.576	11.9	21.5
89916	2002 <i>EN</i> ₃₂		3 10.5	239°40	4°8/ 6.2	18	295270	2008 <i>GQ</i> ₇₂		3 10.5	259°82	0°5/10.9	17
2 1	11 51.08	+12 48.9	1.766	2.579	15.0	20.0	2 1	11 47.85	- 0 38.0	2.050	2.823	14.6	22.3
2 11	11 47.17	+13 53.5	1.677	2.568	11.7	19.8	2 11	11 44.33	- 0 10.8	1.938	2.804	11.7	22.1
2 21	11 40.62	+15 6.7	1.611	2.557	8.1	19.5	2 21	11 38.58	+ 0 32.8	1.849	2.784	8.1	21.8
3 2	11 31.97	+16 20.4	1.571	2.546	5.2	19.3	3 2	11 31.00	+ 1 30.2	1.785	2.764	4.0	21.5
3 12	11 22.19	+17 25.3	1.559	2.534	5.5	19.3	3 12	11 22.37	+ 2 36.4	1.750	2.743	0.7	21.2
3 22	11 12.44	+18 13.5	1.574	2.522	8.9	19.5	3 22	11 13.62	+ 3 44.6	1.743	2.722	5.0	21.5
4 1	11 3.93	+18 39.8	1.615	2.509	12.7	19.7	4 1	11 5.75	+ 4 47.9	1.765	2.700	9.3	21.7
4 11	10 57.57	+18 42.6	1.677	2.496	16.2	19.9	4 11	10 59.62	+ 5 40.2	1.811	2.678	13.1	21.9
159389	1998 <i>QW</i> ₃		3 10.5	244°80	0°6/11.3	18	503426	2016 <i>EY</i> ₁₇		3 10.5	242°32	5°4/ 4.3	1

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
144728	2004 <i>GE</i> ₃₇		3 10.5 299°01	4.2/15.3	17		153899	2001 <i>XJ</i> ₂₁₅		3 10.5 79°44	0°2/10.7	18	
2 1	11 43.61	-11 32.0	2.274	2.997	14.7	20.5	2 1	11 49.52	-0 13.2	1.876	2.654	15.6	20.2
2 11	11 40.75	-11 32.8	2.167	2.987	12.4	20.3	2 11	11 45.33	+0 25.2	1.813	2.681	12.2	20.1
2 21	11 35.98	-11 13.9	2.080	2.977	9.6	20.1	2 21	11 38.95	+1 19.3	1.772	2.709	8.2	19.9
3 2	11 29.71	-10 35.0	2.017	2.967	6.6	19.9	3 2	11 31.02	+2 24.7	1.756	2.736	3.9	19.7
3 12	11 22.62	-9 38.4	1.981	2.958	4.4	19.7	3 12	11 22.46	+3 34.6	1.770	2.763	0.6	19.5
3 22	11 15.51	-8 28.8	1.974	2.948	4.9	19.7	3 22	11 14.23	+4 41.8	1.812	2.790	4.9	19.8
4 1	11 9.20	-7 12.6	1.994	2.939	7.7	19.9	4 1	11 7.25	+5 40.1	1.882	2.816	8.9	20.1
4 11	11 4.41	-5 56.9	2.041	2.930	10.8	20.1	4 11	11 2.16	+6 24.9	1.977	2.841	12.3	20.4
187808	1999 <i>RA</i> ₂₁₄		3 10.5 160°96	0°8/ 9.8	18		58092	4053 <i>T</i> ₋₃		3 10.5 90°82	0°7/ 9.6	18	
2 1	11 50.83	+1 39.0	1.559	2.353	17.5	20.8	2 1	11 44.80	+3 6.3	2.451	3.233	12.2	19.4
2 11	11 47.11	+2 27.4	1.478	2.358	13.8	20.6	2 11	11 41.30	+3 48.9	2.371	3.244	9.5	19.3
2 21	11 40.62	+3 34.9	1.418	2.362	9.3	20.3	2 21	11 36.11	+4 42.3	2.315	3.256	6.3	19.1
3 2	11 31.97	+4 56.1	1.383	2.365	4.2	20.1	3 2	11 29.68	+5 42.6	2.286	3.268	2.9	18.9
3 12	11 22.23	+6 22.0	1.376	2.369	1.5	19.9	3 12	11 22.69	+6 44.5	2.287	3.279	1.1	18.7
3 22	11 12.66	+7 43.0	1.396	2.371	6.5	20.2	3 22	11 15.84	+7 42.7	2.318	3.291	4.5	19.0
4 1	11 4.49	+8 50.3	1.443	2.373	11.3	20.5	4 1	11 9.83	+8 32.4	2.378	3.302	7.7	19.2
4 11	10 58.65	+9 38.3	1.512	2.375	15.5	20.7	4 11	11 5.22	+9 10.2	2.462	3.314	10.6	19.4
7238	Kobori		3 10.5 251°83	2°8/12.9	18		458818	2011 <i>TG</i> ₈		3 10.5 205°51	0°0/10.4	18	
2 1	11 49.02	-5 34.9	1.725	2.488	17.3	17.4	2 1	11 49.52	-0 32.0	1.870	2.647	15.7	21.9
2 11	11 45.68	-5 33.7	1.622	2.476	14.2	17.1	2 11	11 45.74	+0 14.2	1.774	2.642	12.4	21.7
2 21	11 39.72	-5 11.6	1.540	2.463	10.4	16.9	2 21	11 39.56	+1 19.1	1.699	2.637	8.5	21.4
3 2	11 31.61	-4 29.2	1.481	2.451	6.1	16.6	3 2	11 31.48	+2 39.0	1.650	2.630	4.1	21.2
3 12	11 22.28	-3 30.3	1.448	2.437	2.9	16.3	3 12	11 22.37	+4 6.8	1.630	2.624	0.7	20.9
3 22	11 12.84	-2 21.7	1.444	2.424	5.4	16.5	3 22	11 13.27	+5 33.9	1.639	2.616	5.5	21.2
4 1	11 4.52	-1 11.6	1.466	2.410	9.9	16.7	4 1	11 5.25	+6 52.3	1.676	2.608	9.9	21.4
4 11	10 58.31	-0 8.5	1.511	2.396	14.2	16.9	4 11	10 59.18	+7 55.4	1.737	2.599	13.8	21.7
158987	2004 <i>RC</i> ₃₄₂		3 10.5 117°74	2°1/12.9	18		87947	2000 <i>SJ</i> ₃₆₀		3 10.5 115°24	6°1/ 3.6	18	
2 1	11 45.63	-6 41.7	2.162	2.910	14.7	20.4	2 1	11 48.79	+18 10.5	2.016	2.832	13.3	20.2
2 11	11 42.23	-6 6.7	2.075	2.920	11.9	20.2	2 11	11 44.88	+19 42.9	1.954	2.843	10.4	20.0
2 21	11 36.88	-5 13.7	2.010	2.930	8.6	20.0	2 21	11 38.74	+21 17.3	1.916	2.854	7.7	19.8
3 2	11 30.07	-4 4.1	1.970	2.939	4.9	19.8	3 2	11 30.98	+22 44.9	1.906	2.864	6.2	19.8
3 12	11 22.57	-2 40.6	1.959	2.949	2.1	19.7	3 12	11 22.48	+23 57.1	1.924	2.875	7.0	19.8
3 22	11 15.21	-1 12.9	1.978	2.958	4.2	19.8	3 22	11 14.21	+24 47.7	1.969	2.885	9.4	20.0
4 1	11 8.79	+0 12.4	2.025	2.967	7.8	20.0	4 1	11 7.12	+25 13.9	2.038	2.895	12.2	20.2
4 11	11 3.98	+1 29.0	2.098	2.975	11.1	20.3	4 11	11 1.90	+25 16.1	2.129	2.904	14.7	20.4
419535	2010 <i>LS</i> ₄		3 10.5 242°84	3°9/13.7	16		31621	1999 <i>GH</i> ₁₉		3 10.5 268°78	0°4/11.1	18	
2 1	11 53.14	-7 36.5	2.080	2.811	15.7	21.5	2 1	11 43.99	-1 24.4	2.464	3.230	12.6	19.1
2 11	11 48.53	-8 1.2	1.963	2.793	13.1	21.3	2 11	11 40.89	-0 43.9	2.351	3.213	10.0	18.8
2 21	11 41.49	-8 9.3	1.867	2.774	9.9	21.0	2 21	11 36.01	+0 11.8	2.261	3.195	6.9	18.6
3 2	11 32.42	-7 59.9	1.796	2.755	6.5	20.8	3 2	11 29.73	+1 19.9	2.199	3.177	3.4	18.4
3 12	11 22.14	-7 34.5	1.753	2.735	4.0	20.6	3 12	11 22.68	+2 35.7	2.165	3.159	0.6	18.1
3 22	11 11.64	-6 56.7	1.739	2.714	5.4	20.6	3 22	11 15.57	+3 53.2	2.162	3.140	4.2	18.3
4 1	11 2.05	-6 12.1	1.753	2.693	9.0	20.8	4 1	11 9.17	+5 6.3	2.188	3.121	7.8	18.5
4 11	10 54.29	-5 27.4	1.793	2.670	12.7	21.0	4 11	11 4.13	+6 9.5	2.239	3.103	11.1	18.7
233599	2007 <i>RV</i> ₁₅₈		3 10.5 154°14	1°2/ 9.1	17		469154	2015 <i>GQ</i> ₂₇		3 10.5 257°03	1°8/12.8	17	
2 1	11 47.36	+5 25.8	2.460	3.244	12.1	21.4	2 1	11 43.56	-5 43.1	2.482	3.230	13.0	21.6
2 11	11 43.31	+5 59.8	2.374	3.249	9.4	21.3	2 11	11 40.50	-5 14.5	2.375	3.221	10.6	21.4
2 21	11 37.48	+6 42.9	2.311	3.254	6.2	21.1	2 21	11 35.70	-4 29.2	2.291	3.212	7.6	21.2
3 2	11 30.33	+7 31.1	2.276	3.258	2.9	20.8	3 2	11 29.56	-3 29.0	2.233	3.203	4.4	21.0
3 12	11 22.54	+8 19.5	2.271	3.262	1.6	20.8	3 12	11 22.72	-2 17.8	2.203	3.193	1.8	20.8
3 22	11 14.87	+9 3.2	2.296	3.266	4.8	21.0	3 22	11 15.87	-1 1.2	2.204	3.184	3.9	20.9
4 1	11 8.06	+9 38.0	2.349	3.269	8.1	21.2	4 1	11 9.76	+0 14.8	2.233	3.174	7.2	21.1
4 11	11 2.69	+10 1.0	2.428	3.272	11.0	21.4	4 11	11 5.01	+1 24.3	2.289	3.165	10.4	21.3
331781	2003 <i>FQ</i> ₁₃₁		3 10.5 5°78	1°4/11.9	18		485057	2010 <i>CK</i> ₁₈₃		3 10.5 287°49	0°0/10.5	17	
2 1	11 38.58	-6 2.9	1.360	2.158	19.4	19.5	2 1	11 46.94	+0 20.0	1.440	2.243	18.3	21.4
2 11	11 37.88	-5 4.0	1.281	2.158	15.6	19.3	2 11	11 44.59	+0 51.7	1.342	2.225	14.6	21.1
2 21	11 34.55	-3 33.7	1.221	2.159	11.0	19.0	2 21	11 39.32	+1 45.6	1.263	2.207	10.1	20.8
3 2	11 29.16	-1 36.3	1.184	2.162	5.8	18.7	3 2	11 31.57	+2 58.1	1.207	2.189	4.8	20.4
3 12	11 22.73	+0 38.2	1.173	2.165	1.4	18.4	3 12	11 22.35	+4 21.4	1.178	2.171	0.9	20.1
3 22	11 16.45	+2 56.0	1.187	2.170	5.8	18.7	3 22	11 12.98	+5 45.3	1.174	2.153	6.7	20.4
4 1	11 11.49	+5 3.0	1.227	2.176	11.0	19.0	4 1	11 4.88	+6 59.2	1.195	2.135	12.2	20.7
4 11	11 8.75	+6 48.3	1.290	2.183	15.6	19.3	4 11	10 59.22	+7 54.9	1.238	2.117	17.1	20.9
191710	2004 <i>RW</i> ₁₉₅		3 10.5 241°12	3°0/13.3	17		479592	2014 <i>DD</i> ₄		3 10.5 319°34	6°7/14.6	18	
2 1	11 49.37	-5 58.6	2.130	2.875	15.0	20.7	2 1	11 54.94	-10 39.0	2.054	2.766	16.4	20.4
2 11	11 45.37	-6 13.1	2.026	2.866	12.3	20.5	2 11	11 50.15	-12 9.1	1.936	2.745	14.1	20.1
2 21	11 39.18	-6 11.6	1.942	2.858	9.1	20.2	2 21	11 42.75	-13 26.9	1.839	2.724	11.3	19.9
3 2	11 31.26	-5 54.4	1.884	2.849	5.6	20.0	3 2	11 33.13	-14 28.9	1.767	2.703	8.6	19.7
3 12	11 22.38	-5 23.9	1.854	2.839	3.1	19.8	3 12	11 22.08	-15 12.5	1.722	2.683	6.8	19.5
3 22	11 13.46	-4 44.4	1.852	2.830	4.8	19.9	3 22	11 10.69	-15 37.3	1.705	2.663	7.4	19.5
4 1	11 5.45	-4 1.2	1.878	2.820	8.3	20.1	4 1	11 0.16	-15 46.0	1.716	2.643	10.0	19.6
4 11	10 59.17	-3 20.4	1.930	2.810	11.8	20.3	4 11	10 51.54	-15 43.7	1.752	2.625	13.2	19.8
332673	2009 <i>BV</i> ₃₈		3 10.5 77°65	4°2/ 5.3	18		62967	2000 <i>VM</i> ₄₅		3 10.5 11°65	3°7/ 8.1	18	
2 1	11 47.87	+13 14.4	2.263	3.068	12.4	20.8	2 1						

EPHEMERIDES

3 10.5

3 10.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
455568	2004 <i>RN</i> ₃₁		3 10.5 175°88	0°7/ 9.9 18			329831	2004 <i>RT</i> ₃₂₄		3 10.5 196°16	4°3/15.6 17	R	
2 1	11 52.56	+ 3 5.7	1.870	2.652	15.4	22.1	2 1	11 46.95	-12 44.8	2.421	3.125	14.4	21.3
2 11	11 48.02	+ 3 35.3	1.782	2.655	12.1	21.9	2 11	11 43.22	-12 44.1	2.316	3.123	12.1	21.1
2 21	11 41.02	+ 4 18.7	1.717	2.657	8.2	21.7	2 21	11 37.59	-12 24.0	2.232	3.120	9.4	20.9
3 2	11 32.14	+ 5 11.6	1.677	2.659	3.8	21.4	3 2	11 30.50	-11 44.2	2.172	3.117	6.6	20.8
3 12	11 22.29	+ 6 7.7	1.667	2.659	1.2	21.2	3 12	11 22.63	-10 46.9	2.140	3.113	4.5	20.6
3 22	11 12.56	+ 7 0.1	1.685	2.659	5.7	21.5	3 22	11 14.77	- 9 36.6	2.137	3.109	4.9	20.6
4 1	11 4.03	+ 7 42.7	1.731	2.659	9.9	21.8	4 1	11 7.73	- 8 19.5	2.163	3.104	7.4	20.8
4 11	10 57.52	+ 8 11.3	1.801	2.657	13.7	22.0	4 11	11 2.18	- 7 2.4	2.216	3.099	10.4	20.9
29955	1999 <i>JE</i> ₉₀		3 10.5 335°02	4°1/ 5.7 18			465693	2009 <i>SY</i> ₂₈₅		3 10.5 135°55	0°2/10.8 16		
2 1	11 44.84	+12 50.1	2.161	2.974	12.6	18.7	2 1	11 48.18	- 0 8.2	2.154	2.925	14.0	22.7
2 11	11 41.72	+14 1.4	2.080	2.972	9.7	18.5	2 11	11 44.21	+ 0 25.6	2.070	2.935	11.1	22.5
2 21	11 36.62	+15 19.2	2.024	2.970	6.7	18.3	2 21	11 38.24	+ 1 14.0	2.009	2.944	7.5	22.3
3 2	11 30.02	+16 36.8	1.995	2.969	4.4	18.1	3 2	11 30.77	+ 2 13.2	1.974	2.953	3.6	22.1
3 12	11 22.67	+17 46.7	1.995	2.967	4.8	18.2	3 12	11 22.59	+ 3 17.9	1.969	2.962	0.5	21.8
3 22	11 15.42	+18 42.5	2.022	2.965	7.5	18.3	3 22	11 14.56	+ 4 21.8	1.993	2.970	4.6	22.2
4 1	11 9.12	+19 19.9	2.076	2.964	10.6	18.5	4 1	11 7.52	+ 5 19.0	2.045	2.978	8.3	22.4
4 11	11 4.45	+19 37.2	2.152	2.962	13.4	18.7	4 11	11 2.13	+ 6 4.8	2.123	2.986	11.6	22.6
50840	2000 <i>FQ</i> ₄₃		3 10.5 58°21	1°3/ 9.0 18			353983	2000 <i>GM</i> ₄₃		3 10.5 306°70	1°1/ 9.8 17		
2 1	11 43.76	+ 2 9.4	1.950	2.744	14.5	18.6	2 1	11 48.20	+ 3 54.6	1.308	2.126	19.0	21.3
2 11	11 40.97	+ 3 24.0	1.875	2.756	11.2	18.4	2 11	11 45.89	+ 4 12.4	1.215	2.108	15.1	21.0
2 21	11 36.13	+ 4 54.6	1.823	2.768	7.4	18.2	2 21	11 40.38	+ 4 48.1	1.141	2.090	10.3	20.6
3 2	11 29.77	+ 6 35.0	1.798	2.781	3.3	17.9	3 2	11 32.15	+ 5 37.2	1.090	2.073	4.8	20.3
3 12	11 22.72	+ 8 16.9	1.802	2.793	1.8	17.8	3 12	11 22.32	+ 6 31.8	1.064	2.056	1.7	20.0
3 22	11 15.84	+ 9 51.6	1.835	2.806	5.7	18.1	3 22	11 12.35	+ 7 22.3	1.062	2.040	7.5	20.3
4 1	11 10.00	+11 12.1	1.896	2.819	9.5	18.4	4 1	11 3.82	+ 8 0.0	1.085	2.024	13.2	20.6
4 11	11 5.85	+12 13.9	1.981	2.832	12.8	18.6	4 11	10 58.00	+ 8 18.7	1.127	2.009	18.2	20.8
36093	1999 <i>RA</i> ₁₀₃		3 10.5 186°54	2°5/13.8 18			496838	1998 <i>SS</i> ₄₀		3 10.6 186°40	0°5/ 9.9 17		
2 1	11 45.01	- 7 35.7	2.903	3.628	11.8	18.6	2 1	11 47.87	+ 3 12.0	2.311	3.090	13.0	22.4
2 11	11 41.29	- 7 30.3	2.800	3.628	9.7	18.5	2 11	11 43.90	+ 3 38.0	2.218	3.090	10.1	22.2
2 21	11 36.06	- 7 11.2	2.720	3.627	7.2	18.3	2 21	11 38.02	+ 4 15.1	2.149	3.089	6.8	22.0
3 2	11 29.69	- 6 39.1	2.666	3.626	4.5	18.1	3 2	11 30.68	+ 4 59.7	2.107	3.088	3.1	21.8
3 12	11 22.73	- 5 56.7	2.641	3.625	2.6	18.0	3 12	11 22.61	+ 5 47.0	2.095	3.088	0.9	21.6
3 22	11 15.81	- 5 7.6	2.646	3.623	3.6	18.1	3 22	11 14.62	+ 6 31.8	2.112	3.086	4.7	21.9
4 1	11 9.55	- 4 16.0	2.681	3.622	6.2	18.2	4 1	11 7.52	+ 7 9.4	2.157	3.085	8.3	22.1
4 11	11 4.47	- 3 26.5	2.743	3.620	8.8	18.4	4 11	11 1.96	+ 7 36.1	2.228	3.083	11.4	22.3
159643	2002 <i>CG</i> ₁₃₃		3 10.5 297°63	0°9/11.3 17			20178	1996 <i>XE</i> ₃₁		3 10.6 325°32	9°0/17.1 18		
2 1	11 49.87	+ 0 49.6	1.870	2.650	15.5	19.6	2 1	11 46.92	-15 31.1	1.476	2.207	21.1	17.8
2 11	11 46.07	+ 0 41.6	1.770	2.639	12.4	19.4	2 11	11 44.65	-16 42.2	1.381	2.196	18.4	17.6
2 21	11 39.83	+ 0 46.6	1.692	2.628	8.7	19.1	2 21	11 39.42	-17 28.1	1.302	2.185	15.2	17.3
3 2	11 31.64	+ 1 2.6	1.639	2.617	4.4	18.8	3 2	11 31.67	-17 43.7	1.243	2.175	11.9	17.1
3 12	11 22.38	+ 1 25.8	1.614	2.607	1.0	18.6	3 12	11 22.40	-17 26.8	1.207	2.165	9.4	16.9
3 22	11 13.10	+ 1 51.2	1.617	2.596	5.1	18.8	3 22	11 12.96	-16 40.0	1.194	2.156	9.4	16.9
4 1	11 4.89	+ 2 13.6	1.647	2.586	9.5	19.1	4 1	11 4.79	-15 31.0	1.205	2.147	11.9	17.0
4 11	10 58.63	+ 2 28.1	1.701	2.576	13.4	19.3	4 11	10 59.11	-14 11.4	1.238	2.139	15.5	17.2
402267	2005 <i>QE</i> ₁₆₆		3 10.5 43°79	2°7/13.1 15			130590	2000 <i>RG</i> ₈₇		3 10.6 224°53	0°5/11.0 18		
2 1	11 54.99	- 9 41.4	1.376	2.129	21.4	20.4	2 1	11 50.97	- 0 36.3	2.020	2.787	15.0	21.7
2 11	11 49.75	- 8 35.6	1.346	2.192	17.0	20.3	2 11	11 46.79	- 0 11.4	1.914	2.776	12.0	21.4
2 21	11 41.85	- 7 1.4	1.336	2.256	12.0	20.1	2 21	11 40.26	+ 0 29.7	1.830	2.764	8.3	21.2
3 2	11 32.27	- 5 5.6	1.349	2.318	6.7	20.0	3 2	11 31.86	+ 1 24.3	1.772	2.751	4.1	20.9
3 12	11 22.35	- 2 59.4	1.390	2.380	2.7	19.9	3 12	11 22.40	+ 2 27.2	1.743	2.737	0.7	20.6
3 22	11 13.34	- 0 55.3	1.460	2.441	5.3	20.2	3 22	11 12.87	+ 3 31.7	1.744	2.722	5.0	20.9
4 1	11 6.23	+ 0 55.9	1.557	2.501	9.6	20.6	4 1	11 4.31	+ 4 30.9	1.773	2.706	9.3	21.1
4 11	11 1.58	+ 2 27.2	1.679	2.560	13.2	20.9	4 11	10 57.59	+ 5 19.2	1.827	2.690	13.2	21.3
198656	2005 <i>BH</i> ₁₃		3 10.5 71°48	1°7/ 8.8 18			47382	1999 <i>XX</i> ₉₈		3 10.6 285°79	5°1/ 6.1 18		
2 1	11 47.06	+ 6 4.8	2.034	2.831	13.9	20.4	2 1	11 49.26	+13 9.0	1.628	2.450	15.7	18.3
2 11	11 43.51	+ 6 43.3	1.950	2.833	10.8	20.2	2 11	11 46.00	+14 12.0	1.542	2.438	12.3	18.0
2 21	11 37.85	+ 7 32.5	1.890	2.836	7.1	20.0	2 21	11 39.99	+15 23.8	1.479	2.426	8.5	17.8
3 2	11 30.61	+ 8 27.4	1.856	2.838	3.3	19.7	3 2	11 31.79	+16 35.8	1.440	2.415	5.5	17.6
3 12	11 22.59	+ 9 21.8	1.851	2.841	2.2	19.7	3 12	11 22.41	+17 38.1	1.428	2.403	5.9	17.5
3 22	11 14.70	+10 9.6	1.874	2.843	5.8	19.9	3 22	11 13.08	+18 22.5	1.443	2.392	9.4	17.7
4 1	11 7.83	+10 45.7	1.924	2.846	9.5	20.1	4 1	11 5.05	+18 43.4	1.481	2.380	13.3	17.9
4 11	11 2.70	+11 7.0	1.999	2.848	12.8	20.3	4 11	10 59.29	+18 39.7	1.541	2.369	17.0	18.1
33767	1999 <i>RK</i> ₁₀₂		3 10.5 213°49	4°7/15.3 18			245017	2004 <i>DM</i> ₃₉		3 10.6 106°38	1°9/ 8.2 17		
2 1	11 49.73	-11 51.2	2.429	3.132	14.4	19.5	2 1	11 44.63	+ 6 3.9	2.242	3.039	12.8	20.8
2 11	11 45.42	-12 17.3	2.321	3.126	12.2	19.3	2 11	11 41.45	+ 7 2.4	2.157	3.041	9.9	20.6
2 21	11 39.12	-12 26.6	2.233	3.120	9.5	19.1	2 21	11 36.38	+ 8 11.9	2.096	3.042	6.5	20.4
3 2	11 31.24	-12 18.1	2.170	3.112	6.8	19.0	3 2	11 29.91	+ 9 27.0	2.063	3.044	3.1	20.2
3 12	11 22.49	-11 52.7	2.135	3.105	4.8	18.8	3 12	11 22.74	+10 41.2	2.058	3.046	2.4	20.2
3 22	11 13.69	-11 13.6	2.129	3.097	5.3	18.8	3 22	11 15.68	+11 48.0	2.083	3.048	5.7	20.4
4 1	11 5.70	-10 25.5	2.152	3.088	7.7	19.0	4 1	11 9.50	+12 42.2	2.135	3.050	9.1	20.6
4 11	10 59.25	- 9 34.7	2.200	3.079	10.6	19.1	4 11	11 4.84	+13 20.4	2.212	3.051	12.1	20.8
171983	2001 <i>TX</i> ₁₆₁		3 10.5 139°34	0°5/11.1 17			221095	2005 <i>SK</i> ₉₆		3 10.6 194°67			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
19634	1999 <i>RG</i> ₄₅		3 10.6 245°41	1°1/11.8 18			174444	2002 <i>XH</i> ₅₉		3 10.6 21°37	12°8/27.9 18		
2 1	11 46.75	- 1 27.2	2.778	3.531	11.6	18.4	2 1	11 53.01	+32 24.9	1.465	2.289	17.0	18.6
2 11	11 42.79	- 1 20.9	2.667	3.519	9.3	18.2	2 11	11 49.34	+34 12.1	1.421	2.293	14.7	18.5
2 21	11 37.17	- 1 3.6	2.578	3.506	6.5	18.0	2 21	11 42.33	+35 46.6	1.398	2.298	13.1	18.4
3 2	11 30.27	- 0 36.8	2.518	3.492	3.5	17.8	3 2	11 32.84	+36 54.6	1.398	2.304	12.8	18.4
3 12	11 22.69	- 0 3.5	2.486	3.479	1.1	17.5	3 12	11 22.31	+37 25.8	1.419	2.310	14.0	18.5
3 22	11 15.08	+ 0 32.6	2.486	3.465	3.6	17.7	3 22	11 12.35	+37 16.4	1.462	2.317	16.0	18.6
4 1	11 8.12	+ 1 7.6	2.514	3.450	6.8	17.9	4 1	11 4.36	+36 28.1	1.524	2.324	18.3	18.8
4 11	11 2.43	+ 1 37.5	2.570	3.436	9.7	18.1	4 11	10 59.25	+35 7.5	1.602	2.332	20.5	19.0
298852	2004 <i>RK</i> ₂₃₅		3 10.6 80°21	1°5/11.7 18			82021	2000 <i>SJ</i> ₂₅		3 10.6 188°62	2°3/14.0 18		
2 1	11 52.89	- 2 15.4	1.490	2.271	18.8	21.0	2 1	11 44.31	- 8 48.9	3.064	3.780	11.4	20.3
2 11	11 48.59	- 2 4.8	1.427	2.294	15.0	20.8	2 11	11 40.70	- 8 22.2	2.957	3.779	9.4	20.2
2 21	11 41.50	- 1 34.2	1.384	2.318	10.4	20.6	2 21	11 35.65	- 7 40.6	2.873	3.778	6.9	20.0
3 2	11 32.36	- 0 46.9	1.364	2.341	5.4	20.4	3 2	11 29.53	- 6 45.3	2.816	3.776	4.4	19.8
3 12	11 22.35	+ 0 10.6	1.371	2.364	1.5	20.2	3 12	11 22.86	- 5 39.3	2.789	3.773	2.4	19.7
3 22	11 12.76	+ 1 10.0	1.406	2.386	5.5	20.5	3 22	11 16.23	- 4 26.8	2.793	3.771	3.4	19.7
4 1	11 4.77	+ 2 3.6	1.467	2.409	10.2	20.8	4 1	11 10.21	- 3 12.8	2.827	3.767	5.9	19.9
4 11	10 59.21	+ 2 45.2	1.551	2.430	14.2	21.1	4 11	11 5.31	- 2 2.1	2.889	3.763	8.5	20.1
145233	2005 <i>JB</i> ₈₀		3 10.6 298°74	0°5/11.1 17			122167	2000 <i>KZ</i> ₇		3 10.6 221°78	5°1/4.5 18		
2 1	11 45.72	+ 0 8.6	2.090	2.869	14.1	20.6	2 1	11 49.92	+16 38.5	2.343	3.148	12.0	21.2
2 11	11 42.63	+ 0 23.8	1.980	2.849	11.3	20.4	2 11	11 45.64	+17 54.2	2.253	3.137	9.5	21.0
2 21	11 37.42	+ 0 53.4	1.893	2.830	7.8	20.1	2 21	11 39.30	+19 14.0	2.188	3.126	6.8	20.8
3 2	11 30.52	+ 1 34.9	1.831	2.810	3.9	19.8	3 2	11 31.35	+20 30.9	2.151	3.114	5.1	20.7
3 12	11 22.64	+ 2 23.8	1.797	2.791	0.7	19.5	3 12	11 22.56	+21 37.3	2.143	3.102	5.8	20.7
3 22	11 14.68	+ 3 14.6	1.792	2.771	4.8	19.8	3 22	11 13.78	+22 27.3	2.164	3.089	8.2	20.8
4 1	11 7.58	+ 4 1.2	1.815	2.752	8.9	20.0	4 1	11 5.92	+22 57.0	2.211	3.075	11.1	21.0
4 11	11 2.12	+ 4 38.4	1.861	2.733	12.6	20.2	4 11	10 59.70	+23 5.6	2.281	3.060	13.7	21.1
385843	2006 <i>JY</i> ₂₅		3 10.6 88°13	17°0/7.9 18 R			226859	2004 <i>TZ</i> ₁₄		3 10.6 140°96	1°0/9.5 18		
2 1	13 48.14	+15 45.6	0.317	1.134	54.6	20.3	2 1	11 48.03	+ 4 1.0	2.124	2.910	13.7	20.7
2 11	13 16.90	+20 47.3	0.322	1.208	40.7	20.1	2 11	11 44.17	+ 4 38.3	2.040	2.916	10.7	20.5
2 21	12 37.78	+25 7.1	0.340	1.277	27.6	19.9	2 21	11 38.27	+ 5 27.4	1.979	2.921	7.1	20.3
3 2	11 55.82	+27 46.6	0.376	1.340	18.6	20.0	3 2	11 30.84	+ 6 23.8	1.945	2.926	3.3	20.1
3 12	11 19.05	+28 26.9	0.432	1.397	17.6	20.3	3 12	11 22.66	+ 7 21.7	1.939	2.931	1.5	20.0
3 22	10 52.36	+27 38.6	0.508	1.448	22.2	20.9	3 22	11 14.62	+ 8 15.0	1.964	2.936	5.2	20.2
4 1	10 36.23	+26 1.6	0.600	1.494	27.2	21.5	4 1	11 7.57	+ 8 58.4	2.015	2.940	8.9	20.5
4 11	10 28.80	+24 3.3	0.703	1.534	31.3	22.0	4 11	11 2.21	+ 9 28.4	2.092	2.944	12.2	20.7
422800	2001 <i>XT</i> ₁₉₁		3 10.6 9°78	9°4/18.3 18			267701	2002 <i>XA</i> ₁₀₄		3 10.6 93°94	3°8/7.1 18		
2 1	11 46.99	-17 53.9	1.586	2.297	20.6	19.8	2 1	11 50.38	+10 37.2	1.765	2.575	15.1	20.6
2 11	11 44.38	-19 10.5	1.502	2.298	18.1	19.6	2 11	11 46.33	+11 36.4	1.699	2.589	11.7	20.4
2 21	11 38.99	-20 1.2	1.435	2.301	15.1	19.4	2 21	11 39.86	+12 43.8	1.655	2.603	7.8	20.2
3 2	11 31.36	-20 21.1	1.387	2.304	12.1	19.3	3 2	11 31.60	+13 52.1	1.638	2.616	4.4	20.0
3 12	11 22.50	-20 8.7	1.362	2.308	9.9	19.1	3 12	11 22.54	+14 52.7	1.649	2.629	4.4	20.1
3 22	11 13.65	-19 26.8	1.361	2.312	9.6	19.1	3 22	11 13.78	+15 38.9	1.687	2.643	7.7	20.3
4 1	11 6.10	-18 22.7	1.384	2.318	11.4	19.2	4 1	11 6.35	+16 6.1	1.751	2.656	11.3	20.5
4 11	11 0.87	-17 7.1	1.429	2.324	14.2	19.4	4 11	11 0.98	+16 13.2	1.838	2.668	14.5	20.8
159629	Brunsvik		3 10.6 149°90	1°7/8.8 18			191659	2004 <i>PK</i> ₁₀₁		3 10.6 207°06	0°1/10.5 18		
2 1	11 51.79	+ 4 52.6	2.045	2.829	14.3	21.4	2 1	11 52.49	+ 3 10.5	2.453	3.218	12.7	21.2
2 11	11 47.12	+ 5 48.3	1.966	2.841	11.1	21.2	2 11	11 47.43	+ 3 15.4	2.350	3.213	10.0	21.0
2 21	11 40.25	+ 6 56.3	1.910	2.852	7.3	21.0	2 21	11 40.39	+ 3 29.4	2.271	3.207	6.8	20.8
3 2	11 31.75	+ 8 11.2	1.881	2.862	3.4	20.8	3 2	11 31.84	+ 3 50.1	2.220	3.200	3.2	20.6
3 12	11 22.46	+ 9 25.5	1.882	2.872	2.2	20.7	3 12	11 22.49	+ 4 13.8	2.200	3.193	0.6	20.3
3 22	11 13.37	+10 32.3	1.913	2.880	5.9	21.0	3 22	11 13.16	+ 4 36.6	2.209	3.185	4.4	20.6
4 1	11 5.39	+11 25.8	1.972	2.888	9.6	21.2	4 1	11 4.70	+ 4 54.5	2.249	3.177	8.0	20.8
4 11	10 59.26	+12 2.8	2.055	2.894	12.9	21.4	4 11	10 57.79	+ 5 4.6	2.314	3.168	11.1	21.0
113417	2002 <i>SE</i> ₃₀		3 10.6 87°05	4°5/5.3 18			504157	2006 <i>SW</i> ₂₇₉		3 10.6 225°62	2°6/13.9 17		
2 1	11 46.64	+14 17.7	2.151	2.963	12.7	19.8	2 1	11 45.78	- 7 54.1	2.883	3.605	11.9	22.3
2 11	11 43.05	+15 31.6	2.082	2.973	9.8	19.6	2 11	11 42.00	- 7 47.0	2.769	3.595	9.8	22.1
2 21	11 37.47	+16 50.1	2.038	2.983	6.8	19.4	2 21	11 36.63	- 7 25.7	2.678	3.584	7.3	21.9
3 2	11 30.41	+18 6.0	2.022	2.992	4.7	19.3	3 2	11 30.04	- 6 50.7	2.613	3.573	4.6	21.8
3 12	11 22.69	+19 12.0	2.034	3.002	5.2	19.4	3 12	11 22.79	- 6 4.6	2.578	3.561	2.7	21.6
3 22	11 15.16	+20 2.1	2.074	3.011	7.8	19.5	3 22	11 15.52	- 5 11.0	2.572	3.549	3.7	21.7
4 1	11 8.66	+20 32.9	2.140	3.021	10.7	19.7	4 1	11 8.87	- 4 14.5	2.596	3.537	6.4	21.8
4 11	11 3.83	+20 43.5	2.229	3.030	13.3	19.9	4 11	11 3.43	- 3 19.9	2.648	3.524	9.1	22.0
385878	2006 <i>SY</i> ₃₁		3 10.6 112°57	1°1/9.4 17			37326	2001 <i>QA</i> ₇₉		3 10.6 143°97	1°5/8.7 18		
2 1	11 49.09	+ 6 19.7	2.434	3.217	12.3	21.4	2 1	11 47.63	+ 7 17.5	2.713	3.497	11.1	19.0
2 11	11 44.67	+ 6 34.3	2.348	3.223	9.5	21.2	2 11	11 43.36	+ 7 47.6	2.628	3.504	8.6	18.8
2 21	11 38.43	+ 6 56.5	2.287	3.229	6.4	21.0	2 21	11 37.46	+ 8 24.4	2.569	3.511	5.7	18.6
3 2	11 30.84	+ 7 22.7	2.253	3.234	2.9	20.8	3 2	11 30.38	+ 9 4.4	2.537	3.518	2.7	18.4
3 12	11 22.62	+ 7 48.7	2.249	3.240	1.5	20.7	3 12	11 22.75	+ 9 43.0	2.536	3.525	1.9	18.4
3 22	11 14.53	+ 8 10.5	2.274	3.245	4.7	20.9	3 22	11 15.24	+10 16.3	2.564	3.531	4.6	18.6
4 1	11 7.35	+ 8 24.7	2.328	3.251	8.0	21.2	4 1	11 8.51	+10 40.9	2.622	3.537	7.6	18.8
4 11	11 1.67	+ 8 29.0	2.408	3.256	10.9	21.4	4 11	11 3.12	+10 54.7	2.705	3.542	10.2	19.0
72488	2001 <i>DR</i> ₄₃		3 10.6 99°19	0°0/10.5 18			455790	2005 <i>QJ</i> ₁₈₈		3 10.6 302°10	0°3/10.3 17		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V		
500476	2012 <i>TU</i> ₂₃₇		3 10.6	87°05'	1°0'	9.4	17	453847	2011 <i>UR</i> ₁₇		3 10.6	53°37'	6°2'	15.7	18
2 1	11 46.00	+ 3 53.3	2.418	3.201	12.3	21.8	2 1	11 48.62	-12 16.4	1.381	2.133	21.4	20.4		
2 11	11 42.23	+ 4 37.4	2.346	3.220	9.5	21.6	2 11	11 45.69	-12 43.8	1.314	2.150	17.9	20.2		
2 21	11 36.75	+ 5 31.7	2.297	3.239	6.3	21.4	2 21	11 39.83	-12 42.1	1.263	2.167	13.9	20.0		
3 2	11 30.05	+ 6 31.9	2.276	3.258	2.9	21.2	3 2	11 31.73	-12 10.1	1.233	2.185	9.7	19.8		
3 12	11 22.81	+ 7 32.6	2.284	3.276	1.4	21.2	3 12	11 22.56	-11 11.1	1.227	2.203	6.5	19.7		
3 22	11 15.76	+ 8 28.5	2.323	3.294	4.6	21.4	3 22	11 13.69	- 9 53.0	1.246	2.221	7.1	19.7		
4 1	11 9.59	+ 9 15.1	2.390	3.312	7.8	21.6	4 1	11 6.41	- 8 26.6	1.290	2.240	10.5	20.0		
4 11	11 4.86	+ 9 49.5	2.482	3.330	10.7	21.9	4 11	11 1.65	- 7 3.2	1.357	2.258	14.4	20.2		
101500	1998 <i>XP</i> ₈		3 10.6	186°88'	0°5'	9.9	18	501038	2013 <i>RX</i> ₇₂		3 10.6	150°65'	0°4'	10.2	17
2 1	11 46.87	+ 2 35.9	2.646	3.417	11.7	20.8	2 1	11 50.01	+ 3 28.4	2.064	2.847	14.2	22.1		
2 11	11 42.89	+ 3 11.4	2.549	3.417	9.1	20.6	2 11	11 45.81	+ 3 43.6	1.977	2.850	11.1	21.8		
2 21	11 37.23	+ 3 57.6	2.478	3.416	6.1	20.4	2 21	11 39.44	+ 4 10.0	1.912	2.853	7.5	21.6		
3 2	11 30.32	+ 4 51.0	2.434	3.414	2.8	20.2	3 2	11 31.43	+ 4 44.2	1.874	2.855	3.5	21.4		
3 12	11 22.76	+ 5 47.1	2.420	3.413	0.9	20.0	3 12	11 22.61	+ 5 21.2	1.865	2.857	0.9	21.2		
3 22	11 15.27	+ 6 41.1	2.437	3.410	4.2	20.3	3 22	11 13.91	+ 5 55.7	1.884	2.860	5.0	21.5		
4 1	11 8.52	+ 7 28.4	2.482	3.407	7.5	20.5	4 1	11 6.26	+ 6 23.0	1.931	2.862	8.9	21.7		
4 11	11 3.11	+ 8 5.4	2.554	3.404	10.3	20.7	4 11	11 0.39	+ 6 39.5	2.003	2.864	12.3	21.9		
385268	2001 <i>RC</i> ₁₂		3 10.6	65°92'	5°3'	19.2	18	465983	2011 <i>CG</i> ₈₄		3 10.6	104°47'	0°5'	11.0	17
2 1	11 51.71	-21 46.7	2.856	3.476	14.0	21.6	2 1	11 47.57	- 0 25.4	1.937	2.715	15.1	22.1		
2 11	11 46.20	-21 29.7	2.796	3.532	12.0	21.5	2 11	11 44.03	- 0 0.3	1.853	2.721	12.0	21.9		
2 21	11 39.13	-20 51.7	2.756	3.587	9.8	21.4	2 21	11 38.30	+ 0 40.6	1.790	2.727	8.2	21.7		
3 2	11 31.06	-19 52.8	2.740	3.641	7.5	21.3	3 2	11 30.91	+ 1 34.0	1.753	2.732	4.0	21.5		
3 12	11 22.67	-18 36.0	2.753	3.693	5.8	21.3	3 12	11 22.70	+ 2 34.1	1.745	2.738	0.6	21.2		
3 22	11 14.64	-17 5.9	2.796	3.745	5.4	21.3	3 22	11 14.62	+ 3 34.4	1.765	2.744	4.8	21.5		
4 1	11 7.60	-15 28.7	2.870	3.795	6.6	21.5	4 1	11 7.62	+ 4 28.4	1.812	2.749	8.9	21.8		
4 11	11 2.01	-13 51.1	2.973	3.845	8.4	21.7	4 11	11 2.43	+ 5 11.1	1.884	2.754	12.5	22.0		
298816	2004 <i>RM</i> ₆₂		3 10.6	217°97'	0°2'	10.8	18	357341	2003 <i>QU</i> ₁₃		3 10.6	197°35'	1°4'	9.1	17
2 1	11 50.57	- 0 10.8	1.860	2.636	15.8	21.9	2 1	11 50.19	+ 4 9.8	2.150	2.932	13.7	22.1		
2 11	11 46.66	+ 0 20.7	1.760	2.628	12.6	21.7	2 11	11 45.95	+ 5 2.6	2.054	2.929	10.7	21.9		
2 21	11 40.28	+ 1 9.8	1.682	2.619	8.7	21.4	2 21	11 39.56	+ 6 8.5	1.982	2.924	7.2	21.6		
3 2	11 31.93	+ 2 13.1	1.630	2.610	4.2	21.1	3 2	11 31.52	+ 7 22.8	1.938	2.920	3.3	21.4		
3 12	11 22.49	+ 3 24.4	1.606	2.600	0.6	20.8	3 12	11 22.60	+ 8 38.6	1.923	2.914	1.9	21.3		
3 22	11 13.01	+ 4 36.2	1.611	2.589	5.4	21.1	3 22	11 13.71	+ 9 48.9	1.938	2.907	5.6	21.5		
4 1	11 4.62	+ 5 40.7	1.644	2.578	9.9	21.4	4 1	11 5.79	+10 47.7	1.982	2.900	9.4	21.7		
4 11	10 58.21	+ 6 32.0	1.701	2.566	13.9	21.6	4 11	10 59.58	+11 30.9	2.050	2.892	12.8	21.9		
278103	2007 <i>BG</i> ₅₆		3 10.6	33°47'	6°0'	4.7	17	186173	2001 <i>UZ</i> ₁₅₅		3 10.6	242°79'	5°0'	5.9	18
2 1	11 46.32	+14 25.0	1.587	2.417	15.6	20.2	2 1	11 50.73	+15 5.0	1.885	2.698	14.2	20.0		
2 11	11 43.58	+15 58.5	1.523	2.422	12.1	20.0	2 11	11 46.70	+16 1.0	1.803	2.693	11.1	19.8		
2 21	11 38.24	+17 39.4	1.481	2.428	8.6	19.8	2 21	11 40.22	+17 1.9	1.744	2.688	7.8	19.6		
3 2	11 30.92	+19 17.1	1.464	2.434	6.2	19.6	3 2	11 31.86	+18 0.0	1.712	2.683	5.3	19.4		
3 12	11 22.67	+20 40.5	1.474	2.441	7.0	19.7	3 12	11 22.55	+18 47.3	1.707	2.678	5.7	19.5		
3 22	11 14.67	+21 41.2	1.510	2.447	10.1	19.9	3 22	11 13.37	+19 17.5	1.730	2.673	8.6	19.6		
4 1	11 8.03	+22 14.5	1.570	2.454	13.6	20.1	4 1	11 5.39	+19 26.9	1.778	2.667	12.0	19.8		
4 11	11 3.59	+22 20.2	1.650	2.462	16.8	20.3	4 11	10 59.44	+19 15.0	1.848	2.662	15.2	20.0		
456839	2007 <i>UP</i> ₁₁		3 10.6	176°94'	2°3'	8.2	17	456594	2007 <i>EB</i> ₂₅		3 10.6	27°15'	6°6'	6.6	18
2 1	11 51.85	+ 7 32.1	2.159	2.947	13.5	22.1	2 1	11 58.20	+19 51.4	1.526	2.342	16.8	20.0		
2 11	11 47.15	+ 8 23.5	2.072	2.950	10.5	21.9	2 11	11 52.88	+20 11.4	1.461	2.349	13.3	19.8		
2 21	11 40.30	+ 9 24.7	2.009	2.952	7.0	21.7	2 21	11 44.48	+20 29.0	1.418	2.357	9.7	19.6		
3 2	11 31.82	+10 30.3	1.973	2.954	3.5	21.5	3 2	11 33.83	+20 35.9	1.400	2.366	6.9	19.4		
3 12	11 22.53	+11 33.4	1.968	2.954	2.8	21.4	3 12	11 22.25	+20 24.6	1.408	2.375	7.1	19.4		
3 22	11 13.34	+12 27.9	1.992	2.954	6.1	21.6	3 22	11 11.19	+19 51.7	1.442	2.385	10.0	19.6		
4 1	11 5.19	+13 8.7	2.044	2.953	9.7	21.8	4 1	11 1.97	+18 57.3	1.501	2.396	13.5	19.9		
4 11	10 58.80	+13 33.2	2.120	2.951	12.9	22.0	4 11	10 55.44	+17 44.6	1.582	2.407	16.8	20.1		
236329	2006 <i>BD</i> ₉₀		3 10.6	86°02'	0°4'	10.9	18	468444	2002 <i>RZ</i> ₂₁₀		3 10.6	87°51'	0°0'	10.4	18
2 1	11 49.03	+ 0 54.0	1.955	2.735	15.0	21.1	2 1	11 46.85	+ 0 44.9	2.255	3.029	13.4	21.7		
2 11	11 45.14	+ 1 4.8	1.872	2.741	11.8	20.9	2 11	11 43.03	+ 1 19.5	2.180	3.047	10.5	21.6		
2 21	11 39.02	+ 1 29.2	1.810	2.747	8.1	20.7	2 21	11 37.38	+ 2 7.0	2.129	3.066	7.1	21.4		
3 2	11 31.23	+ 2 4.2	1.774	2.753	3.9	20.4	3 2	11 30.39	+ 3 3.5	2.104	3.084	3.3	21.2		
3 12	11 22.63	+ 2 44.9	1.766	2.759	0.6	20.2	3 12	11 22.81	+ 4 3.8	2.109	3.102	0.6	21.0		
3 22	11 14.17	+ 3 25.6	1.787	2.765	4.8	20.5	3 22	11 15.43	+ 5 2.2	2.143	3.120	4.4	21.3		
4 1	11 6.81	+ 4 1.0	1.835	2.771	8.9	20.7	4 1	11 9.01	+ 5 53.5	2.206	3.137	7.9	21.6		
4 11	11 1.29	+ 4 26.6	1.908	2.778	12.4	21.0	4 11	11 4.13	+ 6 33.7	2.294	3.155	10.9	21.8		
145684	3279 <i>T</i> ₋₂		3 10.6	170°19'	2°1'	8.1	17	207704	2007 <i>RT</i> ₈₃		3 10.6	248°42'	0°6'	11.0	18
2 1	11 49.09	+ 9 58.8	2.660	3.449	11.2	20.4	2 1	11 51.44	+ 0 40.6	1.634	2.421	17.2	20.8		
2 11	11 44.56	+10 25.5	2.573	3.451	8.7	20.2	2 11	11 47.69	+ 0 46.0	1.540	2.413	13.7	20.5		
2 21	11 38.31	+10 57.4	2.510	3.453	5.8	20.0	2 21	11 41.18	+ 1 7.6	1.466	2.405	9.5	20.3		
3 2	11 30.81	+11 30.4	2.475	3.454	3.0	19.9	3 2	11 32.43	+ 1 42.8	1.417	2.397	4.7	20.0		
3 12	11 22.71	+12 0.2	2.471	3.456	2.5	19.8	3 12	11 22.45	+ 2 26.2	1.395	2.388	0.8	19.6		
3 22	11 14.71	+12 22.9	2.496	3.457	5.1	20.0	3 22	11 12.45	+ 3 11.0	1.400	2.380	5.7	20.0		
4 1	11 7.54	+12 35.5	2.550	3.458	8.1	20.2	4 1	11 3.71	+ 3 50.1	1.432	2.371	10.6	20.2		
4 11	11 1.76	+12 36.4	2.630	3.458	10.7	20.4	4 11	10 57.24	+ 4 17.7	1.486	2.362	15.0	20.5		
321058	2008 <i>RC</i> ₁₃₃		3 10.6	230°44'	1°4'	9.4									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
21248	1995 YP ₁		3 10.6 257°04		3°0/13.5 18		407702	2011 UV ₁₃₄		3 10.6 22°32		4°7/14.1 18	
2 1	11 47.12	- 6 40.0	2.061	2.809	15.3	18.0	2 1	11 48.24	- 8 6.3	1.413	2.183	20.2	20.4
2 11	11 43.66	- 6 44.2	1.965	2.808	12.6	17.8	2 11	11 45.51	- 8 30.6	1.332	2.185	16.7	20.1
2 21	11 38.08	- 6 30.5	1.890	2.806	9.3	17.5	2 21	11 39.84	- 8 30.2	1.269	2.188	12.6	19.9
3 2	11 30.84	- 5 59.8	1.840	2.804	5.7	17.3	3 2	11 31.84	- 8 4.5	1.228	2.191	8.1	19.6
3 12	11 22.72	- 5 15.1	1.817	2.803	3.1	17.1	3 12	11 22.60	- 7 16.7	1.211	2.195	4.8	19.4
3 22	11 14.65	- 4 21.5	1.822	2.801	4.7	17.2	3 22	11 13.46	- 6 13.7	1.219	2.199	6.4	19.5
4 1	11 7.53	- 3 25.4	1.855	2.800	8.2	17.5	4 1	11 5.78	- 5 5.3	1.252	2.203	10.6	19.8
4 11	11 2.13	- 2 33.1	1.913	2.798	11.7	17.7	4 11	11 0.58	- 4 1.2	1.308	2.208	14.9	20.0
273008	2006 DO ₇₉		3 10.6 147°49		0°5/11.1 18		123486	2000 WS ₁₆₆		3 10.6 145°17		1°9/13.0 18	
2 1	11 46.41	- 1 2.3	2.181	2.952	13.9	20.9	2 1	11 44.44	- 5 39.2	2.707	3.447	12.2	20.4
2 11	11 42.90	- 0 28.8	2.092	2.956	11.0	20.7	2 11	11 40.98	- 5 19.8	2.611	3.452	9.9	20.2
2 21	11 37.43	+ 0 19.9	2.025	2.960	7.6	20.5	2 21	11 35.95	- 4 46.0	2.538	3.456	7.1	20.0
3 2	11 30.48	+ 1 20.5	1.985	2.963	3.7	20.3	3 2	11 29.74	- 3 59.6	2.492	3.460	4.1	19.9
3 12	11 22.80	+ 2 27.8	1.974	2.967	0.6	20.0	3 12	11 22.96	- 3 3.9	2.475	3.464	1.9	19.7
3 22	11 15.21	+ 3 35.4	1.991	2.970	4.4	20.3	3 22	11 16.25	- 2 3.5	2.488	3.468	3.5	19.8
4 1	11 8.54	+ 4 37.3	2.038	2.973	8.2	20.6	4 1	11 10.25	- 1 3.4	2.531	3.471	6.5	20.0
4 11	11 3.48	+ 5 28.4	2.109	2.976	11.5	20.8	4 11	11 5.51	- 0 8.2	2.600	3.475	9.3	20.2
464745	2003 RQ ₇		3 10.6 224°10		0°7/ 9.8 17		429913	2012 TR ₁₅₂		3 10.6 185°63		1°9/ 8.6 17	
2 1	11 50.31	+ 4 37.0	2.627	3.399	11.8	22.4	2 1	11 49.39	+ 8 31.4	2.437	3.225	12.1	21.8
2 11	11 45.66	+ 4 56.4	2.520	3.387	9.2	22.2	2 11	11 45.00	+ 8 56.9	2.347	3.225	9.4	21.6
2 21	11 39.19	+ 5 24.5	2.437	3.375	6.2	22.0	2 21	11 38.75	+ 9 29.0	2.282	3.225	6.3	21.4
3 2	11 31.30	+ 5 58.3	2.382	3.362	2.9	21.7	3 2	11 31.09	+10 3.8	2.244	3.224	3.1	21.2
3 12	11 22.66	+ 6 33.7	2.357	3.349	1.1	21.5	3 12	11 22.75	+10 36.4	2.236	3.224	2.3	21.1
3 22	11 14.00	+ 7 6.4	2.363	3.335	4.4	21.8	3 22	11 14.51	+11 2.4	2.257	3.223	5.3	21.3
4 1	11 6.10	+ 7 32.7	2.398	3.321	7.8	22.0	4 1	11 7.15	+11 18.4	2.307	3.221	8.5	21.5
4 11	10 59.60	+ 7 49.5	2.460	3.306	10.8	22.1	4 11	11 1.31	+11 22.4	2.382	3.220	11.4	21.7
250978	2006 JL ₂₅		3 10.6 250°45		2°5/ 8.3 16		284328	2006 RD ₇		3 10.6 220°23		3°0/ 7.3 18	
2 1	11 51.58	+ 7 28.0	1.887	2.684	14.8	21.6	2 1	11 50.93	+13 16.3	2.600	3.392	11.3	20.7
2 11	11 47.54	+ 8 11.9	1.783	2.665	11.6	21.4	2 11	11 46.10	+13 41.8	2.508	3.387	8.8	20.5
2 21	11 40.97	+ 9 7.8	1.701	2.646	7.8	21.1	2 21	11 39.44	+14 10.4	2.440	3.381	6.0	20.4
3 2	11 32.32	+10 10.5	1.646	2.627	3.9	20.8	3 2	11 31.41	+14 37.9	2.400	3.376	3.5	20.2
3 12	11 22.48	+11 12.2	1.619	2.606	3.1	20.7	3 12	11 22.70	+14 59.4	2.391	3.370	3.4	20.2
3 22	11 12.52	+12 5.6	1.620	2.585	7.0	20.9	3 22	11 14.08	+15 11.2	2.411	3.363	5.9	20.3
4 1	11 3.61	+12 44.3	1.649	2.563	11.2	21.1	4 1	11 6.31	+15 10.9	2.460	3.357	8.8	20.5
4 11	10 56.69	+13 4.7	1.700	2.541	15.1	21.3	4 11	11 0.03	+14 57.5	2.533	3.350	11.4	20.6
252941	2002 PC ₂₃		3 10.6 191°53		0°6/11.2 17		252921	2002 NX ₃₃		3 10.6 220°93		1°5/ 9.1 16	
2 1	11 49.90	- 0 59.9	2.227	2.989	13.9	22.4	2 1	11 49.30	+ 4 20.6	2.073	2.860	14.0	21.8
2 11	11 45.63	- 0 32.5	2.129	2.988	11.1	22.2	2 11	11 45.41	+ 5 10.6	1.974	2.851	11.0	21.5
2 21	11 39.31	+ 0 9.7	2.054	2.985	7.7	22.0	2 21	11 39.31	+ 6 14.2	1.898	2.841	7.3	21.3
3 2	11 31.40	+ 1 3.9	2.005	2.983	3.8	21.7	3 2	11 31.47	+ 7 26.6	1.849	2.831	3.4	21.0
3 12	11 22.65	+ 2 5.2	1.986	2.979	0.7	21.5	3 12	11 22.68	+ 8 41.0	1.829	2.820	2.0	20.9
3 22	11 13.95	+ 3 7.7	1.996	2.975	4.5	21.8	3 22	11 13.89	+ 9 50.1	1.839	2.808	5.8	21.1
4 1	11 6.16	+ 4 5.4	2.036	2.970	8.3	22.0	4 1	11 6.04	+10 47.5	1.876	2.796	9.8	21.3
4 11	11 0.02	+ 4 53.2	2.101	2.964	11.7	22.2	4 11	10 59.95	+11 28.9	1.938	2.783	13.3	21.5
388310	2006 SR ₂₈₆		3 10.6 155°60		0°0/10.5 17		277012	2004 YH ₃₅		3 10.6 112°22		1°6/ 8.9 17	
2 1	11 44.87	+ 0 44.9	2.910	3.674	10.9	21.7	2 1	11 47.77	+ 5 50.7	2.124	2.916	13.5	21.5
2 11	11 41.16	+ 1 25.2	2.818	3.680	8.6	21.6	2 11	11 43.98	+ 6 30.0	2.043	2.923	10.5	21.3
2 21	11 35.98	+ 2 16.3	2.751	3.686	5.8	21.4	2 21	11 38.16	+ 7 19.7	1.985	2.930	7.0	21.1
3 2	11 29.72	+ 3 15.1	2.712	3.692	2.7	21.2	3 2	11 30.84	+ 8 15.0	1.955	2.936	3.2	20.9
3 12	11 22.95	+ 4 17.3	2.704	3.697	0.5	21.0	3 12	11 22.80	+ 9 9.7	1.953	2.943	2.0	20.8
3 22	11 16.25	+ 5 18.4	2.727	3.702	3.7	21.3	3 22	11 14.92	+ 9 58.0	1.980	2.949	5.5	21.1
4 1	11 10.23	+ 6 14.0	2.779	3.707	6.6	21.5	4 1	11 8.03	+10 35.2	2.035	2.956	9.1	21.3
4 11	11 5.38	+ 7 0.6	2.858	3.711	9.3	21.6	4 11	11 2.82	+10 58.1	2.114	2.962	12.3	21.5
437489	2013 YJ ₅₈		3 10.6 165°86		3°3/14.3 17		502427	2015 BC ₂₅₈		3 10.6 238°50		3°2/13.8 17	
2 1	11 46.81	- 8 42.0	2.421	3.148	13.8	21.3	2 1	11 47.52	- 7 21.3	2.119	2.861	15.1	21.7
2 11	11 43.07	- 8 48.9	2.323	3.149	11.4	21.1	2 11	11 43.97	- 7 27.2	2.019	2.857	12.5	21.4
2 21	11 37.50	- 8 39.5	2.246	3.151	8.6	20.9	2 21	11 38.30	- 7 15.4	1.939	2.852	9.3	21.2
3 2	11 30.52	- 8 14.2	2.195	3.152	5.6	20.8	3 2	11 30.98	- 6 46.2	1.884	2.847	5.8	21.0
3 12	11 22.82	- 7 35.4	2.172	3.153	3.5	20.6	3 12	11 22.77	- 6 2.5	1.857	2.842	3.3	20.8
3 22	11 15.16	- 6 47.1	2.178	3.154	4.4	20.7	3 22	11 14.55	- 5 9.1	1.858	2.837	4.7	20.9
4 1	11 8.32	- 5 54.6	2.213	3.155	7.2	20.8	4 1	11 7.26	- 4 12.2	1.887	2.831	8.1	21.1
4 11	11 2.95	- 5 3.4	2.273	3.155	10.2	21.0	4 11	11 1.64	- 3 18.2	1.942	2.826	11.6	21.3
98513	2000 VA ₂₅		3 10.6 59°98		0°2/10.8 18		213907	2003 US ₆₅		3 10.6 135°28		3°6/ 7.1 18	
2 1	11 49.89	+ 0 23.8	1.399	2.199	18.9	19.9	2 1	11 50.75	+ 9 55.4	1.834	2.640	14.8	20.8
2 11	11 46.53	+ 0 46.5	1.334	2.215	14.9	19.7	2 11	11 46.63	+11 2.6	1.762	2.650	11.4	20.5
2 21	11 40.30	+ 1 28.6	1.289	2.231	10.1	19.4	2 21	11 40.11	+12 19.1	1.712	2.659	7.7	20.3
3 2	11 31.93	+ 2 25.2	1.267	2.248	4.8	19.2	3 2	11 31.80	+13 37.7	1.690	2.668	4.3	20.2
3 12	11 22.60	+ 3 28.6	1.272	2.265	0.7	18.9	3 12	11 22.65	+14 49.5	1.696	2.676	4.3	20.2
3 22	11 13.63	+ 4 29.8	1.303	2.283	6.1	19.3	3 22	11 13.72	+15 47.3	1.730	2.685	7.6	20.4
4 1	11 6.25	+ 5 20.8	1.359	2.300	10.9	19.7	4 1	11 6.04	+16 25.8	1.790	2.692	11.2	20.6
4 11	11 1.32	+ 5 56.0	1.438	2.317	15.1	20.0	4 11	11 0.38	+16 43.5	1.873	2.699	14.5	20.8
500031	2011 SS ₄₇		3 10.6 219°79		0°8/11.7 17		208169	2000 PH ₂₇		3 10.6 202°89		1°8/11.9 17	
2 1	11 44.04	- 2 27.2	2.585	3.344	12.								

EPHEMERIDES

3 10.6

3 10.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
274702	2008 <i>UM</i> ₈₃		3 10.6 234°74	1°8/ 8.6	17		315074	2007 <i>DC</i> ₅₂		3 10.6 155°44	0°6/11.5	18	
2 1	11 46.97	+ 5 55.8	2.280	3.070	12.8	21.1	2 1	11 43.09	- 1 44.1	3.006	3.762	10.8	21.3
2 11	11 43.37	+ 6 44.5	2.181	3.061	9.9	20.9	2 11	11 39.78	- 1 10.4	2.910	3.765	8.5	21.2
2 21	11 37.81	+ 7 44.2	2.107	3.051	6.6	20.6	2 21	11 35.07	- 0 25.1	2.839	3.768	5.9	21.0
3 2	11 30.72	+ 8 50.2	2.060	3.041	3.1	20.4	3 2	11 29.34	+ 0 29.2	2.795	3.771	3.0	20.8
3 12	11 22.83	+ 9 56.4	2.042	3.031	2.2	20.3	3 12	11 23.10	+ 1 28.9	2.781	3.774	0.6	20.6
3 22	11 14.94	+10 56.6	2.054	3.020	5.6	20.5	3 22	11 16.92	+ 2 29.7	2.798	3.777	3.3	20.8
4 1	11 7.91	+11 45.5	2.093	3.009	9.1	20.7	4 1	11 11.37	+ 3 27.1	2.844	3.779	6.2	21.0
4 11	11 2.42	+12 19.5	2.157	2.998	12.3	20.9	4 11	11 6.92	+ 4 17.4	2.918	3.781	8.8	21.2
355847	2008 <i>UH</i> ₁₀₄		3 10.6 314°82	2°4/ 8.9	18		188459	2004 <i>JR</i> ₂₂		3 10.6 246°32	5°1/15.9	18	
2 1	11 52.08	+ 7 21.2	1.354	2.172	18.5	21.0	2 1	11 48.78	-13 59.2	2.372	3.067	14.9	20.9
2 11	11 48.71	+ 7 42.2	1.273	2.166	14.5	20.7	2 11	11 44.92	-14 13.3	2.251	3.048	12.7	20.7
2 21	11 42.13	+ 8 16.1	1.212	2.161	9.8	20.4	2 21	11 38.99	-14 7.8	2.149	3.028	10.2	20.5
3 2	11 32.98	+ 8 56.9	1.174	2.156	4.7	20.1	3 2	11 31.37	-13 41.4	2.071	3.008	7.4	20.3
3 12	11 22.46	+ 9 36.1	1.162	2.152	3.0	20.0	3 12	11 22.75	-12 54.8	2.021	2.987	5.4	20.1
3 22	11 12.06	+10 5.6	1.175	2.147	7.8	20.3	3 22	11 13.97	-11 51.7	1.999	2.966	5.7	20.1
4 1	11 3.26	+10 19.1	1.213	2.143	13.0	20.5	4 1	11 5.93	-10 37.7	2.005	2.944	8.1	20.2
4 11	10 57.16	+10 13.7	1.271	2.139	17.4	20.8	4 11	10 59.44	- 9 20.3	2.039	2.921	11.2	20.4
182346	2001 <i>QC</i> ₁₅		3 10.6 154°33	0°6/ 9.9	18		196868	2003 <i>SG</i> ₂₈₂		3 10.6 236°09	1°5/12.3	18	
2 1	11 48.92	+ 2 5.0	2.269	3.044	13.3	21.4	2 1	11 45.64	- 4 9.8	2.231	2.988	14.0	20.6
2 11	11 44.75	+ 2 50.2	2.183	3.052	10.4	21.2	2 11	11 42.39	- 3 44.0	2.129	2.982	11.3	20.4
2 21	11 38.63	+ 3 48.2	2.121	3.060	7.0	21.0	2 21	11 37.17	- 3 1.1	2.049	2.975	8.0	20.2
3 2	11 31.06	+ 4 54.9	2.086	3.067	3.2	20.7	3 2	11 30.45	- 2 3.3	1.995	2.969	4.4	20.0
3 12	11 22.80	+ 6 4.5	2.081	3.073	1.0	20.6	3 12	11 22.92	- 0 54.9	1.970	2.962	1.5	19.7
3 22	11 14.65	+ 7 10.8	2.106	3.079	4.8	20.9	3 22	11 15.39	+ 0 18.0	1.974	2.954	4.2	19.9
4 1	11 7.45	+ 8 8.1	2.160	3.085	8.4	21.1	4 1	11 8.71	+ 1 28.8	2.006	2.947	8.0	20.1
4 11	11 1.83	+ 8 52.5	2.239	3.089	11.6	21.3	4 11	11 3.57	+ 2 31.5	2.065	2.939	11.4	20.3
200154	1998 <i>RJ</i>		3 10.6 175°40	3°2/ 7.8	18		360358	2001 <i>YK</i> ₂₉		3 10.6 42°09	2°2/ 9.1	18	
2 1	11 55.05	+ 9 46.3	1.883	2.678	14.9	21.1	2 1	11 50.66	+ 5 57.8	1.185	2.011	20.0	21.3
2 11	11 50.01	+10 32.8	1.800	2.682	11.6	20.9	2 11	11 47.60	+ 6 26.3	1.128	2.026	15.6	21.0
2 21	11 42.44	+11 28.0	1.740	2.684	7.8	20.7	2 21	11 41.27	+ 7 10.2	1.090	2.041	10.4	20.8
3 2	11 32.94	+12 25.6	1.707	2.686	4.2	20.5	3 2	11 32.48	+ 8 2.4	1.074	2.057	4.8	20.5
3 12	11 22.49	+13 18.0	1.703	2.687	3.7	20.5	3 12	11 22.61	+ 8 52.9	1.083	2.074	2.8	20.4
3 22	11 12.19	+13 58.5	1.728	2.687	7.2	20.7	3 22	11 13.23	+ 9 32.7	1.116	2.091	7.8	20.8
4 1	11 3.16	+14 22.4	1.780	2.686	11.0	20.9	4 1	11 5.73	+ 9 55.4	1.173	2.108	12.9	21.1
4 11	10 56.23	+14 28.1	1.855	2.685	14.5	21.1	4 11	11 1.05	+ 9 58.1	1.251	2.127	17.2	21.4
463608	2013 <i>SO</i> ₇₂		3 10.6 254°65	0°7/10.0	17		394089	2006 <i>BF</i> ₃₆		3 10.6 89°92	2°2/ 7.6	18	
2 1	11 51.16	+ 3 53.9	2.034	2.817	14.4	22.3	2 1	11 44.31	+ 9 14.2	2.763	3.558	10.7	21.2
2 11	11 46.99	+ 4 10.8	1.927	2.800	11.4	22.1	2 11	11 40.83	+10 0.5	2.683	3.565	8.2	21.1
2 21	11 40.48	+ 4 39.5	1.843	2.783	7.7	21.8	2 21	11 35.82	+10 52.8	2.627	3.572	5.4	20.9
3 2	11 32.09	+ 5 16.6	1.784	2.765	3.6	21.5	3 2	11 29.70	+11 46.9	2.600	3.579	2.8	20.7
3 12	11 22.61	+ 5 57.1	1.755	2.747	1.1	21.3	3 12	11 23.06	+12 38.0	2.603	3.587	2.6	20.7
3 22	11 13.05	+ 6 35.0	1.754	2.729	5.4	21.5	3 22	11 16.53	+13 21.6	2.635	3.594	5.1	20.9
4 1	11 4.44	+ 7 5.2	1.781	2.710	9.6	21.8	4 1	11 10.74	+13 54.5	2.695	3.601	7.8	21.1
4 11	10 57.66	+ 7 23.5	1.833	2.691	13.4	21.9	4 11	11 6.18	+14 14.5	2.781	3.608	10.3	21.3
243218	2007 <i>UB</i> ₁₃₆		3 10.6 189°00	6°2/ 2.3	17		287107	2002 <i>RX</i> ₁₅₂		3 10.6 55°81	3°6/13.9	17	
2 1	11 47.15	+21 43.1	2.441	3.253	11.4	20.4	2 1	11 48.47	- 7 21.3	2.114	2.854	15.2	20.1
2 11	11 43.41	+23 9.2	2.370	3.252	9.1	20.2	2 11	11 44.64	- 7 42.5	2.023	2.858	12.5	20.0
2 21	11 37.75	+24 34.9	2.324	3.252	7.1	20.1	2 21	11 38.71	- 7 47.0	1.953	2.863	9.4	19.8
3 2	11 30.66	+25 52.9	2.305	3.251	6.2	20.1	3 2	11 31.18	- 7 35.1	1.907	2.867	6.0	19.6
3 12	11 22.87	+26 56.1	2.315	3.250	7.0	20.1	3 12	11 22.81	- 7 8.9	1.889	2.872	3.6	19.4
3 22	11 15.19	+27 39.5	2.352	3.248	9.0	20.2	3 22	11 14.53	- 6 32.7	1.900	2.876	4.8	19.5
4 1	11 8.44	+28 0.7	2.414	3.247	11.3	20.4	4 1	11 7.21	- 5 51.7	1.938	2.881	8.0	19.7
4 11	11 3.24	+28 0.0	2.497	3.245	13.5	20.5	4 11	11 1.60	- 5 12.0	2.001	2.886	11.2	19.9
147802	2005 <i>SS</i> ₃₃		3 10.6 242°91	3°1/ 7.5	18		223746	2004 <i>RO</i> ₁₈₀		3 10.6 123°58	2°7/13.3	18	
2 1	11 49.68	+ 9 36.2	2.052	2.852	13.6	20.8	2 1	11 47.13	- 6 28.3	2.022	2.772	15.5	20.4
2 11	11 45.77	+10 25.9	1.955	2.840	10.6	20.6	2 11	11 43.68	- 6 20.0	1.931	2.776	12.6	20.2
2 21	11 39.59	+11 24.9	1.881	2.827	7.2	20.4	2 21	11 38.11	- 5 52.8	1.862	2.780	9.2	20.0
3 2	11 31.63	+12 27.5	1.835	2.814	3.9	20.1	3 2	11 30.90	- 5 8.2	1.817	2.784	5.5	19.8
3 12	11 22.70	+13 26.4	1.817	2.800	3.6	20.1	3 12	11 22.86	- 4 10.1	1.800	2.788	2.7	19.6
3 22	11 13.76	+14 15.0	1.828	2.786	6.9	20.2	3 22	11 14.91	- 3 4.5	1.812	2.792	4.6	19.7
4 1	11 5.81	+14 48.1	1.865	2.772	10.6	20.4	4 1	11 7.97	- 1 58.2	1.851	2.796	8.2	19.9
4 11	10 59.67	+15 3.1	1.927	2.757	14.0	20.6	4 11	11 2.76	- 0 57.9	1.916	2.799	11.7	20.2
39478	1980 <i>FR</i> ₄		3 10.6 302°87	0°6/11.1	18		188788	2005 <i>VK</i> ₅₂		3 10.6 168°73	6°0/ 3.6	16	
2 1	11 45.52	- 1 50.8	1.505	2.300	18.0	19.3	2 1	11 52.40	+21 14.3	2.376	3.178	11.9	20.9
2 11	11 43.28	- 1 14.9	1.414	2.291	14.4	19.1	2 11	11 47.46	+22 24.9	2.304	3.182	9.5	20.8
2 21	11 38.32	- 0 15.7	1.342	2.283	10.0	18.8	2 21	11 40.46	+23 34.7	2.258	3.186	7.3	20.6
3 2	11 31.16	+ 1 3.3	1.294	2.274	5.0	18.5	3 2	11 31.94	+24 36.5	2.240	3.190	6.1	20.5
3 12	11 22.78	+ 2 34.5	1.273	2.266	0.8	18.1	3 12	11 22.70	+25 23.5	2.250	3.192	6.7	20.6
3 22	11 14.39	+ 4 7.7	1.278	2.258	6.0	18.5	3 22	11 13.65	+25 51.1	2.288	3.194	8.8	20.7
4 1	11 7.26	+ 5 32.4	1.308	2.251	11.1	18.7	4 1	11 5.66	+25 57.3	2.352	3.196	11.2	20.9
4 11	11 2.38	+ 6 40.2	1.361	2.243	15.6	19.0	4 11	10 59.39	+25 42.9	2.438	3.197	13.5	21.0
20314	Johnharrison		3 10.6 251°18	1°8/11.9	18		304253	2006 <i>RA</i> ₅₁		3 10.6 243°80	1°1/ 9.4		

EPHEMERIDES

3 10.6

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
349437	2008 <i>BP</i>		3 10.6 58°57'	5°5/ 4.2	18		271719	2004 <i>RT</i> ₂₁₉		3 10.6 168°25'	1°4/12.1	16	
2 1	11 47.52	+19 5.0	2.299	3.111	12.0	20.3	2 1	11 52.54	- 1 43.7	2.613	3.356	12.5	21.7
2 11	11 43.72	+20 9.4	2.228	3.115	9.4	20.1	2 11	11 47.33	- 1 49.2	2.516	3.361	10.1	21.5
2 21	11 37.96	+21 14.5	2.183	3.119	7.0	20.0	2 21	11 40.30	- 1 43.7	2.443	3.365	7.1	21.3
3 2	11 30.76	+22 13.4	2.164	3.123	5.5	19.9	3 2	11 31.89	- 1 28.6	2.397	3.369	3.9	21.1
3 12	11 22.90	+22 59.5	2.174	3.127	6.2	19.9	3 12	11 22.79	- 1 6.7	2.381	3.372	1.4	20.9
3 22	11 15.22	+23 28.1	2.211	3.131	8.3	20.1	3 22	11 13.76	- 0 41.3	2.396	3.375	3.8	21.1
4 1	11 8.53	+23 36.9	2.273	3.135	10.9	20.2	4 1	11 5.57	- 0 16.5	2.441	3.376	7.0	21.3
4 11	11 3.46	+23 26.0	2.358	3.140	13.2	20.4	4 11	10 58.84	+ 0 4.2	2.514	3.378	10.0	21.5
371731	2007 <i>EN</i> ₁₂₇		3 10.6 204°24'	0°0/10.5	17		373471	2000 <i>SE</i> ₈₁		3 10.6 210°75'	3°5/ 6.8	17	
2 1	11 52.66	+ 3 1.7	2.052	2.828	14.5	21.1	2 1	11 52.73	+13 42.9	2.553	3.343	11.6	22.3
2 11	11 47.98	+ 3 0.3	1.958	2.826	11.4	20.9	2 11	11 47.63	+14 23.5	2.457	3.335	9.0	22.1
2 21	11 41.02	+ 3 9.5	1.886	2.824	7.8	20.7	2 21	11 40.58	+15 8.0	2.386	3.326	6.2	21.9
3 2	11 32.29	+ 3 26.7	1.841	2.821	3.7	20.4	3 2	11 32.06	+15 51.2	2.344	3.317	3.9	21.7
3 12	11 22.65	+ 3 47.6	1.825	2.819	0.6	20.2	3 12	11 22.77	+16 27.7	2.332	3.307	3.9	21.7
3 22	11 13.08	+ 4 7.7	1.838	2.816	4.9	20.5	3 22	11 13.53	+16 52.9	2.350	3.296	6.4	21.8
4 1	11 4.57	+ 4 22.7	1.880	2.813	8.9	20.7	4 1	11 5.16	+17 4.0	2.396	3.285	9.3	22.0
4 11	10 57.91	+ 4 29.2	1.946	2.809	12.5	20.9	4 11	10 58.33	+16 59.7	2.467	3.273	12.0	22.2
56613	2000 <i>JX</i> ₆₂		3 10.6 191°63'	2°6/13.3	18		103083	1999 <i>XY</i> ₁₅₉		3 10.6 179°88'	2°7/13.3	18	
2 1	11 50.31	- 6 13.0	2.347	3.081	14.0	19.3	2 1	11 49.82	- 6 31.5	2.079	2.821	15.4	19.8
2 11	11 45.91	- 6 14.5	2.245	3.080	11.5	19.1	2 11	11 45.78	- 6 24.2	1.983	2.823	12.6	19.6
2 21	11 39.51	- 6 0.5	2.164	3.078	8.4	18.9	2 21	11 39.56	- 5 58.5	1.908	2.824	9.2	19.4
3 2	11 31.56	- 5 31.6	2.110	3.075	5.1	18.7	3 2	11 31.64	- 5 15.5	1.858	2.824	5.5	19.1
3 12	11 22.79	- 4 50.7	2.085	3.072	2.7	18.5	3 12	11 22.83	- 4 18.8	1.836	2.824	2.7	19.0
3 22	11 14.03	- 4 2.2	2.089	3.068	4.3	18.6	3 22	11 14.06	- 3 14.3	1.844	2.823	4.6	19.1
4 1	11 6.14	- 3 11.5	2.123	3.063	7.6	18.8	4 1	11 6.29	- 2 8.6	1.880	2.822	8.3	19.3
4 11	10 59.82	- 2 24.1	2.183	3.058	10.8	19.0	4 11	11 0.28	- 1 8.4	1.941	2.820	11.8	19.5
469087	2015 <i>BO</i> ₃₁₉		3 10.6 261°23'	3°1/ 7.4	17		386142	2007 <i>TC</i> ₁₅₈		3 10.6 127°91'	3°3/14.8	17	
2 1	11 47.34	+ 9 26.3	2.037	2.842	13.6	20.9	2 1	11 45.92	-10 22.0	2.574	3.290	13.4	21.6
2 11	11 43.91	+10 19.8	1.947	2.835	10.5	20.7	2 11	11 42.25	-10 12.0	2.482	3.300	11.1	21.5
2 21	11 38.31	+11 22.7	1.881	2.828	7.1	20.5	2 21	11 36.89	- 9 44.7	2.412	3.310	8.4	21.3
3 2	11 31.03	+12 29.0	1.841	2.820	3.8	20.2	3 2	11 30.28	- 9 0.9	2.367	3.320	5.5	21.1
3 12	11 22.88	+13 31.5	1.830	2.813	3.6	20.2	3 12	11 23.06	- 8 3.7	2.350	3.330	3.4	21.0
3 22	11 14.79	+14 23.4	1.847	2.806	6.8	20.4	3 22	11 15.94	- 6 57.6	2.363	3.339	4.1	21.1
4 1	11 7.68	+14 59.7	1.891	2.798	10.4	20.6	4 1	11 9.61	- 5 48.2	2.405	3.348	6.7	21.2
4 11	11 2.32	+15 17.8	1.958	2.791	13.7	20.8	4 11	11 4.64	- 4 41.1	2.475	3.356	9.5	21.4
189166	2002 <i>TW</i> ₂₂₆		3 10.6 239°11'	0°0/10.5	18		93749	2000 <i>VP</i> ₆₂		3 10.6 47°35'	2°6/13.2	18	R
2 1	11 51.23	- 0 25.1	1.808	2.584	16.2	21.3	2 1	11 45.23	- 6 44.5	1.736	2.501	17.2	19.0
2 11	11 47.44	+ 0 15.1	1.699	2.567	12.9	21.1	2 11	11 42.50	- 6 24.6	1.658	2.512	13.9	18.8
2 21	11 41.05	+ 1 14.9	1.612	2.549	8.9	20.8	2 21	11 37.45	- 5 42.2	1.600	2.523	10.1	18.6
3 2	11 32.49	+ 2 31.3	1.550	2.530	4.3	20.5	3 2	11 30.64	- 4 39.6	1.565	2.535	5.9	18.4
3 12	11 22.64	+ 3 57.4	1.516	2.510	0.7	20.1	3 12	11 23.00	- 3 22.3	1.558	2.547	2.7	18.2
3 22	11 12.61	+ 5 24.6	1.512	2.489	5.8	20.4	3 22	11 15.54	- 1 58.2	1.578	2.559	4.9	18.3
4 1	11 3.62	+ 6 43.8	1.535	2.467	10.6	20.7	4 1	11 9.25	- 0 36.1	1.625	2.572	8.9	18.6
4 11	10 56.68	+ 7 47.9	1.582	2.444	14.9	20.9	4 11	11 4.89	+ 0 36.4	1.696	2.585	12.7	18.9
253768	2003 <i>WP</i> ₁₁₇		3 10.6 326°35'	3°8/13.5	18		440002	2002 <i>CJ</i> ₁₀₁		3 10.6 99°70'	2°1/ 8.6	18	
2 1	11 48.58	- 6 19.2	1.563	2.331	18.6	20.3	2 1	11 52.98	+ 4 57.1	1.722	2.515	16.2	22.0
2 11	11 45.61	- 6 40.0	1.472	2.327	15.3	20.0	2 11	11 48.32	+ 6 4.8	1.662	2.543	12.4	21.8
2 21	11 39.88	- 6 39.6	1.401	2.322	11.4	19.8	2 21	11 41.21	+ 7 25.9	1.625	2.570	8.2	21.6
3 2	11 31.92	- 6 17.8	1.352	2.318	7.1	19.5	3 2	11 32.34	+ 8 53.2	1.615	2.596	3.8	21.4
3 12	11 22.74	- 5 37.7	1.328	2.314	3.9	19.3	3 12	11 22.75	+10 17.6	1.633	2.622	2.7	21.3
3 22	11 13.55	- 4 45.4	1.330	2.311	5.8	19.4	3 22	11 13.56	+11 30.8	1.680	2.646	6.6	21.6
4 1	11 5.64	- 3 49.0	1.359	2.307	10.2	19.6	4 1	11 5.79	+12 26.7	1.754	2.670	10.6	21.9
4 11	11 0.00	- 2 56.8	1.410	2.304	14.4	19.9	4 11	11 0.15	+13 2.6	1.852	2.694	14.0	22.2
338395	2003 <i>AL</i> ₆₁		3 10.6 9°21'	14°4/26.3	17		458852	2011 <i>UR</i> ₈₀		3 10.6 77°18'	0°6/10.2	18	
2 1	11 48.69	-33 19.2	1.941	2.515	20.9	19.8	2 1	11 52.10	+ 2 32.1	1.504	2.301	17.9	22.1
2 11	11 45.80	-35 25.3	1.858	2.518	19.5	19.6	2 11	11 48.07	+ 2 57.7	1.439	2.320	14.0	21.9
2 21	11 40.13	-37 4.8	1.790	2.521	18.0	19.5	2 21	11 41.29	+ 3 39.5	1.395	2.338	9.4	21.7
3 2	11 32.12	-38 10.1	1.737	2.525	16.5	19.4	3 2	11 32.46	+ 4 32.1	1.375	2.357	4.3	21.4
3 12	11 22.69	-38 36.1	1.703	2.530	15.2	19.3	3 12	11 22.73	+ 5 28.1	1.382	2.375	1.1	21.2
3 22	11 13.09	-38 22.0	1.688	2.536	14.5	19.3	3 22	11 13.37	+ 6 19.4	1.416	2.393	6.1	21.6
4 1	11 4.66	-37 31.1	1.693	2.543	14.6	19.3	4 1	11 5.56	+ 6 59.3	1.476	2.411	10.7	21.9
4 11	10 58.52	-36 12.4	1.719	2.550	15.4	19.4	4 11	11 0.12	+ 7 23.8	1.559	2.429	14.7	22.2
503252	2015 <i>KJ</i> ₁₈		3 10.6 324°23'	1°9/12.9	17		383757	2007 <i>VQ</i> ₁₉₀		3 10.6 119°16'	2°4/ 7.4	17	
2 1	11 41.50	- 6 54.2	2.154	2.909	14.5	21.3	2 1	11 46.42	+ 8 52.2	2.632	3.424	11.2	21.5
2 11	11 39.28	- 6 12.4	2.050	2.899	11.8	21.1	2 11	11 42.52	+ 9 52.7	2.558	3.439	8.6	21.3
2 21	11 35.15	- 5 9.5	1.967	2.889	8.6	20.9	2 21	11 36.99	+11 0.1	2.510	3.454	5.7	21.1
3 2	11 29.54	- 3 47.5	1.909	2.880	4.9	20.6	3 2	11 30.30	+12 9.4	2.490	3.468	3.0	21.0
3 12	11 23.14	- 2 11.6	1.880	2.870	2.0	20.4	3 12	11 23.07	+13 14.9	2.500	3.482	2.8	21.0
3 22	11 16.73	- 0 29.1	1.880	2.861	4.2	20.5	3 22	11 16.00	+14 11.6	2.540	3.496	5.4	21.2
4 1	11 11.14	+ 1 11.9	1.908	2.853	8.0	20.7	4 1	11 9.74	+14 55.7	2.608	3.509	8.2	21.4
4 11	11 7.07	+ 2 43.6	1.963	2.845	11.5	20.9	4 11	11 4.82	+15 25.1	2.702	3.522	10.7	21.6
241049	2006 <i>RW</i> ₉₀		3 10.6 264°83'	0°9/ 9.6	17		115739	2003 <i>UK</i> ₁₈₈		3 10.6 213°24			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
133419	2003 SE ₁₈₉		3 10.6 82°59	0°1/10.7 17			386225	2007 YB ₁₂		3 10.6 107°25	0°0/10.5 17		
2 1	11 46.87	+ 0 41.0	2.042	2.823	14.4	19.9	2 1	11 47.52	+ 2 24.6	2.432	3.207	12.5	21.8
2 11	11 43.44	+ 1 7.7	1.957	2.827	11.4	19.7	2 11	11 43.58	+ 2 38.5	2.343	3.211	9.8	21.6
2 21	11 37.92	+ 1 48.6	1.893	2.831	7.7	19.5	2 21	11 37.84	+ 3 2.5	2.278	3.215	6.7	21.4
3 2	11 30.84	+ 2 40.4	1.856	2.836	3.7	19.3	3 2	11 30.76	+ 3 34.0	2.240	3.220	3.2	21.2
3 12	11 22.98	+ 3 37.5	1.847	2.840	0.5	19.0	3 12	11 23.04	+ 4 8.7	2.230	3.224	0.5	21.0
3 22	11 15.24	+ 4 33.8	1.866	2.844	4.7	19.3	3 22	11 15.41	+ 4 42.3	2.251	3.228	4.2	21.3
4 1	11 8.50	+ 5 23.3	1.914	2.849	8.7	19.6	4 1	11 8.63	+ 5 10.8	2.300	3.232	7.6	21.5
4 11	11 3.45	+ 6 1.6	1.986	2.853	12.1	19.8	4 11	11 3.31	+ 5 30.8	2.375	3.236	10.6	21.7
310466	2000 ST ₁₂		3 10.6 160°48	3°0/ 7.7 18			382301	2012 VH ₉₇		3 10.6 106°40	4°5/15.2 18		
2 1	11 54.08	+ 9 59.7	2.133	2.923	13.5	21.9	2 1	11 52.14	-10 42.7	2.544	3.245	13.8	20.7
2 11	11 48.92	+10 49.7	2.053	2.932	10.5	21.7	2 11	11 47.14	-11 26.5	2.452	3.256	11.6	20.5
2 21	11 41.55	+11 47.3	1.997	2.940	7.1	21.5	2 21	11 40.24	-11 55.7	2.380	3.266	9.0	20.4
3 2	11 32.53	+12 46.5	1.968	2.946	3.8	21.3	3 2	11 31.91	-12 9.4	2.335	3.276	6.4	20.2
3 12	11 22.72	+13 40.4	1.970	2.952	3.5	21.3	3 12	11 22.86	-12 8.2	2.318	3.286	4.6	20.1
3 22	11 13.10	+14 23.3	2.001	2.958	6.6	21.5	3 22	11 13.86	-11 54.4	2.331	3.296	5.1	20.2
4 1	11 4.60	+14 50.9	2.060	2.962	10.0	21.7	4 1	11 5.73	-11 32.0	2.372	3.306	7.3	20.3
4 11	10 57.94	+15 1.7	2.143	2.965	13.1	21.9	4 11	10 59.12	-11 5.7	2.440	3.315	9.9	20.5
317084	2001 SS ₃₀₃		3 10.6 191°92	0°2/10.4 18			179336	2001 XT ₂₁		3 10.6 169°13	6°2/ 3.4 18		
2 1	11 50.33	+ 2 22.7	1.991	2.772	14.7	20.9	2 1	11 52.06	+21 25.7	2.332	3.136	12.1	20.0
2 11	11 46.25	+ 2 41.0	1.900	2.771	11.6	20.7	2 11	11 47.28	+22 39.5	2.261	3.140	9.7	19.9
2 21	11 39.91	+ 3 12.3	1.831	2.770	7.9	20.5	2 21	11 40.41	+23 52.6	2.216	3.143	7.4	19.8
3 2	11 31.82	+ 3 53.1	1.788	2.769	3.7	20.2	3 2	11 32.00	+24 57.4	2.197	3.146	6.2	19.7
3 12	11 22.83	+ 4 38.0	1.774	2.767	0.7	20.0	3 12	11 22.85	+25 47.0	2.208	3.149	6.9	19.7
3 22	11 13.92	+ 5 21.3	1.788	2.765	5.1	20.3	3 22	11 13.89	+26 16.5	2.246	3.151	9.0	19.9
4 1	11 6.06	+ 5 57.5	1.831	2.763	9.2	20.5	4 1	11 5.98	+26 23.9	2.310	3.152	11.4	20.0
4 11	11 0.04	+ 6 22.4	1.897	2.760	12.8	20.7	4 11	10 59.83	+26 10.1	2.395	3.153	13.7	20.2
40597	1999 RG ₁₄₉		3 10.6 168°58	0°0/10.5 17			364227	2006 SX ₄₃		3 10.6 214°94	0°4/11.0 16		
2 1	11 47.82	+ 0 56.6	2.207	2.981	13.6	19.7	2 1	11 49.99	- 0 21.8	2.119	2.887	14.3	22.6
2 11	11 44.03	+ 1 26.4	2.116	2.983	10.8	19.5	2 11	11 45.94	+ 0 6.2	2.017	2.879	11.4	22.4
2 21	11 38.26	+ 2 9.5	2.048	2.985	7.3	19.3	2 21	11 39.71	+ 0 49.5	1.937	2.871	7.9	22.2
3 2	11 30.99	+ 3 2.7	2.007	2.987	3.5	19.0	3 2	11 31.76	+ 1 45.2	1.883	2.862	3.9	21.9
3 12	11 22.97	+ 4 0.7	1.995	2.989	0.6	18.8	3 12	11 22.87	+ 2 48.2	1.859	2.852	0.6	21.6
3 22	11 15.03	+ 4 57.6	2.013	2.990	4.6	19.1	3 22	11 13.96	+ 3 52.0	1.864	2.842	4.8	21.9
4 1	11 8.01	+ 5 48.1	2.058	2.991	8.3	19.3	4 1	11 5.98	+ 4 50.4	1.897	2.831	8.8	22.1
4 11	11 2.59	+ 6 27.5	2.129	2.991	11.6	19.5	4 11	10 59.72	+ 5 37.9	1.956	2.819	12.5	22.3
498901	2009 AU ₁		3 10.6 65°02	3°6/ 3.7 18			213614	2002 PP ₁₇₈		3 10.6 267°53	1°3/ 9.4 18		
2 1	11 43.79	+18 39.8	3.809	4.607	7.9	21.1	2 1	11 47.16	+ 2 52.7	1.705	2.504	16.0	20.5
2 11	11 39.93	+19 52.6	3.767	4.646	6.1	21.0	2 11	11 44.29	+ 3 43.4	1.610	2.493	12.6	20.3
2 21	11 34.97	+21 4.8	3.753	4.686	4.5	20.9	2 21	11 38.90	+ 4 51.9	1.536	2.481	8.5	20.0
3 2	11 29.27	+22 12.1	3.770	4.724	3.6	20.9	3 2	11 31.47	+ 6 13.2	1.487	2.470	3.9	19.7
3 12	11 23.26	+23 10.7	3.817	4.763	4.1	21.0	3 12	11 22.91	+ 7 39.0	1.466	2.458	1.9	19.5
3 22	11 17.42	+23 57.7	3.893	4.801	5.4	21.1	3 22	11 14.32	+ 9 0.2	1.473	2.446	6.5	19.8
4 1	11 12.17	+24 31.6	3.998	4.839	7.0	21.3	4 1	11 6.84	+10 8.3	1.506	2.434	11.1	20.0
4 11	11 7.86	+24 51.9	4.127	4.876	8.5	21.4	4 11	11 1.42	+10 57.6	1.561	2.422	15.2	20.2
454941	2015 TJ ₁₈₀		3 10.6 38°62	5°0/ 7.9 16			10124	Hemse		3 10.6 166°94	1°1/ 9.7 18		
2 1	11 56.36	+12 42.8	1.004	1.845	21.7	20.8	2 1	11 55.83	+ 5 12.2	1.848	2.631	15.6	18.1
2 11	11 52.25	+13 7.6	0.967	1.873	16.8	20.6	2 11	11 50.67	+ 5 30.4	1.763	2.636	12.2	17.9
2 21	11 44.38	+13 38.9	0.948	1.901	11.3	20.4	2 21	11 42.96	+ 5 59.7	1.700	2.640	8.2	17.6
3 2	11 33.89	+14 6.8	0.951	1.931	6.3	20.2	3 2	11 33.29	+ 6 35.9	1.663	2.644	3.8	17.4
3 12	11 22.56	+14 21.2	0.977	1.961	5.6	20.3	3 12	11 22.64	+ 7 13.0	1.655	2.647	1.6	17.2
3 22	11 12.22	+14 16.3	1.027	1.993	9.8	20.6	3 22	11 12.15	+ 7 44.9	1.676	2.649	5.9	17.5
4 1	11 4.34	+13 50.4	1.099	2.024	14.5	21.0	4 1	11 2.94	+ 8 6.8	1.725	2.651	10.1	17.8
4 11	10 59.71	+13 5.2	1.190	2.057	18.5	21.3	4 11	10 55.86	+ 8 15.6	1.798	2.651	13.8	18.0
88636	2001 RM ₄₅		3 10.6 179°04	1°3/ 9.3 18			59630	1999 JK ₇₇		3 10.6 259°98	2°8/ 7.3 18		
2 1	11 50.67	+ 5 23.4	2.234	3.017	13.2	20.6	2 1	11 46.44	+ 7 7.0	2.103	2.902	13.4	19.8
2 11	11 46.23	+ 5 56.7	2.144	3.018	10.3	20.4	2 11	11 43.28	+ 8 23.9	1.999	2.884	10.4	19.6
2 21	11 39.74	+ 6 40.0	2.078	3.019	6.9	20.2	2 21	11 37.99	+ 9 54.5	1.919	2.865	7.0	19.3
3 2	11 31.70	+ 7 29.3	2.039	3.020	3.2	20.0	3 2	11 30.98	+11 32.7	1.866	2.847	3.6	19.1
3 12	11 22.87	+ 8 18.9	2.029	3.020	1.7	19.9	3 12	11 22.99	+13 10.2	1.843	2.827	3.5	19.0
3 22	11 14.15	+ 9 3.5	2.049	3.019	5.2	20.1	3 22	11 14.92	+14 38.7	1.849	2.808	6.9	19.2
4 1	11 6.38	+ 9 38.2	2.098	3.018	8.9	20.3	4 1	11 7.71	+15 51.0	1.883	2.787	10.6	19.4
4 11	11 0.27	+ 9 59.9	2.171	3.016	12.1	20.5	4 11	11 2.17	+16 43.0	1.940	2.767	14.0	19.5
361152	2006 HD ₁₅₂		3 10.6 303°05	2°4/ 8.8 17			148605	2001 RT ₆₃		3 10.6 116°56	1°6/ 8.9 18		
2 1	11 47.31	+ 5 41.9	1.403	2.222	17.8	21.3	2 1	11 51.34	+ 5 53.5	2.125	2.910	13.7	21.1
2 11	11 45.09	+ 6 22.2	1.307	2.202	14.1	21.0	2 11	11 46.69	+ 6 34.9	2.053	2.929	10.6	21.0
2 21	11 39.85	+ 7 20.0	1.231	2.181	9.5	20.7	2 21	11 39.97	+ 7 26.2	2.005	2.947	7.0	20.8
3 2	11 32.08	+ 8 29.5	1.179	2.161	4.6	20.3	3 2	11 31.76	+ 8 22.4	1.984	2.965	3.3	20.6
3 12	11 22.78	+ 9 41.4	1.152	2.142	3.0	20.2	3 12	11 22.90	+ 9 17.2	1.992	2.982	2.0	20.5
3 22	11 13.34	+10 45.2	1.150	2.122	8.0	20.4	3 22	11 14.28	+10 5.1	2.030	2.998	5.5	20.8
4 1	11 5.21	+11 32.0	1.173	2.103	13.3	20.6	4 1	11 6.76	+10 41.3	2.096	3.014	9.0	21.0
4 11	10 59.58	+11 56.2	1.216	2.085	18.0	20.9	4 11	11 0.99	+11 3.3	2.187	3.030	12.1	21.2
271668	2004 RX ₅₉		3 10.6 156°25	0°7/11.3 17			253096	2002 TZ ₂₇₁		3 10.6 244°74	0°7/10.0 17		
2 1	11 52.49	+ 0 32.1	2.434	3.191	13.0								

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3 10.6

3 10.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
85926	1999 CV ₁₁₅		3 10.6 322°48	7°0/14.5	17		40367	1999 NA ₂₈		3 10.6 249°31	0°1/10.5	18	
2 1	11 48.00	- 8 47.1	1.443	2.209	20.0	19.1	2 1	11 51.76	+ 1 58.9	1.879	2.660	15.5	19.8
2 11	11 45.83	-10 2.7	1.332	2.179	17.1	18.8	2 11	11 47.75	+ 2 17.0	1.773	2.643	12.3	19.6
2 21	11 40.59	-11 1.1	1.239	2.149	13.6	18.5	2 21	11 41.20	+ 2 49.7	1.688	2.626	8.5	19.3
3 2	11 32.58	-11 38.2	1.166	2.120	9.8	18.2	3 2	11 32.59	+ 3 33.9	1.628	2.608	4.1	19.0
3 12	11 22.70	-11 51.7	1.117	2.092	7.2	18.0	3 12	11 22.77	+ 4 24.1	1.597	2.590	0.7	18.7
3 22	11 12.30	-11 42.8	1.093	2.065	8.2	17.9	3 22	11 12.83	+ 5 13.8	1.594	2.571	5.5	19.0
4 1	11 2.97	-11 16.7	1.091	2.039	12.2	18.1	4 1	11 3.90	+ 5 56.4	1.619	2.552	10.1	19.2
4 11	10 56.13	-10 42.2	1.111	2.015	16.7	18.2	4 11	10 56.96	+ 6 26.8	1.668	2.532	14.2	19.4
235957	2005 EP ₁₉₄		3 10.6 253°86	0°8/11.5	17		500449	2012 TJ ₁₉₈		3 10.6 144°63	2°1/13.6	17	
2 1	11 45.66	- 1 40.7	2.291	3.058	13.4	21.6	2 1	11 46.54	- 6 55.6	2.968	3.692	11.6	23.4
2 11	11 42.37	- 1 15.4	2.189	3.050	10.7	21.4	2 11	11 42.48	- 6 42.7	2.875	3.703	9.4	23.3
2 21	11 37.19	- 0 35.4	2.110	3.042	7.5	21.2	2 21	11 36.93	- 6 16.3	2.804	3.713	6.9	23.1
3 2	11 30.53	+ 0 17.1	2.057	3.034	3.8	20.9	3 2	11 30.31	- 5 37.8	2.761	3.723	4.2	22.9
3 12	11 23.08	+ 1 17.4	2.033	3.025	0.8	20.7	3 12	11 23.16	- 4 50.2	2.747	3.733	2.2	22.8
3 22	11 15.64	+ 2 20.0	2.038	3.017	4.2	20.9	3 22	11 16.10	- 3 57.1	2.764	3.742	3.4	22.9
4 1	11 9.00	+ 3 18.9	2.071	3.009	7.9	21.1	4 1	11 9.73	- 3 2.9	2.810	3.750	6.0	23.1
4 11	11 3.87	+ 4 9.0	2.130	3.000	11.3	21.3	4 11	11 4.53	- 2 12.0	2.885	3.758	8.6	23.3
158512	2002 EZ ₁₀₅		3 10.6 288°55	3°2/ 7.2	18		320390	2007 UR ₄₈		3 10.6 154°80	1°6/ 8.7	17	
2 1	11 45.53	+ 8 14.5	1.899	2.709	14.2	20.0	2 1	11 46.94	+ 6 45.9	2.590	3.376	11.5	21.6
2 11	11 42.73	+ 9 23.6	1.807	2.698	11.0	19.7	2 11	11 43.02	+ 7 26.0	2.504	3.380	8.9	21.4
2 21	11 37.67	+10 45.3	1.738	2.687	7.4	19.5	2 21	11 37.42	+ 8 14.1	2.442	3.385	5.9	21.3
3 2	11 30.83	+12 12.8	1.696	2.676	4.0	19.2	3 2	11 30.57	+ 9 6.2	2.408	3.389	2.8	21.1
3 12	11 23.03	+13 37.5	1.682	2.665	3.9	19.2	3 12	11 23.12	+ 9 57.2	2.404	3.393	2.0	21.0
3 22	11 15.23	+14 51.2	1.695	2.654	7.3	19.4	3 22	11 15.78	+10 42.4	2.431	3.397	4.9	21.2
4 1	11 8.44	+15 47.2	1.735	2.643	11.2	19.6	4 1	11 9.22	+11 17.9	2.485	3.400	7.9	21.4
4 11	11 3.48	+16 22.0	1.798	2.633	14.6	19.8	4 11	11 4.03	+11 41.1	2.565	3.403	10.7	21.6
344567	2002 XB ₄₆		3 10.6 97°29	1°4/12.5	18		45776	2000 NZ ₂₈		3 10.6 289°75	0°5/11.1	17	
2 1	11 48.68	- 3 49.7	2.692	3.432	12.3	20.9	2 1	11 46.23	+ 0 14.8	2.218	2.992	13.6	19.6
2 11	11 44.14	- 3 33.0	2.618	3.461	9.8	20.7	2 11	11 42.97	+ 0 31.0	2.108	2.975	10.8	19.4
2 21	11 38.01	- 3 3.5	2.568	3.488	6.9	20.6	2 21	11 37.70	+ 1 0.6	2.021	2.957	7.5	19.1
3 2	11 30.78	- 2 23.5	2.544	3.515	3.8	20.4	3 2	11 30.84	+ 1 41.4	1.961	2.939	3.7	18.9
3 12	11 23.07	- 1 36.6	2.551	3.542	1.4	20.3	3 12	11 23.07	+ 2 28.9	1.928	2.922	0.6	18.6
3 22	11 15.56	- 0 46.9	2.588	3.568	3.5	20.5	3 22	11 15.23	+ 3 18.0	1.925	2.904	4.5	18.8
4 1	11 8.89	+ 0 0.9	2.656	3.593	6.4	20.7	4 1	11 8.19	+ 4 2.9	1.949	2.886	8.4	19.0
4 11	11 3.57	+ 0 43.0	2.750	3.618	9.1	20.9	4 11	11 2.71	+ 4 39.0	1.999	2.869	11.9	19.2
216072	2006 QL ₂₉		3 10.6 192°79	1°8/ 8.8	18		56871	2000 QB ₁₀₈		3 10.6 84°87	0°2/10.4	18	
2 1	11 51.22	+ 6 14.7	2.134	2.920	13.7	21.2	2 1	11 48.16	+ 2 44.5	2.400	3.175	12.7	19.5
2 11	11 46.81	+ 6 57.1	2.042	2.918	10.6	20.9	2 11	11 44.01	+ 3 2.3	2.323	3.191	9.9	19.3
2 21	11 40.23	+ 7 50.3	1.973	2.916	7.1	20.7	2 21	11 38.08	+ 3 30.0	2.269	3.207	6.7	19.1
3 2	11 31.98	+ 8 49.2	1.932	2.913	3.4	20.5	3 2	11 30.87	+ 4 4.6	2.243	3.223	3.1	18.9
3 12	11 22.86	+ 9 47.7	1.920	2.909	2.3	20.4	3 12	11 23.08	+ 4 41.8	2.245	3.238	0.6	18.7
3 22	11 13.81	+10 39.4	1.938	2.905	5.8	20.6	3 22	11 15.47	+ 5 17.1	2.278	3.254	4.2	19.0
4 1	11 5.76	+11 19.2	1.983	2.900	9.5	20.8	4 1	11 8.77	+ 5 46.4	2.339	3.269	7.6	19.3
4 11	10 59.45	+11 43.8	2.054	2.894	12.9	21.0	4 11	11 3.55	+ 6 6.6	2.426	3.285	10.5	19.5
89268	2001 VY ₈		3 10.6 218°22	1°1/11.6	18		265043	2003 QG ₂₇		3 10.6 303°48	5°1/14.5	17	
2 1	11 52.32	- 1 44.0	1.975	2.737	15.4	20.5	2 1	11 48.20	- 8 59.5	1.804	2.549	17.3	20.4
2 11	11 47.98	- 1 27.4	1.870	2.728	12.4	20.3	2 11	11 45.25	- 9 37.5	1.687	2.523	14.6	20.2
2 21	11 41.24	- 0 54.2	1.787	2.717	8.7	20.0	2 21	11 39.72	- 9 57.0	1.590	2.496	11.4	19.9
3 2	11 32.55	- 0 6.4	1.730	2.706	4.5	19.7	3 2	11 31.99	- 9 56.0	1.515	2.470	7.8	19.6
3 12	11 22.76	+ 0 51.1	1.701	2.694	1.1	19.5	3 12	11 22.87	- 9 34.9	1.466	2.445	5.2	19.4
3 22	11 12.90	+ 1 52.0	1.702	2.681	5.0	19.7	3 22	11 13.44	- 8 57.0	1.444	2.419	6.3	19.4
4 1	11 4.05	+ 2 49.2	1.731	2.667	9.3	19.9	4 1	11 4.92	- 8 8.4	1.448	2.393	9.9	19.5
4 11	10 57.11	+ 3 37.0	1.785	2.653	13.2	20.1	4 11	10 58.38	- 7 17.1	1.475	2.368	14.0	19.7
320764	2008 EA ₈₆		3 10.6 15°02	2°9/ 8.2	18		464214	2015 BG ₂₀₄		3 10.6 207°10	0°4/11.1	17	
2 1	11 41.93	+ 4 56.8	1.185	2.023	19.3	20.6	2 1	11 46.20	- 0 49.7	2.016	2.792	14.7	21.6
2 11	11 40.91	+ 6 4.2	1.123	2.028	14.9	20.3	2 11	11 43.02	- 0 15.6	1.924	2.792	11.6	21.4
2 21	11 36.88	+ 7 31.8	1.080	2.035	9.9	20.1	2 21	11 37.74	+ 0 34.9	1.855	2.791	8.0	21.1
3 2	11 30.54	+ 9 10.3	1.059	2.043	4.7	19.8	3 2	11 30.83	+ 1 38.5	1.811	2.790	3.9	20.9
3 12	11 23.09	+10 46.9	1.063	2.052	3.7	19.7	3 12	11 23.09	+ 2 49.4	1.796	2.789	0.6	20.6
3 22	11 15.93	+12 9.4	1.091	2.063	8.5	20.0	3 22	11 15.42	+ 4 0.6	1.810	2.789	4.7	20.9
4 1	11 10.37	+13 8.4	1.142	2.075	13.4	20.4	4 1	11 8.71	+ 5 5.4	1.851	2.788	8.8	21.2
4 11	11 7.34	+13 40.0	1.213	2.088	17.7	20.6	4 11	11 3.71	+ 5 58.2	1.917	2.787	12.4	21.4
471898	2013 BJ ₂₅		3 10.6 350°90	2°8/13.8	17		251826	1999 TK ₁₇₉		3 10.7 162°14	2°6/13.2	18	
2 1	11 46.12	- 6 38.0	2.580	3.315	12.9	21.1	2 1	11 50.03	- 6 18.3	1.969	2.716	16.0	21.4
2 11	11 42.47	- 6 50.2	2.480	3.314	10.6	20.9	2 11	11 46.07	- 6 9.7	1.878	2.721	13.0	21.2
2 21	11 37.11	- 6 48.6	2.403	3.313	7.8	20.8	2 21	11 39.83	- 5 41.8	1.807	2.725	9.5	21.0
3 2	11 30.45	- 6 33.9	2.352	3.313	5.0	20.6	3 2	11 31.84	- 4 56.0	1.762	2.729	5.6	20.8
3 12	11 23.12	- 6 8.1	2.328	3.312	2.9	20.4	3 12	11 22.95	- 3 56.4	1.744	2.732	2.7	20.6
3 22	11 15.81	- 5 34.7	2.335	3.312	4.0	20.5	3 22	11 14.13	- 2 49.2	1.755	2.735	4.7	20.7
4 1	11 9.25	- 4 58.0	2.369	3.312	6.8	20.7	4 1	11 6.39	- 1 41.6	1.794	2.737	8.6	20.9
4 11	11 4.03	- 4 22.6	2.431	3.311	9.7	20.9	4 11	11 0.50	- 0 40.4	1.859	2.739	12.2	21.2
376785	2000 QV ₁₄₇		3 10.6 262°22	4°0/13.6	17		140390	2001 TB ₅₅		3 10.7 210°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
20882	2000 <i>VH</i> ₅₇		3 10.7 142°01'	0°5'/10.2	18		33923	Juliewarren		3 10.7 261°14'	1°5'/9.2	17	
2 1	11 53.18	+ 2 33.9	2.058	2.831	14.5	19.0	2 1	11 48.70	+ 4 50.9	1.990	2.782	14.3	20.0
2 11	11 48.28	+ 3 4.6	1.977	2.844	11.4	18.9	2 11	11 45.19	+ 5 31.5	1.885	2.765	11.3	19.8
2 21	11 41.16	+ 3 48.0	1.919	2.857	7.7	18.6	2 21	11 39.38	+ 6 25.5	1.803	2.747	7.6	19.5
3 2	11 32.40	+ 4 40.0	1.888	2.869	3.6	18.4	3 2	11 31.72	+ 7 28.4	1.748	2.729	3.6	19.2
3 12	11 22.88	+ 5 34.8	1.887	2.880	0.9	18.2	3 12	11 23.01	+ 8 33.5	1.720	2.711	2.0	19.1
3 22	11 13.54	+ 6 26.2	1.915	2.890	5.1	18.5	3 22	11 14.21	+ 9 33.7	1.722	2.693	6.0	19.3
4 1	11 5.33	+ 7 9.0	1.972	2.899	8.9	18.8	4 1	11 6.35	+10 22.6	1.751	2.674	10.1	19.5
4 11	10 58.97	+ 7 39.3	2.054	2.908	12.3	19.0	4 11	11 0.29	+10 55.7	1.803	2.655	13.9	19.7
102484	1999 <i>TU</i> ₂₅₆		3 10.7 105°08'	0°2'/10.9	18		458877	2011 <i>UB</i> ₁₅₁		3 10.7 93°01'	1°6'/9.3	18	
2 1	11 50.33	- 0 41.6	1.793	2.570	16.2	20.8	2 1	11 54.08	+ 5 10.3	1.648	2.442	16.7	21.6
2 11	11 46.32	- 0 2.9	1.720	2.588	12.8	20.6	2 11	11 49.36	+ 5 46.8	1.585	2.465	13.0	21.4
2 21	11 39.96	+ 0 53.2	1.669	2.606	8.7	20.4	2 21	11 42.05	+ 6 36.0	1.544	2.488	8.6	21.2
3 2	11 31.86	+ 2 2.5	1.644	2.623	4.2	20.2	3 2	11 32.85	+ 7 31.9	1.528	2.510	4.0	21.0
3 12	11 22.96	+ 3 17.9	1.646	2.640	0.6	19.9	3 12	11 22.86	+ 8 26.7	1.541	2.532	2.1	20.9
3 22	11 14.32	+ 4 31.5	1.678	2.656	5.1	20.3	3 22	11 13.28	+ 9 13.5	1.582	2.553	6.3	21.2
4 1	11 6.94	+ 5 36.2	1.737	2.672	9.4	20.6	4 1	11 5.17	+ 9 46.7	1.649	2.574	10.5	21.5
4 11	11 1.54	+ 6 26.5	1.820	2.688	13.0	20.8	4 11	10 59.33	+10 3.5	1.740	2.594	14.1	21.8
52010	2002 <i>JA</i> ₅₉		3 10.7 292°88'	0°8'/9.9	18		306817	2001 <i>QQ</i> ₂₁₉		3 10.7 159°97'	4°9'/16.2	16	
2 1	11 47.74	+ 3 40.1	1.934	2.726	14.7	19.6	2 1	11 51.03	-13 55.5	2.490	3.176	14.4	21.6
2 11	11 44.50	+ 4 2.3	1.829	2.707	11.6	19.4	2 11	11 46.40	-14 16.0	2.392	3.184	12.3	21.4
2 21	11 38.94	+ 4 37.7	1.746	2.689	7.9	19.1	2 21	11 39.84	-14 18.3	2.315	3.190	9.7	21.3
3 2	11 31.51	+ 5 22.5	1.688	2.670	3.7	18.8	3 2	11 31.81	-14 1.5	2.263	3.197	7.1	21.1
3 12	11 23.00	+ 6 11.2	1.659	2.651	1.2	18.6	3 12	11 23.02	-13 27.1	2.238	3.202	5.2	21.0
3 22	11 14.40	+ 6 57.4	1.657	2.633	5.6	18.8	3 22	11 14.27	-12 38.4	2.243	3.207	5.4	21.0
4 1	11 6.76	+ 7 35.1	1.682	2.614	9.9	19.1	4 1	11 6.39	-11 40.6	2.276	3.211	7.5	21.2
4 11	11 0.94	+ 7 59.7	1.731	2.596	13.7	19.3	4 11	11 0.04	-10 40.0	2.336	3.215	10.1	21.3
317089	2001 <i>SW</i> ₃₄₄		3 10.7 182°54'	5°7'/2.6	17		140740	2001 <i>UY</i> ₁₀₅		3 10.7 202°52'	0°2'/10.3	18	
2 1	11 48.23	+22 20.1	2.756	3.560	10.4	21.0	2 1	11 46.52	+ 2 13.5	2.866	3.632	11.0	21.3
2 11	11 44.06	+23 35.1	2.683	3.560	8.4	20.9	2 11	11 42.60	+ 2 42.8	2.764	3.628	8.6	21.1
2 21	11 38.14	+24 49.0	2.636	3.560	6.6	20.8	2 21	11 37.13	+ 3 21.8	2.687	3.624	5.8	20.9
3 2	11 30.94	+25 55.5	2.616	3.560	5.7	20.7	3 2	11 30.48	+ 4 7.8	2.638	3.618	2.7	20.7
3 12	11 23.12	+26 48.6	2.626	3.559	6.4	20.7	3 12	11 23.23	+ 4 56.9	2.620	3.613	0.6	20.5
3 22	11 15.40	+27 24.3	2.664	3.558	8.2	20.9	3 22	11 16.00	+ 5 44.7	2.632	3.607	3.8	20.7
4 1	11 8.51	+27 40.3	2.727	3.557	10.3	21.0	4 1	11 9.44	+ 6 27.2	2.673	3.601	6.9	20.9
4 11	11 3.03	+27 37.0	2.812	3.555	12.2	21.1	4 11	11 4.08	+ 7 1.1	2.741	3.594	9.6	21.1
382658	2002 <i>TU</i> ₂₄		3 10.7 85°37'	2°8'/7.8	18		374427	2005 <i>WU</i> ₁₁₆		3 10.7 142°58'	3°4'/7.1	17	
2 1	11 52.17	+11 28.5	2.254	3.048	12.8	20.9	2 1	11 49.36	+10 40.6	2.046	2.850	13.6	21.7
2 11	11 47.17	+11 57.6	2.188	3.069	9.9	20.8	2 11	11 45.41	+11 37.8	1.969	2.855	10.5	21.5
2 21	11 40.22	+12 31.0	2.147	3.090	6.6	20.6	2 21	11 39.29	+12 42.6	1.915	2.861	7.1	21.3
3 2	11 31.88	+13 4.0	2.133	3.111	3.6	20.5	3 2	11 31.57	+13 48.7	1.888	2.866	4.0	21.1
3 12	11 22.98	+13 31.3	2.148	3.131	3.3	20.5	3 12	11 23.06	+14 48.7	1.890	2.870	4.0	21.1
3 22	11 14.38	+13 48.7	2.193	3.151	6.0	20.7	3 22	11 14.72	+15 36.5	1.920	2.875	7.0	21.3
4 1	11 6.87	+13 53.6	2.266	3.171	9.1	20.9	4 1	11 7.45	+16 7.6	1.978	2.879	10.4	21.5
4 11	11 1.06	+13 45.1	2.363	3.191	11.8	21.1	4 11	11 1.97	+16 20.3	2.058	2.883	13.4	21.7
495627	2015 <i>TS</i> ₃₃₆		3 10.7 147°85'	1°2'/9.7	18		270854	2002 <i>TW</i> ₄₁		3 10.7 74°06'	3°6'/7.7	18	
2 1	11 53.79	+ 3 36.1	1.601	2.394	17.2	22.2	2 1	11 57.67	+11 13.8	1.713	2.512	16.0	21.5
2 11	11 49.45	+ 4 13.1	1.524	2.402	13.5	22.0	2 11	11 51.82	+11 58.4	1.667	2.550	12.3	21.4
2 21	11 42.33	+ 5 5.7	1.467	2.410	9.1	21.8	2 21	11 43.47	+12 48.7	1.643	2.587	8.2	21.2
3 2	11 33.08	+ 6 8.5	1.436	2.417	4.2	21.5	3 2	11 33.42	+13 37.5	1.646	2.624	4.5	21.1
3 12	11 22.79	+ 7 13.5	1.432	2.424	1.7	21.3	3 12	11 22.82	+14 17.3	1.678	2.660	4.1	21.1
3 22	11 12.70	+ 8 12.3	1.456	2.430	6.4	21.6	3 22	11 12.83	+14 42.9	1.738	2.696	7.3	21.4
4 1	11 4.05	+ 8 57.9	1.507	2.435	11.1	21.9	4 1	11 4.46	+14 51.4	1.825	2.731	10.9	21.7
4 11	10 57.73	+ 9 26.3	1.580	2.440	15.1	22.2	4 11	10 58.36	+14 42.7	1.935	2.765	14.0	21.9
429999	2013 <i>QJ</i> ₃₀		3 10.7 169°38'	3°0'/6.9	16		13070	Seanconnery		3 10.7 201°48'	1°5'/12.3	17	
2 1	11 47.96	+ 9 0.1	2.307	3.103	12.5	21.7	2 1	11 50.01	- 4 7.5	2.350	3.094	13.7	19.8
2 11	11 44.10	+10 18.1	2.224	3.107	9.6	21.5	2 11	11 45.75	- 3 43.5	2.244	3.089	11.1	19.6
2 21	11 38.31	+11 45.4	2.165	3.110	6.4	21.3	2 21	11 39.50	- 3 3.2	2.161	3.084	7.9	19.4
3 2	11 31.07	+13 15.7	2.135	3.113	3.6	21.2	3 2	11 31.69	- 2 8.6	2.105	3.077	4.3	19.1
3 12	11 23.11	+14 41.6	2.135	3.115	3.6	21.2	3 12	11 23.05	- 1 4.0	2.078	3.070	1.5	18.9
3 22	11 15.25	+15 56.4	2.165	3.117	6.5	21.3	3 22	11 14.39	+ 0 5.1	2.082	3.061	4.1	19.1
4 1	11 8.28	+16 54.9	2.223	3.118	9.7	21.5	4 1	11 6.58	+ 1 12.5	2.115	3.052	7.8	19.3
4 11	11 2.87	+17 34.5	2.305	3.119	12.5	21.7	4 11	11 0.31	+ 2 12.4	2.174	3.042	11.2	19.5
382697	2002 <i>VR</i> ₉₁		3 10.7 48°18'	3°8'/7.7	18		362938	2012 <i>WN</i> ₃₃		3 10.7 262°04'	7°0'/18.8	18	
2 1	11 55.25	+13 51.2	1.807	2.612	15.0	20.3	2 1	11 47.07	-20 3.1	2.534	3.186	14.9	20.5
2 11	11 49.94	+14 9.0	1.752	2.638	11.6	20.1	2 11	11 43.51	-20 46.2	2.425	3.179	13.2	20.3
2 21	11 42.22	+14 29.5	1.720	2.664	7.9	20.0	2 21	11 38.03	-21 9.9	2.335	3.172	11.1	20.1
3 2	11 32.84	+14 46.8	1.714	2.690	4.6	19.8	3 2	11 31.02	-21 11.8	2.267	3.165	9.0	20.0
3 12	11 22.86	+14 55.1	1.737	2.717	4.2	19.8	3 12	11 23.16	-20 51.3	2.225	3.158	7.4	19.9
3 22	11 13.38	+14 50.7	1.787	2.744	7.2	20.1	3 22	11 15.22	-20 10.5	2.210	3.150	7.1	19.8
4 1	11 5.38	+14 31.8	1.864	2.771	10.6	20.3	4 1	11 8.03	-19 13.8	2.221	3.143	8.4	19.9
4 11	10 59.52	+13 58.9	1.965	2.798	13.6	20.6	4 11	11 2.31	-18 7.7	2.258	3.136	10.4	20.0
415960	2001 <i>XV</i> ₁₁₂		3 10.7 133°02'	5°2'/16.9	18		90010	2002 <i>TS</i> ₂₀₂		3 10.7 149°26'	3°9'/6.2	18	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
151044	2001 <i>UX</i> ₂₀₅		3 10.7 322°40	5°9/16.2 18			433973	1999 <i>TQ</i> ₂₁₈		3 10.7 213°11	1°0/ 9.5 17		
2 1	11 45.20	-13 19.3	1.714	2.447	18.5	19.4	2 1	11 49.90	+ 5 7.1	2.774	3.545	11.2	22.4
2 11	11 42.85	-13 38.8	1.617	2.440	15.8	19.1	2 11	11 45.33	+ 5 36.5	2.669	3.536	8.8	22.2
2 21	11 38.01	-13 32.8	1.537	2.432	12.5	18.9	2 21	11 39.04	+ 6 14.4	2.587	3.526	5.9	22.0
3 2	11 31.15	-12 59.5	1.480	2.425	9.0	18.7	3 2	11 31.45	+ 6 57.6	2.535	3.516	2.7	21.7
3 12	11 23.15	-12 0.6	1.446	2.419	6.3	18.5	3 12	11 23.15	+ 7 41.8	2.513	3.504	1.3	21.6
3 22	11 15.10	-10 41.6	1.439	2.413	6.6	18.5	3 22	11 14.84	+ 8 22.6	2.522	3.492	4.4	21.8
4 1	11 8.15	- 9 11.3	1.458	2.407	9.6	18.7	4 1	11 7.24	+ 8 56.1	2.561	3.479	7.5	22.0
4 11	11 3.24	- 7 40.3	1.501	2.401	13.3	18.9	4 11	11 0.95	+ 9 19.4	2.625	3.466	10.4	22.2
267030	1996 <i>TV</i> ₄₀		3 10.7 126°10	0°6/ 9.9 18			1194	<i>Aletta</i>		3 10.7 358°43	5°8/15.8 18		
2 1	11 49.69	+ 2 13.2	2.452	3.221	12.6	22.1	2 1	11 48.10	-11 59.8	1.926	2.650	17.0	15.1
2 11	11 45.17	+ 2 57.7	2.375	3.240	9.8	22.0	2 11	11 44.78	-12 44.2	1.832	2.649	14.4	14.9
2 21	11 38.88	+ 3 53.6	2.322	3.259	6.6	21.8	2 21	11 39.12	-13 9.0	1.757	2.648	11.4	14.7
3 2	11 31.30	+ 4 56.8	2.297	3.277	3.0	21.6	3 2	11 31.62	-13 12.2	1.705	2.648	8.3	14.5
3 12	11 23.15	+ 6 2.0	2.302	3.295	0.9	21.4	3 12	11 23.11	-12 54.4	1.679	2.647	6.0	14.4
3 22	11 15.18	+ 7 3.6	2.338	3.311	4.4	21.7	3 22	11 14.60	-12 19.2	1.679	2.648	6.4	14.4
4 1	11 8.12	+ 7 56.7	2.403	3.327	7.7	22.0	4 1	11 7.12	-11 32.4	1.707	2.648	9.0	14.6
4 11	11 2.55	+ 8 38.0	2.495	3.342	10.6	22.2	4 11	11 1.51	-10 41.4	1.758	2.649	12.2	14.8
85497	1997 <i>TP</i> ₁₁		3 10.7 51°48	0°3/10.9 18			151011	2001 <i>UK</i> ₈₃		3 10.7 138°60	0°2/10.4 18		
2 1	11 47.23	+ 0 38.0	2.082	2.860	14.2	20.1	2 1	11 49.55	+ 1 33.7	2.134	2.909	14.0	21.1
2 11	11 43.74	+ 0 56.2	1.994	2.863	11.3	19.9	2 11	11 45.44	+ 2 6.2	2.051	2.919	11.0	20.9
2 21	11 38.19	+ 1 27.9	1.928	2.865	7.7	19.7	2 21	11 39.27	+ 2 52.1	1.990	2.928	7.5	20.7
3 2	11 31.08	+ 2 10.1	1.889	2.868	3.8	19.4	3 2	11 31.58	+ 3 47.3	1.956	2.936	3.5	20.4
3 12	11 23.18	+ 2 57.9	1.877	2.871	0.5	19.2	3 12	11 23.15	+ 4 46.4	1.952	2.945	0.7	20.2
3 22	11 15.39	+ 3 45.8	1.895	2.874	4.6	19.5	3 22	11 14.86	+ 5 43.3	1.976	2.953	4.7	20.5
4 1	11 8.56	+ 4 28.1	1.940	2.876	8.5	19.7	4 1	11 7.57	+ 6 32.4	2.030	2.960	8.5	20.8
4 11	11 3.41	+ 5 0.5	2.010	2.879	11.9	19.9	4 11	11 1.98	+ 7 9.6	2.108	2.967	11.8	21.0
210306	2007 <i>TQ</i> ₁₄₉		3 10.7 81°83	8°2/ 1.4 18			403295	2009 <i>BX</i> ₁₀₈		3 10.7 53°40	2°2/ 8.9 18		
2 1	11 53.40	+29 22.0	2.291	3.091	12.4	20.2	2 1	11 50.22	+ 5 12.3	1.294	2.112	19.1	21.0
2 11	11 48.34	+30 32.2	2.244	3.107	10.4	20.1	2 11	11 47.04	+ 5 59.5	1.238	2.131	14.8	20.7
2 21	11 41.10	+31 34.5	2.220	3.123	8.8	20.0	2 21	11 40.84	+ 7 2.8	1.201	2.151	9.8	20.5
3 2	11 32.35	+32 21.3	2.223	3.139	8.2	20.0	3 2	11 32.41	+ 8 14.4	1.188	2.171	4.6	20.3
3 12	11 23.01	+32 46.4	2.252	3.155	8.9	20.1	3 12	11 23.03	+ 9 23.9	1.201	2.191	2.8	20.2
3 22	11 14.04	+32 47.0	2.307	3.171	10.5	20.2	3 22	11 14.11	+10 21.9	1.240	2.212	7.5	20.5
4 1	11 6.35	+32 23.2	2.385	3.186	12.4	20.3	4 1	11 6.92	+11 1.3	1.302	2.233	12.3	20.9
4 11	11 0.55	+31 37.8	2.484	3.202	14.2	20.5	4 11	11 2.31	+11 19.3	1.386	2.254	16.3	21.2
81488	2000 <i>GC</i> ₁₅₅		3 10.7 51°01	0°2/10.8 18			33448	<i>Aaronyeiser</i>		3 10.7 278°84	1°3/ 9.8 18		
2 1	11 51.39	+ 1 54.4	1.512	2.308	17.9	19.3	2 1	11 52.58	+ 5 11.9	1.516	2.319	17.5	18.7
2 11	11 47.63	+ 1 57.7	1.442	2.321	14.1	19.1	2 11	11 48.85	+ 5 25.4	1.430	2.314	13.8	18.5
2 21	11 41.11	+ 2 16.3	1.393	2.334	9.6	18.9	2 21	11 42.19	+ 5 52.1	1.364	2.310	9.4	18.2
3 2	11 32.52	+ 2 46.7	1.367	2.348	4.6	18.6	3 2	11 33.18	+ 6 27.6	1.323	2.305	4.4	17.9
3 12	11 22.97	+ 3 22.8	1.368	2.362	0.6	18.4	3 12	11 22.90	+ 7 4.9	1.308	2.300	1.8	17.7
3 22	11 13.72	+ 3 57.7	1.396	2.376	5.7	18.8	3 22	11 12.70	+ 7 36.9	1.320	2.295	6.7	18.0
4 1	11 5.95	+ 4 25.3	1.450	2.390	10.4	19.1	4 1	11 3.91	+ 7 57.3	1.357	2.291	11.6	18.3
4 11	11 0.53	+ 4 41.1	1.527	2.405	14.5	19.3	4 11	10 57.56	+ 8 2.3	1.417	2.286	15.9	18.5
122210	2000 <i>NL</i> ₃		3 10.7 202°87	5°2/16.1 18			419761	2010 <i>VK</i> ₁₁₄		3 10.7 68°56	0°7/10.1 18		
2 1	11 50.34	-13 37.5	2.367	3.060	14.9	20.3	2 1	11 52.25	+ 3 38.0	1.649	2.442	16.7	21.4
2 11	11 46.10	-14 3.8	2.260	3.056	12.7	20.1	2 11	11 47.98	+ 3 56.1	1.584	2.463	13.1	21.2
2 21	11 39.80	-14 11.7	2.174	3.052	10.1	20.0	2 21	11 41.17	+ 4 27.5	1.540	2.483	8.8	21.0
3 2	11 31.88	-13 59.9	2.112	3.047	7.4	19.8	3 2	11 32.50	+ 5 7.4	1.522	2.503	4.0	20.8
3 12	11 23.06	-13 29.3	2.077	3.041	5.4	19.6	3 12	11 23.03	+ 5 49.5	1.531	2.523	1.1	20.6
3 22	11 14.19	-12 43.1	2.070	3.035	5.7	19.6	3 22	11 13.92	+ 6 27.1	1.567	2.544	5.7	21.0
4 1	11 6.16	-11 46.5	2.092	3.028	8.0	19.8	4 1	11 6.23	+ 6 54.8	1.631	2.564	10.0	21.3
4 11	10 59.72	-10 46.2	2.140	3.021	10.8	19.9	4 11	11 0.73	+ 7 9.3	1.717	2.584	13.7	21.5
461986	2006 <i>VN</i> ₁₆₉		3 10.7 167°64	0°0/10.6 16			297399	2000 <i>QS</i> ₁₈₄		3 10.7 201°78	0°2/10.4 18		
2 1	11 50.40	+ 1 9.1	2.255	3.023	13.6	22.3	2 1	11 48.40	+ 3 7.7	3.079	3.841	10.4	21.8
2 11	11 46.02	+ 1 39.5	2.164	3.028	10.7	22.1	2 11	11 43.95	+ 3 23.3	2.975	3.836	8.2	21.7
2 21	11 39.64	+ 2 22.9	2.097	3.032	7.3	21.8	2 21	11 38.01	+ 3 46.7	2.896	3.831	5.5	21.5
3 2	11 31.75	+ 3 15.9	2.056	3.036	3.5	21.6	3 2	11 30.93	+ 4 15.7	2.845	3.825	2.6	21.3
3 12	11 23.09	+ 4 13.3	2.045	3.039	0.6	21.4	3 12	11 23.28	+ 4 47.0	2.826	3.819	0.5	21.1
3 22	11 14.53	+ 5 9.3	2.065	3.041	4.6	21.7	3 22	11 15.64	+ 5 17.2	2.837	3.812	3.6	21.3
4 1	11 6.91	+ 5 58.7	2.113	3.043	8.3	21.9	4 1	11 8.64	+ 5 43.0	2.879	3.805	6.5	21.5
4 11	11 0.92	+ 6 37.1	2.187	3.044	11.5	22.1	4 11	11 2.80	+ 6 1.8	2.947	3.798	9.1	21.7
380444	2003 <i>SF</i> ₂₈₁		3 10.7 208°98	3°6/ 6.6 17			86702	2000 <i>FM</i> ₆₀		3 10.7 237°70	4°1/ 7.3 18		
2 1	11 50.39	+13 34.3	2.430	3.228	11.9	21.2	2 1	11 52.01	+10 17.1	1.616	2.428	16.2	20.0
2 11	11 45.94	+14 20.1	2.341	3.223	9.2	21.0	2 11	11 48.31	+11 15.1	1.528	2.419	12.7	19.8
2 21	11 39.56	+15 10.2	2.276	3.217	6.4	20.8	2 21	11 41.78	+12 24.6	1.462	2.410	8.6	19.5
3 2	11 31.70	+15 59.2	2.238	3.212	4.0	20.6	3 2	11 32.99	+13 37.7	1.422	2.400	4.9	19.3
3 12	11 23.10	+16 41.3	2.231	3.205	4.1	20.6	3 12	11 22.95	+14 44.8	1.409	2.390	4.8	19.2
3 22	11 14.58	+17 11.7	2.252	3.199	6.6	20.8	3 22	11 12.93	+15 37.1	1.422	2.380	8.6	19.4
4 1	11 6.94	+17 27.1	2.301	3.192	9.6	21.0	4 1	11 4.24	+16 8.4	1.461	2.370	12.9	19.7
4 11	11 0.86	+17 26.3	2.374	3.184	12.3	21.1	4 11	10 57.87	+16 16.4	1.522	2.359	16.7	19.9
70246	1999 <i>RQ</i> ₈₂		3 10.7 335°98	3°5/12.3 18			21806	1999 <i>TE</i> ₁₄		3 10.7 213°52	1°0/ 9.7 18		</

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
208485	2001 <i>UG</i> ₂₁₁	3 10.7 356°27		3°6/14.6 17			425658	2010 <i>XW</i> ₄	3 10.7 138°17		1°6/ 9.0 18		
2 1	11 43.66	- 9 26.2	2.024	2.767	15.7	20.0	2 1	11 50.89	+ 5 35.2	2.149	2.934	13.6	21.5
2 11	11 41.13	- 9 21.3	1.929	2.765	13.0	19.8	2 11	11 46.46	+ 6 19.2	2.070	2.946	10.6	21.3
2 21	11 36.55	- 8 55.6	1.854	2.764	9.8	19.6	2 21	11 39.95	+ 7 13.8	2.015	2.958	7.0	21.1
3 2	11 30.37	- 8 9.6	1.803	2.763	6.4	19.4	3 2	11 31.93	+ 8 13.9	1.987	2.969	3.3	20.9
3 12	11 23.36	- 7 6.7	1.779	2.762	3.8	19.2	3 12	11 23.18	+ 9 13.3	1.989	2.979	2.0	20.8
3 22	11 16.39	- 5 52.7	1.783	2.762	4.8	19.3	3 22	11 14.61	+10 6.0	2.020	2.989	5.5	21.0
4 1	11 10.34	- 4 35.0	1.814	2.762	8.1	19.5	4 1	11 7.09	+10 47.1	2.080	2.998	9.1	21.3
4 11	11 5.95	- 3 21.1	1.870	2.763	11.5	19.7	4 11	11 1.28	+11 13.6	2.164	3.007	12.2	21.5
493111	2014 <i>TN</i> ₇	3 10.7 224°90		0°6/11.3 17			277735	2006 <i>DV</i> ₈₈	3 10.7 358°58		0°2/10.4 17		
2 1	11 50.30	- 1 29.1	2.071	2.835	14.8	22.3	2 1	11 44.07	- 0 7.1	1.806	2.597	15.6	20.4
2 11	11 46.35	- 0 57.4	1.964	2.823	11.8	22.0	2 11	11 41.67	+ 0 43.7	1.719	2.596	12.3	20.2
2 21	11 40.14	- 0 8.5	1.879	2.811	8.2	21.8	2 21	11 37.02	+ 1 53.2	1.654	2.595	8.4	19.9
3 2	11 32.13	+ 0 54.7	1.820	2.798	4.2	21.5	3 2	11 30.64	+ 3 17.0	1.614	2.595	3.9	19.7
3 12	11 23.09	+ 2 7.0	1.791	2.784	0.7	21.2	3 12	11 23.37	+ 4 47.5	1.601	2.595	0.8	19.4
3 22	11 13.97	+ 3 21.5	1.791	2.769	4.8	21.5	3 22	11 16.18	+ 6 16.0	1.617	2.595	5.4	19.8
4 1	11 5.77	+ 4 31.0	1.819	2.754	9.1	21.7	4 1	11 10.04	+ 7 34.3	1.660	2.595	9.7	20.0
4 11	10 59.33	+ 5 29.3	1.873	2.737	12.8	21.9	4 11	11 5.72	+ 8 36.3	1.726	2.596	13.5	20.2
347311	2011 <i>QF</i> ₂₈	3 10.7 226°65		0°8/11.6 17			215971	2005 <i>QN</i> ₆₈	3 10.7 235°92		2°4/ 7.7 18		
2 1	11 47.66	- 0 40.8	2.621	3.379	12.1	21.5	2 1	11 47.15	+10 4.1	2.647	3.440	11.1	21.2
2 11	11 43.70	- 0 32.0	2.517	3.372	9.7	21.3	2 11	11 43.30	+10 44.9	2.551	3.431	8.6	21.0
2 21	11 38.01	- 0 11.9	2.436	3.365	6.8	21.1	2 21	11 37.74	+11 31.9	2.479	3.423	5.8	20.8
3 2	11 30.99	+ 0 17.5	2.382	3.358	3.5	20.9	3 2	11 30.88	+12 20.7	2.435	3.414	3.1	20.6
3 12	11 23.27	+ 0 53.1	2.357	3.350	0.8	20.6	3 12	11 23.34	+13 6.3	2.421	3.405	2.9	20.6
3 22	11 15.56	+ 1 30.7	2.363	3.342	3.8	20.8	3 22	11 15.84	+13 44.2	2.437	3.395	5.5	20.7
4 1	11 8.56	+ 2 6.1	2.398	3.334	7.1	21.0	4 1	11 9.07	+14 10.6	2.481	3.386	8.4	20.9
4 11	11 2.91	+ 2 35.4	2.459	3.325	10.1	21.2	4 11	11 3.64	+14 23.6	2.550	3.376	11.1	21.1
91281	1999 <i>EQ</i> ₁₁	3 10.7 334°95		19°1/23.5 18			341632	2007 <i>VM</i> ₁₃	3 10.7 92°77		1°2/12.0 17		
2 1	12 7.05	+45 23.6	1.276	2.065	21.0	18.1	2 1	11 46.87	- 2 34.8	2.317	3.076	13.5	21.9
2 11	12 2.02	+47 10.7	1.233	2.055	19.8	18.0	2 11	11 43.20	- 2 16.1	2.233	3.088	10.8	21.8
2 21	11 51.91	+48 31.3	1.206	2.045	19.2	17.9	2 21	11 37.69	- 1 43.1	2.173	3.101	7.5	21.6
3 2	11 37.87	+49 7.6	1.197	2.037	19.4	17.9	3 2	11 30.85	- 0 58.3	2.138	3.113	4.0	21.4
3 12	11 22.26	+48 47.1	1.205	2.029	20.4	18.0	3 12	11 23.36	- 0 6.0	2.133	3.125	1.2	21.2
3 22	11 7.75	+47 27.5	1.230	2.022	22.1	18.0	3 22	11 16.01	+ 0 48.6	2.157	3.137	3.9	21.4
4 1	10 56.55	+45 15.5	1.270	2.016	24.0	18.2	4 1	11 9.55	+ 1 40.2	2.210	3.149	7.4	21.6
4 11	10 49.75	+42 23.8	1.325	2.011	25.8	18.3	4 11	11 4.59	+ 2 24.2	2.288	3.161	10.5	21.9
372553	2009 <i>TN</i> ₄₄	3 10.7 74°43		3°3/ 7.1 18			198400	2004 <i>VA</i> ₅₃	3 10.7 78°41		5°5/ 6.2 18		
2 1	11 46.51	+ 8 2.7	1.837	2.646	14.6	20.4	2 1	11 52.25	+13 13.1	1.466	2.288	17.0	20.0
2 11	11 43.40	+ 9 24.9	1.768	2.659	11.2	20.2	2 11	11 48.44	+14 24.9	1.407	2.302	13.2	19.8
2 21	11 38.05	+10 58.6	1.723	2.671	7.5	20.0	2 21	11 41.73	+15 44.0	1.369	2.316	9.1	19.6
3 2	11 31.05	+12 36.2	1.704	2.684	4.0	19.8	3 2	11 32.87	+17 0.5	1.356	2.330	5.9	19.5
3 12	11 23.28	+14 8.2	1.714	2.696	4.0	19.8	3 12	11 23.07	+18 3.7	1.370	2.344	6.2	19.5
3 22	11 15.71	+15 26.4	1.752	2.709	7.3	20.0	3 22	11 13.65	+18 45.8	1.410	2.358	9.6	19.7
4 1	11 9.30	+16 24.9	1.816	2.721	10.9	20.3	4 1	11 5.87	+19 2.7	1.474	2.372	13.4	20.0
4 11	11 4.74	+17 1.3	1.903	2.734	14.1	20.5	4 11	11 0.56	+18 54.7	1.558	2.386	16.8	20.2
205772	2002 <i>CX</i> ₆₆	3 10.7 141°46		0°5/10.2 18			162498	2000 <i>QH</i> ₃₂	3 10.7 229°38		2°1/ 8.9 18		
2 1	11 52.85	+ 2 47.9	1.704	2.491	16.5	20.7	2 1	11 53.63	+ 7 2.3	1.832	2.626	15.3	20.9
2 11	11 48.59	+ 3 11.2	1.624	2.499	13.0	20.5	2 11	11 49.26	+ 7 34.2	1.735	2.615	12.0	20.6
2 21	11 41.73	+ 3 49.0	1.564	2.505	8.8	20.3	2 21	11 42.29	+ 8 17.2	1.661	2.604	8.1	20.3
3 2	11 32.87	+ 4 37.1	1.531	2.512	4.1	20.0	3 2	11 33.22	+ 9 6.5	1.612	2.593	3.9	20.1
3 12	11 23.02	+ 5 28.9	1.525	2.518	1.0	19.8	3 12	11 23.00	+ 9 54.9	1.592	2.581	2.6	19.9
3 22	11 13.35	+ 6 17.2	1.547	2.523	5.8	20.1	3 22	11 12.75	+10 35.7	1.600	2.568	6.6	20.2
4 1	11 4.99	+ 6 55.8	1.596	2.528	10.3	20.4	4 1	11 3.65	+11 3.2	1.635	2.555	10.9	20.4
4 11	10 58.82	+ 7 20.4	1.668	2.533	14.2	20.6	4 11	10 56.64	+11 14.1	1.693	2.541	14.8	20.6
283378	2000 <i>QV</i> ₁	3 10.7 183°25		6°2/21.7 18			194594	2001 <i>XW</i> ₁₁₈	3 10.7 83°39		0°6/10.2 18		
2 1	11 46.41	-26 48.5	3.647	4.218	11.8	22.3	2 1	11 57.28	+ 3 19.7	1.546	2.334	17.9	19.3
2 11	11 42.36	-27 3.5	3.534	4.218	10.6	22.1	2 11	11 51.96	+ 3 37.1	1.488	2.363	14.0	19.1
2 21	11 36.92	-27 1.0	3.440	4.218	9.2	22.0	2 21	11 43.87	+ 4 8.6	1.452	2.392	9.4	18.9
3 2	11 30.43	-26 39.5	3.368	4.217	7.8	21.9	3 2	11 33.79	+ 4 49.1	1.440	2.421	4.3	18.7
3 12	11 23.40	-25 59.1	3.322	4.216	6.6	21.8	3 12	11 22.95	+ 5 31.7	1.456	2.449	1.1	18.5
3 22	11 16.39	-25 1.6	3.303	4.214	6.2	21.8	3 22	11 12.62	+ 6 9.4	1.500	2.476	5.9	18.9
4 1	11 9.94	-23 50.5	3.312	4.211	6.7	21.8	4 1	11 3.97	+ 6 36.8	1.571	2.503	10.4	19.2
4 11	11 4.56	-22 30.7	3.350	4.208	7.9	21.9	4 11	10 57.76	+ 6 50.6	1.665	2.529	14.2	19.5
259334	2003 <i>FD</i> ₁₁₁	3 10.7 338°66		5°8/ 5.9 17			357062	2001 <i>PE</i> ₅₅	3 10.7 146°59		1°0/11.5 18		
2 1	11 46.44	+13 54.5	1.417	2.253	16.8	19.7	2 1	11 55.06	- 0 40.2	1.799	2.567	16.5	21.9
2 11	11 44.30	+14 56.3	1.338	2.241	13.2	19.5	2 11	11 50.18	- 0 33.3	1.716	2.577	13.2	21.7
2 21	11 39.23	+16 6.6	1.280	2.231	9.3	19.2	2 21	11 42.74	- 0 10.6	1.655	2.586	9.2	21.5
3 2	11 31.83	+17 15.9	1.246	2.221	6.2	19.0	3 2	11 33.35	+ 0 25.3	1.618	2.595	4.7	21.2
3 12	11 23.18	+18 13.5	1.237	2.212	6.7	19.0	3 12	11 23.00	+ 1 9.2	1.610	2.603	1.0	21.0
3 22	11 14.62	+18 50.2	1.253	2.204	10.2	19.2	3 22	11 12.82	+ 1 54.9	1.631	2.611	5.1	21.3
4 1	11 7.50	+19 0.8	1.291	2.197	14.4	19.4	4 1	11 3.92	+ 2 36.0	1.680	2.617	9.5	21.5
4 11	11 2.82	+18 44.5	1.350	2.191	18.2	19.6	4 11	10 57.16	+ 3 7.5	1.753	2.623	13.3	21.8
419071	2009 <i>SJ</i> ₅₈	3 10.7 88°73		2°9/13.5 18			375032	2007 <i>HC</i> ₁₈	3 10.7 256°55		5°2/ 5.5 17		
2 1	11 49.07	- 6 28.5	1.94										

EPHEMERIDES

3 10.7

3 10.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
32805	1990 <i>SM</i> ₃		3 10.7 194°74	1°9/ 8.9 18			431161	2006 <i>RN</i> ₁₄		3 10.7 223°32	3°4/14.8 17		
2 1	11 53.07	+ 6 4.8	1.958	2.746	14.7	19.2	2 1	11 45.92	- 9 54.7	2.550	3.268	13.4	22.1
2 11	11 48.55	+ 6 45.6	1.867	2.744	11.5	19.0	2 11	11 42.48	- 9 51.8	2.443	3.263	11.2	21.9
2 21	11 41.63	+ 7 38.1	1.798	2.741	7.7	18.7	2 21	11 37.29	- 9 31.9	2.357	3.257	8.5	21.7
3 2	11 32.85	+ 8 37.2	1.756	2.737	3.7	18.5	3 2	11 30.73	- 8 55.3	2.297	3.251	5.6	21.5
3 12	11 23.08	+ 9 35.9	1.743	2.733	2.3	18.4	3 12	11 23.46	- 8 4.7	2.265	3.245	3.5	21.4
3 22	11 13.36	+10 27.6	1.759	2.728	6.2	18.6	3 22	11 16.17	- 7 4.0	2.263	3.239	4.2	21.4
4 1	11 4.76	+11 6.4	1.803	2.722	10.2	18.8	4 1	11 9.61	- 5 58.8	2.289	3.232	7.0	21.6
4 11	10 58.09	+11 29.1	1.871	2.715	13.8	19.0	4 11	11 4.40	- 4 54.9	2.342	3.226	9.9	21.7
155513	1999 <i>RB</i> ₁₇₂		3 10.7 203°08	1°6/ 9.1 17			379507	2010 <i>GL</i> ₁₃₅		3 10.7 24°59	3°2/ 8.2 18		
2 1	11 49.35	+ 6 4.9	2.159	2.948	13.4	20.4	2 1	11 48.29	+ 9 47.8	1.575	2.394	16.2	20.8
2 11	11 45.39	+ 6 37.6	2.068	2.946	10.5	20.2	2 11	11 45.14	+10 19.2	1.510	2.405	12.5	20.5
2 21	11 39.34	+ 7 20.4	2.000	2.943	7.0	20.0	2 21	11 39.41	+10 59.1	1.468	2.417	8.4	20.3
3 2	11 31.71	+ 8 8.8	1.959	2.941	3.3	19.7	3 2	11 31.78	+11 41.0	1.449	2.430	4.4	20.1
3 12	11 23.26	+ 8 57.1	1.947	2.938	2.0	19.6	3 12	11 23.31	+12 17.3	1.458	2.444	3.7	20.1
3 22	11 14.87	+ 9 39.7	1.965	2.934	5.5	19.8	3 22	11 15.16	+12 41.6	1.493	2.459	7.3	20.4
4 1	11 7.45	+10 11.8	2.010	2.931	9.1	20.1	4 1	11 8.40	+12 49.9	1.552	2.474	11.3	20.6
4 11	11 1.69	+10 30.3	2.079	2.927	12.4	20.3	4 11	11 3.81	+12 40.7	1.634	2.490	14.8	20.9
108156	2001 <i>HM</i> ₄		3 10.7 298°53	2°6/ 8.6 17			304587	2006 <i>VV</i> ₅₂		3 10.7 226°99	4°1/ 5.4 17		
2 1	11 48.70	+ 7 9.0	1.572	2.385	16.5	20.1	2 1	11 49.92	+17 38.5	2.856	3.652	10.3	21.6
2 11	11 45.85	+ 7 47.7	1.478	2.369	13.0	19.8	2 11	11 45.36	+18 23.0	2.763	3.642	8.1	21.4
2 21	11 40.24	+ 8 40.2	1.404	2.353	8.8	19.5	2 21	11 39.09	+19 8.7	2.696	3.631	5.9	21.2
3 2	11 32.34	+ 9 40.4	1.356	2.338	4.3	19.2	3 2	11 31.54	+19 50.6	2.657	3.621	4.3	21.1
3 12	11 23.15	+10 40.1	1.333	2.322	3.2	19.1	3 12	11 23.35	+20 23.7	2.648	3.609	4.6	21.1
3 22	11 13.89	+11 30.7	1.337	2.307	7.5	19.3	3 22	11 15.20	+20 44.3	2.668	3.598	6.6	21.2
4 1	11 5.85	+12 4.9	1.367	2.292	12.3	19.5	4 1	11 7.81	+20 49.9	2.716	3.586	9.0	21.4
4 11	11 0.09	+12 19.0	1.417	2.277	16.5	19.7	4 11	11 1.75	+20 40.1	2.788	3.574	11.3	21.5
129876	Stevenpeterson		3 10.7 216°27	1°4/12.1 17			407714	2011 <i>UV</i> ₂₆₅		3 10.7 205°39	2°7/13.3 17		
2 1	11 50.48	- 3 16.5	2.140	2.894	14.6	21.6	2 1	11 51.34	- 6 34.1	1.993	2.735	15.9	22.7
2 11	11 46.41	- 2 54.1	2.034	2.885	11.8	21.4	2 11	11 47.27	- 6 26.4	1.890	2.730	13.1	22.5
2 21	11 40.15	- 2 14.7	1.949	2.876	8.4	21.1	2 21	11 40.84	- 5 59.3	1.808	2.724	9.6	22.3
3 2	11 32.15	- 1 20.3	1.891	2.865	4.5	20.9	3 2	11 32.54	- 5 13.5	1.751	2.718	5.8	22.0
3 12	11 23.19	- 0 15.4	1.862	2.854	1.4	20.6	3 12	11 23.19	- 4 12.8	1.722	2.710	2.8	21.8
3 22	11 14.16	+ 0 53.9	1.862	2.842	4.5	20.8	3 22	11 13.81	- 3 3.2	1.723	2.702	4.8	22.0
4 1	11 6.04	+ 2 0.8	1.891	2.829	8.5	21.0	4 1	11 5.42	- 1 52.2	1.751	2.693	8.8	22.2
4 11	10 59.62	+ 2 59.0	1.946	2.816	12.2	21.2	4 11	10 58.90	- 0 47.0	1.805	2.684	12.6	22.4
217972	2001 <i>VD</i> ₂₆		3 10.7 148°80	5°3/16.9 18			316994	2001 <i>OB</i> ₉₃		3 10.7 180°11	0°1/10.6 18		
2 1	11 48.76	-15 34.1	2.290	2.977	15.5	20.6	2 1	11 51.65	+ 2 15.2	2.004	2.781	14.7	21.2
2 11	11 44.86	-15 42.5	2.195	2.986	13.3	20.5	2 11	11 47.35	+ 2 29.6	1.913	2.782	11.6	20.9
2 21	11 38.96	-15 29.4	2.120	2.993	10.6	20.3	2 21	11 40.77	+ 2 56.5	1.845	2.782	7.9	20.7
3 2	11 31.52	-14 54.0	2.069	3.000	7.8	20.1	3 2	11 32.45	+ 3 32.9	1.803	2.783	3.8	20.5
3 12	11 23.30	-13 58.1	2.044	3.007	5.7	20.0	3 12	11 23.22	+ 4 13.6	1.789	2.782	0.6	20.2
3 22	11 15.16	-12 46.2	2.048	3.013	5.7	20.0	3 22	11 14.07	+ 4 53.0	1.805	2.782	5.0	20.5
4 1	11 7.93	-11 25.0	2.080	3.019	7.8	20.1	4 1	11 5.98	+ 5 25.8	1.848	2.781	9.1	20.8
4 11	11 2.32	-10 2.0	2.139	3.024	10.6	20.3	4 11	10 59.74	+ 5 48.0	1.916	2.780	12.6	21.0
354052	2001 <i>SC</i> ₃₁₄		3 10.7 120°31	0°3/10.4 18			172598	2003 <i>WK</i> ₃₁		3 10.7 31°00	3°9/13.8 18		
2 1	11 51.27	- 0 32.8	1.775	2.551	16.4	21.7	2 1	11 49.24	- 6 51.1	1.522	2.289	19.1	20.0
2 11	11 47.16	+ 0 26.5	1.702	2.570	12.9	21.5	2 11	11 46.21	- 7 10.1	1.440	2.292	15.7	19.8
2 21	11 40.64	+ 1 44.6	1.650	2.588	8.7	21.2	2 21	11 40.40	- 7 6.8	1.375	2.296	11.7	19.5
3 2	11 32.31	+ 3 16.1	1.625	2.605	4.1	21.0	3 2	11 32.39	- 6 41.1	1.334	2.299	7.3	19.3
3 12	11 23.23	+ 4 52.7	1.629	2.622	0.8	20.8	3 12	11 23.22	- 5 56.7	1.317	2.303	4.0	19.1
3 22	11 14.33	+ 6 25.2	1.662	2.638	5.5	21.2	3 22	11 14.15	- 4 59.9	1.327	2.308	5.8	19.2
4 1	11 6.73	+ 7 45.4	1.722	2.653	9.8	21.4	4 1	11 6.43	- 3 59.5	1.363	2.312	10.1	19.4
4 11	11 1.16	+ 8 48.1	1.807	2.667	13.5	21.7	4 11	11 1.02	- 3 3.9	1.421	2.317	14.2	19.7
308199	2005 <i>EY</i> ₃₂		3 10.7 146°04	0°1/10.8 17			416015	2002 <i>CZ</i> ₁₁₃		3 10.7 101°60	0°8/11.4 18		
2 1	11 51.24	+ 2 40.7	2.324	3.094	13.2	21.0	2 1	11 53.87	+ 0 37.7	2.035	2.801	14.9	21.0
2 11	11 46.64	+ 2 42.9	2.234	3.099	10.4	20.8	2 11	11 48.86	+ 0 34.0	1.958	2.818	11.8	20.8
2 21	11 40.07	+ 2 54.9	2.167	3.103	7.1	20.6	2 21	11 41.63	+ 0 42.6	1.903	2.835	8.2	20.6
3 2	11 32.03	+ 3 14.2	2.127	3.106	3.4	20.3	3 2	11 32.78	+ 1 1.0	1.874	2.851	4.1	20.4
3 12	11 23.25	+ 3 36.9	2.117	3.110	0.5	20.1	3 12	11 23.19	+ 1 25.2	1.874	2.867	0.8	20.2
3 22	11 14.58	+ 3 58.9	2.136	3.113	4.3	20.4	3 22	11 13.82	+ 1 50.7	1.903	2.882	4.5	20.5
4 1	11 6.83	+ 4 16.5	2.184	3.117	7.9	20.6	4 1	11 5.61	+ 2 12.8	1.961	2.898	8.4	20.8
4 11	11 0.68	+ 4 26.5	2.258	3.120	11.1	20.8	4 11	10 59.27	+ 2 27.8	2.045	2.913	11.8	21.0
341751	2007 <i>VS</i> ₂₈₆		3 10.7 330°91	3°1/ 7.5 17			410733	2009 <i>CY</i> ₂₆		3 10.7 298°21	2°0/ 9.2 16		
2 1	11 46.82	+10 35.8	2.084	2.891	13.2	20.9	2 1	11 49.24	+ 5 35.3	1.489	2.301	17.4	21.7
2 11	11 43.53	+11 18.8	1.997	2.885	10.3	20.7	2 11	11 46.40	+ 6 8.7	1.399	2.289	13.7	21.4
2 21	11 38.15	+12 9.3	1.933	2.880	6.9	20.4	2 21	11 40.67	+ 6 57.5	1.330	2.278	9.2	21.1
3 2	11 31.17	+13 1.5	1.896	2.875	3.9	20.2	3 2	11 32.59	+ 7 56.0	1.285	2.267	4.4	20.8
3 12	11 23.38	+13 49.0	1.887	2.870	3.6	20.2	3 12	11 23.19	+ 8 56.0	1.265	2.256	2.5	20.7
3 22	11 15.67	+14 26.0	1.906	2.865	6.7	20.4	3 22	11 13.77	+ 9 48.5	1.272	2.245	7.3	20.9
4 1	11 8.92	+14 48.2	1.952	2.861	10.1	20.6	4 1	11 5.67	+10 26.0	1.304	2.235	12.2	21.2
4 11	11 3.86	+14 53.6	2.021	2.857	13.2	20.8	4 11	10 59.95	+10 44.0	1.357	2.224	16.6	21.4
352450	2008 <i>AE</i> ₅₉		3 10.7 190°72	1°8/12.8 17			351576	2005 <i>UE</i> ₂₈₃		3 10.7 47°95	6°5/		

EPHEMERIDES

3 10.7

3 10.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
81384	2000 <i>GU</i> ₇₁		3 10.7 71°55'	0°0'/10.7 18			314288	2005 <i>SJ</i> ₆₇		3 10.7 302°62'	1°1'/11.7 17		
2 1	11 48.46	+ 0 34.5	1.714	2.503	16.4	19.7	2 1	11 46.50	- 2 10.8	1.729	2.511	16.6	20.9
2 11	11 45.19	+ 1 2.1	1.633	2.508	13.0	19.5	2 11	11 43.81	- 1 47.9	1.635	2.503	13.3	20.6
2 21	11 39.47	+ 1 46.5	1.573	2.513	8.9	19.3	2 21	11 38.67	- 1 5.5	1.561	2.496	9.3	20.4
3 2	11 31.87	+ 2 44.0	1.538	2.518	4.3	19.0	3 2	11 31.58	- 0 6.1	1.511	2.489	4.9	20.1
3 12	11 23.32	+ 3 47.7	1.530	2.524	0.6	18.7	3 12	11 23.42	+ 1 4.4	1.489	2.482	1.1	19.8
3 22	11 14.92	+ 4 50.2	1.550	2.529	5.4	19.1	3 22	11 15.26	+ 2 18.3	1.494	2.475	5.2	20.1
4 1	11 7.72	+ 5 44.2	1.597	2.534	9.8	19.4	4 1	11 8.19	+ 3 27.1	1.525	2.468	9.8	20.3
4 11	11 2.56	+ 6 24.4	1.667	2.540	13.7	19.6	4 11	11 3.10	+ 4 23.9	1.580	2.462	13.9	20.5
214098	2004 <i>NV</i> ₁₅		3 10.7 300°11'	3°8'/ 5.9 18			80932	2000 <i>DK</i> ₇₈		3 10.7 228°12'	1°2'/11.9 17		
2 1	11 44.04	+10 48.6	2.216	3.025	12.4	20.4	2 1	11 48.83	- 2 23.3	1.958	2.725	15.4	20.0
2 11	11 41.43	+12 8.2	2.111	3.001	9.7	20.1	2 11	11 45.33	- 2 4.1	1.859	2.719	12.4	19.8
2 21	11 36.82	+13 38.3	2.030	2.977	6.6	19.9	2 21	11 39.54	- 1 27.6	1.781	2.712	8.7	19.5
3 2	11 30.62	+15 12.4	1.978	2.953	4.1	19.7	3 2	11 31.95	- 0 36.0	1.729	2.705	4.6	19.2
3 12	11 23.51	+16 42.5	1.954	2.929	4.5	19.7	3 12	11 23.37	+ 0 25.6	1.705	2.697	1.2	19.0
3 22	11 16.30	+18 1.0	1.959	2.905	7.5	19.8	3 22	11 14.79	+ 1 30.9	1.709	2.690	4.7	19.2
4 1	11 9.87	+19 1.7	1.990	2.882	10.8	20.0	4 1	11 7.19	+ 2 32.7	1.742	2.682	9.0	19.5
4 11	11 4.97	+19 41.4	2.044	2.858	13.9	20.1	4 11	11 1.40	+ 3 24.8	1.799	2.674	12.8	19.7
122290	2000 <i>PS</i> ₁₈		3 10.7 215°45'	1°4'/12.1 17			78577	<i>JPL</i>		3 10.7 81°93'	0°2'/10.6 18		
2 1	11 50.31	- 2 19.7	2.217	2.973	14.1	20.8	2 1	11 47.69	+ 1 42.1	2.118	2.898	14.0	20.5
2 11	11 46.17	- 2 14.8	2.114	2.967	11.4	20.6	2 11	11 44.06	+ 2 8.8	2.037	2.908	11.0	20.3
2 21	11 39.94	- 1 55.6	2.034	2.960	8.1	20.4	2 21	11 38.42	+ 2 48.2	1.979	2.918	7.4	20.1
3 2	11 32.07	- 1 23.7	1.980	2.953	4.4	20.1	3 2	11 31.31	+ 3 36.9	1.947	2.928	3.5	19.9
3 12	11 23.31	- 0 42.9	1.954	2.946	1.4	19.9	3 12	11 23.49	+ 4 29.3	1.944	2.938	0.6	19.7
3 22	11 14.53	+ 0 1.9	1.958	2.938	4.3	20.1	3 22	11 15.81	+ 5 19.9	1.970	2.948	4.6	20.0
4 1	11 6.64	+ 0 45.5	1.991	2.930	8.1	20.3	4 1	11 9.12	+ 6 3.3	2.024	2.957	8.4	20.3
4 11	11 0.38	+ 1 22.6	2.049	2.921	11.6	20.5	4 11	11 4.07	+ 6 35.5	2.103	2.967	11.6	20.5
285694	2000 <i>SV</i> ₁₉₃		3 10.7 114°26'	0°2'/10.9 18			158105	2000 <i>YH</i> ₁₂		3 10.7 206°28'	10°1'/26.0 18		
2 1	11 48.76	- 0 58.9	2.273	3.036	13.6	21.7	2 1	11 56.11	+32 23.2	2.196	2.990	13.1	20.1
2 11	11 44.67	- 0 13.7	2.196	3.056	10.7	21.5	2 11	11 51.17	+34 29.4	2.132	2.983	11.4	19.9
2 21	11 38.70	+ 0 46.0	2.142	3.075	7.3	21.3	2 21	11 43.58	+36 28.6	2.094	2.975	10.3	19.8
3 2	11 31.37	+ 1 56.4	2.116	3.094	3.5	21.1	3 2	11 33.89	+38 9.7	2.082	2.967	10.3	19.8
3 12	11 23.43	+ 3 11.8	2.119	3.112	0.5	20.9	3 12	11 23.10	+39 23.4	2.096	2.957	11.4	19.9
3 22	11 15.68	+ 4 25.8	2.152	3.130	4.3	21.2	3 22	11 12.38	+40 4.4	2.134	2.946	13.2	20.0
4 1	11 8.88	+ 5 32.6	2.215	3.147	7.8	21.5	4 1	11 2.91	+40 11.9	2.193	2.935	15.2	20.1
4 11	11 3.64	+ 6 27.5	2.303	3.163	10.9	21.7	4 11	10 55.61	+39 49.0	2.270	2.922	17.0	20.2
455464	2003 <i>TN</i> ₅₄		3 10.7 114°36'	0°2'/10.9 18			383789	2007 <i>WN</i> ₁₈		3 10.7 203°22'	4°0'/ 5.7 17		
2 1	11 49.11	- 1 37.5	1.800	2.576	16.2	21.9	2 1	11 47.72	+14 42.2	2.499	3.302	11.4	21.3
2 11	11 45.50	- 0 44.5	1.723	2.590	12.8	21.7	2 11	11 43.89	+15 41.2	2.415	3.300	8.9	21.1
2 21	11 39.56	+ 0 28.1	1.668	2.604	8.8	21.5	2 21	11 38.23	+16 44.0	2.356	3.297	6.2	20.9
3 2	11 31.87	+ 1 55.3	1.639	2.618	4.2	21.2	3 2	11 31.21	+17 45.0	2.325	3.294	4.2	20.8
3 12	11 23.36	+ 3 29.4	1.638	2.631	0.5	21.0	3 12	11 23.51	+18 38.1	2.323	3.291	4.6	20.8
3 22	11 15.04	+ 5 1.6	1.666	2.644	5.2	21.3	3 22	11 15.88	+19 18.3	2.350	3.288	6.9	21.0
4 1	11 7.92	+ 6 23.6	1.722	2.657	9.5	21.6	4 1	11 9.10	+19 42.3	2.403	3.285	9.6	21.1
4 11	11 2.75	+ 7 29.4	1.802	2.669	13.2	21.9	4 11	11 3.77	+19 49.0	2.481	3.281	12.1	21.3
110014	2001 <i>SR</i> ₆₈		3 10.7 93°76'	0°3'/11.0 18			464643	2000 <i>QH</i> ₁₈₀		3 10.7 219°78'	0°2'/10.9 17		
2 1	11 48.18	- 1 12.1	1.905	2.681	15.5	19.4	2 1	11 53.31	+ 1 54.3	2.518	3.276	12.6	22.2
2 11	11 44.61	- 0 27.6	1.831	2.697	12.2	19.2	2 11	11 48.27	+ 1 58.9	2.408	3.265	10.0	22.0
2 21	11 38.87	+ 0 34.2	1.778	2.714	8.3	19.0	2 21	11 41.25	+ 2 13.3	2.322	3.254	6.9	21.8
3 2	11 31.51	+ 1 49.0	1.751	2.730	4.0	18.8	3 2	11 32.70	+ 2 35.4	2.264	3.242	3.4	21.6
3 12	11 23.41	+ 3 10.0	1.753	2.746	0.5	18.5	3 12	11 23.29	+ 3 1.7	2.236	3.229	0.5	21.3
3 22	11 15.53	+ 4 29.6	1.784	2.762	4.8	18.9	3 22	11 13.83	+ 3 28.2	2.238	3.216	4.2	21.6
4 1	11 8.76	+ 5 40.4	1.842	2.778	8.9	19.1	4 1	11 5.17	+ 3 51.0	2.271	3.201	7.8	21.8
4 11	11 3.82	+ 6 37.2	1.925	2.793	12.4	19.4	4 11	10 58.01	+ 4 6.7	2.330	3.187	11.0	21.9
506812	2007 <i>RJ</i> ₄₇		3 10.7 213°91'	0°2'/10.5 17			128345	<i>Danielbamberger</i>		3 10.7 138°38'	4°0'/ 6.7 18		
2 1	11 52.42	+ 1 46.1	1.976	2.751	15.0	23.2	2 1	11 52.38	+13 13.2	2.087	2.888	13.4	20.2
2 11	11 48.11	+ 2 10.5	1.877	2.744	11.9	23.0	2 11	11 47.76	+14 7.6	2.014	2.898	10.4	20.0
2 21	11 41.42	+ 2 49.3	1.799	2.736	8.1	22.7	2 21	11 40.94	+15 7.1	1.965	2.907	7.2	19.8
3 2	11 32.83	+ 3 38.9	1.747	2.727	3.9	22.4	3 2	11 32.51	+16 5.0	1.943	2.916	4.5	19.7
3 12	11 23.20	+ 4 33.9	1.724	2.718	0.7	22.2	3 12	11 23.33	+16 54.3	1.950	2.925	4.6	19.7
3 22	11 13.55	+ 5 27.8	1.731	2.708	5.2	22.5	3 22	11 14.36	+17 29.4	1.986	2.933	7.3	19.9
4 1	11 4.92	+ 6 14.2	1.766	2.697	9.5	22.7	4 1	11 6.53	+17 47.0	2.048	2.941	10.5	20.1
4 11	10 58.18	+ 6 48.4	1.825	2.685	13.3	22.9	4 11	11 0.53	+17 46.2	2.134	2.948	13.4	20.3
298904	2004 <i>TZ</i> ₆₇		3 10.7 102°34'	4°3'/ 6.9 18			364650	2007 <i>TY</i> ₁₅₉		3 10.7 151°45'	7°1'/17.7 18		
2 1	11 53.83	+11 4.5	1.647	2.456	16.1	20.9	2 1	11 48.18	-17 11.8	1.753	2.456	19.2	20.9
2 11	11 49.31	+12 14.2	1.588	2.476	12.4	20.7	2 11	11 45.18	-17 32.7	1.661	2.458	16.6	20.7
2 21	11 42.16	+13 32.2	1.551	2.496	8.4	20.5	2 21	11 39.63	-17 25.8	1.587	2.461	13.4	20.5
3 2	11 33.09	+14 49.9	1.540	2.516	4.9	20.4	3 2	11 32.05	-16 48.6	1.533	2.463	10.2	20.3
3 12	11 23.20	+15 57.7	1.556	2.535	4.9	20.4	3 12	11 23.37	-15 42.3	1.504	2.465	7.6	20.2
3 22	11 13.70	+16 48.3	1.601	2.554	8.3	20.6	3 22	11 14.73	-14 12.4	1.501	2.466	7.4	20.2
4 1	11 5.68	+17 17.2	1.671	2.572	12.0	20.9	4 1	11 7.25	-12 28.3	1.525	2.468	9.8	20.3
4 11	10 59.94	+17 23.8	1.763	2.589	15.3	21.1	4 11	11 1.87	-10 41.3	1.573	2.469	13.0	20.5
460030	2014 <i>OY</i> ₁₆₉		3 10.7 87°03'	2°9'/ 8.6 18			519868	2013 <i>ND</i> ₃₀		3 10.7 114°45'	2°7'/ 8.2 16		

EPHEMERIDES

3 10.7

3 10.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
86960	2000 <i>JM</i> ₁		3 10.7 269°20	1°1/ 9.7 18			191833	2004 <i>VY</i> ₇		3 10.8 60°85	0°3/11.1 18		
2 1	11 48.16	+ 1 44.4	1.564	2.363	17.2	19.1	2 1	11 47.15	- 0 22.8	1.862	2.644	15.5	20.7
2 11	11 45.54	+ 2 36.9	1.463	2.346	13.7	18.9	2 11	11 43.94	+ 0 6.4	1.783	2.653	12.3	20.5
2 21	11 40.14	+ 3 50.7	1.383	2.328	9.3	18.6	2 21	11 38.52	+ 0 52.1	1.726	2.663	8.4	20.3
3 2	11 32.42	+ 5 21.2	1.328	2.310	4.4	18.2	3 2	11 31.43	+ 1 50.4	1.694	2.674	4.1	20.1
3 12	11 23.31	+ 6 59.6	1.299	2.291	1.7	18.0	3 12	11 23.54	+ 2 55.2	1.690	2.684	0.5	19.8
3 22	11 14.04	+ 8 34.9	1.298	2.273	6.9	18.3	3 22	11 15.81	+ 3 59.4	1.715	2.694	4.9	20.1
4 1	11 5.93	+ 9 56.9	1.322	2.254	12.0	18.5	4 1	11 9.18	+ 4 56.4	1.766	2.705	9.0	20.4
4 11	11 0.07	+10 58.1	1.368	2.234	16.6	18.7	4 11	11 4.39	+ 5 40.9	1.842	2.715	12.6	20.6
202817	2008 <i>SS</i> ₆₄		3 10.7 195°11	0°3/10.4 17			313129	2001 <i>BG</i> ₂		3 10.8 90°20	6°2/14.2 18		
2 1	11 49.03	+ 2 30.3	2.207	2.984	13.5	20.9	2 1	12 3.25	- 7 58.4	1.691	2.416	19.0	19.9
2 11	11 45.13	+ 2 54.2	2.114	2.983	10.7	20.7	2 11	11 57.04	- 9 30.7	1.604	2.425	16.0	19.7
2 21	11 39.20	+ 3 30.1	2.043	2.981	7.2	20.5	2 21	11 47.75	-10 47.8	1.538	2.434	12.4	19.5
3 2	11 31.72	+ 4 14.6	1.999	2.980	3.4	20.2	3 2	11 35.98	-11 46.0	1.496	2.444	8.7	19.3
3 12	11 23.44	+ 5 2.7	1.985	2.978	0.7	20.0	3 12	11 22.87	-12 23.6	1.482	2.453	6.3	19.2
3 22	11 15.22	+ 5 48.9	1.999	2.975	4.7	20.3	3 22	11 9.82	-12 41.4	1.496	2.462	7.3	19.3
4 1	11 7.91	+ 8 28.2	2.042	2.973	8.5	20.5	4 1	10 58.26	-12 43.8	1.538	2.470	10.6	19.5
4 11	11 2.22	+ 6 56.7	2.110	2.970	11.8	20.7	4 11	10 49.25	-12 37.5	1.604	2.479	14.1	19.7
83347	2001 <i>RM</i> ₁₄₁		3 10.7 206°18	1°5/ 8.9 17			502022	2015 <i>AW</i> ₈₃		3 10.8 10°25	0°0/10.6 17		
2 1	11 45.14	+ 4 41.9	2.386	3.174	12.3	19.2	2 1	11 48.27	+ 1 16.7	1.894	2.679	15.2	22.1
2 11	11 41.94	+ 5 38.1	2.295	3.173	9.6	19.0	2 11	11 44.88	+ 1 37.7	1.806	2.679	12.0	21.8
2 21	11 36.96	+ 6 45.7	2.227	3.171	6.4	18.8	2 21	11 39.21	+ 2 13.2	1.740	2.679	8.2	21.6
3 2	11 30.63	+ 8 0.0	2.188	3.169	3.0	18.6	3 2	11 31.80	+ 2 59.8	1.699	2.679	4.0	21.4
3 12	11 23.60	+ 9 15.1	2.178	3.167	1.9	18.5	3 12	11 23.48	+ 3 52.0	1.686	2.680	0.6	21.1
3 22	11 16.63	+10 24.8	2.197	3.166	5.1	18.7	3 22	11 15.24	+ 4 43.3	1.701	2.680	5.0	21.4
4 1	11 10.45	+11 23.5	2.245	3.163	8.5	18.9	4 1	11 8.07	+ 5 27.5	1.744	2.680	9.2	21.7
4 11	11 5.69	+12 7.9	2.318	3.161	11.5	19.1	4 11	11 2.75	+ 6 0.0	1.810	2.681	12.9	21.9
141025	2001 <i>WR</i> ₅₂		3 10.7 348°31	8°6/ 2.9 17			207626	2006 <i>SP</i> ₅₆		3 10.8 169°58	4°9/ 4.6 17		
2 1	11 52.88	+26 23.9	1.865	2.679	14.3	19.0	2 1	11 47.95	+17 46.0	2.483	3.290	11.4	20.1
2 11	11 48.66	+27 19.5	1.795	2.673	11.8	18.8	2 11	11 44.08	+18 52.0	2.407	3.291	8.9	19.9
2 21	11 41.82	+28 9.5	1.748	2.668	9.6	18.7	2 21	11 38.37	+19 59.8	2.356	3.293	6.5	19.7
3 2	11 33.00	+28 44.8	1.726	2.663	8.6	18.6	3 2	11 31.30	+21 3.1	2.332	3.294	5.0	19.6
3 12	11 23.27	+28 57.7	1.729	2.660	9.3	18.6	3 12	11 23.57	+21 55.5	2.338	3.295	5.5	19.7
3 22	11 13.81	+28 43.9	1.757	2.656	11.4	18.7	3 22	11 15.95	+22 32.4	2.371	3.295	7.7	19.8
4 1	11 5.75	+28 3.0	1.809	2.653	14.0	18.9	4 1	11 9.22	+22 50.9	2.431	3.296	10.2	20.0
4 11	10 59.92	+26 58.1	1.881	2.651	16.5	19.1	4 11	11 3.97	+22 50.7	2.514	3.296	12.5	20.1
265676	2005 <i>UO</i> ₅₈		3 10.7 71°91	1°0/11.6 18			101730	1999 <i>EX</i> ₉		3 10.8 98°41	0°7/11.4 18		
2 1	11 48.57	- 1 24.7	1.810	2.587	16.1	21.6	2 1	11 51.45	- 0 5.8	1.885	2.658	15.7	21.2
2 11	11 45.14	- 1 8.6	1.729	2.595	12.8	21.4	2 11	11 47.23	+ 0 6.3	1.808	2.673	12.4	21.0
2 21	11 39.38	- 0 35.4	1.668	2.602	8.9	21.2	2 21	11 40.70	+ 0 33.1	1.753	2.687	8.6	20.8
3 2	11 31.85	+ 0 11.7	1.633	2.610	4.6	20.9	3 2	11 32.45	+ 1 11.6	1.723	2.701	4.3	20.5
3 12	11 23.44	+ 1 7.4	1.625	2.618	1.0	20.7	3 12	11 23.41	+ 1 56.7	1.722	2.715	0.7	20.3
3 22	11 15.17	+ 2 4.9	1.645	2.626	4.9	21.0	3 22	11 14.57	+ 2 42.3	1.749	2.729	4.8	20.6
4 1	11 8.05	+ 2 57.4	1.692	2.633	9.1	21.3	4 1	11 6.92	+ 3 22.6	1.804	2.742	8.9	20.9
4 11	11 2.86	+ 3 39.3	1.763	2.641	12.9	21.5	4 11	11 1.19	+ 3 53.0	1.883	2.755	12.5	21.1
168614	2000 <i>BW</i> ₆		3 10.7 96°35	5°6/ 6.7 18			55421	2001 <i>TJ</i> ₂₄		3 10.8 19°10	2°1/12.9 18		
2 1	11 58.32	+17 11.0	1.689	2.497	15.8	19.9	2 1	11 45.39	- 4 34.1	1.994	2.758	15.3	19.3
2 11	11 52.89	+17 46.0	1.622	2.507	12.4	19.7	2 11	11 42.50	- 4 27.6	1.906	2.761	12.3	19.1
2 21	11 44.64	+18 22.0	1.577	2.517	8.9	19.5	2 21	11 37.53	- 4 3.7	1.840	2.765	8.9	18.9
3 2	11 34.33	+18 51.3	1.558	2.527	6.0	19.3	3 2	11 30.97	- 3 24.1	1.798	2.769	5.1	18.7
3 12	11 23.11	+19 6.1	1.566	2.536	6.1	19.4	3 12	11 23.61	- 2 33.0	1.784	2.774	2.2	18.5
3 22	11 12.29	+19 1.8	1.602	2.546	9.0	19.6	3 22	11 16.34	- 1 36.2	1.798	2.779	4.4	18.7
4 1	11 3.07	+18 36.9	1.663	2.556	12.5	19.8	4 1	11 10.05	- 0 40.0	1.839	2.785	8.2	18.9
4 11	10 56.28	+17 52.9	1.746	2.565	15.7	20.0	4 11	11 5.44	+ 0 9.5	1.905	2.791	11.7	19.1
173503	2000 <i>TQ</i> ₅₃		3 10.7 236°91	1°8/ 8.5 17			66779	1999 <i>TS</i> ₂₂₁		3 10.8 236°88	3°8/ 6.4 18		
2 1	11 47.91	+ 8 17.0	2.666	3.452	11.2	20.8	2 1	11 47.72	+11 32.6	2.223	3.027	12.6	19.3
2 11	11 43.93	+ 8 48.2	2.566	3.443	8.7	20.6	2 11	11 44.20	+12 42.0	2.131	3.018	9.8	19.1
2 21	11 38.23	+ 9 26.3	2.491	3.434	5.8	20.4	2 21	11 38.65	+13 59.3	2.064	3.008	6.7	18.9
3 2	11 31.23	+10 7.5	2.444	3.424	2.9	20.2	3 2	11 31.52	+15 18.4	2.024	2.999	4.1	18.7
3 12	11 23.55	+10 47.0	2.427	3.414	2.2	20.1	3 12	11 23.54	+16 31.7	2.013	2.988	4.4	18.7
3 22	11 15.89	+11 20.6	2.440	3.404	5.0	20.3	3 22	11 15.57	+17 32.5	2.030	2.978	7.2	18.8
4 1	11 8.95	+11 44.7	2.481	3.394	8.0	20.5	4 1	11 8.48	+18 16.0	2.075	2.967	10.4	19.0
4 11	11 3.35	+11 57.0	2.548	3.383	10.8	20.7	4 11	11 3.01	+18 39.9	2.143	2.956	13.4	19.2
133231	2003 <i>QR</i> ₁₀₃		3 10.7 234°50	3°4/ 7.8 18			244000	2001 <i>SF</i> ₂₄		3 10.8 166°13	0°2/10.5 18		
2 1	11 53.44	+10 22.9	1.848	2.648	14.9	20.0	2 1	11 55.54	+ 2 46.1	1.776	2.556	16.3	21.0
2 11	11 49.15	+11 6.3	1.753	2.638	11.7	19.7	2 11	11 50.71	+ 2 57.9	1.691	2.560	12.9	20.7
2 21	11 42.27	+11 58.7	1.682	2.626	8.0	19.5	2 21	11 43.25	+ 3 23.1	1.626	2.564	8.8	20.5
3 2	11 33.33	+12 53.9	1.636	2.614	4.4	19.2	3 2	11 33.76	+ 3 58.1	1.587	2.567	4.2	20.2
3 12	11 23.24	+13 44.1	1.619	2.602	4.0	19.2	3 12	11 23.22	+ 4 37.2	1.577	2.570	0.8	20.0
3 22	11 13.15	+14 22.2	1.630	2.589	7.5	19.4	3 22	11 12.82	+ 5 14.2	1.595	2.572	5.5	20.3
4 1	11 4.21	+14 43.3	1.667	2.576	11.5	19.6	4 1	11 3.70	+ 5 43.4	1.641	2.574	10.0	20.6
4 11	10 57.36	+14 45.1	1.727	2.562	15.2	19.8	4 11	10 56.75	+ 6 0.7	1.711	2.575	13.9	20.8
200297	2000 <i>AC</i> ₂₁₉		3 10.8 241°79	1°6/ 9.0 17			46197	2001 <i>FK</i> ₁₄₆		3 10.8 30°03	3°6/1		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
113820	2002 TX ₂₁₈		3 10.8 133°05	1.2/12.0	18		416939	2005 SA ₁₂₀		3 10.8 132°58	0.9/ 9.9	18	
2 1	11 50.26	- 1 19.8	2.412	3.166	13.2	19.7	2 1	11 52.85	+ 4 35.5	2.220	2.995	13.5	22.1
2 11	11 45.85	- 1 21.6	2.321	3.174	10.5	19.5	2 11	11 47.96	+ 4 57.4	2.140	3.009	10.6	21.9
2 21	11 39.56	- 1 11.6	2.254	3.180	7.4	19.3	2 21	11 41.02	+ 5 29.1	2.083	3.022	7.1	21.7
3 2	11 31.88	- 0 51.4	2.213	3.187	3.9	19.1	3 2	11 32.59	+ 6 6.8	2.053	3.034	3.3	21.5
3 12	11 23.51	- 0 24.4	2.202	3.194	1.2	18.9	3 12	11 23.45	+ 6 45.4	2.054	3.046	1.2	21.4
3 22	11 15.23	+ 0 5.5	2.220	3.200	3.9	19.1	3 22	11 14.50	+ 7 20.0	2.084	3.057	4.9	21.6
4 1	11 7.83	+ 0 34.1	2.268	3.206	7.3	19.3	4 1	11 6.58	+ 7 46.4	2.143	3.068	8.5	21.9
4 11	11 1.94	+ 0 57.3	2.341	3.212	10.4	19.5	4 11	11 0.36	+ 8 1.7	2.227	3.078	11.6	22.1
89261	2001 VO		3 10.8 149°25	10.7/26.2	18		52475	1995 SO ₃₉		3 10.8 350°18	6.3/17.1	18	
2 1	11 52.00	+31 46.7	1.944	2.753	14.0	18.7	2 1	11 49.44	-15 34.9	2.331	3.015	15.4	19.1
2 11	11 48.10	+33 54.2	1.895	2.756	12.1	18.6	2 11	11 45.54	-16 24.1	2.231	3.015	13.3	18.9
2 21	11 41.54	+35 52.9	1.870	2.760	10.9	18.5	2 21	11 39.58	-16 55.1	2.150	3.015	10.8	18.7
3 2	11 32.94	+37 31.1	1.870	2.763	10.9	18.5	3 2	11 32.00	-17 5.8	2.093	3.014	8.4	18.6
3 12	11 23.37	+38 39.6	1.895	2.766	12.0	18.6	3 12	11 23.53	-16 56.2	2.062	3.014	6.6	18.5
3 22	11 14.04	+39 13.7	1.944	2.769	13.8	18.7	3 22	11 15.02	-16 28.4	2.059	3.014	6.6	18.5
4 1	11 6.10	+39 13.2	2.012	2.772	15.8	18.9	4 1	11 7.36	-15 47.0	2.083	3.014	8.3	18.6
4 11	11 0.42	+38 41.8	2.097	2.774	17.6	19.0	4 11	11 1.29	-14 58.4	2.132	3.013	10.8	18.7
44115	1998 HQ ₂₃		3 10.8 255°18	10.9/22.6	18		135375	2001 TU ₁₃₈		3 10.8 80°12	3.1/ 7.2	18	
2 1	11 47.31	-27 51.1	1.912	2.535	20.0	19.6	2 1	11 48.65	+11 7.4	2.264	3.064	12.5	19.7
2 11	11 44.68	-28 35.0	1.805	2.524	18.2	19.4	2 11	11 44.62	+11 59.9	2.200	3.084	9.6	19.5
2 21	11 39.46	-28 48.8	1.713	2.513	16.1	19.2	2 21	11 38.71	+12 58.0	2.159	3.104	6.5	19.3
3 2	11 32.10	-28 26.5	1.638	2.502	13.8	19.1	3 2	11 31.45	+13 55.9	2.146	3.123	3.7	19.2
3 12	11 23.46	-27 25.5	1.585	2.491	11.8	18.9	3 12	11 23.63	+14 47.6	2.163	3.142	3.6	19.2
3 22	11 14.69	-25 47.6	1.556	2.480	10.9	18.8	3 22	11 16.03	+15 28.0	2.208	3.162	6.3	19.4
4 1	11 6.98	-23 40.1	1.551	2.468	11.6	18.8	4 1	11 9.43	+15 53.7	2.280	3.181	9.2	19.6
4 11	11 1.35	-21 15.1	1.571	2.456	13.7	18.9	4 11	11 4.42	+16 3.5	2.377	3.200	11.9	19.8
210258	2007 RW ₂₈₅		3 10.8 130°64	0.3/10.3	18 R		326434	2001 UQ ₆₆		3 10.8 153°84	4.2/15.3	16	
2 1	11 47.09	+ 2 16.2	2.469	3.243	12.4	21.3	2 1	11 49.51	-11 28.4	2.247	2.959	15.2	21.7
2 11	11 43.34	+ 2 47.3	2.382	3.250	9.7	21.1	2 11	11 45.52	-11 32.0	2.153	2.966	12.7	21.5
2 21	11 37.84	+ 3 29.5	2.319	3.257	6.5	20.9	2 21	11 39.50	-11 16.0	2.079	2.973	9.8	21.3
3 2	11 31.06	+ 4 19.3	2.284	3.264	3.1	20.7	3 2	11 31.92	-10 40.4	2.030	2.979	6.7	21.1
3 12	11 23.64	+ 5 11.9	2.277	3.270	0.7	20.5	3 12	11 23.55	- 9 47.8	2.008	2.984	4.4	21.0
3 22	11 16.33	+ 6 2.5	2.301	3.277	4.2	20.8	3 22	11 15.24	- 8 42.8	2.015	2.989	4.9	21.0
4 1	11 9.84	+ 6 46.3	2.354	3.283	7.6	21.0	4 1	11 7.86	- 7 32.0	2.051	2.994	7.7	21.2
4 11	11 4.75	+ 7 19.9	2.432	3.289	10.5	21.2	4 11	11 2.11	- 6 22.2	2.113	2.998	10.7	21.4
191085	2002 CX ₂₇₃		3 10.8 201°05	1.3/ 9.3	17		105092	2000 LC ₁		3 10.8 327°85	5.0/15.9	17	
2 1	11 47.22	+ 3 46.4	2.049	2.839	14.0	20.7	2 1	11 43.43	-12 20.4	1.912	2.644	16.9	19.2
2 11	11 43.90	+ 4 36.8	1.960	2.838	11.0	20.5	2 11	11 41.29	-12 29.3	1.807	2.632	14.3	19.0
2 21	11 38.49	+ 5 40.8	1.893	2.836	7.3	20.3	2 21	11 36.95	-12 14.9	1.722	2.620	11.2	18.8
3 2	11 31.45	+ 6 53.5	1.853	2.835	3.4	20.0	3 2	11 30.83	-11 36.3	1.660	2.609	7.9	18.5
3 12	11 23.58	+ 8 8.2	1.842	2.833	1.8	19.9	3 12	11 23.70	-10 35.5	1.623	2.598	5.3	18.4
3 22	11 15.77	+ 9 17.7	1.859	2.831	5.5	20.2	3 22	11 16.50	- 9 17.8	1.612	2.588	5.7	18.4
4 1	11 8.92	+10 15.7	1.904	2.828	9.4	20.4	4 1	11 10.23	- 7 51.2	1.629	2.578	8.7	18.5
4 11	11 3.76	+10 58.0	1.974	2.826	12.8	20.6	4 11	11 5.72	- 6 24.7	1.670	2.569	12.3	18.7
489765	2008 AU ₅₉		3 10.8 7°19	0.4/10.3	17		272814	2006 AE ₄₈		3 10.8 275°37	2.8/13.4	17	
2 1	11 45.00	+ 2 18.8	2.035	2.825	14.1	21.4	2 1	11 48.33	- 5 39.4	1.988	2.741	15.6	20.5
2 11	11 42.15	+ 2 46.1	1.949	2.826	11.1	21.2	2 11	11 44.95	- 5 45.7	1.888	2.735	12.8	20.3
2 21	11 37.27	+ 3 26.6	1.885	2.827	7.5	21.0	2 21	11 39.32	- 5 34.4	1.809	2.728	9.4	20.1
3 2	11 30.86	+ 4 16.5	1.847	2.829	3.5	20.7	3 2	11 31.92	- 5 6.3	1.755	2.722	5.7	19.9
3 12	11 23.67	+ 5 10.1	1.838	2.831	0.8	20.5	3 12	11 23.55	- 4 24.5	1.728	2.716	2.9	19.7
3 22	11 16.57	+ 6 1.6	1.856	2.833	4.9	20.8	3 22	11 15.15	- 3 34.1	1.729	2.710	4.7	19.8
4 1	11 10.43	+ 6 45.2	1.902	2.836	8.7	21.1	4 1	11 7.71	- 2 41.5	1.758	2.704	8.5	20.0
4 11	11 5.92	+ 7 16.9	1.972	2.840	12.1	21.3	4 11	11 2.05	- 1 53.1	1.812	2.697	12.2	20.2
170380	2003 SC ₂₇₄		3 10.8 94°79	1.8/ 9.2	18		192075	2006 BW ₁₀₁		3 10.8 180°75	0.3/10.4	17	
2 1	11 51.98	+ 5 44.8	1.617	2.419	16.7	20.7	2 1	11 48.17	+ 1 43.5	2.280	3.054	13.3	21.0
2 11	11 48.08	+ 6 18.5	1.544	2.428	13.0	20.4	2 11	11 44.41	+ 2 17.5	2.188	3.055	10.4	20.8
2 21	11 41.51	+ 7 5.2	1.492	2.437	8.7	20.2	2 21	11 38.71	+ 3 4.3	2.118	3.056	7.1	20.6
3 2	11 32.93	+ 7 59.0	1.465	2.447	4.1	19.9	3 2	11 31.53	+ 4 0.3	2.076	3.056	3.3	20.3
3 12	11 23.38	+ 8 52.2	1.465	2.456	2.3	19.8	3 12	11 23.61	+ 5 0.2	2.062	3.055	0.7	20.1
3 22	11 14.07	+ 9 37.4	1.493	2.465	6.6	20.1	3 22	11 15.75	+ 5 58.3	2.079	3.055	4.6	20.4
4 1	11 6.15	+10 8.7	1.547	2.474	10.9	20.4	4 1	11 8.76	+ 6 49.2	2.124	3.054	8.2	20.6
4 11	11 0.47	+10 23.0	1.623	2.483	14.8	20.7	4 11	11 3.31	+ 7 28.7	2.194	3.052	11.5	20.8
79201	1993 UY ₄		3 10.8 211°81	2.0/ 8.6	17		192545	1998 SS ₁₆₀		3 10.8 89°91	3.6/ 8.3	18	
2 1	11 50.15	+ 6 43.3	2.241	3.028	13.1	20.6	2 1	11 57.33	+10 17.7	1.435	2.245	18.0	20.2
2 11	11 46.05	+ 7 30.2	2.145	3.022	10.2	20.4	2 11	11 52.50	+10 49.0	1.372	2.260	14.0	20.0
2 21	11 39.88	+ 8 27.4	2.071	3.014	6.8	20.2	2 21	11 44.60	+11 29.0	1.329	2.276	9.4	19.7
3 2	11 32.12	+ 9 30.1	2.026	3.007	3.3	20.0	3 2	11 34.41	+12 10.3	1.312	2.291	5.0	19.5
3 12	11 23.50	+10 32.2	2.010	2.998	2.4	19.9	3 12	11 23.23	+12 44.2	1.321	2.306	4.1	19.5
3 22	11 14.88	+11 27.3	2.024	2.989	5.7	20.1	3 22	11 12.49	+13 4.0	1.356	2.321	8.0	19.8
4 1	11 7.17	+12 10.4	2.065	2.979	9.3	20.3	4 1	11 3.51	+13 5.8	1.417	2.336	12.4	20.0
4 11	11 1.08	+12 38.3	2.132	2.969	12.6	20.5	4 11	11 0.57	+12 48.9	1.500	2.350	16.2	20.3
187878	2000 QL ₁₂₀		3 10.8 202°60	1.2/12.1	18		342955	2009 AN ₄₉		3 10.8 327°47	1.8/ 8.8	17	
2 1	11 48.35	- 3 12.8	2.402	3									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
505032	2011 <i>QH</i> ₇₆		3 10.8 186°61	0°5/10.1	17		367125	2006 <i>SB</i> ₁₄₅		3 10.8 321°07	1°0/11.6	17	
2 1	11 46.28	+ 3 5.2	2.884	3.654	10.9	22.5	2 1	11 45.07	- 1 48.5	1.441	2.239	18.5	20.6
2 11	11 42.50	+ 3 36.9	2.788	3.654	8.5	22.3	2 11	11 43.29	- 1 29.9	1.347	2.225	14.9	20.3
2 21	11 37.20	+ 4 17.8	2.716	3.653	5.7	22.1	2 21	11 38.72	- 0 48.7	1.272	2.212	10.5	20.0
3 2	11 30.75	+ 5 4.9	2.672	3.652	2.7	21.9	3 2	11 31.84	+ 0 12.7	1.219	2.198	5.4	19.7
3 12	11 23.74	+ 5 54.3	2.658	3.651	0.8	21.8	3 12	11 23.61	+ 1 27.6	1.192	2.186	1.1	19.3
3 22	11 16.77	+ 6 41.6	2.675	3.649	3.8	22.0	3 22	11 15.29	+ 2 46.7	1.191	2.174	5.9	19.6
4 1	11 10.46	+ 7 22.9	2.721	3.647	6.8	22.2	4 1	11 8.21	+ 3 59.9	1.215	2.162	11.2	19.9
4 11	11 5.34	+ 7 55.1	2.793	3.644	9.5	22.4	4 11	11 3.44	+ 4 58.4	1.260	2.152	16.0	20.1
285320	1999 <i>CS</i> ₁₀		3 10.8 50°70	5°0/14.2	18		89055	2001 <i>TT</i> ₁₂₃		3 10.8 295°47	5°2/14.3	18	
2 1	11 56.07	- 6 52.8	1.508	2.263	19.7	20.2	2 1	11 51.42	- 7 46.5	1.443	2.206	20.1	19.7
2 11	11 51.42	- 7 53.2	1.441	2.284	16.3	20.0	2 11	11 48.39	- 8 29.8	1.349	2.198	16.8	19.5
2 21	11 43.85	- 8 33.9	1.393	2.305	12.2	19.8	2 21	11 42.29	- 8 51.7	1.274	2.189	12.9	19.2
3 2	11 34.08	- 8 53.4	1.368	2.327	8.1	19.6	3 2	11 33.59	- 8 49.9	1.220	2.180	8.5	18.9
3 12	11 23.28	- 8 53.1	1.369	2.349	5.2	19.5	3 12	11 23.36	- 8 25.5	1.190	2.172	5.4	18.7
3 22	11 12.82	- 8 37.3	1.396	2.371	6.4	19.6	3 22	11 12.99	- 7 43.5	1.186	2.164	6.8	18.8
4 1	11 3.96	- 8 12.6	1.449	2.394	10.0	19.8	4 1	11 3.96	- 6 51.9	1.206	2.156	11.1	19.0
4 11	10 57.61	- 7 46.3	1.526	2.417	13.7	20.1	4 11	10 57.47	- 6 0.4	1.249	2.148	15.6	19.2
294477	2007 <i>VC</i> ₃₃₃		3 10.8 317°64	1°2/ 9.5	17		269771	1999 <i>TW</i> ₇₁		3 10.8 74°72	0°6/10.2	17	
2 1	11 47.20	+ 5 13.9	2.241	3.029	13.0	20.8	2 1	11 48.75	+ 3 3.1	1.978	2.765	14.6	21.2
2 11	11 43.70	+ 5 42.2	2.150	3.027	10.2	20.6	2 11	11 45.15	+ 3 27.0	1.893	2.767	11.4	21.0
2 21	11 38.26	+ 6 20.6	2.082	3.025	6.8	20.4	2 21	11 39.37	+ 4 3.5	1.829	2.770	7.7	20.8
3 2	11 31.34	+ 7 5.0	2.041	3.023	3.2	20.2	3 2	11 31.92	+ 4 48.9	1.791	2.772	3.6	20.5
3 12	11 23.67	+ 7 50.3	2.029	3.020	1.5	20.0	3 12	11 23.64	+ 5 37.4	1.782	2.775	1.0	20.3
3 22	11 16.06	+ 8 31.2	2.046	3.018	5.0	20.3	3 22	11 15.45	+ 6 23.0	1.801	2.778	5.1	20.6
4 1	11 9.33	+ 9 3.1	2.091	3.016	8.6	20.5	4 1	11 8.31	+ 7 0.4	1.848	2.780	9.1	20.9
4 11	11 4.16	+ 9 22.9	2.160	3.015	11.8	20.7	4 11	11 2.94	+ 7 25.5	1.919	2.783	12.6	21.1
185406	2006 <i>WJ</i> ₁₂₉		3 10.8 245°26	0°7/ 9.9	17		459024	2011 <i>YC</i> ₃₅		3 10.8 80°33	1°8/12.2	18	
2 1	11 46.76	+ 3 59.7	2.685	3.460	11.4	21.1	2 1	11 54.03	- 2 17.9	1.618	2.390	17.9	21.5
2 11	11 43.07	+ 4 28.0	2.579	3.449	9.0	21.0	2 11	11 49.56	- 2 20.2	1.551	2.412	14.3	21.3
2 21	11 37.70	+ 5 5.8	2.498	3.438	6.0	20.7	2 21	11 42.45	- 2 4.5	1.504	2.434	10.1	21.1
3 2	11 31.05	+ 5 49.9	2.445	3.426	2.8	20.5	3 2	11 33.38	- 1 33.2	1.481	2.455	5.4	20.8
3 12	11 23.71	+ 6 36.1	2.422	3.414	1.0	20.3	3 12	11 23.45	- 0 51.6	1.485	2.476	1.8	20.6
3 22	11 16.36	+ 7 19.8	2.428	3.402	4.2	20.6	3 22	11 13.85	- 0 6.2	1.517	2.498	5.1	20.9
4 1	11 9.69	+ 7 57.0	2.464	3.389	7.5	20.7	4 1	11 5.70	+ 0 36.1	1.575	2.518	9.5	21.2
4 11	11 4.30	+ 8 24.4	2.525	3.377	10.4	20.9	4 11	10 59.83	+ 1 9.6	1.658	2.539	13.4	21.5
53181	1999 <i>CT</i> ₄₀		3 10.8 347°72	4°7/ 7.5	18		487581	2015 <i>BE</i> ₅₁₉		3 10.8 80°25	0°1/ 7.9	16	
2 1	11 54.71	+14 18.8	1.601	2.415	16.2	18.1	2 1	11 27.05	+10 45.4	46.496	47.283	0.7	22.3
2 11	11 50.42	+14 43.0	1.522	2.412	12.8	17.9	2 11	11 26.51	+10 50.5	46.406	47.285	0.5	22.3
2 21	11 43.24	+15 11.4	1.464	2.410	8.9	17.6	2 21	11 25.91	+10 55.8	46.343	47.286	0.4	22.3
3 2	11 33.84	+15 36.6	1.432	2.407	5.4	17.4	3 2	11 25.26	+11 1.0	46.309	47.288	0.2	22.3
3 12	11 23.32	+15 51.2	1.426	2.406	5.2	17.4	3 12	11 24.59	+11 6.2	46.305	47.289	0.2	22.3
3 22	11 13.01	+15 49.6	1.447	2.404	8.5	17.6	3 22	11 23.91	+11 11.0	46.331	47.291	0.3	22.3
4 1	11 4.19	+15 29.0	1.494	2.403	12.5	17.8	4 1	11 23.27	+11 15.4	46.386	47.292	0.5	22.3
4 11	10 57.78	+14 49.6	1.562	2.403	16.2	18.0	4 11	11 22.68	+11 19.2	46.469	47.294	0.7	22.3
426466	2013 <i>QW</i> ₈₂		3 10.8 223°97	5°9/ 3.6	17		132514	2002 <i>JM</i> ₄₇		3 10.8 269°39	6°1/ 4.7	18	
2 1	11 49.02	+16 40.9	2.099	2.911	13.0	20.7	2 1	11 52.94	+19 44.4	2.119	2.926	13.1	19.7
2 11	11 45.44	+18 21.8	2.014	2.902	10.2	20.5	2 11	11 48.54	+20 39.0	2.027	2.909	10.5	19.5
2 21	11 39.64	+20 8.6	1.955	2.893	7.5	20.3	2 21	11 41.76	+21 34.7	1.958	2.891	7.8	19.3
3 2	11 32.07	+21 52.3	1.924	2.884	5.9	20.2	3 2	11 33.11	+22 24.0	1.916	2.874	6.2	19.2
3 12	11 23.57	+23 23.6	1.921	2.874	6.8	20.2	3 12	11 23.47	+22 59.4	1.901	2.856	6.7	19.2
3 22	11 15.06	+24 34.8	1.946	2.864	9.4	20.4	3 22	11 13.84	+23 15.5	1.915	2.839	9.2	19.3
4 1	11 7.55	+25 21.4	1.996	2.853	12.4	20.5	4 1	11 5.27	+23 9.4	1.953	2.821	12.1	19.4
4 11	11 1.81	+25 42.3	2.068	2.842	15.1	20.7	4 11	10 58.59	+22 41.5	2.014	2.803	15.0	19.6
41220	1999 <i>XV</i> ₁₂		3 10.8 221°80	0°9/11.9	18		468200	2015 <i>BC</i> ₁₁		3 10.8 24°01	3°9/ 7.4	18	
2 1	11 46.73	- 2 45.1	2.399	3.156	13.2	19.8	2 1	11 48.58	+10 51.9	1.643	2.461	15.7	20.8
2 11	11 43.27	- 2 12.2	2.294	3.148	10.6	19.6	2 11	11 45.44	+11 40.3	1.572	2.466	12.2	20.6
2 21	11 37.96	- 1 23.9	2.212	3.141	7.4	19.3	2 21	11 39.76	+12 37.2	1.523	2.472	8.2	20.4
3 2	11 31.21	- 0 22.4	2.157	3.132	3.9	19.1	3 2	11 32.15	+13 35.4	1.499	2.477	4.7	20.2
3 12	11 23.69	+ 0 47.5	2.131	3.124	0.9	18.9	3 12	11 23.62	+14 26.4	1.502	2.484	4.5	20.1
3 22	11 16.16	+ 2 0.3	2.135	3.115	4.0	19.1	3 22	11 15.30	+15 3.2	1.531	2.491	7.9	20.4
4 1	11 9.39	+ 3 9.6	2.168	3.106	7.6	19.3	4 1	11 8.30	+15 21.2	1.585	2.498	11.7	20.6
4 11	11 4.06	+ 4 10.2	2.228	3.096	10.9	19.5	4 11	11 3.43	+15 18.9	1.661	2.506	15.2	20.8
58388	1995 <i>TK</i>		3 10.8 251°32	0°2/10.5	18		498268	2007 <i>VJ</i> ₄		3 10.8 77°47	4°5/15.9	18	
2 1	11 46.03	- 0 57.9	2.163	2.935	14.0	19.8	2 1	11 48.60	-12 14.5	2.309	3.016	14.9	21.0
2 11	11 43.01	+ 0 3.2	2.055	2.921	11.1	19.6	2 11	11 44.66	-12 31.8	2.228	3.036	12.5	20.9
2 21	11 37.95	+ 1 22.9	1.969	2.906	7.6	19.3	2 21	11 38.83	-12 30.4	2.168	3.055	9.7	20.7
3 2	11 31.27	+ 2 57.2	1.911	2.891	3.6	19.1	3 2	11 31.60	-12 10.3	2.132	3.075	6.9	20.6
3 12	11 23.68	+ 4 39.7	1.882	2.876	0.7	18.8	3 12	11 23.70	-11 33.6	2.123	3.094	4.8	20.5
3 22	11 16.02	+ 6 22.1	1.884	2.860	4.9	19.1	3 22	11 15.96	-10 44.3	2.143	3.113	5.1	20.5
4 1	11 9.17	+ 7 56.5	1.914	2.844	9.0	19.3	4 1	11 9.14	- 9 48.1	2.191	3.132	7.4	20.7
4 11	11 3.89	+ 9 16.2	1.969	2.828	12.6	19.5	4 11	11 3.90	- 8 51.3	2.265	3.151	10.1	20.9
293442	2007 <i>EN</i> ₁₆₄		3 10.8 77°24	3°2/ 8.3	18								

EPHEMERIDES

3 10.8

3 10.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
207476	2006 <i>HJ</i> ₂₂		3 10.8 290°45	0°6/10.3	16		421777	2014 <i>QV</i> ₁₉		3 10.8 151°14	2°6/13.1	18	
2 1	11 48.00	+ 1 42.7	1.510	2.312	17.6	21.2	2 1	11 51.83	- 5 15.3	1.864	2.616	16.6	21.3
2 11	11 45.56	+ 2 14.8	1.411	2.294	14.1	21.0	2 11	11 47.76	- 5 16.9	1.775	2.622	13.5	21.1
2 21	11 40.28	+ 3 6.5	1.332	2.276	9.7	20.6	2 21	11 41.26	- 5 0.0	1.707	2.627	9.8	20.9
3 2	11 32.62	+ 4 14.1	1.277	2.258	4.6	20.3	3 2	11 32.90	- 4 25.8	1.664	2.632	5.8	20.7
3 12	11 23.55	+ 5 29.8	1.248	2.241	1.1	20.0	3 12	11 23.56	- 3 38.0	1.648	2.637	2.7	20.5
3 22	11 14.31	+ 6 44.2	1.245	2.223	6.6	20.3	3 22	11 14.31	- 2 42.7	1.660	2.641	4.9	20.6
4 1	11 6.27	+ 7 47.7	1.267	2.205	11.8	20.6	4 1	11 6.20	- 1 46.8	1.701	2.645	8.9	20.9
4 11	11 0.55	+ 8 33.3	1.312	2.188	16.5	20.8	4 11	11 0.06	- 0 56.9	1.766	2.648	12.6	21.1
84074	2002 <i>PN</i> ₁₆₃		3 10.8 39°22	2°8/ 8.4	18		509052	2005 <i>SS</i> ₂₆₆		3 10.8 224°67	1°6/13.2	17	
2 1	11 47.18	+ 5 36.7	1.371	2.192	18.1	19.1	2 1	11 45.17	- 5 58.9	3.212	3.939	10.7	23.0
2 11	11 44.77	+ 6 38.8	1.306	2.202	14.0	18.9	2 11	11 41.58	- 5 32.5	3.095	3.928	8.7	22.8
2 21	11 39.51	+ 7 57.6	1.262	2.213	9.3	18.6	2 21	11 36.59	- 4 53.1	3.002	3.915	6.3	22.6
3 2	11 32.09	+ 9 24.9	1.242	2.224	4.5	18.4	3 2	11 30.53	- 4 2.0	2.936	3.903	3.7	22.4
3 12	11 23.65	+10 49.7	1.248	2.236	3.4	18.4	3 12	11 23.89	- 3 2.1	2.901	3.890	1.7	22.3
3 22	11 15.50	+12 1.7	1.279	2.249	7.8	18.6	3 22	11 17.22	- 1 57.4	2.896	3.876	3.1	22.4
4 1	11 8.85	+12 53.4	1.335	2.262	12.4	18.9	4 1	11 11.09	- 0 52.3	2.922	3.862	5.8	22.5
4 11	11 4.59	+13 21.2	1.412	2.275	16.3	19.2	4 11	11 5.99	+ 0 8.9	2.976	3.847	8.4	22.7
121049	1999 <i>CD</i> ₄₆		3 10.8 38°03	0°2/10.6	18		523755	2014 <i>WZ</i> ₅₀₈		3 10.8 6°39	0°2/13.5	18	
2 1	11 49.74	+ 1 44.1	1.191	2.007	20.5	19.6	2 1	11 28.81	- 3 35.6	25.951	26.676	1.5	22.2
2 11	11 47.15	+ 2 0.3	1.129	2.019	16.2	19.4	2 11	11 27.90	- 3 33.8	25.858	26.689	1.2	22.2
2 21	11 41.32	+ 2 36.6	1.085	2.032	11.0	19.1	2 21	11 26.86	- 3 30.7	25.790	26.703	0.8	22.1
3 2	11 33.00	+ 3 28.0	1.063	2.045	5.2	18.8	3 2	11 25.73	- 3 26.7	25.752	26.716	0.5	22.1
3 12	11 23.53	+ 4 25.5	1.066	2.059	0.9	18.5	3 12	11 24.57	- 3 21.9	25.743	26.730	0.3	22.1
3 22	11 14.41	+ 5 19.5	1.093	2.074	6.7	19.0	3 22	11 23.41	- 3 16.6	25.764	26.743	0.4	22.1
4 1	11 7.07	+ 6 1.4	1.144	2.089	12.1	19.3	4 1	11 22.30	- 3 11.2	25.815	26.757	0.7	22.1
4 11	11 2.49	+ 6 25.8	1.216	2.105	16.7	19.6	4 11	11 21.28	- 3 5.8	25.895	26.770	1.1	22.2
207783	2007 <i>TA</i> ₁₀₆		3 10.8 62°36	0°2/10.6	17		460840	2014 <i>WV</i> ₈₃		3 10.8 258°21	1°4/ 9.5	17	
2 1	11 46.13	+ 0 45.5	2.069	2.850	14.2	20.5	2 1	11 49.82	+ 3 56.6	1.808	2.601	15.5	21.9
2 11	11 42.93	+ 1 25.2	1.993	2.864	11.1	20.3	2 11	11 46.46	+ 4 38.1	1.706	2.585	12.2	21.7
2 21	11 37.75	+ 2 19.3	1.939	2.878	7.5	20.1	2 21	11 40.60	+ 5 35.0	1.625	2.569	8.3	21.4
3 2	11 31.11	+ 3 23.5	1.912	2.892	3.6	19.9	3 2	11 32.68	+ 6 42.9	1.571	2.552	3.9	21.1
3 12	11 23.79	+ 4 31.9	1.913	2.906	0.6	19.6	3 12	11 23.58	+ 7 54.3	1.544	2.535	1.9	20.9
3 22	11 16.64	+ 5 37.9	1.943	2.920	4.7	20.0	3 22	11 14.36	+ 9 1.3	1.545	2.518	6.3	21.1
4 1	11 10.48	+ 6 35.5	2.000	2.934	8.4	20.2	4 1	11 6.18	+ 9 56.3	1.573	2.500	10.8	21.4
4 11	11 5.94	+ 7 20.3	2.083	2.949	11.7	20.5	4 11	10 59.99	+10 34.2	1.624	2.482	14.8	21.6
383649	2007 <i>SL</i> ₉		3 10.8 119°52	1°5/ 8.9	17		501572	2014 <i>OP</i> ₁₂₇		3 10.8 321°83	5°7/ 6.2	18	
2 1	11 48.92	+ 6 46.4	2.697	3.477	11.3	21.7	2 1	11 50.01	+12 39.0	1.389	2.218	17.4	21.3
2 11	11 44.55	+ 7 24.5	2.621	3.494	8.7	21.5	2 11	11 47.23	+13 52.4	1.314	2.214	13.7	21.0
2 21	11 38.56	+ 8 9.8	2.570	3.511	5.8	21.3	2 21	11 41.38	+15 16.5	1.261	2.210	9.5	20.8
3 2	11 31.42	+ 8 58.4	2.547	3.528	2.8	21.2	3 2	11 33.09	+16 40.9	1.232	2.207	6.1	20.5
3 12	11 23.76	+ 9 45.5	2.555	3.544	1.8	21.1	3 12	11 23.53	+17 53.9	1.228	2.203	6.5	20.6
3 22	11 16.26	+10 26.9	2.593	3.559	4.6	21.3	3 22	11 14.11	+18 45.4	1.249	2.200	10.3	20.8
4 1	11 9.56	+10 59.0	2.660	3.575	7.5	21.5	4 1	11 6.23	+19 9.7	1.293	2.197	14.5	21.0
4 11	11 4.21	+11 19.6	2.753	3.589	10.1	21.7	4 11	11 0.91	+19 5.7	1.358	2.195	18.4	21.2
492097	2013 <i>JF</i> ₅₅		3 10.8 248°72	1°3/ 9.6	17		501245	2013 <i>VW</i> ₁₅		3 10.8 136°89	2°1/ 8.5	18	
2 1	11 50.58	+ 4 7.9	1.884	2.673	15.1	22.1	2 1	11 48.67	+ 7 7.3	2.251	3.042	12.9	21.9
2 11	11 46.93	+ 4 45.4	1.782	2.659	11.9	21.9	2 11	11 44.78	+ 7 56.2	2.170	3.049	10.0	21.7
2 21	11 40.84	+ 5 37.2	1.701	2.644	8.1	21.6	2 21	11 38.96	+ 8 54.2	2.113	3.057	6.6	21.6
3 2	11 32.76	+ 6 39.0	1.647	2.628	3.8	21.3	3 2	11 31.70	+ 9 56.6	2.083	3.064	3.3	21.3
3 12	11 23.55	+ 7 43.8	1.621	2.612	1.8	21.2	3 12	11 23.74	+10 56.9	2.083	3.071	2.5	21.3
3 22	11 14.24	+ 8 44.3	1.623	2.596	6.0	21.4	3 22	11 15.91	+11 49.4	2.112	3.077	5.6	21.5
4 1	11 5.95	+ 9 33.7	1.653	2.579	10.4	21.6	4 1	11 9.02	+12 29.6	2.170	3.083	9.0	21.7
4 11	10 59.58	+10 7.2	1.706	2.562	14.3	21.8	4 11	11 3.71	+12 54.8	2.251	3.089	12.0	21.9
286500	2002 <i>BQ</i> ₂₈		3 10.8 353°69	4°2/ 8.6	18		238907	2005 <i>YD</i> ₂₀₅		3 10.8 298°82	3°5/ 8.0	17	
2 1	11 51.89	+11 52.4	1.094	1.935	20.3	19.4	2 1	11 48.29	+ 7 25.5	1.377	2.200	17.9	20.3
2 11	11 49.44	+11 56.1	1.023	1.928	16.1	19.1	2 11	11 46.04	+ 8 21.0	1.288	2.185	14.1	20.0
2 21	11 43.29	+12 7.1	0.970	1.923	11.0	18.8	2 21	11 40.73	+ 9 33.4	1.219	2.170	9.5	19.7
3 2	11 34.12	+12 17.8	0.938	1.919	5.9	18.5	3 2	11 32.88	+10 55.2	1.174	2.155	4.9	19.4
3 12	11 23.37	+12 19.3	0.929	1.916	4.7	18.5	3 12	11 23.55	+12 15.6	1.154	2.141	4.2	19.3
3 22	11 12.85	+12 4.7	0.943	1.915	9.4	18.7	3 22	11 14.15	+13 23.5	1.159	2.126	8.8	19.6
4 1	11 4.29	+11 30.6	0.980	1.916	14.7	19.0	4 1	11 6.12	+14 10.2	1.189	2.112	13.8	19.8
4 11	10 58.91	+10 37.0	1.036	1.917	19.5	19.3	4 11	11 0.64	+14 31.1	1.238	2.099	18.3	20.0
161943	2007 <i>GF</i> ₁₈		3 10.8 221°04	3°9/ 5.7	18		78780	2002 <i>VX</i> ₇₀		3 10.8 165°43	5°8/ 4.2	18	
2 1	11 48.55	+13 15.3	2.578	3.375	11.3	20.7	2 1	11 49.95	+19 55.0	2.277	3.086	12.2	19.7
2 11	11 44.62	+14 29.6	2.482	3.365	8.8	20.5	2 11	11 45.87	+20 59.3	2.204	3.087	9.7	19.5
2 21	11 38.85	+15 50.0	2.412	3.353	6.1	20.3	2 21	11 39.74	+22 4.0	2.155	3.088	7.3	19.3
3 2	11 31.67	+17 10.7	2.371	3.342	4.1	20.2	3 2	11 32.08	+23 1.7	2.133	3.089	5.8	19.3
3 12	11 23.72	+18 24.8	2.360	3.329	4.5	20.2	3 12	11 23.70	+23 45.9	2.139	3.090	6.5	19.3
3 22	11 15.76	+19 26.6	2.379	3.316	6.9	20.3	3 22	11 15.47	+24 11.7	2.173	3.090	8.6	19.4
4 1	11 8.56	+20 11.8	2.425	3.303	9.7	20.5	4 1	11 8.24	+24 16.9	2.232	3.091	11.2	19.6
4 11	11 2.76	+20 38.5	2.495	3.288	12.3	20.6	4 11	11 2.71	+24 1.7	2.313	3.091	13.6	19.8
313710	2003 <i>UW</i> ₇₆		3 10.8 93°21	4°3/14.7	18		99140	2001 <i>FM</i> ₁₀₄					

EPHEMERIDES

3 10.8

3 10.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
360427	2002 <i>GV</i> ₁₈₅		3 10.8 233°04	2°4/13.4	17		102489	1999 <i>TC</i> ₂₆₂		3 10.8 17°40	0°6/11.3	18	
2 1	11 49.81	- 7 16.6	2.219	2.953	14.7	22.3	2 1	11 49.67	+ 0 14.3	1.496	2.291	18.1	20.2
2 11	11 46.00	- 6 52.0	2.102	2.937	12.1	22.1	2 11	11 46.65	+ 0 23.0	1.416	2.293	14.4	20.0
2 21	11 40.05	- 6 7.5	2.007	2.921	8.9	21.8	2 21	11 40.83	+ 0 49.7	1.355	2.294	10.0	19.7
3 2	11 32.36	- 5 4.1	1.937	2.903	5.4	21.6	3 2	11 32.81	+ 1 31.2	1.317	2.296	5.0	19.4
3 12	11 23.65	- 3 45.6	1.897	2.885	2.5	21.4	3 12	11 23.64	+ 2 21.3	1.305	2.299	0.7	19.1
3 22	11 14.81	- 2 18.2	1.886	2.866	4.4	21.5	3 22	11 14.59	+ 3 12.3	1.320	2.301	5.7	19.5
4 1	11 6.78	- 0 49.4	1.904	2.846	8.2	21.6	4 1	11 6.91	+ 3 56.6	1.361	2.304	10.7	19.8
4 11	11 0.36	+ 0 33.3	1.949	2.825	11.9	21.8	4 11	11 1.56	+ 4 28.0	1.424	2.308	15.0	20.0
455554	2004 <i>MQ</i> ₁		3 10.8 49°75	7°1/ 6.3	16		35124	1992 <i>EU</i> ₂₁		3 10.8 174°60	3°0/ 6.9	18	
2 1	12 18.73	+16 49.2	1.383	2.165	19.9	21.4	2 1	11 45.27	+ 9 42.3	2.435	3.235	11.8	19.2
2 11	12 7.78	+18 39.3	1.381	2.250	15.2	21.3	2 11	11 42.08	+10 52.0	2.350	3.236	9.1	19.0
2 21	11 53.83	+20 24.4	1.401	2.332	10.6	21.2	2 21	11 37.13	+12 9.8	2.291	3.236	6.1	18.8
3 2	11 38.31	+21 51.1	1.450	2.411	7.5	21.3	3 2	11 30.86	+13 29.9	2.259	3.236	3.5	18.7
3 12	11 22.95	+22 49.9	1.529	2.488	7.7	21.5	3 12	11 23.92	+14 45.8	2.257	3.237	3.5	18.7
3 22	11 9.31	+23 17.9	1.637	2.562	10.4	21.8	3 22	11 17.04	+15 51.5	2.284	3.237	6.2	18.8
4 1	11 58.45	+23 17.3	1.771	2.634	13.4	22.1	4 1	11 10.96	+16 42.5	2.339	3.237	9.1	19.0
4 11	10 50.84	+22 53.6	1.926	2.704	15.9	22.4	4 11	11 6.28	+17 16.1	2.418	3.237	11.8	19.2
214187	2005 <i>EJ</i> ₁₀		3 10.8 47°44	0°7/11.3	18		416615	2004 <i>RS</i> ₉₃		3 10.8 127°16	3°1/14.3	18	
2 1	11 50.38	- 0 19.6	1.315	2.116	19.8	20.8	2 1	11 50.01	- 8 29.7	2.377	3.099	14.2	21.8
2 11	11 47.31	- 0 8.0	1.253	2.133	15.7	20.6	2 11	11 45.73	- 8 28.2	2.289	3.114	11.7	21.7
2 21	11 41.25	+ 0 24.0	1.210	2.151	10.8	20.4	2 21	11 39.57	- 8 9.9	2.224	3.128	8.7	21.5
3 2	11 32.93	+ 1 12.2	1.190	2.169	5.4	20.1	3 2	11 32.01	- 7 35.5	2.184	3.142	5.5	21.3
3 12	11 23.61	+ 2 9.0	1.195	2.188	0.8	19.8	3 12	11 23.77	- 6 48.1	2.172	3.155	3.2	21.2
3 22	11 14.65	+ 3 5.6	1.226	2.207	6.0	20.2	3 22	11 15.65	- 5 52.4	2.190	3.168	4.2	21.3
4 1	11 7.35	+ 3 53.6	1.281	2.227	11.0	20.6	4 1	11 8.43	- 4 53.9	2.238	3.180	7.2	21.5
4 11	11 2.60	+ 4 27.0	1.359	2.247	15.3	20.9	4 11	11 2.74	- 3 58.3	2.312	3.192	10.1	21.7
81029	2000 <i>EQ</i> ₄₅		3 10.8 279°90	0°9/11.6	18		128719	2004 <i>RJ</i> ₁₂₄		3 10.8 119°88	5°4/ 4.6	18	
2 1	11 47.24	- 2 2.6	1.755	2.535	16.4	19.4	2 1	11 49.69	+16 22.1	2.108	2.918	13.0	20.6
2 11	11 44.42	- 1 36.2	1.660	2.527	13.2	19.2	2 11	11 45.76	+17 45.9	2.043	2.930	10.1	20.4
2 21	11 39.18	- 0 50.2	1.585	2.520	9.2	18.9	2 21	11 39.71	+19 13.1	2.002	2.941	7.3	20.3
3 2	11 31.99	+ 0 12.6	1.534	2.512	4.8	18.6	3 2	11 32.10	+20 35.5	1.988	2.952	5.5	20.2
3 12	11 23.72	+ 1 26.1	1.511	2.504	0.9	18.3	3 12	11 23.76	+21 45.3	2.003	2.962	6.1	20.2
3 22	11 15.43	+ 2 42.6	1.516	2.497	5.1	18.6	3 22	11 15.61	+22 36.3	2.046	2.973	8.5	20.4
4 1	11 8.22	+ 3 53.6	1.547	2.489	9.7	18.9	4 1	11 8.55	+23 5.5	2.114	2.982	11.3	20.6
4 11	11 2.96	+ 4 52.2	1.602	2.482	13.8	19.1	4 11	11 3.25	+23 12.5	2.205	2.992	13.9	20.8
368220	2001 <i>TW</i> ₂₅		3 10.8 192°62	0°2/11.1	16		210794	2001 <i>ES</i> ₁₈		3 10.8 317°39	2°2/ 8.6	18	
2 1	11 51.51	+ 0 45.6	2.580	3.336	12.4	23.0	2 1	11 42.28	- 4 59.5	1.080	1.895	22.3	19.7
2 11	11 46.82	+ 1 5.9	2.478	3.334	9.8	22.8	2 11	11 41.90	- 2 24.2	0.999	1.890	17.7	19.4
2 21	11 40.29	+ 1 37.6	2.400	3.331	6.7	22.6	2 21	11 38.23	+ 1 2.0	0.936	1.886	11.9	19.1
3 2	11 32.36	+ 2 18.0	2.349	3.327	3.3	22.4	3 2	11 31.79	+ 5 8.5	0.898	1.882	5.3	18.7
3 12	11 23.68	+ 3 3.1	2.329	3.323	0.4	22.1	3 12	11 23.77	+ 9 31.7	0.888	1.879	3.3	18.5
3 22	11 15.02	+ 3 48.3	2.340	3.317	4.0	22.4	3 22	11 15.74	+13 42.2	0.904	1.875	9.9	18.9
4 1	11 7.15	+ 4 29.2	2.380	3.311	7.4	22.6	4 1	11 9.35	+17 14.2	0.946	1.872	16.2	19.2
4 11	11 0.69	+ 5 1.9	2.447	3.304	10.5	22.8	4 11	11 5.81	+19 54.1	1.008	1.869	21.5	19.5
383679	2007 <i>TL</i> ₂₃₅		3 10.8 90°23	0°5/10.3	17		352635	2008 <i>GK</i> ₈₈		3 10.8 318°18	3°6/ 6.8	17	
2 1	11 47.77	+ 2 32.5	2.305	3.082	13.0	21.9	2 1	11 48.45	+14 10.0	2.478	3.279	11.5	21.4
2 11	11 43.98	+ 3 5.0	2.228	3.098	10.2	21.7	2 11	11 44.52	+14 46.7	2.392	3.276	9.0	21.2
2 21	11 38.36	+ 3 48.7	2.174	3.113	6.8	21.6	2 21	11 38.76	+15 26.7	2.331	3.273	6.2	21.0
3 2	11 31.40	+ 4 40.1	2.147	3.128	3.2	21.4	3 2	11 31.63	+16 5.0	2.297	3.270	3.9	20.8
3 12	11 23.83	+ 5 33.8	2.150	3.143	0.8	21.2	3 12	11 23.82	+16 36.3	2.292	3.266	4.0	20.8
3 22	11 16.41	+ 6 24.5	2.182	3.157	4.4	21.5	3 22	11 16.11	+16 56.5	2.315	3.263	6.4	21.0
4 1	11 9.92	+ 7 7.5	2.242	3.172	7.9	21.7	4 1	11 9.25	+17 2.7	2.366	3.261	9.2	21.2
4 11	11 4.93	+ 7 39.4	2.328	3.186	10.9	21.9	4 11	11 3.86	+16 53.9	2.441	3.258	11.8	21.3
110360	2001 <i>SY</i> ₃₂₂		3 10.8 107°22	1°7/ 8.9	18		388688	2007 <i>UP</i> ₁₀₃		3 10.8 113°87	5°0/ 4.9	17	
2 1	11 49.18	+ 4 2.0	2.020	2.807	14.3	20.4	2 1	11 49.33	+18 6.2	2.383	3.189	11.8	21.1
2 11	11 45.33	+ 5 9.2	1.949	2.826	11.1	20.2	2 11	11 45.24	+19 6.8	2.312	3.196	9.3	21.1
2 21	11 39.39	+ 6 29.4	1.901	2.844	7.3	20.0	2 21	11 39.24	+20 8.6	2.267	3.203	6.8	20.9
3 2	11 31.92	+ 7 56.8	1.881	2.862	3.4	19.8	3 2	11 31.84	+21 5.0	2.249	3.210	5.1	20.8
3 12	11 23.76	+ 9 23.5	1.890	2.880	2.1	19.7	3 12	11 23.80	+21 49.8	2.260	3.217	5.6	20.9
3 22	11 15.81	+10 42.1	1.928	2.897	5.7	20.0	3 22	11 15.93	+22 18.6	2.298	3.224	7.8	21.0
4 1	11 8.93	+11 46.5	1.995	2.913	9.4	20.2	4 1	11 9.02	+22 28.8	2.363	3.230	10.3	21.2
4 11	11 3.80	+12 33.2	2.085	2.929	12.6	20.5	4 11	11 3.69	+22 20.5	2.451	3.237	12.7	21.3
382742	2003 <i>BK</i> ₄₈		3 10.8 62°88	4°1/14.8	17		348997	2006 <i>UP</i> ₁₉₇		3 10.8 284°17	3°4/14.9	17	
2 1	11 50.85	- 8 55.3	2.186	2.911	15.2	20.6	2 1	11 45.10	- 9 56.3	2.445	3.168	13.8	21.3
2 11	11 46.53	- 9 26.9	2.106	2.929	12.6	20.4	2 11	11 42.01	- 9 52.7	2.343	3.166	11.5	21.2
2 21	11 40.18	- 9 41.9	2.048	2.948	9.6	20.2	2 21	11 37.13	- 9 31.5	2.263	3.164	8.7	21.0
3 2	11 32.31	- 9 40.0	2.014	2.966	6.4	20.1	3 2	11 30.89	- 8 53.1	2.207	3.161	5.8	20.8
3 12	11 23.72	- 9 23.1	2.008	2.985	4.2	20.0	3 12	11 23.92	- 8 0.2	2.179	3.159	3.6	20.6
3 22	11 15.29	- 8 54.9	2.030	3.004	4.9	20.0	3 22	11 16.97	- 6 57.2	2.180	3.157	4.3	20.7
4 1	11 7.87	- 8 20.3	2.081	3.022	7.6	20.2	4 1	11 10.78	- 5 49.9	2.209	3.155	7.0	20.8
4 11	11 2.13	- 7 45.0	2.157	3.041	10.6	20.5	4 11	11 5.97	- 4 44.3	2.265	3.152	10.0	21.0
499076	2009 <i>EG</i> ₂₉		3 10.8 239°16	1°5/ 9.3	17		29877	1999 <i>GL</i> ₁₇		3 10.8 142°43	5°4		

EPHEMERIDES

3 10.8

3 10.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
121399	1999 <i>TO</i> ₁₂₉		3 10.8 144°02	0°7/11.5	18		243844	2000 <i>VK</i> ₄₀		3 10.8 87°45	2°0/12.8	18	
2 1	11 49.16	- 0 30.1	2.144	2.912	14.2	20.7	2 1	11 48.69	- 4 26.0	1.932	2.692	15.8	20.8
2 11	11 45.33	- 0 13.7	2.054	2.916	11.3	20.5	2 11	11 45.17	- 4 15.7	1.849	2.702	12.8	20.6
2 21	11 39.45	+ 0 16.7	1.987	2.920	7.8	20.3	2 21	11 39.44	- 3 47.4	1.787	2.712	9.1	20.4
3 2	11 32.01	+ 0 58.4	1.946	2.924	4.0	20.0	3 2	11 32.04	- 3 3.1	1.750	2.722	5.2	20.2
3 12	11 23.78	+ 1 46.7	1.934	2.927	0.7	19.8	3 12	11 23.81	- 2 7.5	1.741	2.732	2.0	20.0
3 22	11 15.64	+ 2 36.1	1.951	2.930	4.4	20.1	3 22	11 15.72	- 1 6.7	1.760	2.741	4.5	20.2
4 1	11 8.45	+ 3 21.1	1.996	2.934	8.2	20.3	4 1	11 8.70	- 0 7.6	1.807	2.751	8.4	20.5
4 11	11 2.91	+ 3 57.1	2.066	2.937	11.6	20.5	4 11	11 3.49	+ 0 43.8	1.878	2.761	12.0	20.7
375389	2008 <i>SP</i> ₂₁₉		3 10.8 193°48	1°5/12.4	17		117286	2004 <i>TJ</i> ₂₀₈		3 10.8 116°14	3°5/ 7.2	18	
2 1	11 48.56	- 3 9.7	2.229	2.984	14.1	21.3	2 1	11 52.72	+12 44.8	2.235	3.030	12.8	20.3
2 11	11 44.84	- 2 58.9	2.132	2.984	11.3	21.1	2 11	11 47.89	+13 27.4	2.164	3.045	9.9	20.1
2 21	11 39.12	- 2 32.9	2.057	2.982	8.1	20.9	2 21	11 41.03	+14 14.3	2.118	3.060	6.8	20.0
3 2	11 31.87	- 1 53.7	2.008	2.981	4.4	20.7	3 2	11 32.71	+14 59.9	2.100	3.075	4.0	19.8
3 12	11 23.80	- 1 5.1	1.988	2.979	1.5	20.5	3 12	11 23.73	+15 38.1	2.111	3.089	4.0	19.8
3 22	11 15.76	- 0 12.4	1.997	2.977	4.2	20.6	3 22	11 15.00	+16 4.3	2.151	3.102	6.6	20.0
4 1	11 8.61	+ 0 38.9	2.034	2.975	7.8	20.9	4 1	11 7.33	+16 15.6	2.218	3.116	9.6	20.2
4 11	11 3.03	+ 1 23.5	2.097	2.973	11.2	21.1	4 11	11 1.39	+16 11.2	2.310	3.128	12.3	20.4
105741	2000 <i>SJ</i> ₈₉		3 10.8 234°36	6°2/18.7	18		57907	2002 <i>EQ</i> ₃₁		3 10.8 246°07	2°7/ 8.4	18	
2 1	11 47.82	-20 4.0	2.941	3.580	13.3	20.3	2 1	11 51.62	+ 7 26.0	1.845	2.643	15.0	19.6
2 11	11 43.97	-20 35.4	2.823	3.568	11.7	20.1	2 11	11 47.86	+ 8 14.4	1.745	2.628	11.8	19.3
2 21	11 38.41	-20 49.3	2.723	3.556	9.8	20.0	2 21	11 41.56	+ 9 15.3	1.668	2.613	8.0	19.1
3 2	11 31.52	-20 44.0	2.648	3.544	7.9	19.8	3 2	11 33.21	+10 23.0	1.617	2.597	4.0	18.8
3 12	11 23.85	-20 19.2	2.598	3.531	6.5	19.7	3 12	11 23.67	+11 29.6	1.594	2.581	3.2	18.7
3 22	11 16.08	-19 36.8	2.576	3.517	6.2	19.7	3 22	11 14.05	+12 27.3	1.599	2.564	7.0	18.9
4 1	11 8.92	-18 40.6	2.583	3.504	7.4	19.7	4 1	11 5.49	+13 9.5	1.631	2.547	11.2	19.1
4 11	11 3.02	-17 36.2	2.616	3.490	9.3	19.8	4 11	10 58.93	+13 32.5	1.686	2.529	15.1	19.3
190377	1999 <i>RE</i> ₁₀₇		3 10.8 122°79	1°3/ 9.2	18		253067	2002 <i>TZ</i> ₉₃		3 10.8 225°12	0°7/10.1	16	
2 1	11 47.94	+ 3 56.8	2.263	3.045	13.1	20.8	2 1	11 51.33	+ 3 1.8	2.159	2.935	13.9	22.4
2 11	11 44.19	+ 4 54.1	2.184	3.058	10.2	20.6	2 11	11 47.19	+ 3 35.0	2.055	2.924	11.0	22.2
2 21	11 38.56	+ 6 3.2	2.129	3.071	6.7	20.4	2 21	11 40.85	+ 4 21.1	1.973	2.912	7.4	21.9
3 2	11 31.54	+ 7 19.2	2.102	3.083	3.1	20.2	3 2	11 32.78	+ 5 16.5	1.919	2.899	3.5	21.7
3 12	11 23.86	+ 8 35.6	2.104	3.095	1.7	20.1	3 12	11 23.74	+ 6 15.6	1.893	2.886	1.1	21.5
3 22	11 16.32	+ 9 46.0	2.136	3.106	5.1	20.3	3 22	11 14.63	+ 7 12.2	1.898	2.872	5.1	21.7
4 1	11 9.70	+10 45.0	2.197	3.117	8.5	20.6	4 1	11 6.42	+ 8 0.3	1.931	2.857	9.1	21.9
4 11	11 4.63	+11 29.0	2.283	3.128	11.6	20.8	4 11	10 59.90	+ 8 35.7	1.988	2.842	12.7	22.1
57454	2001 <i>SZ</i> ₇₀		3 10.8 202°81	4°7/ 6.3	18 R		469423	2001 <i>YQ</i> ₇		3 10.8 135°35	2°8/14.7	18	
2 1	11 53.21	+12 36.3	1.816	2.623	14.9	19.5	2 1	11 47.07	- 9 28.2	3.021	3.728	11.7	21.9
2 11	11 49.03	+13 47.7	1.732	2.619	11.7	19.3	2 11	11 43.06	- 9 22.0	2.928	3.741	9.7	21.7
2 21	11 42.27	+15 7.6	1.671	2.614	8.1	19.1	2 21	11 37.59	- 9 1.8	2.857	3.754	7.3	21.6
3 2	11 33.47	+16 27.9	1.636	2.609	5.2	18.9	3 2	11 31.05	- 8 28.3	2.813	3.766	4.8	21.4
3 12	11 23.59	+17 39.3	1.629	2.604	5.4	18.9	3 12	11 23.99	- 7 43.9	2.798	3.778	2.9	21.3
3 22	11 13.78	+18 33.8	1.651	2.597	8.6	19.1	3 22	11 17.01	- 6 52.3	2.813	3.789	3.6	21.4
4 1	11 5.19	+19 6.2	1.698	2.590	12.3	19.3	4 1	11 10.70	- 5 57.6	2.859	3.800	5.8	21.5
4 11	10 58.70	+19 15.1	1.767	2.582	15.7	19.5	4 11	11 5.55	- 5 4.4	2.932	3.810	8.3	21.7
393255	2013 <i>TV</i> ₁₃		3 10.8 172°09	0°8/ 9.9	17		233548	2007 <i>JW</i> ₂₈		3 10.8 323°11	6°9/ 6.3	18	
2 1	11 49.14	+ 3 19.9	2.414	3.188	12.6	22.2	2 1	11 51.50	+15 14.2	1.201	2.040	19.0	19.9
2 11	11 45.07	+ 3 58.6	2.323	3.191	9.9	22.0	2 11	11 49.08	+16 7.8	1.123	2.027	15.1	19.6
2 21	11 39.15	+ 4 48.4	2.255	3.194	6.6	21.8	2 21	11 43.09	+17 9.2	1.065	2.014	10.8	19.3
3 2	11 31.84	+ 5 45.5	2.215	3.196	3.1	21.6	3 2	11 34.14	+18 7.5	1.028	2.002	7.3	19.1
3 12	11 23.82	+ 6 44.7	2.206	3.198	1.1	21.4	3 12	11 23.56	+18 50.1	1.016	1.991	7.7	19.1
3 22	11 15.88	+ 7 40.5	2.226	3.199	4.6	21.7	3 22	11 13.02	+19 7.3	1.026	1.980	11.6	19.3
4 1	11 8.77	+ 8 28.0	2.275	3.199	8.1	21.9	4 1	11 4.26	+18 54.2	1.059	1.970	16.3	19.5
4 11	11 3.14	+ 9 3.7	2.349	3.199	11.1	22.1	4 11	10 58.52	+18 11.6	1.110	1.961	20.6	19.7
101513	1998 <i>XV</i> ₂₅		3 10.8 158°45	0°7/ 9.9	17		460205	2014 <i>QM</i> ₁₅₀		3 10.8 214°41	1°7/ 9.4	17	
2 1	11 48.46	+ 3 31.9	2.401	3.178	12.6	21.1	2 1	11 53.59	+ 5 47.7	1.886	2.674	15.1	22.2
2 11	11 44.54	+ 4 3.2	2.312	3.182	9.8	20.9	2 11	11 49.24	+ 6 18.3	1.791	2.668	11.9	21.9
2 21	11 38.79	+ 4 45.0	2.247	3.186	6.6	20.7	2 21	11 42.40	+ 7 0.7	1.718	2.661	8.0	21.7
3 2	11 31.66	+ 5 33.8	2.209	3.189	3.1	20.5	3 2	11 33.56	+ 7 50.2	1.672	2.653	3.8	21.4
3 12	11 23.85	+ 6 24.6	2.200	3.193	1.0	20.3	3 12	11 23.65	+ 8 40.2	1.654	2.645	2.1	21.2
3 22	11 16.12	+ 7 12.3	2.221	3.195	4.5	20.6	3 22	11 13.74	+ 9 24.1	1.665	2.636	6.1	21.5
4 1	11 9.24	+ 7 52.2	2.271	3.198	8.0	20.8	4 1	11 4.94	+ 9 56.2	1.703	2.627	10.4	21.7
4 11	11 3.83	+ 8 21.1	2.347	3.200	11.0	21.0	4 11	10 58.14	+10 13.0	1.765	2.617	14.1	21.9
374319	2005 <i>TO</i> ₆		3 10.8 202°25	1°6/12.5	16		357063	2001 <i>PO</i> ₅₉		3 10.8 202°93	0°9/11.7	18	
2 1	11 51.58	- 3 28.8	2.640	3.376	12.6	23.1	2 1	11 55.22	- 0 59.7	2.146	2.899	14.6	22.4
2 11	11 46.90	- 3 20.8	2.531	3.371	10.2	22.9	2 11	11 50.22	- 0 48.6	2.041	2.893	11.8	22.2
2 21	11 40.38	- 2 59.8	2.445	3.364	7.3	22.7	2 21	11 42.92	- 0 23.1	1.959	2.887	8.3	21.9
3 2	11 32.45	- 2 27.3	2.387	3.357	4.1	22.5	3 2	11 33.78	+ 0 14.5	1.903	2.879	4.3	21.7
3 12	11 23.75	- 1 46.3	2.358	3.349	1.6	22.3	3 12	11 23.62	+ 1 0.1	1.877	2.870	0.9	21.4
3 22	11 15.02	- 1 0.9	2.361	3.340	3.8	22.4	3 22	11 13.42	+ 1 48.3	1.881	2.860	4.6	21.7
4 1	11 7.03	- 0 15.7	2.393	3.330	7.0	22.6	4 1	11 4.18	+ 2 33.3	1.915	2.850	8.7	21.9
4 11	11 0.42	+ 0 24.7	2.453	3.320	10.1	22.8	4 11	10 56.73	+ 3 10.0	1.974	2.838	12.3	22.1
497169	2004 <i>SO</i> ₁₉		3 10.8 227°97	5°7/18.6	17		306312	2011 <i>SZ</i> ₈₀		3 10.8 155°93	1		

EPHEMERIDES

3 10.8

3 10.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
138794	2000 <i>TU</i> ₂		3 10.8 150°60	0°1/10.9	18		365498	2010 <i>RN</i> ₁₄		3 10.8 218°56	1°5/ 9.5	16	
2 1	11 46.55	+ 0 38.2	2.968	3.727	10.8	21.3	2 1	11 52.61	+ 5 20.1	2.039	2.823	14.3	21.7
2 11	11 42.67	+ 1 8.3	2.877	3.735	8.5	21.1	2 11	11 48.30	+ 5 52.9	1.941	2.815	11.2	21.5
2 21	11 37.34	+ 1 48.3	2.810	3.742	5.8	21.0	2 21	11 41.67	+ 6 37.3	1.865	2.806	7.6	21.2
3 2	11 30.94	+ 2 35.8	2.771	3.749	2.8	20.8	3 2	11 33.21	+ 7 28.9	1.815	2.796	3.6	21.0
3 12	11 24.02	+ 3 26.9	2.763	3.756	0.3	20.6	3 12	11 23.74	+ 8 21.6	1.795	2.786	1.9	20.8
3 22	11 17.17	+ 4 17.5	2.785	3.762	3.4	20.8	3 22	11 14.24	+ 9 9.0	1.804	2.775	5.7	21.1
4 1	11 10.98	+ 5 3.6	2.837	3.768	6.4	21.0	4 1	11 5.74	+ 9 45.7	1.841	2.764	9.8	21.3
4 11	11 5.95	+ 5 42.0	2.916	3.774	9.0	21.2	4 11	10 59.07	+10 8.0	1.902	2.752	13.3	21.5
469274	2016 <i>JB</i> ₃₅		3 10.8 288°61	3°6/ 7.1	17		234490	2001 <i>TO</i> ₆₆		3 10.8 200°37	0°4/11.5	18	
2 1	11 46.52	+ 8 45.8	1.855	2.666	14.5	21.0	2 1	11 46.93	- 0 36.6	3.157	3.907	10.4	21.7
2 11	11 43.88	+ 9 58.4	1.755	2.646	11.3	20.7	2 11	11 42.96	- 0 10.0	3.051	3.902	8.3	21.6
2 21	11 38.87	+11 24.5	1.678	2.626	7.7	20.5	2 21	11 37.56	+ 0 26.9	2.969	3.897	5.7	21.4
3 2	11 31.93	+12 57.3	1.628	2.607	4.3	20.2	3 2	11 31.08	+ 1 12.0	2.915	3.891	2.9	21.2
3 12	11 23.88	+14 27.5	1.605	2.587	4.3	20.2	3 12	11 24.04	+ 2 1.8	2.891	3.885	0.5	20.9
3 22	11 15.72	+15 46.1	1.610	2.567	7.8	20.3	3 22	11 17.00	+ 2 52.6	2.899	3.877	3.2	21.2
4 1	11 8.53	+16 45.8	1.641	2.547	11.8	20.5	4 1	11 10.54	+ 3 40.4	2.937	3.870	6.1	21.4
4 11	11 3.21	+17 22.7	1.694	2.528	15.4	20.7	4 11	11 5.16	+ 4 21.9	3.003	3.862	8.7	21.5
90326	2003 <i>FA</i> ₇₉		3 10.8 198°56	0°0/10.7	18		466429	2013 <i>TE</i> ₄₃		3 10.8 242°32	1°8/ 9.1	17	
2 1	11 54.80	+ 1 35.5	2.093	2.858	14.6	20.4	2 1	11 52.22	+ 7 18.2	2.180	2.966	13.4	21.8
2 11	11 49.92	+ 1 52.4	1.993	2.854	11.6	20.2	2 11	11 47.88	+ 7 43.8	2.077	2.953	10.5	21.6
2 21	11 42.71	+ 2 22.4	1.916	2.850	8.0	19.9	2 21	11 41.33	+ 8 18.4	1.997	2.939	7.1	21.4
3 2	11 33.68	+ 3 2.4	1.866	2.844	3.9	19.7	3 2	11 33.04	+ 8 57.8	1.944	2.925	3.5	21.1
3 12	11 23.66	+ 3 47.5	1.845	2.838	0.5	19.4	3 12	11 23.78	+ 9 36.4	1.921	2.910	2.2	21.0
3 22	11 13.63	+ 4 32.1	1.854	2.831	4.9	19.7	3 22	11 14.48	+10 8.9	1.927	2.895	5.7	21.2
4 1	11 4.60	+ 5 10.6	1.891	2.823	9.0	19.9	4 1	11 6.09	+10 30.8	1.960	2.880	9.5	21.4
4 11	10 57.41	+ 5 38.7	1.954	2.813	12.6	20.1	4 11	10 59.40	+10 39.2	2.019	2.864	12.9	21.6
226727	2004 <i>PL</i> ₈₉		3 10.8 268°65	5°6/16.3	17		218018	2001 <i>YR</i> ₇		3 10.8 203°46	6°7/17.7	17	
2 1	11 47.76	-13 53.8	2.038	2.748	16.6	20.4	2 1	11 50.56	-17 31.0	2.272	2.944	16.0	20.5
2 11	11 44.72	-14 11.6	1.924	2.731	14.2	20.2	2 11	11 46.60	-18 7.2	2.167	2.941	13.9	20.3
2 21	11 39.38	-14 7.4	1.830	2.715	11.4	20.0	2 21	11 40.49	-18 22.8	2.081	2.937	11.5	20.1
3 2	11 32.17	-13 39.1	1.758	2.698	8.3	19.8	3 2	11 32.65	-18 15.3	2.017	2.933	8.9	20.0
3 12	11 23.85	-12 47.7	1.712	2.680	5.9	19.6	3 12	11 23.83	-17 44.7	1.979	2.928	7.0	19.8
3 22	11 15.35	-11 37.4	1.693	2.663	6.2	19.5	3 22	11 14.93	-16 53.9	1.968	2.923	6.9	19.8
4 1	11 7.71	-10 15.1	1.702	2.645	8.9	19.7	4 1	11 6.91	-15 48.3	1.985	2.917	8.6	19.9
4 11	11 1.83	- 8 49.7	1.735	2.628	12.3	19.8	4 11	11 0.55	-14 35.5	2.028	2.911	11.2	20.1
198214	2004 <i>TQ</i> ₁₆₇		3 10.8 245°12	1°0/11.8	17		315116	2007 <i>EX</i> ₅₁		3 10.8 258°80	2°3/13.0	18	
2 1	11 48.10	- 2 1.5	2.118	2.883	14.4	21.4	2 1	11 44.47	-12 30.9	1.162	1.937	23.4	20.6
2 11	11 44.70	- 1 39.5	2.015	2.873	11.6	21.2	2 11	11 43.56	-10 53.6	1.071	1.930	19.4	20.3
2 21	11 39.18	- 1 1.3	1.933	2.863	8.2	21.0	2 21	11 39.38	- 8 24.1	0.997	1.924	14.3	19.9
3 2	11 32.00	- 0 9.3	1.876	2.852	4.3	20.7	3 2	11 32.42	- 5 3.4	0.944	1.917	8.1	19.6
3 12	11 23.88	+ 0 51.9	1.849	2.841	1.0	20.5	3 12	11 23.84	- 1 4.7	0.918	1.910	2.4	19.2
3 22	11 15.72	+ 1 56.2	1.850	2.830	4.5	20.7	3 22	11 15.18	+ 3 8.1	0.919	1.903	6.9	19.4
4 1	11 8.42	+ 2 57.1	1.879	2.819	8.5	20.9	4 1	11 8.08	+ 7 6.9	0.947	1.896	13.5	19.8
4 11	11 2.78	+ 3 48.8	1.934	2.807	12.1	21.1	4 11	11 3.80	+10 29.7	0.998	1.889	19.3	20.1
332543	2008 <i>QE</i> ₁₀		3 10.8 277°09	0°6/10.2	17		502266	2015 <i>BN</i> ₁₂₂		3 10.8 169°28	3°2/ 7.4	18	
2 1	11 46.75	+ 0 22.0	2.061	2.840	14.3	21.2	2 1	11 48.60	+ 9 49.9	2.120	2.921	13.2	21.5
2 11	11 43.86	+ 1 19.0	1.943	2.813	11.4	21.0	2 11	11 44.98	+10 49.2	2.038	2.923	10.3	21.3
2 21	11 38.78	+ 2 35.0	1.847	2.786	7.8	20.7	2 21	11 39.27	+11 57.1	1.979	2.924	6.9	21.1
3 2	11 31.89	+ 4 6.2	1.778	2.759	3.7	20.4	3 2	11 32.00	+13 7.4	1.947	2.925	3.9	20.9
3 12	11 23.89	+ 5 46.0	1.738	2.731	1.0	20.1	3 12	11 23.93	+14 12.9	1.945	2.926	3.7	20.9
3 22	11 15.68	+ 7 25.9	1.727	2.702	5.4	20.4	3 22	11 15.96	+15 7.3	1.971	2.927	6.7	21.1
4 1	11 8.26	+ 8 57.3	1.745	2.674	9.8	20.6	4 1	11 8.96	+15 45.8	2.024	2.928	10.0	21.3
4 11	11 2.49	+10 13.3	1.787	2.645	13.7	20.8	4 11	11 3.64	+16 6.1	2.100	2.928	13.1	21.5
161652	2006 <i>BC</i> ₁₈₁		3 10.8 237°86	2°9/ 7.9	17		123789	2001 <i>BL</i> ₂₅		3 10.8 27°14	2°0/12.6	18	
2 1	11 51.39	+ 7 10.9	1.923	2.718	14.6	21.1	2 1	11 47.91	- 3 8.5	1.710	2.486	16.9	19.3
2 11	11 47.62	+ 8 18.7	1.820	2.702	11.5	20.9	2 11	11 44.90	- 3 10.0	1.629	2.491	13.7	19.1
2 21	11 41.38	+ 9 40.7	1.740	2.685	7.7	20.6	2 21	11 39.47	- 2 53.4	1.568	2.498	9.7	18.9
3 2	11 33.14	+11 10.5	1.687	2.667	4.0	20.3	3 2	11 32.16	- 2 20.6	1.531	2.504	5.4	18.7
3 12	11 23.73	+12 39.6	1.663	2.649	3.5	20.3	3 12	11 23.90	- 1 36.0	1.520	2.512	2.0	18.4
3 22	11 14.19	+13 59.0	1.669	2.629	7.2	20.4	3 22	11 15.78	- 0 46.1	1.537	2.519	4.9	18.7
4 1	11 5.64	+15 1.4	1.701	2.609	11.3	20.6	4 1	11 8.84	+ 0 2.1	1.581	2.527	9.2	18.9
4 11	10 59.00	+15 42.7	1.756	2.588	15.0	20.8	4 11	11 3.89	+ 0 42.4	1.648	2.536	13.0	19.2
503249	2015 <i>KU</i> ₁₀		3 10.8 317°73	1°0/ 9.6	17		513050	2017 <i>VE</i> ₁₀		3 10.8 217°21	6°0/17.9	17	
2 1	11 43.48	+ 2 24.2	2.197	2.985	13.2	21.3	2 1	11 49.11	-17 49.0	2.762	3.418	13.7	22.0
2 11	11 40.97	+ 3 20.3	2.099	2.976	10.4	21.0	2 11	11 45.07	-18 28.3	2.651	3.413	12.0	21.8
2 21	11 36.58	+ 4 30.9	2.025	2.968	7.0	20.8	2 21	11 39.22	-18 50.5	2.561	3.408	9.9	21.6
3 2	11 30.71	+ 5 51.8	1.977	2.959	3.2	20.6	3 2	11 31.97	-18 53.9	2.494	3.402	7.8	21.5
3 12	11 24.06	+ 7 16.3	1.959	2.951	1.4	20.4	3 12	11 23.92	-18 38.4	2.454	3.396	6.3	21.4
3 22	11 17.42	+ 8 37.3	1.969	2.943	5.1	20.6	3 22	11 15.80	-18 6.0	2.442	3.390	6.1	21.4
4 1	11 11.57	+ 9 48.4	2.008	2.935	8.8	20.8	4 1	11 8.36	-17 20.4	2.458	3.383	7.5	21.4
4 11	11 7.22	+10 44.5	2.071	2.927	12.1	21.0	4 11	11 2.26	-16 27.4	2.501	3.377	9.6	21.6
400337	2007 <i>UZ</i> ₆₅		3 10.8 162°37	0°2/11.1	18		151007	2001 <i>UJ</i> ₇₃		3 10.8 162°71			

EPHEMERIDES

3 10.8

3 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
98222	2000 <i>SL</i> ₁₄₄		3 10.8 93°61	0°3/10.6	18		364190	2006 <i>PJ</i> ₃₆		3 10.8 205°82	0°1/10.9	17	
2 1	11 54.46	+ 2 29.5	1.593	2.381	17.5	20.1	2 1	11 51.56	+ 0 35.8	2.089	2.858	14.5	22.1
2 11	11 50.07	+ 2 43.4	1.522	2.397	13.7	19.9	2 11	11 47.40	+ 1 0.7	1.990	2.853	11.5	21.9
2 21	11 42.96	+ 3 12.1	1.472	2.412	9.3	19.7	2 21	11 41.03	+ 1 40.0	1.913	2.847	7.9	21.6
3 2	11 33.80	+ 3 51.4	1.447	2.427	4.4	19.4	3 2	11 32.90	+ 2 30.7	1.862	2.841	3.9	21.4
3 12	11 23.70	+ 4 34.8	1.449	2.442	0.7	19.2	3 12	11 23.83	+ 3 27.5	1.841	2.834	0.5	21.1
3 22	11 13.88	+ 5 15.4	1.479	2.457	5.7	19.6	3 22	11 14.75	+ 4 24.4	1.849	2.827	4.8	21.4
4 1	11 5.53	+ 5 47.1	1.535	2.471	10.3	19.9	4 1	11 6.62	+ 5 15.1	1.885	2.819	8.9	21.6
4 11	10 59.49	+ 6 5.6	1.615	2.485	14.2	20.1	4 11	11 0.23	+ 5 54.9	1.947	2.810	12.5	21.8
433865	2015 <i>BT</i> ₂₉₄		3 10.8 327°52	6°5/17.1	18		389771	2011 <i>SY</i> ₂₅₅		3 10.8 251°70	1°4/ 9.1	17	
2 1	11 46.74	-15 8.9	1.919	2.628	17.5	19.8	2 1	11 46.78	+ 5 47.8	2.675	3.457	11.3	21.7
2 11	11 43.98	-15 42.7	1.820	2.623	15.1	19.6	2 11	11 43.20	+ 6 26.4	2.569	3.443	8.8	21.5
2 21	11 38.89	-15 53.6	1.739	2.617	12.2	19.4	2 21	11 37.93	+ 7 14.1	2.486	3.428	5.9	21.3
3 2	11 31.94	-15 39.3	1.679	2.612	9.2	19.2	3 2	11 31.34	+ 8 7.3	2.432	3.413	2.8	21.1
3 12	11 23.92	-15 0.5	1.645	2.607	6.9	19.1	3 12	11 24.04	+ 9 1.1	2.407	3.397	1.7	21.0
3 22	11 15.85	-14 0.9	1.637	2.602	6.9	19.1	3 22	11 16.70	+ 9 50.7	2.413	3.382	4.7	21.2
4 1	11 8.76	-12 47.6	1.655	2.598	9.2	19.2	4 1	11 10.04	+10 31.7	2.447	3.366	7.9	21.3
4 11	11 3.52	-11 29.3	1.698	2.594	12.3	19.4	4 11	11 4.65	+11 1.1	2.507	3.350	10.7	21.5
500518	2012 <i>TL</i> ₃₀₀		3 10.8 276°93	3°2/ 7.3	17		466772	2015 <i>AL</i> ₂₁₀		3 10.8 87°92	1°6/ 9.1	18	
2 1	11 47.25	+ 9 4.3	2.059	2.863	13.5	21.5	2 1	11 46.53	+ 2 42.2	1.816	2.612	15.3	21.7
2 11	11 44.18	+10 8.7	1.957	2.844	10.5	21.3	2 11	11 43.67	+ 3 54.9	1.737	2.619	11.9	21.5
2 21	11 38.94	+11 24.4	1.879	2.825	7.1	21.0	2 21	11 38.55	+ 5 24.6	1.681	2.626	8.0	21.3
3 2	11 31.93	+12 45.4	1.827	2.806	4.0	20.8	3 2	11 31.70	+ 7 5.0	1.650	2.632	3.7	21.0
3 12	11 23.93	+14 3.6	1.804	2.787	3.8	20.8	3 12	11 24.00	+ 8 47.0	1.649	2.639	2.1	20.9
3 22	11 15.84	+15 11.6	1.810	2.767	7.1	20.9	3 22	11 16.42	+10 21.5	1.675	2.646	6.1	21.2
4 1	11 8.64	+16 3.2	1.842	2.748	10.8	21.1	4 1	11 9.94	+11 40.6	1.729	2.653	10.2	21.5
4 11	11 3.13	+16 34.9	1.897	2.728	14.2	21.3	4 11	11 5.31	+12 39.6	1.807	2.660	13.8	21.7
336553	2009 <i>EY</i> ₂₇		3 10.8 54°89	2°2/13.8	18		466057	2011 <i>SJ</i> ₁₀₄		3 10.8 142°80	0°5/11.3	18	
2 1	11 45.15	-10 11.0	2.008	2.744	16.0	19.8	2 1	11 56.08	+ 0 46.3	1.898	2.664	15.8	21.8
2 11	11 42.22	-9 0.5	1.935	2.771	13.0	19.6	2 11	11 50.98	+ 0 52.4	1.815	2.676	12.6	21.6
2 21	11 37.32	-7 25.6	1.884	2.798	9.4	19.4	2 21	11 43.43	+ 1 12.3	1.754	2.686	8.7	21.4
3 2	11 31.01	-5 30.1	1.860	2.825	5.5	19.3	3 2	11 34.02	+ 1 43.0	1.719	2.697	4.3	21.1
3 12	11 24.08	-3 21.5	1.864	2.853	2.4	19.1	3 12	11 23.70	+ 2 19.7	1.713	2.706	0.6	20.8
3 22	11 17.39	-1 9.3	1.898	2.880	4.2	19.3	3 22	11 13.55	+ 2 56.8	1.736	2.715	4.9	21.2
4 1	11 11.74	+ 0 56.8	1.962	2.908	7.8	19.5	4 1	11 4.63	+ 3 28.9	1.787	2.723	9.1	21.4
4 11	11 7.74	+ 2 48.8	2.054	2.935	11.1	19.8	4 11	10 57.74	+ 3 51.4	1.863	2.730	12.8	21.7
271878	2004 <i>TQ</i> ₃₅₉		3 10.8 171°31	0°3/11.2	17		496724	2016 <i>GX</i> ₂₄		3 10.9 9°11	2°5/12.9	17	
2 1	11 51.40	+ 1 20.8	2.114	2.885	14.3	20.9	2 1	11 48.07	- 4 35.2	1.643	2.416	17.6	21.7
2 11	11 47.16	+ 1 27.1	2.022	2.886	11.3	20.7	2 11	11 45.22	- 4 34.8	1.557	2.416	14.4	21.5
2 21	11 40.77	+ 1 45.4	1.953	2.888	7.8	20.5	2 21	11 39.82	- 4 13.9	1.490	2.417	10.4	21.2
3 2	11 32.73	+ 2 13.2	1.910	2.889	3.9	20.3	3 2	11 32.40	- 3 34.0	1.447	2.418	6.0	21.0
3 12	11 23.85	+ 2 46.2	1.896	2.889	0.5	20.0	3 12	11 23.91	- 2 39.6	1.429	2.419	2.5	20.8
3 22	11 15.03	+ 3 19.5	1.911	2.890	4.5	20.3	3 22	11 15.48	- 1 37.8	1.439	2.421	5.1	20.9
4 1	11 7.20	+ 3 48.2	1.954	2.890	8.4	20.5	4 1	11 8.24	- 0 36.7	1.475	2.423	9.6	21.2
4 11	11 1.09	+ 4 8.3	2.023	2.890	11.9	20.8	4 11	11 3.11	+ 0 16.4	1.534	2.425	13.7	21.4
65458	2002 <i>VD</i> ₁₀₂		3 10.8 158°93	2°6/13.1	18		427555	2002 <i>TQ</i> ₃₇₀		3 10.9 54°84	7°9/ 2.0	18	
2 1	11 52.10	- 5 47.0	1.688	2.446	17.8	19.6	2 1	11 50.20	+24 43.9	2.004	2.819	13.3	21.0
2 11	11 48.30	- 5 36.9	1.601	2.451	14.5	19.4	2 11	11 46.39	+26 9.2	1.950	2.830	10.9	20.9
2 21	11 41.86	- 5 5.0	1.534	2.456	10.6	19.1	2 21	11 40.27	+27 30.5	1.920	2.841	8.8	20.8
3 2	11 33.36	- 4 12.8	1.490	2.460	6.1	18.9	3 2	11 32.46	+28 38.7	1.916	2.853	7.9	20.7
3 12	11 23.76	- 3 5.2	1.474	2.464	2.6	18.7	3 12	11 23.92	+29 26.1	1.938	2.864	8.8	20.8
3 22	11 14.25	- 1 49.8	1.485	2.467	5.2	18.8	3 22	11 15.67	+29 48.2	1.986	2.876	10.8	21.0
4 1	11 5.99	- 0 35.4	1.524	2.469	9.6	19.1	4 1	11 8.66	+29 43.8	2.057	2.887	13.1	21.1
4 11	10 59.89	+ 0 30.0	1.587	2.471	13.7	19.4	4 11	11 3.59	+29 15.1	2.148	2.899	15.3	21.3
63528	Kocherhans		3 10.8 150°86	3°6/14.8	18		417968	2007 <i>TP</i> ₁₂₇		3 10.9 257°00	2°0/ 9.1	16	
2 1	11 47.78	- 9 27.9	2.380	3.102	14.2	19.3	2 1	11 52.03	+ 5 52.3	1.773	2.569	15.7	21.6
2 11	11 44.15	- 9 37.6	2.283	3.104	11.8	19.2	2 11	11 48.37	+ 6 31.2	1.670	2.551	12.4	21.4
2 21	11 38.64	- 9 30.5	2.206	3.106	9.0	19.0	2 21	11 42.05	+ 7 23.8	1.588	2.532	8.4	21.1
3 2	11 31.69	- 9 6.7	2.155	3.108	6.0	18.8	3 2	11 33.55	+ 8 25.4	1.532	2.513	4.1	20.8
3 12	11 23.99	- 8 28.4	2.131	3.110	3.8	18.7	3 12	11 23.76	+ 9 28.3	1.504	2.494	2.5	20.6
3 22	11 16.31	- 7 39.8	2.136	3.112	4.5	18.7	3 22	11 13.81	+10 24.5	1.503	2.474	6.8	20.9
4 1	11 9.45	- 6 46.0	2.170	3.113	7.3	18.9	4 1	11 4.93	+11 7.1	1.530	2.453	11.3	21.1
4 11	11 4.06	- 5 53.0	2.230	3.115	10.2	19.1	4 11	10 58.13	+11 31.8	1.579	2.432	15.4	21.3
430004	2013 <i>QZ</i> ₆₆		3 10.8 97°76	0°9/11.8	18		224556	2005 <i>WU</i> ₁₅₆		3 10.9 190°70	0°3/11.1	17	
2 1	11 50.83	- 1 33.7	2.208	2.967	14.1	22.4	2 1	11 50.02	+ 0 33.6	2.119	2.890	14.2	21.0
2 11	11 46.43	- 1 15.4	2.134	2.989	11.2	22.2	2 11	11 46.11	+ 0 53.2	2.025	2.889	11.3	20.8
2 21	11 40.07	- 0 43.2	2.083	3.011	7.8	22.0	2 21	11 40.09	+ 1 26.5	1.953	2.888	7.8	20.6
3 2	11 32.31	+ 0 0.1	2.057	3.033	4.0	21.8	3 2	11 32.43	+ 2 10.5	1.908	2.886	3.8	20.4
3 12	11 23.92	+ 0 49.8	2.062	3.054	0.9	21.6	3 12	11 23.92	+ 3 0.4	1.891	2.885	0.5	20.1
3 22	11 15.74	+ 1 40.7	2.095	3.075	4.1	21.9	3 22	11 15.45	+ 3 50.4	1.904	2.883	4.6	20.4
4 1	11 8.58	+ 2 27.5	2.158	3.096	7.7	22.2	4 1	11 7.92	+ 4 34.9	1.945	2.880	8.5	20.6
4 11	11 3.05	+ 3 5.7	2.246	3.116	10.8	22.4	4 11	11 2.08	+ 5 9.5	2.011	2.878	12.0	20.8
244697	2003 <i>QE</i> ₁₅		3 10.8 185°24	2°2/13.0	17		152822	1999 <i>UM</i> ₃₉		3 10.9 275°70	5°8/ 5.5		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
415778	2000 VG ₁₉		3 10.9 90°81	4.5/ 6.6	18		249622	1999 TL ₄₂		3 10.9 222°65	0°5/11.3	17	
2 1	11 54.77	+15 8.8	2.015	2.816	13.8	21.1	2 1	11 51.50	- 0 31.9	2.033	2.799	14.9	22.3
2 11	11 49.66	+15 57.0	1.956	2.839	10.7	20.9	2 11	11 47.50	- 0 9.4	1.929	2.790	11.9	22.1
2 21	11 42.32	+16 47.7	1.921	2.861	7.5	20.7	2 21	11 41.20	+ 0 28.9	1.847	2.780	8.3	21.8
3 2	11 33.39	+17 34.2	1.913	2.883	4.9	20.6	3 2	11 33.06	+ 1 20.3	1.791	2.769	4.2	21.6
3 12	11 23.83	+18 9.7	1.934	2.905	5.0	20.7	3 12	11 23.88	+ 2 19.6	1.764	2.757	0.6	21.2
3 22	11 14.63	+18 29.7	1.983	2.926	7.6	20.9	3 22	11 14.64	+ 3 20.6	1.766	2.745	4.8	21.5
4 1	11 6.70	+18 31.8	2.058	2.947	10.6	21.1	4 1	11 6.34	+ 4 16.5	1.796	2.732	9.1	21.8
4 11	11 0.72	+18 16.2	2.157	2.968	13.4	21.3	4 11	10 59.83	+ 5 1.9	1.852	2.719	12.8	22.0
171021	2005 ER ₄₈		3 10.9 331°63	0°4/11.2	18		463278	2012 HS ₉		3 10.9 27°83	13°2/25.8	18	
2 1	11 46.94	+ 0 9.8	1.379	2.185	18.8	19.9	2 1	11 57.59	+37 50.8	1.740	2.536	15.9	20.6
2 11	11 44.92	+ 0 23.4	1.292	2.175	15.1	19.6	2 11	11 53.02	+39 37.4	1.696	2.538	14.3	20.5
2 21	11 39.97	+ 0 57.4	1.224	2.167	10.5	19.3	2 21	11 45.20	+41 8.3	1.674	2.540	13.3	20.4
3 2	11 32.61	+ 1 48.6	1.178	2.158	5.2	19.0	3 2	11 34.95	+42 11.2	1.674	2.542	13.3	20.4
3 12	11 23.90	+ 2 50.2	1.157	2.151	0.6	18.6	3 12	11 23.66	+42 37.3	1.696	2.544	14.3	20.5
3 22	11 15.16	+ 3 53.2	1.162	2.144	6.2	19.0	3 22	11 12.86	+42 23.5	1.739	2.547	16.0	20.6
4 1	11 7.77	+ 4 48.2	1.191	2.137	11.5	19.2	4 1	11 3.95	+41 31.9	1.801	2.549	17.8	20.7
4 11	11 2.82	+ 5 27.9	1.241	2.132	16.3	19.5	4 11	10 57.83	+40 8.7	1.879	2.552	19.5	20.9
30794	1988 TR ₁		3 10.9 144°52	2°4/13.7	18		265601	2005 RP ₃₀		3 10.9 128°16	2°2/12.9	18	
2 1	11 48.25	- 8 5.7	2.257	2.989	14.6	19.2	2 1	11 54.04	- 3 52.4	2.234	2.975	14.5	21.5
2 11	11 44.56	- 7 35.1	2.165	2.998	11.9	19.0	2 11	11 49.02	- 4 3.6	2.149	2.989	11.7	21.4
2 21	11 38.93	- 6 44.9	2.095	3.007	8.7	18.8	2 21	11 41.93	- 4 0.7	2.085	3.003	8.4	21.2
3 2	11 31.84	- 5 37.1	2.051	3.016	5.3	18.6	3 2	11 33.28	- 3 45.0	2.048	3.016	4.9	21.0
3 12	11 24.02	- 4 16.3	2.036	3.024	2.5	18.4	3 12	11 23.87	- 3 19.4	2.040	3.028	2.2	20.8
3 22	11 16.29	- 2 48.7	2.051	3.031	4.1	18.5	3 22	11 14.60	- 2 48.0	2.061	3.041	4.2	21.0
4 1	11 9.47	- 1 21.6	2.095	3.038	7.5	18.8	4 1	11 6.34	- 2 15.7	2.112	3.052	7.7	21.2
4 11	11 4.21	- 0 1.7	2.165	3.044	10.7	19.0	4 11	10 59.79	- 1 47.2	2.189	3.063	10.9	21.4
105157	2000 NA ₂₈		3 10.9 207°85	5°6/18.3	18		239911	2000 SC ₂₄₆		3 10.9 173°40	0°1/10.7	17	
2 1	11 48.07	-18 43.0	3.024	3.670	12.8	20.1	2 1	11 45.20	+ 0 4.5	2.978	3.737	10.8	21.3
2 11	11 44.10	-19 8.1	2.911	3.664	11.2	19.9	2 11	11 41.71	+ 0 55.9	2.880	3.739	8.5	21.1
2 21	11 38.49	-19 16.4	2.817	3.658	9.3	19.8	2 21	11 36.77	+ 1 59.0	2.808	3.741	5.8	21.0
3 2	11 31.62	-19 6.5	2.747	3.651	7.3	19.6	3 2	11 30.75	+ 3 10.4	2.764	3.743	2.7	20.8
3 12	11 24.05	-18 38.7	2.704	3.644	5.9	19.5	3 12	11 24.20	+ 4 25.8	2.751	3.744	0.4	20.6
3 22	11 16.43	-17 55.2	2.690	3.637	5.7	19.5	3 22	11 17.68	+ 5 40.1	2.769	3.745	3.6	20.8
4 1	11 9.42	-16 59.8	2.704	3.629	6.9	19.6	4 1	11 11.78	+ 6 48.7	2.818	3.746	6.5	21.0
4 11	11 3.62	-15 57.8	2.745	3.621	8.9	19.7	4 11	11 7.01	+ 7 47.5	2.893	3.746	9.2	21.2
246363	2007 TQ ₃₇₈		3 10.9 50°69	3°0/14.0	18		314616	2006 DF ₁₀₄		3 10.9 340°92	0°5/10.5	18	
2 1	11 47.15	- 7 12.1	2.041	2.787	15.5	20.4	2 1	11 51.84	+ 3 42.1	1.346	2.156	19.0	20.3
2 11	11 43.88	- 7 14.1	1.959	2.799	12.7	20.2	2 11	11 48.81	+ 3 44.3	1.265	2.151	15.1	20.0
2 21	11 38.55	- 6 57.9	1.898	2.811	9.4	20.1	2 21	11 42.64	+ 4 1.8	1.202	2.147	10.3	19.7
3 2	11 31.68	- 6 24.4	1.861	2.824	5.8	19.9	3 2	11 33.90	+ 4 30.8	1.162	2.144	4.9	19.4
3 12	11 24.05	- 5 37.4	1.851	2.837	3.2	19.7	3 12	11 23.78	+ 5 4.5	1.148	2.141	1.0	19.1
3 22	11 16.55	- 4 41.9	1.870	2.850	4.5	19.8	3 22	11 13.72	+ 5 35.4	1.159	2.138	6.6	19.5
4 1	11 10.06	- 3 44.5	1.916	2.863	7.8	20.1	4 1	11 5.20	+ 5 56.4	1.194	2.136	12.0	19.8
4 11	11 5.24	- 2 51.4	1.988	2.876	11.1	20.3	4 11	10 59.31	+ 6 2.9	1.251	2.135	16.6	20.0
180980	2005 NQ ₈		3 10.9 190°07	1°4/ 9.0	17		498729	2008 TE ₁₂₅		3 10.9 208°11	1°6/12.4	17	
2 1	11 45.60	+ 5 4.1	2.628	3.411	11.5	21.4	2 1	11 48.91	- 3 0.1	2.211	2.967	14.2	21.7
2 11	11 42.24	+ 5 54.3	2.535	3.410	8.9	21.2	2 11	11 45.20	- 2 52.3	2.113	2.965	11.4	21.5
2 21	11 37.23	+ 6 54.3	2.467	3.409	5.9	21.0	2 21	11 39.46	- 2 29.6	2.037	2.962	8.1	21.3
3 2	11 31.00	+ 8 0.0	2.427	3.408	2.8	20.8	3 2	11 32.15	- 1 53.7	1.986	2.959	4.5	21.0
3 12	11 24.14	+ 9 6.1	2.417	3.407	1.7	20.7	3 12	11 24.01	- 1 8.5	1.965	2.956	1.6	20.8
3 22	11 17.32	+10 7.4	2.437	3.405	4.7	20.9	3 22	11 15.88	- 0 18.9	1.972	2.953	4.2	21.0
4 1	11 11.22	+10 59.2	2.486	3.404	7.8	21.1	4 1	11 8.63	+ 0 29.5	2.008	2.949	7.9	21.2
4 11	11 6.40	+11 38.4	2.560	3.402	10.6	21.3	4 11	11 2.97	+ 1 11.4	2.069	2.946	11.3	21.4
6467	Prilepina		3 10.9 93°81	0°9/11.7	18		450503	2005 YE ₂₇₂		3 10.9 78°34	2°9/12.9	18	
2 1	11 48.71	- 2 2.3	1.902	2.673	15.6	17.4	2 1	11 55.46	- 4 26.3	1.430	2.201	19.9	22.1
2 11	11 45.22	- 1 33.6	1.822	2.685	12.4	17.2	2 11	11 51.12	- 4 39.7	1.365	2.223	16.1	21.9
2 21	11 39.52	- 0 47.5	1.764	2.697	8.7	17.0	2 21	11 43.82	- 4 31.5	1.319	2.245	11.6	21.7
3 2	11 32.16	+ 0 12.6	1.732	2.708	4.4	16.7	3 2	11 34.29	- 4 3.4	1.296	2.267	6.7	21.4
3 12	11 23.99	+ 1 20.9	1.727	2.720	0.9	16.5	3 12	11 23.75	- 3 20.3	1.299	2.289	2.9	21.3
3 22	11 15.98	+ 2 30.3	1.751	2.732	4.6	16.8	3 22	11 13.59	- 2 29.6	1.329	2.310	5.6	21.5
4 1	11 9.07	+ 3 33.8	1.803	2.743	8.7	17.1	4 1	11 5.09	- 1 39.5	1.385	2.332	10.2	21.8
4 11	11 3.98	+ 4 25.8	1.879	2.754	12.3	17.3	4 11	10 59.13	- 0 57.5	1.464	2.353	14.3	22.1
59732	1999 LO ₂		3 10.9 336°71	1°7/ 9.1	18		413835	2006 SC ₂₆		3 10.9 185°47	3°2/13.9	16	
2 1	11 43.77	+ 1 55.1	1.642	2.446	16.3	18.8	2 1	11 51.23	- 7 18.8	2.025	2.763	15.9	21.9
2 11	11 41.89	+ 3 12.0	1.555	2.441	12.8	18.5	2 11	11 47.24	- 7 23.5	1.928	2.763	13.1	21.7
2 21	11 37.58	+ 4 49.9	1.489	2.436	8.6	18.3	2 21	11 40.98	- 7 9.5	1.851	2.763	9.7	21.5
3 2	11 31.35	+ 6 42.4	1.449	2.431	4.0	18.0	3 2	11 32.94	- 6 37.5	1.799	2.762	6.1	21.3
3 12	11 24.09	+ 8 39.3	1.436	2.427	2.2	17.9	3 12	11 23.93	- 5 50.3	1.775	2.761	3.3	21.1
3 22	11 16.86	+10 29.5	1.451	2.423	6.7	18.1	3 22	11 14.92	- 4 53.4	1.780	2.759	4.8	21.2
4 1	11 10.74	+12 3.0	1.492	2.420	11.2	18.4	4 1	11 6.91	- 3 53.3	1.812	2.757	8.4	21.4
4 11	11 6.60	+13 13.4	1.556	2.417	15.2	18.6	4 11	11 0.70	- 2 56.8	1.871	2.754	12.0	21.6
325393	2008 WW ₆₅		3 10.9 176°31	12°2/26.8	18		306384	1994 AB ₉		3 10.9 87°94	1°4/ 9.6	18	
2 1	11 51.89	+22 24.1	1.274	2.114	18.1								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
467454	2006 DW ₂₁₆		3 10.9 100°18	0°5/10.4	17		301723	2010 GZ ₁₁₃		3 10.9 337°12	3°8/13.9	18	
2 1	11 48.80	+ 2 17.7	2.016	2.799	14.5	22.0	2 1	11 45.79	- 7 44.8	1.323	2.104	20.7	20.8
2 11	11 45.21	+ 2 47.4	1.933	2.805	11.4	21.8	2 11	11 44.17	- 7 44.5	1.237	2.098	17.2	20.6
2 21	11 39.49	+ 3 30.3	1.872	2.812	7.7	21.6	2 21	11 39.56	- 7 15.7	1.168	2.093	12.8	20.3
3 2	11 32.16	+ 4 22.6	1.838	2.818	3.6	21.3	3 2	11 32.48	- 6 18.4	1.120	2.088	7.9	20.0
3 12	11 24.04	+ 5 18.3	1.832	2.825	0.8	21.1	3 12	11 24.00	- 4 57.3	1.096	2.084	4.0	19.8
3 22	11 16.04	+ 6 11.4	1.854	2.831	4.9	21.4	3 22	11 15.50	- 3 22.1	1.097	2.081	6.1	19.9
4 1	11 9.05	+ 6 56.2	1.905	2.837	8.8	21.7	4 1	11 8.40	- 1 45.1	1.123	2.077	11.1	20.1
4 11	11 3.81	+ 7 28.5	1.979	2.843	12.3	21.9	4 11	11 3.81	- 0 18.1	1.170	2.075	15.9	20.4
116478	2004 BT ₅		3 10.9 275°68	4°3/15.1	17		210245	Castets		3 10.9 106°12	0°2/11.1	18	
2 1	11 49.20	- 9 47.9	2.262	2.983	14.8	20.2	2 1	11 53.71	+ 0 33.7	1.749	2.526	16.6	20.9
2 11	11 45.48	-10 16.1	2.158	2.977	12.5	20.0	2 11	11 49.26	+ 0 54.3	1.677	2.544	13.1	20.7
2 21	11 39.71	-10 27.7	2.074	2.971	9.6	19.8	2 21	11 42.33	+ 1 30.5	1.626	2.561	9.0	20.5
3 2	11 32.32	-10 22.1	2.015	2.964	6.6	19.6	3 2	11 33.54	+ 2 18.6	1.600	2.579	4.4	20.3
3 12	11 24.01	-10 0.5	1.983	2.958	4.5	19.4	3 12	11 23.90	+ 3 12.3	1.602	2.595	0.5	20.0
3 22	11 15.65	- 9 26.2	1.979	2.952	5.1	19.5	3 22	11 14.51	+ 4 4.8	1.632	2.611	5.2	20.4
4 1	11 8.12	- 8 44.2	2.003	2.946	7.8	19.6	4 1	11 6.45	+ 4 49.7	1.690	2.627	9.5	20.7
4 11	11 2.18	- 8 0.5	2.053	2.940	10.9	19.8	4 11	11 0.48	+ 5 22.2	1.773	2.642	13.2	20.9
159254	2005 YE ₁₂₄		3 10.9 27°71	4°5/ 6.9	18		146176	2000 SM ₃₀₂		3 10.9 124°26	5°0/17.4	18	
2 1	11 50.17	+12 54.5	1.710	2.526	15.3	19.6	2 1	11 45.64	-15 59.9	2.547	3.229	14.2	20.5
2 11	11 46.71	+13 45.6	1.638	2.530	11.9	19.4	2 11	11 42.43	-16 6.6	2.447	3.233	12.2	20.3
2 21	11 40.71	+14 43.3	1.587	2.534	8.2	19.2	2 21	11 37.47	-15 53.6	2.368	3.236	9.8	20.2
3 2	11 32.80	+15 39.9	1.563	2.538	5.1	19.0	3 2	11 31.18	-15 20.3	2.312	3.239	7.3	20.0
3 12	11 23.96	+16 27.1	1.565	2.543	5.1	19.0	3 12	11 24.19	-14 28.3	2.283	3.243	5.4	19.9
3 22	11 15.33	+16 58.5	1.594	2.547	8.3	19.2	3 22	11 17.24	-13 21.5	2.282	3.246	5.3	19.9
4 1	11 7.98	+17 9.9	1.648	2.553	11.9	19.4	4 1	11 11.04	-12 5.6	2.309	3.249	7.1	20.0
4 11	11 2.74	+17 0.5	1.724	2.558	15.2	19.7	4 11	11 6.22	-10 47.1	2.364	3.252	9.6	20.2
200780	2001 XL ₅₀		3 10.9 65°10	2°6/ 8.9	18		367716	2010 TU ₆₄		3 10.9 348°44	4°9/14.6	18	
2 1	11 52.80	+ 6 18.1	1.329	2.144	18.9	20.6	2 1	11 45.47	- 8 16.9	1.351	2.128	20.5	20.1
2 11	11 49.22	+ 7 4.1	1.271	2.163	14.7	20.4	2 11	11 43.87	- 8 44.2	1.265	2.122	17.2	19.9
2 21	11 42.60	+ 8 4.5	1.233	2.182	9.8	20.2	2 21	11 39.33	- 8 46.1	1.196	2.116	13.1	19.6
3 2	11 33.72	+ 9 11.8	1.219	2.201	4.7	19.9	3 2	11 32.36	- 8 21.2	1.148	2.111	8.6	19.3
3 12	11 23.86	+10 15.7	1.231	2.220	3.1	19.9	3 12	11 24.03	- 7 32.2	1.123	2.107	5.1	19.1
3 22	11 14.42	+11 7.2	1.268	2.239	7.6	20.2	3 22	11 15.66	- 6 26.2	1.123	2.104	6.5	19.2
4 1	11 6.71	+11 40.1	1.331	2.259	12.3	20.5	4 1	11 8.64	- 5 13.1	1.147	2.102	10.8	19.4
4 11	11 1.60	+11 51.8	1.414	2.278	16.3	20.8	4 11	11 4.09	- 4 3.8	1.193	2.101	15.3	19.6
212848	2007 VW ₃₄		3 10.9 22°35	1°0/11.9	18		474087	2016 JS ₃₆		3 10.9 323°86	3°5/ 7.7	17	
2 1	11 45.60	- 2 5.8	2.043	2.815	14.7	20.6	2 1	11 45.09	+ 7 45.1	1.564	2.385	16.2	20.7
2 11	11 42.73	- 1 44.6	1.956	2.819	11.7	20.4	2 11	11 43.16	+ 8 48.9	1.475	2.371	12.7	20.5
2 21	11 37.82	- 1 7.3	1.890	2.822	8.2	20.2	2 21	11 38.61	+10 7.9	1.407	2.357	8.5	20.2
3 2	11 31.37	+ 0 16.6	1.850	2.826	4.3	20.0	3 2	11 31.94	+11 34.8	1.363	2.344	4.5	19.9
3 12	11 24.15	+ 0 42.5	1.838	2.831	1.0	19.7	3 12	11 24.08	+12 59.7	1.346	2.332	4.1	19.9
3 22	11 17.00	+ 1 43.8	1.854	2.835	4.3	20.0	3 22	11 16.19	+14 12.5	1.355	2.319	8.1	20.1
4 1	11 10.79	+ 2 41.2	1.898	2.840	8.2	20.2	4 1	11 9.47	+15 5.3	1.389	2.308	12.6	20.3
4 11	11 6.22	+ 3 29.0	1.966	2.845	11.7	20.5	4 11	11 4.89	+15 33.9	1.444	2.297	16.6	20.5
284652	2007 XE ₂₈		3 10.9 112°85	4°7/16.3	17		136995	1998 SD ₅₇		3 10.9 232°47	0°8/10.1	17	
2 1	11 50.14	-13 7.0	2.623	3.312	13.7	20.3	2 1	11 50.68	+ 2 54.7	2.049	2.828	14.4	21.0
2 11	11 45.80	-13 38.6	2.530	3.323	11.6	20.1	2 11	11 46.86	+ 3 30.7	1.946	2.817	11.4	20.8
2 21	11 39.68	-13 54.1	2.458	3.334	9.2	20.0	2 21	11 40.78	+ 4 20.7	1.865	2.805	7.7	20.5
3 2	11 32.20	-13 52.7	2.411	3.344	6.7	19.8	3 2	11 32.88	+ 5 20.8	1.812	2.792	3.6	20.3
3 12	11 24.05	-13 35.3	2.392	3.355	5.0	19.7	3 12	11 23.98	+ 6 24.9	1.787	2.779	1.2	20.1
3 22	11 15.94	-13 4.7	2.402	3.365	5.1	19.8	3 22	11 15.00	+ 7 26.2	1.791	2.765	5.3	20.3
4 1	11 8.63	-12 25.3	2.440	3.375	7.0	19.9	4 1	11 6.96	+ 8 18.4	1.823	2.751	9.5	20.5
4 11	11 2.73	-11 42.2	2.505	3.385	9.4	20.1	4 11	11 0.67	+ 8 56.9	1.880	2.736	13.2	20.7
123407	2000 WG ₉₄		3 10.9 172°86	3°8/14.7	18		325699	2009 UA ₄₇		3 10.9 238°70	5°9/ 4.6	17	
2 1	11 48.77	- 9 3.6	2.062	2.795	15.8	20.1	2 1	11 53.97	+19 35.9	2.259	3.060	12.5	21.2
2 11	11 45.28	- 9 14.2	1.967	2.796	13.1	19.9	2 11	11 49.28	+20 37.5	2.167	3.046	10.0	21.0
2 21	11 39.62	- 9 5.8	1.891	2.796	9.9	19.7	2 21	11 42.32	+21 40.5	2.099	3.030	7.5	20.9
3 2	11 32.28	- 8 38.3	1.840	2.797	6.5	19.5	3 2	11 33.59	+22 37.6	2.058	3.015	5.9	20.7
3 12	11 24.03	- 7 54.4	1.816	2.797	4.0	19.3	3 12	11 23.89	+23 21.5	2.046	2.999	6.5	20.7
3 22	11 15.80	- 6 59.0	1.820	2.797	4.9	19.4	3 22	11 14.21	+23 46.7	2.062	2.982	8.8	20.8
4 1	11 8.51	- 5 58.3	1.852	2.797	8.1	19.5	4 1	11 5.51	+23 50.3	2.104	2.965	11.7	21.0
4 11	11 2.95	- 4 59.5	1.909	2.797	11.5	19.7	4 11	10 58.60	+23 32.5	2.168	2.947	14.3	21.1
207873	2007 VX ₂₅₄		3 10.9 88°10	7°2/ 1.6	18		171266	2006 DU ₁₁₅		3 10.9 256°48	1°0/ 9.9	17	
2 1	11 48.51	+24 9.4	2.284	3.096	12.0	20.0	2 1	11 50.71	+ 2 37.1	1.808	2.595	15.7	21.2
2 11	11 44.89	+25 38.6	2.221	3.100	9.8	19.8	2 11	11 47.31	+ 3 18.6	1.701	2.576	12.5	21.0
2 21	11 39.21	+27 5.5	2.183	3.104	7.9	19.7	2 21	11 41.36	+ 4 17.2	1.615	2.556	8.5	20.7
3 2	11 32.01	+28 21.7	2.172	3.108	7.2	19.7	3 2	11 33.28	+ 5 28.7	1.555	2.536	4.0	20.3
3 12	11 24.07	+29 20.0	2.188	3.111	8.1	19.7	3 12	11 23.93	+ 6 46.0	1.523	2.515	1.4	20.1
3 22	11 16.30	+29 55.6	2.230	3.115	10.0	19.9	3 22	11 14.39	+ 8 0.7	1.519	2.494	6.1	20.4
4 1	11 9.54	+30 6.6	2.296	3.119	12.2	20.0	4 1	11 5.85	+ 9 4.6	1.542	2.472	10.8	20.6
4 11	11 4.46	+29 54.2	2.383	3.123	14.2	20.2	4 11	10 59.30	+ 9 51.9	1.589	2.449	15.0	20.8
94872	2001 XT ₂₂₆		3 10.9 300°47	9°3/ 1.9	18		163725	2003 HA ₅₂		3 10.9 263°73	3°6/ 7.7	17	
2 1	11 53.07	+25 22.9	1.721	2.540	15								

EPHEMERIDES

3 10.9

3 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
496469	2014 <i>SB</i> ₁₂₆		3 10.9 254°57	0°6/11.4	17		122994	2000 <i>SN</i> ₂₄₉		3 10.9 60°36	5°4/ 6.6	18	
2 1	11 50.84	- 0 54.8	1.732	2.510	16.7	22.7	2 1	11 55.06	+16 15.5	1.677	2.490	15.7	19.2
2 11	11 47.51	- 0 32.9	1.627	2.494	13.4	22.4	2 11	11 50.37	+17 0.7	1.622	2.510	12.2	19.0
2 21	11 41.54	+ 0 7.9	1.542	2.477	9.4	22.1	2 21	11 43.06	+17 47.9	1.588	2.530	8.6	18.8
3 2	11 33.38	+ 1 5.1	1.482	2.461	4.8	21.8	3 2	11 33.86	+18 29.0	1.580	2.550	5.8	18.7
3 12	11 23.92	+ 2 12.9	1.450	2.443	0.7	21.5	3 12	11 23.91	+18 56.4	1.599	2.570	6.0	18.7
3 22	11 14.29	+ 3 23.5	1.445	2.425	5.5	21.8	3 22	11 14.41	+19 5.1	1.645	2.590	8.8	18.9
4 1	11 5.71	+ 4 28.6	1.467	2.407	10.4	22.0	4 1	11 6.43	+18 53.3	1.717	2.611	12.1	19.2
4 11	10 59.21	+ 5 21.0	1.513	2.389	14.7	22.2	4 11	11 0.72	+18 21.9	1.810	2.631	15.1	19.4
466493	2013 <i>WV</i> ₂₆		3 10.9 187°72	5°6/ 4.7	17		348956	2006 <i>UW</i> ₆		3 10.9 173°58	1°9/13.4	17	
2 1	11 52.60	+19 35.9	2.286	3.089	12.3	21.5	2 1	11 45.22	- 6 28.5	2.651	3.387	12.6	21.4
2 11	11 48.02	+20 34.1	2.209	3.089	9.8	21.3	2 11	11 41.96	- 6 2.8	2.551	3.388	10.2	21.2
2 21	11 41.32	+21 32.7	2.155	3.088	7.3	21.1	2 21	11 37.09	- 5 21.4	2.474	3.389	7.4	21.1
3 2	11 33.04	+22 24.8	2.130	3.087	5.7	21.0	3 2	11 30.99	- 4 26.2	2.423	3.390	4.4	20.9
3 12	11 23.99	+23 3.7	2.132	3.086	6.3	21.1	3 12	11 24.26	- 3 20.7	2.402	3.390	2.0	20.7
3 22	11 15.08	+23 24.6	2.163	3.084	8.4	21.2	3 22	11 17.57	- 2 9.9	2.410	3.391	3.5	20.8
4 1	11 7.20	+23 25.3	2.219	3.082	11.1	21.4	4 1	11 11.57	- 0 59.1	2.448	3.391	6.6	21.0
4 11	11 1.05	+23 6.3	2.298	3.080	13.5	21.5	4 11	11 6.84	+ 0 6.2	2.513	3.391	9.5	21.2
374185	2004 <i>YZ</i> ₂		3 10.9 130°92	4°2/16.1	18		435254	2007 <i>TV</i> ₈₇		3 10.9 113°83	5°0/ 5.5	17	
2 1	11 48.39	-13 13.2	2.429	3.127	14.5	21.1	2 1	11 50.31	+17 20.4	2.238	3.044	12.4	21.4
2 11	11 44.57	-13 8.9	2.337	3.139	12.2	21.0	2 11	11 46.25	+18 13.4	2.161	3.045	9.8	21.2
2 21	11 38.90	-12 45.1	2.266	3.151	9.5	20.8	2 21	11 40.13	+19 8.4	2.108	3.047	7.1	21.1
3 2	11 31.86	-12 1.7	2.220	3.163	6.6	20.6	3 2	11 32.47	+19 58.6	2.083	3.048	5.2	20.9
3 12	11 24.14	-11 1.6	2.202	3.174	4.5	20.5	3 12	11 24.08	+20 37.6	2.086	3.049	5.6	21.0
3 22	11 16.51	- 9 49.4	2.212	3.184	4.7	20.5	3 22	11 15.83	+21 0.7	2.117	3.050	7.9	21.1
4 1	11 9.73	- 8 31.2	2.252	3.195	7.1	20.7	4 1	11 8.59	+21 5.1	2.174	3.051	10.7	21.3
4 11	11 4.43	- 7 14.0	2.319	3.204	9.9	20.9	4 11	11 3.03	+20 50.9	2.253	3.052	13.3	21.5
253314	2003 <i>DG</i> ₅		3 10.9 71°73	2°3/13.1	18		284658	2008 <i>AZ</i> ₁₀₃		3 10.9 177°60	3°8/ 5.2	18	
2 1	11 52.68	- 5 49.5	1.738	2.492	17.5	21.0	2 1	11 47.54	+16 0.9	3.011	3.807	9.8	21.5
2 11	11 48.30	- 5 29.7	1.679	2.527	14.1	20.8	2 11	11 43.55	+17 4.9	2.929	3.809	7.7	21.4
2 21	11 41.55	- 4 49.2	1.640	2.562	10.0	20.7	2 21	11 38.04	+18 11.5	2.873	3.810	5.5	21.2
3 2	11 33.11	- 3 51.1	1.626	2.596	5.7	20.5	3 2	11 31.41	+19 15.5	2.846	3.811	4.0	21.1
3 12	11 24.00	- 2 41.2	1.640	2.630	2.3	20.3	3 12	11 24.22	+20 11.8	2.850	3.811	4.3	21.2
3 22	11 15.29	- 1 27.4	1.682	2.663	4.7	20.6	3 22	11 17.09	+20 56.1	2.883	3.811	6.3	21.3
4 1	11 7.94	- 0 17.3	1.752	2.696	8.6	20.9	4 1	11 10.64	+21 25.8	2.944	3.811	8.5	21.4
4 11	11 2.65	+ 0 42.6	1.846	2.728	12.2	21.1	4 11	11 5.39	+21 39.7	3.028	3.810	10.6	21.6
199854	2007 <i>EL</i> ₈₆		3 10.9 308°39	1°3/ 9.9	17		357040	2000 <i>QK</i> ₈₇		3 10.9 234°63	2°3/12.7	17	
2 1	11 50.74	+ 5 43.7	1.664	2.466	16.3	19.7	2 1	11 53.56	- 3 45.4	1.871	2.626	16.4	21.2
2 11	11 47.66	+ 5 51.3	1.554	2.438	13.0	19.5	2 11	11 49.44	- 3 51.7	1.764	2.614	13.4	21.0
2 21	11 41.81	+ 6 10.7	1.465	2.410	8.9	19.1	2 21	11 42.74	- 3 40.9	1.679	2.601	9.7	20.7
3 2	11 33.59	+ 6 38.1	1.400	2.382	4.3	18.8	3 2	11 33.93	- 3 13.9	1.617	2.588	5.6	20.5
3 12	11 23.90	+ 7 7.8	1.362	2.354	1.7	18.5	3 12	11 23.88	- 2 33.8	1.584	2.574	2.3	20.2
3 22	11 13.93	+ 7 33.1	1.351	2.327	6.5	18.8	3 22	11 13.68	- 1 46.1	1.579	2.560	5.0	20.4
4 1	11 5.01	+ 7 48.1	1.365	2.300	11.4	19.0	4 1	11 4.49	- 0 57.5	1.602	2.544	9.4	20.6
4 11	10 58.25	+ 7 48.6	1.402	2.274	15.9	19.2	4 11	10 57.31	- 0 14.7	1.649	2.529	13.5	20.8
224383	2005 <i>UY</i> ₁₉₄		3 10.9 156°81	0°6/11.5	18		90510	2004 <i>EW</i> ₂₀		3 10.9 267°77	4°6/ 3.9	18	
2 1	11 48.71	- 1 6.2	1.970	2.742	15.1	20.7	2 1	11 46.23	+15 7.9	2.702	3.505	10.6	19.8
2 11	11 45.27	- 0 41.3	1.881	2.744	12.1	20.5	2 11	11 42.94	+16 44.9	2.597	3.481	8.3	19.6
2 21	11 39.63	- 0 0.1	1.813	2.746	8.4	20.3	2 21	11 37.90	+18 28.6	2.518	3.457	6.0	19.4
3 2	11 32.30	+ 0 54.3	1.770	2.748	4.2	20.0	3 2	11 31.46	+20 12.5	2.469	3.432	4.6	19.2
3 12	11 24.09	+ 1 56.5	1.756	2.750	0.7	19.7	3 12	11 24.20	+21 49.1	2.450	3.407	5.3	19.2
3 22	11 15.94	+ 3 0.0	1.771	2.751	4.7	20.0	3 22	11 16.82	+23 12.0	2.461	3.382	7.6	19.3
4 1	11 8.80	+ 3 58.0	1.813	2.752	8.8	20.3	4 1	11 10.07	+24 16.4	2.499	3.356	10.2	19.5
4 11	11 3.44	+ 4 45.0	1.880	2.753	12.4	20.5	4 11	11 4.61	+25 0.0	2.561	3.329	12.6	19.6
259234	2003 <i>BH</i> ₅₁		3 10.9 92°74	0°8/11.6	18		462915	2011 <i>AC</i> ₂₁		3 10.9 235°55	4°7/ 5.9	17	
2 1	11 53.27	- 0 47.0	1.931	2.696	15.6	20.9	2 1	11 49.67	+13 31.3	2.000	2.809	13.6	21.4
2 11	11 48.62	- 0 31.2	1.861	2.721	12.4	20.8	2 11	11 46.11	+14 42.0	1.914	2.802	10.6	21.2
2 21	11 41.73	- 0 0.5	1.814	2.745	8.5	20.6	2 21	11 40.26	+15 59.8	1.851	2.795	7.5	21.0
3 2	11 33.21	+ 0 41.9	1.792	2.769	4.3	20.4	3 2	11 32.63	+17 17.3	1.816	2.787	5.0	20.8
3 12	11 23.98	+ 1 30.8	1.799	2.792	0.8	20.1	3 12	11 24.06	+18 26.0	1.809	2.780	5.4	20.8
3 22	11 15.04	+ 2 20.1	1.836	2.815	4.6	20.5	3 22	11 15.53	+19 18.8	1.829	2.772	8.2	21.0
4 1	11 7.32	+ 3 4.1	1.900	2.838	8.5	20.7	4 1	11 8.03	+19 51.2	1.876	2.764	11.5	21.2
4 11	11 1.50	+ 3 38.2	1.989	2.860	12.0	21.0	4 11	11 2.35	+20 1.5	1.944	2.755	14.6	21.4
386250	2008 <i>CS</i> ₈		3 10.9 269°04	4°4/15.3	18		468244	2015 <i>BX</i> ₂₄₉		3 10.9 194°22	1°9/ 8.8	17	
2 1	11 51.08	-10 29.2	2.593	3.296	13.6	21.0	2 1	11 48.84	+ 6 27.9	2.251	3.040	13.0	21.3
2 11	11 46.74	-11 10.4	2.478	3.284	11.5	20.9	2 11	11 45.09	+ 7 12.5	2.161	3.039	10.1	21.1
2 21	11 40.48	-11 37.7	2.385	3.272	9.0	20.7	2 21	11 39.37	+ 8 7.2	2.094	3.037	6.8	20.9
3 2	11 32.70	-11 50.2	2.318	3.260	6.4	20.5	3 2	11 32.14	+ 9 7.2	2.055	3.035	3.3	20.7
3 12	11 24.03	-11 48.1	2.279	3.248	4.6	20.3	3 12	11 24.13	+10 6.5	2.044	3.033	2.3	20.6
3 22	11 15.24	-11 33.5	2.269	3.236	5.1	20.4	3 22	11 16.17	+10 59.2	2.064	3.031	5.5	20.8
4 1	11 7.14	-11 9.9	2.287	3.224	7.4	20.5	4 1	11 9.10	+11 40.4	2.111	3.028	9.0	21.0
4 11	11 0.45	-10 42.2	2.332	3.211	10.1	20.6	4 11	11 3.60	+12 7.0	2.182	3.025	12.1	21.2
425061	2009 <i>RF</i> ₈		3 10.9 173°80	0°1/10.9	15		432439	2010 <i>BY</i> ₁₂₃		3 10.9 229°06	4°3/ 5.0</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
37219	2000 <i>WN</i> ₁₃₇		3 10.9 200°52	1.2°/ 9.4	17		292454	2006 <i>SQ</i> ₃₆₀		3 10.9 183°18	2°0'/13.6	17	
2 1	11 47.66	+ 3 7.2	2.392	3.170	12.6	19.3	2 1	11 45.76	- 6 36.3	2.833	3.563	12.0	21.7
2 11	11 44.08	+ 4 9.3	2.295	3.166	9.9	19.1	2 11	11 42.29	- 6 15.6	2.730	3.563	9.7	21.6
2 21	11 38.65	+ 5 24.6	2.222	3.162	6.6	18.9	2 21	11 37.26	- 5 40.5	2.651	3.563	7.1	21.4
3 2	11 31.79	+ 6 48.6	2.177	3.158	3.1	18.7	3 2	11 31.08	- 4 52.3	2.598	3.563	4.3	21.2
3 12	11 24.18	+ 8 14.9	2.162	3.153	1.6	18.6	3 12	11 24.30	- 3 54.4	2.574	3.562	2.0	21.1
3 22	11 16.57	+ 9 36.7	2.177	3.147	5.0	18.8	3 22	11 17.53	- 2 51.0	2.581	3.561	3.4	21.1
4 1	11 9.74	+10 48.0	2.221	3.141	8.5	19.0	4 1	11 11.42	- 1 47.0	2.617	3.559	6.2	21.3
4 11	11 4.37	+11 44.7	2.291	3.134	11.6	19.2	4 11	11 6.50	- 0 47.2	2.681	3.558	9.0	21.5
309106	2006 <i>WZ</i> ₈₃		3 10.9 106°34	5°1'/ 6.1	18		18724	1998 <i>JV</i> ₁		3 10.9 274°73	2°4'/ 7.9	18	R
2 1	11 52.29	+14 25.6	1.797	2.609	14.8	20.7	2 1	11 46.02	+ 8 29.3	2.404	3.200	12.0	18.1
2 11	11 48.21	+15 33.5	1.731	2.620	11.5	20.5	2 11	11 42.82	+ 9 21.3	2.309	3.192	9.3	17.9
2 21	11 41.65	+16 46.6	1.688	2.631	8.1	20.3	2 21	11 37.81	+10 22.0	2.239	3.183	6.3	17.6
3 2	11 33.25	+17 56.5	1.671	2.642	5.5	20.2	3 2	11 31.40	+11 26.4	2.195	3.175	3.3	17.4
3 12	11 24.00	+18 54.5	1.682	2.652	5.8	20.2	3 12	11 24.25	+12 28.7	2.182	3.166	2.9	17.4
3 22	11 15.01	+19 34.2	1.720	2.662	8.7	20.4	3 22	11 17.11	+13 23.0	2.197	3.158	5.7	17.6
4 1	11 7.32	+19 51.9	1.783	2.672	12.0	20.6	4 1	11 10.75	+14 4.8	2.240	3.149	8.9	17.7
4 11	11 1.71	+19 47.4	1.868	2.682	15.0	20.8	4 11	11 5.81	+14 31.3	2.307	3.141	11.9	17.9
348550	2005 <i>UB</i> ₃₆₉		3 10.9 49°33	4°4'/ 5.7	17		324546	2006 <i>WO</i> ₄₈		3 10.9 5°16	1°4'/11.9	18	
2 1	11 47.55	+16 1.2	2.369	3.176	11.8	20.6	2 1	11 48.74	- 1 7.5	1.498	2.290	18.2	20.3
2 11	11 43.92	+16 55.9	2.299	3.186	9.2	20.4	2 11	11 46.02	- 1 10.2	1.416	2.290	14.6	20.1
2 21	11 38.45	+17 52.9	2.255	3.195	6.5	20.3	2 21	11 40.55	- 0 54.5	1.353	2.290	10.3	19.8
3 2	11 31.64	+18 46.2	2.237	3.205	4.6	20.2	3 2	11 32.88	- 0 22.6	1.314	2.291	5.5	19.5
3 12	11 24.22	+19 30.0	2.249	3.215	5.0	20.2	3 12	11 24.06	+ 0 20.1	1.300	2.293	1.4	19.3
3 22	11 16.96	+19 59.5	2.288	3.225	7.2	20.4	3 22	11 15.33	+ 1 6.7	1.312	2.295	5.5	19.5
4 1	11 10.63	+20 12.3	2.354	3.235	9.8	20.5	4 1	11 7.92	+ 1 49.5	1.350	2.297	10.3	19.8
4 11	11 5.82	+20 7.8	2.442	3.245	12.2	20.7	4 11	11 2.79	+ 2 22.0	1.410	2.301	14.7	20.1
64006	2001 <i>SS</i> ₁₂₄		3 10.9 308°47	2°2'/12.8	17		273022	2006 <i>DJ</i> ₉₈		3 10.9 280°09	0°6'/11.4	16	
2 1	11 50.34	- 2 57.3	2.145	2.900	14.6	18.9	2 1	11 51.28	+ 0 17.4	1.557	2.346	17.8	21.1
2 11	11 46.45	- 3 16.5	2.044	2.894	11.8	18.7	2 11	11 48.23	+ 0 23.6	1.454	2.328	14.3	20.9
2 21	11 40.42	- 3 22.5	1.965	2.887	8.6	18.5	2 21	11 42.27	+ 0 47.6	1.370	2.309	10.1	20.6
3 2	11 32.71	- 3 16.0	1.911	2.881	5.0	18.2	3 2	11 33.85	+ 1 27.2	1.310	2.289	5.1	20.2
3 12	11 24.07	- 2 59.5	1.885	2.875	2.2	18.0	3 12	11 23.93	+ 2 17.0	1.277	2.270	0.7	19.8
3 22	11 15.41	- 2 36.7	1.888	2.869	4.4	18.2	3 22	11 13.78	+ 3 9.5	1.270	2.251	5.9	20.1
4 1	11 7.64	- 2 12.4	1.920	2.863	8.1	18.4	4 1	11 4.79	+ 3 56.5	1.288	2.231	11.2	20.4
4 11	11 1.54	- 1 51.3	1.976	2.857	11.5	18.6	4 11	10 58.11	+ 4 31.3	1.330	2.212	15.9	20.6
385390	2002 <i>TU</i> ₃₁₉		3 10.9 115°31	0°6'/11.6	18		415106	2012 <i>CP</i> ₃₀		3 10.9 16°30	1°0'/11.7	18	
2 1	11 48.81	- 0 54.3	2.510	3.267	12.6	22.1	2 1	11 51.06	- 0 9.6	1.561	2.349	17.8	21.3
2 11	11 44.72	- 0 32.0	2.428	3.283	10.0	22.0	2 11	11 47.73	- 0 11.1	1.478	2.350	14.2	21.1
2 21	11 38.91	+ 0 2.5	2.369	3.298	6.9	21.8	2 21	11 41.65	+ 0 4.4	1.414	2.351	10.0	20.9
3 2	11 31.85	+ 0 46.7	2.337	3.313	3.5	21.6	3 2	11 33.40	+ 0 34.3	1.375	2.352	5.1	20.6
3 12	11 24.19	+ 1 36.2	2.334	3.327	0.6	21.4	3 12	11 24.01	+ 1 13.3	1.361	2.354	1.0	20.3
3 22	11 16.67	+ 2 26.4	2.362	3.342	3.7	21.6	3 22	11 14.70	+ 1 54.8	1.375	2.356	5.5	20.6
4 1	11 9.99	+ 3 12.5	2.419	3.355	7.0	21.9	4 1	11 6.72	+ 2 31.8	1.414	2.358	10.3	20.9
4 11	11 4.70	+ 3 50.8	2.503	3.369	10.0	22.1	4 11	11 1.00	+ 2 58.4	1.476	2.361	14.5	21.1
362645	2011 <i>SL</i> ₂₁₄		3 10.9 128°56	1°9'/ 9.4	18		433243	2012 <i>VS</i> ₈₃		3 10.9 147°08	11°7'/20.3	18	
2 1	11 55.53	+ 6 35.4	1.667	2.462	16.5	21.2	2 1	12 0.54	+48 43.8	2.693	3.423	12.5	20.8
2 11	11 50.94	+ 6 58.9	1.591	2.470	12.9	20.9	2 11	11 54.54	+50 12.7	2.664	3.428	11.9	20.7
2 21	11 43.64	+ 7 33.5	1.535	2.479	8.7	20.7	2 21	11 45.85	+51 23.7	2.656	3.432	11.7	20.7
3 2	11 34.27	+ 8 14.0	1.506	2.487	4.2	20.4	3 2	11 35.22	+52 9.3	2.670	3.435	11.9	20.7
3 12	11 23.89	+ 8 53.3	1.504	2.494	2.3	20.3	3 12	11 23.81	+52 24.3	2.705	3.439	12.6	20.8
3 22	11 13.73	+ 9 25.0	1.530	2.502	6.4	20.6	3 22	11 12.85	+52 7.5	2.760	3.443	13.5	20.9
4 1	11 4.97	+ 9 43.9	1.582	2.509	10.8	20.9	4 1	11 3.49	+51 20.9	2.832	3.446	14.5	21.0
4 11	10 58.49	+ 9 47.3	1.658	2.515	14.6	21.1	4 11	10 56.48	+50 9.1	2.919	3.449	15.4	21.1
369915	2013 <i>CJ</i> ₁₇₆		3 10.9 47°86	2°2'/ 9.2	18		111071	2001 <i>VX</i> ₄₉		3 10.9 80°44	8°1'/19.4	18	
2 1	11 49.31	+ 4 16.8	1.262	2.081	19.4	21.2	2 1	11 49.23	-20 11.8	1.896	2.570	18.7	19.8
2 11	11 46.77	+ 5 8.2	1.199	2.093	15.1	20.9	2 11	11 45.95	-20 52.6	1.811	2.581	16.4	19.6
2 21	11 41.14	+ 6 18.2	1.155	2.105	10.1	20.7	2 21	11 40.25	-21 7.2	1.743	2.592	13.7	19.5
3 2	11 33.14	+ 7 39.1	1.135	2.117	4.7	20.4	3 2	11 32.67	-20 52.3	1.696	2.603	10.9	19.3
3 12	11 24.03	+ 9 0.0	1.139	2.130	2.7	20.3	3 12	11 24.11	-20 8.3	1.672	2.614	8.7	19.2
3 22	11 15.24	+10 9.9	1.170	2.144	7.6	20.6	3 22	11 15.62	-18 59.1	1.675	2.625	8.2	19.2
4 1	11 8.11	+11 0.6	1.224	2.157	12.6	21.0	4 1	11 8.27	-17 32.4	1.703	2.636	9.7	19.3
4 11	11 3.58	+11 28.0	1.299	2.171	16.9	21.2	4 11	11 2.90	-15 58.0	1.756	2.647	12.2	19.5
332185	2006 <i>BV</i> ₂₁₇		3 10.9 19°83	5°9'/15.8	17		506176	2016 <i>GM</i> ₆		3 10.9 223°31	0°6'/11.6	17	
2 1	11 51.64	-11 35.0	1.908	2.628	17.3	20.1	2 1	11 51.56	- 0 23.5	2.455	3.210	13.0	22.5
2 11	11 47.80	-12 28.4	1.815	2.630	14.7	19.9	2 11	11 47.16	- 0 9.1	2.344	3.198	10.4	22.3
2 21	11 41.52	-13 3.0	1.742	2.631	11.6	19.7	2 21	11 40.79	+ 0 17.9	2.257	3.185	7.3	22.1
3 2	11 33.30	-13 16.5	1.692	2.633	8.4	19.5	3 2	11 32.88	+ 0 55.1	2.196	3.172	3.7	21.9
3 12	11 24.00	-13 9.1	1.668	2.635	6.2	19.4	3 12	11 24.10	+ 1 38.9	2.165	3.159	0.7	21.6
3 22	11 14.69	-12 44.0	1.671	2.638	6.5	19.4	3 22	11 15.24	+ 2 24.5	2.165	3.144	4.1	21.8
4 1	11 6.45	-12 6.5	1.700	2.641	9.1	19.6	4 1	11 7.15	+ 3 7.1	2.194	3.129	7.7	22.0
4 11	11 0.15	-11 23.9	1.754	2.643	12.3	19.8	4 11	11 0.53	+ 3 42.1	2.249	3.113	11.0	22.2
329848	2004 <i>TV</i> ₁₂₅		3 10.9 159°49	4°5'/ 6.1	17		498342	2007 <i>VZ</i> ₂₄₇		3 10.9 10			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
467511	2007 <i>DP</i> ₅₁		3 10.9 300°44	1.2°/11.6	16		166855	2002 <i>WM</i> ₂₀		3 10.9 96°77	1.7°/ 8.9	18	
2 1	11 54.75	+ 1 32.1	1.784	2.560	16.3	21.4	2 1	11 48.86	+ 6 27.8	2.417	3.202	12.3	21.1
2 11	11 50.75	+ 1 6.0	1.663	2.529	13.3	21.1	2 11	11 44.81	+ 7 12.0	2.346	3.222	9.5	20.9
2 21	11 43.94	+ 0 50.7	1.564	2.498	9.4	20.8	2 21	11 38.99	+ 8 4.6	2.299	3.241	6.3	20.7
3 2	11 34.69	+ 0 45.3	1.490	2.467	5.0	20.4	3 2	11 31.91	+ 9 1.0	2.280	3.260	3.0	20.6
3 12	11 23.85	+ 0 46.7	1.442	2.435	1.2	20.1	3 12	11 24.27	+ 9 55.7	2.290	3.279	2.0	20.5
3 22	11 23.85	+ 0 51.1	1.423	2.404	5.5	20.3	3 22	11 16.81	+10 43.7	2.330	3.297	5.0	20.7
4 1	11 2.28	+ 0 53.8	1.432	2.373	10.5	20.5	4 1	11 10.25	+11 21.0	2.399	3.316	8.1	21.0
4 11	10 54.06	+ 0 50.3	1.464	2.342	15.0	20.7	4 11	11 5.15	+11 45.2	2.493	3.333	10.9	21.2
497283	2005 <i>QS</i> ₁₈₉		3 10.9 190°61	0°6/11.7	17		106228	2000 <i>UB</i> ₄₀		3 10.9 125°27	2°1/13.6	17	
2 1	11 46.17	- 1 7.7	2.969	3.722	11.0	22.5	2 1	11 46.56	- 6 14.6	2.696	3.429	12.4	20.4
2 11	11 42.52	- 0 42.1	2.868	3.720	8.7	22.3	2 11	11 42.96	- 6 4.6	2.603	3.437	10.1	20.2
2 21	11 37.39	- 0 5.4	2.790	3.719	6.1	22.2	2 21	11 37.75	- 5 40.5	2.532	3.445	7.4	20.0
3 2	11 31.15	+ 0 40.1	2.741	3.717	3.1	22.0	3 2	11 31.34	- 5 3.6	2.488	3.452	4.5	19.9
3 12	11 24.34	+ 1 31.0	2.721	3.714	0.6	21.7	3 12	11 24.34	- 4 17.0	2.472	3.460	2.2	19.7
3 22	11 17.54	+ 2 23.1	2.732	3.712	3.3	22.0	3 22	11 17.41	- 3 24.7	2.487	3.467	3.5	19.8
4 1	11 11.37	+ 3 12.3	2.773	3.709	6.3	22.1	4 1	11 11.19	- 2 31.6	2.531	3.474	6.4	20.0
4 11	11 6.33	+ 3 54.9	2.841	3.705	9.0	22.3	4 11	11 6.25	- 1 42.3	2.601	3.480	9.2	20.2
375778	2009 <i>SA</i> ₂₃₉		3 10.9 238°79	2°6/ 7.7	17		218771	2005 <i>WF</i> ₁₁₉		3 10.9 150°23	5°0/16.8	18	
2 1	11 49.24	+ 7 11.7	2.334	3.122	12.6	21.7	2 1	11 51.00	-14 51.2	2.507	3.186	14.5	20.6
2 11	11 45.52	+ 8 25.3	2.227	3.105	9.8	21.4	2 11	11 46.62	-15 8.3	2.411	3.196	12.4	20.5
2 21	11 39.79	+ 9 51.1	2.144	3.087	6.6	21.2	2 21	11 40.35	-15 6.8	2.335	3.206	9.8	20.3
3 2	11 32.44	+11 23.6	2.089	3.068	3.5	21.0	3 2	11 32.64	-14 45.6	2.284	3.214	7.3	20.2
3 12	11 24.17	+12 55.4	2.065	3.049	3.1	20.9	3 12	11 24.18	-14 6.3	2.261	3.222	5.3	20.0
3 22	11 15.78	+14 19.1	2.070	3.029	6.3	21.1	3 22	11 15.78	-13 12.4	2.266	3.230	5.4	20.1
4 1	11 8.16	+15 28.5	2.105	3.008	9.8	21.2	4 1	11 8.21	-12 9.3	2.300	3.236	7.3	20.2
4 11	11 2.06	+16 19.5	2.163	2.986	12.9	21.4	4 11	11 2.14	-11 3.3	2.361	3.242	9.9	20.4
313367	2002 <i>JL</i> ₂₇		3 10.9 252°82	4°7/ 6.5	16		134792	2000 <i>EH</i> ₁₃		3 10.9 300°62	0°3/11.2	17	
2 1	11 52.02	+12 25.5	1.827	2.635	14.8	21.0	2 1	11 45.46	- 0 44.4	1.992	2.772	14.7	19.7
2 11	11 48.32	+13 30.8	1.731	2.619	11.6	20.8	2 11	11 42.96	- 0 12.0	1.879	2.748	11.8	19.5
2 21	11 42.03	+14 45.3	1.658	2.603	8.1	20.5	2 21	11 38.28	+ 0 38.1	1.788	2.724	8.2	19.2
3 2	11 33.63	+16 1.6	1.612	2.586	5.1	20.3	3 2	11 31.81	+ 1 43.1	1.722	2.701	4.1	18.9
3 12	11 24.02	+17 10.3	1.593	2.569	5.3	20.3	3 12	11 24.28	+ 2 57.5	1.684	2.677	0.5	18.6
3 22	11 14.34	+18 3.4	1.602	2.551	8.6	20.4	3 22	11 16.59	+ 4 14.3	1.674	2.654	4.9	18.9
4 1	11 5.75	+18 35.1	1.636	2.533	12.5	20.6	4 1	11 9.71	+ 5 25.8	1.692	2.631	9.3	19.1
4 11	10 59.22	+18 43.4	1.693	2.514	16.0	20.8	4 11	11 4.52	+ 6 25.3	1.734	2.608	13.2	19.2
423429	2005 <i>QK</i> ₃₃		3 10.9 180°00	1°7/12.6	16		4781	Sládkovič		3 10.9 179°35	0°2/10.7	18	
2 1	11 53.21	- 3 11.2	2.467	3.205	13.3	22.8	2 1	11 53.99	+ 0 48.2	1.787	2.562	16.3	18.4
2 11	11 48.33	- 3 12.3	2.366	3.207	10.8	22.6	2 11	11 49.71	+ 1 22.7	1.697	2.564	13.0	18.2
2 21	11 41.51	- 3 0.5	2.289	3.208	7.7	22.4	2 21	11 42.86	+ 2 14.3	1.629	2.566	8.9	17.9
3 2	11 33.19	- 2 37.0	2.239	3.209	4.3	22.2	3 2	11 33.98	+ 3 18.8	1.587	2.566	4.3	17.6
3 12	11 24.09	- 2 4.9	2.218	3.208	1.7	22.0	3 12	11 24.03	+ 4 29.5	1.573	2.566	0.7	17.3
3 22	11 15.01	- 1 28.3	2.228	3.207	3.9	22.1	3 22	11 14.13	+ 5 38.5	1.588	2.565	5.5	17.7
4 1	11 6.77	- 0 51.6	2.267	3.205	7.3	22.3	4 1	11 5.43	+ 6 38.3	1.630	2.563	10.1	18.0
4 11	11 0.05	- 0 19.3	2.333	3.203	10.5	22.5	4 11	10 58.81	+ 7 23.3	1.697	2.560	14.0	18.2
290930	2005 <i>WZ</i> ₁₃₅		3 10.9 67°64	2°2/ 8.9	18		88174	2000 <i>XQ</i> ₂₉		3 10.9 126°49	1°0/ 9.9	18	
2 1	11 50.14	+ 6 52.9	1.804	2.604	15.2	21.3	2 1	11 53.27	+ 5 18.1	2.355	3.128	12.9	20.2
2 11	11 46.54	+ 7 30.5	1.727	2.611	11.8	21.1	2 11	11 48.31	+ 5 37.7	2.276	3.143	10.1	20.0
2 21	11 40.56	+ 8 19.0	1.673	2.618	7.9	20.9	2 21	11 41.41	+ 6 5.9	2.220	3.158	6.8	19.8
3 2	11 32.79	+ 9 12.8	1.644	2.625	3.9	20.6	3 2	11 33.10	+ 6 39.0	2.192	3.172	3.2	19.6
3 12	11 24.15	+10 4.9	1.643	2.633	2.6	20.6	3 12	11 24.15	+ 7 12.4	2.194	3.186	1.3	19.5
3 22	11 15.67	+10 48.6	1.670	2.640	6.3	20.8	3 22	11 15.37	+ 7 41.7	2.226	3.199	4.6	19.8
4 1	11 8.38	+11 18.7	1.724	2.647	10.3	21.1	4 1	11 7.56	+ 8 3.1	2.287	3.211	8.0	20.0
4 11	11 3.06	+11 32.3	1.801	2.655	13.8	21.3	4 11	11 1.36	+ 8 14.1	2.374	3.223	11.0	20.2
420999	2013 <i>PT</i> ₄₄		3 10.9 43°61	1°4/ 9.4	18		415705	1998 <i>HD</i> ₁₀		3 10.9 320°47	8°2/ 4.1	17	
2 1	11 45.49	+ 1 6.9	1.714	2.510	16.1	21.1	2 1	11 53.74	+22 31.8	1.657	2.477	15.5	20.2
2 11	11 43.10	+ 2 26.4	1.631	2.512	12.6	20.9	2 11	11 49.95	+23 31.3	1.578	2.465	12.6	20.0
2 21	11 38.36	+ 4 6.3	1.571	2.515	8.4	20.7	2 21	11 43.23	+24 29.5	1.521	2.453	9.8	19.8
3 2	11 31.78	+ 6 0.1	1.536	2.518	3.9	20.4	3 2	11 34.21	+25 16.2	1.488	2.441	8.2	19.7
3 12	11 24.27	+ 7 58.0	1.530	2.521	1.9	20.3	3 12	11 24.00	+25 42.1	1.481	2.430	9.0	19.7
3 22	11 16.84	+ 9 49.2	1.552	2.525	6.3	20.5	3 22	11 13.92	+25 41.0	1.499	2.419	11.6	19.8
4 1	11 10.52	+11 24.4	1.601	2.528	10.6	20.8	4 1	11 5.28	+25 11.0	1.540	2.408	14.8	20.0
4 11	11 6.13	+12 37.5	1.673	2.531	14.4	21.0	4 11	10 59.06	+24 14.6	1.601	2.398	17.8	20.2
432103	2009 <i>AB</i> ₃₄		3 10.9 338°19	3°4/ 7.1	17		468514	2005 <i>RE</i> ₂₁		3 10.9 237°59	4°4/17.0	17	
2 1	11 44.39	+ 8 54.5	1.948	2.760	13.8	20.5	2 1	11 46.29	-15 31.7	2.991	3.663	12.5	21.6
2 11	11 42.02	+10 5.9	1.862	2.754	10.7	20.3	2 11	11 42.78	-15 34.5	2.869	3.649	10.7	21.5
2 21	11 37.51	+11 28.4	1.799	2.747	7.2	20.1	2 21	11 37.69	-15 20.3	2.769	3.635	8.6	21.3
3 2	11 31.35	+12 55.5	1.763	2.742	4.0	19.9	3 2	11 31.37	-14 48.4	2.693	3.621	6.4	21.1
3 12	11 24.32	+14 18.7	1.755	2.737	4.0	19.9	3 12	11 24.35	-14 0.2	2.645	3.606	4.7	21.0
3 22	11 17.33	+15 30.1	1.774	2.732	7.2	20.1	3 22	11 17.26	-12 58.5	2.626	3.590	4.7	21.0
4 1	11 11.30	+16 23.8	1.820	2.727	10.8	20.3	4 1	11 10.76	-11 48.0	2.637	3.574	6.5	21.1
4 11	11 6.97	+16 56.5	1.888	2.723	14.0	20.5	4 11	11 5.41	-10 34.3	2.675	3.558	8.8	21.2
118738	2000 <i>QF</i> ₁₃₄		3 10.9 267°12	0°6/10.4	18		1291	Phryne		3 10.9 200°77	2°6/14.2	18	A

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
274511	2008 SW ₁₅₈		3 10.9 123°69	1.2/12.1	18		8623	Johannygalecki		3 10.9 345°87	1.5/12.6	18	
2 1	11 47.59	- 2 42.1	2.060	2.825	14.8	21.1	2 1	11 45.11	- 3 29.0	2.089	2.855	14.6	18.7
2 11	11 44.33	- 2 20.6	1.969	2.827	11.9	20.8	2 11	11 42.42	- 3 13.7	1.993	2.851	11.8	18.5
2 21	11 38.98	- 1 42.5	1.900	2.829	8.4	20.6	2 21	11 37.71	- 2 41.7	1.920	2.847	8.4	18.3
3 2	11 32.04	- 0 50.3	1.856	2.831	4.5	20.4	3 2	11 31.45	- 1 55.0	1.871	2.844	4.6	18.0
3 12	11 24.27	+ 0 11.0	1.840	2.833	1.2	20.2	3 12	11 24.37	- 0 58.2	1.850	2.841	1.6	17.8
3 22	11 16.56	+ 1 15.4	1.853	2.835	4.3	20.4	3 22	11 17.31	+ 0 3.2	1.857	2.839	4.2	18.0
4 1	11 9.78	+ 2 16.2	1.894	2.836	8.3	20.6	4 1	11 11.12	+ 1 2.6	1.892	2.837	8.0	18.2
4 11	11 4.68	+ 3 7.9	1.961	2.838	11.8	20.8	4 11	11 6.52	+ 1 54.3	1.952	2.835	11.5	18.4
247308	2001 TH ₁₂₁		3 10.9 143°75	2.9/14.8	18		138722	2000 SA ₁₅₇		3 10.9 215°62	2.5/13.9	17	
2 1	11 48.90	- 9 5.1	3.012	3.717	11.8	21.2	2 1	11 46.16	- 7 18.0	2.609	3.340	12.9	20.9
2 11	11 44.59	- 9 10.6	2.916	3.728	9.7	21.0	2 11	11 42.80	- 7 7.4	2.505	3.337	10.5	20.7
2 21	11 38.76	- 9 2.6	2.843	3.739	7.4	20.9	2 21	11 37.76	- 6 41.4	2.423	3.333	7.8	20.5
3 2	11 31.81	- 8 41.8	2.796	3.749	4.9	20.7	3 2	11 31.41	- 6 0.8	2.367	3.329	4.8	20.3
3 12	11 24.31	- 8 10.1	2.779	3.758	3.0	20.6	3 12	11 24.38	- 5 8.8	2.339	3.325	2.5	20.1
3 22	11 16.87	- 7 30.6	2.792	3.767	3.7	20.7	3 22	11 17.35	- 4 9.6	2.341	3.321	3.7	20.2
4 1	11 10.09	- 6 47.3	2.835	3.775	5.9	20.8	4 1	11 11.02	- 3 8.5	2.372	3.316	6.7	20.4
4 11	11 4.51	- 6 4.4	2.906	3.783	8.4	21.0	4 11	11 5.98	- 2 10.7	2.430	3.312	9.6	20.6
373325	2012 JG ₂₀		3 10.9 212°35	1.2/ 9.6	17		398337	2011 QZ ₃₆		3 10.9 173°95	2.4/ 8.7	18	
2 1	11 48.67	+ 3 40.9	2.198	2.981	13.4	21.6	2 1	11 55.23	+ 7 33.5	1.932	2.719	14.8	22.1
2 11	11 45.09	+ 4 28.2	2.102	2.976	10.5	21.3	2 11	11 50.45	+ 8 15.7	1.846	2.723	11.6	21.9
2 21	11 39.47	+ 5 28.5	2.029	2.970	7.1	21.1	2 21	11 43.22	+ 9 8.3	1.784	2.726	7.8	21.7
3 2	11 32.28	+ 6 37.3	1.983	2.964	3.3	20.9	3 2	11 34.12	+ 10 5.6	1.748	2.728	3.9	21.5
3 12	11 24.25	+ 7 48.3	1.967	2.958	1.6	20.7	3 12	11 24.06	+ 11 0.5	1.742	2.729	2.8	21.4
3 22	11 16.22	+ 8 55.1	1.979	2.951	5.2	21.0	3 22	11 14.11	+ 11 46.3	1.764	2.730	6.4	21.6
4 1	11 9.06	+ 9 51.7	2.020	2.944	8.9	21.2	4 1	11 5.32	+ 12 18.0	1.814	2.730	10.3	21.8
4 11	11 3.50	+ 10 33.9	2.086	2.937	12.3	21.4	4 11	11 0.58	+ 12 32.9	1.888	2.728	13.8	22.1
503150	2015 GZ ₂₅		3 10.9 308°94	4.8/ 4.9	17		70208	1999 RX ₃₃		3 10.9 290°03	4.3/15.4	18	
2 1	11 46.65	+ 15 41.3	2.306	3.116	12.0	21.0	2 1	11 44.91	- 14 0.8	1.642	2.375	19.2	19.6
2 11	11 43.42	+ 16 55.6	2.227	3.115	9.4	20.8	2 11	11 43.23	- 13 17.8	1.519	2.347	16.4	19.3
2 21	11 38.27	+ 18 14.1	2.172	3.113	6.7	20.7	2 21	11 38.92	- 11 58.4	1.414	2.318	12.7	19.0
3 2	11 31.66	+ 19 29.8	2.146	3.112	4.9	20.5	3 2	11 32.32	- 10 0.3	1.332	2.289	8.5	18.7
3 12	11 24.33	+ 20 35.7	2.147	3.110	5.5	20.6	3 12	11 24.25	- 7 27.1	1.276	2.260	4.7	18.4
3 22	11 17.07	+ 21 26.0	2.177	3.109	7.8	20.7	3 22	11 15.84	- 4 28.9	1.249	2.231	5.8	18.4
4 1	11 10.70	+ 21 57.1	2.233	3.107	10.5	20.9	4 1	11 8.38	- 1 21.5	1.249	2.201	10.5	18.6
4 11	11 5.86	+ 22 7.9	2.311	3.106	13.1	21.0	4 11	11 3.02	+ 1 37.9	1.275	2.172	15.4	18.8
216128	2006 SZ ₉₂		3 10.9 270°71	0.3/11.2	17		291962	2006 QN ₅₂		3 10.9 287°45	2.4/ 8.9	17	
2 1	11 50.18	+ 0 19.2	1.782	2.563	16.1	21.1	2 1	11 50.01	+ 6 8.9	1.602	2.409	16.6	21.0
2 11	11 46.95	+ 0 37.5	1.676	2.546	13.0	20.8	2 11	11 47.18	+ 6 49.5	1.499	2.386	13.1	20.7
2 21	11 41.16	+ 1 12.6	1.591	2.528	9.0	20.5	2 21	11 41.55	+ 7 45.6	1.416	2.363	8.9	20.4
3 2	11 33.27	+ 2 1.9	1.531	2.510	4.5	20.2	3 2	11 33.55	+ 8 51.6	1.359	2.340	4.4	20.1
3 12	11 24.12	+ 3 0.0	1.498	2.492	0.5	19.9	3 12	11 24.11	+ 9 59.3	1.328	2.317	2.9	19.9
3 22	11 14.81	+ 3 59.6	1.494	2.473	5.4	20.2	3 22	11 14.44	+ 10 59.6	1.323	2.294	7.4	20.1
4 1	11 6.52	+ 4 53.2	1.516	2.455	10.2	20.4	4 1	11 5.89	+ 11 44.4	1.344	2.271	12.3	20.4
4 11	11 0.21	+ 5 34.7	1.561	2.436	14.4	20.6	4 11	11 0.59	+ 12 8.8	1.387	2.248	16.7	20.6
265615	2005 SY ₈₈		3 10.9 304°66	1.9/12.5	17		205864	2002 EF ₉₀		3 10.9 9°52	2.3/ 9.4	18	
2 1	11 47.49	- 3 16.7	1.693	2.469	17.0	20.4	2 1	11 48.86	+ 6 3.3	1.203	2.031	19.7	20.0
2 11	11 44.91	- 3 10.6	1.593	2.456	13.9	20.2	2 11	11 46.74	+ 6 29.0	1.134	2.032	15.4	19.8
2 21	11 39.79	- 2 44.8	1.513	2.443	10.0	19.9	2 21	11 41.37	+ 7 10.5	1.083	2.034	10.4	19.5
3 2	11 32.60	- 2 0.9	1.457	2.431	5.5	19.6	3 2	11 33.41	+ 8 1.3	1.054	2.037	5.0	19.2
3 12	11 24.21	- 1 3.4	1.427	2.418	1.9	19.3	3 12	11 24.15	+ 8 51.9	1.050	2.041	2.8	19.0
3 22	11 15.71	+ 0 0.6	1.424	2.406	5.1	19.5	3 22	11 15.09	+ 9 32.8	1.070	2.046	7.8	19.4
4 1	11 8.28	+ 1 3.0	1.447	2.394	9.8	19.7	4 1	11 7.72	+ 9 56.7	1.113	2.051	13.0	19.7
4 11	11 2.88	+ 1 56.4	1.494	2.383	14.1	20.0	4 11	11 3.09	+ 10 0.0	1.176	2.058	17.6	19.9
269727	1998 SL ₃		3 10.9 186°00	3.1/ 7.6	17		350098	2011 OY ₁₅		3 10.9 284°22	4.3/13.7	18	
2 1	11 50.11	+ 10 52.7	2.254	3.051	12.7	21.0	2 1	11 52.25	- 6 0.0	1.425	2.195	20.0	20.5
2 11	11 46.10	+ 11 37.1	2.169	3.051	9.9	20.8	2 11	11 49.26	- 6 34.0	1.329	2.185	16.6	20.2
2 21	11 40.08	+ 12 28.1	2.107	3.051	6.7	20.6	2 21	11 43.14	- 6 47.0	1.252	2.174	12.5	19.9
3 2	11 32.54	+ 13 20.3	2.073	3.050	3.8	20.5	3 2	11 34.37	- 6 37.6	1.197	2.163	7.9	19.6
3 12	11 24.23	+ 14 7.5	2.068	3.049	3.5	20.4	3 12	11 24.01	- 6 7.9	1.166	2.153	4.4	19.4
3 22	11 16.01	+ 14 44.3	2.091	3.048	6.3	20.6	3 22	11 13.46	- 5 23.4	1.161	2.142	6.4	19.5
4 1	11 8.72	+ 15 7.1	2.143	3.047	9.5	20.8	4 1	11 4.24	- 4 32.4	1.181	2.131	11.2	19.7
4 11	11 3.05	+ 15 13.8	2.218	3.046	12.5	21.0	4 11	11 0.57	- 3 44.3	1.223	2.121	15.9	19.9
340647	2006 QK ₁₇₃		3 10.9 60°85	1.1/ 9.6	17		301331	2009 BV ₁₇₈		3 10.9 326°86	0.6/11.5	17	
2 1	11 46.96	+ 4 20.8	2.206	2.994	13.2	21.5	2 1	11 47.53	+ 0 29.1	2.131	2.907	14.0	20.5
2 11	11 43.64	+ 4 58.2	2.123	2.999	10.3	21.3	2 11	11 44.27	+ 0 35.5	2.033	2.899	11.2	20.2
2 21	11 38.40	+ 5 46.7	2.062	3.004	6.9	21.1	2 21	11 38.97	+ 0 54.6	1.958	2.892	7.8	20.0
3 2	11 31.73	+ 6 42.0	2.028	3.010	3.2	20.8	3 2	11 32.07	+ 1 24.1	1.908	2.886	3.9	19.8
3 12	11 24.34	+ 7 38.5	2.023	3.015	1.5	20.7	3 12	11 24.32	+ 2 0.0	1.886	2.879	0.6	19.5
3 22	11 17.05	+ 8 30.3	2.048	3.021	5.0	21.0	3 22	11 16.56	+ 2 37.2	1.893	2.873	4.4	19.8
4 1	11 10.67	+ 9 12.6	2.099	3.026	8.5	21.2	4 1	11 9.67	+ 3 10.7	1.927	2.867	8.3	20.0
4 11	11 5.82	+ 9 41.9	2.176	3.032	11.7	21.4	4 11	11 4.40	+ 3 36.1	1.986	2.862	11.7	20.2
212012	2005 CV ₂		3 10.9 341°28	1.8/ 9.6	18		431162	2006 RN ₂₀		3 10.9 167°98	1.8/13.7	18	
2 1	11 48.44	+ 5 39.8	1										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
483474	2002 <i>NQ</i> ₆₂		3 10.9 271.70	1.9/ 9.6	17		2742	Gibson		3 10.9 111.33	1.1/ 9.7	18	
2 1	11 52.64	+ 4 51.0	1.422	2.228	18.3	21.8	2 1	11 48.23	+ 4 15.2	2.188	2.973	13.4	16.7
2 11	11 49.64	+ 5 22.7	1.323	2.209	14.6	21.5	2 11	11 44.66	+ 4 53.2	2.104	2.979	10.5	16.6
2 21	11 43.47	+ 6 11.8	1.244	2.190	10.0	21.2	2 21	11 39.11	+ 5 42.5	2.044	2.985	7.0	16.3
3 2	11 34.57	+ 7 13.4	1.188	2.170	4.8	20.9	3 2	11 32.10	+ 6 38.8	2.010	2.991	3.3	16.1
3 12	11 23.99	+ 8 18.8	1.159	2.150	2.4	20.6	3 12	11 24.36	+ 7 36.2	2.006	2.997	1.5	16.0
3 22	11 13.16	+ 9 18.0	1.155	2.130	7.6	20.9	3 22	11 16.72	+ 8 28.9	2.030	3.003	5.0	16.2
4 1	11 3.64	+10 2.3	1.176	2.109	13.1	21.1	4 1	11 10.01	+ 9 11.9	2.083	3.009	8.6	16.5
4 11	10 56.70	+10 25.8	1.218	2.088	18.0	21.4	4 11	11 4.88	+ 9 41.8	2.160	3.015	11.8	16.7
501428	2013 <i>YF</i> ₁₄₉		3 10.9 54.73	8.3/19.1	18		306624	2000 <i>QA</i> ₆₂		3 10.9 170.19	2.2/ 8.0	17	
2 1	11 56.94	-19 43.1	2.108	2.759	17.6	20.7	2 1	11 49.03	+ 6 55.6	2.570	3.352	11.7	21.3
2 11	11 51.57	-21 5.9	2.041	2.792	15.4	20.6	2 11	11 45.00	+ 8 4.6	2.482	3.357	9.1	21.1
2 21	11 43.85	-22 6.5	1.992	2.824	12.9	20.5	2 21	11 39.22	+ 9 23.2	2.419	3.361	6.0	20.9
3 2	11 34.37	-22 41.5	1.966	2.857	10.5	20.4	3 2	11 32.12	+10 46.2	2.385	3.364	3.1	20.7
3 12	11 24.05	-22 49.9	1.965	2.890	8.7	20.4	3 12	11 24.35	+12 7.2	2.382	3.367	2.6	20.7
3 22	11 13.95	-22 34.0	1.991	2.923	8.4	20.4	3 22	11 16.65	+13 20.4	2.409	3.369	5.4	20.9
4 1	11 5.06	-21 59.0	2.043	2.955	9.5	20.5	4 1	11 9.72	+14 20.7	2.466	3.370	8.4	21.1
4 11	10 58.15	-21 12.6	2.120	2.988	11.4	20.7	4 11	11 4.18	+15 5.4	2.547	3.371	11.2	21.3
34393	2000 <i>RL</i> ₆₉		3 10.9 234.39	1.1/ 9.5	18		297107	2010 <i>OY</i> ₉₄		3 10.9 215.57	2.3/ 8.4	17	
2 1	11 47.40	+ 5 13.2	2.668	3.447	11.4	19.9	2 1	11 50.04	+ 9 42.0	2.449	3.239	12.0	21.4
2 11	11 43.72	+ 5 47.3	2.566	3.438	8.9	19.7	2 11	11 45.90	+10 11.4	2.358	3.236	9.3	21.2
2 21	11 38.36	+ 6 30.4	2.488	3.428	6.0	19.5	2 21	11 39.89	+10 47.0	2.290	3.233	6.3	21.0
3 2	11 31.71	+ 7 19.0	2.438	3.419	2.8	19.3	3 2	11 32.46	+11 24.4	2.251	3.229	3.3	20.8
3 12	11 24.37	+ 8 8.6	2.418	3.409	1.4	19.2	3 12	11 24.32	+11 58.7	2.240	3.226	2.7	20.8
3 22	11 17.02	+ 8 54.5	2.428	3.399	4.5	19.4	3 22	11 16.23	+12 25.3	2.260	3.222	5.5	21.0
4 1	11 10.36	+ 9 32.5	2.466	3.388	7.7	19.6	4 1	11 8.99	+12 41.0	2.307	3.219	8.6	21.1
4 11	11 4.99	+ 9 59.5	2.531	3.378	10.5	19.7	4 11	11 3.22	+12 43.7	2.379	3.215	11.5	21.3
203588	2002 <i>CZ</i> ₂₅₂		3 10.9 73.86	2.0/12.6	18		209463	2004 <i>GG</i> ₄₇		3 10.9 31.16	1.7/ 9.3	17	
2 1	11 49.86	- 4 27.6	1.472	2.251	19.1	20.1	2 1	11 48.33	+ 6 28.1	1.953	2.751	14.3	20.8
2 11	11 46.86	- 4 8.7	1.398	2.262	15.4	19.8	2 11	11 44.95	+ 6 55.7	1.876	2.759	11.1	20.6
2 21	11 41.09	- 3 26.3	1.344	2.274	11.0	19.6	2 21	11 39.42	+ 7 33.2	1.821	2.766	7.5	20.4
3 2	11 33.17	- 2 23.0	1.312	2.286	6.0	19.4	3 2	11 32.27	+ 8 15.9	1.793	2.774	3.6	20.1
3 12	11 24.20	- 1 5.8	1.307	2.299	2.0	19.1	3 12	11 24.35	+ 8 57.8	1.792	2.782	2.1	20.0
3 22	11 15.43	+ 0 16.2	1.328	2.311	5.4	19.4	3 22	11 16.58	+ 9 33.2	1.819	2.791	5.6	20.3
4 1	11 8.09	+ 1 33.0	1.375	2.323	10.2	19.7	4 1	11 9.88	+ 9 57.6	1.874	2.800	9.4	20.5
4 11	11 3.06	+ 2 36.8	1.445	2.335	14.4	20.0	4 11	11 4.94	+10 8.2	1.952	2.810	12.7	20.7
351919	2006 <i>SL</i> ₃₈₆		3 10.9 161.14	0.4/11.5	17		488738	2004 <i>RM</i> ₁₆₂		3 10.9 255.95	4.0/14.2	17	
2 1	11 45.54	- 1 53.8	3.073	3.822	10.7	22.1	2 1	11 53.41	- 8 20.5	1.886	2.620	17.0	22.6
2 11	11 41.97	- 1 6.7	2.977	3.828	8.5	22.0	2 11	11 49.57	- 8 34.4	1.765	2.596	14.3	22.3
2 21	11 37.00	- 0 7.5	2.905	3.833	5.9	21.8	2 21	11 43.07	- 8 28.2	1.664	2.572	10.9	22.0
3 2	11 30.99	+ 1 1.0	2.862	3.838	3.0	21.6	3 2	11 34.30	- 8 0.9	1.587	2.546	7.1	21.8
3 12	11 24.48	+ 2 14.5	2.849	3.843	0.4	21.4	3 12	11 24.07	- 7 14.1	1.537	2.520	4.2	21.5
3 22	11 18.00	+ 3 28.5	2.868	3.847	3.2	21.6	3 22	11 13.48	- 6 12.4	1.515	2.493	5.6	21.5
4 1	11 12.14	+ 4 38.2	2.917	3.850	6.1	21.8	4 1	11 3.77	- 5 3.3	1.520	2.465	9.7	21.7
4 11	11 7.37	+ 5 39.7	2.994	3.853	8.7	22.0	4 11	10 56.03	- 3 55.5	1.551	2.436	13.9	21.9
3053	Dresden		3 10.9 216.47	0.7/10.2	18		67768	2000 <i>UY</i> ₆₆		3 10.9 272.75	1.7/12.2	18	
2 1	11 53.57	+ 3 32.2	2.051	2.827	14.5	17.8	2 1	11 51.45	- 1 55.8	1.624	2.402	17.6	19.9
2 11	11 49.15	+ 3 56.3	1.951	2.819	11.5	17.6	2 11	11 48.24	- 1 57.7	1.522	2.386	14.3	19.6
2 21	11 42.39	+ 4 32.6	1.872	2.810	7.8	17.4	2 21	11 42.23	- 1 41.2	1.439	2.371	10.3	19.3
3 2	11 33.77	+ 5 17.7	1.821	2.801	3.7	17.1	3 2	11 33.88	- 1 7.7	1.380	2.355	5.6	19.0
3 12	11 24.13	+ 6 6.0	1.798	2.791	1.1	16.9	3 12	11 24.13	- 0 21.7	1.347	2.340	1.7	18.7
3 22	11 14.44	+ 6 51.5	1.805	2.780	5.3	17.1	3 22	11 14.20	+ 0 30.3	1.342	2.324	5.5	18.9
4 1	11 5.74	+ 7 28.6	1.840	2.768	9.4	17.4	4 1	11 5.40	+ 1 20.4	1.362	2.308	10.5	19.2
4 11	10 58.85	+ 7 53.3	1.899	2.756	13.1	17.6	4 11	10 58.82	+ 2 1.3	1.406	2.292	15.0	19.4
48312	2002 <i>NP</i> ₃		3 10.9 207.73	0.3/10.6	18		140619	2001 <i>UG</i> ₉		3 10.9 188.46	3.0/ 6.9	17	
2 1	11 49.05	+ 2 17.4	2.245	3.020	13.4	20.0	2 1	11 49.41	+13 1.2	2.892	3.682	10.4	21.3
2 11	11 45.31	+ 2 39.7	2.150	3.018	10.6	19.8	2 11	11 45.10	+13 45.0	2.803	3.681	8.0	21.1
2 21	11 39.59	+ 3 13.8	2.078	3.016	7.2	19.6	2 21	11 39.19	+14 32.5	2.740	3.680	5.5	21.0
3 2	11 32.35	+ 3 56.5	2.033	3.013	3.4	19.4	3 2	11 32.08	+15 19.4	2.705	3.678	3.4	20.8
3 12	11 24.31	+ 4 43.2	2.017	3.011	0.6	19.1	3 12	11 24.38	+16 0.9	2.700	3.676	3.4	20.8
3 22	11 16.30	+ 5 28.3	2.031	3.008	4.5	19.4	3 22	11 16.73	+16 33.0	2.725	3.673	5.6	21.0
4 1	11 9.16	+ 6 7.0	2.072	3.005	8.2	19.6	4 1	11 9.80	+16 52.9	2.779	3.670	8.1	21.1
4 11	11 3.59	+ 6 35.4	2.139	3.002	11.5	19.8	4 11	11 4.14	+16 59.1	2.858	3.666	10.5	21.3
433879	2015 <i>BT</i> ₃₃₈		3 10.9 225.40	1.2/ 9.7	17		374105	2004 <i>RJ</i> ₃₃₉		3 10.9 252.73	3.6/ 7.6	17	
2 1	11 50.66	+ 5 29.8	2.098	2.885	13.9	21.5	2 1	11 54.12	+12 49.3	2.094	2.890	13.5	20.9
2 11	11 46.72	+ 5 51.8	2.006	2.882	10.9	21.3	2 11	11 49.55	+13 20.1	1.997	2.878	10.6	20.7
2 21	11 40.62	+ 6 23.8	1.938	2.879	7.3	21.1	2 21	11 42.64	+13 56.0	1.924	2.866	7.4	20.4
3 2	11 32.87	+ 7 2.0	1.895	2.876	3.5	20.8	3 2	11 33.90	+14 31.4	1.877	2.853	4.3	20.2
3 12	11 24.25	+ 7 41.1	1.881	2.873	1.6	20.7	3 12	11 24.15	+15 0.1	1.859	2.840	4.1	20.2
3 22	11 15.68	+ 8 15.5	1.897	2.870	5.3	20.9	3 22	11 14.41	+15 16.7	1.870	2.826	7.0	20.3
4 1	11 8.08	+ 8 40.7	1.940	2.867	9.1	21.1	4 1	11 5.68	+15 17.8	1.909	2.812	10.6	20.5
4 11	11 2.19	+ 8 53.6	2.007	2.863	12.5	21.3	4 11	10 58.81	+15 2.2	1.971	2.799	13.8	20.7
509233	2006 <i>TK</i> ₃₈		3 10.9 210.95	0.7/ 9.9	17		52687	1998 <i>EO</i> ₁₃		3 10.9 212.56	1.4/ 9.6	18	

EPHEMERIDES

3 10.9

3 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
203808	2002 <i>TV</i> ₁₇₆		3 10.9 146°04	3°0/14.4	18		492423	2014 <i>LU</i> ₁₃		3 10.9 209°84	1°1/11.9	17	
2 1	11 49.80	- 8 8.2	2.662	3.379	12.9	20.9	2 1	11 53.27	- 2 10.8	2.094	2.848	14.9	23.0
2 11	11 45.54	- 8 17.1	2.567	3.387	10.7	20.8	2 11	11 48.90	- 1 52.4	1.989	2.841	12.0	22.8
2 21	11 39.56	- 8 11.7	2.493	3.395	8.0	20.6	2 21	11 42.23	- 1 17.7	1.906	2.833	8.5	22.5
3 2	11 32.29	- 7 52.4	2.446	3.402	5.2	20.4	3 2	11 33.74	- 0 29.0	1.849	2.823	4.5	22.3
3 12	11 24.36	- 7 21.3	2.428	3.409	3.1	20.3	3 12	11 24.21	+ 0 29.3	1.821	2.813	1.1	22.0
3 22	11 16.48	- 6 42.0	2.439	3.415	4.0	20.4	3 22	11 14.60	+ 1 31.0	1.822	2.802	4.6	22.2
4 1	11 9.36	- 5 58.9	2.480	3.421	6.6	20.5	4 1	11 5.93	+ 2 29.7	1.853	2.790	8.7	22.5
4 11	11 3.60	- 5 16.8	2.548	3.427	9.3	20.7	4 11	10 59.03	+ 3 19.4	1.909	2.778	12.5	22.7
370064	2001 <i>BS</i> ₄₆		3 10.9 51°93	3°9/14.8	18		297792	2001 <i>YY</i> ₃₀		3 10.9 118°89	2°2/ 9.0	18	
2 1	11 47.67	- 9 27.4	1.753	2.499	17.7	20.4	2 1	11 54.58	+ 6 9.6	1.706	2.500	16.2	21.6
2 11	11 44.70	- 9 27.3	1.678	2.516	14.6	20.2	2 11	11 50.10	+ 6 56.5	1.636	2.516	12.6	21.4
2 21	11 39.37	- 9 4 2	1.623	2.533	11.0	20.1	2 21	11 43.05	+ 7 55.8	1.588	2.531	8.5	21.2
3 2	11 32.29	- 8 18.9	1.591	2.550	7.1	19.9	3 2	11 34.06	+ 9 1.1	1.566	2.546	4.1	21.0
3 12	11 24.36	- 7 15.8	1.584	2.567	4.1	19.7	3 12	11 24.18	+10 4.3	1.572	2.561	2.7	20.9
3 22	11 16.62	- 6 1 7	1.606	2.585	5.1	19.8	3 22	11 14.57	+10 57.8	1.606	2.575	6.6	21.2
4 1	11 10.07	- 4 45.0	1.654	2.603	8.6	20.1	4 1	11 6.33	+11 36.1	1.667	2.588	10.7	21.4
4 11	11 5.45	- 3 33.6	1.726	2.621	12.2	20.3	4 11	11 0.27	+11 56.2	1.751	2.600	14.3	21.7
34238	2000 <i>QU</i> ₉₆		3 10.9 164°58	0°8/ 9.7	18		417531	2006 <i>TR</i> ₅₀		3 10.9 113°42	2°4/ 8.5	18	
2 1	11 47.36	+ 4 37.3	3.138	3.907	10.1	20.6	2 1	11 54.33	+ 8 20.8	2.080	2.867	13.9	22.6
2 11	11 43.34	+ 5 11.3	3.046	3.912	7.9	20.4	2 11	11 49.36	+ 9 4.9	2.012	2.889	10.8	22.4
2 21	11 37.91	+ 5 53.0	2.979	3.917	5.3	20.3	2 21	11 42.25	+ 9 57.0	1.968	2.910	7.2	22.2
3 2	11 31.44	+ 6 39.2	2.941	3.921	2.5	20.1	3 2	11 33.59	+10 51.7	1.951	2.930	3.7	22.0
3 12	11 24.47	+ 7 26.1	2.934	3.925	1.1	20.0	3 12	11 24.25	+11 42.4	1.963	2.950	2.8	22.0
3 22	11 17.55	+ 8 10.0	2.957	3.929	3.7	20.2	3 22	11 15.18	+12 23.5	2.005	2.969	6.0	22.2
4 1	11 11.26	+ 8 47.4	3.011	3.932	6.5	20.4	4 1	11 7.26	+12 51.0	2.075	2.987	9.4	22.5
4 11	11 6.06	+ 9 15.7	3.091	3.934	8.9	20.5	4 11	11 1.18	+13 3.1	2.169	3.004	12.5	22.7
330122	2005 <i>YJ</i> ₂₅		3 10.9 135°15	0°7/10.2	18		458789	2011 <i>SL</i> ₁₃₅		3 10.9 116°91	0°2/10.7	18	
2 1	11 50.07	+ 2 48.0	2.242	3.017	13.4	21.9	2 1	11 53.58	+ 0 36.6	1.829	2.603	16.1	22.8
2 11	11 46.01	+ 3 23.9	2.159	3.027	10.5	21.7	2 11	11 49.12	+ 1 16.7	1.756	2.623	12.6	22.6
2 21	11 39.99	+ 4 11.7	2.099	3.037	7.1	21.5	2 21	11 42.27	+ 2 12.8	1.706	2.642	8.6	22.4
3 2	11 32.52	+ 5 7.3	2.066	3.047	3.3	21.3	3 2	11 33.66	+ 3 20.4	1.681	2.661	4.1	22.1
3 12	11 24.34	+ 6 5.3	2.063	3.056	1.0	21.2	3 12	11 24.24	+ 4 32.5	1.685	2.678	0.6	21.9
3 22	11 16.28	+ 7 0.0	2.090	3.065	4.7	21.4	3 22	11 15.06	+ 5 41.3	1.718	2.696	5.2	22.3
4 1	11 9.16	+ 7 46.2	2.145	3.073	8.3	21.7	4 1	11 7.14	+ 6 40.3	1.779	2.712	9.4	22.5
4 11	11 3.63	+ 8 20.2	2.225	3.081	11.4	21.9	4 11	11 1.23	+ 7 24.6	1.865	2.728	13.0	22.8
273729	2007 <i>EB</i> ₉₈		3 10.9 37°07	0°7/10.2	17		323454	2004 <i>HL</i> ₅₅		3 10.9 266°71	2°9/13.2	17 R	
2 1	11 47.47	+ 1 46.5	1.746	2.539	15.9	21.3	2 1	11 54.31	- 4 28.4	2.095	2.838	15.3	20.8
2 11	11 44.28	+ 2 30.1	1.664	2.543	12.5	21.1	2 11	11 49.94	- 4 52.4	1.974	2.814	12.6	20.6
2 21	11 39.30	+ 3 30.4	1.604	2.546	8.5	20.8	2 21	11 43.13	- 5 2.3	1.873	2.789	9.4	20.3
3 2	11 32.30	+ 4 42.7	1.569	2.550	4.0	20.6	3 2	11 34.28	- 4 58.0	1.798	2.764	5.7	20.0
3 12	11 24.37	+ 5 59.3	1.561	2.554	1.1	20.4	3 12	11 24.14	- 4 41.0	1.751	2.738	2.9	19.8
3 22	11 16.54	+ 7 12.1	1.581	2.558	5.6	20.7	3 22	11 13.70	- 4 15.0	1.733	2.712	4.9	19.9
4 1	11 9.85	+ 8 13.7	1.628	2.562	10.0	20.9	4 1	11 4.07	- 3 44.9	1.744	2.686	8.9	20.1
4 11	11 5.08	+ 8 58.9	1.698	2.566	13.8	21.2	4 11	10 56.21	- 3 16.3	1.780	2.658	12.7	20.2
81095	2000 <i>EK</i> ₁₀₅		3 10.9 214°02	5°6/ 5.3	18		129816	1999 <i>NC</i> ₂₃		3 10.9 199°42	0°9/11.8	17 R	
2 1	11 52.43	+16 33.1	1.952	2.761	13.9	19.4	2 1	11 52.19	- 1 44.3	2.158	2.914	14.5	21.1
2 11	11 48.37	+17 41.1	1.871	2.757	11.0	19.1	2 11	11 47.93	- 1 22.4	2.057	2.911	11.6	20.9
2 21	11 41.89	+18 53.2	1.814	2.753	7.9	19.0	2 21	11 41.49	- 0 45.1	1.978	2.906	8.2	20.7
3 2	11 33.54	+20 1.4	1.783	2.748	5.8	18.8	3 2	11 33.35	+ 0 5.4	1.925	2.901	4.2	20.4
3 12	11 24.22	+20 57.2	1.780	2.743	6.3	18.8	3 12	11 24.27	+ 1 4.3	1.902	2.895	0.9	20.1
3 22	11 15.00	+21 34.1	1.804	2.738	9.0	19.0	3 22	11 15.16	+ 2 5.7	1.908	2.888	4.4	20.4
4 1	11 6.91	+21 48.5	1.854	2.732	12.2	19.2	4 1	11 6.98	+ 3 3.3	1.943	2.880	8.4	20.6
4 11	11 0.79	+21 40.2	1.925	2.726	15.1	19.3	4 11	11 0.48	+ 3 51.7	2.004	2.872	12.0	20.8
120895	1998 <i>ST</i> ₁₄		3 10.9 186°98	1°4/ 9.6	18		40611	1999 <i>RS</i> ₁₆₀		3 10.9 247°85	1°7/ 9.5	18	
2 1	11 53.91	+ 4 2.8	1.967	2.746	14.9	20.9	2 1	11 52.41	+ 5 13.4	1.898	2.686	15.0	19.6
2 11	11 49.45	+ 4 48.0	1.875	2.747	11.7	20.7	2 11	11 48.55	+ 5 49.5	1.794	2.670	11.9	19.3
2 21	11 42.60	+ 5 46.8	1.806	2.746	7.9	20.4	2 21	11 42.19	+ 6 38.7	1.711	2.653	8.1	19.1
3 2	11 33.89	+ 6 54.5	1.763	2.744	3.7	20.2	3 2	11 33.80	+ 7 36.7	1.655	2.636	3.9	18.8
3 12	11 24.18	+ 8 4.0	1.750	2.741	1.8	20.0	3 12	11 24.21	+ 8 36.5	1.627	2.618	2.1	18.6
3 22	11 14.51	+ 9 8.0	1.766	2.738	5.8	20.3	3 22	11 14.50	+ 9 31.1	1.628	2.599	6.2	18.8
4 1	11 5.92	+10 0.2	1.811	2.733	9.9	20.5	4 1	11 5.77	+10 13.8	1.656	2.580	10.5	19.0
4 11	10 59.23	+10 36.4	1.879	2.728	13.5	20.7	4 11	10 58.99	+10 40.3	1.708	2.561	14.4	19.2
69114	2003 <i>DV</i> ₁₇		3 10.9 75°22	5°4/ 3.4	18		275690	2000 <i>SO</i> ₁₅₇		3 10.9 209°34	4°2/15.7	17	
2 1	11 45.58	+16 27.2	2.313	3.127	11.9	18.7	2 1	11 51.86	-12 16.3	2.742	3.429	13.2	21.4
2 11	11 42.59	+18 14.5	2.244	3.133	9.3	18.6	2 11	11 47.28	-12 34.0	2.626	3.421	11.2	21.3
2 21	11 37.73	+20 5.9	2.202	3.140	6.8	18.4	2 21	11 40.86	-12 36.0	2.532	3.412	8.8	21.1
3 2	11 31.45	+21 53.3	2.187	3.147	5.4	18.3	3 2	11 33.00	-12 21.5	2.464	3.403	6.3	20.9
3 12	11 24.48	+23 28.3	2.202	3.153	6.2	18.4	3 12	11 24.32	-11 51.7	2.424	3.392	4.4	20.8
3 22	11 17.60	+24 44.5	2.245	3.160	8.5	18.5	3 22	11 15.55	-11 9.3	2.413	3.381	4.7	20.8
4 1	11 11.59	+25 38.1	2.314	3.167	11.0	18.7	4 1	11 7.46	-10 18.9	2.433	3.370	7.0	20.9
4 11	11 7.09	+26 8.2	2.405	3.174	13.3	18.9	4 11	11 0.71	- 9 25.9	2.480	3.357	9.6	21.0
378	Holmia		3 10.9 131°38	2°9/14.2	18		131776	2002 <i>AM</i> ₂₀		3 10.9 303°06	2°8/ 8.4	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
272802	2006 AV ₁₄		3 10.9 57°23	4.0°/ 6.8 18			353438	2011 QJ ₆₇		3 10.9 211°03	0.8°/ 9.8 17		
2 1	11 47.82	+10 11.8	1.764	2.578	15.0	20.2	2 1	11 46.22	+ 3 2.4	2.840	3.611	11.0	22.0
2 11	11 44.81	+11 28.0	1.697	2.589	11.5	20.0	2 11	11 42.72	+ 3 50.8	2.738	3.605	8.6	21.9
2 21	11 39.46	+12 53.9	1.652	2.599	7.8	19.8	2 21	11 37.66	+ 4 49.7	2.660	3.598	5.8	21.7
3 2	11 32.35	+14 21.5	1.633	2.610	4.6	19.6	3 2	11 31.42	+ 5 55.7	2.611	3.591	2.7	21.4
3 12	11 24.41	+15 41.5	1.642	2.622	4.7	19.7	3 12	11 24.55	+ 7 4.0	2.592	3.584	1.1	21.3
3 22	11 16.66	+16 45.9	1.679	2.633	7.9	19.9	3 22	11 17.68	+ 8 9.7	2.604	3.577	4.1	21.5
4 1	11 10.11	+17 29.5	1.741	2.644	11.4	20.1	4 1	11 11.44	+ 9 8.0	2.646	3.569	7.2	21.7
4 11	11 5.49	+17 50.6	1.825	2.656	14.6	20.3	4 11	11 6.38	+ 9 55.3	2.714	3.560	9.9	21.9
241226	2007 TX ₁₂₀		3 10.9 190°25	3.5°/ 7.0 17			458775	2011 SK ₉₇		3 10.9 180°03	3.2°/ 7.6 18		
2 1	11 50.71	+13 26.1	2.443	3.239	11.8	21.3	2 1	11 53.72	+ 9 0.3	2.035	2.826	14.1	22.2
2 11	11 46.44	+14 6.5	2.358	3.238	9.2	21.1	2 11	11 49.22	+10 6.7	1.949	2.828	10.9	22.0
2 21	11 40.27	+14 50.9	2.296	3.238	6.4	20.9	2 21	11 42.40	+11 23.4	1.887	2.830	7.4	21.8
3 2	11 32.67	+15 34.1	2.263	3.237	3.9	20.8	3 2	11 33.80	+12 43.7	1.853	2.830	4.1	21.6
3 12	11 24.38	+16 10.7	2.259	3.235	3.9	20.8	3 12	11 24.27	+13 59.5	1.847	2.830	3.7	21.5
3 22	11 16.17	+16 36.0	2.284	3.234	6.4	20.9	3 22	11 14.82	+15 3.4	1.872	2.828	7.0	21.7
4 1	11 8.84	+16 47.2	2.337	3.232	9.3	21.1	4 1	11 6.43	+15 50.2	1.924	2.826	10.6	21.9
4 11	11 3.03	+16 43.1	2.414	3.230	11.9	21.3	4 11	10 59.91	+16 17.3	1.999	2.823	13.8	22.1
198974	2005 VN ₄		3 10.9 200°41	1.4°/ 9.7 18			101458	1998 WJ ₆		3 10.9 114°69	1.9°/ 9.0 18		
2 1	11 53.00	+ 3 43.5	1.707	2.497	16.4	21.0	2 1	11 53.98	+ 6 33.9	2.143	2.924	13.8	20.7
2 11	11 49.15	+ 4 26.3	1.617	2.494	12.9	20.8	2 11	11 49.03	+ 7 18.3	2.074	2.947	10.7	20.5
2 21	11 42.64	+ 5 24.9	1.549	2.491	8.8	20.5	2 21	11 42.01	+ 8 11.9	2.029	2.969	7.1	20.3
3 2	11 34.00	+ 6 34.2	1.506	2.487	4.1	20.2	3 2	11 33.49	+ 9 9.6	2.011	2.991	3.4	20.1
3 12	11 24.21	+ 7 46.4	1.491	2.483	1.8	20.1	3 12	11 24.32	+10 5.1	2.023	3.012	2.3	20.1
3 22	11 14.43	+ 8 52.9	1.504	2.477	6.3	20.3	3 22	11 15.40	+10 52.5	2.065	3.032	5.5	20.3
4 1	11 5.87	+ 9 46.4	1.544	2.471	10.9	20.6	4 1	11 7.60	+11 27.7	2.135	3.051	9.0	20.6
4 11	10 59.46	+10 22.0	1.607	2.465	14.9	20.8	4 11	11 1.55	+11 48.3	2.230	3.070	12.0	20.8
417680	2007 AO ₂₈		3 10.9 76°20	0°1/10.8 18			505158	2012 QM ₄₉		3 10.9 196°22	2.7°/14.5 17		
2 1	11 50.18	+ 1 10.7	1.743	2.529	16.3	21.6	2 1	11 47.72	- 9 5.8	2.775	3.489	12.5	22.1
2 11	11 46.65	+ 1 38.4	1.668	2.541	12.8	21.4	2 11	11 43.95	- 8 51.1	2.667	3.486	10.4	21.9
2 21	11 40.72	+ 2 21.9	1.615	2.554	8.7	21.2	2 21	11 38.53	- 8 20.5	2.581	3.482	7.8	21.7
3 2	11 32.97	+ 3 16.9	1.586	2.566	4.2	20.9	3 2	11 31.85	- 7 34.8	2.521	3.478	5.0	21.5
3 12	11 24.35	+ 4 16.9	1.586	2.579	0.6	20.7	3 12	11 24.50	- 6 36.8	2.491	3.473	2.9	21.4
3 22	11 15.93	+ 5 14.5	1.613	2.592	5.2	21.0	3 22	11 17.15	- 5 30.7	2.490	3.468	3.7	21.4
4 1	11 8.73	+ 6 3.3	1.667	2.604	9.5	21.3	4 1	11 10.45	- 4 21.7	2.520	3.463	6.4	21.6
4 11	11 3.52	+ 6 38.4	1.745	2.617	13.3	21.6	4 11	11 5.01	- 3 15.3	2.577	3.456	9.2	21.8
254062	2004 HB ₁₇		3 10.9 5°75	0°7/10.4 18			421268	2013 SK ₆₉		3 10.9 348°14	1°0/ 9.9 17		
2 1	11 49.68	+ 3 30.1	1.491	2.296	17.7	20.2	2 1	11 48.26	+ 3 18.6	1.818	2.611	15.4	21.0
2 11	11 46.82	+ 3 44.4	1.411	2.296	14.0	19.9	2 11	11 45.20	+ 3 55.5	1.731	2.610	12.1	20.8
2 21	11 41.17	+ 4 13.9	1.351	2.296	9.5	19.7	2 21	11 39.80	+ 4 46.9	1.667	2.610	8.2	20.6
3 2	11 33.31	+ 4 54.3	1.316	2.297	4.5	19.4	3 2	11 32.58	+ 5 48.3	1.628	2.609	3.8	20.3
3 12	11 24.31	+ 5 38.5	1.306	2.299	1.1	19.2	3 12	11 24.42	+ 6 52.7	1.616	2.608	1.4	20.1
3 22	11 15.43	+ 6 19.3	1.322	2.301	6.2	19.5	3 22	11 16.31	+ 7 52.8	1.633	2.608	5.7	20.4
4 1	11 7.90	+ 6 49.7	1.364	2.303	11.0	19.8	4 1	11 9.29	+ 8 42.0	1.676	2.608	9.9	20.6
4 11	11 2.69	+ 7 5.2	1.428	2.307	15.2	20.0	4 11	11 4.16	+ 9 15.7	1.742	2.607	13.6	20.9
468293	2015 DF ₁₇₃		3 10.9 61°39	3°8/15.2 18			69311	Russ		3 10.9 189°28	7°5/ 2.9 18		
2 1	11 45.94	-11 11.1	2.041	2.769	16.0	20.6	2 1	12 1.69	+26 42.1	2.382	3.166	12.5	20.5
2 11	11 43.17	-10 55.3	1.945	2.770	13.4	20.4	2 11	11 55.19	+27 47.9	2.307	3.165	10.3	20.4
2 21	11 38.32	-10 16.6	1.868	2.771	10.2	20.2	2 21	11 46.31	+28 49.2	2.255	3.163	8.4	20.2
3 2	11 31.83	- 9 15.6	1.816	2.771	6.8	20.0	3 2	11 35.62	+29 37.6	2.232	3.160	7.5	20.2
3 12	11 24.49	- 7 56.0	1.791	2.772	4.0	19.8	3 12	11 24.08	+30 6.2	2.237	3.156	8.2	20.2
3 22	11 17.17	- 6 24.2	1.794	2.773	4.8	19.9	3 22	11 12.73	+30 10.9	2.270	3.151	10.0	20.3
4 1	11 10.78	- 4 48.6	1.825	2.774	8.0	20.1	4 1	11 2.61	+29 51.0	2.329	3.145	12.2	20.5
4 11	11 6.06	- 3 17.4	1.882	2.774	11.5	20.3	4 11	10 54.49	+29 8.8	2.411	3.139	14.4	20.6
293431	2007 ET ₁₄₂		3 10.9 80°12	2°4/12.9 18			435950	2009 DL ₁₀		3 10.9 349°62	3°2/ 6.7 17		
2 1	11 51.39	- 4 45.9	1.377	2.157	20.1	21.1	2 1	11 43.14	+ 4 58.3	1.986	2.789	13.9	20.5
2 11	11 48.32	- 4 38.9	1.303	2.167	16.3	20.8	2 11	11 41.05	+ 7 1.3	1.898	2.786	10.7	20.3
2 21	11 42.26	- 4 7.4	1.248	2.178	11.7	20.6	2 21	11 36.91	+ 9 22.3	1.835	2.783	7.1	20.1
3 2	11 33.85	- 3 13.5	1.215	2.188	6.6	20.3	3 2	11 31.18	+11 52.8	1.801	2.780	3.8	19.9
3 12	11 24.26	- 2 3.7	1.208	2.199	2.5	20.1	3 12	11 24.59	+14 21.5	1.797	2.778	3.9	19.9
3 22	11 14.86	- 0 47.1	1.226	2.209	5.7	20.3	3 22	11 18.01	+16 37.5	1.823	2.777	7.3	20.1
4 1	11 7.01	+ 0 26.0	1.270	2.220	10.7	20.6	4 1	11 12.33	+18 32.0	1.877	2.775	11.0	20.3
4 11	11 1.67	+ 1 27.1	1.337	2.230	15.1	20.9	4 11	11 8.27	+20 0.0	1.954	2.775	14.2	20.5
304656	2006 WW ₂₇		3 10.9 227°37	5°7/ 3.4 18			204944	2008 UM ₂₇₉		3 10.9 106°83	0°3/11.3 18		
2 1	11 49.76	+22 0.4	2.676	3.478	10.8	20.8	2 1	11 48.44	+ 0 6.1	2.134	2.906	14.1	21.0
2 11	11 45.64	+23 3.1	2.596	3.472	8.7	20.7	2 11	11 44.91	+ 0 30.5	2.047	2.912	11.2	20.8
2 21	11 39.71	+24 4.9	2.540	3.466	6.7	20.5	2 21	11 39.37	+ 1 8.8	1.983	2.918	7.7	20.6
3 2	11 32.41	+24 59.6	2.512	3.459	5.7	20.5	3 2	11 32.30	+ 1 57.9	1.945	2.923	3.8	20.3
3 12	11 24.43	+25 41.4	2.512	3.452	6.3	20.5	3 12	11 24.47	+ 2 52.8	1.936	2.929	0.4	20.1
3 22	11 16.52	+26 6.2	2.541	3.445	8.1	20.6	3 22	11 16.72	+ 3 47.7	1.955	2.935	4.4	20.4
4 1	11 9.44	+26 11.8	2.595	3.437	10.3	20.7	4 1	11 9.92	+ 4 36.8	2.003	2.940	8.2	20.6
4 11	11 3.79	+25 58.4	2.672	3.430	12.4	20.9	4 11	11 4.73	+ 5 15.6	2.076	2.946	11.5	20.8
206222	2002 VF ₆₆		3 10.9 328°00	2°8/23.0 18			265707	2005 UA ₂₁₃		3 10.9 115°87	1°3/ 9.7 17		
2 1	12 8.77	+44 22.2	1.100	1.901	2								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
259189	2003 AR ₂₉		3 10.9 39°00	3.4/13.6	18		247347	2001 VV ₁₆		3 10.9 196°40	7.2/21.2	18	
2 1	11 50.36	- 5 38.4	1.332	2.114	20.6	20.3	2 1	11 49.58	-25 40.2	3.140	3.726	13.3	21.2
2 11	11 47.38	- 5 53.0	1.274	2.137	16.7	20.1	2 11	11 45.42	-26 20.8	3.028	3.723	12.0	21.1
2 21	11 41.47	- 5 43.7	1.234	2.161	12.1	19.9	2 21	11 39.57	-26 43.2	2.934	3.719	10.4	21.0
3 2	11 33.39	- 5 11.9	1.216	2.186	7.2	19.7	3 2	11 32.41	-26 45.0	2.862	3.715	8.9	20.8
3 12	11 24.35	- 4 23.1	1.223	2.211	3.5	19.5	3 12	11 24.50	-26 25.6	2.815	3.710	7.6	20.7
3 22	11 15.71	- 3 25.3	1.255	2.237	5.7	19.7	3 22	11 16.52	-25 46.1	2.795	3.705	7.2	20.7
4 1	11 8.69	- 2 27.9	1.312	2.264	10.1	20.0	4 1	11 9.17	-24 50.0	2.802	3.700	7.8	20.7
4 11	11 4.14	- 1 38.7	1.392	2.291	14.2	20.3	4 11	11 3.05	-23 42.7	2.835	3.694	9.2	20.8
109438	2001 QR ₁₉₉		3 10.9 173°04	2.2/13.8	18		465940	2011 AB ₃₀		3 10.9 33°03	3.3/13.6	17	
2 1	11 47.62	- 6 32.7	2.839	3.565	12.0	20.2	2 1	11 51.08	- 5 27.1	1.761	2.518	17.2	21.1
2 11	11 43.78	- 6 25.1	2.738	3.567	9.8	20.0	2 11	11 47.53	- 5 48.9	1.673	2.521	14.1	20.9
2 21	11 38.36	- 6 4.0	2.660	3.569	7.2	19.8	2 21	11 41.48	- 5 52.6	1.605	2.524	10.4	20.7
3 2	11 31.76	- 5 30.3	2.608	3.571	4.4	19.6	3 2	11 33.45	- 5 38.6	1.561	2.527	6.4	20.5
3 12	11 24.54	- 4 46.9	2.586	3.572	2.3	19.5	3 12	11 24.38	- 5 9.7	1.543	2.530	3.4	20.3
3 22	11 17.34	- 3 57.5	2.594	3.573	3.5	19.6	3 22	11 15.36	- 4 30.9	1.553	2.534	5.1	20.4
4 1	11 10.81	- 3 6.5	2.631	3.573	6.2	19.7	4 1	11 7.49	- 3 48.9	1.590	2.537	9.1	20.6
4 11	11 5.50	- 2 18.5	2.696	3.573	8.9	19.9	4 11	11 1.65	- 3 10.3	1.651	2.541	12.9	20.9
415441	2013 SQ ₄₃		3 10.9 156°46	3.4/ 7.3	18		104320	2000 FP ₂		3 10.9 209°32	0.4/10.6	18	
2 1	11 49.30	+10 16.3	2.070	2.872	13.5	20.8	2 1	11 54.97	+ 2 29.2	1.920	2.694	15.4	20.8
2 11	11 45.69	+11 16.4	1.989	2.874	10.5	20.6	2 11	11 50.46	+ 2 50.3	1.821	2.688	12.2	20.6
2 21	11 39.96	+12 24.9	1.932	2.877	7.1	20.3	2 21	11 43.44	+ 3 25.2	1.744	2.681	8.4	20.3
3 2	11 32.61	+13 35.4	1.902	2.879	4.0	20.2	3 2	11 34.41	+ 4 10.4	1.693	2.673	4.0	20.0
3 12	11 24.45	+14 40.5	1.900	2.881	3.9	20.2	3 12	11 24.27	+ 5 0.3	1.671	2.664	0.8	19.8
3 22	11 16.39	+15 33.6	1.927	2.883	6.9	20.3	3 22	11 14.09	+ 5 48.4	1.678	2.655	5.4	20.1
4 1	11 9.33	+16 10.2	1.981	2.884	10.2	20.5	4 1	11 4.97	+ 6 28.5	1.713	2.644	9.8	20.3
4 11	11 3.99	+16 28.1	2.058	2.886	13.3	20.7	4 11	11 0.57	+ 6 56.1	1.772	2.633	13.6	20.5
265737	2005 UT ₄₉₈		3 10.9 103°18	3.6/ 7.0	18		264249	4539 P-L		3 10.9 113°85	0.9/10.1	18	
2 1	11 49.56	+ 9 30.6	1.969	2.771	14.0	21.3	2 1	11 54.51	+ 4 37.4	2.021	2.799	14.6	20.7
2 11	11 45.89	+10 49.0	1.901	2.787	10.8	21.1	2 11	11 49.65	+ 4 57.9	1.946	2.816	11.4	20.5
2 21	11 40.06	+12 16.8	1.857	2.802	7.3	20.9	2 21	11 42.56	+ 5 28.9	1.894	2.833	7.7	20.3
3 2	11 32.63	+13 46.5	1.840	2.817	4.2	20.7	3 2	11 33.84	+ 6 6.2	1.868	2.849	3.6	20.1
3 12	11 24.45	+15 9.4	1.852	2.832	4.1	20.8	3 12	11 24.36	+ 6 44.5	1.872	2.864	1.3	19.9
3 22	11 16.47	+16 18.4	1.892	2.846	7.2	21.0	3 22	11 15.11	+ 7 18.3	1.905	2.879	5.1	20.2
4 1	11 9.60	+17 8.5	1.960	2.860	10.5	21.2	4 1	11 7.02	+ 7 43.2	1.966	2.894	8.9	20.5
4 11	11 4.52	+17 37.6	2.050	2.874	13.5	21.4	4 11	11 0.78	+ 7 56.4	2.052	2.908	12.3	20.7
430366	2014 BR ₁₈		3 10.9 164°87	3.2/14.5	17		460443	2014 SV ₁₈₃		3 10.9 13°89	5.4/ 6.9	18	
2 1	11 49.24	- 8 9.4	2.552	3.273	13.3	21.4	2 1	11 52.69	+13 41.7	1.436	2.259	17.3	20.7
2 11	11 45.26	- 8 23.9	2.452	3.275	11.0	21.2	2 11	11 49.33	+14 31.6	1.365	2.261	13.5	20.4
2 21	11 39.49	- 8 23.8	2.375	3.276	8.3	21.0	2 21	11 42.95	+15 28.5	1.315	2.262	9.4	20.2
3 2	11 32.35	- 8 9.2	2.323	3.278	5.5	20.9	3 2	11 34.22	+16 23.3	1.289	2.264	6.0	20.0
3 12	11 24.48	- 7 42.2	2.299	3.280	3.3	20.7	3 12	11 24.32	+17 6.3	1.289	2.266	6.0	20.0
3 22	11 16.63	- 7 6.2	2.305	3.281	4.2	20.8	3 22	11 14.65	+17 29.7	1.314	2.269	9.5	20.2
4 1	11 9.53	- 6 25.6	2.339	3.282	6.9	20.9	4 1	11 6.54	+17 29.6	1.364	2.272	13.6	20.4
4 11	11 3.83	- 5 45.3	2.401	3.283	9.7	21.1	4 11	11 0.97	+17 5.9	1.433	2.275	17.3	20.7
108848	2001 OF ₉₂		3 10.9 230°81	1.7/ 8.9	17		326279	1996 RE ₇		3 10.9 209°60	0.1/11.1	17	
2 1	11 48.59	+ 6 49.6	2.438	3.224	12.2	20.7	2 1	11 48.08	- 1 21.1	2.309	3.071	13.5	21.4
2 11	11 44.86	+ 7 26.8	2.341	3.217	9.5	20.5	2 11	11 44.60	- 0 29.3	2.206	3.065	10.7	21.2
2 21	11 39.27	+ 8 12.8	2.267	3.209	6.4	20.3	2 21	11 39.19	+ 0 39.0	2.127	3.059	7.4	21.0
3 2	11 32.26	+ 9 3.5	2.221	3.202	3.1	20.1	3 2	11 32.28	+ 2 0.3	2.074	3.052	3.6	20.8
3 12	11 24.49	+ 9 53.7	2.205	3.194	2.1	20.0	3 12	11 24.54	+ 3 28.9	2.051	3.045	0.4	20.5
3 22	11 16.73	+10 38.2	2.218	3.186	5.1	20.2	3 22	11 16.78	+ 4 57.8	2.059	3.037	4.4	20.8
4 1	11 9.76	+11 12.6	2.260	3.178	8.4	20.4	4 1	11 9.82	+ 6 20.1	2.096	3.029	8.2	21.0
4 11	11 4.22	+11 34.1	2.326	3.169	11.5	20.5	4 11	11 4.35	+ 7 30.1	2.159	3.020	11.5	21.2
501459	2014 AL ₄₇		3 10.9 17°65	0.6/10.4	17		115766	2003 UG ₂₀₇		3 10.9 171°08	4.6/16.5	17	
2 1	11 47.43	+ 3 12.2	2.004	2.793	14.3	21.5	2 1	11 47.65	-13 43.4	2.390	3.088	14.7	20.4
2 11	11 44.27	+ 3 33.5	1.920	2.796	11.3	21.2	2 11	11 44.22	-13 49.1	2.290	3.090	12.5	20.2
2 21	11 39.01	+ 4 7.0	1.858	2.799	7.6	21.0	2 21	11 38.90	-13 35.1	2.210	3.091	9.8	20.0
3 2	11 32.16	+ 4 48.8	1.822	2.803	3.6	20.8	3 2	11 32.12	-13 0.9	2.154	3.092	7.1	19.8
3 12	11 24.51	+ 5 33.7	1.814	2.807	0.9	20.6	3 12	11 24.56	-12 8.5	2.124	3.093	4.9	19.7
3 22	11 16.95	+ 6 15.9	1.835	2.812	4.9	20.9	3 22	11 17.02	-11 2.2	2.124	3.094	5.1	19.7
4 1	11 10.39	+ 6 50.1	1.882	2.817	8.8	21.1	4 1	11 10.27	- 9 47.9	2.152	3.094	7.4	19.9
4 11	11 5.51	+ 7 12.6	1.954	2.822	12.2	21.3	4 11	11 5.01	- 8 32.5	2.206	3.095	10.2	20.0
522751	2016 MP ₄		3 10.9 248°70	2.3/13.8	17		203467	2001 YR ₁₅₁		3 10.9 190°77	0.6/11.6	18	
2 1	11 45.74	- 7 0.4	2.544	3.279	13.0	22.1	2 1	11 55.38	- 0 18.9	2.153	2.908	14.5	21.1
2 11	11 42.60	- 6 42.8	2.435	3.270	10.7	21.9	2 11	11 50.44	- 0 5.1	2.053	2.907	11.6	20.9
2 21	11 37.74	- 6 8.8	2.349	3.262	7.9	21.7	2 21	11 43.24	+ 0 22.5	1.976	2.905	8.1	20.7
3 2	11 31.53	- 5 19.8	2.289	3.253	4.8	21.5	3 2	11 34.26	+ 1 1.4	1.925	2.902	4.1	20.4
3 12	11 24.58	- 4 18.9	2.257	3.244	2.4	21.3	3 12	11 24.32	+ 1 47.4	1.904	2.898	0.7	20.1
3 22	11 17.61	- 3 10.9	2.254	3.235	3.8	21.4	3 22	11 14.37	+ 2 34.8	1.913	2.892	4.5	20.4
4 1	11 11.33	- 2 1.6	2.281	3.226	6.9	21.5	4 1	11 5.39	+ 3 18.1	1.952	2.886	8.5	20.6
4 11	11 6.36	- 0 56.5	2.335	3.216	10.0	21.7	4 11	11 0.58	+ 3 52.5	2.016	2.879	12.1	20.8
435944	2009 CH ₅₂		3 10.9 104°31	2.4/ 7.9	17		348863	2006 SQ ₁₃₈		3 10.9 182°16	0.4/11.6	18	
2 1	11 46.16	+ 7 22.8	2.283	3.079	12.6								

EPHEMERIDES

3 10.9

3 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
471183	2010 <i>LE</i> ₆₁		3 10.9 278°71	6°1/ 3.4 16			492444	2014 <i>MC</i> ₄₆		3 10.9 258°51	1°7/ 9.6 17		
2 1	11 50.03	+20 44.2	2.406	3.212	11.7	21.9	2 1	11 54.01	+ 4 59.3	1.690	2.482	16.4	22.9
2 11	11 46.25	+21 55.4	2.308	3.188	9.4	21.7	2 11	11 50.28	+ 5 32.1	1.583	2.461	13.1	22.6
2 21	11 40.40	+23 8.1	2.235	3.164	7.3	21.5	2 21	11 43.71	+ 6 20.0	1.497	2.439	9.0	22.3
3 2	11 32.90	+24 15.2	2.188	3.140	6.1	21.4	3 2	11 34.73	+ 7 18.3	1.436	2.417	4.3	22.0
3 12	11 24.47	+25 9.5	2.170	3.115	6.8	21.4	3 12	11 24.27	+ 8 19.7	1.403	2.394	2.1	21.8
3 22	11 15.97	+25 45.3	2.180	3.090	9.0	21.4	3 22	11 13.56	+ 9 15.9	1.397	2.370	6.8	22.0
4 1	11 8.28	+25 59.3	2.215	3.064	11.6	21.6	4 1	11 3.92	+ 9 59.2	1.418	2.346	11.7	22.2
4 11	11 2.18	+25 51.2	2.272	3.039	14.1	21.7	4 11	10 56.50	+10 24.6	1.462	2.320	16.1	22.4
12382	Niagara Falls		3 10.9 236°88	0°3/10.6 18			187899	2000 <i>SU</i> ₂₆₁		3 10.9 222°76	1°2/12.5 18		
2 1	11 48.73	+ 2 1.1	2.082	2.862	14.2	19.4	2 1	11 48.54	- 4 35.2	2.572	3.311	12.8	21.5
2 11	11 45.29	+ 2 28.3	1.989	2.859	11.2	19.2	2 11	11 44.81	- 3 57.7	2.457	3.300	10.4	21.3
2 21	11 39.75	+ 3 8.9	1.917	2.856	7.6	18.9	2 21	11 39.27	- 3 3.9	2.366	3.287	7.4	21.1
3 2	11 32.57	+ 3 59.3	1.872	2.852	3.7	18.7	3 2	11 32.32	- 1 55.7	2.302	3.274	4.1	20.9
3 12	11 24.52	+ 4 54.1	1.855	2.849	0.7	18.4	3 12	11 24.57	- 0 37.6	2.268	3.260	1.3	20.6
3 22	11 16.49	+ 5 47.3	1.868	2.845	4.8	18.7	3 22	11 16.76	+ 0 44.9	2.265	3.245	3.8	20.8
4 1	11 9.39	+ 6 33.1	1.907	2.841	8.8	19.0	4 1	11 9.63	+ 2 5.6	2.292	3.230	7.2	21.0
4 11	11 3.96	+ 7 7.1	1.972	2.838	12.3	19.2	4 11	11 3.84	+ 3 18.6	2.346	3.214	10.5	21.2
135077	2001 <i>PE</i> ₅₇		3 10.9 282°29	3°1/13.9 17			174488	2003 <i>BX</i> ₁		3 10.9 120°96	4°5/16.7 17		
2 1	11 50.07	- 6 20.5	2.246	2.983	14.5	19.6	2 1	11 50.78	-13 59.0	2.858	3.534	13.0	21.4
2 11	11 46.21	- 6 40.6	2.147	2.982	11.9	19.5	2 11	11 46.22	-14 23.1	2.767	3.551	11.0	21.2
2 21	11 40.32	- 6 45.7	2.070	2.980	8.9	19.3	2 21	11 40.01	-14 31.4	2.698	3.567	8.7	21.1
3 2	11 32.83	- 6 36.0	2.017	2.979	5.6	19.0	3 2	11 32.58	-14 23.6	2.654	3.583	6.4	21.0
3 12	11 24.49	- 6 13.7	1.993	2.977	3.2	18.9	3 12	11 24.55	-14 0.6	2.638	3.598	4.7	20.9
3 22	11 16.14	- 5 42.5	1.998	2.976	4.4	19.0	3 22	11 16.60	-13 25.4	2.651	3.613	4.8	20.9
4 1	11 8.65	- 5 7.2	2.030	2.974	7.6	19.2	4 1	11 9.38	-12 41.9	2.693	3.628	6.5	21.0
4 11	11 2.75	- 4 33.1	2.089	2.973	10.9	19.3	4 11	11 3.48	-11 55.2	2.763	3.642	8.7	21.2
208725	2002 <i>JY</i> ₁₄₁		3 10.9 331°95	1°2/11.8 18			81905	2000 <i>NP</i> ₁		3 10.9 266°97	4°0/ 5.7 18		
2 1	11 48.59	- 0 52.0	1.374	2.173	19.2	20.3	2 1	11 46.09	+12 20.0	2.328	3.134	12.0	19.6
2 11	11 46.37	- 0 51.6	1.286	2.165	15.5	20.1	2 11	11 43.09	+13 40.9	2.237	3.125	9.4	19.4
2 21	11 41.16	- 0 31.0	1.218	2.157	10.9	19.8	2 21	11 38.20	+15 9.5	2.171	3.115	6.5	19.2
3 2	11 33.48	+ 0 7.6	1.172	2.150	5.7	19.5	3 2	11 31.82	+16 39.3	2.132	3.104	4.3	19.1
3 12	11 24.40	+ 0 58.3	1.150	2.143	1.2	19.1	3 12	11 24.65	+18 2.7	2.123	3.094	4.7	19.1
3 22	11 15.28	+ 1 53.1	1.154	2.137	6.0	19.4	3 22	11 17.46	+19 12.9	2.142	3.084	7.3	19.2
4 1	11 7.53	+ 2 43.0	1.183	2.132	11.3	19.7	4 1	11 11.08	+20 5.2	2.189	3.073	10.3	19.4
4 11	11 2.25	+ 3 20.4	1.233	2.127	16.1	20.0	4 11	11 6.16	+20 37.1	2.258	3.063	13.0	19.6
182937	2002 <i>GS</i> ₄₇		3 10.9 249°01	0°9/10.2 17			386532	2009 <i>CA</i> ₂₅		3 10.9 14°45	2°0/ 8.9 17		
2 1	11 52.57	+ 3 24.8	1.897	2.680	15.3	21.6	2 1	11 47.60	+ 7 0.1	2.072	2.869	13.6	21.1
2 11	11 48.72	+ 3 52.2	1.791	2.664	12.1	21.3	2 11	11 44.37	+ 7 37.1	1.988	2.871	10.6	20.9
2 21	11 42.36	+ 4 33.6	1.707	2.647	8.3	21.1	2 21	11 39.09	+ 8 23.8	1.927	2.872	7.1	20.6
3 2	11 33.96	+ 5 25.4	1.648	2.629	4.0	20.7	3 2	11 32.24	+ 9 15.4	1.893	2.874	3.5	20.4
3 12	11 24.35	+ 6 21.5	1.618	2.611	1.2	20.5	3 12	11 24.61	+10 5.8	1.887	2.876	2.4	20.3
3 22	11 14.60	+ 7 14.8	1.617	2.592	5.7	20.8	3 22	11 17.07	+10 49.0	1.910	2.879	5.7	20.6
4 1	11 5.82	+ 7 58.8	1.643	2.573	10.2	21.0	4 1	11 10.49	+11 20.3	1.960	2.882	9.3	20.8
4 11	10 58.97	+ 8 28.7	1.693	2.553	14.2	21.2	4 11	11 5.57	+11 37.0	2.033	2.884	12.5	21.0
156307	2001 <i>XC</i> ₄₂		3 10.9 42°23	7°7/ 4.9 18			135171	2001 <i>QX</i> ₂₆₂		3 10.9 154°36	0°0/10.9 17		
2 1	11 54.40	+20 47.8	1.550	2.373	16.3	19.6	2 1	11 46.45	- 0 9.6	2.587	3.350	12.1	20.6
2 11	11 50.33	+21 50.1	1.495	2.385	13.0	19.4	2 11	11 43.03	+ 0 32.6	2.494	3.355	9.6	20.4
2 21	11 43.38	+22 50.9	1.462	2.398	9.8	19.3	2 21	11 37.95	+ 1 27.5	2.426	3.359	6.6	20.3
3 2	11 34.31	+23 40.2	1.453	2.411	7.8	19.2	3 2	11 31.63	+ 2 32.1	2.385	3.363	3.2	20.0
3 12	11 24.35	+24 8.8	1.470	2.425	8.4	19.2	3 12	11 24.69	+ 3 41.3	2.373	3.367	0.3	19.8
3 22	11 14.82	+24 11.7	1.512	2.439	11.0	19.4	3 22	11 17.80	+ 4 49.9	2.392	3.370	3.9	20.1
4 1	11 6.93	+23 47.8	1.578	2.453	14.1	19.6	4 1	11 11.64	+ 5 52.6	2.441	3.374	7.2	20.3
4 11	11 1.50	+22 59.9	1.663	2.468	17.0	19.9	4 11	11 6.78	+ 6 45.2	2.515	3.377	10.1	20.5
452801	2006 <i>JR</i> ₅₃		3 10.9 358°24	5°5/ 7.2 18			423280	2004 <i>YU</i> ₁₃		3 10.9 342°46	9°7/18.3 17		
2 1	11 47.78	+11 47.3	1.128	1.973	19.6	20.4	2 1	11 47.97	-17 26.5	1.649	2.357	20.0	20.0
2 11	11 46.24	+12 38.6	1.060	1.969	15.3	20.1	2 11	11 45.68	-18 55.9	1.551	2.345	17.7	19.8
2 21	11 41.27	+13 41.4	1.012	1.966	10.6	19.9	2 21	11 40.64	-20 3.1	1.471	2.334	15.0	19.6
3 2	11 33.55	+14 45.4	0.986	1.965	6.3	19.6	3 2	11 33.27	-20 42.6	1.411	2.324	12.2	19.4
3 12	11 24.42	+15 38.5	0.982	1.964	6.2	19.6	3 12	11 24.47	-20 51.5	1.373	2.315	10.1	19.3
3 22	11 15.48	+16 10.4	1.002	1.966	10.4	19.8	3 22	11 15.43	-20 30.4	1.358	2.307	9.9	19.2
4 1	11 8.33	+16 15.2	1.044	1.968	15.2	20.1	4 1	11 7.48	-19 44.8	1.368	2.300	11.6	19.3
4 11	11 4.05	+15 52.5	1.103	1.971	19.6	20.4	4 11	11 1.74	-18 44.0	1.399	2.295	14.4	19.4
27758	Michelson		3 10.9 92°81	0°2/10.7 17			497262	2005 <i>JA</i> ₆₁		3 10.9 9°68	5°5/ 4.9 18		
2 1	11 51.11	+ 3 12.7	2.268	3.042	13.3	18.9	2 1	11 47.82	+16 28.2	2.001	2.818	13.3	20.8
2 11	11 46.83	+ 3 21.0	2.185	3.051	10.5	18.7	2 11	11 44.69	+17 41.8	1.928	2.818	10.5	20.6
2 21	11 40.60	+ 3 39.2	2.124	3.061	7.1	18.5	2 21	11 39.37	+18 59.3	1.878	2.819	7.6	20.5
3 2	11 32.90	+ 4 4.4	2.090	3.070	3.4	18.3	3 2	11 32.40	+20 12.6	1.855	2.821	5.6	20.3
3 12	11 24.51	+ 4 32.4	2.086	3.079	0.5	18.0	3 12	11 24.60	+21 13.8	1.860	2.822	6.2	20.4
3 22	11 16.24	+ 4 58.8	2.111	3.088	4.3	18.4	3 22	11 16.93	+21 56.7	1.892	2.824	8.7	20.5
4 1	11 8.91	+ 5 19.6	2.164	3.098	7.9	18.6	4 1	11 10.31	+22 17.6	1.948	2.826	11.7	20.7
4 11	11 3.18	+ 5 31.6	2.243	3.107	11.1	18.8	4 11	11 5.47	+22 16.2	2.026	2.828	14.4	20.9
97361	2000 <i>AV</i> ₃₂		3 10.9 104°17	0°6/10.3 18			403204	2008 <i>ST</i> ₂₀₀		3 10.9 10°54	1°3/10.1 18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
210423	2007 YW ₅₁		3 10.9 230°20	1°9/ 8.7 18			415655	2014 QV ₄₀₉		3 10.9 312°23	3°3/13.7 18		
2 1	11 47.62	+ 7 18.0	2.482	3.271	11.9	20.8	2 1	11 49.73	- 6 44.2	1.511	2.278	19.2	20.9
2 11	11 44.08	+ 8 1.3	2.387	3.265	9.3	20.6	2 11	11 46.98	- 6 45.8	1.424	2.278	15.8	20.6
2 21	11 38.75	+ 8 53.3	2.316	3.259	6.2	20.4	2 21	11 41.41	- 6 23.4	1.355	2.277	11.7	20.4
3 2	11 32.06	+ 9 49.6	2.273	3.253	3.1	20.2	3 2	11 33.58	- 5 37.4	1.308	2.276	7.1	20.1
3 12	11 24.64	+10 44.8	2.259	3.247	2.3	20.1	3 12	11 24.49	- 4 32.4	1.287	2.275	3.5	19.9
3 22	11 17.24	+11 33.7	2.275	3.241	5.2	20.3	3 22	11 15.40	- 3 16.1	1.292	2.274	5.6	20.0
4 1	11 10.61	+12 11.9	2.319	3.234	8.4	20.5	4 1	11 7.61	- 1 58.4	1.323	2.274	10.2	20.2
4 11	11 5.36	+12 36.5	2.388	3.227	11.3	20.6	4 11	11 2.12	- 0 48.7	1.377	2.273	14.6	20.5
75891	2000 CY ₃₇		3 10.9 228°04	4°0/14.8 17			109316	2001 QO ₁₃₅		3 10.9 162°87	1°7/12.7 18		
2 1	11 51.61	- 8 40.6	2.278	2.999	14.7	19.7	2 1	11 52.87	- 3 15.7	2.341	3.084	13.8	20.6
2 11	11 47.46	- 9 11.8	2.175	2.996	12.3	19.5	2 11	11 48.23	- 3 13.8	2.247	3.090	11.2	20.4
2 21	11 41.21	- 9 27.6	2.093	2.992	9.4	19.3	2 21	11 41.60	- 2 58.2	2.175	3.096	8.0	20.2
3 2	11 33.31	- 9 27.3	2.036	2.988	6.4	19.1	3 2	11 33.45	- 2 30.2	2.130	3.100	4.5	20.0
3 12	11 24.49	- 9 12.1	2.006	2.984	4.2	19.0	3 12	11 24.51	- 1 53.4	2.114	3.105	1.7	19.8
3 22	11 15.62	- 8 45.2	2.005	2.979	4.9	19.0	3 22	11 15.63	- 1 12.1	2.128	3.108	4.0	20.0
4 1	11 7.59	- 8 11.2	2.033	2.975	7.8	19.2	4 1	11 7.65	- 0 31.3	2.171	3.111	7.5	20.2
4 11	11 1.17	- 7 35.7	2.087	2.970	10.9	19.3	4 11	11 1.24	+ 0 4.4	2.241	3.113	10.7	20.4
212014	2005 CX ₄		3 10.9 112°60	1°9/ 9.3 18			125767	2001 XZ ₁₃₆		3 10.9 34°18	2°1/ 9.1 18		
2 1	11 54.11	+ 5 43.6	1.754	2.545	16.0	20.3	2 1	11 49.87	+ 6 27.9	1.780	2.581	15.4	20.1
2 11	11 49.72	+ 6 23.7	1.683	2.561	12.4	20.1	2 11	11 46.53	+ 7 6.9	1.699	2.583	12.0	19.8
2 21	11 42.82	+ 7 15.9	1.634	2.576	8.3	19.9	2 21	11 40.77	+ 7 57.8	1.639	2.584	8.1	19.6
3 2	11 34.06	+ 8 14.4	1.610	2.591	4.0	19.7	3 2	11 33.14	+ 8 55.0	1.605	2.586	3.9	19.4
3 12	11 24.43	+ 9 11.8	1.615	2.606	2.3	19.6	3 12	11 24.55	+ 9 51.4	1.598	2.588	2.5	19.3
3 22	11 15.05	+10 0.9	1.649	2.620	6.2	19.9	3 22	11 16.07	+10 39.7	1.619	2.590	6.4	19.5
4 1	11 6.98	+10 36.4	1.709	2.633	10.3	20.1	4 1	11 8.75	+11 14.2	1.667	2.591	10.5	19.7
4 11	11 1.02	+10 55.2	1.793	2.646	13.9	20.4	4 11	11 3.39	+11 31.7	1.737	2.593	14.1	20.0
194093	2001 SA ₁₉₉		3 10.9 118°34	0°8/10.2 18			87491	2000 QE ₁₅₇		3 10.9 56°77	6°0/16.1 18		
2 1	11 55.26	+ 2 33.4	1.773	2.552	16.3	21.8	2 1	11 51.83	-11 57.9	1.752	2.477	18.4	19.3
2 11	11 50.55	+ 3 12.7	1.702	2.573	12.8	21.6	2 11	11 48.14	-12 43.3	1.672	2.490	15.6	19.2
2 21	11 43.35	+ 4 6.8	1.653	2.592	8.6	21.3	2 21	11 41.91	-13 6.9	1.611	2.502	12.2	19.0
3 2	11 34.30	+ 5 10.4	1.630	2.611	4.0	21.1	3 2	11 33.71	-13 6.8	1.572	2.515	8.8	18.8
3 12	11 24.41	+ 6 16.3	1.636	2.629	1.2	20.9	3 12	11 24.49	-12 44.3	1.559	2.528	6.3	18.7
3 22	11 14.79	+ 7 17.0	1.671	2.646	5.6	21.3	3 22	11 15.38	-12 3.6	1.572	2.541	6.6	18.7
4 1	11 6.49	+ 8 6.3	1.733	2.662	9.8	21.6	4 1	11 7.50	-11 11.7	1.611	2.555	9.3	18.9
4 11	11 0.30	+ 8 40.0	1.819	2.678	13.4	21.8	4 11	11 1.71	-10 16.7	1.675	2.568	12.5	19.1
86029	1999 LV ₃₂		3 10.9 241°30	3°8/ 6.4 17			171026	2005 EU ₅₃		3 10.9 62°15	0°7/10.4 18		
2 1	11 48.49	+10 32.1	2.177	2.978	12.9	20.2	2 1	11 49.85	+ 2 0.1	1.556	2.353	17.4	20.4
2 11	11 45.15	+11 53.1	2.080	2.966	10.1	20.0	2 11	11 46.85	+ 2 35.4	1.477	2.357	13.7	20.2
2 21	11 39.72	+13 24.3	2.008	2.953	6.9	19.8	2 21	11 41.16	+ 3 28.4	1.419	2.362	9.3	19.9
3 2	11 32.62	+14 59.0	1.964	2.939	4.2	19.6	3 2	11 33.38	+ 4 34.1	1.385	2.366	4.4	19.7
3 12	11 24.58	+16 28.8	1.949	2.925	4.4	19.6	3 12	11 24.53	+ 5 44.6	1.378	2.371	1.1	19.4
3 22	11 16.50	+17 46.2	1.963	2.911	7.4	19.7	3 22	11 15.80	+ 6 51.1	1.398	2.375	6.0	19.8
4 1	11 9.26	+18 45.2	2.004	2.896	10.7	19.9	4 1	11 8.39	+ 7 45.8	1.443	2.380	10.8	20.1
4 11	11 3.65	+19 22.9	2.069	2.881	13.8	20.1	4 11	11 3.18	+ 8 23.5	1.512	2.385	14.9	20.3
283033	2007 WH ₄₀		3 10.9 185°65	6°2/18.4 18			430743	2004 JP ₃₁		3 10.9 280°09	4°3/ 5.9 17		
2 1	11 49.37	-18 32.1	2.637	3.292	14.4	20.6	2 1	11 48.40	+15 2.3	2.339	3.145	12.0	20.6
2 11	11 45.48	-19 8.4	2.532	3.292	12.5	20.4	2 11	11 44.86	+15 58.0	2.252	3.137	9.4	20.4
2 21	11 39.75	-19 26.2	2.447	3.291	10.4	20.3	2 21	11 39.37	+16 57.8	2.189	3.130	6.7	20.2
3 2	11 32.57	-19 23.7	2.385	3.291	8.2	20.1	3 2	11 32.40	+17 55.6	2.154	3.123	4.6	20.0
3 12	11 24.59	-19 1.0	2.349	3.290	6.6	20.0	3 12	11 24.65	+18 45.0	2.147	3.116	4.9	20.0
3 22	11 16.57	-18 20.3	2.341	3.289	6.4	20.0	3 22	11 16.95	+19 20.7	2.169	3.109	7.3	20.2
4 1	11 9.29	-17 26.1	2.360	3.287	7.7	20.1	4 1	11 10.12	+19 39.4	2.217	3.102	10.1	20.3
4 11	11 3.40	-16 24.5	2.406	3.285	9.8	20.2	4 11	11 4.82	+19 39.8	2.288	3.095	12.8	20.5
24841	1995 UY ₈		3 10.9 75°58	2°9/ 8.6 18			297769	2001 XE ₁₇₂		3 10.9 358°48	2°2/12.6 18		
2 1	11 53.28	+ 7 53.9	1.569	2.375	16.9	18.8	2 1	11 48.42	- 2 58.8	1.290	2.087	20.3	20.0
2 11	11 49.30	+ 8 39.1	1.506	2.393	13.1	18.5	2 11	11 46.37	- 3 4.2	1.210	2.085	16.5	19.7
2 21	11 42.64	+ 9 35.4	1.465	2.411	8.8	18.3	2 21	11 41.23	- 2 46.7	1.148	2.084	11.8	19.4
3 2	11 33.99	+10 35.7	1.449	2.429	4.4	18.1	3 2	11 33.56	- 2 7.7	1.107	2.083	6.6	19.1
3 12	11 24.45	+11 31.5	1.460	2.447	3.4	18.1	3 12	11 24.52	- 1 13.0	1.091	2.083	2.2	18.8
3 22	11 15.26	+12 15.3	1.498	2.465	7.2	18.4	3 22	11 15.51	- 0 11.2	1.100	2.084	6.0	19.1
4 1	11 7.53	+12 42.0	1.562	2.483	11.3	18.6	4 1	11 8.00	+ 0 47.9	1.132	2.085	11.3	19.4
4 11	11 2.08	+12 49.6	1.648	2.500	14.9	18.9	4 11	11 3.07	+ 1 35.5	1.187	2.087	16.1	19.6
292429	2006 SH ₃₂₂		3 10.9 220°37	1°2/ 9.8 14 C			417000	2005 TH ₁₇₇		3 11.0 88°54	2°7/13.4 18		
2 1	11 51.62	+ 3 59.4	2.092	2.872	14.1	23.1	2 1	11 58.11	- 4 58.6	2.122	2.852	15.4	22.4
2 11	11 47.64	+ 4 38.4	1.991	2.863	11.1	22.9	2 11	11 52.25	- 5 17.8	2.053	2.885	12.5	22.2
2 21	11 41.43	+ 5 30.4	1.914	2.853	7.5	22.6	2 21	11 44.23	- 5 21.8	2.006	2.918	9.1	22.0
3 2	11 33.46	+ 6 31.1	1.863	2.843	3.6	22.4	3 2	11 34.65	- 5 11.6	1.985	2.949	5.4	21.9
3 12	11 24.50	+ 7 34.3	1.841	2.833	1.5	22.2	3 12	11 24.43	- 4 50.2	1.994	2.980	2.7	21.8
3 22	11 15.49	+ 8 33.5	1.849	2.821	5.4	22.4	3 22	11 14.52	- 4 21.8	2.032	3.011	4.4	21.9
4 1	11 7.41	+ 9 22.5	1.884	2.809	9.4	22.6	4 1	11 5.81	- 3 51.5	2.100	3.040	7.7	22.2
4 11	11 1.06	+ 9 57.2	1.945	2.797	13.0	22.8	4 11	11 0.58	- 3 23.9	2.194	3.069	10.8	22.4
502879	2015 DY ₂₁₂		3 10.9 7°30	2°5/13.9 17			395732	2012 UX ₅₇		3 11.0 137°52	1°8/12.3 18		
2 1	11 42.18	- 9 0.9	1.838										