

EPHEMERIDES

2 13.9

2 14.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
173129	1994 <i>JH</i> ₂		2 13.9 181°28	7°5/ 6.9 18			222588	2001 <i>WX</i> ₄₆		2 13.9 165°64	3°3/16.8 18		
1 12	10 17.98	+34 37.5	2.183	3.013	11.8	20.3	1 12	10 10.94	+ 1 44.3	2.184	2.973	13.2	20.7
1 22	10 10.96	+36 2.0	2.124	3.015	9.5	20.2	1 22	10 5.50	+ 1 45.4	2.102	2.977	10.3	20.5
2 1	10 1.50	+37 18.0	2.092	3.015	7.8	20.1	2 1	9 58.20	+ 2 2.1	2.043	2.980	7.1	20.3
2 11	9 50.47	+38 16.6	2.088	3.015	7.7	20.0	2 11	9 49.72	+ 2 32.7	2.011	2.983	4.1	20.2
2 21	9 39.05	+38 51.5	2.112	3.015	9.2	20.1	2 21	9 40.88	+ 3 13.9	2.009	2.985	3.7	20.1
3 2	9 28.50	+39 0.0	2.162	3.013	11.4	20.3	3 2	9 32.60	+ 4 0.9	2.037	2.987	6.5	20.3
3 12	9 19.90	+38 43.5	2.235	3.011	13.7	20.4	3 12	9 25.71	+ 4 48.6	2.092	2.989	9.8	20.5
3 22	9 13.93	+38 6.0	2.327	3.008	15.8	20.6	3 22	9 20.79	+ 5 32.5	2.171	2.990	12.8	20.7
264714	2002 <i>BJ</i> ₅		2 13.9 31°52 10°1/ 6.9 18				162721	2000 <i>UC</i> ₁₁₄		2 13.9 60°41	0°3/14.2 18		
1 12	10 17.69	+37 30.7	1.595	2.438	14.8	20.0	1 12	10 12.27	+ 9 47.7	1.368	2.209	16.8	19.7
1 22	10 11.31	+38 47.8	1.552	2.445	12.2	19.8	1 22	10 7.17	+10 23.7	1.313	2.225	12.4	19.5
2 1	10 1.85	+39 50.1	1.531	2.452	10.4	19.7	2 1	9 59.41	+11 15.7	1.280	2.241	7.3	19.2
2 11	9 50.54	+40 26.9	1.536	2.459	10.2	19.7	2 11	9 50.01	+12 16.9	1.273	2.258	1.8	18.9
2 21	9 39.00	+40 31.5	1.564	2.467	11.8	19.8	2 21	9 40.30	+13 19.0	1.292	2.275	3.7	19.1
3 2	9 28.88	+40 2.9	1.617	2.476	14.2	20.0	3 2	9 31.69	+14 14.1	1.338	2.291	8.9	19.4
3 12	9 21.45	+39 5.3	1.689	2.484	16.7	20.2	3 12	9 25.34	+14 56.6	1.408	2.308	13.4	19.7
3 22	9 17.31	+37 45.6	1.780	2.494	19.0	20.4	3 22	9 21.86	+15 23.7	1.499	2.325	17.2	20.0
110709	2001 <i>TK</i> ₂₂₆		2 13.9 57°28 6°0/ 8.9 18				166987	2003 <i>OW</i> ₂₈		2 13.9 191°25	1°1/13.2 18		
1 12	10 11.36	+24 23.4	1.578	2.437	14.0	19.2	1 12	10 14.19	+14 13.7	1.887	2.718	13.3	20.7
1 22	10 6.46	+26 7.1	1.530	2.450	10.4	19.0	1 22	10 8.20	+14 49.0	1.808	2.717	9.7	20.5
2 1	9 58.98	+27 50.8	1.508	2.463	7.1	18.9	2 1	9 59.92	+15 32.8	1.754	2.716	5.6	20.2
2 11	9 49.89	+29 23.1	1.512	2.477	6.1	18.8	2 11	9 50.14	+16 19.7	1.729	2.714	1.5	20.0
2 21	9 40.47	+30 34.7	1.543	2.491	8.2	19.0	2 21	9 39.91	+17 3.4	1.732	2.711	3.8	20.1
3 2	9 32.06	+31 20.0	1.601	2.506	11.6	19.2	3 2	9 30.38	+17 38.7	1.765	2.708	8.0	20.4
3 12	9 25.79	+31 38.2	1.680	2.520	14.8	19.5	3 12	9 22.61	+18 2.1	1.824	2.704	11.9	20.6
3 22	9 22.30	+31 32.3	1.779	2.534	17.6	19.7	3 22	9 17.26	+18 12.3	1.906	2.699	15.3	20.8
463273	2012 <i>GU</i> ₃₇		2 13.9 244°99 6°7/ 7.4 17				242405	2004 <i>FY</i> ₁₃₆		2 14.0 235°83	5°8/ 6.8 17		
1 12	10 14.86	+31 54.3	2.248	3.085	11.3	21.8	1 12	10 10.35	+31 53.2	2.676	3.513	9.7	20.6
1 22	10 8.74	+33 13.8	2.170	3.069	8.9	21.6	1 22	10 5.10	+33 16.4	2.605	3.503	7.6	20.4
2 1	10 0.28	+34 28.5	2.118	3.052	7.1	21.5	2 1	9 58.01	+34 35.3	2.561	3.493	6.1	20.3
2 11	9 50.22	+35 30.1	2.094	3.034	6.8	21.4	2 11	9 49.69	+35 43.1	2.546	3.483	6.0	20.3
2 21	9 39.60	+36 11.8	2.098	3.016	8.4	21.5	2 21	9 40.96	+36 34.3	2.561	3.472	7.4	20.4
3 2	9 29.59	+36 29.7	2.130	2.997	10.9	21.6	3 2	9 32.72	+37 5.5	2.602	3.462	9.4	20.5
3 12	9 21.29	+36 23.7	2.185	2.978	13.5	21.7	3 12	9 25.81	+37 16.1	2.667	3.450	11.6	20.6
3 22	9 15.41	+35 56.6	2.259	2.959	15.8	21.9	3 22	9 20.83	+37 7.9	2.753	3.439	13.5	20.8
201944	2004 <i>GW</i> ₁₉		2 13.9 259°88 5°2/17.5 17				522212	2016 <i>AO</i> ₂₆₃		2 14.0 292°05	0°1/14.0 17		
1 12	10 12.21	- 1 11.6	1.650	2.441	16.7	21.1	1 12	10 14.47	+13 12.3	1.774	2.606	14.0	21.0
1 22	10 7.24	- 1 16.8	1.548	2.421	13.5	20.8	1 22	10 8.62	+13 5.2	1.683	2.592	10.4	20.8
2 1	9 59.65	- 0 58.7	1.468	2.401	9.7	20.6	2 1	10 0.29	+13 5.5	1.617	2.577	6.2	20.5
2 11	9 50.13	- 0 17.1	1.413	2.380	6.2	20.3	2 11	9 50.26	+13 9.8	1.577	2.563	1.5	20.1
2 21	9 39.74	+ 0 44.6	1.385	2.358	5.5	20.2	2 21	9 39.63	+13 14.0	1.567	2.549	3.4	20.2
3 2	9 29.80	+ 1 59.9	1.384	2.336	8.8	20.3	3 2	9 29.66	+13 14.4	1.585	2.534	8.1	20.5
3 12	9 21.60	+ 3 19.9	1.409	2.314	13.1	20.5	3 12	9 21.50	+13 8.1	1.628	2.520	12.4	20.7
3 22	9 16.07	+ 4 36.5	1.456	2.290	17.2	20.7	3 22	9 15.93	+12 53.9	1.694	2.506	16.1	20.9
302081	2000 <i>WC</i> ₁₈₀		2 13.9 94°08 2°9/11.8 18				363837	2005 <i>QW</i> ₁₀		2 14.0 129°67	1°0/15.1 18		
1 12	10 15.49	+17 36.7	1.649	2.492	14.4	21.3	1 12	10 10.39	+ 6 9.0	2.288	3.093	12.2	21.5
1 22	10 9.13	+18 46.4	1.602	2.517	10.3	21.1	1 22	10 4.96	+ 7 3.2	2.217	3.109	9.1	21.3
2 1	10 0.37	+20 1.6	1.580	2.542	6.0	20.9	2 1	9 57.82	+ 8 11.1	2.173	3.125	5.5	21.1
2 11	9 50.20	+21 13.5	1.585	2.567	3.0	20.8	2 11	9 49.63	+ 9 28.0	2.157	3.140	1.9	20.9
2 21	9 39.85	+22 14.2	1.620	2.591	5.3	21.0	2 21	9 41.18	+10 48.2	2.173	3.155	2.5	21.0
3 2	9 30.58	+22 58.1	1.683	2.614	9.3	21.2	3 2	9 33.33	+12 5.5	2.219	3.169	6.1	21.2
3 12	9 23.43	+23 23.1	1.770	2.637	12.9	21.5	3 12	9 26.83	+13 14.8	2.294	3.182	9.5	21.4
3 22	9 18.95	+23 30.0	1.878	2.659	15.9	21.8	3 22	9 22.20	+14 12.9	2.394	3.195	12.3	21.7
217071	2001 <i>SN</i> ₁₄₂		2 13.9 223°64 1°4/15.2 17				238571	2004 <i>XE</i> ₈₇		2 14.0 200°50	3°6/11.2 18		
1 12	10 11.71	+ 7 18.2	2.210	3.018	12.5	21.6	1 12	10 13.79	+19 28.4	1.741	2.586	13.6	20.5
1 22	10 6.15	+ 7 34.3	2.115	3.008	9.4	21.3	1 22	10 8.17	+20 38.9	1.668	2.584	9.9	20.2
2 1	9 58.65	+ 8 2.7	2.045	2.998	5.9	21.1	2 1	10 0.02	+21 55.3	1.620	2.581	6.0	20.0
2 11	9 49.84	+ 8 40.3	2.004	2.986	2.2	20.8	2 11	9 50.20	+23 9.1	1.599	2.578	3.6	19.8
2 21	9 40.54	+ 9 23.2	1.993	2.975	2.8	20.9	2 21	9 39.84	+24 11.7	1.608	2.574	5.9	20.0
3 2	9 31.73	+10 6.5	2.012	2.962	6.6	21.1	3 2	9 30.26	+24 56.8	1.644	2.570	9.9	20.2
3 12	9 24.28	+10 45.8	2.058	2.949	10.2	21.3	3 12	9 22.61	+25 21.7	1.705	2.565	13.7	20.4
3 22	9 18.83	+11 17.6	2.129	2.936	13.4	21.5	3 22	9 17.63	+25 26.7	1.786	2.560	16.9	20.6
129038	2004 <i>UY</i> ₄		2 13.9 143°65 1°6/15.2 18 R				314964	2006 <i>WF</i> ₁₉₂		2 14.0 166°30	1°9/12.3 18		
1 12	10 15.03	+ 8 10.1	2.408	3.208	11.8	20.4	1 12	10 12.65	+16 33.1	2.150	2.983	11.8	21.0
1 22	10 8.23	+ 7 54.5	2.330	3.218	8.9	20.2	1 22	10 6.81	+17 22.4	2.077	2.988	8.6	20.8
2 1	9 59.67	+ 7 47.5	2.277	3.227	5.5	20.0	2 1	9 59.00	+18 17.7	2.030	2.992	5.0	20.5
2 11	9 50.04	+ 7 47.2	2.255	3.236	2.3	19.8	2 11	9 49.93	+19 13.0	2.013	2.996	2.0	20.3
2 21	9 40.16	+ 7 51.2	2.264	3.244	2.7	19.8	2 21	9 40.51	+20 2.6	2.025	2.999	4.0	20.5
3 2	9 30.90	+ 7 56.8	2.303	3.252	6.0	20.0	3 2	9 31.75	+20 41.7	2.067	3.001	7.6	20.7
3 12	9 23.05	+ 8 1.2	2.371	3.259	9.2	20.3	3 12	9 24.53	+21 7.6	2.135	3.003	11.0	20.9
3 22	9 17.13	+ 8 2.5	2.464	3.266	12.0	20.5	3 22	9 19.43	+21 19.5	2.227	3.004	13.8	21.1
163524	2002 <i>TA</i> ₂₅		2 13.9 125°34 0°3/13.7 17				5289	Niemela		2 14.0 199°37	3°1/17.2 18		
1 12	10 9.41	+12 5.8	2.525										

EPHEMERIDES

2 14.0

2 14.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
69592	1998 <i>EO</i> ₁₄		2 14.0 349°24	2°3/12.5 18			364024	2005 <i>VB</i> ₇₇		2 14.0 205°37	4°1/17.8 17	R	
1 12	10 10.45	+15 28.6	1.303	2.163	16.4	18.6	1 12	10 11.74	- 1 47.3	2.596	3.356	12.1	21.4
1 22	10 6.26	+16 17.8	1.235	2.158	12.0	18.4	1 22	10 5.93	- 1 56.7	2.497	3.349	9.8	21.2
2 1	9 59.14	+17 18.6	1.189	2.155	6.9	18.1	2 1	9 58.44	- 1 51.2	2.422	3.342	7.1	21.1
2 11	9 50.03	+18 22.6	1.167	2.152	2.5	17.8	2 11	9 49.84	- 1 31.1	2.375	3.334	4.8	20.9
2 21	9 40.31	+19 20.3	1.172	2.150	5.4	17.9	2 21	9 40.82	- 0 58.6	2.358	3.325	4.3	20.9
3 2	9 31.57	+20 3.5	1.202	2.148	10.5	18.2	3 2	9 32.20	- 0 17.2	2.372	3.315	6.2	21.0
3 12	9 25.17	+20 27.6	1.254	2.147	15.3	18.5	3 12	9 24.73	+ 0 28.7	2.414	3.304	9.0	21.1
3 22	9 21.88	+20 32.0	1.325	2.147	19.3	18.7	3 22	9 18.97	+ 1 14.6	2.482	3.293	11.6	21.3
331587	2001 <i>TW</i>		2 14.0 125°03	6°1/5.3 17			85196	Halle		2 14.0 264°48	3°1/11.8 18		
1 12	10 14.87	+40 4.2	3.468	4.275	8.4	22.0	1 12	10 15.51	+21 11.2	2.103	2.939	12.0	19.2
1 22	10 7.92	+41 14.5	3.434	4.298	7.0	22.0	1 22	10 9.20	+21 40.0	2.007	2.918	8.8	18.9
2 1	9 59.42	+42 14.8	3.428	4.320	6.2	21.9	2 1	10 0.58	+22 10.7	1.937	2.896	5.4	18.7
2 11	9 50.01	+43 0.4	3.451	4.342	6.3	22.0	2 11	9 50.37	+22 37.5	1.895	2.874	3.1	18.5
2 21	9 40.44	+43 28.1	3.503	4.363	7.2	22.0	2 21	9 39.57	+22 54.8	1.883	2.851	5.0	18.6
3 2	9 31.50	+43 36.8	3.581	4.383	8.4	22.2	3 2	9 29.32	+22 58.9	1.900	2.828	8.6	18.7
3 12	9 23.89	+43 27.6	3.683	4.402	9.8	22.3	3 12	9 20.70	+22 48.1	1.944	2.804	12.2	18.9
3 22	9 18.04	+43 3.0	3.806	4.421	11.0	22.4	3 22	9 14.44	+22 23.4	2.009	2.780	15.4	19.1
15778	1993 <i>NH</i>		2 14.0 190°22	10°1/23.4 18	R		276648	2003 <i>UJ</i> ₂₅₄		2 14.0 82°80	5°7/9.3 18		
1 12	10 13.90	-19 42.8	2.380	3.023	15.9	19.9	1 12	10 13.93	+28 35.4	2.039	2.883	12.0	21.0
1 22	10 7.77	-20 35.3	2.286	3.022	14.3	19.7	1 22	10 7.87	+29 32.7	1.985	2.893	9.1	20.8
2 1	9 59.63	-21 2.8	2.211	3.020	12.5	19.6	2 1	9 59.64	+30 25.2	1.957	2.904	6.6	20.7
2 11	9 50.12	-21 1.7	2.159	3.017	11.0	19.5	2 11	9 50.10	+31 5.7	1.956	2.914	5.7	20.6
2 21	9 40.07	-20 31.2	2.132	3.013	10.2	19.4	2 21	9 40.33	+31 28.4	1.983	2.924	7.3	20.7
3 2	9 30.46	-19 33.7	2.131	3.008	10.5	19.4	3 2	9 31.47	+31 30.9	2.038	2.934	9.9	20.9
3 12	9 22.22	-18 15.5	2.155	3.001	11.8	19.5	3 12	9 24.44	+31 13.5	2.117	2.944	12.7	21.1
3 22	9 16.01	-16 44.4	2.203	2.994	13.6	19.6	3 22	9 19.81	+30 39.1	2.216	2.954	15.0	21.3
17644	1996 <i>TW</i> ₈		2 14.0 60°91	9°0/19.4 18			451892	2014 <i>JS</i> ₃₉		2 14.0 280°20	5°9/9.9 18		
1 12	10 15.33	- 8 26.2	1.834	2.574	17.1	17.2	1 12	10 13.72	+22 33.4	1.342	2.204	15.8	21.1
1 22	10 9.07	- 9 53.6	1.757	2.580	14.6	17.0	1 22	10 8.84	+24 2.4	1.273	2.196	11.8	20.8
2 1	10 0.48	-10 59.3	1.702	2.587	11.9	16.8	2 1	10 0.76	+25 36.7	1.228	2.188	7.7	20.6
2 11	9 50.32	-11 39.6	1.672	2.594	9.7	16.7	2 11	9 50.45	+27 3.9	1.208	2.180	5.9	20.5
2 21	9 39.65	-11 53.5	1.667	2.600	9.0	16.7	2 21	9 39.40	+28 12.0	1.214	2.173	8.6	20.6
3 2	9 29.68	-11 43.5	1.690	2.607	10.2	16.8	3 2	9 29.34	+28 53.1	1.245	2.165	12.9	20.8
3 12	9 21.47	-11 15.3	1.737	2.614	12.6	16.9	3 12	9 21.79	+29 5.0	1.297	2.157	17.1	21.0
3 22	9 15.73	-10 36.3	1.806	2.621	15.1	17.1	3 22	9 17.61	+28 50.5	1.367	2.150	20.7	21.3
413209	2003 <i>FF</i> ₃₅		2 14.0 346°28	2°3/12.7 17			378986	2008 <i>US</i> ₂₈₂		2 14.0 22°98	5°5/18.8 18		
1 12	10 10.37	+17 7.1	1.336	2.197	15.9	20.0	1 12	10 7.24	- 3 56.0	1.912	2.689	15.3	21.1
1 22	10 6.19	+17 28.4	1.263	2.187	11.7	19.7	1 22	10 3.05	- 3 59.9	1.833	2.692	12.4	20.9
2 1	9 59.09	+17 57.2	1.212	2.178	6.8	19.4	2 1	9 56.90	- 3 41.6	1.775	2.695	9.2	20.7
2 11	9 50.03	+18 26.6	1.186	2.171	2.5	19.1	2 11	9 49.48	- 3 1.7	1.742	2.699	6.4	20.6
2 21	9 40.37	+18 49.3	1.186	2.164	5.2	19.3	2 21	9 41.68	- 2 3.8	1.736	2.703	5.5	20.5
3 2	9 31.65	+18 59.6	1.211	2.159	10.3	19.5	3 2	9 34.47	- 0 53.6	1.758	2.707	7.5	20.6
3 12	9 25.23	+18 54.4	1.258	2.155	15.0	19.8	3 12	9 28.75	+ 0 21.5	1.807	2.712	10.6	20.8
3 22	9 21.88	+18 33.6	1.325	2.152	19.0	20.0	3 22	9 25.12	+ 1 34.5	1.878	2.716	13.7	21.0
111419	2001 <i>XA</i> ₁₉₃		2 14.0 101°13	3°1/11.0 18			500379	2012 <i>TX</i> ₅₉		2 14.0 103°86	2°9/17.1 17		
1 12	10 10.80	+18 2.8	1.960	2.803	12.4	19.5	1 12	10 7.31	+ 0 53.9	2.518	3.302	11.8	22.0
1 22	10 5.60	+19 33.1	1.903	2.819	8.9	19.3	1 22	10 2.62	+ 1 12.6	2.443	3.315	9.2	21.9
2 1	9 58.34	+21 9.2	1.872	2.834	5.3	19.2	2 1	9 56.45	+ 1 46.1	2.392	3.327	6.3	21.7
2 11	9 49.80	+22 42.6	1.871	2.850	3.1	19.0	2 11	9 49.36	+ 2 32.2	2.369	3.340	3.6	21.5
2 21	9 40.96	+24 5.4	1.899	2.865	5.2	19.2	2 21	9 42.04	+ 3 27.1	2.376	3.352	3.2	21.5
3 2	9 32.87	+25 11.5	1.956	2.879	8.7	19.4	3 2	9 35.23	+ 4 26.4	2.413	3.365	5.6	21.7
3 12	9 26.44	+25 57.9	2.039	2.894	12.0	19.7	3 12	9 29.57	+ 5 25.2	2.479	3.377	8.4	21.9
3 22	9 22.24	+26 24.8	2.143	2.908	14.7	19.9	3 22	9 25.53	+ 6 19.3	2.569	3.388	11.0	22.1
410767	2009 <i>DL</i> ₁₃₇		2 14.0 247°12	1°6/15.2 18			20950	3305 <i>T-2</i>		2 14.0 267°65	2°1/12.5 18		
1 12	10 10.48	+ 6 18.7	1.681	2.503	15.1	21.5	1 12	10 13.04	+16 13.0	1.664	2.508	14.2	19.0
1 22	10 5.75	+ 6 49.2	1.598	2.498	11.4	21.2	1 22	10 7.81	+16 57.2	1.577	2.493	10.4	18.7
2 1	9 58.64	+ 7 37.6	1.538	2.492	7.1	20.9	2 1	9 59.96	+17 50.5	1.515	2.478	6.1	18.4
2 11	9 49.91	+ 8 39.8	1.504	2.487	2.7	20.6	2 11	9 50.26	+18 46.0	1.479	2.463	2.3	18.2
2 21	9 40.63	+ 9 49.3	1.498	2.481	3.3	20.7	2 21	9 39.88	+19 36.0	1.471	2.447	4.8	18.3
3 2	9 31.99	+10 58.6	1.521	2.475	7.9	20.9	3 2	9 30.15	+20 14.0	1.491	2.432	9.4	18.5
3 12	9 25.13	+12 0.7	1.569	2.469	12.3	21.2	3 12	9 22.34	+20 36.0	1.536	2.416	13.8	18.7
3 22	9 20.76	+12 50.8	1.639	2.463	16.0	21.4	3 22	9 17.26	+20 41.0	1.601	2.400	17.5	18.9
474012	2016 <i>FB</i> ₅₄		2 14.0 300°25	1°7/15.5 17			400560	2008 <i>WL</i> ₆₉		2 14.0 5°05	5°0/16.9 18		
1 12	10 7.10	+ 4 27.4	1.797	2.615	14.5	20.7	1 12	10 11.70	+ 1 54.4	1.329	2.149	18.5	20.6
1 22	10 3.18	+ 5 21.6	1.708	2.605	11.0	20.4	1 22	10 7.05	+ 1 29.1	1.257	2.149	14.6	20.4
2 1	9 57.10	+ 6 36.4	1.643	2.596	7.0	20.2	2 1	9 59.57	+ 1 26.2	1.205	2.149	10.1	20.1
2 11	9 49.55	+ 8 7.5	1.604	2.586	2.7	19.9	2 11	9 50.17	+ 1 45.1	1.177	2.149	6.0	19.9
2 21	9 41.45	+ 9 47.5	1.595	2.577	3.1	19.9	2 21	9 40.16	+ 2 21.8	1.173	2.150	5.5	19.9
3 2	9 33.88	+11 27.6	1.614	2.568	7.5	20.1	3 2	9 31.06	+ 3 9.4	1.196	2.152	9.3	20.1
3 12	9 27.87	+12 59.5	1.659	2.559	11.7	20.4	3 12	9 24.18	+ 3 59.7	1.241	2.154	13.8	20.3
3 22	9 24.12	+14 17.3	1.727	2.551	15.4	20.6	3 22	9 20.31	+ 4 45.5	1.307	2.156	17.9	20.6
316938	2001 <i>CC</i> ₂₀		2 14.0 41°74	4°5/10.1 17			73301	2002 <i>JB</i> ₇₀		2 14.0 278°28	3°8		

EPHEMERIDES

2 14.0

2 14.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
352741	2008 <i>TF</i> ₆₄		2 14.0 47°57'	1.6°/15.0	18		430348	2013 <i>YX</i> ₁₀₆		2 14.0 189°97'	2.5°/16.3	17	
1 12	10 11.81	+ 7 25.3	1.243	2.085	18.2	21.0	1 12	10 9.17	+ 4 7.1	2.500	3.295	11.6	21.2
1 22	10 7.12	+ 7 47.6	1.186	2.096	13.6	20.8	1 22	10 4.06	+ 4 3.9	2.413	3.294	8.9	21.0
2 1	9 59.54	+ 8 29.9	1.149	2.108	8.3	20.5	2 1	9 57.35	+ 4 12.6	2.351	3.294	5.9	20.8
2 11	9 50.14	+ 9 26.4	1.137	2.120	2.8	20.2	2 11	9 49.61	+ 4 31.5	2.318	3.293	3.1	20.6
2 21	9 40.34	+10 28.9	1.150	2.133	3.9	20.3	2 21	9 41.56	+ 4 57.9	2.314	3.292	3.0	20.6
3 2	9 31.67	+11 28.6	1.189	2.146	9.2	20.6	3 2	9 33.97	+ 5 28.2	2.340	3.291	5.8	20.8
3 12	9 25.41	+12 18.0	1.251	2.160	14.1	21.0	3 12	9 27.57	+ 5 58.7	2.394	3.290	8.8	21.0
3 22	9 22.21	+12 53.0	1.334	2.173	18.1	21.2	3 22	9 22.85	+ 6 26.0	2.473	3.288	11.5	21.2
121152	1999 <i>JU</i> ₈₂		2 14.0 250°63'	3.5°/10.9	18		495212	2013 <i>CX</i> ₁₈₅		2 14.0 268°56'	2.5°/15.8	18	
1 12	10 13.05	+18 41.0	1.854	2.697	13.0	19.9	1 12	10 10.99	+ 4 40.4	1.569	2.389	16.1	21.3
1 22	10 7.74	+20 3.7	1.762	2.678	9.5	19.6	1 22	10 6.37	+ 4 59.7	1.479	2.376	12.4	21.1
2 1	9 59.91	+21 35.2	1.697	2.658	5.8	19.3	2 1	9 59.15	+ 5 39.4	1.412	2.364	8.0	20.8
2 11	9 50.27	+23 7.1	1.659	2.638	3.5	19.1	2 11	9 50.11	+ 6 36.4	1.370	2.351	3.6	20.5
2 21	9 39.88	+24 30.0	1.651	2.617	5.9	19.2	2 21	9 40.34	+ 7 44.6	1.356	2.338	3.8	20.5
3 2	9 29.98	+25 36.3	1.672	2.595	9.9	19.4	3 2	9 31.18	+ 8 56.3	1.369	2.325	8.4	20.7
3 12	9 21.80	+26 21.6	1.717	2.573	13.8	19.6	3 12	9 23.89	+10 3.2	1.407	2.312	13.1	20.9
3 22	9 16.18	+26 45.2	1.783	2.550	17.2	19.8	3 22	9 19.30	+10 59.4	1.466	2.298	17.2	21.1
350618	2001 <i>SK</i> ₁₈₇		2 14.0 111°84'	0°/14.0	18		313859	2004 <i>FM</i> ₆₅		2 14.0 7°53'	4.6°/11.3	18	
1 12	10 15.94	+10 49.3	1.650	2.478	15.1	21.7	1 12	10 7.88	+19 54.2	1.086	1.964	17.4	19.5
1 22	10 9.50	+11 25.2	1.592	2.498	11.1	21.5	1 22	10 4.72	+20 50.5	1.033	1.966	12.7	19.2
2 1	10 0.67	+12 13.4	1.558	2.517	6.4	21.3	2 1	9 58.34	+21 53.2	1.001	1.968	7.7	18.9
2 11	9 50.38	+13 7.7	1.551	2.536	1.5	21.0	2 11	9 49.90	+22 51.0	0.993	1.973	4.6	18.8
2 21	9 39.84	+14 1.2	1.573	2.554	3.4	21.2	2 21	9 40.98	+23 33.6	1.007	1.979	7.4	18.9
3 2	9 30.30	+14 47.9	1.624	2.572	8.1	21.5	3 2	9 33.33	+23 53.7	1.045	1.987	12.3	19.2
3 12	9 22.81	+15 23.2	1.700	2.589	12.2	21.7	3 12	9 28.35	+23 49.5	1.103	1.997	16.9	19.5
3 22	9 17.96	+15 45.3	1.799	2.605	15.6	22.0	3 22	9 26.72	+23 23.0	1.179	2.008	20.7	19.8
31920	Annamcevoy		2 14.0 259°97'	4.6°/11.2	18		148701	2001 <i>SV</i> ₂₈₉		2 14.0 99°31'	1.7°/12.9	18	
1 12	10 16.28	+22 1.7	1.477	2.330	15.2	19.4	1 12	10 17.31	+17 34.8	1.871	2.705	13.3	20.2
1 22	10 10.44	+22 52.8	1.404	2.322	11.2	19.2	1 22	10 10.29	+17 45.6	1.810	2.720	9.7	20.0
2 1	10 1.58	+23 46.9	1.354	2.314	7.1	18.9	2 1	10 1.03	+18 0.0	1.775	2.736	5.6	19.8
2 11	9 50.66	+24 34.6	1.330	2.306	4.6	18.7	2 11	9 50.47	+18 12.8	1.767	2.751	1.9	19.6
2 21	9 39.10	+25 7.2	1.333	2.298	7.0	18.8	2 21	9 39.72	+18 19.7	1.790	2.766	4.0	19.7
3 2	9 28.51	+25 19.1	1.362	2.290	11.3	19.1	3 2	9 29.94	+18 17.5	1.841	2.781	8.0	20.0
3 12	9 20.29	+25 9.2	1.414	2.281	15.5	19.3	3 12	9 22.10	+18 5.2	1.919	2.795	11.6	20.3
3 22	9 15.26	+24 39.6	1.486	2.273	19.1	19.5	3 22	9 16.76	+17 43.0	2.019	2.810	14.6	20.5
347617	2001 <i>SZ</i> ₃₇		2 14.0 142°70'	2.7°/10.8	16		359751	2011 <i>UR</i> ₈₅		2 14.0 85°54'	0°/14.2	18	
1 12	10 10.65	+22 49.9	3.112	3.943	8.6	22.1	1 12	10 13.97	+ 9 7.5	1.572	2.401	15.7	20.8
1 22	10 4.83	+23 34.3	3.049	3.956	6.3	22.0	1 22	10 8.09	+ 9 58.6	1.521	2.427	11.5	20.6
2 1	9 57.65	+24 18.4	3.013	3.969	4.0	21.9	2 1	9 59.85	+11 4.5	1.493	2.453	6.7	20.4
2 11	9 49.65	+24 58.1	3.008	3.981	2.7	21.8	2 11	9 50.20	+12 18.2	1.493	2.478	1.7	20.2
2 21	9 41.48	+25 29.7	3.035	3.993	4.0	21.9	2 21	9 40.36	+13 31.6	1.521	2.503	3.4	20.3
3 2	9 33.81	+25 50.6	3.091	4.004	6.3	22.0	3 2	9 31.56	+14 37.3	1.577	2.527	8.1	20.7
3 12	9 27.24	+26 0.0	3.175	4.014	8.6	22.2	3 12	9 24.82	+15 29.8	1.659	2.551	12.2	21.0
3 22	9 22.20	+25 57.9	3.283	4.024	10.5	22.4	3 22	9 20.69	+16 6.9	1.763	2.575	15.6	21.2
32431	2000 <i>RC</i> ₈₄		2 14.0 154°84'	2.3°/16.5	18		341399	2007 <i>TP</i> ₁₅₂		2 14.0 90°65'	5.0°/18.9	18	
1 12	10 7.01	+ 2 55.2	2.594	3.386	11.3	19.7	1 12	10 7.91	- 4 35.6	2.305	3.064	13.5	20.7
1 22	10 2.43	+ 3 19.3	2.510	3.389	8.7	19.5	1 22	10 3.21	- 4 37.9	2.228	3.076	11.0	20.6
2 1	9 56.37	+ 3 56.9	2.451	3.393	5.7	19.4	2 1	9 56.87	- 4 21.2	2.175	3.088	8.2	20.4
2 11	9 49.37	+ 4 45.6	2.420	3.396	3.0	19.2	2 11	9 49.50	- 3 46.2	2.147	3.099	5.8	20.3
2 21	9 42.09	+ 5 41.6	2.420	3.399	2.8	19.2	2 21	9 41.87	- 2 56.1	2.148	3.110	5.0	20.2
3 2	9 35.26	+ 6 40.5	2.450	3.402	5.5	19.3	3 2	9 34.77	- 1 55.3	2.178	3.122	6.6	20.4
3 12	9 29.52	+ 7 37.6	2.508	3.405	8.4	19.5	3 12	9 28.94	- 0 49.9	2.235	3.133	9.2	20.5
3 22	9 25.37	+ 8 29.2	2.591	3.407	11.1	19.7	3 22	9 24.89	+ 0 14.7	2.316	3.144	11.8	20.7
221690	2007 <i>DZ</i> ₄₇		2 14.0 103°39'	0.8°/13.5	18		334584	2002 <i>TU</i> ₁₃₃		2 14.0 124°19'	3.5°/17.1	17	
1 12	10 12.28	+14 0.8	1.861	2.697	13.3	20.5	1 12	10 9.73	+ 1 22.2	2.267	3.054	12.9	20.4
1 22	10 6.79	+14 23.4	1.788	2.699	9.7	20.3	1 22	10 4.59	+ 1 13.2	2.185	3.058	10.1	20.2
2 1	9 59.11	+14 54.0	1.739	2.701	5.6	20.0	2 1	9 57.71	+ 1 18.9	2.128	3.063	7.0	20.0
2 11	9 50.04	+15 27.7	1.717	2.703	1.4	19.7	2 11	9 49.72	+ 1 38.1	2.098	3.067	4.2	19.8
2 21	9 40.58	+15 59.1	1.725	2.705	3.5	19.9	2 21	9 41.41	+ 2 8.0	2.097	3.071	3.8	19.8
3 2	9 31.87	+16 23.7	1.760	2.706	7.8	20.1	3 2	9 33.64	+ 2 44.7	2.125	3.075	6.3	20.0
3 12	9 24.89	+16 38.1	1.822	2.708	11.6	20.4	3 12	9 27.18	+ 3 23.4	2.181	3.079	9.4	20.2
3 22	9 20.26	+16 41.2	1.906	2.710	14.9	20.6	3 22	9 22.59	+ 4 0.0	2.261	3.083	12.2	20.4
459223	2012 <i>DA</i> ₉₆		2 14.0 132°58'	1.5°/12.9	18		377809	2006 <i>BX</i> ₄		2 14.0 145°99'	1.3°/15.1	18	
1 12	10 15.09	+16 17.6	2.027	2.858	12.5	21.3	1 12	10 11.31	+ 8 0.0	2.096	2.910	12.8	21.4
1 22	10 8.61	+16 42.3	1.960	2.870	9.1	21.1	1 22	10 5.86	+ 8 9.5	2.018	2.914	9.6	21.2
2 1	10 0.05	+17 12.0	1.919	2.881	5.3	20.8	2 1	9 58.49	+ 8 30.6	1.964	2.918	5.9	21.0
2 11	9 50.24	+17 41.6	1.907	2.891	1.7	20.6	2 11	9 49.91	+ 9 0.1	1.939	2.922	2.2	20.7
2 21	9 40.16	+18 6.4	1.924	2.901	3.7	20.8	2 21	9 40.98	+ 9 33.9	1.943	2.925	2.8	20.8
3 2	9 30.89	+18 22.4	1.971	2.910	7.5	21.0	3 2	9 32.68	+10 7.7	1.977	2.929	6.6	21.0
3 12	9 23.33	+18 27.7	2.044	2.919	11.1	21.3	3 12	9 25.86	+10 37.2	2.038	2.932	10.2	21.2
3 22	9 18.04	+18 21.9	2.140	2.928	14.0	21.5	3 22	9 21.09	+10 59.7	2.122	2.935	13.3	21.4
280758	2005 <i>QG</i> ₈₄		2 14.0 190°00'	1.3°/15.0	18		166723	2002 <i>TY</i> ₂₃₈		2 14.0 36°37'	7.1°/20.1	18	
1 12	10 14.56	+ 7 10.5	1.8										

EPHEMERIDES

2 14.0

2 14.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
125900	2001 XY ₂₁₆		2 14.0 226°20	6°8/ 8.5 18			283509	2001 SV ₃₄₆		2 14.0 82°60	5°0/17.0 18		
1 12	10 18.11	+29 30.0	1.892	2.733	12.9	19.8	1 12	10 15.09	+ 1 18.9	1.431	2.238	18.1	20.2
1 22	10 11.46	+30 48.7	1.817	2.722	10.0	19.6	1 22	10 9.25	+ 0 50.8	1.367	2.251	14.2	19.9
2 1	10 2.06	+32 4.0	1.767	2.710	7.5	19.4	2 1	10 0.72	+ 0 44.4	1.324	2.263	9.9	19.7
2 11	9 50.80	+33 5.8	1.745	2.697	6.9	19.4	2 11	9 50.48	+ 0 58.5	1.306	2.276	6.0	19.5
2 21	9 38.90	+33 46.1	1.751	2.684	8.7	19.5	2 21	9 39.83	+ 1 29.5	1.314	2.289	5.5	19.5
3 2	9 27.81	+34 0.5	1.784	2.669	11.7	19.6	3 2	9 30.20	+ 2 11.0	1.349	2.301	8.9	19.8
3 12	9 18.78	+33 49.1	1.840	2.655	14.8	19.8	3 12	9 22.79	+ 2 55.6	1.408	2.314	13.0	20.0
3 22	9 12.61	+33 15.4	1.916	2.639	17.5	19.9	3 22	9 18.27	+ 3 36.8	1.488	2.326	16.7	20.3
231801	2000 EB ₂₀		2 14.0 275°76	7°8/20.5 17			455565	2004 QF ₂₅		2 14.0 253°60	5°6/18.7 17		
1 12	10 10.15	-10 39.6	1.722	2.464	18.0	19.8	1 12	10 10.44	- 5 5.8	2.316	3.067	13.7	21.8
1 22	10 5.84	-10 20.6	1.605	2.435	15.4	19.5	1 22	10 5.32	- 5 21.0	2.206	3.047	11.3	21.6
2 1	9 58.97	- 9 26.9	1.507	2.405	12.2	19.2	2 1	9 58.29	- 5 17.5	2.118	3.026	8.7	21.4
2 11	9 50.13	- 7 55.9	1.432	2.373	9.2	19.0	2 11	9 49.92	- 4 54.5	2.057	3.005	6.3	21.2
2 21	9 40.28	- 5 49.5	1.384	2.342	7.8	18.8	2 21	9 40.96	- 4 13.8	2.024	2.982	5.6	21.2
3 2	9 30.70	- 3 15.8	1.364	2.309	9.6	18.8	3 2	9 32.32	- 3 18.9	2.020	2.960	7.4	21.2
3 12	9 22.69	- 0 28.0	1.371	2.276	13.3	18.9	3 12	9 24.88	- 2 15.6	2.043	2.936	10.2	21.3
3 22	9 17.23	+ 2 19.5	1.402	2.243	17.4	19.1	3 22	9 19.33	- 1 10.0	2.091	2.912	13.1	21.5
209453	2004 GA ₁₁		2 14.0 279°03	3°8/18.1 17			91812	1999 TQ ₂₅₂		2 14.0 59°37	0°2/14.2 18		
1 12	10 6.08	- 2 22.0	2.445	3.217	12.5	20.5	1 12	10 11.61	+11 12.0	1.778	2.610	14.0	19.2
1 22	10 1.99	- 1 57.5	2.338	3.199	10.0	20.3	1 22	10 6.26	+11 29.9	1.716	2.624	10.3	19.0
2 1	9 56.26	- 1 14.3	2.255	3.180	7.2	20.1	2 1	9 58.78	+11 58.4	1.678	2.638	6.0	18.8
2 11	9 49.41	- 0 13.5	2.199	3.162	4.6	19.9	2 11	9 49.99	+12 32.9	1.667	2.652	1.5	18.5
2 21	9 42.10	+ 1 1.2	2.172	3.144	4.0	19.8	2 21	9 40.95	+13 7.9	1.685	2.667	3.1	18.7
3 2	9 35.12	+ 2 24.8	2.175	3.125	6.2	19.9	3 2	9 32.75	+13 38.7	1.731	2.682	7.4	19.0
3 12	9 29.23	+ 3 50.8	2.206	3.107	9.2	20.1	3 12	9 26.33	+14 1.2	1.803	2.696	11.3	19.2
3 22	9 25.01	+ 5 13.4	2.262	3.088	12.1	20.2	3 22	9 22.25	+14 13.6	1.897	2.711	14.5	19.5
431458	2007 RG ₂₇₄		2 14.0 27°20	5°7/20.3 18			371945	2008 EV ₁₄₂		2 14.0 290°25	0°9/13.4 17		
1 12	10 4.43	- 8 58.6	1.564	2.333	18.5	19.6	1 12	10 10.10	+12 30.6	1.695	2.535	14.2	21.4
1 22	10 1.25	- 7 43.7	1.499	2.352	15.0	19.4	1 22	10 5.66	+13 16.5	1.602	2.516	10.5	21.1
2 1	9 55.94	- 5 53.0	1.455	2.372	11.1	19.2	2 1	9 58.75	+14 15.7	1.533	2.496	6.1	20.8
2 11	9 49.32	- 3 30.8	1.436	2.393	7.4	19.0	2 11	9 50.06	+15 22.5	1.491	2.477	1.5	20.4
2 21	9 42.41	- 0 46.7	1.445	2.416	5.7	19.0	2 21	9 40.66	+16 29.3	1.477	2.457	4.0	20.6
3 2	9 36.30	+ 2 5.6	1.482	2.439	7.8	19.1	3 2	9 31.80	+17 28.6	1.490	2.437	8.8	20.8
3 12	9 31.94	+ 4 52.0	1.547	2.463	11.4	19.4	3 12	9 24.67	+18 14.6	1.529	2.418	13.3	21.0
3 22	9 29.88	+ 7 21.6	1.638	2.487	14.8	19.7	3 22	9 20.11	+18 44.3	1.588	2.399	17.1	21.2
429859	2012 RA ₃₁		2 14.0 82°34	2°0/12.4 18			211514	2003 QK ₅₀		2 14.0 99°85	1°6/12.8 18		
1 12	10 12.11	+18 49.2	2.273	3.109	11.2	20.9	1 12	10 12.99	+13 47.0	1.662	2.501	14.4	20.5
1 22	10 6.27	+19 12.0	2.209	3.121	8.1	20.8	1 22	10 7.44	+14 52.7	1.605	2.518	10.4	20.3
2 1	9 58.63	+19 37.3	2.171	3.133	4.7	20.6	2 1	9 59.54	+16 8.9	1.572	2.535	6.0	20.1
2 11	9 49.93	+20 0.3	2.162	3.145	2.1	20.4	2 11	9 50.19	+17 27.5	1.567	2.552	1.8	19.8
2 21	9 41.03	+20 17.2	2.183	3.157	3.8	20.5	2 21	9 40.54	+18 40.2	1.591	2.568	4.3	20.0
3 2	9 32.85	+20 24.8	2.234	3.168	7.1	20.8	3 2	9 31.82	+19 40.2	1.642	2.583	8.7	20.3
3 12	9 26.15	+20 21.8	2.311	3.180	10.2	21.0	3 12	9 25.05	+20 23.3	1.719	2.599	12.6	20.6
3 22	9 21.45	+20 8.3	2.411	3.192	12.8	21.2	3 22	9 20.83	+20 48.7	1.818	2.614	15.8	20.8
355938	2008 YJ ₇₄		2 14.0 74°90	3°1/11.9 18			364387	2006 VN ₆₉		2 14.0 187°29	1°7/15.6 17		
1 12	10 13.75	+16 58.3	1.404	2.257	15.8	20.7	1 12	10 11.85	+ 5 48.5	2.325	3.125	12.2	22.1
1 22	10 8.34	+18 6.8	1.352	2.273	11.4	20.4	1 22	10 6.16	+ 6 7.3	2.238	3.125	9.2	21.9
2 1	10 0.18	+19 23.4	1.324	2.288	6.6	20.2	2 1	9 58.67	+ 6 38.8	2.175	3.124	5.9	21.7
2 11	9 50.33	+20 38.5	1.322	2.304	3.1	20.0	2 11	9 50.00	+ 7 20.1	2.142	3.122	2.5	21.5
2 21	9 40.16	+21 42.4	1.346	2.319	5.7	20.2	2 21	9 40.94	+ 8 7.4	2.138	3.119	2.7	21.5
3 2	9 31.13	+22 28.3	1.398	2.335	10.2	20.5	3 2	9 32.40	+ 8 55.7	2.166	3.116	6.2	21.7
3 12	9 24.44	+22 53.3	1.473	2.350	14.4	20.8	3 12	9 25.17	+ 9 40.7	2.221	3.112	9.6	21.9
3 22	9 20.70	+22 58.2	1.567	2.366	17.8	21.1	3 22	9 19.84	+10 18.9	2.301	3.108	12.6	22.1
206909	2004 NB ₆		2 14.0 298°14	1°9/11.9 17			416130	2002 QF ₁₀₁		2 14.0 218°57	1°9/12.5 17		
1 12	10 7.29	+13 50.6	2.292	3.126	11.2	19.6	1 12	10 13.72	+16 24.9	2.069	2.902	12.3	22.6
1 22	10 3.15	+15 24.5	2.183	3.095	8.2	19.3	1 22	10 7.84	+17 8.3	1.983	2.894	9.0	22.4
2 1	9 57.10	+17 11.8	2.101	3.064	4.7	19.0	2 1	9 59.79	+17 58.4	1.923	2.884	5.2	22.2
2 11	9 49.64	+19 5.8	2.049	3.032	1.9	18.8	2 11	9 50.28	+18 49.5	1.891	2.874	2.0	21.9
2 21	9 41.52	+20 58.6	2.028	3.000	4.2	18.9	2 21	9 40.27	+19 35.5	1.889	2.864	4.1	22.0
3 2	9 33.64	+22 42.2	2.037	2.968	7.9	19.1	3 2	9 30.84	+20 11.3	1.917	2.853	8.0	22.3
3 12	9 26.93	+24 10.5	2.074	2.936	11.5	19.2	3 12	9 22.99	+20 33.8	1.971	2.841	11.6	22.5
3 22	9 22.12	+25 20.2	2.134	2.904	14.6	19.4	3 22	9 17.39	+20 42.3	2.047	2.829	14.8	22.6
140159	2001 SK ₁₇₁		2 14.0 5°93	0°2/13.9 18			360552	2003 SD ₃₃₂		2 14.0 290°05	9°8/ 6.2 18		
1 12	10 5.40	+10 45.8	1.138	2.002	17.9	18.7	1 12	10 16.17	+34 26.1	1.541	2.391	14.8	21.0
1 22	10 2.73	+11 22.3	1.078	2.002	13.2	18.4	1 22	10 10.63	+36 9.4	1.481	2.382	12.0	20.8
2 1	9 57.15	+12 17.2	1.038	2.004	7.7	18.1	2 1	10 1.83	+37 43.8	1.444	2.374	10.1	20.6
2 11	9 49.65	+13 23.0	1.022	2.008	1.8	17.8	2 11	9 50.81	+38 56.3	1.433	2.365	10.1	20.6
2 21	9 41.65	+14 30.1	1.030	2.013	4.3	18.0	2 21	9 39.12	+39 36.9	1.446	2.356	12.0	20.7
3 2	9 34.69	+15 28.7	1.062	2.020	10.0	18.3	3 2	9 28.54	+39 41.5	1.483	2.348	14.9	20.8
3 12	9 30.09	+16 11.6	1.116	2.028	15.0	18.6	3 12	9 20.56	+39 12.4	1.539	2.339	17.9	21.0
3 22	9 28.58	+16 35.6	1.188	2.038	19.2	18.9	3 22	9 16.01	+38 15.6	1.613	2.331	20.5	21.2
207640	2006 UV ₂₂		2 14.0 202°94	2°1/12.1 17			494666	2001 UT ₃₁		2 14.0 183°09	2°1/12.1 17		
1 12	10 10.93	+19 7.0	2.478	3.313	10.4	20.7	1 12	10 12.72	+				

EPHEMERIDES

2 14.0

2 14.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
320860	2008 <i>FZ</i> ₁₂₂		2 14.0	78°39	8°1/ 8.8	17	384214	2009 <i>CJ</i> ₃₂		2 14.1	347°76	0°8/13.4	17
1 12	10 21.44	+33 56.0	1.720	2.557	14.1	20.5	1 12	10 7.87	+13 18.7	1.959	2.798	12.6	20.8
1 22	10 13.60	+34 56.4	1.683	2.581	11.1	20.4	1 22	10 3.58	+13 53.3	1.881	2.794	9.2	20.6
2 1	10 3.04	+35 44.7	1.671	2.604	8.8	20.3	2 1	9 57.30	+14 37.2	1.827	2.790	5.3	20.4
2 11	9 51.00	+36 11.9	1.686	2.626	8.1	20.3	2 11	9 49.73	+15 25.4	1.801	2.787	1.3	20.1
2 21	9 38.95	+36 12.7	1.727	2.649	9.6	20.4	2 21	9 41.75	+16 12.2	1.804	2.784	3.4	20.2
3 2	9 28.36	+35 46.5	1.794	2.671	12.1	20.6	3 2	9 34.38	+16 52.3	1.835	2.781	7.4	20.5
3 12	9 20.33	+34 56.9	1.884	2.693	14.7	20.9	3 12	9 28.52	+17 21.9	1.891	2.779	11.1	20.7
3 22	9 15.34	+33 49.8	1.993	2.715	17.0	21.1	3 22	9 24.78	+17 38.9	1.970	2.778	14.3	20.9
340769	2006 <i>SM</i> ₃₃₄		2 14.0	82°53	2°3/16.5	18	244311	2002 <i>GE</i> ₁₀₇		2 14.1	348°96	0°1/14.1	18
1 12	10 6.83	+ 2 53.3	2.393	3.189	12.0	20.9	1 12	10 6.69	+ 9 18.3	1.564	2.405	15.1	19.7
1 22	10 2.39	+ 3 22.9	2.318	3.200	9.2	20.8	1 22	10 3.15	+10 13.0	1.487	2.400	11.2	19.5
2 1	9 56.41	+ 4 7.1	2.268	3.211	6.0	20.6	2 1	9 57.24	+11 25.2	1.434	2.396	6.6	19.2
2 11	9 49.46	+ 5 3.0	2.246	3.222	3.0	20.4	2 11	9 49.74	+12 48.5	1.406	2.392	1.6	18.8
2 21	9 42.26	+ 6 6.2	2.254	3.234	2.8	20.4	2 21	9 41.71	+14 14.5	1.406	2.389	3.5	19.0
3 2	9 35.58	+ 7 11.6	2.292	3.245	5.7	20.6	3 2	9 34.37	+15 34.2	1.433	2.386	8.5	19.3
3 12	9 30.10	+ 8 14.1	2.357	3.256	8.8	20.8	3 12	9 28.83	+16 40.6	1.485	2.384	12.9	19.5
3 22	9 26.30	+ 9 9.7	2.448	3.267	11.5	21.0	3 22	9 25.82	+17 29.6	1.558	2.383	16.7	19.7
499423	2010 <i>CQ</i> ₉₂		2 14.0	279°45	4°0/11.1	17	94752	2001 <i>XX</i> ₈₆		2 14.1	87°27	4°4/16.9	18
1 12	10 15.68	+24 57.7	2.167	3.005	11.6	21.3	1 12	10 16.94	+ 1 40.9	1.556	2.355	17.2	18.6
1 22	10 9.21	+25 19.8	2.083	2.993	8.6	21.1	1 22	10 10.29	+ 1 22.5	1.500	2.380	13.4	18.4
2 1	10 0.54	+25 39.8	2.025	2.980	5.6	20.9	2 1	10 1.18	+ 1 24.2	1.467	2.405	9.1	18.2
2 11	9 50.47	+25 51.9	1.996	2.968	4.0	20.7	2 11	9 50.62	+ 1 44.2	1.459	2.430	5.3	18.1
2 21	9 39.98	+25 51.5	1.996	2.956	5.6	20.8	2 21	9 39.85	+ 2 18.2	1.479	2.454	4.9	18.1
3 2	9 30.19	+25 36.1	2.025	2.943	8.7	21.0	3 2	9 30.17	+ 3 0.0	1.526	2.478	8.2	18.4
3 12	9 22.09	+25 5.4	2.080	2.931	11.9	21.1	3 12	9 22.62	+ 3 43.0	1.600	2.501	12.0	18.6
3 22	9 16.31	+24 21.4	2.157	2.919	14.7	21.3	3 22	9 17.79	+ 4 21.8	1.696	2.524	15.4	18.9
428360	2007 <i>RW</i> ₅₇		2 14.1	100°40	2°9/17.3	18	57313	2001 <i>QM</i> ₂₂₀		2 14.1	86°57	2°4/15.7	18
1 12	10 8.15	+ 0 15.6	2.514	3.293	12.0	21.2	1 12	10 11.99	+ 4 36.9	1.425	2.249	17.2	19.9
1 22	10 3.24	+ 0 40.7	2.444	3.313	9.3	21.1	1 22	10 7.07	+ 5 6.1	1.360	2.259	13.1	19.7
2 1	9 56.84	+ 1 21.2	2.399	3.332	6.4	20.9	2 1	9 59.52	+ 5 57.1	1.316	2.269	8.3	19.5
2 11	9 49.56	+ 2 14.5	2.382	3.352	3.7	20.8	2 11	9 50.27	+ 7 4.8	1.298	2.279	3.5	19.2
2 21	9 42.09	+ 3 16.5	2.395	3.371	3.2	20.8	2 21	9 40.59	+ 8 21.7	1.306	2.289	3.7	19.2
3 2	9 35.14	+ 4 22.6	2.438	3.389	5.6	20.9	3 2	9 31.84	+ 9 38.7	1.342	2.298	8.5	19.5
3 12	9 29.39	+ 5 27.5	2.510	3.408	8.4	21.1	3 12	9 25.22	+10 47.4	1.402	2.308	13.0	19.8
3 22	9 25.26	+ 6 27.1	2.608	3.426	10.9	21.3	3 22	9 21.40	+11 42.8	1.484	2.317	16.9	20.1
267441	2002 <i>CS</i> ₂₁₆		2 14.1	49°68	1°9/12.9	18	459767	2013 <i>QC</i> ₇₀		2 14.1	190°03	3°0/17.1	16
1 12	10 14.26	+16 39.3	1.532	2.380	15.0	19.7	1 12	10 8.79	+ 0 22.0	2.190	2.976	13.3	21.6
1 22	10 8.39	+17 4.0	1.484	2.401	10.9	19.5	1 22	10 4.06	+ 0 57.6	2.101	2.975	10.4	21.4
2 1	10 0.07	+17 34.6	1.459	2.423	6.2	19.3	2 1	9 57.52	+ 1 52.1	2.037	2.974	7.1	21.2
2 11	9 50.33	+18 4.7	1.461	2.445	2.1	19.1	2 11	9 49.78	+ 3 2.8	2.000	2.973	3.9	21.0
2 21	9 40.45	+18 28.1	1.490	2.468	4.4	19.3	2 21	9 41.65	+ 4 24.6	1.993	2.971	3.4	21.0
3 2	9 31.71	+18 40.6	1.547	2.491	8.8	19.6	3 2	9 34.00	+ 5 51.2	2.015	2.968	6.4	21.2
3 12	9 25.14	+18 40.2	1.628	2.514	12.8	19.9	3 12	9 27.67	+ 7 15.9	2.066	2.966	9.8	21.4
3 22	9 21.27	+18 27.1	1.730	2.537	16.0	20.2	3 22	9 23.24	+ 8 32.9	2.142	2.963	12.9	21.6
210242	2007 <i>RD</i> ₂₀₃		2 14.1	46°15	0°4/14.4	18	432210	2009 <i>EK</i> ₁₂		2 14.1	256°55	0°4/13.7	17
1 12	10 9.22	+10 13.8	1.902	2.731	13.3	21.1	1 12	10 7.42	+12 4.8	2.522	3.347	10.6	21.3
1 22	10 4.43	+10 38.8	1.840	2.746	9.8	20.9	1 22	10 2.91	+12 45.0	2.432	3.338	7.7	21.1
2 1	9 57.70	+11 14.9	1.802	2.761	5.8	20.6	2 1	9 56.78	+13 33.9	2.369	3.329	4.5	20.9
2 11	9 49.78	+11 57.7	1.792	2.777	1.5	20.4	2 11	9 49.61	+14 27.3	2.335	3.320	1.0	20.6
2 21	9 41.62	+12 41.6	1.810	2.792	2.9	20.5	2 21	9 42.07	+15 20.7	2.331	3.311	2.7	20.7
3 2	9 34.21	+13 21.8	1.857	2.808	7.0	20.8	3 2	9 34.94	+16 9.6	2.357	3.302	6.1	20.9
3 12	9 28.39	+13 53.9	1.930	2.824	10.6	21.1	3 12	9 28.95	+16 50.2	2.410	3.292	9.3	21.1
3 22	9 24.71	+14 15.7	2.025	2.841	13.7	21.3	3 22	9 24.64	+17 20.4	2.488	3.283	12.1	21.3
248413	2005 <i>SM</i> ₁₆₉		2 14.1	65°81	2°3/15.4	18	465960	2011 <i>BG</i> ₁₀₂		2 14.1	28°66	1°6/12.8	18
1 12	10 14.14	+ 6 23.5	1.266	2.100	18.4	20.5	1 12	10 9.54	+14 17.3	1.706	2.551	13.9	21.0
1 22	10 8.77	+ 6 33.0	1.211	2.116	13.9	20.2	1 22	10 5.02	+15 13.2	1.638	2.554	10.1	20.8
2 1	10 0.52	+ 7 2.6	1.176	2.131	8.7	20.0	2 1	9 58.23	+16 19.5	1.594	2.558	5.8	20.5
2 11	9 50.48	+ 7 47.5	1.165	2.147	3.5	19.7	2 11	9 49.97	+17 29.0	1.577	2.561	1.8	20.3
2 21	9 40.08	+ 8 40.5	1.180	2.163	4.0	19.8	2 21	9 41.30	+18 34.2	1.588	2.565	4.2	20.4
3 2	9 30.87	+ 9 33.2	1.222	2.179	9.0	20.1	3 2	9 33.39	+19 28.2	1.627	2.569	8.6	20.7
3 12	9 24.10	+10 18.7	1.287	2.195	13.8	20.4	3 12	9 27.27	+20 6.8	1.690	2.574	12.5	20.9
3 22	9 20.42	+10 52.4	1.372	2.211	17.8	20.7	3 22	9 23.57	+20 28.5	1.775	2.579	15.8	21.2
361173	2006 <i>LZ</i> ₅		2 14.1	195°22	1°0/13.2	17	82563	2001 <i>OP</i> ₇₈		2 14.1	131°53	4°3/10.7	18
1 12	10 12.95	+13 40.3	2.105	2.933	12.3	21.7	1 12	10 14.44	+23 5.2	1.914	2.758	12.6	19.9
1 22	10 7.20	+14 26.8	2.023	2.930	9.0	21.5	1 22	10 8.41	+24 4.2	1.853	2.767	9.3	19.7
2 1	9 59.39	+15 22.2	1.966	2.927	5.2	21.2	2 1	10 0.11	+25 3.8	1.817	2.775	6.0	19.5
2 11	9 50.22	+16 21.0	1.938	2.923	1.4	21.0	2 11	9 50.40	+25 56.1	1.810	2.782	4.3	19.4
2 21	9 40.61	+17 17.4	1.941	2.919	3.5	21.1	2 21	9 40.38	+26 34.8	1.831	2.790	6.1	19.5
3 2	9 31.58	+18 5.7	1.973	2.914	7.5	21.3	3 2	9 31.21	+26 55.6	1.880	2.797	9.4	19.7
3 12	9 24.07	+18 42.2	2.032	2.908	11.1	21.5	3 12	9 23.89	+26 57.8	1.954	2.803	12.6	19.9
3 22	9 18.72	+19 5.2	2.114	2.901	14.2	21.7	3 22	9 19.04	+26 42.8	2.049	2.810	15.4	20.1
249543	2010 <i>HA</i> ₄₀		2 14.1	291°67	7°2/19.7	17	139895	2001 <i>RX</i> ₉₄		2 14.1	125°36	0°6/13.5	18
1 12	10 10.20	- 8 52.4	2.4										

EPHEMERIDES

2 14.1

2 14.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
343398	2010 <i>CO</i> ₁₆₈		2 14.1	0°33	3°4/17.2	18	218371	2004 <i>JN</i> ₂₂		2 14.1	190°08	0°1/14.0	18
1 12	10 7.06	+ 0 38.2	2.079	2.873	13.7	20.8	1 12	10 12.17	+11 34.2	2.273	3.092	11.8	21.6
1 22	10 2.87	+ 0 57.6	1.995	2.872	10.7	20.6	1 22	10 6.48	+12 1.2	2.189	3.091	8.7	21.3
2 1	9 56.85	+ 1 35.4	1.934	2.872	7.4	20.4	2 1	9 58.92	+12 37.1	2.131	3.089	5.1	21.1
2 11	9 49.65	+ 2 29.4	1.900	2.872	4.2	20.2	2 11	9 50.15	+13 17.9	2.102	3.087	1.2	20.8
2 21	9 42.06	+ 3 35.2	1.895	2.872	3.7	20.1	2 21	9 41.00	+13 58.9	2.104	3.085	2.8	21.0
3 2	9 35.00	+ 4 46.9	1.918	2.872	6.6	20.3	3 2	9 32.40	+14 35.7	2.135	3.081	6.6	21.2
3 12	9 29.29	+ 5 58.0	1.969	2.873	10.0	20.5	3 12	9 25.19	+15 4.8	2.194	3.078	10.0	21.4
3 22	9 25.51	+ 7 3.1	2.043	2.873	13.1	20.7	3 22	9 19.94	+15 24.3	2.277	3.073	13.0	21.6
292317	2006 <i>SG</i> ₁₆₄		2 14.1	121°76	2°6/16.8	17	132385	2002 <i>GY</i> ₈₅		2 14.1	153°08	5°9/ 9.2	18
1 12	10 7.45	+ 1 54.0	2.513	3.301	11.7	21.3	1 12	10 17.50	+28 17.0	1.988	2.827	12.4	20.3
1 22	10 2.82	+ 2 15.5	2.434	3.310	9.1	21.1	1 22	10 10.68	+29 29.5	1.930	2.836	9.4	20.1
2 1	9 56.67	+ 2 51.4	2.379	3.318	6.1	21.0	2 1	10 1.46	+30 37.9	1.899	2.844	6.8	20.0
2 11	9 49.59	+ 3 39.2	2.353	3.326	3.3	20.8	2 11	9 50.75	+31 33.6	1.895	2.852	6.0	19.9
2 21	9 42.23	+ 4 35.4	2.356	3.334	3.0	20.8	2 21	9 39.72	+32 10.0	1.920	2.858	7.7	20.0
3 2	9 35.36	+ 5 35.1	2.389	3.342	5.6	21.0	3 2	9 29.60	+32 23.8	1.973	2.864	10.5	20.2
3 12	9 29.63	+ 6 33.6	2.451	3.349	8.5	21.2	3 12	9 21.46	+32 15.3	2.050	2.870	13.3	20.4
3 22	9 25.53	+ 7 26.9	2.538	3.356	11.2	21.3	3 22	9 15.92	+31 47.7	2.147	2.874	15.8	20.6
143542	2003 <i>EC</i> ₃₀		2 14.1	314°91	0°7/13.5	17	450525	2006 <i>BV</i> ₇₁		2 14.1	43°57	4°1/11.3	18
1 12	10 8.39	+13 34.3	2.140	2.975	11.8	20.0	1 12	10 12.02	+18 2.7	1.215	2.080	16.9	20.7
1 22	10 3.87	+14 3.1	2.054	2.964	8.7	19.8	1 22	10 7.52	+19 24.4	1.164	2.090	12.3	20.5
2 1	9 57.46	+14 40.2	1.992	2.954	5.0	19.6	2 1	9 59.94	+20 54.9	1.136	2.101	7.3	20.2
2 11	9 49.80	+15 21.0	1.959	2.944	1.2	19.3	2 11	9 50.43	+22 22.2	1.132	2.113	4.1	20.1
2 21	9 41.72	+16 0.8	1.954	2.934	3.2	19.4	2 21	9 40.50	+23 34.8	1.154	2.125	6.9	20.3
3 2	9 34.15	+16 34.7	1.979	2.925	7.0	19.6	3 2	9 31.80	+24 24.6	1.201	2.137	11.6	20.6
3 12	9 27.96	+16 59.4	2.030	2.916	10.6	19.8	3 12	9 25.67	+24 48.6	1.270	2.150	16.0	20.8
3 22	9 23.76	+17 13.0	2.103	2.907	13.7	20.0	3 22	9 22.77	+24 48.4	1.357	2.164	19.6	21.1
456671	2007 <i>RK</i> ₈₂		2 14.1	109°90	1°7/12.9	18	268497	2005 <i>YY</i> ₅₆		2 14.1	304°16	1°2/14.9	18
1 12	10 17.31	+16 3.2	1.796	2.629	13.8	22.4	1 12	10 11.52	+ 9 2.4	1.847	2.671	13.9	20.8
1 22	10 10.39	+16 36.9	1.740	2.650	10.0	22.2	1 22	10 6.37	+ 9 5.1	1.764	2.666	10.4	20.5
2 1	10 1.20	+17 16.5	1.709	2.671	5.8	22.0	2 1	9 59.02	+ 9 19.7	1.704	2.660	6.4	20.3
2 11	9 50.66	+17 55.8	1.707	2.691	1.9	21.7	2 11	9 50.21	+ 9 43.0	1.672	2.655	2.2	20.0
2 21	9 39.93	+18 28.9	1.734	2.711	4.1	21.9	2 21	9 40.92	+10 10.7	1.668	2.650	3.1	20.0
3 2	9 30.21	+18 51.4	1.790	2.729	8.2	22.2	3 2	9 32.28	+10 38.1	1.693	2.646	7.4	20.3
3 12	9 22.47	+19 1.2	1.872	2.748	11.9	22.5	3 12	9 25.28	+11 0.8	1.743	2.641	11.4	20.5
3 22	9 17.28	+18 58.3	1.976	2.765	15.0	22.7	3 22	9 20.61	+11 15.8	1.816	2.637	14.8	20.7
337368	2001 <i>PW</i> ₄₆		2 14.1	83°81	4°4/ 9.6	18	9170	1988 <i>TG</i> ₅		2 14.1	108°76	2°0/15.5	18
1 12	10 11.39	+25 12.7	2.325	3.167	10.7	20.5	1 12	10 14.78	+ 5 53.6	1.539	2.358	16.4	18.3
1 22	10 5.80	+26 26.6	2.280	3.190	7.9	20.4	1 22	10 8.90	+ 6 15.6	1.476	2.374	12.4	18.1
2 1	9 58.42	+27 38.5	2.262	3.214	5.4	20.2	2 1	10 0.51	+ 6 55.7	1.436	2.389	7.8	17.8
2 11	9 49.99	+28 41.7	2.273	3.237	4.4	20.2	2 11	9 50.56	+ 7 49.3	1.423	2.404	3.1	17.6
2 21	9 41.39	+29 30.7	2.314	3.260	6.0	20.4	2 21	9 40.26	+ 8 49.7	1.437	2.419	3.5	17.6
3 2	9 33.53	+30 2.4	2.383	3.283	8.5	20.6	3 2	9 30.94	+ 9 49.5	1.479	2.433	8.1	17.9
3 12	9 27.19	+30 15.9	2.477	3.306	11.0	20.8	3 12	9 23.70	+10 42.0	1.547	2.447	12.4	18.2
3 22	9 22.85	+30 12.9	2.593	3.328	13.2	20.9	3 22	9 19.17	+11 23.1	1.637	2.460	16.1	18.5
36573	2000 <i>QJ</i> ₁₂₂		2 14.1	68°17	1°7/15.1	18	182421	2001 <i>RC</i> ₁₀₃		2 14.1	99°36	0°3/13.9	18
1 12	10 14.75	+ 8 29.0	1.445	2.276	16.7	19.1	1 12	10 10.02	+12 37.4	2.248	3.075	11.6	20.3
1 22	10 9.05	+ 8 25.6	1.380	2.285	12.5	18.8	1 22	10 4.88	+12 59.0	2.172	3.078	8.5	20.1
2 1	10 0.66	+ 8 37.2	1.337	2.294	7.7	18.6	2 1	9 57.97	+13 28.4	2.122	3.082	5.0	19.9
2 11	9 50.57	+ 8 59.9	1.320	2.303	2.8	18.3	2 11	9 49.94	+14 1.5	2.100	3.085	1.1	19.6
2 21	9 40.08	+ 9 28.4	1.330	2.313	3.6	18.4	2 21	9 41.62	+14 34.2	2.108	3.089	2.8	19.8
3 2	9 30.60	+ 9 56.9	1.367	2.322	8.5	18.7	3 2	9 33.87	+15 2.3	2.146	3.093	6.5	20.0
3 12	9 23.33	+10 20.1	1.429	2.332	13.0	19.0	3 12	9 27.51	+15 22.7	2.210	3.096	9.9	20.2
3 22	9 18.94	+10 34.8	1.511	2.341	16.9	19.2	3 22	9 23.05	+15 34.0	2.298	3.100	12.7	20.4
499271	2009 <i>VW</i> ₅₇		2 14.1	9°98	9°4/22.3	18	244032	2001 <i>SW</i> ₂₁₈		2 14.1	211°86	2°1/12.6	18
1 12	10 7.57	-13 16.4	1.813	2.539	17.8	20.5	1 12	10 15.94	+16 21.1	1.751	2.588	13.9	21.4
1 22	10 3.55	-13 51.9	1.732	2.539	15.4	20.4	1 22	10 9.83	+17 3.5	1.670	2.582	10.2	21.1
2 1	9 57.39	-13 58.6	1.670	2.541	12.8	20.2	2 1	10 1.16	+17 53.8	1.613	2.575	6.0	20.9
2 11	9 49.80	-13 34.1	1.629	2.542	10.6	20.1	2 11	9 50.75	+18 45.2	1.585	2.568	2.2	20.6
2 21	9 41.73	-12 39.4	1.613	2.544	9.4	20.0	2 21	9 39.77	+19 30.5	1.585	2.560	4.6	20.7
3 2	9 34.25	-11 19.5	1.622	2.546	10.1	20.0	3 2	9 29.52	+20 3.8	1.614	2.552	9.0	21.0
3 12	9 28.37	- 9 43.2	1.656	2.549	12.2	20.2	3 12	9 21.19	+20 22.0	1.668	2.543	13.1	21.2
3 22	9 24.75	- 8 0.2	1.713	2.552	14.8	20.3	3 22	9 15.53	+20 24.6	1.743	2.533	16.6	21.4
329048	2011 <i>AZ</i> ₅₁		2 14.1	246°50	2°7/16.3	17	236117	2005 <i>SA</i> ₁₁₂		2 14.1	184°39	1°2/14.8	18
1 12	10 9.78	+ 3 21.0	2.055	2.856	13.5	21.5	1 12	10 17.14	+ 9 13.8	1.691	2.510	15.2	21.2
1 22	10 4.96	+ 3 34.7	1.961	2.846	10.5	21.3	1 22	10 10.65	+ 9 18.2	1.611	2.511	11.4	20.9
2 1	9 58.15	+ 4 4.8	1.892	2.836	7.0	21.1	2 1	10 1.60	+ 9 35.3	1.556	2.511	6.9	20.7
2 11	9 49.98	+ 4 49.0	1.849	2.826	3.5	20.8	2 11	9 50.86	+10 1.4	1.527	2.511	2.3	20.4
2 21	9 41.31	+ 5 43.2	1.835	2.815	3.4	20.8	2 21	9 39.59	+10 31.4	1.527	2.509	3.3	20.4
3 2	9 33.12	+ 6 41.9	1.851	2.804	6.8	21.0	3 2	9 29.12	+11 0.1	1.556	2.507	8.1	20.7
3 12	9 26.34	+ 7 39.1	1.893	2.793	10.5	21.2	3 12	9 20.62	+11 23.0	1.611	2.505	12.4	21.0
3 22	9 21.61	+ 8 30.0	1.959	2.782	13.8	21.4	3 22	9 14.81	+11 37.2	1.688	2.501	16.1	21.2
309905	2009 <i>ET</i> ₂₅		2 14.1	39°08	1°3/13.2	18	386232	2007 <i>YD</i> ₆₃		2 14.1	136°61	3°4/17.1	17
1 12	10 11.05	+13 7.											

EPHEMERIDES

2 14.1

2 14.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
52299	1991 <i>NJ</i> ₁		2 14.1 178°24	1°4/12.9	18		495268	2013 <i>QC</i> ₂₇		2 14.1 238°87	2°2/16.2	18	
1 12	10 14.64	+13 43.1	1.895	2.724	13.3	20.2	1 12	10 9.16	+3 4.0	2.075	2.875	13.4	21.8
1 22	10 8.63	+14 42.5	1.818	2.727	9.7	20.0	1 22	10 4.54	+3 44.6	1.979	2.865	10.4	21.5
2 1	10 0.35	+15 52.2	1.767	2.729	5.6	19.8	2 1	9 57.96	+4 43.7	1.908	2.854	6.8	21.3
2 11	9 50.55	+17 5.4	1.745	2.730	1.7	19.5	2 11	9 50.02	+5 58.1	1.864	2.843	3.2	21.0
2 21	9 40.28	+18 14.7	1.753	2.730	4.0	19.7	2 21	9 41.57	+7 22.3	1.850	2.831	3.1	21.0
3 2	9 30.71	+19 13.6	1.790	2.729	8.2	19.9	3 2	9 33.56	+8 49.2	1.866	2.819	6.7	21.2
3 12	9 22.87	+19 57.8	1.853	2.728	12.1	20.1	3 12	9 26.92	+10 11.9	1.909	2.807	10.5	21.4
3 22	9 17.44	+20 25.8	1.939	2.725	15.3	20.4	3 22	9 22.30	+11 24.9	1.976	2.795	13.9	21.6
103592	2000 <i>CB</i> ₉		2 14.1 66°36	3°5/16.2	18		218677	2005 <i>SW</i> ₂₇₈		2 14.1 253°78	3°2/11.9	18	
1 12	10 13.66	+3 57.5	1.289	2.114	18.6	19.6	1 12	10 16.75	+21 30.5	1.946	2.783	12.7	20.1
1 22	10 8.49	+3 56.2	1.227	2.126	14.3	19.4	1 22	10 10.27	+21 54.5	1.860	2.771	9.4	19.9
2 1	10 0.46	+4 17.2	1.187	2.137	9.4	19.1	2 1	10 1.36	+22 19.7	1.799	2.759	5.8	19.6
2 11	9 50.58	+4 57.3	1.170	2.149	4.6	18.9	2 11	9 50.84	+22 39.8	1.767	2.746	3.3	19.5
2 21	9 40.27	+5 50.1	1.179	2.160	4.5	18.9	2 21	9 39.80	+22 49.6	1.764	2.733	5.2	19.5
3 2	9 31.05	+6 47.4	1.215	2.172	9.0	19.2	3 2	9 29.46	+22 45.5	1.790	2.719	8.9	19.7
3 12	9 24.18	+7 40.9	1.274	2.184	13.7	19.5	3 12	9 20.95	+22 26.5	1.841	2.706	12.6	19.9
3 22	9 20.39	+8 24.9	1.353	2.196	17.7	19.8	3 22	9 14.97	+21 53.8	1.915	2.692	15.8	20.1
418264	2008 <i>EW</i> ₂₉		2 14.1 313°20	0°9/13.3	18		364775	2007 <i>YF</i> ₃₇		2 14.1 121°89	1°5/12.9	18	
1 12	10 8.20	+9 47.0	1.610	2.449	14.8	20.8	1 12	10 14.64	+15 10.8	1.895	2.728	13.2	21.6
1 22	10 4.30	+11 16.1	1.531	2.444	10.9	20.5	1 22	10 8.48	+15 54.3	1.833	2.743	9.6	21.4
2 1	9 57.98	+13 4.4	1.476	2.438	6.3	20.3	2 1	10 0.16	+16 44.9	1.796	2.758	5.5	21.2
2 11	9 50.02	+15 3.7	1.448	2.433	1.5	19.9	2 11	9 50.52	+17 36.5	1.788	2.772	1.7	21.0
2 21	9 41.45	+17 3.3	1.449	2.429	4.1	20.1	2 21	9 40.61	+18 22.8	1.809	2.786	3.9	21.2
3 2	9 33.52	+18 52.4	1.478	2.424	9.0	20.4	3 2	9 31.54	+18 59.0	1.860	2.799	7.9	21.4
3 12	9 27.38	+20 23.1	1.532	2.420	13.3	20.6	3 12	9 24.25	+19 22.0	1.936	2.812	11.5	21.7
3 22	9 23.78	+21 31.4	1.608	2.415	17.0	20.8	3 22	9 19.33	+19 31.3	2.035	2.824	14.6	21.9
226947	2004 <i>TU</i> ₃₅₈		2 14.1 102°88	0°7/13.5	18		264447	2000 <i>TK</i> ₂₆		2 14.1 228°29	4°5/17.5	17	
1 12	10 10.59	+12 36.0	2.022	2.853	12.6	20.9	1 12	10 12.13	-0 37.4	2.210	2.984	13.6	20.6
1 22	10 5.44	+13 20.5	1.955	2.864	9.2	20.7	1 22	10 6.59	-0 59.7	2.113	2.976	10.9	20.4
2 1	9 58.35	+14 14.4	1.913	2.874	5.3	20.4	2 1	9 59.10	-1 6.3	2.041	2.967	7.9	20.2
2 11	9 50.06	+15 12.2	1.900	2.885	1.3	20.2	2 11	9 50.30	-0 57.2	1.995	2.957	5.2	20.0
2 21	9 41.47	+16 8.0	1.916	2.896	3.2	20.3	2 21	9 41.00	-0 34.3	1.979	2.947	4.7	19.9
3 2	9 33.57	+16 56.4	1.961	2.906	7.2	20.6	3 2	9 32.15	-0 1.3	1.991	2.937	7.0	20.1
3 12	9 27.21	+17 33.7	2.033	2.916	10.7	20.8	3 12	9 24.65	+0 36.9	2.031	2.927	10.1	20.2
3 22	9 22.96	+17 58.1	2.128	2.926	13.7	21.1	3 22	9 19.13	+1 15.6	2.095	2.916	13.1	20.4
460496	2014 <i>SQ</i> ₃₁₁		2 14.1 208°91	1°5/12.9	18		158956	2004 <i>RA</i> ₁₅₇		2 14.1 136°90	0°9/14.8	18	
1 12	10 13.99	+15 10.6	1.961	2.793	12.9	21.7	1 12	10 10.97	+8 40.6	2.102	2.919	12.7	21.0
1 22	10 8.16	+15 52.9	1.878	2.788	9.4	21.5	1 22	10 5.69	+9 2.9	2.027	2.925	9.4	20.8
2 1	10 0.08	+16 43.3	1.820	2.782	5.5	21.3	2 1	9 58.51	+9 36.7	1.976	2.932	5.7	20.6
2 11	9 50.50	+17 35.9	1.791	2.775	1.7	21.0	2 11	9 50.13	+10 18.4	1.954	2.937	1.8	20.3
2 21	9 40.42	+18 24.4	1.791	2.768	3.9	21.1	2 21	9 41.43	+11 3.2	1.961	2.943	2.7	20.4
3 2	9 30.97	+19 3.4	1.821	2.760	8.1	21.4	3 2	9 33.35	+11 46.1	1.997	2.948	6.6	20.6
3 12	9 23.18	+19 29.4	1.876	2.752	11.9	21.6	3 12	9 26.73	+12 23.0	2.061	2.953	10.2	20.9
3 22	9 17.73	+19 41.3	1.954	2.743	15.1	21.8	3 22	9 22.14	+12 51.0	2.148	2.958	13.2	21.1
385029	2012 <i>TU</i> ₂₉₆		2 14.1 187°05	4°0/18.2	17		203464	2001 <i>YM</i> ₁₃₅		2 14.1 38°90	2°4/12.8	18	
1 12	10 7.61	-2 5.3	2.568	3.335	12.1	21.3	1 12	10 13.50	+15 59.6	1.160	2.022	17.8	20.0
1 22	10 2.99	-2 5.3	2.478	3.334	9.7	21.1	1 22	10 8.61	+16 40.0	1.111	2.035	12.9	19.7
2 1	9 56.84	-1 49.5	2.412	3.334	7.0	20.9	2 1	10 0.59	+17 30.1	1.083	2.049	7.4	19.5
2 11	9 49.70	-1 18.8	2.374	3.333	4.7	20.8	2 11	9 50.65	+18 21.0	1.080	2.064	2.6	19.2
2 21	9 42.24	-0 35.9	2.365	3.333	4.1	20.8	2 21	9 40.40	+19 3.2	1.101	2.080	5.4	19.4
3 2	9 35.20	+0 15.4	2.385	3.332	5.9	20.9	3 2	9 31.50	+19 30.1	1.148	2.096	10.7	19.8
3 12	9 29.27	+1 10.2	2.433	3.331	8.6	21.0	3 12	9 25.26	+19 38.6	1.216	2.112	15.4	20.1
3 22	9 24.94	+2 3.9	2.506	3.329	11.2	21.2	3 22	9 22.32	+19 29.2	1.304	2.130	19.3	20.4
459370	2012 <i>JV</i> ₂₇		2 14.1 267°58	2°2/11.9	17		225512	2000 <i>QS</i> ₁₂₈		2 14.1 211°66	3°3/17.5	18	
1 12	10 10.00	+15 20.2	2.034	2.871	12.2	22.1	1 12	10 9.79	-0 28.8	2.547	3.318	12.0	21.2
1 22	10 5.35	+16 38.8	1.937	2.851	8.9	21.8	1 22	10 4.65	-0 10.3	2.447	3.310	9.5	21.0
2 1	9 58.53	+18 8.6	1.867	2.830	5.2	21.5	2 1	9 57.88	+0 24.5	2.372	3.302	6.7	20.8
2 11	9 50.17	+19 42.6	1.826	2.808	2.3	21.3	2 11	9 50.00	+1 13.8	2.325	3.292	4.0	20.6
2 21	9 41.14	+21 12.7	1.814	2.787	4.6	21.4	2 21	9 41.71	+2 14.3	2.308	3.282	3.5	20.5
3 2	9 32.51	+22 31.2	1.832	2.764	8.6	21.6	3 2	9 33.79	+3 21.3	2.322	3.271	5.9	20.7
3 12	9 25.33	+23 33.1	1.876	2.742	12.3	21.8	3 12	9 27.00	+4 29.6	2.364	3.260	8.9	20.8
3 22	9 20.34	+24 16.1	1.942	2.719	15.6	22.0	3 22	9 21.89	+5 34.1	2.432	3.248	11.7	21.0
214387	2005 <i>MG</i> ₂		2 14.1 178°94	3°1/11.1	18		346116	2007 <i>VD</i> ₁₁₅		2 14.1 125°71	1°7/15.8	17	
1 12	10 13.30	+20 33.9	2.371	3.205	10.8	20.8	1 12	10 8.64	+5 25.5	2.637	3.435	10.9	21.9
1 22	10 7.32	+21 36.2	2.297	3.207	7.9	20.6	1 22	10 3.63	+5 44.1	2.561	3.447	8.3	21.7
2 1	9 59.44	+22 41.4	2.250	3.209	4.9	20.4	2 1	9 57.16	+6 13.9	2.511	3.458	5.3	21.5
2 11	9 50.34	+23 43.1	2.233	3.209	3.1	20.3	2 11	9 49.80	+6 52.3	2.490	3.469	2.4	21.3
2 21	9 40.89	+24 35.5	2.246	3.209	4.8	20.4	2 21	9 42.21	+7 35.7	2.499	3.480	2.4	21.4
3 2	9 32.00	+25 14.5	2.290	3.208	7.9	20.6	3 2	9 35.10	+8 20.3	2.538	3.490	5.3	21.6
3 12	9 24.56	+25 37.8	2.359	3.207	10.8	20.8	3 12	9 29.13	+9 2.1	2.606	3.500	8.2	21.8
3 22	9 19.11	+25 45.6	2.452	3.205	13.4	21.0	3 22	9 24.74	+9 38.3	2.699	3.509	10.8	22.0
314706	2006 <i>SC</i> ₁		2 14.1 54°82	1°1/14.8	18		372026	2008 <i>QV</i> ₂₈		2 14.1 209°56	2°7/12.1	17	
1 12	10 12.19	+8 46.4	1.504	2.337	16.0	21.4	1 1						

EPHEMERIDES

2 14.1

2 14.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
428373	2007 <i>RO</i> ₂₁₂		2 14.1 140°07'	3°4/10.8	17		120865	1998 <i>QN</i> ₁₀₆		2 14.1 205°86'	3°0/11.9	18	
1 12	10 13.49	+24 18.2	2.665	3.498	9.8	21.6	1 12	10 17.18	+18 48.8	1.804	2.641	13.6	20.1
1 22	10 7.18	+24 54.9	2.601	3.508	7.2	21.4	1 22	10 10.73	+19 38.1	1.724	2.636	9.9	19.8
2 1	9 59.23	+25 30.2	2.564	3.518	4.7	21.3	2 1	10 1.72	+20 32.8	1.669	2.630	6.0	19.6
2 11	9 50.29	+25 59.2	2.558	3.528	3.4	21.2	2 11	9 50.98	+21 25.5	1.643	2.624	3.0	19.4
2 21	9 41.16	+26 18.0	2.581	3.538	4.8	21.3	2 21	9 39.67	+22 9.0	1.646	2.616	5.2	19.5
3 2	9 32.67	+26 24.3	2.634	3.547	7.3	21.5	3 2	9 29.12	+22 37.8	1.677	2.608	9.3	19.7
3 12	9 25.54	+26 17.4	2.715	3.555	9.8	21.7	3 12	9 20.49	+22 49.4	1.733	2.599	13.2	19.9
3 22	9 20.24	+25 58.4	2.818	3.563	12.0	21.8	3 22	9 14.55	+22 44.3	1.811	2.589	16.5	20.1
208354	2001 <i>RO</i> ₃₇		2 14.1 80°81'	3°6/18.1	18		277000	2004 <i>XM</i> ₇₂		2 14.1 72°80'	1°0/14.9	18	
1 12	10 6.82	- 2 37.2	2.265	3.038	13.3	20.5	1 12	10 9.35	+ 7 52.0	1.945	2.766	13.4	21.0
1 22	10 2.54	- 1 52.2	2.187	3.050	10.5	20.3	1 22	10 4.66	+ 8 23.3	1.870	2.771	10.0	20.8
2 1	9 56.63	- 0 47.0	2.133	3.061	7.4	20.1	2 1	9 57.99	+ 9 8.4	1.821	2.776	6.1	20.6
2 11	9 49.69	+ 0 35.7	2.107	3.073	4.5	20.0	2 11	9 50.06	+10 3.0	1.798	2.782	2.0	20.3
2 21	9 42.47	+ 2 10.7	2.110	3.084	3.7	19.9	2 21	9 41.78	+11 1.5	1.805	2.787	2.8	20.4
3 2	9 35.78	+ 3 51.1	2.143	3.096	6.1	20.1	3 2	9 34.13	+11 57.9	1.840	2.793	6.9	20.7
3 12	9 30.35	+ 5 29.7	2.205	3.107	9.1	20.3	3 12	9 28.01	+12 47.1	1.902	2.798	10.7	20.9
3 22	9 26.67	+ 7 0.8	2.292	3.119	11.9	20.5	3 22	9 24.00	+13 25.8	1.987	2.804	13.9	21.1
402344	2005 <i>UL</i> ₅₀₀		2 14.1 77°71'	3°6/11.6	18		34651	2000 <i>WQ</i> ₁₁₄		2 14.1 100°32'	1°6/12.9	18	
1 12	10 13.69	+17 10.0	1.326	2.183	16.3	20.3	1 12	10 12.16	+15 51.5	1.951	2.788	12.7	19.0
1 22	10 8.57	+18 34.9	1.274	2.196	11.8	20.1	1 22	10 6.70	+16 26.2	1.883	2.795	9.2	18.8
2 1	10 0.54	+20 9.2	1.244	2.209	7.0	19.8	2 1	9 59.17	+17 7.2	1.839	2.802	5.3	18.6
2 11	9 50.66	+21 41.5	1.241	2.222	3.6	19.6	2 11	9 50.34	+17 49.2	1.824	2.808	1.8	18.4
2 21	9 40.38	+23 0.6	1.264	2.235	6.4	19.8	2 21	9 41.19	+18 26.4	1.838	2.815	3.8	18.5
3 2	9 31.26	+23 58.4	1.313	2.248	11.0	20.1	3 2	9 32.77	+18 54.3	1.880	2.821	7.7	18.8
3 12	9 24.56	+24 31.6	1.386	2.261	15.2	20.4	3 12	9 26.02	+19 10.1	1.949	2.828	11.3	19.0
3 22	9 20.97	+24 41.4	1.477	2.274	18.8	20.7	3 22	9 21.51	+19 13.2	2.040	2.834	14.4	19.2
222763	2002 <i>CM</i> ₆₅		2 14.1 31°13'	5°7/ 9.3	18		90293	2003 <i>EH</i> ₂₂		2 14.1 340°09'	0°4/14.5	18	
1 12	10 11.90	+25 34.4	1.755	2.608	13.1	19.9	1 12	10 6.87	+ 8 53.9	2.279	3.100	11.7	19.5
1 22	10 6.88	+26 55.0	1.695	2.611	9.8	19.7	1 22	10 2.66	+ 9 36.0	2.197	3.099	8.7	19.3
2 1	9 59.42	+28 14.8	1.660	2.614	6.8	19.5	2 1	9 56.76	+10 29.9	2.140	3.097	5.2	19.0
2 11	9 50.39	+29 24.6	1.652	2.616	5.8	19.4	2 11	9 49.77	+11 31.6	2.111	3.096	1.4	18.8
2 21	9 40.94	+30 16.3	1.672	2.619	7.7	19.6	2 21	9 42.42	+12 35.8	2.112	3.094	2.5	18.9
3 2	9 32.35	+30 45.1	1.717	2.623	10.9	19.8	3 2	9 35.55	+13 37.1	2.143	3.093	6.3	19.1
3 12	9 25.71	+30 50.3	1.786	2.626	14.1	20.0	3 12	9 29.93	+14 30.8	2.200	3.092	9.6	19.3
3 22	9 21.69	+30 34.0	1.875	2.630	16.8	20.2	3 22	9 26.10	+15 14.0	2.282	3.091	12.6	19.5
435915	2009 <i>BW</i> ₈₂		2 14.1 334°09'	4°5/11.5	17		151818	2003 <i>FW</i> ₆₃		2 14.1 342°33'	2°6/16.5	18	
1 12	10 15.06	+24 51.3	1.708	2.558	13.6	20.0	1 12	10 7.58	+ 1 58.5	1.781	2.589	15.0	19.9
1 22	10 9.33	+25 3.1	1.625	2.541	10.2	19.7	1 22	10 3.59	+ 2 47.8	1.699	2.587	11.6	19.6
2 1	10 0.94	+25 12.1	1.566	2.524	6.6	19.5	2 1	9 57.49	+ 3 59.4	1.639	2.586	7.6	19.4
2 11	9 50.77	+25 11.8	1.533	2.508	4.5	19.3	2 11	9 49.97	+ 5 29.3	1.606	2.584	3.6	19.1
2 21	9 40.06	+24 56.7	1.528	2.493	6.3	19.4	2 21	9 41.96	+ 7 10.4	1.601	2.583	3.4	19.1
3 2	9 30.19	+24 24.2	1.550	2.479	10.1	19.6	3 2	9 34.55	+ 8 53.9	1.626	2.582	7.3	19.3
3 12	9 22.38	+23 34.9	1.596	2.466	13.9	19.8	3 12	9 28.71	+10 31.0	1.677	2.581	11.3	19.6
3 22	9 17.39	+22 31.4	1.663	2.453	17.3	20.0	3 22	9 25.11	+11 55.5	1.751	2.580	14.9	19.8
409966	2006 <i>WJ</i> ₅		2 14.1 57°59'	4°4/17.4	18		380674	2005 <i>GF</i> ₃₉		2 14.1 120°82'	3°5/11.0	17	
1 12	10 10.91	+ 0 10.7	1.539	2.343	17.2	21.0	1 12	10 12.64	+23 1.2	2.314	3.153	10.9	21.3
1 22	10 6.05	+ 0 16.0	1.481	2.362	13.4	20.8	1 22	10 6.81	+23 42.0	2.249	3.160	8.0	21.1
2 1	9 58.85	+ 0 44.4	1.443	2.382	9.3	20.6	2 1	9 59.13	+24 22.8	2.211	3.168	5.1	21.0
2 11	9 50.24	+ 1 33.1	1.431	2.402	5.4	20.4	2 11	9 50.32	+24 57.7	2.201	3.175	3.5	20.9
2 21	9 41.34	+ 2 36.5	1.446	2.422	4.7	20.4	2 21	9 41.26	+25 22.2	2.221	3.182	5.0	21.0
3 2	9 33.36	+ 3 46.8	1.487	2.443	7.9	20.7	3 2	9 32.89	+25 33.2	2.270	3.189	7.9	21.2
3 12	9 27.32	+ 4 55.9	1.554	2.463	11.8	20.9	3 12	9 26.03	+25 29.8	2.345	3.196	10.8	21.4
3 22	9 23.80	+ 5 57.4	1.643	2.483	15.2	21.2	3 22	9 21.20	+25 12.9	2.443	3.202	13.2	21.5
83573	2001 <i>SW</i> ₂₂₅		2 14.1 146°21'	2°2/16.4	18		188625	2005 <i>QX</i> ₄₂		2 14.1 229°69'	1°4/13.2	18	
1 12	10 7.59	+ 3 8.3	2.579	3.371	11.3	20.6	1 12	10 15.25	+13 45.2	1.645	2.481	14.7	21.1
1 22	10 2.95	+ 3 34.0	2.497	3.377	8.7	20.4	1 22	10 9.56	+14 32.4	1.559	2.471	10.9	20.8
2 1	9 56.82	+ 4 13.2	2.440	3.382	5.7	20.2	2 1	10 1.17	+15 31.6	1.497	2.459	6.3	20.5
2 11	9 49.75	+ 5 3.3	2.411	3.387	2.9	20.1	2 11	9 50.89	+16 36.0	1.462	2.448	1.8	20.2
2 21	9 42.39	+ 6 0.5	2.412	3.392	2.7	20.1	2 21	9 39.89	+17 37.6	1.456	2.435	4.3	20.3
3 2	9 35.49	+ 7 0.2	2.444	3.396	5.5	20.2	3 2	9 29.55	+18 29.0	1.478	2.422	9.2	20.6
3 12	9 29.70	+ 7 57.8	2.504	3.401	8.4	20.4	3 12	9 21.18	+19 5.3	1.525	2.408	13.7	20.8
3 22	9 25.50	+ 8 49.5	2.589	3.405	11.1	20.6	3 22	9 15.59	+19 24.8	1.593	2.393	17.5	21.0
466179	2012 <i>KX</i> ₉		2 14.1 240°21'	4°1/17.9	17		280205	2002 <i>TF</i> ₁₇₈		2 14.1 127°98'	1°8/15.3	18	
1 12	10 8.73	- 1 37.3	2.127	2.905	13.9	22.1	1 12	10 14.73	+ 6 42.0	1.494	2.317	16.6	21.0
1 22	10 4.18	- 1 21.8	2.032	2.897	11.1	21.9	1 22	10 9.07	+ 7 3.3	1.426	2.326	12.5	20.7
2 1	9 57.74	- 0 46.4	1.959	2.888	7.9	21.7	2 1	10 0.77	+ 7 42.5	1.380	2.335	7.8	20.5
2 11	9 50.00	+ 0 7.6	1.913	2.879	5.0	21.5	2 11	9 50.75	+ 8 35.2	1.360	2.343	2.9	20.2
2 21	9 41.79	+ 1 16.2	1.896	2.869	4.3	21.5	2 21	9 40.28	+ 9 34.4	1.368	2.351	3.5	20.3
3 2	9 34.02	+ 2 33.9	1.908	2.860	6.8	21.6	3 2	9 30.75	+10 32.5	1.404	2.358	8.4	20.6
3 12	9 27.57	+ 3 53.5	1.948	2.850	10.1	21.8	3 12	9 23.33	+11 22.9	1.464	2.365	12.9	20.9
3 22	9 23.08	+ 5 8.9	2.011	2.840	13.3	22.0	3 22	9 18.73	+12 1.3	1.546	2.372	16.8	21.1
155088	2005 <i>ST</i> ₁₅₈		2 14.1 69°19'	6°2/19.4	18		132243	2002 <i>EJ</i> ₈₅		2 14.1 229°46'	0°1/14.1	18	
1 12	10 10.12	- 5 36.4											

EPHEMERIDES

2 14.1

2 14.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
222720	2002 <i>AB</i> ₁₃₇		2 14.1 139°92	0°3/13.8	18		129479	1993 <i>TO</i> ₄₁		2 14.1 74°18	1°1/13.1	18	
1 12	10 10.39	+11 9.8	1.994	2.822	12.8	20.8	1 12	10 9.91	+14 8.4	2.035	2.870	12.3	20.0
1 22	10 5.41	+11 56.2	1.919	2.826	9.4	20.6	1 22	10 5.04	+14 50.2	1.962	2.873	9.0	19.8
2 1	9 58.44	+12 53.9	1.870	2.831	5.5	20.4	2 1	9 58.22	+15 40.1	1.914	2.877	5.2	19.5
2 11	9 50.19	+13 57.5	1.849	2.835	1.3	20.1	2 11	9 50.16	+16 33.0	1.895	2.880	1.4	19.3
2 21	9 41.57	+15 0.9	1.858	2.839	3.1	20.2	2 21	9 41.74	+17 23.0	1.904	2.883	3.5	19.4
3 2	9 33.58	+15 58.1	1.896	2.843	7.2	20.5	3 2	9 33.95	+18 4.9	1.943	2.886	7.4	19.7
3 12	9 27.12	+16 44.4	1.960	2.846	10.9	20.7	3 12	9 27.68	+18 35.2	2.008	2.889	10.9	19.9
3 22	9 22.78	+17 17.7	2.047	2.850	14.0	20.9	3 22	9 23.50	+18 52.6	2.095	2.893	13.9	20.1
293660	2007 <i>PD</i> ₁₅		2 14.1 188°88	1°2/13.0	18		122358	2000 <i>QM</i> ₄₉		2 14.1 202°89	0°1/14.0	17	
1 12	10 13.80	+13 36.5	2.088	2.914	12.4	21.9	1 12	10 14.41	+11 4.6	2.231	3.046	12.1	21.7
1 22	10 7.92	+14 33.0	2.007	2.914	9.1	21.6	1 22	10 8.27	+11 42.6	2.141	3.040	9.0	21.5
2 1	9 59.94	+15 39.0	1.951	2.912	5.2	21.4	2 1	10 0.13	+12 30.9	2.076	3.034	5.3	21.2
2 11	9 50.56	+16 48.5	1.925	2.910	1.5	21.1	2 11	9 50.63	+13 25.0	2.040	3.026	1.3	20.9
2 21	9 40.73	+17 55.1	1.929	2.907	3.6	21.3	2 21	9 40.65	+14 19.6	2.036	3.017	2.9	21.0
3 2	9 31.48	+18 52.6	1.963	2.902	7.6	21.5	3 2	9 31.17	+15 9.4	2.062	3.007	6.9	21.3
3 12	9 23.78	+19 37.0	2.024	2.897	11.2	21.7	3 12	9 23.12	+15 50.3	2.116	2.996	10.5	21.5
3 22	9 18.26	+20 6.6	2.109	2.892	14.3	21.9	3 22	9 17.13	+16 20.0	2.194	2.984	13.6	21.7
169312	2001 <i>TM</i> ₉₉		2 14.1 291°38	1°7/15.6	18		423018	2003 <i>SN</i> ₄₁₂		2 14.1 119°80	0°6/14.7	18	
1 12	10 8.55	+ 6 26.7	2.207	3.018	12.4	19.9	1 12	10 10.13	+ 9 17.5	2.157	2.976	12.3	22.1
1 22	10 4.00	+ 6 37.7	2.113	3.006	9.4	19.6	1 22	10 5.06	+ 9 44.6	2.083	2.983	9.1	21.9
2 1	9 57.62	+ 7 1.5	2.043	2.994	6.0	19.4	2 1	9 58.17	+10 22.7	2.033	2.990	5.5	21.7
2 11	9 50.01	+ 7 35.4	2.001	2.982	2.5	19.2	2 11	9 50.14	+11 7.9	2.012	2.997	1.6	21.4
2 21	9 41.95	+ 8 15.7	1.988	2.970	2.8	19.1	2 21	9 41.79	+11 55.4	2.021	3.003	2.6	21.5
3 2	9 34.32	+ 8 57.8	2.005	2.958	6.4	19.4	3 2	9 34.04	+12 40.2	2.059	3.010	6.5	21.8
3 12	9 27.99	+ 9 37.0	2.048	2.946	9.9	19.5	3 12	9 27.71	+13 18.2	2.124	3.016	9.9	22.0
3 22	9 23.55	+10 9.9	2.115	2.934	13.1	19.7	3 22	9 23.32	+13 46.9	2.213	3.022	12.9	22.2
166181	2002 <i>EW</i> ₆₉		2 14.1 262°17	2°8/16.1	18		490854	2010 <i>XB</i> ₆₇		2 14.1 134°19	1°0/15.1	18	
1 12	10 10.77	+ 3 40.9	1.633	2.447	15.9	20.4	1 12	10 12.28	+ 7 16.4	2.296	3.101	12.1	22.4
1 22	10 6.20	+ 4 1.9	1.545	2.438	12.3	20.1	1 22	10 6.47	+ 7 50.2	2.225	3.117	9.1	22.2
2 1	9 59.17	+ 4 43.6	1.480	2.428	8.0	19.8	2 1	9 58.92	+ 8 35.8	2.180	3.133	5.5	22.0
2 11	9 50.42	+ 5 42.9	1.440	2.419	3.8	19.6	2 11	9 50.31	+ 9 29.5	2.165	3.147	1.9	21.8
2 21	9 41.02	+ 6 54.1	1.428	2.409	3.7	19.5	2 21	9 41.44	+10 26.3	2.179	3.162	2.5	21.9
3 2	9 32.22	+ 8 9.4	1.443	2.399	8.0	19.8	3 2	9 33.19	+11 21.3	2.225	3.175	6.1	22.1
3 12	9 25.20	+ 9 20.6	1.484	2.389	12.5	20.0	3 12	9 26.32	+12 10.0	2.299	3.187	9.4	22.3
3 22	9 20.74	+10 21.7	1.547	2.379	16.4	20.2	3 22	9 21.35	+12 49.6	2.397	3.199	12.2	22.6
323590	2004 <i>TZ</i> ₂₆₄		2 14.1 186°21	3°5/17.6	17		408991	2002 <i>TL</i> ₂₇₇		2 14.1 108°56	7°4/20.8	18	
1 12	10 9.81	- 0 27.9	2.501	3.273	12.2	21.3	1 12	10 10.70	- 9 45.6	1.908	2.646	16.6	21.5
1 22	10 4.67	- 0 19.9	2.410	3.273	9.7	21.1	1 22	10 5.68	- 9 55.9	1.835	2.660	14.0	21.3
2 1	9 57.89	+ 0 3.7	2.344	3.272	6.8	20.9	2 1	9 58.62	- 9 39.7	1.782	2.673	11.0	21.2
2 11	9 50.06	+ 0 41.5	2.305	3.271	4.2	20.8	2 11	9 50.26	- 8 56.8	1.753	2.686	8.5	21.0
2 21	9 41.87	+ 1 30.5	2.297	3.269	3.7	20.7	2 21	9 41.54	- 7 50.0	1.750	2.699	7.4	21.0
3 2	9 34.12	+ 2 26.2	2.318	3.267	6.0	20.9	3 2	9 33.50	- 6 25.5	1.775	2.711	8.5	21.1
3 12	9 27.54	+ 3 23.8	2.368	3.264	8.8	21.0	3 12	9 27.06	- 4 51.9	1.827	2.723	11.0	21.3
3 22	9 22.66	+ 4 18.5	2.443	3.261	11.6	21.2	3 22	9 22.80	- 3 17.6	1.902	2.735	13.8	21.5
28898	2000 <i>LX</i> ₁₀		2 14.1 110°69	5°8/19.5	18		25440	1999 <i>WR</i> ₇		2 14.1 5°89	3°6/11.7	18	
1 12	10 9.24	- 6 12.5	1.943	2.702	15.7	18.3	1 12	10 10.73	+18 8.5	1.346	2.207	15.8	18.0
1 22	10 4.59	- 6 1.8	1.865	2.711	12.8	18.1	1 22	10 6.52	+19 11.6	1.283	2.207	11.5	17.8
2 1	9 57.97	- 5 26.5	1.809	2.720	9.7	17.9	2 1	9 59.45	+20 23.0	1.243	2.208	6.9	17.5
2 11	9 50.09	- 4 27.6	1.778	2.729	6.8	17.7	2 11	9 50.50	+21 33.2	1.228	2.209	3.6	17.3
2 21	9 41.83	- 3 9.2	1.774	2.737	5.8	17.7	2 21	9 41.01	+22 32.2	1.239	2.211	6.2	17.5
3 2	9 34.20	- 1 38.1	1.799	2.746	7.6	17.8	3 2	9 32.53	+23 12.5	1.275	2.214	10.9	17.7
3 12	9 28.07	- 0 2.6	1.851	2.754	10.5	18.0	3 12	9 26.33	+23 30.9	1.334	2.217	15.2	18.0
3 22	9 24.05	+ 1 29.5	1.927	2.762	13.5	18.2	3 22	9 23.16	+23 27.9	1.412	2.221	18.9	18.2
21825	Zhangyizhong		2 14.1 198°22	0°8/13.4	18		152868	1999 <i>XH</i> ₂₅₁		2 14.1 123°32	2°9/11.9	18	
1 12	10 13.77	+13 18.4	1.985	2.812	12.9	19.3	1 12	10 16.86	+16 57.0	1.676	2.515	14.4	20.9
1 22	10 7.98	+13 56.9	1.902	2.810	9.5	19.1	1 22	10 10.38	+18 12.3	1.621	2.534	10.4	20.7
2 1	10 0.01	+14 44.8	1.845	2.806	5.5	18.8	2 1	10 1.42	+19 34.8	1.590	2.552	6.1	20.5
2 11	9 50.59	+15 36.7	1.817	2.802	1.4	18.5	2 11	9 50.93	+20 55.2	1.589	2.570	2.9	20.4
2 21	9 40.70	+16 26.6	1.818	2.797	3.5	18.7	2 21	9 40.14	+22 5.1	1.616	2.587	5.2	20.5
3 2	9 31.43	+17 9.1	1.849	2.792	7.7	18.9	3 2	9 30.34	+22 58.1	1.671	2.603	9.3	20.8
3 12	9 23.79	+17 40.3	1.906	2.786	11.5	19.1	3 12	9 22.63	+23 31.4	1.752	2.618	13.1	21.1
3 22	9 18.42	+17 58.5	1.986	2.780	14.7	19.3	3 22	9 17.62	+23 45.5	1.854	2.632	16.2	21.3
290285	2005 <i>SH</i> ₁₆₀		2 14.1 257°83	0°9/14.8	17		82087	2001 <i>DR</i> ₂		2 14.1 215°04	0°6/13.7	18	
1 12	10 11.58	+ 9 6.0	1.882	2.705	13.7	21.5	1 12	10 15.97	+12 21.6	1.668	2.499	14.8	20.9
1 22	10 6.50	+ 9 24.0	1.794	2.696	10.3	21.3	1 22	10 10.01	+12 57.2	1.584	2.492	11.0	20.7
2 1	9 59.21	+ 9 54.7	1.729	2.686	6.3	21.0	2 1	10 1.41	+13 45.0	1.524	2.485	6.4	20.4
2 11	9 50.42	+10 34.5	1.692	2.676	1.9	20.7	2 11	9 50.99	+14 39.1	1.491	2.476	1.5	20.0
2 21	9 41.08	+11 18.4	1.683	2.666	3.0	20.8	2 21	9 39.90	+15 32.4	1.487	2.467	3.8	20.2
3 2	9 32.31	+12 0.7	1.703	2.655	7.4	21.0	3 2	9 29.52	+16 18.1	1.511	2.458	8.7	20.4
3 12	9 25.13	+12 36.5	1.750	2.645	11.5	21.2	3 12	9 21.09	+16 51.4	1.561	2.447	13.2	20.7
3 22	9 20.26	+13 2.6	1.818	2.634	15.0	21.4	3 22	9 15.40	+17 10.2	1.632	2.436	17.0	20.9
85330	1995 <i>QO</i>		2 14.1 90°55	1°6/12.8	18		154830	2004 <i>RT</i> ₁₂		2 14.1 124°85	3°5/11.0	18	
1 12	10 15.89	+16 56.6	2.104	2.933									

EPHEMERIDES

2 14.1

2 14.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
102116	1999 <i>RM</i> ₁₇₀		2 14.1	71°37'	0°7/14.6	18	170968	2005 <i>CK</i> ₁₉		2 14.1	334°13'	1°0/14.7	18
1 12	10 13.33	+ 8 48.9	1.492	2.324	16.2	19.8	1 12	10 10.91	+ 9 2.1	1.403	2.243	16.6	20.2
1 22	10 7.89	+ 9 23.6	1.438	2.345	11.9	19.6	1 22	10 6.59	+ 9 21.6	1.326	2.237	12.4	19.9
2 1	9 59.98	+10 13.8	1.407	2.366	7.1	19.3	2 1	9 59.51	+ 9 57.9	1.272	2.232	7.6	19.6
2 11	9 50.58	+11 13.5	1.402	2.387	2.0	19.1	2 11	9 50.56	+10 46.3	1.242	2.227	2.3	19.3
2 21	9 40.93	+12 15.0	1.425	2.408	3.4	19.2	2 21	9 40.97	+11 39.8	1.239	2.222	3.6	19.3
3 2	9 32.32	+13 11.1	1.475	2.429	8.2	19.5	3 2	9 32.19	+12 30.6	1.262	2.218	8.9	19.6
3 12	9 25.81	+13 56.2	1.551	2.449	12.5	19.8	3 12	9 25.51	+13 12.1	1.309	2.214	13.8	19.9
3 22	9 21.98	+14 27.4	1.647	2.470	16.0	20.1	3 22	9 21.73	+13 40.4	1.376	2.211	17.9	20.1
408829	2001 <i>QO</i> ₁₅₈		2 14.1	87°55'	1°4/13.3	18	368597	2004 <i>RM</i> ₁₀₄		2 14.1	97°74'	5°6/19.9	18
1 12	10 18.18	+16 36.8	1.814	2.646	13.8	20.8	1 12	10 9.79	- 7 12.8	2.184	2.928	14.6	21.3
1 22	10 11.03	+16 46.5	1.759	2.668	10.0	20.6	1 22	10 4.73	- 7 2.8	2.114	2.949	12.0	21.2
2 1	10 1.64	+17 0.6	1.728	2.689	5.8	20.4	2 1	9 57.95	- 6 30.5	2.067	2.970	9.1	21.1
2 11	9 50.96	+17 14.1	1.726	2.711	1.7	20.2	2 11	9 50.11	- 5 36.9	2.045	2.990	6.6	20.9
2 21	9 40.15	+17 22.5	1.753	2.732	3.8	20.4	2 21	9 42.03	- 4 25.9	2.052	3.010	5.6	20.9
3 2	9 30.37	+17 22.6	1.810	2.752	7.9	20.6	3 2	9 34.58	- 3 3.3	2.087	3.030	7.0	21.0
3 12	9 22.60	+17 13.1	1.893	2.773	11.6	20.9	3 12	9 28.52	- 1 36.2	2.151	3.049	9.5	21.2
3 22	9 17.35	+16 54.2	1.998	2.792	14.6	21.2	3 22	9 24.34	- 0 11.3	2.239	3.067	12.1	21.4
383762	2007 <i>VE</i> ₂₂₈		2 14.1	74°57'	3°4/17.2	18	113875	2002 <i>TP</i> ₂₆₀		2 14.1	48°45'	6°2/10.4	18
1 12	10 10.62	+ 1 13.7	2.270	3.054	12.9	21.4	1 12	10 15.19	+22 50.3	1.149	2.017	17.5	18.6
1 22	10 5.21	+ 1 6.4	2.206	3.077	10.1	21.2	1 22	10 10.08	+24 11.6	1.104	2.029	12.9	18.4
2 1	9 58.16	+ 1 13.9	2.166	3.100	7.0	21.1	2 1	10 1.60	+25 34.6	1.081	2.042	8.3	18.2
2 11	9 50.13	+ 1 34.6	2.154	3.122	4.2	20.9	2 11	9 51.04	+26 46.1	1.082	2.056	6.2	18.1
2 21	9 41.91	+ 2 5.4	2.170	3.144	3.7	20.9	2 21	9 40.12	+27 35.0	1.108	2.070	8.7	18.3
3 2	9 34.33	+ 2 42.2	2.217	3.167	6.1	21.1	3 2	9 30.67	+27 55.5	1.158	2.084	13.0	18.6
3 12	9 28.12	+ 3 20.4	2.290	3.189	9.0	21.3	3 12	9 24.11	+27 48.0	1.229	2.099	17.2	18.9
3 22	9 23.74	+ 3 56.2	2.389	3.210	11.7	21.5	3 22	9 21.06	+27 16.6	1.317	2.114	20.6	19.1
129346	2222 <i>P-L</i>		2 14.1	91°83'	0°9/14.9	18	215999	2005 <i>SV</i> ₂₄₂		2 14.1	115°95'	1°6/15.9	18
1 12	10 12.61	+ 8 43.1	1.946	2.764	13.5	20.9	1 12	10 6.85	+ 4 56.8	2.714	3.512	10.7	20.8
1 22	10 6.92	+ 9 3.8	1.884	2.783	10.0	20.7	1 22	10 2.38	+ 5 25.0	2.635	3.520	8.1	20.6
2 1	9 59.26	+ 9 36.4	1.847	2.802	6.0	20.5	2 1	9 56.51	+ 6 4.8	2.582	3.529	5.2	20.4
2 11	9 50.40	+10 16.7	1.837	2.821	1.9	20.3	2 11	9 49.78	+ 6 53.6	2.557	3.537	2.3	20.2
2 21	9 41.32	+10 59.8	1.857	2.839	2.8	20.4	2 21	9 42.81	+ 7 47.5	2.563	3.544	2.3	20.3
3 2	9 33.02	+11 40.4	1.906	2.857	6.8	20.7	3 2	9 36.27	+ 8 42.3	2.600	3.552	5.2	20.5
3 12	9 26.36	+12 14.5	1.982	2.875	10.4	20.9	3 12	9 30.78	+ 9 34.0	2.665	3.560	8.0	20.6
3 22	9 21.88	+12 39.4	2.080	2.892	13.5	21.2	3 22	9 26.79	+10 19.4	2.755	3.567	10.6	20.8
248818	2006 <i>SZ</i> ₂₁₇		2 14.1	76°87'	26°6/22.0	16	469035	2015 <i>AQ</i> ₂₅₀		2 14.1	22°57'	2°8/12.8	18
1 12	10 27.38	-42 41.6	1.030	1.584	37.1	20.0	1 12	10 18.44	+21 12.0	1.497	2.345	15.3	20.3
1 22	10 20.07	-45 43.4	1.018	1.623	35.1	19.9	1 22	10 11.73	+20 59.9	1.437	2.353	11.2	20.0
2 1	10 7.93	-47 40.3	1.009	1.662	33.1	19.9	2 1	10 2.27	+20 47.2	1.401	2.363	6.7	19.8
2 11	9 52.59	-48 20.6	1.005	1.700	31.1	19.9	2 11	9 51.18	+20 28.5	1.391	2.374	3.0	19.6
2 21	9 36.62	-47 39.5	1.008	1.736	29.3	19.9	2 21	9 39.88	+20 0.1	1.409	2.385	5.1	19.8
3 2	9 22.94	-45 41.6	1.021	1.772	27.8	19.9	3 2	9 29.82	+19 20.4	1.455	2.397	9.4	20.0
3 12	9 13.65	-42 43.0	1.045	1.806	26.9	20.0	3 12	9 22.17	+18 30.2	1.525	2.410	13.5	20.3
3 22	9 9.53	-39 5.2	1.083	1.840	26.6	20.1	3 22	9 17.51	+17 31.6	1.616	2.424	17.0	20.6
416187	2002 <i>TP</i> ₆₅		2 14.1	106°42'	10°8/2.6	18	350688	2001 <i>VD</i> ₂₅		2 14.1	68°23'	2°3/12.7	18
1 12	10 24.89	+46 43.9	2.212	3.008	12.9	21.4	1 12	10 16.56	+16 0.6	1.312	2.162	16.8	20.4
1 22	10 16.43	+48 45.7	2.200	3.037	11.5	21.3	1 22	10 10.53	+16 46.9	1.266	2.185	12.2	20.1
2 1	10 5.02	+50 26.6	2.213	3.066	10.9	21.3	2 1	10 1.63	+17 41.6	1.243	2.207	7.0	19.9
2 11	9 51.81	+51 37.4	2.252	3.094	11.2	21.4	2 11	9 51.03	+18 35.8	1.246	2.230	2.5	19.7
2 21	9 38.34	+52 13.3	2.315	3.122	12.2	21.5	2 21	9 40.25	+19 21.0	1.275	2.252	5.1	19.9
3 2	9 26.22	+52 14.7	2.401	3.148	13.6	21.7	3 2	9 30.80	+19 51.1	1.331	2.275	10.0	20.3
3 12	9 16.71	+51 46.2	2.506	3.173	15.0	21.8	3 12	9 23.87	+20 3.6	1.410	2.297	14.3	20.6
3 22	9 10.44	+50 54.8	2.626	3.198	16.2	22.0	3 22	9 20.05	+19 59.3	1.509	2.319	17.8	20.8
69352	1994 <i>AR</i> ₅		2 14.1	293°02'	1°0/13.4	18	210799	2001 <i>FK</i> ₂₉		2 14.1	352°36'	16°8/28.5	18
1 12	10 11.98	+13 11.4	1.502	2.347	15.4	20.1	1 12	10 8.76	-24 7.6	1.206	1.900	26.6	19.4
1 22	10 7.43	+13 47.9	1.413	2.329	11.4	19.8	1 22	10 5.59	-25 10.0	1.134	1.899	24.3	19.2
2 1	10 0.08	+14 37.8	1.347	2.310	6.7	19.5	2 1	9 59.23	-25 23.8	1.073	1.898	21.7	19.0
2 11	9 50.72	+15 34.7	1.306	2.292	1.7	19.1	2 11	9 50.57	-24 39.5	1.027	1.897	19.2	18.8
2 21	9 40.53	+16 30.9	1.293	2.274	4.3	19.2	2 21	9 41.02	-22 53.5	0.999	1.897	17.3	18.7
3 2	9 30.98	+17 18.5	1.307	2.255	9.6	19.5	3 2	9 32.33	-20 11.8	0.991	1.897	16.9	18.7
3 12	9 23.43	+17 51.8	1.344	2.237	14.4	19.7	3 12	9 26.10	-16 50.9	1.004	1.897	18.1	18.7
3 22	9 18.79	+18 8.5	1.401	2.220	18.5	19.9	3 22	9 23.30	-13 12.5	1.037	1.897	20.6	18.9
126452	2002 <i>CC</i> ₂₄		2 14.1	69°95'	3°3/16.6	18	359017	2008 <i>UA</i> ₂₉₆		2 14.1	37°84'	5°8/10.9	18
1 12	10 11.94	+ 1 19.4	1.385	2.199	18.2	19.9	1 12	10 15.92	+23 23.5	1.177	2.043	17.3	20.4
1 22	10 7.02	+ 2 1.9	1.331	2.222	14.0	19.7	1 22	10 10.56	+24 20.9	1.129	2.054	12.8	20.2
2 1	9 59.54	+ 3 10.2	1.298	2.245	9.2	19.4	2 1	10 1.87	+25 18.6	1.104	2.065	8.2	20.0
2 11	9 50.51	+ 4 38.7	1.290	2.268	4.5	19.2	2 11	9 51.13	+26 4.9	1.102	2.077	5.8	19.9
2 21	9 41.19	+ 6 18.4	1.309	2.291	4.0	19.3	2 21	9 40.06	+26 30.7	1.125	2.089	8.2	20.0
3 2	9 32.92	+ 7 58.5	1.356	2.313	8.3	19.6	3 2	9 30.46	+26 31.4	1.172	2.102	12.5	20.3
3 12	9 26.82	+ 9 29.4	1.427	2.336	12.6	19.9	3 12	9 23.73	+26 7.7	1.240	2.116	16.7	20.6
3 22	9 23.46	+10 45.0	1.521	2.358	16.4	20.2	3 22	9 20.48	+25 23.7	1.327	2.130	20.2	20.9
495338	2014 <i>ML</i> ₃₇		2 14.1	235°82'	1°4/15.0	18	136978	19					

EPHEMERIDES

2 14.1

2 14.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
211652	2003 <i>UV</i> ₂₃₈		2 14.1 105°94	2°2/12.7	18		3725	Valsecchi		2 14.2 121°25	2°1/12.5	18	R
1 12	10 15.39	+16 53.9	1.631	2.474	14.5	20.8	1 12	10 16.26	+18 50.2	2.160	2.990	11.9	18.7
1 22	10 9.44	+17 29.6	1.567	2.482	10.6	20.6	1 22	10 9.49	+19 15.7	2.098	3.006	8.6	18.5
2 1	10 0.97	+18 11.7	1.528	2.490	6.2	20.4	2 1	10 0.77	+19 43.6	2.061	3.021	5.1	18.3
2 11	9 50.91	+18 53.5	1.515	2.499	2.3	20.2	2 11	9 50.88	+20 8.8	2.054	3.036	2.2	18.1
2 21	9 40.48	+19 28.0	1.531	2.507	4.6	20.3	2 21	9 40.78	+20 27.0	2.077	3.050	4.0	18.3
3 2	9 31.02	+19 50.4	1.574	2.515	9.0	20.6	3 2	9 31.50	+20 34.9	2.130	3.064	7.5	18.5
3 12	9 23.62	+19 58.0	1.642	2.522	13.0	20.8	3 12	9 23.88	+20 31.3	2.210	3.077	10.7	18.7
3 22	9 18.93	+19 51.1	1.731	2.530	16.4	21.1	3 22	9 18.44	+20 16.7	2.313	3.090	13.4	18.9
376445	2012 <i>HT</i> ₄₈		2 14.1 153°90	1°3/12.7	18		176972	2002 <i>XC</i> ₆₂		2 14.2 175°18	2°0/15.8	18	
1 12	10 10.44	+14 42.2	2.528	3.354	10.5	21.5	1 12	10 13.38	+ 5 31.9	2.335	3.130	12.3	20.7
1 22	10 5.13	+15 40.4	2.455	3.363	7.6	21.3	1 22	10 7.39	+ 5 39.9	2.250	3.134	9.3	20.5
2 1	9 58.18	+16 45.2	2.410	3.370	4.4	21.1	2 1	9 59.59	+ 6 0.0	2.190	3.136	6.0	20.3
2 11	9 50.21	+17 51.5	2.394	3.378	1.5	20.9	2 11	9 50.62	+ 6 29.9	2.159	3.138	2.7	20.0
2 21	9 41.95	+18 54.1	2.409	3.384	3.2	21.1	2 21	9 41.29	+ 7 6.0	2.159	3.139	2.8	20.0
3 2	9 34.20	+19 48.3	2.455	3.391	6.5	21.3	3 2	9 32.50	+ 7 44.1	2.189	3.139	6.1	20.3
3 12	9 27.68	+20 30.9	2.528	3.396	9.5	21.5	3 12	9 25.04	+ 8 20.1	2.247	3.139	9.5	20.5
3 22	9 22.91	+21 0.7	2.625	3.401	12.0	21.7	3 22	9 19.50	+ 8 50.6	2.330	3.138	12.4	20.7
54623	2000 <i>SR</i> ₃₄		2 14.1 211°78	2°6/11.8	18		42570	1996 <i>YA</i> ₂		2 14.2 0°33	5°6/10.0	18	
1 12	10 11.18	+20 37.7	2.496	3.331	10.3	19.8	1 12	10 4.79	+18 47.4	1.050	1.932	17.5	16.6
1 22	10 5.73	+21 10.3	2.418	3.329	7.5	19.6	1 22	10 2.82	+20 39.4	0.994	1.928	12.8	16.3
2 1	9 58.56	+21 44.6	2.367	3.327	4.6	19.4	2 1	9 57.62	+22 44.0	0.959	1.926	7.9	16.0
2 11	9 50.31	+22 15.8	2.346	3.324	2.6	19.2	2 11	9 50.22	+24 46.0	0.948	1.926	5.6	15.9
2 21	9 41.75	+22 39.7	2.354	3.322	4.1	19.3	2 21	9 42.15	+26 29.5	0.960	1.927	8.8	16.0
3 2	9 33.74	+22 53.1	2.392	3.319	7.1	19.5	3 2	9 35.18	+27 42.9	0.995	1.929	13.7	16.3
3 12	9 27.05	+22 54.6	2.457	3.316	10.0	19.7	3 12	9 30.83	+28 21.5	1.049	1.934	18.3	16.6
3 22	9 22.19	+22 44.2	2.544	3.314	12.5	19.9	3 22	9 29.87	+28 27.0	1.120	1.940	22.2	16.9
500688	2012 <i>VF</i> ₉₁		2 14.1 164°70	3°2/17.6	17		363563	2003 <i>YW</i> ₂₇		2 14.2 40°48	4°0/11.8	18	
1 12	10 7.67	+ 0 2.0	2.736	3.511	11.2	22.1	1 12	10 16.13	+21 22.0	1.411	2.266	15.6	20.1
1 22	10 3.00	+ 0 8.8	2.649	3.513	8.8	21.9	1 22	10 10.32	+21 57.0	1.354	2.274	11.5	19.8
2 1	9 56.91	+ 0 29.5	2.586	3.516	6.2	21.8	2 1	10 1.62	+22 33.9	1.320	2.282	7.0	19.6
2 11	9 49.91	+ 1 2.6	2.552	3.518	3.8	21.6	2 11	9 51.13	+23 4.3	1.312	2.291	4.1	19.5
2 21	9 42.62	+ 1 45.4	2.547	3.520	3.4	21.6	2 21	9 40.29	+23 21.0	1.330	2.300	6.3	19.6
3 2	9 35.75	+ 2 34.0	2.572	3.522	5.4	21.7	3 2	9 30.65	+23 19.8	1.374	2.309	10.6	19.9
3 12	9 29.91	+ 3 24.3	2.626	3.524	8.0	21.9	3 12	9 23.45	+23 0.3	1.441	2.319	14.7	20.1
3 22	9 25.57	+ 4 12.2	2.705	3.525	10.5	22.1	3 22	9 19.32	+22 24.8	1.529	2.329	18.1	20.4
134461	1998 <i>SN</i> ₁₃₉		2 14.1 133°50	0°1/14.2	18		497462	2005 <i>YA</i> ₉₈		2 14.2 190°75	5°3/ 8.7	18	
1 12	10 14.72	+11 15.4	2.180	2.996	12.3	20.3	1 12	10 11.85	+25 53.2	2.112	2.957	11.5	21.2
1 22	10 8.34	+11 39.4	2.112	3.012	9.1	20.1	1 22	10 6.67	+27 26.4	2.045	2.956	8.7	21.0
2 1	10 0.08	+12 12.3	2.070	3.027	5.3	19.9	2 1	9 59.34	+28 59.5	2.006	2.955	6.2	20.8
2 11	9 50.68	+12 49.7	2.057	3.042	1.3	19.7	2 11	9 50.58	+30 23.9	1.995	2.954	5.4	20.8
2 21	9 41.02	+13 27.0	2.074	3.056	2.7	19.8	2 21	9 41.37	+31 32.0	2.012	2.953	7.2	20.9
3 2	9 32.07	+14 0.1	2.122	3.069	6.6	20.1	3 2	9 32.79	+32 18.9	2.058	2.951	10.0	21.1
3 12	9 24.66	+14 25.5	2.197	3.081	10.0	20.3	3 12	9 25.82	+32 43.2	2.128	2.949	12.8	21.2
3 22	9 19.32	+14 41.6	2.296	3.092	12.9	20.5	3 22	9 21.12	+32 46.2	2.218	2.947	15.3	21.4
363763	2005 <i>EF</i> ₁₅		2 14.1 350°65	0°9/14.7	18		340599	2006 <i>QF</i> ₃₂		2 14.2 183°38	3°5/18.2	18	
1 12	10 6.88	+ 7 42.4	1.220	2.071	17.8	20.6	1 12	10 7.04	- 2 17.5	2.642	3.407	11.8	20.9
1 22	10 3.93	+ 8 24.9	1.148	2.065	13.4	20.4	1 22	10 2.64	- 1 49.0	2.550	3.407	9.4	20.7
2 1	9 58.10	+ 9 30.3	1.097	2.059	8.1	20.0	2 1	9 56.76	- 1 3.4	2.483	3.407	6.7	20.5
2 11	9 50.29	+10 52.5	1.070	2.055	2.4	19.7	2 11	9 49.93	- 0 2.7	2.443	3.407	4.3	20.4
2 21	9 41.80	+12 21.4	1.068	2.051	3.9	19.8	2 21	9 42.79	+ 1 9.7	2.434	3.406	3.6	20.3
3 2	9 34.16	+13 45.8	1.090	2.049	9.6	20.1	3 2	9 36.04	+ 2 28.7	2.455	3.405	5.6	20.5
3 12	9 28.77	+14 56.5	1.136	2.048	14.8	20.4	3 12	9 30.34	+ 3 48.7	2.505	3.404	8.3	20.6
3 22	9 26.43	+15 47.8	1.200	2.048	19.2	20.6	3 22	9 26.18	+ 5 4.8	2.580	3.403	10.9	20.8
125779	2001 <i>XL</i> ₁₄₅		2 14.1 156°50	6°1/ 8.0	18		291496	2006 <i>DA</i> ₁₃₉		2 14.2 277°26	3°8/11.7	18	
1 12	10 13.73	+28 50.9	2.140	2.982	11.5	20.0	1 12	10 15.35	+20 3.2	1.487	2.339	15.1	20.0
1 22	10 7.99	+30 24.3	2.082	2.987	8.9	19.9	1 22	10 9.90	+20 50.5	1.413	2.331	11.2	19.8
2 1	10 0.06	+31 54.3	2.050	2.992	6.7	19.7	2 1	10 1.52	+21 43.1	1.361	2.324	6.8	19.5
2 11	9 50.71	+33 12.2	2.048	2.997	6.2	19.7	2 11	9 51.16	+22 32.1	1.336	2.316	3.8	19.3
2 21	9 40.96	+34 11.0	2.073	3.002	7.8	19.8	2 21	9 40.14	+23 9.2	1.338	2.308	6.2	19.4
3 2	9 31.94	+34 46.7	2.126	3.005	10.4	20.0	3 2	9 30.02	+23 28.4	1.366	2.300	10.7	19.7
3 12	9 24.62	+34 58.8	2.203	3.009	13.0	20.2	3 12	9 22.16	+23 27.5	1.418	2.293	15.0	19.9
3 22	9 19.65	+34 49.9	2.300	3.012	15.2	20.3	3 22	9 17.36	+23 7.7	1.489	2.285	18.7	20.1
204288	2004 <i>OH</i> ₅		2 14.1 147°70	1°0/14.9	18		175407	2006 <i>OH</i> ₁₆		2 14.2 234°36	0°7/14.8	17	
1 12	10 16.29	+ 8 58.2	1.781	2.599	14.6	21.3	1 12	10 10.33	+ 9 45.3	2.551	3.363	10.9	21.0
1 22	10 9.92	+ 9 11.9	1.709	2.608	10.9	21.1	1 22	10 5.12	+ 9 58.2	2.457	3.353	8.1	20.8
2 1	10 1.21	+ 9 38.2	1.661	2.617	6.6	20.9	2 1	9 58.26	+10 19.8	2.388	3.343	4.9	20.6
2 11	9 51.01	+10 13.2	1.641	2.625	2.1	20.6	2 11	9 50.31	+10 47.2	2.349	3.333	1.5	20.4
2 21	9 40.42	+10 51.5	1.650	2.632	3.1	20.7	2 21	9 41.98	+11 17.2	2.341	3.323	2.3	20.4
3 2	9 30.65	+11 27.7	1.688	2.639	7.6	21.0	3 2	9 34.07	+11 46.0	2.362	3.312	5.8	20.6
3 12	9 22.74	+11 57.4	1.752	2.645	11.6	21.2	3 12	9 27.32	+12 10.3	2.412	3.301	9.0	20.8
3 22	9 17.34	+12 17.8	1.839	2.650	15.1	21.5	3 22	9 22.27	+12 28.1	2.487	3.290	11.8	21.0
295763	2008 <i>UQ</i> ₁₅₈		2 14.2 55°61	1°0/14.7	18		105046	2000 <i>KP</i> ₄₈		2 14.2 199°82	0°3/13.9	18	
1 12	10 15.53	+10 13.2	1.392										

EPHEMERIDES

2 14.2

2 14.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
369896	2012 <i>TC</i> ₂₁₀		2 14.2 213°41'	4.6°/9.8 18			207540	2006 <i>KD</i> ₅₆		2 14.2 267°06'	6.7°/18.5 18		
1 12	10 11.99	+26 13.9	2.310	3.152	10.8	20.7	1 12	10 12.20	- 3 49.0	1.681	2.459	17.0	20.3
1 22	10 6.54	+27 10.2	2.241	3.150	8.1	20.5	1 22	10 7.34	- 4 20.2	1.587	2.445	14.0	20.0
2 1	9 59.15	+28 4.8	2.197	3.148	5.6	20.4	2 1	9 59.99	- 4 28.7	1.513	2.432	10.6	19.8
2 11	9 50.53	+28 51.3	2.183	3.146	4.6	20.3	2 11	9 50.84	- 4 12.9	1.463	2.418	7.6	19.6
2 21	9 41.56	+29 24.2	2.197	3.144	6.2	20.4	2 21	9 40.93	- 3 34.4	1.440	2.404	6.8	19.5
3 2	9 33.22	+29 40.2	2.239	3.142	8.8	20.5	3 2	9 31.53	- 2 38.2	1.443	2.390	9.1	19.6
3 12	9 26.38	+29 38.5	2.306	3.140	11.5	20.7	3 12	9 23.84	- 1 32.1	1.472	2.375	12.7	19.8
3 22	9 21.62	+29 20.5	2.395	3.137	13.9	20.9	3 22	9 18.72	- 0 24.3	1.522	2.361	16.3	20.0
131871	2002 <i>AP</i> ₁₅₇		2 14.2 36°65'	0°1/14.2 18			156407	2002 <i>AE</i> ₄₂		2 14.2 354°89'	0°2/14.3 18		
1 12	10 11.82	+10 32.9	1.246	2.095	17.6	19.9	1 12	10 8.49	+ 9 38.0	1.608	2.446	14.9	19.5
1 22	10 7.36	+11 6.3	1.187	2.104	13.0	19.7	1 22	10 4.54	+10 21.7	1.533	2.444	11.0	19.3
2 1	9 59.99	+11 56.4	1.150	2.113	7.7	19.4	2 1	9 58.24	+11 21.1	1.481	2.442	6.6	19.0
2 11	9 50.76	+12 56.1	1.138	2.123	1.9	19.0	2 11	9 50.38	+12 30.6	1.455	2.440	1.7	18.7
2 21	9 41.09	+13 56.6	1.151	2.134	4.0	19.2	2 21	9 42.01	+13 42.4	1.457	2.439	3.4	18.8
3 2	9 32.52	+14 49.4	1.190	2.145	9.5	19.6	3 2	9 34.35	+14 48.9	1.486	2.439	8.2	19.1
3 12	9 26.34	+15 28.2	1.252	2.156	14.4	19.9	3 12	9 28.48	+15 43.6	1.540	2.439	12.5	19.3
3 22	9 23.23	+15 50.5	1.333	2.168	18.4	20.2	3 22	9 25.09	+16 23.0	1.615	2.440	16.2	19.6
218683	2005 <i>TT</i> ₄₁		2 14.2 172°69'	0°9/14.9 16			455155	1996 <i>TE</i> ₃₆		2 14.2 121°68'	2.4°/16.1 18		
1 12	10 12.74	+ 8 50.4	2.362	3.170	11.8	21.9	1 12	10 13.97	+ 4 11.6	1.856	2.659	14.7	21.4
1 22	10 6.91	+ 9 8.5	2.280	3.174	8.8	21.7	1 22	10 8.10	+ 4 30.9	1.788	2.675	11.2	21.2
2 1	9 59.30	+ 9 36.6	2.223	3.177	5.3	21.5	2 1	10 0.11	+ 5 7.0	1.744	2.691	7.2	21.0
2 11	9 50.56	+10 11.5	2.196	3.179	1.7	21.2	2 11	9 50.80	+ 5 56.2	1.727	2.706	3.4	20.8
2 21	9 41.49	+10 49.3	2.199	3.181	2.5	21.3	2 21	9 41.18	+ 6 53.3	1.740	2.721	3.3	20.8
3 2	9 32.95	+11 25.7	2.232	3.182	6.1	21.5	3 2	9 32.33	+ 7 52.0	1.781	2.735	7.0	21.1
3 12	9 25.74	+11 57.2	2.294	3.182	9.5	21.7	3 12	9 25.20	+ 8 46.5	1.850	2.748	10.8	21.3
3 22	9 20.41	+12 21.1	2.380	3.182	12.3	21.9	3 22	9 20.36	+ 9 32.5	1.942	2.761	14.1	21.5
350289	2012 <i>TT</i> ₂₉₃		2 14.2 35°05'	2°5/16.4 17			44658	1999 <i>RD</i> ₁₆₈		2 14.2 204°46'	0°7/13.7 18		
1 12	10 8.80	+ 4 7.8	2.297	3.097	12.3	20.6	1 12	10 16.07	+12 24.8	1.648	2.479	14.9	19.9
1 22	10 4.07	+ 4 8.1	2.215	3.099	9.5	20.4	1 22	10 10.15	+13 5.1	1.567	2.475	11.0	19.6
2 1	9 57.66	+ 4 21.4	2.158	3.101	6.3	20.2	2 1	10 1.59	+13 57.8	1.510	2.470	6.5	19.4
2 11	9 50.17	+ 4 45.9	2.128	3.104	3.2	20.0	2 11	9 51.22	+14 56.7	1.480	2.465	1.6	19.0
2 21	9 42.35	+ 5 18.3	2.127	3.106	3.1	20.0	2 21	9 40.22	+15 54.3	1.478	2.459	3.9	19.2
3 2	9 35.04	+ 5 54.6	2.156	3.109	6.0	20.2	3 2	9 29.96	+16 43.7	1.505	2.452	8.8	19.4
3 12	9 29.00	+ 6 30.5	2.212	3.112	9.2	20.4	3 12	9 21.66	+17 19.9	1.558	2.444	13.2	19.7
3 22	9 24.75	+ 7 2.3	2.292	3.114	12.1	20.6	3 22	9 16.13	+17 40.8	1.632	2.436	17.0	19.9
436379	2010 <i>OT</i> ₁₁₇		2 14.2 319°32'	8°6/5.8 16			322360	2011 <i>KE</i> ₂₂		2 14.2 270°57'	0°7/14.7 17		
1 12	10 12.80	+35 40.6	1.949	2.792	12.5	20.6	1 12	10 9.70	+ 9 24.6	2.144	2.965	12.3	20.9
1 22	10 7.77	+37 9.4	1.885	2.779	10.3	20.5	1 22	10 4.94	+ 9 46.2	2.057	2.958	9.2	20.6
2 1	10 0.16	+38 29.7	1.845	2.767	8.8	20.3	2 1	9 58.29	+10 19.0	1.995	2.951	5.6	20.4
2 11	9 50.82	+39 31.5	1.831	2.755	8.8	20.3	2 11	9 50.38	+10 59.4	1.960	2.945	1.7	20.1
2 21	9 40.93	+40 7.6	1.842	2.743	10.4	20.4	2 21	9 42.05	+11 42.8	1.955	2.938	2.7	20.2
3 2	9 31.83	+40 14.6	1.879	2.732	12.8	20.5	3 2	9 34.22	+12 24.3	1.980	2.931	6.6	20.4
3 12	9 24.72	+39 53.4	1.936	2.721	15.3	20.7	3 12	9 27.77	+12 59.8	2.031	2.925	10.2	20.6
3 22	9 20.33	+39 8.1	2.011	2.710	17.5	20.8	3 22	9 23.29	+13 26.3	2.106	2.918	13.4	20.8
32282	Arnoldmong		2 14.2 172°36'	0°3/13.9 18			268582	2006 <i>BD</i> ₁₂₆		2 14.2 175°92'	0°6/14.7 17		
1 12	10 9.05	+12 23.1	2.868	3.685	9.6	20.1	1 12	10 9.85	+ 8 48.5	2.185	3.003	12.3	20.8
1 22	10 3.97	+12 52.3	2.786	3.688	7.1	19.9	1 22	10 4.97	+ 9 22.4	2.104	3.004	9.1	20.6
2 1	9 57.49	+13 28.0	2.732	3.690	4.1	19.7	2 1	9 58.26	+10 8.2	2.048	3.004	5.5	20.4
2 11	9 50.12	+14 6.8	2.707	3.692	1.0	19.4	2 11	9 50.37	+11 1.8	2.021	3.005	1.6	20.1
2 21	9 42.49	+14 45.3	2.713	3.693	2.3	19.6	2 21	9 42.10	+11 58.2	2.023	3.005	2.6	20.2
3 2	9 35.27	+15 19.9	2.750	3.694	5.4	19.8	3 2	9 34.37	+12 52.1	2.055	3.005	6.5	20.4
3 12	9 29.11	+15 48.0	2.815	3.695	8.2	20.0	3 12	9 28.00	+13 38.9	2.114	3.005	10.0	20.7
3 22	9 24.45	+16 7.8	2.905	3.695	10.6	20.1	3 22	9 23.56	+14 15.6	2.196	3.005	13.0	20.9
379297	2009 <i>VJ</i> ₆₈		2 14.2 236°81'	6°7/19.8 17			59287	1999 <i>CC</i> ₅₄		2 14.2 246°36'	1°5/12.9 18		
1 12	10 10.91	- 7 51.6	2.256	2.992	14.4	20.9	1 12	10 12.34	+17 13.1	2.305	3.136	11.2	18.4
1 22	10 5.80	- 8 23.6	2.157	2.982	12.1	20.7	1 22	10 6.73	+17 31.9	2.222	3.132	8.2	18.2
2 1	9 58.80	- 8 35.7	2.080	2.972	9.7	20.5	2 1	9 59.27	+17 54.6	2.166	3.127	4.8	18.0
2 11	9 50.48	- 8 26.5	2.028	2.961	7.5	20.3	2 11	9 50.61	+18 16.9	2.138	3.122	1.7	17.7
2 21	9 41.64	- 7 56.9	2.004	2.950	6.8	20.3	2 21	9 41.59	+18 34.9	2.140	3.117	3.5	17.9
3 2	9 33.19	- 7 10.3	2.007	2.939	8.0	20.3	3 2	9 33.15	+18 45.1	2.172	3.112	7.0	18.1
3 12	9 26.02	- 6 12.2	2.038	2.927	10.4	20.4	3 12	9 26.10	+18 45.5	2.231	3.106	10.2	18.3
3 22	9 20.77	- 5 9.0	2.092	2.915	13.1	20.6	3 22	9 21.02	+18 35.7	2.313	3.101	13.1	18.4
55770	1992 <i>OW</i>		2 14.2 117°64'	6°2/8.6 18			456723	2007 <i>RK</i> ₃₂₃		2 14.2 23°49'	6°8/18.9 16		
1 12	10 17.62	+31 0.5	2.218	3.051	11.5	19.5	1 12	10 7.42	- 3 11.5	1.143	1.961	21.1	20.7
1 22	10 10.61	+32 13.0	2.173	3.072	8.9	19.3	1 22	10 4.27	- 3 23.8	1.086	1.970	17.0	20.5
2 1	10 1.47	+33 18.7	2.155	3.092	6.8	19.2	2 1	9 58.26	- 3 2.8	1.047	1.982	12.5	20.2
2 11	9 51.08	+34 9.9	2.166	3.111	6.3	19.2	2 11	9 50.41	- 2 9.7	1.030	1.994	8.3	20.0
2 21	9 40.51	+34 41.2	2.206	3.130	7.7	19.3	2 21	9 42.08	- 0 50.7	1.035	2.008	6.9	20.0
3 2	9 30.87	+34 50.4	2.273	3.148	10.0	19.5	3 2	9 34.80	+ 0 43.5	1.064	2.023	9.8	20.2
3 12	9 23.07	+34 38.6	2.364	3.165	12.3	19.7	3 12	9 29.86	+ 2 19.9	1.116	2.039	14.0	20.5
3 22	9 17.64	+34 8.9	2.476	3.182	14.4	19.9	3 22	9 27.94	+ 3 48.1	1.188	2.056	18.0	20.8
376357	2011 <i>HQ</i> ₉₃		2 14.2 18°53'	2°1/15.9 18			67750	2000 <i>UN</i> ₄₇		2 14.2 150°26'			

EPHEMERIDES

2 14.2

2 14.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
425438	2010 <i>DK</i> ₇₆		2 14.2 186°11	0°8/13.5	17		24875	1996 <i>HX</i> ₁₆		2 14.2 79°73	1°4/12.9	18	
1 12	10 11.93	+14 53.1	2.339	3.166	11.2	20.9	1 12	10 11.10	+15 15.5	2.034	2.870	12.3	18.8
1 22	10 6.37	+15 10.2	2.259	3.166	8.2	20.7	1 22	10 5.94	+15 55.0	1.969	2.881	8.9	18.6
2 1	9 59.03	+15 32.9	2.205	3.165	4.8	20.5	2 1	9 58.84	+16 41.2	1.929	2.891	5.1	18.4
2 11	9 50.55	+15 57.2	2.180	3.165	1.3	20.3	2 11	9 50.54	+17 28.7	1.917	2.902	1.6	18.1
2 21	9 41.76	+16 19.2	2.185	3.164	3.0	20.4	2 21	9 41.95	+18 12.0	1.935	2.912	3.6	18.3
3 2	9 33.52	+16 35.4	2.220	3.164	6.6	20.6	3 2	9 34.07	+18 46.3	1.981	2.922	7.4	18.5
3 12	9 26.65	+16 43.4	2.282	3.163	9.8	20.8	3 12	9 27.73	+19 8.9	2.053	2.933	10.8	18.8
3 22	9 21.68	+16 42.3	2.368	3.162	12.6	21.0	3 22	9 23.50	+19 18.8	2.148	2.943	13.7	19.0
233226	2005 <i>YZ</i> ₃₄		2 14.2 316°42	1°8/15.5	18		307943	2004 <i>FC</i> ₆₆		2 14.2 275°14	7°6/ 7.4	17	
1 12	10 11.04	+ 7 4.4	1.873	2.690	14.0	20.4	1 12	10 15.77	+31 26.0	1.889	2.732	12.8	20.0
1 22	10 6.12	+ 7 7.9	1.790	2.687	10.6	20.2	1 22	10 10.12	+32 53.1	1.807	2.710	10.2	19.8
2 1	9 59.07	+ 7 24.9	1.731	2.683	6.7	19.9	2 1	10 1.71	+34 16.4	1.751	2.687	8.1	19.6
2 11	9 50.59	+ 7 52.7	1.698	2.680	2.8	19.7	2 11	9 51.32	+35 25.6	1.721	2.665	7.8	19.6
2 21	9 41.65	+ 8 27.1	1.694	2.677	3.1	19.7	2 21	9 40.17	+36 11.9	1.719	2.641	9.6	19.6
3 2	9 33.33	+ 9 2.9	1.719	2.673	7.1	19.9	3 2	9 29.66	+36 30.3	1.742	2.618	12.5	19.7
3 12	9 26.59	+ 9 35.3	1.770	2.670	11.1	20.2	3 12	9 21.14	+36 20.4	1.788	2.594	15.5	19.9
3 22	9 22.10	+10 0.7	1.843	2.668	14.5	20.4	3 22	9 15.46	+35 45.8	1.852	2.570	18.2	20.0
417669	2007 <i>AH</i> ₂		2 14.2 56°78	14°3/22.8	18		194614	2001 <i>XD</i> ₁₄₀		2 14.2 355°29	0°2/14.1	18	
1 12	10 25.32	-18 18.1	1.631	2.302	21.4	20.3	1 12	10 10.04	+11 30.9	1.135	1.995	18.2	19.9
1 22	10 16.86	-20 59.4	1.581	2.331	19.1	20.2	1 22	10 6.48	+11 53.4	1.068	1.990	13.6	19.6
2 1	10 5.47	-23 8.7	1.551	2.361	16.9	20.1	2 1	9 59.75	+12 32.8	1.022	1.987	8.0	19.3
2 11	9 52.17	-24 37.8	1.544	2.391	15.1	20.1	2 11	9 50.85	+13 22.5	0.999	1.984	1.9	18.9
2 21	9 38.37	-25 22.9	1.559	2.421	14.3	20.1	2 21	9 41.27	+14 13.6	1.000	1.983	4.3	19.1
3 2	9 25.63	-25 26.5	1.599	2.451	14.7	20.2	3 2	9 32.72	+14 57.3	1.025	1.983	10.3	19.4
3 12	9 15.29	-24 57.0	1.660	2.481	15.9	20.3	3 12	9 26.69	+15 27.1	1.072	1.984	15.6	19.7
3 22	9 8.11	-24 5.8	1.741	2.511	17.4	20.5	3 22	9 23.99	+15 40.0	1.138	1.985	20.1	20.0
273300	2006 <i>SS</i> ₁₀₈		2 14.2 121°57	1°6/12.7	18		385961	2006 <i>VL</i> ₁₂₆		2 14.2 53°92	3°2/17.2	17	
1 12	10 13.52	+14 41.7	2.076	2.906	12.4	21.7	1 12	10 8.02	+ 1 18.6	2.383	3.170	12.3	21.6
1 22	10 7.63	+15 44.3	2.016	2.924	8.9	21.6	1 22	10 3.50	+ 1 21.8	2.299	3.172	9.6	21.4
2 1	9 59.78	+16 54.3	1.981	2.943	5.1	21.4	2 1	9 57.37	+ 1 39.7	2.239	3.174	6.7	21.3
2 11	9 50.74	+18 5.4	1.976	2.960	1.8	21.2	2 11	9 50.19	+ 2 10.7	2.206	3.176	3.9	21.1
2 21	9 41.44	+19 10.9	2.001	2.977	3.8	21.3	2 21	9 42.69	+ 2 51.8	2.202	3.178	3.5	21.1
3 2	9 32.87	+20 5.5	2.056	2.993	7.5	21.6	3 2	9 35.66	+ 3 38.8	2.228	3.180	5.9	21.2
3 12	9 25.89	+20 45.9	2.138	3.009	10.8	21.8	3 12	9 29.82	+ 4 26.8	2.281	3.182	8.9	21.4
3 22	9 21.05	+21 11.2	2.243	3.024	13.6	22.0	3 22	9 25.69	+ 5 11.7	2.358	3.184	11.7	21.6
145583	2006 <i>PB</i> ₁₄		2 14.2 109°81	3°8/11.3	18		413038	2001 <i>MF</i> ₁		2 14.2 93°60	6°4/20.7	15 CA	
1 12	10 18.56	+22 53.4	1.993	2.828	12.6	20.0	1 12	10 18.16	-10 32.5	2.636	3.329	13.5	22.4
1 22	10 11.32	+23 40.2	1.942	2.851	9.2	19.8	1 22	10 10.48	-11 5.1	2.579	3.372	11.3	22.3
2 1	10 1.91	+24 26.2	1.917	2.874	5.8	19.7	2 1	10 1.24	-11 18.2	2.545	3.414	9.0	22.2
2 11	9 51.25	+25 4.7	1.922	2.896	3.8	19.6	2 11	9 51.11	-11 11.3	2.539	3.454	7.2	22.1
2 21	9 40.45	+25 30.1	1.956	2.917	5.6	19.7	2 21	9 40.89	-10 46.1	2.563	3.493	6.4	22.2
3 2	9 30.64	+25 39.5	2.019	2.938	8.7	20.0	3 2	9 31.38	-10 6.2	2.617	3.531	7.2	22.3
3 12	9 22.75	+25 32.5	2.108	2.958	11.8	20.2	3 12	9 23.26	- 9 16.7	2.699	3.568	8.9	22.4
3 22	9 17.31	+25 11.2	2.218	2.977	14.4	20.4	3 22	9 16.99	- 8 23.1	2.808	3.604	10.8	22.6
340808	2006 <i>TF</i> ₁₁₁		2 14.2 242°03	4°5/ 9.2	17		165156	2000 <i>QJ</i> ₅₀		2 14.2 214°74	0°2/14.3	17	
1 12	10 11.38	+27 17.9	2.669	3.506	9.7	20.9	1 12	10 13.99	+ 9 52.4	2.027	2.844	13.1	22.3
1 22	10 6.01	+28 19.0	2.588	3.494	7.3	20.7	1 22	10 8.27	+10 32.0	1.936	2.836	9.7	22.0
2 1	9 58.87	+29 18.5	2.534	3.481	5.2	20.6	2 1	10 0.38	+11 24.4	1.869	2.826	5.8	21.8
2 11	9 50.55	+30 10.5	2.509	3.467	4.6	20.5	2 11	9 50.98	+12 24.8	1.831	2.816	1.5	21.5
2 21	9 41.82	+30 49.9	2.513	3.453	6.0	20.6	2 21	9 41.02	+13 27.4	1.823	2.804	3.0	21.5
3 2	9 33.55	+31 13.3	2.546	3.439	8.3	20.7	3 2	9 31.57	+14 25.8	1.845	2.792	7.3	21.8
3 12	9 26.55	+31 19.5	2.605	3.425	10.8	20.8	3 12	9 23.63	+15 15.2	1.894	2.779	11.3	22.0
3 22	9 21.39	+31 9.6	2.686	3.410	13.0	21.0	3 22	9 17.93	+15 52.3	1.966	2.766	14.6	22.2
229643	2006 <i>FC</i> ₃₈		2 14.2 190°45	0°4/13.8	17		236914	2007 <i>TJ</i> ₁₂₀		2 14.2 129°58	0°8/13.4	18	
1 12	10 10.16	+12 1.0	2.203	3.029	11.9	20.9	1 12	10 9.73	+13 38.5	2.383	3.210	11.0	21.1
1 22	10 5.21	+12 38.2	2.122	3.028	8.7	20.7	1 22	10 4.75	+14 17.2	2.309	3.216	8.0	20.9
2 1	9 58.42	+13 24.7	2.068	3.028	5.1	20.5	2 1	9 58.09	+15 3.1	2.262	3.222	4.6	20.7
2 11	9 50.44	+14 16.1	2.041	3.027	1.2	20.2	2 11	9 50.38	+15 51.7	2.243	3.228	1.2	20.5
2 21	9 42.08	+15 7.1	2.045	3.026	2.9	20.4	2 21	9 42.38	+16 38.2	2.255	3.234	2.9	20.6
3 2	9 34.26	+15 52.7	2.078	3.024	6.7	20.6	3 2	9 34.92	+17 18.4	2.297	3.240	6.4	20.8
3 12	9 27.81	+16 29.2	2.138	3.023	10.2	20.8	3 12	9 28.75	+17 49.1	2.365	3.245	9.6	21.1
3 22	9 23.30	+16 54.4	2.221	3.021	13.2	21.0	3 22	9 24.37	+18 8.8	2.458	3.250	12.3	21.2
62232	2000 <i>SM</i> ₇₂		2 14.2 180°14	6°8/ 8.0	18		502360	2015 <i>BJ</i> ₂₂₃		2 14.2 256°48	2°7/11.9	17	
1 12	10 16.80	+32 41.4	2.192	3.026	11.6	19.7	1 12	10 11.31	+18 28.4	1.960	2.803	12.4	21.6
1 22	10 10.27	+33 49.7	2.131	3.027	9.2	19.6	1 22	10 6.32	+19 21.6	1.886	2.802	9.0	21.4
2 1	10 1.45	+34 50.9	2.096	3.027	7.3	19.4	2 1	9 59.19	+20 20.2	1.838	2.800	5.4	21.2
2 11	9 51.18	+35 37.1	2.088	3.028	6.9	19.4	2 11	9 50.68	+21 17.4	1.818	2.799	2.8	21.0
2 21	9 40.56	+36 2.5	2.109	3.027	8.3	19.5	2 21	9 41.75	+22 6.8	1.826	2.797	4.8	21.2
3 2	9 30.75	+36 4.4	2.156	3.027	10.6	19.6	3 2	9 33.47	+22 43.3	1.863	2.796	8.4	21.4
3 12	9 22.79	+35 43.8	2.228	3.026	13.1	19.8	3 12	9 26.81	+23 3.9	1.925	2.794	11.9	21.6
3 22	9 17.28	+35 4.0	2.319	3.024	15.3	20.0	3 22	9 22.41	+23 8.6	2.009	2.793	14.9	21.8
37463	6338 <i>P-L</i>		2 14.2 293°35	3°1/16.4	18		384758	2011 <i>ST</i> ₂₆₃		2 14.2 231°38	0°9/13.3	17	
1 12	10 10.47	+ 3 8.6											

EPHEMERIDES

2 14.2

2 14.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
170139	2003 <i>AM</i> ₇₀		2 14.2 94°63	8°1/ 4.2	18		214633	2006 <i>RP</i> ₁₂₀		2 14.2 218°52	1°2/13.2	17	
1 12	10 13.86	+38 17.8	2.424	3.251	10.9	19.9	1 12	10 13.93	+14 29.1	2.045	2.873	12.5	22.3
1 22	10 8.10	+40 13.1	2.392	3.270	9.1	19.8	1 22	10 8.21	+15 6.8	1.958	2.866	9.2	22.1
2 1	10 0.19	+41 57.1	2.386	3.287	8.2	19.7	2 1	10 0.34	+15 52.7	1.896	2.857	5.4	21.8
2 11	9 50.91	+43 21.4	2.408	3.305	8.4	19.8	2 11	9 51.00	+16 41.5	1.863	2.848	1.5	21.5
2 21	9 41.29	+44 20.5	2.457	3.322	9.6	19.9	2 21	9 41.15	+17 27.5	1.860	2.838	3.6	21.7
3 2	9 32.41	+44 52.3	2.532	3.339	11.3	20.0	3 2	9 31.87	+18 5.4	1.886	2.828	7.7	21.9
3 12	9 25.25	+44 58.1	2.627	3.356	13.1	20.2	3 12	9 24.13	+18 31.7	1.939	2.818	11.4	22.1
3 22	9 20.41	+44 41.8	2.740	3.373	14.5	20.3	3 22	9 18.64	+18 44.9	2.015	2.806	14.6	22.3
286672	2002 <i>ES</i> ₁₃₇		2 14.2 94°45	2°3/12.4	18		395625	2011 <i>UH</i> ₃₉₂		2 14.2 214°99	2°4/12.5	18	
1 12	10 13.63	+18 20.1	1.921	2.760	12.8	20.6	1 12	10 16.19	+17 25.2	1.793	2.631	13.6	21.8
1 22	10 7.95	+18 52.4	1.852	2.766	9.3	20.4	1 22	10 10.15	+18 9.6	1.712	2.624	10.0	21.5
2 1	10 0.10	+19 28.7	1.809	2.771	5.5	20.1	2 1	10 1.59	+19 0.6	1.656	2.617	5.9	21.3
2 11	9 50.89	+20 3.3	1.794	2.776	2.4	20.0	2 11	9 51.33	+19 51.5	1.627	2.610	2.5	21.0
2 21	9 41.35	+20 30.8	1.807	2.781	4.4	20.1	2 21	9 40.48	+20 35.1	1.627	2.601	4.8	21.1
3 2	9 32.58	+20 46.9	1.849	2.786	8.2	20.3	3 2	9 30.35	+21 6.0	1.656	2.592	9.0	21.4
3 12	9 25.54	+20 49.7	1.917	2.791	11.7	20.6	3 12	9 22.08	+21 21.1	1.711	2.583	13.0	21.6
3 22	9 20.84	+20 39.4	2.006	2.796	14.7	20.8	3 22	9 16.43	+21 20.3	1.786	2.573	16.4	21.8
288984	2004 <i>TZ</i> ₅₂		2 14.2 75°83	1°5/13.2	18		189500	2000 <i>AK</i> ₁₂₅		2 14.2 46°20	0°5/13.8	18	
1 12	10 17.25	+14 35.7	1.429	2.272	16.2	20.5	1 12	10 11.58	+10 13.4	1.521	2.359	15.6	19.0
1 22	10 10.90	+15 14.4	1.383	2.297	11.7	20.3	1 22	10 6.54	+11 20.8	1.483	2.395	11.3	18.9
2 1	10 1.88	+16 2.1	1.359	2.322	6.7	20.1	2 1	9 59.24	+12 41.5	1.470	2.431	6.5	18.7
2 11	9 51.31	+16 51.3	1.362	2.347	1.9	19.9	2 11	9 50.68	+14 7.2	1.483	2.468	1.5	18.4
2 21	9 40.58	+17 34.3	1.392	2.371	4.4	20.1	2 21	9 42.03	+15 29.0	1.524	2.505	3.6	18.6
3 2	9 31.08	+18 5.4	1.450	2.395	9.1	20.4	3 2	9 34.46	+16 39.4	1.593	2.542	8.1	19.0
3 12	9 23.95	+18 21.7	1.532	2.419	13.3	20.7	3 12	9 28.88	+17 33.7	1.687	2.579	12.0	19.3
3 22	9 19.72	+18 23.1	1.635	2.443	16.8	21.0	3 22	9 25.79	+18 10.4	1.803	2.617	15.2	19.6
396757	2003 <i>UR</i> ₁₂₆		2 14.2 149°72	2°6/16.4	18		465694	2009 <i>ST</i> ₂₈₆		2 14.2 106°35	4°0/17.4	18	
1 12	10 14.10	+ 3 28.1	2.135	2.926	13.4	22.2	1 12	10 10.91	+ 0 35.9	1.945	2.735	14.6	21.5
1 22	10 8.05	+ 3 38.7	2.058	2.937	10.3	22.0	1 22	10 5.93	+ 0 32.9	1.867	2.741	11.5	21.4
2 1	10 0.08	+ 4 4.3	2.005	2.947	6.8	21.8	2 1	9 58.94	+ 0 48.1	1.812	2.746	8.0	21.1
2 11	9 50.89	+ 4 42.4	1.981	2.957	3.5	21.6	2 11	9 50.65	+ 1 19.9	1.783	2.752	4.8	21.0
2 21	9 41.36	+ 5 28.8	1.986	2.965	3.2	21.6	2 21	9 41.97	+ 2 4.6	1.782	2.757	4.3	20.9
3 2	9 32.47	+ 6 18.5	2.022	2.973	6.5	21.8	3 2	9 33.91	+ 2 57.0	1.810	2.762	7.0	21.1
3 12	9 25.06	+ 7 6.5	2.085	2.981	9.9	22.0	3 12	9 27.38	+ 3 51.0	1.864	2.768	10.5	21.3
3 22	9 19.71	+ 7 48.6	2.173	2.987	13.0	22.2	3 22	9 22.97	+ 4 41.1	1.942	2.773	13.6	21.5
375571	2008 <i>UU</i> ₃₃₇		2 14.2 146°06	1°0/13.3	17		181415	2006 <i>SA</i> ₁₉₃		2 14.2 112°78	1°3/13.2	18	
1 12	10 11.09	+14 22.2	2.298	3.126	11.4	21.7	1 12	10 13.84	+14 23.4	1.789	2.625	13.8	21.0
1 22	10 5.80	+14 56.2	2.224	3.131	8.3	21.5	1 22	10 8.20	+15 2.8	1.724	2.635	10.0	20.8
2 1	9 58.74	+15 36.9	2.175	3.136	4.8	21.3	2 1	10 0.30	+15 50.8	1.683	2.645	5.8	20.6
2 11	9 50.56	+16 19.7	2.156	3.141	1.3	21.0	2 11	9 50.98	+16 41.2	1.670	2.655	1.7	20.3
2 21	9 42.07	+17 0.0	2.166	3.145	3.1	21.2	2 21	9 41.32	+17 27.6	1.686	2.664	3.8	20.5
3 2	9 34.16	+17 33.4	2.207	3.149	6.7	21.4	3 2	9 32.48	+18 4.5	1.730	2.674	8.1	20.8
3 12	9 27.61	+17 57.1	2.274	3.153	9.9	21.6	3 12	9 25.45	+18 28.6	1.800	2.683	11.9	21.0
3 22	9 22.96	+18 9.8	2.365	3.157	12.7	21.8	3 22	9 20.86	+18 38.9	1.891	2.691	15.1	21.3
501382	2013 <i>YH</i> ₆₅		2 14.2 85°26	2°6/16.4	17		22176	2000 <i>XG</i> ₃₆		2 14.2 121°71	1°8/15.3	18	
1 12	10 10.62	+ 4 11.6	2.326	3.122	12.3	21.0	1 12	10 18.95	+ 8 23.6	1.795	2.605	14.8	17.3
1 22	10 5.37	+ 4 3.7	2.249	3.131	9.5	20.9	1 22	10 11.82	+ 8 9.2	1.727	2.620	11.1	17.1
2 1	9 58.45	+ 4 8.1	2.198	3.140	6.3	20.7	2 1	10 2.37	+ 8 6.3	1.683	2.635	6.9	16.8
2 11	9 50.48	+ 4 23.2	2.174	3.149	3.3	20.5	2 11	9 51.48	+ 8 12.2	1.667	2.649	2.7	16.6
2 21	9 42.24	+ 4 46.1	2.180	3.158	3.1	20.5	2 21	9 40.29	+ 8 23.3	1.681	2.662	3.2	16.7
3 2	9 34.55	+ 5 13.2	2.215	3.167	6.0	20.7	3 2	9 30.01	+ 8 35.7	1.724	2.675	7.4	17.0
3 12	9 28.16	+ 5 40.6	2.278	3.176	9.1	20.9	3 12	9 21.66	+ 8 45.6	1.793	2.687	11.3	17.2
3 22	9 23.58	+ 6 4.8	2.366	3.186	11.8	21.1	3 22	9 15.86	+ 8 50.5	1.886	2.699	14.7	17.5
243421	2009 <i>BC</i> ₁₈₇		2 14.2 250°62	4°1/17.3	18		435991	2009 <i>ET</i> ₂₀		2 14.2 107°67	6°5/ 8.7	17	
1 12	10 13.01	+ 0 14.7	2.559	3.328	12.1	20.2	1 12	10 17.93	+34 44.2	2.412	3.238	11.0	20.5
1 22	10 7.14	+ 0 22.5	2.458	3.316	9.7	20.0	1 22	10 10.86	+35 21.9	2.349	3.238	8.8	20.4
2 1	9 59.54	+ 0 47.6	2.381	3.305	7.0	19.8	2 1	10 1.71	+35 50.6	2.312	3.239	7.0	20.3
2 11	9 50.78	+ 1 0.4	2.333	3.293	4.7	19.6	2 11	9 51.30	+36 3.8	2.303	3.239	6.6	20.3
2 21	9 41.56	+ 1 1.9	2.314	3.281	4.3	19.6	2 21	9 40.68	+35 57.5	2.323	3.240	7.7	20.3
3 2	9 32.72	+ 0 54.3	2.326	3.269	6.4	19.7	3 2	9 30.93	+35 30.4	2.370	3.240	9.8	20.5
3 12	9 25.03	+ 0 40.9	2.366	3.257	9.1	19.8	3 12	9 22.94	+34 44.3	2.442	3.241	12.1	20.6
3 22	9 19.08	+ 0 25.2	2.431	3.244	11.8	20.0	3 22	9 17.28	+33 42.6	2.535	3.241	14.1	20.8
390692	2002 <i>XE</i> ₇₉		2 14.2 52°85	4°1/10.8	18		492437	2014 <i>MA</i> ₂₆		2 14.2 207°26	2°5/12.1	18	
1 12	10 13.32	+22 18.5	1.846	2.693	12.9	20.1	1 12	10 14.48	+16 45.3	1.886	2.722	13.1	22.2
1 22	10 7.58	+23 23.9	1.811	2.726	9.3	20.0	1 22	10 8.81	+17 50.9	1.805	2.717	9.6	22.0
2 1	9 59.76	+24 29.0	1.801	2.759	5.9	19.8	2 1	10 0.78	+19 4.8	1.749	2.711	5.6	21.7
2 11	9 50.78	+25 26.0	1.819	2.793	4.1	19.8	2 11	9 51.14	+20 19.7	1.722	2.704	2.6	21.5
2 21	9 41.73	+26 8.9	1.866	2.826	5.9	20.0	2 21	9 40.93	+21 27.5	1.725	2.697	4.8	21.6
3 2	9 33.69	+26 34.0	1.940	2.859	9.0	20.2	3 2	9 31.34	+22 21.9	1.756	2.689	8.8	21.9
3 12	9 27.51	+26 40.9	2.039	2.892	12.0	20.5	3 12	9 23.48	+22 58.9	1.813	2.680	12.6	22.1
3 22	9 23.66	+26 31.2	2.159	2.925	14.5	20.7	3 22	9 18.07	+23 17.9	1.892	2.671	15.9	22.3
158536	2002 <i>GF</i> ₈₁		2 14.2 199°36	2°5/12.0	18		17877	1999 <i>AZ</i> ₂₂		2 14.2 7°39	5°8/10.6	18	
1 12	10 11.43	+18 3.0											

EPHEMERIDES

2 14.2

2 14.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
461148	2015 <i>TD</i> ₁₁₂		2 14.2 43°08	1°2/15.1	18		369328	2009 <i>SD</i> ₂₄₉		2 14.2 243°31	2°2/12.6	17	
1 12	10 10.72	+ 6 41.2	1.345	2.182	17.4	21.0	1 12	10 16.35	+18 56.9	2.119	2.950	12.1	20.7
1 22	10 6.52	+ 7 26.3	1.280	2.187	13.0	20.7	1 22	10 10.00	+19 18.0	2.028	2.937	8.9	20.5
2 1	9 59.59	+ 8 33.0	1.235	2.194	8.0	20.4	2 1	10 1.43	+19 42.3	1.963	2.923	5.3	20.2
2 11	9 50.87	+ 9 55.0	1.216	2.200	2.6	20.1	2 11	9 51.36	+20 4.5	1.926	2.909	2.3	20.0
2 21	9 41.63	+11 22.8	1.223	2.207	3.6	20.2	2 21	9 40.77	+20 19.8	1.920	2.894	4.2	20.1
3 2	9 33.30	+12 46.5	1.257	2.214	8.9	20.5	3 2	9 30.77	+20 24.6	1.944	2.879	8.0	20.3
3 12	9 27.14	+13 57.6	1.315	2.221	13.7	20.8	3 12	9 22.37	+20 17.1	1.994	2.863	11.5	20.5
3 22	9 23.85	+14 51.3	1.393	2.229	17.7	21.1	3 22	9 16.25	+19 57.5	2.066	2.847	14.7	20.7
205776	2002 <i>CK</i> ₇₀		2 14.2 118°81	0°6/13.9	18		221229	2005 <i>UA</i> ₁₅₈		2 14.2 176°61	0°2/14.4	18	
1 12	10 17.47	+13 27.3	1.641	2.472	15.0	20.6	1 12	10 12.12	+10 26.0	2.074	2.895	12.7	21.8
1 22	10 10.99	+13 43.6	1.576	2.484	11.0	20.3	1 22	10 6.78	+10 54.2	1.995	2.897	9.4	21.6
2 1	10 2.00	+14 8.9	1.534	2.495	6.4	20.1	2 1	9 59.46	+11 33.1	1.940	2.898	5.6	21.4
2 11	9 51.44	+14 37.9	1.520	2.506	1.5	19.8	2 11	9 50.86	+12 18.6	1.913	2.898	1.5	21.1
2 21	9 40.53	+15 4.7	1.535	2.516	3.6	20.0	2 21	9 41.86	+13 5.4	1.916	2.899	2.8	21.2
3 2	9 30.59	+15 24.6	1.578	2.526	8.3	20.3	3 2	9 33.45	+13 48.5	1.949	2.899	6.8	21.5
3 12	9 22.72	+15 34.3	1.647	2.536	12.5	20.5	3 12	9 26.53	+14 23.7	2.009	2.898	10.5	21.7
3 22	9 17.57	+15 32.9	1.737	2.545	15.9	20.8	3 22	9 21.69	+14 48.6	2.091	2.898	13.7	21.9
51106	2000 <i>HB</i> ₁₅		2 14.2 123°69	0°9/13.4	18		255618	2006 <i>PP</i> ₂₁		2 14.2 237°34	0°4/13.9	17	
1 12	10 10.03	+13 44.2	2.369	3.197	11.1	19.4	1 12	10 14.16	+12 3.0	2.014	2.837	12.9	21.8
1 22	10 4.99	+14 23.8	2.298	3.205	8.1	19.2	1 22	10 8.51	+12 35.1	1.918	2.822	9.6	21.6
2 1	9 58.27	+15 10.5	2.252	3.213	4.7	19.0	2 1	10 0.63	+13 17.7	1.848	2.807	5.7	21.3
2 11	9 50.51	+15 59.8	2.235	3.220	1.2	18.8	2 11	9 51.19	+14 6.2	1.806	2.791	1.4	21.0
2 21	9 42.46	+16 46.8	2.249	3.228	3.0	18.9	2 21	9 41.13	+14 55.0	1.794	2.775	3.2	21.1
3 2	9 34.96	+17 27.2	2.292	3.235	6.4	19.1	3 2	9 31.55	+15 38.4	1.811	2.757	7.5	21.3
3 12	9 28.76	+17 58.0	2.362	3.242	9.6	19.4	3 12	9 23.51	+16 12.2	1.855	2.739	11.5	21.5
3 22	9 24.37	+18 17.6	2.457	3.249	12.3	19.5	3 22	9 17.72	+16 34.0	1.922	2.721	15.0	21.7
209733	2005 <i>EE</i> ₁₇₃		2 14.2 284°10	0°5/14.5	18		89297	2001 <i>VQ</i> ₂₈		2 14.2 101°45	3°3/17.4	18	
1 12	10 12.34	+ 9 58.8	1.585	2.418	15.3	21.0	1 12	10 9.01	+ 0 48.3	2.454	3.235	12.2	19.4
1 22	10 7.64	+10 22.2	1.495	2.403	11.5	20.7	1 22	10 4.19	+ 0 47.1	2.374	3.243	9.6	19.3
2 1	10 0.31	+11 0.6	1.427	2.387	7.0	20.4	2 1	9 57.81	+ 1 0.4	2.319	3.251	6.7	19.1
2 11	9 51.09	+11 49.3	1.386	2.371	1.9	20.0	2 11	9 50.43	+ 1 26.5	2.291	3.259	4.0	18.9
2 21	9 41.11	+12 41.9	1.372	2.355	3.5	20.1	2 21	9 42.78	+ 2 2.7	2.292	3.266	3.6	18.9
3 2	9 31.73	+13 31.3	1.385	2.339	8.6	20.3	3 2	9 35.61	+ 2 45.1	2.323	3.274	5.8	19.1
3 12	9 24.22	+14 11.3	1.424	2.323	13.3	20.6	3 12	9 29.62	+ 3 29.1	2.382	3.281	8.7	19.3
3 22	9 19.42	+14 38.4	1.483	2.307	17.4	20.8	3 22	9 25.32	+ 4 10.7	2.466	3.289	11.3	19.4
182431	2001 <i>RD</i> ₁₃₂		2 14.2 110°92	5°1/10.6	18		250255	2003 <i>BL</i> ₃₄		2 14.2 84°49	1°5/13.1	18	
1 12	10 18.14	+26 21.4	1.869	2.710	13.0	20.3	1 12	10 13.87	+14 17.1	1.760	2.596	13.9	20.2
1 22	10 11.34	+27 5.6	1.811	2.720	9.7	20.1	1 22	10 8.16	+15 8.4	1.706	2.618	10.1	20.0
2 1	10 2.13	+27 46.5	1.779	2.731	6.6	19.9	2 1	10 0.26	+16 8.1	1.678	2.640	5.8	19.8
2 11	9 51.46	+28 16.4	1.774	2.741	5.1	19.9	2 11	9 51.04	+17 9.5	1.677	2.661	1.7	19.6
2 21	9 40.54	+28 29.6	1.798	2.750	6.8	20.0	2 21	9 41.60	+18 5.5	1.705	2.683	3.9	19.8
3 2	9 30.63	+28 23.5	1.849	2.760	9.9	20.2	3 2	9 33.06	+18 50.5	1.761	2.704	8.0	20.1
3 12	9 22.76	+27 58.7	1.925	2.769	13.0	20.4	3 12	9 26.39	+19 21.3	1.843	2.724	11.8	20.3
3 22	9 17.54	+27 18.1	2.022	2.778	15.7	20.6	3 22	9 22.12	+19 37.0	1.947	2.745	14.8	20.6
117266	2004 <i>TO</i> ₇		2 14.2 164°51	4°4/ 9.8	18		382304	2013 <i>OQ</i> ₅		2 14.2 173°67	2°7/16.4	16	
1 12	10 12.58	+24 15.9	2.281	3.122	11.0	20.0	1 12	10 14.06	+ 3 58.9	2.337	3.126	12.5	21.7
1 22	10 7.06	+25 31.5	2.216	3.126	8.1	19.9	1 22	10 7.98	+ 3 48.3	2.252	3.129	9.7	21.5
2 1	9 59.58	+26 47.4	2.176	3.130	5.5	19.7	2 1	10 0.08	+ 3 50.0	2.191	3.131	6.5	21.3
2 11	9 50.85	+27 56.4	2.167	3.133	4.4	19.6	2 11	9 51.02	+ 4 2.5	2.158	3.133	3.5	21.1
2 21	9 41.74	+28 52.1	2.186	3.136	6.0	19.8	2 21	9 41.59	+ 4 23.3	2.156	3.134	3.3	21.1
3 2	9 33.26	+29 30.4	2.234	3.138	8.8	19.9	3 2	9 32.68	+ 4 48.7	2.185	3.135	6.2	21.3
3 12	9 26.27	+29 49.8	2.308	3.140	11.6	20.1	3 12	9 25.12	+ 5 14.8	2.241	3.135	9.4	21.5
3 22	9 21.36	+29 51.3	2.403	3.142	14.0	20.3	3 22	9 19.47	+ 5 38.2	2.322	3.134	12.3	21.6
536	<i>Merapi</i>		2 14.2 136°90	6°5/ 5.9	18		375487	2008 <i>UM</i> ₄₂		2 14.2 165°68	5°6/20.1	17	
1 12	10 12.08	+37 17.0	2.892	3.717	9.4	14.0	1 12	10 9.64	- 7 42.5	2.616	3.346	12.8	21.8
1 22	10 6.48	+38 28.0	2.841	3.722	7.7	13.9	1 22	10 4.64	- 7 53.5	2.528	3.350	10.7	21.6
2 1	9 59.14	+39 30.6	2.817	3.727	6.7	13.8	2 1	9 58.08	- 7 46.1	2.462	3.354	8.3	21.5
2 11	9 50.72	+40 18.6	2.821	3.732	6.7	13.8	2 11	9 50.53	- 7 20.2	2.422	3.358	6.3	21.3
2 21	9 42.03	+40 48.2	2.852	3.736	7.8	13.9	2 21	9 42.64	- 6 37.9	2.411	3.360	5.6	21.3
3 2	9 33.94	+40 57.3	2.910	3.741	9.4	14.0	3 2	9 35.18	- 5 42.6	2.429	3.363	6.6	21.4
3 12	9 27.24	+40 46.8	2.990	3.745	11.1	14.1	3 12	9 28.83	- 4 39.6	2.475	3.365	8.8	21.5
3 22	9 22.42	+40 18.9	3.091	3.750	12.6	14.3	3 22	9 24.10	- 3 34.2	2.546	3.367	11.1	21.7
208999	2003 <i>BC</i> ₁		2 14.2 298°90	5°8/ 8.3	17		270287	2001 <i>VK</i> ₇₉		2 14.2 134°54	0°1/14.3	18	
1 12	10 10.61	+27 51.8	2.173	3.019	11.2	20.0	1 12	10 13.60	+10 52.9	2.483	3.294	11.2	22.1
1 22	10 5.99	+29 13.0	2.086	2.996	8.6	19.8	1 22	10 7.46	+11 23.1	2.414	3.311	8.2	21.9
2 1	9 59.17	+30 33.8	2.026	2.972	6.4	19.6	2 1	9 59.69	+12 1.4	2.372	3.328	4.8	21.7
2 11	9 50.81	+31 46.0	1.994	2.949	5.9	19.5	2 11	9 50.91	+12 44.1	2.359	3.344	1.2	21.5
2 21	9 41.83	+32 42.4	1.990	2.925	7.6	19.6	2 21	9 41.92	+13 26.8	2.378	3.360	2.4	21.6
3 2	9 33.33	+33 17.8	2.012	2.902	10.4	19.7	3 2	9 33.52	+14 5.5	2.428	3.374	5.9	21.8
3 12	9 26.33	+33 30.5	2.059	2.879	13.2	19.8	3 12	9 26.44	+14 37.0	2.506	3.388	9.0	22.1
3 22	9 21.58	+33 21.9	2.125	2.855	15.8	20.0	3 22	9 21.16	+14 59.6	2.608	3.401	11.6	22.3
141614	2002 <i>JV</i> ₁₅		2 14.2 174°44	3°8/16.8	10 C		64479	2001 <i>VC</i> ₄₅		2 14.2 324°73	8°9/ 6.3	18	
1 12	10 25.58	+ 0 8.6	1.701										

EPHEMERIDES

2 14.2

2 14.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
119751	2001 YL ₆₈		2 14.2 78°25'	2°0'/12.7	18		463360	2012 TU		2 14.2 265°38'	8°3'/10.7	18	
1 12	10 14.12	+16 9.6	1.788	2.627	13.6	19.7	1 12	10 32.05	+25 58.4	1.079	1.929	19.7	23.2
1 22	10 8.32	+16 56.2	1.736	2.649	9.8	19.6	1 22	10 24.67	+27 6.7	0.983	1.897	15.4	22.8
2 1	10 0.35	+17 49.0	1.709	2.671	5.7	19.4	2 1	10 11.86	+28 19.3	0.908	1.862	10.8	22.4
2 11	9 51.08	+18 41.5	1.710	2.693	2.1	19.2	2 11	9 54.36	+29 18.7	0.857	1.826	8.4	22.2
2 21	9 41.62	+19 27.0	1.739	2.715	4.2	19.3	2 21	9 34.27	+29 46.3	0.830	1.788	11.4	22.2
3 2	9 33.08	+20 0.8	1.797	2.737	8.1	19.6	3 2	9 14.76	+29 30.8	0.827	1.749	17.5	22.3
3 12	9 26.39	+20 20.3	1.881	2.758	11.7	19.9	3 12	8 58.96	+28 33.1	0.845	1.707	23.7	22.5
3 22	9 22.11	+20 25.2	1.986	2.779	14.7	20.1	3 22	8 48.65	+27 3.4	0.877	1.664	29.3	22.7
465713	2009 UA ₆₂		2 14.2 124°27'	5°8'/9.4	18		140624	2001 UY ₁₂		2 14.2 62°73'	1°4'/15.5	18	
1 12	10 16.53	+28 46.3	2.055	2.895	12.1	21.5	1 12	10 8.90	+ 6 51.3	2.203	3.016	12.4	19.4
1 22	10 10.09	+29 46.9	2.000	2.905	9.2	21.3	1 22	10 4.26	+ 7 12.8	2.133	3.027	9.3	19.2
2 1	10 1.41	+30 42.9	1.970	2.915	6.7	21.2	2 1	9 57.91	+ 7 46.6	2.087	3.039	5.8	19.0
2 11	9 51.36	+31 26.3	1.968	2.924	5.8	21.2	2 11	9 50.51	+ 8 29.4	2.069	3.051	2.2	18.8
2 21	9 41.03	+31 51.6	1.994	2.933	7.3	21.3	2 21	9 42.84	+ 9 16.7	2.080	3.062	2.5	18.8
3 2	9 31.60	+31 56.0	2.048	2.942	10.0	21.4	3 2	9 35.74	+10 3.8	2.121	3.074	6.0	19.0
3 12	9 24.03	+31 39.9	2.127	2.951	12.7	21.6	3 12	9 29.98	+10 46.3	2.189	3.086	9.4	19.3
3 22	9 18.91	+31 6.3	2.225	2.959	15.1	21.8	3 22	9 26.06	+11 20.9	2.280	3.098	12.3	19.5
306019	Duren		2 14.2 213°93'	1°3'/16.0	17		426463	2013 QG ₇₅		2 14.2 142°87'	0°1'/14.1	18	
1 12	10 7.57	+ 5 24.3	3.755	4.540	8.2	22.9	1 12	10 10.36	+ 9 45.3	2.386	3.201	11.4	21.7
1 22	10 2.75	+ 5 44.3	3.651	4.530	6.3	22.8	1 22	10 5.27	+10 45.3	2.312	3.212	8.4	21.5
2 1	9 56.84	+ 6 12.5	3.575	4.519	4.0	22.6	2 1	9 58.49	+11 56.1	2.264	3.222	4.9	21.3
2 11	9 50.22	+ 6 47.3	3.528	4.507	1.8	22.4	2 11	9 50.66	+13 13.0	2.246	3.231	1.2	21.1
2 21	9 43.34	+ 7 26.1	3.514	4.494	1.8	22.4	2 21	9 42.52	+14 30.0	2.259	3.240	2.6	21.2
3 2	9 36.69	+ 8 6.4	3.531	4.482	4.1	22.6	3 2	9 34.89	+15 41.6	2.302	3.248	6.2	21.4
3 12	9 30.78	+ 8 45.3	3.579	4.464	6.4	22.7	3 12	9 28.53	+16 43.2	2.374	3.256	9.4	21.7
3 22	9 25.95	+ 9 20.6	3.653	4.454	8.4	22.8	3 22	9 23.96	+17 32.4	2.470	3.264	12.2	21.9
164653	1996 FS ₁₄		2 14.2 255°57'	1°5'/13.1	17		116843	2004 FH ₄₅		2 14.2 195°52'	5°6'/10.2	18	
1 12	10 14.85	+14 17.0	1.761	2.595	14.0	21.4	1 12	10 18.61	+24 46.4	1.675	2.520	14.1	19.7
1 22	10 9.41	+15 3.3	1.665	2.575	10.3	21.1	1 22	10 12.19	+25 57.5	1.606	2.518	10.6	19.5
2 1	10 1.37	+16 1.0	1.593	2.555	6.1	20.8	2 1	10 2.94	+27 8.9	1.562	2.516	7.1	19.3
2 11	9 51.44	+17 3.7	1.549	2.533	1.8	20.5	2 11	9 51.81	+28 10.6	1.545	2.513	5.6	19.2
2 21	9 40.70	+18 3.9	1.533	2.512	4.2	20.6	2 21	9 40.11	+28 54.2	1.556	2.509	7.6	19.3
3 2	9 30.46	+18 54.5	1.547	2.489	9.0	20.8	3 2	9 29.33	+29 14.4	1.594	2.505	11.2	19.5
3 12	9 21.98	+19 30.5	1.585	2.466	13.4	21.0	3 12	9 20.75	+29 10.7	1.656	2.500	14.8	19.7
3 22	9 16.12	+19 50.0	1.645	2.442	17.2	21.2	3 22	9 15.13	+28 45.9	1.737	2.495	17.9	19.9
16641	Esteban		2 14.2 218°89'	10°2'/20.4	18 R		140085	2001 SZ ₁₂₁		2 14.2 69°92'	3°3'/17.3	18	
1 12	10 17.04	-12 16.4	1.903	2.614	17.5	18.0	1 12	10 9.00	+ 1 11.2	2.214	3.003	13.1	19.5
1 22	10 10.82	-13 39.7	1.810	2.607	15.3	17.8	1 22	10 4.34	+ 1 15.3	2.138	3.013	10.2	19.3
2 1	10 2.11	-14 40.1	1.738	2.600	12.9	17.6	2 1	9 57.98	+ 1 35.2	2.087	3.022	7.0	19.1
2 11	9 51.62	-15 12.9	1.689	2.592	10.9	17.5	2 11	9 50.53	+ 2 9.1	2.062	3.032	4.1	19.0
2 21	9 40.35	-15 16.0	1.666	2.583	10.2	17.4	2 21	9 42.80	+ 2 53.5	2.066	3.042	3.6	18.9
3 2	9 29.53	-14 51.3	1.668	2.574	11.1	17.5	3 2	9 35.61	+ 3 43.7	2.099	3.052	6.2	19.1
3 12	9 20.37	-14 4.8	1.696	2.565	13.3	17.6	3 12	9 29.73	+ 4 34.5	2.160	3.062	9.3	19.3
3 22	9 13.68	-13 4.9	1.746	2.555	15.8	17.7	3 22	9 25.68	+ 5 21.4	2.244	3.072	12.1	19.5
463538	2013 RV ₃₂		2 14.2 171°83'	0°6'/14.9	17		503484	2016 EQ ₁₇₅		2 14.2 314°40'	3°2'/12.3	17	
1 12	10 10.42	+ 7 38.0	2.512	3.318	11.2	22.1	1 12	10 12.79	+18 54.5	1.496	2.351	14.9	21.1
1 22	10 5.26	+ 8 27.3	2.429	3.321	8.4	21.9	1 22	10 8.27	+19 29.1	1.407	2.328	11.1	20.8
2 1	9 58.48	+ 9 28.4	2.371	3.325	5.1	21.7	2 1	10 0.86	+20 10.2	1.341	2.305	6.7	20.5
2 11	9 50.64	+10 37.3	2.344	3.327	1.6	21.5	2 11	9 51.35	+20 50.6	1.301	2.283	3.2	20.2
2 21	9 42.47	+11 49.0	2.347	3.329	2.3	21.5	2 21	9 40.99	+21 22.1	1.287	2.261	5.7	20.3
3 2	9 34.75	+12 58.2	2.382	3.331	5.8	21.8	3 2	9 31.29	+21 38.5	1.299	2.240	10.5	20.5
3 12	9 28.21	+14 0.3	2.445	3.331	9.0	22.0	3 12	9 23.67	+21 36.5	1.334	2.219	15.1	20.7
3 22	9 23.37	+14 52.1	2.533	3.332	11.8	22.1	3 22	9 19.05	+21 16.4	1.388	2.199	19.1	20.9
92915	2000 RW ₁₃		2 14.2 348°51'	5°5'/17.3	18		56092	1999 BK		2 14.2 58°83'	5°7'/16.5	18	
1 12	10 12.26	+ 1 17.4	1.532	2.339	17.1	18.3	1 12	10 27.39	+ 3 27.2	1.533	2.321	17.9	18.5
1 22	10 7.52	+ 0 28.8	1.452	2.333	13.6	18.0	1 22	10 18.19	+ 1 46.4	1.475	2.347	14.1	18.3
2 1	10 0.21	- 0 1.3	1.392	2.329	9.8	17.8	2 1	10 6.20	+ 0 20.1	1.440	2.373	9.9	18.1
2 11	9 51.13	- 0 12.2	1.358	2.325	6.3	17.6	2 11	9 52.56	- 0 48.9	1.434	2.398	6.4	18.0
2 21	9 41.43	- 0 5.6	1.349	2.321	5.8	17.5	2 21	9 38.75	- 1 39.6	1.457	2.424	6.2	18.0
3 2	9 32.44	+ 0 14.5	1.366	2.319	8.8	17.7	3 2	9 26.26	- 2 13.3	1.509	2.450	9.2	18.3
3 12	9 25.37	+ 0 41.9	1.408	2.317	12.8	17.9	3 12	9 16.28	- 2 34.3	1.588	2.476	12.9	18.5
3 22	9 20.99	+ 1 10.4	1.471	2.316	16.5	18.1	3 22	9 9.42	- 2 47.3	1.689	2.502	16.1	18.8
99625	2002 GJ ₉₁		2 14.2 204°92'	0°2'/14.4	18		228210	1995 UT ₅₉		2 14.2 100°68'	1°9'/12.7	18	
1 12	10 14.12	+10 23.6	1.929	2.749	13.5	20.9	1 12	10 13.08	+16 49.9	1.959	2.797	12.7	20.9
1 22	10 8.46	+10 52.1	1.843	2.745	10.0	20.7	1 22	10 7.56	+17 26.7	1.893	2.805	9.2	20.7
2 1	10 0.58	+11 32.4	1.783	2.741	6.0	20.4	2 1	9 59.95	+18 9.1	1.851	2.813	5.4	20.5
2 11	9 51.20	+12 20.1	1.750	2.735	1.6	20.1	2 11	9 51.04	+18 51.3	1.838	2.821	2.1	20.3
2 21	9 41.30	+13 9.5	1.747	2.730	3.0	20.2	2 21	9 41.81	+19 27.6	1.853	2.829	4.0	20.5
3 2	9 32.00	+13 55.0	1.774	2.723	7.4	20.5	3 2	9 33.33	+19 53.7	1.898	2.837	7.8	20.7
3 12	9 24.33	+14 31.8	1.827	2.716	11.4	20.7	3 12	9 26.51	+20 6.9	1.968	2.845	11.3	20.9
3 22	9 18.96	+14 57.4	1.902	2.708	14.8	20.9	3 22	9 21.93	+20 7.0	2.061	2.852	14.3	21.2
282793	2006 OV ₁₃		2 14.2 165°39'	0°1'/14.3	18		466780	2015 AV ₂₆₀		2 14.2 225°21'	2°0'/16.2	17	
1 12	10 8.95	+10 41.8	3.113	3.923	9.2	22.5	1 12	10 9.35	+ 4 8.5	2.410	3.206	11.9	21.

EPHEMERIDES

2 14.2

2 14.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
243006	2006 <i>UP</i> ₂₆		2 14.2 166°94	5°6/20.5 18			234153	2000 <i>GL</i> ₂₆		2 14.3 213°06	3°4/17.7 17		
1 12	10 7.65	- 8 32.3	2.705	3.431	12.5	20.9	1 12	10 8.26	- 0 17.1	2.333	3.113	12.8	20.7
1 22	10 3.17	- 8 39.6	2.615	3.433	10.5	20.7	1 22	10 3.83	- 0 1.3	2.243	3.111	10.1	20.5
2 1	9 57.24	- 8 28.5	2.547	3.435	8.3	20.6	2 1	9 57.73	+ 0 31.5	2.177	3.109	7.1	20.3
2 11	9 50.37	- 7 58.9	2.505	3.437	6.3	20.5	2 11	9 50.52	+ 1 19.7	2.138	3.106	4.3	20.1
2 21	9 43.18	- 7 12.7	2.491	3.438	5.6	20.4	2 21	9 42.93	+ 2 19.5	2.129	3.104	3.7	20.0
3 2	9 36.38	- 6 13.5	2.506	3.439	6.5	20.5	3 2	9 35.77	+ 3 25.9	2.149	3.101	6.1	20.2
3 12	9 30.62	- 5 6.5	2.549	3.440	8.5	20.6	3 12	9 29.82	+ 4 33.2	2.196	3.098	9.2	20.4
3 22	9 26.38	- 3 57.0	2.617	3.441	10.7	20.7	3 22	9 25.61	+ 5 36.4	2.269	3.096	12.1	20.6
289039	2004 <i>TC</i> ₁₄₁		2 14.2 234°82	0°9/15.0 17			465912	2010 <i>VT</i> ₁₁₈		2 14.3 43°79	3°4/12.1 18		
1 12	10 11.21	+ 8 25.5	2.217	3.030	12.3	21.9	1 12	10 14.39	+ 19 36.1	1.507	2.359	15.0	21.2
1 22	10 6.13	+ 8 50.8	2.123	3.020	9.2	21.6	1 22	10 8.99	+ 20 16.9	1.451	2.370	10.9	21.0
2 1	9 59.15	+ 9 28.0	2.054	3.009	5.6	21.4	2 1	10 0.97	+ 21 1.5	1.419	2.381	6.5	20.7
2 11	9 50.87	+ 10 13.8	2.014	2.997	1.8	21.1	2 11	9 51.33	+ 21 42.2	1.412	2.393	3.4	20.6
2 21	9 42.11	+ 11 3.5	2.003	2.986	2.6	21.2	2 21	9 41.36	+ 22 11.8	1.433	2.405	5.6	20.7
3 2	9 33.79	+ 11 52.2	2.022	2.974	6.5	21.4	3 2	9 32.46	+ 22 25.5	1.481	2.418	9.8	21.0
3 12	9 26.80	+ 12 35.1	2.069	2.961	10.1	21.6	3 12	9 25.76	+ 22 21.9	1.552	2.431	13.7	21.3
3 22	9 21.75	+ 13 9.2	2.139	2.948	13.3	21.8	3 22	9 21.87	+ 22 2.2	1.643	2.444	17.0	21.5
11508	Stolte		2 14.2 357°25	5°4/ 9.8 18 R			182041	2000 <i>CX</i> ₇₃		2 14.3 338°88	0°6/13.9 18		
1 12	10 10.59	+ 23 34.7	1.642	2.500	13.6	17.0	1 12	10 10.68	+ 11 38.6	1.498	2.342	15.5	20.8
1 22	10 6.29	+ 24 58.1	1.578	2.498	10.1	16.7	1 22	10 6.39	+ 12 20.1	1.423	2.337	11.4	20.5
2 1	9 59.46	+ 26 23.7	1.539	2.496	6.8	16.5	2 1	9 59.59	+ 13 16.2	1.371	2.333	6.7	20.2
2 11	9 50.96	+ 27 41.5	1.526	2.496	5.4	16.4	2 11	9 51.03	+ 14 20.5	1.344	2.329	1.6	19.9
2 21	9 41.96	+ 28 42.7	1.541	2.495	7.5	16.6	2 21	9 41.88	+ 15 24.8	1.344	2.326	3.8	20.0
3 2	9 33.78	+ 29 21.2	1.581	2.495	11.0	16.8	3 2	9 33.49	+ 16 21.3	1.371	2.323	8.9	20.3
3 12	9 27.56	+ 29 35.4	1.644	2.496	14.5	17.0	3 12	9 27.07	+ 17 4.2	1.423	2.320	13.5	20.6
3 22	9 24.00	+ 29 26.8	1.726	2.497	17.5	17.2	3 22	9 23.37	+ 17 30.6	1.494	2.318	17.3	20.8
486795	2014 <i>HG</i> ₁₅₈		2 14.2 15°83	3°7/11.9 17			102575	1999 <i>UQ</i> ₄₂		2 14.3 166°52	1°2/13.3 18		
1 12	10 12.41	+ 16 47.0	1.138	2.004	17.8	21.3	1 12	10 16.68	+ 15 33.4	2.213	3.035	11.9	20.7
1 22	10 8.34	+ 18 2.7	1.079	2.005	13.0	21.0	1 22	10 10.01	+ 16 1.6	2.137	3.041	8.7	20.5
2 1	10 0.97	+ 19 30.8	1.041	2.007	7.7	20.7	2 1	10 1.35	+ 16 35.3	2.087	3.047	5.1	20.2
2 11	9 51.37	+ 20 59.5	1.027	2.010	3.8	20.5	2 11	9 51.42	+ 17 9.8	2.067	3.051	1.5	20.0
2 21	9 41.13	+ 22 16.2	1.039	2.013	6.7	20.7	2 21	9 41.14	+ 17 40.3	2.078	3.055	3.4	20.1
3 2	9 32.04	+ 23 11.1	1.074	2.016	12.0	21.0	3 2	9 31.54	+ 18 2.8	2.119	3.058	7.1	20.4
3 12	9 25.62	+ 23 39.8	1.131	2.021	16.8	21.3	3 12	9 23.49	+ 18 14.9	2.187	3.061	10.5	20.6
3 22	9 22.65	+ 23 43.0	1.206	2.025	20.9	21.6	3 22	9 17.58	+ 18 16.1	2.279	3.062	13.4	20.8
432506	2010 <i>FW</i> ₁		2 14.2 298°13	0°7/13.6 17			246109	2007 <i>FE</i> ₃₁		2 14.3 184°86	2°0/15.7 18		
1 12	10 8.71	+ 12 21.0	2.053	2.886	12.3	21.2	1 12	10 13.82	+ 5 30.4	1.629	2.445	15.8	21.5
1 22	10 4.45	+ 13 8.4	1.965	2.875	9.1	21.0	1 22	10 8.55	+ 5 55.8	1.550	2.445	12.1	21.2
2 1	9 58.22	+ 14 6.7	1.902	2.864	5.3	20.7	2 1	10 0.78	+ 6 39.9	1.493	2.445	7.7	21.0
2 11	9 50.65	+ 15 10.8	1.867	2.853	1.3	20.4	2 11	9 51.32	+ 7 38.8	1.463	2.444	3.1	20.7
2 21	9 42.59	+ 16 14.5	1.862	2.842	3.2	20.5	2 21	9 41.29	+ 8 45.9	1.461	2.443	3.4	20.7
3 2	9 35.01	+ 17 11.9	1.885	2.831	7.3	20.8	3 2	9 31.98	+ 9 53.7	1.487	2.442	8.0	21.0
3 12	9 28.83	+ 17 58.2	1.934	2.820	11.0	21.0	3 12	9 24.54	+ 10 54.9	1.539	2.440	12.4	21.2
3 22	9 24.69	+ 18 30.9	2.006	2.810	14.2	21.2	3 22	9 19.71	+ 11 44.7	1.613	2.438	16.2	21.4
497987	2007 <i>DF</i> ₂₄		2 14.2 319°43	0°1/14.3 17			143356	2003 <i>AK</i> ₉₂		2 14.3 6°88	4°4/17.6 17		
1 12	10 11.01	+ 11 23.4	1.604	2.443	14.9	21.4	1 12	10 11.45	+ 0 12.1	2.184	2.965	13.5	19.8
1 22	10 6.63	+ 11 39.8	1.518	2.429	11.1	21.1	1 22	10 6.24	- 0 22.6	2.100	2.965	10.8	19.6
2 1	9 59.72	+ 12 8.6	1.455	2.416	6.6	20.8	2 1	9 59.17	- 0 42.6	2.039	2.966	7.8	19.5
2 11	9 51.06	+ 12 45.4	1.418	2.403	1.7	20.5	2 11	9 50.89	- 0 47.9	2.004	2.966	5.1	19.3
2 21	9 41.74	+ 13 24.3	1.408	2.391	3.4	20.6	2 21	9 42.22	- 0 40.1	1.998	2.967	4.6	19.3
3 2	9 33.07	+ 13 59.0	1.426	2.379	8.4	20.8	3 2	9 34.07	- 0 22.4	2.021	2.968	6.8	19.4
3 12	9 26.22	+ 14 24.6	1.467	2.368	12.9	21.1	3 12	9 27.28	+ 0 1.0	2.071	2.970	9.8	19.6
3 22	9 22.00	+ 14 38.2	1.530	2.357	16.8	21.3	3 22	9 22.42	+ 0 25.8	2.145	2.971	12.7	19.8
455507	2003 <i>WJ</i> ₂₈		2 14.2 107°62	0°8/13.7 18			317145	2001 <i>UN</i> ₁₈₂		2 14.3 168°16	0°2/14.4 18		
1 12	10 16.01	+ 13 16.5	1.806	2.635	13.9	22.2	1 12	10 11.07	+ 9 13.7	2.037	2.857	12.9	20.6
1 22	10 9.72	+ 13 51.4	1.747	2.654	10.2	22.0	1 22	10 6.10	+ 10 5.1	1.959	2.860	9.6	20.4
2 1	10 1.21	+ 14 35.0	1.713	2.673	5.9	21.8	2 1	9 59.15	+ 11 9.7	1.905	2.863	5.7	20.1
2 11	9 51.36	+ 15 21.7	1.707	2.692	1.5	21.5	2 11	9 50.90	+ 12 22.4	1.880	2.865	1.5	19.9
2 21	9 41.26	+ 16 5.3	1.730	2.710	3.5	21.7	2 21	9 42.24	+ 13 36.8	1.884	2.866	2.8	20.0
3 2	9 32.06	+ 16 40.7	1.782	2.728	7.7	22.0	3 2	9 34.15	+ 14 46.4	1.919	2.868	7.0	20.2
3 12	9 24.72	+ 17 4.6	1.861	2.745	11.5	22.2	3 12	9 27.53	+ 15 45.8	1.980	2.869	10.7	20.4
3 22	9 19.82	+ 17 15.9	1.961	2.761	14.7	22.5	3 22	9 22.99	+ 16 32.1	2.064	2.869	13.9	20.7
173097	2007 <i>TJ</i> ₁₁₅		2 14.2 157°92	3°0/11.2 18			35071	1989 <i>TE</i> ₅		2 14.3 329°65	0°1/14.3 18		
1 12	10 10.11	+ 20 14.6	2.395	3.234	10.6	20.1	1 12	10 10.92	+ 9 42.6	1.405	2.247	16.4	18.4
1 22	10 5.18	+ 21 16.4	2.324	3.237	7.7	19.9	1 22	10 6.79	+ 10 23.9	1.329	2.242	12.3	18.1
2 1	9 58.50	+ 22 21.2	2.280	3.239	4.7	19.7	2 1	9 59.91	+ 11 23.1	1.276	2.237	7.3	17.8
2 11	9 50.70	+ 23 23.2	2.264	3.241	3.0	19.6	2 11	9 51.14	+ 12 33.8	1.247	2.233	1.9	17.5
2 21	9 42.56	+ 24 16.7	2.279	3.243	4.6	19.7	2 21	9 41.72	+ 13 47.6	1.246	2.229	3.7	17.6
3 2	9 34.96	+ 24 57.6	2.323	3.245	7.6	19.9	3 2	9 33.08	+ 14 55.2	1.271	2.225	9.1	17.9
3 12	9 28.68	+ 25 23.6	2.393	3.247	10.5	20.1	3 12	9 26.52	+ 15 49.6	1.319	2.222	14.0	18.1
3 22	9 24.25	+ 25 34.3	2.486	3.248	13.0	20.3	3 22	9 22.84	+ 16 27.0	1.388	2.219	18.1	18.4
354570	2004 <i>TA</i> ₁₄₃												

EPHEMERIDES

2 14.3

2 14.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
35119	1992 <i>EY</i> ₆		2 14.3 119°53	0°7/13.5	18		469022	2015 <i>AC</i> ₂₄₃		2 14.3 182°91	4°7/ 9.3	17	
1 12	10 7.92	+11 54.1	2.416	3.242	11.0	18.8	1 12	10 12.67	+27 50.0	2.569	3.405	10.0	21.3
1 22	10 3.54	+12 57.3	2.339	3.246	8.0	18.6	1 22	10 7.04	+28 50.6	2.501	3.406	7.6	21.1
2 1	9 57.54	+14 10.0	2.289	3.250	4.6	18.4	2 1	9 59.61	+29 48.6	2.460	3.406	5.5	21.0
2 11	9 50.50	+15 27.2	2.268	3.253	1.2	18.1	2 11	9 51.04	+30 37.7	2.448	3.405	4.8	20.9
2 21	9 43.13	+16 43.1	2.278	3.257	2.9	18.2	2 21	9 42.14	+31 13.1	2.466	3.404	6.1	21.0
3 2	9 36.23	+17 52.2	2.318	3.261	6.3	18.5	3 2	9 33.81	+31 31.7	2.512	3.404	8.5	21.1
3 12	9 30.52	+18 50.3	2.385	3.265	9.5	18.7	3 12	9 26.85	+31 32.8	2.583	3.402	10.9	21.3
3 22	9 26.53	+19 35.2	2.477	3.268	12.2	18.9	3 22	9 21.82	+31 17.9	2.676	3.401	13.0	21.5
361172	2006 <i>KM</i> ₁₀₇		2 14.3 353°07	7°4/19.1	18		233086	2005 <i>QQ</i> ₁₁₄		2 14.3 77°23	1°6/13.4	18	
1 12	10 10.89	- 4 22.1	1.412	2.202	19.1	20.4	1 12	10 19.06	+15 42.7	1.314	2.160	17.1	20.1
1 22	10 6.73	- 4 53.8	1.335	2.200	15.7	20.2	1 22	10 12.68	+16 0.2	1.258	2.174	12.5	19.8
2 1	9 59.87	- 4 57.9	1.277	2.199	11.9	20.0	2 1	10 3.26	+16 25.9	1.225	2.188	7.3	19.6
2 11	9 51.15	- 4 33.2	1.242	2.198	8.5	19.8	2 11	9 51.97	+16 52.6	1.217	2.202	2.1	19.3
2 21	9 41.76	- 3 42.2	1.231	2.197	7.4	19.7	2 21	9 40.35	+17 13.5	1.235	2.215	4.6	19.5
3 2	9 33.12	- 2 31.8	1.246	2.196	9.7	19.8	3 2	9 30.01	+17 23.3	1.281	2.229	9.8	19.8
3 12	9 26.50	- 1 12.1	1.284	2.196	13.5	20.0	3 12	9 22.26	+17 19.7	1.350	2.243	14.4	20.1
3 22	9 22.70	+ 0 7.1	1.343	2.197	17.2	20.3	3 22	9 17.74	+17 3.1	1.438	2.256	18.2	20.4
30767	Chriskraft		2 14.3 58°49	19°3/ 2.0	17		339524	2005 <i>GF</i> ₁₇₅		2 14.3 132°12	3°7/18.0	17	
1 12	10 36.78	+56 17.6	1.263	2.052	21.0	17.7	1 12	10 8.88	- 1 9.5	2.466	3.238	12.4	21.3
1 22	10 27.53	+58 43.5	1.277	2.086	19.7	17.7	1 22	10 4.17	- 1 3.7	2.383	3.244	9.8	21.1
2 1	10 12.43	+60 24.7	1.308	2.120	19.3	17.8	2 1	9 57.90	- 0 41.8	2.325	3.250	7.0	20.9
2 11	9 54.13	+61 8.0	1.356	2.154	19.5	17.9	2 11	9 50.62	- 0 5.3	2.293	3.257	4.5	20.8
2 21	9 36.33	+60 51.2	1.421	2.188	20.4	18.1	2 21	9 43.04	+ 0 42.7	2.291	3.263	3.9	20.7
3 2	9 22.29	+59 41.8	1.502	2.222	21.5	18.3	3 2	9 35.92	+ 1 38.0	2.318	3.268	5.9	20.9
3 12	9 13.66	+57 53.6	1.596	2.256	22.6	18.5	3 12	9 29.97	+ 2 35.4	2.374	3.274	8.7	21.0
3 22	9 10.46	+55 40.0	1.702	2.289	23.5	18.7	3 22	9 25.67	+ 3 30.3	2.454	3.279	11.3	21.2
329868	2004 <i>XE</i> ₁₄₃		2 14.3 231°66	4°9/18.2	18		247717	2003 <i>FA</i> ₂₀		2 14.3 338°67	1°9/12.4	17	
1 12	10 11.82	- 2 21.8	2.312	3.076	13.3	20.6	1 12	10 5.39	+12 44.4	1.788	2.633	13.3	19.7
1 22	10 6.52	- 2 46.5	2.215	3.067	10.8	20.4	1 22	10 2.34	+14 19.0	1.703	2.620	9.7	19.5
2 1	9 59.38	- 2 55.0	2.142	3.059	8.0	20.2	2 1	9 57.16	+16 9.1	1.644	2.608	5.6	19.2
2 11	9 50.99	- 2 47.1	2.095	3.050	5.6	20.1	2 11	9 50.49	+18 6.6	1.612	2.596	2.0	18.9
2 21	9 42.12	- 2 24.6	2.077	3.041	5.0	20.0	2 21	9 43.25	+20 1.7	1.610	2.586	4.5	19.1
3 2	9 33.66	- 1 50.6	2.088	3.032	6.9	20.1	3 2	9 36.50	+21 44.9	1.635	2.576	8.8	19.3
3 12	9 26.46	- 1 10.1	2.126	3.022	9.7	20.3	3 12	9 31.28	+23 9.2	1.686	2.566	12.7	19.5
3 22	9 21.12	- 0 27.9	2.189	3.012	12.6	20.4	3 22	9 28.29	+24 11.4	1.759	2.558	16.1	19.7
518390	2017 <i>TD</i> ₉		2 14.3 237°93	1°8/12.4	17		27922	Mascheroni		2 14.3 348°08	3°8/17.7	18	
1 12	10 9.36	+16 34.5	2.463	3.296	10.5	21.3	1 12	10 7.88	- 0 5.3	2.084	2.873	13.8	17.6
1 22	10 4.64	+17 24.4	2.379	3.289	7.7	21.1	1 22	10 3.75	+ 0 3.6	1.999	2.871	10.9	17.4
2 1	9 58.22	+18 20.1	2.321	3.283	4.5	20.9	2 1	9 57.79	+ 0 31.0	1.936	2.869	7.7	17.2
2 11	9 50.69	+19 16.7	2.293	3.276	1.9	20.7	2 11	9 50.62	+ 1 15.1	1.899	2.868	4.7	17.0
2 21	9 42.77	+20 9.0	2.295	3.269	3.6	20.8	2 21	9 43.04	+ 2 12.1	1.891	2.866	4.0	16.9
3 2	9 35.30	+20 52.5	2.326	3.261	6.8	21.0	3 2	9 35.95	+ 3 16.6	1.911	2.865	6.6	17.1
3 12	9 29.04	+21 24.1	2.385	3.254	9.9	21.2	3 12	9 30.20	+ 4 22.4	1.959	2.864	9.9	17.3
3 22	9 24.55	+21 42.8	2.467	3.247	12.6	21.4	3 22	9 26.37	+ 5 23.7	2.030	2.864	13.0	17.5
378808	2008 <i>SJ</i> ₁₉₆		2 14.3 162°38	0°6/14.8	17		276844	2004 <i>RB</i> ₃₅		2 14.3 171°87	2°7/12.2	18	
1 12	10 10.48	+ 9 11.4	2.238	3.054	12.0	21.7	1 12	10 13.83	+19 14.3	1.998	2.837	12.4	20.4
1 22	10 5.50	+ 9 37.4	2.158	3.057	9.0	21.5	1 22	10 8.20	+19 53.4	1.925	2.838	9.0	20.2
2 1	9 58.73	+10 14.2	2.103	3.059	5.4	21.3	2 1	10 0.43	+20 36.1	1.878	2.839	5.4	20.0
2 11	9 50.81	+10 58.2	2.076	3.060	1.6	21.0	2 11	9 51.28	+21 16.5	1.859	2.839	2.7	19.8
2 21	9 42.54	+11 44.8	2.079	3.062	2.5	21.1	2 21	9 41.74	+21 48.8	1.868	2.840	4.6	19.9
3 2	9 34.80	+12 29.2	2.112	3.063	6.3	21.3	3 2	9 32.91	+22 8.7	1.907	2.840	8.2	20.1
3 12	9 28.40	+13 7.3	2.173	3.065	9.7	21.6	3 12	9 25.73	+22 14.3	1.971	2.840	11.7	20.4
3 22	9 23.88	+13 36.5	2.257	3.066	12.7	21.8	3 22	9 20.84	+22 5.8	2.057	2.840	14.7	20.6
297398	2000 <i>QL</i> ₁₇₇		2 14.3 85°03	1°7/15.5	18		161147	2002 <i>RW</i> ₂₅₄		2 14.3 256°72	0°3/14.5	17	
1 12	10 15.23	+ 6 28.1	1.535	2.355	16.4	20.7	1 12	10 10.77	+10 38.1	2.249	3.069	11.9	20.7
1 22	10 9.41	+ 6 53.5	1.480	2.378	12.3	20.5	1 22	10 5.82	+11 0.0	2.157	3.058	8.8	20.5
2 1	10 1.15	+ 7 36.2	1.447	2.401	7.6	20.3	2 1	9 59.01	+11 31.7	2.090	3.047	5.3	20.3
2 11	9 51.41	+ 8 31.2	1.441	2.423	2.9	20.0	2 11	9 50.94	+12 9.7	2.051	3.036	1.4	20.0
2 21	9 41.41	+ 9 31.4	1.462	2.445	3.3	20.1	2 21	9 42.41	+12 49.5	2.042	3.024	2.6	20.0
3 2	9 32.43	+10 29.5	1.512	2.467	7.9	20.4	3 2	9 34.34	+13 26.7	2.062	3.012	6.5	20.3
3 12	9 25.52	+11 19.5	1.587	2.488	12.1	20.7	3 12	9 27.57	+13 57.3	2.110	3.001	10.1	20.5
3 22	9 21.26	+11 57.7	1.684	2.509	15.6	21.0	3 22	9 22.71	+14 18.9	2.181	2.988	13.1	20.6
93589	2000 <i>UV</i> ₅₂		2 14.3 106°74	2°4/16.3	18		4562	Poleungkuk		2 14.3 212°63	1°7/15.6	18	R
1 12	10 11.27	+ 4 26.1	1.997	2.801	13.7	19.7	1 12	10 13.42	+ 6 46.0	1.986	2.795	13.6	17.4
1 22	10 6.21	+ 4 36.7	1.922	2.809	10.5	19.5	1 22	10 7.95	+ 6 59.4	1.897	2.790	10.3	17.2
2 1	9 59.20	+ 5 2.5	1.870	2.817	6.9	19.3	2 1	10 0.34	+ 7 26.5	1.833	2.784	6.5	16.9
2 11	9 50.94	+ 5 40.7	1.846	2.824	3.3	19.1	2 11	9 51.28	+ 8 4.5	1.796	2.778	2.6	16.7
2 21	9 42.32	+ 6 27.0	1.851	2.832	3.2	19.1	2 21	9 41.72	+ 8 48.6	1.789	2.771	2.9	16.7
3 2	9 34.33	+ 7 16.1	1.884	2.839	6.6	19.3	3 2	9 32.69	+ 9 33.8	1.810	2.763	7.0	16.9
3 12	9 27.85	+ 8 2.7	1.945	2.846	10.2	19.6	3 12	9 25.19	+10 14.7	1.859	2.756	10.9	17.1
3 22	9 23.44	+ 8 42.6	2.029	2.853	13.4	19.8	3 22	9 19.90	+10 47.9	1.931	2.747	14.3	17.3
360293	2001 <i>OU</i> ₉		2 14.3 148°69	0°3/14.6	18		197264	2003 <i>WS</i> ₇₉		2 14.3 275°87	3°9/17.4	18	
1 12	10 13.79	+10 10.0	2.448	3.257	11.4	21.7							

EPHEMERIDES

2 14.3

2 14.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
352141	2007 <i>JB</i> ₄₅		2 14.3 250°14	4°0/11.3	17		405939	2006 <i>RP</i> ₄₈		2 14.3 58°21	2°7/16.3	18	
1 12	10 14.68	+19 15.5	1.581	2.430	14.6	21.2	1 12	10 12.44	+3 49.8	1.484	2.302	17.0	21.4
1 22	10 9.55	+20 31.2	1.501	2.418	10.7	21.0	1 22	10 7.44	+4 13.1	1.432	2.326	12.9	21.2
2 1	10 1.60	+21 55.2	1.445	2.406	6.6	20.7	2 1	10 0.05	+4 57.0	1.401	2.350	8.3	21.0
2 11	9 51.65	+23 18.0	1.415	2.393	4.0	20.5	2 11	9 51.22	+5 56.8	1.395	2.374	3.8	20.8
2 21	9 40.93	+24 29.5	1.414	2.381	6.5	20.6	2 21	9 42.13	+7 5.4	1.417	2.398	3.6	20.8
3 2	9 30.91	+25 21.7	1.439	2.367	10.8	20.8	3 2	9 34.04	+8 14.6	1.465	2.423	7.8	21.1
3 12	9 22.94	+25 50.9	1.488	2.354	15.0	21.1	3 12	9 27.97	+9 17.2	1.540	2.447	12.0	21.4
3 22	9 17.89	+25 57.4	1.556	2.340	18.6	21.3	3 22	9 24.49	+10 8.3	1.636	2.472	15.5	21.7
11416	1999 <i>JK</i> ₉₆		2 14.3 136°29	1°9/16.4	18		234155	2000 <i>GO</i> ₁₅₀		2 14.3 210°99	0°4/14.6	18	
1 12	10 7.71	+3 37.4	2.455	3.252	11.7	18.4	1 12	10 14.88	+9 33.7	1.796	2.617	14.3	22.0
1 22	10 3.36	+4 13.7	2.372	3.255	9.0	18.2	1 22	10 9.27	+10 6.1	1.710	2.611	10.7	21.7
2 1	9 57.45	+5 4.3	2.314	3.259	5.8	18.0	2 1	10 1.25	+10 52.5	1.647	2.605	6.5	21.5
2 11	9 50.54	+6 6.3	2.284	3.262	2.7	17.8	2 11	9 51.58	+11 48.0	1.613	2.597	1.8	21.1
2 21	9 43.32	+7 15.1	2.284	3.265	2.6	17.8	2 21	9 41.31	+12 46.4	1.607	2.590	3.1	21.2
3 2	9 36.53	+8 25.5	2.314	3.268	5.6	18.0	3 2	9 31.64	+13 40.9	1.631	2.581	7.8	21.5
3 12	9 30.89	+9 32.3	2.373	3.271	8.7	18.2	3 12	9 23.71	+14 26.2	1.680	2.572	12.1	21.7
3 22	9 26.89	+10 31.5	2.457	3.274	11.5	18.4	3 22	9 18.25	+14 59.1	1.753	2.563	15.7	21.9
130964	2000 <i>WW</i> ₁₀₁		2 14.3 49°87	7°5/ 8.7	18		464989	2006 <i>BK</i> ₁₀₂		2 14.3 69°76	0°6/14.8	18	
1 12	10 13.61	+25 18.0	1.271	2.138	16.2	18.6	1 12	10 12.44	+9 6.3	1.815	2.639	14.1	21.3
1 22	10 8.98	+27 19.4	1.232	2.153	12.1	18.4	1 22	10 7.12	+9 36.4	1.759	2.661	10.4	21.1
2 1	10 1.23	+29 19.5	1.215	2.170	8.6	18.3	2 1	9 59.75	+10 19.0	1.726	2.683	6.2	20.9
2 11	9 51.52	+31 3.7	1.224	2.186	7.6	18.3	2 11	9 51.14	+11 9.2	1.721	2.706	1.8	20.7
2 21	9 41.43	+32 20.0	1.258	2.203	10.0	18.5	2 21	9 42.32	+12 1.2	1.745	2.728	2.9	20.8
3 2	9 32.62	+33 2.7	1.316	2.221	13.6	18.7	3 2	9 34.32	+12 49.2	1.798	2.750	7.1	21.1
3 12	9 26.43	+33 12.3	1.394	2.238	17.1	19.0	3 12	9 28.04	+13 28.5	1.876	2.772	10.8	21.4
3 22	9 23.50	+32 53.6	1.490	2.256	20.0	19.2	3 22	9 24.00	+13 56.8	1.978	2.794	14.0	21.6
237496	2000 <i>QF</i> ₇₆		2 14.3 202°92	1°6/15.5	18		231513	2008 <i>RA</i> ₁₁₃		2 14.3 95°39	0°2/14.5	18	
1 12	10 13.72	+6 14.6	1.878	2.688	14.3	21.5	1 12	10 12.52	+11 19.3	2.051	2.874	12.7	20.6
1 22	10 8.28	+6 41.7	1.791	2.684	10.8	21.3	1 22	10 7.12	+11 33.0	1.977	2.881	9.4	20.4
2 1	10 0.59	+7 24.8	1.728	2.680	6.8	21.0	2 1	9 59.76	+11 55.8	1.929	2.887	5.6	20.2
2 11	9 51.38	+8 20.2	1.693	2.675	2.7	20.8	2 11	9 51.16	+12 24.0	1.909	2.893	1.5	19.9
2 21	9 41.60	+9 22.3	1.687	2.669	3.0	20.8	2 21	9 42.24	+12 53.1	1.917	2.900	2.7	20.0
3 2	9 32.41	+10 24.6	1.710	2.663	7.3	21.0	3 2	9 33.97	+13 18.9	1.956	2.906	6.7	20.3
3 12	9 24.83	+11 20.9	1.759	2.656	11.4	21.2	3 12	9 27.23	+13 37.9	2.020	2.912	10.4	20.5
3 22	9 19.57	+12 7.1	1.832	2.648	14.9	21.5	3 22	9 22.58	+13 48.3	2.109	2.919	13.4	20.7
79181	1993 <i>FT</i> ₇₅		2 14.3 134°37	5°2/ 9.5	18		343114	2009 <i>DC</i> ₁₂₉		2 14.3 33°14	0°6/13.8	18	
1 12	10 15.72	+30 28.6	2.518	3.350	10.4	19.7	1 12	10 8.00	+11 29.1	1.944	2.779	12.9	20.4
1 22	10 9.23	+31 10.1	2.457	3.356	8.0	19.5	1 22	10 3.91	+12 22.8	1.878	2.788	9.4	20.2
2 1	10 0.87	+31 46.0	2.422	3.362	5.9	19.4	2 1	9 57.91	+13 27.7	1.836	2.797	5.5	20.0
2 11	9 51.39	+32 10.5	2.416	3.368	5.2	19.4	2 11	9 50.70	+14 38.2	1.822	2.807	1.3	19.7
2 21	9 41.69	+32 19.5	2.440	3.374	6.5	19.5	2 21	9 43.17	+15 47.5	1.837	2.817	3.1	19.9
3 2	9 32.72	+32 11.1	2.491	3.379	8.7	19.6	3 2	9 36.27	+16 49.5	1.880	2.828	7.2	20.2
3 12	9 25.30	+31 45.8	2.568	3.384	11.0	19.8	3 12	9 30.86	+17 39.5	1.949	2.839	10.8	20.4
3 22	9 19.94	+31 5.9	2.667	3.390	13.1	19.9	3 22	9 27.49	+18 15.2	2.042	2.851	13.8	20.6
453806	2011 <i>SO</i> ₆₁		2 14.3 299°74	6°4/18.3	17		207899	Grinnalia		2 14.3 51°93	2°5/16.5	18	
1 12	10 10.80	-2 9.0	1.356	2.159	19.1	21.4	1 12	10 9.93	+3 11.7	1.798	2.606	14.9	19.7
1 22	10 6.96	-2 28.6	1.266	2.144	15.6	21.1	1 22	10 5.28	+3 40.6	1.742	2.631	11.3	19.5
2 1	10 0.23	-2 20.9	1.196	2.128	11.5	20.8	2 1	9 58.67	+4 27.7	1.710	2.656	7.4	19.3
2 11	9 51.37	-1 44.7	1.149	2.113	7.7	20.6	2 11	9 50.88	+5 28.6	1.704	2.682	3.5	19.1
2 21	9 41.57	-0 43.0	1.126	2.098	6.6	20.5	2 21	9 42.87	+6 37.5	1.726	2.708	3.2	19.2
3 2	9 32.35	+0 36.6	1.128	2.084	9.8	20.6	3 2	9 35.66	+7 47.3	1.777	2.734	6.8	19.4
3 12	9 25.17	+2 3.4	1.153	2.069	14.3	20.8	3 12	9 30.08	+8 51.8	1.855	2.760	10.4	19.7
3 22	9 21.00	+3 27.1	1.199	2.055	18.7	21.0	3 22	9 26.65	+9 46.5	1.955	2.786	13.5	20.0
461712	2005 <i>SJ</i> ₈₄		2 14.3 152°32	1°3/13.2	16		499028	2009 <i>DA</i> ₂₂		2 14.3 159°64	0°5/14.8	17	
1 12	10 13.87	+15 8.9	2.082	2.912	12.3	22.1	1 12	10 12.23	+10 47.5	2.489	3.302	11.1	21.8
1 22	10 8.11	+15 43.4	2.010	2.918	9.0	21.8	1 22	10 6.63	+10 50.9	2.408	3.305	8.2	21.6
2 1	10 0.34	+16 24.5	1.963	2.923	5.2	21.6	2 1	9 59.37	+11 1.7	2.352	3.308	4.9	21.4
2 11	9 51.29	+17 7.1	1.944	2.928	1.6	21.4	2 11	9 51.06	+11 17.3	2.326	3.310	1.5	21.1
2 21	9 41.89	+17 45.9	1.955	2.933	3.5	21.5	2 21	9 42.46	+11 34.5	2.330	3.312	2.3	21.2
3 2	9 33.16	+18 16.4	1.996	2.938	7.3	21.8	3 2	9 34.37	+11 50.2	2.364	3.314	5.8	21.4
3 12	9 25.98	+18 35.7	2.063	2.941	10.8	22.0	3 12	9 27.53	+12 1.6	2.427	3.316	9.0	21.6
3 22	9 20.96	+18 42.9	2.153	2.945	13.8	22.2	3 22	9 22.46	+12 7.0	2.514	3.317	11.7	21.8
253228	2002 <i>YZ</i> ₁₆		2 14.3 77°74	1°7/15.5	18		495902	2005 <i>QD</i> ₁₀₈		2 14.3 190°72	0°8/14.9	17	
1 12	10 14.26	+7 14.7	1.680	2.499	15.3	20.2	1 12	10 12.80	+8 41.7	2.401	3.208	11.6	23.1
1 22	10 8.61	+7 23.3	1.619	2.516	11.5	20.0	1 22	10 7.16	+9 6.8	2.313	3.206	8.7	22.9
2 1	10 0.69	+7 46.6	1.581	2.534	7.1	19.7	2 1	9 59.75	+9 42.4	2.251	3.204	5.3	22.7
2 11	9 51.37	+8 20.6	1.570	2.552	2.8	19.5	2 11	9 51.18	+10 25.2	2.218	3.201	1.7	22.5
2 21	9 41.77	+9 0.2	1.587	2.569	3.2	19.6	2 21	9 42.21	+11 11.0	2.215	3.198	2.4	22.5
3 2	9 33.06	+9 39.6	1.632	2.587	7.4	19.9	3 2	9 33.72	+11 55.1	2.244	3.194	6.1	22.7
3 12	9 26.23	+10 13.7	1.703	2.604	11.4	20.1	3 12	9 26.49	+12 33.8	2.300	3.189	9.4	23.0
3 22	9 21.86	+10 39.2	1.797	2.621	14.8	20.4	3 22	9 21.10	+13 4.3	2.381	3.183	12.3	23.1
231428	2007 <i>ET</i> ₁₁₂		2 14.3 43°27	0°8/14.9	18		189067	2000 <i>WT</i> ₁₃₃		2 14.3 219°42	3°8/17.4	17	
1 12	10 11.23	+8 59.6	1.793	2.618	14.2	20.7	1 12	10					

EPHEMERIDES

2 14.3

2 14.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
411319	2010 <i>UD</i> ₄		2 14.3 149°34'	0°3/14.5	18		152498	2005 <i>WS</i> ₁₂₃		2 14.3 342°12'	0°9/13.7	18	
1 12	10 14.19	+10 34.9	2.013	2.832	13.1	21.8	1 12	10 11.57	+13 13.6	1.675	2.515	14.3	20.5
1 22	10 8.38	+10 58.1	1.938	2.839	9.7	21.6	1 22	10 6.92	+13 47.5	1.599	2.512	10.5	20.3
2 1	10 0.53	+11 31.6	1.889	2.846	5.8	21.4	2 1	9 59.89	+14 32.3	1.547	2.510	6.2	20.0
2 11	9 51.37	+12 11.4	1.867	2.852	1.5	21.1	2 11	9 51.27	+15 22.2	1.522	2.507	1.6	19.7
2 21	9 41.85	+12 52.2	1.876	2.858	2.8	21.2	2 21	9 42.15	+16 10.4	1.524	2.505	3.7	19.9
3 2	9 33.00	+13 29.3	1.914	2.864	6.9	21.5	3 2	9 33.74	+16 50.7	1.554	2.503	8.3	20.1
3 12	9 25.73	+13 58.7	1.979	2.869	10.7	21.7	3 12	9 27.13	+17 18.7	1.609	2.502	12.5	20.4
3 22	9 20.65	+14 18.2	2.067	2.873	13.8	22.0	3 22	9 23.03	+17 32.7	1.686	2.501	16.1	20.6
100736	1998 <i>DD</i> ₇		2 14.3 204°53'	1°5/15.9	18		319800	2006 <i>VE</i> ₂₁		2 14.3 112°57'	0°3/14.6	18	
1 12	10 7.65	+ 4 46.2	2.398	3.201	11.8	20.0	1 12	10 14.63	+10 17.0	1.900	2.720	13.7	21.9
1 22	10 3.41	+ 5 30.6	2.312	3.200	8.9	19.8	1 22	10 8.73	+10 42.1	1.835	2.736	10.1	21.7
2 1	9 57.55	+ 6 29.5	2.250	3.199	5.7	19.6	2 1	10 0.74	+11 18.3	1.794	2.751	6.0	21.4
2 11	9 50.62	+ 7 39.5	2.217	3.197	2.4	19.4	2 11	9 51.45	+12 0.9	1.782	2.766	1.6	21.2
2 21	9 43.34	+ 8 55.5	2.214	3.196	2.4	19.4	2 21	9 41.86	+12 44.5	1.799	2.781	2.9	21.3
3 2	9 36.48	+10 11.9	2.241	3.195	5.8	19.6	3 2	9 33.06	+13 23.9	1.845	2.795	7.1	21.6
3 12	9 30.79	+11 23.1	2.296	3.193	9.1	19.8	3 12	9 25.96	+13 55.1	1.917	2.809	10.9	21.8
3 22	9 26.77	+12 25.3	2.377	3.192	11.9	20.0	3 22	9 21.14	+14 15.8	2.013	2.822	14.0	22.1
109239	2001 <i>QP</i> ₉₇		2 14.3 105°81'	4°5/19.3	18		343555	2010 <i>FM</i> ₃₀		2 14.3 209°31'	0°7/13.6	17	
1 12	10 7.40	- 5 8.9	2.367	3.122	13.3	19.4	1 12	10 10.14	+13 55.7	2.669	3.491	10.1	21.8
1 22	10 3.21	- 4 43.0	2.281	3.127	10.8	19.2	1 22	10 5.10	+14 27.6	2.582	3.487	7.4	21.6
2 1	9 57.42	- 3 56.4	2.218	3.132	8.0	19.1	2 1	9 58.51	+15 5.8	2.522	3.482	4.3	21.4
2 11	9 50.59	- 2 50.8	2.182	3.136	5.5	18.9	2 11	9 50.89	+15 46.6	2.492	3.477	1.1	21.2
2 21	9 43.43	- 1 30.0	2.174	3.141	4.5	18.9	2 21	9 42.94	+16 25.8	2.492	3.471	2.7	21.3
3 2	9 36.73	+ 0 0.3	2.197	3.146	6.2	19.0	3 2	9 35.41	+16 59.7	2.522	3.465	5.9	21.5
3 12	9 31.20	+ 1 33.1	2.247	3.150	8.9	19.2	3 12	9 29.00	+17 25.5	2.581	3.459	8.9	21.7
3 22	9 27.37	+ 3 2.4	2.323	3.155	11.6	19.3	3 22	9 24.22	+17 41.8	2.664	3.453	11.5	21.8
27443	2000 <i>FH</i> ₄₉		2 14.3 177°91'	1°1/15.2	18		293399	2007 <i>EB</i> ₇₁		2 14.3 316°84'	0°3/14.6	18	
1 12	10 11.94	+ 8 51.0	2.367	3.177	11.7	18.4	1 12	10 9.52	+ 9 38.8	1.665	2.500	14.6	20.6
1 22	10 6.51	+ 8 53.4	2.283	3.177	8.8	18.2	1 22	10 5.52	+10 13.2	1.579	2.487	10.9	20.4
2 1	9 59.35	+ 9 5.2	2.225	3.178	5.4	18.0	2 1	9 59.14	+11 2.8	1.515	2.475	6.6	20.1
2 11	9 51.08	+ 9 23.7	2.195	3.178	2.0	17.8	2 11	9 51.11	+12 2.8	1.478	2.463	1.8	19.7
2 21	9 42.47	+ 9 45.7	2.196	3.178	2.4	17.8	2 21	9 42.45	+13 6.6	1.469	2.452	3.2	19.8
3 2	9 34.37	+10 7.7	2.226	3.178	6.0	18.0	3 2	9 34.37	+14 6.6	1.487	2.441	8.1	20.1
3 12	9 27.55	+10 26.3	2.284	3.178	9.3	18.2	3 12	9 28.01	+14 56.7	1.530	2.430	12.5	20.3
3 22	9 22.57	+10 39.3	2.367	3.177	12.1	18.4	3 22	9 24.10	+15 33.1	1.595	2.420	16.3	20.5
499990	2011 <i>OH</i> ₁₁		2 14.3 144°88'	0°3/13.9	17		107213	2001 <i>BJ</i> ₄₂		2 14.3 65°40'	0°2/14.4	18	
1 12	10 8.50	+11 17.4	2.525	3.346	10.7	21.7	1 12	10 13.27	+ 9 39.7	1.435	2.272	16.4	19.8
1 22	10 3.93	+12 5.7	2.447	3.350	7.8	21.5	1 22	10 8.25	+10 22.4	1.379	2.289	12.1	19.6
2 1	9 57.81	+13 3.1	2.395	3.354	4.6	21.3	2 1	10 0.65	+11 20.9	1.346	2.307	7.2	19.4
2 11	9 50.69	+14 5.2	2.373	3.358	1.1	21.1	2 11	9 51.45	+12 28.3	1.339	2.324	1.9	19.1
2 21	9 43.26	+15 7.1	2.381	3.362	2.5	21.2	2 21	9 41.92	+13 36.3	1.359	2.342	3.5	19.3
3 2	9 36.29	+16 4.0	2.419	3.365	5.9	21.4	3 2	9 33.41	+14 36.8	1.406	2.360	8.5	19.6
3 12	9 30.47	+16 52.1	2.485	3.369	9.0	21.6	3 12	9 27.02	+15 24.1	1.478	2.378	12.9	19.9
3 22	9 26.30	+17 29.3	2.576	3.372	11.7	21.8	3 22	9 23.39	+15 55.6	1.571	2.396	16.6	20.2
423773	2006 <i>DD</i> ₁₅₂		2 14.3 45°41'	5°1/19.1	18		45422	2000 <i>AG</i> ₁₆₂		2 14.3 128°42'	1°4/13.0	18	
1 12	10 7.93	- 4 23.3	1.806	2.583	16.0	20.9	1 12	10 11.20	+15 19.6	2.131	2.965	11.9	19.1
1 22	10 3.98	- 3 59.4	1.733	2.593	12.9	20.7	1 22	10 6.18	+16 0.2	2.057	2.968	8.7	18.9
2 1	9 58.02	- 3 10.0	1.681	2.604	9.5	20.5	2 1	9 59.25	+16 47.6	2.009	2.971	5.0	18.7
2 11	9 50.77	- 1 57.2	1.654	2.614	6.2	20.4	2 11	9 51.09	+17 36.7	1.989	2.973	1.7	18.5
2 21	9 43.14	- 0 26.4	1.654	2.625	5.1	20.3	2 21	9 42.58	+18 21.9	1.998	2.976	3.5	18.6
3 2	9 36.16	+ 1 14.4	1.683	2.636	7.3	20.5	3 2	9 34.67	+18 58.6	2.037	2.978	7.2	18.8
3 12	9 30.72	+ 2 56.2	1.738	2.648	10.7	20.7	3 12	9 28.21	+19 23.6	2.102	2.981	10.6	19.1
3 22	9 27.43	+ 4 31.2	1.817	2.660	13.9	20.9	3 22	9 23.78	+19 35.8	2.190	2.983	13.5	19.3
497700	2006 <i>SC</i> ₈₀		2 14.3 140°29'	3°5/18.1	17		378743	2008 <i>RJ</i> ₅₈		2 14.3 233°77'	1°0/15.2	17	
1 12	10 8.15	- 1 10.9	2.600	3.370	11.9	22.3	1 12	10 10.21	+ 7 32.0	2.171	2.984	12.5	21.4
1 22	10 3.62	- 1 0.0	2.516	3.376	9.4	22.2	1 22	10 5.49	+ 8 3.8	2.081	2.977	9.4	21.2
2 1	9 57.60	- 0 33.6	2.455	3.381	6.7	22.0	2 1	9 58.89	+ 8 48.8	2.016	2.970	5.8	20.9
2 11	9 50.64	+ 0 6.8	2.422	3.386	4.3	21.8	2 11	9 51.02	+ 9 43.4	1.980	2.963	2.0	20.7
2 21	9 43.39	+ 0 58.1	2.418	3.390	3.6	21.8	2 21	9 42.70	+10 42.6	1.972	2.955	2.6	20.7
3 2	9 36.55	+ 1 56.1	2.445	3.395	5.6	21.9	3 2	9 34.84	+11 41.0	1.995	2.947	6.5	20.9
3 12	9 30.81	+ 2 55.9	2.499	3.399	8.3	22.1	3 12	9 28.31	+12 33.3	2.045	2.939	10.1	21.1
3 22	9 26.62	+ 3 53.0	2.579	3.403	10.8	22.3	3 22	9 23.71	+13 16.1	2.118	2.931	13.3	21.3
442673	2012 <i>TO</i> ₃₀₁		2 14.3 73°96'	7°0/10.1	18		456678	2007 <i>RF</i> ₁₂₄		2 14.3 108°82'	0°1/14.2	18	
1 12	10 19.39	+25 22.1	1.232	2.092	17.1	20.8	1 12	10 15.58	+10 38.5	1.781	2.605	14.3	21.8
1 22	10 13.22	+26 47.4	1.192	2.111	12.8	20.6	1 22	10 9.51	+11 19.7	1.722	2.625	10.5	21.6
2 1	10 3.72	+28 10.2	1.174	2.129	8.7	20.4	2 1	10 1.22	+12 12.7	1.687	2.645	6.2	21.4
2 11	9 52.20	+29 17.4	1.181	2.148	7.0	20.3	2 11	9 51.58	+13 11.6	1.680	2.665	1.5	21.2
2 21	9 40.41	+29 58.8	1.213	2.167	9.2	20.5	2 21	9 41.67	+14 9.9	1.702	2.684	3.1	21.3
3 2	9 30.17	+30 10.3	1.270	2.185	13.1	20.8	3 2	9 32.63	+15 1.4	1.754	2.702	7.5	21.6
3 12	9 22.83	+29 53.6	1.347	2.203	16.8	21.1	3 12	9 25.44	+15 41.7	1.831	2.720	11.4	21.9
3 22	9 19.00	+29 13.9	1.443	2.222	20.0	21.3	3 22	9 20.66	+16 8.8	1.932	2.737	14.7	22.1
359611	2010 <i>XP</i> ₈₈		2 14.3 111°81'	1°5/15.5	18		460911	2014 <i>WX</i> ₂₁₃		2 14.3 141°11'	2°8/16.5	18	

EPHEMERIDES

2 14.3

2 14.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
233035	2005 <i>EQ</i> ₃₁₈		2 14.3 292°81	3°5/10.9	18		28813	Jeffreykurtz		2 14.3 162°07	0°4/13.9	18	
1 12	10 9.75	+20 16.6	2.095	2.940	11.6	20.0	1 12	10 10.01	+12 20.4	2.562	3.383	10.6	19.7
1 22	10 5.31	+21 30.6	2.018	2.933	8.5	19.7	1 22	10 5.03	+12 55.1	2.483	3.386	7.7	19.5
2 1	9 58.84	+22 49.5	1.966	2.926	5.3	19.5	2 1	9 58.47	+13 37.3	2.431	3.389	4.5	19.3
2 11	9 51.02	+24 6.0	1.943	2.919	3.5	19.4	2 11	9 50.91	+14 23.3	2.407	3.392	1.1	19.0
2 21	9 42.72	+25 13.0	1.949	2.912	5.4	19.5	2 21	9 43.06	+15 8.6	2.414	3.395	2.5	19.1
3 2	9 34.95	+26 4.8	1.983	2.905	8.7	19.7	3 2	9 35.67	+15 49.3	2.452	3.398	5.9	19.4
3 12	9 28.65	+26 38.4	2.043	2.898	11.9	19.9	3 12	9 29.44	+16 22.1	2.517	3.400	9.0	19.6
3 22	9 24.45	+26 53.5	2.124	2.892	14.7	20.1	3 22	9 24.89	+16 45.2	2.607	3.402	11.6	19.7
186107	2001 <i>TG</i> ₇₁		2 14.3 124°11	1°5/15.7	18		36732	2000 <i>RS</i> ₅₀		2 14.3 168°03	0°5/14.7	18	
1 12	10 12.70	+ 5 51.6	2.248	3.049	12.5	21.5	1 12	10 15.15	+ 9 22.1	2.078	2.890	13.0	19.7
1 22	10 7.06	+ 6 21.6	2.179	3.066	9.4	21.3	1 22	10 9.10	+ 9 51.9	2.000	2.896	9.7	19.4
2 1	9 59.66	+ 7 4.7	2.135	3.084	5.9	21.2	2 1	10 1.01	+10 33.2	1.946	2.901	5.8	19.2
2 11	9 51.19	+ 7 57.1	2.119	3.100	2.4	21.0	2 11	9 51.59	+11 21.9	1.921	2.905	1.7	18.9
2 21	9 42.46	+ 8 54.2	2.134	3.116	2.6	21.0	2 21	9 41.76	+12 12.7	1.926	2.908	2.7	19.0
3 2	9 34.35	+ 9 50.8	2.180	3.132	6.0	21.2	3 2	9 32.56	+13 0.2	1.961	2.910	6.8	19.3
3 12	9 27.62	+10 42.1	2.253	3.147	9.4	21.5	3 12	9 24.90	+13 40.0	2.024	2.912	10.5	19.5
3 22	9 22.80	+11 25.0	2.351	3.161	12.2	21.7	3 22	9 19.38	+14 9.7	2.110	2.913	13.7	19.7
189648	2001 <i>OV</i> ₁₀₂		2 14.3 149°13	7°2/21.9	18		135216	2001 <i>RQ</i> ₈₆		2 14.3 164°09	0°2/14.1	17	
1 12	10 13.33	-13 1.8	2.028	2.735	16.7	20.6	1 12	10 10.38	+12 8.2	2.442	3.263	11.0	20.5
1 22	10 7.82	-12 33.2	1.944	2.747	14.1	20.4	1 22	10 5.38	+12 34.3	2.362	3.265	8.1	20.3
2 1	10 0.25	-11 34.4	1.880	2.758	11.3	20.3	2 1	9 58.72	+13 8.1	2.308	3.266	4.7	20.1
2 11	9 51.37	-10 5.7	1.841	2.768	8.6	20.1	2 11	9 51.00	+13 46.0	2.283	3.268	1.2	19.8
2 21	9 42.08	- 8 11.2	1.830	2.777	7.2	20.1	2 21	9 42.97	+14 23.7	2.288	3.269	2.5	19.9
3 2	9 33.41	- 5 58.9	1.849	2.786	8.2	20.1	3 2	9 35.43	+14 57.4	2.323	3.271	6.0	20.2
3 12	9 26.29	- 3 39.3	1.897	2.793	10.7	20.3	3 12	9 29.12	+15 23.7	2.386	3.272	9.2	20.4
3 22	9 21.32	- 1 22.5	1.971	2.800	13.5	20.5	3 22	9 24.56	+15 41.1	2.472	3.272	12.0	20.6
377016	2002 <i>RS</i> ₃₃		2 14.3 68°91	1°3/15.5	18		205694	2001 <i>YG</i> ₁₂₇		2 14.3 65°66	1°1/13.7	18	
1 12	10 12.39	+ 7 17.0	2.065	2.875	13.1	20.9	1 12	10 16.77	+14 10.8	1.364	2.209	16.7	19.9
1 22	10 6.84	+ 7 35.7	2.011	2.904	9.8	20.8	1 22	10 11.02	+14 31.5	1.305	2.220	12.2	19.6
2 1	9 59.51	+ 8 6.6	1.981	2.933	6.0	20.6	2 1	10 2.39	+15 2.2	1.269	2.232	7.1	19.4
2 11	9 51.14	+ 8 45.7	1.980	2.962	2.3	20.4	2 11	9 51.95	+15 36.4	1.259	2.244	1.9	19.1
2 21	9 42.63	+ 9 28.6	2.008	2.990	2.6	20.5	2 21	9 41.14	+16 7.0	1.275	2.256	4.2	19.3
3 2	9 34.87	+10 10.3	2.065	3.018	6.2	20.8	3 2	9 31.47	+16 28.1	1.318	2.268	9.3	19.6
3 12	9 28.63	+10 46.7	2.150	3.046	9.6	21.0	3 12	9 24.18	+16 36.5	1.385	2.280	13.9	19.9
3 22	9 24.40	+11 15.1	2.259	3.074	12.5	21.3	3 22	9 19.94	+16 31.4	1.472	2.293	17.7	20.2
310998	2003 <i>WT</i> ₁₄₄		2 14.3 28°45	3°7/16.7	18		518653	2008 <i>RE</i> ₁₄₈		2 14.3 204°50	0°2/14.2	17	
1 12	10 12.44	+ 3 19.6	1.476	2.293	17.1	20.5	1 12	10 12.39	+12 17.4	2.121	2.946	12.3	21.8
1 22	10 7.74	+ 3 10.5	1.405	2.296	13.3	20.2	1 22	10 7.09	+12 38.3	2.040	2.944	9.1	21.6
2 1	10 0.45	+ 3 21.6	1.354	2.300	9.0	20.0	2 1	9 59.84	+13 7.9	1.983	2.942	5.4	21.4
2 11	9 51.45	+ 3 50.7	1.328	2.304	4.8	19.7	2 11	9 51.30	+13 42.1	1.955	2.940	1.3	21.1
2 21	9 41.93	+ 4 33.2	1.329	2.309	4.4	19.7	2 21	9 42.37	+14 16.1	1.957	2.938	2.8	21.2
3 2	9 33.23	+ 5 22.3	1.356	2.313	8.3	20.0	3 2	9 34.00	+14 45.7	1.987	2.936	6.8	21.4
3 12	9 26.52	+ 6 10.8	1.408	2.318	12.6	20.2	3 12	9 27.09	+15 7.4	2.045	2.933	10.4	21.7
3 22	9 22.54	+ 6 52.8	1.481	2.324	16.5	20.5	3 22	9 22.22	+15 19.3	2.126	2.931	13.5	21.9
237609	2001 <i>QZ</i> ₁₀₈		2 14.3 99°28	5°7/ 9.2	18		294045	2007 <i>TN</i> ₁₄₀		2 14.3 158°40	2°7/12.0	18	
1 12	10 17.31	+31 54.1	2.469	3.298	10.6	20.1	1 12	10 16.63	+18 52.3	2.103	2.933	12.2	21.8
1 22	10 10.37	+32 39.0	2.421	3.316	8.3	20.0	1 22	10 10.19	+19 45.9	2.034	2.942	8.9	21.6
2 1	10 1.55	+33 16.7	2.400	3.335	6.3	19.9	2 1	10 1.64	+20 43.6	1.991	2.950	5.3	21.4
2 11	9 51.65	+33 41.3	2.407	3.352	5.7	19.9	2 11	9 51.76	+21 38.7	1.978	2.957	2.8	21.2
2 21	9 41.63	+33 48.9	2.443	3.370	6.9	20.0	2 21	9 41.51	+22 25.2	1.994	2.964	4.6	21.4
3 2	9 32.47	+33 37.9	2.507	3.387	9.0	20.1	3 2	9 31.98	+22 58.4	2.041	2.969	8.1	21.6
3 12	9 24.96	+33 9.5	2.597	3.404	11.2	20.3	3 12	9 24.10	+23 16.4	2.114	2.974	11.4	21.8
3 22	9 19.61	+32 26.5	2.708	3.421	13.1	20.5	3 22	9 18.48	+23 19.2	2.209	2.978	14.2	22.0
163462	2002 <i>RK</i> ₁₅₉		2 14.3 121°86	2°6/17.0	18		418243	2008 <i>DF</i> ₄₇		2 14.3 336°77	2°0/12.9	17	
1 12	10 8.84	+ 1 40.9	2.351	3.139	12.4	20.9	1 12	10 9.81	+14 48.1	1.382	2.238	15.8	20.6
1 22	10 4.26	+ 2 9.8	2.272	3.147	9.6	20.7	1 22	10 6.17	+15 37.5	1.306	2.227	11.6	20.3
2 1	9 58.05	+ 2 54.7	2.217	3.156	6.5	20.5	2 1	9 59.73	+16 39.5	1.252	2.217	6.8	20.0
2 11	9 50.81	+ 3 52.7	2.190	3.163	3.5	20.3	2 11	9 51.34	+17 46.5	1.224	2.208	2.3	19.7
2 21	9 43.26	+ 4 59.5	2.192	3.171	3.0	20.3	2 21	9 42.26	+18 49.1	1.221	2.200	4.9	19.9
3 2	9 36.19	+ 6 9.7	2.225	3.179	5.8	20.5	3 2	9 33.95	+19 39.1	1.244	2.192	10.0	20.1
3 12	9 30.35	+ 7 17.7	2.285	3.186	8.9	20.7	3 12	9 27.75	+20 11.0	1.290	2.186	14.7	20.4
3 22	9 26.23	+ 8 19.2	2.371	3.193	11.7	20.9	3 22	9 24.48	+20 23.2	1.356	2.180	18.7	20.6
51245	2000 <i>JW</i> ₄₀		2 14.3 316°64	7°4/ 8.7	18		187689	2008 <i>DS</i> ₄₀		2 14.3 201°79	0°8/14.9	18	
1 12	10 13.82	+28 2.3	1.531	2.388	14.5	18.1	1 12	10 12.50	+ 8 53.2	2.001	2.818	13.2	21.2
1 22	10 9.12	+29 26.2	1.462	2.377	11.2	17.9	1 22	10 7.29	+ 9 17.0	1.917	2.816	9.9	21.0
2 1	10 1.46	+30 48.3	1.416	2.365	8.3	17.7	2 1	10 0.02	+ 9 53.3	1.858	2.813	6.0	20.8
2 11	9 51.74	+31 57.3	1.396	2.354	7.4	17.6	2 11	9 51.37	+10 38.2	1.826	2.810	1.9	20.5
2 21	9 41.33	+32 43.4	1.401	2.343	9.5	17.7	2 21	9 42.26	+11 26.5	1.824	2.807	2.8	20.5
3 2	9 31.80	+33 0.8	1.431	2.333	12.9	17.9	3 2	9 33.72	+12 12.8	1.852	2.804	6.9	20.8
3 12	9 24.54	+32 49.3	1.483	2.323	16.5	18.1	3 12	9 26.68	+12 52.4	1.906	2.800	10.8	21.0
3 22	9 20.38	+32 12.5	1.553	2.313	19.6	18.3	3 22	9 21.80	+13 22.2	1.983	2.796	14.1	21.2
189191	2003 <i>FL</i> ₃₀		2 14.3 227°96	2°6/11.7	18		373209	2012 <i>EK</i> ₄		2 14.3 285°62	0°9/13.6	17	
1 12	10 13.63	+19 58.0	2.588</										

EPHEMERIDES

2 14.3

2 14.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
151966	2004 <i>GG</i> ₃₃		2 14.3 292°78	1°3/13.5	18		162057	1996 <i>XN</i> ₂₈		2 14.3 76°65	0°1/14.2	18	
1 12	10 14.05	+13 37.3	1.320	2.169	16.8	20.4	1 12	10 11.01	+11 42.9	2.222	3.046	11.9	20.2
1 22	10 9.52	+14 13.5	1.238	2.156	12.5	20.1	1 22	10 5.88	+12 11.0	2.159	3.063	8.7	20.0
2 1	10 1.86	+15 3.7	1.178	2.142	7.4	19.7	2 1	9 59.02	+12 47.5	2.121	3.080	5.1	19.8
2 11	9 51.93	+16 0.9	1.143	2.128	2.0	19.4	2 11	9 51.13	+13 28.3	2.112	3.097	1.3	19.6
2 21	9 41.11	+16 56.2	1.134	2.115	4.7	19.5	2 21	9 43.00	+14 8.7	2.132	3.114	2.6	19.7
3 2	9 31.05	+17 40.9	1.150	2.101	10.3	19.8	3 2	9 35.52	+14 44.4	2.182	3.131	6.3	20.0
3 12	9 23.30	+18 9.3	1.190	2.088	15.5	20.0	3 12	9 29.42	+15 12.2	2.259	3.147	9.6	20.2
3 22	9 18.80	+18 19.3	1.248	2.075	19.9	20.3	3 22	9 25.21	+15 30.2	2.360	3.164	12.4	20.4
42389	4251 <i>P-L</i>		2 14.3 42°24	4°3/17.1	18		408306	2013 <i>GB</i> ₃₀		2 14.3 233°64	2°9/12.3	18	
1 12	10 12.28	+ 2 2.5	1.321	2.140	18.6	19.1	1 12	10 16.50	+19 0.2	1.821	2.659	13.4	21.2
1 22	10 7.79	+ 1 57.4	1.258	2.150	14.5	18.9	1 22	10 10.57	+19 40.9	1.738	2.650	9.9	21.0
2 1	10 0.56	+ 2 16.3	1.215	2.160	9.9	18.6	2 1	10 2.13	+20 26.5	1.680	2.640	6.0	20.7
2 11	9 51.53	+ 2 56.6	1.196	2.171	5.5	18.4	2 11	9 51.98	+21 10.4	1.649	2.630	3.0	20.5
2 21	9 42.03	+ 3 52.6	1.202	2.182	4.8	18.4	2 21	9 41.23	+21 45.6	1.647	2.619	5.0	20.6
3 2	9 33.50	+ 4 56.0	1.234	2.193	8.7	18.7	3 2	9 31.16	+22 7.1	1.674	2.608	9.1	20.8
3 12	9 27.17	+ 5 57.9	1.291	2.205	13.2	18.9	3 12	9 22.93	+22 12.5	1.726	2.597	13.0	21.0
3 22	9 23.74	+ 6 51.5	1.368	2.217	17.2	19.2	3 22	9 17.29	+22 2.0	1.799	2.585	16.3	21.2
424656	2008 <i>QM</i> ₃₆		2 14.3 94°32	1°0/13.4	18		254537	2005 <i>EJ</i> ₁₅₁		2 14.3 233°39	0°9/13.6	16	
1 12	10 14.39	+14 41.3	2.322	3.144	11.5	22.5	1 12	10 13.29	+12 49.3	1.924	2.753	13.2	21.7
1 22	10 8.18	+15 13.6	2.268	3.173	8.3	22.4	1 22	10 8.08	+13 34.0	1.836	2.743	9.7	21.4
2 1	10 0.27	+15 51.3	2.241	3.200	4.8	22.2	2 1	10 0.61	+14 29.7	1.772	2.733	5.7	21.2
2 11	9 51.40	+16 29.8	2.242	3.227	1.4	22.0	2 11	9 51.60	+15 30.9	1.737	2.722	1.5	20.9
2 21	9 42.38	+17 4.7	2.275	3.254	3.0	22.2	2 21	9 41.99	+16 30.9	1.731	2.711	3.5	21.0
3 2	9 34.09	+17 32.4	2.338	3.280	6.4	22.4	3 2	9 32.91	+17 23.6	1.753	2.699	7.8	21.2
3 12	9 27.26	+17 50.5	2.428	3.305	9.5	22.6	3 12	9 25.42	+18 4.2	1.802	2.686	11.8	21.4
3 22	9 22.35	+17 58.4	2.543	3.330	12.1	22.9	3 22	9 20.24	+18 30.4	1.874	2.674	15.3	21.6
426029	2011 <i>PA</i> ₂		2 14.3 178°38	7°8/23.2	18		35041	1981 <i>ER</i> ₃₄		2 14.3 315°06	3°7/17.7	18	
1 12	10 10.79	-17 50.6	3.119	3.761	12.5	20.8	1 12	10 9.11	+ 0 12.7	2.334	3.115	12.7	20.1
1 22	10 5.49	-18 39.8	3.025	3.762	11.1	20.7	1 22	10 4.57	+ 0 6.8	2.245	3.113	10.1	19.9
2 1	9 58.74	-19 10.4	2.953	3.763	9.6	20.6	2 1	9 58.33	+ 0 16.4	2.181	3.111	7.1	19.7
2 11	9 51.04	-19 20.7	2.904	3.764	8.4	20.5	2 11	9 50.98	+ 0 40.3	2.143	3.109	4.5	19.5
2 21	9 42.99	-19 10.2	2.882	3.764	7.8	20.4	2 21	9 43.26	+ 1 15.8	2.134	3.107	3.9	19.5
3 2	9 35.24	-18 40.8	2.887	3.764	8.0	20.4	3 2	9 35.98	+ 1 58.9	2.154	3.105	6.2	19.6
3 12	9 28.44	-17 56.2	2.918	3.763	9.0	20.5	3 12	9 29.91	+ 2 44.8	2.202	3.103	9.1	19.8
3 22	9 23.09	-17 1.2	2.974	3.762	10.5	20.6	3 22	9 25.58	+ 3 28.9	2.274	3.102	12.0	20.0
155805	2000 <i>VD</i> ₂₆		2 14.3 119°06	2°0/16.0	18		114892	2003 <i>QN</i> ₂₀		2 14.3 230°34	1°0/13.5	18	
1 12	10 12.06	+ 5 19.8	2.100	2.903	13.2	20.6	1 12	10 13.21	+12 21.7	1.815	2.646	13.8	20.1
1 22	10 6.77	+ 5 33.8	2.026	2.914	10.0	20.4	1 22	10 8.15	+13 18.7	1.729	2.637	10.2	19.8
2 1	9 59.61	+ 6 1.6	1.977	2.924	6.4	20.2	2 1	10 0.72	+14 28.8	1.667	2.628	6.0	19.6
2 11	9 51.26	+ 6 40.3	1.955	2.934	2.9	20.0	2 11	9 51.64	+15 45.4	1.632	2.618	1.6	19.3
2 21	9 42.60	+ 7 25.6	1.963	2.944	2.9	20.0	2 21	9 41.92	+17 1.0	1.627	2.607	3.7	19.4
3 2	9 34.55	+ 8 12.4	2.000	2.954	6.3	20.2	3 2	9 32.77	+18 8.0	1.651	2.596	8.3	19.6
3 12	9 27.94	+ 8 55.9	2.065	2.963	9.8	20.5	3 12	9 25.28	+19 0.9	1.701	2.584	12.4	19.9
3 22	9 23.34	+ 9 32.6	2.153	2.972	12.9	20.7	3 22	9 20.22	+19 37.2	1.772	2.572	16.0	20.1
498034	2007 <i>HK</i> ₃₄		2 14.3 215°10	1°2/15.5	17		33048	1997 <i>UX</i> ₄		2 14.3 18°98	1°9/13.4	18	
1 12	10 11.07	+ 7 8.8	2.595	3.396	11.0	22.8	1 12	10 12.70	+15 31.2	1.046	1.914	18.8	17.6
1 22	10 5.88	+ 7 31.2	2.499	3.388	8.3	22.6	1 22	10 8.68	+15 53.1	0.994	1.921	13.8	17.3
2 1	9 59.05	+ 8 4.4	2.429	3.379	5.2	22.4	2 1	10 1.30	+16 25.8	0.962	1.929	8.0	17.0
2 11	9 51.13	+ 8 45.8	2.388	3.369	2.0	22.2	2 11	9 51.78	+17 1.3	0.953	1.939	2.4	16.7
2 21	9 42.81	+ 9 31.6	2.377	3.359	2.3	22.2	2 21	9 41.80	+17 30.5	0.968	1.949	5.2	16.9
3 2	9 34.87	+10 17.7	2.398	3.349	5.6	22.4	3 2	9 33.17	+17 46.7	1.007	1.962	10.9	17.3
3 12	9 28.04	+11 0.0	2.446	3.338	8.8	22.6	3 12	9 27.32	+17 46.3	1.067	1.975	16.0	17.6
3 22	9 22.87	+11 35.5	2.520	3.326	11.6	22.7	3 22	9 24.94	+17 29.5	1.145	1.989	20.2	17.9
232300	2002 <i>RC</i> ₂₄₆		2 14.3 179°15	0°5/13.9	18		144617	2004 <i>FD</i> ₆₃		2 14.3 12°72	4°8/18.1	18	
1 12	10 10.53	+12 23.5	2.363	3.186	11.3	21.4	1 12	10 8.09	- 1 13.7	1.440	2.248	18.0	19.6
1 22	10 5.57	+13 1.0	2.282	3.186	8.3	21.2	1 22	10 4.65	- 0 57.8	1.367	2.250	14.3	19.3
2 1	9 58.89	+13 46.9	2.228	3.187	4.8	21.0	2 1	9 58.72	- 0 14.4	1.315	2.252	10.1	19.1
2 11	9 51.09	+14 37.0	2.202	3.187	1.2	20.7	2 11	9 51.14	+ 0 54.3	1.286	2.256	6.1	18.9
2 21	9 42.94	+15 26.3	2.207	3.187	2.7	20.8	2 21	9 43.01	+ 2 21.9	1.282	2.260	5.0	18.8
3 2	9 35.29	+16 10.3	2.241	3.187	6.3	21.1	3 2	9 35.63	+ 3 59.0	1.305	2.265	8.3	19.0
3 12	9 28.90	+16 45.5	2.303	3.186	9.6	21.3	3 12	9 30.15	+ 5 34.9	1.353	2.270	12.5	19.3
3 22	9 24.32	+17 10.0	2.388	3.186	12.4	21.4	3 22	9 27.28	+ 7 1.1	1.423	2.276	16.4	19.5
372977	2011 <i>CT</i> ₃₄		2 14.3 30°25	0°2/14.5	18		296358	2009 <i>FD</i> ₂₅		2 14.3 184°36	3°6/11.5	18	
1 12	10 12.99	+11 38.1	1.593	2.429	15.1	20.6	1 12	10 16.11	+20 57.4	1.936	2.774	12.7	20.9
1 22	10 7.96	+11 46.5	1.526	2.436	11.2	20.3	1 22	10 10.09	+21 52.6	1.863	2.775	9.4	20.7
2 1	10 0.51	+12 5.9	1.483	2.443	6.6	20.1	2 1	10 1.75	+22 50.9	1.816	2.775	5.8	20.5
2 11	9 51.52	+12 31.8	1.466	2.451	1.8	19.8	2 11	9 51.88	+23 44.8	1.797	2.774	3.6	20.3
2 21	9 42.15	+12 58.7	1.477	2.460	3.2	19.9	2 21	9 41.56	+24 27.6	1.808	2.773	5.5	20.4
3 2	9 33.63	+13 21.6	1.515	2.469	8.0	20.2	3 2	9 31.96	+24 54.6	1.847	2.771	9.0	20.7
3 12	9 27.05	+13 36.4	1.578	2.478	12.2	20.5	3 12	9 24.14	+25 3.8	1.911	2.769	12.5	20.9
3 22	9 23.05	+13 41.1	1.662	2.487	15.8	20.7	3 22	9 18.76	+24 56.1	1.997	2.766	15.5	21.1
292499	2006 <i>TQ</i> ₁₀		2 14.3 82°68	2°0/16.5	17		334087	2001 <i>QD</i> ₁₂₃		2 14.3 114°00	1°4/13.1	18	
1 12	10 7.76	+ 3 30.5	2.405	3.									

EPHEMERIDES

2 14.3

2 14.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
324001	2005 <i>UB</i> ₂₇₄		2 14.3 166°92	1°9/15.9	17		160722	2000 <i>QY</i> ₁₆₆		2 14.4 89°48	0°9/14.9	18	
1 12	10 14.69	+ 6 7.6	2.449	3.242	11.8	21.5	1 12	10 17.38	+10 6.9	1.514	2.342	16.2	19.6
1 22	10 8.51	+ 6 7.0	2.365	3.247	9.0	21.3	1 22	10 11.26	+10 8.0	1.450	2.354	12.1	19.4
2 1	10 0.59	+ 6 17.1	2.307	3.252	5.8	21.1	2 1	10 2.50	+10 21.8	1.409	2.367	7.3	19.1
2 11	9 51.56	+ 6 35.8	2.277	3.256	2.6	20.9	2 11	9 52.09	+10 44.0	1.395	2.379	2.3	18.9
2 21	9 42.20	+ 7 0.1	2.279	3.260	2.7	20.9	2 21	9 41.30	+11 9.3	1.408	2.391	3.3	19.0
3 2	9 33.36	+ 7 26.5	2.312	3.262	5.8	21.1	3 2	9 31.52	+11 32.3	1.449	2.403	8.2	19.3
3 12	9 25.81	+ 7 51.4	2.373	3.265	9.0	21.4	3 12	9 23.89	+11 48.6	1.515	2.415	12.6	19.6
3 22	9 20.09	+ 8 12.1	2.459	3.266	11.8	21.5	3 22	9 19.08	+11 55.9	1.602	2.426	16.3	19.8
429635	2011 <i>FZ</i> ₁₁₀		2 14.3 17°52	2°7/16.4	18		274339	2008 <i>RE</i> ₃₁		2 14.4 189°62	0°1/14.3	17	
1 12	10 10.75	+ 4 22.5	1.859	2.668	14.4	20.9	1 12	10 11.96	+11 33.0	2.165	2.987	12.2	21.8
1 22	10 6.12	+ 4 26.8	1.780	2.669	11.1	20.7	1 22	10 6.78	+11 58.9	2.084	2.986	9.0	21.6
2 1	9 59.39	+ 4 47.2	1.724	2.671	7.3	20.4	2 1	9 59.70	+12 34.0	2.027	2.986	5.3	21.3
2 11	9 51.28	+ 5 21.3	1.694	2.672	3.6	20.2	2 11	9 51.38	+13 14.5	2.000	2.985	1.3	21.1
2 21	9 42.74	+ 6 4.7	1.693	2.674	3.4	20.2	2 21	9 42.66	+13 55.4	2.002	2.984	2.7	21.2
3 2	9 34.81	+ 6 52.0	1.720	2.676	7.0	20.4	3 2	9 34.49	+14 32.1	2.033	2.982	6.6	21.4
3 12	9 28.45	+ 7 37.4	1.773	2.678	10.8	20.7	3 12	9 27.73	+15 0.9	2.092	2.981	10.2	21.6
3 22	9 24.28	+ 8 16.5	1.849	2.680	14.2	20.9	3 22	9 22.96	+15 19.7	2.174	2.979	13.2	21.8
377667	2005 <i>UF</i> ₂₇₁		2 14.3 77°43	19°8/30.6	17		409918	2006 <i>TD</i> ₈₈		2 14.4 145°81	1°7/15.7	18	
1 12	10 30.87	+51 17.7	1.086	1.908	21.6	19.9	1 12	10 13.85	+ 6 31.0	2.030	2.836	13.5	22.1
1 22	10 24.12	+54 8.3	1.072	1.918	20.2	19.9	1 22	10 8.19	+ 6 46.6	1.954	2.845	10.2	21.9
2 1	10 11.25	+56 20.0	1.076	1.928	19.8	19.9	2 1	10 0.53	+ 7 15.7	1.903	2.853	6.4	21.7
2 11	9 54.37	+57 33.5	1.098	1.938	20.5	20.0	2 11	9 51.59	+ 7 55.0	1.879	2.860	2.6	21.4
2 21	9 36.98	+57 40.5	1.136	1.948	21.9	20.1	2 21	9 42.29	+ 8 39.8	1.885	2.867	2.8	21.5
3 2	9 22.73	+56 45.2	1.190	1.958	23.7	20.3	3 2	9 33.61	+ 9 25.1	1.920	2.874	6.6	21.7
3 12	9 13.88	+55 1.3	1.256	1.968	25.5	20.4	3 12	9 26.47	+10 6.0	1.983	2.880	10.3	21.9
3 22	9 10.81	+52 44.1	1.333	1.978	27.1	20.6	3 22	9 21.46	+10 39.1	2.069	2.885	13.5	22.2
83079	2001 <i>QN</i> ₂₂₂		2 14.3 109°65	2°6/17.2	18		464880	2005 <i>JK</i> ₁₇₅		2 14.4 159°66	2°4/17.5	18	
1 12	10 8.65	+ 1 16.8	2.427	3.212	12.2	20.0	1 12	10 7.97	+ 0 24.6	3.094	3.863	10.2	22.2
1 22	10 4.11	+ 1 46.3	2.350	3.223	9.5	19.8	1 22	10 3.35	+ 0 54.7	3.006	3.870	7.9	22.1
2 1	9 58.00	+ 2 31.4	2.297	3.234	6.4	19.6	2 1	9 57.47	+ 1 37.9	2.944	3.876	5.5	21.9
2 11	9 50.91	+ 3 29.4	2.272	3.245	3.5	19.5	2 11	9 50.79	+ 2 31.9	2.912	3.881	3.1	21.8
2 21	9 43.54	+ 4 36.1	2.277	3.255	3.0	19.5	2 21	9 43.87	+ 3 33.7	2.910	3.886	2.7	21.8
3 2	9 36.65	+ 5 46.3	2.312	3.266	5.6	19.6	3 2	9 37.29	+ 4 39.2	2.940	3.891	4.7	21.9
3 12	9 30.94	+ 6 54.6	2.375	3.276	8.6	19.8	3 12	9 31.62	+ 5 44.2	2.999	3.895	7.2	22.1
3 22	9 26.89	+ 7 56.6	2.464	3.286	11.4	20.0	3 22	9 27.26	+ 6 45.1	3.085	3.899	9.5	22.2
16360	1978 <i>VY</i> ₅		2 14.3 42°32	1°9/13.2	18		359135	2009 <i>BZ</i> ₈₅		2 14.4 358°14	0°6/14.7	18	
1 12	10 14.27	+14 20.9	1.117	1.977	18.4	17.4	1 12	10 10.91	+ 9 41.1	1.225	2.075	17.8	20.8
1 22	10 9.63	+15 6.1	1.068	1.991	13.5	17.1	1 22	10 7.16	+10 1.5	1.157	2.073	13.4	20.5
2 1	10 1.77	+16 4.2	1.040	2.005	7.8	16.9	2 1	10 0.41	+10 39.9	1.109	2.071	8.1	20.2
2 11	9 51.90	+17 5.6	1.036	2.021	2.4	16.6	2 11	9 51.63	+11 30.8	1.085	2.070	2.3	19.8
2 21	9 41.65	+18 0.2	1.056	2.036	5.1	16.8	2 21	9 42.19	+12 26.0	1.086	2.069	3.8	19.9
3 2	9 32.74	+18 39.8	1.102	2.053	10.6	17.1	3 2	9 33.68	+13 16.7	1.112	2.070	9.5	20.2
3 12	9 26.51	+19 0.4	1.169	2.070	15.5	17.5	3 12	9 27.50	+13 56.1	1.160	2.072	14.7	20.5
3 22	9 23.64	+19 1.7	1.255	2.087	19.5	17.8	3 22	9 24.46	+14 20.2	1.228	2.074	19.0	20.8
360413	2002 <i>GE</i> ₈₅		2 14.3 249°41	0°8/14.9	17		129435	5017 <i>T</i> ₋₃		2 14.4 113°36	0°6/13.8	18	
1 12	10 13.33	+ 7 58.7	1.958	2.772	13.6	21.6	1 12	10 11.62	+11 32.3	2.130	2.954	12.3	20.4
1 22	10 8.17	+ 8 36.0	1.856	2.753	10.3	21.3	1 22	10 6.47	+12 29.1	2.064	2.969	9.0	20.2
2 1	10 0.74	+ 9 28.8	1.778	2.733	6.3	21.0	2 1	9 59.47	+13 36.0	2.024	2.983	5.2	20.0
2 11	9 51.68	+10 32.9	1.729	2.712	2.0	20.7	2 11	9 51.31	+14 47.5	2.012	2.998	1.3	19.8
2 21	9 41.90	+11 42.4	1.708	2.691	2.9	20.7	2 21	9 42.86	+15 57.3	2.031	3.012	3.0	19.9
3 2	9 32.51	+12 50.6	1.718	2.669	7.4	20.9	3 2	9 35.04	+16 59.6	2.080	3.025	6.8	20.2
3 12	9 24.59	+13 51.1	1.754	2.647	11.6	21.1	3 12	9 28.66	+17 50.3	2.156	3.038	10.2	20.4
3 22	9 18.93	+14 39.9	1.813	2.623	15.3	21.3	3 22	9 24.27	+18 27.4	2.255	3.051	13.1	20.7
489492	2007 <i>GW</i> ₇₅		2 14.3 256°93	3°2/11.9	17		148810	2001 <i>UX</i> ₁₁₂		2 14.4 117°41	0°2/14.5	18	
1 12	10 16.10	+17 59.1	1.724	2.564	14.0	22.4	1 12	10 14.24	+10 40.5	2.075	2.893	12.8	20.5
1 22	10 10.62	+19 2.7	1.630	2.543	10.3	22.1	1 22	10 8.38	+11 4.7	2.009	2.909	9.4	20.4
2 1	10 2.39	+20 15.6	1.560	2.521	6.3	21.9	2 1	10 0.58	+11 38.7	1.967	2.924	5.6	20.2
2 11	9 52.13	+21 29.6	1.517	2.498	3.2	21.6	2 11	9 51.59	+12 18.3	1.954	2.938	1.5	19.9
2 21	9 40.99	+22 35.7	1.504	2.474	5.6	21.7	2 21	9 42.33	+12 58.5	1.970	2.953	2.7	20.0
3 2	9 30.34	+23 26.4	1.518	2.450	10.0	21.9	3 2	9 33.77	+13 34.7	2.017	2.967	6.6	20.3
3 12	9 21.53	+23 57.3	1.557	2.425	14.3	22.1	3 12	9 26.76	+14 3.2	2.091	2.980	10.2	20.5
3 22	9 15.48	+24 7.9	1.617	2.400	18.0	22.3	3 22	9 21.85	+14 22.2	2.188	2.993	13.2	20.7
344500	2002 <i>QH</i> ₁₂₁		2 14.4 126°75	1°6/15.5	15		134873	2000 <i>QR</i> ₈₉		2 14.4 88°56	0°8/13.7	18	R
1 12	10 16.75	+ 6 19.3	1.636	2.449	15.9	22.6	1 12	10 14.40	+15 40.2	2.401	3.224	11.1	18.6
1 22	10 10.64	+ 6 50.1	1.571	2.465	12.0	22.4	1 22	10 8.25	+15 44.5	2.332	3.236	8.1	18.5
2 1	10 2.08	+ 7 38.2	1.529	2.481	7.4	22.1	2 1	10 0.41	+15 52.7	2.290	3.249	4.7	18.3
2 11	9 51.98	+ 8 38.5	1.513	2.496	2.8	21.9	2 11	9 51.54	+16 1.6	2.277	3.262	1.3	18.0
2 21	9 41.49	+ 9 44.3	1.527	2.510	3.2	21.9	2 21	9 42.46	+16 7.7	2.295	3.275	2.8	18.2
3 2	9 31.90	+10 48.1	1.569	2.523	7.8	22.2	3 2	9 34.03	+16 8.7	2.343	3.287	6.2	18.4
3 12	9 24.28	+11 43.6	1.638	2.536	12.0	22.5	3 12	9 27.00	+16 2.7	2.419	3.300	9.3	18.6
3 22	9 19.28	+12 27.0	1.729	2.548	15.6	22.8	3 22	9 21.86	+15 49.3	2.519	3.312	12.0	18.8
493343	2014 <i>VT</i> ₂₉		2 14.4 164°27	1°1/13.3	18		243646	1999 <i>TT</i> ₁₄₇		2 14.4 173°01	1°6/15.6	18	
1 12	10 14.41	+14											

EPHEMERIDES

2 14.4

2 14.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
325815	2010 <i>RS</i> ₁₂₅		2 14.4	42°86'	0°1/14.3	18	436289	2010 <i>DV</i> ₁₂		2 14.4	4°42'	8°6/20.8	17
1 12	10 11.06	+ 9 45.9	1.403	2.245	16.5	20.7	1 12	10 12.54	-10 53.6	2.153	2.871	15.5	20.8
1 22	10 6.78	+10 34.8	1.347	2.259	12.1	20.4	1 22	10 7.32	-12 5.5	2.068	2.871	13.4	20.6
2 1	9 59.93	+11 40.2	1.312	2.274	7.2	20.2	2 1	10 0.10	-12 56.6	2.003	2.871	11.2	20.5
2 11	9 51.47	+12 54.8	1.304	2.289	1.8	19.9	2 11	9 51.54	-13 24.2	1.963	2.872	9.3	20.4
2 21	9 42.63	+14 9.6	1.322	2.305	3.6	20.1	2 21	9 42.47	-13 27.7	1.949	2.872	8.6	20.3
3 2	9 34.77	+15 16.2	1.367	2.321	8.6	20.4	3 2	9 33.87	-13 9.0	1.961	2.873	9.4	20.4
3 12	9 28.98	+16 8.4	1.436	2.338	13.1	20.7	3 12	9 26.65	-12 33.3	1.999	2.875	11.2	20.5
3 22	9 25.91	+16 43.4	1.526	2.355	16.8	21.0	3 22	9 21.46	-11 47.2	2.059	2.876	13.5	20.6
461760	2005 <i>UR</i> ₂₅₀		2 14.4	195°13'	4°9/19.0	17	363764	2005 <i>EA</i> ₂₂		2 14.4	285°25'	0°1/14.3	18
1 12	10 12.64	- 4 48.7	2.587	3.328	12.6	22.0	1 12	10 12.60	+10 56.9	1.584	2.419	15.2	21.3
1 22	10 7.05	- 5 1.0	2.490	3.325	10.4	21.9	1 22	10 8.00	+11 29.0	1.498	2.408	11.3	21.0
2 1	9 59.80	- 4 56.5	2.416	3.322	7.9	21.7	2 1	10 0.79	+12 15.6	1.436	2.397	6.8	20.7
2 11	9 51.43	- 4 35.2	2.370	3.317	5.7	21.5	2 11	9 51.76	+13 11.2	1.400	2.385	1.7	20.3
2 21	9 42.64	- 3 59.0	2.353	3.312	5.0	21.5	2 21	9 42.03	+14 8.8	1.392	2.374	3.5	20.4
3 2	9 34.24	- 3 11.5	2.366	3.306	6.5	21.6	3 2	9 32.93	+15 1.0	1.410	2.363	8.6	20.7
3 12	9 26.97	- 2 17.4	2.408	3.299	8.9	21.7	3 12	9 25.70	+15 41.9	1.454	2.352	13.2	20.9
3 22	9 21.38	- 1 21.8	2.475	3.292	11.5	21.9	3 22	9 21.16	+16 8.3	1.518	2.341	17.2	21.2
337799	2001 <i>UC</i> ₂₁₁		2 14.4	143°86'	3°9/18.4	17	202431	2005 <i>WM</i> ₁₈₆		2 14.4	60°56'	0°3/14.2	17
1 12	10 8.84	- 1 52.1	2.525	3.291	12.3	21.0	1 12	10 16.10	+10 51.9	1.224	2.069	18.2	20.8
1 22	10 4.25	- 1 49.0	2.439	3.295	9.8	20.9	1 22	10 10.61	+11 33.5	1.180	2.094	13.3	20.5
2 1	9 58.11	- 1 29.8	2.377	3.299	7.1	20.7	2 1	10 2.20	+12 30.7	1.157	2.119	7.8	20.3
2 11	9 50.99	- 0 55.8	2.342	3.303	4.7	20.5	2 11	9 52.06	+13 35.3	1.159	2.145	1.9	20.0
2 21	9 43.54	- 0 9.7	2.337	3.306	4.0	20.5	2 21	9 41.69	+14 37.7	1.188	2.170	4.0	20.2
3 2	9 36.52	+ 0 44.4	2.361	3.310	5.9	20.6	3 2	9 32.65	+15 29.9	1.242	2.196	9.4	20.6
3 12	9 30.62	+ 1 41.3	2.413	3.313	8.5	20.8	3 12	9 26.15	+16 6.7	1.320	2.221	14.0	20.9
3 22	9 26.34	+ 2 36.6	2.490	3.316	11.1	21.0	3 22	9 22.74	+16 26.5	1.418	2.247	17.8	21.2
466970	2016 <i>BE</i> ₈		2 14.4	201°78'	2°0/15.7	18	396809	2004 <i>PV</i> ₈₉		2 14.4	133°64'	1°0/13.7	18
1 12	10 15.51	+ 7 40.9	1.858	2.670	14.3	21.2	1 12	10 18.77	+14 15.0	1.927	2.750	13.4	22.0
1 22	10 9.65	+ 7 25.8	1.776	2.669	10.9	21.0	1 22	10 11.83	+14 44.4	1.863	2.767	9.8	21.8
2 1	10 1.52	+ 7 22.6	1.718	2.668	6.9	20.7	2 1	10 2.68	+15 21.1	1.824	2.783	5.7	21.6
2 11	9 51.88	+ 7 29.0	1.687	2.667	2.9	20.5	2 11	9 52.18	+15 59.6	1.813	2.798	1.6	21.3
2 21	9 41.77	+ 7 41.7	1.685	2.666	3.2	20.5	2 21	9 41.39	+16 34.5	1.833	2.812	3.4	21.5
3 2	9 32.33	+ 7 56.8	1.711	2.665	7.2	20.7	3 2	9 31.45	+17 1.2	1.882	2.826	7.5	21.8
3 12	9 24.58	+ 8 10.3	1.765	2.664	11.2	21.0	3 12	9 23.33	+17 17.0	1.959	2.838	11.2	22.0
3 22	9 19.20	+ 8 19.0	1.841	2.663	14.6	21.2	3 22	9 17.61	+17 21.2	2.058	2.850	14.3	22.3
159951	2005 <i>YB</i> ₉₃		2 14.4	352°48'	0°4/13.9	18	230503	2002 <i>TC</i> ₃₈₅		2 14.4	30°37'	5°3/10.6	18
1 12	10 9.78	+11 4.1	1.767	2.602	13.9	20.7	1 12	10 13.60	+25 26.5	1.675	2.528	13.7	19.5
1 22	10 5.58	+11 53.1	1.690	2.600	10.3	20.5	1 22	10 8.41	+26 17.9	1.625	2.541	10.2	19.3
2 1	9 59.17	+12 55.5	1.638	2.599	6.0	20.2	2 1	10 0.79	+27 7.1	1.599	2.554	6.9	19.2
2 11	9 51.29	+14 5.3	1.612	2.598	1.5	19.9	2 11	9 51.70	+27 45.7	1.599	2.568	5.3	19.1
2 21	9 42.93	+15 15.5	1.615	2.597	3.3	20.0	2 21	9 42.35	+28 7.6	1.626	2.582	7.1	19.2
3 2	9 35.20	+16 18.8	1.646	2.596	7.8	20.3	3 2	9 34.02	+28 9.4	1.679	2.597	10.3	19.5
3 12	9 29.12	+17 9.8	1.703	2.596	11.9	20.5	3 12	9 27.72	+27 51.2	1.756	2.613	13.5	19.7
3 22	9 25.34	+17 45.7	1.781	2.596	15.3	20.8	3 22	9 24.04	+27 15.7	1.854	2.629	16.3	19.9
65882	1997 <i>YR</i> ₈		2 14.4	209°06'	2°2/12.4	18	147281	2002 <i>YG</i> ₃₅		2 14.4	101°97'	4°8/ 9.8	18
1 12	10 12.85	+19 26.2	2.423	3.255	10.7	19.2	1 12	10 15.08	+22 58.5	1.920	2.762	12.6	19.4
1 22	10 7.30	+19 54.6	2.343	3.252	7.8	19.0	1 22	10 9.26	+24 39.3	1.873	2.785	9.3	19.2
2 1	9 59.95	+20 25.5	2.290	3.250	4.7	18.8	2 1	10 1.22	+26 20.8	1.852	2.806	6.1	19.1
2 11	9 51.47	+20 54.3	2.267	3.247	2.3	18.6	2 11	9 51.81	+27 53.4	1.860	2.828	4.9	19.0
2 21	9 42.64	+21 16.6	2.273	3.244	3.9	18.7	2 21	9 42.10	+29 9.2	1.898	2.849	6.7	19.2
3 2	9 34.36	+21 29.2	2.309	3.241	7.0	18.9	3 2	9 33.24	+30 3.0	1.964	2.869	9.8	19.4
3 12	9 27.43	+21 30.5	2.371	3.238	10.1	19.1	3 12	9 26.20	+30 33.7	2.054	2.889	12.7	19.6
3 22	9 22.38	+21 20.3	2.457	3.235	12.7	19.3	3 22	9 21.55	+30 43.0	2.165	2.908	15.2	19.8
362067	2009 <i>BE</i> ₆₃		2 14.4	52°20'	0°7/14.7	18	354086	2001 <i>WZ</i> ₄₅		2 14.4	27°83'	1°9/15.4	18
1 12	10 18.81	+11 38.3	1.254	2.095	18.1	20.8	1 12	10 11.87	+ 7 38.5	1.072	1.924	19.7	20.6
1 22	10 12.57	+11 26.2	1.203	2.114	13.4	20.6	1 22	10 7.95	+ 7 45.1	1.020	1.934	14.9	20.3
2 1	10 3.35	+11 26.3	1.174	2.134	8.0	20.4	2 1	10 0.87	+ 8 13.0	0.987	1.946	9.2	20.0
2 11	9 52.34	+11 34.1	1.170	2.154	2.3	20.1	2 11	9 51.77	+ 8 56.8	0.976	1.960	3.4	19.7
2 21	9 41.08	+11 44.0	1.192	2.175	3.7	20.2	2 21	9 42.21	+ 9 48.3	0.990	1.974	4.0	19.8
3 2	9 31.17	+11 51.1	1.240	2.196	9.1	20.6	3 2	9 33.90	+10 38.3	1.028	1.989	9.6	20.2
3 12	9 23.85	+11 51.7	1.312	2.217	13.8	20.9	3 12	9 28.19	+11 19.1	1.087	2.005	14.8	20.5
3 22	9 19.73	+11 44.0	1.404	2.238	17.7	21.2	3 22	9 25.77	+11 46.2	1.166	2.023	19.1	20.8
462875	2010 <i>VL</i> ₁₁₀		2 14.4	83°63'	1°8/12.9	18	407765	2011 <i>WK</i> ₇₉		2 14.4	3°39'	1°2/15.1	18
1 12	10 13.29	+14 57.6	1.706	2.546	14.1	21.5	1 12	10 11.52	+ 9 4.7	1.252	2.098	17.8	20.7
1 22	10 8.09	+15 52.7	1.646	2.559	10.2	21.3	1 22	10 7.54	+ 9 13.2	1.184	2.097	13.4	20.4
2 1	10 0.59	+16 56.7	1.610	2.573	5.9	21.1	2 1	10 0.63	+ 9 39.1	1.136	2.096	8.2	20.2
2 11	9 51.64	+18 2.3	1.602	2.586	2.1	20.8	2 11	9 51.73	+10 17.8	1.113	2.097	2.7	19.8
2 21	9 42.35	+19 2.1	1.621	2.599	4.2	21.0	2 21	9 42.22	+11 2.2	1.115	2.099	3.7	19.9
3 2	9 33.90	+19 49.8	1.669	2.611	8.4	21.3	3 2	9 33.64	+11 44.6	1.142	2.101	9.2	20.2
3 12	9 27.30	+20 21.8	1.742	2.624	12.3	21.5	3 12	9 27.37	+12 18.2	1.192	2.105	14.3	20.5
3 22	9 23.17	+20 37.4	1.837	2.637	15.5	21.8	3 22	9 24.17	+12 39.1	1.261	2.109	18.5	20.8
356373	2010 <i>NF</i> ₅		2 14.4	263°94'	2°5/12.3	17	282147	2001 <i>RV</i>					

EPHEMERIDES

2 14.4

2 14.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
406202	2006 XV ₁₆		2 14.4 98°35'	4.7/10.2	18		353708	2011 UZ ₄₀₇		2 14.4 212°53'	0°1/14.4	18	
1 12	10 15.84	+23 27.4	1.945	2.786	12.6	21.0	1 12	10 14.65	+10 5.6	1.806	2.628	14.2	21.8
1 22	10 9.75	+24 52.6	1.899	2.810	9.2	20.9	1 22	10 9.22	+10 45.2	1.720	2.623	10.6	21.5
2 1	10 1.47	+26 17.4	1.880	2.834	6.1	20.7	2 1	10 1.41	+11 38.7	1.658	2.616	6.3	21.3
2 11	9 51.88	+27 33.4	1.889	2.857	4.7	20.7	2 11	9 51.95	+12 40.9	1.624	2.609	1.7	20.9
2 21	9 42.05	+28 33.2	1.928	2.880	6.5	20.8	2 21	9 41.89	+13 45.1	1.619	2.601	3.2	21.0
3 2	9 33.11	+29 12.6	1.994	2.902	9.5	21.0	3 2	9 32.41	+14 44.3	1.643	2.593	7.8	21.3
3 12	9 26.00	+29 30.8	2.086	2.924	12.4	21.3	3 12	9 24.64	+15 33.1	1.693	2.584	12.1	21.5
3 22	9 21.28	+29 29.7	2.198	2.945	14.9	21.5	3 22	9 19.31	+16 8.2	1.766	2.574	15.7	21.7
87775	2000 SZ ₁₀₀		2 14.4 169°50'	5.7/19.9	18		209461	2004 GZ ₃₃		2 14.4 303°04'	5°4/ 9.5	17	
1 12	10 11.86	- 7 6.0	2.486	3.218	13.3	20.0	1 12	10 12.79	+27 45.6	2.162	3.005	11.4	20.3
1 22	10 6.52	- 7 22.7	2.397	3.222	11.1	19.8	1 22	10 7.68	+28 42.0	2.082	2.991	8.7	20.1
2 1	9 59.50	- 7 20.8	2.331	3.226	8.6	19.7	2 1	10 0.40	+29 36.3	2.028	2.976	6.3	19.9
2 11	9 51.39	- 6 59.9	2.292	3.229	6.5	19.5	2 11	9 51.68	+30 21.0	2.002	2.962	5.4	19.8
2 21	9 42.91	- 6 22.0	2.280	3.231	5.7	19.5	2 21	9 42.46	+30 50.4	2.004	2.948	7.0	19.9
3 2	9 34.86	- 5 30.6	2.298	3.233	6.9	19.6	3 2	9 33.84	+31 0.5	2.033	2.934	9.7	20.0
3 12	9 28.00	- 4 31.0	2.344	3.234	9.2	19.7	3 12	9 26.79	+30 50.6	2.087	2.920	12.6	20.2
3 22	9 22.88	- 3 29.0	2.414	3.235	11.6	19.9	3 22	9 21.99	+30 22.6	2.161	2.907	15.2	20.3
426774	2013 TA ₁₀₈		2 14.4 67°17'	1°6/13.1	18		39328	2001 XO ₁₁₅		2 14.4 350°74'	4°1/11.9	18	
1 12	10 11.68	+15 26.7	1.984	2.821	12.6	20.9	1 12	10 14.55	+19 37.5	1.309	2.168	16.3	19.0
1 22	10 6.72	+16 7.0	1.914	2.826	9.2	20.7	1 22	10 9.84	+20 31.1	1.243	2.165	12.0	18.8
2 1	9 59.74	+16 54.3	1.869	2.830	5.3	20.5	2 1	10 2.04	+21 31.1	1.200	2.163	7.4	18.5
2 11	9 51.46	+17 43.1	1.851	2.836	1.8	20.2	2 11	9 52.14	+22 27.8	1.181	2.161	4.1	18.3
2 21	9 42.82	+18 27.7	1.863	2.841	3.7	20.4	2 21	9 41.60	+23 11.5	1.189	2.160	6.6	18.4
3 2	9 34.83	+19 3.0	1.903	2.846	7.6	20.6	3 2	9 32.09	+23 35.5	1.221	2.159	11.3	18.7
3 12	9 28.42	+19 26.0	1.970	2.851	11.1	20.8	3 12	9 25.03	+23 37.3	1.276	2.159	15.8	19.0
3 22	9 24.15	+19 35.6	2.058	2.856	14.1	21.0	3 22	9 21.20	+23 18.4	1.349	2.159	19.6	19.2
24697	Rastrelli		2 14.4 123°10'	0°5/13.9	18		79844	1998 WF ₄₃		2 14.4 87°09'	8°7/ 7.7	18	
1 12	10 15.24	+12 41.0	1.915	2.740	13.4	18.5	1 12	10 20.12	+34 34.3	1.744	2.583	13.9	18.6
1 22	10 9.30	+13 11.0	1.848	2.753	9.8	18.3	1 22	10 13.30	+36 1.2	1.708	2.602	11.2	18.4
2 1	10 1.24	+13 50.0	1.806	2.766	5.7	18.1	2 1	10 3.71	+37 16.6	1.695	2.622	9.1	18.4
2 11	9 51.84	+14 32.9	1.792	2.778	1.4	17.8	2 11	9 52.49	+38 10.3	1.709	2.641	8.8	18.4
2 21	9 42.12	+15 14.3	1.808	2.789	3.2	17.9	2 21	9 41.06	+38 35.6	1.749	2.660	10.3	18.5
3 2	9 33.17	+15 49.0	1.853	2.800	7.3	18.2	3 2	9 30.88	+38 31.0	1.814	2.678	12.6	18.7
3 12	9 25.92	+16 13.6	1.924	2.811	11.1	18.5	3 12	9 23.12	+37 59.4	1.901	2.697	15.1	18.9
3 22	9 20.96	+16 26.6	2.019	2.821	14.2	18.7	3 22	9 18.34	+37 6.4	2.007	2.715	17.3	19.1
454126	2013 CH ₁₆₂		2 14.4 130°11'	0°8/15.0	18		447172	2005 NQ ₇₆		2 14.4 189°88'	0°1/14.4	18	
1 12	10 14.44	+ 7 39.5	1.836	2.651	14.3	21.4	1 12	10 16.09	+ 9 44.6	1.861	2.678	14.1	22.9
1 22	10 8.80	+ 8 25.4	1.768	2.665	10.7	21.2	1 22	10 10.19	+10 31.8	1.777	2.677	10.5	22.7
2 1	10 0.99	+ 9 26.4	1.724	2.679	6.5	21.0	2 1	10 1.94	+11 33.0	1.719	2.676	6.3	22.4
2 11	9 51.79	+10 37.1	1.708	2.692	2.0	20.8	2 11	9 52.09	+12 42.8	1.688	2.673	1.6	22.1
2 21	9 42.22	+11 50.7	1.721	2.704	2.9	20.8	2 21	9 41.67	+13 54.1	1.688	2.670	3.1	22.2
3 2	9 33.40	+13 0.1	1.764	2.716	7.2	21.1	3 2	9 31.87	+14 59.9	1.717	2.665	7.7	22.5
3 12	9 26.29	+13 59.6	1.834	2.727	11.2	21.4	3 12	9 23.77	+15 54.5	1.772	2.660	11.8	22.7
3 22	9 21.50	+14 45.8	1.927	2.737	14.5	21.6	3 22	9 18.09	+16 35.1	1.851	2.653	15.3	22.9
360224	1999 TX ₆₈		2 14.4 262°08'	2°7/16.3	16		290186	2005 SF ₇		2 14.4 47°19'	2°4/16.2	18	
1 12	10 13.39	+ 4 26.3	1.807	2.613	14.9	21.5	1 12	10 11.23	+ 4 46.4	1.547	2.368	16.3	20.8
1 22	10 8.39	+ 4 34.1	1.707	2.595	11.6	21.2	1 22	10 6.71	+ 5 5.7	1.487	2.383	12.4	20.6
2 1	10 1.00	+ 4 59.3	1.629	2.576	7.6	21.0	2 1	9 59.85	+ 5 44.1	1.448	2.399	7.9	20.4
2 11	9 51.87	+ 5 39.7	1.578	2.557	3.7	20.7	2 11	9 51.52	+ 6 37.4	1.435	2.415	3.5	20.1
2 21	9 41.97	+ 6 30.9	1.556	2.537	3.5	20.6	2 21	9 42.86	+ 7 39.1	1.449	2.432	3.4	20.2
3 2	9 32.51	+ 7 27.0	1.561	2.517	7.6	20.8	3 2	9 35.05	+ 8 41.7	1.491	2.449	7.6	20.5
3 12	9 24.63	+ 8 21.2	1.593	2.496	12.0	21.0	3 12	9 29.13	+ 9 38.5	1.558	2.466	11.8	20.7
3 22	9 19.15	+ 9 8.3	1.648	2.475	15.8	21.2	3 22	9 25.70	+10 24.6	1.646	2.484	15.3	21.0
417235	2005 YA ₇₇		2 14.4 121°14'	3°2/11.3	18		341681	2007 VD ₁₀₄		2 14.4 146°47'	0°1/14.5	17	
1 12	10 13.95	+20 37.2	2.260	3.095	11.3	21.8	1 12	10 10.66	+10 53.2	2.942	3.751	9.7	22.2
1 22	10 8.15	+21 41.4	2.202	3.112	8.2	21.7	1 22	10 5.37	+11 19.9	2.866	3.762	7.1	22.1
2 1	10 0.47	+22 47.7	2.171	3.129	5.1	21.5	2 1	9 58.70	+11 53.6	2.816	3.772	4.2	21.9
2 11	9 51.65	+23 49.7	2.169	3.145	3.2	21.4	2 11	9 51.20	+12 31.2	2.797	3.782	1.1	21.7
2 21	9 42.56	+24 41.6	2.197	3.160	4.9	21.5	2 21	9 43.47	+13 9.3	2.809	3.791	2.0	21.8
3 2	9 34.15	+25 19.1	2.254	3.175	7.9	21.7	3 2	9 36.17	+13 44.6	2.852	3.800	5.1	22.0
3 12	9 27.25	+25 40.7	2.337	3.189	10.8	21.9	3 12	9 29.90	+14 14.3	2.924	3.808	7.8	22.2
3 22	9 22.37	+25 46.7	2.443	3.203	13.2	22.1	3 22	9 25.09	+14 36.6	3.022	3.816	10.2	22.4
319516	2006 QV ₁₆₉		2 14.4 87°59'	2°0/12.7	18		415851	2001 SH ₉₇		2 14.4 191°22'	0°1/14.4	16	
1 12	10 14.81	+14 41.6	1.755	2.590	14.0	20.9	1 12	10 14.16	+11 23.6	2.054	2.874	12.8	22.1
1 22	10 9.06	+15 54.9	1.706	2.617	10.1	20.7	1 22	10 8.53	+11 44.4	1.972	2.873	9.5	21.9
2 1	10 1.10	+17 16.7	1.681	2.643	5.8	20.5	2 1	10 0.84	+12 14.9	1.914	2.872	5.7	21.7
2 11	9 51.81	+18 38.8	1.685	2.669	2.2	20.3	2 11	9 51.79	+12 51.0	1.885	2.870	1.5	21.4
2 21	9 42.29	+19 53.2	1.718	2.694	4.3	20.5	2 21	9 42.30	+13 27.8	1.886	2.868	2.8	21.5
3 2	9 33.68	+20 53.5	1.780	2.719	8.3	20.8	3 2	9 33.39	+14 0.7	1.916	2.866	7.0	21.7
3 12	9 26.94	+21 36.3	1.868	2.743	11.9	21.1	3 12	9 26.01	+14 25.8	1.973	2.863	10.7	21.9
3 22	9 22.62	+22 1.3	1.978	2.767	14.9	21.3	3 22	9 20.79	+14 41.1	2.054	2.860	13.9	22.1
504114	2006 OH ₁		2 14.4 199°33'	1°4/12.7	17		500402	2012 TV ₉₇		2 14.4 212°37'	0°8/13.6	17	
1 12	10 9.90	+15 58.7	3.041	3.863	9.0	22.9	1 12	10 10.97	+14 16.8	2.4			

EPHEMERIDES

2 14.4

2 14.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
497110	2004 <i>DG</i> ₆₃		2 14.4 92°56'	2.2/12.5	17		130996	2000 <i>WE</i> ₁₆₇		2 14.4 136°45'	1.2/15.4	18	
1 12	10 13.40	+19 9.6	2.235	3.070	11.4	21.2	1 12	10 14.25	+7 1.2	1.781	2.596	14.7	20.0
1 22	10 7.81	+19 34.4	2.162	3.072	8.3	21.0	1 22	10 8.78	+7 33.7	1.709	2.605	11.1	19.8
2 1	10 0.32	+20 1.8	2.114	3.074	5.0	20.8	2 1	10 1.05	+8 21.8	1.661	2.615	6.8	19.6
2 11	9 51.64	+20 27.1	2.095	3.076	2.3	20.6	2 11	9 51.87	+9 21.0	1.641	2.623	2.4	19.3
2 21	9 42.64	+20 45.8	2.105	3.078	4.0	20.7	2 21	9 42.27	+10 25.0	1.649	2.632	2.9	19.4
3 2	9 34.27	+20 54.6	2.145	3.080	7.3	20.9	3 2	9 33.41	+11 26.9	1.686	2.640	7.3	19.7
3 12	9 27.37	+20 51.9	2.211	3.082	10.5	21.1	3 12	9 26.28	+12 21.0	1.749	2.647	11.4	19.9
3 22	9 22.49	+20 37.9	2.300	3.085	13.3	21.3	3 22	9 21.53	+13 3.4	1.836	2.654	14.8	20.2
232583	2003 <i>SA</i> ₄₁₄		2 14.4 96°67'	0.1/14.5	18		413069	2001 <i>SR</i> ₁₂₂		2 14.4 76°77'	1.1/13.6	18	
1 12	10 11.12	+10 22.5	2.083	2.905	12.6	21.3	1 12	10 15.22	+14 48.0	1.709	2.546	14.2	20.7
1 22	10 6.20	+10 56.1	2.011	2.914	9.3	21.1	1 22	10 9.55	+15 10.3	1.644	2.555	10.4	20.5
2 1	9 59.40	+11 40.3	1.965	2.922	5.5	20.8	2 1	10 1.51	+15 40.3	1.603	2.564	6.1	20.2
2 11	9 51.41	+12 30.8	1.946	2.931	1.5	20.6	2 11	9 51.98	+16 12.5	1.588	2.573	1.7	20.0
2 21	9 43.09	+13 22.2	1.957	2.940	2.7	20.7	2 21	9 42.09	+16 41.2	1.602	2.582	3.7	20.1
3 2	9 35.38	+14 9.4	1.997	2.948	6.6	21.0	3 2	9 33.06	+17 1.5	1.644	2.591	8.1	20.4
3 12	9 29.12	+14 48.2	2.064	2.956	10.2	21.2	3 12	9 25.94	+17 10.5	1.712	2.601	12.1	20.7
3 22	9 24.85	+15 16.2	2.155	2.964	13.2	21.4	3 22	9 21.34	+17 7.6	1.801	2.610	15.4	20.9
68702	2002 <i>CU</i> ₂₁₅		2 14.4 200°01'	0.7/13.8	18		376682	2013 <i>QH</i> ₄₃		2 14.4 21°18'	1.8/15.9	18	
1 12	10 14.54	+12 13.0	1.937	2.762	13.3	20.6	1 12	10 9.15	+4 40.6	1.727	2.544	15.0	20.9
1 22	10 8.99	+12 58.5	1.854	2.759	9.8	20.4	1 22	10 5.15	+5 22.0	1.651	2.546	11.4	20.7
2 1	10 1.20	+13 55.2	1.796	2.755	5.8	20.1	2 1	9 58.97	+6 22.9	1.597	2.549	7.3	20.5
2 11	9 51.91	+14 57.5	1.765	2.751	1.5	19.8	2 11	9 51.36	+7 38.7	1.570	2.551	3.0	20.2
2 21	9 42.08	+15 58.8	1.765	2.745	3.3	20.0	2 21	9 43.27	+9 2.6	1.571	2.555	3.0	20.2
3 2	9 32.83	+16 52.9	1.794	2.740	7.7	20.2	3 2	9 35.82	+10 26.4	1.601	2.558	7.3	20.5
3 12	9 25.20	+17 35.2	1.849	2.733	11.6	20.4	3 12	9 30.00	+11 42.6	1.656	2.561	11.4	20.7
3 22	9 19.87	+18 3.5	1.927	2.726	14.9	20.6	3 22	9 26.46	+12 46.1	1.734	2.565	15.0	21.0
123068	2000 <i>SJ</i> ₃₀₅		2 14.4 70°00'	2.6/12.7	18		2248	Kanda		2 14.4 331°05'	0.8/13.7	18	
1 12	10 16.82	+19 10.0	1.767	2.606	13.7	20.0	1 12	10 10.11	+13 43.6	1.984	2.820	12.6	15.8
1 22	10 10.56	+19 35.0	1.711	2.623	10.0	19.8	1 22	10 5.69	+14 12.2	1.902	2.812	9.3	15.6
2 1	10 2.00	+20 2.8	1.679	2.640	5.9	19.6	2 1	9 59.23	+14 49.4	1.843	2.805	5.4	15.3
2 11	9 52.06	+20 27.5	1.676	2.657	2.7	19.4	2 11	9 51.42	+15 30.6	1.813	2.798	1.4	15.0
2 21	9 41.91	+20 43.5	1.700	2.674	4.6	19.6	2 21	9 43.15	+16 10.4	1.811	2.791	3.2	15.1
3 2	9 32.73	+20 47.6	1.753	2.691	8.4	19.9	3 2	9 35.43	+16 43.7	1.837	2.785	7.3	15.4
3 12	9 25.51	+20 38.4	1.832	2.708	12.1	20.1	3 12	9 29.19	+17 7.0	1.890	2.779	11.1	15.6
3 22	9 20.81	+20 16.9	1.932	2.725	15.1	20.3	3 22	9 25.07	+17 18.3	1.964	2.774	14.3	15.8
416324	2003 <i>SF</i> ₁₆₅		2 14.4 186°36'	1.5/15.8	18		41108	1999 <i>VT</i> ₇₃		2 14.4 228°59'	3.0/17.3	18	
1 12	10 13.55	+5 34.3	2.237	3.035	12.7	22.6	1 12	10 10.26	+1 14.0	2.285	3.070	12.8	20.0
1 22	10 7.96	+6 10.0	2.149	3.035	9.6	22.4	1 22	10 5.57	+1 31.4	2.189	3.062	10.1	19.8
2 1	10 0.46	+7 0.0	2.086	3.034	6.1	22.2	2 1	9 59.09	+2 5.4	2.117	3.054	6.9	19.6
2 11	9 51.70	+8 1.0	2.052	3.033	2.4	21.9	2 11	9 51.38	+2 54.1	2.073	3.045	3.9	19.4
2 21	9 42.50	+9 7.8	2.048	3.030	2.6	21.9	2 21	9 43.22	+3 53.7	2.058	3.036	3.4	19.3
3 2	9 33.78	+10 14.7	2.075	3.027	6.3	22.2	3 2	9 35.45	+4 59.0	2.072	3.026	6.2	19.5
3 12	9 26.40	+11 16.3	2.130	3.023	9.9	22.4	3 12	9 28.91	+6 4.3	2.115	3.016	9.5	19.7
3 22	9 20.98	+12 8.6	2.210	3.018	13.0	22.6	3 22	9 24.19	+7 4.6	2.182	3.006	12.6	19.8
25928	2001 <i>DJ</i> ₅₂		2 14.4 115°66'	1.4/13.4	18		20234	Billgibson		2 14.4 344°11'	0.1/14.5	18	
1 12	10 17.12	+14 47.5	1.750	2.582	14.2	18.2	1 12	10 14.01	+10 55.2	1.197	2.047	18.2	17.7
1 22	10 10.84	+15 24.6	1.689	2.598	10.3	18.0	1 22	10 9.62	+11 16.0	1.127	2.043	13.6	17.4
2 1	10 2.21	+16 9.5	1.653	2.614	6.0	17.7	2 1	10 2.03	+11 53.6	1.078	2.040	8.2	17.1
2 11	9 52.14	+16 56.1	1.644	2.629	1.8	17.5	2 11	9 52.21	+12 42.0	1.052	2.038	2.1	16.7
2 21	9 41.75	+17 37.8	1.665	2.643	3.8	17.7	2 21	9 41.64	+13 32.7	1.052	2.035	4.1	16.8
3 2	9 32.27	+18 9.5	1.714	2.657	8.1	18.0	3 2	9 32.05	+14 17.1	1.077	2.034	10.0	17.1
3 12	9 24.72	+18 28.2	1.789	2.671	12.0	18.2	3 12	9 24.95	+14 48.7	1.124	2.033	15.3	17.4
3 22	9 19.71	+18 33.4	1.886	2.684	15.2	18.5	3 22	9 21.19	+15 4.6	1.190	2.032	19.8	17.7
375745	2009 <i>SU</i> ₃₃		2 14.4 279°87'	5.6/10.4	17		33711	1999 <i>LH</i> ₁₅		2 14.4 27°44'	2.4/12.2	18	
1 12	10 18.59	+26 54.6	1.866	2.706	13.1	20.9	1 12	10 9.67	+13 58.0	1.675	2.520	14.1	18.7
1 22	10 12.35	+27 39.3	1.776	2.684	10.0	20.6	1 22	10 5.68	+15 34.3	1.606	2.523	10.2	18.5
2 1	10 3.39	+28 21.9	1.711	2.662	7.0	20.4	2 1	9 59.36	+17 23.7	1.562	2.526	5.9	18.2
2 11	9 52.51	+28 54.2	1.674	2.639	5.6	20.3	2 11	9 51.49	+19 17.2	1.546	2.529	2.4	18.0
2 21	9 40.90	+29 9.1	1.664	2.616	7.4	20.3	2 21	9 43.10	+21 4.2	1.558	2.532	4.9	18.2
3 2	9 29.96	+29 2.4	1.682	2.593	10.7	20.5	3 2	9 35.39	+22 35.7	1.599	2.536	9.2	18.5
3 12	9 20.97	+28 33.9	1.724	2.570	14.3	20.6	3 12	9 29.42	+23 46.1	1.664	2.540	13.1	18.7
3 22	9 14.76	+27 46.4	1.787	2.546	17.4	20.8	3 22	9 25.89	+24 33.6	1.750	2.544	16.4	18.9
324407	2006 <i>SB</i> ₁₉₇		2 14.4 89°30'	9.2/7.5	18		335915	2007 <i>RU</i> ₃₂₃		2 14.4 86°82'	1.6/12.9	18	
1 12	10 20.46	+35 49.8	1.719	2.557	14.1	20.8	1 12	10 11.28	+15 55.3	2.235	3.067	11.5	20.9
1 22	10 13.71	+37 10.9	1.675	2.567	11.5	20.7	1 22	10 6.21	+16 39.0	2.170	3.080	8.3	20.7
2 1	10 4.05	+38 19.8	1.655	2.578	9.6	20.6	2 1	9 59.37	+17 28.3	2.132	3.093	4.8	20.5
2 11	9 52.61	+39 6.0	1.661	2.589	9.3	20.6	2 11	9 51.44	+18 18.2	2.123	3.106	1.8	20.3
2 21	9 40.89	+39 22.8	1.692	2.599	10.8	20.7	2 21	9 43.25	+19 3.3	2.143	3.119	3.5	20.5
3 2	9 30.42	+39 8.4	1.748	2.610	13.2	20.9	3 2	9 35.67	+19 39.5	2.192	3.132	6.9	20.7
3 12	9 22.44	+38 26.3	1.826	2.620	15.7	21.1	3 12	9 29.50	+20 4.0	2.269	3.145	10.1	20.9
3 22	9 17.56	+37 22.3	1.922	2.631	17.9	21.3	3 22	9 25.23	+20 15.9	2.368	3.157	12.8	21.1
12978	Ivashov		2 14.4 195°98'	2.1/15.9	18		149947	2005 <i>SG</i> ₂₅₇		2 14.4 184°66'	0.9/13.6	18	
1 12	10 15.54	+5 12.8	1.869	2.672	14.6	18.7	1 12	10 13.01	+				

EPHEMERIDES

2 14.4

2 14.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
287538	2003 <i>ED</i> ₈		2 14.4 328°88	3°8/17.2 18			269654	1994 <i>SS</i> ₂		2 14.4 56°02	1°3/15.5 18		
1 12	10 8.18	+ 1 43.6	1.507	2.323	16.9	20.0	1 12	10 11.38	+ 7 35.3	1.898	2.716	13.8	21.1
1 22	10 4.85	+ 1 55.0	1.419	2.310	13.3	19.8	1 22	10 6.60	+ 7 52.4	1.824	2.721	10.4	20.8
2 1	9 59.03	+ 2 30.0	1.352	2.297	9.1	19.5	2 1	9 59.77	+ 8 23.1	1.773	2.727	6.5	20.6
2 11	9 51.44	+ 3 26.8	1.310	2.285	5.0	19.2	2 11	9 51.61	+ 9 3.8	1.749	2.732	2.4	20.4
2 21	9 43.14	+ 4 40.0	1.293	2.273	4.3	19.1	2 21	9 43.06	+ 9 49.4	1.754	2.737	2.8	20.4
3 2	9 35.40	+ 6 1.3	1.303	2.263	8.2	19.3	3 2	9 35.15	+10 34.5	1.788	2.743	6.9	20.7
3 12	9 29.44	+ 7 21.5	1.337	2.253	12.8	19.5	3 12	9 28.81	+11 14.0	1.847	2.748	10.7	20.9
3 22	9 26.09	+ 8 32.7	1.392	2.243	16.9	19.8	3 22	9 24.62	+11 44.8	1.930	2.754	14.0	21.1
375049	2007 <i>LS</i> ₁₁		2 14.4 10°68	1°5/15.6 18			186247	2001 <i>XY</i> ₁₉₁		2 14.4 128°53	3°2/11.1 18		
1 12	10 10.43	+ 6 52.2	1.827	2.646	14.2	21.1	1 12	10 12.99	+19 18.3	2.212	3.047	11.5	20.3
1 22	10 6.01	+ 7 15.5	1.749	2.647	10.7	20.9	1 22	10 7.58	+20 43.3	2.150	3.061	8.3	20.2
2 1	9 59.46	+ 7 54.0	1.694	2.647	6.7	20.7	2 1	10 0.27	+22 12.5	2.116	3.075	5.1	20.0
2 11	9 51.51	+ 8 44.1	1.666	2.648	2.6	20.4	2 11	9 51.73	+23 38.5	2.111	3.088	3.2	19.9
2 21	9 43.10	+ 9 40.1	1.666	2.650	2.9	20.4	2 21	9 42.87	+24 54.4	2.137	3.100	5.0	20.0
3 2	9 35.32	+10 35.9	1.695	2.651	7.1	20.7	3 2	9 34.62	+25 54.7	2.192	3.112	8.1	20.2
3 12	9 29.11	+11 25.7	1.750	2.652	11.1	20.9	3 12	9 27.84	+26 37.0	2.274	3.124	11.1	20.4
3 22	9 25.12	+12 5.5	1.827	2.654	14.5	21.1	3 22	9 23.10	+27 1.2	2.378	3.135	13.6	20.6
369828	2012 <i>HM</i> ₈₁		2 14.4 3°87	2°5/16.4 18			282585	2005 <i>ED</i> ₁₄₆		2 14.4 223°25	2°1/16.5 18		
1 12	10 11.10	+ 4 19.4	1.859	2.667	14.5	21.5	1 12	10 8.95	+ 3 30.7	2.370	3.166	12.1	21.2
1 22	10 6.47	+ 4 32.9	1.778	2.667	11.1	21.3	1 22	10 4.55	+ 4 0.6	2.280	3.161	9.3	21.0
2 1	9 59.73	+ 5 3.2	1.720	2.667	7.3	21.0	2 1	9 58.47	+ 4 45.4	2.213	3.157	6.1	20.8
2 11	9 51.58	+ 5 47.5	1.689	2.667	3.5	20.8	2 11	9 51.28	+ 5 42.4	2.175	3.153	3.0	20.6
2 21	9 42.96	+ 6 40.9	1.685	2.667	3.3	20.8	2 21	9 43.70	+ 6 47.3	2.167	3.148	2.7	20.6
3 2	9 34.93	+ 7 37.6	1.711	2.667	7.0	21.0	3 2	9 36.52	+ 7 54.8	2.189	3.143	5.8	20.7
3 12	9 28.46	+ 8 31.2	1.763	2.667	10.9	21.2	3 12	9 30.51	+ 8 59.5	2.238	3.138	9.1	20.9
3 22	9 24.20	+ 9 17.2	1.837	2.667	14.3	21.5	3 22	9 26.23	+ 9 57.1	2.313	3.133	12.1	21.1
111650	2002 <i>AZ</i> ₁₈₂		2 14.4 259°34	0°6/13.8 18			79508	1998 <i>HB</i> ₅₂		2 14.4 234°25	6°9/22.7 18		
1 12	10 9.72	+13 15.7	2.610	3.432	10.3	19.8	1 12	10 8.16	-14 52.0	2.943	3.618	12.6	19.9
1 22	10 5.01	+13 46.4	2.515	3.419	7.6	19.6	1 22	10 3.77	-15 7.7	2.838	3.608	11.0	19.7
2 1	9 58.69	+14 24.4	2.447	3.406	4.5	19.4	2 1	9 57.94	-15 3.6	2.753	3.597	9.3	19.6
2 11	9 51.30	+15 5.8	2.408	3.393	1.1	19.1	2 11	9 51.14	-14 38.6	2.693	3.586	7.7	19.5
2 21	9 43.51	+15 46.6	2.399	3.380	2.6	19.2	2 21	9 43.96	-13 53.4	2.659	3.575	6.9	19.4
3 2	9 36.08	+16 22.8	2.421	3.366	6.0	19.4	3 2	9 37.06	-12 50.7	2.654	3.563	7.3	19.4
3 12	9 29.75	+16 51.1	2.470	3.353	9.1	19.6	3 12	9 31.10	-11 35.4	2.676	3.551	8.7	19.5
3 22	9 25.06	+17 10.0	2.544	3.339	11.8	19.8	3 22	9 26.56	-10 13.0	2.723	3.539	10.6	19.6
289092	2004 <i>TP</i> ₂₇₄		2 14.4 94°39	0°8/13.9 18			452341	2001 <i>SE</i> ₁₃₃		2 14.4 155°49	1°5/13.4 18		
1 12	10 17.32	+12 46.9	1.578	2.410	15.4	21.6	1 12	10 19.13	+15 39.5	1.711	2.542	14.5	21.8
1 22	10 11.14	+13 23.1	1.523	2.431	11.3	21.4	1 22	10 12.52	+16 5.7	1.640	2.549	10.6	21.6
2 1	10 2.46	+14 10.0	1.491	2.452	6.6	21.2	2 1	10 3.36	+16 39.0	1.594	2.555	6.2	21.3
2 11	9 52.26	+15 0.9	1.487	2.472	1.7	20.9	2 11	9 52.56	+17 13.3	1.576	2.560	1.9	21.1
2 21	9 41.80	+15 48.8	1.511	2.492	3.7	21.1	2 21	9 41.31	+17 42.5	1.586	2.565	4.0	21.2
3 2	9 32.36	+16 27.5	1.563	2.511	8.3	21.4	3 2	9 30.95	+18 1.7	1.626	2.569	8.5	21.5
3 12	9 25.02	+16 53.5	1.640	2.530	12.5	21.7	3 12	9 22.61	+18 8.4	1.691	2.573	12.6	21.7
3 22	9 20.39	+17 5.5	1.739	2.548	15.9	22.0	3 22	9 16.97	+18 2.2	1.777	2.576	16.0	22.0
233868	2008 <i>WH</i> ₁₅		2 14.4 346°29	4°1/17.6 18			147925	2006 <i>VU</i> ₄₂		2 14.4 251°55	1°3/13.5 18		
1 12	10 8.39	+ 0 54.9	1.714	2.518	15.7	19.5	1 12	10 14.30	+14 54.8	1.765	2.601	13.9	20.3
1 22	10 4.68	+ 0 53.8	1.629	2.511	12.4	19.3	1 22	10 8.99	+15 24.2	1.687	2.598	10.2	20.1
2 1	9 58.77	+ 1 13.1	1.567	2.506	8.7	19.1	2 1	10 1.31	+16 2.0	1.634	2.596	6.0	19.8
2 11	9 51.36	+ 1 51.6	1.530	2.501	5.1	18.8	2 11	9 52.04	+16 42.3	1.608	2.593	1.8	19.5
2 21	9 43.41	+ 2 45.0	1.519	2.496	4.4	18.8	2 21	9 42.27	+17 19.2	1.611	2.590	3.8	19.7
3 2	9 36.03	+ 3 47.2	1.535	2.493	7.5	19.0	3 2	9 33.20	+17 47.3	1.641	2.587	8.2	19.9
3 12	9 30.24	+ 4 50.7	1.577	2.490	11.4	19.2	3 12	9 25.92	+18 3.1	1.697	2.584	12.3	20.1
3 22	9 26.74	+ 5 49.1	1.642	2.487	15.0	19.4	3 22	9 21.12	+18 5.6	1.775	2.581	15.7	20.4
498161	2007 <i>TA</i> ₁₃₅		2 14.4 131°63	2°0/16.4 17			240301	2003 <i>FK</i> ₆₇		2 14.4 303°62	0°1/14.4 18		
1 12	10 10.36	+ 4 20.9	2.513	3.306	11.6	22.0	1 12	10 11.13	+ 9 49.9	1.332	2.177	17.0	20.5
1 22	10 5.38	+ 4 38.3	2.435	3.316	8.9	21.8	1 22	10 7.49	+10 33.4	1.244	2.158	12.8	20.2
2 1	9 58.85	+ 5 8.1	2.382	3.326	5.8	21.7	2 1	10 0.86	+11 37.1	1.178	2.140	7.7	19.9
2 11	9 51.33	+ 5 48.0	2.358	3.335	2.8	21.5	2 11	9 52.02	+12 55.0	1.136	2.121	2.0	19.4
2 21	9 43.54	+ 6 34.1	2.363	3.344	2.6	21.5	2 21	9 42.20	+14 17.9	1.120	2.103	4.0	19.5
3 2	9 36.23	+ 7 22.3	2.399	3.353	5.5	21.7	3 2	9 32.99	+15 35.2	1.130	2.085	9.8	19.8
3 12	9 30.08	+ 8 8.3	2.464	3.361	8.5	21.9	3 12	9 25.88	+16 38.1	1.163	2.068	15.2	20.0
3 22	9 25.59	+ 8 48.8	2.553	3.369	11.2	22.1	3 22	9 21.87	+17 21.9	1.215	2.051	19.8	20.3
153724	2001 <i>UM</i> ₁₁₈		2 14.4 18°80	8°1/21.2 18			222281	2000 <i>SF</i> ₅₅		2 14.4 180°63	3°9/11.4 18		
1 12	10 9.56	- 9 35.0	1.729	2.478	17.7	19.8	1 12	10 17.45	+23 54.3	2.131	2.966	11.9	20.7
1 22	10 5.52	- 9 58.3	1.649	2.480	15.0	19.6	1 22	10 10.96	+24 30.5	2.059	2.967	8.8	20.5
2 1	9 59.26	- 9 53.6	1.588	2.482	12.0	19.4	2 1	10 2.31	+25 6.0	2.013	2.967	5.7	20.3
2 11	9 51.49	- 9 19.4	1.550	2.484	9.3	19.2	2 11	9 52.28	+25 34.5	1.995	2.967	3.9	20.2
2 21	9 43.20	- 8 18.1	1.537	2.487	8.1	19.2	2 21	9 41.89	+25 50.7	2.006	2.967	5.5	20.3
3 2	9 35.51	- 6 55.5	1.551	2.490	9.2	19.2	3 2	9 32.23	+25 51.6	2.047	2.966	8.6	20.5
3 12	9 29.46	- 5 20.7	1.589	2.493	11.9	19.4	3 12	9 24.27	+25 36.7	2.114	2.965	11.7	20.7
3 22	9 25.73	- 3 43.5	1.650	2.497	14.9	19.6	3 22	9 18.62	+25 7.5	2.202	2.964	14.4	20.9
83167	2001 <i>QO</i> ₂₇₈		2 14.4 63°21	2°9/11.7 18			61128	2000 <i>MB</i> ₆		2 14.4 282°97	1°3/15.3 18		
1 12	10 10.94	+19 33.3											

EPHEMERIDES

2 14.4

2 14.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
498879	2008 YL ₁₀₇		2 14.4 332°64	2°9/16.6	17		497674	2006 ST ₁		2 14.4 148°92	3°7/10.6	17	
1 12	10 12.74	+ 4 39.6	2.156	2.954	13.1	21.1	1 12	10 14.87	+26 37.2	2.924	3.751	9.2	21.7
1 22	10 7.44	+ 4 17.1	2.069	2.951	10.1	20.9	1 22	10 8.54	+27 11.7	2.858	3.760	6.9	21.6
2 1	10 0.23	+ 4 6.7	2.007	2.949	6.8	20.7	2 1	10 0.66	+27 43.5	2.820	3.768	4.7	21.4
2 11	9 51.76	+ 4 7.4	1.972	2.947	3.7	20.5	2 11	9 51.85	+28 7.9	2.812	3.776	3.7	21.4
2 21	9 42.87	+ 4 16.7	1.966	2.944	3.4	20.4	2 21	9 42.83	+28 21.6	2.834	3.783	4.9	21.5
3 2	9 34.50	+ 4 31.6	1.989	2.942	6.4	20.6	3 2	9 34.37	+28 22.4	2.886	3.790	7.1	21.6
3 12	9 27.51	+ 4 48.0	2.040	2.940	9.8	20.8	3 12	9 27.18	+28 10.0	2.966	3.796	9.3	21.8
3 22	9 22.50	+ 5 2.6	2.114	2.939	12.9	21.0	3 22	9 21.69	+27 45.7	3.068	3.803	11.3	21.9
471759	2012 UF ₁₁₁		2 14.4 147°19	3°5/18.2	17		267458	2002 EK ₅₅		2 14.4 298°70	2°0/16.2	18	
1 12	10 8.84	- 1 13.7	2.695	3.462	11.6	21.8	1 12	10 9.53	+ 4 26.4	1.860	2.671	14.3	20.3
1 22	10 4.23	- 1 5.6	2.610	3.467	9.2	21.6	1 22	10 5.41	+ 5 1.2	1.773	2.665	11.0	20.1
2 1	9 58.18	- 0 42.7	2.548	3.472	6.6	21.4	2 1	9 59.19	+ 5 54.4	1.710	2.659	7.1	19.8
2 11	9 51.21	- 0 6.3	2.515	3.477	4.2	21.3	2 11	9 51.54	+ 7 2.5	1.673	2.654	3.1	19.5
2 21	9 43.95	+ 0 40.8	2.511	3.482	3.6	21.3	2 21	9 43.35	+ 8 19.5	1.665	2.648	3.0	19.5
3 2	9 37.08	+ 1 34.6	2.537	3.487	5.4	21.4	3 2	9 35.68	+ 9 38.2	1.685	2.642	7.0	19.8
3 12	9 31.27	+ 2 30.5	2.591	3.491	8.0	21.5	3 12	9 29.52	+10 51.4	1.732	2.637	11.1	20.0
3 22	9 26.96	+ 3 24.2	2.671	3.495	10.5	21.7	3 22	9 25.52	+11 53.8	1.802	2.631	14.6	20.2
446868	2001 XP ₉₂		2 14.4 87°40	4°9/11.1	18		281387	2008 PR ₂₀		2 14.4 197°11	2°5/12.2	18	
1 12	10 18.72	+21 44.1	1.463	2.312	15.5	21.2	1 12	10 14.93	+20 2.9	2.438	3.267	10.8	20.8
1 22	10 12.43	+22 59.2	1.418	2.334	11.3	21.0	1 22	10 8.92	+20 38.4	2.357	3.264	7.9	20.6
2 1	10 3.33	+24 16.1	1.397	2.356	7.2	20.8	2 1	10 1.05	+21 16.2	2.302	3.260	4.8	20.4
2 11	9 52.55	+25 24.3	1.403	2.377	4.9	20.7	2 11	9 51.98	+21 51.3	2.277	3.257	2.6	20.2
2 21	9 41.51	+26 14.8	1.436	2.398	7.0	20.9	2 21	9 42.54	+22 19.0	2.283	3.252	4.1	20.3
3 2	9 31.70	+26 42.7	1.495	2.419	10.8	21.2	3 2	9 33.64	+22 35.9	2.319	3.247	7.2	20.5
3 12	9 24.31	+26 47.5	1.578	2.440	14.5	21.4	3 12	9 26.11	+22 40.3	2.381	3.242	10.3	20.7
3 22	9 19.92	+26 32.0	1.681	2.459	17.6	21.7	3 22	9 20.52	+22 32.2	2.467	3.236	12.9	20.9
275362	2011 AH ₃₄		2 14.4 308°21	0°1/14.3	18		368718	2005 TH ₁₆₃		2 14.4 134°25	2°7/16.5	18	
1 12	10 11.09	+10 52.5	1.804	2.635	13.8	20.3	1 12	10 12.01	+ 4 1.2	1.883	2.688	14.4	21.3
1 22	10 6.62	+11 28.3	1.723	2.630	10.3	20.0	1 22	10 7.13	+ 4 10.1	1.804	2.690	11.1	21.1
2 1	9 59.91	+12 16.7	1.665	2.625	6.1	19.8	2 1	10 0.15	+ 4 35.6	1.747	2.692	7.3	20.9
2 11	9 51.71	+13 12.8	1.635	2.620	1.6	19.5	2 11	9 51.77	+ 5 14.9	1.717	2.694	3.6	20.7
2 21	9 42.98	+14 10.3	1.633	2.615	3.1	19.6	2 21	9 42.95	+ 6 3.7	1.715	2.696	3.3	20.7
3 2	9 34.84	+15 2.6	1.659	2.610	7.6	19.8	3 2	9 34.72	+ 6 56.2	1.742	2.698	6.9	20.9
3 12	9 28.33	+15 44.7	1.710	2.605	11.7	20.1	3 12	9 28.06	+ 7 46.5	1.795	2.699	10.7	21.1
3 22	9 24.13	+16 13.7	1.784	2.601	15.2	20.3	3 22	9 23.59	+ 8 30.0	1.872	2.701	14.1	21.3
347393	2012 RR ₄₁		2 14.4 131°63	0°4/14.1	17		351584	2005 UQ ₄₃₈		2 14.4 59°62	4°2/11.9	18	
1 12	10 11.44	+12 51.0	2.646	3.463	10.4	22.2	1 12	10 16.49	+19 19.3	1.250	2.108	17.0	20.6
1 22	10 6.12	+13 16.2	2.573	3.474	7.6	22.0	1 22	10 11.24	+20 23.1	1.198	2.120	12.4	20.4
2 1	9 59.27	+13 47.7	2.526	3.484	4.4	21.8	2 1	10 2.85	+21 33.1	1.169	2.132	7.5	20.1
2 11	9 51.49	+14 22.1	2.509	3.494	1.1	21.6	2 11	9 52.48	+22 38.4	1.165	2.144	4.2	20.0
2 21	9 43.46	+14 55.6	2.523	3.504	2.4	21.7	2 21	9 41.69	+23 28.8	1.186	2.157	6.7	20.1
3 2	9 35.93	+15 24.7	2.567	3.513	5.6	21.9	3 2	9 32.15	+23 57.9	1.233	2.170	11.3	20.4
3 12	9 29.57	+15 46.8	2.639	3.522	8.6	22.1	3 12	9 25.22	+24 3.8	1.302	2.183	15.7	20.7
3 22	9 24.84	+16 0.4	2.736	3.531	11.1	22.3	3 22	9 21.56	+23 48.6	1.389	2.196	19.3	21.0
455133	2015 VH ₉₈		2 14.4 24°50	7°3/9.8	18		13797	1998 VQ ₂₇		2 14.4 168°16	0°3/14.2	18	
1 12	10 15.76	+25 49.1	1.226	2.092	16.8	20.4	1 12	10 11.89	+12 19.0	2.332	3.153	11.5	18.7
1 22	10 10.97	+27 12.7	1.174	2.096	12.7	20.2	1 22	10 6.70	+12 46.5	2.252	3.155	8.4	18.5
2 1	10 2.82	+28 35.1	1.145	2.100	8.9	20.0	2 1	9 59.74	+13 22.1	2.198	3.157	5.0	18.3
2 11	9 52.48	+29 43.3	1.139	2.106	7.4	19.9	2 11	9 51.65	+14 1.8	2.173	3.158	1.2	18.1
2 21	9 41.60	+30 26.3	1.158	2.111	9.6	20.1	2 21	9 43.22	+14 41.0	2.178	3.160	2.6	18.2
3 2	9 32.01	+30 38.6	1.201	2.118	13.5	20.3	3 2	9 35.30	+15 15.7	2.213	3.161	6.3	18.4
3 12	9 25.17	+30 21.1	1.264	2.124	17.4	20.6	3 12	9 28.68	+15 42.4	2.276	3.162	9.6	18.6
3 22	9 21.82	+29 38.6	1.344	2.132	20.8	20.8	3 22	9 23.92	+15 59.4	2.362	3.163	12.5	18.8
406088	2006 UP ₁₈₈		2 14.4 75°62	6°6/18.9	18		221353	2005 WL ₁₁₄		2 14.4 102°44	0°3/14.2	18	
1 12	10 15.06	- 3 37.6	1.689	2.462	17.2	20.5	1 12	10 14.46	+12 16.6	1.987	2.811	13.0	21.0
1 22	10 9.47	- 4 21.3	1.620	2.475	14.0	20.3	1 22	10 8.71	+12 41.2	1.922	2.826	9.6	20.8
2 1	10 1.55	- 4 42.9	1.573	2.489	10.5	20.1	2 1	10 0.95	+13 14.5	1.882	2.841	5.6	20.6
2 11	9 52.11	- 4 41.4	1.550	2.502	7.6	20.0	2 11	9 51.96	+13 52.1	1.870	2.855	1.4	20.3
2 21	9 42.26	- 4 18.9	1.554	2.516	6.7	20.0	2 21	9 42.68	+14 28.8	1.888	2.869	2.9	20.5
3 2	9 33.20	- 3 40.3	1.585	2.529	8.6	20.1	3 2	9 34.14	+14 59.9	1.935	2.883	7.0	20.7
3 12	9 25.96	- 2 52.6	1.641	2.543	11.7	20.3	3 12	9 27.22	+15 22.3	2.008	2.897	10.6	21.0
3 22	9 21.21	- 2 2.8	1.720	2.556	14.9	20.5	3 22	9 22.48	+15 34.2	2.105	2.911	13.6	21.2
70124	1999 NY		2 14.4 156°39	1°0/13.6	18		450433	2005 UP ₂₀₈		2 14.4 307°15	2°5/16.0	18	
1 12	10 15.49	+13 30.1	1.965	2.791	13.1	20.8	1 12	10 12.61	+ 5 8.3	1.339	2.168	17.9	21.5
1 22	10 9.59	+14 13.7	1.893	2.798	9.6	20.6	1 22	10 8.40	+ 5 24.3	1.260	2.162	13.8	21.3
2 1	10 1.55	+15 6.3	1.845	2.805	5.6	20.3	2 1	10 1.30	+ 6 2.6	1.203	2.156	8.9	21.0
2 11	9 52.11	+16 2.2	1.827	2.812	1.5	20.1	2 11	9 52.16	+ 6 59.6	1.169	2.150	3.9	20.7
2 21	9 42.27	+16 55.2	1.838	2.817	3.4	20.2	2 21	9 42.25	+ 8 8.3	1.161	2.144	3.8	20.6
3 2	9 33.11	+17 39.9	1.878	2.822	7.5	20.5	3 2	9 33.10	+ 9 19.6	1.180	2.139	9.0	20.9
3 12	9 25.61	+18 12.4	1.945	2.826	11.2	20.7	3 12	9 26.09	+10 24.5	1.222	2.134	14.0	21.2
3 22	9 20.38	+18 31.4	2.035	2.830	14.4	20.9	3 22	9 22.09	+11 16.8	1.284	2.129	18.4	21.4
108534	2001 LK ₅		2 14.4 266°76	0°3/14.6	18		283936	2004 PG ₃₄		2 14.4 131°13	0°3/14.2	18	
1 12	10 18.46	+12 55.9	1.765	2.590	14.4	19.0	1 12	10 16.73	+10 59.2	1.878			

EPHEMERIDES

2 14.4

2 14.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
497122	2004 <i>GM</i> ₄₈		2 14.4 217°01	2°7/17.6	17		145672	1321 <i>T</i> ₋₂		2 14.4 106°68	0°8/15.1	18	
1 12	10 8.68	+ 0 41.8	2.987	3.758	10.5	22.0	1 12	10 13.22	+ 8 23.6	1.809	2.629	14.3	19.9
1 22	10 4.08	+ 0 55.0	2.887	3.751	8.2	21.8	1 22	10 8.05	+ 8 55.6	1.740	2.640	10.7	19.7
2 1	9 58.12	+ 1 21.0	2.812	3.742	5.7	21.7	2 1	10 0.70	+ 9 41.5	1.695	2.651	6.5	19.5
2 11	9 51.25	+ 1 58.4	2.766	3.734	3.4	21.5	2 11	9 51.97	+10 36.8	1.677	2.661	2.1	19.2
2 21	9 44.05	+ 2 44.4	2.749	3.724	2.9	21.5	2 21	9 42.85	+11 35.1	1.688	2.671	2.8	19.3
3 2	9 37.16	+ 3 35.7	2.764	3.715	5.0	21.6	3 2	9 34.46	+12 30.3	1.728	2.681	7.2	19.6
3 12	9 31.16	+ 4 28.0	2.807	3.705	7.6	21.7	3 12	9 27.76	+13 17.0	1.794	2.691	11.2	19.8
3 22	9 26.54	+ 5 17.9	2.877	3.695	10.0	21.9	3 22	9 23.36	+13 52.2	1.882	2.700	14.5	20.0
326242	2012 <i>DS</i> ₂₁		2 14.4 341°90	0°0/14.4	18		189182	2003 <i>BW</i> ₁₂		2 14.4 141°88	1°0/13.6	18	
1 12	10 11.90	+10 57.5	1.536	2.375	15.5	20.8	1 12	10 16.14	+11 57.3	1.768	2.594	14.3	20.2
1 22	10 7.53	+11 25.5	1.460	2.371	11.5	20.5	1 22	10 10.28	+13 1.5	1.701	2.607	10.5	20.0
2 1	10 0.61	+12 7.4	1.407	2.367	6.9	20.2	2 1	10 2.06	+14 18.0	1.659	2.619	6.1	19.8
2 11	9 51.96	+12 58.0	1.379	2.364	1.8	19.9	2 11	9 52.33	+15 39.6	1.645	2.630	1.6	19.5
2 21	9 42.71	+13 50.2	1.378	2.361	3.4	20.0	2 21	9 42.18	+16 58.1	1.660	2.640	3.7	19.7
3 2	9 34.20	+14 36.9	1.405	2.359	8.5	20.3	3 2	9 32.80	+18 6.3	1.705	2.649	8.1	19.9
3 12	9 27.61	+15 12.8	1.455	2.357	13.0	20.5	3 12	9 25.25	+18 59.2	1.776	2.658	12.1	20.2
3 22	9 23.68	+15 34.7	1.527	2.355	16.8	20.8	3 22	9 20.19	+19 35.1	1.869	2.666	15.4	20.4
154133	2002 <i>EM</i> ₁₀₇		2 14.4 146°05	6°6/ 7.8	18		48807	Takahata		2 14.4 151°91	4°5/10.1	18	
1 12	10 18.27	+34 35.0	2.517	3.341	10.6	20.2	1 12	10 14.96	+27 16.7	2.503	3.336	10.4	18.8
1 22	10 11.40	+35 41.4	2.465	3.352	8.5	20.1	1 22	10 8.92	+28 6.3	2.439	3.342	7.8	18.6
2 1	10 2.51	+36 39.5	2.440	3.362	6.9	20.0	2 1	10 1.04	+28 53.0	2.401	3.348	5.5	18.5
2 11	9 52.38	+37 22.5	2.443	3.372	6.7	20.0	2 11	9 52.04	+29 30.8	2.392	3.353	4.6	18.4
2 21	9 41.99	+37 45.7	2.474	3.381	7.8	20.1	2 21	9 42.75	+29 55.2	2.413	3.358	5.9	18.5
3 2	9 32.37	+37 47.1	2.533	3.389	9.8	20.2	3 2	9 34.10	+30 3.4	2.463	3.363	8.3	18.7
3 12	9 24.41	+37 27.8	2.616	3.397	11.8	20.4	3 12	9 26.89	+29 55.3	2.539	3.367	10.8	18.8
3 22	9 18.67	+36 51.0	2.720	3.404	13.7	20.5	3 22	9 21.67	+29 32.2	2.636	3.371	13.0	19.0
310950	2003 <i>UP</i> ₂₆		2 14.4 144°98	1°6/12.9	18		136450	2005 <i>EX</i> ₁₄₁		2 14.4 203°15	2°1/16.0	18	
1 12	10 15.66	+15 6.1	2.109	2.935	12.3	21.6	1 12	10 14.57	+ 5 46.6	1.953	2.757	14.0	20.6
1 22	10 9.58	+16 1.3	2.042	2.948	9.0	21.4	1 22	10 9.04	+ 5 55.4	1.866	2.754	10.7	20.3
2 1	10 1.50	+17 3.8	2.000	2.960	5.2	21.2	2 1	10 1.34	+ 6 18.7	1.802	2.750	6.9	20.1
2 11	9 52.14	+18 7.3	1.988	2.971	1.8	21.0	2 11	9 52.16	+ 6 53.9	1.766	2.746	3.1	19.8
2 21	9 42.44	+19 5.7	2.006	2.982	3.7	21.1	2 21	9 42.46	+ 7 36.6	1.759	2.741	3.1	19.8
3 2	9 33.41	+19 53.8	2.054	2.991	7.4	21.4	3 2	9 33.30	+ 8 21.5	1.781	2.735	7.0	20.1
3 12	9 25.95	+20 28.3	2.129	3.000	10.8	21.6	3 12	9 25.70	+ 9 3.4	1.830	2.729	10.9	20.3
3 22	9 20.65	+20 48.4	2.226	3.008	13.7	21.8	3 22	9 20.33	+ 9 38.2	1.903	2.723	14.3	20.5
326992	2004 <i>PZ</i> ₈₆		2 14.4 204°98	1°1/15.4	18		313180	2001 <i>OA</i> ₆₉		2 14.4 217°17	0°4/14.1	18	
1 12	10 10.22	+ 6 10.5	1.990	2.803	13.5	20.9	1 12	10 13.39	+11 46.4	2.159	2.979	12.3	21.4
1 22	10 5.79	+ 7 1.5	1.906	2.802	10.2	20.7	1 22	10 8.06	+12 26.9	2.069	2.971	9.1	21.2
2 1	9 59.37	+ 8 9.2	1.847	2.800	6.3	20.5	2 1	10 0.71	+13 17.8	2.004	2.963	5.4	20.9
2 11	9 51.61	+ 9 28.8	1.815	2.798	2.2	20.2	2 11	9 51.99	+14 14.3	1.969	2.954	1.4	20.6
2 21	9 43.38	+10 54.0	1.813	2.796	2.7	20.2	2 21	9 42.76	+15 10.9	1.963	2.944	2.9	20.7
3 2	9 35.67	+12 17.4	1.840	2.794	6.8	20.5	3 2	9 34.00	+16 2.1	1.987	2.934	7.0	20.9
3 12	9 29.38	+13 32.4	1.895	2.792	10.6	20.7	3 12	9 26.64	+16 43.5	2.039	2.923	10.6	21.1
3 22	9 25.15	+14 34.9	1.973	2.790	14.0	20.9	3 22	9 21.32	+17 12.8	2.113	2.912	13.8	21.3
239831	1998 <i>YX</i> ₄		2 14.4 52°20	0°3/14.2	18		360399	2002 <i>EX</i> ₁₅₆		2 14.4 363°33	1°4/13.7	18	
1 12	10 14.70	+10 33.6	1.156	2.006	18.7	20.0	1 12	10 14.95	+14 19.6	1.105	1.965	18.6	21.0
1 22	10 9.87	+11 19.2	1.110	2.027	13.7	19.7	1 22	10 10.21	+14 46.2	1.059	1.981	13.6	20.8
2 1	10 2.01	+12 22.1	1.085	2.048	8.1	19.5	2 1	10 2.28	+15 24.6	1.033	1.998	7.9	20.5
2 11	9 52.29	+13 33.5	1.084	2.070	2.0	19.2	2 11	9 52.39	+16 6.7	1.031	2.017	2.2	20.2
2 21	9 42.27	+14 43.2	1.109	2.092	4.1	19.4	2 21	9 42.19	+16 43.7	1.054	2.036	4.7	20.5
3 2	9 33.55	+15 42.0	1.159	2.115	9.7	19.8	3 2	9 33.38	+17 8.5	1.102	2.056	10.2	20.8
3 12	9 27.39	+16 24.0	1.232	2.137	14.5	20.1	3 12	9 27.26	+17 17.6	1.172	2.077	15.1	21.2
3 22	9 24.42	+16 47.4	1.325	2.160	18.5	20.4	3 22	9 24.46	+17 10.8	1.260	2.098	19.1	21.5
456855	2007 <i>UO</i> ₁₂₃		2 14.4 96°22	3°1/16.6	18		415905	2001 <i>TU</i> ₂₆₂		2 14.4 102°89	5°7/19.9	18	
1 12	10 13.87	+ 3 44.8	1.617	2.427	16.2	21.5	1 12	10 11.67	- 6 18.3	1.972	2.726	15.7	21.6
1 22	10 8.77	+ 3 45.0	1.544	2.433	12.5	21.3	1 22	10 6.74	- 6 12.1	1.900	2.742	12.8	21.4
2 1	10 1.24	+ 4 6.3	1.493	2.439	8.3	21.1	2 1	9 59.86	- 5 42.0	1.849	2.758	9.7	21.3
2 11	9 52.11	+ 4 43.1	1.468	2.444	4.2	20.9	2 11	9 51.75	- 4 49.1	1.824	2.773	6.9	21.1
2 21	9 42.50	+ 5 31.0	1.470	2.450	3.8	20.8	2 21	9 43.30	- 3 37.3	1.826	2.788	5.8	21.1
3 2	9 33.64	+ 6 23.6	1.500	2.456	7.7	21.1	3 2	9 35.49	- 2 13.1	1.856	2.803	7.4	21.2
3 12	9 26.65	+ 7 14.0	1.555	2.462	11.9	21.3	3 12	9 29.18	- 0 44.3	1.914	2.817	10.2	21.4
3 22	9 22.20	+ 7 57.2	1.632	2.467	15.6	21.6	3 22	9 24.95	+ 0 41.8	1.996	2.831	13.1	21.6
69866	1998 <i>ST</i> ₆₀		2 14.4 155°10	1°4/13.2	18		90973	1997 <i>WA</i> ₃₆		2 14.4 57°85	6°5/10.2	18	
1 12	10 12.07	+15 15.0	2.228	3.058	11.6	19.2	1 12	10 17.28	+25 20.4	1.364	2.221	15.9	19.1
1 22	10 6.93	+15 55.3	2.153	3.061	8.5	19.0	1 22	10 11.79	+26 36.6	1.313	2.230	11.9	18.9
2 1	9 59.94	+16 42.2	2.104	3.064	4.9	18.8	2 1	10 3.21	+27 51.7	1.284	2.239	8.2	18.7
2 11	9 51.75	+17 30.7	2.083	3.067	1.6	18.5	2 11	9 52.65	+28 53.8	1.281	2.249	6.6	18.6
2 21	9 43.22	+18 15.6	2.092	3.070	3.4	18.7	2 21	9 41.66	+29 33.7	1.304	2.258	8.7	18.7
3 2	9 35.24	+18 52.2	2.131	3.072	6.9	18.9	3 2	9 31.90	+29 46.4	1.351	2.268	12.4	19.0
3 12	9 28.65	+19 17.7	2.196	3.074	10.3	19.1	3 12	9 24.69	+29 32.4	1.421	2.277	16.1	19.2
3 22	9 24.01	+19 30.9	2.285	3.076	13.1	19.3	3 22	9 20.73	+28 56.0	1.509	2.287	19.3	19.5
361991	2008 <i>RY</i> ₁₂₃		2 14.4 298°61	0°4/14.9	17		109982	2001 <i>SQ</i> ₅₅		2 14.4 183°11	5°0/10.1	18	
1 12	10 7.26	+10 20.4											

EPHEMERIDES

2 14.4

2 14.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
229175	2004 <i>TV</i> ₁₅₇		2 14.4	97°07'	1.4/15.5	18	77772	2001 <i>QR</i> ₉		2 14.5	45°22'	0.3/14.3	18
1 12	10 12.53	+ 7 38.3	2.002	2.816	13.4	20.8	1 12	10 13.61	+13 23.8	2.081	2.907	12.5	18.8
1 22	10 7.37	+ 7 51.0	1.929	2.823	10.1	20.6	1 22	10 8.12	+13 28.9	2.007	2.912	9.2	18.5
2 1	10 0.24	+ 8 16.2	1.879	2.831	6.3	20.4	2 1	10 0.68	+13 40.9	1.958	2.917	5.4	18.3
2 11	9 51.86	+ 8 50.5	1.857	2.839	2.4	20.2	2 11	9 52.01	+13 56.0	1.937	2.922	1.4	18.1
2 21	9 43.11	+ 9 29.6	1.864	2.847	2.7	20.2	2 21	9 43.01	+14 10.5	1.946	2.928	2.8	18.2
3 2	9 35.00	+10 8.5	1.900	2.854	6.6	20.5	3 2	9 34.66	+14 20.8	1.984	2.933	6.7	18.4
3 12	9 28.40	+10 42.7	1.963	2.862	10.2	20.7	3 12	9 27.83	+14 24.3	2.048	2.939	10.3	18.7
3 22	9 23.89	+11 9.1	2.049	2.869	13.4	20.9	3 22	9 23.08	+14 19.7	2.136	2.945	13.3	18.9
81560	2000 <i>HZ</i> ₂₉		2 14.5	125°65'	8.3/7.4	18	257083	2008 <i>FS</i> ₁₃₇		2 14.5	310°05'	7.7/9.5	18
1 12	10 22.37	+37 31.6	2.126	2.948	12.4	19.9	1 12	10 18.29	+29 55.8	1.528	2.379	14.9	20.0
1 22	10 14.73	+38 44.0	2.083	2.963	10.2	19.8	1 22	10 12.81	+30 52.5	1.446	2.356	11.7	19.8
2 1	10 4.60	+39 44.2	2.065	2.977	8.6	19.7	2 1	10 4.07	+31 44.7	1.387	2.333	8.8	19.5
2 11	9 52.97	+40 23.6	2.074	2.991	8.4	19.7	2 11	9 53.00	+32 21.3	1.353	2.310	7.8	19.4
2 21	9 41.13	+40 37.0	2.111	3.004	9.6	19.8	2 21	9 41.05	+32 33.2	1.345	2.288	9.7	19.5
3 2	9 30.39	+40 23.2	2.173	3.017	11.6	20.0	3 2	9 29.95	+32 15.5	1.361	2.266	13.2	19.6
3 12	9 21.82	+39 45.0	2.258	3.030	13.7	20.2	3 12	9 21.28	+31 29.4	1.400	2.245	16.9	19.8
3 22	9 15.99	+38 47.4	2.362	3.041	15.6	20.3	3 22	9 15.95	+30 19.6	1.457	2.224	20.3	20.0
48613	1995 <i>FM</i> ₁₁		2 14.5	225°55'	1.7/15.6	18	229376	2005 <i>SP</i>		2 14.5	342°86'	2.3/15.7	18
1 12	10 15.34	+ 6 21.6	1.591	2.408	16.1	19.7	1 12	10 15.12	+ 7 16.0	1.285	2.119	18.2	20.1
1 22	10 10.13	+ 6 48.1	1.504	2.400	12.3	19.4	1 22	10 10.34	+ 7 11.4	1.212	2.117	13.9	19.8
2 1	10 2.24	+ 7 33.6	1.439	2.392	7.7	19.1	2 1	10 2.51	+ 7 25.3	1.160	2.115	8.8	19.5
2 11	9 52.46	+ 8 33.8	1.400	2.383	3.0	18.8	2 11	9 52.57	+ 7 54.1	1.131	2.113	3.6	19.2
2 21	9 41.93	+ 9 42.3	1.390	2.373	3.3	18.8	2 21	9 41.92	+ 8 32.2	1.128	2.112	3.9	19.2
3 2	9 32.00	+10 50.9	1.407	2.362	8.3	19.1	3 2	9 32.15	+ 9 12.2	1.151	2.110	9.2	19.5
3 12	9 23.96	+11 52.2	1.450	2.351	13.0	19.3	3 12	9 24.71	+ 9 47.1	1.198	2.109	14.3	19.8
3 22	9 18.65	+12 41.2	1.514	2.340	17.0	19.6	3 22	9 20.44	+10 12.2	1.264	2.109	18.6	20.1
383699	2007 <i>TV</i> ₄₀₈		2 14.5	61°65'	4.2/18.1	18	465952	2011 <i>BC</i> ₄₇		2 14.5	221°05'	2.3/16.3	17
1 12	10 12.69	- 0 43.7	2.086	2.862	14.2	20.9	1 12	10 12.29	+ 5 0.2	2.027	2.831	13.6	21.8
1 22	10 7.25	- 0 56.4	2.028	2.891	11.2	20.7	1 22	10 7.31	+ 5 6.3	1.941	2.828	10.4	21.6
2 1	10 0.05	- 0 51.6	1.993	2.920	8.0	20.6	2 1	10 0.30	+ 5 27.0	1.879	2.825	6.8	21.3
2 11	9 51.79	- 0 30.9	1.986	2.948	5.1	20.5	2 11	9 51.95	+ 5 59.7	1.843	2.821	3.2	21.1
2 21	9 43.36	+ 0 2.5	2.006	2.977	4.4	20.5	2 21	9 43.13	+ 6 40.6	1.837	2.818	3.1	21.1
3 2	9 35.63	+ 0 44.0	2.056	3.006	6.5	20.7	3 2	9 34.82	+ 7 24.7	1.859	2.814	6.6	21.3
3 12	9 29.38	+ 1 28.3	2.132	3.034	9.4	20.9	3 12	9 27.96	+ 8 6.7	1.909	2.811	10.3	21.5
3 22	9 25.09	+ 2 10.6	2.233	3.062	12.1	21.1	3 22	9 23.18	+ 8 42.7	1.982	2.807	13.6	21.7
319878	2006 <i>WN</i> ₁₁₁		2 14.5	24°69'	3.0/12.3	18	51227	2000 <i>JK</i> ₂₅		2 14.5	194°05'	4.9/10.3	18
1 12	10 12.42	+17 23.6	1.500	2.353	15.0	21.2	1 12	10 15.89	+27 35.5	2.281	3.117	11.2	18.9
1 22	10 7.96	+18 22.4	1.437	2.357	11.0	20.9	1 22	10 9.81	+28 17.2	2.212	3.117	8.5	18.7
2 1	10 0.88	+19 29.2	1.398	2.361	6.5	20.7	2 1	10 1.69	+28 55.5	2.168	3.116	6.0	18.5
2 11	9 52.09	+20 35.6	1.384	2.366	3.1	20.5	2 11	9 52.29	+29 24.1	2.153	3.115	4.9	18.4
2 21	9 42.82	+21 32.8	1.398	2.372	5.4	20.6	2 21	9 42.55	+29 38.1	2.167	3.114	6.3	18.5
3 2	9 34.43	+22 14.1	1.438	2.378	9.8	20.9	3 2	9 33.51	+29 35.0	2.210	3.114	8.9	18.7
3 12	9 28.10	+22 36.1	1.501	2.384	13.9	21.2	3 12	9 26.07	+29 14.7	2.277	3.113	11.6	18.9
3 22	9 24.51	+22 38.8	1.585	2.391	17.3	21.4	3 22	9 20.81	+28 39.2	2.367	3.112	14.0	19.0
247310	2001 <i>TK</i> ₁₂₃		2 14.5	88°57'	9.7/27.2	18	88845	2001 <i>SN</i> ₁₇₉		2 14.5	80°59'	4.6/19.5	18
1 12	10 9.09	-23 6.3	2.518	3.137	15.6	20.5	1 12	10 8.13	- 4 51.4	2.368	3.124	13.3	19.9
1 22	10 4.65	-23 29.8	2.439	3.151	14.1	20.4	1 22	10 3.95	- 4 36.7	2.285	3.131	10.8	19.8
2 1	9 58.57	-23 26.5	2.378	3.165	12.4	20.3	2 1	9 58.18	- 4 2.3	2.225	3.138	8.1	19.6
2 11	9 51.45	-22 54.3	2.338	3.178	10.9	20.2	2 11	9 51.38	- 3 9.6	2.192	3.145	5.6	19.4
2 21	9 44.01	-21 53.7	2.321	3.192	9.9	20.2	2 21	9 44.25	- 2 1.8	2.187	3.152	4.6	19.4
3 2	9 37.06	-20 28.4	2.330	3.205	9.8	20.2	3 2	9 37.59	- 0 44.3	2.211	3.159	6.2	19.5
3 12	9 31.34	-18 44.9	2.364	3.218	10.6	20.3	3 12	9 32.09	+ 0 36.7	2.263	3.167	8.9	19.7
3 22	9 27.36	-16 51.2	2.423	3.231	12.0	20.4	3 22	9 28.27	+ 1 55.2	2.340	3.174	11.5	19.9
352710	2008 <i>SW</i> ₁₈₉		2 14.5	236°69'	0.3/14.7	18	40269	1999 <i>GP</i> ₂₅		2 14.5	301°87'	0.7/14.9	18
1 12	10 16.05	+10 24.3	1.570	2.399	15.7	21.9	1 12	10 11.49	+ 8 12.0	1.410	2.246	16.7	19.0
1 22	10 10.68	+10 46.1	1.486	2.391	11.7	21.7	1 22	10 7.59	+ 8 51.1	1.326	2.234	12.6	18.7
2 1	10 2.58	+11 22.0	1.425	2.383	7.1	21.4	2 1	10 0.89	+ 9 50.4	1.263	2.222	7.7	18.4
2 11	9 52.57	+12 7.2	1.390	2.374	2.0	21.0	2 11	9 52.18	+11 4.4	1.226	2.211	2.4	18.0
2 21	9 41.84	+12 55.1	1.382	2.365	3.4	21.1	2 21	9 42.66	+12 24.9	1.216	2.199	3.5	18.1
3 2	9 31.79	+13 38.8	1.403	2.356	8.6	21.4	3 2	9 33.79	+13 42.1	1.231	2.188	9.0	18.4
3 12	9 23.71	+14 12.8	1.449	2.346	13.3	21.6	3 12	9 26.92	+14 47.6	1.271	2.177	14.1	18.6
3 22	9 18.42	+14 34.0	1.515	2.337	17.3	21.9	3 22	9 22.95	+15 36.3	1.331	2.167	18.4	18.8
142690	2002 <i>TR</i> ₂₄₁		2 14.5	131°80'	3.1/11.6	18	215138	1999 <i>TL</i> ₂₀₆		2 14.5	88°38'	4.8/11.2	18
1 12	10 13.80	+17 53.0	1.944	2.782	12.7	20.4	1 12	10 19.17	+23 33.4	1.643	2.487	14.3	20.2
1 22	10 8.47	+19 15.2	1.881	2.793	9.2	20.2	1 22	10 12.60	+24 29.3	1.595	2.507	10.6	20.0
2 1	10 0.98	+20 43.7	1.843	2.803	5.5	20.0	2 1	10 3.44	+25 24.5	1.571	2.527	6.8	19.8
2 11	9 52.10	+22 10.6	1.834	2.813	3.1	19.9	2 11	9 52.74	+26 10.2	1.574	2.547	4.8	19.7
2 21	9 42.81	+23 27.8	1.855	2.823	5.1	20.0	2 21	9 41.82	+26 39.5	1.605	2.566	6.6	19.9
3 2	9 34.23	+24 29.1	1.905	2.832	8.6	20.2	3 2	9 32.03	+26 48.9	1.664	2.585	10.1	20.1
3 12	9 27.30	+25 11.4	1.980	2.841	12.0	20.5	3 12	9 24.46	+26 38.3	1.746	2.603	13.5	20.4
3 22	9 22.65	+25 34.6	2.077	2.849	14.9	20.7	3 22	9 19.69	+26 10.5	1.850	2.622	16.4	20.6
182105	2000 <i>OR</i> ₁₇		2 14.5	235°62'	1.0/13.5	17	124891	2001 <i>TE</i> ₄₇		2 14.5	113°38'	2.6/12.6	18
1 12	10 13.08												

EPHEMERIDES

2 14.5

2 14.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
462088	2007 <i>GV</i> ₃₀		2 14.5 220°46	2°4/12.5	17		454682	2014 <i>QR</i> ₄₂₆		2 14.5 236°34	2°4/16.1	18	
1 12	10 13.69	+18 13.1	2.029	2.866	12.3	21.8	1 12	10 15.26	+5 59.6	1.752	2.563	15.1	20.9
1 22	10 8.38	+18 54.2	1.952	2.863	9.0	21.5	1 22	10 9.84	+5 56.3	1.664	2.556	11.6	20.7
2 1	10 0.95	+19 40.2	1.900	2.861	5.4	21.3	2 1	10 1.99	+6 8.0	1.599	2.548	7.5	20.4
2 11	9 52.13	+20 25.1	1.876	2.858	2.5	21.1	2 11	9 52.46	+6 32.6	1.561	2.540	3.4	20.1
2 21	9 42.87	+21 3.3	1.881	2.855	4.3	21.2	2 21	9 42.29	+7 5.7	1.551	2.533	3.4	20.1
3 2	9 34.23	+21 29.9	1.915	2.851	8.0	21.4	3 2	9 32.71	+7 42.3	1.569	2.524	7.6	20.3
3 12	9 27.15	+21 42.6	1.975	2.848	11.5	21.7	3 12	9 24.86	+8 16.6	1.613	2.516	11.8	20.6
3 22	9 22.29	+21 41.0	2.057	2.845	14.5	21.9	3 22	9 19.49	+8 44.6	1.680	2.507	15.6	20.8
367564	2009 <i>SQ</i> ₁₀₀		2 14.5 171°53	1°0/15.5	18		76553	2000 <i>GD</i> ₈₉		2 14.5 30°17	4°9/10.2	18	
1 12	10 12.12	+7 6.9	2.318	3.123	12.1	22.1	1 12	10 13.06	+25 16.4	2.017	2.862	12.0	18.7
1 22	10 6.93	+7 39.7	2.235	3.126	9.1	21.9	1 22	10 7.97	+26 18.2	1.952	2.864	9.0	18.5
2 1	9 59.98	+8 25.0	2.178	3.129	5.6	21.7	2 1	10 0.71	+27 19.0	1.914	2.867	6.1	18.4
2 11	9 51.87	+9 19.1	2.149	3.131	2.0	21.5	2 11	9 52.08	+28 11.6	1.903	2.869	4.9	18.3
2 21	9 43.38	+10 17.3	2.150	3.133	2.4	21.5	2 21	9 43.06	+28 49.5	1.920	2.872	6.5	18.4
3 2	9 35.38	+11 14.5	2.182	3.134	6.0	21.7	3 2	9 34.76	+29 8.8	1.965	2.875	9.5	18.6
3 12	9 28.66	+12 6.0	2.241	3.135	9.4	22.0	3 12	9 28.13	+29 8.6	2.034	2.878	12.4	18.8
3 22	9 23.77	+12 48.6	2.326	3.135	12.4	22.2	3 22	9 23.78	+28 50.5	2.123	2.881	15.0	19.0
500356	2012 <i>TG</i> ₁₈		2 14.5 152°28	0°4/14.1	17		331505	1999 <i>UN</i> ₃₆		2 14.5 197°26	1°0/15.4	17	
1 12	10 11.00	+12 40.1	2.748	3.565	10.1	22.8	1 12	10 12.21	+8 0.1	2.486	3.290	11.4	22.3
1 22	10 5.84	+13 9.9	2.671	3.571	7.4	22.6	1 22	10 6.93	+8 22.3	2.396	3.287	8.5	22.1
2 1	9 59.21	+13 46.1	2.620	3.578	4.3	22.4	2 1	9 59.96	+8 55.1	2.332	3.284	5.3	21.9
2 11	9 51.65	+14 25.5	2.599	3.584	1.1	22.2	2 11	9 51.88	+9 35.5	2.297	3.280	1.9	21.6
2 21	9 43.82	+15 4.0	2.609	3.590	2.3	22.3	2 21	9 43.41	+10 19.5	2.292	3.275	2.3	21.6
3 2	9 36.44	+15 38.2	2.649	3.595	5.5	22.5	3 2	9 35.35	+11 2.9	2.318	3.270	5.8	21.9
3 12	9 30.16	+16 5.3	2.718	3.600	8.4	22.7	3 12	9 28.49	+11 41.8	2.373	3.264	9.0	22.1
3 22	9 25.44	+16 23.8	2.812	3.605	10.9	22.9	3 22	9 23.35	+12 13.3	2.451	3.258	11.9	22.2
151139	2001 <i>XJ</i> ₄₁		2 14.5 7°18	0°8/14.8	18		241080	2006 <i>UF</i> ₁₈		2 14.5 192°87	0°9/13.5	17	
1 12	10 16.73	+13 14.4	1.283	2.129	17.4	18.4	1 12	10 11.11	+14 43.9	2.774	3.595	9.8	21.7
1 22	10 11.41	+12 32.3	1.216	2.130	13.0	18.1	1 22	10 5.98	+15 14.8	2.690	3.594	7.2	21.6
2 1	10 3.05	+11 58.1	1.172	2.132	7.9	17.8	2 1	9 59.33	+15 51.0	2.633	3.592	4.2	21.4
2 11	9 52.71	+11 29.1	1.152	2.136	2.4	17.5	2 11	9 51.71	+16 28.9	2.605	3.589	1.2	21.1
2 21	9 41.87	+11 2.4	1.158	2.141	3.7	17.6	2 21	9 43.78	+17 4.8	2.608	3.586	2.6	21.2
3 2	9 32.13	+10 35.4	1.189	2.148	9.1	17.9	3 2	9 36.26	+17 35.0	2.641	3.583	5.7	21.4
3 12	9 24.85	+10 5.8	1.245	2.155	14.0	18.2	3 12	9 29.81	+17 57.1	2.703	3.580	8.6	21.6
3 22	9 20.73	+9 32.2	1.320	2.164	18.0	18.5	3 22	9 24.94	+18 9.8	2.789	3.576	11.1	21.8
417293	2006 <i>BV</i> ₆₃		2 14.5 298°69	0°6/14.9	17		306082	2010 <i>GF</i> ₁₄₁		2 14.5 235°17	2°8/16.5	18	
1 12	10 12.38	+9 47.9	1.924	2.746	13.5	21.6	1 12	10 13.79	+3 25.2	1.706	2.511	15.7	21.7
1 22	10 7.47	+10 3.7	1.842	2.744	10.1	21.4	1 22	10 8.87	+3 44.4	1.615	2.502	12.2	21.5
2 1	10 0.44	+10 31.1	1.785	2.741	6.1	21.1	2 1	10 1.48	+4 23.7	1.546	2.492	8.1	21.2
2 11	9 52.02	+11 6.2	1.754	2.738	1.9	20.8	2 11	9 52.36	+5 20.4	1.504	2.481	3.9	20.9
2 21	9 43.12	+11 44.4	1.753	2.736	2.8	20.9	2 21	9 42.52	+6 28.9	1.489	2.470	3.6	20.9
3 2	9 34.81	+12 20.4	1.780	2.733	7.0	21.2	3 2	9 33.21	+7 42.0	1.503	2.459	7.8	21.1
3 12	9 28.05	+12 49.8	1.833	2.731	10.9	21.4	3 12	9 25.60	+8 51.9	1.542	2.447	12.1	21.3
3 22	9 23.48	+13 9.9	1.909	2.728	14.3	21.6	3 22	9 20.50	+9 52.5	1.605	2.435	16.0	21.5
283489	2001 <i>SJ</i> ₁₀₃		2 14.5 136°30	2°1/16.1	18		284323	2006 <i>QV</i> ₁₆₄		2 14.5 165°26	1°7/16.4	17	
1 12	10 15.64	+4 59.5	1.716	2.523	15.5	22.0	1 12	10 10.66	+5 9.6	3.005	3.792	10.0	21.6
1 22	10 9.97	+5 24.6	1.644	2.534	11.8	21.8	1 22	10 5.49	+5 17.3	2.919	3.797	7.7	21.5
2 1	10 1.95	+6 7.5	1.596	2.545	7.6	21.6	2 1	9 58.98	+5 34.6	2.859	3.802	5.0	21.3
2 11	9 52.40	+7 4.2	1.575	2.555	3.2	21.3	2 11	9 51.62	+5 59.7	2.828	3.806	2.4	21.1
2 21	9 42.43	+8 8.4	1.583	2.565	3.2	21.4	2 21	9 43.99	+6 30.0	2.829	3.809	2.2	21.1
3 2	9 33.22	+9 13.2	1.619	2.574	7.4	21.6	3 2	9 36.74	+7 2.4	2.860	3.812	4.8	21.3
3 12	9 25.83	+10 11.9	1.682	2.583	11.5	21.9	3 12	9 30.46	+7 33.6	2.921	3.815	7.4	21.5
3 22	9 20.91	+11 0.2	1.767	2.590	15.1	22.1	3 22	9 25.58	+8 1.2	3.007	3.817	9.8	21.6
336463	2008 <i>UT</i> ₃₆₈		2 14.5 54°31	4°0/17.6	18		430846	2005 <i>LG</i> ₁₆		2 14.5 166°00	3°2/17.8	17	
1 12	10 12.34	+1 10.2	2.072	2.858	13.9	20.6	1 12	10 10.13	+0 20.4	2.809	3.578	11.1	21.5
1 22	10 7.19	+0 47.3	1.996	2.867	11.0	20.4	1 22	10 5.21	+0 16.6	2.720	3.581	8.8	21.3
2 1	10 0.16	+0 39.8	1.944	2.876	7.7	20.2	2 1	9 58.86	+0 25.6	2.657	3.584	6.2	21.2
2 11	9 51.92	+0 47.1	1.919	2.886	4.8	20.0	2 11	9 51.59	+0 46.3	2.622	3.586	3.9	21.0
2 21	9 43.33	+1 6.5	1.922	2.895	4.2	20.0	2 21	9 44.03	+1 16.5	2.616	3.589	3.3	21.0
3 2	9 35.34	+1 34.4	1.953	2.905	6.7	20.2	3 2	9 36.85	+1 52.8	2.641	3.591	5.3	21.1
3 12	9 28.78	+2 5.7	2.012	2.914	9.8	20.4	3 12	9 30.68	+2 31.6	2.695	3.592	7.8	21.3
3 22	9 24.23	+2 36.1	2.094	2.924	12.8	20.6	3 22	9 25.99	+3 9.1	2.774	3.594	10.3	21.5
123427	2000 <i>WX</i> ₁₁₁		2 14.5 113°39	1°1/15.4	18		32127	2000 <i>LK</i> ₁₂		2 14.5 210°87	4°0/18.8	18	
1 12	10 14.01	+8 29.6	2.097	2.908	12.9	20.3	1 12	10 8.80	-2 53.5	2.613	3.373	12.1	19.4
1 22	10 8.37	+8 40.0	2.026	2.920	9.7	20.1	1 22	10 4.39	-2 45.9	2.519	3.369	9.7	19.2
2 1	10 0.83	+9 1.5	1.980	2.932	6.0	19.9	2 1	9 58.45	-2 21.7	2.448	3.366	7.2	19.0
2 11	9 52.09	+9 30.7	1.961	2.944	2.1	19.7	2 11	9 51.51	-1 42.0	2.404	3.362	4.8	18.8
2 21	9 43.04	+10 3.5	1.973	2.955	2.6	19.7	2 21	9 44.20	-0 49.6	2.389	3.358	4.1	18.8
3 2	9 34.65	+10 35.4	2.013	2.966	6.4	20.0	3 2	9 37.26	+0 11.6	2.405	3.353	5.8	18.9
3 12	9 27.74	+11 2.7	2.082	2.977	9.9	20.2	3 12	9 31.36	+1 16.2	2.448	3.349	8.4	19.0
3 22	9 22.88	+11 22.6	2.173	2.988	12.9	20.4	3 22	9 27.01	+2 19.5	2.517	3.344	11.0	19.2
508220	2015 <i>GW</i> ₃₄		2 14.5 346°54	6°7/21.7	17		209931	2006 <i>BT</i> ₂		2 14.5 0°71	0°1/14.5	18	
1 12	10 7.81	-10 52.6	2.348	3.068	14.3	21.1	1 12	10 30.47	+16 59.1	1.034</			

EPHEMERIDES

2 14.5

2 14.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
131102	2001 AB ₂₄		2 14.5 81°37'	0°0'/14.5 18			427169	2014 UU ₁₉₇		2 14.5 127°02'	0°3'/14.7 18		
1 12	10 15.34	+ 9 55.3	1.547	2.376	15.8	19.8	1 12	10 15.17	+10 27.3	2.096	2.911	12.8	21.9
1 22	10 9.83	+10 40.0	1.492	2.398	11.7	19.6	1 22	10 9.25	+10 52.1	2.027	2.925	9.5	21.7
2 1	10 1.88	+11 39.0	1.461	2.420	6.9	19.4	2 1	10 1.39	+11 27.0	1.984	2.939	5.7	21.5
2 11	9 52.42	+12 45.6	1.456	2.441	1.8	19.1	2 11	9 52.33	+12 7.6	1.968	2.953	1.6	21.2
2 21	9 42.66	+13 51.9	1.480	2.463	3.3	19.2	2 21	9 42.95	+12 49.1	1.983	2.966	2.6	21.3
3 2	9 33.89	+14 50.7	1.531	2.484	8.1	19.6	3 2	9 34.26	+13 26.7	2.028	2.978	6.6	21.6
3 12	9 27.14	+15 36.7	1.608	2.504	12.3	19.9	3 12	9 27.09	+13 56.8	2.100	2.990	10.1	21.8
3 22	9 23.02	+16 7.5	1.707	2.525	15.8	20.1	3 22	9 22.01	+14 17.2	2.196	3.002	13.1	22.1
240248	2002 UP ₃₁		2 14.5 343°15'	5°2'/18.8 18			167077	2003 RZ ₁₉		2 14.5 100°15'	1°3'/15.5 18		
1 12	10 10.38	- 2 47.0	2.068	2.839	14.5	19.8	1 12	10 13.25	+ 7 2.7	1.590	2.413	15.8	20.2
1 22	10 5.90	- 3 8.8	1.981	2.837	11.8	19.6	1 22	10 8.46	+ 7 33.8	1.518	2.418	11.9	19.9
2 1	9 59.50	- 3 12.0	1.916	2.835	8.8	19.4	2 1	10 1.21	+ 8 22.6	1.468	2.423	7.4	19.7
2 11	9 51.82	- 2 56.5	1.877	2.832	6.1	19.2	2 11	9 52.33	+ 9 24.1	1.445	2.428	2.6	19.4
2 21	9 43.67	- 2 24.6	1.865	2.831	5.3	19.1	2 21	9 42.94	+10 31.3	1.449	2.432	3.1	19.4
3 2	9 36.00	- 1 40.2	1.881	2.829	7.2	19.3	3 2	9 34.30	+11 36.6	1.481	2.437	7.9	19.7
3 12	9 29.70	- 0 49.4	1.924	2.828	10.2	19.4	3 12	9 27.53	+12 33.2	1.538	2.441	12.3	20.0
3 22	9 25.36	+ 0 2.2	1.990	2.826	13.1	19.6	3 22	9 23.33	+13 16.9	1.617	2.446	16.0	20.3
428743	2008 RR ₁₄₅		2 14.5 64°20'	1°9'/13.0 18			82890	2001 QZ ₈₃		2 14.5 160°93'	4°5'/9.9 18		
1 12	10 13.97	+16 57.8	1.892	2.729	13.0	21.2	1 12	10 15.89	+28 53.0	2.798	3.625	9.6	19.6
1 22	10 8.55	+17 30.4	1.831	2.743	9.5	21.0	1 22	10 9.50	+29 33.0	2.732	3.630	7.3	19.4
2 1	10 1.02	+18 8.3	1.795	2.756	5.6	20.8	2 1	10 1.43	+30 8.9	2.693	3.635	5.3	19.3
2 11	9 52.19	+18 45.7	1.787	2.770	2.1	20.6	2 11	9 52.33	+30 35.6	2.683	3.639	4.5	19.2
2 21	9 43.07	+19 17.0	1.807	2.784	4.0	20.8	2 21	9 42.99	+30 49.4	2.704	3.643	5.6	19.3
3 2	9 34.75	+19 38.1	1.856	2.798	7.8	21.0	3 2	9 34.24	+30 48.0	2.753	3.647	7.8	19.5
3 12	9 28.14	+19 46.7	1.931	2.812	11.3	21.3	3 12	9 26.83	+30 31.5	2.830	3.650	10.0	19.6
3 22	9 23.80	+19 42.4	2.028	2.826	14.3	21.5	3 22	9 21.26	+30 1.7	2.928	3.653	12.0	19.8
324581	2006 XC		2 14.5 132°66'	0°9'/13.8 18			171993	2001 TS ₂₁₄		2 14.5 92°60'	4°0'/18.3 18		
1 12	10 15.36	+13 56.7	1.903	2.732	13.3	21.0	1 12	10 11.26	- 1 14.4	2.429	3.196	12.7	20.3
1 22	10 9.62	+14 24.4	1.832	2.739	9.8	20.7	1 22	10 6.18	- 1 26.4	2.354	3.210	10.1	20.1
2 1	10 1.70	+15 0.3	1.786	2.746	5.7	20.5	2 1	9 59.51	- 1 22.9	2.303	3.225	7.3	20.0
2 11	9 52.38	+15 39.0	1.768	2.753	1.6	20.2	2 11	9 51.84	- 1 5.0	2.278	3.239	4.8	19.9
2 21	9 42.69	+16 15.3	1.779	2.759	3.3	20.4	2 21	9 43.89	- 0 35.0	2.283	3.252	4.1	19.8
3 2	9 33.71	+16 44.1	1.819	2.765	7.5	20.6	3 2	9 36.45	+ 0 3.2	2.318	3.266	6.0	20.0
3 12	9 26.44	+17 2.2	1.885	2.771	11.3	20.9	3 12	9 30.23	+ 0 45.1	2.380	3.280	8.7	20.2
3 22	9 21.47	+17 8.6	1.974	2.777	14.5	21.1	3 22	9 25.71	+ 1 26.3	2.467	3.293	11.2	20.3
148517	2001 PA ₂₇		2 14.5 330°10'	1°5'/13.6 18			275568	1999 TR ₃₈		2 14.5 171°07'	1°7'/15.9 18		
1 12	10 16.97	+16 16.6	1.721	2.557	14.2	19.8	1 12	10 16.99	+ 5 31.6	1.897	2.698	14.5	22.3
1 22	10 11.08	+16 28.3	1.646	2.556	10.5	19.6	1 22	10 10.90	+ 6 1.6	1.816	2.703	11.0	22.0
2 1	10 2.70	+16 45.9	1.595	2.555	6.2	19.3	2 1	10 2.55	+ 6 48.0	1.759	2.708	7.0	21.8
2 11	9 52.69	+17 4.1	1.570	2.555	1.9	19.0	2 11	9 52.68	+ 7 46.8	1.730	2.711	2.8	21.6
2 21	9 42.19	+17 17.8	1.575	2.554	3.9	19.2	2 21	9 42.32	+ 8 52.3	1.731	2.714	2.9	21.6
3 2	9 32.50	+17 22.7	1.607	2.554	8.3	19.4	3 2	9 32.60	+ 9 57.7	1.762	2.715	7.1	21.8
3 12	9 24.72	+17 16.6	1.665	2.553	12.4	19.7	3 12	9 24.54	+10 57.0	1.820	2.716	11.1	22.1
3 22	9 19.55	+16 59.3	1.745	2.553	15.9	19.9	3 22	9 18.82	+11 46.0	1.902	2.715	14.6	22.3
237224	2008 VY ₃₇		2 14.5 47°51'	1°6'/15.9 18			122586	2000 RJ ₂₆		2 14.5 269°73'	4°8'/17.6 18		
1 12	10 10.31	+ 6 0.5	1.823	2.640	14.3	20.3	1 12	10 14.62	+ 0 5.1	1.707	2.497	16.3	20.0
1 22	10 5.90	+ 6 28.8	1.759	2.655	10.8	20.1	1 22	10 9.70	- 0 8.3	1.601	2.474	13.1	19.8
2 1	9 59.49	+ 7 12.7	1.719	2.671	6.8	19.9	2 1	10 2.17	- 0 1.1	1.517	2.450	9.4	19.5
2 11	9 51.82	+ 8 8.1	1.705	2.687	2.7	19.7	2 11	9 52.67	+ 0 26.8	1.457	2.425	5.9	19.2
2 21	9 43.84	+ 9 9.2	1.720	2.703	2.8	19.7	2 21	9 42.22	+ 1 12.7	1.425	2.400	5.1	19.1
3 2	9 36.56	+10 9.6	1.763	2.720	6.8	20.0	3 2	9 32.11	+ 2 11.3	1.421	2.374	8.4	19.2
3 12	9 30.87	+11 3.5	1.832	2.736	10.6	20.3	3 12	9 23.62	+ 3 14.9	1.442	2.348	12.7	19.4
3 22	9 27.32	+11 47.0	1.925	2.753	13.8	20.5	3 22	9 17.69	+ 4 16.2	1.486	2.322	16.8	19.6
460384	2014 SB ₅₇		2 14.5 57°82'	3°0'/12.3 18			58209	1992 EH ₁₉		2 14.5 17°81'	1°0'/13.7 18		
1 12	10 14.08	+17 27.2	1.508	2.357	15.1	20.9	1 12	10 9.34	+13 12.0	1.703	2.546	14.0	19.0
1 22	10 9.14	+18 28.5	1.451	2.369	11.0	20.7	1 22	10 5.42	+13 51.3	1.639	2.553	10.2	18.8
2 1	10 1.59	+19 37.2	1.418	2.381	6.5	20.4	2 1	9 59.32	+14 41.0	1.598	2.560	6.0	18.5
2 11	9 52.39	+20 44.5	1.411	2.393	3.1	20.3	2 11	9 51.83	+15 35.1	1.584	2.569	1.6	18.3
2 21	9 42.80	+21 41.9	1.432	2.406	5.4	20.4	2 21	9 43.98	+16 27.0	1.598	2.579	3.5	18.4
3 2	9 34.17	+22 22.8	1.479	2.418	9.6	20.7	3 2	9 36.85	+17 10.6	1.639	2.589	7.8	18.7
3 12	9 27.63	+22 44.4	1.551	2.431	13.6	21.0	3 12	9 31.42	+17 41.7	1.705	2.600	11.8	18.9
3 22	9 23.84	+22 46.9	1.642	2.444	17.0	21.2	3 22	9 28.29	+17 58.5	1.792	2.612	15.1	19.2
414455	2009 HO ₁₇		2 14.5 195°53'	4°0'/17.9 17			12	Victoria		2 14.5 213°44'	4°5'/18.1 18	R	
1 12	10 12.81	- 0 35.6	2.017	2.796	14.5	22.6	1 12	10 14.76	- 1 29.1	2.045	2.815	14.6	11.8
1 22	10 7.75	- 0 26.0	1.928	2.794	11.5	22.4	1 22	10 9.25	- 1 33.5	1.948	2.807	11.8	11.6
2 1	10 0.65	+ 0 3.1	1.861	2.792	8.2	22.1	2 1	10 1.61	- 1 18.7	1.874	2.799	8.5	11.4
2 11	9 52.16	+ 0 50.3	1.822	2.789	5.0	21.9	2 11	9 52.47	- 0 45.4	1.827	2.790	5.5	11.2
2 21	9 43.16	+ 1 51.5	1.811	2.786	4.2	21.9	2 21	9 42.73	+ 0 3.5	1.808	2.780	4.7	11.1
3 2	9 34.65	+ 3 1.0	1.829	2.782	6.9	22.0	3 2	9 33.44	+ 1 2.9	1.819	2.769	7.2	11.2
3 12	9 27.59	+ 4 11.8	1.874	2.777	10.4	22.2	3 12	9 25.57	+ 2 6.5	1.857	2.757	10.7	11.4
3 22	9 22.61	+ 5 18.1	1.943	2.772	13.7	22.4	3 22	9 19.84	+ 3 7.9	1.919	2.745	13.9	11.6
163557	2002 TC ₁₂₁		2 14.5 86°70'	3°4'/17.6 18			433627	2013 YS ₁₂₀		2 14.5 353°78'	0°0'/14.5 17		
1 12	10 11.11	+ 1 8.0	2.230	3.014	13.1	19.9	1 12	10 9.73	+11 3.7	2.030	2.858	12.6	

EPHEMERIDES

2 14.5

2 14.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
204671	2006 <i>DG</i> ₃₁		2 14.5 235°53	1.0°/15.3	18		419558	2010 <i>PO</i> ₇₇		2 14.5 201°39	0.2°/14.7	17	
1 12	10 14.61	+ 7 54.4	1.785	2.602	14.6	21.5	1 12	10 15.61	+10 34.8	2.346	3.154	11.8	22.3
1 22	10 9.44	+ 8 22.3	1.693	2.591	11.1	21.2	1 22	10 9.61	+11 2.9	2.254	3.149	8.8	22.1
2 1	10 1.85	+ 9 5.8	1.625	2.580	6.9	20.9	2 1	10 1.70	+11 40.6	2.188	3.143	5.3	21.8
2 11	9 52.57	+10 0.8	1.584	2.568	2.3	20.6	2 11	9 52.50	+12 24.1	2.151	3.136	1.5	21.5
2 21	9 42.59	+11 1.5	1.572	2.555	3.0	20.6	2 21	9 42.83	+13 8.9	2.146	3.128	2.5	21.6
3 2	9 33.13	+12 0.8	1.589	2.542	7.7	20.9	3 2	9 33.62	+13 50.3	2.171	3.119	6.4	21.8
3 12	9 25.33	+12 52.8	1.631	2.529	12.0	21.1	3 12	9 25.72	+14 24.6	2.225	3.110	9.9	22.0
3 22	9 19.97	+13 33.2	1.696	2.515	15.8	21.3	3 22	9 19.75	+14 49.4	2.303	3.099	12.9	22.2
249316	2008 <i>UF</i> ₁₈₅		2 14.5 196°11	3.6°/11.3	17		2752	Wu Chien-Shiung		2 14.5 109°95	2.9°/17.5	18	
1 12	10 12.85	+21 45.4	2.116	2.957	11.7	20.7	1 12	10 9.75	+ 1 6.7	2.356	3.140	12.5	16.6
1 22	10 7.76	+22 39.4	2.045	2.957	8.6	20.5	1 22	10 5.19	+ 1 28.9	2.278	3.150	9.8	16.4
2 1	10 0.64	+23 35.6	1.999	2.957	5.4	20.3	2 1	9 58.99	+ 2 7.0	2.224	3.159	6.7	16.2
2 11	9 52.19	+24 27.3	1.982	2.957	3.6	20.2	2 11	9 51.76	+ 2 58.6	2.197	3.169	3.7	16.1
2 21	9 43.35	+25 8.6	1.993	2.956	5.3	20.3	2 21	9 44.23	+ 3 59.7	2.200	3.178	3.1	16.0
3 2	9 35.12	+25 35.1	2.033	2.956	8.4	20.5	3 2	9 37.17	+ 5 5.0	2.233	3.187	5.7	16.2
3 12	9 28.43	+25 45.1	2.098	2.956	11.6	20.7	3 12	9 31.33	+ 6 9.2	2.294	3.196	8.8	16.4
3 22	9 23.86	+25 39.1	2.186	2.956	14.3	20.9	3 22	9 27.19	+ 7 7.9	2.380	3.205	11.6	16.6
498036	2007 <i>HF</i> ₅₉		2 14.5 276°62	2.2°/12.8	17		501097	2013 <i>SO</i> ₈₁		2 14.5 56°42	5.0°/18.9	18	
1 12	10 13.26	+17 2.5	1.947	2.784	12.7	21.9	1 12	10 10.48	- 2 56.1	2.052	2.823	14.6	20.9
1 22	10 8.31	+17 44.0	1.858	2.770	9.4	21.7	1 22	10 5.94	- 3 7.3	1.976	2.832	11.8	20.8
2 1	10 1.11	+18 32.4	1.795	2.756	5.6	21.4	2 1	9 59.53	- 2 58.9	1.922	2.841	8.7	20.6
2 11	9 52.36	+19 21.7	1.759	2.741	2.3	21.2	2 11	9 51.92	- 2 31.7	1.894	2.851	5.9	20.4
2 21	9 43.00	+20 5.7	1.752	2.727	4.3	21.3	2 21	9 43.94	- 1 48.6	1.893	2.860	5.1	20.4
3 2	9 34.16	+20 38.9	1.773	2.712	8.3	21.5	3 2	9 36.53	- 0 54.5	1.920	2.870	7.0	20.5
3 12	9 26.90	+20 58.0	1.820	2.698	12.1	21.7	3 12	9 30.51	+ 0 4.4	1.975	2.879	9.9	20.7
3 22	9 21.93	+21 2.0	1.888	2.683	15.4	21.9	3 22	9 26.45	+ 1 2.2	2.053	2.889	12.8	20.9
208651	2002 <i>EX</i> ₁₅₁		2 14.5 238°12	4.0°/11.8	18		522502	2016 <i>EC</i> ₂₃₃		2 14.5 204°56	1.4°/15.7	17	
1 12	10 17.84	+21 20.2	1.705	2.547	14.0	20.4	1 12	10 12.52	+ 7 21.0	2.237	3.043	12.4	21.9
1 22	10 11.96	+22 6.3	1.627	2.540	10.4	20.1	1 22	10 7.38	+ 7 34.3	2.150	3.041	9.4	21.7
2 1	10 3.38	+22 55.6	1.573	2.532	6.5	19.9	2 1	10 0.38	+ 7 59.4	2.087	3.037	5.9	21.5
2 11	9 52.96	+23 40.1	1.547	2.524	4.0	19.7	2 11	9 52.15	+ 8 33.4	2.052	3.034	2.3	21.2
2 21	9 41.93	+24 12.3	1.548	2.515	6.0	19.8	2 21	9 43.50	+ 9 12.3	2.048	3.030	2.5	21.2
3 2	9 31.66	+24 27.3	1.577	2.507	9.9	20.0	3 2	9 35.32	+ 9 51.7	2.073	3.026	6.2	21.5
3 12	9 23.39	+24 23.2	1.631	2.498	13.8	20.2	3 12	9 28.45	+10 27.2	2.125	3.022	9.7	21.7
3 22	9 17.90	+24 1.5	1.705	2.489	17.2	20.4	3 22	9 23.49	+10 55.8	2.202	3.018	12.7	21.9
155154	2005 <i>UW</i> ₇₈		2 14.5 106°77	7.9°/ 7.5	18		430002	2013 <i>QP</i> ₄₇		2 14.5 127°65	0.6°/15.0	18	
1 12	10 17.67	+33 27.4	1.933	2.771	12.8	19.6	1 12	10 16.27	+10 36.6	2.441	3.246	11.5	22.0
1 22	10 11.59	+34 55.4	1.886	2.782	10.2	19.5	1 22	10 9.81	+10 38.6	2.369	3.262	8.5	21.8
2 1	10 3.00	+36 14.9	1.864	2.792	8.3	19.4	2 1	10 1.65	+10 48.2	2.323	3.277	5.2	21.6
2 11	9 52.82	+37 16.3	1.869	2.802	8.0	19.4	2 11	9 52.46	+11 2.5	2.307	3.291	1.6	21.4
2 21	9 42.29	+37 52.9	1.900	2.812	9.5	19.5	2 21	9 43.02	+11 18.2	2.322	3.305	2.3	21.5
3 2	9 32.71	+38 2.0	1.957	2.822	11.8	19.6	3 2	9 34.19	+11 32.4	2.368	3.318	5.8	21.7
3 12	9 25.18	+37 45.1	2.037	2.832	14.3	19.8	3 12	9 26.73	+11 42.3	2.443	3.331	9.0	22.0
3 22	9 20.32	+37 6.5	2.135	2.841	16.4	20.0	3 22	9 21.12	+11 46.4	2.542	3.343	11.7	22.2
385856	2006 <i>QH</i> ₁₁₀		2 14.5 63°91	3.1°/17.9	18		52788	1998 <i>QA</i> ₄₆		2 14.5 218°00	0.0°/14.5	18	
1 12	10 8.24	- 0 30.6	2.229	3.011	13.2	20.7	1 12	10 18.64	+12 0.8	1.580	2.408	15.6	18.8
1 22	10 4.16	+ 0 9.1	2.153	3.023	10.4	20.5	1 22	10 12.62	+12 10.4	1.498	2.404	11.7	18.5
2 1	9 58.41	+ 1 7.6	2.101	3.035	7.1	20.3	2 1	10 3.83	+12 31.2	1.440	2.399	7.0	18.2
2 11	9 51.60	+ 2 21.8	2.076	3.047	4.1	20.2	2 11	9 53.12	+12 58.3	1.408	2.393	1.9	17.9
2 21	9 44.49	+ 3 46.6	2.081	3.059	3.3	20.1	2 21	9 41.74	+13 26.2	1.404	2.387	3.4	18.0
3 2	9 37.88	+ 5 15.7	2.115	3.071	5.9	20.3	3 2	9 31.11	+13 49.0	1.428	2.380	8.6	18.2
3 12	9 32.52	+ 6 42.3	2.178	3.083	9.1	20.5	3 12	9 22.53	+14 2.8	1.478	2.374	13.2	18.5
3 22	9 28.91	+ 8 1.1	2.265	3.095	11.9	20.8	3 22	9 16.81	+14 5.6	1.549	2.366	17.1	18.7
4994	Kisala		2 14.5 84°59	0.8°/13.8	18	R	272595	2005 <i>VB</i> ₉₃		2 14.5 160°97	2.7°/11.8	18	
1 12	10 13.53	+13 26.9	2.081	2.907	12.5	18.2	1 12	10 14.17	+19 23.1	2.379	3.210	10.9	22.1
1 22	10 8.05	+14 0.9	2.021	2.927	9.1	18.1	1 22	10 8.50	+20 22.1	2.308	3.217	8.0	21.9
2 1	10 0.69	+14 42.5	1.987	2.946	5.3	17.9	2 1	10 1.00	+21 24.6	2.264	3.223	4.9	21.7
2 11	9 52.19	+15 26.7	1.981	2.966	1.4	17.6	2 11	9 52.31	+22 24.7	2.250	3.228	2.7	21.6
2 21	9 43.46	+16 8.3	2.005	2.985	3.0	17.8	2 21	9 43.28	+23 16.8	2.266	3.233	4.4	21.7
3 2	9 35.44	+16 43.0	2.058	3.005	6.8	18.1	3 2	9 34.81	+23 56.6	2.311	3.237	7.4	21.9
3 12	9 28.96	+17 7.5	2.138	3.023	10.2	18.3	3 12	9 27.71	+24 21.7	2.384	3.241	10.4	22.1
3 22	9 24.51	+17 20.8	2.241	3.042	13.0	18.5	3 22	9 22.53	+24 32.1	2.480	3.244	12.9	22.3
240050	2001 <i>WM</i> ₂₃		2 14.5 121°36	2.7°/17.3	18		205301	2000 <i>SG</i> ₂₇₁		2 14.5 86°97	0.6°/15.0	18	
1 12	10 9.94	+ 1 45.5	2.542	3.324	11.8	21.3	1 12	10 13.58	+ 7 48.1	1.527	2.355	16.1	20.1
1 22	10 5.21	+ 1 57.4	2.462	3.333	9.2	21.1	1 22	10 8.74	+ 8 37.0	1.464	2.367	12.0	19.8
2 1	9 58.96	+ 2 23.1	2.407	3.342	6.3	20.9	2 1	10 1.40	+ 9 43.8	1.423	2.380	7.3	19.6
2 11	9 51.75	+ 3 0.8	2.380	3.351	3.5	20.7	2 11	9 52.45	+11 2.1	1.408	2.392	2.2	19.3
2 21	9 44.24	+ 3 47.0	2.383	3.360	3.0	20.7	2 21	9 43.06	+12 23.5	1.421	2.404	3.2	19.4
3 2	9 37.19	+ 4 37.6	2.415	3.369	5.4	20.9	3 2	9 34.53	+13 39.3	1.462	2.416	8.1	19.7
3 12	9 31.26	+ 5 28.0	2.476	3.377	8.3	21.1	3 12	9 27.95	+14 42.7	1.528	2.428	12.5	20.0
3 22	9 26.94	+ 6 14.5	2.562	3.385	11.0	21.3	3 22	9 24.01	+15 30.0	1.615	2.440	16.2	20.3
322779	2001 <i>ML</i> ₂₈		2 14.5 193°25	1.8°/15.8	18		166830	2002 <i>VD</i> ₁₀₇		2 14.5 35°95	5.8°/19.4	18	
1 12	10 16.92	+ 7 32.4	2.183	2.983									

EPHEMERIDES

2 14.5

2 14.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
122115	2000 <i>JE</i> ₁₂		2 14.5 253°54	4.4/11.4	18		115310	2003 <i>SR</i> ₂₁₃		2 14.5 101°65	0°5/15.0	18	
1 12	10 17.13	+20 59.6	1.595	2.442	14.6	20.0	1 12	10 11.54	+9 15.4	2.129	2.946	12.5	20.0
1 22	10 11.73	+22 5.2	1.514	2.429	10.8	19.7	1 22	10 6.68	+9 44.0	2.055	2.954	9.3	19.8
2 1	10 3.43	+23 16.6	1.456	2.415	6.9	19.4	2 1	9 59.97	+10 23.9	2.006	2.961	5.7	19.6
2 11	9 53.06	+24 24.4	1.424	2.401	4.5	19.3	2 11	9 52.08	+11 11.1	1.985	2.969	1.7	19.4
2 21	9 41.88	+25 19.2	1.421	2.386	6.7	19.4	2 21	9 43.85	+12 0.6	1.993	2.976	2.5	19.4
3 2	9 31.40	+25 54.0	1.444	2.371	10.9	19.6	3 2	9 36.18	+12 47.3	2.030	2.983	6.4	19.7
3 12	9 22.98	+26 6.0	1.491	2.356	15.0	19.8	3 12	9 29.91	+13 27.0	2.095	2.990	9.9	19.9
3 22	9 17.53	+25 56.3	1.558	2.340	18.6	20.0	3 22	9 25.59	+13 57.0	2.183	2.997	12.9	20.1
93654	2000 <i>UX</i> ₉₈		2 14.5 13°67	8°2/20.0	18		88156	2000 <i>XJ</i> ₉		2 14.5 71°80	3°9/11.8	18	
1 12	10 11.10	-6 2.2	1.537	2.312	18.5	18.1	1 12	10 18.61	+22 35.8	1.838	2.676	13.3	18.8
1 22	10 7.00	-6 57.4	1.465	2.316	15.4	17.9	1 22	10 11.93	+23 16.5	1.794	2.704	9.7	18.7
2 1	10 0.44	-7 27.1	1.412	2.320	12.1	17.7	2 1	10 3.03	+23 56.6	1.774	2.731	6.1	18.5
2 11	9 52.23	-7 29.1	1.382	2.325	9.2	17.6	2 11	9 52.85	+24 29.3	1.783	2.758	3.9	18.4
2 21	9 43.47	-7 4.7	1.376	2.331	8.2	17.5	2 21	9 42.56	+24 49.0	1.821	2.785	5.5	18.6
3 2	9 35.41	-6 18.6	1.395	2.338	9.7	17.6	3 2	9 33.33	+24 53.0	1.887	2.812	8.8	18.8
3 12	9 29.20	-5 19.1	1.438	2.346	12.7	17.8	3 12	9 26.07	+24 41.0	1.978	2.838	12.0	19.1
3 22	9 25.54	-4 15.1	1.503	2.354	15.8	18.0	3 22	9 21.29	+24 15.0	2.090	2.865	14.7	19.3
134304	2716 <i>P-L</i>		2 14.5 170°26	0°3/14.8	18		376235	2011 <i>EV</i> ₄₄		2 14.5 290°37	7°6/8.8	18	
1 12	10 15.50	+9 25.3	2.022	2.835	13.3	21.1	1 12	10 20.49	+34 6.5	1.957	2.789	12.9	20.1
1 22	10 9.72	+10 1.7	1.943	2.839	9.9	20.9	1 22	10 13.73	+34 57.3	1.891	2.784	10.3	20.0
2 1	10 1.84	+10 50.4	1.888	2.843	6.0	20.6	2 1	10 4.34	+35 38.9	1.849	2.779	8.3	19.8
2 11	9 52.58	+11 46.7	1.862	2.846	1.7	20.3	2 11	9 53.25	+36 2.7	1.834	2.773	7.7	19.8
2 21	9 42.87	+12 45.0	1.866	2.849	2.7	20.4	2 21	9 41.75	+36 2.8	1.846	2.768	9.1	19.9
3 2	9 33.75	+13 39.4	1.900	2.850	6.9	20.7	3 2	9 31.22	+35 37.1	1.885	2.763	11.5	20.0
3 12	9 26.19	+14 25.1	1.961	2.851	10.7	20.9	3 12	9 22.80	+34 47.8	1.947	2.758	14.2	20.2
3 22	9 20.80	+14 59.3	2.046	2.851	14.0	21.1	3 22	9 17.17	+33 39.3	2.029	2.753	16.6	20.3
382741	2003 <i>BC</i> ₂₄		2 14.5 32°52	6°2/19.8	18		458275	2010 <i>UN</i> ₃₆		2 14.5 338°17	8°3/9.1	18	
1 12	10 9.62	-5 2.2	1.781	2.552	16.4	19.8	1 12	10 17.89	+31 14.6	1.495	2.347	15.1	20.5
1 22	10 5.49	-5 23.2	1.717	2.569	13.5	19.6	1 22	10 12.45	+32 17.8	1.432	2.340	11.9	20.2
2 1	9 59.33	-5 20.6	1.673	2.586	10.2	19.4	2 1	10 3.86	+33 14.0	1.391	2.333	9.2	20.1
2 11	9 51.90	-4 54.8	1.654	2.604	7.3	19.3	2 11	9 53.17	+33 51.9	1.374	2.327	8.3	20.0
2 21	9 44.14	-4 8.9	1.661	2.623	6.3	19.3	2 21	9 41.89	+34 3.4	1.384	2.321	10.1	20.1
3 2	9 37.08	-3 8.8	1.695	2.643	7.9	19.4	3 2	9 31.71	+33 44.9	1.417	2.316	13.3	20.3
3 12	9 31.61	-2 1.9	1.754	2.663	10.7	19.6	3 12	9 24.03	+32 58.4	1.472	2.311	16.6	20.4
3 22	9 28.28	-0 55.4	1.837	2.683	13.6	19.8	3 22	9 19.61	+31 49.3	1.546	2.307	19.6	20.6
500199	2012 <i>HQ</i> ₆		2 14.5 310°35	6°7/20.1	17		364348	2006 <i>UM</i> ₁₉₈		2 14.5 161°60	3°2/11.9	18	
1 12	10 7.70	-6 59.3	1.606	2.379	17.9	21.3	1 12	10 16.45	+20 20.3	2.071	2.905	12.2	22.2
1 22	10 4.69	-6 45.8	1.501	2.354	15.0	21.1	1 22	10 10.42	+21 12.2	2.001	2.910	8.9	22.0
2 1	9 59.25	-6 0.4	1.415	2.330	11.5	20.8	2 1	10 2.26	+22 7.2	1.957	2.915	5.5	21.8
2 11	9 51.98	-4 41.6	1.353	2.307	8.2	20.5	2 11	9 52.71	+22 58.4	1.942	2.920	3.2	21.7
2 21	9 43.84	-2 52.8	1.316	2.283	6.7	20.4	2 21	9 42.77	+23 39.8	1.956	2.923	4.9	21.8
3 2	9 36.06	-0 42.2	1.305	2.260	8.9	20.4	3 2	9 33.52	+24 7.1	2.000	2.927	8.3	22.0
3 12	9 29.88	+1 37.6	1.321	2.238	12.8	20.6	3 12	9 25.92	+24 18.3	2.070	2.930	11.6	22.2
3 22	9 26.20	+3 54.1	1.359	2.216	16.8	20.8	3 22	9 20.57	+24 14.0	2.161	2.932	14.4	22.4
183314	2002 <i>VJ</i> ₁₈		2 14.5 58°97	4°4/11.4	18		268097	2004 <i>RM</i> ₂₅₈		2 14.5 23°16	2°4/16.5	18	
1 12	10 15.80	+21 58.3	1.631	2.479	14.2	20.3	1 12	10 10.80	+4 13.4	1.792	2.603	14.8	20.9
1 22	10 10.42	+22 54.6	1.568	2.483	10.5	20.1	1 22	10 6.49	+4 32.6	1.714	2.604	11.4	20.7
2 1	10 2.43	+23 53.3	1.529	2.487	6.7	19.9	2 1	10 0.03	+5 9.6	1.659	2.606	7.4	20.4
2 11	9 52.75	+24 45.7	1.516	2.492	4.4	19.8	2 11	9 52.14	+6 1.2	1.630	2.609	3.5	20.2
2 21	9 42.61	+25 24.2	1.531	2.496	6.4	19.9	2 21	9 43.79	+7 2.1	1.629	2.611	3.2	20.2
3 2	9 33.38	+25 43.8	1.573	2.500	10.1	20.1	3 2	9 36.04	+8 5.7	1.656	2.614	7.0	20.4
3 12	9 26.20	+25 43.0	1.639	2.505	13.8	20.4	3 12	9 29.88	+9 5.3	1.709	2.617	11.0	20.6
3 22	9 21.76	+25 23.7	1.725	2.509	17.0	20.6	3 22	9 25.96	+9 56.1	1.786	2.620	14.5	20.9
116046	2003 <i>WZ</i> ₁₀₂		2 14.5 185°97	1°2/15.3	18		282309	2002 <i>TY</i> ₇₁		2 14.5 82°99	3°9/18.0	18	
1 12	10 19.08	+9 37.1	1.998	2.806	13.6	19.7	1 12	10 11.56	-0 7.3	2.208	2.986	13.4	20.2
1 22	10 12.38	+9 27.8	1.913	2.806	10.3	19.5	1 22	10 6.60	-0 15.2	2.134	2.999	10.6	20.0
2 1	10 3.44	+9 28.1	1.853	2.805	6.4	19.3	2 1	9 59.89	-0 6.7	2.083	3.011	7.6	19.8
2 11	9 53.01	+9 35.3	1.822	2.804	2.3	19.0	2 11	9 52.07	+0 16.8	2.058	3.023	4.7	19.7
2 21	9 42.11	+9 46.0	1.820	2.803	2.8	19.0	2 21	9 43.95	+0 52.3	2.063	3.035	4.1	19.7
3 2	9 31.84	+9 56.5	1.849	2.801	7.0	19.3	3 2	9 36.37	+1 35.5	2.096	3.048	6.3	19.8
3 12	9 23.23	+10 3.6	1.905	2.798	10.8	19.5	3 12	9 30.12	+2 21.3	2.157	3.060	9.3	20.0
3 22	9 16.94	+10 5.2	1.984	2.794	14.2	19.7	3 22	9 25.73	+3 5.1	2.242	3.072	12.1	20.2
99257	2001 <i>LT</i> ₁₂		2 14.5 282°20	2°0/12.5	18		215722	2004 <i>BZ</i> ₉₆		2 14.5 315°54	0°6/14.9	17	
1 12	10 10.18	+14 39.5	2.206	3.039	11.6	19.0	1 12	10 13.64	+11 11.0	2.036	2.857	12.9	20.0
1 22	10 5.94	+15 58.6	2.105	3.015	8.5	18.8	1 22	10 8.43	+11 4.4	1.947	2.847	9.7	19.8
2 1	9 59.72	+17 29.0	2.030	2.991	5.0	18.5	2 1	10 1.14	+11 6.2	1.881	2.838	5.9	19.5
2 11	9 52.06	+19 4.4	1.984	2.967	2.1	18.3	2 11	9 52.44	+11 13.6	1.844	2.828	1.8	19.2
2 21	9 43.75	+20 37.4	1.969	2.943	4.1	18.4	2 21	9 43.25	+11 23.1	1.836	2.819	2.7	19.3
3 2	9 35.74	+22 0.7	1.983	2.918	7.8	18.6	3 2	9 34.59	+11 31.3	1.856	2.810	6.8	19.5
3 12	9 28.98	+23 8.9	2.024	2.894	11.4	18.7	3 12	9 27.40	+11 35.1	1.904	2.801	10.6	19.7
3 22	9 24.17	+23 59.4	2.088	2.869	14.5	18.9	3 22	9 22.34	+11 32.4	1.974	2.793	13.9	19.9
151145	2001 <i>XT</i> ₄₉		2 14.5 76°32	0°7/14.0	18		466810	2015 <i>BD</i> ₉₉		2 14.5 37°51	0°0/14.5	17	
1 12	10 13.67	+12 35.4	1.756	2.589	14.1	20.4	1 12	10					

EPHEMERIDES

2 14.5

2 14.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
186266	2001 YF ₉₇		2 14.5 136°13	5°9/ 8.8 18			434631	2005 VB ₁₁₄		2 14.5 137°68	4°7/20.1 17		
1 12	10 15.40	+27 35.8	2.057	2.898	12.0	20.3	1 12	10 8.94	- 6 35.1	3.020	3.749	11.3	21.6
1 22	10 9.79	+29 7.5	2.001	2.907	9.1	20.1	1 22	10 4.34	- 6 47.4	2.933	3.756	9.3	21.4
2 1	10 1.94	+30 36.6	1.971	2.916	6.7	20.0	2 1	9 58.44	- 6 44.5	2.870	3.763	7.2	21.3
2 11	9 52.65	+31 54.4	1.970	2.924	6.0	20.0	2 11	9 51.71	- 6 26.5	2.833	3.770	5.4	21.2
2 21	9 42.94	+32 53.5	1.996	2.932	7.6	20.1	2 21	9 44.71	- 5 55.0	2.825	3.776	4.7	21.1
3 2	9 33.96	+33 29.7	2.051	2.939	10.3	20.3	3 2	9 38.05	- 5 13.0	2.847	3.783	5.7	21.2
3 12	9 26.72	+33 42.6	2.129	2.946	13.0	20.4	3 12	9 32.32	- 4 24.4	2.897	3.789	7.6	21.3
3 22	9 21.83	+33 34.3	2.227	2.953	15.3	20.6	3 22	9 27.94	- 3 33.5	2.972	3.794	9.6	21.5
276249	2002 RF ₁₉₂		2 14.5 195°42	1°9/13.2 18			49623	1999 GB ₅		2 14.5 4°82	4°1/10.8 18		
1 12	10 16.75	+16 36.1	1.918	2.749	13.1	21.6	1 12	10 8.54	+19 21.6	1.667	2.523	13.5	16.8
1 22	10 10.82	+17 7.7	1.839	2.748	9.7	21.4	1 22	10 5.09	+20 53.6	1.602	2.523	9.9	16.6
2 1	10 2.59	+17 45.6	1.785	2.746	5.7	21.1	2 1	9 59.32	+22 32.6	1.562	2.524	6.2	16.4
2 11	9 52.83	+18 23.8	1.760	2.743	2.1	20.9	2 11	9 51.99	+24 9.2	1.549	2.526	4.1	16.2
2 21	9 42.59	+18 56.7	1.763	2.740	4.0	21.0	2 21	9 44.17	+25 33.7	1.564	2.528	6.3	16.4
3 2	9 33.01	+19 19.4	1.796	2.737	8.0	21.2	3 2	9 37.03	+26 38.8	1.605	2.531	10.0	16.6
3 12	9 25.15	+19 29.4	1.855	2.734	11.8	21.4	3 12	9 31.65	+27 20.7	1.670	2.536	13.6	16.8
3 22	9 19.68	+19 26.1	1.936	2.730	15.1	21.7	3 22	9 28.70	+27 39.4	1.755	2.540	16.7	17.0
236691	2006 SK ₂₄₀		2 14.5 252°10	0°9/13.6 17			19812	2000 SG ₁₁₉		2 14.5 264°96	4°0/18.8 18		
1 12	10 11.03	+14 15.6	2.449	3.274	10.8	21.1	1 12	10 8.31	- 2 43.9	2.495	3.259	12.5	19.0
1 22	10 6.23	+14 48.7	2.360	3.265	8.0	20.9	1 22	10 4.19	- 2 33.5	2.399	3.253	10.1	18.8
2 1	9 59.72	+15 28.6	2.297	3.256	4.7	20.7	2 1	9 58.50	- 2 5.7	2.327	3.247	7.4	18.6
2 11	9 52.06	+16 11.3	2.262	3.247	1.4	20.4	2 11	9 51.75	- 1 21.6	2.282	3.241	4.9	18.5
2 21	9 43.98	+16 52.2	2.258	3.238	2.9	20.5	2 21	9 44.61	- 0 24.2	2.265	3.235	4.1	18.4
3 2	9 36.33	+17 27.2	2.284	3.228	6.4	20.7	3 2	9 37.82	+ 0 42.2	2.278	3.229	5.9	18.5
3 12	9 29.86	+17 53.1	2.337	3.218	9.6	20.9	3 12	9 32.12	+ 1 51.8	2.319	3.223	8.7	18.7
3 22	9 25.16	+18 8.4	2.413	3.209	12.4	21.1	3 22	9 28.01	+ 2 59.5	2.385	3.217	11.4	18.8
123402	2000 WS ₈₃		2 14.5 133°81	1°7/15.8 18			416854	2005 MW ₁₆		2 14.6 167°96	2°1/16.4 18		
1 12	10 13.47	+ 7 7.4	1.992	2.802	13.6	20.0	1 12	10 14.57	+ 4 54.5	2.299	3.091	12.6	22.4
1 22	10 8.25	+ 7 12.4	1.913	2.805	10.3	19.8	1 22	10 8.82	+ 5 1.4	2.215	3.096	9.6	22.2
2 1	10 0.99	+ 7 30.2	1.858	2.808	6.5	19.6	2 1	10 1.25	+ 5 21.1	2.156	3.100	6.3	22.0
2 11	9 52.41	+ 7 57.9	1.830	2.811	2.7	19.3	2 11	9 52.48	+ 5 51.3	2.126	3.103	3.0	21.8
2 21	9 43.40	+ 8 31.4	1.831	2.813	2.8	19.4	2 21	9 43.34	+ 6 28.4	2.126	3.106	2.8	21.8
3 2	9 34.99	+ 9 5.9	1.861	2.816	6.6	19.6	3 2	9 34.71	+ 7 8.1	2.155	3.109	6.0	22.0
3 12	9 28.09	+ 9 37.0	1.918	2.818	10.4	19.8	3 12	9 27.40	+ 7 46.1	2.214	3.110	9.4	22.2
3 22	9 23.31	+10 1.3	1.998	2.821	13.6	20.0	3 22	9 21.99	+ 8 18.9	2.296	3.111	12.3	22.4
501709	2014 UF ₂₃		2 14.5 126°31	2°3/16.5 18			63487	2001 OU ₅₅		2 14.6 140°39	0°7/15.3 18		
1 12	10 12.43	+ 3 52.7	1.890	2.693	14.5	21.3	1 12	10 11.83	+ 9 10.5	2.601	3.408	10.8	19.7
1 22	10 7.56	+ 4 18.0	1.813	2.700	11.1	21.1	1 22	10 6.61	+ 9 24.7	2.523	3.415	8.1	19.5
2 1	10 0.62	+ 5 0.7	1.760	2.706	7.2	20.9	2 1	9 59.84	+ 9 47.5	2.470	3.422	5.0	19.4
2 11	9 52.31	+ 5 57.5	1.734	2.713	3.4	20.7	2 11	9 52.10	+10 16.3	2.446	3.429	1.7	19.1
2 21	9 43.58	+ 7 2.9	1.737	2.719	3.1	20.7	2 21	9 44.07	+10 47.5	2.453	3.436	2.1	19.2
3 2	9 35.46	+ 8 10.4	1.769	2.725	6.8	20.9	3 2	9 36.52	+11 17.6	2.491	3.442	5.4	19.4
3 12	9 28.90	+ 9 13.5	1.827	2.731	10.6	21.2	3 12	9 30.11	+11 43.5	2.556	3.449	8.4	19.6
3 22	9 24.51	+10 7.6	1.909	2.736	14.0	21.4	3 22	9 25.34	+12 3.0	2.647	3.454	11.1	19.8
415331	2013 HC ₅₄		2 14.5 250°51	2°6/16.5 16			157185	2004 PX ₈₉		2 14.6 214°52	1°2/13.6 18		
1 12	10 14.52	+ 4 14.4	1.905	2.705	14.5	22.2	1 12	10 18.01	+14 24.9	2.170	2.989	12.3	21.6
1 22	10 9.34	+ 4 22.1	1.804	2.688	11.3	21.9	1 22	10 11.65	+15 3.4	2.077	2.978	9.1	21.4
2 1	10 1.85	+ 4 46.5	1.726	2.671	7.5	21.7	2 1	10 3.09	+15 50.0	2.009	2.967	5.4	21.1
2 11	9 52.69	+ 5 25.4	1.675	2.653	3.7	21.4	2 11	9 53.02	+16 39.4	1.970	2.954	1.6	20.8
2 21	9 42.80	+ 6 14.8	1.653	2.634	3.4	21.3	2 21	9 42.35	+17 26.1	1.962	2.941	3.4	20.9
3 2	9 33.31	+ 7 8.9	1.660	2.615	7.3	21.5	3 2	9 32.15	+18 4.9	1.985	2.926	7.4	21.2
3 12	9 25.33	+ 8 1.6	1.693	2.595	11.4	21.7	3 12	9 23.43	+18 32.3	2.035	2.911	11.1	21.4
3 22	9 19.63	+ 8 47.7	1.750	2.575	15.1	21.9	3 22	9 16.90	+18 46.8	2.109	2.894	14.3	21.5
496085	2009 SF ₁₄₂		2 14.5 114°06	1°0/13.8 18			432903	2011 OC ₄₅		2 14.6 218°68	1°3/13.0 17		
1 12	10 14.60	+14 4.0	2.012	2.839	12.8	21.9	1 12	10 9.66	+14 3.2	2.721	3.544	9.9	22.0
1 22	10 9.01	+14 35.1	1.944	2.850	9.4	21.7	1 22	10 5.12	+15 9.0	2.632	3.537	7.3	21.8
2 1	10 1.40	+15 13.7	1.901	2.861	5.5	21.5	2 1	9 59.03	+16 22.7	2.570	3.530	4.2	21.6
2 11	9 52.50	+15 54.9	1.886	2.871	1.5	21.3	2 11	9 51.90	+17 39.4	2.539	3.522	1.5	21.4
2 21	9 43.28	+16 33.3	1.901	2.881	3.2	21.4	2 21	9 44.38	+18 53.8	2.538	3.515	3.0	21.5
3 2	9 34.75	+17 4.2	1.945	2.891	7.2	21.7	3 2	9 37.19	+20 0.9	2.569	3.506	6.1	21.7
3 12	9 27.81	+17 24.7	2.016	2.901	10.7	21.9	3 12	9 31.04	+20 57.0	2.627	3.498	9.1	21.8
3 22	9 23.02	+17 33.6	2.109	2.910	13.7	22.1	3 22	9 26.44	+21 40.0	2.710	3.489	11.6	22.0
102433	1999 TL ₂₀₉		2 14.5 101°97	1°3/13.8 18			193579	2001 BS ₂		2 14.6 58°97	2°4/15.1 18		
1 12	10 20.27	+16 21.1	1.653	2.486	14.8	19.5	1 12	10 31.52	+12 49.2	1.070	1.905	21.0	19.3
1 22	10 13.56	+16 22.8	1.584	2.493	10.9	19.3	1 22	10 23.12	+11 24.9	1.001	1.907	16.0	19.0
2 1	10 4.25	+16 29.6	1.539	2.500	6.5	19.0	2 1	10 10.52	+10 5.6	0.953	1.910	10.0	18.6
2 11	9 53.28	+16 36.6	1.522	2.506	1.9	18.7	2 11	9 55.06	+ 8 51.0	0.929	1.912	3.8	18.3
2 21	9 41.91	+16 38.9	1.533	2.513	3.8	18.9	2 21	9 38.80	+ 7 41.5	0.933	1.915	4.8	18.4
3 2	9 31.50	+16 33.1	1.573	2.520	8.4	19.2	3 2	9 24.12	+ 6 37.9	0.962	1.918	11.1	18.7
3 12	9 23.19	+16 17.6	1.638	2.526	12.6	19.4	3 12	9 12.89	+ 5 39.8	1.015	1.921	16.8	19.0
3 22	9 17.65	+15 52.3	1.725	2.533	16.0	19.7	3 22	9 6.02	+ 4 45.9	1.087	1.924	21.6	19.4
25873	2000 MK ₆		2 14.5 159°54	1°1/15.7 18			208331	2001 QN ₁₁₁		2 14.6 23°39	9°7/10.6 18		
1 12	10 11.90	+ 6 0.0	2.312	3.113	12.2	19.3	1 12	10 30.28	+39 28.0	1.601	2.4		

EPHEMERIDES

2 14.6

2 14.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
370930	2005 <i>QM</i> ₁₆		2 14.6 38°69	6°2/20.4	17		461975	2006 <i>UD</i> ₃₃₄		2 14.6 66°31	0°7/14.1	18	
1 12	10 7.51	-12 38.6	0.915	1.709	26.8	20.3	1 12	10 14.38	+12 39.8	1.614	2.450	15.0	21.8
1 22	10 5.49	-10 24.1	0.851	1.720	22.0	20.0	1 22	10 9.32	+13 12.3	1.548	2.458	11.0	21.6
2 1	10 0.06	-6 59.0	0.803	1.731	16.1	19.7	2 1	10 1.80	+13 56.0	1.505	2.466	6.5	21.3
2 11	9 52.28	-2 29.2	0.777	1.744	9.7	19.4	2 11	9 52.70	+14 44.9	1.488	2.474	1.7	21.0
2 21	9 43.75	+2 41.7	0.777	1.758	6.3	19.3	2 21	9 43.16	+15 32.2	1.500	2.482	3.5	21.2
3 2	9 36.36	+7 57.2	0.805	1.772	10.4	19.5	3 2	9 34.45	+16 11.7	1.539	2.490	8.2	21.5
3 12	9 31.71	+12 41.8	0.858	1.787	16.4	19.9	3 12	9 27.65	+16 39.1	1.603	2.498	12.4	21.8
3 22	9 30.65	+16 34.8	0.933	1.802	21.7	20.3	3 22	9 23.42	+16 52.7	1.689	2.506	15.9	22.0
162466	Margon		2 14.6 231°49	0°1/14.7	18		496516	2014 <i>UG</i> ₁₉₈		2 14.6 103°42	7°8/21.6	18	
1 12	10 11.26	+10 45.6	2.350	3.168	11.5	20.4	1 12	10 12.74	-10 46.9	1.972	2.697	16.6	21.2
1 22	10 6.45	+11 13.6	2.262	3.162	8.5	20.2	1 22	10 7.75	-11 12.8	1.898	2.711	14.0	21.1
2 1	9 59.89	+11 51.1	2.199	3.156	5.1	19.9	2 1	10 0.73	-11 13.2	1.843	2.724	11.3	20.9
2 11	9 52.15	+12 34.5	2.165	3.150	1.4	19.7	2 11	9 52.40	-10 47.0	1.813	2.737	8.9	20.8
2 21	9 43.99	+13 19.2	2.161	3.144	2.4	19.7	2 21	9 43.67	-9 56.2	1.808	2.749	7.8	20.7
3 2	9 36.28	+14 0.8	2.187	3.137	6.1	20.0	3 2	9 35.55	-8 45.9	1.831	2.762	8.7	20.8
3 12	9 29.79	+14 35.4	2.240	3.131	9.5	20.2	3 12	9 28.95	-7 23.7	1.880	2.774	10.9	21.0
3 22	9 25.10	+15 0.7	2.317	3.124	12.5	20.3	3 22	9 24.47	-5 57.9	1.952	2.786	13.5	21.2
481827	2008 <i>UY</i> ₃₀₀		2 14.6 270°87	17°7/24.5	18		201454	2003 <i>FM</i> ₇₄		2 14.6 260°87	4°7/17.5	18	
1 12	10 15.72	-19 49.8	1.214	1.925	25.7	20.8	1 12	10 14.96	+1 3.3	1.590	2.388	16.9	20.1
1 22	10 11.51	-21 58.2	1.139	1.919	23.4	20.6	1 22	10 10.01	+0 44.4	1.500	2.378	13.5	19.8
2 1	10 3.79	-23 29.5	1.078	1.912	21.1	20.4	2 1	10 2.41	+0 45.9	1.431	2.367	9.5	19.6
2 11	9 53.36	-24 12.4	1.033	1.905	18.9	20.2	2 11	9 52.93	+1 7.4	1.387	2.356	5.8	19.3
2 21	9 41.63	-24 0.0	1.006	1.898	17.7	20.1	2 21	9 42.65	+1 45.9	1.369	2.345	5.1	19.3
3 2	9 30.51	-22 52.9	0.999	1.892	18.0	20.1	3 2	9 32.92	+2 35.6	1.379	2.334	8.4	19.4
3 12	9 21.84	-21 2.1	1.009	1.885	19.6	20.2	3 12	9 25.02	+3 29.0	1.414	2.323	12.7	19.6
3 22	9 16.83	-18 44.0	1.038	1.878	22.1	20.3	3 22	9 19.80	+4 19.4	1.470	2.311	16.7	19.8
263862	2009 <i>DQ</i> ₂		2 14.6 281°01	2°5/12.6	18		281758	2009 <i>BP</i> ₁₂₀		2 14.6 283°95	0°6/13.9	17	
1 12	10 13.00	+15 18.6	1.562	2.408	14.9	20.5	1 12	10 11.16	+13 5.5	2.315	3.140	11.4	21.6
1 22	10 8.63	+16 27.2	1.483	2.399	10.9	20.2	1 22	10 6.55	+13 37.2	2.214	3.118	8.5	21.4
2 1	10 1.59	+17 48.1	1.427	2.390	6.5	20.0	2 1	10 0.05	+14 17.5	2.137	3.097	5.0	21.1
2 11	9 52.68	+19 12.9	1.397	2.381	2.6	19.7	2 11	9 52.25	+15 2.4	2.090	3.075	1.3	20.8
2 21	9 43.04	+20 32.1	1.396	2.371	5.0	19.8	2 21	9 43.89	+15 47.2	2.072	3.053	2.8	20.9
3 2	9 34.06	+21 37.1	1.421	2.362	9.7	20.1	3 2	9 35.88	+16 26.9	2.084	3.031	6.7	21.1
3 12	9 26.99	+22 22.5	1.470	2.353	14.1	20.3	3 12	9 29.09	+16 57.9	2.122	3.008	10.2	21.3
3 22	9 22.66	+22 46.8	1.540	2.344	17.8	20.5	3 22	9 24.14	+17 18.0	2.184	2.986	13.3	21.4
33209	1998 <i>FD</i> ₆₇		2 14.6 290°44	3°8/18.7	18		263707	2008 <i>HV</i> ₃₀		2 14.6 311°78	5°3/18.1	18	
1 12	10 8.08	-2 37.3	2.400	3.168	12.8	19.0	1 12	10 12.04	-0 40.3	1.648	2.442	16.6	20.9
1 22	10 4.07	-2 11.1	2.310	3.167	10.3	18.8	1 22	10 7.74	-1 3.9	1.558	2.431	13.4	20.7
2 1	9 58.45	-1 26.1	2.243	3.166	7.4	18.6	2 1	10 1.00	-1 6.6	1.490	2.421	9.8	20.4
2 11	9 51.78	-0 24.0	2.203	3.166	4.7	18.4	2 11	9 52.54	-0 48.0	1.446	2.411	6.4	20.2
2 21	9 44.73	+0 51.2	2.193	3.165	3.9	18.4	2 21	9 43.37	-0 10.9	1.428	2.401	5.5	20.1
3 2	9 38.08	+2 14.2	2.212	3.165	5.9	18.5	3 2	9 34.73	+0 39.5	1.438	2.392	8.3	20.3
3 12	9 32.56	+3 38.5	2.259	3.164	8.8	18.7	3 12	9 27.79	+1 35.8	1.472	2.383	12.2	20.5
3 22	9 28.68	+4 58.4	2.332	3.164	11.6	18.8	3 22	9 23.33	+2 30.9	1.528	2.374	15.9	20.7
76502	2000 <i>GV</i> ₂₆		2 14.6 108°61	4°5/10.6	18		20150	1996 <i>TJ</i> ₆		2 14.6 249°48	5°2/18.2	18	
1 12	10 15.63	+26 7.3	2.271	3.107	11.2	19.3	1 12	10 14.50	-1 47.0	1.881	2.656	15.6	18.8
1 22	10 9.67	+26 54.4	2.211	3.117	8.4	19.2	1 22	10 9.38	-2 2.9	1.780	2.641	12.6	18.6
2 1	10 1.75	+27 39.1	2.177	3.127	5.7	19.0	2 1	10 1.93	-1 58.7	1.700	2.624	9.3	18.4
2 11	9 52.64	+28 15.1	2.171	3.137	4.5	19.0	2 11	9 52.79	-1 34.1	1.646	2.607	6.2	18.1
2 21	9 43.26	+28 37.6	2.195	3.146	5.9	19.1	2 21	9 42.89	-0 51.6	1.620	2.590	5.3	18.1
3 2	9 34.59	+28 43.7	2.247	3.155	8.5	19.2	3 2	9 33.38	+0 4.1	1.622	2.572	7.9	18.2
3 12	9 27.50	+28 33.1	2.325	3.164	11.2	19.4	3 12	9 25.38	+1 6.1	1.650	2.554	11.6	18.3
3 22	9 22.53	+28 7.5	2.424	3.173	13.6	19.6	3 22	9 19.67	+2 7.5	1.702	2.535	15.1	18.5
424961	2008 <i>YB</i> ₁₇₀		2 14.6 13°02	7°0/10.2	18		485045	2010 <i>AO</i> ₈₁		2 14.6 298°42	4°6/11.9	18	
1 12	10 14.13	+28 26.5	1.428	2.288	15.1	19.8	1 12	10 17.22	+21 4.9	1.337	2.193	16.3	21.3
1 22	10 9.48	+29 15.3	1.379	2.295	11.6	19.6	1 22	10 12.27	+21 53.1	1.259	2.179	12.2	21.0
2 1	10 1.98	+29 58.3	1.352	2.304	8.3	19.4	2 1	10 4.02	+22 46.6	1.203	2.164	7.7	20.7
2 11	9 52.73	+30 26.0	1.351	2.313	7.0	19.4	2 11	9 53.39	+23 35.6	1.172	2.150	4.7	20.5
2 21	9 43.16	+30 31.6	1.374	2.325	8.7	19.5	2 21	9 41.85	+24 10.3	1.167	2.136	7.0	20.6
3 2	9 34.77	+30 12.3	1.422	2.337	12.0	19.7	3 2	9 31.17	+24 23.9	1.186	2.123	11.8	20.8
3 12	9 28.75	+29 29.9	1.491	2.350	15.3	20.0	3 12	9 22.94	+24 14.1	1.228	2.109	16.4	21.1
3 22	9 25.70	+28 28.7	1.580	2.365	18.3	20.2	3 22	9 18.10	+23 43.1	1.289	2.096	20.5	21.3
491619	2012 <i>TL</i> ₉₁		2 14.6 41°37	0°9/13.8	18		8915	Sawaihujiro		2 14.6 299°28	1°3/16.0	18	
1 12	10 10.69	+13 36.0	2.022	2.855	12.5	21.0	1 12	10 7.45	+6 43.0	3.057	3.856	9.6	17.5
1 22	10 6.16	+14 13.2	1.957	2.866	9.1	20.8	1 22	10 3.30	+6 55.9	2.965	3.852	7.3	17.3
2 1	9 59.73	+14 58.8	1.916	2.877	5.3	20.5	2 1	9 57.87	+7 17.8	2.900	3.847	4.6	17.1
2 11	9 52.12	+15 47.4	1.903	2.888	1.5	20.3	2 11	9 51.62	+7 46.7	2.863	3.843	2.0	16.9
2 21	9 44.19	+16 33.7	1.920	2.900	3.1	20.4	2 21	9 45.10	+8 19.7	2.857	3.839	2.0	16.9
3 2	9 36.91	+17 12.7	1.965	2.912	7.0	20.7	3 2	9 38.88	+8 53.8	2.881	3.835	4.6	17.1
3 12	9 31.10	+17 41.0	2.036	2.924	10.5	20.9	3 12	9 33.55	+9 26.0	2.934	3.831	7.3	17.3
3 22	9 27.30	+17 57.0	2.130	2.937	13.4	21.2	3 22	9 29.52	+9 53.6	3.012	3.827	9.7	17.4
52820	1998 <i>RS</i> ₂		2 14.6 235°24	1°5/13.5	18		501366	2013 <i>YS</i> ₄₂		2 14.6 82°84	0°7/15.1	18	
1 12	10 17.15	+14 5.2	1.733	2.563	14.3	19.8	1 12	10 14.18					

EPHEMERIDES

2 14.6

2 14.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
475627	2006 <i>UN</i> ₁₉₉		2 14.6 131°88	13°1/25.6	18		238089	2003 <i>GA</i> ₃₅		2 14.6 252°97	0°6/14.1	18	
1 12	10 13.77	-19 33.1	1.184	1.903	25.8	21.6	1 12	10 14.19	+10 56.8	1.651	2.482	14.9	20.9
1 22	10 9.78	-19 41.5	1.112	1.910	22.8	21.4	1 22	10 9.44	+11 49.0	1.561	2.468	11.1	20.6
2 1	10 2.54	-18 58.8	1.054	1.917	19.3	21.2	2 1	10 2.09	+12 57.1	1.495	2.454	6.7	20.3
2 11	9 52.99	-17 18.8	1.014	1.923	15.8	21.0	2 11	9 52.88	+14 14.9	1.455	2.440	1.7	20.0
2 21	9 42.62	-14 43.6	0.995	1.929	13.4	20.9	2 21	9 42.87	+15 34.1	1.444	2.425	3.6	20.1
3 2	9 33.18	-11 25.5	0.999	1.935	13.5	20.9	3 2	9 33.38	+16 46.3	1.460	2.410	8.7	20.3
3 12	9 26.25	-7 46.1	1.027	1.940	16.0	21.1	3 12	9 25.67	+17 44.7	1.502	2.395	13.2	20.6
3 22	9 22.73	-4 8.3	1.078	1.944	19.6	21.3	3 22	9 20.60	+18 26.0	1.566	2.379	17.2	20.8
138174	2000 <i>EV</i> ₁₀₃		2 14.6 313°33	3°3/16.7	18		219145	1999 <i>BY</i> ₂₀		2 14.6 335°38	4°6/16.6	18	
1 12	10 11.49	+4 9.4	1.517	2.336	16.6	19.7	1 12	10 14.92	+5 17.3	1.358	2.182	17.9	18.5
1 22	10 7.59	+4 4.5	1.424	2.318	13.0	19.5	1 22	10 10.36	+4 16.7	1.271	2.167	14.1	18.2
2 1	10 1.05	+4 19.1	1.353	2.300	8.7	19.2	2 1	10 2.82	+3 30.4	1.206	2.152	9.7	17.9
2 11	9 52.59	+4 51.6	1.306	2.283	4.5	18.9	2 11	9 53.10	+2 59.1	1.164	2.139	5.6	17.6
2 21	9 43.29	+5 37.7	1.285	2.266	4.0	18.8	2 21	9 42.47	+2 41.9	1.148	2.126	5.3	17.6
3 2	9 34.50	+6 30.7	1.290	2.250	8.4	19.0	3 2	9 32.51	+2 36.1	1.157	2.115	9.4	17.8
3 12	9 27.52	+7 23.2	1.320	2.234	13.1	19.2	3 12	9 24.67	+2 36.6	1.190	2.104	14.1	18.0
3 22	9 23.23	+8 8.6	1.371	2.219	17.3	19.4	3 22	9 19.91	+2 38.4	1.243	2.095	18.4	18.2
455746	2005 <i>JM</i> ₈₅		2 14.6 286°92	0°1/14.7	17		345699	2006 <i>UZ</i> ₂₅₀		2 14.6 15°81	0°4/14.9	18	
1 12	10 13.47	+10 25.2	1.651	2.481	14.9	21.5	1 12	10 9.47	+10 14.6	1.743	2.577	14.1	20.6
1 22	10 8.96	+10 53.1	1.553	2.460	11.3	21.2	1 22	10 5.53	+10 32.7	1.677	2.585	10.5	20.4
2 1	10 1.84	+11 35.6	1.479	2.438	6.9	20.9	2 1	9 59.49	+11 2.9	1.634	2.593	6.3	20.1
2 11	9 52.80	+12 28.3	1.431	2.416	1.9	20.5	2 11	9 52.11	+11 40.7	1.618	2.602	1.9	19.8
2 21	9 42.91	+13 24.7	1.411	2.394	3.3	20.6	2 21	9 44.37	+12 20.8	1.629	2.612	2.8	19.9
3 2	9 33.46	+14 17.3	1.418	2.372	8.4	20.8	3 2	9 37.33	+12 57.6	1.667	2.623	7.2	20.2
3 12	9 25.74	+15 0.2	1.451	2.350	13.2	21.0	3 12	9 31.93	+13 26.7	1.731	2.635	11.1	20.5
3 22	9 20.65	+15 29.5	1.504	2.328	17.2	21.2	3 22	9 28.73	+13 45.4	1.818	2.648	14.4	20.7
377330	2004 <i>OK</i> ₃		2 14.6 205°74	2°0/16.2	17		224220	2005 <i>SL</i> ₄₆		2 14.6 232°84	3°9/11.3	17	
1 12	10 15.45	+5 55.5	2.522	3.312	11.7	21.8	1 12	10 18.07	+23 31.4	2.263	3.093	11.4	22.0
1 22	10 9.42	+5 50.6	2.426	3.306	8.9	21.6	1 22	10 11.71	+24 15.2	2.174	3.079	8.5	21.8
2 1	10 1.64	+5 56.0	2.356	3.299	5.8	21.4	2 1	10 3.17	+24 59.6	2.111	3.065	5.6	21.6
2 11	9 52.67	+6 10.1	2.314	3.292	2.8	21.2	2 11	9 53.13	+25 38.2	2.078	3.050	3.9	21.5
2 21	9 43.26	+6 30.2	2.303	3.284	2.7	21.2	2 21	9 42.55	+26 5.4	2.074	3.034	5.4	21.5
3 2	9 34.27	+6 53.1	2.324	3.275	5.7	21.4	3 2	9 32.49	+26 17.3	2.100	3.017	8.5	21.7
3 12	9 26.47	+7 15.2	2.373	3.266	9.0	21.6	3 12	9 23.95	+26 12.5	2.152	3.000	11.7	21.9
3 22	9 20.44	+7 33.8	2.447	3.256	11.8	21.7	3 22	9 17.63	+25 52.3	2.226	2.982	14.5	22.0
55215	2001 <i>RG</i> ₅₄		2 14.6 183°31	0°7/14.0	18		427309	2014 <i>WW</i> ₂₈₀		2 14.6 156°53	2°2/12.4	18	
1 12	10 13.83	+12 35.4	1.910	2.737	13.3	19.5	1 12	10 15.00	+17 33.8	2.373	3.199	11.1	21.6
1 22	10 8.69	+13 11.3	1.832	2.738	9.8	19.2	1 22	10 9.16	+18 32.4	2.302	3.208	8.1	21.4
2 1	10 1.37	+13 57.5	1.778	2.738	5.8	19.0	2 1	10 1.49	+19 35.8	2.258	3.217	4.8	21.2
2 11	9 52.61	+14 48.6	1.753	2.738	1.5	18.7	2 11	9 52.65	+20 38.3	2.243	3.224	2.3	21.1
2 21	9 43.38	+15 38.7	1.756	2.737	3.2	18.8	2 21	9 43.46	+21 34.1	2.260	3.231	3.9	21.2
3 2	9 34.77	+16 22.0	1.788	2.737	7.5	19.1	3 2	9 34.83	+22 18.7	2.307	3.238	7.1	21.4
3 12	9 27.75	+16 54.5	1.847	2.736	11.3	19.3	3 12	9 27.57	+22 49.6	2.381	3.243	10.2	21.6
3 22	9 22.99	+17 14.2	1.928	2.735	14.6	19.5	3 22	9 22.24	+23 6.1	2.478	3.248	12.8	21.8
371977	2008 <i>GN</i> ₄₀		2 14.6 206°68	0°1/14.5	16		201913	2004 <i>BF</i> ₁₁₆		2 14.6 54°13	3°9/10.8	18	
1 12	10 12.86	+10 36.7	2.131	2.949	12.5	22.2	1 12	10 11.43	+21 24.1	2.026	2.871	12.0	19.8
1 22	10 7.82	+11 18.3	2.045	2.945	9.3	22.0	1 22	10 6.86	+22 39.8	1.964	2.878	8.8	19.7
2 1	10 0.81	+12 11.3	1.984	2.941	5.5	21.8	2 1	10 0.25	+23 58.4	1.928	2.886	5.6	19.5
2 11	9 52.47	+13 11.0	1.951	2.936	1.5	21.5	2 11	9 52.33	+25 12.3	1.920	2.894	3.9	19.4
2 21	9 43.64	+14 11.9	1.949	2.931	2.7	21.6	2 21	9 44.04	+26 14.4	1.941	2.901	5.7	19.5
3 2	9 35.29	+15 8.1	1.976	2.925	6.8	21.8	3 2	9 36.39	+26 59.7	1.990	2.910	8.8	19.7
3 12	9 28.34	+15 55.0	2.030	2.919	10.5	22.0	3 12	9 30.29	+27 26.0	2.064	2.918	11.9	19.9
3 22	9 23.40	+16 30.0	2.108	2.913	13.6	22.2	3 22	9 26.34	+27 33.6	2.159	2.926	14.5	20.1
425887	2011 <i>FJ</i> ₃₆		2 14.6 92°21	3°4/11.6	18		491146	2011 <i>SM</i> ₁₈₁		2 14.6 224°57	1°6/15.8	17	
1 12	10 13.55	+20 32.3	2.010	2.851	12.2	20.7	1 12	10 16.62	+6 46.3	1.911	2.716	14.2	22.8
1 22	10 8.37	+21 29.9	1.947	2.859	9.0	20.5	1 22	10 10.89	+7 1.6	1.815	2.705	10.9	22.5
2 1	10 1.11	+22 30.5	1.909	2.868	5.5	20.3	2 1	10 2.81	+7 31.7	1.743	2.693	6.9	22.3
2 11	9 52.53	+23 27.2	1.899	2.876	3.4	20.2	2 11	9 53.07	+8 13.4	1.699	2.680	2.8	22.0
2 21	9 43.59	+24 13.6	1.918	2.884	5.1	20.3	2 21	9 42.65	+9 1.9	1.684	2.667	3.0	22.0
3 2	9 35.35	+24 45.2	1.965	2.892	8.4	20.6	3 2	9 32.69	+9 51.4	1.699	2.652	7.3	22.2
3 12	9 28.73	+25 0.1	2.038	2.900	11.7	20.8	3 12	9 24.31	+10 36.4	1.740	2.637	11.4	22.4
3 22	9 24.30	+24 58.6	2.132	2.908	14.4	21.0	3 22	9 18.27	+11 12.7	1.805	2.621	15.1	22.6
426969	2013 <i>YM</i> ₁₁₂		2 14.6 263°88	4°6/9.7	18		465953	2011 <i>BK</i> ₄₉		2 14.6 129°14	3°0/12.2	18	
1 12	10 11.68	+25 25.9	2.362	3.203	10.6	20.5	1 12	10 15.29	+19 49.5	1.984	2.821	12.5	21.2
1 22	10 6.91	+26 36.1	2.288	3.197	8.0	20.3	1 22	10 9.69	+20 30.5	1.914	2.825	9.2	21.0
2 1	10 0.24	+27 46.3	2.241	3.192	5.5	20.1	2 1	10 1.93	+21 14.7	1.870	2.830	5.6	20.8
2 11	9 52.31	+28 49.6	2.223	3.187	4.6	20.1	2 11	9 52.79	+21 55.9	1.854	2.834	3.0	20.6
2 21	9 43.95	+29 40.1	2.234	3.181	6.1	20.1	2 21	9 43.26	+22 28.2	1.867	2.838	4.7	20.7
3 2	9 36.10	+30 13.6	2.273	3.176	8.7	20.3	3 2	9 34.43	+22 47.4	1.909	2.841	8.3	20.9
3 12	9 29.61	+30 28.5	2.337	3.170	11.4	20.5	3 12	9 27.28	+22 51.7	1.976	2.845	11.7	21.2
3 22	9 25.08	+30 25.7	2.422	3.164	13.8	20.6	3 22	9 22.40	+22 41.6	2.065	2.848	14.6	21.4
203400	2001 <i>XR</i> ₁₆₃		2 14.6 355°82	0°2/14.5	18		15966	1998 <i>DL</i> ₁₃		2 14.6 61°16	0°7/13.9	18	
1 12	10 11.85	+10 26.0	1.240										

EPHEMERIDES

2 14.6

2 14.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
423171	2004 <i>FS</i> ₉₄		2 14.6 358°05	6°7/ 9.1 18			390539	1999 <i>TV</i> ₅₃		2 14.6 166°07	1°2/13.8 18		
1 12	10 14.08	+25 56.4	1.544	2.400	14.4	20.7	1 12	10 19.26	+13 55.6	1.593	2.424	15.4	21.7
1 22	10 9.54	+27 33.2	1.484	2.399	10.9	20.4	1 22	10 13.08	+14 28.5	1.521	2.429	11.3	21.4
2 1	10 2.18	+29 10.3	1.447	2.399	7.8	20.3	2 1	10 4.19	+15 11.6	1.472	2.432	6.7	21.2
2 11	9 52.92	+30 35.9	1.437	2.398	6.8	20.2	2 11	9 53.49	+15 58.4	1.451	2.435	1.9	20.9
2 21	9 43.06	+31 40.2	1.453	2.398	8.9	20.3	2 21	9 42.24	+16 41.9	1.457	2.438	3.9	21.0
3 2	9 34.08	+32 16.8	1.494	2.399	12.3	20.5	3 2	9 31.84	+17 15.7	1.492	2.440	8.8	21.3
3 12	9 27.26	+32 24.9	1.557	2.399	15.7	20.7	3 12	9 23.52	+17 36.0	1.553	2.441	13.1	21.6
3 22	9 23.35	+32 7.5	1.639	2.400	18.7	20.9	3 22	9 18.03	+17 42.0	1.634	2.442	16.8	21.8
247740	2003 <i>LY</i> ₃		2 14.6 213°28	9°8/22.6 17			366937	2005 <i>VH</i> ₆		2 14.6 120°33	4°9/19.2 18		
1 12	10 16.53	-16 56.3	2.301	2.964	16.0	21.0	1 12	10 14.44	- 4 16.8	2.392	3.138	13.4	21.2
1 22	10 10.63	-17 54.5	2.199	2.955	14.2	20.9	1 22	10 8.63	- 4 27.6	2.319	3.159	10.9	21.0
2 1	10 2.59	-18 29.2	2.117	2.945	12.3	20.7	2 1	10 1.15	- 4 20.6	2.270	3.178	8.1	20.9
2 11	9 53.03	-18 36.8	2.058	2.934	10.6	20.6	2 11	9 52.62	- 3 56.4	2.247	3.197	5.7	20.7
2 21	9 42.78	-18 15.8	2.025	2.922	9.8	20.5	2 21	9 43.82	- 3 17.8	2.254	3.215	4.9	20.7
3 2	9 32.86	-17 28.4	2.018	2.909	10.3	20.5	3 2	9 35.57	- 2 28.7	2.290	3.233	6.4	20.8
3 12	9 24.24	-16 20.2	2.037	2.896	11.8	20.6	3 12	9 28.62	- 1 34.6	2.354	3.250	8.9	21.0
3 22	9 17.66	-14 58.9	2.079	2.881	13.9	20.7	3 22	9 23.47	- 0 40.4	2.444	3.266	11.4	21.2
288750	2004 <i>RD</i> ₆₆		2 14.6 124°79	2°2/16.3 18			162080	1998 <i>DG</i> ₁₆		2 14.6 138°87	28°5/17.2 15		
1 12	10 14.86	+ 4 11.4	1.666	2.474	15.9	21.0	1 12	13 58.94	+42 53.6	0.274	1.065	65.6	19.5
1 22	10 9.62	+ 4 41.9	1.595	2.485	12.2	20.8	1 22	13 17.14	+47 39.0	0.248	1.108	54.3	19.1
2 1	10 2.00	+ 5 31.9	1.548	2.495	7.8	20.6	2 1	12 3.37	+51 32.7	0.228	1.144	41.5	18.6
2 11	9 52.85	+ 6 37.1	1.526	2.506	3.5	20.3	2 11	10 23.35	+50 31.5	0.224	1.173	30.8	18.3
2 21	9 43.23	+ 7 50.8	1.533	2.516	3.2	20.4	2 21	9 1.05	+43 28.7	0.244	1.195	29.3	18.5
3 2	9 34.37	+ 9 5.3	1.569	2.525	7.5	20.6	3 2	8 15.69	+34 42.1	0.286	1.209	35.6	19.0
3 12	9 27.33	+10 13.3	1.630	2.534	11.6	20.9	3 12	7 55.74	+27 12.9	0.341	1.217	42.7	19.6
3 22	9 22.77	+11 9.7	1.715	2.543	15.2	21.1	3 22	7 49.85	+21 26.1	0.404	1.217	48.5	20.2
108673	2001 <i>OT</i> ₄		2 14.6 181°46	1°4/15.9 18			506309	2017 <i>OU</i>		2 14.6 208°59	4°3/18.7 17		
1 12	10 13.89	+ 6 31.6	2.351	3.149	12.1	20.7	1 12	10 13.19	- 3 5.9	2.665	3.413	12.1	22.6
1 22	10 8.38	+ 6 54.5	2.264	3.150	9.2	20.5	1 22	10 7.77	- 3 12.9	2.563	3.405	9.9	22.4
2 1	10 1.08	+ 7 29.7	2.203	3.151	5.8	20.3	2 1	10 0.71	- 3 4.3	2.485	3.397	7.3	22.3
2 11	9 52.59	+ 8 14.2	2.170	3.151	2.3	20.0	2 11	9 52.54	- 2 40.5	2.434	3.388	5.0	22.1
2 21	9 43.69	+ 9 3.6	2.168	3.150	2.4	20.0	2 21	9 43.93	- 2 3.4	2.414	3.378	4.3	22.0
3 2	9 35.26	+ 9 53.3	2.196	3.149	5.9	20.3	3 2	9 35.64	- 1 16.7	2.423	3.368	6.0	22.1
3 12	9 28.10	+10 38.7	2.252	3.147	9.3	20.5	3 12	9 28.41	- 0 24.8	2.462	3.357	8.6	22.3
3 22	9 22.78	+11 16.7	2.333	3.144	12.3	20.7	3 22	9 22.80	+ 0 27.6	2.526	3.345	11.2	22.4
429243	2010 <i>AF</i> ₈₆		2 14.6 306°79	2°3/12.8 17			460132	2014 <i>PN</i> ₄₄		2 14.6 197°15	4°1/17.6 18		
1 12	10 13.80	+18 37.4	2.054	2.890	12.2	20.9	1 12	10 15.40	+ 0 36.2	1.822	2.609	15.6	21.8
1 22	10 8.64	+19 3.2	1.971	2.882	9.0	20.7	1 22	10 10.01	+ 0 31.7	1.735	2.607	12.3	21.6
2 1	10 1.36	+19 32.9	1.913	2.873	5.4	20.4	2 1	10 2.30	+ 0 46.6	1.671	2.604	8.7	21.4
2 11	9 52.68	+20 1.3	1.883	2.864	2.4	20.2	2 11	9 53.01	+ 1 19.6	1.632	2.601	5.2	21.2
2 21	9 43.53	+20 23.4	1.882	2.856	4.1	20.3	2 21	9 43.11	+ 2 7.2	1.622	2.598	4.4	21.1
3 2	9 34.95	+20 35.0	1.909	2.848	7.8	20.5	3 2	9 33.78	+ 3 3.6	1.640	2.593	7.5	21.3
3 12	9 27.90	+20 34.2	1.963	2.840	11.3	20.7	3 12	9 26.07	+ 4 2.0	1.684	2.589	11.3	21.5
3 22	9 23.02	+20 20.7	2.038	2.832	14.4	20.9	3 22	9 20.73	+ 4 56.3	1.752	2.584	14.8	21.7
472683	2015 <i>EN</i> ₆₂		2 14.6 278°07	2°7/12.4 17			297316	1999 <i>HV</i> ₇		2 14.6 359°15	3°7/12.5 18		
1 12	10 15.40	+20 48.6	2.339	3.170	11.1	21.0	1 12	10 13.70	+18 15.5	1.171	2.036	17.4	20.1
1 22	10 9.66	+21 9.7	2.245	3.153	8.2	20.8	1 22	10 9.77	+19 3.1	1.108	2.033	12.9	19.8
2 1	10 1.92	+21 32.3	2.178	3.136	5.1	20.6	2 1	10 2.56	+19 59.4	1.066	2.031	7.8	19.5
2 11	9 52.84	+21 51.6	2.139	3.118	2.7	20.4	2 11	9 53.12	+20 54.6	1.048	2.030	3.8	19.3
2 21	9 43.26	+22 3.2	2.131	3.101	4.2	20.5	2 21	9 42.99	+21 38.4	1.055	2.031	6.3	19.4
3 2	9 34.16	+22 4.0	2.152	3.084	7.5	20.6	3 2	9 33.93	+22 3.3	1.086	2.032	11.4	19.7
3 12	9 26.45	+21 52.4	2.199	3.066	10.7	20.8	3 12	9 27.45	+22 6.1	1.138	2.034	16.3	20.0
3 22	9 20.76	+21 28.9	2.270	3.049	13.6	21.0	3 22	9 24.34	+21 47.9	1.209	2.037	20.3	20.3
307603	2003 <i>QE</i> ₃₇		2 14.6 108°77	2°9/12.7 18			3805	Goldreich		2 14.6 109°91	1°5/15.7 18 R		
1 12	10 19.12	+18 53.8	1.654	2.493	14.5	20.4	1 12	10 17.33	+ 8 16.5	2.080	2.885	13.3	17.4
1 22	10 12.78	+19 29.8	1.593	2.505	10.6	20.2	1 22	10 10.94	+ 8 11.4	2.012	2.902	10.0	17.2
2 1	10 3.88	+20 9.8	1.557	2.517	6.4	20.0	2 1	10 2.59	+ 8 16.9	1.968	2.918	6.2	17.0
2 11	9 53.36	+20 46.8	1.547	2.528	3.0	19.8	2 11	9 53.03	+ 8 30.1	1.953	2.934	2.4	16.8
2 21	9 42.48	+21 14.2	1.566	2.539	5.0	19.9	2 21	9 43.19	+ 8 47.7	1.967	2.950	2.7	16.8
3 2	9 32.58	+21 27.6	1.612	2.550	9.1	20.2	3 2	9 34.06	+ 9 5.9	2.012	2.965	6.4	17.1
3 12	9 24.77	+21 25.3	1.684	2.561	12.9	20.4	3 12	9 26.52	+ 9 21.1	2.084	2.980	9.9	17.3
3 22	9 19.69	+21 8.3	1.777	2.571	16.2	20.7	3 22	9 21.09	+ 9 31.1	2.181	2.995	12.9	17.5
1609	Brenda		2 14.6 160°13	4°8/ 9.4 18			68378	2001 <i>PK</i> ₃₇		2 14.6 99°37	8°2/ 8.1 18		
1 12	10 15.42	+25 8.4	2.347	3.181	10.9	15.5	1 12	10 21.01	+34 19.7	1.857	2.691	13.4	19.2
1 22	10 9.66	+26 43.0	2.283	3.189	8.2	15.4	1 22	10 14.17	+35 38.6	1.815	2.707	10.7	19.0
2 1	10 1.91	+28 17.6	2.248	3.196	5.7	15.2	2 1	10 4.69	+36 47.1	1.797	2.723	8.7	18.9
2 11	9 52.84	+29 44.2	2.242	3.202	4.8	15.2	2 11	9 53.60	+37 35.7	1.806	2.739	8.3	18.9
2 21	9 43.34	+30 56.0	2.266	3.208	6.4	15.3	2 21	9 42.24	+37 58.1	1.842	2.755	9.7	19.1
3 2	9 34.40	+31 48.4	2.319	3.212	9.0	15.5	3 2	9 32.02	+37 52.3	1.903	2.770	12.0	19.2
3 12	9 26.93	+32 19.7	2.398	3.217	11.6	15.6	3 12	9 24.06	+37 20.9	1.987	2.785	14.5	19.4
3 22	9 21.53	+32 31.2	2.498	3.220	13.9	15.8	3 22	9 18.94	+36 29.0	2.090	2.799	16.6	19.6
519793	2013 <i>GS</i> ₁₀₉		2 14.6 254°91	2°6/12.5 17			156559	2002 <i>EX</i> ₅₁		2 14.6 107°62	0°2/14.8 18		
1 12	10 13.66	+15 48.0	1.698	2.539									

EPHEMERIDES

2 14.6

2 14.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
249127	2007 YR ₁₉	2 14.6 312°69		7°2/19.9 17			198510	2004 XZ ₈₂	2 14.6 163°54		1°4/13.4 18		
1 12	10 12.02	- 7 37.3	2.212	2.949	14.6	20.1	1 12	10 12.88	+15 5.6	2.107	2.938	12.2	20.5
1 22	10 7.29	- 8 33.8	2.112	2.936	12.4	19.9	1 22	10 7.87	+15 46.1	2.031	2.939	8.9	20.3
2 1	10 0.61	- 9 12.0	2.034	2.923	10.0	19.7	2 1	10 0.89	+16 33.9	1.980	2.940	5.2	20.1
2 11	9 52.56	- 9 29.8	1.982	2.910	8.0	19.6	2 11	9 52.63	+17 23.7	1.957	2.941	1.7	19.8
2 21	9 43.92	- 9 26.9	1.955	2.897	7.3	19.5	2 21	9 43.96	+18 9.9	1.964	2.942	3.4	19.9
3 2	9 35.61	- 9 5.5	1.956	2.885	8.4	19.5	3 2	9 35.85	+18 47.7	2.000	2.943	7.2	20.2
3 12	9 28.56	- 8 30.2	1.984	2.873	10.7	19.7	3 12	9 29.20	+19 13.7	2.063	2.944	10.7	20.4
3 22	9 23.41	- 7 46.9	2.034	2.861	13.2	19.8	3 22	9 24.59	+19 26.7	2.148	2.944	13.7	20.6
140916	2001 VN ₆₂	2 14.6 122°43		3°6/11.0 18			236079	2005 JK ₁₅₈	2 14.6 324°64		1°5/15.7 17		
1 12	10 13.53	+23 53.0	2.544	3.378	10.2	20.0	1 12	10 10.79	+ 7 51.0	1.819	2.642	14.1	20.2
1 22	10 8.03	+24 40.1	2.480	3.388	7.5	19.9	1 22	10 6.70	+ 7 56.7	1.728	2.627	10.8	20.0
2 1	10 0.82	+25 26.6	2.443	3.397	4.9	19.7	2 1	10 0.39	+ 8 16.2	1.659	2.613	6.8	19.7
2 11	9 52.56	+26 7.3	2.435	3.406	3.6	19.6	2 11	9 52.54	+ 8 46.4	1.617	2.599	2.7	19.4
2 21	9 44.03	+26 37.5	2.457	3.414	4.9	19.7	2 21	9 44.07	+ 9 23.1	1.602	2.586	2.9	19.4
3 2	9 36.08	+26 54.4	2.509	3.423	7.5	19.9	3 2	9 36.09	+10 0.9	1.615	2.573	7.2	19.6
3 12	9 29.45	+26 56.8	2.586	3.431	10.1	20.1	3 12	9 29.64	+10 34.5	1.654	2.561	11.4	19.8
3 22	9 24.65	+26 45.6	2.686	3.439	12.3	20.3	3 22	9 25.44	+11 0.1	1.716	2.549	15.0	20.0
217928	2001 TL ₂₁	2 14.6 194°98		1°2/13.5 17			124402	2001 QQ ₁₉₈	2 14.6 132°15		0°7/14.1 18		
1 12	10 14.21	+14 5.9	2.345	3.166	11.4	21.6	1 12	10 19.22	+12 58.6	1.785	2.607	14.3	20.3
1 22	10 8.71	+14 53.0	2.260	3.163	8.4	21.4	1 22	10 12.69	+13 28.2	1.719	2.622	10.6	20.1
2 1	10 1.34	+15 47.8	2.201	3.160	4.9	21.1	2 1	10 3.79	+14 7.2	1.678	2.636	6.2	19.9
2 11	9 52.73	+16 45.5	2.172	3.156	1.5	20.9	2 11	9 53.41	+14 49.9	1.665	2.650	1.6	19.6
2 21	9 43.67	+17 40.7	2.173	3.152	3.1	21.0	2 21	9 42.66	+15 30.4	1.681	2.662	3.3	19.8
3 2	9 35.08	+18 28.4	2.205	3.146	6.7	21.2	3 2	9 32.76	+16 3.2	1.727	2.674	7.7	20.1
3 12	9 27.80	+19 5.0	2.264	3.140	10.1	21.4	3 12	9 24.76	+16 25.0	1.799	2.686	11.7	20.3
3 22	9 22.42	+19 29.0	2.347	3.134	12.9	21.6	3 22	9 19.27	+16 34.6	1.893	2.696	15.0	20.6
53603	2000 CF ₇₅	2 14.6 184°23		1°9/13.1 18			411382	2010 VE ₆₈	2 14.6 112°93		2°1/16.4 18		
1 12	10 17.78	+15 11.3	1.894	2.721	13.5	19.9	1 12	10 15.48	+ 4 37.6	2.089	2.883	13.6	22.3
1 22	10 11.73	+16 6.9	1.815	2.722	9.9	19.7	1 22	10 9.59	+ 4 54.4	2.023	2.904	10.3	22.1
2 1	10 3.30	+17 11.4	1.762	2.722	5.8	19.5	2 1	10 1.80	+ 5 25.5	1.981	2.925	6.7	21.9
2 11	9 53.29	+18 18.1	1.738	2.721	2.1	19.2	2 11	9 52.85	+ 6 7.8	1.967	2.945	3.1	21.7
2 21	9 42.72	+19 19.5	1.743	2.719	4.1	19.4	2 21	9 43.63	+ 6 56.8	1.983	2.964	2.8	21.7
3 2	9 32.80	+20 9.6	1.778	2.717	8.2	19.6	3 2	9 35.08	+ 7 47.1	2.029	2.983	6.2	22.0
3 12	9 24.60	+20 44.4	1.838	2.713	12.1	19.8	3 12	9 28.05	+ 8 34.0	2.103	3.001	9.7	22.2
3 22	9 18.83	+21 2.9	1.922	2.709	15.4	20.0	3 22	9 23.06	+ 9 13.6	2.201	3.019	12.7	22.5
43405	2000 WX ₁₂₉	2 14.6 272°78		8°3/ 8.8 18			354046	2001 SY ₁₅₁	2 14.6 95°39		2°0/16.1 18		
1 12	10 20.48	+31 38.3	1.586	2.431	14.7	19.1	1 12	10 17.89	+ 5 20.2	1.578	2.388	16.5	21.4
1 22	10 14.40	+32 51.8	1.520	2.424	11.7	18.8	1 22	10 11.80	+ 5 43.7	1.522	2.413	12.5	21.2
2 1	10 5.17	+33 58.5	1.479	2.417	9.1	18.7	2 1	10 3.28	+ 6 25.3	1.488	2.437	7.9	21.0
2 11	9 53.82	+34 47.2	1.462	2.410	8.4	18.6	2 11	9 53.26	+ 7 20.2	1.481	2.461	3.3	20.7
2 21	9 41.82	+35 9.1	1.472	2.403	10.1	18.7	2 21	9 42.95	+ 8 21.7	1.502	2.485	3.2	20.8
3 2	9 30.86	+35 0.3	1.506	2.396	13.2	18.9	3 2	9 33.62	+ 9 22.5	1.551	2.507	7.6	21.1
3 12	9 22.35	+34 22.7	1.563	2.389	16.4	19.0	3 12	9 26.32	+10 16.2	1.627	2.529	11.8	21.4
3 22	9 17.10	+33 21.7	1.637	2.382	19.3	19.2	3 22	9 21.64	+10 58.7	1.725	2.551	15.3	21.7
376633	2013 PL ₆₈	2 14.6 229°30		1°2/15.7 17			349229	2007 TH ₃₁	2 14.6 99°26		4°5/10.4 18		
1 12	10 12.37	+ 6 10.9	2.187	2.991	12.7	22.3	1 12	10 14.28	+25 59.3	2.288	3.126	11.0	20.7
1 22	10 7.53	+ 6 51.2	2.091	2.980	9.7	22.1	1 22	10 8.79	+26 52.5	2.226	3.133	8.3	20.5
2 1	10 0.74	+ 7 46.6	2.019	2.969	6.1	21.9	2 1	10 1.38	+27 43.8	2.190	3.140	5.7	20.3
2 11	9 52.60	+ 8 53.5	1.975	2.957	2.3	21.6	2 11	9 52.75	+28 26.8	2.182	3.147	4.6	20.3
2 21	9 43.91	+10 6.6	1.961	2.944	2.5	21.6	2 21	9 43.81	+28 56.4	2.203	3.153	6.0	20.4
3 2	9 35.61	+11 19.5	1.978	2.931	6.4	21.8	3 2	9 35.54	+29 9.4	2.253	3.160	8.6	20.5
3 12	9 28.59	+12 26.5	2.022	2.918	10.2	22.0	3 12	9 28.77	+29 5.3	2.327	3.166	11.3	20.7
3 22	9 23.51	+13 23.3	2.091	2.904	13.4	22.2	3 22	9 24.06	+28 45.4	2.424	3.173	13.6	20.9
344842	2004 FV ₁₆₅	2 14.6 101°25		2°8/12.9 18			233516	2007 FZ ₃₂	2 14.6 281°18		2°5/13.1 18		
1 12	10 19.64	+17 23.2	1.349	2.196	16.7	21.1	1 12	10 16.47	+16 14.5	1.396	2.244	16.2	20.3
1 22	10 13.70	+18 2.4	1.289	2.205	12.3	20.8	1 22	10 11.54	+16 56.5	1.319	2.235	12.0	20.0
2 1	10 4.68	+18 49.1	1.251	2.213	7.3	20.5	2 1	10 3.57	+17 48.8	1.263	2.226	7.2	19.7
2 11	9 53.67	+19 34.7	1.238	2.221	3.0	20.3	2 11	9 53.44	+18 43.4	1.234	2.217	2.7	19.4
2 21	9 42.15	+20 10.8	1.253	2.229	5.3	20.5	2 21	9 42.51	+19 31.5	1.231	2.208	5.1	19.5
3 2	9 31.77	+20 31.4	1.294	2.237	10.2	20.8	3 2	9 32.38	+20 5.5	1.254	2.199	10.2	19.8
3 12	9 23.86	+20 34.1	1.358	2.245	14.7	21.0	3 12	9 24.50	+20 21.4	1.300	2.191	15.0	20.0
3 22	9 19.17	+20 19.8	1.442	2.253	18.5	21.3	3 22	9 19.74	+20 18.6	1.366	2.182	19.1	20.2
30239	2000 HZ ₄	2 14.6 290°79		9°3/ 7.2 18			340709	2006 SJ ₄₅	2 14.6 316°56		5°4/19.5 18		
1 12	10 19.46	+35 23.4	1.713	2.552	14.1	18.2	1 12	10 9.59	- 4 33.0	2.168	2.928	14.2	20.3
1 22	10 13.55	+36 48.9	1.654	2.547	11.5	18.0	1 22	10 5.45	- 4 45.0	2.075	2.922	11.7	20.1
2 1	10 4.61	+38 4.5	1.618	2.542	9.7	17.9	2 1	9 59.49	- 4 37.2	2.005	2.917	8.9	19.9
2 11	9 53.66	+38 59.0	1.608	2.537	9.4	17.9	2 11	9 52.28	- 4 9.7	1.960	2.911	6.3	19.8
2 21	9 42.13	+39 24.3	1.623	2.532	11.0	18.0	2 21	9 44.59	- 3 24.7	1.943	2.906	5.4	19.7
3 2	9 31.61	+39 17.2	1.663	2.527	13.6	18.1	3 2	9 37.32	- 2 26.6	1.953	2.900	7.0	19.8
3 12	9 23.47	+38 40.0	1.724	2.522	16.3	18.3	3 12	9 31.30	- 1 21.6	1.991	2.895	9.8	19.9
3 22	9 18.46	+37 38.3	1.802	2.517	18.8	18.4	3 22	9 27.14	- 0 15.9	2.052	2.891	12.7	20.1
89271	2001 VS ₁₀	2 14.6 162°13		0°1/14.6 18			245943	Davidjoseph	2 14.6 307°37		0°6/14.1 17		
1 12	10 18.98	+11 55.7	1.747	2.569	14.6	20.2	1 12	10 11.08	+13 2.6	2.101	2.930	12.2	20.8
1 22	10 12.66												

EPHEMERIDES

2 14.6

2 14.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
465735	2009 VF ₂₉		2 14.6 84°96'	1°0/15.4	18		40553	1999 RE ₁₁₅		2 14.6 267°57'	1°4/13.7	18	
1 12	10 13.67	+ 8 43.8	1.915	2.732	13.7	21.6	1 12	10 15.86	+14 21.9	1.641	2.478	14.7	19.1
1 22	10 8.53	+ 8 56.8	1.842	2.740	10.3	21.4	1 22	10 10.76	+14 54.6	1.554	2.465	10.9	18.8
2 1	10 1.32	+ 9 22.0	1.793	2.747	6.4	21.2	2 1	10 2.99	+15 37.8	1.490	2.451	6.5	18.5
2 11	9 52.77	+ 9 55.7	1.771	2.754	2.2	20.9	2 11	9 53.32	+16 25.3	1.452	2.437	1.9	18.2
2 21	9 43.83	+10 33.1	1.778	2.761	2.7	20.9	2 21	9 42.89	+17 10.3	1.443	2.423	4.0	18.3
3 2	9 35.54	+11 9.4	1.814	2.768	6.8	21.2	3 2	9 33.06	+17 46.1	1.461	2.409	8.8	18.5
3 12	9 28.82	+11 39.9	1.876	2.776	10.6	21.5	3 12	9 25.10	+18 8.3	1.504	2.395	13.3	18.8
3 22	9 24.29	+12 1.9	1.961	2.783	13.9	21.7	3 22	9 19.85	+18 15.4	1.568	2.380	17.2	19.0
239916	2000 SM ₃₃₈		2 14.6 154°34'	2°8/12.4	18		430669	2003 UZ ₂₄₂		2 14.6 189°51'	6°1/8.3	17	
1 12	10 17.27	+17 42.9	1.862	2.696	13.4	21.5	1 12	10 17.16	+32 30.4	2.495	3.323	10.6	21.5
1 22	10 11.33	+18 43.1	1.794	2.704	9.8	21.3	1 22	10 10.95	+33 34.7	2.429	3.322	8.4	21.3
2 1	10 3.05	+19 49.5	1.751	2.711	5.9	21.0	2 1	10 2.72	+34 33.0	2.390	3.320	6.6	21.2
2 11	9 53.25	+20 54.6	1.737	2.718	2.8	20.9	2 11	9 53.17	+35 18.4	2.380	3.319	6.2	21.2
2 21	9 43.00	+21 51.2	1.752	2.723	4.8	21.0	2 21	9 43.25	+35 45.6	2.398	3.316	7.5	21.2
3 2	9 33.49	+22 33.5	1.795	2.729	8.6	21.2	3 2	9 33.96	+35 52.2	2.444	3.314	9.6	21.4
3 12	9 25.77	+22 58.8	1.864	2.733	12.3	21.5	3 12	9 26.21	+35 38.4	2.514	3.311	11.8	21.5
3 22	9 20.50	+23 7.0	1.955	2.737	15.3	21.7	3 22	9 20.60	+35 6.8	2.605	3.307	13.8	21.7
454134	2013 CR ₁₈₈		2 14.6 309°04'	3°1/12.5	18		68589	2002 AG ₁₀		2 14.6 315°76'	2°7/12.9	18	
1 12	10 12.91	+16 16.2	1.319	2.175	16.4	21.0	1 12	10 14.71	+16 44.9	1.386	2.238	16.0	19.0
1 22	10 9.14	+17 18.8	1.237	2.159	12.2	20.7	1 22	10 10.26	+17 28.4	1.310	2.229	11.9	18.7
2 1	10 2.28	+18 34.8	1.178	2.142	7.3	20.3	2 1	10 2.83	+18 21.9	1.256	2.219	7.1	18.4
2 11	9 53.15	+19 55.1	1.143	2.126	3.2	20.1	2 11	9 53.29	+19 17.1	1.227	2.210	2.9	18.2
2 21	9 43.05	+21 8.5	1.135	2.111	5.9	20.2	2 21	9 42.99	+20 5.1	1.224	2.202	5.3	18.3
3 2	9 33.63	+22 5.3	1.151	2.095	11.1	20.4	3 2	9 33.47	+20 38.5	1.248	2.193	10.3	18.5
3 12	9 26.45	+22 39.7	1.190	2.081	16.1	20.6	3 12	9 26.16	+20 53.2	1.294	2.185	15.0	18.8
3 22	9 22.46	+22 50.3	1.247	2.067	20.3	20.9	3 22	9 21.92	+20 48.9	1.360	2.178	19.0	19.0
60225	1999 VK ₁₂₂		2 14.6 213°84'	5°1/10.8	18		66589	1999 RE ₁₆₈		2 14.6 125°80'	0°9/13.9	18	
1 12	10 19.19	+22 38.4	1.644	2.487	14.4	20.6	1 12	10 17.32	+13 29.7	1.865	2.690	13.7	19.9
1 22	10 13.28	+23 55.4	1.569	2.481	10.7	20.3	1 22	10 11.25	+14 4.5	1.799	2.704	10.1	19.7
2 1	10 4.49	+25 16.2	1.518	2.474	7.1	20.1	2 1	10 2.95	+14 48.0	1.758	2.717	5.9	19.5
2 11	9 53.70	+26 30.7	1.495	2.467	5.1	20.0	2 11	9 53.24	+15 34.7	1.746	2.730	1.6	19.2
2 21	9 42.17	+27 29.2	1.500	2.459	7.2	20.1	2 21	9 43.18	+16 18.5	1.762	2.743	3.3	19.3
3 2	9 31.40	+28 5.3	1.532	2.450	11.0	20.3	3 2	9 33.91	+16 54.2	1.808	2.755	7.5	19.6
3 12	9 22.74	+28 17.0	1.587	2.440	14.9	20.5	3 12	9 26.40	+17 18.4	1.881	2.766	11.3	19.9
3 22	9 17.02	+28 6.1	1.663	2.430	18.2	20.7	3 22	9 21.26	+17 30.0	1.975	2.777	14.5	20.1
375304	2008 QM ₂₁		2 14.6 83°83'	1°6/15.7	18		407847	2012 BT ₅₂		2 14.6 60°30'	1°6/13.4	18	
1 12	10 17.12	+ 8 34.2	2.025	2.832	13.5	20.8	1 12	10 12.32	+12 32.2	1.568	2.409	15.1	21.1
1 22	10 10.86	+ 8 18.9	1.957	2.848	10.2	20.6	1 22	10 7.99	+13 46.3	1.504	2.417	11.0	20.9
2 1	10 2.59	+ 8 13.9	1.913	2.864	6.4	20.4	2 1	10 1.20	+15 14.2	1.464	2.426	6.4	20.6
2 11	9 53.10	+ 8 16.5	1.898	2.879	2.6	20.2	2 11	9 52.80	+16 47.5	1.450	2.435	2.0	20.4
2 21	9 43.32	+ 8 23.9	1.912	2.895	2.7	20.2	2 21	9 43.92	+18 16.6	1.465	2.444	4.2	20.5
3 2	9 34.27	+ 8 32.6	1.956	2.910	6.5	20.5	3 2	9 35.82	+19 33.0	1.507	2.453	8.8	20.8
3 12	9 26.84	+ 8 39.4	2.027	2.925	10.0	20.7	3 12	9 29.60	+20 31.0	1.574	2.463	13.0	21.1
3 22	9 21.57	+ 8 42.0	2.122	2.940	13.1	20.9	3 22	9 25.95	+21 8.8	1.662	2.472	16.5	21.4
281341	2007 TY ₄₄₁		2 14.6 109°08'	1°5/16.1	18		169332	2001 TU ₁₆₆		2 14.6 123°26'	7°7/23.1	18	
1 12	10 12.42	+ 6 23.6	2.485	3.282	11.6	21.5	1 12	10 11.11	-14 58.8	2.652	3.328	13.8	20.0
1 22	10 7.14	+ 6 35.1	2.413	3.298	8.7	21.3	1 22	10 6.27	-15 37.2	2.568	3.336	12.1	19.9
2 1	10 0.29	+ 6 57.5	2.366	3.313	5.6	21.1	2 1	9 59.85	-15 54.9	2.504	3.344	10.2	19.8
2 11	9 52.47	+ 7 28.1	2.349	3.328	2.4	20.9	2 11	9 52.40	-15 50.1	2.465	3.353	8.6	19.7
2 21	9 44.39	+ 8 3.4	2.361	3.343	2.3	20.9	2 21	9 44.60	-15 23.5	2.451	3.360	7.8	19.6
3 2	9 36.84	+ 8 39.5	2.404	3.358	5.4	21.2	3 2	9 37.20	-14 37.7	2.465	3.368	8.1	19.7
3 12	9 30.49	+ 9 12.8	2.475	3.372	8.5	21.4	3 12	9 30.90	-13 37.8	2.505	3.375	9.4	19.8
3 22	9 25.84	+ 9 40.4	2.571	3.386	11.2	21.6	3 22	9 26.21	-12 29.7	2.569	3.383	11.2	19.9
290575	2005 UO ₁₂₈		2 14.6 240°37'	1°7/16.1	17		130502	2000 QR ₁₃₈		2 14.6 197°19'	0°7/15.2	18	
1 12	10 13.61	+ 5 58.8	2.230	3.030	12.6	21.8	1 12	10 15.59	+ 8 33.2	1.894	2.707	14.0	21.0
1 22	10 8.45	+ 6 15.2	2.129	3.015	9.7	21.6	1 22	10 10.13	+ 9 5.9	1.808	2.705	10.5	20.8
2 1	10 1.32	+ 6 45.1	2.052	2.999	6.3	21.3	2 1	10 2.41	+ 9 52.7	1.748	2.702	6.5	20.6
2 11	9 52.82	+ 7 25.8	2.003	2.983	2.7	21.1	2 11	9 53.14	+10 49.3	1.714	2.698	2.1	20.3
2 21	9 43.74	+ 8 13.4	1.985	2.967	2.7	21.0	2 21	9 43.31	+11 49.5	1.710	2.694	2.8	20.3
3 2	9 35.02	+ 9 2.9	1.996	2.950	6.3	21.2	3 2	9 34.03	+12 47.1	1.736	2.689	7.2	20.6
3 12	9 27.57	+ 9 49.4	2.035	2.932	10.0	21.4	3 12	9 26.36	+13 36.5	1.788	2.683	11.3	20.8
3 22	9 22.05	+10 28.9	2.098	2.914	13.3	21.6	3 22	9 20.99	+14 14.2	1.863	2.677	14.8	21.0
282647	2005 UB ₅₃		2 14.6 90°92'	2°5/12.9	18		62751	2000 UD ₅		2 14.6 18°30'	0°6/15.0	18	
1 12	10 19.34	+15 50.9	1.437	2.278	16.2	20.8	1 12	10 12.94	+ 9 48.7	1.227	2.074	18.0	19.0
1 22	10 13.15	+16 49.3	1.388	2.301	11.8	20.5	1 22	10 8.95	+10 6.5	1.164	2.078	13.5	18.7
2 1	10 4.20	+17 56.2	1.362	2.324	6.9	20.3	2 1	10 1.99	+10 41.6	1.122	2.083	8.2	18.4
2 11	9 53.56	+19 2.7	1.363	2.346	2.7	20.1	2 11	9 53.05	+11 28.2	1.104	2.089	2.5	18.1
2 21	9 42.62	+19 59.9	1.391	2.368	4.9	20.3	2 21	9 43.53	+12 18.5	1.111	2.095	3.6	18.2
3 2	9 32.85	+20 41.4	1.447	2.389	9.5	20.6	3 2	9 35.00	+13 4.3	1.144	2.103	9.2	18.5
3 12	9 25.41	+21 4.2	1.527	2.410	13.7	20.9	3 12	9 28.81	+13 38.9	1.199	2.111	14.2	18.8
3 22	9 20.91	+21 8.9	1.627	2.430	17.1	21.2	3 22	9 25.69	+13 59.1	1.274	2.120	18.4	19.1
10481	Esipov		2 14.6 143°74'	0°0/14.6	18		241664	2000 ON ₈		2 14.6 169°40'	3°5/17.5	16	
1 12	10 17.67	+11 8.5	1.874	2.692	14.0	18.9	1 12	10 16.40	+ 1 20.8				

EPHEMERIDES

2 14.6

2 14.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
385023	2012 TA ₂₈₅		2 14.6 201°39	5°3/ 9.1	17		258095	2001 QZ ₁₃₇		2 14.6 104°90	1°6/16.1	18	
1 12	10 15.03	+30 6.7	2.604	3.435	10.1	21.4	1 12	10 16.43	+5 51.2	2.277	3.069	12.6	21.2
1 22	10 9.30	+31 3.9	2.534	3.432	7.8	21.3	1 22	10 10.12	+6 8.8	2.216	3.098	9.6	21.0
2 1	10 1.71	+31 56.9	2.491	3.429	5.9	21.1	2 1	10 2.08	+6 38.6	2.181	3.126	6.1	20.8
2 11	9 52.92	+32 39.5	2.477	3.426	5.3	21.1	2 11	9 53.01	+7 17.2	2.174	3.154	2.6	20.7
2 21	9 43.77	+33 7.1	2.492	3.423	6.6	21.2	2 21	9 43.75	+8 0.6	2.199	3.181	2.5	20.7
3 2	9 35.18	+33 16.8	2.535	3.419	8.7	21.3	3 2	9 35.17	+8 44.0	2.253	3.206	5.8	21.0
3 12	9 27.97	+33 8.4	2.603	3.415	11.0	21.4	3 12	9 28.03	+9 23.5	2.337	3.231	9.0	21.2
3 22	9 22.70	+32 43.6	2.693	3.411	13.1	21.6	3 22	9 22.81	+9 56.1	2.445	3.256	11.8	21.4
256934	2008 EK ₃₂		2 14.6 15°64	1°6/15.6	18		185872	2000 KZ		2 14.7 239°86	0°4/14.4	17	
1 12	10 15.11	+8 47.4	1.492	2.321	16.3	20.2	1 12	10 14.21	+11 54.6	1.990	2.813	13.1	21.5
1 22	10 10.15	+8 39.6	1.420	2.323	12.4	19.9	1 22	10 9.09	+12 26.1	1.901	2.804	9.7	21.3
2 1	10 2.56	+8 45.9	1.370	2.326	7.7	19.7	2 1	10 1.80	+13 8.2	1.836	2.794	5.8	21.0
2 11	9 53.20	+9 3.0	1.346	2.328	2.9	19.4	2 11	9 53.02	+13 56.4	1.798	2.783	1.5	20.7
2 21	9 43.30	+9 26.0	1.348	2.332	3.3	19.4	2 21	9 43.66	+14 44.9	1.791	2.773	3.0	20.8
3 2	9 34.22	+9 49.5	1.377	2.335	8.1	19.7	3 2	9 34.79	+15 28.3	1.812	2.762	7.3	21.0
3 12	9 27.16	+10 8.5	1.431	2.340	12.6	20.0	3 12	9 27.42	+16 2.1	1.860	2.750	11.2	21.2
3 22	9 22.84	+10 19.6	1.507	2.344	16.5	20.2	3 22	9 22.24	+16 23.9	1.931	2.738	14.6	21.4
322731	2000 SK ₁₆₃		2 14.6 218°15	1°2/15.7	17		432578	2010 OR ₇₅		2 14.7 286°95	5°7/19.7	17	
1 12	10 13.49	+7 18.1	2.301	3.104	12.2	21.6	1 12	10 10.62	-5 29.7	2.290	3.039	13.9	20.9
1 22	10 8.26	+7 37.0	2.207	3.096	9.3	21.4	1 22	10 6.18	-5 52.9	2.195	3.033	11.5	20.7
2 1	10 1.17	+8 7.9	2.138	3.088	5.8	21.2	2 1	9 59.95	-5 57.4	2.122	3.026	8.9	20.5
2 11	9 52.81	+8 47.8	2.098	3.079	2.2	20.9	2 11	9 52.50	-5 42.9	2.075	3.019	6.6	20.4
2 21	9 43.96	+9 32.7	2.087	3.070	2.4	20.9	2 21	9 44.57	-5 10.7	2.056	3.012	5.7	20.3
3 2	9 35.53	+10 17.8	2.107	3.060	6.1	21.1	3 2	9 37.03	-4 24.6	2.064	3.006	7.1	20.4
3 12	9 28.35	+10 58.8	2.154	3.050	9.6	21.3	3 12	9 30.68	-3 29.8	2.100	2.999	9.6	20.5
3 22	9 23.05	+11 32.3	2.226	3.039	12.7	21.5	3 22	9 26.12	-2 32.2	2.160	2.993	12.3	20.7
61453	2000 QL ₂₉		2 14.6 211°65	1°6/13.5	18		337652	2001 TA ₁₃₃		2 14.7 127°63	4°4/19.1	17	
1 12	10 17.93	+15 23.8	1.833	2.662	13.8	19.5	1 12	10 10.55	-3 26.3	2.535	3.290	12.5	20.9
1 22	10 11.98	+15 58.0	1.749	2.656	10.2	19.3	1 22	10 5.86	-3 30.8	2.451	3.297	10.2	20.7
2 1	10 3.58	+16 40.3	1.690	2.650	6.0	19.0	2 1	9 59.62	-3 18.8	2.391	3.304	7.5	20.5
2 11	9 53.49	+17 24.7	1.659	2.643	2.0	18.7	2 11	9 52.39	-2 50.9	2.357	3.311	5.2	20.4
2 21	9 42.79	+18 4.8	1.657	2.636	3.9	18.9	2 21	9 44.82	-2 9.8	2.353	3.318	4.4	20.4
3 2	9 32.72	+18 35.2	1.684	2.628	8.3	19.1	3 2	9 37.69	-1 19.1	2.377	3.324	6.0	20.5
3 12	9 24.43	+18 52.4	1.737	2.619	12.3	19.3	3 12	9 31.66	-0 24.0	2.430	3.330	8.5	20.6
3 22	9 18.64	+18 55.7	1.812	2.610	15.8	19.5	3 22	9 27.24	+0 30.9	2.508	3.336	11.0	20.8
501998	2015 AV ₂₉		2 14.6 18°24	0°2/14.8	17		63524	2001 PP ₂		2 14.7 156°27	2°0/12.9	18	
1 12	10 13.25	+11 3.9	1.860	2.686	13.7	21.7	1 12	10 15.40	+16 34.0	2.035	2.865	12.5	19.6
1 22	10 8.37	+11 20.9	1.784	2.688	10.2	21.5	1 22	10 9.81	+17 21.1	1.962	2.871	9.2	19.4
2 1	10 1.32	+11 48.5	1.731	2.689	6.1	21.2	2 1	10 2.13	+18 14.6	1.916	2.876	5.4	19.1
2 11	9 52.85	+12 22.7	1.706	2.690	1.7	20.9	2 11	9 53.08	+19 8.3	1.898	2.880	2.2	18.9
2 21	9 43.93	+12 58.3	1.709	2.692	2.8	21.0	2 21	9 43.63	+19 56.2	1.909	2.884	4.0	19.1
3 2	9 35.65	+13 30.3	1.740	2.694	7.2	21.3	3 2	9 34.81	+20 33.2	1.950	2.888	7.7	19.3
3 12	9 28.97	+13 54.5	1.798	2.696	11.1	21.5	3 12	9 27.58	+20 56.5	2.017	2.891	11.2	19.5
3 22	9 24.54	+14 8.7	1.878	2.698	14.5	21.7	3 22	9 22.53	+21 5.4	2.106	2.894	14.2	19.7
426595	2013 SG ₃₄		2 14.6 264°41	2°7/12.6	18		117920	4546 P-L		2 14.7 75°38	2°2/13.3	18	
1 12	10 15.23	+18 59.9	1.910	2.748	12.9	21.1	1 12	10 19.74	+16 19.9	1.433	2.274	16.2	19.9
1 22	10 9.86	+19 36.4	1.834	2.745	9.5	20.8	1 22	10 13.42	+16 57.5	1.385	2.298	11.8	19.7
2 1	10 2.23	+20 17.2	1.782	2.742	5.7	20.6	2 1	10 4.37	+17 42.3	1.360	2.322	6.9	19.5
2 11	9 53.10	+20 56.1	1.758	2.739	2.8	20.4	2 11	9 53.67	+18 26.6	1.361	2.345	2.5	19.3
2 21	9 43.49	+21 27.1	1.763	2.736	4.6	20.5	2 21	9 42.74	+19 2.7	1.390	2.368	4.6	19.5
3 2	9 34.55	+21 45.7	1.797	2.733	8.4	20.7	3 2	9 33.02	+19 25.5	1.446	2.391	9.2	19.8
3 12	9 27.29	+21 49.6	1.855	2.730	12.0	20.9	3 12	9 25.64	+19 32.6	1.527	2.414	13.4	20.1
3 22	9 22.38	+21 39.1	1.936	2.727	15.1	21.2	3 22	9 21.20	+19 24.7	1.628	2.436	16.8	20.4
119966	2002 TX ₂₈₆		2 14.6 96°69	3°8/12.5	18		498253	2007 UR ₁₀₂		2 14.7 229°02	2°0/16.5	17	
1 12	10 22.34	+20 17.1	1.402	2.247	16.3	20.0	1 12	10 11.01	+4 52.4	2.456	3.251	11.8	21.6
1 22	10 15.54	+20 55.4	1.349	2.263	12.0	19.7	1 22	10 6.32	+5 4.2	2.364	3.246	9.0	21.4
2 1	10 5.71	+21 36.7	1.318	2.278	7.3	19.5	2 1	9 59.96	+5 28.5	2.296	3.240	5.9	21.2
2 11	9 54.03	+22 12.3	1.314	2.293	3.9	19.4	2 11	9 52.50	+6 3.1	2.256	3.234	2.8	21.0
2 21	9 42.01	+22 34.5	1.337	2.308	5.9	19.5	2 21	9 44.62	+6 44.6	2.246	3.228	2.6	21.0
3 2	9 31.26	+22 39.0	1.386	2.323	10.3	19.8	3 2	9 37.14	+7 28.7	2.266	3.221	5.6	21.2
3 12	9 23.05	+22 25.2	1.460	2.337	14.5	20.1	3 12	9 30.78	+8 11.2	2.314	3.215	8.8	21.4
3 22	9 18.05	+21 55.4	1.553	2.351	18.0	20.3	3 22	9 26.11	+8 48.6	2.387	3.208	11.7	21.5
57949	2002 JV ₆₆		2 14.6 237°82	0°5/14.2	17		121342	1999 TV ₁₉		2 14.7 199°56	6°9/ 8.4	18	
1 12	10 15.06	+11 43.4	1.903	2.727	13.5	21.1	1 12	10 17.28	+31 58.4	2.078	2.914	12.1	19.3
1 22	10 9.85	+12 23.9	1.811	2.714	10.1	20.8	1 22	10 11.41	+33 9.7	2.015	2.913	9.5	19.2
2 1	10 2.33	+13 16.5	1.743	2.702	6.0	20.5	2 1	10 3.17	+34 14.7	1.978	2.912	7.5	19.0
2 11	9 53.17	+14 16.1	1.703	2.688	1.6	20.2	2 11	9 53.38	+35 5.0	1.968	2.911	7.0	19.0
2 21	9 43.33	+15 16.1	1.692	2.674	3.2	20.3	2 21	9 43.16	+35 34.5	1.986	2.909	8.5	19.1
3 2	9 33.97	+16 10.2	1.711	2.659	7.7	20.5	3 2	9 33.70	+35 39.8	2.030	2.908	10.9	19.2
3 12	9 26.18	+16 53.3	1.755	2.644	11.8	20.8	3 12	9 26.07	+35 21.6	2.098	2.906	13.4	19.4
3 22	9 20.71	+17 22.6	1.823	2.629	15.4	20.9	3 22	9 20.92	+34 43.3	2.185	2.904	15.7	19.6
500532	2012 UT		2 14.6 132°59	2°7/17.3	17		39186	2000 WK ₁₆₈		2 14.7 162°00	1°6/16.1	18	
1 12	10 11.50	+2 27.5	2.649	3.429	11.4	21.3	1 12	10 12.42	+5 52.2	2.162	2.965	12.9	19.8
1 22	10 6.4												

EPHEMERIDES

2 14.7

2 14.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
462617	2009 <i>PK</i> ₂		2 14.7 170°41'	2°6'/16.8	16		58034	2002 <i>VS</i> ₁₀₁		2 14.7 78°18'	1°0'/13.9	18	
1 12	10 15.79	+ 4 2.5	2.334	3.119	12.6	21.7	1 12	10 14.00	+12 33.3	1.680	2.514	14.6	19.4
1 22	10 9.83	+ 3 56.2	2.248	3.123	9.8	21.5	1 22	10 9.07	+13 21.2	1.616	2.526	10.7	19.2
2 1	10 2.05	+ 4 2.4	2.187	3.126	6.5	21.3	2 1	10 1.80	+14 20.6	1.576	2.537	6.3	19.0
2 11	9 53.07	+ 4 19.5	2.155	3.129	3.4	21.1	2 11	9 53.04	+15 25.0	1.563	2.548	1.7	18.7
2 21	9 43.70	+ 4 44.7	2.152	3.131	3.1	21.1	2 21	9 43.88	+16 26.7	1.579	2.560	3.5	18.9
3 2	9 34.82	+ 5 14.1	2.180	3.133	6.0	21.2	3 2	9 35.49	+17 19.3	1.622	2.571	8.0	19.2
3 12	9 27.26	+ 5 43.8	2.237	3.134	9.3	21.4	3 12	9 28.93	+17 58.2	1.691	2.582	12.1	19.4
3 22	9 21.58	+ 6 10.3	2.318	3.134	12.2	21.6	3 22	9 24.82	+18 21.6	1.782	2.594	15.4	19.7
179962	2002 <i>XZ</i> ₃		2 14.7 84°03'	1°8'/13.3	18		233125	2005 <i>TB</i> ₈₆		2 14.7 134°40'	3°5'/17.1	18	
1 12	10 15.01	+15 21.3	1.693	2.531	14.3	20.1	1 12	10 18.39	+ 2 35.0	1.692	2.486	16.3	20.9
1 22	10 9.83	+16 6.4	1.628	2.540	10.4	19.8	1 22	10 12.27	+ 2 31.4	1.621	2.499	12.7	20.7
2 1	10 2.26	+16 59.9	1.587	2.548	6.1	19.6	2 1	10 3.71	+ 2 46.5	1.572	2.511	8.6	20.5
2 11	9 53.15	+17 55.1	1.573	2.557	2.2	19.4	2 11	9 53.57	+ 3 18.1	1.549	2.523	4.6	20.3
2 21	9 43.62	+18 44.9	1.587	2.565	4.1	19.5	2 21	9 42.97	+ 4 1.8	1.554	2.533	4.0	20.2
3 2	9 34.89	+19 23.3	1.630	2.574	8.4	19.8	3 2	9 33.16	+ 4 51.3	1.588	2.543	7.6	20.5
3 12	9 28.02	+19 46.9	1.697	2.583	12.4	20.0	3 12	9 25.22	+ 5 40.3	1.649	2.553	11.6	20.7
3 22	9 23.65	+19 55.1	1.786	2.591	15.7	20.3	3 22	9 19.84	+ 6 23.4	1.732	2.561	15.1	21.0
277026	2005 <i>BA</i> ₈		2 14.7 276°77'	3°5'/11.3	17		277789	2006 <i>ES</i> ₉		2 14.7 156°00'	1°1'/13.7	17	
1 12	10 11.80	+19 57.0	2.066	2.908	11.9	20.3	1 12	10 13.41	+14 22.3	2.216	3.042	11.8	21.8
1 22	10 7.31	+21 9.4	1.988	2.901	8.8	20.1	1 22	10 8.21	+14 56.8	2.139	3.045	8.7	21.6
2 1	10 0.74	+22 27.1	1.935	2.894	5.5	19.9	2 1	10 1.14	+15 38.5	2.089	3.048	5.1	21.3
2 11	9 52.75	+23 42.8	1.910	2.887	3.5	19.7	2 11	9 52.85	+16 22.6	2.066	3.051	1.5	21.1
2 21	9 44.25	+24 49.2	1.915	2.880	5.3	19.8	2 21	9 44.19	+17 4.1	2.074	3.054	3.1	21.2
3 2	9 36.25	+25 40.5	1.948	2.873	8.6	20.0	3 2	9 36.08	+17 38.5	2.111	3.056	6.8	21.5
3 12	9 29.72	+26 13.7	2.006	2.866	11.9	20.2	3 12	9 29.35	+18 2.7	2.175	3.058	10.1	21.7
3 22	9 25.32	+26 28.3	2.086	2.859	14.8	20.4	3 22	9 24.57	+18 15.3	2.263	3.060	13.0	21.9
505092	2011 <i>UO</i> ₄₀₇		2 14.7 214°94'	4°1'/18.9	18		472792	2015 <i>FC</i> ₁₅₂		2 14.7 329°25'	0°0'/14.7	17	
1 12	10 11.11	- 2 56.3	2.925	3.673	11.2	21.4	1 12	10 10.85	+11 16.5	2.033	2.860	12.7	20.9
1 22	10 6.17	- 3 11.0	2.825	3.667	9.1	21.3	1 22	10 6.54	+11 40.3	1.948	2.852	9.4	20.6
2 1	9 59.80	- 3 12.1	2.749	3.660	6.8	21.1	2 1	10 0.25	+12 14.5	1.887	2.845	5.7	20.4
2 11	9 52.46	- 2 59.8	2.701	3.653	4.8	21.0	2 11	9 52.63	+12 54.9	1.854	2.839	1.5	20.1
2 21	9 44.76	- 2 35.6	2.682	3.645	4.1	20.9	2 21	9 44.54	+13 36.7	1.850	2.833	2.7	20.2
3 2	9 37.36	- 2 2.4	2.694	3.637	5.6	21.0	3 2	9 36.94	+14 14.8	1.874	2.827	6.8	20.4
3 12	9 30.90	- 1 23.8	2.734	3.629	7.9	21.1	3 12	9 30.75	+14 45.0	1.924	2.821	10.6	20.6
3 22	9 25.85	- 0 43.8	2.799	3.620	10.2	21.3	3 22	9 26.58	+15 4.9	1.998	2.816	13.8	20.8
340712	2006 <i>ST</i> ₅₂		2 14.7 167°99'	3°9'/19.0	17		153318	2001 <i>OJ</i> ₆		2 14.7 253°11'	4°8'/17.6	18	
1 12	10 9.58	- 3 9.1	2.693	3.448	11.9	21.4	1 12	10 16.48	+ 0 32.6	1.666	2.456	16.6	20.0
1 22	10 5.11	- 3 1.0	2.603	3.450	9.6	21.2	1 22	10 11.27	+ 0 15.1	1.567	2.440	13.3	19.8
2 1	9 59.18	- 2 36.9	2.537	3.452	7.1	21.0	2 1	10 3.40	+ 0 17.7	1.489	2.423	9.5	19.5
2 11	9 52.30	- 1 57.7	2.498	3.454	4.8	20.9	2 11	9 53.57	+ 0 40.5	1.437	2.405	5.9	19.3
2 21	9 45.08	- 1 6.1	2.488	3.456	4.0	20.8	2 21	9 42.83	+ 1 20.7	1.411	2.387	5.1	19.2
3 2	9 38.23	- 0 6.3	2.508	3.457	5.6	20.9	3 2	9 32.52	+ 2 12.8	1.414	2.368	8.4	19.3
3 12	9 32.40	+ 0 57.0	2.557	3.458	8.1	21.1	3 12	9 23.92	+ 3 9.4	1.442	2.349	12.7	19.5
3 22	9 28.07	+ 1 58.9	2.632	3.459	10.6	21.3	3 22	9 17.95	+ 4 3.6	1.493	2.329	16.7	19.7
451409	2011 <i>OF</i> ₂₄		2 14.7 218°67'	5°3'/10.7	18		336910	2011 <i>HX</i> ₁₄		2 14.7 242°38'	0°6'/14.1	17	
1 12	10 19.73	+23 48.4	1.700	2.541	14.1	21.5	1 12	10 12.01	+12 24.7	2.067	2.894	12.5	20.8
1 22	10 13.67	+24 59.7	1.623	2.534	10.6	21.2	1 22	10 7.34	+13 3.0	1.987	2.893	9.2	20.6
2 1	10 4.77	+26 13.1	1.572	2.526	7.1	21.0	2 1	10 0.70	+13 51.2	1.932	2.891	5.5	20.4
2 11	9 53.90	+27 18.9	1.547	2.517	5.3	20.9	2 11	9 52.75	+14 44.3	1.905	2.890	1.5	20.1
2 21	9 42.30	+28 8.3	1.551	2.508	7.3	21.0	2 21	9 44.36	+15 36.8	1.907	2.889	2.9	20.2
3 2	9 31.46	+28 35.2	1.582	2.498	11.0	21.2	3 2	9 36.50	+16 23.1	1.938	2.887	6.9	20.5
3 12	9 22.69	+28 38.2	1.637	2.487	14.7	21.4	3 12	9 30.06	+16 59.3	1.996	2.886	10.6	20.7
3 22	9 16.82	+28 19.6	1.712	2.476	17.9	21.6	3 22	9 25.65	+17 23.3	2.077	2.884	13.7	20.9
19604	1999 <i>NY</i> ₄₈		2 14.7 115°35'	3°2'/17.8	18		343572	2010 <i>FF</i> ₈₅		2 14.7 330°53'	5°1'/10.1	18	
1 12	10 12.23	+ 0 26.6	2.190	2.970	13.5	19.0	1 12	10 13.26	+25 38.1	2.021	2.866	12.0	20.1
1 22	10 7.27	+ 0 44.3	2.115	2.984	10.6	18.9	1 22	10 8.44	+26 41.2	1.950	2.861	9.0	19.9
2 1	10 0.54	+ 1 19.2	2.064	2.997	7.3	18.7	2 1	10 1.43	+27 43.8	1.905	2.857	6.3	19.8
2 11	9 52.67	+ 2 9.0	2.040	3.010	4.2	18.5	2 11	9 52.96	+28 38.2	1.888	2.853	5.1	19.7
2 21	9 44.48	+ 3 9.4	2.046	3.023	3.5	18.5	2 21	9 44.02	+29 17.8	1.898	2.849	6.7	19.8
3 2	9 36.84	+ 4 15.1	2.081	3.035	6.1	18.7	3 2	9 35.72	+29 38.4	1.936	2.845	9.6	19.9
3 12	9 30.52	+ 5 20.0	2.144	3.047	9.3	18.9	3 12	9 29.06	+29 38.9	1.997	2.841	12.6	20.1
3 22	9 26.08	+ 6 19.4	2.231	3.059	12.2	19.1	3 22	9 24.66	+29 20.7	2.080	2.838	15.3	20.3
185059	2006 <i>RY</i> ₂₄		2 14.7 64°89'	3°4'/18.3	18		49756	1999 <i>VJ</i> ₁₇₇		2 14.7 176°59'	3°8'/11.6	18	
1 12	10 8.94	- 1 18.4	2.220	2.997	13.4	20.1	1 12	10 18.41	+19 5.1	1.735	2.572	14.0	20.3
1 22	10 4.87	- 0 43.8	2.143	3.009	10.6	19.9	1 22	10 12.49	+20 25.7	1.664	2.575	10.3	20.1
2 1	9 59.11	+ 0 10.0	2.090	3.020	7.4	19.7	2 1	10 3.97	+21 53.0	1.619	2.577	6.4	19.9
2 11	9 52.29	+ 1 20.3	2.063	3.031	4.4	19.6	2 11	9 53.67	+23 17.9	1.601	2.579	3.8	19.7
2 21	9 45.14	+ 2 42.3	2.066	3.042	3.5	19.5	2 21	9 42.79	+24 31.0	1.613	2.579	5.9	19.9
3 2	9 38.48	+ 4 9.7	2.098	3.054	5.9	19.7	3 2	9 32.64	+25 25.4	1.653	2.579	9.8	20.1
3 12	9 33.06	+ 5 35.8	2.158	3.065	9.0	19.9	3 12	9 24.42	+25 58.1	1.718	2.578	13.6	20.3
3 22	9 29.40	+ 6 55.0	2.244	3.077	11.9	20.1	3 22	9 18.90	+26 9.7	1.803	2.576	16.8	20.5
210444	Frithjof		2 14.7 153°23'	0°3'/14.5	18		366983	2005 <i>XR</i> ₆₃		2 14.7 76°90'	5°7'/19.4	18	
1 12	10 16.56	+11 1.7	1.836	2.65									

EPHEMERIDES

2 14.7

2 14.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
358045	2006 <i>GL</i> ₃₅		2 14.7 356°79	21.1°/ 2.9 17			96117	5458 <i>T</i> ₋₂		2 14.7 260°21	1°6/15.6 18		
1 12	10 37.73	+56 18.2	1.104	1.904	22.8	19.4	1 12	10 17.49	+8 32.8	1.543	2.365	16.2	19.5
1 22	10 29.89	+57 48.3	1.072	1.898	21.6	19.3	1 22	10 12.08	+8 27.8	1.457	2.356	12.4	19.2
2 1	10 15.33	+58 37.7	1.056	1.894	21.1	19.2	2 1	10 3.88	+8 37.0	1.393	2.347	7.8	18.9
2 11	9 56.72	+58 27.7	1.055	1.891	21.4	19.2	2 11	9 53.71	+8 57.3	1.355	2.337	3.0	18.6
2 21	9 38.15	+57 10.0	1.070	1.890	22.4	19.3	2 21	9 42.75	+9 24.0	1.344	2.327	3.3	18.6
3 2	9 23.42	+54 49.7	1.101	1.890	24.0	19.4	3 2	9 32.45	+9 51.5	1.360	2.317	8.4	18.9
3 12	9 14.54	+51 42.4	1.147	1.893	25.8	19.6	3 12	9 24.12	+10 14.4	1.402	2.307	13.1	19.1
3 22	9 11.55	+48 5.4	1.207	1.896	27.5	19.7	3 22	9 18.63	+10 29.0	1.465	2.297	17.2	19.3
519356	2011 <i>KH</i> ₄₉		2 14.7 124°06	0°2/14.8 17			292315	2006 <i>SX</i> ₁₆₁		2 14.7 239°26	1°3/13.6 16		
1 12	10 11.97	+10 20.2	2.357	3.171	11.6	21.6	1 12	10 16.03	+14 32.9	1.950	2.777	13.1	22.3
1 22	10 7.02	+10 49.9	2.282	3.180	8.6	21.4	1 22	10 10.57	+15 10.0	1.859	2.765	9.7	22.1
2 1	10 0.37	+11 28.9	2.232	3.188	5.1	21.2	2 1	10 2.79	+15 56.1	1.792	2.752	5.8	21.8
2 11	9 52.65	+12 13.5	2.211	3.196	1.5	20.9	2 11	9 53.38	+16 45.7	1.753	2.738	1.8	21.5
2 21	9 44.60	+12 59.3	2.220	3.203	2.3	21.0	2 21	9 43.33	+17 32.6	1.744	2.723	3.6	21.6
3 2	9 37.07	+13 41.8	2.260	3.211	5.9	21.3	3 2	9 33.77	+18 11.1	1.764	2.709	7.9	21.9
3 12	9 30.79	+14 17.2	2.326	3.218	9.2	21.5	3 12	9 25.78	+18 37.3	1.810	2.693	11.8	22.1
3 22	9 26.29	+14 43.4	2.417	3.225	12.0	21.7	3 22	9 20.12	+18 49.7	1.879	2.678	15.3	22.3
403276	2009 <i>AB</i> ₄₁		2 14.7 5°25	2°3/15.9 18			130730	2000 <i>SO</i> ₂₂₇		2 14.7 97°94	1°4/13.6 18		
1 12	10 16.38	+7 51.7	1.356	2.187	17.6	20.6	1 12	10 15.07	+12 31.5	1.577	2.413	15.3	19.7
1 22	10 11.39	+7 33.9	1.284	2.186	13.5	20.3	1 22	10 10.01	+13 35.9	1.515	2.426	11.2	19.5
2 1	10 3.47	+7 31.8	1.233	2.187	8.6	20.0	2 1	10 2.44	+14 53.3	1.477	2.438	6.5	19.3
2 11	9 53.57	+7 42.7	1.206	2.187	3.6	19.7	2 11	9 53.26	+16 15.6	1.466	2.451	1.9	19.0
2 21	9 43.01	+8 2.1	1.205	2.188	3.7	19.8	2 21	9 43.63	+17 34.0	1.484	2.463	4.0	19.2
3 2	9 33.32	+8 24.2	1.231	2.190	8.7	20.0	3 2	9 34.85	+18 40.4	1.529	2.476	8.6	19.5
3 12	9 25.86	+8 43.3	1.280	2.192	13.5	20.3	3 12	9 28.03	+19 29.9	1.599	2.487	12.8	19.8
3 22	9 21.41	+8 55.5	1.350	2.194	17.7	20.6	3 22	9 23.83	+20 0.8	1.690	2.499	16.3	20.0
468600	2007 <i>UF</i> ₁₃₈		2 14.7 46°71	6°2/ 8.3 18			282816	2006 <i>RL</i> ₈₀		2 14.7 171°61	1°8/16.7 18		
1 12	10 12.13	+27 45.0	1.976	2.824	12.1	20.1	1 12	10 9.73	+4 2.8	2.639	3.430	11.2	21.4
1 22	10 7.61	+29 27.0	1.927	2.837	9.2	19.9	1 22	10 5.27	+4 29.8	2.552	3.431	8.6	21.2
2 1	10 0.91	+31 6.0	1.905	2.850	6.9	19.8	2 1	9 59.31	+5 9.6	2.490	3.433	5.6	21.0
2 11	9 52.81	+32 32.9	1.911	2.863	6.3	19.8	2 11	9 52.37	+5 59.6	2.457	3.434	2.7	20.8
2 21	9 44.34	+33 40.2	1.944	2.877	8.0	19.9	2 21	9 45.11	+6 56.1	2.453	3.435	2.4	20.8
3 2	9 36.60	+34 23.3	2.004	2.891	10.5	20.1	3 2	9 38.22	+7 54.5	2.481	3.436	5.2	21.0
3 12	9 30.54	+34 41.9	2.087	2.905	13.2	20.3	3 12	9 32.38	+8 50.4	2.537	3.436	8.2	21.2
3 22	9 26.78	+34 38.0	2.190	2.919	15.4	20.5	3 22	9 28.08	+9 40.2	2.618	3.437	10.9	21.4
417039	2005 <i>UV</i> ₁₁₅		2 14.7 103°60	0°3/14.4 18			450419	2005 <i>TP</i> ₁₈₈		2 14.7 250°10	3°2/12.5 18		
1 12	10 16.79	+12 51.8	1.930	2.752	13.4	21.3	1 12	10 17.17	+17 11.1	1.508	2.352	15.4	20.9
1 22	10 10.82	+13 6.4	1.863	2.766	9.9	21.1	1 22	10 12.05	+18 12.7	1.426	2.340	11.4	20.6
2 1	10 2.72	+13 29.1	1.821	2.779	5.9	20.9	2 1	10 3.97	+19 24.7	1.366	2.328	6.9	20.3
2 11	9 53.30	+13 55.6	1.806	2.791	1.6	20.6	2 11	9 53.76	+20 38.3	1.333	2.315	3.3	20.1
2 21	9 43.55	+14 21.2	1.821	2.804	2.9	20.7	2 21	9 42.67	+21 43.8	1.328	2.301	5.6	20.2
3 2	9 34.56	+14 41.6	1.866	2.816	7.1	21.0	3 2	9 32.25	+22 32.9	1.349	2.288	10.4	20.4
3 12	9 27.25	+14 53.7	1.937	2.828	10.8	21.3	3 12	9 23.93	+23 1.2	1.394	2.274	14.9	20.6
3 22	9 22.21	+14 56.4	2.031	2.839	13.9	21.5	3 22	9 18.61	+23 8.2	1.459	2.259	18.8	20.9
459274	2012 <i>FG</i> ₇₃		2 14.7 309°45	8°1/ 9.4 18			308652	2006 <i>BH</i> ₅₂		2 14.7 206°33	0°3/14.9 18		
1 12	10 19.92	+31 20.7	1.580	2.426	14.7	20.6	1 12	10 18.46	+10 45.8	2.033	2.844	13.3	21.5
1 22	10 14.17	+32 17.9	1.504	2.409	11.7	20.4	1 22	10 12.20	+11 3.7	1.942	2.838	10.0	21.3
2 1	10 5.24	+33 8.8	1.451	2.392	9.0	20.2	2 1	10 3.68	+11 31.9	1.876	2.831	6.0	21.0
2 11	9 54.08	+33 42.5	1.423	2.375	8.1	20.1	2 11	9 53.62	+12 6.6	1.839	2.823	1.7	20.7
2 21	9 42.14	+33 50.4	1.420	2.358	9.8	20.2	2 21	9 42.97	+12 42.8	1.832	2.815	2.7	20.8
3 2	9 31.13	+33 28.7	1.443	2.342	13.1	20.3	3 2	9 32.85	+13 15.7	1.855	2.805	7.1	21.0
3 12	9 22.52	+32 38.8	1.488	2.326	16.5	20.5	3 12	9 24.29	+13 41.2	1.905	2.795	11.0	21.2
3 22	9 17.17	+31 26.1	1.551	2.310	19.6	20.7	3 22	9 17.99	+13 57.2	1.979	2.783	14.4	21.4
142357	2002 <i>RE</i> ₂₁₉		2 14.7 273°69	1°6/13.6 18			32679	1070 <i>T</i> ₋₁		2 14.7 236°84	5°6/ 9.8 18		
1 12	10 15.51	+14 49.1	1.705	2.541	14.3	20.6	1 12	10 19.84	+31 53.6	2.510	3.334	10.7	19.4
1 22	10 10.53	+15 25.9	1.613	2.523	10.6	20.3	1 22	10 12.90	+32 27.3	2.435	3.327	8.4	19.2
2 1	10 2.93	+16 12.8	1.544	2.505	6.3	20.0	2 1	10 3.92	+32 54.3	2.386	3.320	6.4	19.1
2 11	9 53.45	+17 3.9	1.502	2.487	2.0	19.7	2 11	9 53.65	+33 8.8	2.366	3.313	5.6	19.0
2 21	9 43.17	+17 52.1	1.489	2.468	4.1	19.8	2 21	9 43.03	+33 6.4	2.375	3.306	6.8	19.1
3 2	9 33.41	+18 30.7	1.503	2.449	8.8	20.0	3 2	9 33.10	+32 45.4	2.412	3.299	9.0	19.2
3 12	9 25.41	+18 55.3	1.543	2.431	13.2	20.2	3 12	9 24.76	+32 6.5	2.476	3.291	11.4	19.4
3 22	9 20.04	+19 4.2	1.603	2.412	17.0	20.4	3 22	9 18.60	+31 12.6	2.561	3.283	13.6	19.5
42578	1997 <i>BD</i> ₅		2 14.7 164°49	0°8/15.3 18			83964	2001 <i>XL</i> ₂₅₆		2 14.7 197°99	3°2/11.3 18		
1 12	10 15.53	+8 20.4	2.126	2.933	12.9	20.5	1 12	10 14.36	+20 6.4	2.419	3.249	10.8	20.1
1 22	10 9.83	+8 50.2	2.046	2.939	9.7	20.3	1 22	10 8.95	+21 21.1	2.338	3.246	7.9	19.9
2 1	10 2.14	+9 32.2	1.992	2.944	6.0	20.1	2 1	10 1.64	+22 40.0	2.285	3.242	5.0	19.7
2 11	9 53.16	+10 22.5	1.966	2.949	2.0	19.9	2 11	9 53.05	+23 56.7	2.261	3.237	3.2	19.5
2 21	9 43.76	+11 16.0	1.970	2.953	2.5	19.9	2 21	9 43.99	+25 4.6	2.268	3.231	4.8	19.6
3 2	9 34.92	+12 7.2	2.004	2.956	6.5	20.2	3 2	9 35.36	+25 58.8	2.306	3.225	7.8	19.8
3 12	9 27.53	+12 51.6	2.066	2.958	10.1	20.4	3 12	9 28.04	+26 36.4	2.369	3.218	10.8	20.0
3 22	9 22.19	+13 26.2	2.151	2.960	13.2	20.6	3 22	9 22.62	+26 57.2	2.456	3.210	13.3	20.2
228739	2002 <i>TV</i> ₂₇₅		2 14.7 172°22	1°9/16.1 18			83439	2001 <i>SJ</i> ₅₆		2 14.7 29°05	5°7/ 9.7 18		
1 12	10 17.87	+5 39.1	1.813										

EPHEMERIDES

2 14.7

2 14.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
301703	2010 <i>GV</i> ₂₇		2 14.7 238°03	4°8/19.9	17		403340	2009 <i>DN</i> ₁₃₁		2 14.7 185°51	0°1/14.6	18	
1 12	10 9.51	- 5 58.7	2.681	3.420	12.3	21.4	1 12	10 15.80	+10 49.3	2.062	2.877	13.0	21.8
1 22	10 5.17	- 5 58.5	2.579	3.411	10.2	21.3	1 22	10 10.17	+11 26.1	1.979	2.878	9.6	21.6
2 1	9 59.31	- 5 40.7	2.499	3.401	7.8	21.1	2 1	10 2.44	+12 13.9	1.921	2.877	5.8	21.4
2 11	9 52.41	- 5 5.4	2.447	3.391	5.7	20.9	2 11	9 53.31	+13 8.1	1.892	2.876	1.6	21.1
2 21	9 45.10	- 4 14.8	2.422	3.381	4.9	20.9	2 21	9 43.69	+14 3.1	1.892	2.874	2.8	21.2
3 2	9 38.09	- 3 12.7	2.427	3.371	6.1	20.9	3 2	9 34.61	+14 53.1	1.923	2.872	6.9	21.4
3 12	9 32.07	- 2 4.0	2.461	3.360	8.4	21.1	3 12	9 27.02	+15 33.8	1.980	2.869	10.7	21.6
3 22	9 27.56	- 0 54.3	2.520	3.349	10.9	21.2	3 22	9 21.58	+16 2.8	2.061	2.865	13.9	21.9
411224	2010 <i>OL</i> ₇₄		2 14.7 124°22	4°3/10.5	18		361610	2007 <i>TH</i> ₁₈		2 14.7 69°96	1°9/13.4	18	
1 12	10 16.84	+22 50.7	2.173	3.006	11.7	22.1	1 12	10 17.93	+15 16.2	1.447	2.289	16.1	20.9
1 22	10 10.78	+24 15.4	2.119	3.026	8.6	21.9	1 22	10 12.15	+15 59.5	1.398	2.311	11.7	20.7
2 1	10 2.69	+25 40.9	2.091	3.045	5.7	21.8	2 1	10 3.70	+16 51.6	1.372	2.333	6.9	20.4
2 11	9 53.31	+26 59.3	2.094	3.063	4.3	21.7	2 11	9 53.63	+17 44.6	1.372	2.356	2.3	20.2
2 21	9 43.62	+28 3.8	2.126	3.080	5.9	21.8	2 21	9 43.29	+18 30.5	1.399	2.378	4.4	20.4
3 2	9 34.63	+28 49.8	2.188	3.096	8.7	22.0	3 2	9 34.06	+19 3.6	1.453	2.400	9.0	20.7
3 12	9 27.25	+29 16.0	2.275	3.112	11.5	22.3	3 12	9 27.08	+19 20.7	1.532	2.422	13.2	21.0
3 22	9 22.05	+29 23.6	2.384	3.127	14.0	22.5	3 22	9 22.93	+19 21.9	1.632	2.444	16.6	21.3
500408	2012 <i>TF</i> ₁₁₀		2 14.7 117°92	0°9/13.9	17		97162	1999 <i>VW</i> ₁₈₄		2 14.7 162°04	6°0/21.1	18	R
1 12	10 13.81	+15 3.8	2.440	3.262	11.0	22.0	1 12	10 11.05	- 9 14.3	2.397	3.120	14.0	20.1
1 22	10 8.32	+15 20.8	2.365	3.269	8.0	21.8	1 22	10 6.42	- 9 14.2	2.308	3.124	11.7	19.9
2 1	10 1.14	+15 42.9	2.317	3.275	4.7	21.6	2 1	10 0.10	- 8 52.5	2.241	3.128	9.3	19.7
2 11	9 52.89	+16 6.4	2.298	3.282	1.4	21.4	2 11	9 52.66	- 8 9.1	2.199	3.131	7.0	19.6
2 21	9 44.35	+16 27.4	2.309	3.289	2.7	21.5	2 21	9 44.83	- 7 6.4	2.185	3.134	6.0	19.6
3 2	9 36.35	+16 42.8	2.350	3.295	6.1	21.7	3 2	9 37.43	- 5 49.1	2.200	3.137	7.0	19.6
3 12	9 29.64	+16 50.2	2.419	3.302	9.3	21.9	3 12	9 31.20	- 4 23.7	2.242	3.139	9.2	19.8
3 22	9 24.73	+16 48.8	2.511	3.308	11.9	22.1	3 22	9 26.70	- 2 56.9	2.310	3.141	11.7	19.9
229177	2004 <i>TF</i> ₁₅₈		2 14.7 62°89	0°8/15.3	18		415834	2001 <i>RM</i> ₄₂		2 14.7 176°16	2°0/12.7	18	
1 12	10 13.43	+ 9 8.5	1.875	2.695	13.9	21.0	1 12	10 14.18	+15 52.7	2.289	3.115	11.5	21.6
1 22	10 8.47	+ 9 23.6	1.803	2.702	10.4	20.8	1 22	10 8.83	+16 58.7	2.212	3.118	8.4	21.4
2 1	10 1.41	+ 9 51.0	1.755	2.710	6.4	20.6	2 1	10 1.58	+18 11.9	2.160	3.120	5.0	21.2
2 11	9 52.99	+10 26.6	1.734	2.717	2.1	20.3	2 11	9 53.08	+19 26.3	2.139	3.121	2.1	21.0
2 21	9 44.18	+11 5.5	1.742	2.725	2.7	20.4	2 21	9 44.14	+20 35.4	2.148	3.122	3.8	21.1
3 2	9 36.03	+11 42.6	1.778	2.733	6.9	20.6	3 2	9 35.69	+21 33.8	2.187	3.122	7.2	21.3
3 12	9 29.48	+12 13.4	1.840	2.741	10.7	20.9	3 12	9 28.60	+22 18.0	2.254	3.121	10.5	21.5
3 22	9 25.12	+12 35.0	1.926	2.749	14.0	21.1	3 22	9 23.44	+22 46.9	2.343	3.120	13.3	21.7
245998	2006 <i>SL</i> ₃₀₈		2 14.7 294°26	2°5/12.7	17		246240	2007 <i>RY</i> ₂₈₆		2 14.7 71°81	2°3/12.6	18	
1 12	10 14.91	+19 3.9	2.187	3.019	11.7	20.4	1 12	10 12.72	+17 42.1	2.104	2.940	12.0	20.5
1 22	10 9.67	+19 33.0	2.081	2.989	8.7	20.2	1 22	10 7.78	+18 32.1	2.042	2.952	8.7	20.3
2 1	10 2.26	+20 6.3	2.000	2.959	5.3	19.9	2 1	10 0.92	+19 26.9	2.005	2.965	5.2	20.1
2 11	9 53.28	+20 38.6	1.947	2.928	2.6	19.7	2 11	9 52.88	+20 20.5	1.997	2.978	2.4	19.9
2 21	9 43.60	+21 4.6	1.925	2.898	4.2	19.7	2 21	9 44.53	+21 7.3	2.018	2.991	4.1	20.1
3 2	9 34.26	+21 20.0	1.931	2.867	7.9	19.9	3 2	9 36.83	+21 42.7	2.068	3.004	7.5	20.3
3 12	9 26.30	+21 22.0	1.963	2.836	11.6	20.0	3 12	9 30.61	+22 4.2	2.144	3.017	10.7	20.5
3 22	9 20.46	+21 10.4	2.018	2.805	14.8	20.2	3 22	9 26.42	+22 11.4	2.243	3.030	13.4	20.7
253151	2002 <i>VL</i> ₈₀		2 14.7 109°77	2°6/17.0	18		60755	2000 <i>GU</i> ₁₀₁		2 14.7 49°73	1°8/13.4	18	
1 12	10 15.04	+ 2 32.9	2.074	2.861	13.9	21.7	1 12	10 15.48	+17 24.0	1.998	2.831	12.6	18.8
1 22	10 9.36	+ 2 58.2	2.008	2.884	10.7	21.5	1 22	10 9.91	+17 41.4	1.928	2.837	9.3	18.6
2 1	10 1.80	+ 3 39.9	1.967	2.907	7.1	21.3	2 1	10 2.24	+18 3.1	1.883	2.843	5.5	18.4
2 11	9 53.08	+ 4 34.8	1.953	2.928	3.6	21.1	2 11	9 53.25	+18 24.1	1.865	2.848	2.0	18.2
2 21	9 44.08	+ 5 37.9	1.969	2.949	3.1	21.1	2 21	9 43.91	+18 39.9	1.877	2.854	3.7	18.3
3 2	9 35.75	+ 6 43.3	2.015	2.970	6.2	21.4	3 2	9 35.27	+18 46.8	1.917	2.860	7.4	18.5
3 12	9 28.91	+ 7 45.1	2.089	2.990	9.6	21.6	3 12	9 28.25	+18 43.0	1.984	2.866	11.0	18.8
3 22	9 24.10	+ 8 39.1	2.187	3.009	12.6	21.8	3 22	9 23.44	+18 28.3	2.073	2.873	14.0	19.0
420229	2011 <i>HM</i> ₄₇		2 14.7 47°70	0°5/14.3	18		150501	2000 <i>QU</i> ₁₂₅		2 14.7 140°05	0°9/14.1	18	
1 12	10 11.20	+11 14.3	1.975	2.802	13.0	20.8	1 12	10 18.98	+15 22.8	2.120	2.940	12.5	19.9
1 22	10 6.82	+12 3.0	1.899	2.805	9.6	20.6	1 22	10 12.34	+15 27.6	2.046	2.948	9.2	19.7
2 1	10 0.44	+13 3.3	1.848	2.807	5.7	20.3	2 1	10 3.64	+15 37.2	1.997	2.955	5.4	19.5
2 11	9 52.74	+14 10.0	1.825	2.810	1.5	20.0	2 11	9 53.64	+15 47.8	1.978	2.962	1.6	19.2
2 21	9 44.61	+15 16.6	1.831	2.813	2.9	20.2	2 21	9 43.31	+15 55.4	1.988	2.969	3.0	19.4
3 2	9 37.04	+16 16.8	1.865	2.815	7.1	20.4	3 2	9 33.68	+15 57.0	2.029	2.975	6.9	19.6
3 12	9 30.92	+17 5.9	1.926	2.818	10.8	20.7	3 12	9 25.65	+15 50.7	2.097	2.981	10.4	19.8
3 22	9 26.89	+17 41.2	2.010	2.821	14.0	20.9	3 22	9 19.82	+15 36.1	2.189	2.987	13.4	20.1
170361	2003 <i>SE</i> ₂₀₉		2 14.7 81°83	2°2/16.3	18		237283	2008 <i>XK</i> ₁₆		2 14.7 17°83	0°3/14.9	18	
1 12	10 15.19	+ 5 11.0	1.552	2.367	16.5	20.1	1 12	10 11.44	+ 9 59.7	2.010	2.832	13.0	20.9
1 22	10 10.06	+ 5 28.8	1.489	2.382	12.6	19.9	1 22	10 6.97	+10 27.3	1.932	2.833	9.7	20.7
2 1	10 2.47	+ 6 5.2	1.447	2.397	8.1	19.7	2 1	10 0.54	+11 6.3	1.878	2.835	5.9	20.5
2 11	9 53.30	+ 6 56.1	1.431	2.411	3.5	19.4	2 11	9 52.82	+11 52.7	1.852	2.836	1.7	20.2
2 21	9 43.71	+ 7 55.2	1.443	2.426	3.3	19.4	2 21	9 44.68	+12 41.1	1.855	2.838	2.6	20.3
3 2	9 34.98	+ 8 55.1	1.483	2.440	7.7	19.7	3 2	9 37.09	+13 26.4	1.887	2.840	6.7	20.5
3 12	9 28.19	+ 9 49.0	1.547	2.455	11.9	20.0	3 12	9 30.93	+14 3.9	1.945	2.843	10.4	20.8
3 22	9 23.99	+10 32.3	1.635	2.469	15.6	20.3	3 22	9 26.81	+14 31.0	2.026	2.845	13.6	21.0
110984	2001 <i>UV</i> ₁₈₉		2 14.7 302°65	1°3/13.8	18		374855	2006 <i>VQ</i> ₁₃		2 14.7 229°24	28°4/18.4	13	C
1 12	10 15.38	+15 2.5											

EPHEMERIDES

2 14.7

2 14.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
193279	2000 SV ₂₁₂		2 14.7 89°60	3:7/11.9	18		502036	2015 AR ₁₂₈		2 14.7 327°77	0°0/14.7	17	
1 12	10 16.07	+18 7.1	1.517	2.364	15.2	19.6	1 12	10 12.02	+10 42.9	1.967	2.791	13.1	21.5
1 22	10 10.92	+19 26.2	1.461	2.377	11.1	19.4	1 22	10 7.48	+11 16.1	1.887	2.790	9.8	21.2
2 1	10 3.09	+20 52.7	1.428	2.390	6.7	19.2	2 1	10 0.91	+12 0.9	1.831	2.789	5.9	21.0
2 11	9 53.53	+22 16.6	1.423	2.402	3.7	19.0	2 11	9 52.96	+12 52.7	1.802	2.787	1.6	20.7
2 21	9 43.53	+23 28.3	1.445	2.415	5.9	19.2	2 21	9 44.55	+13 45.7	1.803	2.786	2.8	20.8
3 2	9 34.46	+24 20.6	1.494	2.427	10.0	19.4	3 2	9 36.69	+14 34.4	1.832	2.785	7.0	21.1
3 12	9 27.52	+24 50.5	1.567	2.439	14.0	19.7	3 12	9 30.29	+15 14.1	1.888	2.783	10.8	21.3
3 22	9 23.36	+24 59.0	1.660	2.451	17.3	20.0	3 22	9 26.00	+15 42.0	1.967	2.782	14.0	21.5
338938	2004 EF ₅₉		2 14.7 334°43	4°1/10.6	18		231789	2000 CA ₁₃₁		2 14.7 124°44	0°0/14.7	18	
1 12	10 10.20	+21 5.1	1.990	2.838	12.1	20.1	1 12	10 13.08	+11 12.0	2.262	3.079	11.9	21.1
1 22	10 6.27	+22 29.1	1.916	2.831	8.9	19.9	1 22	10 7.95	+11 38.0	2.187	3.087	8.8	20.9
2 1	10 0.23	+23 58.0	1.867	2.825	5.7	19.7	2 1	10 1.03	+12 13.1	2.138	3.094	5.3	20.7
2 11	9 52.76	+25 23.6	1.846	2.819	4.1	19.6	2 11	9 52.98	+12 53.2	2.117	3.102	1.4	20.5
2 21	9 44.77	+26 38.2	1.854	2.813	6.0	19.7	2 21	9 44.58	+13 33.8	2.126	3.109	2.4	20.6
3 2	9 37.29	+27 35.5	1.889	2.808	9.2	19.8	3 2	9 36.73	+14 10.5	2.165	3.116	6.2	20.8
3 12	9 31.32	+28 12.3	1.949	2.803	12.5	20.0	3 12	9 30.21	+14 39.8	2.232	3.123	9.5	21.0
3 22	9 27.50	+28 28.5	2.030	2.799	15.3	20.2	3 22	9 25.56	+14 59.7	2.322	3.129	12.4	21.2
466346	2013 RW ₄₈		2 14.7 192°59	1°7/16.3	16		292674	2006 UM ₇₉		2 14.7 255°23	4°7/18.3	17	
1 12	10 12.63	+ 5 3.5	2.295	3.091	12.4	22.0	1 12	10 14.25	- 1 30.3	2.005	2.777	14.8	21.7
1 22	10 7.67	+ 5 29.9	2.206	3.090	9.5	21.8	1 22	10 9.30	- 1 36.5	1.898	2.758	12.0	21.4
2 1	10 0.90	+ 6 10.3	2.142	3.088	6.1	21.6	2 1	10 2.14	- 1 23.2	1.813	2.738	8.8	21.2
2 11	9 52.93	+ 7 1.8	2.106	3.085	2.7	21.4	2 11	9 53.36	- 0 50.4	1.754	2.717	5.7	20.9
2 21	9 44.52	+ 7 59.8	2.100	3.083	2.5	21.3	2 21	9 43.82	- 0 0.9	1.724	2.696	4.8	20.8
3 2	9 36.54	+ 8 59.3	2.124	3.079	5.9	21.5	3 2	9 34.60	+ 1 0.6	1.722	2.674	7.4	21.0
3 12	9 29.80	+ 9 55.1	2.177	3.075	9.4	21.8	3 12	9 26.74	+ 2 7.2	1.747	2.651	11.0	21.1
3 22	9 24.90	+10 43.3	2.253	3.071	12.4	21.9	3 22	9 21.03	+ 3 12.4	1.796	2.628	14.5	21.3
382749	2003 DB		2 14.7 328°24	6°5/ 7.1	16		244140	2001 VZ ₁₃₂		2 14.7 148°32	4°9/19.8	17	
1 12	10 8.75	+23 54.0	1.794	2.650	12.7	19.9	1 12	10 11.38	- 5 34.1	2.727	3.463	12.2	21.1
1 22	10 5.68	+26 27.6	1.712	2.629	9.6	19.7	1 22	10 6.47	- 5 53.0	2.639	3.469	10.0	21.0
2 1	10 0.17	+29 9.6	1.657	2.608	7.1	19.5	2 1	10 0.07	- 5 55.9	2.575	3.474	7.7	20.8
2 11	9 52.82	+31 47.0	1.631	2.588	6.7	19.4	2 11	9 52.71	- 5 42.8	2.538	3.479	5.7	20.7
2 21	9 44.59	+34 6.9	1.635	2.569	9.1	19.5	2 21	9 45.02	- 5 15.4	2.529	3.484	5.0	20.6
3 2	9 36.72	+35 59.2	1.665	2.550	12.4	19.7	3 2	9 37.70	- 4 36.6	2.550	3.489	6.1	20.7
3 12	9 30.46	+37 18.9	1.718	2.532	15.7	19.8	3 12	9 31.43	- 3 50.8	2.599	3.493	8.2	20.9
3 22	9 26.72	+38 6.5	1.789	2.515	18.5	20.0	3 22	9 26.67	- 3 2.7	2.673	3.497	10.5	21.0
370697	2004 JL ₅		2 14.7 259°79	3°6/11.1	18		139906	2001 RZ ₁₀₄		2 14.7 130°33	1°6/13.3	18	
1 12	10 13.20	+18 13.0	2.022	2.860	12.3	20.6	1 12	10 15.23	+15 6.8	2.076	2.903	12.4	20.4
1 22	10 8.61	+19 52.8	1.930	2.841	9.1	20.4	1 22	10 9.67	+15 58.1	2.009	2.916	9.1	20.2
2 1	10 1.75	+21 42.6	1.863	2.823	5.6	20.2	2 1	10 2.11	+16 56.7	1.968	2.928	5.3	20.0
2 11	9 53.24	+23 33.9	1.826	2.803	3.6	20.0	2 11	9 53.28	+17 56.7	1.956	2.939	1.9	19.8
2 21	9 43.96	+25 17.2	1.820	2.783	5.6	20.1	2 21	9 44.10	+18 51.8	1.973	2.950	3.6	20.0
3 2	9 35.03	+26 44.5	1.842	2.763	9.3	20.3	3 2	9 35.56	+19 36.9	2.020	2.961	7.3	20.2
3 12	9 27.55	+27 50.6	1.890	2.742	12.9	20.4	3 12	9 28.56	+20 8.9	2.094	2.971	10.7	20.4
3 22	9 22.29	+28 34.1	1.959	2.721	16.0	20.6	3 22	9 23.67	+20 26.7	2.190	2.980	13.6	20.7
57908	2002 ER ₃₁		2 14.7 53°35	3°9/18.1	18		225905	2002 AW ₂₉		2 14.7 283°41	2°9/16.5	18	
1 12	10 11.28	- 0 9.5	1.754	2.547	15.8	18.3	1 12	10 16.73	+ 5 44.5	1.887	2.689	14.5	20.0
1 22	10 7.00	+ 0 4.6	1.685	2.560	12.5	18.1	1 22	10 11.09	+ 5 15.0	1.796	2.681	11.3	19.8
2 1	10 0.62	+ 0 40.2	1.637	2.572	8.7	17.9	2 1	10 3.15	+ 4 57.8	1.728	2.672	7.5	19.6
2 11	9 52.86	+ 1 34.8	1.615	2.585	5.1	17.7	2 11	9 53.61	+ 4 51.8	1.688	2.664	3.9	19.3
2 21	9 44.72	+ 2 43.3	1.621	2.598	4.2	17.7	2 21	9 43.47	+ 4 54.9	1.676	2.656	3.6	19.3
3 2	9 37.24	+ 3 58.5	1.654	2.612	7.1	17.9	3 2	9 33.86	+ 5 3.6	1.693	2.648	7.2	19.5
3 12	9 31.37	+ 5 12.9	1.714	2.625	10.7	18.1	3 12	9 25.85	+ 5 13.9	1.737	2.640	11.1	19.7
3 22	9 27.72	+ 6 20.1	1.797	2.639	14.1	18.4	3 22	9 20.16	+ 5 22.2	1.803	2.632	14.6	19.9
344835	2004 FZ ₉₂		2 14.7 4°04	2°8/13.1	18		286971	2002 QC ₁₃		2 14.7 66°73	2°1/16.2	17	
1 12	10 17.89	+16 55.9	1.281	2.132	17.1	20.4	1 12	10 17.57	+ 5 56.9	1.537	2.351	16.7	20.9
1 22	10 12.79	+17 34.6	1.214	2.132	12.6	20.1	1 22	10 11.65	+ 6 9.9	1.488	2.382	12.6	20.7
2 1	10 4.48	+18 22.6	1.169	2.132	7.6	19.8	2 1	10 3.33	+ 6 40.0	1.462	2.412	8.0	20.5
2 11	9 53.99	+19 11.0	1.149	2.132	3.0	19.6	2 11	9 53.60	+ 7 22.6	1.462	2.443	3.3	20.3
2 21	9 42.81	+19 51.0	1.155	2.133	5.4	19.7	2 21	9 43.67	+ 8 11.6	1.490	2.473	3.2	20.3
3 2	9 32.65	+20 15.4	1.186	2.133	10.6	20.0	3 2	9 34.78	+ 9 0.4	1.546	2.503	7.5	20.7
3 12	9 24.97	+20 21.1	1.241	2.134	15.4	20.3	3 12	9 27.95	+ 9 43.0	1.627	2.533	11.6	21.0
3 22	9 20.60	+20 8.4	1.314	2.135	19.4	20.5	3 22	9 23.72	+10 15.8	1.731	2.562	15.0	21.3
286164	2001 UQ ₃		2 14.7 152°38	12°5/ 4.3	17		45524	2000 CL ₂		2 14.7 80°58	2°2/12.5	18	
1 12	10 32.19	+47 4.0	1.852	2.646	15.0	21.7	1 12	10 11.02	+15 46.3	2.102	2.937	12.0	18.4
1 22	10 23.25	+48 44.7	1.816	2.655	13.4	21.6	1 22	10 6.69	+16 59.8	2.027	2.938	8.7	18.2
2 1	10 10.60	+50 3.7	1.803	2.664	12.6	21.6	2 1	10 0.41	+18 21.6	1.978	2.939	5.2	18.0
2 11	9 55.61	+50 49.2	1.814	2.671	12.8	21.6	2 11	9 52.84	+19 45.0	1.958	2.940	2.3	17.8
2 21	9 40.23	+50 54.6	1.849	2.678	13.9	21.7	2 21	9 44.82	+21 2.9	1.967	2.941	4.1	17.9
3 2	9 26.52	+50 20.2	1.905	2.684	15.6	21.8	3 2	9 37.31	+22 9.1	2.005	2.941	7.7	18.1
3 12	9 16.01	+49 12.3	1.981	2.689	17.4	21.9	3 12	9 31.19	+22 59.4	2.070	2.942	11.1	18.3
3 22	9 9.40	+47 39.7	2.073	2.694	19.0	22.1	3 22	9 27.07	+23 32.6	2.157	2.943	14.0	18.5
501890	2014 WR ₄₂₂		2 14.7 356°61	5°0/18.1	18		64895	2001 YD ₈₀		2 14.7 295°21	0°5/14.3	18	
1 12	10 7.11	+ 0 34.3	1.349	2.170	18.2	20.0	1 12	10 10.99	+12 46.2	2.348			

EPHEMERIDES

2 14.7

2 14.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
490659	2010 GS ₁₁₁		2 14.7 233°72	0°9/14.0	17		89380	2001 VF ₉₆		2 14.7 151°78	3°1/17.8	18	
1 12	10 17.38	+13 17.2	1.849	2.674	13.8	22.8	1 12	10 12.54	+0 6.7	2.251	3.027	13.3	20.3
1 22	10 11.74	+13 52.2	1.757	2.661	10.3	22.5	1 22	10 7.59	+0 33.9	2.168	3.034	10.4	20.2
2 1	10 3.64	+14 37.7	1.689	2.648	6.1	22.2	2 1	10 0.87	+1 19.0	2.109	3.042	7.2	20.0
2 11	9 53.78	+15 28.4	1.649	2.634	1.7	21.9	2 11	9 52.98	+2 19.5	2.078	3.048	4.1	19.8
2 21	9 43.20	+16 17.7	1.639	2.620	3.5	22.0	2 21	9 44.71	+3 30.8	2.077	3.054	3.4	19.7
3 2	9 33.13	+16 59.6	1.657	2.604	8.1	22.2	3 2	9 36.92	+4 47.1	2.105	3.060	6.0	19.9
3 12	9 24.73	+17 29.5	1.702	2.588	12.3	22.5	3 12	9 30.41	+6 2.3	2.162	3.065	9.2	20.1
3 22	9 18.80	+17 45.6	1.769	2.572	15.9	22.7	3 22	9 25.73	+7 11.1	2.244	3.070	12.2	20.3
52931	1998 SN ₁₂₇		2 14.7 77°68	2°4/13.1	18		471518	2012 FX ₅		2 14.7 347°65	2°7/13.5	18	
1 12	10 15.76	+14 59.9	1.372	2.220	16.4	18.7	1 12	10 20.92	+20 1.3	1.424	2.269	16.1	20.4
1 22	10 11.00	+16 2.3	1.308	2.224	12.1	18.4	1 22	10 14.81	+19 53.6	1.350	2.264	12.0	20.1
2 1	10 3.32	+17 16.8	1.266	2.229	7.1	18.2	2 1	10 5.61	+19 47.2	1.298	2.259	7.3	19.9
2 11	9 53.69	+18 34.5	1.249	2.233	2.7	17.9	2 11	9 54.34	+19 36.0	1.273	2.256	3.0	19.6
2 21	9 43.44	+19 45.1	1.260	2.238	5.1	18.1	2 21	9 42.47	+19 15.1	1.274	2.252	4.9	19.7
3 2	9 34.11	+20 40.2	1.297	2.242	10.0	18.4	3 2	9 31.62	+18 41.7	1.303	2.250	9.8	20.0
3 12	9 27.03	+21 15.1	1.357	2.246	14.6	18.6	3 12	9 23.18	+17 56.0	1.355	2.248	14.4	20.2
3 22	9 22.97	+21 29.1	1.437	2.251	18.4	18.9	3 22	9 17.93	+16 59.9	1.428	2.247	18.2	20.5
417111	2005 UM ₄₃₉		2 14.7 80°45	1°8/16.1	18		496513	2014 UJ ₁₇₃		2 14.7 359°47	6°4/20.3	18	
1 12	10 15.00	+6 27.2	1.827	2.637	14.6	21.4	1 12	10 8.85	-6 18.8	1.570	2.345	18.1	21.2
1 22	10 9.62	+6 38.8	1.763	2.655	11.1	21.2	1 22	10 5.60	-6 7.8	1.488	2.344	15.0	20.9
2 1	10 2.11	+7 7.9	1.723	2.673	7.0	21.0	2 1	10 0.01	-5 26.5	1.426	2.343	11.3	20.7
2 11	9 53.30	+7 41.9	1.710	2.691	2.9	20.8	2 11	9 52.80	-4 15.1	1.388	2.342	7.9	20.5
2 21	9 44.16	+8 24.9	1.726	2.709	2.8	20.8	3 2	9 44.99	-2 38.5	1.375	2.343	6.4	20.4
3 2	9 35.79	+9 8.2	1.770	2.727	6.8	21.1	2 21	9 37.77	-0 45.3	1.388	2.343	8.4	20.5
3 12	9 29.09	+9 46.8	1.841	2.744	10.6	21.4	3 12	9 32.25	+1 12.8	1.427	2.345	12.0	20.7
3 22	9 24.64	+10 17.4	1.936	2.762	13.8	21.6	3 22	9 29.15	+3 5.5	1.489	2.346	15.6	21.0
26282	1998 SD ₅₆		2 14.7 251°34	1°0/14.1	18		463779	2014 SL ₂₁₈		2 14.7 16°61	6°4/20.1	18	
1 12	10 19.22	+13 54.6	1.595	2.426	15.3	18.2	1 12	10 8.90	-5 38.8	1.526	2.308	18.3	20.3
1 22	10 13.48	+14 15.6	1.504	2.411	11.5	17.9	1 22	10 5.63	-5 34.7	1.452	2.311	15.0	20.1
2 1	10 4.87	+14 46.9	1.437	2.396	6.9	17.6	2 1	10 0.01	-5 1.0	1.397	2.316	11.3	19.9
2 11	9 54.16	+15 23.0	1.396	2.381	1.9	17.2	2 11	9 52.79	-3 58.2	1.366	2.321	7.9	19.7
2 21	9 42.59	+15 57.2	1.383	2.364	3.8	17.3	2 21	9 45.04	-2 31.2	1.359	2.328	6.4	19.6
3 2	9 31.61	+16 23.3	1.398	2.348	9.0	17.6	3 2	9 37.94	-0 48.6	1.379	2.334	8.4	19.7
3 12	9 22.61	+16 37.2	1.438	2.330	13.7	17.8	3 12	9 32.60	+0 58.5	1.424	2.342	11.9	19.9
3 22	9 16.50	+16 37.3	1.499	2.313	17.8	18.0	3 22	9 29.71	+2 40.3	1.491	2.350	15.5	20.2
196577	2003 QT ₄₀		2 14.7 206°98	0°3/14.5	18		329274	1999 TO ₂₅₆		2 14.7 154°70	0°9/15.6	16	
1 12	10 12.38	+11 5.6	2.312	3.129	11.7	20.8	1 12	10 13.03	+7 46.2	2.506	3.307	11.4	22.2
1 22	10 7.53	+11 47.0	2.225	3.125	8.7	20.6	1 22	10 7.79	+8 14.6	2.426	3.315	8.5	22.0
2 1	10 0.86	+12 38.6	2.164	3.121	5.2	20.4	2 1	10 0.91	+8 53.7	2.371	3.322	5.3	21.8
2 11	9 52.98	+13 36.0	2.131	3.116	1.4	20.1	2 11	9 52.99	+9 40.3	2.346	3.329	1.9	21.6
2 21	9 44.65	+14 34.0	2.129	3.111	2.6	20.2	3 2	9 44.74	+10 30.1	2.352	3.335	2.1	21.6
3 2	9 36.76	+15 27.4	2.157	3.106	6.3	20.4	2 21	9 36.95	+11 18.6	2.388	3.341	5.5	21.9
3 12	9 30.12	+16 12.0	2.212	3.100	9.8	20.6	3 12	9 30.34	+12 2.0	2.452	3.346	8.7	22.1
3 22	9 25.31	+16 45.5	2.292	3.094	12.7	20.8	3 22	9 25.42	+12 37.5	2.542	3.350	11.5	22.3
445903	2012 VH ₁₀₅		2 14.7 343°74	5°1/11.8	18		489508	2007 OL ₁₀		2 14.7 232°60	2°0/13.1	17	
1 12	10 16.68	+20 56.8	1.166	2.030	17.6	20.6	1 12	10 19.54	+17 0.0	2.211	3.031	12.0	23.7
1 22	10 12.27	+21 53.9	1.102	2.025	13.1	20.3	1 22	10 13.08	+17 42.2	2.110	3.013	8.9	23.4
2 1	10 4.36	+22 56.9	1.058	2.021	8.3	20.0	2 1	10 4.35	+18 30.6	2.036	2.993	5.4	23.2
2 11	9 54.03	+23 54.5	1.039	2.017	5.1	19.8	2 11	9 54.00	+19 19.8	1.991	2.973	2.2	22.9
2 21	9 42.90	+24 35.7	1.044	2.014	7.6	20.0	2 21	9 42.95	+20 3.8	1.976	2.951	3.9	23.0
3 2	9 32.86	+24 52.9	1.073	2.012	12.4	20.2	3 2	9 32.30	+20 37.4	1.993	2.928	7.8	23.2
3 12	9 25.54	+24 44.5	1.123	2.010	17.2	20.5	3 12	9 23.08	+20 57.7	2.037	2.904	11.4	23.4
3 22	9 21.81	+24 13.1	1.191	2.009	21.2	20.7	3 22	9 16.07	+21 3.7	2.104	2.879	14.6	23.5
356981	1996 RS ₈		2 14.7 286°63	1°5/15.8	13 C		393802	2005 QK ₃₈		2 14.7 121°61	1°7/16.1	18	
1 12	10 13.11	+6 25.9	1.531	2.354	16.3	22.1	1 12	10 17.60	+4 58.1	1.712	2.516	15.7	21.7
1 22	10 9.06	+6 55.4	1.434	2.334	12.5	21.8	1 22	10 11.69	+5 38.4	1.647	2.536	11.9	21.5
2 1	10 2.29	+7 45.4	1.359	2.313	8.0	21.4	2 1	10 3.44	+6 37.0	1.606	2.555	7.5	21.3
2 11	9 53.48	+8 52.4	1.309	2.292	3.0	21.1	2 11	9 53.70	+7 48.8	1.592	2.573	3.0	21.1
2 21	9 43.71	+10 9.3	1.287	2.271	3.3	21.1	2 21	9 43.58	+9 6.8	1.607	2.590	3.0	21.1
3 2	9 34.38	+11 27.5	1.291	2.249	8.5	21.3	3 2	9 34.28	+10 23.0	1.651	2.606	7.3	21.4
3 12	9 26.83	+12 38.2	1.320	2.228	13.5	21.5	3 12	9 26.81	+11 30.7	1.722	2.622	11.4	21.7
3 22	9 22.02	+13 35.4	1.371	2.207	17.9	21.7	3 22	9 21.82	+12 25.7	1.816	2.636	14.9	21.9
262035	2006 QD ₁₃₄		2 14.7 177°27	0°6/15.3	18		363168	2001 TU ₂₇		2 14.7 155°71	4°8/19.7	17	
1 12	10 15.33	+8 50.2	2.113	2.922	12.9	22.0	1 12	10 13.69	-5 35.4	2.588	3.323	12.8	22.5
1 22	10 9.79	+9 19.4	2.030	2.924	9.7	21.8	1 22	10 8.23	-5 35.5	2.502	3.333	10.5	22.4
2 1	10 2.25	+10 0.5	1.973	2.926	5.9	21.6	2 1	10 1.17	-5 17.8	2.440	3.342	7.9	22.2
2 11	9 53.37	+10 49.7	1.943	2.927	1.9	21.3	2 11	9 53.06	-4 42.8	2.405	3.351	5.7	22.1
2 21	9 44.03	+11 41.8	1.944	2.927	2.5	21.3	3 2	9 44.62	-3 53.1	2.399	3.358	4.8	22.0
3 2	9 35.23	+12 31.5	1.975	2.927	6.5	21.6	2 21	9 36.61	-2 52.7	2.423	3.365	6.2	22.1
3 12	9 27.86	+13 14.1	2.033	2.926	10.2	21.8	3 12	9 29.74	-1 47.1	2.476	3.372	8.5	22.3
3 22	9 22.55	+13 46.8	2.115	2.925	13.4	22.0	3 22	9 24.53	-0 41.4	2.555	3.377	11.0	22.5
9438	Satie		2 14.7 202°48	1°4/15.8	18		239511	2007 VF ₂₆₉		2 14.7 140°98	2°7/11.9	18	
1 12	10 16.62	+6 34.1	1.861	2.667	14.5	20.2	1 12	10 12.17	+19 35.0	2.418	3.252	10.7	20.5
1 2													

EPHEMERIDES

2 14.7

2 14.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
333688	2008 <i>UU</i> ₁₀₈		2 14.7 145°03	1°0/13.9	17		370756	2004 <i>RT</i> ₂₄₈		2 14.7 124°39	10°7/26.9	18	
1 12	10 14.25	+14 48.0	2.329	3.152	11.4	21.4	1 12	10 13.17	-23 19.2	2.378	2.993	16.5	21.0
1 22	10 8.81	+15 13.5	2.253	3.157	8.4	21.2	1 22	10 8.17	-24 10.5	2.299	3.005	15.0	20.9
2 1	10 1.58	+15 44.9	2.204	3.162	4.9	21.0	2 1	10 1.29	-24 34.7	2.237	3.016	13.3	20.8
2 11	9 53.19	+16 18.2	2.183	3.167	1.5	20.8	2 11	9 53.16	-24 28.7	2.196	3.027	11.9	20.7
2 21	9 44.47	+16 48.7	2.192	3.172	2.9	20.9	2 21	9 44.60	-23 51.9	2.178	3.037	10.9	20.7
3 2	9 36.30	+17 12.9	2.231	3.176	6.4	21.1	3 2	9 36.52	-22 47.1	2.183	3.047	10.8	20.7
3 12	9 29.46	+17 28.0	2.298	3.180	9.7	21.4	3 12	9 29.76	-21 20.5	2.214	3.057	11.6	20.8
3 22	9 24.50	+17 33.0	2.388	3.184	12.5	21.5	3 22	9 24.91	-19 40.3	2.267	3.066	13.0	20.9
116367	2003 <i>YZ</i> ₁₀₂		2 14.7 219°78	2°4/16.6	18		114665	2003 <i>FS</i> ₂₈		2 14.7 232°74	3°4/12.1	18	
1 12	10 15.35	+ 4 50.5	1.969	2.768	14.1	20.2	1 12	10 16.00	+17 38.5	1.649	2.491	14.4	20.0
1 22	10 10.02	+ 4 53.9	1.878	2.762	10.9	20.0	1 22	10 11.01	+18 53.2	1.569	2.483	10.6	19.7
2 1	10 2.52	+ 5 12.3	1.810	2.755	7.2	19.7	2 1	10 3.35	+20 17.4	1.514	2.475	6.5	19.5
2 11	9 53.51	+ 5 43.5	1.770	2.747	3.5	19.5	2 11	9 53.80	+21 42.3	1.487	2.467	3.4	19.3
2 21	9 43.91	+ 6 23.5	1.758	2.740	3.1	19.4	2 21	9 43.51	+22 58.2	1.487	2.458	5.6	19.4
3 2	9 34.81	+ 7 7.3	1.776	2.732	6.8	19.6	3 2	9 33.86	+23 57.2	1.515	2.449	9.9	19.6
3 12	9 27.19	+ 7 49.4	1.821	2.723	10.7	19.9	3 12	9 26.10	+24 35.1	1.567	2.439	14.0	19.8
3 22	9 21.76	+ 8 25.6	1.889	2.714	14.2	20.1	3 22	9 21.06	+24 51.4	1.640	2.429	17.5	20.0
159456	2000 <i>ER</i> ₁₃₁		2 14.7 317°16	3°9/12.7	18		121987	2000 <i>EU</i> ₁₈₈		2 14.7 144°74	1°8/16.6	18	R
1 12	10 18.13	+19 50.7	1.250	2.107	17.1	19.6	1 12	10 13.81	+ 3 10.7	2.396	3.180	12.3	20.5
1 22	10 13.27	+20 22.4	1.175	2.095	12.8	19.3	1 22	10 8.42	+ 3 59.3	2.318	3.194	9.5	20.4
2 1	10 4.99	+20 59.7	1.122	2.084	7.9	19.0	2 1	10 1.34	+ 5 3.2	2.265	3.207	6.1	20.2
2 11	9 54.26	+21 33.6	1.093	2.074	4.0	18.7	2 11	9 53.16	+ 6 18.8	2.241	3.219	2.8	20.0
2 21	9 42.65	+21 55.2	1.089	2.064	6.3	18.8	2 21	9 44.65	+ 7 40.8	2.248	3.230	2.4	20.0
3 2	9 31.97	+21 58.1	1.110	2.054	11.5	19.1	3 2	9 36.63	+ 9 3.1	2.287	3.241	5.6	20.2
3 12	9 23.87	+21 40.3	1.153	2.045	16.4	19.3	3 12	9 29.84	+10 20.1	2.354	3.250	8.9	20.4
3 22	9 19.27	+21 3.7	1.215	2.037	20.6	19.6	3 22	9 24.83	+11 27.7	2.448	3.259	11.7	20.6
245179	2004 <i>TZ</i> ₁₇₂		2 14.7 179°87	5°2/19.6	18		286266	2001 <i>VH</i> ₃₉		2 14.7 79°13	2°9/16.7	18	
1 12	10 13.20	- 5 9.7	2.458	3.200	13.2	20.9	1 12	10 16.95	+ 4 17.1	1.430	2.244	17.7	20.7
1 22	10 8.01	- 5 26.3	2.367	3.201	10.9	20.8	1 22	10 11.57	+ 4 22.2	1.370	2.261	13.6	20.4
2 1	10 1.12	- 5 25.2	2.298	3.202	8.3	20.6	2 1	10 3.54	+ 4 47.4	1.330	2.278	8.9	20.2
2 11	9 53.09	- 5 6.6	2.257	3.202	6.0	20.5	2 11	9 53.80	+ 5 29.4	1.316	2.295	4.3	20.0
2 21	9 44.64	- 4 32.1	2.244	3.202	5.2	20.4	2 21	9 43.64	+ 6 21.9	1.329	2.311	3.8	20.0
3 2	9 36.59	- 3 45.4	2.260	3.201	6.6	20.5	3 2	9 34.45	+ 7 17.5	1.369	2.328	8.1	20.3
3 12	9 29.71	- 2 51.5	2.304	3.200	9.1	20.6	3 12	9 27.38	+ 8 8.7	1.434	2.344	12.5	20.6
3 22	9 24.55	- 1 55.9	2.373	3.198	11.6	20.8	3 22	9 23.11	+ 8 50.6	1.520	2.360	16.3	20.9
390958	2005 <i>NG</i> ₆₁		2 14.7 188°12	0°1/14.8	18		318154	2004 <i>PC</i> ₁₀₃		2 14.7 165°88	4°2/19.3	18	
1 12	10 18.62	+10 11.3	1.825	2.641	14.4	22.2	1 12	10 12.10	- 4 1.4	2.574	3.322	12.5	20.8
1 22	10 12.57	+10 44.0	1.742	2.640	10.8	22.0	1 22	10 7.12	- 3 50.1	2.485	3.327	10.2	20.6
2 1	10 4.09	+11 29.6	1.684	2.639	6.5	21.7	2 1	10 0.56	- 3 21.3	2.420	3.332	7.5	20.5
2 11	9 53.95	+12 23.2	1.653	2.637	1.9	21.4	2 11	9 52.96	- 2 35.9	2.382	3.336	5.1	20.3
2 21	9 43.21	+13 18.4	1.652	2.635	3.0	21.5	2 21	9 45.00	- 1 37.1	2.373	3.340	4.3	20.3
3 2	9 33.09	+14 8.9	1.680	2.631	7.6	21.8	3 2	9 37.45	- 0 29.2	2.395	3.343	5.9	20.4
3 12	9 24.71	+14 49.6	1.735	2.626	11.8	22.0	3 12	9 30.99	+ 0 42.2	2.445	3.345	8.4	20.5
3 22	9 18.81	+15 17.9	1.812	2.621	15.4	22.2	3 22	9 26.16	+ 1 51.8	2.521	3.347	11.0	20.7
414864	2010 <i>VE</i> ₁₀₈		2 14.7 107°86	0°9/15.5	18		317027	2001 <i>QJ</i> ₂₂₉		2 14.7 122°88	4°3/18.9	18	
1 12	10 14.33	+ 7 46.1	1.857	2.671	14.2	21.9	1 12	10 13.06	- 3 6.5	2.106	2.869	14.5	21.5
1 22	10 9.19	+ 8 20.5	1.788	2.684	10.7	21.7	1 22	10 8.07	- 2 47.3	2.030	2.883	11.6	21.3
2 1	10 1.94	+ 9 9.3	1.743	2.696	6.6	21.5	2 1	10 1.21	- 2 7.2	1.976	2.897	8.4	21.2
2 11	9 53.32	+10 7.8	1.725	2.709	2.2	21.2	2 11	9 53.15	- 1 8.3	1.950	2.910	5.4	21.0
2 21	9 44.31	+11 9.8	1.737	2.721	2.7	21.3	2 21	9 44.73	+ 0 5.2	1.952	2.923	4.4	21.0
3 2	9 35.99	+12 9.0	1.778	2.732	6.9	21.5	3 2	9 36.87	+ 1 26.9	1.983	2.936	6.5	21.1
3 12	9 29.29	+13 0.0	1.845	2.744	10.8	21.8	3 12	9 30.41	+ 2 49.9	2.043	2.947	9.6	21.3
3 22	9 24.82	+13 39.4	1.935	2.755	14.1	22.0	3 22	9 25.88	+ 4 7.8	2.127	2.959	12.6	21.5
369345	2009 <i>SQ</i> ₃₃₄		2 14.7 129°61	2°0/13.2	18		303970	2006 <i>AD</i> ₈₈		2 14.7 292°50	5°0/17.6	18	
1 12	10 18.63	+18 18.7	2.207	3.031	11.9	20.9	1 12	10 15.82	+ 1 32.3	1.423	2.229	18.2	21.2
1 22	10 12.05	+18 39.3	2.139	3.043	8.7	20.8	1 22	10 11.11	+ 1 4.4	1.339	2.222	14.5	21.0
2 1	10 3.49	+19 2.9	2.097	3.055	5.2	20.6	2 1	10 3.53	+ 0 57.7	1.276	2.215	10.2	20.7
2 11	9 53.73	+19 24.6	2.084	3.066	2.2	20.4	2 11	9 53.89	+ 1 12.2	1.237	2.208	6.2	20.5
2 21	9 43.67	+19 40.1	2.102	3.078	3.6	20.5	2 21	9 43.42	+ 1 44.8	1.224	2.200	5.3	20.4
3 2	9 34.33	+19 46.2	2.150	3.088	7.1	20.7	3 2	9 33.61	+ 2 29.5	1.236	2.194	8.9	20.6
3 12	9 26.57	+19 41.6	2.225	3.098	10.4	21.0	3 12	9 25.81	+ 3 18.4	1.273	2.187	13.4	20.8
3 22	9 20.92	+19 26.4	2.323	3.108	13.1	21.2	3 22	9 20.94	+ 4 4.3	1.331	2.180	17.6	21.0
154912	2004 <i>SQ</i> ₄		2 14.7 213°75	2°6/17.2	18		301321	2009 <i>BP</i> ₁₆₂		2 14.7 283°63	3°7/11.6	17	
1 12	10 12.05	+ 2 21.3	2.307	3.093	12.7	20.7	1 12	10 16.23	+24 27.6	2.386	3.218	10.9	20.4
1 22	10 7.31	+ 2 41.6	2.213	3.087	9.9	20.5	1 22	10 10.42	+24 54.1	2.300	3.206	8.1	20.2
2 1	10 0.77	+ 3 17.6	2.143	3.081	6.7	20.3	2 1	10 2.64	+25 19.5	2.241	3.194	5.4	20.0
2 11	9 53.01	+ 4 7.1	2.100	3.075	3.6	20.1	2 11	9 53.56	+25 38.5	2.210	3.181	3.7	19.9
2 21	9 44.79	+ 5 6.2	2.088	3.068	3.0	20.0	2 21	9 44.05	+25 46.7	2.208	3.169	5.1	19.9
3 2	9 36.95	+ 6 9.7	2.105	3.061	6.0	20.2	3 2	9 35.07	+25 41.3	2.236	3.157	7.9	20.1
3 12	9 30.32	+ 7 12.1	2.151	3.053	9.3	20.4	3 12	9 27.50	+25 21.5	2.290	3.144	10.9	20.3
3 22	9 25.48	+ 8 8.6	2.221	3.045	12.4	20.6	3 22	9 21.96	+24 48.5	2.367	3.132	13.5	20.4
452612	2005 <i>QM</i> ₈₀		2 14.7 140°16	0°6/14.3	18		14185	Van Ness		2 14.7 147°06	2°9/12.3	18	
1 12	10 18.27	+11											

EPHEMERIDES

2 14.7

2 14.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
411296	2010 <i>TH</i> ₇₉	2 14.7 128°17'		7°0'/21.7 18			122403	2000 <i>QL</i> ₈₃	2 14.8 120°58'		2°0'/13.4 18		
1 12	10 13.22	-10 36.4	2.078	2.799	15.9	21.9	1 12	10 20.28	+16 47.1	1.697	2.529	14.5	19.8
1 22	10 8.27	-10 39.7	1.999	2.811	13.4	21.7	1 22	10 13.79	+17 17.0	1.634	2.542	10.7	19.6
2 1	10 1.37	-10 17.7	1.940	2.824	10.7	21.6	2 1	10 4.78	+17 52.9	1.595	2.555	6.3	19.3
2 11	9 53.21	-9 29.9	1.906	2.835	8.2	21.4	2 11	9 54.18	+18 28.4	1.584	2.567	2.4	19.1
2 21	9 44.65	-8 19.1	1.899	2.846	7.0	21.4	2 21	9 43.20	+18 57.1	1.601	2.579	4.2	19.3
3 2	9 36.64	-6 51.1	1.920	2.857	7.9	21.5	3 2	9 33.15	+19 14.4	1.647	2.590	8.5	19.5
3 12	9 30.06	-5 14.0	1.969	2.867	10.3	21.6	3 12	9 25.12	+19 18.1	1.719	2.601	12.4	19.8
3 22	9 25.48	-3 35.9	2.042	2.877	12.9	21.8	3 22	9 19.75	+19 8.4	1.812	2.611	15.7	20.0
46326	2001 <i>QU</i> ₁₄₈	2 14.7 109°94'		3°7'/12.0 18			130431	2000 <i>PQ</i> ₂₄	2 14.8 118°99'		1°2'/14.1 18		
1 12	10 19.33	+19 7.9	1.587	2.428	14.9	19.2	1 12	10 20.78	+15 35.2	1.515	2.350	15.8	19.7
1 22	10 13.23	+20 18.4	1.534	2.446	10.9	19.0	1 22	10 14.52	+15 39.6	1.443	2.352	11.7	19.5
2 1	10 4.49	+21 34.2	1.504	2.463	6.7	18.7	2 1	10 5.40	+15 50.9	1.394	2.354	7.0	19.2
2 11	9 54.08	+22 45.6	1.502	2.480	3.8	18.6	2 11	9 54.39	+16 3.7	1.371	2.356	2.1	18.9
2 21	9 43.29	+23 44.2	1.527	2.496	5.8	18.8	2 21	9 42.82	+16 12.4	1.376	2.358	3.9	19.0
3 2	9 33.50	+24 23.9	1.581	2.512	9.8	19.0	3 2	9 32.18	+16 12.7	1.409	2.360	8.9	19.3
3 12	9 25.87	+24 42.7	1.659	2.527	13.5	19.3	3 12	9 23.75	+16 2.3	1.467	2.361	13.4	19.6
3 22	9 21.03	+24 42.0	1.757	2.542	16.7	19.5	3 22	9 18.29	+15 41.0	1.546	2.363	17.2	19.8
9745	Shinkenwada	2 14.8 88°89'		0°7'/15.4 18			210369	2007 <i>UK</i> ₁₂₈	2 14.8 243°39'		1°1'/13.9 17		
1 12	10 12.75	+8 47.5	2.104	2.918	12.8	18.6	1 12	10 16.01	+13 11.6	1.836	2.664	13.8	21.5
1 22	10 7.84	+9 12.4	2.033	2.929	9.6	18.4	1 22	10 10.80	+13 53.4	1.745	2.651	10.3	21.3
2 1	10 1.08	+9 48.8	1.986	2.940	5.9	18.2	2 1	10 3.16	+14 46.4	1.678	2.637	6.1	21.0
2 11	9 53.12	+10 32.9	1.968	2.951	1.9	18.0	2 11	9 53.80	+15 45.1	1.638	2.623	1.8	20.7
2 21	9 44.84	+11 19.7	1.978	2.962	2.4	18.0	2 21	9 43.71	+16 42.5	1.627	2.608	3.5	20.8
3 2	9 37.13	+12 4.4	2.018	2.972	6.3	18.3	3 2	9 34.12	+17 32.1	1.646	2.593	8.1	21.0
3 12	9 30.83	+12 42.6	2.085	2.983	9.8	18.5	3 12	9 26.16	+18 9.1	1.690	2.577	12.3	21.2
3 22	9 26.49	+13 11.5	2.176	2.993	12.8	18.7	3 22	9 20.62	+18 31.2	1.756	2.561	15.9	21.4
192536	1998 <i>SF</i> ₈₈	2 14.8 103°83'		2°0'/16.0 18			421726	2014 <i>PQ</i> ₃₆	2 14.8 158°24'		0°4'/15.1 18		
1 12	10 19.47	+6 38.5	1.534	2.347	16.7	21.1	1 12	10 16.43	+9 28.2	2.078	2.888	13.1	22.5
1 22	10 13.29	+6 44.5	1.472	2.365	12.7	20.9	1 22	10 10.63	+10 0.0	2.001	2.896	9.8	22.3
2 1	10 4.51	+7 6.9	1.432	2.383	8.1	20.6	2 1	10 2.80	+10 43.4	1.949	2.903	5.9	22.0
2 11	9 54.09	+7 41.9	1.419	2.400	3.3	20.4	2 11	9 53.64	+11 34.0	1.926	2.910	1.8	21.8
2 21	9 43.28	+8 23.8	1.434	2.417	3.3	20.4	2 21	9 44.06	+12 26.5	1.932	2.915	2.5	21.8
3 2	9 33.43	+9 6.1	1.477	2.433	7.8	20.7	3 2	9 35.07	+13 15.5	1.969	2.920	6.6	22.1
3 12	9 25.67	+9 43.1	1.545	2.449	12.2	21.0	3 12	9 27.58	+13 56.5	2.033	2.925	10.3	22.3
3 22	9 20.67	+10 10.9	1.635	2.464	15.8	21.3	3 22	9 22.20	+14 26.9	2.121	2.928	13.5	22.5
188016	2001 <i>TS</i> ₁₆₃	2 14.8 95°73'		1°1'/13.9 18			16711	Ka-Dar	2 14.8 90°92'		1°2'/13.6 18		
1 12	10 14.96	+13 18.9	1.832	2.662	13.7	21.0	1 12	10 12.77	+15 3.9	2.417	3.242	11.0	18.7
1 22	10 9.72	+14 2.0	1.767	2.674	10.1	20.8	1 22	10 7.63	+15 40.4	2.354	3.259	8.0	18.5
2 1	10 2.29	+14 54.6	1.727	2.687	5.9	20.6	2 1	10 0.85	+16 22.6	2.316	3.275	4.7	18.3
2 11	9 53.48	+15 50.8	1.715	2.700	1.7	20.3	2 11	9 53.07	+17 5.8	2.308	3.292	1.5	18.1
2 21	9 44.29	+16 44.0	1.731	2.712	3.4	20.5	2 21	9 45.03	+17 45.6	2.329	3.308	2.9	18.2
3 2	9 35.83	+17 28.6	1.776	2.724	7.6	20.8	3 2	9 37.56	+18 18.2	2.381	3.324	6.2	18.5
3 12	9 29.08	+18 0.6	1.848	2.736	11.4	21.0	3 12	9 31.37	+18 40.9	2.460	3.340	9.2	18.7
3 22	9 24.62	+18 18.7	1.941	2.748	14.6	21.3	3 22	9 26.94	+18 52.8	2.563	3.356	11.8	18.9
283217	2010 <i>OV</i> ₇₀	2 14.8 209°05'		3°6'/19.0 17			137018	1998 <i>SL</i> ₁₆₀	2 14.8 144°78'		1°3'/13.7 18		
1 12	10 9.43	-3 1.7	2.807	3.561	11.5	21.3	1 12	10 15.45	+13 44.1	1.969	2.795	13.1	20.7
1 22	10 5.11	-2 41.0	2.709	3.556	9.3	21.1	1 22	10 10.02	+14 34.3	1.897	2.803	9.6	20.5
2 1	9 59.36	-2 4.1	2.634	3.551	6.8	21.0	2 1	10 2.48	+15 33.7	1.851	2.811	5.6	20.2
2 11	9 52.66	-1 12.2	2.587	3.546	4.4	20.8	2 11	9 53.55	+16 36.3	1.834	2.818	1.7	20.0
2 21	9 45.59	-0 8.3	2.570	3.540	3.6	20.7	2 21	9 44.21	+17 35.5	1.845	2.825	3.4	20.1
3 2	9 38.83	+1 3.2	2.583	3.534	5.3	20.8	3 2	9 35.50	+18 25.6	1.887	2.831	7.5	20.4
3 12	9 33.02	+2 17.4	2.626	3.528	7.9	21.0	3 12	9 28.38	+19 2.8	1.954	2.837	11.1	20.6
3 22	9 28.64	+3 29.2	2.695	3.521	10.4	21.1	3 22	9 23.47	+19 25.4	2.045	2.842	14.2	20.8
16786	1997 <i>AT</i> ₁	2 14.8 32°65'		3°4'/17.3 18 R			465968	2011 <i>CH</i> ₆	2 14.8 136°48'		2°9'/17.2 16		
1 12	10 13.95	+3 16.1	2.089	2.881	13.7	16.9	1 12	10 13.42	+2 50.1	2.036	2.828	13.9	21.9
1 22	10 8.76	+2 48.3	2.011	2.887	10.7	16.7	1 22	10 8.46	+2 56.5	1.956	2.833	10.8	21.7
2 1	10 1.65	+2 33.9	1.956	2.893	7.4	16.5	2 1	10 1.52	+3 19.0	1.899	2.838	7.3	21.5
2 11	9 53.30	+2 32.0	1.929	2.900	4.3	16.3	2 11	9 53.29	+3 55.5	1.869	2.843	3.9	21.3
2 21	9 44.57	+2 40.6	1.930	2.907	3.7	16.3	2 21	9 44.63	+4 42.0	1.868	2.848	3.3	21.3
3 2	9 36.39	+2 56.2	1.960	2.914	6.5	16.5	3 2	9 36.51	+5 33.2	1.896	2.852	6.4	21.5
3 12	9 29.64	+3 14.7	2.017	2.921	9.7	16.7	3 12	9 29.82	+6 23.5	1.951	2.856	10.0	21.7
3 22	9 24.87	+3 32.3	2.098	2.929	12.7	16.9	3 22	9 25.16	+7 8.4	2.030	2.860	13.2	21.9
282822	2006 <i>SA</i> ₁₁₈	2 14.8 88°64'		1°5'/15.9 18			366849	2005 <i>QZ</i> ₁₈₁	2 14.8 77°96'		2°0'/13.4 18		
1 12	10 15.69	+6 25.8	1.777	2.587	14.9	21.6	1 12	10 16.89	+16 53.6	1.750	2.586	14.0	21.2
1 22	10 10.20	+6 53.4	1.717	2.609	11.3	21.5	1 22	10 11.25	+17 23.0	1.685	2.596	10.2	21.0
2 1	10 2.53	+7 36.4	1.681	2.631	7.1	21.2	2 1	10 3.26	+17 58.2	1.645	2.606	6.1	20.7
2 11	9 53.54	+8 30.3	1.671	2.653	2.7	21.0	2 11	9 53.77	+18 33.2	1.633	2.616	2.3	20.5
2 21	9 44.24	+9 29.0	1.691	2.674	2.8	21.1	2 21	9 43.90	+19 2.0	1.648	2.626	4.1	20.7
3 2	9 35.74	+10 26.2	1.739	2.695	6.9	21.4	3 2	9 34.85	+19 20.0	1.692	2.636	8.2	20.9
3 12	9 28.98	+11 16.3	1.814	2.716	10.8	21.6	3 12	9 27.67	+19 24.8	1.761	2.646	12.0	21.2
3 22	9 24.53	+11 55.8	1.912	2.736	14.1	21.9	3 22	9 22.98	+19 16.4	1.852	2.656	15.3	21.4
498110	2007 <i>RO</i> ₃₂₀	2 14.8 179°05'		3°0'/17.9 17			414863	2010 <i>VU</i> ₁₀₂	2 14.8 149°48'		4°6'/18.9 18		
1 12	10 10.82	+0 32.7	2.558	3.332	11.9	21.8	1 12	10 14.40	-2 48.0	2.165	2.926	14.2	21.6
1 2													

EPHEMERIDES

2 14.8

2 14.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
497495	2006 <i>AM</i> ₆₆		2 14.8 292°50	5°1/17.7	17		417758	2007 <i>DK</i> ₅₀		2 14.8 334°40	2°8/13.2	18	
1 12	10 16.37	+ 0 35.3	1.921	2.702	15.1	20.8	1 12	10 20.13	+20 20.2	1.673	2.511	14.4	20.1
1 22	10 11.02	- 0 13.6	1.817	2.682	12.2	20.6	1 22	10 13.92	+20 25.0	1.596	2.507	10.7	19.9
2 1	10 3.30	- 0 48.0	1.735	2.661	8.9	20.3	2 1	10 5.02	+20 31.2	1.543	2.502	6.5	19.6
2 11	9 53.86	- 1 6.7	1.679	2.641	6.0	20.1	2 11	9 54.33	+20 33.0	1.517	2.498	3.0	19.4
2 21	9 43.61	- 1 10.4	1.651	2.620	5.3	20.0	2 21	9 43.11	+20 25.4	1.519	2.495	4.8	19.5
3 2	9 33.71	- 1 1.4	1.651	2.600	7.9	20.1	3 2	9 32.75	+20 5.4	1.549	2.491	9.0	19.7
3 12	9 25.26	- 0 44.3	1.678	2.579	11.5	20.3	3 12	9 24.44	+19 32.3	1.605	2.488	13.1	20.0
3 22	9 19.11	- 0 24.0	1.727	2.559	15.0	20.5	3 22	9 18.92	+18 47.8	1.682	2.485	16.6	20.2
325756	2009 <i>WN</i> ₁₁₄		2 14.8 270°08	7°6/ 8.1	16		495291	2013 <i>TK</i> ₄₄		2 14.8 192°92	3°4/11.6	17	
1 12	10 19.53	+32 27.5	1.987	2.821	12.6	20.7	1 12	10 16.78	+22 46.8	2.440	3.269	10.8	22.2
1 22	10 13.58	+33 43.5	1.904	2.800	10.1	20.5	1 22	10 10.77	+23 30.9	2.362	3.267	8.0	22.0
2 1	10 4.91	+34 54.5	1.847	2.779	8.1	20.3	2 1	10 2.86	+24 15.6	2.311	3.265	5.1	21.8
2 11	9 54.30	+35 50.6	1.817	2.757	7.7	20.2	2 11	9 53.70	+24 55.2	2.289	3.262	3.4	21.7
2 21	9 42.92	+36 24.2	1.814	2.735	9.3	20.3	2 21	9 44.14	+25 25.0	2.297	3.258	4.8	21.8
3 2	9 32.16	+36 30.6	1.837	2.712	11.9	20.4	3 2	9 35.12	+25 41.3	2.335	3.255	7.7	22.0
3 12	9 23.30	+36 10.2	1.883	2.689	14.8	20.5	3 12	9 27.48	+25 42.9	2.399	3.250	10.5	22.1
3 22	9 17.18	+35 26.4	1.948	2.666	17.4	20.7	3 22	9 21.81	+25 30.5	2.487	3.245	13.1	22.3
91515	1999 <i>RR</i> ₁₆₉		2 14.8 109°03	1°3/15.9	18		252300	2001 <i>RP</i> ₂₉		2 14.8 92°33	1°2/13.9	18	
1 12	10 13.96	+ 7 31.4	2.047	2.856	13.3	19.5	1 12	10 16.93	+14 27.4	1.814	2.643	13.9	20.5
1 22	10 8.81	+ 7 44.4	1.972	2.864	10.0	19.3	1 22	10 11.17	+14 58.2	1.753	2.659	10.2	20.3
2 1	10 1.71	+ 8 9.9	1.922	2.872	6.3	19.1	2 1	10 3.17	+15 36.7	1.716	2.675	6.0	20.1
2 11	9 53.34	+ 8 44.5	1.898	2.880	2.4	18.9	2 11	9 53.78	+16 17.4	1.706	2.691	1.8	19.8
2 21	9 44.60	+ 9 23.8	1.905	2.888	2.5	18.9	2 21	9 44.07	+16 54.3	1.726	2.706	3.4	20.0
3 2	9 36.44	+10 3.0	1.940	2.895	6.4	19.1	3 2	9 35.17	+17 22.7	1.774	2.721	7.6	20.3
3 12	9 29.75	+10 37.7	2.002	2.903	10.0	19.4	3 12	9 28.05	+17 39.5	1.849	2.736	11.4	20.5
3 22	9 25.09	+11 4.7	2.089	2.910	13.1	19.6	3 22	9 23.31	+17 43.8	1.945	2.751	14.6	20.8
494208	2016 <i>HZ</i> ₁₄		2 14.8 72°46	1°6/16.1	18		66445	1999 <i>NV</i> ₅₉		2 14.8 147°63	4°0/18.6	18	
1 12	10 12.20	+ 6 10.2	1.953	2.763	13.8	21.6	1 12	10 12.02	- 1 49.7	2.207	2.976	13.7	20.2
1 22	10 7.63	+ 6 33.0	1.877	2.768	10.5	21.3	1 22	10 7.33	- 1 37.0	2.123	2.981	11.0	20.0
2 1	10 1.06	+ 7 10.5	1.824	2.774	6.7	21.1	2 1	10 0.83	- 1 5.5	2.062	2.987	7.9	19.8
2 11	9 53.18	+ 7 59.4	1.798	2.779	2.7	20.9	2 11	9 53.14	- 0 16.7	2.028	2.992	5.0	19.6
2 21	9 44.87	+ 8 54.4	1.801	2.784	2.7	20.9	2 21	9 45.06	+ 0 45.5	2.023	2.996	4.1	19.6
3 2	9 37.13	+ 9 49.8	1.832	2.789	6.5	21.1	3 2	9 37.44	+ 1 55.8	2.047	3.001	6.3	19.7
3 12	9 30.86	+10 40.0	1.891	2.794	10.3	21.4	3 12	9 31.11	+ 3 7.8	2.099	3.005	9.4	19.9
3 22	9 26.67	+11 21.3	1.973	2.800	13.6	21.6	3 22	9 26.62	+ 4 16.0	2.176	3.008	12.3	20.1
210434	Fungyuancheng		2 14.8 48°12	2°5/12.2	18		341645	2007 <i>VO</i> ₄₃		2 14.8 27°47	1°6/15.9	18	
1 12	10 10.96	+17 0.7	2.128	2.966	11.8	19.9	1 12	10 13.02	+ 8 10.5	1.836	2.655	14.2	20.1
1 22	10 6.67	+18 13.9	2.057	2.968	8.6	19.7	1 22	10 8.29	+ 8 5.9	1.767	2.664	10.7	19.9
2 1	10 0.48	+19 34.1	2.011	2.971	5.1	19.5	2 1	10 1.46	+ 8 13.4	1.722	2.674	6.7	19.7
2 11	9 53.02	+20 54.5	1.994	2.974	2.6	19.3	2 11	9 53.32	+ 8 30.3	1.703	2.685	2.7	19.5
2 21	9 45.14	+22 8.1	2.006	2.977	4.3	19.5	2 21	9 44.81	+ 8 52.6	1.713	2.696	2.8	19.5
3 2	9 37.78	+23 9.2	2.048	2.981	7.8	19.7	3 2	9 36.98	+ 9 15.7	1.750	2.708	6.7	19.8
3 12	9 31.80	+23 54.1	2.115	2.984	11.0	19.9	3 12	9 30.76	+ 9 35.5	1.814	2.720	10.5	20.0
3 22	9 27.79	+24 21.8	2.205	2.987	13.8	20.1	3 22	9 26.73	+ 9 49.0	1.900	2.732	13.8	20.3
341717	2007 <i>VC</i> ₂₀₇		2 14.8 287°18	5°6/ 9.1	18		379512	2010 <i>HJ</i> ₆₃		2 14.8 313°69	8°4/ 6.9	17	
1 12	10 13.38	+27 46.4	2.210	3.051	11.3	19.9	1 12	10 14.63	+32 31.4	1.789	2.636	13.2	19.3
1 22	10 8.59	+29 1.7	2.137	3.043	8.6	19.8	1 22	10 10.22	+34 6.1	1.713	2.615	10.7	19.1
2 1	10 1.69	+30 15.4	2.090	3.035	6.3	19.6	2 1	10 3.03	+35 36.5	1.661	2.593	8.8	19.0
2 11	9 53.39	+31 19.8	2.072	3.028	5.6	19.5	2 11	9 53.84	+36 51.5	1.635	2.573	8.6	18.9
2 21	9 44.58	+32 8.4	2.082	3.020	7.1	19.6	2 21	9 43.85	+37 42.0	1.635	2.552	10.3	19.0
3 2	9 36.31	+32 36.9	2.119	3.012	9.7	19.8	3 2	9 34.48	+38 2.5	1.659	2.532	13.1	19.1
3 12	9 29.55	+32 44.1	2.180	3.005	12.4	19.9	3 12	9 27.08	+37 52.7	1.705	2.513	16.1	19.2
3 22	9 24.92	+32 31.6	2.261	2.997	14.8	20.1	3 22	9 22.51	+37 16.2	1.768	2.494	18.7	19.4
3367	Alex		2 14.8 9°67	3°0/17.0	18		231447	2007 <i>HE</i> ₁		2 14.8 233°27	6°5/ 8.9	18	
1 12	10 12.84	+ 3 51.1	1.788	2.594	15.0	16.6	1 12	10 17.52	+30 8.9	2.077	2.913	12.1	20.3
1 22	10 8.30	+ 3 46.2	1.709	2.595	11.7	16.3	1 22	10 11.78	+31 18.7	2.007	2.908	9.4	20.2
2 1	10 1.57	+ 3 57.9	1.652	2.596	7.9	16.1	2 1	10 3.67	+32 24.2	1.962	2.901	7.2	20.0
2 11	9 53.36	+ 4 24.3	1.621	2.597	4.1	15.9	2 11	9 53.96	+33 17.0	1.946	2.895	6.5	19.9
2 21	9 44.65	+ 5 1.4	1.618	2.598	3.6	15.9	2 21	9 43.74	+33 50.7	1.957	2.889	8.0	20.0
3 2	9 36.53	+ 5 43.9	1.642	2.600	7.1	16.1	3 2	9 34.20	+34 1.3	1.995	2.882	10.6	20.2
3 12	9 30.01	+ 6 25.9	1.693	2.602	10.9	16.3	3 12	9 26.41	+33 49.0	2.057	2.875	13.3	20.3
3 22	9 25.75	+ 7 2.6	1.766	2.605	14.4	16.5	3 22	9 21.08	+33 16.4	2.139	2.868	15.8	20.5
401962	2002 <i>ST</i> ₂₁		2 14.8 84°71	1°6/13.6	18		160118	2000 <i>SU</i> ₂₆₈		2 14.8 175°04	1°5/13.5	18	
1 12	10 18.71	+15 12.4	1.728	2.558	14.4	21.7	1 12	10 17.69	+14 51.3	2.154	2.974	12.3	21.4
1 22	10 12.45	+15 50.4	1.677	2.584	10.5	21.6	1 22	10 11.60	+15 39.8	2.076	2.978	9.0	21.2
2 1	10 3.89	+16 35.6	1.650	2.610	6.1	21.3	2 1	10 3.43	+16 35.8	2.023	2.981	5.3	20.9
2 11	9 53.95	+17 21.4	1.651	2.635	2.0	21.1	2 11	9 53.88	+17 33.8	2.000	2.983	1.8	20.7
2 21	9 43.79	+18 1.5	1.681	2.659	3.8	21.3	2 21	9 43.88	+18 27.7	2.007	2.985	3.5	20.8
3 2	9 34.59	+18 31.1	1.739	2.684	7.9	21.6	3 2	9 34.45	+19 12.3	2.044	2.985	7.3	21.1
3 12	9 27.33	+18 47.4	1.823	2.708	11.7	21.9	3 12	9 26.51	+19 44.3	2.109	2.984	10.8	21.3
3 22	9 22.57	+18 50.2	1.930	2.731	14.8	22.1	3 22	9 20.71	+20 2.6	2.197	2.983	13.8	21.5
321147	2008 <i>UV</i> ₂₅₉		2 14.8 111°95	0°6/15.3	18		428408	2007 <i>TT</i> ₇₉		2 14.8			

EPHEMERIDES

2 14.8

2 14.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
492976	2014 <i>SM</i> ₁₅₂		2 14.8 233°25	0°1/14.8 17			223694	2004 <i>RT</i> ₂₁		2 14.8 163°39	0°5/15.3 18		
1 12	10 16.62	+10 45.4	1.904	2.722	13.8	22.2	1 12	10 13.90	+ 9 6.0	2.376	3.182	11.7	21.6
1 22	10 11.17	+11 12.8	1.811	2.710	10.3	21.9	1 22	10 8.61	+ 9 34.4	2.295	3.187	8.8	21.4
2 1	10 3.38	+11 52.2	1.742	2.698	6.3	21.6	2 1	10 1.56	+10 13.1	2.239	3.192	5.4	21.2
2 11	9 53.92	+12 39.3	1.700	2.685	1.8	21.3	2 11	9 53.39	+10 58.6	2.213	3.196	1.7	21.0
2 21	9 43.78	+13 28.3	1.688	2.671	2.9	21.4	2 21	9 44.84	+11 46.4	2.217	3.200	2.2	21.0
3 2	9 34.12	+14 13.2	1.706	2.657	7.5	21.6	3 2	9 36.76	+12 32.0	2.251	3.203	5.9	21.3
3 12	9 26.03	+14 49.3	1.750	2.643	11.6	21.8	3 12	9 29.95	+13 11.4	2.313	3.206	9.2	21.5
3 22	9 20.27	+15 13.7	1.816	2.627	15.2	22.0	3 22	9 24.93	+13 41.9	2.400	3.208	12.1	21.7
297818	2002 <i>AF</i> ₁₀₄		2 14.8 39°61	1°3/15.5 18			55140	2001 <i>QC</i> ₁₉₃		2 14.8 235°47	4°7/19.3 18		
1 12	10 16.66	+ 9 3.1	1.311	2.146	17.8	20.2	1 12	10 11.24	- 3 38.3	2.489	3.242	12.8	19.2
1 22	10 11.72	+ 9 3.3	1.247	2.153	13.4	19.9	1 22	10 6.67	- 3 49.5	2.392	3.236	10.4	19.0
2 1	10 3.85	+ 9 19.6	1.204	2.161	8.3	19.7	2 1	10 0.44	- 3 43.9	2.318	3.230	7.8	18.8
2 11	9 54.05	+ 9 47.5	1.185	2.169	2.9	19.4	2 11	9 53.09	- 3 21.8	2.271	3.223	5.5	18.7
2 21	9 43.69	+10 20.9	1.193	2.177	3.4	19.4	2 21	9 45.30	- 2 45.3	2.252	3.216	4.7	18.6
3 2	9 34.32	+10 53.0	1.226	2.186	8.7	19.7	3 2	9 37.85	- 1 57.8	2.263	3.209	6.3	18.7
3 12	9 27.23	+11 18.1	1.284	2.195	13.6	20.0	3 12	9 31.49	- 1 4.4	2.301	3.202	8.9	18.8
3 22	9 23.18	+11 32.8	1.362	2.204	17.7	20.3	3 22	9 26.78	- 0 10.1	2.364	3.195	11.5	19.0
459650	2013 <i>JE</i> ₄₈		2 14.8 187°83	4°9/ 9.5 17			203065	2000 <i>OR</i> ₂₁		2 14.8 106°27	6°4/18.7 18		
1 12	10 16.84	+26 11.9	2.406	3.238	10.8	22.1	1 12	10 24.02	- 3 2.0	1.827	2.580	16.7	20.2
1 22	10 10.97	+27 37.1	2.334	3.237	8.2	22.0	1 22	10 16.32	- 4 2.9	1.762	2.605	13.6	20.0
2 1	10 3.08	+29 2.0	2.290	3.236	5.8	21.8	2 1	10 6.25	- 4 44.3	1.719	2.628	10.2	19.8
2 11	9 53.81	+30 18.7	2.275	3.234	5.0	21.8	2 11	9 54.69	- 5 4.9	1.702	2.651	7.3	19.7
2 21	9 44.05	+31 20.9	2.291	3.231	6.5	21.8	2 21	9 42.77	- 5 5.5	1.715	2.673	6.5	19.7
3 2	9 34.79	+32 3.9	2.335	3.227	9.0	22.0	3 2	9 31.72	- 4 49.9	1.756	2.695	8.4	19.9
3 12	9 26.95	+32 26.5	2.405	3.223	11.6	22.2	3 12	9 22.59	- 4 23.8	1.825	2.715	11.4	20.1
3 22	9 21.19	+32 29.9	2.496	3.217	13.9	22.3	3 22	9 16.00	- 3 53.3	1.917	2.735	14.3	20.3
415337	2013 <i>HA</i> ₁₀₉		2 14.8 198°42	2°4/16.8 17			15346	Bonifatius		2 14.8 147°34	3°5/17.3 18		
1 12	10 14.74	+ 3 35.6	2.072	2.865	13.7	22.6	1 12	10 17.34	+ 2 17.3	1.737	2.530	15.9	19.1
1 22	10 9.52	+ 3 55.9	1.982	2.862	10.6	22.3	1 22	10 11.67	+ 2 19.3	1.661	2.538	12.5	18.9
2 1	10 2.26	+ 4 32.7	1.916	2.858	7.1	22.1	2 1	10 3.63	+ 2 40.3	1.607	2.546	8.5	18.6
2 11	9 53.59	+ 5 23.2	1.877	2.854	3.5	21.9	2 11	9 54.00	+ 3 18.0	1.580	2.553	4.6	18.4
2 21	9 44.40	+ 6 22.8	1.868	2.849	3.0	21.8	2 21	9 43.87	+ 4 7.9	1.580	2.560	3.9	18.4
3 2	9 35.67	+ 7 25.8	1.888	2.844	6.5	22.0	3 2	9 34.42	+ 5 3.7	1.610	2.566	7.4	18.6
3 12	9 28.33	+ 8 26.1	1.936	2.838	10.2	22.3	3 12	9 26.73	+ 5 58.7	1.666	2.571	11.3	18.9
3 22	9 23.05	+ 9 19.1	2.008	2.831	13.5	22.5	3 22	9 21.50	+ 6 47.4	1.744	2.576	14.9	19.1
7651	Villeneuve		2 14.8 222°46	1°4/16.1 18			413888	2006 <i>VH</i> ₆₄		2 14.8 38°23	6°7/19.4 18		
1 12	10 11.80	+ 5 42.5	2.311	3.111	12.2	18.2	1 12	10 13.72	- 3 33.7	1.537	2.320	18.1	20.6
1 22	10 7.19	+ 6 17.8	2.217	3.104	9.3	18.0	1 22	10 9.21	- 4 9.4	1.468	2.329	14.8	20.4
2 1	10 0.80	+ 7 7.3	2.149	3.097	6.0	17.8	2 1	10 2.24	- 4 20.7	1.419	2.338	11.2	20.2
2 11	9 53.18	+ 8 7.7	2.108	3.089	2.4	17.5	2 11	9 53.62	- 4 6.7	1.393	2.348	7.9	20.0
2 21	9 45.09	+ 9 14.2	2.098	3.081	2.4	17.5	2 21	9 44.49	- 3 30.3	1.393	2.359	6.7	20.0
3 2	9 37.37	+10 21.3	2.118	3.073	5.9	17.7	3 2	9 36.11	- 2 37.3	1.419	2.370	8.8	20.1
3 12	9 30.85	+11 23.6	2.165	3.064	9.4	17.9	3 12	9 29.59	- 1 35.9	1.470	2.381	12.1	20.4
3 22	9 26.12	+12 17.1	2.238	3.055	12.5	18.1	3 22	9 25.63	- 0 34.4	1.542	2.393	15.5	20.6
256552	2007 <i>OU</i> ₅		2 14.8 207°25	2°2/13.3 18			86002	1999 <i>JW</i> ₈₅		2 14.8 238°64	3°1/17.7 18		
1 12	10 19.38	+16 59.9	1.778	2.610	14.0	21.2	1 12	10 12.11	+ 0 37.5	2.215	2.995	13.3	20.1
1 22	10 13.30	+17 32.6	1.698	2.606	10.4	21.0	1 22	10 7.55	+ 1 3.2	2.114	2.983	10.5	19.9
2 1	10 4.66	+18 11.7	1.642	2.601	6.2	20.7	2 1	10 1.09	+ 1 47.3	2.037	2.971	7.3	19.6
2 11	9 54.29	+18 51.0	1.613	2.596	2.4	20.5	2 11	9 53.31	+ 2 47.9	1.986	2.958	4.1	19.4
2 21	9 43.30	+19 24.0	1.614	2.591	4.3	20.6	2 21	9 44.96	+ 4 0.6	1.966	2.944	3.3	19.3
3 2	9 33.00	+19 45.6	1.643	2.584	8.6	20.8	3 2	9 36.95	+ 5 19.6	1.975	2.930	6.2	19.5
3 12	9 24.56	+19 52.9	1.697	2.578	12.6	21.1	3 12	9 30.16	+ 6 38.3	2.012	2.916	9.8	19.7
3 22	9 20.73	+19 45.7	1.774	2.571	16.1	21.3	3 22	9 25.24	+ 7 51.0	2.074	2.901	13.0	19.9
221262	2005 <i>UY</i> ₃₀₅		2 14.8 112°27	1°2/13.9 18			157441	2004 <i>VO</i> ₁₁		2 14.8 87°60	0°8/14.1 18		
1 12	10 15.01	+14 17.2	1.865	2.696	13.5	21.3	1 12	10 13.79	+13 6.4	1.959	2.787	13.0	20.2
1 22	10 9.85	+14 50.7	1.792	2.700	9.9	21.1	1 22	10 8.83	+13 42.4	1.888	2.794	9.6	20.0
2 1	10 2.48	+15 32.6	1.743	2.703	5.9	20.8	2 1	10 1.82	+14 27.5	1.842	2.802	5.7	19.8
2 11	9 53.65	+16 17.6	1.722	2.707	1.8	20.6	2 11	9 53.48	+15 16.6	1.824	2.809	1.6	19.6
2 21	9 44.37	+16 59.6	1.730	2.710	3.4	20.7	2 21	9 44.75	+16 3.8	1.835	2.816	3.1	19.7
3 2	9 35.76	+17 33.4	1.766	2.713	7.6	20.9	3 2	9 36.66	+16 43.9	1.875	2.824	7.1	19.9
3 12	9 28.80	+17 55.4	1.828	2.717	11.5	21.2	3 12	9 30.10	+17 13.2	1.941	2.831	10.8	20.2
3 22	9 24.13	+18 4.4	1.913	2.720	14.7	21.4	3 22	9 25.69	+17 30.1	2.030	2.838	13.9	20.4
9594	Garstang		2 14.8 302°06	3°3/16.8 18			402992	2007 <i>VQ</i> ₁₅₃		2 14.8 60°30	3°3/17.0 18		
1 12	10 14.29	+ 4 11.0	1.351	2.173	18.1	16.8	1 12	10 14.94	+ 3 21.4	1.452	2.266	17.5	21.2
1 22	10 10.18	+ 4 9.5	1.267	2.163	14.2	16.5	1 22	10 10.18	+ 3 25.1	1.388	2.278	13.6	21.0
2 1	10 3.12	+ 4 29.8	1.203	2.152	9.5	16.2	2 1	10 2.83	+ 3 49.9	1.345	2.290	9.0	20.8
2 11	9 53.92	+ 5 9.9	1.164	2.142	4.7	15.9	2 11	9 53.79	+ 4 32.7	1.326	2.303	4.6	20.5
2 21	9 43.83	+ 6 4.4	1.150	2.132	4.1	15.8	2 21	9 44.27	+ 5 27.7	1.334	2.316	3.9	20.5
3 2	9 34.38	+ 7 5.2	1.162	2.122	8.9	16.1	3 2	9 35.62	+ 6 27.2	1.369	2.329	8.0	20.8
3 12	9 27.00	+ 8 3.8	1.197	2.113	13.9	16.3	3 12	9 28.98	+ 7 23.6	1.429	2.342	12.3	21.1
3 22	9 22.62	+ 8 53.2	1.253	2.104	18.4	16.6	3 22	9 25.03	+ 8 11.2	1.511	2.355	16.1	21.3
489583	2007 <i>TK</i> ₁₀₅		2 14.8 174°42	2°2/16.6 18			466052	2011 <i>PX</i> ₄		2 14.8 174°70	0°4/15.3 18</		

EPHEMERIDES

2 14.8

2 14.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
497693	2006 <i>SO</i> ₆₇		2 14.8 165°11	1°5/13.2	17		176717	2002 <i>QG</i> ₈₀		2 14.8 63°11	2°3/16.5	18	
1 12	10 12.97	+16 55.1	2.727	3.550	9.9	22.0	1 12	10 15.17	+ 4 22.1	1.496	2.311	17.0	20.3
1 22	10 7.75	+17 27.1	2.649	3.553	7.3	21.8	1 22	10 10.15	+ 4 51.4	1.444	2.336	12.9	20.1
2 1	10 0.99	+18 3.1	2.598	3.556	4.3	21.6	2 1	10 2.71	+ 5 40.9	1.413	2.362	8.3	19.9
2 11	9 53.23	+18 39.0	2.576	3.559	1.7	21.4	2 11	9 53.77	+ 6 45.3	1.408	2.387	3.6	19.7
2 21	9 45.18	+19 11.0	2.585	3.561	3.0	21.5	2 21	9 44.54	+ 7 57.4	1.430	2.413	3.2	19.7
3 2	9 37.56	+19 35.7	2.625	3.563	6.0	21.7	3 2	9 36.26	+ 9 8.8	1.480	2.439	7.5	20.0
3 12	9 31.06	+19 51.0	2.692	3.565	8.8	21.9	3 12	9 29.96	+10 12.3	1.555	2.464	11.8	20.3
3 22	9 26.18	+19 56.1	2.784	3.567	11.2	22.1	3 22	9 26.23	+11 3.3	1.652	2.489	15.3	20.6
149391	2003 <i>AE</i> ₁₁		2 14.8 57°69	0°2/14.9	18		118128	3457 <i>T</i> ₋₃		2 14.8 135°22	0°7/15.4	18	
1 12	10 12.34	+ 8 1.9	1.558	2.387	15.8	19.5	1 12	10 17.03	+ 8 20.8	1.995	2.802	13.6	21.1
1 22	10 8.14	+ 9 6.5	1.496	2.401	11.7	19.3	1 22	10 11.14	+ 8 52.0	1.924	2.817	10.2	20.9
2 1	10 1.55	+10 29.0	1.458	2.415	7.1	19.1	2 1	10 3.19	+ 9 35.9	1.878	2.831	6.3	20.7
2 11	9 53.43	+12 2.3	1.445	2.430	2.0	18.8	2 11	9 53.91	+10 28.2	1.861	2.844	2.1	20.5
2 21	9 44.87	+13 37.3	1.461	2.445	3.1	18.9	2 21	9 44.27	+11 23.2	1.873	2.856	2.5	20.5
3 2	9 37.10	+15 4.6	1.505	2.460	7.9	19.2	3 2	9 35.28	+12 15.3	1.915	2.868	6.6	20.8
3 12	9 31.17	+16 17.3	1.574	2.475	12.2	19.5	3 12	9 27.88	+12 59.7	1.985	2.879	10.4	21.0
3 22	9 27.72	+17 11.8	1.665	2.490	15.8	19.7	3 22	9 22.65	+13 33.6	2.078	2.889	13.6	21.3
97916	2000 <i>QE</i> ₉₁		2 14.8 113°36	2°5/16.7	18		212287	2005 <i>LG</i> ₃₈		2 14.8 282°94	0°5/15.2	17	
1 12	10 16.61	+ 4 10.3	1.700	2.503	15.8	19.9	1 12	10 10.60	+ 8 48.1	2.233	3.048	12.1	21.3
1 22	10 11.10	+ 4 28.2	1.632	2.518	12.1	19.7	1 22	10 6.43	+ 9 25.4	2.139	3.037	9.1	21.1
2 1	10 3.25	+ 5 4.4	1.587	2.533	7.9	19.5	2 1	10 0.43	+10 15.1	2.071	3.025	5.6	20.8
2 11	9 53.91	+ 5 55.2	1.569	2.547	3.7	19.3	2 11	9 53.17	+11 13.5	2.030	3.014	1.8	20.6
2 21	9 44.14	+ 6 54.7	1.579	2.561	3.2	19.3	2 21	9 45.41	+12 15.4	2.019	3.003	2.4	20.6
3 2	9 35.14	+ 7 56.2	1.617	2.574	7.2	19.5	3 2	9 38.03	+13 15.3	2.038	2.991	6.3	20.8
3 12	9 27.95	+ 8 52.9	1.682	2.587	11.3	19.8	3 12	9 31.86	+14 8.2	2.084	2.980	9.9	21.0
3 22	9 23.19	+ 9 40.3	1.770	2.599	14.8	20.0	3 22	9 27.53	+14 50.6	2.153	2.969	13.0	21.2
408209	2013 <i>ED</i> ₅₄		2 14.8 226°17	0°8/14.2	18		237377	1995 <i>SZ</i> ₆₃		2 14.8 153°67	0°7/14.0	17	
1 12	10 17.38	+13 6.1	1.900	2.723	13.6	22.4	1 12	10 12.09	+13 39.6	2.885	3.699	9.7	21.5
1 22	10 11.76	+13 38.5	1.810	2.714	10.1	22.1	1 22	10 7.03	+14 13.2	2.807	3.707	7.1	21.3
2 1	10 3.76	+14 21.0	1.745	2.703	6.0	21.8	2 1	10 0.55	+14 52.6	2.756	3.713	4.2	21.1
2 11	9 54.10	+15 8.4	1.707	2.692	1.7	21.5	2 11	9 53.16	+15 34.2	2.735	3.720	1.2	20.9
2 21	9 43.78	+15 54.8	1.699	2.680	3.3	21.6	2 21	9 45.49	+16 14.3	2.746	3.726	2.3	21.0
3 2	9 33.98	+16 34.2	1.720	2.668	7.7	21.9	3 2	9 38.23	+16 49.4	2.787	3.732	5.3	21.2
3 12	9 25.80	+17 2.5	1.768	2.655	11.8	22.1	3 12	9 31.99	+17 16.9	2.856	3.737	8.1	21.4
3 22	9 19.99	+17 17.8	1.838	2.642	15.3	22.3	3 22	9 27.24	+17 35.4	2.951	3.741	10.5	21.6
39113	2000 <i>WM</i> ₃₂		2 14.8 119°15	5°7/ 9.3	18		82193	2001 <i>HA</i> ₃₄		2 14.8 221°83	1°1/15.5	18	
1 12	10 14.77	+26 7.6	1.962	2.806	12.3	18.9	1 12	10 17.40	+ 8 11.1	1.613	2.431	15.8	20.2
1 22	10 9.79	+27 38.3	1.901	2.810	9.4	18.8	1 22	10 12.10	+ 8 33.1	1.527	2.425	12.0	20.0
2 1	10 2.52	+29 8.5	1.866	2.814	6.7	18.6	2 1	10 4.12	+ 9 11.3	1.464	2.418	7.5	19.7
2 11	9 53.73	+30 28.9	1.859	2.818	5.8	18.6	2 11	9 54.26	+10 1.5	1.427	2.410	2.6	19.4
2 21	9 44.46	+31 31.8	1.880	2.822	7.4	18.7	2 21	9 43.64	+10 57.3	1.418	2.402	3.1	19.4
3 2	9 35.87	+32 12.3	1.928	2.826	10.3	18.8	3 2	9 33.62	+11 51.6	1.438	2.393	8.1	19.7
3 12	9 28.98	+32 29.1	2.000	2.830	13.2	19.0	3 12	9 25.47	+12 37.9	1.482	2.384	12.7	19.9
3 22	9 24.47	+32 24.2	2.092	2.833	15.7	19.2	3 22	9 20.01	+13 12.2	1.549	2.375	16.7	20.1
2482	Perkin		2 14.8 34°34	1°1/13.8	18		322646	1998 <i>WV</i> ₂₉		2 14.8 56°55	3°5/17.3	18	
1 12	10 12.47	+13 46.9	1.931	2.764	13.0	17.2	1 12	10 17.90	+ 2 34.7	1.427	2.234	18.1	20.7
1 22	10 7.94	+14 27.6	1.859	2.767	9.6	17.0	1 22	10 12.09	+ 2 38.4	1.384	2.269	13.9	20.5
2 1	10 1.34	+15 17.5	1.811	2.771	5.6	16.8	2 1	10 3.79	+ 3 3.6	1.362	2.305	9.3	20.3
2 11	9 53.39	+16 10.9	1.790	2.775	1.7	16.5	2 11	9 54.06	+ 3 46.5	1.365	2.340	4.8	20.1
2 21	9 45.02	+17 1.8	1.799	2.779	3.3	16.6	2 21	9 44.16	+ 4 40.6	1.395	2.376	4.0	20.2
3 2	9 37.25	+17 44.7	1.836	2.784	7.3	16.9	3 2	9 35.39	+ 5 38.3	1.453	2.411	7.7	20.5
3 12	9 31.01	+18 15.7	1.899	2.788	11.0	17.1	3 12	9 28.79	+ 6 32.4	1.535	2.446	11.8	20.8
3 22	9 26.91	+18 33.2	1.984	2.793	14.2	17.3	3 22	9 24.87	+ 7 17.8	1.640	2.481	15.2	21.1
296150	2009 <i>BE</i> ₁₀₇		2 14.8 39°02	1°1/14.2	18		396858	2004 <i>TC</i> ₁		2 14.8 194°25	2°8/12.4	18	
1 12	10 18.92	+14 55.8	1.414	2.254	16.4	19.8	1 12	10 18.21	+17 57.5	2.070	2.898	12.5	22.2
1 22	10 13.32	+15 4.4	1.347	2.259	12.2	19.5	1 22	10 12.21	+19 2.2	1.989	2.895	9.2	22.0
2 1	10 4.81	+15 21.4	1.302	2.263	7.3	19.3	2 1	10 3.96	+20 13.3	1.934	2.892	5.6	21.8
2 11	9 54.39	+15 41.2	1.283	2.268	2.1	19.0	2 11	9 54.17	+21 23.7	1.908	2.888	2.8	21.6
2 21	9 43.43	+15 57.6	1.291	2.273	3.9	19.1	2 21	9 43.81	+22 26.4	1.912	2.882	4.6	21.7
3 2	9 33.45	+16 5.6	1.326	2.279	9.0	19.4	3 2	9 34.00	+23 15.5	1.946	2.876	8.3	21.9
3 12	9 25.74	+16 2.1	1.385	2.284	13.7	19.7	3 12	9 25.76	+23 47.8	2.006	2.869	11.8	22.1
3 22	9 21.04	+15 46.7	1.465	2.290	17.5	19.9	3 22	9 19.78	+24 3.0	2.089	2.861	14.8	22.3
171979	2001 <i>TW</i> ₁₃₅		2 14.8 142°53	3°7/18.7	17		413079	2001 <i>SN</i> ₃₂₅		2 14.8 127°53	5°8/19.9	18	
1 12	10 11.69	- 1 42.3	2.717	3.475	11.7	20.5	1 12	10 15.27	- 5 44.0	2.175	2.918	14.7	20.6
1 22	10 6.79	- 1 46.0	2.633	3.483	9.4	20.3	1 22	10 9.73	- 6 3.2	2.098	2.932	12.1	20.5
2 1	10 0.43	- 1 35.3	2.572	3.491	6.8	20.2	2 1	10 2.31	- 6 2.4	2.044	2.946	9.2	20.3
2 11	9 53.11	- 1 11.1	2.539	3.498	4.5	20.0	2 11	9 53.67	- 5 41.4	2.015	2.959	6.7	20.2
2 21	9 45.49	- 0 35.7	2.536	3.505	3.8	20.0	2 21	9 44.66	- 5 2.6	2.014	2.972	5.8	20.1
3 2	9 38.26	+ 0 7.3	2.563	3.512	5.5	20.1	3 2	9 36.19	- 4 10.3	2.042	2.984	7.2	20.3
3 12	9 32.08	+ 0 53.7	2.618	3.518	8.0	20.3	3 12	9 29.12	- 3 10.8	2.098	2.995	9.7	20.4
3 22	9 27.40	+ 1 39.5	2.699	3.524	10.4	20.5	3 22	9 24.00	- 2 9.9	2.178	3.006	12.4	20.6
63013	2000 <i>WO</i> ₃₈		2 14.8 213°00	1°2/15.7	18		180883	2005 <i>JQ</i> ₁₁₂		2 14.8 178°07	1°7/16.5	18	
1 12	10 14.68	+ 6 39.9	1.821	2.633									

EPHEMERIDES

2 14.8

2 14.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
330101	2005 <i>WM</i> ₁₇₆		2 14.8 115°46'	0°1/14.9	18		94646	2001 <i>WH</i> ₄₁		2 14.8 107°29'	4°0/17.8	18	
1 12	10 14.86	+11 4.6	1.982	2.802	13.2	21.2	1 12	10 17.02	+0 36.9	1.659	2.449	16.7	19.6
1 22	10 9.62	+11 26.5	1.908	2.809	9.8	21.0	1 22	10 11.46	+0 42.1	1.593	2.467	13.1	19.4
2 1	10 2.33	+11 58.6	1.858	2.815	5.9	20.8	2 1	10 3.53	+1 8.6	1.548	2.483	9.1	19.2
2 11	9 53.70	+12 36.6	1.837	2.821	1.7	20.5	2 11	9 54.08	+1 54.0	1.529	2.500	5.2	19.0
2 21	9 44.67	+13 15.6	1.844	2.827	2.6	20.6	2 21	9 44.21	+2 53.2	1.538	2.516	4.3	19.0
3 2	9 36.26	+13 50.5	1.881	2.833	6.8	20.8	3 2	9 35.13	+3 59.2	1.575	2.532	7.5	19.2
3 12	9 29.38	+14 17.5	1.944	2.839	10.5	21.1	3 12	9 27.90	+5 4.3	1.639	2.547	11.3	19.5
3 22	9 24.64	+14 34.4	2.030	2.845	13.7	21.3	3 22	9 23.16	+6 2.6	1.725	2.561	14.8	19.8
165377	2000 <i>WR</i> ₁₃₆		2 14.8 175°32'	3°0/17.0	18		226786	2004 <i>RD</i> ₁₆₀		2 14.8 62°05'	0°2/14.9	18	
1 12	10 16.68	+3 17.0	1.873	2.667	14.9	20.6	1 12	10 15.72	+11 25.2	1.854	2.677	13.9	20.4
1 22	10 11.13	+3 18.9	1.790	2.669	11.6	20.4	1 22	10 10.41	+11 33.6	1.779	2.681	10.4	20.2
2 1	10 3.33	+3 37.7	1.730	2.671	7.8	20.2	2 1	10 2.88	+11 52.0	1.728	2.685	6.3	19.9
2 11	9 54.01	+4 11.3	1.697	2.672	4.1	20.0	2 11	9 53.91	+12 16.2	1.704	2.689	1.8	19.6
2 21	9 44.15	+4 55.5	1.692	2.673	3.5	19.9	2 21	9 44.49	+12 41.8	1.709	2.693	2.7	19.7
3 2	9 34.87	+5 44.7	1.717	2.673	7.0	20.1	3 2	9 35.73	+13 4.0	1.743	2.696	7.1	20.0
3 12	9 27.19	+6 33.1	1.768	2.672	10.9	20.4	3 12	9 28.63	+13 19.3	1.802	2.701	11.0	20.2
3 22	9 21.81	+7 15.7	1.843	2.671	14.3	20.6	3 22	9 23.82	+13 25.6	1.885	2.705	14.4	20.4
95294	2002 <i>CG</i> ₉₀		2 14.8 220°77'	0°7/14.1	18		125845	2001 <i>XO</i> ₁₈₃		2 14.8 269°59'	1°4/16.2	17	
1 12	10 12.42	+11 31.3	2.173	2.994	12.2	20.0	1 12	10 10.78	+6 28.5	2.472	3.274	11.5	19.9
1 22	10 7.82	+12 29.2	2.086	2.988	9.0	19.8	1 22	10 6.36	+6 43.7	2.382	3.269	8.8	19.8
2 1	10 1.29	+13 38.6	2.024	2.983	5.3	19.5	2 1	10 0.31	+7 10.4	2.316	3.264	5.6	19.5
2 11	9 53.43	+14 54.2	1.992	2.976	1.5	19.3	2 11	9 53.17	+7 46.0	2.278	3.259	2.4	19.3
2 21	9 45.07	+16 9.7	1.989	2.970	2.9	19.4	2 21	9 45.64	+8 27.0	2.270	3.253	2.3	19.3
3 2	9 37.14	+17 18.7	2.016	2.963	6.8	19.6	3 2	9 38.48	+9 9.2	2.292	3.248	5.5	19.5
3 12	9 30.51	+18 16.3	2.070	2.956	10.4	19.8	3 12	9 32.44	+9 48.5	2.342	3.243	8.7	19.7
3 22	9 25.83	+18 59.8	2.148	2.949	13.5	20.0	3 22	9 28.03	+10 21.8	2.417	3.238	11.6	19.9
27669	1979 <i>MQ</i> ₄		2 14.8 50°48'	4°1/18.3	18 R		425	Cornelia		2 14.8 324°60'	2°2/12.9	18	
1 12	10 12.17	-0 17.5	2.200	2.976	13.5	18.0	1 12	10 13.32	+17 2.0	1.924	2.762	12.8	14.2
1 22	10 7.50	-0 31.2	2.116	2.979	10.8	17.8	1 22	10 8.69	+17 45.4	1.847	2.758	9.4	14.0
2 1	10 1.01	-0 28.7	2.056	2.982	7.8	17.6	2 1	10 1.90	+18 35.4	1.793	2.754	5.6	13.7
2 11	9 53.34	-0 10.8	2.022	2.986	5.0	17.4	2 11	9 53.64	+19 26.0	1.768	2.750	2.4	13.5
2 21	9 45.26	+0 20.0	2.017	2.989	4.2	17.4	2 21	9 44.89	+20 10.8	1.771	2.746	4.2	13.6
3 2	9 37.64	+0 59.5	2.040	2.993	6.4	17.5	3 2	9 36.71	+20 44.6	1.802	2.743	8.0	13.8
3 12	9 31.31	+1 42.7	2.091	2.996	9.4	17.7	3 12	9 30.09	+21 4.3	1.858	2.739	11.7	14.0
3 22	9 26.83	+2 24.8	2.166	3.000	12.3	17.9	3 22	9 25.70	+21 8.9	1.937	2.736	14.8	14.2
175023	2004 <i>FU</i> ₂₇		2 14.8 233°42'	0°6/15.5	17		417466	2006 <i>QC</i> ₉₂		2 14.8 203°52'	0°4/15.1	18	
1 12	10 11.68	+9 3.6	2.506	3.314	11.2	20.8	1 12	10 17.13	+10 17.8	2.086	2.897	13.0	22.2
1 22	10 7.00	+9 24.4	2.415	3.309	8.4	20.6	1 22	10 11.35	+10 37.4	1.997	2.892	9.8	21.9
2 1	10 0.67	+9 55.0	2.350	3.303	5.2	20.4	2 1	10 3.44	+11 7.5	1.933	2.887	6.0	21.7
2 11	9 53.25	+10 32.4	2.313	3.297	1.7	20.1	2 11	9 54.08	+11 44.5	1.897	2.881	1.8	21.4
2 21	9 45.42	+11 12.7	2.307	3.290	2.1	20.1	2 21	9 44.18	+12 23.5	1.892	2.875	2.6	21.5
3 2	9 37.97	+11 51.9	2.330	3.284	5.6	20.4	3 2	9 34.79	+12 59.7	1.916	2.868	6.7	21.7
3 12	9 31.64	+12 26.2	2.382	3.277	8.8	20.6	3 12	9 26.86	+13 28.9	1.968	2.860	10.6	21.9
3 22	9 26.97	+12 53.1	2.458	3.270	11.7	20.7	3 22	9 21.06	+13 48.7	2.043	2.852	13.8	22.1
462706	2009 <i>WZ</i> ₃₁		2 14.8 77°65'	2°7/12.5	18		268045	2004 <i>QZ</i> ₉		2 14.8 103°02'	1°4/13.4	18	
1 12	10 14.10	+17 54.6	1.907	2.746	12.9	21.2	1 12	10 13.31	+12 47.6	2.078	2.903	12.5	20.6
1 22	10 9.20	+18 48.9	1.840	2.752	9.4	20.9	1 22	10 8.41	+14 6.8	2.014	2.920	9.1	20.5
2 1	10 2.14	+19 49.1	1.798	2.758	5.7	20.7	2 1	10 1.58	+15 36.0	1.977	2.936	5.3	20.3
2 11	9 53.67	+20 48.1	1.784	2.765	2.8	20.6	2 11	9 53.53	+17 8.4	1.969	2.953	1.7	20.0
2 21	9 44.78	+21 39.5	1.798	2.771	4.5	20.7	2 21	9 45.12	+18 36.6	1.991	2.969	3.4	20.2
3 2	9 36.56	+22 17.7	1.841	2.777	8.2	20.9	3 2	9 37.32	+19 53.9	2.043	2.985	7.2	20.5
3 12	9 29.97	+22 40.1	1.909	2.784	11.7	21.1	3 12	9 30.97	+20 55.9	2.122	3.000	10.6	20.7
3 22	9 25.63	+22 46.3	1.999	2.790	14.7	21.4	3 22	9 26.62	+21 40.8	2.225	3.015	13.5	20.9
368681	2005 <i>QW</i> ₁₈₈		2 14.8 245°33'	0°9/15.5	17		169112	2001 <i>OS</i> ₄₂		2 14.8 155°44'	1°1/13.8	18	
1 12	10 14.47	+8 38.2	1.874	2.691	14.0	21.4	1 12	10 14.30	+15 39.9	2.654	3.472	10.3	20.7
1 22	10 9.57	+8 56.7	1.788	2.685	10.6	21.2	1 22	10 8.78	+16 2.0	2.576	3.478	7.6	20.5
2 1	10 2.44	+9 28.6	1.725	2.679	6.6	20.9	2 1	10 1.66	+16 28.6	2.525	3.483	4.5	20.3
2 11	9 53.78	+10 10.1	1.690	2.673	2.3	20.6	2 11	9 53.54	+16 56.0	2.503	3.487	1.4	20.1
2 21	9 44.55	+10 56.1	1.683	2.667	2.7	20.6	2 21	9 45.11	+17 20.5	2.513	3.492	2.7	20.2
3 2	9 35.84	+11 40.8	1.705	2.660	7.1	20.9	3 2	9 37.16	+17 38.9	2.553	3.496	5.8	20.4
3 12	9 28.68	+12 19.1	1.753	2.654	11.2	21.1	3 12	9 30.38	+17 49.2	2.620	3.499	8.8	20.6
3 22	9 23.78	+12 47.7	1.824	2.647	14.7	21.3	3 22	9 25.27	+17 50.5	2.713	3.503	11.3	20.8
185865	2000 <i>HG</i> ₃₉		2 14.8 105°09'	6°5/20.7	18		100755	1998 <i>FO</i> ₃		2 14.8 87°50'	0°3/15.1	18	
1 12	10 12.55	-7 34.6	1.868	2.617	16.6	20.4	1 12	10 13.41	+9 21.6	1.857	2.678	13.9	19.8
1 22	10 8.06	-7 36.6	1.789	2.625	13.8	20.2	1 22	10 8.69	+9 59.1	1.785	2.686	10.4	19.6
2 1	10 1.48	-7 12.9	1.731	2.633	10.6	20.1	2 1	10 1.85	+10 49.9	1.738	2.694	6.3	19.3
2 11	9 53.49	-6 23.4	1.697	2.641	7.8	19.9	2 11	9 53.62	+11 49.0	1.718	2.702	1.9	19.1
2 21	9 45.04	-5 11.7	1.690	2.649	6.5	19.9	2 21	9 44.97	+12 50.2	1.726	2.710	2.7	19.1
3 2	9 37.16	-3 44.1	1.711	2.657	7.9	19.9	3 2	9 36.96	+13 47.1	1.764	2.718	7.0	19.4
3 12	9 30.81	-2 9.3	1.758	2.665	10.8	20.1	3 12	9 30.53	+14 34.5	1.827	2.726	10.9	19.7
3 22	9 26.62	-0 35.7	1.829	2.672	13.8	20.3	3 22	9 26.29	+15 9.5	1.914	2.733	14.2	19.9
265812	2005 <i>XA</i> ₄₀		2 14.8 279°52'	0°2/14.9	17		463683	2014 <i>OQ</i> ₁₈₈		2 14.8 105°13'	0°1/14.8	18	
1 12	10 14.06	+10 47.7	1.932	2.754	13.4	21.4	1 12						

EPHEMERIDES

2 14.8

2 14.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
206228	2002 <i>VD</i> ₁₀₈		2 14.8 36°01'	5°8'/10.4 18			35302	1996 <i>XD</i> ₆		2 14.8 45°07'	7°1'/7.4 18		
1 12	10 15.95	+27 22.1	1.795	2.642	13.2	19.5	1 12	10 13.69	+31 36.6	2.099	2.940	11.7	18.6
1 22	10 10.68	+28 18.6	1.745	2.655	10.0	19.4	1 22	10 8.98	+33 14.0	2.048	2.948	9.3	18.4
2 1	10 3.04	+29 11.3	1.719	2.668	7.1	19.2	2 1	10 2.06	+34 45.7	2.023	2.956	7.5	18.3
2 11	9 53.94	+29 52.0	1.720	2.682	5.9	19.2	2 11	9 53.71	+36 2.8	2.026	2.964	7.2	18.3
2 21	9 44.54	+30 14.7	1.748	2.697	7.4	19.3	2 21	9 44.93	+36 58.5	2.056	2.972	8.6	18.4
3 2	9 36.07	+30 16.2	1.803	2.712	10.3	19.5	3 2	9 36.85	+37 29.2	2.112	2.980	10.9	18.6
3 12	9 29.53	+29 57.0	1.881	2.727	13.2	19.7	3 12	9 30.43	+37 34.9	2.190	2.989	13.3	18.8
3 22	9 25.50	+29 19.9	1.980	2.743	15.8	19.9	3 22	9 26.30	+37 18.4	2.288	2.997	15.4	18.9
101079	1998 <i>RW</i> ₂₄		2 14.8 233°18'	3°2'/17.2 18			72924	2001 <i>WM</i> ₆₆		2 14.8 259°47'	0°1'/14.8 17		
1 12	10 14.99	+ 2 45.7	1.881	2.675	14.9	20.4	1 12	10 14.17	+10 43.6	1.936	2.757	13.4	20.0
1 22	10 9.99	+ 2 45.8	1.789	2.667	11.7	20.2	1 22	10 9.40	+11 17.0	1.842	2.744	10.1	19.8
2 1	10 2.74	+ 3 3.2	1.720	2.660	8.0	20.0	2 1	10 2.42	+12 2.8	1.773	2.730	6.1	19.5
2 11	9 53.92	+ 3 36.2	1.678	2.652	4.3	19.7	2 11	9 53.85	+12 56.5	1.731	2.716	1.7	19.2
2 21	9 44.46	+ 4 21.1	1.664	2.643	3.7	19.7	2 21	9 44.64	+13 52.3	1.719	2.702	2.8	19.2
3 2	9 35.48	+ 5 12.4	1.678	2.634	7.1	19.8	3 2	9 35.86	+14 43.9	1.735	2.687	7.3	19.5
3 12	9 28.02	+ 6 3.9	1.719	2.625	11.0	20.1	3 12	9 28.56	+15 26.3	1.777	2.672	11.4	19.7
3 22	9 22.81	+ 6 50.2	1.784	2.616	14.6	20.3	3 22	9 23.48	+15 56.4	1.843	2.657	14.9	19.9
109705	2001 <i>RE</i> ₄₃		2 14.8 156°23'	0°3'/15.1 18			139689	2001 <i>QG</i> ₂₁₃		2 14.8 152°26'	0°8'/15.6 18		
1 12	10 15.03	+ 9 33.5	2.357	3.163	11.8	21.1	1 12	10 15.23	+ 8 13.6	2.236	3.040	12.5	21.1
1 22	10 9.49	+10 8.6	2.279	3.172	8.8	20.9	1 22	10 9.71	+ 8 40.5	2.158	3.049	9.4	20.9
2 1	10 2.17	+10 53.9	2.226	3.180	5.3	20.7	2 1	10 2.35	+ 9 19.0	2.105	3.057	5.8	20.7
2 11	9 53.70	+11 45.6	2.203	3.187	1.6	20.4	2 11	9 53.78	+10 5.2	2.081	3.064	2.0	20.5
2 21	9 44.87	+12 38.7	2.211	3.194	2.3	20.5	2 21	9 44.83	+10 54.7	2.087	3.071	2.3	20.5
3 2	9 36.54	+13 28.6	2.249	3.200	6.0	20.8	3 2	9 36.42	+11 42.3	2.124	3.077	6.1	20.8
3 12	9 29.50	+14 11.1	2.315	3.205	9.3	21.0	3 12	9 29.36	+12 23.9	2.188	3.083	9.6	21.0
3 22	9 24.30	+14 43.8	2.406	3.209	12.2	21.2	3 22	9 24.22	+12 56.6	2.277	3.088	12.5	21.2
496351	2013 <i>QD</i> ₆₂		2 14.8 223°14'	0°1'/14.9 17			164639	1995 <i>FZ</i> ₁₈		2 14.8 299°98'	3°5'/12.8 15		
1 12	10 13.89	+ 9 27.4	2.256	3.066	12.2	22.4	1 12	10 17.71	+18 59.8	1.410	2.260	15.9	20.2
1 22	10 8.88	+10 11.8	2.160	3.056	9.1	22.2	1 22	10 12.95	+19 34.8	1.322	2.238	11.9	19.9
2 1	10 1.95	+11 8.6	2.091	3.045	5.5	22.0	2 1	10 5.00	+20 16.9	1.255	2.217	7.4	19.6
2 11	9 53.68	+12 13.4	2.050	3.034	1.6	21.7	2 11	9 54.67	+20 57.9	1.214	2.196	3.6	19.3
2 21	9 44.86	+13 20.6	2.039	3.022	2.5	21.7	2 21	9 43.30	+21 29.4	1.200	2.175	5.8	19.3
3 2	9 36.41	+14 24.6	2.059	3.010	6.4	22.0	3 2	9 32.57	+21 44.2	1.211	2.154	10.8	19.6
3 12	9 29.22	+15 20.3	2.107	2.997	10.1	22.2	3 12	9 24.04	+21 39.2	1.245	2.134	15.7	19.8
3 22	9 23.94	+16 4.4	2.178	2.983	13.2	22.3	3 22	9 18.74	+21 15.0	1.298	2.114	19.9	20.0
244752	2003 <i>SN</i> ₆₁		2 14.8 157°20'	0°5'/14.4 18			321700	2010 <i>FO</i> ₁		2 14.8 165°29'	0°7'/14.1 17		
1 12	10 16.96	+11 43.8	2.033	2.850	13.1	21.9	1 12	10 11.92	+12 36.3	2.355	3.176	11.4	20.7
1 22	10 11.17	+12 25.6	1.958	2.858	9.7	21.7	1 22	10 7.27	+13 20.8	2.275	3.178	8.4	20.5
2 1	10 3.29	+13 17.8	1.909	2.865	5.8	21.4	2 1	10 0.89	+14 14.0	2.221	3.179	4.9	20.3
2 11	9 54.04	+14 15.1	1.887	2.872	1.6	21.2	2 11	9 53.38	+15 11.3	2.196	3.181	1.4	20.0
2 21	9 44.35	+15 11.6	1.896	2.878	2.9	21.3	2 21	9 45.48	+16 7.5	2.201	3.182	2.7	20.1
3 2	9 35.27	+16 1.5	1.935	2.883	7.0	21.6	3 2	9 38.03	+16 57.7	2.236	3.183	6.3	20.3
3 12	9 27.74	+16 40.8	2.001	2.888	10.7	21.8	3 12	9 31.81	+17 38.2	2.298	3.184	9.5	20.6
3 22	9 22.38	+17 7.4	2.090	2.891	13.8	22.0	3 22	9 27.36	+18 7.0	2.384	3.185	12.4	20.7
325264	2008 <i>GZ</i> ₁₀₉		2 14.8 254°27'	2°8'/12.8 17			398757	2013 <i>AW</i> ₄₀		2 14.8 89°11'	1°1'/14.1 18		
1 12	10 17.51	+19 6.7	1.903	2.737	13.1	21.5	1 12	10 15.81	+11 21.4	1.429	2.267	16.5	21.2
1 22	10 11.91	+19 41.1	1.817	2.726	9.7	21.3	1 22	10 10.99	+12 25.9	1.368	2.279	12.1	21.0
2 1	10 3.91	+20 20.1	1.756	2.715	5.9	21.1	2 1	10 3.46	+13 46.0	1.330	2.291	7.2	20.7
2 11	9 54.25	+20 57.2	1.723	2.703	2.9	20.9	2 11	9 54.14	+15 13.5	1.317	2.302	2.0	20.4
2 21	9 43.97	+21 26.5	1.719	2.692	4.7	20.8	2 21	9 44.30	+16 38.2	1.333	2.314	3.9	20.6
3 2	9 34.27	+21 43.1	1.743	2.680	8.6	21.1	3 2	9 35.36	+17 51.1	1.375	2.326	9.0	20.9
3 12	9 26.26	+21 44.7	1.792	2.668	12.3	21.3	3 12	9 28.53	+18 46.2	1.442	2.337	13.5	21.2
3 22	9 20.68	+21 31.4	1.864	2.655	15.6	21.5	3 22	9 24.52	+19 21.4	1.529	2.348	17.2	21.5
268431	2005 <i>VS</i> ₆		2 14.8 99°42'	1°3'/15.8 18			56259	1999 <i>JY</i> ₈₆		2 14.8 280°54'	6°4'/9.0 18		
1 12	10 15.38	+ 8 6.3	1.902	2.714	14.0	21.2	1 12	10 15.22	+26 44.5	1.827	2.674	13.0	19.3
1 22	10 10.09	+ 8 12.7	1.827	2.721	10.6	21.0	1 22	10 10.53	+28 16.3	1.749	2.659	10.0	19.1
2 1	10 2.67	+ 8 31.6	1.777	2.728	6.6	20.7	2 1	10 3.24	+29 49.1	1.697	2.645	7.3	18.9
2 11	9 53.87	+ 8 59.7	1.753	2.735	2.5	20.5	2 11	9 54.11	+31 12.5	1.672	2.630	6.4	18.8
2 21	9 44.64	+ 9 32.6	1.758	2.742	2.7	20.5	2 21	9 44.24	+32 17.5	1.674	2.615	8.3	18.9
3 2	9 36.06	+10 5.3	1.792	2.748	6.7	20.8	3 2	9 34.93	+32 57.9	1.703	2.601	11.4	19.0
3 12	9 29.06	+10 33.5	1.853	2.755	10.6	21.0	3 12	9 27.43	+33 11.9	1.754	2.586	14.7	19.2
3 22	9 24.27	+10 54.2	1.937	2.761	13.9	21.2	3 22	9 22.55	+33 1.3	1.825	2.571	17.5	19.4
462844	2010 <i>UG</i> ₁₆		2 14.8 66°97'	0°1'/14.7 18			210878	2001 <i>SH</i> ₃₂		2 14.8 31°95'	7°4'/10.1 18		
1 12	10 15.26	+10 26.0	1.600	2.429	15.4	21.5	1 12	10 20.13	+32 23.3	1.726	2.566	13.9	19.8
1 22	10 10.21	+11 6.9	1.544	2.449	11.4	21.3	1 22	10 13.81	+33 5.8	1.682	2.583	10.9	19.7
2 1	10 2.79	+12 1.1	1.511	2.469	6.8	21.1	2 1	10 4.90	+33 38.7	1.662	2.600	8.4	19.6
2 11	9 53.89	+13 2.5	1.505	2.490	1.9	20.8	2 11	9 54.48	+33 53.8	1.668	2.617	7.4	19.5
2 21	9 44.66	+14 3.6	1.527	2.510	3.1	20.9	2 21	9 43.89	+33 46.0	1.701	2.636	8.7	19.7
3 2	9 36.31	+14 57.5	1.577	2.530	7.7	21.3	3 2	9 34.50	+33 14.2	1.759	2.655	11.3	19.8
3 12	9 29.86	+15 39.3	1.652	2.550	11.9	21.5	3 12	9 27.36	+32 21.2	1.841	2.674	14.0	20.1
3 22	9 25.90	+16 6.8	1.749	2.571	15.3	21.8	3 22	9 23.01	+31 11.6	1.943	2.694	16.5	20.3
369524	2010 <i>WY</i> ₂₁		2 14.8 233°47'	4°9'/18.5 18			341712	2007 <i>VF</i> ₁₈₈		2 14.8 139°55'	5°6'/8.3 17		
1 12	10 14.47	- 1											

EPHEMERIDES

2 14.8

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
360029	2013 <i>AF</i> ₂₉		2 14.8	6°99	0°1/14.9	18	454493	2014 <i>OS</i> ₁₄₄		2 14.8	30°53	0°7/15.3	18
1 12	10 11.03	+ 9 2.0	1.123	1.977	18.9	20.6	1 12	10 14.19	+ 9 13.1	1.248	2.090	18.1	20.7
1 22	10 8.09	+ 9 48.0	1.060	1.977	14.2	20.3	1 22	10 10.07	+ 9 34.5	1.188	2.099	13.5	20.5
2 1	10 2.03	+10 56.2	1.016	1.978	8.6	20.0	2 1	10 3.03	+10 13.7	1.149	2.108	8.3	20.2
2 11	9 53.80	+12 19.3	0.995	1.980	2.5	19.6	2 11	9 54.06	+11 5.0	1.133	2.118	2.6	19.9
2 21	9 44.85	+13 46.1	0.998	1.983	3.8	19.7	2 21	9 44.55	+12 0.2	1.144	2.128	3.4	20.0
3 2	9 36.82	+15 5.0	1.027	1.987	9.8	20.1	3 2	9 36.03	+12 50.8	1.180	2.140	8.9	20.3
3 12	9 31.18	+16 6.9	1.077	1.992	15.2	20.4	3 12	9 29.80	+13 30.3	1.239	2.152	13.8	20.6
3 22	9 28.76	+16 47.7	1.146	1.998	19.7	20.7	3 22	9 26.57	+13 55.1	1.318	2.164	17.9	20.9
453316	2008 <i>VJ</i> ₄₉		2 14.8	121°30	3°8/17.7	18	9760	1991 <i>PJ</i> ₁₃		2 14.8	187°97	0°2/14.7	18
1 12	10 17.40	+ 0 56.4	1.719	2.507	16.3	21.9	1 12	10 19.01	+11 35.3	1.763	2.584	14.6	19.3
1 22	10 11.73	+ 1 2.3	1.649	2.522	12.8	21.7	1 22	10 13.07	+12 2.2	1.683	2.584	10.9	19.1
2 1	10 3.72	+ 1 28.6	1.602	2.537	8.8	21.5	2 1	10 4.64	+12 40.6	1.626	2.583	6.6	18.8
2 11	9 54.21	+ 2 13.1	1.580	2.551	5.0	21.3	2 11	9 54.51	+13 25.5	1.597	2.581	1.8	18.5
2 21	9 44.25	+ 3 10.8	1.587	2.565	4.1	21.3	2 21	9 43.78	+14 10.6	1.596	2.579	3.1	18.6
3 2	9 35.04	+ 4 14.8	1.622	2.578	7.3	21.5	3 2	9 33.70	+14 50.1	1.625	2.576	7.8	18.9
3 12	9 27.62	+ 5 18.0	1.684	2.590	11.2	21.8	3 12	9 25.42	+15 19.3	1.680	2.573	12.1	19.1
3 22	9 22.64	+ 6 14.6	1.769	2.602	14.6	22.0	3 22	9 19.68	+15 36.2	1.757	2.568	15.7	19.3
367344	2008 <i>EF</i> ₈		2 14.8	270°81	0°4/14.6	18	7985	Nedelcu		2 14.8	27°11	0°8/15.3	18
1 12	10 17.41	+13 14.5	1.738	2.566	14.4	20.5	1 12	10 16.05	+10 21.8	1.170	2.017	18.7	17.7
1 22	10 11.91	+13 23.3	1.656	2.562	10.8	20.2	1 22	10 11.60	+10 23.0	1.111	2.024	14.1	17.5
2 1	10 3.95	+13 40.9	1.599	2.557	6.5	20.0	2 1	10 4.01	+10 40.1	1.073	2.033	8.6	17.2
2 11	9 54.30	+14 3.1	1.568	2.553	1.8	19.6	2 11	9 54.35	+11 8.0	1.058	2.042	2.7	16.9
2 21	9 44.06	+14 24.5	1.566	2.548	3.1	19.7	2 21	9 44.12	+11 39.7	1.068	2.052	3.6	16.9
3 2	9 34.49	+14 40.6	1.592	2.544	7.8	20.0	3 2	9 35.00	+12 8.1	1.103	2.063	9.3	17.3
3 12	9 26.71	+14 47.8	1.644	2.540	12.1	20.2	3 12	9 28.37	+12 27.5	1.160	2.075	14.4	17.6
3 22	9 21.45	+14 44.6	1.717	2.535	15.7	20.5	3 22	9 24.96	+12 34.9	1.238	2.087	18.6	17.9
268447	2005 <i>WB</i> ₄₆		2 14.8	46°03	1°9/13.5	18	185331	2006 <i>VG</i> ₃₁		2 14.9	96°20	8°8/ 7.6	18
1 12	10 14.91	+15 11.6	1.539	2.382	15.2	20.8	1 12	10 19.72	+34 6.8	1.742	2.582	13.9	20.0
1 22	10 10.07	+15 54.1	1.485	2.399	11.1	20.5	1 22	10 13.90	+35 38.6	1.691	2.586	11.2	19.8
2 1	10 2.77	+16 45.5	1.455	2.417	6.5	20.3	2 1	10 5.22	+37 1.4	1.664	2.590	9.2	19.7
2 11	9 53.93	+17 38.3	1.451	2.435	2.3	20.1	2 11	9 54.67	+38 4.2	1.662	2.595	8.9	19.7
2 21	9 44.74	+18 25.2	1.474	2.453	4.1	20.3	2 21	9 43.62	+38 39.2	1.687	2.599	10.5	19.8
3 2	9 36.49	+19 0.4	1.524	2.472	8.6	20.6	3 2	9 33.57	+38 43.2	1.736	2.603	13.0	19.9
3 12	9 30.23	+19 20.4	1.599	2.491	12.6	20.8	3 12	9 25.77	+38 18.1	1.807	2.607	15.6	20.1
3 22	9 26.56	+19 24.7	1.695	2.510	16.0	21.1	3 22	9 20.94	+37 29.1	1.896	2.611	17.9	20.3
322596	2012 <i>BG</i> ₂₂		2 14.8	95°22	1°3/15.9	18	64124	2001 <i>TA</i> ₂₁		2 14.9	351°60	1°5/15.9	18
1 12	10 16.57	+ 6 45.0	1.741	2.551	15.2	20.7	1 12	10 13.76	+ 8 9.8	2.184	2.992	12.6	19.2
1 22	10 11.02	+ 7 14.2	1.679	2.572	11.4	20.5	1 22	10 8.74	+ 8 3.6	2.100	2.991	9.6	19.0
2 1	10 3.23	+ 7 58.9	1.642	2.593	7.1	20.3	2 1	10 1.84	+ 8 7.6	2.040	2.990	6.1	18.8
2 11	9 54.05	+ 8 54.5	1.631	2.613	2.7	20.0	2 11	9 53.69	+ 8 19.6	2.008	2.989	2.5	18.6
2 21	9 44.54	+ 9 54.7	1.649	2.633	2.8	20.1	2 21	9 45.13	+ 8 36.4	2.005	2.988	2.5	18.6
3 2	9 35.82	+10 52.9	1.696	2.652	7.1	20.4	3 2	9 37.07	+ 8 54.4	2.032	2.988	6.1	18.8
3 12	9 28.89	+11 43.4	1.769	2.671	11.0	20.7	3 12	9 30.34	+ 9 10.2	2.086	2.987	9.6	19.0
3 22	9 24.32	+12 22.6	1.865	2.689	14.4	20.9	3 22	9 25.53	+ 9 21.0	2.163	2.987	12.7	19.2
220277	2003 <i>BC</i> ₁₄		2 14.8	348°75	2°7/16.6	18	221092	2005 <i>SO</i> ₉₀		2 14.9	142°89	0°5/15.4	18
1 12	10 15.01	+ 5 24.0	1.689	2.500	15.6	20.0	1 12	10 15.16	+ 8 59.5	2.314	3.119	12.1	22.0
1 22	10 10.15	+ 5 14.5	1.609	2.499	12.0	19.7	1 22	10 9.61	+ 9 29.1	2.239	3.130	9.0	21.8
2 1	10 2.90	+ 5 20.8	1.551	2.498	7.9	19.5	2 1	10 2.28	+10 9.2	2.189	3.141	5.5	21.6
2 11	9 54.01	+ 5 40.7	1.519	2.497	3.9	19.3	2 11	9 53.81	+10 56.0	2.168	3.152	1.8	21.4
2 21	9 44.54	+ 6 10.3	1.514	2.496	3.5	19.2	2 21	9 44.99	+11 45.0	2.178	3.162	2.2	21.4
3 2	9 35.70	+ 6 44.4	1.537	2.495	7.4	19.5	3 2	9 36.71	+12 31.4	2.218	3.171	5.9	21.7
3 12	9 28.59	+ 7 17.2	1.586	2.495	11.6	19.7	3 12	9 29.75	+13 11.2	2.287	3.179	9.3	21.9
3 22	9 23.92	+ 7 44.5	1.657	2.494	15.3	19.9	3 22	9 24.65	+13 41.9	2.380	3.187	12.2	22.1
219412	2000 <i>SZ</i> ₂₆₁		2 14.8	68°60	4°5/11.7	18	439511	2014 <i>BC</i> ₂₈		2 14.9	314°40	0°9/13.9	17
1 12	10 19.32	+23 41.1	1.753	2.594	13.7	20.0	1 12	10 10.40	+12 40.8	2.287	3.112	11.5	21.0
1 22	10 13.10	+24 24.2	1.703	2.613	10.2	19.8	1 22	10 6.26	+13 35.7	2.205	3.110	8.5	20.8
2 1	10 4.47	+25 6.3	1.677	2.632	6.6	19.6	2 1	10 0.36	+14 40.3	2.149	3.108	5.0	20.5
2 11	9 54.39	+25 39.9	1.679	2.651	4.5	19.5	2 11	9 53.29	+15 49.4	2.121	3.106	1.5	20.3
2 21	9 44.06	+25 59.1	1.708	2.671	6.1	19.7	2 21	9 45.79	+16 57.3	2.123	3.103	2.9	20.4
3 2	9 34.75	+26 0.6	1.765	2.690	9.4	19.9	3 2	9 38.72	+17 58.4	2.155	3.101	6.5	20.6
3 12	9 27.45	+25 44.4	1.847	2.709	12.7	20.1	3 12	9 32.87	+18 48.4	2.214	3.099	9.9	20.8
3 22	9 22.75	+25 12.8	1.950	2.728	15.5	20.4	3 22	9 28.81	+19 25.1	2.296	3.097	12.8	21.0
130902	2000 <i>VW</i> ₃₃		2 14.8	67°11	5°9/19.1	18	430842	2005 <i>KG</i> ₈		2 14.9	204°06	4°0/10.6	18
1 12	10 15.97	- 2 43.7	1.453	2.240	18.8	19.6	1 12	10 16.06	+22 33.5	2.378	3.209	10.9	21.4
1 22	10 10.93	- 2 57.8	1.395	2.261	15.1	19.4	1 22	10 10.52	+23 54.1	2.298	3.204	8.1	21.2
2 1	10 3.33	- 2 45.6	1.356	2.282	11.0	19.2	2 1	10 2.97	+25 17.4	2.244	3.197	5.4	21.0
2 11	9 54.11	- 2 8.2	1.341	2.302	7.3	19.1	2 11	9 54.04	+26 36.3	2.221	3.190	4.0	20.9
2 21	9 44.48	- 1 10.4	1.352	2.323	6.0	19.1	2 21	9 44.58	+27 44.1	2.228	3.182	5.6	21.0
3 2	9 35.78	+ 0 0.1	1.389	2.344	8.5	19.2	3 2	9 35.55	+28 35.6	2.264	3.174	8.4	21.2
3 12	9 29.11	+ 1 13.9	1.452	2.365	12.1	19.5	3 12	9 27.87	+29 8.4	2.327	3.165	11.3	21.3
3 22	9 25.12	+ 2 23.1	1.537	2.386	15.7	19.8	3 22	9 22.18	+29 22.8	2.412	3.155	13.8	21.5
218766	2005 <i>WS</i> ₁₆		2 14.8	178°58	1°8/12.9	18	402894	2007 <i>SC</i> ₁₉		2 14.9	72°91	3°3/12.3	18
1 12	10 15.57	+17 21.2	2.737										

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
283481	2001 RT ₉₆		2 14.9 192°80	0°1/14.9 18			200816	2001 XQ ₁₈₁		2 14.9 38°01	0°1/14.9 18		
1 12	10 18.60	+10 38.3	1.814	2.631	14.4	22.2	1 12	10 14.13	+9 45.1	1.117	1.968	19.1	20.4
1 22	10 12.73	+11 6.0	1.731	2.629	10.8	22.0	1 22	10 10.20	+10 25.7	1.068	1.984	14.2	20.1
2 1	10 4.44	+11 45.9	1.671	2.627	6.5	21.7	2 1	10 3.16	+11 25.6	1.039	2.001	8.5	19.9
2 11	9 54.48	+12 33.3	1.640	2.624	1.9	21.4	2 11	9 54.16	+12 36.5	1.034	2.019	2.4	19.6
2 21	9 43.90	+13 22.2	1.638	2.621	2.9	21.5	2 21	9 44.71	+13 48.0	1.053	2.038	3.8	19.7
3 2	9 33.94	+14 6.4	1.665	2.616	7.6	21.7	3 2	9 36.44	+14 50.3	1.098	2.057	9.5	20.1
3 12	9 25.70	+14 41.2	1.718	2.611	11.8	22.0	3 12	9 30.67	+15 36.3	1.165	2.077	14.5	20.4
3 22	9 19.92	+15 4.1	1.794	2.606	15.4	22.2	3 22	9 28.06	+16 3.6	1.251	2.098	18.7	20.8
461811	2005 YK ₁₇₉		2 14.9 297°07	2°8/12.3 18			419047	2009 RT ₃₆		2 14.9 90°44	2°0/16.5 18		
1 12	10 12.79	+17 12.0	1.884	2.724	13.0	21.0	1 12	10 16.79	+5 50.7	2.003	2.802	13.9	21.8
1 22	10 8.43	+18 20.9	1.807	2.720	9.5	20.8	1 22	10 10.92	+5 55.8	1.941	2.826	10.6	21.7
2 1	10 1.84	+19 37.9	1.755	2.716	5.7	20.5	2 1	10 3.10	+6 14.3	1.903	2.848	6.8	21.5
2 11	9 53.74	+20 55.7	1.731	2.712	2.9	20.4	2 11	9 54.09	+6 43.2	1.892	2.871	3.1	21.3
2 21	9 45.08	+22 6.3	1.736	2.708	4.8	20.5	2 21	9 44.81	+7 18.2	1.911	2.893	2.8	21.3
3 2	9 36.99	+23 3.1	1.769	2.704	8.6	20.7	3 2	9 36.24	+7 54.8	1.959	2.915	6.3	21.6
3 12	9 30.46	+23 42.3	1.827	2.701	12.2	20.9	3 12	9 29.25	+8 28.3	2.035	2.937	9.8	21.8
3 22	9 26.20	+24 2.9	1.907	2.697	15.4	21.1	3 22	9 24.37	+8 55.6	2.135	2.958	12.8	22.1
63481	2001 OE ₄₂		2 14.9 124°68	1°4/15.9 18			396707	2002 UU ₃₆		2 14.9 262°88	5°7/12.5 18		
1 12	10 15.10	+6 59.3	1.961	2.768	13.8	20.1	1 12	10 23.62	+19 15.6	0.772	1.648	22.8	21.3
1 22	10 9.86	+7 18.6	1.886	2.777	10.5	19.9	1 22	10 19.08	+20 15.7	0.715	1.645	17.1	21.0
2 1	10 2.55	+7 51.6	1.836	2.786	6.6	19.6	2 1	10 9.50	+21 28.4	0.675	1.641	10.7	20.6
2 11	9 53.91	+8 34.8	1.814	2.795	2.6	19.4	2 11	9 56.16	+22 37.9	0.655	1.637	5.8	20.3
2 21	9 44.86	+9 23.2	1.820	2.804	2.6	19.4	2 21	9 41.44	+23 27.1	0.657	1.633	8.9	20.5
3 2	9 36.43	+10 11.2	1.856	2.812	6.6	19.7	3 2	9 28.31	+23 44.8	0.679	1.629	15.5	20.8
3 12	9 29.52	+10 53.8	1.919	2.820	10.3	19.9	3 12	9 19.20	+23 29.2	0.718	1.625	21.8	21.1
3 22	9 24.75	+11 27.7	2.005	2.827	13.6	20.2	3 22	9 15.20	+22 45.6	0.772	1.620	27.0	21.4
169941	2002 TX ₃₄		2 14.9 40°77	6°4/21.5 18			99716	2002 JU ₄₂		2 14.9 282°92	2°3/13.1 18		
1 12	10 9.58	-9 8.2	2.052	2.790	15.6	19.7	1 12	10 14.31	+14 43.5	1.550	2.393	15.1	19.7
1 22	10 5.77	-9 1.9	1.970	2.796	13.1	19.6	1 22	10 10.03	+15 48.9	1.471	2.385	11.2	19.4
2 1	10 0.11	-8 30.4	1.909	2.803	10.3	19.4	2 1	10 3.06	+17 7.2	1.414	2.376	6.7	19.1
2 11	9 53.23	-7 33.9	1.872	2.810	7.7	19.3	2 11	9 54.19	+18 30.2	1.385	2.368	2.6	18.9
2 21	9 45.93	-6 15.6	1.862	2.817	6.4	19.2	2 21	9 44.57	+19 48.5	1.383	2.360	4.7	19.0
3 2	9 39.13	-4 41.6	1.880	2.825	7.5	19.3	3 2	9 35.57	+20 53.3	1.408	2.352	9.5	19.2
3 12	9 33.65	-3 0.2	1.926	2.833	10.0	19.4	3 12	9 28.47	+21 39.2	1.457	2.344	13.9	19.5
3 22	9 30.08	-1 19.4	1.995	2.841	12.7	19.6	3 22	9 24.10	+22 4.4	1.527	2.336	17.7	19.7
142541	2002 TR ₅₁		2 14.9 101°66	1°9/13.3 18 R			268539	2006 AL ₄₁		2 14.9 269°18	0°0/14.9 17		
1 12	10 16.16	+15 2.4	1.828	2.660	13.7	19.3	1 12	10 14.72	+11 26.9	1.953	2.775	13.3	21.3
1 22	10 10.74	+16 0.1	1.768	2.677	10.0	19.1	1 22	10 9.70	+11 44.4	1.872	2.774	9.9	21.1
2 1	10 3.11	+17 6.1	1.733	2.693	5.9	18.9	2 1	10 2.56	+12 11.8	1.815	2.772	6.0	20.9
2 11	9 54.07	+18 13.4	1.726	2.709	2.2	18.7	2 11	9 53.99	+12 45.3	1.786	2.770	1.7	20.6
2 21	9 44.68	+19 14.7	1.747	2.725	4.0	18.9	2 21	9 44.93	+13 19.8	1.786	2.769	2.7	20.7
3 2	9 36.05	+20 4.2	1.798	2.740	7.9	19.1	3 2	9 36.44	+13 50.5	1.814	2.767	6.9	20.9
3 12	9 29.15	+20 38.3	1.874	2.755	11.6	19.4	3 12	9 29.47	+14 13.5	1.869	2.766	10.8	21.1
3 22	9 24.58	+20 56.4	1.973	2.770	14.7	19.6	3 22	9 24.68	+14 26.5	1.947	2.764	14.1	21.4
503745	2016 LY ₃₆		2 14.9 148°77	0°1/14.8 17			202063	2004 RX ₃₂₃		2 14.9 168°66	2°6/16.7 18		
1 12	10 10.99	+10 33.3	2.770	3.580	10.2	21.9	1 12	10 18.44	+4 59.7	1.798	2.597	15.2	20.3
1 22	10 6.35	+11 13.8	2.690	3.586	7.5	21.8	1 22	10 12.57	+4 57.5	1.717	2.601	11.8	20.1
2 1	10 0.27	+12 2.8	2.637	3.592	4.5	21.6	2 1	10 4.34	+5 10.9	1.660	2.604	7.8	19.8
2 11	9 53.26	+12 56.5	2.614	3.598	1.3	21.3	2 11	9 54.51	+5 37.6	1.629	2.607	3.7	19.6
2 21	9 45.94	+13 50.8	2.621	3.604	2.1	21.4	2 21	9 44.12	+6 13.4	1.627	2.609	3.3	19.6
3 2	9 39.02	+14 41.6	2.660	3.609	5.2	21.6	3 2	9 34.37	+6 52.9	1.654	2.610	7.2	19.8
3 12	9 33.11	+15 25.4	2.726	3.614	8.1	21.8	3 12	9 26.34	+7 30.6	1.708	2.611	11.2	20.0
3 22	9 28.70	+16 0.0	2.818	3.619	10.6	22.0	3 22	9 20.73	+8 2.2	1.784	2.611	14.8	20.3
467429	2005 XT ₅₈		2 14.9 19°43	5°0/18.1 18			519294	2011 CO ₉₂		2 14.9 213°50	3°0/17.4 17		
1 12	10 12.72	+0 58.0	1.443	2.251	17.9	21.1	1 12	10 14.62	+2 24.8	2.372	3.151	12.6	22.3
1 22	10 8.69	+0 30.1	1.375	2.258	14.2	20.9	1 22	10 9.33	+2 20.5	2.276	3.145	9.9	22.1
2 1	10 2.12	+0 24.1	1.329	2.266	10.1	20.6	2 1	10 2.23	+2 29.9	2.204	3.138	6.8	21.9
2 11	9 53.86	+0 39.2	1.305	2.274	6.2	20.4	2 11	9 53.89	+2 51.7	2.160	3.131	3.9	21.7
2 21	9 45.07	+1 11.8	1.308	2.284	5.2	20.4	2 21	9 45.07	+3 23.2	2.146	3.123	3.3	21.7
3 2	9 37.06	+1 55.7	1.336	2.294	8.3	20.6	3 2	9 36.63	+4 0.6	2.161	3.115	6.0	21.8
3 12	9 30.99	+2 43.2	1.388	2.306	12.3	20.9	3 12	9 29.38	+4 39.3	2.205	3.106	9.2	22.0
3 22	9 27.54	+3 27.8	1.462	2.318	15.9	21.1	3 22	9 23.93	+5 15.5	2.274	3.097	12.1	22.2
295548	2008 SR ₁₄		2 14.9 80°82	2°4/16.6 17			104877	2000 HW ₉₉		2 14.9 300°10	1°0/13.9 18		
1 12	10 18.31	+3 55.3	1.426	2.237	17.9	21.0	1 12	10 12.19	+13 32.6	2.042	2.871	12.5	19.5
1 22	10 12.63	+4 26.8	1.374	2.264	13.6	20.8	1 22	10 7.86	+14 10.6	1.953	2.860	9.3	19.3
2 1	10 4.34	+5 19.8	1.344	2.292	8.8	20.5	2 1	10 1.49	+14 58.1	1.889	2.848	5.5	19.0
2 11	9 54.45	+6 28.9	1.340	2.319	3.9	20.3	2 11	9 53.71	+15 50.1	1.852	2.837	1.6	18.7
2 21	9 44.25	+7 46.0	1.363	2.346	3.4	20.4	2 21	9 45.37	+16 40.8	1.845	2.825	3.2	18.8
3 2	9 35.11	+9 2.2	1.413	2.372	7.9	20.7	3 2	9 37.48	+17 24.9	1.866	2.814	7.2	19.0
3 12	9 28.13	+10 9.7	1.490	2.398	12.2	21.0	3 12	9 30.98	+17 58.0	1.914	2.803	11.0	19.2
3 22	9 23.92	+11 3.7	1.588	2.423	15.9	21.3	3 22	9 26.53	+18 18.0	1.984	2.793	14.2	19.4
323455	2004 HQ ₅₈		2 14.9 256°94	2°4/17.1 17			356308	2010 GW ₁₄₄		2 14.9 268°67	1°4/15.8 17		
1 12	10 13.24	+2 27.7	2.177	2.964	13.3	21.6	1 12	10 15.53	+7 22.7	1.555	2.377	16.2	22.1

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
339032	2004 <i>HG</i> ₃₉		2 14.9	6°18	4°0/18.5	18	92896	2000 <i>QW</i> ₂₅₀		2 14.9	71°01	4°3/12.3	18
1 12	10 9.06	- 0 56.2	1.851	2.641	15.2	20.4	1 12	10 20.33	+21 6.0	1.402	2.250	16.1	18.7
1 22	10 5.60	- 0 41.2	1.770	2.641	12.1	20.2	1 22	10 14.45	+21 53.8	1.348	2.263	11.9	18.4
2 1	10 0.13	- 0 4.6	1.711	2.643	8.6	20.0	2 1	10 5.61	+22 44.5	1.317	2.276	7.4	18.2
2 11	9 53.32	+ 0 51.8	1.677	2.644	5.3	19.8	2 11	9 54.88	+23 28.6	1.312	2.289	4.4	18.1
2 21	9 46.03	+ 2 3.3	1.670	2.647	4.2	19.7	2 21	9 43.75	+23 58.1	1.333	2.303	6.3	18.2
3 2	9 39.25	+ 3 23.1	1.691	2.650	6.8	19.9	3 2	9 33.77	+24 8.2	1.381	2.316	10.5	18.5
3 12	9 33.90	+ 4 43.5	1.739	2.653	10.4	20.1	3 12	9 26.21	+23 58.0	1.452	2.329	14.6	18.8
3 22	9 30.60	+ 5 57.8	1.810	2.657	13.7	20.3	3 22	9 21.74	+23 29.9	1.542	2.342	18.0	19.0
261534	2005 <i>WF</i> ₁₀₈		2 14.9	103°84	3°4/12.0	18	505022	2011 <i>QQ</i> ₃₂		2 14.9	221°78	0°9/16.0	17
1 12	10 14.73	+19 21.7	1.866	2.706	13.0	20.4	1 12	10 10.45	+ 6 10.6	3.005	3.797	9.9	22.1
1 22	10 9.85	+20 24.6	1.796	2.709	9.6	20.2	1 22	10 5.97	+ 6 53.1	2.904	3.786	7.5	21.9
2 1	10 2.70	+21 32.6	1.752	2.711	5.9	20.0	2 1	10 0.11	+ 7 46.8	2.829	3.776	4.8	21.8
2 11	9 54.04	+22 38.3	1.736	2.714	3.4	19.8	2 11	9 53.30	+ 8 48.8	2.784	3.765	1.9	21.5
2 21	9 44.91	+23 34.2	1.748	2.717	5.2	19.9	2 21	9 46.12	+ 9 55.1	2.770	3.753	1.8	21.5
3 2	9 36.42	+24 14.7	1.788	2.719	8.8	20.1	3 2	9 39.19	+11 1.6	2.788	3.742	4.8	21.7
3 12	9 29.62	+24 37.2	1.853	2.722	12.3	20.4	3 12	9 33.14	+12 3.9	2.835	3.729	7.7	21.9
3 22	9 25.15	+24 41.6	1.939	2.724	15.4	20.6	3 22	9 28.44	+12 58.9	2.909	3.716	10.2	22.0
275751	2001 <i>OH</i> ₃₃		2 14.9	149°41	3°2/10.8	17	424125	2007 <i>ES</i> ₁₇₂		2 14.9	82°01	4°6/19.2	18
1 12	10 13.85	+24 10.4	3.171	3.996	8.6	21.9	1 12	10 11.97	- 3 8.5	1.907	2.679	15.5	21.1
1 22	10 8.35	+25 7.7	3.106	4.008	6.4	21.8	1 22	10 7.64	- 2 51.9	1.831	2.690	12.5	20.9
2 1	10 1.44	+26 4.4	3.069	4.019	4.3	21.6	2 1	10 1.31	- 2 12.5	1.777	2.700	9.0	20.7
2 11	9 53.64	+26 56.1	3.063	4.029	3.2	21.6	2 11	9 53.66	- 1 12.1	1.749	2.710	5.8	20.5
2 21	9 45.58	+27 38.6	3.087	4.039	4.3	21.7	2 21	9 45.59	+ 0 4.5	1.748	2.721	4.7	20.5
3 2	9 37.93	+28 9.1	3.142	4.048	6.4	21.8	3 2	9 38.09	+ 1 30.4	1.776	2.731	6.9	20.6
3 12	9 31.31	+28 26.5	3.224	4.057	8.6	22.0	3 12	9 32.06	+ 2 57.8	1.831	2.741	10.2	20.9
3 22	9 26.18	+28 31.0	3.330	4.065	10.5	22.1	3 22	9 28.11	+ 4 19.6	1.910	2.752	13.4	21.1
369092	2008 <i>GM</i> ₉₁		2 14.9	196°89	3°9/18.9	17	51494	2001 <i>FG</i> ₇₉		2 14.9	283°55	2°2/12.8	18
1 12	10 13.21	- 3 0.1	2.620	3.370	12.3	22.2	1 12	10 12.70	+16 30.0	2.105	2.939	12.0	18.9
1 22	10 8.15	- 2 47.3	2.522	3.367	9.9	22.0	1 22	10 8.30	+17 25.1	2.011	2.920	8.9	18.6
2 1	10 1.46	- 2 17.6	2.447	3.363	7.3	21.8	2 1	10 1.81	+18 28.5	1.941	2.901	5.3	18.4
2 11	9 53.68	- 1 32.0	2.400	3.358	4.8	21.6	2 11	9 53.84	+19 34.0	1.900	2.883	2.3	18.2
2 21	9 45.47	- 0 33.5	2.382	3.352	4.0	21.6	2 21	9 45.24	+20 35.2	1.889	2.864	4.1	18.2
3 2	9 37.58	+ 0 33.7	2.396	3.345	5.7	21.7	3 2	9 37.02	+21 26.1	1.906	2.845	7.8	18.4
3 12	9 30.76	+ 1 44.0	2.438	3.338	8.5	21.8	3 12	9 30.16	+22 2.6	1.949	2.826	11.5	18.6
3 22	9 25.53	+ 2 52.5	2.506	3.330	11.1	22.0	3 22	9 25.35	+22 23.2	2.015	2.807	14.6	18.8
503575	2016 <i>GL</i> ₃₃		2 14.9	247°25	0°9/15.6	18	176958	2002 <i>XY</i> ₄₁		2 14.9	199°95	1°5/16.1	18
1 12	10 14.10	+ 8 43.1	1.884	2.701	13.9	21.6	1 12	10 16.71	+ 7 7.2	2.245	3.043	12.6	20.2
1 22	10 9.31	+ 9 2.4	1.803	2.700	10.5	21.4	1 22	10 10.96	+ 7 14.9	2.154	3.039	9.6	20.0
2 1	10 2.36	+ 9 34.8	1.746	2.699	6.5	21.2	2 1	10 3.26	+ 7 34.3	2.087	3.034	6.2	19.8
2 11	9 53.96	+10 16.3	1.715	2.699	2.2	20.9	2 11	9 54.23	+ 8 2.6	2.049	3.029	2.5	19.5
2 21	9 45.04	+11 1.9	1.714	2.698	2.6	20.9	2 21	9 44.69	+ 8 36.3	2.041	3.024	2.5	19.5
3 2	9 36.69	+11 46.0	1.741	2.697	6.9	21.2	3 2	9 35.60	+ 9 10.9	2.063	3.017	6.1	19.7
3 12	9 29.88	+12 23.5	1.795	2.696	10.9	21.4	3 12	9 27.85	+ 9 42.4	2.114	3.011	9.7	20.0
3 22	9 25.28	+12 51.3	1.871	2.695	14.3	21.6	3 22	9 22.05	+10 7.6	2.188	3.003	12.9	20.1
403851	2011 <i>UX</i> ₃₁₃		2 14.9	207°08	1°8/13.5	18	490084	2008 <i>TP</i> ₁₆₆		2 14.9	126°87	1°3/13.7	18
1 12	10 17.89	+15 2.1	1.922	2.748	13.3	22.4	1 12	10 14.19	+15 2.8	2.219	3.044	11.8	21.8
1 22	10 12.21	+15 51.6	1.838	2.743	9.9	22.2	1 22	10 9.06	+15 40.9	2.146	3.052	8.7	21.6
2 1	10 4.16	+16 50.1	1.778	2.737	5.9	21.9	2 1	10 2.06	+16 25.6	2.099	3.058	5.1	21.4
2 11	9 54.49	+17 51.4	1.746	2.730	2.1	21.6	2 11	9 53.86	+17 12.0	2.081	3.065	1.7	21.1
2 21	9 44.19	+18 48.6	1.744	2.722	3.9	21.7	2 21	9 45.30	+17 54.9	2.093	3.072	3.2	21.3
3 2	9 34.43	+19 35.4	1.772	2.714	8.0	22.0	3 2	9 37.30	+18 29.9	2.134	3.078	6.7	21.5
3 12	9 26.30	+20 8.0	1.825	2.705	12.0	22.2	3 12	9 30.67	+18 53.9	2.202	3.084	10.1	21.7
3 22	9 20.54	+20 25.1	1.902	2.695	15.3	22.4	3 22	9 25.98	+19 5.9	2.293	3.090	12.9	21.9
66447	1999 <i>NG</i> ₆₅		2 14.9	186°46	0°9/14.1	18	403589	2010 <i>PA</i> ₄₀		2 14.9	74°35	0°9/14.2	18
1 12	10 15.87	+12 5.2	1.953	2.774	13.3	19.8	1 12	10 16.44	+11 47.0	1.691	2.519	14.8	20.8
1 22	10 10.61	+13 0.5	1.872	2.775	9.9	19.6	1 22	10 10.98	+12 44.5	1.642	2.547	10.8	20.6
2 1	10 3.15	+14 7.6	1.816	2.774	5.9	19.4	2 1	10 3.26	+13 53.3	1.617	2.576	6.3	20.4
2 11	9 54.19	+15 20.4	1.788	2.773	1.7	19.1	2 11	9 54.19	+15 6.4	1.619	2.603	1.8	20.1
2 21	9 44.69	+16 31.9	1.790	2.771	3.2	19.2	2 21	9 44.86	+16 15.8	1.650	2.631	3.3	20.3
3 2	9 35.73	+17 35.4	1.822	2.769	7.5	19.5	3 2	9 36.43	+17 15.1	1.709	2.658	7.7	20.6
3 12	9 28.31	+18 26.1	1.880	2.766	11.3	19.7	3 12	9 29.85	+17 59.9	1.795	2.685	11.5	20.9
3 22	9 23.12	+19 1.5	1.961	2.762	14.6	19.9	3 22	9 25.68	+18 28.7	1.902	2.712	14.7	21.2
443706	2015 <i>KD</i> ₁₁₃		2 14.9	320°44	6°4/ 8.4	16	56826	2000 <i>QA</i> ₂₅		2 14.9	278°41	3°0/12.9	18
1 12	10 11.03	+26 4.0	1.841	2.693	12.6	20.9	1 12	10 19.66	+20 21.8	1.904	2.737	13.2	18.9
1 22	10 7.57	+27 47.2	1.751	2.665	9.7	20.7	1 22	10 13.69	+20 43.0	1.809	2.716	9.8	18.6
2 1	10 1.63	+29 34.2	1.687	2.636	7.2	20.5	2 1	10 5.16	+21 6.8	1.738	2.696	6.1	18.3
2 11	9 53.83	+31 14.8	1.650	2.608	6.5	20.4	2 11	9 54.82	+21 27.3	1.695	2.675	3.1	18.1
2 21	9 45.18	+32 39.1	1.641	2.581	8.5	20.4	2 21	9 43.74	+21 38.7	1.680	2.653	4.8	18.2
3 2	9 36.90	+33 39.2	1.657	2.554	11.7	20.5	3 2	9 33.17	+21 36.8	1.695	2.632	8.8	18.3
3 12	9 30.24	+34 11.7	1.696	2.528	15.1	20.7	3 12	9 24.33	+21 20.1	1.735	2.610	12.7	18.5
3 22	9 26.08	+34 17.5	1.753	2.502	18.1	20.8	3 22	9 18.02	+20 49.3	1.798	2.589	16.1	18.7
101620	1999 <i>CN</i> ₁₄		2 14.9	329°19	1°2/15.9	18	506315	2017 <i>OP</i> ₃		2 14.9	174°99	0°7/15.5	17
1 12	10 9.39	+ 4 52.3	1.524										

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
495518	2014 VY ₁₃		2 14.9 108°05'	6°2/9.2	18		350599	2001 RY ₄₂		2 14.9 102°43'	3°0/16.9	18	
1 12	10 18.39	+28 4.7	1.983	2.820	12.5	21.7	1 12	10 18.95	+3 49.6	1.567	2.370	16.9	20.5
1 22	10 12.45	+29 36.8	1.936	2.839	9.6	21.5	1 22	10 13.07	+3 53.1	1.504	2.389	13.1	20.3
2 1	10 4.19	+31 5.2	1.915	2.857	7.0	21.4	2 1	10 4.67	+4 15.5	1.463	2.407	8.6	20.1
2 11	9 54.48	+32 20.5	1.922	2.875	6.3	21.4	2 11	9 54.65	+4 53.9	1.448	2.425	4.3	19.9
2 21	9 44.41	+33 15.8	1.958	2.892	7.8	21.5	2 21	9 44.22	+5 42.7	1.460	2.442	3.7	19.9
3 2	9 35.17	+33 47.1	2.020	2.909	10.4	21.7	3 2	9 34.68	+6 35.2	1.501	2.458	7.6	20.2
3 12	9 27.77	+33 54.5	2.107	2.925	13.0	21.9	3 12	9 27.13	+7 24.5	1.567	2.474	11.8	20.5
3 22	9 22.82	+33 40.8	2.214	2.941	15.3	22.1	3 22	9 22.24	+8 5.9	1.656	2.490	15.4	20.7
107223	Ripero		2 14.9 38°22'	0°6/15.3	18		492526	2014 OE ₅₈		2 14.9 278°20'	2°4/13.3	18	
1 12	10 14.88	+10 17.1	1.834	2.656	14.0	20.1	1 12	10 16.47	+15 21.0	1.474	2.317	15.7	21.6
1 22	10 9.89	+10 25.6	1.760	2.661	10.5	19.9	1 22	10 11.94	+16 14.3	1.385	2.299	11.7	21.3
2 1	10 2.70	+10 45.2	1.709	2.665	6.4	19.7	2 1	10 4.43	+17 20.3	1.319	2.281	7.1	21.0
2 11	9 54.08	+11 12.1	1.686	2.670	2.1	19.4	2 11	9 54.70	+18 31.5	1.279	2.262	2.7	20.7
2 21	9 45.01	+11 41.5	1.690	2.674	2.7	19.5	2 21	9 43.98	+19 38.1	1.265	2.243	5.0	20.8
3 2	9 36.59	+12 8.8	1.724	2.679	7.0	19.7	3 2	9 33.79	+20 31.5	1.278	2.224	10.1	21.0
3 12	9 29.80	+12 29.6	1.783	2.684	11.0	20.0	3 12	9 25.62	+21 6.0	1.315	2.205	14.9	21.2
3 22	9 25.28	+12 41.7	1.865	2.690	14.3	20.2	3 22	9 20.45	+21 19.9	1.372	2.186	19.1	21.5
359062	2008 YO ₈₁		2 14.9 264°80'	1°8/15.9	17		337681	2001 TC ₂₁₅		2 14.9 166°75'	2°2/12.9	17	
1 12	10 17.82	+8 1.8	1.554	2.374	16.3	21.4	1 12	10 15.67	+19 40.4	2.627	3.451	10.2	20.8
1 22	10 12.57	+7 55.9	1.470	2.367	12.4	21.1	1 22	10 9.92	+20 4.6	2.550	3.454	7.5	20.7
2 1	10 4.59	+8 4.6	1.408	2.361	7.9	20.9	2 1	10 2.50	+20 30.8	2.499	3.456	4.6	20.5
2 11	9 54.69	+8 25.0	1.372	2.354	3.2	20.6	2 11	9 54.02	+20 54.7	2.478	3.458	2.3	20.3
2 21	9 44.03	+8 52.3	1.363	2.347	3.2	20.5	2 21	9 45.22	+21 12.4	2.488	3.460	3.5	20.4
3 2	9 34.03	+9 21.1	1.382	2.340	8.1	20.8	3 2	9 36.92	+21 21.1	2.528	3.462	6.4	20.6
3 12	9 25.95	+9 45.8	1.426	2.333	12.8	21.1	3 12	9 29.86	+21 19.5	2.595	3.463	9.3	20.8
3 22	9 20.64	+10 2.7	1.491	2.326	16.8	21.3	3 22	9 24.54	+21 7.4	2.687	3.464	11.7	21.0
102520	1999 TW ₃₁₈		2 14.9 337°18'	5°0/11.8	18		178633	2000 HF ₃₃		2 14.9 232°60'	1°0/15.9	18	
1 12	10 16.03	+21 53.5	1.327	2.185	16.2	19.5	1 12	10 13.39	+5 59.1	2.289	3.088	12.4	20.8
1 22	10 11.74	+22 45.0	1.256	2.176	12.1	19.2	1 22	10 8.61	+6 51.4	2.188	3.074	9.4	20.6
2 1	10 4.28	+23 40.6	1.208	2.168	7.8	18.9	2 1	10 1.94	+7 59.4	2.111	3.060	6.0	20.3
2 11	9 54.62	+24 30.3	1.184	2.161	5.1	18.8	2 11	9 53.91	+9 19.2	2.063	3.045	2.2	20.0
2 21	9 44.17	+25 4.5	1.186	2.154	7.2	18.9	2 21	9 45.30	+10 45.2	2.046	3.030	2.3	20.0
3 2	9 34.63	+25 16.9	1.212	2.148	11.6	19.1	3 2	9 37.00	+12 10.7	2.060	3.014	6.2	20.2
3 12	9 27.45	+25 5.6	1.260	2.142	16.0	19.3	3 12	9 29.88	+13 29.6	2.102	2.997	9.9	20.4
3 22	9 23.51	+24 32.8	1.327	2.138	19.8	19.6	3 22	9 24.60	+14 37.2	2.169	2.979	13.1	20.6
234394	2001 QU ₂₅₂		2 14.9 177°70'	0°4/14.5	18		85428	1997 AN ₁₆		2 14.9 247°61'	2°8/12.1	18	
1 12	10 11.32	+10 57.7	2.629	3.442	10.6	21.0	1 12	10 14.95	+21 38.8	2.716	3.543	9.9	20.1
1 22	10 6.75	+11 50.6	2.545	3.443	7.8	20.8	1 22	10 9.49	+22 11.6	2.624	3.529	7.3	19.9
2 1	10 0.63	+12 53.0	2.488	3.444	4.6	20.6	2 1	10 2.31	+22 45.7	2.559	3.515	4.6	19.7
2 11	9 53.48	+14 0.4	2.460	3.444	1.3	20.3	2 11	9 53.99	+23 16.5	2.524	3.500	2.8	19.5
2 21	9 45.97	+15 7.9	2.463	3.445	2.3	20.4	2 21	9 45.24	+23 39.9	2.519	3.485	4.1	19.6
3 2	9 38.82	+16 10.8	2.497	3.445	5.7	20.6	3 2	9 36.87	+23 52.7	2.544	3.470	6.8	19.7
3 12	9 32.75	+17 4.8	2.559	3.444	8.7	20.8	3 12	9 29.65	+23 53.3	2.596	3.454	9.6	19.9
3 22	9 28.24	+17 47.8	2.646	3.443	11.4	21.0	3 22	9 24.14	+23 41.8	2.672	3.439	12.1	20.0
61045	2000 KU ₆₂		2 14.9 181°14'	2°2/16.7	18		79498	1998 FP ₁₂₆		2 14.9 307°86'	1°0/15.9	18	
1 12	10 15.67	+3 26.4	1.852	2.648	15.0	20.5	1 12	10 10.10	+7 2.0	2.195	3.006	12.4	19.6
1 22	10 10.55	+4 2.8	1.767	2.650	11.6	20.3	1 22	10 6.19	+7 36.7	2.103	2.996	9.4	19.4
2 1	10 3.17	+4 58.5	1.706	2.651	7.6	20.0	2 1	10 0.46	+8 25.3	2.035	2.987	5.9	19.2
2 11	9 54.25	+6 10.0	1.672	2.651	3.5	19.8	2 11	9 53.48	+9 24.2	1.995	2.978	2.2	18.9
2 21	9 44.75	+7 30.9	1.667	2.650	3.0	19.7	2 21	9 46.01	+10 28.4	1.985	2.969	2.3	18.9
3 2	9 35.79	+8 53.8	1.692	2.649	7.0	20.0	3 2	9 38.93	+11 32.3	2.004	2.960	6.1	19.1
3 12	9 28.40	+10 11.2	1.744	2.647	11.1	20.2	3 12	9 33.06	+12 30.4	2.050	2.951	9.7	19.3
3 22	9 23.29	+11 17.7	1.819	2.644	14.6	20.4	3 22	9 29.01	+13 18.9	2.119	2.943	12.9	19.5
31419	1999 AN ₃₇		2 14.9 4°85'	1°2/14.2	18		325353	2008 KJ ₃₈		2 14.9 184°84'	1°7/16.4	16	
1 12	10 12.57	+12 54.0	1.074	1.937	18.9	18.9	1 12	10 14.01	+5 26.6	2.291	3.086	12.5	21.9
1 22	10 9.43	+13 27.9	1.013	1.936	14.0	18.6	1 22	10 8.93	+5 49.2	2.203	3.086	9.6	21.7
2 1	10 2.98	+14 18.2	0.971	1.936	8.4	18.3	2 1	10 2.03	+6 25.2	2.140	3.086	6.2	21.5
2 11	9 54.26	+15 16.7	0.952	1.938	2.4	17.9	2 11	9 53.92	+7 11.8	2.105	3.085	2.7	21.3
2 21	9 44.78	+16 13.3	0.957	1.940	4.5	18.0	2 21	9 45.36	+8 4.7	2.101	3.083	2.5	21.2
3 2	9 36.34	+16 58.5	0.986	1.944	10.5	18.4	3 2	9 37.23	+8 58.9	2.126	3.082	5.9	21.4
3 12	9 30.45	+17 25.9	1.036	1.949	15.8	18.7	3 12	9 30.36	+9 49.5	2.180	3.079	9.3	21.7
3 22	9 27.95	+17 33.6	1.104	1.956	20.3	19.0	3 22	9 25.33	+10 32.8	2.258	3.077	12.4	21.8
218676	2005 SQ ₂₇₀		2 14.9 223°20'	2°1/13.0	17		270993	2002 XQ ₃₇		2 14.9 61°57'	8°9/22.7	18	
1 12	10 15.74	+16 35.5	2.234	3.060	11.7	21.3	1 12	10 13.26	-11 53.1	1.647	2.380	19.1	20.5
1 22	10 10.38	+17 27.1	2.145	3.050	8.6	21.1	1 22	10 8.88	-12 21.2	1.581	2.397	16.3	20.4
2 1	10 2.99	+18 25.7	2.081	3.039	5.2	20.8	2 1	10 2.18	-12 18.5	1.533	2.414	13.2	20.2
2 11	9 54.19	+19 25.4	2.046	3.028	2.2	20.6	2 11	9 53.97	-11 43.4	1.508	2.431	10.4	20.1
2 21	9 44.84	+20 20.3	2.042	3.016	3.8	20.7	2 21	9 45.31	-10 38.5	1.506	2.448	9.0	20.0
3 2	9 35.90	+21 5.1	2.067	3.004	7.4	20.9	3 2	9 37.38	-9 10.5	1.531	2.465	9.7	20.1
3 12	9 28.32	+21 36.4	2.119	2.991	10.9	21.1	3 12	9 31.19	-7 29.4	1.580	2.483	12.0	20.3
3 22	9 22.76	+21 53.1	2.194	2.977	13.8	21.3	3 22	9 27.42	-5 45.6	1.652	2.500	14.8	20.5
18721	1998 HC ₁₄₆		2 14.9 250°14'	1°9/12.9	18 R		285067	2011 KS ₂₀		2 14.9 120°34'	2°1/12.9	18	
1 12	10 11.52	+16 42.8	2.459	3.288	10.7	18.8	1 12	10 13.60	+17 13.7	2.218	3.049	11.6	20.9

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
399732	2005 <i>AM</i> ₃₆		2 14.9 42°44'	6°1'/18.4 18			220559	2004 <i>HB</i> ₁₀		2 14.9 293°89'	6°1'/19.9 18		
1 12	10 17.29	+ 0 4.3	1.274	2.080	19.9	20.1	1 12	10 11.88	- 5 18.5	1.776	2.542	16.7	20.5
1 22	10 12.30	- 0 43.5	1.216	2.096	15.9	19.9	1 22	10 7.92	- 5 24.2	1.685	2.535	13.8	20.2
2 1	10 4.40	- 1 7.1	1.178	2.112	11.5	19.7	2 1	10 1.71	- 5 4.7	1.615	2.528	10.5	20.0
2 11	9 54.62	- 1 6.2	1.163	2.129	7.4	19.5	2 11	9 53.92	- 4 19.7	1.569	2.521	7.4	19.8
2 21	9 44.36	- 0 43.9	1.173	2.146	6.3	19.5	2 21	9 45.47	- 3 12.3	1.549	2.514	6.2	19.7
3 2	9 35.13	- 0 6.5	1.208	2.164	9.2	19.7	3 2	9 37.48	- 1 48.8	1.556	2.508	8.0	19.8
3 12	9 28.20	+ 0 37.4	1.266	2.183	13.3	20.0	3 12	9 31.01	- 0 17.8	1.589	2.501	11.4	20.0
3 22	9 24.29	+ 1 20.2	1.346	2.201	17.1	20.3	3 22	9 26.80	+ 1 11.8	1.646	2.494	14.8	20.2
123016	2000 <i>SA</i> ₂₆₆		2 14.9 119°53'	1°9'/13.2 18			399593	2003 <i>UL</i> ₁₂₁		2 14.9 103°60'	0°6'/14.5 18		
1 12	10 15.89	+16 27.1	2.175	3.002	12.0	20.6	1 12	10 18.53	+12 16.4	1.753	2.576	14.5	21.7
1 22	10 10.31	+17 15.9	2.111	3.017	8.7	20.4	1 22	10 12.57	+12 52.2	1.693	2.596	10.7	21.5
2 1	10 2.82	+18 10.2	2.073	3.032	5.2	20.2	2 1	10 4.30	+13 38.3	1.657	2.615	6.4	21.3
2 11	9 54.13	+19 4.4	2.064	3.046	2.1	20.0	2 11	9 54.60	+14 28.9	1.649	2.634	1.8	21.0
2 21	9 45.11	+19 52.9	2.084	3.060	3.7	20.2	2 21	9 44.55	+15 17.5	1.670	2.652	3.1	21.1
3 2	9 36.73	+20 31.0	2.134	3.073	7.1	20.4	3 2	9 35.35	+15 58.4	1.720	2.670	7.5	21.5
3 12	9 29.82	+20 56.1	2.211	3.086	10.4	20.6	3 12	9 27.99	+16 27.8	1.795	2.687	11.5	21.7
3 22	9 24.92	+21 7.6	2.312	3.099	13.1	20.8	3 22	9 23.07	+16 44.1	1.894	2.704	14.7	22.0
132285	2002 <i>FP</i> ₁₄		2 14.9 199°18'	2°7'/12.8 18			340855	2007 <i>AB</i> ₈		2 14.9 332°25'	3°7'/12.5 18		
1 12	10 18.64	+18 10.9	1.903	2.734	13.2	20.5	1 12	10 15.47	+16 57.9	1.216	2.075	17.4	20.3
1 22	10 12.79	+18 56.9	1.823	2.731	9.8	20.2	1 22	10 11.51	+18 7.4	1.148	2.070	12.9	20.0
2 1	10 4.55	+19 48.7	1.769	2.728	5.9	20.0	2 1	10 4.27	+19 29.5	1.102	2.065	7.8	19.7
2 11	9 54.69	+20 39.4	1.743	2.724	2.8	19.8	2 11	9 54.71	+20 53.3	1.079	2.061	3.8	19.5
2 21	9 44.25	+21 22.5	1.746	2.719	4.6	19.9	2 21	9 44.29	+22 6.8	1.082	2.057	6.3	19.6
3 2	9 34.44	+21 52.5	1.778	2.714	8.5	20.1	3 2	9 34.76	+23 0.2	1.110	2.054	11.5	19.9
3 12	9 26.34	+22 6.9	1.836	2.709	12.2	20.3	3 12	9 27.69	+23 28.6	1.160	2.051	16.4	20.2
3 22	9 20.67	+22 5.4	1.916	2.703	15.4	20.5	3 22	9 23.97	+23 32.1	1.228	2.049	20.5	20.4
371212	2006 <i>AU</i> ₆₆		2 14.9 212°52'	1°4'/15.9 18			48155	2001 <i>GU</i> ₄		2 14.9 253°42'	4°6'/10.9 18		
1 12	10 14.19	+ 7 30.5	2.024	2.833	13.4	21.5	1 12	10 15.63	+21 2.8	1.772	2.615	13.5	18.8
1 22	10 9.28	+ 7 42.4	1.940	2.832	10.2	21.3	1 22	10 10.89	+22 29.3	1.691	2.604	10.0	18.6
2 1	10 2.35	+ 8 7.0	1.880	2.831	6.5	21.0	2 1	10 3.60	+24 2.1	1.636	2.593	6.5	18.3
2 11	9 54.04	+ 8 41.3	1.848	2.829	2.5	20.8	2 11	9 54.48	+25 32.0	1.608	2.581	4.6	18.2
2 21	9 45.25	+ 9 20.9	1.844	2.827	2.5	20.8	2 21	9 44.62	+26 49.4	1.609	2.569	6.6	18.3
3 2	9 36.97	+10 0.9	1.869	2.826	6.5	21.0	3 2	9 35.29	+27 46.8	1.637	2.557	10.3	18.5
3 12	9 30.12	+10 36.5	1.922	2.824	10.3	21.2	3 12	9 27.72	+28 20.8	1.689	2.545	14.0	18.7
3 22	9 25.33	+11 4.4	1.998	2.822	13.5	21.4	3 22	9 22.73	+28 31.8	1.761	2.532	17.2	18.9
79096	1981 <i>EM</i> ₂₀		2 14.9 343°69'	2°3'/12.7 17			276142	2002 <i>HR</i> ₁₃		2 14.9 296°75'	6°1'/19.9 17		
1 12	10 11.43	+19 53.2	2.629	3.461	10.0	19.7	1 12	10 11.52	- 5 58.5	1.988	2.743	15.5	20.6
1 22	10 6.88	+20 19.1	2.548	3.456	7.3	19.6	1 22	10 7.68	- 6 0.7	1.867	2.709	13.0	20.4
2 1	10 0.73	+20 47.2	2.493	3.451	4.5	19.4	2 1	10 1.65	- 5 38.9	1.767	2.676	10.1	20.1
2 11	9 53.56	+21 13.4	2.467	3.447	2.3	19.2	2 11	9 53.95	- 4 51.8	1.692	2.642	7.3	19.9
2 21	9 46.05	+21 33.7	2.471	3.442	3.6	19.3	2 21	9 45.37	- 3 41.0	1.643	2.607	6.1	19.7
3 2	9 38.96	+21 45.1	2.504	3.438	6.4	19.5	3 2	9 36.94	- 2 11.7	1.623	2.573	7.9	19.8
3 12	9 33.01	+21 46.1	2.563	3.435	9.2	19.6	3 12	9 29.73	- 0 31.8	1.629	2.538	11.3	19.9
3 22	9 28.70	+21 36.2	2.647	3.431	11.7	19.8	3 22	9 24.61	+ 1 9.8	1.659	2.503	14.9	20.0
268598	2006 <i>BQ</i> ₂₄₂		2 14.9 259°04'	1°2'/14.0 17			107180	2001 <i>BP</i> ₂₅		2 14.9 51°40'	0°5'/14.6 18		
1 12	10 18.22	+16 3.2	2.279	3.098	11.8	20.7	1 12	10 16.07	+10 41.9	1.263	2.106	17.9	19.2
1 22	10 12.22	+16 13.7	2.178	3.079	8.8	20.4	1 22	10 11.34	+11 30.9	1.217	2.129	13.2	18.9
2 1	10 4.13	+16 28.9	2.103	3.060	5.3	20.2	2 1	10 3.77	+12 35.9	1.192	2.153	7.8	18.7
2 11	9 54.58	+16 45.0	2.056	3.040	1.7	19.9	2 11	9 54.46	+13 48.5	1.193	2.178	2.1	18.4
2 21	9 44.43	+16 57.8	2.041	3.021	3.1	20.0	2 21	9 44.83	+14 58.9	1.219	2.202	3.7	18.6
3 2	9 34.68	+17 3.8	2.055	3.000	6.9	20.2	3 2	9 36.33	+15 58.6	1.272	2.228	9.0	19.0
3 12	9 26.29	+17 0.8	2.097	2.980	10.5	20.3	3 12	9 30.17	+16 42.0	1.348	2.253	13.6	19.3
3 22	9 19.95	+16 48.0	2.163	2.959	13.6	20.5	3 22	9 26.95	+17 7.4	1.445	2.278	17.3	19.6
170296	2003 <i>SS</i> ₇		2 14.9 253°72'	3°9'/17.7 18			347835	2002 <i>PV</i> ₉₉		2 14.9 165°21'	1°8'/13.7 18		
1 12	10 15.34	+ 1 6.3	1.790	2.580	15.7	20.9	1 12	10 21.62	+15 36.2	1.774	2.599	14.3	22.2
1 22	10 10.56	+ 1 7.2	1.691	2.565	12.5	20.6	1 22	10 15.04	+16 15.0	1.701	2.605	10.6	22.0
2 1	10 3.37	+ 1 28.0	1.614	2.549	8.7	20.4	2 1	10 5.91	+17 1.6	1.653	2.611	6.3	21.8
2 11	9 54.41	+ 2 7.8	1.562	2.533	5.1	20.1	2 11	9 55.10	+17 49.5	1.632	2.616	2.2	21.5
2 21	9 44.65	+ 3 2.7	1.539	2.517	4.2	20.0	2 21	9 43.76	+18 31.7	1.641	2.620	4.0	21.6
3 2	9 35.29	+ 4 6.8	1.543	2.500	7.5	20.2	3 2	9 33.19	+19 2.9	1.680	2.623	8.3	21.9
3 12	9 27.46	+ 5 12.6	1.574	2.483	11.7	20.4	3 12	9 24.54	+19 20.0	1.744	2.625	12.3	22.1
3 22	9 22.01	+ 6 13.6	1.628	2.465	15.5	20.6	3 22	9 18.50	+19 22.5	1.830	2.626	15.7	22.4
215674	2003 <i>UJ</i> ₃₈₁		2 14.9 338°32'	5°3'/11.3 18			254534	2005 <i>EV</i> ₁₃₈		2 14.9 294°59'	1°9'/13.7 17		
1 12	10 17.69	+22 58.0	1.469	2.321	15.3	20.3	1 12	10 15.91	+15 19.5	1.556	2.397	15.2	20.6
1 22	10 12.70	+24 0.3	1.402	2.318	11.5	20.1	1 22	10 11.34	+15 55.0	1.468	2.381	11.3	20.3
2 1	10 4.75	+25 5.1	1.358	2.316	7.5	19.8	2 1	10 4.00	+16 40.8	1.403	2.364	6.8	20.0
2 11	9 54.79	+26 2.5	1.340	2.313	5.3	19.7	2 11	9 54.63	+17 30.5	1.364	2.348	2.4	19.7
2 21	9 44.16	+26 43.3	1.349	2.311	7.3	19.8	2 21	9 44.42	+18 16.4	1.353	2.333	4.3	19.8
3 2	9 34.43	+27 1.5	1.383	2.310	11.3	20.0	3 2	9 34.78	+18 51.5	1.368	2.317	9.3	20.0
3 12	9 26.95	+26 56.0	1.440	2.308	15.2	20.2	3 12	9 27.04	+19 11.3	1.408	2.301	13.9	20.2
3 22	9 22.49	+26 29.0	1.516	2.307	18.6	20.5	3 22	9 22.11	+19 14.3	1.468	2.286	17.9	20.5
81896	2000 <i>LR</i> ₃₂		2 14.9 237°50'	5°7'/ 9.4 18			288427	2004					

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
120337	2004 <i>PN</i> ₅₆		2 14.9 258°06	3°8/18.5	18		194570	2001 <i>XS</i> ₉₂		2 14.9 138°49	4°3/11.8	18	
1 12	10 11.67	- 1 32.8	1.987	2.765	14.8	20.0	1 12	10 20.31	+21 20.3	1.686	2.524	14.3	20.7
1 22	10 7.58	- 1 3.8	1.890	2.755	11.8	19.8	1 22	10 14.20	+22 25.4	1.624	2.534	10.6	20.4
2 1	10 1.44	- 0 12.4	1.815	2.744	8.4	19.6	2 1	10 5.46	+23 33.5	1.587	2.543	6.7	20.2
2 11	9 53.86	+ 0 59.7	1.766	2.734	5.1	19.3	2 11	9 55.00	+24 35.7	1.577	2.552	4.3	20.1
2 21	9 45.67	+ 2 27.8	1.746	2.723	4.0	19.3	2 21	9 44.06	+25 24.0	1.596	2.560	6.2	20.2
3 2	9 37.85	+ 4 4.6	1.754	2.712	6.7	19.4	3 2	9 34.01	+25 52.9	1.642	2.568	9.9	20.5
3 12	9 31.37	+ 5 41.9	1.791	2.701	10.4	19.6	3 12	9 26.00	+26 1.1	1.713	2.575	13.5	20.7
3 22	9 26.93	+ 7 12.4	1.851	2.689	13.9	19.8	3 22	9 20.74	+25 50.0	1.804	2.582	16.6	20.9
19467	Amandanagy		2 14.9 219°94	0°6/15.5	18		464215	2015 <i>BQ</i> ₂₀₇		2 14.9 97°94	1°6/13.5	18	
1 12	10 13.63	+ 8 54.0	1.939	2.756	13.6	18.9	1 12	10 14.81	+14 21.5	1.949	2.778	13.0	20.8
1 22	10 8.98	+ 9 20.6	1.858	2.756	10.2	18.7	1 22	10 9.75	+15 20.5	1.886	2.793	9.5	20.6
2 1	10 2.22	+10 0.1	1.801	2.755	6.3	18.5	2 1	10 2.62	+16 28.2	1.848	2.808	5.6	20.4
2 11	9 54.06	+10 48.6	1.771	2.754	2.1	18.2	2 11	9 54.18	+17 37.9	1.839	2.823	2.0	20.2
2 21	9 45.40	+11 40.5	1.770	2.753	2.5	18.2	2 21	9 45.37	+18 42.8	1.859	2.837	3.6	20.4
3 2	9 37.27	+12 30.2	1.797	2.753	6.8	18.5	3 2	9 37.23	+19 37.1	1.908	2.851	7.5	20.6
3 12	9 30.63	+13 12.6	1.851	2.752	10.7	18.7	3 12	9 30.67	+20 17.0	1.984	2.865	11.0	20.9
3 22	9 26.12	+13 44.5	1.929	2.751	14.0	18.9	3 22	9 26.27	+20 41.3	2.082	2.879	14.0	21.1
197309	2003 <i>WS</i> ₁₄₀		2 14.9 17°33	2°0/16.3	18	R	138826	2000 <i>UY</i> ₄₂		2 14.9 170°69	5°8/22.1	18	
1 12	10 12.18	+ 7 4.5	1.534	2.362	16.1	19.0	1 12	10 10.38	-11 10.9	2.997	3.693	12.0	20.7
1 22	10 8.21	+ 7 2.0	1.469	2.369	12.2	18.7	1 22	10 5.95	-11 20.4	2.903	3.695	10.2	20.6
2 1	10 1.86	+ 7 15.5	1.425	2.378	7.8	18.5	2 1	10 0.16	-11 12.1	2.831	3.698	8.3	20.5
2 11	9 53.96	+ 7 41.5	1.407	2.388	3.3	18.3	2 11	9 53.47	-10 45.5	2.785	3.700	6.6	20.4
2 21	9 45.60	+ 8 15.1	1.415	2.398	3.1	18.3	2 21	9 46.46	-10 2.1	2.766	3.701	5.8	20.3
3 2	9 38.02	+ 8 50.4	1.449	2.410	7.5	18.6	3 2	9 39.75	- 9 5.0	2.777	3.702	6.3	20.3
3 12	9 32.25	+ 9 21.7	1.509	2.423	11.7	18.8	3 12	9 33.95	- 7 58.6	2.815	3.703	7.9	20.4
3 22	9 28.95	+ 9 44.9	1.590	2.436	15.4	19.1	3 22	9 29.51	- 6 48.1	2.880	3.704	9.8	20.6
359169	2009 <i>CX</i> ₃		2 14.9 319°97	2°9/12.9	18		344335	2001 <i>VC</i> ₉₆		2 14.9 103°67	2°5/11.9	18	
1 12	10 14.58	+16 29.3	1.350	2.203	16.3	20.7	1 12	10 13.31	+19 11.4	2.757	3.583	9.7	21.3
1 22	10 10.64	+17 22.0	1.273	2.192	12.1	20.5	1 22	10 8.12	+20 18.2	2.702	3.607	7.1	21.2
2 1	10 3.69	+18 26.1	1.218	2.181	7.3	20.2	2 1	10 1.43	+21 27.6	2.674	3.630	4.3	21.0
2 11	9 54.57	+19 33.1	1.188	2.170	3.2	19.9	2 11	9 53.82	+22 34.4	2.676	3.653	2.5	20.9
2 21	9 44.58	+20 33.1	1.183	2.160	5.4	20.0	2 21	9 45.98	+23 33.6	2.709	3.675	3.8	21.0
3 2	9 35.32	+21 17.4	1.204	2.151	10.5	20.2	3 2	9 38.63	+24 21.4	2.773	3.697	6.4	21.2
3 12	9 28.24	+21 41.3	1.248	2.142	15.3	20.5	3 12	9 32.43	+24 55.9	2.864	3.719	8.9	21.4
3 22	9 24.24	+21 43.9	1.311	2.134	19.4	20.7	3 22	9 27.82	+25 16.6	2.979	3.740	11.1	21.6
12593	Shashlov		2 14.9 226°66	0°5/15.3	18		168553	1999 <i>WF</i> ₉		2 14.9 88°59	2°0/16.2	18	
1 12	10 15.30	+ 8 40.3	1.755	2.574	14.7	18.7	1 12	10 20.97	+ 7 38.0	1.675	2.484	15.8	19.4
1 22	10 10.49	+ 9 15.8	1.669	2.568	11.1	18.5	1 22	10 14.44	+ 7 22.3	1.613	2.503	12.0	19.2
2 1	10 3.28	+10 6.8	1.607	2.562	6.9	18.2	2 1	10 5.48	+ 7 19.7	1.573	2.522	7.6	18.9
2 11	9 54.40	+11 8.5	1.572	2.556	2.2	17.9	2 11	9 55.01	+ 7 27.6	1.561	2.541	3.3	18.7
2 21	9 44.87	+12 14.5	1.565	2.549	2.8	17.9	2 21	9 44.19	+ 7 41.9	1.577	2.560	3.1	18.7
3 2	9 35.87	+13 17.3	1.587	2.542	7.6	18.2	3 2	9 34.29	+ 7 58.4	1.622	2.578	7.3	19.0
3 12	9 28.52	+14 11.0	1.635	2.535	11.9	18.4	3 12	9 26.35	+ 8 12.6	1.693	2.596	11.3	19.3
3 22	9 23.58	+14 51.5	1.705	2.527	15.6	18.6	3 22	9 20.99	+ 8 21.7	1.787	2.614	14.8	19.6
269757	1999 <i>RR</i> ₁₈₉		2 14.9 111°04	5°2/10.9	18		341526	2007 <i>TT</i> ₄₄₀		2 14.9 73°61	3°8/18.2	18	
1 12	10 21.37	+28 0.7	2.141	2.971	12.0	20.4	1 12	10 13.86	+ 0 37.5	2.200	2.978	13.5	20.6
1 22	10 14.44	+28 40.7	2.084	2.984	9.2	20.3	1 22	10 8.82	+ 0 21.6	2.126	2.990	10.7	20.4
2 1	10 5.33	+29 16.1	2.053	2.998	6.5	20.1	2 1	10 1.99	+ 0 21.0	2.074	3.003	7.6	20.2
2 11	9 54.90	+29 40.4	2.050	3.011	5.2	20.1	2 11	9 54.01	+ 0 34.9	2.050	3.015	4.7	20.1
2 21	9 44.22	+29 48.6	2.076	3.024	6.5	20.2	2 21	9 45.68	+ 1 0.4	2.054	3.027	4.0	20.0
3 2	9 34.41	+29 38.5	2.131	3.036	9.1	20.4	3 2	9 37.89	+ 1 33.8	2.087	3.040	6.2	20.2
3 12	9 26.40	+29 10.9	2.211	3.049	11.8	20.6	3 12	9 31.42	+ 2 10.2	2.148	3.052	9.2	20.4
3 22	9 20.74	+28 28.5	2.313	3.060	14.2	20.8	3 22	9 26.82	+ 2 45.3	2.233	3.065	12.0	20.6
236021	2005 <i>GR</i> ₁₁₂		2 14.9 286°23	2°5/12.9	18		419011	2009 <i>PB</i> ₁₇		2 14.9 138°93	1°2/15.9	18	
1 12	10 15.30	+19 13.6	2.158	2.990	11.8	20.4	1 12	10 17.92	+ 8 23.2	2.295	3.093	12.4	21.9
1 22	10 10.10	+19 43.0	2.075	2.983	8.7	20.2	1 22	10 11.73	+ 8 25.7	2.219	3.106	9.3	21.7
2 1	10 2.85	+20 15.9	2.018	2.977	5.3	19.9	2 1	10 3.69	+ 8 38.0	2.169	3.117	5.9	21.5
2 11	9 54.25	+20 46.9	1.989	2.970	2.6	19.7	2 11	9 54.49	+ 8 57.5	2.147	3.129	2.3	21.3
2 21	9 45.17	+21 11.2	1.990	2.963	4.1	19.8	2 21	9 44.95	+ 9 20.5	2.156	3.139	2.3	21.3
3 2	9 36.63	+21 24.7	2.019	2.956	7.6	20.0	3 2	9 35.99	+ 9 43.6	2.195	3.149	5.9	21.6
3 12	9 29.53	+21 25.5	2.075	2.950	10.9	20.2	3 12	9 28.41	+10 3.3	2.263	3.158	9.2	21.8
3 22	9 24.51	+21 13.4	2.153	2.943	13.9	20.4	3 22	9 22.76	+10 17.2	2.356	3.167	12.1	22.0
317169	2001 <i>WR</i> ₅₈		2 14.9 281°44	1°5/13.8	18		277543	2005 <i>YA</i> ₇₄		2 14.9 107°00	1°2/15.9	18	
1 12	10 15.41	+14 56.1	1.793	2.627	13.8	20.5	1 12	10 16.62	+ 7 51.1	2.124	2.927	13.1	22.1
1 22	10 10.59	+15 29.6	1.707	2.616	10.2	20.2	1 22	10 10.85	+ 8 1.8	2.056	2.945	9.8	22.0
2 1	10 3.35	+16 12.2	1.645	2.605	6.1	19.9	2 1	10 3.19	+ 8 23.8	2.013	2.963	6.2	21.8
2 11	9 54.43	+16 58.1	1.609	2.593	2.0	19.6	2 11	9 54.34	+ 8 53.9	1.999	2.980	2.4	21.5
2 21	9 44.85	+17 40.9	1.602	2.582	3.7	19.7	2 21	9 45.20	+ 9 28.1	2.014	2.997	2.4	21.6
3 2	9 35.81	+18 14.8	1.623	2.571	8.2	20.0	3 2	9 36.69	+10 1.7	2.058	3.013	6.1	21.8
3 12	9 28.43	+18 35.8	1.670	2.560	12.3	20.2	3 12	9 29.66	+10 30.9	2.131	3.029	9.6	22.1
3 22	9 23.47	+18 42.5	1.738	2.548	15.8	20.4	3 22	9 24.63	+10 53.1	2.227	3.045	12.6	22.3
337431	2001 <i>RX</i> ₂₁		2 14.9 146°25	2°4/12.9	17		223785	2004 <i>SQ</i> ₄₆		2 14.9 53°73			

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
284654	2007 YE ₄₀		2 14.9 83°14'	3°3'/17.8	17		29510	1997 YF ₂		2 14.9 151°60'	2°6'/12.1	18	
1 12	10 14.43	+ 1 58.8	2.394	3.171	12.5	20.0	1 12	10 12.71	+18 51.2	2.492	3.323	10.5	19.1
1 22	10 9.10	+ 1 38.8	2.317	3.183	9.9	19.9	1 22	10 7.95	+19 52.9	2.419	3.327	7.7	18.9
2 1	10 2.10	+ 1 31.9	2.265	3.195	6.9	19.7	2 1	10 1.48	+20 58.8	2.373	3.331	4.7	18.7
2 11	9 54.04	+ 1 37.0	2.240	3.207	4.1	19.6	2 11	9 53.90	+22 3.2	2.357	3.335	2.6	18.6
2 21	9 45.65	+ 1 52.0	2.244	3.219	3.5	19.5	2 21	9 45.95	+23 0.7	2.370	3.339	4.1	18.7
3 2	9 37.77	+ 2 13.6	2.278	3.231	5.8	19.7	3 2	9 38.46	+23 46.8	2.414	3.342	7.0	18.9
3 12	9 31.11	+ 2 38.0	2.341	3.243	8.7	19.9	3 12	9 32.17	+24 18.9	2.484	3.346	9.8	19.0
3 22	9 26.21	+ 3 1.5	2.428	3.254	11.4	20.1	3 22	9 27.63	+24 36.4	2.577	3.348	12.3	19.2
318072	2004 FE ₁₆₁		2 14.9 222°47'	1°5'/13.9	18		83121	2001 QX ₂₄₇		2 14.9 147°38'	2°0'/13.2	18	
1 12	10 17.14	+15 21.5	1.813	2.644	13.8	20.9	1 12	10 17.84	+17 30.2	2.315	3.137	11.5	20.2
1 22	10 11.76	+15 49.0	1.734	2.641	10.2	20.7	1 22	10 11.74	+18 9.2	2.245	3.148	8.4	20.0
2 1	10 4.00	+16 24.2	1.679	2.639	6.1	20.4	2 1	10 3.74	+18 52.3	2.201	3.158	5.0	19.8
2 11	9 54.63	+17 1.4	1.652	2.636	2.0	20.1	2 11	9 54.54	+19 34.5	2.186	3.168	2.2	19.7
2 21	9 44.71	+17 34.9	1.654	2.634	3.6	20.2	2 21	9 45.00	+20 10.8	2.202	3.177	3.6	19.8
3 2	9 35.44	+17 59.3	1.684	2.631	8.0	20.5	3 2	9 36.06	+20 37.2	2.248	3.185	6.9	20.0
3 12	9 27.88	+18 11.7	1.739	2.628	11.9	20.7	3 12	9 28.55	+20 51.6	2.322	3.193	10.1	20.2
3 22	9 22.75	+18 11.0	1.817	2.625	15.4	20.9	3 22	9 23.01	+20 53.7	2.419	3.200	12.8	20.4
226896	2004 TK ₁₄₇		2 14.9 150°61'	2°1'/16.7	18		364452	2006 YJ ₁₅		2 14.9 111°53'	0°9'/15.8	18	
1 12	10 14.06	+ 4 57.4	2.117	2.915	13.3	20.6	1 12	10 16.63	+ 7 6.3	2.165	2.965	13.0	21.5
1 22	10 9.12	+ 5 8.4	2.035	2.919	10.2	20.4	1 22	10 10.82	+ 7 44.6	2.102	2.990	9.7	21.3
2 1	10 2.25	+ 5 33.6	1.978	2.922	6.7	20.2	2 1	10 3.16	+ 8 35.5	2.064	3.014	6.0	21.1
2 11	9 54.12	+ 6 10.3	1.947	2.925	3.2	20.0	2 11	9 54.36	+ 9 34.7	2.055	3.037	2.2	20.9
2 21	9 45.55	+ 6 54.5	1.946	2.928	2.7	20.0	2 21	9 45.30	+10 36.8	2.076	3.059	2.3	21.0
3 2	9 37.48	+ 7 41.1	1.974	2.931	6.2	20.2	3 2	9 36.87	+11 36.3	2.127	3.081	6.0	21.3
3 12	9 30.78	+ 8 25.3	2.030	2.933	9.7	20.4	3 12	9 29.90	+12 28.4	2.207	3.102	9.5	21.5
3 22	9 26.03	+ 9 3.0	2.109	2.936	12.8	20.6	3 22	9 24.89	+13 10.3	2.311	3.122	12.4	21.7
163694	2003 DP ₁₃		2 14.9 318°16'	0°2'/14.8	16		51966	2001 QG ₂₈₂		2 14.9 177°19'	5°5'/20.5	18	
1 12	10 21.83	+13 4.6	1.549	2.376	16.0	21.0	1 12	10 12.73	- 7 19.1	2.722	3.445	12.5	19.1
1 22	10 16.66	+13 2.4	1.409	2.312	12.4	20.6	1 22	10 7.81	- 7 44.5	2.629	3.446	10.5	19.0
2 1	10 7.96	+13 10.1	1.290	2.248	7.8	20.2	2 1	10 1.35	- 7 53.1	2.559	3.447	8.2	18.8
2 11	9 56.10	+13 24.3	1.198	2.182	2.3	19.6	2 11	9 53.87	- 7 44.7	2.516	3.448	6.3	18.7
2 21	9 42.04	+13 39.3	1.133	2.116	3.9	19.6	2 21	9 46.00	- 7 20.2	2.500	3.448	5.5	18.6
3 2	9 27.42	+13 48.7	1.095	2.049	10.4	19.7	3 2	9 38.46	- 6 42.6	2.514	3.448	6.5	18.7
3 12	9 14.23	+13 47.0	1.083	1.981	16.7	19.8	3 12	9 31.95	- 5 56.2	2.556	3.448	8.5	18.8
3 22	9 4.10	+13 31.7	1.090	1.913	22.5	20.0	3 22	9 26.97	- 5 5.8	2.623	3.447	10.7	19.0
372317	2008 XS ₁₄		2 14.9 115°64'	0°1'/14.8	18		143441	2003 BM ₇₂		2 14.9 122°53'	2°3'/12.4	18	
1 12	10 14.23	+11 31.5	2.297	3.112	11.8	21.5	1 12	10 12.26	+18 6.6	2.487	3.317	10.5	20.1
1 22	10 9.05	+11 58.5	2.225	3.123	8.7	21.3	1 22	10 7.59	+19 5.8	2.417	3.324	7.7	19.9
2 1	10 2.11	+12 34.1	2.178	3.134	5.2	21.1	2 1	10 1.26	+20 9.5	2.373	3.331	4.7	19.7
2 11	9 54.06	+13 14.3	2.160	3.145	1.5	20.9	2 11	9 53.84	+21 12.2	2.358	3.338	2.4	19.5
2 21	9 45.68	+13 54.6	2.172	3.155	2.4	20.9	2 21	9 46.08	+22 8.5	2.374	3.345	3.8	19.7
3 2	9 37.83	+14 30.6	2.214	3.165	6.0	21.2	3 2	9 38.79	+22 54.2	2.419	3.351	6.8	19.9
3 12	9 31.30	+14 59.1	2.283	3.175	9.3	21.4	3 12	9 32.70	+23 26.5	2.491	3.357	9.7	20.0
3 22	9 26.60	+15 18.0	2.377	3.184	12.2	21.6	3 22	9 28.32	+23 44.8	2.587	3.363	12.2	20.2
58852	1998 HE ₈₄		2 14.9 173°94'	3°3'/18.9	18		454333	2014 KP ₈₆		2 14.9 254°21'	3°2'/12.7	18	
1 12	10 10.23	- 2 13.7	3.052	3.803	10.7	19.8	1 12	10 18.44	+17 20.2	1.591	2.431	15.0	21.7
1 22	10 5.79	- 1 59.3	2.959	3.806	8.6	19.6	1 22	10 13.32	+18 21.5	1.503	2.414	11.2	21.4
2 1	10 0.06	- 1 30.8	2.891	3.808	6.2	19.5	2 1	10 5.29	+19 33.1	1.437	2.398	6.8	21.1
2 11	9 53.47	- 0 49.5	2.850	3.809	4.1	19.3	2 11	9 55.12	+20 46.5	1.399	2.380	3.3	20.8
2 21	9 46.58	+ 0 1.9	2.840	3.810	3.3	19.3	2 21	9 44.01	+21 52.4	1.389	2.362	5.5	20.9
3 2	9 39.98	+ 1 0.0	2.860	3.811	4.9	19.4	3 2	9 33.43	+22 42.6	1.405	2.344	10.1	21.1
3 12	9 34.27	+ 2 0.4	2.910	3.811	7.2	19.6	3 12	9 24.79	+23 12.4	1.447	2.325	14.6	21.4
3 22	9 29.86	+ 2 59.1	2.986	3.811	9.5	19.7	3 22	9 19.03	+23 21.2	1.508	2.305	18.4	21.6
188096	2001 XY ₂₄₃		2 14.9 35°02'	9°0'/21.9	18		21574	Ouzan		2 14.9 123°36'	1°4'/13.8	18	
1 12	10 13.37	-10 32.3	1.699	2.437	18.4	19.9	1 12	10 14.19	+14 53.4	2.112	2.940	12.2	18.2
1 22	10 9.07	-11 21.7	1.623	2.442	15.7	19.7	1 22	10 9.26	+15 31.7	2.038	2.944	9.0	18.0
2 1	10 2.44	-11 43.9	1.565	2.448	12.8	19.6	2 1	10 2.36	+16 17.3	1.988	2.947	5.3	17.8
2 11	9 54.22	-11 36.1	1.530	2.454	10.3	19.4	2 11	9 54.17	+17 5.1	1.967	2.951	1.8	17.5
2 21	9 45.41	-10 59.2	1.520	2.460	9.1	19.4	2 21	9 45.58	+17 49.6	1.975	2.954	3.3	17.7
3 2	9 37.20	- 9 57.9	1.535	2.467	9.9	19.4	3 2	9 37.53	+18 25.9	2.012	2.957	7.0	17.9
3 12	9 30.66	- 8 40.6	1.574	2.474	12.2	19.6	3 12	9 30.92	+18 50.8	2.076	2.960	10.5	18.1
3 22	9 26.50	- 7 16.8	1.636	2.481	15.0	19.8	3 22	9 26.31	+19 3.1	2.163	2.963	13.5	18.3
369091	2008 GN ₈₈		2 14.9 311°37'	1°9'/13.5	18		245248	2004 YZ		2 14.9 320°49'	22°8'/20.8	17	
1 12	10 15.07	+15 21.0	1.704	2.542	14.2	21.4	1 12	10 29.18	+54 42.4	0.998	1.819	23.2	19.3
1 22	10 10.39	+16 5.2	1.628	2.539	10.5	21.1	1 22	10 25.90	+58 53.0	0.987	1.817	22.8	19.3
2 1	10 3.25	+16 58.5	1.575	2.536	6.3	20.9	2 1	10 15.21	+62 18.7	0.994	1.814	23.4	19.3
2 11	9 54.45	+17 54.6	1.549	2.533	2.3	20.6	2 11	9 58.34	+64 36.4	1.016	1.813	24.8	19.4
2 21	9 45.06	+18 46.1	1.551	2.530	4.1	20.7	2 21	9 39.10	+65 35.1	1.052	1.811	26.6	19.5
3 2	9 36.31	+19 26.7	1.581	2.527	8.5	21.0	3 2	9 22.71	+65 17.9	1.099	1.809	28.4	19.6
3 12	9 29.33	+19 52.4	1.636	2.525	12.6	21.2	3 12	9 12.95	+63 59.4	1.153	1.808	30.0	19.8
3 22	9 24.84	+20 2.0	1.713	2.522	16.1	21.4	3 22	9 10.66	+61 56.7	1.213	1.806	31.4	19.9
522610	2016 FP ₃₆		2 14.9 238°50'	1°4'/16.1	17		163422	2002 RM ₅₆		2 14.9 96°52'	0°7'/14.3	18	
1 12	10 13.28	+ 6 37.0	2.										

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
221114	2005 <i>SQ</i> ₁₈₉		2 14.9 212°03	1°2/14.0	18		498609	2008 <i>RZ</i> ₇₇		2 14.9 198°27	1°5/16.2	17	
1 12	10 15.49	+14 6.1	1.861	2.691	13.5	21.2	1 12	10 13.92	+ 6 34.5	2.213	3.014	12.7	21.2
1 22	10 10.49	+14 40.9	1.783	2.690	10.0	21.0	1 22	10 9.00	+ 6 51.3	2.125	3.012	9.7	21.0
2 1	10 3.23	+15 24.7	1.729	2.689	6.0	20.7	2 1	10 2.21	+ 7 20.9	2.063	3.010	6.2	20.7
2 11	9 54.45	+16 12.1	1.703	2.687	1.8	20.4	2 11	9 54.16	+ 8 0.3	2.028	3.008	2.6	20.5
2 21	9 45.15	+16 56.9	1.706	2.686	3.4	20.5	2 21	9 45.65	+ 8 45.4	2.022	3.005	2.4	20.5
3 2	9 36.45	+17 33.5	1.737	2.685	7.7	20.8	3 2	9 37.58	+ 9 31.4	2.047	3.003	6.0	20.7
3 12	9 29.38	+17 58.2	1.794	2.684	11.6	21.0	3 12	9 30.81	+10 13.6	2.099	3.000	9.6	20.9
3 22	9 24.60	+18 9.5	1.873	2.682	14.9	21.2	3 22	9 25.91	+10 48.5	2.175	2.996	12.7	21.1
217995	2001 <i>WE</i> ₁₀₀		2 14.9 131°42	5°1/19.0	18		409575	2005 <i>UM</i> ₁₉₇		2 14.9 91°91	1°3/16.2	18	
1 12	10 16.90	- 2 38.6	2.173	2.929	14.3	20.3	1 12	10 13.59	+ 4 3.0	1.859	2.661	14.7	20.5
1 22	10 11.14	- 3 8.4	2.093	2.940	11.6	20.2	1 22	10 8.93	+ 5 14.4	1.792	2.680	11.1	20.3
2 1	10 3.45	- 3 21.0	2.037	2.950	8.6	20.0	2 1	10 2.21	+ 6 45.1	1.749	2.698	7.0	20.1
2 11	9 54.49	- 3 16.1	2.006	2.960	6.0	19.8	2 11	9 54.16	+ 8 29.1	1.735	2.716	2.7	19.9
2 21	9 45.12	- 2 55.8	2.005	2.969	5.1	19.8	2 21	9 45.73	+10 18.4	1.750	2.734	2.5	19.9
3 2	9 36.28	- 2 23.7	2.032	2.978	6.9	19.9	3 2	9 37.93	+12 3.9	1.795	2.751	6.7	20.2
3 12	9 28.83	- 1 44.8	2.087	2.986	9.7	20.1	3 12	9 31.69	+13 38.2	1.868	2.769	10.6	20.4
3 22	9 23.37	- 1 4.4	2.167	2.995	12.5	20.3	3 22	9 27.60	+14 56.6	1.964	2.785	13.9	20.7
451711	2013 <i>CC</i> ₁₁₉		2 14.9 34°00	1°5/13.9	18		40330	1999 <i>MN</i> ₁		2 14.9 156°36	0°7/14.4	18	
1 12	10 13.32	+11 49.1	1.151	2.006	18.4	20.8	1 12	10 18.48	+12 46.9	2.076	2.892	12.9	19.9
1 22	10 9.76	+12 54.6	1.097	2.017	13.6	20.5	1 22	10 12.42	+13 19.7	2.001	2.900	9.5	19.7
2 1	10 3.12	+14 17.9	1.065	2.028	8.0	20.2	2 1	10 4.27	+14 1.2	1.952	2.908	5.7	19.5
2 11	9 54.45	+15 49.1	1.056	2.041	2.3	19.9	2 11	9 54.76	+14 46.6	1.931	2.915	1.6	19.3
2 21	9 45.22	+17 16.1	1.073	2.055	4.5	20.1	2 21	9 44.82	+15 30.4	1.940	2.922	2.9	19.4
3 2	9 37.06	+18 28.3	1.114	2.069	10.1	20.5	3 2	9 35.50	+16 7.7	1.979	2.927	6.9	19.6
3 12	9 31.32	+19 19.2	1.178	2.083	15.0	20.8	3 12	9 27.73	+16 35.1	2.046	2.932	10.5	19.9
3 22	9 28.71	+19 46.9	1.261	2.099	19.1	21.1	3 22	9 22.11	+16 50.8	2.136	2.936	13.6	20.1
451878	2014 <i>HH</i> ₄₅		2 14.9 232°52	2°5/13.3	18		206831	2004 <i>EY</i> ₄₅		2 14.9 259°70	0°3/14.6	17	
1 12	10 19.63	+16 20.5	1.598	2.433	15.1	21.7	1 12	10 12.52	+12 7.0	2.435	3.252	11.2	21.0
1 22	10 14.08	+17 8.8	1.514	2.423	11.2	21.4	1 22	10 7.90	+12 36.3	2.342	3.241	8.3	20.8
2 1	10 5.68	+18 6.9	1.453	2.413	6.8	21.1	2 1	10 1.53	+13 14.1	2.273	3.230	5.0	20.5
2 11	9 55.23	+19 7.1	1.419	2.401	2.8	20.9	2 11	9 53.98	+13 56.7	2.234	3.218	1.4	20.3
2 21	9 43.93	+20 1.0	1.413	2.390	4.8	21.0	2 21	9 45.96	+14 39.7	2.224	3.207	2.4	20.3
3 2	9 33.27	+20 41.4	1.435	2.377	9.5	21.2	3 2	9 38.31	+15 18.6	2.245	3.195	6.0	20.6
3 12	9 24.59	+21 4.1	1.481	2.364	14.0	21.4	3 12	9 31.79	+15 50.0	2.293	3.183	9.4	20.7
3 22	9 18.77	+21 8.5	1.549	2.351	17.8	21.6	3 22	9 27.01	+16 11.6	2.365	3.171	12.3	20.9
341613	2007 <i>UD</i> ₁₂₉		2 14.9 158°69	3°6/18.7	17		488654	2003 <i>SF</i> ₂₁₈		2 14.9 128°86	2°5/17.0	18	
1 12	10 12.24	- 1 11.5	2.684	3.444	11.8	21.5	1 12	10 16.17	+ 3 17.1	1.894	2.688	14.8	22.3
1 22	10 7.43	- 1 14.8	2.596	3.449	9.4	21.4	1 22	10 10.83	+ 3 40.6	1.821	2.701	11.4	22.1
2 1	10 1.11	- 1 3.8	2.532	3.453	6.8	21.2	2 1	10 3.36	+ 4 21.8	1.771	2.713	7.5	21.9
2 11	9 53.81	- 0 39.3	2.496	3.456	4.4	21.1	2 11	9 54.50	+ 5 17.4	1.749	2.725	3.7	21.6
2 21	9 46.16	- 0 3.9	2.489	3.460	3.7	21.0	2 21	9 45.22	+ 6 21.9	1.755	2.737	3.1	21.6
3 2	9 38.88	+ 0 39.1	2.512	3.463	5.5	21.1	3 2	9 36.58	+ 7 28.8	1.791	2.748	6.6	21.9
3 12	9 32.64	+ 1 25.3	2.564	3.466	8.0	21.3	3 12	9 29.51	+ 8 31.7	1.854	2.758	10.4	22.1
3 22	9 27.92	+ 2 10.6	2.641	3.468	10.5	21.5	3 22	9 24.64	+ 9 25.9	1.940	2.768	13.8	22.3
208390	2001 <i>SW</i> ₁₅₆		2 14.9 85°14	1°3/13.9	18		275927	2001 <i>TZ</i> ₂₄₁		2 14.9 130°82	2°5/12.0	18	
1 12	10 16.76	+16 23.5	2.321	3.143	11.5	20.1	1 12	10 13.07	+19 38.0	2.833	3.658	9.5	21.1
1 22	10 10.84	+16 38.9	2.258	3.161	8.4	19.9	1 22	10 7.99	+20 36.5	2.767	3.672	7.0	21.0
2 1	10 3.14	+16 58.4	2.221	3.179	5.0	19.8	2 1	10 1.42	+21 37.5	2.729	3.685	4.3	20.8
2 11	9 54.38	+17 17.9	2.213	3.197	1.7	19.6	2 11	9 53.91	+22 36.1	2.721	3.698	2.5	20.7
2 21	9 45.38	+17 33.6	2.235	3.214	2.9	19.7	2 21	9 46.13	+23 27.8	2.744	3.711	3.8	20.8
3 2	9 37.03	+17 42.4	2.287	3.232	6.3	19.9	3 2	9 38.78	+24 9.0	2.797	3.722	6.3	21.0
3 12	9 30.09	+17 42.5	2.367	3.249	9.5	20.2	3 12	9 32.53	+24 37.6	2.878	3.734	8.8	21.2
3 22	9 25.07	+17 33.6	2.471	3.266	12.1	20.4	3 22	9 27.83	+24 53.2	2.983	3.745	11.0	21.3
365774	2010 <i>XF</i> ₅₀		2 14.9 123°25	4°2/18.7	18		166952	2003 <i>KE</i> ₁₇		2 14.9 272°42	0°0/14.9	18	
1 12	10 15.88	- 1 42.1	2.155	2.919	14.2	21.2	1 12	10 15.92	+10 4.9	1.586	2.414	15.6	20.8
1 22	10 10.35	- 1 42.8	2.081	2.935	11.3	21.0	1 22	10 11.39	+10 39.6	1.491	2.395	11.8	20.5
2 1	10 2.95	- 1 25.3	2.030	2.951	8.2	20.9	2 1	10 4.13	+11 30.6	1.419	2.377	7.2	20.2
2 11	9 54.35	- 0 50.9	2.006	2.967	5.2	20.7	2 11	9 54.83	+12 32.8	1.373	2.358	2.1	19.8
2 21	9 45.40	- 0 3.0	2.010	2.982	4.3	20.7	2 21	9 44.60	+13 39.0	1.355	2.339	3.3	19.8
3 2	9 37.01	+ 0 53.3	2.045	2.996	6.4	20.8	3 2	9 34.82	+14 40.9	1.364	2.319	8.6	20.1
3 12	9 30.02	+ 1 52.2	2.107	3.010	9.4	21.0	3 12	9 26.82	+15 31.7	1.399	2.300	13.4	20.3
3 22	9 24.98	+ 2 48.4	2.194	3.023	12.3	21.2	3 22	9 21.53	+16 7.4	1.454	2.280	17.6	20.5
427062	2014 <i>UD</i> ₄		2 14.9 92°92	1°6/13.7	18		184027	2004 <i>FG</i> ₅₀		2 14.9 331°07	3°1/17.0	18	
1 12	10 14.74	+14 14.1	1.787	2.620	13.8	21.3	1 12	10 12.53	+ 4 12.5	1.470	2.290	17.0	20.1
1 22	10 9.98	+15 5.3	1.716	2.625	10.2	21.1	1 22	10 8.86	+ 4 11.7	1.386	2.279	13.3	19.9
2 1	10 2.93	+16 6.4	1.670	2.630	6.0	20.9	2 1	10 2.55	+ 4 31.1	1.322	2.270	8.9	19.6
2 11	9 54.38	+17 10.9	1.651	2.635	2.0	20.6	2 11	9 54.36	+ 5 8.7	1.283	2.260	4.5	19.3
2 21	9 45.33	+18 11.4	1.660	2.639	3.8	20.8	2 21	9 45.38	+ 5 59.4	1.269	2.252	3.8	19.2
3 2	9 36.94	+19 1.6	1.698	2.644	8.0	21.0	3 2	9 36.98	+ 6 56.1	1.282	2.244	8.1	19.5
3 12	9 30.23	+19 37.4	1.761	2.649	11.9	21.3	3 12	9 30.42	+ 7 51.0	1.319	2.236	12.8	19.7
3 22	9 25.87	+19 57.2	1.846	2.653	15.2	21.5	3 22	9 26.54	+ 8 37.8	1.377	2.230	16.9	19.9
173288	1999 <i>TH</i> ₁₅₀		2 14.9 155°54	1°7/13.5	18		126494	2002 <i>CG</i> ₅₇		2 14.9 309°02	0°8/15.6	18	
1 12	10 18.23	+15 2											

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
493387	2014 <i>WX</i> ₁₃₆		2 14.9 175°45	1°8/16.6	17		121036	1999 <i>CH</i> ₆		2 14.9 216°60	1°8/15.8	18	
1 12	10 15.80	+ 5 20.5	2.249	3.041	12.8	22.4	1 12	10 27.22	+ 9 52.0	1.859	2.656	14.9	19.1
1 22	10 10.34	+ 5 37.3	2.163	3.044	9.8	22.2	1 22	10 19.28	+ 9 12.2	1.764	2.649	11.4	18.8
2 1	10 3.01	+ 6 7.6	2.102	3.046	6.4	22.0	2 1	10 8.65	+ 8 39.8	1.693	2.641	7.3	18.6
2 11	9 54.42	+ 6 48.4	2.069	3.048	2.9	21.8	2 11	9 56.11	+ 8 13.4	1.652	2.632	3.0	18.3
2 21	9 45.38	+ 7 35.8	2.066	3.049	2.5	21.8	2 21	9 42.84	+ 7 51.0	1.641	2.623	3.1	18.3
3 2	9 36.80	+ 8 24.9	2.094	3.049	6.0	22.0	3 2	9 30.20	+ 7 30.6	1.661	2.613	7.6	18.5
3 12	9 29.54	+ 9 10.8	2.149	3.049	9.5	22.2	3 12	9 19.42	+ 7 10.0	1.710	2.603	11.8	18.8
3 22	9 24.18	+ 9 50.0	2.229	3.048	12.5	22.4	3 22	9 11.34	+ 6 47.5	1.782	2.592	15.5	19.0
152158	2005 <i>NY</i> ₁₃		2 14.9 86°87	0°9/15.5	18		178389	1997 <i>WH</i> ₉		2 14.9 174°95	2°1/13.0	18	
1 12	10 21.09	+10 34.8	1.857	2.668	14.4	20.7	1 12	10 17.02	+17 31.8	2.353	3.175	11.3	21.6
1 22	10 14.34	+10 24.3	1.795	2.689	10.7	20.5	1 22	10 11.22	+18 17.6	2.275	3.179	8.3	21.4
2 1	10 5.38	+10 23.1	1.757	2.710	6.6	20.3	2 1	10 3.52	+19 8.1	2.223	3.181	5.0	21.2
2 11	9 55.07	+10 28.3	1.748	2.731	2.2	20.0	2 11	9 54.58	+19 58.1	2.201	3.183	2.2	21.0
2 21	9 44.49	+10 35.9	1.767	2.751	2.6	20.1	2 21	9 45.22	+20 42.3	2.210	3.184	3.7	21.1
3 2	9 34.76	+10 42.5	1.816	2.771	6.8	20.4	3 2	9 36.37	+21 16.3	2.249	3.184	7.0	21.3
3 12	9 26.85	+10 45.1	1.893	2.791	10.6	20.7	3 12	9 28.88	+21 37.5	2.315	3.184	10.2	21.5
3 22	9 21.32	+10 41.9	1.993	2.810	13.8	20.9	3 22	9 23.33	+21 45.6	2.404	3.183	12.9	21.7
498938	2009 <i>BS</i> ₄₄		2 14.9 357°84	0°9/15.6	18		112410	2002 <i>NT</i> ₄₀		2 14.9 184°72	0°4/14.6	18	
1 12	10 16.25	+10 45.6	1.973	2.790	13.4	20.2	1 12	10 13.60	+11 59.0	2.486	3.300	11.1	21.2
1 22	10 10.89	+10 28.6	1.891	2.789	10.1	20.0	1 22	10 8.60	+12 32.0	2.402	3.300	8.2	21.0
2 1	10 3.42	+10 20.0	1.834	2.787	6.3	19.7	2 1	10 1.92	+13 13.3	2.343	3.299	4.9	20.8
2 11	9 54.55	+10 17.3	1.804	2.787	2.2	19.5	2 11	9 54.11	+13 58.9	2.314	3.299	1.4	20.5
2 21	9 45.21	+10 17.6	1.803	2.786	2.5	19.5	2 21	9 45.92	+14 44.5	2.316	3.298	2.4	20.6
3 2	9 36.46	+10 17.7	1.830	2.787	6.6	19.7	3 2	9 38.14	+15 25.6	2.347	3.296	5.9	20.8
3 12	9 29.24	+10 14.7	1.885	2.787	10.4	20.0	3 12	9 31.53	+15 58.9	2.407	3.295	9.1	21.0
3 22	9 24.20	+10 6.7	1.963	2.788	13.7	20.2	3 22	9 26.64	+16 22.3	2.490	3.292	11.9	21.2
117258	2004 <i>SL</i> ₅₄		2 14.9 191°54	4°1/10.9	18		44469	1998 <i>VP</i> ₃₄		2 14.9 187°68	0°5/15.4	18	
1 12	10 15.70	+23 15.3	2.273	3.107	11.2	19.6	1 12	10 13.46	+ 9 22.6	2.300	3.110	12.0	20.2
1 22	10 10.41	+24 23.3	2.199	3.106	8.4	19.5	1 22	10 8.61	+ 9 46.5	2.215	3.109	9.0	20.0
2 1	10 3.10	+25 32.8	2.152	3.105	5.6	19.3	2 1	10 1.97	+10 20.9	2.156	3.109	5.5	19.8
2 11	9 54.46	+26 36.8	2.133	3.103	4.1	19.2	2 11	9 54.14	+11 2.3	2.125	3.108	1.8	19.5
2 21	9 45.34	+27 29.1	2.145	3.100	5.6	19.3	2 21	9 45.88	+11 46.3	2.124	3.107	2.2	19.6
3 2	9 36.75	+28 5.2	2.184	3.098	8.5	19.4	3 2	9 38.07	+12 28.3	2.152	3.106	6.0	19.8
3 12	9 29.57	+28 23.2	2.250	3.095	11.4	19.6	3 12	9 31.51	+13 4.3	2.208	3.105	9.4	20.0
3 22	9 24.44	+28 23.7	2.337	3.091	13.9	19.8	3 22	9 26.76	+13 31.7	2.289	3.103	12.4	20.2
276350	2002 <i>US</i> ₃		2 14.9 99°38	7°8/ 9.1	17		447312	2005 <i>WF</i> ₁₇₇		2 14.9 53°29	1°9/13.9	18	
1 12	10 23.49	+32 47.4	1.819	2.651	13.7	21.0	1 12	10 18.52	+14 44.3	1.224	2.074	17.9	21.4
1 22	10 16.48	+34 1.9	1.776	2.670	10.8	20.9	1 22	10 13.46	+15 20.9	1.172	2.088	13.2	21.1
2 1	10 6.80	+35 7.2	1.758	2.689	8.5	20.8	2 1	10 5.29	+16 8.9	1.140	2.103	7.8	20.9
2 11	9 55.49	+35 53.7	1.767	2.708	7.9	20.8	2 11	9 55.13	+16 59.6	1.134	2.118	2.5	20.6
2 21	9 43.91	+36 15.0	1.803	2.726	9.2	20.9	2 21	9 44.51	+17 44.3	1.153	2.134	4.6	20.8
3 2	9 33.46	+36 9.0	1.865	2.743	11.7	21.1	3 2	9 35.07	+18 15.7	1.198	2.150	9.8	21.1
3 12	9 25.27	+35 38.2	1.951	2.760	14.3	21.3	3 12	9 28.14	+18 30.1	1.265	2.166	14.6	21.4
3 22	9 19.94	+34 47.4	2.055	2.777	16.5	21.5	3 22	9 24.41	+18 27.4	1.352	2.182	18.5	21.7
355764	2008 <i>RM</i> ₃₃		2 14.9 111°47	1°5/16.0	18		87664	2000 <i>RN</i> ₉₇		2 14.9 304°64	10°0/18.7	18	
1 12	10 18.75	+ 6 45.1	1.586	2.399	16.3	21.6	1 12	10 23.35	- 7 6.1	1.762	2.498	17.9	18.4
1 22	10 13.04	+ 7 9.2	1.521	2.415	12.4	21.4	1 22	10 16.83	- 9 9.2	1.662	2.482	15.4	18.2
2 1	10 4.81	+ 7 50.2	1.480	2.431	7.8	21.1	2 1	10 7.45	-10 56.5	1.583	2.465	12.7	18.0
2 11	9 54.95	+ 8 43.5	1.464	2.446	3.0	20.9	2 11	9 55.86	-12 22.0	1.530	2.449	10.6	17.8
2 21	9 44.65	+ 9 42.5	1.477	2.461	3.0	20.9	2 21	9 43.16	-13 20.9	1.503	2.433	10.1	17.8
3 2	9 35.20	+10 39.8	1.518	2.475	7.6	21.2	3 2	9 30.73	-13 52.1	1.504	2.418	11.5	17.8
3 12	9 27.70	+11 29.2	1.585	2.489	11.9	21.5	3 12	9 19.99	-13 59.0	1.529	2.403	14.2	17.9
3 22	9 22.84	+12 7.0	1.675	2.503	15.6	21.8	3 22	9 11.96	-13 48.5	1.576	2.388	17.1	18.1
165723	2001 <i>QZ</i> ₈₁		2 14.9 86°95	2°7/17.6	18		457204	2008 <i>HL</i> ₆₂		2 14.9 315°73	2°2/16.8	17	
1 12	10 13.80	+ 2 17.3	2.459	3.238	12.2	19.9	1 12	10 10.28	+ 3 27.0	1.553	2.370	16.4	21.3
1 22	10 8.57	+ 2 20.2	2.393	3.261	9.5	19.8	1 22	10 7.16	+ 4 7.6	1.459	2.353	12.8	21.0
2 1	10 1.78	+ 2 36.6	2.351	3.285	6.5	19.6	2 1	10 1.56	+ 5 12.7	1.388	2.337	8.4	20.7
2 11	9 54.03	+ 3 4.3	2.336	3.308	3.6	19.5	2 11	9 54.12	+ 6 38.7	1.341	2.321	3.8	20.4
2 21	9 46.05	+ 3 40.2	2.352	3.330	3.0	19.5	2 21	9 45.86	+ 8 18.3	1.321	2.305	3.2	20.3
3 2	9 38.59	+ 4 20.4	2.398	3.353	5.4	19.7	3 2	9 38.03	+10 1.7	1.329	2.290	7.9	20.6
3 12	9 32.35	+ 5 0.5	2.472	3.375	8.2	19.9	3 12	9 31.87	+11 38.7	1.361	2.276	12.7	20.8
3 22	9 27.77	+ 5 37.1	2.571	3.396	10.9	20.1	3 22	9 28.24	+13 1.4	1.416	2.262	16.9	21.0
194179	2001 <i>TY</i> ₅₇		2 14.9 241°85	1°0/15.6	18		241542	2010 <i>EJ</i> ₁₀₂		2 14.9 246°46	0°3/15.3	17	
1 12	10 17.40	+ 8 25.2	1.620	2.439	15.7	20.8	1 12	10 12.45	+ 9 47.0	2.470	3.280	11.3	21.3
1 22	10 12.34	+ 8 45.1	1.531	2.429	12.0	20.6	1 22	10 7.84	+10 13.6	2.376	3.270	8.4	21.1
2 1	10 4.61	+ 9 20.9	1.465	2.419	7.5	20.3	2 1	10 1.51	+10 50.0	2.306	3.260	5.2	20.9
2 11	9 54.97	+10 8.6	1.425	2.409	2.6	20.0	2 11	9 54.03	+11 33.1	2.266	3.250	1.6	20.6
2 21	9 44.53	+11 1.9	1.413	2.397	3.0	20.0	2 21	9 46.09	+12 18.6	2.255	3.239	2.1	20.7
3 2	9 34.62	+11 53.9	1.429	2.386	8.0	20.2	3 2	9 38.49	+13 2.1	2.275	3.228	5.7	20.9
3 12	9 26.53	+12 38.1	1.471	2.374	12.7	20.5	3 12	9 32.02	+13 39.7	2.322	3.217	9.1	21.1
3 22	9 21.10	+13 10.6	1.534	2.362	16.7	20.7	3 22	9 27.22	+14 8.8	2.394	3.206	12.0	21.2
282834	2006 <i>UZ</i> ₂		2 14.9 164°47	4°8/ 8.8	17		152279	2005 <i>SS</i> ₂₆₂		2 14.9 53°13	2°1/13.5	18	
1 12	10 15.22												

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
55065	2001 QY ₈₀		2 14.9 126°66	2°2/16.4	18		198153	2004 TD ₅₅		2 14.9 186°69	0°5/15.5	17	
1 12	10 19.50	+ 6 5.2	1.638	2.445	16.1	19.0	1 12	10 14.38	+ 8 51.1	2.762	3.560	10.5	21.8
1 22	10 13.60	+ 6 7.8	1.568	2.457	12.3	18.8	1 22	10 9.04	+ 9 19.6	2.672	3.559	7.9	21.7
2 1	10 5.18	+ 6 26.5	1.520	2.468	8.0	18.5	2 1	10 2.14	+ 9 57.4	2.608	3.558	4.9	21.5
2 11	9 55.10	+ 6 58.2	1.498	2.478	3.5	18.3	2 11	9 54.21	+10 41.4	2.574	3.557	1.6	21.2
2 21	9 44.53	+ 7 37.7	1.505	2.488	3.2	18.3	2 21	9 45.91	+11 27.9	2.570	3.554	1.9	21.2
3 2	9 34.74	+ 8 19.0	1.540	2.497	7.5	18.6	3 2	9 37.97	+12 12.7	2.599	3.551	5.2	21.5
3 12	9 26.87	+ 8 56.4	1.601	2.506	11.7	18.8	3 12	9 31.06	+12 52.5	2.656	3.547	8.2	21.6
3 22	9 21.60	+ 9 25.9	1.685	2.515	15.4	19.1	3 22	9 25.71	+13 24.7	2.739	3.542	10.9	21.8
152619	1996 RW ₆		2 14.9 86°22	0°6/14.6	18		161129	2002 RG ₈₀		2 14.9 206°82	0°3/14.7	18	
1 12	10 16.37	+12 41.6	1.823	2.649	13.9	20.6	1 12	10 13.84	+12 5.8	2.385	3.201	11.4	20.4
1 22	10 11.08	+13 7.4	1.755	2.659	10.3	20.4	1 22	10 8.88	+12 32.8	2.299	3.198	8.5	20.2
2 1	10 3.57	+13 42.8	1.711	2.669	6.2	20.2	2 1	10 2.14	+13 8.2	2.239	3.195	5.1	20.0
2 11	9 54.62	+14 22.7	1.695	2.680	1.7	19.9	2 11	9 54.23	+13 48.0	2.207	3.191	1.4	19.7
2 21	9 45.28	+15 1.4	1.707	2.690	3.0	20.0	2 21	9 45.90	+14 27.9	2.205	3.187	2.4	19.8
3 2	9 36.64	+15 33.7	1.749	2.700	7.3	20.3	3 2	9 37.98	+15 3.7	2.233	3.183	6.0	20.0
3 12	9 29.70	+15 56.0	1.816	2.710	11.2	20.6	3 12	9 31.29	+15 31.8	2.289	3.179	9.4	20.2
3 22	9 25.06	+16 6.6	1.905	2.720	14.5	20.8	3 22	9 26.38	+15 50.3	2.369	3.175	12.3	20.4
288638	2004 PJ ₃₂		2 14.9 145°79	1°0/14.2	18		330951	2009 SW ₂₉₃		2 14.9 119°55	3°1/12.3	18	
1 12	10 20.55	+13 38.8	2.048	2.863	13.1	22.0	1 12	10 16.16	+19 31.4	1.993	2.829	12.6	21.9
1 22	10 13.95	+14 14.3	1.978	2.877	9.6	21.8	1 22	10 10.87	+20 27.3	1.927	2.837	9.2	21.7
2 1	10 5.20	+14 57.9	1.934	2.890	5.7	21.6	2 1	10 3.43	+21 27.2	1.887	2.845	5.7	21.5
2 11	9 55.09	+15 44.0	1.918	2.902	1.7	21.3	2 11	9 54.61	+22 24.3	1.874	2.852	3.2	21.4
2 21	9 44.59	+16 27.2	1.933	2.914	3.1	21.5	2 21	9 45.37	+23 12.1	1.891	2.860	4.8	21.5
3 2	9 34.78	+17 2.6	1.978	2.924	7.1	21.7	3 2	9 36.80	+23 45.8	1.936	2.867	8.2	21.7
3 12	9 26.61	+17 27.0	2.051	2.933	10.7	22.0	3 12	9 29.83	+24 3.1	2.006	2.874	11.6	21.9
3 22	9 20.68	+17 39.3	2.147	2.942	13.7	22.2	3 22	9 25.08	+24 4.2	2.099	2.881	14.4	22.1
232325	2002 TH ₁₄₉		2 14.9 100°78	0°1/15.1	18		125726	2001 XQ ₁₁₀		2 14.9 286°51	4°6/11.7	18	
1 12	10 13.36	+10 37.5	2.207	3.023	12.2	21.0	1 12	10 16.65	+19 42.2	1.419	2.271	15.7	19.6
1 22	10 8.56	+11 5.0	2.131	3.029	9.1	20.8	1 22	10 12.20	+20 58.3	1.345	2.263	11.7	19.3
2 1	10 1.95	+11 42.3	2.080	3.036	5.5	20.5	2 1	10 4.72	+22 22.9	1.295	2.255	7.4	19.1
2 11	9 54.15	+12 25.4	2.058	3.042	1.6	20.3	2 11	9 55.08	+23 45.3	1.270	2.247	4.6	18.9
2 21	9 45.98	+13 9.6	2.065	3.048	2.3	20.4	2 21	9 44.60	+24 54.7	1.272	2.240	6.8	19.0
3 2	9 38.33	+13 50.3	2.102	3.055	6.2	20.6	3 2	9 34.87	+25 42.6	1.299	2.232	11.3	19.2
3 12	9 31.99	+14 23.6	2.166	3.061	9.6	20.8	3 12	9 27.32	+26 5.4	1.349	2.224	15.6	19.4
3 22	9 27.53	+14 47.2	2.253	3.067	12.6	21.0	3 22	9 22.86	+26 3.8	1.418	2.217	19.3	19.7
319741	2006 UP ₁₃₅		2 14.9 301°85	3°7/12.3	18		27802	1993 FY ₃₀		2 14.9 52°90	4°2/19.4	18	
1 12	10 15.82	+19 27.1	1.596	2.443	14.5	20.7	1 12	10 10.94	- 3 32.5	1.969	2.738	15.1	17.5
1 22	10 11.27	+20 23.2	1.517	2.432	10.8	20.4	1 22	10 6.86	- 2 58.0	1.904	2.761	12.1	17.3
2 1	10 4.01	+21 26.0	1.462	2.422	6.7	20.2	2 1	10 0.94	- 2 0.8	1.861	2.784	8.7	17.2
2 11	9 54.83	+22 27.1	1.433	2.412	3.8	19.9	2 11	9 53.88	- 0 43.8	1.845	2.807	5.5	17.0
2 21	9 44.91	+23 18.0	1.431	2.401	5.8	20.0	2 21	9 46.51	+ 0 47.4	1.857	2.831	4.3	17.0
3 2	9 35.64	+23 51.9	1.455	2.391	10.0	20.3	3 2	9 39.75	+ 2 25.3	1.898	2.854	6.4	17.2
3 12	9 28.29	+24 5.6	1.504	2.382	14.1	20.5	3 12	9 34.40	+ 4 1.9	1.966	2.878	9.5	17.4
3 22	9 23.69	+23 59.4	1.572	2.372	17.7	20.7	3 22	9 30.97	+ 5 30.7	2.060	2.902	12.5	17.6
379393	2009 YR ₁₀		2 14.9 108°86	2°7/17.4	18		406164	2006 WH ₃₈		2 14.9 109°09	2°5/12.8	18	
1 12	10 15.87	+ 2 57.8	2.259	3.041	13.1	22.0	1 12	10 17.49	+17 5.9	1.946	2.776	13.0	22.0
1 22	10 10.25	+ 3 3.0	2.190	3.062	10.1	21.9	1 22	10 11.78	+18 7.3	1.888	2.795	9.5	21.8
2 1	10 2.88	+ 3 22.4	2.145	3.082	6.8	21.7	2 1	10 3.94	+19 14.5	1.855	2.814	5.7	21.6
2 11	9 54.41	+ 3 53.8	2.128	3.101	3.6	21.5	2 11	9 54.75	+20 20.6	1.851	2.832	2.6	21.5
2 21	9 45.64	+ 4 33.4	2.140	3.120	3.0	21.5	2 21	9 45.22	+21 18.5	1.876	2.850	4.3	21.6
3 2	9 37.46	+ 5 16.8	2.183	3.138	5.8	21.7	3 2	9 36.43	+22 3.2	1.931	2.867	7.9	21.9
3 12	9 30.63	+ 5 59.4	2.254	3.156	9.0	22.0	3 12	9 29.32	+22 31.8	2.011	2.883	11.3	22.1
3 22	9 25.65	+ 6 37.4	2.350	3.173	11.8	22.2	3 22	9 24.46	+22 44.2	2.114	2.899	14.2	22.3
322835	2001 TZ ₅₃		2 14.9 97°21	6°3/9.9	18		297377	2000 KC ₃₇		2 14.9 280°77	1°2/15.7	18	
1 12	10 23.28	+30 13.1	2.038	2.866	12.6	20.9	1 12	10 16.53	+ 8 27.5	1.458	2.285	16.7	21.3
1 22	10 15.96	+31 17.4	1.998	2.893	9.7	20.7	1 22	10 12.01	+ 8 40.9	1.370	2.272	12.8	21.0
2 1	10 6.34	+32 14.8	1.983	2.920	7.2	20.6	2 1	10 4.60	+ 9 11.4	1.303	2.258	8.1	20.7
2 11	9 55.39	+32 57.4	1.997	2.946	6.3	20.6	2 11	9 55.06	+ 9 55.0	1.261	2.244	2.9	20.4
2 21	9 44.26	+33 19.7	2.039	2.972	7.6	20.8	2 21	9 44.60	+10 45.4	1.246	2.230	3.2	20.3
3 2	9 34.16	+33 19.6	2.109	2.997	10.0	21.0	3 2	9 34.70	+11 35.2	1.257	2.216	8.6	20.6
3 12	9 26.05	+32 58.6	2.203	3.021	12.5	21.2	3 12	9 26.75	+12 17.3	1.293	2.202	13.7	20.9
3 22	9 20.46	+32 20.3	2.318	3.045	14.7	21.4	3 22	9 21.70	+12 47.3	1.350	2.188	18.0	21.1
492447	2014 MC ₅₄		2 14.9 232°25	2°0/13.7	18		84865	2003 BM ₇		2 14.9 155°05	3°6/11.5	18	
1 12	10 20.76	+16 38.2	1.631	2.464	15.0	21.6	1 12	10 15.48	+18 48.2	1.990	2.826	12.6	19.3
1 22	10 14.84	+17 2.9	1.549	2.457	11.2	21.3	1 22	10 10.47	+20 21.1	1.921	2.831	9.2	19.1
2 1	10 6.12	+17 34.8	1.490	2.450	6.7	21.0	2 1	10 3.27	+22 0.7	1.879	2.837	5.7	18.9
2 11	9 55.44	+18 7.5	1.458	2.442	2.5	20.7	2 11	9 54.59	+23 38.2	1.865	2.841	3.6	18.8
2 21	9 44.03	+18 34.2	1.454	2.433	4.3	20.8	2 21	9 45.40	+25 5.2	1.881	2.846	5.4	18.9
3 2	9 33.32	+18 49.7	1.479	2.424	9.0	21.1	3 2	9 36.77	+26 15.0	1.926	2.850	8.8	19.1
3 12	9 24.60	+18 51.1	1.528	2.415	13.4	21.3	3 12	9 29.71	+27 4.2	1.997	2.853	12.1	19.3
3 22	9 18.71	+18 38.1	1.599	2.406	17.1	21.5	3 22	9 24.87	+27 32.6	2.089	2.856	15.0	19.5
73030	2002 EG ₇₉		2 14.9 250°01	4°7/19.8	17		342964	2009 BF ₇		2 14.9 2°71	4°2/18.0	18	
1 12	10 12.95	- 5 18.1</											

EPHEMERIDES

2 14.9

2 14.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
155390	1994 <i>PP</i> ₂₉		2 14.9 197°60	1°6/16.3	18		262468	2006 <i>UO</i> ₁₅₁		2 14.9 87°83	6°1/10.2	18	
1 12	10 17.99	+ 5 37.6	2.116	2.908	13.5	21.5	1 12	10 20.20	+26 48.8	1.762	2.602	13.7	21.0
1 22	10 12.19	+ 6 3.8	2.023	2.905	10.3	21.3	1 22	10 14.05	+28 8.2	1.718	2.624	10.4	20.8
2 1	10 4.28	+ 6 44.8	1.954	2.900	6.7	21.1	2 1	10 5.39	+29 24.1	1.699	2.646	7.3	20.7
2 11	9 54.90	+ 7 37.4	1.914	2.894	2.8	20.8	2 11	9 55.19	+30 27.1	1.708	2.668	6.1	20.7
2 21	9 44.93	+ 8 36.8	1.905	2.888	2.6	20.8	2 21	9 44.69	+31 9.9	1.744	2.689	7.7	20.8
3 2	9 35.40	+ 9 37.1	1.925	2.880	6.5	21.0	3 2	9 35.19	+31 28.8	1.807	2.710	10.6	21.0
3 12	9 27.27	+10 32.8	1.974	2.871	10.3	21.2	3 12	9 27.76	+31 24.4	1.894	2.730	13.5	21.2
3 22	9 21.23	+11 19.8	2.047	2.862	13.6	21.4	3 22	9 22.99	+30 59.9	2.001	2.750	16.1	21.5
345552	2006 <i>RW</i> ₁₆		2 14.9 154°13	0°7/14.1	18		356982	1996 <i>RG</i> ₂₄		2 14.9 138°57	1°1/14.1	18	
1 12	10 12.30	+13 35.8	3.119	3.930	9.1	21.9	1 12	10 20.25	+14 17.3	2.093	2.909	12.8	21.9
1 22	10 7.33	+14 16.0	3.041	3.939	6.7	21.7	1 22	10 13.68	+14 51.9	2.025	2.925	9.4	21.7
2 1	10 1.03	+15 1.8	2.991	3.947	3.9	21.5	2 1	10 5.04	+15 33.6	1.983	2.940	5.6	21.5
2 11	9 53.90	+15 49.7	2.971	3.955	1.2	21.3	2 11	9 55.09	+16 17.2	1.970	2.954	1.7	21.2
2 21	9 46.49	+16 36.0	2.982	3.962	2.2	21.4	2 21	9 44.79	+16 57.2	1.988	2.968	3.1	21.4
3 2	9 39.44	+17 17.3	3.025	3.969	5.0	21.6	3 2	9 35.18	+17 29.2	2.035	2.980	7.0	21.6
3 12	9 33.32	+17 50.9	3.097	3.975	7.6	21.8	3 12	9 27.18	+17 50.2	2.110	2.992	10.5	21.9
3 22	9 28.57	+18 15.6	3.194	3.981	9.8	22.0	3 22	9 21.36	+17 59.5	2.209	3.002	13.4	22.1
417569	2006 <i>UR</i> ₂₁₂		2 14.9 103°19	2°1/16.6	18		246989	1999 <i>TP</i> ₃₂₀		2 14.9 126°49	2°8/17.1	18	
1 12	10 17.16	+ 5 41.4	1.868	2.670	14.6	21.5	1 12	10 17.49	+ 3 32.2	1.900	2.692	14.8	20.8
1 22	10 11.57	+ 5 48.9	1.800	2.686	11.2	21.3	1 22	10 11.82	+ 3 38.0	1.828	2.706	11.5	20.6
2 1	10 3.83	+ 6 11.1	1.755	2.701	7.2	21.1	2 1	10 4.01	+ 4 0.2	1.778	2.719	7.7	20.4
2 11	9 54.74	+ 6 44.9	1.738	2.717	3.3	20.9	2 11	9 54.81	+ 4 36.3	1.756	2.731	3.9	20.2
2 21	9 45.26	+ 7 25.7	1.749	2.732	2.9	20.9	2 21	9 45.19	+ 5 21.8	1.762	2.743	3.3	20.1
3 2	9 36.49	+ 8 8.2	1.789	2.746	6.7	21.2	3 2	9 36.22	+ 6 11.2	1.798	2.754	6.7	20.4
3 12	9 29.36	+ 8 47.1	1.857	2.761	10.4	21.4	3 12	9 28.86	+ 6 58.6	1.860	2.765	10.4	20.6
3 22	9 24.47	+ 9 18.7	1.948	2.775	13.7	21.7	3 22	9 23.72	+ 7 39.8	1.947	2.775	13.7	20.9
391852	2008 <i>SB</i> ₂₉₄		2 14.9 187°79	1°1/14.0	18		29277	1993 <i>FB</i> ₃₄		2 14.9 28°42	0°3/14.7	18	
1 12	10 18.69	+12 36.6	2.022	2.838	13.2	22.4	1 12	10 11.98	+11 26.1	2.125	2.948	12.4	19.1
1 22	10 12.80	+13 34.4	1.938	2.838	9.7	22.1	1 22	10 7.67	+12 2.0	2.048	2.951	9.2	18.9
2 1	10 4.68	+14 43.4	1.880	2.837	5.8	21.9	2 1	10 1.49	+12 48.0	1.996	2.953	5.5	18.7
2 11	9 55.02	+15 57.3	1.850	2.834	1.7	21.6	2 11	9 54.08	+13 39.6	1.972	2.956	1.5	18.4
2 21	9 44.77	+17 9.3	1.851	2.831	3.3	21.7	2 21	9 46.27	+14 31.5	1.977	2.960	2.6	18.5
3 2	9 35.04	+18 12.6	1.882	2.827	7.5	22.0	3 2	9 38.95	+15 18.5	2.011	2.963	6.5	18.8
3 12	9 26.84	+19 2.6	1.941	2.822	11.3	22.2	3 12	9 32.97	+15 56.4	2.072	2.967	10.0	19.0
3 22	9 20.88	+19 37.2	2.023	2.815	14.5	22.4	3 22	9 28.90	+16 23.0	2.156	2.971	13.0	19.2
468145	2014 <i>WY</i> ₂₁		2 14.9 13°21	10°0/ 8.2	16		305554	2008 <i>UM</i> ₁₈₇		2 14.9 200°34	3°4/12.2	18	
1 12	10 18.62	+34 17.5	1.397	2.249	15.9	21.3	1 12	10 19.22	+18 56.0	1.876	2.708	13.4	21.5
1 22	10 13.74	+35 40.1	1.350	2.253	12.9	21.1	1 22	10 13.44	+20 3.0	1.797	2.705	9.9	21.3
2 1	10 5.57	+36 51.4	1.325	2.257	10.6	21.0	2 1	10 5.18	+21 16.5	1.743	2.700	6.1	21.0
2 11	9 55.28	+37 39.1	1.324	2.263	10.1	20.9	2 11	9 55.21	+22 28.4	1.717	2.695	3.4	20.9
2 21	9 44.49	+37 54.8	1.347	2.269	11.7	21.0	2 21	9 44.58	+23 30.9	1.720	2.689	5.3	21.0
3 2	9 34.96	+37 35.8	1.392	2.276	14.5	21.2	3 2	9 34.54	+24 17.4	1.753	2.683	9.1	21.2
3 12	9 28.08	+36 45.5	1.458	2.284	17.4	21.4	3 12	9 26.23	+24 44.9	1.810	2.675	12.8	21.4
3 22	9 24.54	+35 30.6	1.542	2.293	20.0	21.6	3 22	9 20.40	+24 53.4	1.890	2.667	16.0	21.6
211215	2002 <i>PP</i> ₃₉		2 14.9 221°51	0°2/15.2	17		279870	2001 <i>NL</i> ₁₉		2 14.9 116°26	5°5/21.1	18	
1 12	10 17.09	+10 9.7	2.100	2.910	12.9	21.8	1 12	10 13.79	- 8 39.1	2.833	3.543	12.3	20.6
1 22	10 11.59	+10 35.8	2.006	2.900	9.7	21.6	1 22	10 8.50	- 9 1.4	2.756	3.562	10.3	20.5
2 1	10 3.95	+11 13.3	1.936	2.890	6.0	21.3	2 1	10 1.78	- 9 6.7	2.701	3.581	8.2	20.4
2 11	9 54.82	+11 58.1	1.895	2.879	1.8	21.0	2 11	9 54.14	- 8 54.7	2.673	3.599	6.3	20.3
2 21	9 45.07	+12 45.2	1.884	2.867	2.5	21.0	2 21	9 46.24	- 8 27.0	2.674	3.616	5.5	20.3
3 2	9 35.75	+13 29.4	1.902	2.855	6.7	21.3	3 2	9 38.74	- 7 46.6	2.703	3.633	6.3	20.3
3 12	9 27.82	+14 6.0	1.949	2.842	10.6	21.5	3 12	9 32.29	- 6 57.8	2.761	3.650	8.0	20.5
3 22	9 22.00	+14 32.4	2.018	2.828	14.0	21.7	3 22	9 27.32	- 6 5.4	2.845	3.666	10.0	20.6
31322	1998 <i>HS</i> ₁₄		2 14.9 83°79	0°6/14.4	18		236886	2007 <i>SR</i> ₃		2 14.9 60°92	6°0/10.2	18	
1 12	10 13.17	+12 47.8	2.351	3.170	11.4	19.4	1 12	10 19.37	+30 21.2	2.095	2.929	12.1	19.9
1 22	10 8.28	+13 24.8	2.286	3.187	8.4	19.2	1 22	10 13.20	+31 7.1	2.039	2.938	9.4	19.7
2 1	10 1.71	+14 9.5	2.247	3.204	5.0	19.0	2 1	10 4.80	+31 47.0	2.008	2.947	7.0	19.6
2 11	9 54.10	+14 57.3	2.237	3.221	1.4	18.8	2 11	9 55.03	+32 13.7	2.004	2.957	6.1	19.5
2 21	9 46.23	+15 43.5	2.257	3.238	2.5	18.9	2 21	9 44.97	+32 22.2	2.028	2.966	7.3	19.6
3 2	9 38.89	+16 23.7	2.306	3.255	6.0	19.1	3 2	9 35.74	+32 10.3	2.080	2.976	9.8	19.8
3 12	9 32.82	+16 54.9	2.383	3.271	9.2	19.4	3 12	9 28.32	+31 38.9	2.156	2.985	12.4	20.0
3 22	9 28.52	+17 15.5	2.485	3.288	11.8	19.6	3 22	9 23.26	+30 51.2	2.253	2.995	14.7	20.2
30333	Stevenwang		2 14.9 133°74	2°8/13.1	18		206211	2002 <i>VG</i> ₂₇		2 14.9 68°07	5°7/ 9.9	18	
1 12	10 21.68	+18 15.9	1.694	2.526	14.6	18.8	1 12	10 16.41	+28 12.2	2.100	2.938	11.9	20.0
1 22	10 15.21	+18 56.6	1.630	2.537	10.7	18.6	1 22	10 11.02	+29 17.5	2.047	2.951	9.1	19.8
2 1	10 6.16	+19 42.4	1.590	2.548	6.5	18.3	2 1	10 3.50	+30 19.1	2.020	2.964	6.6	19.7
2 11	9 55.43	+20 26.1	1.578	2.559	3.0	18.1	2 11	9 54.66	+31 9.5	2.021	2.977	5.7	19.7
2 21	9 44.26	+21 0.6	1.594	2.569	4.7	18.3	2 21	9 45.50	+31 42.7	2.049	2.990	7.1	19.8
3 2	9 33.99	+21 21.2	1.639	2.578	8.8	18.5	3 2	9 37.09	+31 55.7	2.105	3.003	9.6	19.9
3 12	9 25.74	+21 25.7	1.709	2.587	12.7	18.8	3 12	9 30.34	+31 48.5	2.185	3.016	12.2	20.1
3 22	9 20.21	+21 14.9	1.801	2.595	16.0	19.0	3 22	9 25.82	+31 23.3	2.286	3.029	14.5	20.3
40489	1999 <i>RH</i> ₆₇		2 14.9 281°19	0°4/15.3	18		412080	2013 <i>FA</i> ₁					