

EPHEMERIDES

12 17.9

12 18.0

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
9566	Rykhlova		12 17.9	81°94	1°0/17.9	18 R	4122	Ferrari		12 18.0	237°28	0°5/17.9	18
11 17	6 15.15	+21 41.2	1.486	2.341	15.3	17.6	11 17	6 11.67	+24 30.6	1.793	2.644	13.3	16.2
11 27	6 7.05	+21 24.1	1.446	2.369	10.8	17.4	11 27	6 4.66	+23 46.3	1.718	2.640	9.5	15.9
12 7	5 56.50	+21 6.9	1.430	2.397	5.8	17.1	12 7	5 55.35	+22 57.0	1.669	2.636	5.1	15.6
12 17	5 44.76	+20 49.3	1.441	2.424	1.2	16.9	12 17	5 44.70	+22 3.5	1.648	2.632	0.7	15.3
12 27	5 33.37	+20 32.5	1.480	2.451	4.8	17.2	12 27	5 34.03	+21 8.4	1.657	2.627	4.3	15.6
1 6	5 23.70	+20 18.1	1.548	2.477	9.4	17.5	1 6	5 24.59	+20 15.3	1.694	2.623	8.8	15.8
1 16	5 16.72	+20 7.9	1.640	2.503	13.4	17.8	1 16	5 17.39	+19 27.8	1.758	2.618	12.8	16.1
1 26	5 12.89	+20 3.1	1.753	2.528	16.6	18.1	1 26	5 13.05	+18 48.6	1.843	2.614	16.1	16.3
231432	2007 EJ ₁₄₂		12 18.0	176°55	3°5/18.3	18	77313	2001 FY ₈₁		12 18.0	267°22	2°6/18.3	18 R
11 17	6 14.63	+32 22.4	1.828	2.669	13.5	20.8	11 17	6 12.05	+30 41.9	1.839	2.685	13.2	19.4
11 27	6 6.93	+32 42.0	1.759	2.670	10.0	20.6	11 27	6 5.20	+30 45.7	1.755	2.671	9.7	19.2
12 7	5 56.64	+32 52.5	1.714	2.672	6.2	20.4	12 7	5 55.79	+30 41.3	1.696	2.658	5.8	18.9
12 17	5 44.80	+32 50.2	1.697	2.672	3.5	20.2	12 17	5 44.76	+30 26.2	1.664	2.643	2.7	18.7
12 27	5 32.87	+32 34.1	1.709	2.673	5.3	20.3	12 27	5 33.49	+29 59.8	1.662	2.629	4.8	18.8
1 6	5 22.31	+32 6.4	1.750	2.673	9.0	20.6	1 6	5 23.40	+29 24.4	1.687	2.615	8.9	19.0
1 16	5 14.22	+31 31.4	1.817	2.672	12.6	20.8	1 16	5 15.62	+28 44.1	1.739	2.600	12.8	19.2
1 26	5 9.31	+30 54.2	1.905	2.671	15.7	21.0	1 26	5 10.90	+28 3.6	1.812	2.586	16.2	19.4
492586	2014 OF ₁₉₁		12 18.0	52°52	5°0/17.8	18	150597	2000 WA ₁₄₀		12 18.0	57°18	1°0/18.1	18
11 17	6 6.20	+9 33.1	1.982	2.820	12.7	20.8	11 17	6 9.19	+25 46.6	1.909	2.761	12.5	20.1
11 27	6 0.45	+9 4.1	1.925	2.830	9.7	20.6	11 27	6 2.83	+25 56.5	1.847	2.769	8.9	19.8
12 7	5 52.94	+8 45.1	1.892	2.840	6.7	20.5	12 7	5 54.33	+26 3.3	1.809	2.776	4.9	19.6
12 17	5 44.45	+8 37.9	1.887	2.850	5.1	20.4	12 17	5 44.62	+26 5.5	1.800	2.783	1.1	19.4
12 27	5 35.98	+8 43.6	1.911	2.860	6.3	20.5	12 27	5 34.88	+26 2.7	1.820	2.791	4.0	19.6
1 6	5 28.47	+9 1.5	1.962	2.871	9.1	20.7	1 6	5 26.29	+25 55.8	1.868	2.799	8.0	19.9
1 16	5 22.71	+9 30.0	2.038	2.882	12.0	20.9	1 16	5 19.76	+25 46.8	1.943	2.806	11.6	20.1
1 26	5 19.20	+10 6.8	2.136	2.892	14.6	21.1	1 26	5 15.89	+25 37.9	2.039	2.814	14.6	20.3
97830	2000 PA ₄		12 18.0	60°82	1°9/17.9	18	405449	2004 TN ₁₁₂		12 18.0	78°27	5°2/18.9	17
11 17	6 13.72	+20 15.3	1.149	2.018	17.8	19.0	11 17	6 13.14	+39 37.6	2.107	2.929	12.7	20.2
11 27	6 6.65	+19 55.8	1.106	2.036	12.7	18.7	11 27	6 5.61	+39 46.5	2.045	2.938	9.8	20.0
12 7	5 56.52	+19 38.7	1.086	2.054	7.0	18.5	12 7	5 55.80	+39 41.1	2.007	2.947	7.0	19.9
12 17	5 44.78	+19 24.0	1.090	2.072	2.0	18.2	12 17	5 44.75	+39 18.2	1.997	2.956	5.3	19.8
12 27	5 33.29	+19 12.9	1.120	2.091	5.8	18.5	12 27	5 33.83	+38 37.7	2.016	2.965	6.1	19.9
1 6	5 23.80	+19 6.7	1.175	2.109	11.1	18.9	1 6	5 24.30	+37 43.0	2.063	2.974	8.6	20.0
1 16	5 17.45	+19 6.8	1.253	2.128	15.8	19.2	1 16	5 17.13	+36 39.5	2.137	2.983	11.4	20.2
1 26	5 14.80	+19 13.3	1.349	2.147	19.5	19.5	1 26	5 12.85	+35 33.0	2.233	2.992	13.9	20.4
44844	1999 TG ₂₈₈		12 18.0	167°10	3°9/17.7	18	26178	1996 GV ₂		12 18.0	128°42	0°9/18.1	18
11 17	6 12.08	+14 7.2	1.708	2.553	14.1	19.2	11 17	6 10.95	+18 54.1	2.112	2.954	11.9	18.2
11 27	6 4.92	+13 38.8	1.643	2.557	10.4	19.0	11 27	6 3.86	+19 24.2	2.049	2.966	8.5	18.0
12 7	5 55.48	+13 17.0	1.602	2.560	6.5	18.8	12 7	5 54.83	+19 57.7	2.012	2.977	4.6	17.8
12 17	5 44.70	+13 3.4	1.589	2.563	4.0	18.6	12 17	5 44.67	+20 32.9	2.004	2.988	1.0	17.5
12 27	5 33.87	+12 59.2	1.605	2.566	5.9	18.7	12 27	5 34.45	+21 7.9	2.028	2.998	3.8	17.8
1 6	5 24.25	+13 4.7	1.649	2.567	9.8	19.0	1 6	5 25.20	+21 41.9	2.081	3.008	7.6	18.0
1 16	5 16.82	+13 19.5	1.717	2.568	13.5	19.2	1 16	5 17.81	+22 14.5	2.162	3.017	10.9	18.3
1 26	5 12.33	+13 42.3	1.807	2.569	16.6	19.4	1 26	5 12.84	+22 46.0	2.266	3.026	13.7	18.5
465021	2006 JS ₃₆		12 18.0	193°38	15°5/15.1	17	335256	2005 MD ₃₄		12 18.0	170°39	3°2/18.2	18
11 17	6 13.24	- 3 11.2	1.164	1.984	21.0	21.0	11 17	6 15.88	+31 35.4	1.872	2.710	13.4	21.9
11 27	6 6.41	- 5 43.5	1.116	1.984	18.2	20.9	11 27	6 7.77	+31 57.1	1.804	2.715	9.8	21.7
12 7	5 56.52	- 7 49.1	1.088	1.983	16.1	20.7	12 7	5 57.08	+32 10.3	1.760	2.718	6.0	21.5
12 17	5 44.81	- 9 15.2	1.081	1.982	15.5	20.7	12 17	5 44.89	+32 11.7	1.745	2.721	3.2	21.3
12 27	5 32.99	- 9 53.9	1.095	1.980	16.7	20.8	12 27	5 32.61	+31 59.8	1.759	2.723	5.1	21.4
1 6	5 22.79	- 9 45.5	1.130	1.979	19.1	20.9	1 6	5 21.69	+31 36.8	1.803	2.725	8.8	21.7
1 16	5 15.50	- 8 56.5	1.183	1.977	21.9	21.1	1 16	5 13.23	+31 6.7	1.872	2.725	12.4	21.9
1 26	5 11.85	- 7 37.4	1.250	1.974	24.5	21.3	1 26	5 7.89	+30 34.5	1.964	2.725	15.5	22.1
306714	2000 WM ₃₅		12 18.0	29°86	5°1/17.8	18	78676	2002 TJ ₁₂₃		12 18.0	286°26	6°0/18.9	18
11 17	6 8.26	+13 19.3	1.246	2.112	16.9	19.0	11 17	6 12.31	+42 34.2	2.331	3.140	12.1	19.2
11 27	6 2.63	+12 43.5	1.200	2.123	12.5	18.8	11 27	6 5.11	+42 56.7	2.256	3.135	9.6	19.1
12 7	5 54.35	+12 18.2	1.175	2.135	8.0	18.6	12 7	5 55.60	+43 4.6	2.205	3.131	7.4	18.9
12 17	5 44.59	+12 6.2	1.175	2.148	5.2	18.4	12 17	5 44.75	+42 54.2	2.181	3.126	6.1	18.8
12 27	5 34.94	+12 8.5	1.200	2.162	7.2	18.6	12 27	5 33.83	+42 24.1	2.186	3.121	6.7	18.9
1 6	5 26.87	+12 24.8	1.250	2.177	11.4	18.9	1 6	5 24.12	+41 36.9	2.219	3.116	8.8	19.0
1 16	5 21.45	+12 52.9	1.323	2.192	15.5	19.2	1 16	5 16.63	+40 37.3	2.278	3.112	11.2	19.1
1 26	5 19.28	+13 30.0	1.414	2.208	19.0	19.4	1 26	5 11.98	+39 31.3	2.359	3.107	13.6	19.3
219234	1999 VX ₁₉₁		12 18.0	25°59	1°3/17.9	18	349578	2008 SC ₂₆₅		12 18.0	138°14	2°5/17.7	17
11 17	6 7.23	+20 3.3	1.770	2.628	13.1	19.9	11 17	6 6.02	+16 7.5	2.486	3.327	10.4	21.1
11 27	6 1.48	+20 0.0	1.710	2.634	9.3	19.7	11 27	6 0.11	+15 39.7	2.417	3.331	7.5	21.0
12 7	5 53.61	+19 58.7	1.674	2.641	5.1	19.5	12 7	5 52.72	+15 15.1	2.376	3.335	4.5	20.8
12 17	5 44.54	+19 59.1	1.665	2.648	1.3	19.2	12 17	5 44.48	+14 54.8	2.363	3.339	2.5	20.7
12 27	5 35.43	+20 1.3	1.685	2.655	4.3	19.4	12 27	5 36.23	+14 39.7	2.381	3.343	4.1	20.8
1 6	5 27.47	+20 5.6	1.732	2.663	8.4	19.7	1 6	5 28.77	+14 30.5	2.429	3.347	7.1	21.0
1 16	5 21.54	+20 12.6	1.805	2.672	12.2	19.9	1 16	5 22.76	+14 27.7	2.503	3.351	9.9	21.2
1 26	5 18.26	+20 22.7	1.900	2.681	15.3	20.2	1 26	5 18.67	+14 31.0	2.601	3.354	12.3	21.3
335222	2005 GY ₃₇		12 18.0	275°38	3°2/18.4	18	345135	2005 SO ₂₂		12 18.0	35°88	1°0/18.0	18
11 17	6 9.17	+34 4.7	2.410	3.243	10.9	20.6	11 17						

EPHEMERIDES

12 18.0

12 18.0

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
112995	2002 <i>RD</i> ₃₅		12 18.0 224°39	7.4/18.9	18		271273	2003 <i>UG</i> ₁₉₈		12 18.0 12°09	4.3/17.6	17	
11 17	6 16.50	+43 23.8	1.887	2.700	14.3	19.5	11 17	6 5.65	+12 31.5	1.930	2.777	12.7	20.3
11 27	6 8.58	+43 58.2	1.817	2.697	11.6	19.4	11 27	6 0.20	+11 56.5	1.865	2.778	9.4	20.1
12 7	5 57.66	+44 14.8	1.771	2.695	8.9	19.2	12 7	5 52.91	+11 28.9	1.826	2.780	6.2	19.9
12 17	5 44.95	+44 7.8	1.750	2.693	7.5	19.1	12 17	5 44.54	+11 10.5	1.813	2.783	4.3	19.8
12 27	5 32.17	+43 35.2	1.757	2.690	8.2	19.1	12 27	5 36.14	+11 2.9	1.830	2.786	5.8	19.9
1 6	5 21.02	+42 40.3	1.790	2.688	10.5	19.3	1 6	5 28.69	+11 6.3	1.873	2.789	9.0	20.1
1 16	5 12.74	+41 30.1	1.849	2.685	13.4	19.5	1 16	5 23.01	+11 20.1	1.942	2.793	12.2	20.3
1 26	5 8.05	+40 12.8	1.929	2.682	16.0	19.6	1 26	5 19.67	+11 42.7	2.032	2.797	14.9	20.5
50796	2000 <i>FS</i> ₂₅		12 18.0 63°25	0°9/18.0	18		458581	2011 <i>FH</i> ₈		12 18.0 302°85	0°6/17.9	18	
11 17	6 7.62	+25 33.1	2.276	3.123	11.0	18.9	11 17	6 6.67	+21 33.3	2.148	2.999	11.4	21.0
11 27	6 1.52	+25 48.5	2.205	3.125	7.8	18.7	11 27	6 0.99	+21 34.7	2.065	2.987	8.1	20.8
12 7	5 53.59	+26 11.2	2.161	3.127	4.3	18.5	12 7	5 53.39	+21 36.6	2.008	2.975	4.4	20.6
12 17	5 44.57	+26 1.7	2.145	3.128	1.0	18.3	12 17	5 44.60	+21 38.5	1.980	2.963	0.7	20.3
12 27	5 35.47	+26 16.2	2.160	3.130	3.5	18.5	12 27	5 35.61	+21 40.2	1.981	2.952	3.7	20.5
1 6	5 27.25	+26 17.3	2.203	3.132	7.1	18.7	1 6	5 27.45	+21 42.0	2.011	2.940	7.6	20.7
1 16	5 20.75	+26 15.7	2.274	3.133	10.3	18.9	1 16	5 20.99	+21 44.8	2.067	2.929	11.1	20.9
1 26	5 16.52	+26 13.2	2.368	3.135	13.0	19.1	1 26	5 16.86	+21 49.6	2.147	2.918	14.0	21.1
228983	2003 <i>UU</i> ₃₂₂		12 18.0 135°74	0°2/18.0	17		258179	2001 <i>SL</i> ₁₆₆		12 18.0 48°68	2°8/18.2	18	
11 17	6 7.82	+23 39.0	2.520	3.363	10.2	21.4	11 17	6 11.06	+30 19.1	1.737	2.588	13.6	20.9
11 27	6 1.44	+23 46.6	2.453	3.371	7.2	21.2	11 27	6 4.43	+30 38.7	1.677	2.595	9.9	20.7
12 7	5 53.45	+23 53.0	2.413	3.379	3.9	21.0	12 7	5 55.32	+30 51.1	1.640	2.602	5.9	20.5
12 17	5 44.56	+23 57.4	2.402	3.386	0.4	20.7	12 17	5 44.80	+30 53.3	1.631	2.610	2.9	20.3
12 27	5 35.63	+23 59.4	2.423	3.394	3.2	21.0	12 27	5 34.25	+30 44.4	1.650	2.617	4.9	20.5
1 6	5 27.55	+23 59.4	2.474	3.401	6.5	21.2	1 6	5 25.06	+30 26.2	1.697	2.625	8.8	20.7
1 16	5 21.00	+23 58.6	2.552	3.407	9.5	21.4	1 16	5 18.26	+30 2.3	1.770	2.633	12.5	21.0
1 26	5 16.51	+23 58.1	2.655	3.414	12.0	21.6	1 26	5 14.49	+29 36.6	1.863	2.642	15.6	21.2
53704	2000 <i>DN</i> ₁₀₁		12 18.0 302°92	3°0/18.1	18		114360	2002 <i>XS</i> ₈₅		12 18.0 17°96	4°3/18.1	18	
11 17	6 10.53	+15 39.5	1.430	2.289	15.6	19.0	11 17	6 11.82	+30 25.1	1.144	2.016	17.7	19.0
11 27	6 4.38	+15 45.2	1.360	2.283	11.4	18.8	11 27	6 5.96	+31 11.5	1.092	2.020	13.0	18.8
12 7	5 55.46	+15 59.4	1.313	2.277	6.7	18.5	12 7	5 56.53	+31 49.7	1.061	2.025	7.9	18.5
12 17	5 44.76	+16 21.9	1.291	2.271	3.1	18.2	12 17	5 44.93	+32 13.4	1.054	2.031	4.3	18.3
12 27	5 33.78	+16 51.6	1.297	2.265	5.7	18.4	12 27	5 33.22	+32 19.5	1.071	2.039	6.8	18.5
1 6	5 24.06	+17 27.1	1.329	2.260	10.5	18.7	1 6	5 23.48	+32 9.9	1.113	2.047	11.7	18.8
1 16	5 16.85	+18 7.1	1.385	2.254	15.0	18.9	1 16	5 17.15	+31 49.9	1.176	2.056	16.3	19.1
1 26	5 12.95	+18 50.4	1.461	2.249	18.8	19.1	1 26	5 14.99	+31 25.6	1.258	2.065	20.1	19.4
468313	2016 <i>BU</i> ₆₂		12 18.0 316°79	0°9/18.2	18		267278	2001 <i>RO</i> ₁₁₈		12 18.0 140°22	1°1/17.9	18	
11 17	6 8.33	+27 49.0	1.973	2.824	12.2	20.0	11 17	6 13.07	+20 26.7	1.892	2.737	13.0	21.3
11 27	6 2.32	+27 18.6	1.887	2.808	8.8	19.7	11 27	6 5.49	+20 24.5	1.831	2.749	9.2	21.1
12 7	5 54.13	+26 41.2	1.826	2.792	4.9	19.5	12 7	5 55.77	+20 23.4	1.795	2.761	5.1	20.9
12 17	5 44.63	+25 56.4	1.792	2.776	1.0	19.1	12 17	5 44.85	+20 22.8	1.789	2.772	1.2	20.6
12 27	5 34.98	+25 5.8	1.789	2.760	4.0	19.3	12 27	5 33.95	+20 22.5	1.812	2.782	4.2	20.9
1 6	5 26.37	+24 12.6	1.814	2.745	8.1	19.6	1 6	5 24.26	+20 23.1	1.865	2.792	8.3	21.2
1 16	5 19.75	+23 20.4	1.866	2.730	11.9	19.8	1 16	5 16.69	+20 25.8	1.945	2.801	11.9	21.4
1 26	5 15.77	+22 32.9	1.939	2.716	15.2	19.9	1 26	5 11.83	+20 31.3	2.046	2.809	14.9	21.6
226229	2002 <i>VL</i> ₁₃₉		12 18.0 316°37	2°4/17.9	18		179003	2001 <i>RV</i> ₂₁		12 18.0 96°73	0°6/18.1	17	
11 17	6 12.44	+26 2.5	1.365	2.229	15.9	20.0	11 17	6 11.27	+25 20.0	1.987	2.834	12.3	20.9
11 27	6 6.15	+26 55.9	1.295	2.221	11.5	19.7	11 27	6 4.13	+25 20.8	1.932	2.851	8.8	20.7
12 7	5 56.60	+27 48.9	1.247	2.214	6.5	19.4	12 7	5 54.98	+25 18.4	1.903	2.869	4.7	20.5
12 17	5 44.89	+28 35.8	1.225	2.206	2.4	19.1	12 17	5 44.77	+25 11.8	1.903	2.886	0.8	20.2
12 27	5 32.73	+29 12.4	1.230	2.200	5.7	19.3	12 27	5 34.66	+25 1.1	1.933	2.903	3.8	20.5
1 6	5 21.98	+29 37.4	1.261	2.193	10.8	19.6	1 6	5 25.76	+24 47.5	1.992	2.920	7.7	20.8
1 16	5 14.14	+29 52.8	1.316	2.187	15.5	19.8	1 16	5 18.92	+24 33.4	2.077	2.937	11.1	21.0
1 26	5 10.14	+30 2.4	1.389	2.181	19.3	20.1	1 26	5 14.66	+24 20.6	2.185	2.953	13.9	21.2
78626	2002 <i>TQ</i> ₂₁		12 18.0 136°46	0°5/17.9	18		65361	2002 <i>OO</i> ₁₆		12 18.0 76°99	4°7/17.9	18	
11 17	6 14.34	+21 41.4	1.841	2.686	13.3	20.6	11 17	6 5.94	+ 9 3.8	2.221	3.054	11.8	19.9
11 27	6 6.41	+21 46.2	1.782	2.701	9.4	20.4	11 27	6 0.19	+ 8 43.9	2.160	3.062	9.0	19.7
12 7	5 56.25	+21 51.2	1.749	2.715	5.1	20.2	12 7	5 52.83	+ 8 33.6	2.124	3.070	6.2	19.6
12 17	5 44.84	+21 55.0	1.744	2.728	0.7	19.9	12 17	5 44.58	+ 8 34.1	2.116	3.078	4.7	19.5
12 27	5 33.47	+21 57.2	1.770	2.740	4.1	20.2	12 27	5 36.30	+ 8 46.2	2.137	3.086	5.8	19.6
1 6	5 23.40	+21 58.6	1.825	2.752	8.4	20.5	1 6	5 28.87	+ 9 9.1	2.186	3.094	8.4	19.7
1 16	5 15.56	+22 0.4	1.906	2.763	12.1	20.7	1 16	5 23.00	+ 9 41.2	2.262	3.102	11.1	19.9
1 26	5 10.55	+22 4.2	2.010	2.773	15.2	21.0	1 26	5 19.18	+10 20.5	2.360	3.110	13.5	20.1
223954	2004 <i>XK</i> ₇₁		12 18.0 35°79	0°5/18.0	17		206631	2003 <i>WO</i> ₁₆₁		12 18.0 103°81	1°3/18.1	18	
11 17	6 8.28	+24 16.2	2.009	2.861	12.0	20.8	11 17	6 10.75	+18 18.8	1.773	2.624	13.4	20.0
11 27	6 2.16	+24 31.5	1.942	2.864	8.6	20.6	11 27	6 4.07	+18 44.0	1.709	2.630	9.6	19.8
12 7	5 54.00	+24 45.5	1.900	2.867	4.7	20.4	12 7	5 55.11	+19 14.0	1.670	2.635	5.3	19.6
12 17	5 44.64	+24 56.7	1.886	2.870	0.7	20.1	12 17	5 44.80	+19 47.1	1.659	2.641	1.4	19.3
12 27	5 35.19	+25 4.2	1.902	2.873	3.8	20.3	12 27	5 34.37	+20 21.6	1.677	2.647	4.4	19.5
1 6	5 26.75	+25 8.4	1.947	2.877	7.7	20.6	1 6	5 25.06	+20 56.1	1.723	2.653	8.6	19.8
1 16	5 20.23	+25 10.5	2.018	2.881	11.2	20.8	1 16	5 17.88	+21 30.2	1.796	2.658	12.4	20.0
1 26	5 16.23	+25 12.3	2.111	2.885	14.2	21.0	1 26	5 13.49	+22 4.0	1.890	2.663	15.6	20.3
283243	2011 <i>DR</i> ₃		12 18.0 294°44	2°8/17.9	18		480336	2015 <i>KU</i>		12 18.0 228°33	6°8/16.		

EPHEMERIDES

12 18.0

12 18.0

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
265906	2006 <i>BD</i> ₇₂		12 18.0 111°40	2°3/18.1	18		418769	2008 <i>UB</i> ₂₅₄		12 18.0 256°41	2°5/17.7	18	
11 17	6 7.65	+14 59.5	2.414	3.251	10.8	20.9	11 17	6 5.94	+16 28.5	2.473	3.315	10.4	20.7
11 27	6 1.31	+15 7.2	2.353	3.265	7.8	20.7	11 27	6 0.19	+15 56.1	2.393	3.307	7.6	20.5
12 7	5 53.41	+15 20.2	2.319	3.278	4.6	20.5	12 7	5 52.88	+15 26.2	2.339	3.299	4.6	20.3
12 17	5 44.65	+15 38.1	2.314	3.292	2.3	20.4	12 17	5 44.65	+15 0.0	2.315	3.291	2.5	20.2
12 27	5 35.87	+16 0.4	2.340	3.304	4.0	20.5	12 27	5 36.32	+14 38.9	2.321	3.283	4.2	20.3
1 6	5 27.93	+16 26.4	2.396	3.317	7.0	20.7	1 6	5 28.72	+14 23.9	2.356	3.275	7.2	20.5
1 16	5 21.50	+16 55.4	2.479	3.329	9.9	20.9	1 16	5 22.56	+14 15.6	2.419	3.267	10.2	20.6
1 26	5 17.09	+17 26.7	2.586	3.341	12.3	21.1	1 26	5 18.35	+14 14.1	2.505	3.259	12.7	20.8
70948	1999 <i>WW</i> ₁₆		12 18.0 128°99	6°0/18.2	18		85050	6572 <i>P-L</i>		12 18.0 25°82	8°6/18.6	18	
11 17	6 18.09	+39 49.3	2.154	2.967	12.8	20.4	11 17	6 12.48	+36 50.0	0.853	1.732	21.4	18.0
11 27	6 9.32	+40 50.1	2.099	2.983	10.0	20.2	11 27	6 7.10	+38 3.9	0.825	1.750	16.4	17.8
12 7	5 57.96	+41 37.6	2.068	2.999	7.4	20.1	12 7	5 57.30	+38 56.2	0.815	1.770	11.5	17.6
12 17	5 45.09	+42 6.1	2.066	3.015	6.0	20.0	12 17	5 45.06	+39 17.3	0.825	1.792	8.7	17.5
12 27	5 32.15	+42 13.3	2.094	3.029	6.9	20.1	12 27	5 33.22	+39 4.8	0.857	1.816	10.2	17.7
1 6	5 20.60	+42 1.0	2.149	3.043	9.2	20.3	1 6	5 24.28	+38 25.3	0.911	1.841	14.1	18.0
1 16	5 11.55	+41 33.9	2.231	3.056	11.8	20.5	1 16	5 19.69	+37 29.7	0.983	1.867	18.3	18.4
1 26	5 5.66	+40 58.1	2.335	3.069	14.1	20.7	1 26	5 19.88	+36 28.5	1.073	1.895	21.9	18.7
327984	2007 <i>GL</i> ₂₀		12 18.0 76°86	3°1/18.1	17		187502	2006 <i>SG</i> ₃₅₇		12 18.0 28°38	1°0/18.1	17	
11 17	6 10.19	+31 17.0	2.135	2.977	11.8	20.7	11 17	6 9.57	+24 42.0	1.483	2.347	14.8	19.5
11 27	6 3.56	+31 55.1	2.070	2.983	8.7	20.5	11 27	6 3.58	+25 5.9	1.429	2.356	10.6	19.3
12 7	5 54.81	+32 27.0	2.031	2.989	5.4	20.4	12 7	5 54.98	+25 28.3	1.398	2.366	5.8	19.1
12 17	5 44.79	+32 49.3	2.020	2.995	3.1	20.2	12 17	5 44.86	+25 46.4	1.393	2.376	1.1	18.8
12 27	5 34.67	+33 0.4	2.039	3.001	4.7	20.3	12 27	5 34.71	+25 58.7	1.416	2.387	4.7	19.0
1 6	5 25.60	+33 0.8	2.086	3.007	7.9	20.5	1 6	5 26.00	+26 5.8	1.465	2.399	9.4	19.4
1 16	5 18.52	+32 53.1	2.160	3.014	11.0	20.8	1 16	5 19.83	+26 9.4	1.538	2.412	13.5	19.6
1 26	5 14.06	+32 40.5	2.257	3.020	13.7	21.0	1 26	5 16.85	+26 11.8	1.633	2.425	16.9	19.9
446411	2014 <i>JF</i> ₃		12 18.0 121°85	4°6/17.8	18		39251	2000 <i>YL</i> ₉₇		12 18.0 191°08	3°4/18.1	18	
11 17	6 15.10	+33 50.7	1.974	2.807	13.0	21.2	11 17	6 7.00	+12 2.5	2.363	3.198	11.1	19.4
11 27	6 7.31	+34 58.4	1.913	2.818	9.7	21.0	11 27	6 0.98	+12 1.5	2.290	3.197	8.2	19.2
12 7	5 56.94	+35 57.8	1.878	2.828	6.5	20.8	12 7	5 53.33	+12 7.9	2.242	3.196	5.3	19.0
12 17	5 45.00	+36 43.2	1.872	2.838	4.6	20.7	12 17	5 44.70	+12 22.2	2.223	3.195	3.4	18.9
12 27	5 32.88	+37 11.4	1.895	2.848	6.0	20.8	12 27	5 35.97	+12 44.1	2.235	3.193	4.7	19.0
1 6	5 22.00	+37 22.8	1.947	2.857	9.0	21.0	1 6	5 27.99	+13 13.0	2.276	3.192	7.6	19.2
1 16	5 13.50	+37 20.8	2.024	2.866	12.1	21.2	1 16	5 21.49	+13 47.7	2.344	3.190	10.5	19.3
1 26	5 8.09	+37 10.1	2.124	2.875	14.8	21.5	1 26	5 17.03	+14 26.8	2.435	3.188	13.1	19.5
385664	2005 <i>SG</i> ₉₉		12 18.0 101°68	1°5/17.9	18		152433	2005 <i>UO</i> ₄₃₈		12 18.0 199°87	0°0/18.1	18	
11 17	6 12.94	+21 6.4	1.558	2.414	14.7	21.3	11 17	6 12.89	+23 38.7	1.854	2.702	13.1	21.6
11 27	6 5.69	+20 39.8	1.503	2.426	10.5	21.1	11 27	6 5.64	+23 38.6	1.779	2.699	9.3	21.3
12 7	5 55.97	+20 13.2	1.471	2.438	5.8	20.8	12 7	5 56.02	+23 36.8	1.729	2.696	5.1	21.1
12 17	5 44.92	+19 47.1	1.467	2.450	1.5	20.6	12 17	5 44.97	+23 32.0	1.708	2.692	0.5	20.7
12 27	5 33.97	+19 23.0	1.492	2.462	4.8	20.8	12 27	5 33.76	+23 24.0	1.716	2.687	4.2	21.0
1 6	5 24.51	+19 2.8	1.544	2.473	9.4	21.1	1 6	5 23.69	+23 14.0	1.753	2.682	8.6	21.2
1 16	5 17.53	+18 48.4	1.621	2.484	13.5	21.4	1 16	5 15.79	+23 4.0	1.817	2.676	12.5	21.5
1 26	5 13.63	+18 40.8	1.719	2.495	16.8	21.7	1 26	5 10.77	+22 56.1	1.902	2.670	15.7	21.7
101039	1998 <i>QM</i> ₉₇		12 18.0 72°90	8°4/18.2	18		71786	2000 <i>SH</i> ₁₇₈		12 18.0 341°04	4°8/18.4	18	
11 17	6 10.24	+1 57.7	1.709	2.525	15.4	19.4	11 17	6 13.40	+32 53.9	1.172	2.037	17.8	18.7
11 27	6 3.33	+1 7.3	1.674	2.554	12.4	19.3	11 27	6 7.27	+33 18.5	1.108	2.031	13.3	18.4
12 7	5 54.52	+0 35.7	1.662	2.583	9.7	19.2	12 7	5 57.38	+33 30.6	1.065	2.026	8.4	18.2
12 17	5 44.78	+0 26.2	1.676	2.611	8.5	19.2	12 17	5 45.11	+33 24.5	1.046	2.022	4.9	17.9
12 27	5 35.27	+0 39.5	1.717	2.639	9.2	19.3	12 27	5 32.61	+32 58.3	1.051	2.018	7.1	18.1
1 6	5 27.05	+1 13.3	1.784	2.667	11.4	19.5	1 6	5 22.05	+32 15.8	1.081	2.015	12.0	18.3
1 16	5 20.90	+2 3.7	1.874	2.694	13.9	19.7	1 16	5 15.02	+31 24.4	1.133	2.012	16.8	18.6
1 26	5 17.29	+3 5.6	1.985	2.721	16.2	19.9	1 26	5 12.35	+30 31.9	1.203	2.010	20.9	18.8
49201	1998 <i>SH</i> ₁₁₀		12 18.0 274°64	5°2/17.4	18		324565	2006 <i>WD</i> ₁₃₆		12 18.0 125°56	1°2/18.0	18	
11 17	6 10.30	+13 23.4	1.500	2.353	15.3	19.0	11 17	6 16.15	+25 13.7	1.723	2.568	14.0	21.6
11 27	6 4.03	+12 27.8	1.430	2.347	11.4	18.7	11 27	6 7.95	+25 45.2	1.667	2.585	10.0	21.4
12 7	5 55.22	+11 38.7	1.385	2.341	7.5	18.5	12 7	5 57.23	+26 14.2	1.636	2.602	5.5	21.2
12 17	5 44.87	+11 0.0	1.365	2.335	5.2	18.3	12 17	5 45.08	+26 37.4	1.634	2.617	1.3	20.9
12 27	5 34.36	+10 34.8	1.372	2.330	7.2	18.5	12 27	5 32.95	+26 52.9	1.662	2.632	4.4	21.2
1 6	5 25.10	+10 24.6	1.406	2.324	11.2	18.7	1 6	5 22.26	+27 1.4	1.719	2.646	8.8	21.5
1 16	5 18.20	+10 29.3	1.463	2.318	15.2	18.9	1 16	5 14.06	+27 5.0	1.801	2.659	12.6	21.7
1 26	5 14.37	+10 47.1	1.540	2.312	18.6	19.1	1 26	5 8.98	+27 6.6	1.906	2.672	15.8	22.0
272032	2005 <i>ET</i> ₇₈		12 18.0 309°20	4°0/18.3	18		464137	2014 <i>WA</i> ₅₀₆		12 18.0 11°34	1°3/17.9	17	
11 17	6 9.61	+34 59.5	2.246	3.080	11.6	20.3	11 17	6 8.86	+24 10.1	1.834	2.689	12.9	20.2
11 27	6 3.22	+35 31.0	2.171	3.075	8.7	20.1	11 27	6 2.87	+25 6.1	1.768	2.691	9.2	20.0
12 7	5 54.67	+35 53.6	2.121	3.071	5.9	19.9	12 7	5 54.57	+26 2.8	1.728	2.694	5.1	19.8
12 17	5 44.82	+36 4.2	2.099	3.066	4.1	19.8	12 17	5 44.84	+26 56.4	1.715	2.698	1.4	19.5
12 27	5 34.79	+36 1.2	2.106	3.061	5.2	19.9	12 27	5 34.89	+27 43.8	1.731	2.702	4.3	19.7
1 6	5 25.77	+35 45.6	2.141	3.057	8.0	20.0	1 6	5 25.98	+28 23.4	1.776	2.706	8.4	20.0
1 16	5 18.69	+35 20.6	2.203	3.053	11.0	20.2	1 16	5 19.16	+28 55.6	1.847	2.711	12.1	20.2
1 26	5 14.23	+34 50.2	2.288	3.048	13.6	20.4	1 26	5 15.13	+29 22.1	1.940	2.717	15.1	20.4
414358	2008 <i>TL</i> ₉₅		12 18.0 221°22	5°7/16.9	17		403081	2008 <i>CU</i> ₁₉		12 18.0 250°02	5°3/18.7	17	

EPHEMERIDES

12 18.0

12 18.1

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
66899	1999 <i>VV</i> ₁₁₄		12 18.0	18°45'	10°3'/18.5	18	154512	2003 <i>FH</i> ₅₆		12 18.1	214°42'	1°3'/17.9	18
11 17	6 15.86	+44 18.4	1.376	2.206	17.7	17.0	11 17	6 11.65	+20 14.0	1.870	2.718	13.0	21.3
11 27	6 9.11	+45 40.0	1.324	2.210	14.6	16.9	11 27	6 4.74	+20 5.7	1.793	2.712	9.3	21.1
12 7	5 58.40	+46 40.0	1.294	2.216	11.7	16.7	12 7	5 55.56	+19 58.6	1.740	2.706	5.2	20.8
12 17	5 45.21	+47 8.6	1.286	2.222	10.3	16.6	12 17	5 44.98	+19 52.3	1.717	2.699	1.4	20.5
12 27	5 31.87	+47 1.5	1.303	2.229	11.1	16.7	12 27	5 34.22	+19 47.1	1.722	2.692	4.4	20.7
1 6	5 20.69	+46 22.6	1.343	2.237	13.5	16.9	1 6	5 24.50	+19 43.7	1.757	2.684	8.6	21.0
1 16	5 13.32	+45 20.8	1.404	2.246	16.5	17.1	1 16	5 16.85	+19 43.4	1.818	2.676	12.5	21.2
1 26	5 10.48	+44 7.1	1.485	2.255	19.3	17.3	1 26	5 11.95	+19 47.0	1.900	2.668	15.8	21.4
318196	2004 <i>RG</i> ₁₁₉		12 18.0	19°36'	1°3'/17.9	18	278617	2008 <i>QV</i> ₁₀		12 18.1	144°83'	6°6'/17.7	17
11 17	6 7.73	+20 1.4	1.825	2.680	12.9	20.1	11 17	6 5.41	+2 27.3	2.404	3.212	11.8	20.8
11 27	6 1.89	+19 58.1	1.760	2.683	9.2	19.9	11 27	5 59.78	+1 50.3	2.339	3.215	9.5	20.6
12 7	5 53.95	+19 56.8	1.719	2.686	5.1	19.6	12 7	5 52.66	+1 26.1	2.300	3.218	7.5	20.5
12 17	5 44.78	+19 57.1	1.706	2.689	1.3	19.4	12 17	5 44.69	+1 17.4	2.287	3.220	6.6	20.4
12 27	5 35.54	+19 59.2	1.722	2.693	4.2	19.6	12 27	5 36.68	+1 25.2	2.303	3.223	7.3	20.5
1 6	5 27.37	+20 3.2	1.766	2.697	8.3	19.9	1 6	5 29.41	+1 48.9	2.346	3.225	9.2	20.6
1 16	5 21.21	+20 9.9	1.836	2.701	12.1	20.1	1 16	5 23.54	+2 26.5	2.415	3.228	11.4	20.8
1 26	5 17.64	+20 19.7	1.927	2.706	15.2	20.3	1 26	5 19.58	+3 14.9	2.506	3.230	13.5	20.9
241326	2007 <i>VZ</i> ₁₂₆		12 18.0	119°54'	3°7'/18.3	18	386717	2009 <i>WQ</i> ₂₁₇		12 18.1	342°17'	0°3'/18.0	18
11 17	6 14.35	+33 14.7	2.034	2.869	12.6	20.8	11 17	6 9.47	+24 9.2	1.197	2.072	16.8	20.0
11 27	6 6.54	+33 47.3	1.977	2.884	9.3	20.6	11 27	6 4.12	+23 45.0	1.131	2.063	12.1	19.7
12 7	5 56.43	+34 10.8	1.945	2.898	5.9	20.4	12 7	5 55.56	+23 16.9	1.086	2.055	6.6	19.3
12 17	5 45.02	+34 21.8	1.941	2.913	3.7	20.3	12 17	5 44.99	+22 44.8	1.065	2.049	0.7	18.9
12 27	5 33.64	+34 18.9	1.967	2.926	5.1	20.4	12 27	5 34.21	+22 10.6	1.069	2.043	5.5	19.2
1 6	5 23.55	+34 3.8	2.022	2.940	8.3	20.6	1 6	5 25.05	+21 37.5	1.099	2.038	11.2	19.5
1 16	5 15.74	+33 40.2	2.103	2.952	11.4	20.9	1 16	5 18.89	+21 9.4	1.150	2.034	16.3	19.8
1 26	5 10.80	+33 12.6	2.207	2.965	14.1	21.1	1 26	5 16.52	+20 49.0	1.220	2.031	20.5	20.1
373061	2011 <i>FV</i> ₂₇		12 18.0	283°87'	5°1'/18.4	18	271833	2004 <i>TG</i> ₁₇₃		12 18.1	136°01'	16°2'/18.0	17
11 17	6 11.38	+38 29.6	2.290	3.113	11.8	20.8	11 17	6 34.48	+53 3.7	1.221	2.012	21.8	20.4
11 27	6 4.64	+38 59.6	2.201	3.094	9.2	20.6	11 27	6 24.58	+55 31.8	1.178	2.020	19.2	20.3
12 7	5 55.55	+39 18.4	2.136	3.075	6.6	20.4	12 7	6 7.84	+57 27.7	1.154	2.027	17.1	20.2
12 17	5 44.95	+39 22.1	2.098	3.056	5.1	20.3	12 17	5 46.23	+58 32.5	1.150	2.034	16.2	20.1
12 27	5 34.06	+39 8.8	2.090	3.037	6.0	20.3	12 27	5 23.89	+58 36.4	1.167	2.041	16.8	20.2
1 6	5 24.15	+38 39.6	2.110	3.018	8.6	20.4	1 6	5 5.34	+57 45.7	1.205	2.047	18.6	20.3
1 16	5 16.28	+37 58.5	2.157	2.999	11.5	20.6	1 16	4 53.38	+56 17.1	1.260	2.053	20.9	20.5
1 26	5 11.21	+37 10.6	2.225	2.979	14.1	20.7	1 26	4 48.73	+54 29.8	1.332	2.057	23.2	20.7
43443	2000 <i>YY</i> ₆₂		12 18.0	47°56'	2°7'/18.2	18	490221	2008 <i>VU</i> ₃₃		12 18.1	120°04'	3°6'/17.6	17
11 17	6 12.04	+16 29.6	1.242	2.107	17.0	18.4	11 17	6 5.68	+12 14.2	2.521	3.356	10.5	21.7
11 27	6 5.62	+16 42.9	1.188	2.114	12.3	18.1	11 27	5 59.90	+11 42.0	2.457	3.363	7.8	21.5
12 7	5 56.21	+17 4.8	1.156	2.122	7.1	17.9	12 7	5 52.70	+11 15.5	2.418	3.370	5.1	21.4
12 17	5 45.01	+17 34.0	1.148	2.130	2.7	17.6	12 17	5 44.70	+10 56.4	2.409	3.376	3.6	21.3
12 27	5 33.74	+18 8.8	1.168	2.138	5.8	17.8	12 27	5 36.70	+10 45.6	2.430	3.383	4.8	21.4
1 6	5 24.08	+18 47.3	1.212	2.146	10.9	18.2	1 6	5 29.46	+10 43.6	2.480	3.389	7.4	21.6
1 16	5 17.29	+19 28.1	1.280	2.155	15.6	18.5	1 16	5 23.60	+10 49.9	2.556	3.396	10.0	21.7
1 26	5 14.10	+20 10.3	1.367	2.164	19.4	18.7	1 26	5 19.61	+11 3.7	2.656	3.402	12.3	21.9
322045	2010 <i>VD</i> ₅₅		12 18.1	142°20'	0°8'/18.0	18	445620	2011 <i>SY</i> ₁₈₁		12 18.1	183°48'	5°8'/18.3	18
11 17	6 15.45	+21 7.4	1.677	2.525	14.2	21.5	11 17	6 16.01	+39 41.1	2.171	2.987	12.6	21.5
11 27	6 7.44	+21 9.3	1.618	2.537	10.1	21.3	11 27	6 7.98	+40 29.4	2.100	2.987	9.9	21.3
12 7	5 56.96	+21 11.9	1.583	2.549	5.5	21.1	12 7	5 57.37	+41 5.0	2.054	2.987	7.3	21.2
12 17	5 45.08	+21 14.0	1.576	2.560	1.0	20.8	12 17	5 45.18	+41 22.8	2.036	2.987	5.9	21.1
12 27	5 33.22	+21 15.3	1.599	2.570	4.5	21.1	12 27	5 32.79	+41 20.5	2.047	2.986	6.8	21.1
1 6	5 22.77	+21 16.5	1.651	2.579	9.0	21.4	1 6	5 21.63	+40 59.5	2.086	2.984	9.2	21.3
1 16	5 14.75	+21 19.0	1.729	2.588	13.0	21.6	1 16	5 12.86	+40 24.5	2.151	2.982	11.9	21.5
1 26	5 9.80	+21 24.2	1.828	2.595	16.3	21.9	1 26	5 7.17	+39 41.4	2.238	2.980	14.4	21.6
239189	2006 <i>KR</i> ₁₀₃		12 18.1	288°49'	0°6'/18.1	18	185148	2006 <i>SJ</i> ₁₆₀		12 18.1	275°23'	3°7'/17.9	18
11 17	6 7.24	+20 16.2	2.293	3.139	10.9	20.4	11 17	6 14.62	+29 44.3	1.412	2.268	15.9	20.1
11 27	6 1.32	+20 37.7	2.215	3.134	7.8	20.2	11 27	6 7.76	+30 34.6	1.342	2.263	11.7	19.8
12 7	5 53.60	+21 1.6	2.164	3.129	4.3	19.9	12 7	5 57.57	+31 19.4	1.296	2.258	7.1	19.6
12 17	5 44.78	+21 26.6	2.141	3.125	0.7	19.7	12 17	5 45.21	+31 52.7	1.275	2.253	3.8	19.3
12 27	5 35.76	+21 51.5	2.149	3.120	3.5	19.9	12 27	5 32.47	+32 10.5	1.282	2.248	6.2	19.5
1 6	5 27.53	+22 15.8	2.187	3.115	7.1	20.1	1 6	5 21.23	+32 13.4	1.314	2.242	10.9	19.7
1 16	5 20.90	+22 39.4	2.252	3.111	10.4	20.3	1 16	5 13.01	+32 5.1	1.371	2.237	15.3	20.0
1 26	5 16.46	+23 2.8	2.340	3.106	13.2	20.5	1 26	5 8.67	+31 51.1	1.447	2.232	19.0	20.2
469830	2005 <i>SM</i> ₂₃₅		12 18.1	49°16'	1°6'/17.9	18	332267	2006 <i>RO</i> ₁₂₀		12 18.1	155°65'	0°6'/18.1	18
11 17	6 12.49	+20 32.0	1.200	2.070	17.2	20.6	11 17	6 13.76	+24 25.8	1.460	2.318	15.3	21.3
11 27	6 5.74	+20 19.5	1.161	2.090	12.2	20.4	11 27	6 6.73	+24 37.1	1.395	2.320	11.0	21.0
12 7	5 56.11	+20 9.3	1.144	2.112	6.7	20.1	12 7	5 56.81	+24 46.4	1.354	2.322	6.0	20.8
12 17	5 45.00	+20 1.1	1.151	2.134	1.7	19.9	12 17	5 45.13	+24 51.4	1.339	2.323	0.9	20.4
12 27	5 34.17	+19 55.3	1.185	2.157	5.4	20.2	12 27	5 33.32	+24 51.1	1.353	2.325	4.9	20.7
1 6	5 25.22	+19 53.1	1.244	2.179	10.6	20.5	1 6	5 23.00	+24 46.6	1.393	2.326	9.9	21.0
1 16	5 19.25	+19 55.4	1.326	2.203	15.0	20.9	1 16	5 15.41	+24 40.5	1.458	2.327	14.4	21.3
1 26	5 16.79	+20 2.9	1.428	2.226	18.6	21.2	1 26	5 11.28	+24 35.5	1.543	2.328	18.0	21.5
25525	1999 <i>XM</i> ₁₁₃		12 18.1	145°59'	4°6'/18.8	18	452603	2005 <i>NN</i> ₃₁		12 18.1			

EPHEMERIDES

12 18.1

12 18.1

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
197990	2004 <i>RT</i> ₁₅₆		12 18.1	56°11	2.4/18.3	18	457461	2008 <i>UD</i> ₁₈₁		12 18.1	247°94	3°0/18.1	18
11 17	6 13.74	+29 14.0	1.386	2.245	15.9	20.2	11 17	6 9.27	+31 40.7	2.407	3.244	10.8	21.2
11 27	6 6.62	+29 19.0	1.338	2.262	11.5	20.0	11 27	6 2.88	+32 16.8	2.330	3.240	8.0	21.1
12 7	5 56.63	+29 15.8	1.313	2.279	6.6	19.8	12 7	5 54.52	+32 47.3	2.280	3.236	5.0	20.9
12 17	5 45.10	+29 2.1	1.315	2.296	2.5	19.6	12 17	5 44.96	+33 9.1	2.258	3.232	3.0	20.7
12 27	5 33.78	+28 37.9	1.343	2.313	5.2	19.8	12 27	5 35.20	+33 20.6	2.267	3.228	4.4	20.8
1 6	5 24.26	+28 6.6	1.398	2.331	9.9	20.1	1 6	5 26.31	+33 22.0	2.305	3.224	7.3	21.0
1 16	5 17.67	+27 32.9	1.477	2.349	14.0	20.4	1 16	5 19.15	+33 15.5	2.370	3.220	10.3	21.2
1 26	5 14.57	+27 1.0	1.576	2.367	17.5	20.7	1 26	5 14.36	+33 4.0	2.458	3.216	12.8	21.3
265277	2004 <i>FD</i> ₅₂		12 18.1	287°76	4°0/17.9	18	89519	2001 <i>XV</i> ₆₂		12 18.1	61°77	1°5/18.1	18
11 17	6 10.37	+14 59.5	1.443	2.301	15.5	20.3	11 17	6 12.57	+19 35.3	1.382	2.243	15.9	18.6
11 27	6 4.40	+14 37.3	1.365	2.286	11.5	20.0	11 27	6 5.64	+19 39.2	1.337	2.262	11.3	18.4
12 7	5 55.64	+14 22.3	1.309	2.271	7.1	19.7	12 7	5 56.08	+19 46.5	1.315	2.282	6.2	18.2
12 17	5 45.04	+14 15.9	1.279	2.256	4.0	19.5	12 17	5 45.10	+19 55.9	1.320	2.303	1.6	17.9
12 27	5 34.05	+14 19.5	1.276	2.241	6.4	19.6	12 27	5 34.29	+20 7.0	1.352	2.323	5.0	18.2
1 6	5 24.22	+14 33.3	1.299	2.226	11.1	19.8	1 6	5 25.11	+20 19.6	1.410	2.343	9.8	18.5
1 16	5 16.84	+14 56.8	1.345	2.211	15.6	20.0	1 16	5 18.61	+20 34.3	1.493	2.364	14.0	18.8
1 26	5 12.77	+15 28.5	1.411	2.196	19.4	20.2	1 26	5 15.36	+20 51.6	1.596	2.384	17.4	19.1
149864	2005 <i>QE</i> ₈₃		12 18.1	81°51	0°9/18.0	18	31513	Lafazan		12 18.1	53°53	2°0/18.2	18
11 17	6 13.43	+21 43.4	1.446	2.305	15.4	20.2	11 17	6 12.00	+17 11.7	1.340	2.201	16.2	18.5
11 27	6 6.20	+21 34.8	1.396	2.321	11.0	19.9	11 27	6 5.41	+17 35.3	1.290	2.215	11.7	18.3
12 7	5 56.35	+21 26.3	1.369	2.337	6.0	19.7	12 7	5 56.06	+18 6.3	1.263	2.229	6.6	18.0
12 17	5 45.08	+21 17.4	1.369	2.353	1.0	19.4	12 17	5 45.11	+18 42.6	1.261	2.243	2.1	17.8
12 27	5 33.95	+21 8.4	1.397	2.369	4.8	19.7	12 27	5 34.18	+19 22.0	1.287	2.258	5.3	18.0
1 6	5 24.43	+21 0.8	1.452	2.385	9.6	20.0	1 6	5 24.80	+20 2.5	1.339	2.272	10.2	18.4
1 16	5 17.57	+20 56.1	1.532	2.400	13.9	20.3	1 16	5 18.14	+20 43.0	1.415	2.287	14.5	18.7
1 26	5 13.95	+20 55.8	1.632	2.416	17.3	20.6	1 26	5 14.83	+21 23.3	1.511	2.303	18.1	18.9
472265	2014 <i>SR</i> ₃₀₃		12 18.1	31°15	0°3/18.1	17	117719	2005 <i>GL</i> ₇		12 18.1	206°40	3°5/18.1	18
11 17	5 52.14	+26 21.7	10.750	11.587	2.7	22.0	11 17	6 12.41	+14 32.3	1.596	2.444	14.8	19.9
11 27	5 49.75	+26 22.9	10.684	11.599	1.9	21.9	11 27	6 5.54	+14 25.8	1.525	2.441	10.9	19.6
12 7	5 47.05	+26 23.4	10.647	11.611	1.0	21.8	12 7	5 56.13	+14 27.2	1.478	2.438	6.6	19.4
12 17	5 44.19	+26 23.1	10.641	11.624	0.3	21.7	12 17	5 45.13	+14 36.9	1.457	2.434	3.6	19.2
12 27	5 41.32	+26 22.1	10.667	11.636	0.8	21.8	12 27	5 33.92	+14 55.0	1.465	2.430	5.8	19.3
1 6	5 38.60	+26 20.5	10.723	11.649	1.7	21.9	1 6	5 23.89	+15 20.6	1.501	2.425	10.1	19.6
1 16	5 36.16	+26 18.3	10.809	11.661	2.5	22.0	1 16	5 16.17	+15 52.7	1.561	2.420	14.2	19.8
1 26	5 34.14	+26 15.9	10.922	11.674	3.2	22.0	1 26	5 11.51	+16 30.1	1.642	2.415	17.6	20.0
25516	Davidknight		12 18.1	67°79	0°6/18.1	18	283622	2002 <i>CQ</i> ₁₇₅		12 18.1	282°10	0°9/18.1	18
11 17	6 14.95	+23 45.7	1.298	2.160	16.6	18.2	11 17	6 11.21	+19 41.0	1.594	2.450	14.4	20.4
11 27	6 7.52	+24 8.8	1.254	2.181	11.8	18.0	11 27	6 4.83	+20 5.2	1.521	2.444	10.4	20.1
12 7	5 57.15	+24 30.7	1.234	2.202	6.4	17.8	12 7	5 55.82	+20 33.9	1.471	2.438	5.7	19.8
12 17	5 45.19	+24 48.3	1.239	2.223	0.9	17.4	12 17	5 45.11	+21 5.0	1.448	2.431	1.1	19.5
12 27	5 33.42	+24 59.9	1.272	2.244	5.0	17.8	12 27	5 34.08	+21 36.5	1.453	2.425	4.7	19.7
1 6	5 23.49	+25 6.5	1.331	2.265	10.1	18.1	1 6	5 24.21	+22 7.3	1.487	2.419	9.5	20.0
1 16	5 16.57	+25 10.3	1.414	2.286	14.5	18.5	1 16	5 16.69	+22 37.2	1.545	2.412	13.8	20.2
1 26	5 13.24	+25 13.9	1.517	2.307	18.1	18.8	1 26	5 12.30	+23 6.7	1.624	2.406	17.4	20.5
460865	2014 <i>WL</i> ₁₂₇		12 18.1	130°93	1°7/18.2	17	89135	2001 <i>UB</i> ₁₆		12 18.1	155°35	0°3/18.1	18
11 17	6 8.47	+29 11.3	2.657	3.494	9.9	21.6	11 17	6 12.70	+21 49.5	1.805	2.654	13.3	19.6
11 27	6 1.96	+29 20.9	2.590	3.503	7.1	21.4	11 27	6 5.52	+22 1.5	1.739	2.659	9.5	19.4
12 7	5 53.87	+29 25.7	2.551	3.512	4.1	21.2	12 7	5 56.02	+22 14.2	1.698	2.664	5.2	19.1
12 17	5 44.88	+29 24.3	2.541	3.521	1.7	21.1	12 17	5 45.14	+22 25.9	1.685	2.669	0.6	18.8
12 27	5 35.87	+29 16.5	2.562	3.529	3.4	21.2	12 27	5 34.16	+22 35.8	1.702	2.673	4.2	19.1
1 6	5 27.72	+29 3.2	2.613	3.537	6.3	21.4	1 6	5 24.36	+22 44.1	1.748	2.677	8.5	19.3
1 16	5 21.12	+28 46.3	2.692	3.545	9.1	21.6	1 16	5 16.76	+22 51.8	1.819	2.680	12.4	19.6
1 26	5 16.58	+28 28.1	2.795	3.552	11.5	21.8	1 26	5 12.01	+23 0.4	1.913	2.683	15.6	19.8
220063	2002 <i>RF</i> ₁₄₄		12 18.1	29°29	0°5/18.1	18	382610	2002 <i>LJ</i> ₃₀		12 18.1	228°08	3°2/18.2	18
11 17	6 11.19	+25 37.1	1.027	1.908	18.5	19.4	11 17	6 10.24	+13 55.6	1.880	2.722	13.1	20.6
11 27	6 5.36	+25 20.3	0.985	1.920	13.2	19.2	11 27	6 3.75	+14 1.1	1.803	2.716	9.7	20.4
12 7	5 56.14	+24 58.5	0.963	1.934	7.2	18.9	12 7	5 55.09	+14 14.7	1.751	2.710	5.9	20.1
12 17	5 45.09	+24 31.0	0.965	1.949	0.9	18.5	12 17	5 45.05	+14 36.2	1.727	2.704	3.2	20.0
12 27	5 34.29	+23 59.5	0.991	1.965	5.6	18.9	12 27	5 34.78	+15 5.0	1.733	2.697	5.1	20.1
1 6	5 25.62	+23 27.8	1.041	1.982	11.4	19.3	1 6	5 25.46	+15 40.1	1.767	2.690	8.9	20.3
1 16	5 20.32	+23 0.0	1.112	2.000	16.3	19.6	1 16	5 18.06	+16 20.0	1.827	2.682	12.6	20.5
1 26	5 18.95	+22 38.8	1.202	2.019	20.3	19.9	1 26	5 13.29	+17 3.5	1.909	2.675	15.7	20.7
333035	2011 <i>SX</i> ₉₀		12 18.1	145°01	0°3/18.1	18	383426	2006 <i>UO</i> ₃₄₆		12 18.1	352°02	1°8/17.9	18
11 17	6 11.07	+22 56.9	1.952	2.801	12.5	21.5	11 17	6 12.89	+24 42.0	1.291	2.157	16.4	21.0
11 27	6 4.17	+22 51.2	1.886	2.806	8.9	21.3	11 27	6 6.58	+25 33.2	1.227	2.155	11.9	20.7
12 7	5 55.19	+22 44.3	1.846	2.812	4.8	21.1	12 7	5 56.99	+26 25.1	1.186	2.154	6.6	20.4
12 17	5 45.01	+22 35.6	1.833	2.817	0.5	20.8	12 17	5 45.26	+27 12.3	1.170	2.152	1.9	20.1
12 27	5 34.80	+22 25.2	1.851	2.822	3.9	21.1	12 27	5 33.19	+27 50.5	1.180	2.151	5.5	20.4
1 6	5 25.71	+22 14.3	1.898	2.827	8.0	21.3	1 6	5 22.65	+28 18.5	1.216	2.151	10.9	20.7
1 16	5 18.63	+22 4.5	1.971	2.831	11.6	21.5	1 16	5 15.13	+28 38.1	1.276	2.151	15.6	20.9
1 26	5 14.18	+21 57.6	2.067	2.835	14.6	21.8	1 26	5 11.48	+28 52.5	1.355	2.151	19.5	21.2
241460	2008 <i>YH</i> ₁₅₁		12 18.1	110°88	0°2/18.1	18	112784	2002 <i>PD</i> ₁₆₁		12 18.1	318°71		

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
127087	2002 <i>GJ</i> ₇₄		12 18.1 238°68	0°0/18.1 18			61131	2000 <i>NN</i> ₁		12 18.1 56°54	4°1/18.1 18		
11 17	6 8.41	+23 12.3	2.228	3.075	11.2	20.2	11 17	6 10.78	+13 34.0	1.409	2.265	15.9	18.4
11 27	6 2.24	+23 19.8	2.151	3.071	8.0	20.0	11 27	6 4.39	+13 24.5	1.359	2.278	11.7	18.2
12 7	5 54.18	+23 26.8	2.099	3.066	4.3	19.7	12 7	5 55.47	+13 24.9	1.331	2.292	7.2	18.0
12 17	5 44.98	+23 32.0	2.077	3.061	0.4	19.4	12 17	5 45.14	+13 36.0	1.330	2.305	4.2	17.8
12 27	5 35.63	+23 35.0	2.084	3.056	3.5	19.7	12 27	5 34.85	+13 57.5	1.355	2.319	6.2	18.0
1 6	5 27.13	+23 36.3	2.121	3.050	7.3	19.9	1 6	5 26.02	+14 28.0	1.406	2.333	10.4	18.2
1 16	5 20.34	+23 36.8	2.185	3.045	10.6	20.1	1 16	5 19.67	+15 5.6	1.482	2.347	14.4	18.5
1 26	5 15.87	+23 38.0	2.273	3.040	13.5	20.3	1 26	5 16.44	+15 48.3	1.577	2.362	17.7	18.8
384700	2011 <i>HV</i> ₁₁		12 18.1 236°34	0°5/18.1 18			288442	2004 <i>ES</i> ₄₅		12 18.1 356°51	2°0/17.9 16		
11 17	6 12.38	+21 55.8	1.757	2.607	13.5	21.8	11 17	6 4.94	+18 26.2	1.662	2.525	13.5	20.5
11 27	6 5.53	+22 0.7	1.676	2.598	9.7	21.5	11 27	6 0.18	+18 16.5	1.594	2.521	9.7	20.3
12 7	5 56.16	+22 6.0	1.621	2.587	5.3	21.3	12 7	5 53.22	+18 10.4	1.550	2.517	5.6	20.0
12 17	5 45.19	+22 10.4	1.593	2.577	0.7	20.9	12 17	5 44.93	+18 8.5	1.532	2.514	2.1	19.8
12 27	5 33.93	+22 13.3	1.594	2.566	4.4	21.1	12 27	5 36.49	+18 11.1	1.542	2.512	4.7	19.9
1 6	5 23.75	+22 15.3	1.624	2.554	9.0	21.4	1 6	5 29.12	+18 18.3	1.579	2.511	9.0	20.2
1 16	5 15.78	+22 17.6	1.680	2.542	13.1	21.6	1 16	5 23.79	+18 30.3	1.640	2.512	12.9	20.4
1 26	5 10.80	+22 21.9	1.757	2.530	16.6	21.8	1 26	5 21.16	+18 46.9	1.722	2.513	16.2	20.7
70946	1999 <i>WD</i> ₁₀		12 18.1 320°51	0°4/18.1 18			350322	2012 <i>UA</i> ₆₆		12 18.1 17°42	1°4/18.0 18		
11 17	6 9.09	+23 23.6	1.478	2.342	14.8	18.1	11 17	6 10.41	+20 29.7	1.444	2.307	15.2	21.4
11 27	6 3.66	+23 43.4	1.397	2.325	10.7	17.8	11 27	6 4.30	+20 19.1	1.382	2.308	10.9	21.1
12 7	5 55.35	+24 3.9	1.340	2.308	5.9	17.5	12 7	5 55.52	+20 10.2	1.343	2.310	6.0	20.8
12 17	5 45.13	+24 22.7	1.308	2.292	0.7	17.1	12 17	5 45.16	+20 2.8	1.330	2.313	1.5	20.5
12 27	5 34.45	+24 38.0	1.304	2.276	4.8	17.4	12 27	5 34.70	+19 57.3	1.344	2.315	5.0	20.8
1 6	5 24.93	+24 49.6	1.326	2.261	10.0	17.6	1 6	5 25.64	+19 54.7	1.385	2.318	9.9	21.1
1 16	5 17.90	+24 58.7	1.372	2.247	14.7	17.9	1 16	5 19.11	+19 56.1	1.450	2.322	14.3	21.3
1 26	5 14.26	+25 7.4	1.437	2.234	18.6	18.1	1 26	5 15.81	+20 2.2	1.535	2.325	17.9	21.6
38400	1999 <i>RX</i> ₁₉₆		12 18.1 123°08	4°1/17.6 18			485680	2011 <i>WN</i> ₁₂₁		12 18.1 5°13	2°1/18.1 17		
11 17	6 7.80	+11 15.9	2.438	3.268	10.9	19.1	11 17	6 11.07	+27 35.8	1.709	2.563	13.7	21.7
11 27	6 1.41	+10 35.0	2.380	3.282	8.2	18.9	11 27	6 4.66	+28 4.3	1.642	2.563	9.9	21.5
12 7	5 53.56	+10 0.7	2.348	3.296	5.5	18.8	12 7	5 55.70	+28 28.9	1.598	2.563	5.7	21.2
12 17	5 44.92	+9 34.7	2.345	3.309	4.1	18.7	12 17	5 45.18	+28 46.4	1.582	2.563	2.1	21.0
12 27	5 36.33	+9 18.5	2.373	3.322	5.2	18.8	12 27	5 34.49	+28 54.9	1.594	2.564	4.7	21.2
1 6	5 28.59	+9 12.4	2.430	3.335	7.8	19.0	1 6	5 25.04	+28 55.1	1.634	2.564	8.9	21.4
1 16	5 22.33	+9 16.2	2.514	3.347	10.3	19.2	1 16	5 17.93	+28 49.5	1.700	2.565	12.8	21.7
1 26	5 18.02	+9 28.5	2.620	3.359	12.6	19.4	1 26	5 13.89	+28 41.3	1.786	2.566	16.1	21.9
192590	1999 <i>BW</i> ₁₁		12 18.1 266°22	2°6/18.3 18			48272	2002 <i>CM</i> ₁₃₉		12 18.1 211°14	2°6/17.9 18		
11 17	6 13.38	+29 43.7	1.680	2.529	14.1	20.6	11 17	6 7.77	+16 28.6	2.126	2.971	11.7	19.7
11 27	6 6.52	+29 55.4	1.596	2.515	10.3	20.4	11 27	6 1.75	+16 7.2	2.054	2.970	8.5	19.5
12 7	5 56.81	+30 0.0	1.537	2.500	6.1	20.1	12 7	5 53.91	+15 49.6	2.007	2.969	5.1	19.3
12 17	5 45.27	+29 54.3	1.504	2.484	2.6	19.8	12 17	5 45.00	+15 36.5	1.989	2.967	2.6	19.1
12 27	5 33.37	+29 37.1	1.500	2.469	5.1	20.0	12 27	5 36.00	+15 28.8	2.001	2.965	4.5	19.3
1 6	5 22.71	+29 10.1	1.524	2.453	9.6	20.2	1 6	5 27.89	+15 27.1	2.041	2.964	7.9	19.5
1 16	5 14.55	+28 37.7	1.573	2.437	13.8	20.4	1 16	5 21.47	+15 31.6	2.108	2.962	11.2	19.7
1 26	5 9.73	+28 4.4	1.643	2.421	17.4	20.6	1 26	5 17.32	+15 42.1	2.197	2.960	14.0	19.9
395904	2013 <i>AD</i> ₇₄		12 18.1 24°57	6°7/18.2 18			452020	2014 <i>OG</i> ₁₂₀		12 18.1 174°06	2°1/18.2 17		
11 17	6 12.77	+35 22.1	1.228	2.089	17.5	19.5	11 17	6 11.06	+29 6.4	2.012	2.857	12.3	21.7
11 27	6 6.69	+36 30.6	1.182	2.099	13.3	19.2	11 27	6 4.34	+29 23.1	1.942	2.858	8.9	21.5
12 7	5 57.05	+37 25.4	1.157	2.110	9.2	19.1	12 7	5 55.41	+29 34.2	1.896	2.859	5.2	21.3
12 17	5 45.29	+37 58.6	1.156	2.123	6.7	19.0	12 17	5 45.15	+29 37.5	1.879	2.859	2.2	21.1
12 27	5 33.49	+38 6.5	1.180	2.136	8.3	19.1	12 27	5 34.79	+29 32.0	1.891	2.859	4.3	21.2
1 6	5 23.70	+37 51.8	1.228	2.151	12.0	19.3	1 6	5 25.52	+29 18.9	1.933	2.859	8.0	21.5
1 16	5 17.36	+37 21.3	1.298	2.166	15.9	19.6	1 16	5 18.32	+29 0.9	2.000	2.859	11.5	21.7
1 26	5 15.15	+36 42.7	1.387	2.183	19.2	19.9	1 26	5 13.82	+28 41.2	2.090	2.859	14.4	21.9
485741	2012 <i>BS</i> ₈₈		12 18.1 205°11	4°6/18.6 18			189261	<i>Hiroo</i>		12 18.1 52°56	1°4/17.9 18		
11 17	6 13.10	+38 45.1	2.538	3.353	11.0	21.4	11 17	6 14.31	+24 26.5	1.789	2.636	13.5	18.5
11 27	6 5.59	+39 7.0	2.459	3.348	8.5	21.3	11 27	6 6.46	+25 27.9	1.756	2.674	9.5	18.4
12 7	5 56.01	+39 17.7	2.405	3.343	6.1	21.1	12 7	5 56.42	+26 27.1	1.748	2.713	5.2	18.2
12 17	5 45.19	+39 13.9	2.381	3.338	4.6	21.0	12 17	5 45.25	+27 20.0	1.770	2.752	1.5	18.0
12 27	5 34.25	+38 54.5	2.386	3.332	5.5	21.0	12 27	5 34.27	+28 3.7	1.821	2.791	4.2	18.3
1 6	5 24.34	+38 21.2	2.420	3.325	7.8	21.2	1 6	5 24.73	+28 37.8	1.902	2.829	8.1	18.6
1 16	5 16.36	+37 37.8	2.482	3.319	10.3	21.3	1 16	5 17.52	+29 3.7	2.009	2.867	11.5	18.9
1 26	5 10.93	+36 49.0	2.567	3.311	12.7	21.5	1 26	5 13.15	+29 23.9	2.139	2.905	14.2	19.2
141183	2001 <i>XP</i> ₁₇₁		12 18.1 63°84	0°7/18.1 18			517291	2014 <i>HK</i> ₇		12 18.1 162°36	2°2/18.0 18		
11 17	6 9.10	+21 9.9	1.897	2.749	12.6	20.1	11 17	6 10.35	+17 8.7	1.966	2.811	12.5	22.1
11 27	6 2.87	+21 13.3	1.832	2.754	9.0	19.9	11 27	6 3.68	+17 2.8	1.898	2.814	9.1	21.8
12 7	5 54.56	+21 17.7	1.793	2.760	4.9	19.7	12 7	5 55.00	+17 1.1	1.855	2.818	5.2	21.6
12 17	5 45.05	+21 22.3	1.782	2.765	0.9	19.4	12 17	5 45.12	+17 3.4	1.841	2.821	2.2	21.4
12 27	5 35.47	+21 26.8	1.800	2.771	4.0	19.7	12 27	5 35.16	+17 9.9	1.856	2.823	4.5	21.6
1 6	5 26.97	+21 31.6	1.846	2.776	8.1	19.9	1 6	5 26.21	+17 20.5	1.900	2.825	8.3	21.8
1 16	5 20.44	+21 37.3	1.918	2.782	11.7	20.2	1 16	5 19.17	+17 35.3	1.971	2.827	11.8	22.0
1 26	5 16.50	+21 45.1	2.013	2.788	14.7	20.4	1 26	5 14.63	+17 54.2	2.064	2.828	14.7	22.3
327980	2007 <i>FX</i> ₄₅		12 18.1 39°77	4°7/18.0 18			438538	2007 <i>TW</i> ₁₆₇		12 18.1 106°53	0°6/18.2 15		

EPHEMERIDES

12 18.1

12 18.1

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
46702	Linapucci		12 18.1	0°96	5°2/18.1	18	228791	2002 YQ ₂₉		12 18.1	336°03	0°4/18.1	18
11 17	6 8.35	+13 2.7	1.108	1.980	18.1	18.1	11 17	6 9.35	+21 38.5	1.206	2.080	16.8	19.8
11 27	6 3.34	+12 45.1	1.051	1.977	13.5	17.9	11 27	6 4.21	+21 54.5	1.137	2.069	12.1	19.5
12 7	5 55.22	+12 40.5	1.014	1.976	8.6	17.6	12 7	5 55.81	+22 13.4	1.089	2.059	6.7	19.2
12 17	5 45.16	+12 50.8	1.000	1.976	5.3	17.4	12 17	5 45.27	+22 33.1	1.065	2.049	0.8	18.7
12 27	5 34.91	+13 16.2	1.011	1.977	7.5	17.5	12 27	5 34.31	+22 51.7	1.067	2.041	5.4	19.0
1 6	5 26.23	+13 55.0	1.046	1.979	12.4	17.8	1 6	5 24.80	+23 8.8	1.094	2.033	11.2	19.3
1 16	5 20.48	+14 44.1	1.101	1.982	17.1	18.1	1 16	5 18.24	+23 25.3	1.142	2.026	16.3	19.6
1 26	5 18.43	+15 40.0	1.175	1.986	21.1	18.4	1 26	5 15.53	+23 42.5	1.210	2.021	20.6	19.9
177600	2004 GJ ₅₉		12 18.1	211°55	0°4/18.1	18	42470	1981 EO ₁₆		12 18.1	65°28	5°0/17.7	18
11 17	6 9.53	+21 41.1	2.280	3.124	11.1	21.2	11 17	6 13.85	+14 54.1	1.229	2.090	17.5	18.5
11 27	6 3.01	+21 46.9	2.201	3.119	7.9	20.9	11 27	6 6.59	+13 56.2	1.191	2.112	12.8	18.3
12 7	5 54.62	+21 53.0	2.148	3.113	4.3	20.7	12 7	5 56.63	+13 6.6	1.174	2.135	7.9	18.1
12 17	5 45.10	+21 58.6	2.124	3.107	0.6	20.4	12 17	5 45.32	+12 28.7	1.183	2.158	5.0	18.0
12 27	5 35.40	+22 3.4	2.130	3.101	3.5	20.6	12 27	5 34.34	+12 5.3	1.219	2.180	7.2	18.2
1 6	5 26.54	+22 7.5	2.167	3.094	7.2	20.9	1 6	5 25.20	+11 57.1	1.280	2.203	11.5	18.5
1 16	5 19.36	+22 11.8	2.231	3.087	10.6	21.1	1 16	5 18.93	+12 3.2	1.363	2.226	15.6	18.8
1 26	5 14.45	+22 17.3	2.318	3.080	13.4	21.2	1 26	5 16.03	+12 21.1	1.466	2.249	18.9	19.1
381772	2009 SK ₃₂₆		12 18.1	31°87	5°6/17.8	18	227687	2006 DE ₆		12 18.1	145°08	2°5/18.2	17
11 17	6 14.06	+30 10.6	1.001	1.877	19.3	18.6	11 17	6 7.41	+14 38.2	2.283	3.123	11.2	20.2
11 27	6 7.88	+31 44.7	0.966	1.895	14.1	18.4	11 27	6 1.42	+14 44.7	2.212	3.125	8.2	20.0
12 7	5 57.80	+33 10.3	0.950	1.913	8.9	18.2	12 7	5 53.74	+14 57.2	2.167	3.127	4.9	19.8
12 17	5 45.42	+34 17.2	0.958	1.933	5.6	18.1	12 17	5 45.04	+15 15.5	2.152	3.129	2.6	19.6
12 27	5 33.10	+34 59.3	0.990	1.955	8.0	18.3	12 27	5 36.24	+15 39.3	2.166	3.131	4.2	19.7
1 6	5 23.12	+35 17.8	1.046	1.977	12.6	18.6	1 6	5 28.24	+16 7.6	2.210	3.132	7.4	19.9
1 16	5 16.99	+35 18.4	1.122	2.000	17.0	19.0	1 16	5 21.80	+16 39.5	2.281	3.134	10.5	20.1
1 26	5 15.34	+35 8.6	1.216	2.024	20.7	19.3	1 26	5 17.47	+17 14.4	2.375	3.135	13.2	20.3
202774	2007 TX ₂₁₃		12 18.1	340°93	1°0/18.2	18	500422	2012 TO ₁₃₆		12 18.1	157°07	15°7/15.2	17
11 17	6 10.93	+26 16.2	1.671	2.527	13.9	20.3	11 17	6 15.17	- 3 35.0	1.177	1.991	21.1	21.2
11 27	6 4.53	+26 16.0	1.602	2.525	10.0	20.1	11 27	6 7.86	- 6 15.9	1.133	1.995	18.3	21.0
12 7	5 55.62	+26 11.5	1.557	2.524	5.5	19.8	12 7	5 57.53	- 8 29.2	1.109	1.999	16.3	20.9
12 17	5 45.20	+26 1.2	1.539	2.522	1.2	19.5	12 17	5 45.44	-10 2.0	1.107	2.003	15.7	20.9
12 27	5 34.67	+25 45.1	1.550	2.521	4.4	19.7	12 27	5 33.32	-10 46.4	1.126	2.006	16.9	21.0
1 6	5 25.40	+25 25.0	1.588	2.520	8.9	20.0	1 6	5 22.89	-10 43.0	1.166	2.008	19.1	21.1
1 16	5 18.50	+25 3.8	1.651	2.519	13.0	20.3	1 16	5 15.38	- 9 58.8	1.224	2.010	21.7	21.3
1 26	5 14.63	+24 44.4	1.735	2.519	16.4	20.5	1 26	5 11.51	- 8 44.4	1.296	2.011	24.2	21.5
197958	2004 RA ₉₅		12 18.1	188°64	2°7/18.4	18	216753	2005 QG ₃₁		12 18.1	121°09	0°0/18.1	18
11 17	6 14.57	+31 5.3	1.856	2.697	13.3	20.6	11 17	6 10.61	+23 9.9	2.226	3.069	11.3	21.6
11 27	6 7.00	+31 11.5	1.783	2.697	9.8	20.3	11 27	6 3.68	+23 17.5	2.165	3.083	8.0	21.4
12 7	5 56.91	+31 9.2	1.736	2.696	5.9	20.1	12 7	5 54.93	+23 24.2	2.131	3.097	4.3	21.2
12 17	5 45.33	+30 55.8	1.716	2.694	2.8	19.9	12 17	5 45.17	+23 28.9	2.127	3.110	0.4	20.9
12 27	5 33.66	+30 30.7	1.726	2.693	4.8	20.0	12 27	5 35.43	+23 31.1	2.153	3.124	3.5	21.2
1 6	5 23.30	+29 56.5	1.765	2.690	8.7	20.3	1 6	5 26.69	+23 31.5	2.209	3.136	7.1	21.4
1 16	5 15.32	+29 17.3	1.829	2.688	12.4	20.5	1 16	5 19.74	+23 31.1	2.292	3.148	10.3	21.7
1 26	5 10.40	+28 37.9	1.916	2.685	15.6	20.7	1 26	5 15.11	+23 31.5	2.398	3.160	13.0	21.9
27146	1998 YL ₁		12 18.1	186°45	4°4/18.7	18	487120	2014 OS ₁₇₁		12 18.1	197°38	0°3/18.1	18
11 17	6 14.46	+37 11.5	2.269	3.091	11.9	17.8	11 17	6 10.02	+21 30.0	2.032	2.880	12.1	21.6
11 27	6 6.67	+37 26.4	2.195	3.091	9.1	17.6	11 27	6 3.56	+21 51.0	1.959	2.879	8.6	21.3
12 7	5 56.64	+37 29.7	2.146	3.090	6.2	17.4	12 7	5 55.01	+22 13.5	1.911	2.878	4.7	21.1
12 17	5 45.30	+37 18.1	2.125	3.089	4.4	17.3	12 17	5 45.19	+22 35.8	1.893	2.876	0.5	20.8
12 27	5 33.91	+36 50.9	2.134	3.087	5.4	17.3	12 27	5 35.19	+22 56.6	1.904	2.875	3.8	21.0
1 6	5 23.70	+36 10.3	2.173	3.085	8.1	17.5	1 6	5 26.14	+23 15.5	1.944	2.873	7.8	21.3
1 16	5 15.64	+35 20.9	2.238	3.082	11.0	17.7	1 16	5 18.97	+23 32.9	2.011	2.872	11.4	21.5
1 26	5 10.35	+34 27.8	2.327	3.079	13.6	17.9	1 26	5 14.31	+23 49.9	2.101	2.870	14.4	21.7
329616	2003 OM ₂		12 18.1	136°00	3°6/18.4	18	310171	2011 SU ₁₉		12 18.1	150°44	2°1/18.5	18
11 17	6 18.99	+32 26.2	1.699	2.536	14.5	21.4	11 17	6 14.46	+31 4.8	2.034	2.871	12.5	20.4
11 27	6 10.18	+32 45.9	1.641	2.551	10.7	21.2	11 27	6 6.59	+30 45.2	1.966	2.877	9.1	20.2
12 7	5 58.61	+32 55.1	1.608	2.565	6.6	21.0	12 7	5 56.56	+30 16.5	1.923	2.884	5.3	20.0
12 17	5 45.50	+32 50.1	1.603	2.578	3.6	20.8	12 17	5 45.35	+29 37.5	1.910	2.890	2.2	19.8
12 27	5 32.49	+32 30.0	1.627	2.591	5.5	21.0	12 27	5 34.23	+28 49.3	1.927	2.896	4.2	19.9
1 6	5 21.14	+31 57.9	1.680	2.602	9.3	21.2	1 6	5 24.41	+27 55.4	1.974	2.901	7.9	20.1
1 16	5 12.58	+31 19.0	1.758	2.613	13.0	21.5	1 16	5 16.79	+27 0.2	2.049	2.905	11.4	20.4
1 26	5 7.44	+30 38.9	1.858	2.623	16.1	21.7	1 26	5 11.94	+26 7.8	2.146	2.909	14.3	20.6
72811	2001 GN ₇		12 18.1	279°51	2°5/18.2	18	229270	2005 AZ ₆₀		12 18.1	0°34	3°7/18.3	17
11 17	6 7.26	+14 54.8	2.216	3.058	11.4	19.4	11 17	6 6.76	+11 39.9	2.030	2.871	12.4	19.9
11 27	6 1.42	+15 4.6	2.139	3.053	8.3	19.2	11 27	6 1.14	+11 44.6	1.960	2.870	9.2	19.7
12 7	5 53.78	+15 20.7	2.088	3.048	5.0	18.9	12 7	5 53.66	+11 58.5	1.915	2.870	5.9	19.5
12 17	5 45.04	+15 42.7	2.065	3.043	2.5	18.8	12 17	5 45.07	+12 22.0	1.898	2.870	3.8	19.3
12 27	5 36.12	+16 10.0	2.073	3.038	4.3	18.9	12 27	5 36.34	+12 54.7	1.909	2.870	5.2	19.4
1 6	5 27.99	+16 41.8	2.109	3.033	7.6	19.1	1 6	5 28.47	+13 35.1	1.950	2.870	8.4	19.6
1 16	5 21.44	+17 17.0	2.173	3.028	10.9	19.3	1 16	5 22.30	+14 21.3	2.016	2.871	11.6	19.8
1 26	5 17.08	+17 54.8	2.260	3.024	13.6	19.5	1 26	5 18.41	+15 11.6	2.105	2.872	14.4	20.0
70677	1999 UU		12 18.1	64°35	7°3/17.3	18	300344	2007 RJ ₄₂		12 18.1	175°73	0°9/18.2	18
11 17	6 10.58	+ 8 0.1	1.550	2.390	15.6								

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
307913	2004 DB ₂₀		12 18.1 325°33	1°8/17.8	17		522150	2016 AZ ₂₅₀		12 18.1 183°48	3°5/17.9	18	
11 17	6 9.38	+21 51.6	1.559	2.420	14.4	20.3	11 17	6 5.85	+11 36.2	2.607	3.438	10.3	21.5
11 27	6 3.54	+21 0.6	1.483	2.409	10.4	20.0	11 27	6 0.15	+11 18.7	2.534	3.438	7.7	21.3
12 7	5 55.16	+20 6.5	1.431	2.398	5.8	19.7	12 7	5 53.01	+11 7.6	2.488	3.438	5.1	21.2
12 17	5 45.23	+19 11.4	1.405	2.388	1.8	19.5	12 17	5 45.04	+11 3.9	2.470	3.438	3.5	21.1
12 27	5 35.14	+18 18.3	1.408	2.378	5.1	19.6	12 27	5 36.99	+11 8.2	2.483	3.437	4.7	21.2
1 6	5 26.29	+17 31.1	1.437	2.368	9.8	19.9	1 6	5 29.62	+11 20.4	2.525	3.437	7.2	21.3
1 16	5 19.78	+16 52.9	1.491	2.360	14.2	20.1	1 16	5 23.58	+11 39.8	2.595	3.436	9.8	21.5
1 26	5 16.33	+16 25.3	1.566	2.351	17.8	20.4	1 26	5 19.35	+12 5.4	2.688	3.435	12.1	21.7
363501	2003 UG ₁₀		12 18.1 72°71	7°8/16.5	14 C		519724	2013 CK ₆		12 18.1 266°41	7°1/18.3	18	
11 17	6 8.51	+2 43.3	2.164	2.973	12.9	20.7	11 17	6 8.62	+4 22.7	1.802	2.626	14.4	21.6
11 27	6 2.00	+1 7.5	2.121	2.994	10.5	20.6	11 27	6 2.64	+4 0.1	1.732	2.622	11.5	21.4
12 7	5 53.94	-0 14.7	2.104	3.015	8.5	20.5	12 7	5 54.56	+3 53.4	1.685	2.618	8.7	21.2
12 17	5 45.10	-1 18.7	2.114	3.036	7.8	20.5	12 17	5 45.20	+4 5.2	1.665	2.614	7.2	21.1
12 27	5 36.38	-2 1.4	2.152	3.057	8.6	20.6	12 27	5 35.67	+4 36.3	1.672	2.610	8.1	21.2
1 6	5 28.64	-2 22.5	2.218	3.077	10.5	20.7	1 6	5 27.09	+5 25.0	1.705	2.605	10.8	21.3
1 16	5 22.55	-2 23.6	2.307	3.098	12.6	20.9	1 16	5 20.41	+6 27.8	1.764	2.601	13.8	21.5
1 26	5 18.54	-2 8.2	2.417	3.118	14.5	21.1	1 26	5 16.27	+7 40.4	1.843	2.597	16.6	21.7
454383	2014 MF ₆₁		12 18.1 162°70	4°1/18.8	17		178157	2006 UX ₅		12 18.1 31°95	2°3/18.2	18	
11 17	6 13.92	+37 21.5	2.383	3.203	11.5	20.9	11 17	6 11.31	+28 30.9	1.862	2.711	13.0	20.4
11 27	6 6.15	+37 29.4	2.313	3.208	8.7	20.7	11 27	6 4.73	+29 1.0	1.793	2.711	9.4	20.2
12 7	5 56.33	+37 25.6	2.268	3.212	6.0	20.6	12 7	5 55.76	+29 26.6	1.748	2.711	5.5	19.9
12 17	5 45.35	+37 7.7	2.252	3.216	4.2	20.5	12 17	5 45.33	+29 44.4	1.732	2.712	2.4	19.7
12 27	5 34.39	+36 35.2	2.266	3.219	5.1	20.5	12 27	5 34.72	+29 52.8	1.744	2.712	4.6	19.9
1 6	5 24.61	+35 50.7	2.310	3.222	7.7	20.7	1 6	5 25.26	+29 52.3	1.785	2.713	8.5	20.1
1 16	5 16.86	+34 58.3	2.381	3.225	10.5	20.9	1 16	5 18.00	+29 45.4	1.851	2.713	12.2	20.3
1 26	5 11.74	+34 3.1	2.476	3.227	12.9	21.1	1 26	5 13.63	+29 35.4	1.940	2.713	15.2	20.5
164942	1999 XE ₁₇₀		12 18.1 7°99	2°6/18.1	18		96516	1998 QU ₉₅		12 18.1 100°10	4°6/17.6	18	
11 17	6 8.58	+27 6.0	1.180	2.056	16.9	18.8	11 17	6 7.13	+10 26.3	2.240	3.073	11.7	19.5
11 27	6 3.64	+27 43.6	1.126	2.058	12.2	18.6	11 27	6 1.13	+9 42.6	2.180	3.083	8.8	19.3
12 7	5 55.46	+28 17.6	1.093	2.061	7.0	18.3	12 7	5 53.55	+9 6.6	2.146	3.092	6.1	19.2
12 17	5 45.28	+28 43.4	1.083	2.065	2.6	18.0	12 17	5 45.09	+8 40.4	2.140	3.102	4.6	19.1
12 27	5 34.94	+28 58.1	1.099	2.070	5.8	18.2	12 27	5 36.65	+8 25.7	2.164	3.112	5.8	19.2
1 6	5 26.30	+29 2.4	1.139	2.077	11.0	18.6	1 6	5 29.09	+8 22.8	2.216	3.121	8.4	19.4
1 16	5 20.73	+28 59.5	1.201	2.086	15.6	18.8	1 16	5 23.09	+8 31.0	2.294	3.130	11.1	19.6
1 26	5 18.99	+28 53.2	1.282	2.095	19.5	19.1	1 26	5 19.16	+8 48.7	2.394	3.139	13.5	19.8
404271	2013 EQ ₈₃		12 18.1 296°50	1°9/18.2	17		37039	2000 UX ₂₁		12 18.1 30°19	0°9/18.1	18	
11 17	6 10.86	+27 46.9	1.771	2.624	13.4	21.8	11 17	6 8.65	+20 29.0	1.877	2.730	12.7	19.0
11 27	6 4.53	+28 3.4	1.696	2.616	9.7	21.6	11 27	6 2.65	+20 33.8	1.811	2.733	9.1	18.8
12 7	5 55.70	+28 15.3	1.645	2.609	5.5	21.3	12 7	5 54.54	+20 40.4	1.769	2.736	5.0	18.5
12 17	5 45.31	+28 20.2	1.621	2.602	2.0	21.1	12 17	5 45.20	+20 48.1	1.756	2.739	1.0	18.3
12 27	5 34.68	+28 16.8	1.626	2.596	4.5	21.2	12 27	5 35.76	+20 56.3	1.771	2.742	4.0	18.5
1 6	5 25.20	+28 6.2	1.658	2.589	8.8	21.5	1 6	5 27.37	+21 5.3	1.815	2.746	8.1	18.8
1 16	5 17.98	+27 51.0	1.717	2.582	12.7	21.7	1 16	5 20.94	+21 15.6	1.885	2.750	11.8	19.0
1 26	5 13.76	+27 34.8	1.796	2.576	16.1	21.9	1 26	5 17.10	+21 27.7	1.977	2.754	14.9	19.2
79955	1999 CR ₁₀₄		12 18.1 338°07	7°3/18.1	18		66569	1999 RM ₁₄₅		12 18.1 63°46	7°3/19.5	18	
11 17	6 7.61	+4 3.3	1.818	2.642	14.3	19.0	11 17	6 19.22	+41 45.2	1.526	2.353	16.5	19.0
11 27	6 1.86	+3 34.1	1.751	2.641	11.4	18.8	11 27	6 10.66	+42 6.1	1.483	2.374	12.9	18.8
12 7	5 54.11	+3 20.6	1.708	2.639	8.7	18.7	12 7	5 58.95	+42 6.1	1.461	2.396	9.5	18.6
12 17	5 45.14	+3 25.8	1.691	2.638	7.3	18.6	12 17	5 45.64	+41 40.4	1.465	2.419	7.4	18.6
12 27	5 36.04	+3 50.6	1.701	2.636	8.2	18.6	12 27	5 32.75	+40 49.2	1.495	2.441	8.1	18.7
1 6	5 27.91	+4 33.5	1.738	2.635	10.8	18.8	1 6	5 22.07	+39 38.5	1.552	2.463	10.9	18.9
1 16	5 21.62	+5 31.3	1.798	2.634	13.7	19.0	1 16	5 14.72	+38 17.2	1.633	2.485	14.0	19.1
1 26	5 17.81	+6 39.7	1.880	2.633	16.4	19.2	1 26	5 11.18	+36 54.0	1.735	2.507	16.9	19.4
85722	1998 SX ₆₃		12 18.1 12°94	0°9/18.1	17		355336	2007 TB ₇₇		12 18.1 28°90	0°8/18.2	17	
11 17	6 8.16	+24 23.5	1.736	2.595	13.3	19.1	11 17	6 10.42	+25 45.1	1.296	2.165	16.2	20.8
11 27	6 2.50	+24 49.9	1.673	2.598	9.5	18.9	11 27	6 4.47	+25 37.0	1.247	2.177	11.5	20.6
12 7	5 54.54	+25 15.6	1.634	2.602	5.2	18.7	12 7	5 55.68	+25 24.6	1.221	2.190	6.3	20.3
12 17	5 45.19	+25 38.0	1.623	2.606	1.0	18.4	12 17	5 45.33	+25 6.8	1.220	2.204	1.0	20.0
12 27	5 35.71	+25 55.8	1.639	2.611	4.2	18.6	12 27	5 35.10	+24 44.4	1.245	2.218	4.9	20.3
1 6	5 27.38	+26 8.7	1.684	2.617	8.5	18.9	1 6	5 26.58	+24 20.0	1.296	2.234	10.0	20.7
1 16	5 21.20	+26 18.1	1.753	2.623	12.3	19.1	1 16	5 20.89	+23 56.9	1.371	2.250	14.4	21.0
1 26	5 17.83	+26 25.6	1.844	2.630	15.5	19.4	1 26	5 18.62	+23 37.9	1.465	2.267	18.0	21.2
80804	2000 CG ₁₀₂		12 18.1 220°49	2°4/17.9	18		441773	2009 DU ₇		12 18.1 321°16	8°4/19.2	17	
11 17	6 12.14	+17 34.3	1.844	2.690	13.2	20.2	11 17	6 16.29	+43 45.3	1.618	2.439	15.9	20.6
11 27	6 5.22	+17 15.4	1.765	2.682	9.6	20.0	11 27	6 9.09	+44 21.4	1.547	2.431	13.0	20.4
12 7	5 56.00	+16 59.5	1.710	2.673	5.6	19.8	12 7	5 58.43	+44 37.5	1.497	2.423	10.1	20.2
12 17	5 45.35	+16 47.3	1.684	2.664	2.5	19.5	12 17	5 45.63	+44 26.6	1.471	2.415	8.4	20.1
12 27	5 34.48	+16 39.5	1.688	2.654	4.9	19.7	12 27	5 32.65	+43 46.1	1.472	2.408	9.2	20.2
1 6	5 24.64	+16 37.1	1.720	2.644	9.0	19.9	1 6	5 21.47	+42 39.9	1.498	2.401	11.8	20.3
1 16	5 16.85	+16 40.7	1.777	2.633	12.9	20.1	1 16	5 13.55	+41 16.2	1.547	2.394	14.9	20.5
1 26	5 11.80	+16 50.4	1.857	2.621	16.2	20.3	1 26	5 9.66	+39 45.2	1.617	2.388	17.9	20.7
394275	2006 UX ₁₈₈		12 18.1 103°74	2°6/17.7	17		60953	2000 JT ₆₂		12 18.1 28°90	8°9/18.2	17	
11 17	6 11.24	+17 45.6	2.059	2.901	12.2	21.0	11 17	6					

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
51488	2001 <i>FV</i> ₇₅		12 18.1	90°57'	8°3'/18.3	18	12061	Alena		12 18.1	128°01'	2°1'/18.2	18
11 17	6 9.16	+ 1 15.0	1.806	2.619	14.9	19.0	11 17	6 16.78	+28 12.8	1.703	2.548	14.2	18.2
11 27	6 2.83	+ 0 36.0	1.755	2.632	12.1	18.9	11 27	6 8.62	+28 34.7	1.647	2.563	10.2	18.0
12 7	5 54.56	+ 0 15.1	1.728	2.645	9.6	18.7	12 7	5 57.85	+28 50.8	1.614	2.577	5.8	17.8
12 17	5 45.24	+ 0 15.7	1.725	2.659	8.4	18.7	12 17	5 45.62	+28 57.8	1.610	2.591	2.2	17.6
12 27	5 35.94	+ 0 38.7	1.750	2.672	9.1	18.8	12 27	5 33.43	+28 54.8	1.636	2.604	4.7	17.8
1 6	5 27.74	+ 1 21.9	1.801	2.684	11.3	18.9	1 6	5 22.73	+28 43.3	1.689	2.617	8.9	18.0
1 16	5 21.45	+ 2 21.5	1.876	2.697	13.8	19.1	1 16	5 14.61	+28 26.7	1.769	2.628	12.8	18.3
1 26	5 17.62	+ 3 32.4	1.971	2.710	16.2	19.3	1 26	5 9.70	+28 9.1	1.870	2.639	15.9	18.5
442329	2011 <i>SY</i> ₁₅₉		12 18.1	74°12'	1°3'/18.3	17	439301	2012 <i>VV</i> ₂₆		12 18.1	17°19'	3°7'/18.2	18
11 17	6 12.75	+27 10.3	1.676	2.528	14.0	21.1	11 17	6 12.77	+30 11.7	1.367	2.228	16.0	20.6
11 27	6 5.65	+27 7.0	1.623	2.544	10.0	20.9	11 27	6 6.46	+30 51.9	1.307	2.230	11.8	20.3
12 7	5 56.17	+26 58.4	1.594	2.560	5.5	20.7	12 7	5 56.98	+31 25.1	1.270	2.233	7.1	20.1
12 17	5 45.40	+26 43.1	1.593	2.576	1.4	20.5	12 17	5 45.55	+31 46.0	1.258	2.236	3.7	19.9
12 27	5 34.76	+26 21.5	1.621	2.592	4.3	20.7	12 27	5 33.94	+31 51.9	1.273	2.240	6.1	20.0
1 6	5 25.57	+25 55.8	1.676	2.608	8.6	21.0	1 6	5 23.97	+31 44.2	1.313	2.244	10.6	20.3
1 16	5 18.81	+25 29.5	1.757	2.624	12.5	21.3	1 16	5 16.97	+31 27.2	1.377	2.249	14.9	20.6
1 26	5 15.04	+25 5.4	1.860	2.639	15.6	21.5	1 26	5 13.72	+31 6.2	1.460	2.254	18.5	20.8
118758	2000 <i>QZ</i> ₂₀₇		12 18.1	93°14'	7°4'/18.9	18	195962	2002 <i>RF</i> ₁₇₂		12 18.1	103°56'	3°9'/18.3	17
11 17	6 17.08	+44 30.7	2.084	2.887	13.5	19.9	11 17	6 10.74	+34 54.0	2.354	3.185	11.2	20.1
11 27	6 8.92	+45 21.1	2.031	2.901	11.0	19.7	11 27	6 4.04	+35 31.1	2.287	3.190	8.5	19.9
12 7	5 58.04	+45 54.3	2.001	2.915	8.7	19.6	12 7	5 55.31	+35 59.7	2.246	3.195	5.7	19.7
12 17	5 45.60	+46 4.8	1.997	2.929	7.5	19.6	12 17	5 45.36	+36 16.6	2.233	3.200	4.0	19.6
12 27	5 33.18	+45 50.9	2.021	2.943	8.0	19.6	12 27	5 35.31	+36 20.2	2.250	3.205	5.0	19.7
1 6	5 22.31	+45 15.3	2.072	2.957	9.9	19.8	1 6	5 26.24	+36 11.5	2.296	3.210	7.7	19.9
1 16	5 14.13	+44 23.9	2.148	2.970	12.3	20.0	1 16	5 19.07	+35 53.2	2.368	3.214	10.4	20.1
1 26	5 9.27	+43 23.8	2.245	2.983	14.5	20.1	1 26	5 14.40	+35 29.3	2.464	3.219	12.9	20.3
484366	2007 <i>VG</i> ₁₁₆		12 18.1	291°90'	1°5'/18.1	17	52866	1998 <i>ST</i> ₂₃		12 18.1	166°89'	4°0'/18.1	18
11 17	6 9.63	+19 15.3	1.747	2.600	13.4	21.6	11 17	6 12.17	+12 54.4	1.734	2.576	14.1	19.4
11 27	6 3.73	+19 17.1	1.659	2.581	9.7	21.3	11 27	6 5.23	+12 42.2	1.668	2.579	10.5	19.1
12 7	5 55.36	+19 22.3	1.595	2.561	5.5	21.0	12 7	5 56.02	+12 38.6	1.626	2.582	6.6	18.9
12 17	5 45.36	+19 30.1	1.558	2.540	1.6	20.7	12 17	5 45.45	+12 44.4	1.611	2.585	4.1	18.8
12 27	5 34.94	+19 40.4	1.550	2.520	4.6	20.9	12 27	5 34.77	+12 59.9	1.626	2.587	5.8	18.9
1 6	5 25.44	+19 52.9	1.570	2.501	9.2	21.1	1 6	5 25.22	+13 24.4	1.668	2.588	9.6	19.1
1 16	5 18.01	+20 8.1	1.615	2.481	13.4	21.3	1 16	5 17.80	+13 56.4	1.736	2.590	13.3	19.3
1 26	5 13.47	+20 26.5	1.681	2.461	17.0	21.5	1 26	5 13.16	+14 34.5	1.826	2.590	16.4	19.6
181704	1989 <i>NA</i>		12 18.1	107°72'	1°1'/18.2	18	356751	2011 <i>UD</i> ₂₃₉		12 18.1	120°01'	0°2'/18.2	18
11 17	6 13.45	+18 34.0	2.460	3.291	10.8	21.0	11 17	6 11.43	+24 12.1	1.954	2.801	12.5	21.2
11 27	6 5.42	+18 52.9	2.412	3.323	7.7	20.9	11 27	6 4.53	+24 9.2	1.891	2.811	8.9	21.0
12 7	5 55.81	+19 13.9	2.391	3.354	4.2	20.7	12 7	5 55.55	+24 4.3	1.854	2.820	4.8	20.8
12 17	5 45.39	+19 35.8	2.401	3.384	1.2	20.5	12 17	5 45.39	+23 56.2	1.845	2.829	0.5	20.5
12 27	5 35.07	+19 57.9	2.444	3.413	3.4	20.7	12 27	5 35.24	+23 45.2	1.866	2.838	3.8	20.8
1 6	5 25.74	+20 19.6	2.518	3.441	6.6	21.0	1 6	5 26.23	+23 32.4	1.917	2.846	7.9	21.0
1 16	5 18.10	+20 41.1	2.621	3.468	9.5	21.2	1 16	5 19.26	+23 19.9	1.993	2.855	11.4	21.3
1 26	5 12.62	+21 2.7	2.748	3.494	11.9	21.4	1 26	5 14.91	+23 9.4	2.092	2.862	14.4	21.5
10654	Bontekoe		12 18.1	34°21'	9°2'/17.8	18	197218	2003 <i>WL</i> ₂₈		12 18.1	284°45'	3°6'/18.2	18
11 17	6 4.78	- 6 8.9	2.409	3.179	12.9	17.9	11 17	6 10.21	+33 19.7	2.270	3.106	11.4	20.1
11 27	5 59.47	- 6 58.4	2.349	3.181	11.1	17.8	11 27	6 3.80	+33 58.8	2.193	3.100	8.5	19.9
12 7	5 52.69	- 7 29.8	2.312	3.182	9.8	17.7	12 7	5 55.26	+34 30.9	2.142	3.095	5.6	19.8
12 17	5 45.07	- 7 39.5	2.300	3.184	9.2	17.6	12 17	5 45.38	+34 52.4	2.120	3.090	3.7	19.6
12 27	5 37.39	- 7 25.9	2.314	3.185	9.6	17.7	12 27	5 35.28	+35 1.5	2.127	3.085	5.0	19.7
1 6	5 30.43	- 6 50.2	2.353	3.187	10.9	17.8	1 6	5 26.10	+34 58.7	2.162	3.080	7.9	19.9
1 16	5 24.85	- 5 55.5	2.415	3.189	12.6	17.9	1 16	5 18.81	+34 46.3	2.224	3.074	10.9	20.1
1 26	5 21.14	- 4 46.1	2.498	3.191	14.2	18.0	1 26	5 14.08	+34 28.2	2.309	3.069	13.5	20.2
191445	2003 <i>SG</i> ₁₉₄		12 18.1	64°66'	1°1'/18.2	17	272201	2005 <i>QT</i> ₁₇		12 18.1	84°99'	1°8'/18.2	18
11 17	6 8.91	+26 14.7	2.130	2.977	11.6	20.2	11 17	6 15.94	+26 59.4	1.487	2.340	15.4	20.6
11 27	6 2.68	+26 26.9	2.066	2.985	8.3	20.0	11 27	6 8.16	+27 21.3	1.440	2.361	11.0	20.3
12 7	5 54.52	+26 36.1	2.028	2.993	4.6	19.8	12 7	5 57.63	+27 38.2	1.416	2.382	6.2	20.1
12 17	5 45.26	+26 40.7	2.018	3.001	1.2	19.6	12 17	5 45.61	+27 46.9	1.420	2.402	1.9	19.9
12 27	5 35.96	+26 40.1	2.039	3.009	3.7	19.8	12 27	5 33.75	+27 46.5	1.451	2.422	4.9	20.1
1 6	5 27.66	+26 35.2	2.088	3.017	7.3	20.0	1 6	5 23.59	+27 38.5	1.511	2.442	9.5	20.5
1 16	5 21.21	+26 27.6	2.164	3.026	10.6	20.3	1 16	5 16.22	+27 26.4	1.595	2.461	13.5	20.7
1 26	5 17.17	+26 19.5	2.263	3.034	13.4	20.5	1 26	5 12.24	+27 13.8	1.699	2.480	16.8	21.0
383101	2005 <i>SQ</i> ₁₅₄		12 18.1	154°45'	0°6'/18.1	18	492138	2013 <i>NJ</i> ₉		12 18.1	73°15'	3°0'/18.2	18
11 17	6 13.44	+22 22.5	1.701	2.551	13.9	21.6	11 17	6 7.55	+13 36.1	2.207	3.046	11.6	21.2
11 27	6 6.21	+22 14.0	1.635	2.556	9.9	21.4	11 27	6 1.49	+13 33.1	2.153	3.064	8.5	21.1
12 7	5 56.56	+22 4.6	1.595	2.561	5.4	21.1	12 7	5 53.80	+13 36.7	2.124	3.081	5.2	20.9
12 17	5 45.48	+21 53.8	1.582	2.565	0.8	20.8	12 17	5 45.22	+13 47.1	2.124	3.098	3.1	20.8
12 27	5 34.36	+21 41.8	1.598	2.569	4.4	21.1	12 27	5 36.67	+14 4.1	2.154	3.116	4.5	20.9
1 6	5 24.53	+21 30.0	1.643	2.573	8.9	21.3	1 6	5 29.03	+14 27.0	2.213	3.133	7.5	21.1
1 16	5 17.03	+21 20.4	1.713	2.576	12.9	21.6	1 16	5 23.01	+14 54.9	2.298	3.150	10.5	21.4
1 26	5 12.51	+21 14.5	1.805	2.578	16.2	21.8	1 26	5 19.11	+15 26.7	2.407	3.167	13.0	21.6
120011	2003 <i>AY</i> ₅		12 18.1	329°69'	2°9'/18.2	18	437131	2012 <i>UR</i> ₁₅₇		12 18.1	63°06'	0°6'/18.1	16

EPHEMERIDES

12 18.1

12 18.2

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
76156	2000 EG ₂₁		12 18.1 168°21	4°1/18.9	18		327739	2006 SC ₃₅₃		12 18.2 121°12	3°1/18.1	18	
11 17	6 14.71	+36 18.4	2.049	2.877	12.8	19.5	11 17	6 14.26	+15 56.0	1.606	2.453	14.8	21.4
11 27	6 7.00	+36 19.4	1.978	2.879	9.7	19.3	11 27	6 6.73	+15 41.9	1.551	2.468	10.7	21.2
12 7	5 56.94	+36 7.9	1.932	2.881	6.4	19.1	12 7	5 56.82	+15 33.6	1.521	2.482	6.3	21.0
12 17	5 45.55	+35 41.0	1.914	2.883	4.2	19.0	12 17	5 45.58	+15 31.7	1.518	2.496	3.1	20.8
12 27	5 34.19	+34 58.9	1.926	2.884	5.3	19.1	12 27	5 34.41	+15 36.5	1.544	2.510	5.4	21.0
1 6	5 24.15	+34 4.8	1.966	2.885	8.4	19.3	1 6	5 24.62	+15 47.8	1.598	2.523	9.6	21.3
1 16	5 16.44	+33 3.8	2.033	2.886	11.6	19.5	1 16	5 17.21	+16 5.3	1.677	2.535	13.4	21.5
1 26	5 11.65	+32 1.5	2.124	2.886	14.4	19.7	1 26	5 12.79	+16 28.4	1.778	2.547	16.6	21.8
294277	2007 UD ₁₀₄		12 18.1 67°53	0°7/18.1	18		386062	2007 GF ₃₇		12 18.2 244°64	0°7/18.1	18	
11 17	6 12.39	+21 10.7	1.613	2.468	14.3	20.9	11 17	6 12.22	+21 8.8	1.727	2.578	13.7	21.7
11 27	6 5.36	+21 18.0	1.568	2.491	10.2	20.7	11 27	6 5.56	+21 14.0	1.647	2.568	9.9	21.5
12 7	5 56.02	+21 26.4	1.547	2.514	5.5	20.5	12 7	5 56.37	+21 20.5	1.592	2.558	5.4	21.2
12 17	5 45.45	+21 34.7	1.553	2.536	0.9	20.2	12 17	5 45.56	+21 27.3	1.564	2.547	0.9	20.8
12 27	5 35.04	+21 42.2	1.588	2.559	4.3	20.5	12 27	5 34.45	+21 33.5	1.565	2.536	4.4	21.1
1 6	5 26.06	+21 49.5	1.650	2.582	8.7	20.8	1 6	5 24.40	+21 39.5	1.595	2.525	9.1	21.3
1 16	5 19.45	+21 57.3	1.738	2.605	12.6	21.1	1 16	5 16.57	+21 46.4	1.649	2.514	13.3	21.6
1 26	5 15.77	+22 6.8	1.848	2.627	15.7	21.4	1 26	5 11.73	+21 55.4	1.726	2.502	16.8	21.8
53829	2000 EN ₁₅₆		12 18.1 272°88	1°1/18.1	18		455672	2005 DE		12 18.2 301°98	10°6/17.7	16	
11 17	6 13.83	+23 9.6	1.497	2.354	15.1	18.9	11 17	6 26.08	+55 49.8	2.437	3.171	13.7	22.5
11 27	6 7.12	+24 3.2	1.424	2.347	10.9	18.6	11 27	6 16.52	+56 50.2	2.323	3.123	12.3	22.3
12 7	5 57.39	+24 59.7	1.374	2.341	6.0	18.3	12 7	6 2.89	+57 30.6	2.230	3.074	11.1	22.2
12 17	5 45.64	+25 54.3	1.350	2.334	1.2	18.0	12 17	5 46.29	+57 41.9	2.161	3.024	10.6	22.0
12 27	5 33.43	+26 42.7	1.356	2.327	5.0	18.2	12 27	5 28.76	+57 17.8	2.117	2.974	11.0	22.0
1 6	5 22.45	+27 22.9	1.388	2.320	10.0	18.5	1 6	5 12.64	+56 18.6	2.099	2.923	12.4	22.0
1 16	5 14.09	+27 55.3	1.445	2.313	14.6	18.7	1 16	4 59.89	+54 50.5	2.105	2.872	14.4	22.0
1 26	5 9.27	+28 22.4	1.523	2.306	18.3	19.0	1 26	4 51.63	+53 3.6	2.132	2.819	16.5	22.1
510338	2011 SE ₈₈		12 18.1 142°15	6°6/18.6	18		457243	2008 OC ₂₁		12 18.2 24°85	7°2/19.5	16	
11 17	6 18.13	+42 12.0	2.148	2.954	13.0	21.4	11 17	6 13.14	+42 17.6	1.657	2.484	15.3	20.4
11 27	6 9.63	+43 1.7	2.087	2.964	10.4	21.2	11 27	6 6.39	+42 40.0	1.606	2.497	12.2	20.2
12 7	5 58.46	+43 36.3	2.051	2.974	8.0	21.1	12 7	5 56.76	+42 43.3	1.578	2.511	9.1	20.1
12 17	5 45.73	+43 50.5	2.042	2.983	6.6	21.0	12 17	5 45.58	+42 23.1	1.575	2.525	7.3	20.0
12 27	5 32.93	+43 42.0	2.061	2.992	7.3	21.1	12 27	5 34.60	+41 38.9	1.598	2.541	8.0	20.1
1 6	5 21.56	+43 13.2	2.109	3.000	9.5	21.2	1 6	5 25.41	+40 35.5	1.647	2.557	10.4	20.3
1 16	5 12.74	+42 29.4	2.182	3.008	12.0	21.4	1 16	5 19.13	+39 20.2	1.721	2.574	13.4	20.5
1 26	5 7.16	+41 37.3	2.277	3.015	14.3	21.6	1 26	5 16.31	+38 0.9	1.816	2.591	16.1	20.7
515293	2012 TS ₃₀₅		12 18.1 48°35	3°8/18.4	18		410873	2009 SM ₂₉		12 18.2 20°83	5°9/17.7	17	
11 17	6 14.11	+31 17.5	1.392	2.249	16.0	20.8	11 17	6 6.47	+8 59.4	1.809	2.650	13.6	20.2
11 27	6 7.28	+31 48.6	1.339	2.259	11.8	20.6	11 27	6 1.06	+8 14.4	1.750	2.655	10.5	20.0
12 7	5 57.35	+32 10.6	1.307	2.268	7.2	20.4	12 7	5 53.72	+7 40.3	1.714	2.659	7.5	19.8
12 17	5 45.63	+32 18.7	1.301	2.278	3.9	20.2	12 17	5 45.28	+7 19.9	1.705	2.665	5.9	19.8
12 27	5 33.90	+32 11.3	1.323	2.289	6.0	20.4	12 27	5 36.80	+7 15.0	1.724	2.670	7.1	19.8
1 6	5 23.91	+31 50.9	1.370	2.300	10.3	20.7	1 6	5 29.33	+7 25.5	1.769	2.677	10.0	20.0
1 16	5 16.92	+31 22.4	1.441	2.311	14.5	20.9	1 16	5 23.71	+7 49.7	1.838	2.683	13.0	20.2
1 26	5 13.60	+30 51.5	1.532	2.322	17.9	21.2	1 26	5 20.51	+8 24.8	1.928	2.690	15.7	20.4
382022	2011 BE ₇₄		12 18.2 100°18	0°1/18.1	18		265143	2003 UY ₃₀₉		12 18.2 152°91	4°2/18.7	18	
11 17	6 14.72	+23 54.3	1.524	2.379	15.0	21.0	11 17	6 11.89	+37 53.6	2.638	3.455	10.6	20.3
11 27	6 7.21	+23 42.2	1.471	2.393	10.7	20.8	11 27	6 4.69	+38 14.2	2.569	3.461	8.1	20.1
12 7	5 57.11	+23 27.5	1.441	2.408	5.8	20.6	12 7	5 55.62	+38 24.5	2.526	3.467	5.7	20.0
12 17	5 45.60	+23 9.6	1.438	2.422	0.6	20.2	12 17	5 45.48	+38 21.8	2.512	3.472	4.2	19.9
12 27	5 34.20	+22 49.1	1.464	2.436	4.6	20.6	12 27	5 35.30	+38 5.3	2.528	3.477	5.0	19.9
1 6	5 24.38	+22 28.2	1.517	2.449	9.3	20.9	1 6	5 26.12	+37 36.6	2.573	3.481	7.2	20.1
1 16	5 17.17	+22 9.6	1.596	2.462	13.5	21.2	1 16	5 18.75	+36 59.0	2.646	3.485	9.7	20.3
1 26	5 13.18	+21 55.5	1.695	2.475	16.9	21.4	1 26	5 13.75	+36 16.8	2.742	3.489	11.9	20.4
437132	2012 UL ₁₆₀		12 18.2 156°68	0°4/18.1	18		136824	Nonamikeiko		12 18.2 56°26	2°1/18.4	18	
11 17	6 13.48	+22 46.0	1.984	2.827	12.5	22.1	11 17	6 12.52	+28 50.7	1.613	2.467	14.4	19.3
11 27	6 5.97	+22 37.3	1.918	2.835	8.9	21.9	11 27	6 5.63	+28 57.0	1.563	2.484	10.3	19.1
12 7	5 56.35	+22 27.3	1.877	2.842	4.9	21.6	12 7	5 56.25	+28 56.4	1.537	2.501	5.9	18.9
12 17	5 45.53	+22 15.3	1.865	2.849	0.6	21.3	12 17	5 45.54	+28 47.0	1.537	2.519	2.2	18.7
12 27	5 34.68	+22 1.7	1.884	2.855	3.9	21.6	12 27	5 34.96	+28 28.7	1.566	2.536	4.6	18.9
1 6	5 24.99	+21 47.8	1.932	2.860	8.0	21.9	1 6	5 25.90	+28 3.9	1.623	2.554	8.9	19.2
1 16	5 17.34	+21 35.5	2.008	2.864	11.6	22.1	1 16	5 19.36	+27 36.4	1.705	2.573	12.7	19.5
1 26	5 12.34	+21 26.3	2.105	2.868	14.6	22.3	1 26	5 15.90	+27 9.7	1.808	2.591	15.8	19.7
495356	2014 OL ₈₈		12 18.2 183°40	0°4/18.1	18		399638	2004 PV ₁₁₁		12 18.2 85°09	20°5/19.7	17	
11 17	6 10.22	+22 50.7	2.085	2.932	11.9	22.1	11 17	6 13.41	-15 31.6	1.094	1.864	25.1	20.3
11 27	6 3.65	+22 39.0	2.013	2.932	8.5	21.8	11 27	6 6.76	-17 32.6	1.064	1.875	22.9	20.2
12 7	5 55.10	+22 26.0	1.966	2.932	4.6	21.6	12 7	5 57.05	-18 47.4	1.050	1.887	21.3	20.1
12 17	5 45.40	+22 11.3	1.948	2.931	0.6	21.3	12 17	5 45.63	-19 5.5	1.052	1.898	20.5	20.1
12 27	5 35.61	+21 55.5	1.960	2.931	3.7	21.5	12 27	5 34.31	-18 23.7	1.071	1.909	20.7	20.2
1 6	5 26.82	+21 39.8	2.001	2.930	7.6	21.8	1 6	5 24.83	-16 48.2	1.107	1.920	21.9	20.3
1 16	5 19.89	+21 25.8	2.070	2.929	11.1	22.0	1 16	5 18.38	-14 31.2	1.159	1.931	23.5	20.5
1 26	5 15.41	+21 15.2	2.161	2.928	14.1	22.2	1 26	5 15.63	-11 47.6	1.226	1.941	25.3	20.6
487549	2014 VB ₁₂		12 18.2 138°22	4°3/18.7	17		59436	1999 GE ₂₁		12 18.2 139°91	4°9/18.0	18	
11 17	6 12.61	+37 29.7	2.442	3.262									

EPHEMERIDES

12 18.2

12 18.2

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
184302	2005 <i>EU</i> ₁₇₈	12 18.2 166°34	0°8/18.2 18				124440	2001 <i>QB</i> ₂₅₇	12 18.2 80°22	4°7/18.3 18			
11 17	6 11.88	+25 55.2	2.195	3.036	11.5	21.2	11 17	6 12.08	+12 1.4	1.489	2.337	15.6	19.7
11 27	6 4.78	+25 56.8	2.124	3.041	8.3	21.0	11 27	6 5.30	+11 49.6	1.439	2.352	11.6	19.5
12 7	5 55.71	+25 54.9	2.080	3.044	4.6	20.8	12 7	5 56.11	+11 48.9	1.411	2.367	7.4	19.3
12 17	5 45.50	+25 48.4	2.064	3.048	0.9	20.5	12 17	5 45.57	+12 0.2	1.410	2.382	4.7	19.1
12 27	5 35.23	+25 37.2	2.080	3.050	3.6	20.8	12 27	5 35.08	+12 23.2	1.436	2.397	6.4	19.3
1 6	5 25.97	+25 22.4	2.125	3.053	7.3	21.0	1 6	5 25.99	+12 56.4	1.490	2.412	10.3	19.5
1 16	5 18.58	+25 6.1	2.198	3.055	10.7	21.2	1 16	5 19.30	+13 37.6	1.567	2.427	14.1	19.8
1 26	5 13.65	+24 50.7	2.293	3.056	13.5	21.4	1 26	5 15.61	+14 24.3	1.666	2.442	17.3	20.1
74418	1999 <i>AQ</i> ₁₁	12 18.2 286°36	0°6/18.1 18				98311	2000 <i>SO</i> ₂₅₇	12 18.2 114°49	0°8/18.2 18			
11 17	6 7.34	+21 31.2	2.286	3.133	10.9	20.0	11 17	6 14.52	+24 15.3	1.348	2.209	16.2	19.5
11 27	6 1.61	+21 29.3	2.199	3.118	7.8	19.7	11 27	6 7.65	+24 33.9	1.285	2.211	11.6	19.3
12 7	5 54.05	+21 27.8	2.138	3.104	4.3	19.5	12 7	5 57.66	+24 51.3	1.245	2.213	6.4	19.0
12 17	5 45.33	+21 26.2	2.106	3.089	0.8	19.2	12 17	5 45.75	+25 4.5	1.231	2.215	1.0	18.6
12 27	5 36.40	+21 24.4	2.104	3.075	3.5	19.4	12 27	5 33.66	+25 11.7	1.244	2.216	5.1	18.9
1 6	5 28.22	+21 23.0	2.131	3.060	7.2	19.6	1 6	5 23.15	+25 13.8	1.284	2.218	10.4	19.2
1 16	5 21.62	+21 22.8	2.185	3.046	10.6	19.8	1 16	5 15.55	+25 13.1	1.347	2.220	15.1	19.5
1 26	5 17.24	+21 24.7	2.263	3.031	13.5	20.0	1 26	5 11.64	+25 12.7	1.430	2.221	18.9	19.8
353024	2009 <i>BW</i> ₁₈₂	12 18.2 22°43	8°9/18.7 18				294474	2007 <i>VE</i> ₃₃₁	12 18.2 33°04	1°3/18.2 18			
11 17	6 7.65	+3 49.0	1.295	2.139	17.8	20.0	11 17	6 12.30	+19 14.3	1.050	1.926	18.6	19.8
11 27	6 2.40	+3 16.8	1.247	2.147	14.2	19.8	11 27	6 6.37	+19 39.3	1.003	1.935	13.3	19.5
12 7	5 54.62	+3 6.5	1.219	2.155	10.8	19.7	12 7	5 57.05	+20 10.8	0.976	1.945	7.3	19.2
12 17	5 45.38	+3 21.7	1.214	2.165	9.0	19.6	12 17	5 45.70	+20 46.0	0.973	1.956	1.5	18.9
12 27	5 36.13	+4 2.7	1.234	2.176	9.9	19.7	12 27	5 34.31	+21 21.9	0.995	1.968	5.7	19.2
1 6	5 28.27	+5 6.0	1.278	2.188	12.9	19.9	1 6	5 24.84	+21 56.8	1.041	1.981	11.5	19.6
1 16	5 22.86	+6 25.7	1.345	2.200	16.2	20.1	1 16	5 18.65	+22 30.5	1.109	1.994	16.6	19.9
1 26	5 20.54	+7 55.0	1.430	2.213	19.3	20.4	1 26	5 16.45	+23 3.2	1.195	2.008	20.6	20.2
329042	2011 <i>AK</i> ₄₃	12 18.2 150°49	2°7/18.2 18				404902	2014 <i>KA</i> ₈₆	12 18.2 148°60	3°2/18.1 18			
11 17	6 7.44	+13 35.6	2.536	3.370	10.4	21.3	11 17	6 9.70	+13 30.2	2.192	3.027	11.8	21.4
11 27	6 1.36	+13 38.4	2.467	3.375	7.7	21.2	11 27	6 3.12	+13 19.9	2.126	3.035	8.7	21.2
12 7	5 53.77	+13 47.0	2.424	3.381	4.7	21.0	12 7	5 54.79	+13 15.8	2.087	3.042	5.4	21.1
12 17	5 45.29	+14 1.6	2.411	3.386	2.7	20.8	12 17	5 45.45	+13 18.8	2.076	3.049	3.3	20.9
12 27	5 36.75	+14 21.9	2.428	3.390	4.1	20.9	12 27	5 36.07	+13 28.9	2.095	3.056	4.8	21.0
1 6	5 28.93	+14 47.3	2.476	3.394	6.9	21.1	1 6	5 27.58	+13 45.8	2.144	3.061	7.9	21.2
1 16	5 22.52	+15 16.9	2.551	3.399	9.7	21.3	1 16	5 20.76	+14 8.8	2.219	3.067	11.0	21.4
1 26	5 18.02	+15 49.9	2.650	3.402	12.1	21.5	1 26	5 16.15	+14 36.9	2.317	3.072	13.6	21.6
181511	2006 <i>UY</i> ₆₇	12 18.2 107°03	5°2/18.0 18				54005	2000 <i>GJ</i> ₉₃	12 18.2 102°81	2°1/18.1 18			
11 17	6 13.64	+11 28.8	1.541	2.384	15.5	20.8	11 17	6 13.65	+27 27.8	2.055	2.895	12.2	18.9
11 27	6 6.28	+10 57.9	1.491	2.401	11.6	20.6	11 27	6 6.16	+28 14.2	1.999	2.914	8.8	18.7
12 7	5 56.57	+10 37.6	1.465	2.418	7.6	20.4	12 7	5 56.53	+28 56.9	1.970	2.932	5.1	18.5
12 17	5 45.59	+10 29.8	1.466	2.435	5.2	20.3	12 17	5 45.65	+29 32.6	1.969	2.949	2.1	18.4
12 27	5 34.72	+10 35.4	1.495	2.451	6.8	20.4	12 27	5 34.73	+29 58.9	2.000	2.967	4.2	18.5
1 6	5 25.27	+10 53.7	1.550	2.467	10.5	20.7	1 6	5 24.95	+30 16.0	2.060	2.984	7.8	18.8
1 16	5 18.20	+11 22.8	1.631	2.482	14.1	20.9	1 16	5 17.25	+30 25.6	2.146	3.000	11.0	19.0
1 26	5 14.10	+12 0.2	1.732	2.497	17.1	21.2	1 26	5 12.23	+30 30.4	2.256	3.017	13.8	19.3
168008	2005 <i>GZ</i> ₁₈₁	12 18.2 31°45	1°1/18.2 18				268667	2006 <i>EQ</i> ₆₅	12 18.2 261°45	4°3/17.7 18			
11 17	6 11.07	+25 4.0	1.548	2.407	14.6	19.8	11 17	6 6.42	+10 53.6	2.299	3.134	11.4	20.5
11 27	6 4.83	+25 26.4	1.488	2.413	10.4	19.5	11 27	6 0.81	+10 20.1	2.224	3.128	8.6	20.3
12 7	5 55.97	+25 47.0	1.451	2.418	5.8	19.3	12 7	5 53.56	+9 53.7	2.174	3.122	5.9	20.1
12 17	5 45.54	+26 3.0	1.441	2.424	1.2	19.0	12 17	5 45.34	+9 36.3	2.152	3.116	4.3	20.0
12 27	5 35.01	+26 12.9	1.459	2.431	4.6	19.2	12 27	5 37.00	+9 29.3	2.160	3.111	5.5	20.1
1 6	5 25.83	+26 17.2	1.504	2.437	9.2	19.5	1 6	5 29.41	+9 32.9	2.196	3.105	8.2	20.2
1 16	5 19.15	+26 18.0	1.573	2.444	13.4	19.8	1 16	5 23.30	+9 46.6	2.258	3.099	11.1	20.4
1 26	5 15.63	+26 17.8	1.663	2.452	16.8	20.0	1 26	5 19.22	+10 9.0	2.343	3.093	13.6	20.6
342277	2008 <i>TE</i> ₁₀	12 18.2 128°94	4°1/18.5 18				65261	2002 <i>GC</i> ₁₁	12 18.2 97°32	3°6/18.2 18			
11 17	6 17.62	+34 49.1	2.029	2.856	12.9	22.0	11 17	6 19.55	+30 19.4	1.495	2.341	15.7	18.8
11 27	6 9.04	+35 19.6	1.972	2.874	9.7	21.8	11 27	6 10.89	+31 8.8	1.450	2.365	11.5	18.6
12 7	5 58.07	+35 39.3	1.941	2.891	6.3	21.6	12 7	5 59.24	+31 49.9	1.428	2.388	6.9	18.4
12 17	5 45.76	+35 44.4	1.938	2.907	4.2	21.5	12 17	5 45.94	+32 17.2	1.434	2.411	3.7	18.2
12 27	5 33.52	+35 33.9	1.966	2.922	5.4	21.6	12 27	5 32.77	+32 28.4	1.468	2.433	5.8	18.4
1 6	5 22.68	+35 9.8	2.022	2.937	8.5	21.9	1 6	5 21.44	+32 25.2	1.530	2.455	9.9	18.7
1 16	5 14.26	+34 36.6	2.105	2.951	11.6	22.1	1 16	5 13.15	+32 12.2	1.617	2.476	13.8	19.0
1 26	5 8.84	+33 59.6	2.211	2.964	14.2	22.3	1 26	5 8.50	+31 54.9	1.724	2.496	16.9	19.3
157057	2003 <i>SO</i> ₁₅₆	12 18.2 120°67	1°3/18.1 18				256930	2008 <i>EY</i> ₂₆	12 18.2 141°01	2°3/18.1 18			
11 17	6 7.97	+19 31.0	2.429	3.271	10.5	20.3	11 17	6 9.08	+16 54.8	2.035	2.880	12.2	21.3
11 27	6 1.77	+19 21.1	2.365	3.281	7.5	20.1	11 27	6 2.86	+16 47.1	1.966	2.883	8.8	21.1
12 7	5 53.99	+19 12.6	2.327	3.291	4.2	19.9	12 7	5 54.72	+16 43.5	1.924	2.886	5.1	20.8
12 17	5 45.33	+19 5.6	2.318	3.300	1.3	19.7	12 17	5 45.47	+16 44.3	1.909	2.889	2.3	20.7
12 27	5 36.67	+19 0.3	2.341	3.310	3.5	19.9	12 27	5 36.12	+16 49.6	1.924	2.891	4.3	20.8
1 6	5 28.84	+18 57.4	2.393	3.318	6.7	20.1	1 6	5 27.73	+16 59.4	1.968	2.894	8.0	21.0
1 16	5 22.55	+18 57.3	2.472	3.327	9.7	20.3	1 16	5 21.12	+17 13.6	2.039	2.896	11.4	21.3
1 26	5 18.29	+19 0.5	2.575	3.336	12.3	20.5	1 26	5 16.89	+17 32.1	2.132	2.899	14.3	21.5
297126	2010 <i>RC</i> ₁₇₄	12 18.2 128°56	0°6/18.1 18				421286	2013 <i>TT</i> ₆	12 18.2 197°45	2°1/17.9 18			

EPHEMERIDES

12 18.2

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
387717	2003 <i>DN</i> ₄		12 18.2	96°43'	36°6'/26.0	15							
11 17	7 28.67	-57 12.5	0.752	1.233	53.3	21.1							
11 27	6 56.38	-57 53.4	0.783	1.301	49.2	21.2							
12 7	6 21.13	-57 1.3	0.809	1.363	45.7	21.3							
12 17	5 47.90	-54 25.7	0.835	1.419	42.7	21.3							
12 27	5 21.22	-50 13.9	0.865	1.470	40.2	21.4							
1 6	5 2.89	-44 49.3	0.902	1.515	38.4	21.5							
1 16	4 52.46	-38 39.9	0.949	1.555	37.2	21.6							
1 26	4 48.68	-32 13.2	1.007	1.590	36.6	21.8							
11830	Jessenius		12 18.2	324°31'	7°7'/17.8	18							
11 17	6 13.26	+35 34.8	1.157	2.019	18.2	16.6							
11 27	6 7.98	+36 55.1	1.084	2.002	14.1	16.3							
12 7	5 58.48	+38 5.2	1.032	1.985	10.1	16.0							
12 17	5 45.93	+38 54.5	1.003	1.969	7.7	15.8							
12 27	5 32.53	+39 15.3	0.998	1.953	9.6	15.9							
1 6	5 20.83	+39 7.5	1.015	1.939	13.8	16.1							
1 16	5 12.90	+38 37.6	1.054	1.925	18.4	16.3							
1 26	5 9.89	+37 55.3	1.109	1.913	22.5	16.5							
294117	2007 <i>TU</i> ₂₄₆		12 18.2	355°69'	8°0'/19.4	17							
11 17	6 14.32	+41 51.5	1.395	2.233	17.1	19.3							
11 27	6 7.92	+42 15.9	1.331	2.229	13.7	19.0							
12 7	5 57.94	+42 19.1	1.288	2.226	10.2	18.8							
12 17	5 45.82	+41 54.8	1.269	2.224	8.1	18.7							
12 27	5 33.66	+41 1.5	1.275	2.223	8.9	18.8							
1 6	5 23.48	+39 44.4	1.306	2.222	12.0	18.9							
1 16	5 16.73	+38 13.2	1.359	2.223	15.6	19.2							
1 26	5 14.08	+36 38.0	1.433	2.224	18.9	19.4							
185815	1999 <i>XH</i> ₁₃₉		12 18.2	113°99'	3°2'/18.4	18							
11 17	6 12.13	+32 49.1	2.345	3.177	11.2	20.3							
11 27	6 4.96	+33 19.2	2.285	3.191	8.3	20.1							
12 7	5 55.83	+33 41.8	2.251	3.205	5.3	19.9							
12 17	5 45.59	+33 54.0	2.246	3.219	3.2	19.8							
12 27	5 35.34	+33 54.7	2.272	3.232	4.5	19.9							
1 6	5 26.13	+33 45.1	2.327	3.245	7.3	20.1							
1 16	5 18.82	+33 27.8	2.408	3.257	10.2	20.3							
1 26	5 13.97	+33 6.4	2.514	3.270	12.6	20.5							
480061	2015 <i>DZ</i> ₇₅		12 18.2	149°03'	1°9'/18.3	16							
11 17	6 16.76	+27 38.9	1.678	2.524	14.3	22.3							
11 27	6 8.76	+27 57.0	1.615	2.533	10.3	22.1							
12 7	5 58.09	+28 9.8	1.577	2.541	5.9	21.9							
12 17	5 45.85	+28 14.3	1.567	2.549	2.0	21.6							
12 27	5 33.56	+28 9.3	1.586	2.556	4.7	21.8							
1 6	5 22.71	+27 56.6	1.634	2.562	9.1	22.1							
1 16	5 14.45	+27 39.4	1.707	2.568	13.1	22.4							
1 26	5 9.45	+27 21.6	1.801	2.572	16.4	22.6							
70437	1999 <i>TK</i> ₆		12 18.2	34°81'	2°9'/18.0	18							
11 17	6 10.10	+18 2.2	1.247	2.116	16.7	19.0							
11 27	6 4.21	+17 36.7	1.205	2.133	12.0	18.8							
12 7	5 55.61	+17 16.3	1.185	2.151	6.9	18.5							
12 17	5 45.58	+17 2.1	1.189	2.170	2.9	18.4							
12 27	5 35.71	+16 55.1	1.219	2.189	5.8	18.6							
1 6	5 27.52	+16 55.9	1.275	2.209	10.5	18.9							
1 16	5 22.05	+17 4.4	1.354	2.230	14.8	19.2							
1 26	5 19.85	+17 19.9	1.452	2.252	18.3	19.5							
234304	2001 <i>AO</i> ₁₀		12 18.2	38°71'	3°5'/18.0	18							
11 17	6 11.02	+17 6.4	1.185	2.055	17.3	18.4							
11 27	6 4.84	+16 35.0	1.150	2.077	12.5	18.2							
12 7	5 55.92	+16 10.1	1.135	2.101	7.3	18.0							
12 17	5 45.61	+15 53.4	1.146	2.125	3.5	17.9							
12 27	5 35.59	+15 46.0	1.182	2.150	6.2	18.1							
1 6	5 27.38	+15 48.3	1.243	2.176	10.8	18.4							
1 16	5 21.98	+15 59.6	1.327	2.202	15.1	18.8							
1 26	5 19.92	+16 18.6	1.430	2.229	18.5	19.1							
281994	2011 <i>HY</i> ₂₈		12 18.2	241°15'	1°5'/18.2	18							
11 17	6 12.35	+18 21.4	1.605	2.458	14.5	20.6							
11 27	6 5.78	+18 40.2	1.532	2.453	10.5	20.3							
12 7	5 56.58	+19 4.6	1.483	2.449	5.9	20.1							
12 17	5 45.71	+19 32.8	1.461	2.444	1.6	19.8							
12 27	5 34.55	+20 3.2	1.468	2.439	4.7	20.0							
1 6	5 24.53	+20 34.7	1.502	2.434	9.5	20.2							
1 16	5 16.84	+21 6.7	1.562	2.428	13.7	20.5							
1 26	5 12.25	+21 39.5	1.643	2.423	17.3	20.7							
121071	1999 <i>CT</i> ₁₄₉		12 18.2	10°77'	1°0'/18.1	18							
11 17	6 10.38	+21 16.8	1.267	2.137	16.4	19.0							
11 27	6 4.71	+21 12.7	1.209	2.138	11.8	18.8							
12 7	5 56.08	+21 10.2	1.172	2.140	6.5	18.5							
12 17	5 45.66	+21 8.5	1.160	2.143	1.2	18.2							
12 27	5 35.11	+21 7.6	1.174	2.147	5.2	18.4							
1 6	5 26.12	+21 8.2	1.213	2.151	10.5	18.8							
1 16	5 19.93	+21 11.6	1.276	2.155	15.2	19.0							
1 26	5 17.27	+21 19.0	1.357	2.161	19.1	19.3							
431317	2006 <i>WV</i> ₅₇		12 18.2	115°28'	3°6'/18.4	16							
11 17	6 19.33	+32 6.6	1.729	2.565	14.4	21.9							
11 27	6 10.47	+32 39.0	1.678	2.588	10.6	21.8							
12 7	5 58.94	+33 1.7	1.653	2.609	6.5	21.6							
12 17	5 45.96	+33 10.6	1.655	2.630	3.7	21.4							
12 27	5 33.10	+33 4.3	1.687	2.650	5.4	21.6							
1 6	5 21.90	+32 45.1	1.747	2.669	9.1	21.9							
1 16	5 13.44	+32 17.9	1.834	2.687	12.7	22.1							
1 26	5 8.30	+31 47.8	1.942	2.704	15.6	22.4							
347171	2011 <i>FO</i> ₄₆		12 18.2	181°66'	2°2'/18.0	18							
11 17	6 12.32	+17 33.5	2.023	2.864	12.4	22.4							
11 27	6 5.19	+17 16.1	1.951	2.865	9.0	22.1							
12 7	5 56.02	+17 1.6	1.904	2.866	5.2	21.9							
12 17	5 45.66	+16 50.6	1.886	2.866	2.3	21.7							
12 27	5 35.18	+16 43.5	1.898	2.865	4.5	21.9							
1 6	5 25.71	+16 41.1	1.940	2.863	8.2	22.1							
1 16	5 18.14	+16 44.0	2.009	2.861	11.8	22.3							
1 26	5 13.07	+16 52.2	2.100	2.858									

EPHEMERIDES

12 18.2

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
412383	2013 <i>PB</i> ₆₉		12 18.2 74°95	4.4/18.2	18		420195	2011 <i>GB</i> ₆₃		12 18.2 329°45	2.2/18.0	18	
11 17	6 7.30	+ 9 14.7	2.288	3.116	11.6	21.1	11 17	6 9.94	+27 57.0	2.217	3.061	11.4	20.3
11 27	6 1.28	+ 8 57.9	2.238	3.137	8.8	20.9	11 27	6 3.66	+28 46.7	2.143	3.058	8.2	20.1
12 7	5 53.76	+ 8 50.4	2.213	3.158	6.0	20.8	12 7	5 55.31	+29 34.0	2.094	3.056	4.8	19.8
12 17	5 45.44	+ 8 53.3	2.217	3.179	4.5	20.7	12 17	5 45.65	+30 15.3	2.074	3.053	2.3	19.7
12 27	5 37.18	+ 9 6.7	2.251	3.200	5.5	20.8	12 27	5 35.72	+30 48.3	2.085	3.051	4.2	19.8
1 6	5 29.80	+ 9 29.9	2.313	3.221	7.9	21.0	1 6	5 26.65	+31 12.2	2.125	3.049	7.6	20.0
1 16	5 23.95	+10 1.4	2.401	3.242	10.5	21.2	1 16	5 19.38	+31 28.1	2.191	3.047	10.8	20.2
1 26	5 20.10	+10 39.1	2.513	3.262	12.8	21.4	1 26	5 14.57	+31 38.4	2.281	3.045	13.5	20.4
124098	2001 <i>HE</i> ₄₁		12 18.2 160°99	5.3/17.9	18		154422	2003 <i>BO</i> ₃₆		12 18.2 339°16	1.7/18.2	18	
11 17	6 5.52	+ 2 42.9	3.062	3.859	9.8	20.4	11 17	6 9.22	+19 42.5	1.199	2.073	16.9	19.4
11 27	5 59.80	+ 2 15.9	2.996	3.865	7.8	20.3	11 27	6 4.20	+19 43.0	1.131	2.063	12.2	19.1
12 7	5 52.91	+ 1 59.2	2.955	3.871	6.2	20.2	12 7	5 56.01	+19 47.8	1.084	2.053	6.9	18.8
12 17	5 45.35	+ 1 54.3	2.944	3.876	5.3	20.1	12 17	5 45.74	+19 56.3	1.062	2.045	1.8	18.4
12 27	5 37.76	+ 2 2.1	2.962	3.881	5.9	20.2	12 27	5 35.10	+20 7.8	1.064	2.037	5.6	18.6
1 6	5 30.75	+ 2 22.0	3.009	3.886	7.5	20.3	1 6	5 25.90	+20 22.4	1.092	2.031	11.2	18.9
1 16	5 24.85	+ 2 52.7	3.083	3.889	9.3	20.4	1 16	5 19.57	+20 40.2	1.141	2.025	16.3	19.2
1 26	5 20.47	+ 3 32.1	3.181	3.893	11.1	20.6	1 26	5 16.99	+21 1.7	1.209	2.021	20.5	19.5
277905	2006 <i>KP</i> ₆₉		12 18.2 279°22	4.2/17.7	18		238859	2005 <i>WB</i> ₁₁₆		12 18.2 339°64	2.6/18.0	18	
11 17	6 6.24	+11 22.4	2.309	3.144	11.3	20.7	11 17	6 7.74	+19 22.9	1.154	2.032	17.1	19.8
11 27	6 0.71	+10 47.2	2.234	3.139	8.5	20.5	11 27	6 3.20	+18 55.2	1.085	2.018	12.5	19.4
12 7	5 53.55	+10 18.6	2.184	3.133	5.8	20.3	12 7	5 55.48	+18 30.2	1.037	2.006	7.2	19.1
12 17	5 45.43	+ 9 58.6	2.163	3.128	4.2	20.2	12 17	5 45.68	+18 9.1	1.013	1.995	2.7	18.8
12 27	5 37.19	+ 9 48.6	2.171	3.123	5.4	20.3	12 27	5 35.52	+17 53.9	1.013	1.985	6.1	19.0
1 6	5 29.71	+ 9 48.9	2.207	3.118	8.1	20.5	1 6	5 26.83	+17 46.2	1.037	1.976	11.7	19.3
1 16	5 23.70	+ 9 59.3	2.270	3.112	11.0	20.6	1 16	5 21.01	+17 47.4	1.083	1.968	16.8	19.5
1 26	5 19.71	+10 18.4	2.356	3.107	13.5	20.8	1 26	5 18.95	+17 57.4	1.146	1.962	21.1	19.8
173206	1998 <i>SS</i> ₁₄		12 18.2 47°07	0.2/18.2	18		248237	2005 <i>ER</i> ₂₄₇		12 18.2 311°67	3.1/17.9	18	
11 17	6 13.37	+22 47.8	1.350	2.213	16.1	19.1	11 17	6 6.35	+14 34.2	2.199	3.043	11.4	20.6
11 27	6 6.40	+23 11.0	1.315	2.241	11.4	18.9	11 27	6 0.90	+14 14.7	2.122	3.036	8.4	20.4
12 7	5 56.76	+23 34.1	1.302	2.270	6.1	18.7	12 7	5 53.72	+14 0.3	2.070	3.029	5.3	20.2
12 17	5 45.76	+23 54.3	1.316	2.300	0.7	18.4	12 17	5 45.48	+13 52.2	2.047	3.022	3.1	20.1
12 27	5 35.02	+24 10.3	1.357	2.330	4.7	18.8	12 27	5 37.10	+13 51.1	2.053	3.015	4.7	20.2
1 6	5 26.04	+24 22.3	1.425	2.360	9.5	19.2	1 6	5 29.49	+13 57.3	2.087	3.009	7.9	20.3
1 16	5 19.82	+24 31.9	1.517	2.390	13.6	19.5	1 16	5 23.45	+14 10.4	2.148	3.002	11.0	20.5
1 26	5 16.91	+24 41.0	1.629	2.421	16.9	19.8	1 26	5 19.54	+14 29.8	2.232	2.996	13.8	20.7
76878	2000 <i>YT</i> ₄₄		12 18.2 81°30	0.1/18.2	18		450039	2015 <i>RT</i> ₁₈		12 18.2 36°63	7.4/19.5	17	
11 17	6 13.97	+23 42.8	1.362	2.223	16.0	19.2	11 17	6 16.13	+41 25.0	1.454	2.288	16.7	20.5
11 27	6 7.17	+23 33.2	1.300	2.226	11.5	18.9	11 27	6 8.82	+41 45.9	1.406	2.303	13.2	20.3
12 7	5 57.39	+23 21.3	1.261	2.229	6.3	18.6	12 7	5 58.25	+41 46.2	1.380	2.318	9.7	20.2
12 17	5 45.86	+23 6.2	1.248	2.232	0.7	18.2	12 17	5 45.95	+41 20.7	1.378	2.333	7.5	20.1
12 27	5 34.23	+22 48.3	1.262	2.235	5.0	18.6	12 27	5 33.93	+40 29.6	1.402	2.350	8.3	20.2
1 6	5 24.20	+22 29.7	1.303	2.238	10.2	18.9	1 6	5 24.00	+39 18.4	1.452	2.367	11.1	20.4
1 16	5 17.01	+22 13.4	1.368	2.241	14.9	19.2	1 16	5 17.36	+37 56.1	1.525	2.384	14.4	20.6
1 26	5 13.34	+22 1.7	1.452	2.244	18.6	19.4	1 26	5 14.55	+36 31.5	1.619	2.402	17.4	20.9
448999	2012 <i>BV</i> ₄₉		12 18.2 68°56	0.1/18.2	18		69698	1998 <i>HW</i> ₄₃		12 18.2 184°03	5.9/18.2	18	
11 17	6 11.36	+23 28.4	1.791	2.643	13.3	21.2	11 17	6 17.05	+38 11.1	2.008	2.830	13.2	20.1
11 27	6 4.59	+23 24.6	1.740	2.662	9.4	21.1	11 27	6 9.16	+39 12.7	1.938	2.831	10.3	20.0
12 7	5 55.69	+23 19.4	1.715	2.681	5.1	20.8	12 7	5 58.48	+40 2.8	1.893	2.831	7.5	19.8
12 17	5 45.66	+23 11.9	1.717	2.700	0.5	20.5	12 17	5 46.01	+40 35.4	1.875	2.830	5.9	19.7
12 27	5 35.74	+23 2.5	1.748	2.720	3.9	20.8	12 27	5 33.24	+40 47.1	1.887	2.829	7.0	19.8
1 6	5 27.10	+22 52.2	1.807	2.739	8.1	21.1	1 6	5 21.72	+40 39.0	1.926	2.828	9.6	19.9
1 16	5 20.64	+22 42.8	1.893	2.758	11.8	21.4	1 16	5 12.69	+40 15.3	1.990	2.826	12.6	20.1
1 26	5 16.88	+22 36.1	2.001	2.777	14.7	21.6	1 26	5 6.94	+39 42.4	2.077	2.824	15.2	20.3
21325	1997 <i>AB</i> ₆		12 18.2 334°29	1.3/18.3	18		282002	2011 <i>HA</i> ₄₉		12 18.2 331°05	8.7/17.1	18	
11 17	6 13.14	+26 54.0	1.281	2.147	16.6	18.1	11 17	6 4.91	+ 1 35.7	1.895	2.714	14.0	20.5
11 27	6 6.88	+26 49.3	1.215	2.142	12.0	17.8	11 27	6 0.09	+ 0 30.6	1.822	2.700	11.6	20.3
12 7	5 57.38	+26 38.6	1.171	2.138	6.7	17.5	12 7	5 53.37	- 0 19.3	1.772	2.687	9.6	20.1
12 17	5 45.87	+26 19.8	1.151	2.135	1.5	17.2	12 17	5 45.46	- 0 49.2	1.746	2.674	8.7	20.0
12 27	5 34.16	+25 53.0	1.158	2.131	5.3	17.4	12 27	5 37.35	- 0 56.1	1.747	2.662	9.6	20.1
1 6	5 24.09	+25 21.4	1.191	2.128	10.7	17.7	1 6	5 30.05	- 0 39.9	1.773	2.651	11.7	20.2
1 16	5 17.04	+24 49.4	1.247	2.125	15.6	18.0	1 16	5 24.43	- 0 2.7	1.822	2.640	14.3	20.3
1 26	5 13.80	+24 21.2	1.322	2.123	19.6	18.2	1 26	5 21.13	+ 0 51.0	1.891	2.630	16.8	20.5
358289	2006 <i>UM</i> ₇₁		12 18.2 103°94	1.0/18.2	18		206540	2003 <i>UH</i> ₁₉₆		12 18.2 122°25	0.0/18.2	18	
11 17	6 11.69	+25 27.0	1.937	2.785	12.6	21.2	11 17	6 11.85	+23 49.8	1.789	2.640	13.3	20.3
11 27	6 4.89	+25 46.0	1.875	2.795	9.0	21.0	11 27	6 5.12	+23 43.0	1.723	2.644	9.5	20.1
12 7	5 55.92	+26 2.5	1.839	2.804	5.0	20.8	12 7	5 56.10	+23 34.2	1.683	2.649	5.2	19.9
12 17	5 45.70	+26 14.6	1.831	2.814	1.1	20.5	12 17	5 45.75	+23 22.6	1.670	2.654	0.6	19.5
12 27	5 35.43	+26 21.1	1.853	2.824	3.9	20.8	12 27	5 35.35	+23 8.5	1.686	2.658	4.1	19.8
1 6	5 26.30	+26 22.6	1.903	2.833	7.9	21.0	1 6	5 26.16	+22 53.3	1.731	2.662	8.4	20.1
1 16	5 19.23	+26 21.0	1.980	2.842	11.5	21.3	1 16	5 19.16	+22 39.1	1.801	2.666	12.3	20.3
1 26	5 14.85	+26 18.4	2.080	2.851	14.4	21.5	1 26	5 14.97	+22 27.9	1.894	2.670	15.5	20.6
475770	2006 <i>WE</i> ₁₉₂		12 18.2 341°79	0.7/18.2	18		408788	2000 <i>BN</i> ₂₀		12 18.2 0°			

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12 18.2

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	
435058	2006 XG ₂	12 18.2 173°46' 3°3/17.4 15						485705	2011 YY ₆₇	12 18.2 13°87' 4°2/18.7 17				
11 17	6 39.70	+15 18.3	0.647	1.515	27.7	21.4	11 17	6 10.30	+33 11.1	1.306	2.170	16.5	20.6	
11 27	6 29.37	+19 1.3	0.593	1.521	20.3	21.0	11 27	6 4.77	+33 18.3	1.253	2.175	12.2	20.4	
12 7	6 11.59	+23 28.2	0.558	1.526	11.3	20.5	12 7	5 56.17	+33 12.8	1.221	2.182	7.6	20.2	
12 17	5 47.62	+28 8.0	0.546	1.529	3.3	20.1	12 17	5 45.80	+32 51.4	1.214	2.190	4.3	20.0	
12 27	5 21.41	+32 17.7	0.561	1.530	10.4	20.5	12 27	5 35.48	+32 14.2	1.232	2.199	6.1	20.1	
1 6	4 58.16	+35 30.2	0.599	1.529	19.3	21.0	1 6	5 26.94	+31 25.5	1.276	2.210	10.5	20.4	
1 16	4 41.80	+37 46.2	0.657	1.526	26.6	21.4	1 16	5 21.39	+30 31.5	1.342	2.222	14.7	20.7	
1 26	4 33.89	+39 22.9	0.727	1.522	32.1	21.8	1 26	5 19.47	+29 38.4	1.429	2.235	18.2	21.0	
462234	2008 AD ₁₀₂	12 18.2 249°26' 15°9/21.0 16						334540	2002 RC ₂₆₀	12 18.2 120°83' 3°4/18.5 17				
11 17	6 16.74	-11 57.2	1.268	2.036	22.3	21.6	11 17	6 10.64	+34 10.9	2.409	3.240	11.0	21.4	
11 27	6 9.44	-12 20.4	1.199	2.026	19.8	21.4	11 27	6 3.99	+34 31.3	2.341	3.245	8.2	21.3	
12 7	5 58.88	-12 2.7	1.146	2.016	17.5	21.2	12 7	5 55.41	+34 43.3	2.299	3.250	5.3	21.1	
12 17	5 46.11	-10 55.3	1.114	2.005	16.1	21.1	12 17	5 45.72	+34 44.6	2.285	3.255	3.5	21.0	
12 27	5 32.84	- 8 55.9	1.104	1.993	16.3	21.1	12 27	5 35.96	+34 34.2	2.301	3.260	4.6	21.1	
1 6	5 20.89	- 6 11.6	1.117	1.981	18.1	21.2	1 6	5 27.19	+34 13.5	2.346	3.264	7.3	21.3	
1 16	5 11.77	- 2 55.9	1.152	1.969	21.0	21.3	1 16	5 20.24	+33 45.5	2.418	3.269	10.1	21.4	
1 26	5 6.44	+ 0 35.5	1.207	1.957	24.0	21.5	1 26	5 15.68	+33 13.7	2.514	3.273	12.5	21.6	
92985	2000 RY ₇₂	12 18.2 77°46' 0°4/18.2 18						256306	2006 WG ₁₈₄	12 18.2 356°53' 1°4/18.2 17				
11 17	6 14.30	+24 38.6	1.548	2.402	14.8	20.1	11 17	6 10.43	+25 50.5	1.821	2.673	13.0	20.5	
11 27	6 6.94	+24 37.7	1.500	2.422	10.5	19.9	11 27	6 4.27	+26 18.1	1.751	2.672	9.4	20.3	
12 7	5 57.07	+24 33.9	1.476	2.443	5.7	19.6	12 7	5 55.74	+26 43.7	1.706	2.672	5.3	20.0	
12 17	5 45.87	+24 26.0	1.479	2.463	0.8	19.3	12 17	5 45.77	+27 4.5	1.689	2.671	1.5	19.8	
12 27	5 34.84	+24 14.0	1.511	2.483	4.4	19.7	12 27	5 35.60	+27 18.9	1.700	2.671	4.2	20.0	
1 6	5 25.37	+23 59.8	1.570	2.502	9.0	20.0	1 6	5 26.51	+27 27.0	1.740	2.671	8.4	20.2	
1 16	5 18.48	+23 45.8	1.654	2.522	13.0	20.3	1 16	5 19.57	+27 30.5	1.805	2.671	12.2	20.4	
1 26	5 14.71	+23 34.5	1.760	2.541	16.3	20.5	1 26	5 15.46	+27 31.6	1.892	2.671	15.4	20.7	
237871	2002 JU ₉₄	12 18.2 153°82' 3°5/18.1 18						389391	2009 WM ₂₅₅	12 18.2 15°25' 1°3/18.3 18				
11 17	6 15.01	+31 24.3	2.008	2.844	12.7	20.9	11 17	6 10.87	+18 39.7	1.211	2.081	17.0	20.3	
11 27	6 7.45	+32 15.4	1.941	2.850	9.4	20.7	11 27	6 5.24	+19 11.1	1.155	2.084	12.3	20.0	
12 7	5 57.44	+33 0.2	1.900	2.856	5.9	20.5	12 7	5 56.51	+19 49.7	1.120	2.088	6.8	19.8	
12 17	5 45.93	+33 34.1	1.887	2.861	3.5	20.4	12 17	5 45.86	+20 33.0	1.109	2.093	1.5	19.4	
12 27	5 34.22	+33 54.5	1.905	2.865	5.1	20.5	12 27	5 35.01	+21 17.6	1.125	2.098	5.3	19.7	
1 6	5 23.65	+34 1.7	1.951	2.870	8.5	20.7	1 6	5 25.71	+22 1.4	1.166	2.104	10.8	20.0	
1 16	5 15.30	+33 58.4	2.024	2.873	11.8	20.9	1 16	5 19.30	+22 43.3	1.230	2.111	15.6	20.3	
1 26	5 9.88	+33 48.9	2.119	2.877	14.6	21.1	1 26	5 16.56	+23 23.3	1.313	2.119	19.5	20.6	
415623	2014 QM ₃₆₇	12 18.2 11°36' 11°1/17.5 17						120335	2004 OP ₁₄	12 18.2 269°69' 0°1/18.2 18				
11 17	6 5.61	- 7 50.0	2.052	2.823	14.8	20.5	11 17	6 10.16	+25 4.4	2.068	2.915	11.9	19.7	
11 27	6 0.38	- 8 59.0	1.997	2.824	13.0	20.4	11 27	6 3.80	+24 40.2	1.987	2.906	8.6	19.5	
12 7	5 53.43	- 9 46.0	1.964	2.825	11.6	20.3	12 7	5 55.38	+24 12.0	1.931	2.897	4.7	19.2	
12 17	5 45.49	-10 6.4	1.954	2.827	11.1	20.3	12 17	5 45.73	+23 39.7	1.903	2.887	0.5	18.9	
12 27	5 37.47	- 9 57.8	1.968	2.829	11.5	20.3	12 27	5 35.94	+23 4.4	1.906	2.878	3.7	19.1	
1 6	5 30.30	- 9 21.6	2.005	2.832	12.8	20.4	1 6	5 27.13	+22 28.4	1.938	2.868	7.8	19.4	
1 16	5 24.74	- 8 21.5	2.065	2.834	14.6	20.6	1 16	5 20.20	+21 54.3	1.997	2.859	11.4	19.6	
1 26	5 21.33	- 7 3.4	2.143	2.837	16.3	20.7	1 26	5 15.78	+21 24.5	2.078	2.849	14.5	19.8	
274851	2009 QH ₄₈	12 18.2 115°61' 2°5/18.4 18						487379	2014 QK ₂₇₇	12 18.2 135°47' 3°0/18.2 18				
11 17	6 16.37	+29 21.8	1.514	2.364	15.3	21.0	11 17	6 8.96	+14 26.8	2.094	2.935	12.1	21.8	
11 27	6 8.73	+29 35.3	1.455	2.374	11.1	20.8	11 27	6 2.77	+14 19.4	2.027	2.939	8.8	21.6	
12 7	5 58.20	+29 41.2	1.421	2.384	6.5	20.5	12 7	5 54.76	+14 18.0	1.985	2.944	5.4	21.4	
12 17	5 46.01	+29 36.3	1.413	2.393	2.6	20.3	12 17	5 45.67	+14 23.2	1.972	2.948	3.0	21.2	
12 27	5 33.83	+29 19.8	1.433	2.402	5.1	20.5	12 27	5 36.49	+14 35.0	1.989	2.952	4.7	21.3	
1 6	5 23.29	+28 54.4	1.481	2.411	9.7	20.8	1 6	5 28.22	+14 53.1	2.034	2.956	8.0	21.6	
1 16	5 15.57	+28 24.5	1.553	2.420	13.8	21.1	1 16	5 21.67	+15 16.6	2.106	2.960	11.2	21.8	
1 26	5 11.34	+27 54.9	1.646	2.428	17.2	21.3	1 26	5 17.40	+15 44.9	2.201	2.963	14.0	22.0	
482515	2012 TD ₁₅₅	12 18.2 129°88' 0°9/18.2 18						420125	2011 FV ₄₀	12 18.2 216°89' 4°3/17.8 18				
11 17	6 14.03	+20 57.4	1.849	2.693	13.2	22.3	11 17	6 6.18	+ 9 58.7	2.536	3.364	10.6	21.7	
11 27	6 6.50	+20 57.9	1.790	2.708	9.4	22.1	11 27	6 0.57	+ 9 25.5	2.461	3.360	8.1	21.6	
12 7	5 56.79	+20 59.1	1.756	2.721	5.2	21.8	12 7	5 53.49	+ 8 59.3	2.412	3.356	5.6	21.4	
12 17	5 45.85	+21 0.2	1.751	2.734	1.0	21.6	12 17	5 45.54	+ 8 42.0	2.392	3.353	4.3	21.3	
12 27	5 34.93	+21 1.1	1.776	2.747	4.1	21.8	12 27	5 37.50	+ 8 34.9	2.401	3.349	5.3	21.4	
1 6	5 25.24	+21 2.3	1.830	2.759	8.3	22.1	1 6	5 30.13	+ 8 38.0	2.440	3.344	7.7	21.5	
1 16	5 17.72	+21 4.8	1.911	2.770	12.0	22.3	1 16	5 24.11	+ 8 50.9	2.505	3.340	10.3	21.7	
1 26	5 12.94	+21 9.8	2.014	2.780	15.0	22.6	1 26	5 19.93	+ 9 12.2	2.593	3.336	12.6	21.8	
60259	1999 XY ₅	12 18.2 192°70' 0°4/18.2 18						273801	2007 FG ₂₃	12 18.2 164°22' 0°4/18.2 18				
11 17	6 14.48	+22 52.9	1.869	2.713	13.1	19.6	11 17	6 13.34	+22 2.3	1.930	2.775	12.8	21.3	
11 27	6 6.99	+22 42.3	1.794	2.712	9.4	19.4	11 27	6 6.09	+22 7.7	1.862	2.780	9.1	21.1	
12 7	5 57.16	+22 30.2	1.744	2.710	5.2	19.1	12 7	5 56.65	+22 13.2	1.819	2.784	5.0	20.8	
12 17	5 45.91	+22 15.7	1.723	2.707	0.7	18.8	12 17	5 45.90	+22 17.5	1.804	2.788	0.7	20.5	
12 27	5 34.52	+21 59.3	1.732	2.703	4.1	19.0	12 27	5 35.05	+22 20.1	1.820	2.791	3.9	20.8	
1 6	5 24.27	+21 42.5	1.770	2.699	8.5	19.3	1 6	5 25.30	+22 21.7	1.865	2.794	8.1	21.1	
1 16	5 16.18	+21 27.3	1.835	2.693	12.4	19.5	1 16	5 17.61	+22 23.3	1.937	2.796	11.8	21.3	
1 26	5 10.94	+21 15.9	1.922	2.687	15.6	19.7	1 26	5 12.63	+22 26.5	2.031	2.797	14.9	21.5	
45837	2000 RD ₂₇	12 18.2 148°78' 6°6/19.2 18 R						58058	2118 P-L	12 18.2 79°08' 1°9/18.1 18				
11 17	6 19.65	+42 0.4	1.923	2.734	14.2	19.3	11 17	6 11.53	+19 13.7	1.707	2.559	13.8	20.2	
11 27	6 10.92	+42 26.5	1.859	2.741	11.2	19.1	11 27	6 4.81	+18 55.3					

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
195082	2002 <i>CC</i> ₁₀₈	12 18.2 297°99	3°0/18.2 18				455684	2005 <i>EY</i> ₆₇	12 18.2 256°14	10°2/17.5 18			
11 17	6 10.19	+16 5.5	1.566	2.421	14.6	19.9	11 17	6 5.86	-12 43.4	2.695	3.418	12.8	21.6
11 27	6 4.33	+15 56.3	1.490	2.410	10.8	19.7	11 27	6 0.36	-13 31.2	2.621	3.404	11.6	21.5
12 7	5 55.91	+15 53.5	1.436	2.399	6.4	19.4	12 7	5 53.40	-13 59.2	2.569	3.390	10.6	21.4
12 17	5 45.84	+15 57.6	1.409	2.388	3.1	19.1	12 17	5 45.56	-14 3.7	2.540	3.375	10.2	21.3
12 27	5 35.44	+16 8.9	1.410	2.378	5.5	19.3	12 27	5 37.56	-13 42.7	2.537	3.361	10.5	21.3
1 6	5 26.12	+16 27.2	1.438	2.367	10.0	19.5	1 6	5 30.15	-12 57.1	2.557	3.346	11.5	21.4
1 16	5 19.06	+16 51.8	1.489	2.357	14.2	19.7	1 16	5 23.99	-11 49.9	2.600	3.331	12.8	21.4
1 26	5 15.05	+17 22.0	1.562	2.347	17.9	20.0	1 26	5 19.59	-10 25.5	2.663	3.316	14.2	21.5
74155	1998 <i>QK</i> ₉₃	12 18.2 351°91	9°1/17.9 18				328692	2009 <i>SP</i> ₃₅₂	12 18.2 36°18	3°2/18.2 17			
11 17	6 14.22	+41 9.6	1.435	2.273	16.7	16.9	11 17	6 11.29	+30 55.7	2.101	2.942	12.0	20.7
11 27	6 8.19	+42 37.7	1.372	2.268	13.5	16.6	11 27	6 4.76	+31 40.1	2.031	2.943	8.8	20.5
12 7	5 58.42	+43 49.8	1.331	2.263	10.6	16.5	12 7	5 56.00	+32 19.0	1.986	2.944	5.5	20.3
12 17	5 46.12	+44 36.5	1.314	2.259	9.1	16.4	12 17	5 45.85	+32 48.7	1.969	2.944	3.2	20.1
12 27	5 33.34	+44 51.8	1.322	2.257	10.1	16.4	12 27	5 35.49	+33 7.0	1.982	2.945	4.8	20.2
1 6	5 22.28	+44 37.2	1.354	2.255	12.9	16.6	1 6	5 26.13	+33 13.9	2.024	2.946	8.0	20.4
1 16	5 14.61	+43 59.5	1.407	2.254	16.2	16.8	1 16	5 18.76	+33 11.8	2.092	2.947	11.3	20.6
1 26	5 11.28	+43 7.9	1.479	2.254	19.2	17.0	1 26	5 14.07	+33 4.0	2.182	2.947	14.0	20.8
14971	1997 <i>QN</i> ₃	12 18.2 52°85	4°0/18.4 18				410680	2008 <i>UW</i> ₃₆₀	12 18.2 46°99	1°2/18.1 17			
11 17	6 13.27	+32 28.5	1.672	2.519	14.3	17.7	11 17	6 10.36	+24 25.4	2.176	3.020	11.5	20.1
11 27	6 6.46	+33 7.9	1.617	2.530	10.6	17.5	11 27	6 3.93	+25 21.0	2.109	3.026	8.2	19.9
12 7	5 56.97	+33 38.5	1.586	2.542	6.7	17.3	12 7	5 55.49	+26 16.7	2.068	3.033	4.6	19.7
12 17	5 45.94	+33 55.7	1.581	2.555	4.1	17.2	12 17	5 45.80	+27 9.2	2.057	3.039	1.3	19.5
12 27	5 34.87	+33 57.7	1.605	2.567	5.7	17.3	12 27	5 35.91	+27 55.7	2.076	3.046	3.7	19.7
1 6	5 25.25	+33 46.2	1.655	2.580	9.3	17.6	1 6	5 26.91	+28 34.9	2.125	3.053	7.4	19.9
1 16	5 18.20	+33 25.1	1.731	2.593	12.9	17.8	1 16	5 19.69	+29 7.2	2.202	3.060	10.6	20.1
1 26	5 14.38	+32 59.5	1.828	2.606	15.9	18.1	1 26	5 14.91	+29 34.0	2.302	3.067	13.4	20.3
231647	2009 <i>VD</i> ₁₁₀	12 18.2 58°78	2°7/18.1 17				257408	2009 <i>SH</i> ₃₅₈	12 18.2 25°67	2°0/18.3 18			
11 17	6 11.21	+29 5.6	2.045	2.889	12.2	20.1	11 17	6 8.55	+16 42.7	1.823	2.674	13.1	19.5
11 27	6 4.62	+29 55.1	1.986	2.901	8.8	19.9	11 27	6 2.76	+17 1.7	1.760	2.680	9.5	19.3
12 7	5 55.86	+30 40.3	1.952	2.913	5.3	19.7	12 7	5 54.87	+17 26.8	1.722	2.685	5.4	19.1
12 17	5 45.82	+31 17.3	1.947	2.925	2.7	19.6	12 17	5 45.73	+17 57.0	1.710	2.692	2.0	18.9
12 27	5 35.66	+31 44.0	1.972	2.937	4.5	19.7	12 27	5 36.47	+18 30.9	1.728	2.698	4.3	19.0
1 6	5 26.57	+32 0.3	2.025	2.949	7.9	19.9	1 6	5 28.23	+19 7.2	1.775	2.705	8.3	19.3
1 16	5 19.50	+32 8.0	2.105	2.962	11.1	20.2	1 16	5 21.93	+19 44.8	1.847	2.712	12.0	19.5
1 26	5 15.08	+32 10.0	2.207	2.974	13.8	20.4	1 26	5 18.21	+20 23.1	1.941	2.720	15.0	19.7
442321	2011 <i>SA</i> ₁₂₉	12 18.2 119°31	2°0/18.1 15				298510	2003 <i>WU</i> ₉	12 18.2 146°70	6°4/18.4 18			
11 17	6 11.99	+17 24.5	2.132	2.971	11.9	22.6	11 17	6 18.06	+40 42.2	2.111	2.922	13.1	20.7
11 27	6 4.78	+17 16.8	2.077	2.990	8.6	22.5	11 27	6 9.80	+41 43.2	2.048	2.931	10.3	20.6
12 7	5 55.77	+17 12.5	2.047	3.009	4.9	22.3	12 7	5 58.82	+42 30.6	2.011	2.938	7.8	20.4
12 17	5 45.80	+17 11.4	2.047	3.027	2.1	22.1	12 17	5 46.17	+42 58.6	2.001	2.946	6.5	20.3
12 27	5 35.88	+17 13.9	2.077	3.044	4.1	22.3	12 27	5 33.34	+43 4.4	2.019	2.953	7.3	20.4
1 6	5 27.01	+17 19.9	2.137	3.061	7.6	22.5	1 6	5 21.84	+42 49.5	2.066	2.959	9.5	20.6
1 16	5 19.96	+17 29.7	2.224	3.077	10.8	22.8	1 16	5 12.86	+42 18.8	2.138	2.965	12.1	20.7
1 26	5 15.24	+17 43.2	2.335	3.092	13.4	23.0	1 26	5 7.11	+41 38.6	2.232	2.971	14.5	20.9
298272	2002 <i>XY</i> ₆	12 18.2 18°19	5°4/19.1 17				344908	2004 <i>RV</i> ₁₉₅	12 18.2 42°63	3°4/18.7 18			
11 17	6 10.26	+35 19.1	1.076	1.947	18.6	18.5	11 17	6 14.46	+32 16.6	1.418	2.273	15.9	20.2
11 27	6 5.09	+35 22.7	1.036	1.960	13.9	18.2	11 27	6 7.54	+32 13.8	1.362	2.280	11.7	20.0
12 7	5 56.42	+35 8.7	1.015	1.975	9.0	18.0	12 7	5 57.62	+31 59.2	1.328	2.289	7.1	19.7
12 17	5 45.87	+34 33.7	1.017	1.991	5.6	17.9	12 17	5 46.03	+31 30.0	1.319	2.297	3.5	19.5
12 27	5 35.61	+33 39.2	1.043	2.010	7.1	18.0	12 27	5 34.52	+30 47.0	1.338	2.306	5.6	19.7
1 6	5 27.57	+32 31.9	1.093	2.030	11.5	18.3	1 6	5 24.79	+29 54.5	1.383	2.316	10.0	20.0
1 16	5 22.97	+31 20.2	1.165	2.052	15.8	18.7	1 16	5 18.00	+28 58.7	1.453	2.325	14.2	20.2
1 26	5 22.31	+30 11.5	1.256	2.075	19.5	19.0	1 26	5 14.79	+28 5.4	1.543	2.335	17.7	20.5
272255	2005 <i>QR</i> ₁₄₇	12 18.2 41°73	4°2/18.2 18				345334	2005 <i>YD</i> ₁₁₁	12 18.2 262°46	1°5/18.1 18			
11 17	6 15.16	+29 40.5	1.134	2.002	18.1	19.8	11 17	6 11.86	+20 3.7	1.736	2.587	13.6	21.7
11 27	6 8.48	+30 38.8	1.094	2.020	13.2	19.6	11 27	6 5.43	+19 54.0	1.651	2.572	9.9	21.5
12 7	5 58.28	+31 29.0	1.075	2.039	7.9	19.4	12 7	5 56.49	+19 45.7	1.591	2.556	5.6	21.2
12 17	5 46.09	+32 4.4	1.081	2.059	4.2	19.2	12 17	5 45.93	+19 38.8	1.558	2.540	1.6	20.9
12 27	5 34.00	+32 21.7	1.112	2.079	6.6	19.4	12 27	5 35.01	+19 33.4	1.554	2.524	4.6	21.1
1 6	5 24.04	+32 22.6	1.168	2.101	11.4	19.7	1 6	5 25.10	+19 30.3	1.578	2.508	9.2	21.3
1 16	5 17.54	+32 12.2	1.245	2.122	15.8	20.1	1 16	5 17.35	+19 30.9	1.628	2.492	13.4	21.5
1 26	5 15.14	+31 56.4	1.342	2.144	19.4	20.4	1 26	5 12.53	+19 36.0	1.698	2.475	17.0	21.7
433427	2013 <i>TD</i> ₈₆	12 18.2 237°10	2°1/18.1 18				441225	2007 <i>VA</i> ₈₇	12 18.2 42°55	2°3/17.8 17			
11 17	6 13.79	+18 45.4	1.464	2.320	15.5	22.1	11 17	6 11.41	+20 36.6	1.521	2.379	14.8	20.6
11 27	6 7.05	+18 35.6	1.390	2.313	11.2	21.8	11 27	6 4.94	+19 39.1	1.465	2.389	10.6	20.4
12 7	5 57.45	+18 29.3	1.340	2.305	6.4	21.5	12 7	5 56.06	+18 41.0	1.432	2.398	6.0	20.2
12 17	5 46.02	+18 26.4	1.316	2.298	2.2	21.3	12 17	5 45.87	+17 45.0	1.427	2.408	2.4	19.9
12 27	5 34.28	+18 27.2	1.319	2.289	5.3	21.4	12 27	5 35.79	+16 54.2	1.450	2.419	5.2	20.2
1 6	5 23.82	+18 32.0	1.350	2.281	10.3	21.7	1 6	5 27.14	+16 12.0	1.500	2.429	9.7	20.4
1 16	5 15.93	+18 41.7	1.405	2.273	14.9	22.0	1 16	5 20.90	+15 40.6	1.575	2.440	13.7	20.7
1 26	5 11.41	+18 56.8	1.480	2.264	18.7	22.2	1 26	5 17.65	+15 20.5	1.670	2.452	17.0	21.0
96843	1999 <i>RN</i> ₂₀₉	12 18.2 337°28	3°0/17.6 18				225063	2007 <i>HG</i> ₁₆	1				

EPHEMERIDES

12 18.2

12 18.2

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
119053	2001 KR ₁₁	12 18.2 159°25			1.2°/18.2 18		293844	2007 RF ₂₁₇	12 18.2 93°64			0.1°/18.2 18	
11 17	6 14.15	+19 57.2	1.963	2.804	12.7	20.8	11 17	6 12.76	+22 58.1	1.757	2.608	13.5	21.3
11 27	6 6.60	+19 57.1	1.896	2.812	9.1	20.5	11 27	6 5.76	+23 4.0	1.702	2.622	9.6	21.1
12 7	5 56.91	+19 58.5	1.855	2.820	5.1	20.3	12 7	5 56.49	+23 9.3	1.671	2.637	5.2	20.9
12 17	5 45.98	+20 0.8	1.843	2.826	1.3	20.1	12 17	5 45.96	+23 12.4	1.667	2.651	0.6	20.5
12 27	5 34.98	+20 3.8	1.862	2.832	4.0	20.3	12 27	5 35.45	+23 13.1	1.694	2.665	4.1	20.8
1 6	5 25.09	+20 7.7	1.910	2.837	8.1	20.5	1 6	5 26.23	+23 12.1	1.748	2.679	8.4	21.1
1 16	5 17.22	+20 13.5	1.985	2.841	11.7	20.8	1 16	5 19.24	+23 10.9	1.829	2.693	12.1	21.4
1 26	5 12.00	+20 21.9	2.082	2.844	14.7	21.0	1 26	5 15.08	+23 11.1	1.931	2.707	15.2	21.6
89343	2001 VX ₆₂	12 18.2 153°08			1.4°/18.0 18		44838	1999 TK ₂₇₂	12 18.2 202°98			1.8°/18.4 18	
11 17	6 10.47	+21 3.7	2.132	2.976	11.7	19.6	11 17	6 15.80	+28 30.8	1.632	2.480	14.5	18.9
11 27	6 3.83	+20 29.1	2.062	2.980	8.4	19.4	11 27	6 8.34	+28 28.5	1.559	2.478	10.5	18.6
12 7	5 55.34	+19 53.7	2.019	2.984	4.7	19.2	12 7	5 58.10	+28 19.2	1.511	2.475	6.0	18.3
12 17	5 45.80	+19 18.5	2.005	2.987	1.4	19.0	12 17	5 46.15	+28 0.4	1.489	2.471	2.0	18.1
12 27	5 36.25	+18 45.0	2.021	2.990	3.9	19.2	12 27	5 34.05	+27 32.3	1.497	2.467	4.7	18.2
1 6	5 27.70	+18 15.1	2.067	2.993	7.6	19.4	1 6	5 23.36	+26 57.4	1.532	2.463	9.4	18.5
1 16	5 20.95	+17 50.5	2.139	2.996	11.0	19.6	1 16	5 15.26	+26 20.2	1.593	2.459	13.6	18.7
1 26	5 16.54	+17 32.4	2.235	2.998	13.8	19.8	1 26	5 10.49	+25 45.1	1.675	2.453	17.1	19.0
186280	2002 AW ₁₀₈	12 18.2 2°35			1.6°/18.3 18		88972	2001 TT ₅₈	12 18.2 270°33			2.4°/18.4 17	
11 17	6 9.16	+17 50.4	1.854	2.705	12.9	20.1	11 17	6 11.58	+29 36.6	1.939	2.784	12.7	19.5
11 27	6 3.24	+18 5.8	1.785	2.704	9.3	19.8	11 27	6 5.10	+29 56.4	1.862	2.778	9.3	19.3
12 7	5 55.17	+18 26.3	1.740	2.704	5.3	19.6	12 7	5 56.26	+30 10.4	1.811	2.772	5.5	19.0
12 17	5 45.80	+18 50.7	1.723	2.705	1.7	19.4	12 17	5 45.95	+30 15.9	1.787	2.766	2.5	18.8
12 27	5 36.24	+19 17.9	1.735	2.705	4.2	19.5	12 27	5 35.42	+30 11.7	1.792	2.760	4.5	19.0
1 6	5 27.67	+19 46.9	1.775	2.705	8.3	19.8	1 6	5 25.96	+29 58.7	1.826	2.754	8.3	19.2
1 16	5 21.04	+20 17.3	1.841	2.706	12.0	20.0	1 16	5 18.63	+29 39.9	1.886	2.748	12.0	19.4
1 26	5 17.01	+20 48.7	1.930	2.707	15.2	20.2	1 26	5 14.11	+29 18.8	1.968	2.742	15.1	19.6
159732	2003 DP ₂₂	12 18.2 296°26			0.5°/18.3 18		237804	2002 CP ₂₄	12 18.2 303°65			5.9°/17.6 17	
11 17	6 11.98	+20 37.7	1.499	2.358	15.0	19.7	11 17	6 9.62	+11 45.2	1.486	2.338	15.5	20.1
11 27	6 5.86	+21 4.3	1.423	2.347	10.8	19.4	11 27	6 4.25	+10 59.8	1.393	2.307	11.9	19.8
12 7	5 56.88	+21 34.9	1.370	2.337	6.0	19.1	12 7	5 56.09	+10 22.5	1.322	2.276	8.1	19.5
12 17	5 46.01	+22 7.3	1.343	2.327	0.8	18.7	12 17	5 45.96	+9 57.0	1.276	2.245	5.9	19.3
12 27	5 34.70	+22 39.0	1.344	2.316	4.8	19.0	12 27	5 35.20	+9 46.7	1.257	2.214	7.8	19.3
1 6	5 24.56	+23 8.8	1.372	2.306	9.9	19.2	1 6	5 25.33	+9 53.2	1.264	2.184	12.0	19.4
1 16	5 16.90	+23 36.7	1.425	2.297	14.5	19.5	1 16	5 17.70	+10 15.8	1.294	2.153	16.5	19.6
1 26	5 12.58	+24 3.8	1.497	2.287	18.3	19.7	1 26	5 13.28	+10 52.5	1.342	2.123	20.4	19.8
281289	2007 RV ₁₄₂	12 18.2 112°81			6.5°/17.8 18		164508	2006 GH ₅₁	12 18.2 227°95			0.1°/18.3 18	
11 17	6 5.70	+1 43.3	2.560	3.362	11.3	20.7	11 17	6 9.07	+25 9.5	2.721	3.558	9.7	20.5
11 27	6 0.16	+1 2.0	2.501	3.370	9.2	20.5	11 27	6 2.65	+24 44.9	2.634	3.549	6.9	20.3
12 7	5 53.25	+0 33.4	2.466	3.378	7.4	20.4	12 7	5 54.67	+24 16.8	2.575	3.540	3.8	20.1
12 17	5 45.58	+0 19.7	2.459	3.386	6.5	20.4	12 17	5 45.78	+23 45.3	2.546	3.530	0.4	19.8
12 27	5 37.88	+0 22.3	2.480	3.394	7.2	20.5	12 27	5 36.79	+23 11.3	2.549	3.520	3.0	20.0
1 6	5 30.89	+0 40.5	2.529	3.402	8.8	20.6	1 6	5 28.54	+22 36.4	2.582	3.509	6.2	20.2
1 16	5 25.21	+1 12.6	2.603	3.410	10.8	20.7	1 16	5 21.73	+22 2.7	2.644	3.498	9.2	20.3
1 26	5 21.30	+1 55.5	2.699	3.417	12.7	20.9	1 26	5 16.87	+21 32.0	2.731	3.487	11.7	20.5
76213	2000 ET ₆₄	12 18.2 59°57			8.7°/17.5 18		418669	2008 TK ₁₃₁	12 18.2 168°65			1.5°/18.0 17	
11 17	6 5.93	- 2 29.5	2.235	3.025	13.1	19.3	11 17	6 7.61	+19 23.1	2.487	3.329	10.3	21.0
11 27	6 0.49	- 3 30.5	2.179	3.031	11.1	19.2	11 27	6 1.65	+19 0.1	2.415	3.331	7.4	20.8
12 7	5 53.49	- 4 14.6	2.147	3.038	9.4	19.1	12 7	5 54.13	+18 38.1	2.368	3.332	4.2	20.6
12 17	5 45.61	- 4 38.1	2.140	3.044	8.7	19.1	12 17	5 45.72	+18 17.6	2.352	3.333	1.6	20.4
12 27	5 37.70	- 4 39.0	2.160	3.051	9.3	19.1	12 27	5 37.25	+17 59.5	2.366	3.334	3.5	20.5
1 6	5 30.59	- 4 18.2	2.206	3.058	10.8	19.2	1 6	5 29.56	+17 44.8	2.410	3.334	6.7	20.7
1 16	5 24.97	- 3 38.4	2.275	3.065	12.8	19.4	1 16	5 23.35	+17 34.3	2.481	3.335	9.7	20.9
1 26	5 21.33	- 2 43.7	2.364	3.071	14.6	19.5	1 26	5 19.10	+17 28.6	2.576	3.336	12.3	21.1
183184	2002 SR ₅₄	12 18.2 107°98			2.8°/18.0 18		516921	2011 UK ₃₀₀	12 18.2 90°79			5.5°/17.4 18	
11 17	6 14.26	+17 44.3	1.544	2.395	15.0	20.5	11 17	6 9.84	+11 10.5	1.828	2.668	13.6	21.1
11 27	6 6.91	+17 14.0	1.490	2.410	10.9	20.3	11 27	6 3.54	+10 2.8	1.767	2.673	10.3	20.9
12 7	5 57.13	+16 47.4	1.461	2.424	6.3	20.0	12 7	5 55.25	+9 2.7	1.730	2.678	7.2	20.8
12 17	5 46.01	+16 25.5	1.458	2.438	2.9	19.9	12 17	5 45.84	+8 13.9	1.722	2.684	5.5	20.7
12 27	5 34.98	+16 9.9	1.484	2.451	5.4	20.0	12 27	5 36.43	+7 39.7	1.741	2.689	6.9	20.8
1 6	5 25.41	+16 1.5	1.538	2.464	9.7	20.3	1 6	5 28.09	+7 21.2	1.788	2.694	10.0	21.0
1 16	5 18.29	+16 1.0	1.616	2.477	13.7	20.6	1 16	5 21.68	+7 18.1	1.860	2.699	13.1	21.2
1 26	5 14.21	+16 8.2	1.715	2.489	16.9	20.9	1 26	5 17.77	+7 28.4	1.952	2.705	15.9	21.4
457855	2009 SH ₁₇₂	12 18.2 61°92			1.2°/18.2 17		57167	2001 QV ₁₈	12 18.2 70°42			3.8°/18.3 18	
11 17	6 9.32	+19 44.3	1.957	2.806	12.4	21.4	11 17	6 12.86	+14 25.9	1.414	2.268	16.0	18.8
11 27	6 3.08	+19 42.6	1.903	2.823	8.8	21.2	11 27	6 6.06	+14 16.7	1.367	2.285	11.7	18.6
12 7	5 54.95	+19 42.9	1.875	2.840	4.9	21.0	12 7	5 56.73	+14 16.4	1.342	2.303	7.1	18.4
12 17	5 45.77	+19 45.0	1.875	2.857	1.3	20.8	12 17	5 46.01	+14 25.5	1.343	2.320	3.8	18.2
12 27	5 36.63	+19 48.6	1.904	2.874	3.9	21.1	12 27	5 35.37	+14 43.6	1.372	2.338	5.9	18.4
1 6	5 28.58	+19 54.0	1.962	2.892	7.7	21.3	1 6	5 26.23	+15 9.5	1.428	2.356	10.2	18.7
1 16	5 22.42	+20 1.6	2.046	2.909	11.1	21.6	1 16	5 19.63	+15 42.0	1.507	2.373	14.2	19.0
1 26	5 18.68	+20 11.9	2.153	2.927	13.9	21.8	1 26	5 16.16	+16 19.2	1.607	2.391	17.5	19.2
174392	2002 VE ₂₆	12 18.2 71°47			0.7°/18.2 18		413271	2003 UK ₁₅	12 18.2 56°38			4.1°/18.4 17	
11 17	6 12.81	+22 6.3	1.718	2.569	13.8	20.3	11 17	6 11.60	+34 28.7	2.082	2.918	12.3	20.9
11 27	6 5.65	+21 55.3	1.673	2.594									

EPHEMERIDES

12 18.2

12 18.3

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
177539	2004 <i>FZ</i> ₅₃		12 18.2	53°39	3°1/18.5	18	69346	1993 <i>TV</i> ₃₂		12 18.3	64°22	0°8/18.3	18 R
11 17	6 12.65	+31 12.3	1.736	2.583	13.8	20.0	11 17	6 15.08	+21 1.4	1.216	2.081	17.3	19.3
11 27	6 5.95	+31 28.5	1.674	2.589	10.1	19.8	11 27	6 8.07	+21 13.7	1.170	2.098	12.4	19.1
12 7	5 56.72	+31 36.5	1.636	2.596	6.1	19.6	12 7	5 58.00	+21 28.4	1.147	2.115	6.8	18.8
12 17	5 46.02	+31 33.3	1.625	2.602	3.1	19.4	12 17	5 46.21	+21 43.2	1.148	2.132	1.1	18.5
12 27	5 35.27	+31 18.1	1.642	2.609	5.0	19.6	12 27	5 34.53	+21 56.9	1.177	2.150	5.2	18.8
1 6	5 25.88	+30 53.2	1.687	2.616	8.8	19.8	1 6	5 24.68	+22 9.6	1.231	2.167	10.5	19.2
1 16	5 18.91	+30 22.3	1.758	2.623	12.5	20.1	1 16	5 17.89	+22 22.5	1.308	2.185	15.2	19.5
1 26	5 15.01	+29 49.9	1.850	2.630	15.7	20.3	1 26	5 14.77	+22 36.7	1.405	2.203	18.9	19.8
460009	2014 <i>OJ</i> ₁₁₂		12 18.2	41°74	5°0/19.8	16	41208	1999 <i>WL</i> ₉		12 18.3	98°84	0°3/18.3	18
11 17	6 18.40	+39 34.4	1.678	2.504	15.2	20.3	11 17	6 13.73	+21 36.3	1.877	2.722	13.0	19.6
11 27	6 9.60	+39 3.1	1.641	2.539	11.5	20.1	11 27	6 6.30	+21 51.7	1.826	2.744	9.3	19.4
12 7	5 58.37	+38 13.5	1.628	2.574	7.8	20.0	12 7	5 56.76	+22 7.7	1.800	2.766	5.0	19.2
12 17	5 46.17	+37 4.7	1.643	2.609	5.2	19.9	12 17	5 46.07	+22 22.6	1.803	2.787	0.7	18.9
12 27	5 34.65	+35 39.9	1.686	2.644	6.0	20.0	12 27	5 35.45	+22 35.6	1.836	2.807	3.9	19.2
1 6	5 25.17	+34 6.0	1.758	2.680	9.0	20.3	1 6	5 26.07	+22 46.8	1.898	2.827	7.9	19.5
1 16	5 18.56	+32 30.7	1.856	2.716	12.2	20.5	1 16	5 18.82	+22 57.1	1.987	2.847	11.5	19.8
1 26	5 15.16	+31 0.6	1.977	2.752	15.0	20.8	1 26	5 14.25	+23 7.7	2.098	2.866	14.4	20.0
116731	2004 <i>DC</i> ₂₄		12 18.2	215°30	0°9/18.2	18	405889	2006 <i>FH</i> ₃₂		12 18.3	194°47	3°9/18.4	18
11 17	6 13.62	+22 25.8	1.551	2.406	14.8	20.0	11 17	6 11.35	+36 23.5	2.690	3.511	10.3	21.0
11 27	6 6.78	+22 5.2	1.481	2.403	10.6	19.7	11 27	6 4.53	+36 56.4	2.614	3.509	7.9	20.9
12 7	5 57.26	+21 43.2	1.434	2.401	5.9	19.4	12 7	5 55.83	+37 20.8	2.564	3.507	5.4	20.7
12 17	5 46.10	+21 19.6	1.415	2.398	1.1	19.1	12 17	5 45.98	+37 33.6	2.543	3.505	4.0	20.6
12 27	5 34.80	+20 55.5	1.423	2.395	4.7	19.4	12 27	5 35.96	+37 33.5	2.552	3.502	4.8	20.7
1 6	5 24.83	+20 32.9	1.460	2.392	9.6	19.6	1 6	5 26.80	+37 21.2	2.591	3.499	7.1	20.8
1 16	5 17.35	+20 14.5	1.521	2.388	14.0	19.9	1 16	5 19.32	+36 59.5	2.656	3.496	9.6	21.0
1 26	5 13.08	+20 2.0	1.602	2.385	17.6	20.1	1 26	5 14.12	+36 31.9	2.746	3.493	11.9	21.1
520665	2014 <i>QL</i> ₄₃₈		12 18.2	111°75	2°7/18.2	18	365694	2010 <i>VT</i> ₁₁₆		12 18.3	210°57	2°0/17.9	18
11 17	6 11.59	+30 40.5	2.551	3.383	10.4	21.2	11 17	6 9.93	+19 15.7	2.240	3.082	11.3	20.8
11 27	6 4.60	+31 25.5	2.490	3.398	7.6	21.1	11 27	6 3.45	+18 32.2	2.163	3.079	8.2	20.6
12 7	5 55.79	+32 5.4	2.456	3.413	4.7	20.9	12 7	5 55.20	+17 48.7	2.112	3.075	4.7	20.4
12 17	5 45.93	+32 37.1	2.452	3.427	2.7	20.8	12 17	5 45.90	+17 6.7	2.091	3.071	2.1	20.2
12 27	5 35.98	+32 59.0	2.479	3.441	4.0	20.9	12 27	5 36.54	+16 28.2	2.101	3.067	4.1	20.3
1 6	5 26.91	+33 11.2	2.536	3.454	6.8	21.1	1 6	5 28.07	+15 55.1	2.140	3.062	7.6	20.5
1 16	5 19.51	+33 15.3	2.621	3.468	9.5	21.3	1 16	5 21.26	+15 28.9	2.206	3.058	10.9	20.7
1 26	5 14.37	+33 14.1	2.729	3.481	11.8	21.5	1 26	5 16.69	+15 10.4	2.295	3.053	13.6	20.9
101834	1999 <i>JF</i> ₅₆		12 18.2	200°57	2°7/17.9	18	195668	2002 <i>OY</i> ₆		12 18.3	43°54	0°0/18.3	18
11 17	6 8.86	+15 21.0	2.413	3.249	10.8	20.5	11 17	6 9.22	+25 4.1	2.107	2.955	11.7	19.3
11 27	6 2.60	+14 56.8	2.335	3.246	7.9	20.3	11 27	6 3.03	+24 37.9	2.041	2.960	8.3	19.1
12 7	5 54.70	+14 36.5	2.284	3.242	4.9	20.1	12 7	5 54.97	+24 8.2	2.000	2.966	4.6	18.9
12 17	5 45.81	+14 20.9	2.262	3.238	2.8	19.9	12 17	5 45.87	+23 35.2	1.988	2.972	0.5	18.6
12 27	5 36.82	+14 11.0	2.271	3.233	4.3	20.0	12 27	5 36.79	+23 0.1	2.006	2.978	3.5	18.8
1 6	5 28.59	+14 7.3	2.310	3.228	7.4	20.2	1 6	5 28.74	+22 25.0	2.053	2.984	7.3	19.1
1 16	5 21.85	+14 10.1	2.375	3.223	10.4	20.4	1 16	5 22.52	+21 52.4	2.127	2.991	10.7	19.3
1 26	5 17.15	+14 19.1	2.465	3.217	13.0	20.6	1 26	5 18.66	+21 24.3	2.225	2.997	13.6	19.5
418421	2008 <i>NB</i> ₄		12 18.2	105°20	5°5/18.6	18	316411	2010 <i>TY</i> ₉₉		12 18.3	86°60	2°5/18.1	18
11 17	6 17.00	+43 19.0	2.923	3.712	10.4	22.5	11 17	6 9.62	+16 50.8	1.926	2.773	12.7	21.4
11 27	6 8.39	+44 12.1	2.876	3.740	8.3	22.4	11 27	6 3.41	+16 37.1	1.864	2.781	9.2	21.2
12 7	5 57.82	+44 52.3	2.856	3.768	6.5	22.4	12 7	5 55.23	+16 27.5	1.827	2.789	5.4	21.0
12 17	5 46.16	+45 15.9	2.864	3.795	5.6	22.3	12 17	5 45.92	+16 22.7	1.818	2.797	2.5	20.8
12 27	5 34.49	+45 21.5	2.903	3.821	6.1	22.4	12 27	5 36.58	+16 23.0	1.838	2.805	4.5	21.0
1 6	5 23.91	+45 10.4	2.971	3.847	7.6	22.5	1 6	5 28.27	+16 28.7	1.887	2.813	8.2	21.2
1 16	5 15.26	+44 46.2	3.065	3.872	9.4	22.7	1 16	5 21.85	+16 39.7	1.962	2.821	11.7	21.4
1 26	5 9.10	+44 13.5	3.183	3.897	11.1	22.9	1 26	5 17.88	+16 55.7	2.059	2.829	14.6	21.6
326100	2011 <i>BQ</i> ₁₁₅		12 18.2	121°96	2°7/18.6	17	129289	2005 <i>SE</i> ₄₁		12 18.3	158°83	3°0/18.1	18
11 17	6 11.39	+32 27.0	2.348	3.182	11.2	21.2	11 17	6 13.35	+15 20.1	1.980	2.817	12.8	20.9
11 27	6 4.52	+32 33.6	2.282	3.190	8.2	21.0	11 27	6 6.00	+15 0.5	1.915	2.825	9.4	20.7
12 7	5 55.76	+32 32.3	2.242	3.198	5.1	20.8	12 7	5 56.62	+14 45.8	1.874	2.833	5.7	20.5
12 17	5 45.93	+32 21.4	2.230	3.206	2.8	20.7	12 17	5 46.09	+14 36.8	1.863	2.839	3.1	20.3
12 27	5 36.11	+32 0.6	2.249	3.213	4.1	20.8	12 27	5 35.51	+14 34.2	1.882	2.845	4.9	20.5
1 6	5 27.32	+31 31.6	2.298	3.221	7.1	21.0	1 6	5 25.99	+14 38.4	1.930	2.850	8.5	20.7
1 16	5 20.37	+30 57.6	2.373	3.228	10.1	21.2	1 16	5 18.40	+14 49.1	2.005	2.854	11.9	20.9
1 26	5 15.83	+30 22.1	2.473	3.235	12.6	21.4	1 26	5 13.34	+15 5.9	2.102	2.858	14.8	21.1
60306	1999 <i>XW</i> ₁₉₀		12 18.2	60°26	2°7/18.2	18	131344	2001 <i>HK</i> ₅₄		12 18.3	151°28	4°6/17.8	18
11 17	6 11.46	+29 7.5	2.014	2.859	12.3	18.5	11 17	6 6.64	+ 8 5.5	2.675	3.495	10.4	20.2
11 27	6 4.88	+29 55.0	1.953	2.868	9.0	18.3	11 27	6 0.84	+ 7 31.6	2.609	3.501	8.0	20.1
12 7	5 56.09	+30 38.2	1.918	2.878	5.3	18.1	12 7	5 53.68	+ 7 5.7	2.569	3.507	5.8	19.9
12 17	5 45.98	+31 13.2	1.911	2.888	2.7	18.0	12 17	5 45.75	+ 6 49.7	2.558	3.512	4.6	19.9
12 27	5 35.74	+31 37.7	1.933	2.898	4.5	18.1	12 27	5 37.79	+ 6 44.5	2.577	3.517	5.5	19.9
1 6	5 26.57	+31 52.0	1.984	2.909	8.0	18.4	1 6	5 30.51	+ 6 50.3	2.625	3.522	7.6	20.1
1 16	5 19.45	+31 57.7	2.061	2.919	11.3	18.6	1 16	5 24.52	+ 7 6.2	2.699	3.527	9.9	20.2
1 26	5 15.01	+31 57.9	2.161	2.929	14.1	18.8	1 26	5 20.27	+ 7 30.5	2.797	3.531	12.0	20.4
370853	2005 <i>CL</i> ₅₈		12 18.3	321°67	8°9/18.2	18	144508	2004 <i>EC</i> ₇₂		12 18.3	38°22	8°0/17	

EPHEMERIDES

12 18.3

12 18.3

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
356025	2009 <i>BF</i> ₁₄₇		12 18.3 205°27	4°1/18.7	18		276181	2002 <i>PU</i> ₁₂₃		12 18.3 102°74	2°2/18.7	18	
11 17	6 14.91	+35 46.7	2.193	3.019	12.1	21.6	11 17	6 11.20	+31 38.8	2.476	3.308	10.7	20.4
11 27	6 7.35	+36 1.6	2.115	3.015	9.2	21.4	11 27	6 4.23	+31 32.3	2.415	3.323	7.8	20.3
12 7	5 57.47	+36 5.8	2.062	3.010	6.2	21.2	12 7	5 55.56	+31 18.5	2.380	3.338	4.7	20.1
12 17	5 46.19	+35 55.9	2.037	3.005	4.1	21.1	12 17	5 45.99	+30 56.2	2.375	3.353	2.3	20.0
12 27	5 34.79	+35 31.2	2.042	2.999	5.2	21.2	12 27	5 36.51	+30 25.8	2.400	3.367	3.7	20.1
1 6	5 24.51	+34 53.7	2.077	2.993	8.2	21.3	1 6	5 28.04	+29 49.5	2.456	3.381	6.6	20.3
1 16	5 16.39	+34 7.6	2.138	2.987	11.3	21.5	1 16	5 21.32	+29 10.2	2.540	3.395	9.5	20.5
1 26	5 11.06	+33 18.0	2.222	2.980	14.0	21.7	1 26	5 16.85	+28 30.9	2.647	3.408	11.9	20.7
521286	2015 <i>JX</i> ₁₄		12 18.3 204°51	0°9/18.3	18		460761	2014 <i>VK</i> ₃₃		12 18.3 119°81	0°1/18.3	16	
11 17	6 14.57	+25 26.5	1.632	2.483	14.4	22.0	11 17	6 8.92	+25 16.6	2.500	3.342	10.3	21.3
11 27	6 7.50	+25 36.4	1.560	2.481	10.4	21.8	11 27	6 2.60	+24 52.7	2.431	3.347	7.3	21.1
12 7	5 57.72	+25 43.3	1.512	2.478	5.8	21.5	12 7	5 54.69	+24 25.5	2.388	3.353	4.0	20.9
12 17	5 46.24	+25 45.0	1.492	2.475	1.1	21.2	12 17	5 45.90	+23 55.0	2.375	3.358	0.5	20.6
12 27	5 34.54	+25 40.5	1.500	2.472	4.5	21.4	12 27	5 37.12	+23 22.4	2.393	3.364	3.1	20.8
1 6	5 24.14	+25 31.1	1.536	2.468	9.2	21.7	1 6	5 29.21	+22 49.3	2.441	3.369	6.5	21.1
1 16	5 16.21	+25 19.3	1.597	2.464	13.5	22.0	1 16	5 22.87	+22 17.7	2.516	3.374	9.5	21.3
1 26	5 11.51	+25 8.3	1.680	2.459	17.0	22.2	1 26	5 18.58	+21 49.6	2.616	3.379	12.0	21.5
438771	2008 <i>UR</i> ₃₄₂		12 18.3 167°13	1°8/17.9	18		97980	2000 <i>QQ</i> ₁₇₀		12 18.3 34°16	4°3/18.0	18	
11 17	6 13.47	+20 42.0	1.979	2.821	12.6	21.1	11 17	6 12.04	+16 1.5	1.115	1.985	18.1	19.3
11 27	6 6.09	+19 56.2	1.909	2.825	9.0	20.9	11 27	6 6.10	+15 24.0	1.065	1.992	13.3	19.0
12 7	5 56.68	+19 9.1	1.865	2.829	5.1	20.6	12 7	5 57.05	+14 54.1	1.036	2.000	8.1	18.7
12 17	5 46.11	+18 22.4	1.850	2.832	1.8	20.4	12 17	5 46.18	+14 34.2	1.030	2.008	4.4	18.6
12 27	5 35.54	+17 38.1	1.866	2.834	4.3	20.6	12 27	5 35.33	+14 26.2	1.050	2.017	7.0	18.7
1 6	5 26.10	+17 59.0	1.912	2.836	8.3	20.8	1 6	5 26.23	+14 30.7	1.093	2.026	12.0	19.1
1 16	5 18.66	+16 27.1	1.984	2.838	11.8	21.1	1 16	5 20.15	+14 46.8	1.159	2.036	16.6	19.4
1 26	5 13.79	+16 3.7	2.079	2.839	14.8	21.3	1 26	5 17.75	+15 12.5	1.242	2.047	20.5	19.6
111572	2002 <i>AQ</i> ₁₃		12 18.3 219°29	2°2/18.3	18		76789	2000 <i>LG</i> ₁₆		12 18.3 87°42	3°4/17.6	18	
11 17	6 11.84	+16 49.8	1.824	2.669	13.3	19.8	11 17	6 22.38	+21 39.8	1.111	1.971	19.0	18.6
11 27	6 5.26	+16 53.9	1.748	2.665	9.7	19.6	11 27	6 13.01	+19 55.8	1.072	1.996	13.6	18.3
12 7	5 56.40	+17 3.3	1.697	2.659	5.7	19.3	12 7	6 0.49	+18 9.2	1.054	2.020	7.7	18.1
12 17	5 46.10	+17 17.7	1.673	2.654	2.3	19.1	12 17	5 46.54	+16 26.0	1.063	2.043	3.4	17.9
12 27	5 35.55	+17 36.5	1.680	2.648	4.6	19.2	12 27	5 33.23	+14 54.1	1.100	2.066	6.9	18.2
1 6	5 25.99	+17 59.1	1.714	2.642	8.8	19.5	1 6	5 22.32	+13 40.0	1.163	2.089	12.1	18.6
1 16	5 18.46	+18 25.1	1.775	2.635	12.6	19.7	1 16	5 14.89	+12 46.8	1.248	2.111	16.7	18.9
1 26	5 13.66	+18 54.1	1.857	2.629	15.9	19.9	1 26	5 11.35	+12 13.9	1.352	2.132	20.4	19.2
449806	2014 <i>OX</i> ₃₁₀		12 18.3 31°50	2°4/18.3	18		358286	2006 <i>UD</i> ₄₉		12 18.3 90°86	1°7/18.5	18	
11 17	6 9.33	+16 30.2	1.834	2.683	13.1	21.4	11 17	6 12.25	+28 28.4	1.835	2.682	13.2	20.8
11 27	6 3.37	+16 32.5	1.767	2.686	9.5	21.2	11 27	6 5.56	+28 26.9	1.767	2.685	9.5	20.6
12 7	5 55.30	+16 40.4	1.725	2.688	5.6	21.0	12 7	5 56.53	+28 19.4	1.723	2.687	5.4	20.4
12 17	5 45.96	+16 53.7	1.711	2.691	2.4	20.8	12 17	5 46.13	+28 4.1	1.708	2.689	1.8	20.1
12 27	5 36.50	+17 11.9	1.725	2.694	4.6	20.9	12 27	5 35.67	+27 41.0	1.721	2.692	4.2	20.3
1 6	5 28.05	+17 34.4	1.768	2.697	8.5	21.2	1 6	5 26.42	+27 12.3	1.763	2.694	8.3	20.6
1 16	5 21.54	+18 0.5	1.836	2.700	12.1	21.4	1 16	5 19.41	+26 41.4	1.831	2.696	12.1	20.8
1 26	5 17.62	+18 29.8	1.927	2.703	15.2	21.6	1 26	5 15.25	+26 11.6	1.921	2.698	15.2	21.0
161012	2002 <i>EK</i> ₆₅		12 18.3 117°03	1°5/18.4	18		333200	2012 <i>GG</i> ₂₀		12 18.3 128°54	5°0/18.2	18	
11 17	6 14.30	+27 31.0	1.842	2.687	13.3	20.3	11 17	6 6.95	+5 29.9	2.706	3.517	10.5	21.6
11 27	6 6.90	+27 40.4	1.783	2.700	9.5	20.1	11 27	6 1.03	+5 10.6	2.646	3.529	8.3	21.4
12 7	5 57.19	+27 44.8	1.749	2.713	5.4	19.9	12 7	5 53.79	+5 1.5	2.612	3.542	6.1	21.3
12 17	5 46.17	+27 42.2	1.743	2.725	1.7	19.7	12 17	5 45.82	+5 3.8	2.606	3.553	5.0	21.3
12 27	5 35.17	+27 32.0	1.767	2.737	4.2	19.9	12 27	5 37.83	+5 18.0	2.630	3.565	5.7	21.3
1 6	5 25.47	+27 16.0	1.819	2.748	8.2	20.2	1 6	5 30.53	+5 43.3	2.683	3.576	7.6	21.5
1 16	5 18.05	+26 57.0	1.898	2.759	11.9	20.4	1 16	5 24.51	+6 18.2	2.763	3.587	9.8	21.6
1 26	5 13.50	+26 38.1	1.998	2.770	14.9	20.6	1 26	5 20.21	+7 0.4	2.866	3.597	11.8	21.8
232087	2001 <i>WW</i> ₈₄		12 18.3 108°06	0°0/18.3	18		437576	2014 <i>AO</i> ₂₈		12 18.3 40°09	2°9/18.6	18	
11 17	6 15.14	+22 48.1	1.753	2.599	13.8	20.9	11 17	6 14.58	+30 23.8	1.280	2.142	16.9	20.2
11 27	6 7.46	+23 2.3	1.700	2.619	9.8	20.7	11 27	6 7.90	+30 26.1	1.227	2.150	12.3	19.9
12 7	5 57.47	+23 16.0	1.672	2.638	5.3	20.5	12 7	5 58.01	+30 18.4	1.195	2.159	7.2	19.7
12 17	5 46.20	+23 27.3	1.673	2.656	0.6	20.2	12 17	5 46.30	+29 57.8	1.188	2.169	3.1	19.5
12 27	5 34.99	+23 35.3	1.703	2.674	4.1	20.5	12 27	5 34.66	+29 24.5	1.208	2.179	5.6	19.7
1 6	5 25.14	+23 40.5	1.762	2.692	8.4	20.8	1 6	5 24.89	+28 42.6	1.253	2.189	10.5	20.0
1 16	5 17.60	+23 44.4	1.847	2.709	12.2	21.0	1 16	5 18.24	+27 57.8	1.322	2.200	15.0	20.3
1 26	5 12.97	+23 48.8	1.954	2.725	15.2	21.3	1 26	5 15.37	+27 15.5	1.411	2.211	18.7	20.5
70017	1998 <i>YL</i> ₉		12 18.3 346°72	0°0/18.3	18		443810	1998 <i>WF</i> ₄₀		12 18.3 36°39	5°5/17.3	17	
11 17	6 8.82	+25 30.9	1.882	2.736	12.6	18.5	11 17	6 11.15	+15 13.8	1.299	2.161	16.6	20.4
11 27	6 3.03	+24 57.6	1.808	2.730	9.1	18.3	11 27	6 4.85	+13 40.9	1.260	2.181	12.2	20.2
12 7	5 55.11	+24 19.5	1.759	2.726	5.0	18.0	12 7	5 56.07	+12 14.9	1.244	2.202	7.9	20.0
12 17	5 45.94	+23 37.0	1.737	2.721	0.6	17.7	12 17	5 46.07	+11 1.3	1.253	2.224	5.5	20.0
12 27	5 36.70	+22 51.9	1.745	2.718	3.9	17.9	12 27	5 36.36	+10 5.0	1.289	2.247	7.5	20.2
1 6	5 28.54	+22 7.1	1.781	2.714	8.1	18.2	1 6	5 28.30	+9 28.5	1.350	2.270	11.4	20.4
1 16	5 22.39	+21 25.5	1.844	2.712	11.9	18.4	1 16	5 22.83	+9 11.3	1.434	2.294	15.2	20.7
1 26	5 18.85	+20 49.8	1.928	2.709	15.1	18.6	1 26	5 20.43	+9 10.8	1.538	2.318	18.3	21.0
11857	1988 <i>RK</i> ₉		12 18.3 110°97	5°4/18.4	18		272239	2005 <i>QG</i> ₁₂₁		12 18.3 170°69	2°4/18.1		

EPHEMERIDES

12 18.3

12 18.3

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
329482	2002 <i>QC</i> ₁₀₂		12 18.3	75°01	0°5/18.3	18	5065	Johnstone		12 18.3	278°26	4°2/18.5	18
11 17	6 8.94	+21 33.6	2.222	3.068	11.3	21.1	11 17	6 14.35	+33 6.2	1.674	2.519	14.4	17.1
11 27	6 2.74	+21 35.7	2.165	3.084	8.0	20.9	11 27	6 7.55	+33 37.5	1.602	2.514	10.8	16.9
12 7	5 54.82	+21 38.1	2.134	3.099	4.4	20.7	12 7	5 57.86	+33 59.6	1.553	2.509	6.9	16.7
12 17	5 45.95	+21 40.3	2.132	3.115	0.7	20.4	12 17	5 46.36	+34 7.7	1.530	2.504	4.3	16.5
12 27	5 37.09	+21 42.1	2.160	3.131	3.4	20.7	12 27	5 34.59	+33 59.8	1.536	2.499	5.9	16.6
1 6	5 29.19	+21 43.9	2.217	3.147	7.0	20.9	1 6	5 24.16	+33 37.6	1.569	2.494	9.7	16.8
1 16	5 22.97	+21 46.5	2.301	3.162	10.1	21.2	1 16	5 16.34	+33 5.5	1.626	2.489	13.5	17.0
1 26	5 18.97	+21 50.6	2.409	3.178	12.8	21.4	1 26	5 11.92	+32 29.2	1.705	2.484	16.8	17.2
493445	2014 <i>WF</i> ₃₅₃		12 18.3	27°75	1°8/17.9	17	24113	1999 <i>VQ</i> ₂₃		12 18.3	323°49	2°9/18.3	18
11 17	6 8.00	+19 40.8	2.195	3.041	11.3	21.0	11 17	6 11.75	+16 21.6	1.318	2.180	16.4	17.5
11 27	6 2.13	+19 5.6	2.125	3.043	8.2	20.8	11 27	6 5.88	+16 24.0	1.250	2.174	12.0	17.2
12 7	5 54.52	+18 31.0	2.082	3.046	4.6	20.6	12 7	5 57.04	+16 34.5	1.203	2.168	7.1	16.9
12 17	5 45.93	+17 58.0	2.067	3.048	1.8	20.4	12 17	5 46.28	+16 53.0	1.182	2.163	3.0	16.6
12 27	5 37.30	+17 28.2	2.082	3.050	3.9	20.6	12 27	5 35.18	+17 18.6	1.188	2.158	5.8	16.8
1 6	5 29.57	+17 3.1	2.127	3.053	7.4	20.8	1 6	5 25.41	+17 50.0	1.219	2.153	10.9	17.1
1 16	5 23.50	+16 44.0	2.198	3.055	10.7	21.0	1 16	5 18.32	+18 26.1	1.273	2.149	15.6	17.3
1 26	5 19.62	+16 31.5	2.292	3.058	13.4	21.2	1 26	5 14.73	+19 5.9	1.347	2.145	19.5	17.6
518915	2010 <i>GA</i> ₁₂		12 18.3	352°06	2°8/18.3	16	390937	2005 <i>GZ</i> ₁₀₈		12 18.3	104°46	3°3/18.1	18
11 17	6 6.03	+15 52.2	1.579	2.440	14.2	20.0	11 17	6 11.27	+14 6.9	2.153	2.987	12.0	21.6
11 27	6 1.39	+15 57.8	1.509	2.432	10.4	19.8	11 27	6 4.28	+13 42.8	2.102	3.010	8.8	21.4
12 7	5 54.41	+16 11.2	1.461	2.425	6.2	19.5	12 7	5 55.62	+13 24.3	2.077	3.033	5.5	21.2
12 17	5 45.94	+16 32.2	1.440	2.419	2.8	19.3	12 17	5 46.08	+13 12.5	2.082	3.055	3.3	21.1
12 27	5 37.21	+17 0.2	1.445	2.415	5.1	19.4	12 27	5 36.64	+13 8.1	2.116	3.076	4.8	21.3
1 6	5 29.53	+17 33.9	1.478	2.411	9.4	19.7	1 6	5 28.23	+13 11.2	2.180	3.097	7.8	21.5
1 16	5 23.94	+18 11.9	1.534	2.409	13.4	19.9	1 16	5 21.56	+13 21.4	2.271	3.118	10.8	21.7
1 26	5 21.18	+18 52.9	1.611	2.408	16.9	20.1	1 26	5 17.12	+13 37.8	2.384	3.137	13.3	21.9
497547	2006 <i>DQ</i> ₆		12 18.3	291°34	21°9/18.3	17	247254	2001 <i>RP</i> ₈₀		12 18.3	94°06	4°0/18.1	18
11 17	6 12.15	-17 19.0	1.094	1.857	25.5	20.9	11 17	6 10.70	+12 22.4	2.031	2.866	12.6	20.9
11 27	6 6.49	-19 14.2	1.046	1.849	23.8	20.7	11 27	6 3.97	+11 57.4	1.981	2.888	9.3	20.7
12 7	5 57.49	-20 24.4	1.011	1.840	22.5	20.6	12 7	5 55.48	+11 40.0	1.957	2.909	6.0	20.5
12 17	5 46.31	-20 36.6	0.992	1.832	21.9	20.6	12 17	5 46.07	+11 31.3	1.961	2.930	4.0	20.5
12 27	5 34.74	-19 43.8	0.988	1.823	22.3	20.5	12 27	5 36.75	+11 32.1	1.994	2.951	5.3	20.6
1 6	5 24.69	-17 49.5	1.001	1.815	23.6	20.6	1 6	5 28.48	+11 42.1	2.056	2.972	8.3	20.8
1 16	5 17.63	-15 5.1	1.028	1.808	25.4	20.7	1 16	5 22.02	+12 0.4	2.145	2.992	11.3	21.0
1 26	5 14.47	-11 46.8	1.070	1.800	27.6	20.9	1 26	5 17.85	+12 25.5	2.256	3.011	13.9	21.3
174959	2004 <i>DB</i> ₂		12 18.3	5°82	7°1/18.8	17	471972	2013 <i>TF</i> ₈₆		12 18.3	132°94	3°0/18.2	18
11 17	6 15.19	+40 11.4	1.660	2.490	15.2	19.5	11 17	6 15.83	+16 15.4	1.651	2.494	14.6	22.4
11 27	6 8.33	+40 58.8	1.596	2.490	12.0	19.3	11 27	6 8.03	+15 58.2	1.595	2.509	10.6	22.2
12 7	5 58.33	+41 30.5	1.554	2.491	8.9	19.1	12 7	5 57.85	+15 46.3	1.563	2.524	6.3	22.0
12 17	5 46.39	+41 40.3	1.538	2.492	7.2	19.0	12 17	5 46.35	+15 40.0	1.559	2.537	3.0	21.8
12 27	5 34.27	+41 25.3	1.549	2.493	8.1	19.1	12 27	5 34.89	+15 40.0	1.584	2.550	5.3	22.0
1 6	5 23.74	+40 48.3	1.585	2.494	10.8	19.3	1 6	5 24.80	+15 46.4	1.638	2.562	9.4	22.2
1 16	5 16.14	+39 55.8	1.646	2.496	14.0	19.5	1 16	5 17.06	+15 59.2	1.717	2.573	13.2	22.5
1 26	5 12.23	+38 55.4	1.727	2.498	16.9	19.7	1 26	5 12.27	+16 17.9	1.817	2.583	16.4	22.7
231638	2009 <i>UY</i> ₈₈		12 18.3	96°65	0°9/18.2	18	523353	2017 <i>CB</i> ₃		12 18.3	200°55	0°9/18.2	18
11 17	6 9.34	+20 29.6	2.235	3.079	11.3	20.8	11 17	6 10.09	+21 15.9	2.090	2.936	11.9	21.5
11 27	6 3.03	+20 27.9	2.174	3.092	8.0	20.6	11 27	6 3.78	+21 4.0	2.016	2.934	8.5	21.2
12 7	5 54.99	+20 27.3	2.140	3.105	4.4	20.4	12 7	5 55.52	+20 52.1	1.968	2.933	4.7	21.0
12 17	5 45.99	+20 27.3	2.135	3.117	1.0	20.2	12 17	5 46.09	+20 40.2	1.948	2.931	1.0	20.7
12 27	5 36.98	+20 28.1	2.159	3.130	3.5	20.4	12 27	5 36.55	+20 28.7	1.958	2.929	3.8	20.9
1 6	5 28.91	+20 29.9	2.214	3.143	7.0	20.6	1 6	5 27.94	+20 18.6	1.998	2.927	7.6	21.2
1 16	5 22.51	+20 33.3	2.296	3.155	10.2	20.9	1 16	5 21.14	+20 11.1	2.064	2.925	11.1	21.4
1 26	5 18.32	+20 39.0	2.400	3.167	12.9	21.1	1 26	5 16.73	+20 7.3	2.153	2.923	14.1	21.6
120917	1998 <i>SV</i> ₈₃		12 18.3	37°71	1°3/18.4	17	451253	2010 <i>KD</i> ₃₁		12 18.3	86°90	0°9/18.4	15
11 17	6 9.95	+26 43.2	1.819	2.671	13.0	19.9	11 17	6 13.58	+26 58.8	1.971	2.814	12.6	21.7
11 27	6 3.87	+26 53.4	1.761	2.682	9.3	19.7	11 27	6 6.13	+26 48.3	1.921	2.838	9.0	21.5
12 7	5 55.59	+26 59.8	1.728	2.694	5.2	19.5	12 7	5 56.69	+26 32.9	1.897	2.861	5.0	21.3
12 17	5 46.07	+27 0.6	1.723	2.706	1.4	19.2	12 17	5 46.21	+26 11.9	1.901	2.884	1.1	21.1
12 27	5 36.54	+26 55.4	1.747	2.718	4.0	19.5	12 27	5 35.91	+25 46.0	1.936	2.907	3.7	21.3
1 6	5 28.21	+26 45.4	1.798	2.731	8.1	19.7	1 6	5 26.91	+25 17.3	1.999	2.929	7.6	21.6
1 16	5 22.01	+26 32.7	1.875	2.743	11.7	20.0	1 16	5 20.02	+24 48.6	2.090	2.951	11.0	21.8
1 26	5 18.52	+26 20.0	1.974	2.757	14.7	20.2	1 26	5 15.74	+24 22.6	2.203	2.973	13.8	22.1
445205	2009 <i>DZ</i> ₉₈		12 18.3	211°15	1°0/18.3	18	344431	2002 <i>EA</i> ₁₁₄		12 18.3	89°84	1°1/18.3	18
11 17	6 12.11	+25 48.7	2.171	3.012	11.7	21.9	11 17	6 13.11	+20 24.8	1.668	2.519	14.1	20.4
11 27	6 5.29	+26 2.2	2.091	3.007	8.4	21.7	11 27	6 6.13	+20 25.8	1.614	2.535	10.1	20.2
12 7	5 56.38	+26 13.2	2.037	3.001	4.7	21.4	12 7	5 56.84	+20 28.6	1.585	2.551	5.6	20.0
12 17	5 46.18	+26 19.7	2.012	2.995	1.1	21.2	12 17	5 46.25	+20 32.3	1.583	2.566	1.2	19.7
12 27	5 35.77	+26 21.0	2.018	2.988	3.7	21.3	12 27	5 35.69	+20 36.6	1.610	2.581	4.3	20.0
1 6	5 26.27	+26 17.5	2.053	2.981	7.5	21.6	1 6	5 26.46	+20 41.8	1.665	2.596	8.7	20.3
1 16	5 18.42	+26 11.0	2.115	2.974	11.0	21.8	1 16	5 19.52	+20 48.9	1.745	2.611	12.6	20.5
1 26	5 13.67	+26 3.7	2.200	2.966	13.9	22.0	1 26	5 15.47	+20 58.5	1.848	2.625	15.8	20.8
307344	2002 <i>RX</i> ₁₁₇		12 18.3	47°56	12°5/17.0	18	414679	2009 <i>WT</i> ₁₁₇		12 18.3	222°73	2	

EPHEMERIDES

12 18.3

12 18.3

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
349224	2007 <i>TD</i> ₁₀		12 18.3	62°35	2.7/18.2	18	361868	2008 <i>EB</i> ₁₄₉		12 18.3	240°18	4.4/17.9	17
11 17	6 12.00	+17 6.2	1.542	2.396	14.9	21.0	11 17	6 8.56	+11 15.6	2.133	2.967	12.1	22.0
11 27	6 5.36	+16 51.2	1.495	2.416	10.7	20.8	11 27	6 2.65	+10 44.4	2.056	2.960	9.2	21.8
12 7	5 56.40	+16 41.3	1.472	2.435	6.2	20.6	12 7	5 54.92	+10 20.7	2.004	2.953	6.2	21.6
12 17	5 46.20	+16 37.1	1.476	2.456	2.8	20.4	12 17	5 46.08	+10 6.3	1.980	2.946	4.4	21.5
12 27	5 36.12	+16 38.8	1.508	2.476	5.1	20.6	12 27	5 37.08	+10 2.6	1.985	2.938	5.7	21.6
1 6	5 27.45	+16 46.5	1.567	2.496	9.3	20.9	1 6	5 28.87	+10 9.8	2.019	2.931	8.7	21.8
1 16	5 21.12	+17 0.0	1.650	2.516	13.1	21.2	1 16	5 22.29	+10 27.1	2.078	2.923	11.7	21.9
1 26	5 17.71	+17 18.7	1.755	2.537	16.3	21.4	1 26	5 17.92	+10 53.1	2.160	2.915	14.5	22.1
196135	2002 <i>TZ</i> ₂₄₄		12 18.3	37°41	4.3/17.9	17	326532	2002 <i>OX</i> ₁₉		12 18.3	112°10	3°0/18.3	18
11 17	6 6.63	+11 16.4	2.186	3.023	11.8	19.7	11 17	6 15.64	+15 24.0	1.696	2.537	14.4	22.0
11 27	6 1.14	+10 42.3	2.121	3.027	8.9	19.5	11 27	6 7.79	+15 19.2	1.646	2.559	10.5	21.8
12 7	5 54.01	+10 15.7	2.082	3.032	6.0	19.4	12 7	5 57.70	+15 20.8	1.621	2.581	6.2	21.6
12 17	5 45.93	+9 58.4	2.071	3.036	4.3	19.3	12 17	5 46.39	+15 28.6	1.624	2.602	3.0	21.4
12 27	5 37.81	+9 51.7	2.088	3.041	5.5	19.4	12 27	5 35.19	+15 42.5	1.656	2.622	5.1	21.6
1 6	5 30.52	+9 55.7	2.134	3.046	8.3	19.5	1 6	5 25.35	+16 1.7	1.717	2.641	9.0	21.9
1 16	5 24.78	+10 9.7	2.206	3.052	11.1	19.7	1 16	5 17.80	+16 25.6	1.803	2.659	12.7	22.2
1 26	5 21.12	+10 32.1	2.300	3.057	13.6	19.9	1 26	5 13.10	+16 53.7	1.912	2.677	15.7	22.4
259758	2004 <i>AY</i> ₈		12 18.3	324°63	1°0/18.1	17	206420	2003 <i>SG</i> ₁₄₀		12 18.3	69°81	1°0/18.3	18
11 17	6 10.82	+24 9.7	1.511	2.372	14.8	19.4	11 17	6 13.78	+19 59.7	1.584	2.436	14.7	19.9
11 27	6 4.98	+23 13.2	1.431	2.357	10.7	19.1	11 27	6 6.61	+20 11.8	1.540	2.461	10.4	19.7
12 7	5 56.45	+22 10.4	1.375	2.343	5.9	18.8	12 7	5 57.09	+20 26.4	1.520	2.486	5.7	19.4
12 17	5 46.24	+21 2.8	1.346	2.330	1.2	18.5	12 17	5 46.32	+20 42.0	1.527	2.510	1.2	19.2
12 27	5 35.81	+19 54.4	1.345	2.317	4.9	18.7	12 27	5 35.69	+20 57.8	1.563	2.535	4.4	19.5
1 6	5 26.67	+18 49.8	1.371	2.304	9.9	18.9	1 6	5 26.51	+21 13.4	1.627	2.559	8.8	19.8
1 16	5 19.99	+17 53.8	1.421	2.293	14.5	19.2	1 16	5 19.73	+21 29.3	1.716	2.583	12.7	20.1
1 26	5 16.50	+17 9.2	1.491	2.282	18.3	19.4	1 26	5 15.92	+21 46.4	1.827	2.607	15.8	20.4
136142	2003 <i>ST</i> ₂₃₅		12 18.3	149°52	0°8/18.2	18	423926	2006 <i>SL</i> ₄₀₃		12 18.3	158°45	3°6/18.4	18
11 17	6 16.13	+22 2.7	1.671	2.518	14.3	20.5	11 17	6 17.42	+30 59.2	1.631	2.474	14.7	21.3
11 27	6 8.36	+21 49.9	1.609	2.528	10.2	20.3	11 27	6 9.70	+31 38.4	1.566	2.479	10.9	21.0
12 7	5 58.10	+21 36.4	1.571	2.536	5.6	20.1	12 7	5 59.04	+32 10.2	1.525	2.483	6.7	20.8
12 17	5 46.42	+21 21.5	1.560	2.544	1.0	19.7	12 17	5 46.57	+32 29.5	1.511	2.487	3.7	20.6
12 27	5 34.71	+21 5.9	1.580	2.551	4.4	20.0	12 27	5 33.91	+32 33.9	1.526	2.490	5.6	20.7
1 6	5 24.38	+20 51.2	1.628	2.557	9.0	20.3	1 6	5 22.71	+32 24.7	1.568	2.493	9.7	21.0
1 16	5 16.47	+20 39.3	1.701	2.563	13.0	20.6	1 16	5 14.23	+32 5.9	1.636	2.496	13.6	21.2
1 26	5 11.62	+20 32.0	1.797	2.568	16.4	20.8	1 26	5 9.24	+31 43.0	1.724	2.497	16.9	21.5
217529	2006 <i>WA</i> ₁₅₇		12 18.3	111°97	1°6/18.5	18	298548	2003 <i>WA</i> ₁₄₇		12 18.3	70°19	1°4/18.2	18
11 17	6 17.48	+28 11.7	1.549	2.397	15.1	20.5	11 17	6 14.61	+24 11.9	1.622	2.473	14.4	20.4
11 27	6 9.45	+28 3.2	1.494	2.412	10.9	20.3	11 27	6 7.42	+25 5.3	1.571	2.491	10.3	20.2
12 7	5 58.71	+27 47.4	1.463	2.427	6.1	20.0	12 7	5 57.66	+25 58.3	1.544	2.510	5.7	20.0
12 17	5 46.48	+27 22.6	1.459	2.441	1.8	19.8	12 17	5 46.40	+26 46.4	1.545	2.528	1.5	19.8
12 27	5 34.40	+26 49.6	1.484	2.455	4.6	20.0	12 27	5 35.09	+27 26.6	1.576	2.547	4.5	20.0
1 6	5 23.99	+26 11.8	1.537	2.469	9.3	20.3	1 6	5 25.17	+27 57.8	1.634	2.565	8.9	20.3
1 16	5 16.32	+25 33.6	1.615	2.481	13.4	20.6	1 16	5 17.73	+28 21.5	1.718	2.583	12.8	20.6
1 26	5 12.00	+24 59.0	1.715	2.494	16.7	20.8	1 26	5 13.41	+28 40.0	1.824	2.601	15.9	20.8
171092	2005 <i>EO</i> ₂₁₅		12 18.3	278°62	1°9/18.1	18	455903	2005 <i>UF</i> ₁₉₂		12 18.3	303°17	3°7/17.6	16
11 17	6 10.70	+19 33.6	1.751	2.604	13.5	20.6	11 17	6 9.30	+15 34.7	2.007	2.851	12.4	21.3
11 27	6 4.55	+19 11.2	1.676	2.597	9.8	20.3	11 27	6 3.21	+14 35.8	1.935	2.848	9.1	21.1
12 7	5 56.09	+18 50.2	1.625	2.590	5.6	20.1	12 7	5 55.21	+13 39.9	1.889	2.846	5.8	20.9
12 17	5 46.20	+18 31.2	1.601	2.583	1.9	19.8	12 17	5 46.12	+12 49.6	1.871	2.844	3.7	20.8
12 27	5 36.12	+18 15.2	1.606	2.576	4.6	20.0	12 27	5 36.95	+12 7.7	1.883	2.842	5.4	20.9
1 6	5 27.10	+18 3.5	1.639	2.569	8.9	20.2	1 6	5 28.74	+11 36.3	1.923	2.839	8.7	21.1
1 16	5 20.18	+17 57.3	1.698	2.562	12.9	20.5	1 16	5 22.31	+11 16.3	1.989	2.837	12.0	21.3
1 26	5 16.03	+17 57.4	1.778	2.556	16.3	20.7	1 26	5 18.23	+11 7.5	2.077	2.835	14.9	21.5
521833	2015 <i>TU</i> ₃₆₉		12 18.3	349°36	0°3/18.3	18	24405	2000 <i>AT</i> ₁₉₇		12 18.3	59°04	4°8/18.0	18
11 17	6 10.31	+22 25.7	1.835	2.688	13.0	21.5	11 17	6 7.50	+10 6.0	2.074	2.909	12.4	18.3
11 27	6 4.20	+22 29.2	1.765	2.687	9.3	21.3	11 27	6 1.80	+9 33.2	2.015	2.918	9.4	18.2
12 7	5 55.87	+22 32.6	1.719	2.686	5.1	21.0	12 7	5 54.39	+9 9.3	1.981	2.927	6.5	18.0
12 17	5 46.18	+22 35.0	1.701	2.685	0.7	20.7	12 17	5 46.03	+8 56.4	1.974	2.937	4.8	17.9
12 27	5 36.34	+22 36.0	1.713	2.685	4.0	21.0	12 27	5 37.64	+8 55.6	1.996	2.947	6.0	18.0
1 6	5 27.56	+22 36.1	1.752	2.684	8.3	21.2	1 6	5 30.16	+9 6.5	2.046	2.957	8.7	18.2
1 16	5 20.82	+22 36.5	1.817	2.684	12.1	21.5	1 16	5 24.33	+9 27.9	2.122	2.967	11.5	18.4
1 26	5 16.78	+22 38.7	1.904	2.684	15.3	21.7	1 26	5 20.67	+9 58.0	2.220	2.977	14.1	18.6
516496	2005 <i>WT</i> ₁₆₆		12 18.3	316°91	0°7/18.3	18	1753	<i>Mieke</i>		12 18.3	154°84	2°4/18.3	18
11 17	6 11.16	+22 4.9	1.373	2.238	15.7	21.6	11 17	6 11.21	+29 32.2	2.390	3.226	10.9	16.1
11 27	6 5.52	+22 0.1	1.298	2.226	11.4	21.3	11 27	6 4.56	+30 9.8	2.319	3.230	7.9	15.9
12 7	5 56.90	+21 55.5	1.246	2.214	6.3	21.0	12 7	5 55.98	+30 43.1	2.274	3.233	4.8	15.7
12 17	5 46.33	+21 50.3	1.219	2.203	1.0	20.6	12 17	5 46.22	+31 9.2	2.258	3.236	2.4	15.6
12 27	5 35.37	+21 44.5	1.219	2.192	5.0	20.9	12 27	5 36.29	+31 26.5	2.274	3.239	4.0	15.7
1 6	5 25.72	+21 39.1	1.244	2.181	10.4	21.1	1 6	5 27.23	+31 35.0	2.319	3.241	7.1	15.9
1 16	5 18.72	+21 36.0	1.293	2.171	15.2	21.4	1 16	5 19.89	+31 36.3	2.391	3.244	10.1	16.1
1 26	5 15.22	+21 37.0	1.362	2.162	19.2	21.6	1 26	5 14.90	+31 33.1	2.486	3.246	12.7	16.3
293203	2007 <i>BG</i> ₁₃		12 18.3	351°91	1°0/18.3	17	414523	2009 <i>SR</i> ₆₇		12 18.3	117°27	0°6/18.3</	

EPHEMERIDES

12 18.3

12 18.3

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
408445	2013 <i>HK</i> ₂₃		12 18.3 303°79	8°8/16.6	17		493193	2014 <i>UT</i> ₂₄		12 18.3 358°04	1°2/18.3	17	
11 17	6 8.25	+ 4 30.5	1.700	2.529	14.9	21.0	11 17	6 9.30	+25 6.4	2.079	2.927	11.8	21.2
11 27	6 2.90	+ 3 5.7	1.618	2.507	12.2	20.8	11 27	6 3.41	+25 42.6	2.007	2.926	8.5	21.0
12 7	5 55.28	+ 1 52.8	1.560	2.486	9.8	20.6	12 7	5 55.45	+26 18.2	1.960	2.925	4.7	20.8
12 17	5 46.17	+ 0 58.2	1.527	2.465	8.8	20.5	12 17	5 46.20	+26 50.3	1.942	2.925	1.3	20.6
12 27	5 36.72	+ 0 26.7	1.520	2.444	10.0	20.5	12 27	5 36.74	+27 17.0	1.954	2.925	3.8	20.7
1 6	5 28.13	+ 0 20.1	1.538	2.424	12.7	20.6	1 6	5 28.18	+27 37.9	1.995	2.925	7.6	21.0
1 16	5 21.46	+ 0 37.2	1.579	2.404	15.8	20.8	1 16	5 21.44	+27 53.7	2.062	2.925	11.0	21.2
1 26	5 17.46	+ 1 14.2	1.639	2.384	18.7	20.9	1 26	5 17.19	+28 6.2	2.152	2.926	13.9	21.4
267831	2003 <i>UV</i> ₁₂₀		12 18.3 41°94	0°4/18.3	18		215178	2000 <i>GO</i> ₁₆₆		12 18.3 234°33	0°5/18.3	18	
11 17	6 9.33	+24 5.9	1.942	2.794	12.4	20.4	11 17	6 10.97	+22 12.2	2.068	2.913	12.0	20.9
11 27	6 3.34	+24 14.5	1.882	2.803	8.8	20.2	11 27	6 4.55	+22 9.1	1.987	2.906	8.6	20.7
12 7	5 55.33	+24 21.8	1.847	2.814	4.8	20.0	12 7	5 56.06	+22 5.7	1.932	2.898	4.8	20.4
12 17	5 46.16	+24 26.4	1.840	2.824	0.7	19.7	12 17	5 46.28	+22 1.2	1.906	2.889	0.7	20.1
12 27	5 36.94	+24 27.9	1.863	2.835	3.7	20.0	12 27	5 36.29	+21 55.7	1.909	2.881	3.7	20.4
1 6	5 28.80	+24 26.9	1.913	2.846	7.7	20.2	1 6	5 27.21	+21 49.9	1.942	2.872	7.8	20.6
1 16	5 22.60	+24 24.7	1.990	2.857	11.2	20.5	1 16	5 19.96	+21 45.2	2.001	2.863	11.4	20.8
1 26	5 18.93	+24 23.1	2.090	2.869	14.1	20.7	1 26	5 15.20	+21 42.8	2.083	2.853	14.5	21.0
134039	Stephaniebarnes		12 18.3 14°09	1°1/18.5	18		20213	Saurabhsharan		12 18.3 352°65	1°3/18.2	18	
11 17	6 6.76	+28 2.1	2.096	2.947	11.6	18.7	11 17	6 8.90	+20 7.6	1.907	2.758	12.6	18.4
11 27	6 1.40	+27 41.5	2.034	2.955	8.3	18.5	11 27	6 3.13	+20 1.2	1.836	2.757	9.0	18.1
12 7	5 54.21	+27 15.5	1.998	2.963	4.7	18.3	12 7	5 55.29	+19 56.4	1.790	2.755	5.1	17.9
12 17	5 46.02	+26 43.8	1.990	2.973	1.2	18.0	12 17	5 46.19	+19 53.2	1.772	2.754	1.4	17.6
12 27	5 37.87	+26 7.7	2.012	2.984	3.5	18.2	12 27	5 36.96	+19 51.6	1.783	2.754	4.0	17.8
1 6	5 30.75	+25 29.4	2.062	2.995	7.2	18.5	1 6	5 28.72	+19 52.2	1.822	2.753	8.1	18.1
1 16	5 25.43	+24 51.5	2.138	3.007	10.4	18.7	1 16	5 22.36	+19 55.6	1.887	2.753	11.8	18.3
1 26	5 22.41	+24 16.6	2.238	3.020	13.2	18.9	1 26	5 18.54	+20 2.4	1.974	2.753	14.9	18.5
131322	2001 <i>GK</i> ₉		12 18.3 251°19	2°4/18.3	18		85489	1997 <i>SV</i> ₂		12 18.3 95°46	8°9/17.9	18	
11 17	6 8.09	+15 15.8	2.343	3.182	11.0	19.9	11 17	6 7.38	- 6 14.3	2.532	3.293	12.5	20.2
11 27	6 2.26	+15 20.4	2.263	3.175	8.1	19.7	11 27	6 1.40	- 7 17.2	2.490	3.314	10.8	20.2
12 7	5 54.72	+15 30.4	2.208	3.168	4.8	19.5	12 7	5 54.08	- 8 2.3	2.472	3.335	9.5	20.1
12 17	5 46.10	+15 45.8	2.182	3.160	2.4	19.4	12 17	5 46.04	- 8 26.4	2.479	3.356	8.9	20.1
12 27	5 37.29	+16 6.1	2.187	3.153	4.0	19.5	12 27	5 38.06	- 8 28.0	2.513	3.376	9.3	20.2
1 6	5 29.19	+16 30.9	2.221	3.145	7.3	19.7	1 6	5 30.86	- 8 8.2	2.572	3.396	10.4	20.3
1 16	5 22.57	+16 59.4	2.282	3.137	10.4	19.8	1 16	5 25.03	- 7 29.8	2.655	3.415	11.9	20.4
1 26	5 18.03	+17 31.0	2.367	3.129	13.1	20.0	1 26	5 21.01	- 6 37.0	2.759	3.434	13.4	20.6
251240	2006 <i>UM</i> ₃₂₇		12 18.3 54°61	2°5/18.5	18		474274	2001 <i>TY</i> ₂₀₇		12 18.3 32°12	1°2/18.3	16	
11 17	6 12.45	+30 20.5	1.822	2.669	13.3	20.6	11 17	6 11.62	+20 53.4	1.160	2.033	17.4	21.4
11 27	6 5.82	+30 29.3	1.756	2.672	9.7	20.4	11 27	6 5.82	+20 49.1	1.114	2.045	12.5	21.1
12 7	5 56.79	+30 30.8	1.715	2.676	5.8	20.2	12 7	5 56.97	+20 47.1	1.089	2.058	6.9	20.9
12 17	5 46.34	+30 22.5	1.700	2.680	2.6	20.0	12 17	5 46.39	+20 46.6	1.088	2.071	1.5	20.6
12 27	5 35.83	+30 3.9	1.715	2.683	4.6	20.1	12 27	5 35.88	+20 47.6	1.113	2.086	5.3	20.9
1 6	5 26.57	+29 37.2	1.758	2.687	8.5	20.4	1 6	5 27.13	+20 50.7	1.163	2.102	10.7	21.2
1 16	5 19.58	+29 5.8	1.826	2.691	12.1	20.6	1 16	5 21.36	+20 56.9	1.235	2.118	15.4	21.5
1 26	5 15.52	+28 33.9	1.917	2.695	15.2	20.8	1 26	5 19.20	+21 7.0	1.326	2.135	19.2	21.8
105381	2000 <i>QO</i> ₁₃₁		12 18.3 42°09	5°1/18.2	18		492201	2013 <i>RB</i> ₇₈		12 18.3 175°89	3°4/18.6	18	
11 17	6 9.52	+11 23.3	1.539	2.388	15.2	18.7	11 17	6 11.25	+35 35.0	2.903	3.722	9.7	22.6
11 27	6 3.54	+10 52.9	1.498	2.411	11.3	18.5	11 27	6 4.38	+35 56.7	2.828	3.724	7.3	22.4
12 7	5 55.41	+10 33.7	1.481	2.435	7.5	18.3	12 7	5 55.81	+36 10.5	2.780	3.726	4.9	22.3
12 17	5 46.17	+10 27.4	1.490	2.459	5.2	18.2	12 17	5 46.26	+36 14.0	2.761	3.727	3.4	22.2
12 27	5 37.08	+10 34.7	1.526	2.483	6.6	18.4	12 27	5 36.61	+36 6.3	2.774	3.728	4.2	22.3
1 6	5 29.33	+10 54.7	1.588	2.508	10.0	18.6	1 6	5 27.76	+35 48.5	2.816	3.728	6.5	22.4
1 16	5 23.77	+11 25.1	1.675	2.534	13.4	18.9	1 16	5 20.46	+35 22.9	2.886	3.728	8.9	22.6
1 26	5 20.92	+12 3.3	1.782	2.559	16.3	19.2	1 26	5 15.26	+34 52.9	2.981	3.727	11.0	22.7
97753	2000 <i>HY</i> ₉₄		12 18.3 24°54	8°0/19.2	18		214330	2005 <i>JS</i> ₇₆		12 18.3 178°18	0°5/18.3	18	
11 17	6 7.24	- 2 33.5	2.250	3.037	13.1	19.0	11 17	6 11.92	+24 42.0	2.182	3.024	11.6	21.9
11 27	6 1.58	- 2 43.7	2.184	3.039	11.0	18.9	11 27	6 5.11	+24 48.0	2.109	3.025	8.3	21.7
12 7	5 54.29	- 2 35.5	2.142	3.041	9.0	18.8	12 7	5 56.31	+24 52.1	2.062	3.026	4.6	21.5
12 17	5 46.05	- 2 6.8	2.126	3.044	8.0	18.7	12 17	5 46.33	+24 52.7	2.043	3.027	0.7	21.2
12 27	5 37.72	- 1 17.5	2.137	3.046	8.4	18.7	12 27	5 36.22	+24 49.5	2.056	3.027	3.5	21.4
1 6	5 30.15	- 0 9.8	2.176	3.049	10.1	18.9	1 6	5 27.06	+24 43.3	2.098	3.027	7.3	21.6
1 16	5 24.07	+ 1 12.2	2.240	3.052	12.2	19.0	1 16	5 19.73	+24 35.6	2.167	3.026	10.7	21.9
1 26	5 20.01	+ 2 43.9	2.326	3.055	14.3	19.2	1 26	5 14.82	+24 28.4	2.259	3.025	13.6	22.1
321641	2010 <i>AV</i> ₅		12 18.3 280°19	1°5/18.3	18		52992	1998 <i>UB</i> ₂₆		12 18.3 134°83	0°7/18.3	18	
11 17	6 11.98	+19 31.4	1.617	2.471	14.3	20.8	11 17	6 15.46	+23 39.8	1.691	2.539	14.1	18.7
11 27	6 5.84	+19 30.2	1.532	2.454	10.4	20.5	11 27	6 8.04	+24 10.6	1.629	2.548	10.1	18.4
12 7	5 57.03	+19 32.0	1.470	2.436	5.9	20.2	12 7	5 58.07	+24 41.1	1.591	2.557	5.6	18.2
12 17	5 46.40	+19 36.3	1.435	2.418	1.7	19.9	12 17	5 46.55	+25 8.2	1.582	2.565	0.9	17.9
12 27	5 35.33	+19 42.8	1.429	2.400	4.8	20.1	12 27	5 34.89	+25 29.9	1.601	2.573	4.3	18.2
1 6	5 25.26	+19 51.5	1.449	2.382	9.7	20.3	1 6	5 24.53	+25 45.9	1.650	2.581	8.8	18.4
1 16	5 17.46	+20 3.3	1.495	2.363	14.1	20.5	1 16	5 16.56	+25 57.7	1.724	2.587	12.8	18.7
1 26	5 12.78	+20 18.8	1.561	2.345	17.9	20.8	1 26	5 11.69	+26 7.6	1.820	2.594	16.1	18.9
115548	2003 <i>UB</i> ₆₆		12 18.3 42°91	2°1/18.1	18		454745	2014 <i>UT</i> ₁₄₀		12 18.3 232°70	5°3/18.3	18	

EPHEMERIDES

12 18.3

12 18.3

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
450133	2015 SW ₅		12 18.3 71°74'	3°0'/18.1 18			82013	2000 RA ₈₈		12 18.3 172°59'	7°3'/17.3 18		
11 17	6 10.58	+16 26.2	1.754	2.603	13.6	20.7	11 17	6 8.38	+0 16.4	2.541	3.332	11.7	20.5
11 27	6 4.29	+15 58.0	1.695	2.613	9.9	20.5	11 27	6 2.24	-0 44.3	2.476	3.335	9.7	20.3
12 7	5 55.90	+15 34.3	1.662	2.623	5.9	20.3	12 7	5 54.64	-1 32.2	2.436	3.337	8.0	20.2
12 17	5 46.31	+15 16.6	1.655	2.633	3.1	20.1	12 17	5 46.20	-2 3.8	2.424	3.339	7.3	20.2
12 27	5 36.73	+15 5.8	1.677	2.643	5.1	20.3	12 27	5 37.70	-2 17.2	2.440	3.341	7.9	20.2
1 6	5 28.30	+15 2.7	1.728	2.653	8.9	20.5	1 6	5 29.90	-2 12.4	2.484	3.342	9.6	20.3
1 16	5 21.93	+15 7.3	1.803	2.663	12.5	20.8	1 16	5 23.46	-1 51.1	2.553	3.343	11.5	20.5
1 26	5 18.19	+15 19.1	1.900	2.674	15.5	21.0	1 26	5 18.87	-1 16.1	2.643	3.343	13.4	20.6
411143	2009 XL		12 18.3 346°61'	0°8'/18.3 17			369158	2008 SB ₇₈		12 18.3 29°70'	5°6'/17.9 17		
11 17	6 7.94	+21 14.6	1.830	2.686	12.8	21.1	11 17	6 6.83	+7 55.7	2.104	2.934	12.4	20.5
11 27	6 2.58	+21 11.9	1.758	2.681	9.2	20.9	11 27	6 1.39	+7 13.4	2.040	2.937	9.6	20.3
12 7	5 55.07	+21 10.3	1.709	2.676	5.1	20.6	12 7	5 54.27	+6 41.3	2.001	2.941	7.0	20.2
12 17	5 46.23	+21 9.2	1.688	2.671	1.0	20.3	12 17	5 46.16	+6 21.9	1.990	2.945	5.6	20.1
12 27	5 37.20	+21 8.6	1.695	2.667	4.0	20.5	12 27	5 37.99	+6 16.9	2.006	2.949	6.6	20.2
1 6	5 29.17	+21 9.0	1.730	2.664	8.2	20.8	1 6	5 30.67	+6 26.1	2.051	2.953	9.1	20.3
1 16	5 23.07	+21 11.3	1.791	2.661	12.1	21.0	1 16	5 24.93	+6 48.1	2.120	2.957	11.8	20.5
1 26	5 19.59	+21 16.4	1.873	2.659	15.3	21.2	1 26	5 21.32	+7 20.6	2.211	2.962	14.3	20.7
312359	2008 DQ ₄₆		12 18.3 292°10'	5°8'/18.4 18			118216	1996 DU ₁		12 18.3 329°54'	3°5'/18.1 18		
11 17	6 14.14	+37 19.3	1.873	2.705	13.6	20.8	11 17	6 9.32	+17 20.6	1.211	2.083	16.9	20.2
11 27	6 7.53	+38 7.8	1.790	2.690	10.6	20.6	11 27	6 4.47	+16 51.2	1.139	2.068	12.5	19.9
12 7	5 58.03	+38 45.6	1.731	2.674	7.6	20.4	12 7	5 56.49	+16 26.7	1.088	2.054	7.5	19.6
12 17	5 46.61	+39 6.8	1.698	2.658	5.8	20.2	12 17	5 46.46	+16 9.1	1.061	2.041	3.6	19.3
12 27	5 34.72	+39 8.0	1.693	2.643	6.9	20.3	12 27	5 35.99	+16 0.2	1.059	2.028	6.4	19.5
1 6	5 23.98	+38 50.2	1.716	2.628	9.9	20.4	1 6	5 26.87	+16 1.2	1.081	2.017	11.7	19.7
1 16	5 15.70	+38 17.6	1.763	2.612	13.3	20.6	1 16	5 20.51	+16 12.4	1.125	2.007	16.7	20.0
1 26	5 10.75	+37 36.5	1.831	2.597	16.3	20.8	1 26	5 17.81	+16 33.0	1.188	1.997	20.9	20.2
35013	1981 EL ₃		12 18.3 233°30'	1°3'/18.5 17			233529	2007 HJ ₃₅		12 18.3 257°67'	1°6'/18.4 18		
11 17	6 12.11	+28 5.9	2.070	2.913	12.1	20.0	11 17	6 13.87	+26 57.6	1.599	2.452	14.5	21.0
11 27	6 5.40	+27 56.2	1.991	2.907	8.8	19.8	11 27	6 7.22	+27 11.6	1.527	2.447	10.5	20.7
12 7	5 56.55	+27 40.7	1.937	2.901	5.0	19.6	12 7	5 57.79	+27 21.4	1.478	2.443	6.0	20.5
12 17	5 46.41	+27 18.2	1.912	2.894	1.5	19.3	12 17	5 46.60	+27 24.2	1.455	2.438	1.8	20.2
12 27	5 36.13	+26 49.1	1.917	2.888	3.8	19.5	12 27	5 35.15	+27 18.9	1.461	2.433	4.7	20.4
1 6	5 26.89	+26 15.4	1.951	2.881	7.7	19.7	1 6	5 24.98	+27 6.8	1.495	2.427	9.4	20.6
1 16	5 19.61	+25 40.2	2.012	2.874	11.3	19.9	1 16	5 17.32	+26 50.8	1.553	2.422	13.6	20.9
1 26	5 14.94	+25 6.7	2.096	2.867	14.3	20.1	1 26	5 12.95	+26 34.6	1.632	2.417	17.2	21.1
517771	2015 OZ ₈₈		12 18.3 7°52'	7°9'/19.3 17			520119	2014 AF ₅₉		12 18.3 273°82'	1°2'/18.3 18		
11 17	6 17.67	+42 52.1	1.669	2.489	15.6	21.2	11 17	6 12.58	+20 41.8	1.576	2.431	14.6	22.0
11 27	6 10.22	+43 30.0	1.604	2.489	12.6	21.1	11 27	6 6.32	+20 37.5	1.496	2.418	10.6	21.8
12 7	5 59.48	+43 49.1	1.561	2.489	9.6	20.9	12 7	5 57.34	+20 34.8	1.439	2.405	5.9	21.5
12 17	5 46.76	+43 42.9	1.544	2.490	7.9	20.8	12 17	5 46.57	+20 33.1	1.409	2.392	1.4	21.1
12 27	5 33.94	+43 9.3	1.553	2.490	8.6	20.8	12 27	5 35.42	+20 32.0	1.407	2.379	4.7	21.3
1 6	5 22.89	+42 11.9	1.587	2.491	11.2	21.0	1 6	5 25.38	+20 32.4	1.432	2.365	9.7	21.6
1 16	5 14.95	+40 58.5	1.646	2.492	14.2	21.2	1 16	5 17.70	+20 35.5	1.482	2.352	14.1	21.8
1 26	5 10.84	+39 38.1	1.726	2.494	17.1	21.4	1 26	5 13.21	+20 42.4	1.553	2.338	17.9	22.0
211211	2002 PR ₁₁		12 18.3 103°25'	5°8'/19.2 18			489262	2006 RN ₁₁₂		12 18.3 357°82'	3°4'/18.4 17		
11 17	6 19.30	+40 37.3	2.078	2.889	13.3	20.2	11 17	6 11.28	+30 19.6	1.500	2.358	15.0	21.2
11 27	6 10.50	+41 4.4	2.028	2.912	10.4	20.0	11 27	6 5.55	+30 50.3	1.434	2.355	11.1	20.9
12 7	5 59.25	+41 16.0	2.003	2.935	7.5	19.9	12 7	5 56.94	+31 14.2	1.391	2.353	6.7	20.7
12 17	5 46.71	+41 8.4	2.005	2.957	5.9	19.8	12 17	5 46.51	+31 27.1	1.374	2.352	3.4	20.5
12 27	5 34.37	+40 40.6	2.036	2.979	6.5	19.9	12 27	5 35.85	+31 26.9	1.384	2.352	5.5	20.6
1 6	5 23.59	+39 56.2	2.096	3.000	8.9	20.1	1 6	5 26.59	+31 14.9	1.420	2.352	9.8	20.9
1 16	5 15.38	+39 0.8	2.183	3.020	11.5	20.3	1 16	5 19.97	+30 54.9	1.480	2.353	13.9	21.1
1 26	5 10.28	+38 0.9	2.292	3.040	13.9	20.5	1 26	5 16.76	+30 31.5	1.561	2.355	17.4	21.3
419861	2011 AD ₁₅		12 18.3 249°21'	4°0'/18.3 18			393269	2013 WO ₅₆		12 18.3 52°86'	6°1'/18.3 18		
11 17	6 11.74	+35 39.9	2.596	3.419	10.6	21.1	11 17	6 12.92	+11 11.7	1.181	2.040	18.2	20.0
11 27	6 5.09	+36 22.1	2.510	3.407	8.1	20.9	11 27	6 6.51	+10 37.6	1.141	2.058	13.6	19.8
12 7	5 56.41	+36 56.8	2.450	3.395	5.6	20.7	12 7	5 57.28	+10 17.6	1.121	2.077	9.0	19.6
12 17	5 46.41	+37 20.4	2.419	3.382	4.1	20.6	12 17	5 46.54	+10 14.3	1.126	2.096	6.2	19.5
12 27	5 36.11	+37 30.7	2.419	3.370	5.0	20.7	12 27	5 35.96	+10 28.3	1.156	2.116	7.9	19.7
1 6	5 26.57	+37 28.2	2.447	3.357	7.5	20.8	1 6	5 27.11	+10 57.9	1.211	2.136	11.9	20.0
1 16	5 18.73	+37 15.0	2.503	3.344	10.1	21.0	1 16	5 21.08	+11 39.7	1.288	2.156	16.0	20.3
1 26	5 13.26	+36 54.8	2.582	3.331	12.5	21.1	1 26	5 18.45	+12 29.9	1.384	2.176	19.4	20.6
218832	2006 TV ₁₀₅		12 18.3 100°97'	2°2'/18.6 18			97168	1999 VO ₁₈₈		12 18.3 352°03'	1°6'/18.2 17		
11 17	6 19.04	+29 26.9	1.538	2.384	15.4	20.7	11 17	6 10.78	+25 28.0	1.905	2.755	12.7	18.8
11 27	6 10.57	+29 25.2	1.490	2.406	11.1	20.5	11 27	6 4.71	+26 16.7	1.833	2.753	9.1	18.5
12 7	5 59.36	+29 14.9	1.465	2.427	6.4	20.2	12 7	5 56.32	+27 4.9	1.786	2.751	5.2	18.3
12 17	5 46.73	+28 54.0	1.467	2.448	2.3	20.0	12 17	5 46.45	+27 49.1	1.767	2.749	1.7	18.0
12 27	5 34.35	+28 22.9	1.498	2.468	4.8	20.3	12 27	5 36.29	+28 26.3	1.778	2.748	4.2	18.2
1 6	5 23.74	+27 45.3	1.557	2.488	9.3	20.6	1 6	5 27.11	+28 55.7	1.817	2.747	8.2	18.5
1 16	5 15.98	+27 5.8	1.642	2.507	13.3	20.8	1 16	5 19.94	+29 17.8	1.883	2.747	11.9	18.7
1 26	5 11.61	+26 29.0	1.748	2.525	16.5	21.1	1 26	5 15.52	+29 34.9	1.970	2.747	15.0	18.9
127325	2002 JN ₁₀₁		12 18.3 145°29'	2°4'/18.3 18			180257	2003 WM ₃		12 18.3 16°55'	4°1'/17.9 18 R		
11 17	6 11.35	+29 48.4	2.379	3.215	10.9	1							

EPHEMERIDES

12 18.3

12 18.4

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
268312	2005 QV ₁₄₁		12 18.3 148°04	4°0/18.1	18		488439	2016 XF ₂₄		12 18.3 14°81	11°9/19.2	18	
11 17	6 13.50	+13 30.3	1.849	2.686	13.6	21.4	11 17	6 7.21	- 0 57.3	1.184	2.019	19.7	19.3
11 27	6 6.31	+13 0.6	1.787	2.695	10.1	21.2	11 27	6 2.57	- 1 49.4	1.138	2.025	16.4	19.1
12 7	5 57.03	+12 37.7	1.749	2.704	6.4	21.0	12 7	5 55.25	- 2 12.8	1.112	2.031	13.5	18.9
12 17	5 46.54	+12 23.1	1.740	2.713	4.0	20.8	12 17	5 46.36	- 2 1.8	1.106	2.039	12.0	18.9
12 27	5 36.03	+12 17.9	1.761	2.720	5.6	21.0	12 27	5 37.41	- 1 15.1	1.123	2.048	12.6	19.0
1 6	5 26.64	+12 22.4	1.810	2.727	9.1	21.2	1 6	5 29.88	+ 0 2.7	1.162	2.059	15.0	19.1
1 16	5 19.27	+12 36.0	1.884	2.733	12.6	21.4	1 16	5 24.90	+ 1 43.5	1.221	2.070	18.0	19.3
1 26	5 14.52	+12 57.4	1.981	2.739	15.5	21.6	1 26	5 23.12	+ 3 37.9	1.299	2.083	20.8	19.6
235330	2003 UJ ₁₉₇		12 18.3 57°84	0°3/18.3	18		360624	2004 EU ₃₂		12 18.3 285°01	4°5/18.9	18	
11 17	6 9.27	+22 14.1	2.075	2.923	11.8	20.5	11 17	6 14.89	+35 58.6	1.890	2.723	13.5	20.6
11 27	6 3.25	+22 20.1	2.013	2.933	8.4	20.3	11 27	6 7.95	+36 4.7	1.798	2.702	10.3	20.4
12 7	5 55.34	+22 26.2	1.978	2.943	4.6	20.1	12 7	5 58.24	+35 58.2	1.731	2.681	6.9	20.1
12 17	5 46.34	+22 31.6	1.970	2.954	0.6	19.8	12 17	5 46.74	+35 35.2	1.690	2.659	4.5	20.0
12 27	5 37.31	+22 35.7	1.993	2.965	3.5	20.1	12 27	5 34.89	+34 54.7	1.678	2.638	5.8	20.0
1 6	5 29.25	+22 39.1	2.044	2.975	7.3	20.4	1 6	5 24.22	+33 59.2	1.694	2.616	9.3	20.1
1 16	5 22.99	+22 42.5	2.122	2.986	10.7	20.6	1 16	5 15.96	+32 54.5	1.736	2.594	13.0	20.3
1 26	5 19.09	+22 47.0	2.223	2.997	13.5	20.8	1 26	5 10.92	+31 47.1	1.800	2.573	16.3	20.5
300812	2007 WE ₂₂		12 18.3 180°12	6°6/18.2	18		251252	2006 VM ₄₉		12 18.3 35°19	0°4/18.4	18	
11 17	6 17.16	+39 5.6	1.870	2.694	14.0	20.6	11 17	6 11.15	+25 13.6	1.653	2.509	14.0	20.7
11 27	6 9.69	+40 13.8	1.803	2.694	11.0	20.4	11 27	6 4.98	+25 3.8	1.593	2.516	10.0	20.5
12 7	5 59.23	+41 9.5	1.760	2.694	8.2	20.3	12 7	5 56.42	+24 50.7	1.557	2.524	5.5	20.2
12 17	5 46.84	+41 46.0	1.743	2.695	6.7	20.2	12 17	5 46.50	+24 33.3	1.548	2.532	0.8	19.9
12 27	5 34.09	+41 59.6	1.755	2.694	7.6	20.2	12 27	5 36.56	+24 12.4	1.567	2.540	4.2	20.2
1 6	5 22.68	+41 51.0	1.793	2.694	10.3	20.4	1 6	5 27.93	+23 49.8	1.614	2.549	8.6	20.5
1 16	5 13.92	+41 25.3	1.856	2.694	13.2	20.6	1 16	5 21.60	+23 28.2	1.686	2.558	12.6	20.7
1 26	5 8.65	+40 49.1	1.940	2.693	15.9	20.8	1 26	5 18.18	+23 9.8	1.780	2.567	15.9	21.0
400904	2010 RG ₁₇₆		12 18.3 52°54	2°7/18.1	18		83127	2001 QC ₂₅₆		12 18.3 87°67	3°0/18.5	18	
11 17	6 9.76	+16 59.4	1.815	2.665	13.2	21.4	11 17	6 18.74	+29 56.4	1.588	2.432	15.1	19.8
11 27	6 3.74	+16 34.0	1.753	2.671	9.6	21.2	11 27	6 10.39	+30 27.8	1.544	2.459	10.9	19.6
12 7	5 55.66	+16 12.6	1.715	2.677	5.7	21.0	12 7	5 59.33	+30 51.3	1.525	2.485	6.5	19.4
12 17	5 46.39	+15 56.1	1.705	2.683	2.8	20.8	12 17	5 46.84	+31 2.9	1.533	2.511	3.1	19.2
12 27	5 37.07	+15 45.8	1.723	2.690	4.8	20.9	12 27	5 34.54	+31 1.5	1.570	2.537	5.1	19.4
1 6	5 28.83	+15 42.2	1.770	2.697	8.6	21.2	1 6	5 23.95	+30 49.0	1.634	2.562	9.2	19.7
1 16	5 22.56	+15 45.7	1.842	2.703	12.2	21.4	1 16	5 16.14	+30 29.7	1.724	2.586	12.9	20.0
1 26	5 18.85	+15 55.8	1.935	2.710	15.2	21.6	1 26	5 11.69	+30 8.2	1.836	2.610	16.0	20.3
260022	2004 GS ₁₆		12 18.3 206°29	1°9/18.2	17		56610	2000 JZ ₆₀		12 18.4 99°35	0°1/18.4	18	
11 17	6 13.22	+27 37.5	2.418	3.252	10.9	21.1	11 17	6 14.95	+24 42.4	1.588	2.440	14.6	18.6
11 27	6 6.13	+28 23.1	2.336	3.247	7.9	20.9	11 27	6 7.69	+24 24.1	1.530	2.452	10.5	18.3
12 7	5 57.01	+29 6.4	2.280	3.241	4.6	20.6	12 7	5 57.89	+24 2.2	1.497	2.463	5.7	18.1
12 17	5 46.57	+29 44.2	2.255	3.235	2.0	20.5	12 17	5 46.69	+23 36.2	1.491	2.475	0.7	17.8
12 27	5 35.83	+30 14.1	2.262	3.228	3.8	20.6	12 27	5 35.56	+23 7.3	1.514	2.487	4.3	18.1
1 6	5 25.85	+30 35.5	2.298	3.221	7.2	20.8	1 6	5 25.90	+22 38.0	1.565	2.498	9.0	18.4
1 16	5 17.56	+30 49.6	2.363	3.214	10.3	21.0	1 16	5 18.75	+22 11.3	1.641	2.509	13.1	18.6
1 26	5 11.65	+30 58.6	2.451	3.205	13.0	21.1	1 26	5 14.71	+21 49.6	1.738	2.520	16.5	18.9
18568	Thuillot		12 18.3 74°18	8°7/17.1	18		255278	2005 VU ₆₂		12 18.4 205°39	1°3/18.5	17	
11 17	6 6.83	- 2 9.0	2.285	3.074	12.9	17.8	11 17	6 11.50	+27 17.7	2.084	2.928	12.0	21.5
11 27	6 1.28	- 3 24.1	2.229	3.080	10.9	17.7	11 27	6 5.00	+27 24.3	2.010	2.927	8.6	21.2
12 7	5 54.19	- 4 23.2	2.197	3.086	9.4	17.6	12 7	5 56.40	+27 26.8	1.961	2.925	4.9	21.0
12 17	5 46.22	- 5 2.4	2.192	3.093	8.7	17.5	12 17	5 46.53	+27 23.5	1.941	2.923	1.5	20.8
12 27	5 38.22	- 5 19.0	2.212	3.099	9.3	17.6	12 27	5 36.51	+27 13.9	1.951	2.921	3.8	20.9
1 6	5 30.99	- 5 13.4	2.259	3.105	10.8	17.7	1 6	5 27.49	+26 59.1	1.989	2.919	7.6	21.2
1 16	5 25.23	- 4 47.8	2.328	3.111	12.7	17.9	1 16	5 20.39	+26 41.5	2.055	2.917	11.1	21.4
1 26	5 21.43	- 4 6.1	2.418	3.118	14.5	18.0	1 26	5 15.84	+26 23.7	2.143	2.914	14.1	21.6
333522	2005 PB ₂		12 18.3 154°42	10°5/19.5	18		16263	2000 JV ₃₇		12 18.4 215°71	0°0/18.4	18	
11 17	6 13.41	- 7 11.0	1.959	2.721	15.7	21.4	11 17	6 8.15	+23 35.6	2.811	3.649	9.4	19.9
11 27	6 6.15	- 7 38.4	1.900	2.730	13.5	21.3	11 27	6 2.18	+23 36.7	2.728	3.643	6.7	19.7
12 7	5 56.92	- 7 41.8	1.864	2.738	11.6	21.1	12 7	5 54.71	+23 36.6	2.672	3.637	3.7	19.5
12 17	5 46.55	- 7 17.6	1.852	2.745	10.5	21.1	12 17	5 46.33	+23 34.8	2.646	3.630	0.5	19.2
12 27	5 36.14	- 6 25.2	1.867	2.751	10.9	21.1	12 27	5 37.81	+23 31.1	2.652	3.623	2.8	19.4
1 6	5 26.73	- 5 7.7	1.908	2.757	12.4	21.2	1 6	5 29.95	+23 26.1	2.688	3.616	6.0	19.6
1 16	5 19.20	- 3 30.9	1.974	2.762	14.5	21.4	1 16	5 23.41	+23 20.6	2.752	3.609	8.8	19.8
1 26	5 14.12	- 1 41.4	2.060	2.767	16.5	21.6	1 26	5 18.71	+23 15.9	2.841	3.601	11.2	19.9
446633	2015 MZ ₁₁₄		12 18.3 106°32	6°6/18.6	17		387351	2012 XD ₂		12 18.4 15°53	4°2/18.1	18	
11 17	6 11.57	+ 4 51.9	1.869	2.688	14.2	21.8	11 17	6 4.51	+11 31.3	2.132	2.974	11.8	19.6
11 27	6 4.84	+ 4 31.0	1.817	2.704	11.2	21.6	11 27	5 59.76	+11 3.3	2.074	2.983	8.9	19.5
12 7	5 56.19	+ 4 25.2	1.788	2.720	8.3	21.5	12 7	5 53.41	+10 43.3	2.041	2.992	5.9	19.3
12 17	5 46.46	+ 4 36.2	1.786	2.736	6.7	21.4	12 17	5 46.17	+10 32.7	2.035	3.002	4.2	19.2
12 27	5 36.76	+ 5 4.5	1.812	2.751	7.5	21.5	12 27	5 38.89	+10 32.5	2.058	3.013	5.4	19.3
1 6	5 28.13	+ 5 47.9	1.866	2.766	10.0	21.7	1 6	5 32.45	+10 42.5	2.108	3.025	8.1	19.5
1 16	5 21.40	+ 6 43.2	1.946	2.781	12.8	21.9	1 16	5 27.54	+11 1.8	2.184	3.037	10.9	19.7
1 26	5 17.11	+ 7 46.6	2.047	2.795	15.4	22.1	1 26	5 24.65	+11 28.6	2.282	3.050	13.4	19.9
149787	2005 ER ₉₄		12 18.3 240°14	0°2/18.4	18		291576	2006 FW ₄₁		12 18.4 194°67	0°9/18.3	18	
11 17	6 15.31	+22 51.2	1.607	2									

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
48705	1996 <i>JR</i> ₃		12 18.4	85°96	0°5/18.4	18	401258	2012 <i>BH</i> ₉₂		12 18.4	66°53	6°8/18.9	18
11 17	6 11.89	+23 41.8	1.823	2.673	13.1	18.7	11 17	6 9.64	+3 32.0	1.887	2.704	14.2	20.4
11 27	6 5.50	+24 4.0	1.753	2.673	9.4	18.5	11 27	6 3.51	+3 21.6	1.835	2.719	11.2	20.3
12 7	5 56.78	+24 25.9	1.708	2.674	5.2	18.2	12 7	5 55.51	+3 27.6	1.806	2.735	8.5	20.2
12 17	5 46.61	+24 45.2	1.691	2.675	0.8	17.9	12 17	5 46.47	+3 51.6	1.803	2.750	6.9	20.1
12 27	5 36.24	+25 0.6	1.703	2.675	4.0	18.2	12 27	5 37.43	+4 33.3	1.829	2.766	7.6	20.2
1 6	5 26.94	+25 11.9	1.744	2.676	8.3	18.4	1 6	5 29.40	+5 30.0	1.882	2.782	9.9	20.3
1 16	5 19.76	+25 20.3	1.810	2.676	12.1	18.7	1 16	5 23.20	+6 38.1	1.960	2.797	12.7	20.5
1 26	5 15.38	+25 27.7	1.899	2.677	15.4	18.9	1 26	5 19.35	+7 53.2	2.060	2.813	15.1	20.8
177308	2003 <i>YR</i> ₁₉		12 18.4	185°42	1°2/18.4	18	312357	2008 <i>DY</i> ₄₅		12 18.4	242°84	0°2/18.4	18
11 17	6 12.19	+17 54.1	2.224	3.060	11.6	20.2	11 17	6 11.94	+22 4.9	2.055	2.899	12.1	20.5
11 27	6 5.35	+18 21.3	2.147	3.060	8.4	20.0	11 27	6 5.44	+22 41.3	1.974	2.891	8.7	20.3
12 7	5 56.57	+18 52.9	2.097	3.060	4.7	19.7	12 7	5 56.75	+23 19.8	1.919	2.884	4.8	20.0
12 17	5 46.58	+19 27.4	2.077	3.059	1.4	19.5	12 17	5 46.64	+23 57.8	1.893	2.876	0.6	19.7
12 27	5 36.38	+20 3.3	2.088	3.058	3.7	19.7	12 27	5 36.21	+24 33.0	1.897	2.869	3.7	19.9
1 6	5 26.98	+20 39.4	2.129	3.056	7.4	19.9	1 6	5 26.62	+25 4.5	1.931	2.861	7.8	20.2
1 16	5 19.28	+21 15.0	2.197	3.054	10.7	20.1	1 16	5 18.87	+25 32.2	1.991	2.853	11.4	20.4
1 26	5 13.89	+21 50.2	2.290	3.051	13.6	20.3	1 26	5 13.68	+25 57.2	2.075	2.844	14.5	20.6
19521	Chaos		12 18.4	343°95	0°2/18.6	18	417401	2006 <i>JT</i> ₃		12 18.4	1°45	4°2/17.8	17
11 17	5 48.07	+30 49.5	40.400	41.230	0.8	21.0	11 17	6 7.42	+13 10.0	1.993	2.837	12.5	20.5
11 27	5 47.23	+30 50.5	40.322	41.229	0.5	21.0	11 27	6 1.99	+12 25.6	1.925	2.836	9.3	20.3
12 7	5 46.30	+30 51.2	40.272	41.228	0.3	21.0	12 7	5 54.72	+11 47.3	1.882	2.836	6.1	20.1
12 17	5 45.34	+30 51.5	40.251	41.227	0.2	21.0	12 17	5 46.38	+11 17.3	1.867	2.836	4.2	20.0
12 27	5 44.36	+30 51.4	40.262	41.226	0.3	21.0	12 27	5 37.95	+10 57.6	1.880	2.837	5.6	20.1
1 6	5 43.42	+30 51.0	40.303	41.225	0.5	21.0	1 6	5 30.42	+10 49.0	1.921	2.837	8.7	20.3
1 16	5 42.55	+30 50.3	40.373	41.224	0.7	21.0	1 16	5 24.60	+10 51.5	1.987	2.839	11.9	20.5
1 26	5 41.79	+30 49.3	40.470	41.224	0.9	21.1	1 26	5 21.05	+11 3.7	2.075	2.840	14.7	20.7
384860	2012 <i>SN</i> ₂₈		12 18.4	183°77	3°1/18.7	18	336831	2011 <i>EG</i> ₇₇		12 18.4	221°96	2°2/18.6	18
11 17	6 16.69	+31 45.0	1.773	2.612	13.9	21.2	11 17	6 10.16	+31 41.4	2.924	3.752	9.4	21.8
11 27	6 9.08	+31 56.7	1.702	2.613	10.3	21.0	11 27	6 3.67	+31 47.5	2.837	3.743	6.9	21.6
12 7	5 58.78	+31 59.3	1.655	2.613	6.3	20.8	12 7	5 55.56	+31 47.6	2.777	3.733	4.2	21.5
12 17	5 46.86	+31 49.6	1.636	2.613	3.2	20.6	12 17	5 46.49	+31 40.2	2.747	3.723	2.2	21.3
12 27	5 34.80	+31 26.7	1.645	2.612	5.0	20.7	12 27	5 37.27	+31 24.8	2.748	3.713	3.4	21.4
1 6	5 24.10	+30 53.1	1.684	2.610	9.0	20.9	1 6	5 28.76	+31 2.5	2.780	3.702	6.1	21.5
1 16	5 15.91	+30 13.3	1.748	2.609	12.8	21.1	1 16	5 21.67	+30 35.4	2.840	3.690	8.7	21.7
1 26	5 10.93	+29 32.5	1.834	2.606	16.0	21.4	1 26	5 16.54	+30 6.1	2.924	3.679	11.1	21.8
339121	2004 <i>RB</i> ₂₅₂		12 18.4	47°36	0°1/18.4	18	459523	2013 <i>EM</i> ₁₁₆		12 18.4	117°09	1°7/18.3	18
11 17	6 14.19	+25 17.3	1.288	2.152	16.6	20.7	11 17	6 10.85	+18 8.8	1.974	2.819	12.5	21.8
11 27	6 7.45	+24 52.2	1.242	2.169	11.8	20.5	11 27	6 4.48	+18 10.5	1.908	2.825	9.0	21.6
12 7	5 57.85	+24 22.7	1.219	2.187	6.5	20.2	12 7	5 56.11	+18 15.8	1.868	2.831	5.1	21.3
12 17	5 46.73	+23 48.7	1.222	2.206	0.8	19.9	12 17	5 46.56	+18 24.2	1.856	2.838	1.8	21.1
12 27	5 35.83	+23 12.1	1.251	2.224	4.8	20.2	12 27	5 36.91	+18 35.5	1.874	2.844	4.1	21.3
1 6	5 26.75	+22 36.3	1.307	2.244	10.0	20.6	1 6	5 28.26	+18 49.4	1.921	2.850	7.9	21.6
1 16	5 20.57	+22 4.9	1.386	2.264	14.4	20.9	1 16	5 21.48	+19 5.9	1.994	2.856	11.4	21.8
1 26	5 17.83	+21 40.3	1.485	2.284	18.0	21.2	1 26	5 17.16	+19 25.1	2.090	2.861	14.4	22.0
298605	2003 <i>YB</i> ₁₃₅		12 18.4	22°97	1°7/18.1	18	410090	2007 <i>EV</i> ₂₁		12 18.4	298°59	3°2/18.2	17
11 17	6 12.76	+22 16.3	1.233	2.101	16.9	18.9	11 17	6 8.77	+14 32.6	2.018	2.861	12.3	21.4
11 27	6 6.89	+23 46.0	1.183	2.112	12.1	18.6	11 27	6 3.00	+14 14.6	1.946	2.858	9.1	21.2
12 7	5 57.83	+25 20.2	1.156	2.124	6.7	18.4	12 7	5 55.31	+14 2.5	1.898	2.856	5.7	21.0
12 17	5 46.76	+26 51.4	1.155	2.137	1.8	18.1	12 17	5 46.46	+13 57.1	1.878	2.853	3.3	20.9
12 27	5 35.46	+28 12.7	1.180	2.152	5.4	18.4	12 27	5 37.47	+13 59.3	1.888	2.851	4.9	21.0
1 6	5 25.76	+29 20.1	1.231	2.168	10.6	18.7	1 6	5 29.36	+14 9.0	1.926	2.848	8.3	21.2
1 16	5 19.03	+30 13.7	1.306	2.184	15.1	19.0	1 16	5 22.97	+14 25.7	1.989	2.846	11.7	21.4
1 26	5 16.08	+30 56.0	1.401	2.202	18.8	19.3	1 26	5 18.91	+14 48.7	2.075	2.844	14.6	21.6
481938	2009 <i>BL</i> ₁₈₅		12 18.4	16°12	8°7/18.3	18	99898	2002 <i>QF</i> ₃₂		12 18.4	213°35	1°9/18.5	18
11 17	6 5.74	+8 28.6	0.973	1.848	19.8	19.0	11 17	6 13.73	+28 40.0	2.265	3.100	11.5	21.0
11 27	6 1.84	+7 29.2	0.936	1.858	15.3	18.7	11 27	6 6.59	+28 59.3	2.181	3.093	8.3	20.8
12 7	5 54.95	+6 50.0	0.918	1.870	11.1	18.6	12 7	5 57.33	+29 14.1	2.124	3.084	4.9	20.6
12 17	5 46.39	+6 36.3	0.921	1.885	8.7	18.5	12 17	5 46.73	+29 21.9	2.096	3.076	2.0	20.4
12 27	5 37.91	+6 49.9	0.947	1.901	10.1	18.6	12 27	5 35.87	+29 21.5	2.098	3.067	3.9	20.5
1 6	5 31.16	+7 28.0	0.994	1.920	13.8	18.9	1 6	5 25.91	+29 13.5	2.131	3.057	7.5	20.7
1 16	5 27.27	+8 25.0	1.061	1.940	17.7	19.2	1 16	5 17.79	+29 0.3	2.191	3.046	10.8	20.9
1 26	5 26.85	+9 33.8	1.145	1.962	21.2	19.5	1 26	5 12.19	+28 44.8	2.274	3.035	13.7	21.1
473590	2015 <i>XR</i> ₂₄₃		12 18.4	4°86	1°0/18.3	17	483468	2002 <i>JY</i> ₈		12 18.4	56°86	11°1/21.8	17
11 17	6 9.67	+20 26.5	1.912	2.762	12.6	21.9	11 17	6 28.47	-6 52.8	1.385	2.149	21.0	21.1
11 27	6 3.77	+20 28.4	1.842	2.762	9.1	21.6	11 27	6 16.26	-6 42.6	1.381	2.220	17.1	21.0
12 7	5 55.77	+20 32.1	1.797	2.762	5.0	21.4	12 7	6 2.01	-6 0.5	1.399	2.290	13.5	21.0
12 17	5 46.51	+20 36.9	1.779	2.762	1.1	21.1	12 17	5 47.22	-4 47.2	1.443	2.357	11.4	21.1
12 27	5 37.10	+20 42.6	1.791	2.763	3.9	21.3	12 27	5 33.49	-3 8.1	1.515	2.422	11.4	21.2
1 6	5 28.67	+20 49.2	1.832	2.764	8.0	21.6	1 6	5 22.07	-1 12.2	1.615	2.486	13.1	21.5
1 16	5 22.14	+20 57.4	1.898	2.764	11.7	21.8	1 16	5 13.68	+0 51.4	1.741	2.547	15.4	21.8
1 26	5 18.16	+21 7.9	1.987	2.765	14.8	22.0	1 26	5 8.58	+2 55.5	1.888	2.607	17.4	22.1
70853	1999 <i>VN</i> ₁₁₄		12 18.4	84°77	1°7/18.6	18	80903	2000 <i>DD</i> ₅₆		12 18.4	166°17	0°0/18.4	

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
301825	2011 <i>PK</i> ₉		12 18.4 126°90		0°7/18.3 18		316231	2010 <i>NY</i> ₁₁₄		12 18.4 91°34		0°1/18.4 17	
11 17	6 13.29	+21 28.0	1.985	2.828	12.5	22.2	11 17	6 11.36	+23 34.2	1.951	2.799	12.5	21.4
11 27	6 6.16	+21 23.4	1.924	2.841	8.9	22.0	11 27	6 4.91	+23 37.4	1.888	2.807	8.9	21.2
12 7	5 57.00	+21 18.9	1.889	2.854	4.9	21.8	12 7	5 56.38	+23 39.5	1.850	2.816	4.9	21.0
12 17	5 46.70	+21 14.1	1.883	2.866	0.9	21.5	12 17	5 46.65	+23 39.2	1.840	2.824	0.6	20.7
12 27	5 36.39	+21 8.9	1.907	2.878	3.8	21.8	12 27	5 36.86	+23 36.4	1.860	2.832	3.7	21.0
1 6	5 27.20	+21 4.2	1.960	2.890	7.7	22.0	1 6	5 28.15	+23 31.9	1.908	2.840	7.7	21.2
1 16	5 19.99	+21 1.1	2.040	2.900	11.3	22.3	1 16	5 21.41	+23 27.0	1.983	2.848	11.3	21.5
1 26	5 15.33	+21 0.9	2.143	2.911	14.2	22.5	1 26	5 17.23	+23 23.5	2.080	2.856	14.3	21.7
520203	2014 <i>DN</i> ₁₅₀		12 18.4 308°72		2°2/18.4 18		354491	2004 <i>FJ</i> ₅₄		12 18.4 4°46 11°6/17.8 18			
11 17	6 11.62	+17 33.4	1.439	2.297	15.5	21.2	11 17	6 4.81	+2 9.6	1.157	2.008	19.0	19.2
11 27	6 5.84	+17 39.8	1.364	2.287	11.3	21.0	11 27	6 1.00	+0 44.2	1.109	2.007	15.8	19.0
12 7	5 57.24	+17 52.7	1.312	2.277	6.6	20.7	12 7	5 54.52	-0 17.6	1.080	2.008	12.9	18.8
12 17	5 46.76	+18 11.4	1.285	2.267	2.4	20.4	12 17	5 46.43	-0 48.2	1.072	2.010	11.6	18.8
12 27	5 35.89	+18 35.0	1.286	2.257	5.2	20.5	12 27	5 38.24	-0 43.6	1.086	2.015	12.6	18.8
1 6	5 26.18	+19 2.6	1.314	2.248	10.2	20.8	1 6	5 31.42	-0 5.7	1.122	2.021	15.2	19.0
1 16	5 18.93	+19 33.4	1.365	2.239	14.8	21.1	1 16	5 27.08	+0 59.7	1.177	2.029	18.3	19.2
1 26	5 15.00	+20 7.1	1.436	2.231	18.7	21.3	1 26	5 25.92	+2 24.1	1.250	2.039	21.3	19.5
446022	2013 <i>CV</i> ₅₇		12 18.4 344°50		0°7/18.5 17		312740	2010 <i>TP</i> ₂₆		12 18.4 17°72 1°8/18.2 18			
11 17	6 10.61	+26 41.5	1.342	2.208	15.9	20.4	11 17	6 10.09	+19 21.8	1.788	2.640	13.3	20.8
11 27	6 5.25	+26 14.8	1.272	2.200	11.5	20.1	11 27	6 4.14	+19 3.1	1.721	2.641	9.6	20.6
12 7	5 56.91	+25 41.1	1.224	2.192	6.4	19.8	12 7	5 56.02	+18 46.3	1.678	2.643	5.4	20.4
12 17	5 46.72	+25 0.1	1.201	2.185	1.1	19.5	12 17	5 46.61	+18 31.9	1.663	2.644	1.9	20.1
12 27	5 36.32	+24 13.4	1.205	2.179	4.9	19.7	12 27	5 37.10	+18 20.8	1.676	2.646	4.4	20.3
1 6	5 27.39	+23 25.2	1.234	2.174	10.2	20.0	1 6	5 28.66	+18 13.8	1.718	2.648	8.5	20.6
1 16	5 21.20	+22 40.1	1.287	2.169	15.0	20.3	1 16	5 22.25	+18 11.9	1.785	2.651	12.3	20.8
1 26	5 18.52	+22 1.9	1.360	2.166	18.9	20.5	1 26	5 18.48	+18 15.3	1.873	2.653	15.5	21.0
474970	2005 <i>TK</i> ₆₃		12 18.4 111°00		8°4/18.3 18		326497	2002 <i>JG</i> ₄		12 18.4 223°68 4°3/19.0 18			
11 17	6 21.81	+41 29.8	1.628	2.447	15.9	21.5	11 17	6 17.42	+9 7.9	1.809	2.631	14.5	20.9
11 27	6 13.46	+42 56.3	1.574	2.458	12.8	21.3	11 27	6 9.60	+9 48.0	1.722	2.621	11.0	20.7
12 7	6 1.52	+44 6.2	1.543	2.469	9.9	21.1	12 7	5 59.20	+10 43.8	1.660	2.610	7.2	20.4
12 17	5 47.29	+44 50.4	1.537	2.479	8.4	21.1	12 17	5 47.04	+11 54.1	1.626	2.598	4.4	20.2
12 27	5 32.79	+45 4.2	1.559	2.489	9.3	21.2	12 27	5 34.35	+13 16.1	1.623	2.585	5.8	20.3
1 6	5 20.09	+44 49.9	1.606	2.499	11.8	21.3	1 6	5 22.53	+14 45.4	1.651	2.571	9.7	20.5
1 16	5 10.71	+44 14.5	1.677	2.508	14.7	21.5	1 16	5 12.77	+16 17.8	1.706	2.557	13.6	20.7
1 26	5 5.49	+43 27.1	1.767	2.517	17.4	21.8	1 26	5 5.91	+17 49.9	1.785	2.541	17.0	20.9
464372	2016 <i>AY</i> ₁₇₂		12 18.4 330°30		0°4/18.4 17		474755	2005 <i>QO</i> ₃₄		12 18.4 133°79 1°8/18.3 18			
11 17	6 8.20	+21 21.1	1.682	2.541	13.6	20.8	11 17	6 15.25	+18 34.4	1.877	2.718	13.3	22.6
11 27	6 3.19	+21 38.4	1.598	2.523	9.8	20.6	11 27	6 7.60	+18 27.4	1.819	2.733	9.5	22.4
12 7	5 55.72	+21 58.4	1.538	2.505	5.5	20.3	12 7	5 57.82	+18 23.1	1.785	2.748	5.4	22.2
12 17	5 46.59	+22 19.4	1.504	2.488	0.8	19.9	12 17	5 46.84	+18 21.3	1.781	2.762	1.9	22.0
12 27	5 37.04	+22 40.1	1.499	2.472	4.2	20.1	12 27	5 35.87	+18 22.0	1.806	2.775	4.3	22.2
1 6	5 28.42	+23 0.0	1.521	2.457	8.9	20.4	1 6	5 26.10	+18 25.6	1.861	2.788	8.3	22.5
1 16	5 21.88	+23 19.1	1.567	2.442	13.2	20.6	1 16	5 18.43	+18 32.6	1.943	2.800	11.9	22.7
1 26	5 18.26	+23 38.4	1.635	2.429	16.8	20.8	1 26	5 13.44	+18 43.5	2.047	2.810	14.9	22.9
132318	2002 <i>GW</i> ₁₈		12 18.4 198°86		5°9/17.6 18		86814	2000 <i>GB</i> ₁₃₃		12 18.4 154°48 1°7/18.3 18			
11 17	6 10.99	+8 48.7	1.969	2.797	13.2	20.5	11 17	6 13.98	+19 5.9	1.987	2.827	12.6	20.8
11 27	6 4.56	+7 49.9	1.898	2.795	10.2	20.3	11 27	6 6.68	+18 50.1	1.921	2.836	9.1	20.6
12 7	5 56.17	+7 0.0	1.852	2.792	7.4	20.1	12 7	5 57.32	+18 36.0	1.881	2.844	5.2	20.4
12 17	5 46.62	+6 22.6	1.833	2.789	5.9	20.0	12 17	5 46.79	+18 23.9	1.869	2.851	1.8	20.2
12 27	5 36.94	+6 0.2	1.844	2.786	7.1	20.1	12 27	5 36.21	+18 14.2	1.888	2.857	4.2	20.3
1 6	5 28.19	+5 53.8	1.882	2.782	9.9	20.2	1 6	5 26.71	+18 7.9	1.937	2.863	8.0	20.6
1 16	5 21.23	+6 2.5	1.945	2.778	12.9	20.4	1 16	5 19.17	+18 5.8	2.012	2.868	11.6	20.8
1 26	5 16.65	+6 24.2	2.030	2.773	15.6	20.6	1 26	5 14.18	+18 8.4	2.110	2.873	14.5	21.0
119119	2001 <i>OP</i> ₈₆		12 18.4 113°50		0°3/18.4 18		267564	2002 <i>QJ</i> ₅₂		12 18.4 164°18 4°2/18.8 18			
11 17	6 16.21	+22 8.9	1.785	2.628	13.7	20.2	11 17	6 12.32	+36 49.4	2.439	3.261	11.2	20.6
11 27	6 8.37	+22 18.6	1.732	2.649	9.8	20.0	11 27	6 5.53	+37 12.2	2.367	3.263	8.5	20.4
12 7	5 58.24	+22 28.3	1.704	2.669	5.3	19.8	12 7	5 56.72	+37 25.0	2.320	3.264	5.9	20.3
12 17	5 46.86	+22 36.2	1.704	2.688	0.7	19.5	12 17	5 46.71	+37 25.0	2.302	3.265	4.2	20.2
12 27	5 35.55	+22 41.9	1.735	2.707	4.0	19.8	12 27	5 36.61	+37 11.0	2.314	3.266	5.1	20.2
1 6	5 25.57	+22 45.7	1.795	2.725	8.3	20.1	1 6	5 27.49	+36 44.7	2.354	3.267	7.5	20.4
1 16	5 17.88	+22 49.1	1.881	2.742	12.0	20.4	1 16	5 20.24	+36 9.2	2.422	3.268	10.2	20.5
1 26	5 13.04	+22 53.6	1.990	2.759	15.1	20.6	1 26	5 15.47	+35 28.9	2.513	3.269	12.6	20.7
506439	2000 <i>YB</i> ₂		12 18.4 108°32		0°1/18.3 17		457400	2008 <i>TG</i> ₁₀₀		12 18.4 81°72 4°1/18.1 16			
11 17	5 48.07	+20 27.2	38.201	39.039	0.8	22.7	11 17	6 7.60	+11 21.6	2.284	3.118	11.4	21.6
11 27	5 47.25	+20 26.7	38.125	39.040	0.5	22.7	11 27	6 1.90	+10 53.0	2.222	3.126	8.6	21.4
12 7	5 46.35	+20 26.3	38.077	39.040	0.3	22.6	12 7	5 54.63	+10 31.6	2.186	3.135	5.8	21.2
12 17	5 45.41	+20 26.0	38.059	39.041	0.1	22.6	12 17	5 46.45	+10 19.1	2.177	3.143	4.1	21.1
12 27	5 44.47	+20 25.8	38.072	39.042	0.2	22.6	12 27	5 38.25	+10 16.3	2.198	3.152	5.2	21.2
1 6	5 43.56	+20 25.8	38.116	39.043	0.5	22.7	1 6	5 30.86	+10 23.3	2.248	3.161	7.9	21.4
1 16	5 42.71	+20 25.9	38.189	39.044	0.7	22.7	1 16	5 24.97	+10 39.2	2.324	3.169	10.6	21.6
1 26	5 41.97	+20 26.1	38.288	39.045	0.9	22.7	1 26	5 21.09	+11 2.7	2.423	3.178	13.1	21.8
512131	2015 <i>PD</i> ₃₂		12 18.4 143°11		1°8/18.6 18		269663	1995 <i>MP</i> ₇		12 18.4 306°48 0°			

EPHEMERIDES

12 18.4

12 18.4

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
520736	2014 QN ₄₇₃		12 18.4	30°77	4.7/18.2	17	134816	2000 GQ ₄		12 18.4	109°23	10°9/15.8	18
11 17	6 7.43	+10 17.7	2.049	2.885	12.5	21.0	11 17	6 29.72	+36 4.5	1.110	1.953	20.2	19.0
11 27	6 1.96	+9 50.6	1.985	2.889	9.5	20.8	11 27	6 21.11	+39 31.2	1.056	1.958	16.0	18.7
12 7	5 54.74	+9 32.6	1.946	2.894	6.5	20.6	12 7	6 6.87	+42 50.6	1.026	1.963	12.3	18.6
12 17	5 46.49	+9 25.4	1.934	2.899	4.7	20.5	12 17	5 48.16	+45 39.3	1.022	1.968	11.0	18.5
12 27	5 38.16	+9 30.0	1.951	2.904	5.9	20.6	12 27	5 27.84	+47 39.3	1.044	1.973	13.0	18.6
1 6	5 30.70	+9 45.9	1.996	2.909	8.7	20.8	1 6	5 9.55	+48 47.0	1.091	1.978	16.6	18.9
1 16	5 24.89	+10 12.0	2.066	2.914	11.6	21.0	1 16	4 56.20	+49 12.1	1.157	1.982	20.4	19.1
1 26	5 21.27	+10 46.1	2.158	2.920	14.3	21.2	1 26	4 49.27	+49 10.3	1.240	1.986	23.6	19.4
4173	Thicksten		12 18.4	328°77	1°3/18.4	18	464603	2016 CF ₁₂₈		12 18.4	105°44	4°4/18.2	17
11 17	6 11.31	+19 50.0	1.285	2.152	16.4	16.8	11 17	6 6.90	+9 16.9	2.456	3.283	11.0	21.5
11 27	6 5.93	+20 1.4	1.214	2.142	11.9	16.5	11 27	6 1.36	+8 51.3	2.390	3.288	8.4	21.4
12 7	5 57.42	+20 17.6	1.164	2.132	6.7	16.2	12 7	5 54.35	+8 33.9	2.350	3.293	5.9	21.2
12 17	5 46.85	+20 37.0	1.140	2.123	1.5	15.8	12 17	5 46.48	+8 26.3	2.338	3.298	4.4	21.1
12 27	5 35.85	+20 58.3	1.141	2.115	5.2	16.0	12 27	5 38.55	+8 29.4	2.355	3.303	5.4	21.2
1 6	5 26.16	+21 20.7	1.168	2.107	10.7	16.3	1 6	5 31.34	+8 42.8	2.401	3.308	7.7	21.4
1 16	5 19.22	+21 44.2	1.218	2.100	15.7	16.6	1 16	5 25.50	+9 5.5	2.474	3.313	10.3	21.5
1 26	5 15.93	+22 9.3	1.287	2.093	19.8	16.8	1 26	5 21.54	+9 35.8	2.570	3.318	12.6	21.7
78815	2003 PN ₆		12 18.4	34°97	2°3/18.7	18	328026	2007 JB ₂₇		12 18.4	71°62	4°1/17.9	18
11 17	6 8.03	+31 29.5	2.501	3.339	10.4	18.1	11 17	6 8.29	+12 24.7	2.151	2.988	11.9	20.5
11 27	6 2.25	+31 32.6	2.440	3.351	7.6	17.9	11 27	6 2.48	+11 44.3	2.090	2.997	8.9	20.3
12 7	5 54.82	+31 29.1	2.406	3.364	4.6	17.7	12 7	5 54.99	+11 10.5	2.055	3.006	5.9	20.1
12 17	5 46.49	+31 17.9	2.400	3.377	2.4	17.6	12 17	5 46.56	+10 45.2	2.047	3.015	4.1	20.0
12 27	5 38.18	+30 59.0	2.424	3.390	3.6	17.7	12 27	5 38.12	+10 29.9	2.069	3.024	5.4	20.1
1 6	5 30.76	+30 33.8	2.477	3.404	6.5	17.9	1 6	5 30.56	+10 25.2	2.119	3.033	8.2	20.3
1 16	5 24.96	+30 4.7	2.558	3.417	9.3	18.1	1 16	5 24.61	+10 30.5	2.195	3.042	11.1	20.5
1 26	5 21.27	+29 34.5	2.662	3.432	11.7	18.3	1 26	5 20.80	+10 44.7	2.294	3.051	13.7	20.7
74711	1999 RL ₁₅₅		12 18.4	45°80	1°5/18.3	18	116254	2003 YR ₂₆		12 18.4	218°13	7°0/19.9	18
11 17	6 14.15	+21 45.4	1.151	2.021	17.7	18.4	11 17	6 25.03	+43 59.5	1.867	2.666	15.0	20.0
11 27	6 7.71	+21 17.4	1.105	2.034	12.7	18.1	11 27	6 15.31	+44 0.2	1.784	2.658	12.1	19.8
12 7	5 58.17	+20 49.5	1.081	2.049	7.0	17.8	12 7	6 2.34	+43 39.6	1.725	2.650	9.1	19.6
12 17	5 46.92	+20 22.3	1.080	2.064	1.7	17.6	12 17	5 47.49	+42 51.8	1.693	2.641	7.2	19.5
12 27	5 35.81	+19 57.5	1.106	2.079	5.5	17.9	12 27	5 32.64	+41 36.1	1.690	2.631	7.7	19.5
1 6	5 26.58	+19 37.5	1.157	2.095	10.9	18.2	1 6	5 19.66	+39 57.9	1.715	2.620	10.4	19.6
1 16	5 20.42	+19 24.5	1.230	2.111	15.6	18.5	1 16	5 9.85	+38 6.5	1.767	2.609	13.6	19.8
1 26	5 17.94	+19 19.3	1.323	2.128	19.4	18.8	1 26	5 3.88	+36 12.5	1.843	2.597	16.6	20.0
92949	2000 RS ₄₁		12 18.4	275°17	4°0/18.8	18	40131	1998 QJ ₄₈		12 18.4	215°64	0°0/18.4	18
11 17	6 15.55	+33 42.7	1.642	2.485	14.7	18.3	11 17	6 9.81	+23 45.4	2.315	3.158	11.0	18.5
11 27	6 8.60	+33 51.2	1.566	2.477	11.0	18.0	11 27	6 3.66	+23 38.2	2.238	3.155	7.9	18.3
12 7	5 58.72	+33 48.2	1.513	2.470	7.0	17.8	12 7	5 55.70	+23 29.3	2.187	3.152	4.3	18.1
12 17	5 47.01	+33 29.9	1.487	2.462	4.1	17.6	12 17	5 46.66	+23 18.2	2.165	3.149	0.5	17.8
12 27	5 35.06	+32 55.4	1.489	2.454	5.7	17.7	12 27	5 37.50	+23 5.1	2.174	3.145	3.3	18.0
1 6	5 24.53	+32 7.9	1.518	2.446	9.7	17.9	1 6	5 29.18	+22 51.0	2.212	3.142	6.9	18.2
1 16	5 16.68	+31 13.0	1.572	2.438	13.7	18.1	1 16	5 22.50	+22 37.5	2.277	3.138	10.2	18.4
1 26	5 12.27	+30 17.1	1.648	2.430	17.2	18.3	1 26	5 18.03	+22 26.0	2.366	3.135	13.0	18.6
458079	2010 AH ₄₄		12 18.4	318°88	5°3/19.2	18	167807	2005 BD ₁₉		12 18.4	347°00	7°4/19.3	18
11 17	6 12.74	+39 11.4	2.064	2.888	12.8	20.8	11 17	6 16.79	+40 54.0	1.523	2.354	16.2	19.9
11 27	6 6.26	+39 20.6	1.980	2.874	10.0	20.6	11 27	6 9.88	+41 23.9	1.456	2.351	12.9	19.7
12 7	5 57.30	+39 16.1	1.921	2.861	7.2	20.4	12 7	5 59.57	+41 35.5	1.411	2.348	9.6	19.5
12 17	5 46.83	+38 54.1	1.888	2.848	5.3	20.3	12 17	5 47.16	+41 22.3	1.390	2.345	7.5	19.4
12 27	5 36.17	+38 13.7	1.884	2.836	6.2	20.3	12 27	5 34.60	+40 42.3	1.396	2.343	8.3	19.5
1 6	5 26.69	+37 17.7	1.908	2.823	8.9	20.5	1 6	5 23.83	+39 39.7	1.427	2.342	11.3	19.6
1 16	5 19.46	+36 11.2	1.957	2.811	12.0	20.6	1 16	5 16.26	+38 22.5	1.482	2.340	14.8	19.8
1 26	5 15.19	+35 0.4	2.030	2.800	14.8	20.8	1 26	5 12.62	+37 0.1	1.557	2.340	18.0	20.0
167321	2003 UO ₂₅₉		12 18.4	160°62	0°4/18.4	18	265434	2004 VK ₇₁		12 18.4	26°18	0°7/18.4	17
11 17	6 12.93	+22 56.0	2.088	2.930	12.0	20.2	11 17	6 10.00	+24 57.6	1.906	2.757	12.6	20.4
11 27	6 5.92	+22 41.8	2.019	2.935	8.6	20.0	11 27	6 4.08	+25 6.7	1.840	2.761	9.0	20.2
12 7	5 56.92	+22 26.0	1.975	2.940	4.7	19.7	12 7	5 56.03	+25 13.8	1.799	2.765	5.0	20.0
12 17	5 46.78	+22 8.4	1.961	2.944	0.7	19.4	12 17	5 46.71	+25 17.4	1.786	2.770	0.9	19.7
12 27	5 36.57	+21 49.5	1.977	2.948	3.6	19.7	12 27	5 37.28	+25 16.9	1.803	2.775	3.8	19.9
1 6	5 27.40	+21 30.8	2.022	2.952	7.6	19.9	1 6	5 28.91	+25 13.0	1.847	2.780	7.8	20.2
1 16	5 20.11	+21 14.1	2.095	2.954	11.0	20.1	1 16	5 22.52	+25 7.5	1.917	2.786	11.5	20.4
1 26	5 15.30	+21 0.9	2.191	2.957	14.0	20.4	1 26	5 18.75	+25 2.1	2.010	2.791	14.5	20.7
440894	2006 UM ₁₆₆		12 18.4	72°77	0°3/18.4	18	353039	2009 CM ₄₆		12 18.4	32°56	1°3/18.5	18
11 17	6 13.23	+23 25.5	1.770	2.619	13.5	21.4	11 17	6 12.59	+26 28.2	1.371	2.234	15.9	20.8
11 27	6 6.31	+23 42.9	1.720	2.640	9.6	21.2	11 27	6 6.47	+26 31.0	1.317	2.243	11.4	20.6
12 7	5 57.17	+23 59.4	1.695	2.661	5.3	21.0	12 7	5 57.51	+26 29.2	1.286	2.253	6.4	20.3
12 17	5 46.80	+24 13.2	1.698	2.681	0.7	20.7	12 17	5 46.89	+26 20.9	1.281	2.264	1.5	20.0
12 27	5 36.49	+24 23.3	1.730	2.702	3.9	21.0	12 27	5 36.28	+26 5.9	1.302	2.275	4.8	20.3
1 6	5 27.46	+24 30.0	1.790	2.722	8.1	21.3	1 6	5 27.27	+25 46.4	1.350	2.287	9.7	20.6
1 16	5 20.64	+24 34.8	1.877	2.743	11.8	21.6	1 16	5 21.00	+25 25.8	1.421	2.299	14.1	20.9
1 26	5 16.60	+24 39.2	1.985	2.763	14.8	21.8	1 26	5 18.13	+25 7.2	1.512	2.312	17.7	21.1
400117	2006 UN ₃₀		12 18.4	128°33	2°7/18.2	18	188503	2004 QU ₁₈		12 18.4	83°14	1°3/18.4	18
11 17	6 11.11	+16 5.1	2.146	2.985	11.9	2							

EPHEMERIDES

12 18.4

12 18.4

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
304139	2006 <i>KT</i> ₇₇		12 18.4 172°71	1.7°/18.4	18		52038	2002 <i>PX</i> ₄₈		12 18.4 142°35	4.6°/19.2	18	
11 17	6 14.68	+27 4.4	2.336	3.169	11.2	21.6	11 17	6 17.37	+37 46.1	2.148	2.967	12.6	19.0
11 27	6 7.22	+27 43.4	2.262	3.173	8.1	21.4	11 27	6 9.25	+37 55.2	2.083	2.976	9.6	18.8
12 7	5 57.71	+28 19.8	2.215	3.176	4.7	21.2	12 7	5 58.81	+37 51.5	2.042	2.985	6.6	18.6
12 17	5 46.94	+28 50.5	2.198	3.179	1.8	21.0	12 17	5 47.09	+37 31.7	2.030	2.994	4.7	18.5
12 27	5 35.95	+29 13.6	2.212	3.180	3.7	21.2	12 27	5 35.41	+36 55.5	2.048	3.002	5.5	18.6
1 6	5 25.85	+29 28.9	2.257	3.182	7.2	21.4	1 6	5 25.08	+36 6.0	2.094	3.009	8.2	18.8
1 16	5 17.54	+29 37.6	2.330	3.182	10.4	21.6	1 16	5 17.05	+35 8.1	2.168	3.016	11.2	19.0
1 26	5 11.67	+29 42.3	2.426	3.182	13.1	21.8	1 26	5 11.90	+34 7.6	2.265	3.023	13.8	19.2
51016	2000 <i>GG</i> ₁₀₆		12 18.4 310°76	7.1°/18.3	18		487674	2015 <i>PT</i> ₁₃₅		12 18.4 37°96	7.7°/19.7	17	
11 17	6 14.72	+43 3.8	2.212	3.019	12.7	18.4	11 17	6 17.92	+41 52.7	1.443	2.274	17.0	21.1
11 27	6 7.86	+44 7.4	2.138	3.013	10.3	18.2	11 27	6 10.57	+42 16.5	1.392	2.286	13.5	20.9
12 7	5 58.32	+44 57.6	2.089	3.006	8.2	18.1	12 7	5 59.83	+42 19.2	1.363	2.298	10.0	20.7
12 17	5 47.03	+45 28.5	2.066	3.000	7.1	18.0	12 17	5 47.21	+41 55.3	1.357	2.311	7.8	20.6
12 27	5 35.36	+45 37.0	2.070	2.994	7.8	18.0	12 27	5 34.79	+41 4.3	1.378	2.325	8.5	20.7
1 6	5 24.79	+45 23.8	2.102	2.988	9.8	18.1	1 6	5 24.47	+39 51.7	1.424	2.339	11.3	20.9
1 16	5 16.54	+44 53.0	2.158	2.982	12.2	18.3	1 16	5 17.51	+38 26.9	1.494	2.354	14.7	21.2
1 26	5 11.41	+44 10.8	2.236	2.976	14.5	18.4	1 26	5 14.49	+36 59.1	1.585	2.369	17.7	21.4
218137	2002 <i>RB</i> ₂₁		12 18.4 83°70	1.9°/18.5	16		157339	2004 <i>TP</i> ₄₅		12 18.4 82°24	0.4°/18.4	18	
11 17	6 19.04	+27 18.1	1.447	2.297	15.9	21.1	11 17	6 10.71	+24 40.8	2.096	2.942	11.8	20.7
11 27	6 10.78	+27 37.8	1.405	2.324	11.4	20.9	11 27	6 4.38	+24 42.3	2.034	2.952	8.5	20.5
12 7	5 59.71	+27 52.0	1.386	2.351	6.4	20.7	12 7	5 56.12	+24 41.7	1.997	2.962	4.7	20.3
12 17	5 47.17	+27 57.2	1.395	2.377	2.0	20.4	12 17	5 46.76	+24 37.9	1.988	2.972	0.7	20.0
12 27	5 34.86	+27 52.7	1.432	2.402	4.8	20.7	12 27	5 37.37	+24 30.8	2.010	2.982	3.5	20.2
1 6	5 24.37	+27 40.6	1.496	2.428	9.4	21.0	1 6	5 29.00	+24 21.5	2.060	2.992	7.3	20.5
1 16	5 16.79	+27 24.6	1.585	2.452	13.5	21.3	1 16	5 22.47	+24 11.5	2.138	3.001	10.7	20.7
1 26	5 12.67	+27 8.5	1.695	2.477	16.8	21.6	1 26	5 18.34	+24 2.6	2.238	3.011	13.5	20.9
244298	2002 <i>FY</i> ₅		12 18.4 202°09	4.3°/18.6	18		458438	2011 <i>AK</i> ₅₆		12 18.4 53°90	5.4°/18.9	18	
11 17	6 11.77	+10 24.0	1.990	2.820	13.0	20.5	11 17	6 9.25	+ 6 32.8	1.998	2.822	13.2	20.5
11 27	6 5.24	+10 24.1	1.915	2.817	9.9	20.3	11 27	6 3.31	+ 6 39.0	1.938	2.832	10.2	20.4
12 7	5 56.72	+10 34.6	1.864	2.814	6.5	20.1	12 7	5 55.54	+ 6 58.9	1.902	2.842	7.2	20.2
12 17	5 46.82	+10 56.0	1.842	2.810	4.4	20.0	12 17	5 46.70	+ 7 33.2	1.893	2.852	5.4	20.1
12 27	5 36.76	+11 28.2	1.849	2.806	5.6	20.0	12 27	5 37.78	+ 8 20.9	1.913	2.863	6.3	20.2
1 6	5 27.56	+12 9.5	1.885	2.802	8.8	20.2	1 6	5 29.77	+ 9 19.7	1.962	2.873	8.9	20.4
1 16	5 20.15	+12 58.1	1.947	2.797	12.2	20.4	1 16	5 23.48	+10 26.3	2.037	2.884	11.8	20.6
1 26	5 15.17	+13 51.7	2.032	2.792	15.1	20.6	1 26	5 19.46	+11 37.5	2.134	2.895	14.4	20.8
351037	2003 <i>SH</i> ₁₆₅		12 18.4 73°77	4.6°/18.4	18		518852	2010 <i>DG</i> ₃₀		12 18.4 350°68	2.8°/18.7	17	
11 17	6 12.55	+11 48.6	1.634	2.476	14.8	20.6	11 17	6 9.44	+13 1.3	2.167	3.003	11.9	20.8
11 27	6 5.80	+11 30.5	1.588	2.498	11.0	20.4	11 27	6 3.48	+13 25.0	2.093	3.002	8.8	20.6
12 7	5 56.90	+11 22.6	1.566	2.520	7.1	20.2	12 7	5 55.67	+13 57.2	2.045	3.002	5.4	20.4
12 17	5 46.84	+11 26.1	1.571	2.542	4.6	20.1	12 17	5 46.72	+14 37.3	2.025	3.001	2.9	20.2
12 27	5 36.88	+11 41.0	1.604	2.564	6.1	20.2	12 27	5 37.57	+15 23.8	2.035	3.001	4.4	20.3
1 6	5 28.23	+12 6.1	1.665	2.585	9.6	20.5	1 6	5 29.20	+16 14.9	2.075	3.000	7.7	20.5
1 16	5 21.75	+12 39.7	1.750	2.607	13.0	20.8	1 16	5 22.43	+17 8.7	2.143	3.000	10.9	20.7
1 26	5 18.00	+13 19.4	1.857	2.628	15.9	21.0	1 26	5 17.88	+18 3.7	2.233	3.000	13.7	20.9
58903	1998 <i>KC</i> ₁₀		12 18.4 151°77	1.7°/18.3	18		116432	2003 <i>YM</i> ₁₅₃		12 18.4 303°02	5.3°/19.6	18	
11 17	6 15.23	+19 3.6	1.809	2.652	13.6	20.2	11 17	6 16.68	+40 39.5	2.180	2.992	12.7	18.7
11 27	6 7.77	+18 55.0	1.745	2.661	9.8	20.0	11 27	6 9.15	+40 28.3	2.073	2.960	10.0	18.5
12 7	5 58.05	+18 48.7	1.706	2.669	5.6	19.7	12 7	5 58.98	+40 0.6	1.991	2.927	7.3	18.3
12 17	5 46.99	+18 44.5	1.695	2.677	1.8	19.5	12 17	5 47.15	+39 12.6	1.936	2.895	5.4	18.1
12 27	5 35.88	+18 42.7	1.714	2.684	4.4	19.7	12 27	5 35.02	+38 3.5	1.911	2.862	6.1	18.1
1 6	5 25.95	+18 43.6	1.762	2.690	8.6	20.0	1 6	5 24.03	+36 36.6	1.915	2.830	8.9	18.2
1 16	5 18.18	+18 48.1	1.836	2.695	12.4	20.2	1 16	5 15.35	+34 58.6	1.947	2.797	12.2	18.3
1 26	5 13.20	+18 56.8	1.932	2.700	15.5	20.4	1 26	5 9.73	+33 17.2	2.002	2.765	15.2	18.5
492278	2013 <i>XE</i> ₁₈		12 18.4 14°66	3.3°/18.1	18		429988	2013 <i>PZ</i> ₃₆		12 18.4 70°43	1.4°/18.5	18	
11 17	6 9.16	+19 33.2	0.958	1.844	19.1	19.9	11 17	6 17.48	+19 0.4	1.235	2.095	17.5	20.7
11 27	6 4.61	+18 42.3	0.913	1.848	13.8	19.6	11 27	6 9.90	+19 22.9	1.195	2.119	12.5	20.5
12 7	5 56.70	+17 54.1	0.886	1.855	8.0	19.3	12 7	5 59.34	+19 50.4	1.178	2.144	6.9	20.2
12 17	5 46.83	+17 11.9	0.882	1.863	3.4	19.1	12 17	5 47.17	+20 20.1	1.186	2.169	1.6	20.0
12 27	5 36.99	+16 39.4	0.902	1.873	6.7	19.3	12 27	5 35.18	+20 49.9	1.221	2.194	5.1	20.3
1 6	5 29.08	+16 19.2	0.944	1.885	12.3	19.7	1 6	5 25.05	+21 18.7	1.283	2.218	10.3	20.6
1 16	5 24.37	+16 12.1	1.006	1.898	17.3	20.0	1 16	5 17.95	+21 46.5	1.368	2.242	14.8	21.0
1 26	5 23.52	+16 17.1	1.086	1.912	21.4	20.3	1 26	5 14.46	+22 14.2	1.473	2.266	18.4	21.3
150679	2001 <i>OB</i> ₁₀		12 18.4 92°55	0.3°/18.4	18		25058	<i>Shanegould</i>		12 18.4 315°36	2.4°/18.5	18	
11 17	6 16.65	+23 30.2	1.570	2.419	14.9	20.7	11 17	6 12.73	+28 10.8	1.632	2.485	14.3	18.8
11 27	6 8.95	+23 42.6	1.521	2.441	10.6	20.5	11 27	6 6.58	+28 38.4	1.558	2.478	10.4	18.6
12 7	5 58.70	+23 53.8	1.497	2.463	5.8	20.3	12 7	5 57.67	+29 1.7	1.507	2.471	6.1	18.3
12 17	5 47.07	+24 1.6	1.500	2.484	0.8	20.0	12 17	5 46.99	+29 17.1	1.484	2.464	2.5	18.1
12 27	5 35.54	+24 5.3	1.532	2.504	4.3	20.3	12 27	5 35.98	+29 22.6	1.488	2.458	4.9	18.2
1 6	5 25.55	+24 5.7	1.592	2.525	8.9	20.6	1 6	5 26.17	+29 18.8	1.520	2.452	9.3	18.5
1 16	5 18.12	+24 4.9	1.678	2.545	12.9	20.9	1 16	5 18.80	+29 8.5	1.576	2.446	13.4	18.7
1 26	5 13.84	+24 4.9	1.785	2.564	16.2	21.2	1 26	5 14.66	+28 55.5	1.653	2.440	16.9	18.9
446652	2015 <i>NA</i> ₅		12 18.4 152°78	3.3°/18.3	18		27212	1999 <i>CW</i> ₁₀₆		12 18.4 33			

EPHEMERIDES

12 18.4

12 18.4

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
23768	Abu-Rmaileh	12 18.4 212°72	1°1/18.3 18				161300	2003 <i>LJ</i> ₅	12 18.4 211°06	5°4/18.1 18			
11 17	6 14.71	+21 41.9	1.654	2.503	14.3	18.3	11 17	6 11.46	+7 43.0	2.232	3.049	12.2	20.3
11 27	6 7.74	+21 23.5	1.579	2.499	10.3	18.0	11 27	6 4.86	+7 10.4	2.151	3.042	9.5	20.1
12 7	5 58.20	+21 4.4	1.529	2.495	5.8	17.8	12 7	5 56.43	+6 47.4	2.096	3.034	6.9	19.9
12 17	5 47.05	+20 44.5	1.507	2.490	1.3	17.4	12 17	5 46.87	+6 36.3	2.069	3.025	5.4	19.8
12 27	5 35.69	+20 24.6	1.513	2.484	4.5	17.7	12 27	5 37.10	+6 38.5	2.072	3.015	6.4	19.9
1 6	5 25.55	+20 6.5	1.547	2.479	9.2	17.9	1 6	5 28.09	+6 53.9	2.104	3.004	9.0	20.0
1 16	5 17.74	+19 52.2	1.607	2.472	13.5	18.2	1 16	5 20.66	+7 21.3	2.162	2.993	11.9	20.2
1 26	5 13.00	+19 43.4	1.688	2.466	17.0	18.4	1 26	5 15.41	+7 58.4	2.243	2.981	14.5	20.3
416421	2003 <i>UL</i> ₂₂₁	12 18.4 105°44	4°3/18.7 17				256935	2008 <i>EG</i> ₃₄	12 18.4 341°05	3°1/18.6 17			
11 17	6 13.12	+36 33.2	2.340	3.164	11.5	20.9	11 17	6 12.87	+31 26.0	1.872	2.715	13.2	20.5
11 27	6 6.17	+37 4.3	2.276	3.173	8.8	20.7	11 27	6 6.38	+31 44.9	1.801	2.714	9.7	20.3
12 7	5 57.15	+37 25.4	2.238	3.182	6.1	20.5	12 7	5 57.44	+31 56.3	1.754	2.713	6.0	20.1
12 17	5 46.91	+37 33.2	2.228	3.191	4.4	20.4	12 17	5 47.00	+31 57.0	1.735	2.712	3.2	19.9
12 27	5 36.60	+37 26.6	2.248	3.200	5.3	20.5	12 27	5 36.40	+31 45.9	1.745	2.711	4.8	20.0
1 6	5 27.34	+37 6.9	2.296	3.208	7.7	20.7	1 6	5 26.96	+31 24.6	1.783	2.710	8.5	20.2
1 16	5 20.06	+36 37.5	2.371	3.217	10.4	20.9	1 16	5 19.77	+30 56.5	1.846	2.710	12.1	20.4
1 26	5 15.33	+36 2.8	2.469	3.225	12.8	21.1	1 26	5 15.49	+30 26.0	1.932	2.709	15.2	20.6
515176	2011 <i>SA</i> ₁₄₁	12 18.4 222°76	7°1/18.4 18				481925	2009 <i>BE</i> ₈₄	12 18.4 31°06	3°6/18.8 17			
11 17	6 18.84	+42 0.8	2.052	2.860	13.5	21.0	11 17	6 13.81	+31 30.5	1.168	2.034	17.8	20.1
11 27	6 10.99	+43 3.1	1.975	2.853	10.9	20.8	11 27	6 7.67	+31 36.2	1.127	2.052	13.0	19.9
12 7	6 0.14	+43 51.5	1.923	2.846	8.5	20.7	12 7	5 58.26	+31 30.2	1.107	2.070	7.8	19.7
12 17	5 47.31	+44 19.4	1.897	2.838	7.2	20.6	12 17	5 47.09	+31 9.6	1.111	2.090	3.8	19.5
12 27	5 34.06	+44 23.1	1.900	2.830	7.9	20.6	12 27	5 36.16	+30 34.8	1.140	2.111	5.9	19.7
1 6	5 22.05	+44 3.6	1.930	2.821	10.2	20.7	1 6	5 27.29	+29 50.7	1.195	2.132	10.6	20.0
1 16	5 12.63	+43 26.1	1.985	2.812	12.9	20.9	1 16	5 21.67	+29 3.4	1.272	2.155	15.0	20.3
1 26	5 6.65	+42 37.6	2.061	2.803	15.5	21.1	1 26	5 19.81	+28 18.4	1.368	2.178	18.7	20.6
42360	2002 <i>CG</i> ₉₉	12 18.4 302°66	0°4/18.4 18				197890	2004 <i>RB</i> ₂₃	12 18.4 138°99	1°2/18.5 18			
11 17	6 10.13	+21 50.6	2.027	2.875	12.1	19.3	11 17	6 15.54	+26 18.1	1.884	2.726	13.1	21.3
11 27	6 4.13	+21 57.6	1.954	2.873	8.7	19.0	11 27	6 8.05	+26 29.5	1.821	2.737	9.4	21.1
12 7	5 56.09	+22 5.3	1.905	2.871	4.8	18.8	12 7	5 58.25	+26 37.2	1.783	2.747	5.3	20.9
12 17	5 46.80	+22 12.6	1.885	2.869	0.7	18.5	12 17	5 47.11	+26 39.2	1.774	2.756	1.3	20.6
12 27	5 37.33	+22 19.0	1.895	2.867	3.6	18.7	12 27	5 35.91	+26 34.7	1.794	2.765	4.0	20.8
1 6	5 28.78	+22 24.7	1.933	2.865	7.6	19.0	1 6	5 25.93	+26 24.9	1.844	2.774	8.1	21.1
1 16	5 22.05	+22 30.5	1.998	2.863	11.2	19.2	1 16	5 18.17	+26 12.2	1.920	2.782	11.8	21.4
1 26	5 17.78	+22 37.4	2.086	2.861	14.3	19.4	1 26	5 13.24	+25 59.5	2.018	2.789	14.8	21.6
55765	1992 <i>EN</i> ₄	12 18.4 347°11	1°8/18.4 18				418524	2008 <i>SS</i> ₆₃	12 18.4 353°00	7°4/18.9 17			
11 17	6 10.72	+19 12.5	1.230	2.100	16.8	18.7	11 17	6 15.27	+44 34.8	2.159	2.961	13.1	21.0
11 27	6 5.54	+19 14.9	1.165	2.094	12.2	18.4	11 27	6 8.25	+45 25.2	2.090	2.960	10.8	20.8
12 7	5 57.25	+19 22.4	1.121	2.089	6.9	18.1	12 7	5 58.54	+46 0.0	2.046	2.959	8.6	20.7
12 17	5 46.97	+19 34.1	1.101	2.084	2.0	17.7	12 17	5 47.15	+46 13.8	2.027	2.958	7.4	20.6
12 27	5 36.34	+19 49.4	1.107	2.080	5.4	18.0	12 27	5 35.55	+46 3.9	2.036	2.958	8.0	20.7
1 6	5 27.14	+20 7.7	1.138	2.077	10.9	18.3	1 6	5 25.23	+45 32.3	2.071	2.957	9.9	20.8
1 16	5 20.73	+20 29.1	1.192	2.075	15.8	18.5	1 16	5 17.36	+44 43.8	2.131	2.957	12.2	20.9
1 26	5 17.95	+20 53.5	1.264	2.074	19.9	18.8	1 26	5 12.67	+43 45.3	2.212	2.957	14.5	21.1
321167	2008 <i>VQ</i> ₃₇	12 18.4 92°37	1°2/18.4 18				440097	2002 <i>XW</i>	12 18.4 43°80	2°2/18.1 17			
11 17	6 8.88	+19 10.1	2.434	3.274	10.6	20.8	11 17	6 13.39	+21 35.1	1.414	2.274	15.7	20.4
11 27	6 2.82	+19 13.2	2.373	3.288	7.6	20.6	11 27	6 6.63	+20 31.0	1.371	2.295	11.2	20.2
12 7	5 55.19	+19 18.4	2.339	3.302	4.3	20.4	12 7	5 57.42	+19 26.1	1.351	2.317	6.3	20.0
12 17	5 46.68	+19 25.3	2.334	3.317	1.3	20.2	12 17	5 46.99	+18 23.3	1.358	2.340	2.2	19.8
12 27	5 38.14	+19 33.7	2.360	3.331	3.3	20.4	12 27	5 36.84	+17 26.4	1.393	2.363	5.1	20.0
1 6	5 30.42	+19 43.4	2.416	3.344	6.5	20.6	1 6	5 28.34	+16 38.9	1.455	2.387	9.7	20.3
1 16	5 24.21	+19 54.7	2.500	3.358	9.5	20.8	1 16	5 22.39	+16 3.1	1.541	2.411	13.7	20.6
1 26	5 20.01	+20 7.9	2.607	3.371	12.0	21.0	1 26	5 19.50	+15 39.4	1.648	2.435	17.0	20.9
144869	2004 <i>MQ</i>	12 18.4 292°94	2°9/18.3 18				42981	Jenniskens	12 18.4 223°78	2°8/18.2 18			
11 17	6 10.13	+16 15.8	1.837	2.685	13.2	20.3	11 17	6 11.79	+16 22.6	2.004	2.844	12.5	20.1
11 27	6 4.44	+16 1.6	1.745	2.662	9.7	20.1	11 27	6 5.31	+15 57.9	1.924	2.837	9.2	19.9
12 7	5 56.43	+15 52.2	1.677	2.639	5.9	19.8	12 7	5 56.77	+15 36.9	1.869	2.829	5.6	19.7
12 17	5 46.87	+15 48.4	1.637	2.615	2.9	19.6	12 17	5 46.94	+15 20.5	1.843	2.820	2.9	19.5
12 27	5 36.87	+15 50.8	1.625	2.592	5.0	19.6	12 27	5 36.90	+15 9.9	1.846	2.811	4.7	19.6
1 6	5 27.68	+15 59.9	1.641	2.569	9.1	19.8	1 6	5 27.75	+15 5.9	1.879	2.802	8.4	19.8
1 16	5 20.36	+16 15.5	1.682	2.545	13.1	20.0	1 16	5 20.42	+15 8.8	1.937	2.792	12.0	20.0
1 26	5 15.72	+16 37.4	1.745	2.522	16.6	20.2	1 26	5 15.56	+15 18.4	2.018	2.782	15.1	20.2
487533	2014 <i>UV</i> ₁₅₄	12 18.4 139°27	3°8/18.2 18				460876	2014 <i>WF</i> ₁₃₉	12 18.4 184°53	0°2/18.4 18			
11 17	6 8.40	+11 12.0	2.463	3.291	10.9	21.2	11 17	6 8.77	+23 52.1	2.894	3.729	9.2	21.8
11 27	6 2.45	+10 52.0	2.397	3.298	8.2	21.1	11 27	6 2.67	+23 56.1	2.816	3.729	6.6	21.6
12 7	5 54.99	+10 39.0	2.357	3.305	5.5	20.9	12 7	5 55.13	+23 59.1	2.765	3.729	3.6	21.4
12 17	5 46.66	+10 34.2	2.346	3.312	3.8	20.8	12 17	5 46.73	+24 0.0	2.745	3.728	0.5	21.1
12 27	5 38.28	+10 38.2	2.365	3.319	4.9	20.9	12 27	5 38.21	+23 58.9	2.756	3.727	2.7	21.3
1 6	5 30.64	+10 50.7	2.413	3.325	7.4	21.1	1 6	5 30.36	+23 56.0	2.797	3.726	5.8	21.5
1 16	5 24.43	+11 10.9	2.488	3.331	10.1	21.2	1 16	5 23.80	+23 52.2	2.868	3.724	8.5	21.7
1 26	5 20.12	+11 37.7	2.587	3.337	12.5	21.4	1 26	5 19.04	+23 48.8	2.963	3.721	10.8	21.9
164646	1995 <i>SU</i> ₈₆	12 18.4 255°42	3°5/18.4 18				190700	2001 <i>FO</i> ₄₅	12 18.4 226°45	4°1/18.6 18			
11 17	6												

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
73973	1998 <i>BF</i> ₂₂		12 18.4 195°66	1°8/18.4 18			82305	2001 <i>KP</i> ₄₅		12 18.4 140°29	4°0/18.2 18		
11 17	6 14.98	+18 31.2	1.618	2.466	14.6	19.4	11 17	6 13.86	+14 7.9	1.696	2.538	14.4	19.8
11 27	6 8.00	+18 33.1	1.547	2.465	10.6	19.2	11 27	6 6.89	+13 36.6	1.635	2.546	10.6	19.6
12 7	5 58.41	+18 39.2	1.499	2.463	6.1	18.9	12 7	5 57.65	+13 12.1	1.598	2.554	6.7	19.4
12 17	5 47.17	+18 48.5	1.479	2.461	2.0	18.6	12 17	5 47.08	+12 56.0	1.588	2.562	4.0	19.2
12 27	5 35.67	+19 0.6	1.487	2.458	4.8	18.8	12 27	5 36.47	+12 49.5	1.607	2.569	5.8	19.3
1 6	5 25.36	+19 15.3	1.524	2.454	9.4	19.1	1 6	5 27.06	+12 53.1	1.654	2.575	9.6	19.6
1 16	5 17.39	+19 32.7	1.586	2.451	13.6	19.3	1 16	5 19.81	+13 6.1	1.726	2.581	13.2	19.8
1 26	5 12.51	+19 53.3	1.668	2.446	17.2	19.6	1 26	5 15.36	+13 27.4	1.820	2.587	16.3	20.0
70935	1999 <i>WG</i>		12 18.4 54°89	0°9/18.6 18			245646	2005 <i>YH</i> ₁₁₀		12 18.4 308°61	1°5/18.3 18		
11 17	6 15.16	+27 54.0	1.486	2.340	15.3	18.3	11 17	6 12.24	+20 27.0	1.504	2.362	15.0	21.0
11 27	6 7.98	+27 20.2	1.437	2.359	11.0	18.0	11 27	6 6.22	+20 12.6	1.432	2.356	10.9	20.7
12 7	5 58.21	+26 38.9	1.411	2.377	6.1	17.8	12 7	5 57.50	+19 59.6	1.384	2.350	6.1	20.4
12 17	5 47.11	+25 50.3	1.413	2.396	1.3	17.5	12 17	5 47.08	+19 48.0	1.361	2.344	1.7	20.1
12 27	5 36.24	+24 56.6	1.442	2.415	4.4	17.8	12 27	5 36.40	+19 38.4	1.366	2.338	4.8	20.3
1 6	5 27.06	+24 2.3	1.499	2.434	9.1	18.1	1 6	5 26.95	+19 31.8	1.398	2.333	9.7	20.6
1 16	5 20.54	+23 11.9	1.581	2.453	13.2	18.4	1 16	5 19.92	+19 29.7	1.455	2.327	14.2	20.9
1 26	5 17.22	+22 28.7	1.684	2.473	16.6	18.7	1 26	5 16.08	+19 32.9	1.531	2.322	17.9	21.1
308779	2006 <i>PD</i> ₂₈		12 18.4 94°16	0°1/18.4 18			4221	Picasso		12 18.4 229°82	8°5/17.5 18		
11 17	6 15.07	+21 26.9	1.949	2.790	12.8	20.8	11 17	6 9.66	+0 24.9	2.080	2.880	13.6	17.4
11 27	6 7.57	+22 10.5	1.897	2.812	9.1	20.6	11 27	6 3.68	-0 37.9	2.007	2.872	11.3	17.2
12 7	5 57.94	+22 55.6	1.870	2.835	5.0	20.4	12 7	5 55.85	-1 25.7	1.958	2.864	9.4	17.1
12 17	5 47.09	+23 39.1	1.873	2.857	0.6	20.2	12 17	5 46.87	-1 54.2	1.935	2.856	8.5	17.0
12 27	5 36.22	+24 18.8	1.906	2.878	3.7	20.4	12 27	5 37.70	-2 0.6	1.939	2.847	9.2	17.0
1 6	5 26.49	+24 53.5	1.969	2.899	7.7	20.7	1 6	5 29.32	-1 44.9	1.969	2.837	11.2	17.1
1 16	5 18.83	+25 23.6	2.060	2.920	11.2	21.0	1 16	5 22.55	-1 9.5	2.024	2.828	13.6	17.3
1 26	5 13.82	+25 50.2	2.173	2.940	14.0	21.2	1 26	5 18.02	-0 18.3	2.099	2.818	15.9	17.4
413352	2003 <i>YQ</i> ₄₇		12 18.4 17°25	1°7/17.9 16			80630	2000 <i>AL</i> ₂₀₄		12 18.4 141°31	1°3/18.3 18		
11 17	6 13.50	+23 54.0	1.857	2.703	13.1	19.7	11 17	6 15.18	+20 32.2	1.798	2.642	13.6	20.0
11 27	6 6.40	+22 19.2	1.789	2.708	9.4	19.4	11 27	6 7.78	+20 17.6	1.736	2.652	9.8	19.8
12 7	5 57.24	+20 38.1	1.748	2.713	5.2	19.2	12 7	5 58.12	+20 3.8	1.698	2.662	5.5	19.5
12 17	5 46.99	+18 54.5	1.736	2.718	1.7	19.0	12 17	5 47.16	+19 50.6	1.689	2.672	1.5	19.3
12 27	5 36.88	+17 13.8	1.756	2.724	4.5	19.2	12 27	5 36.17	+19 38.6	1.710	2.680	4.2	19.5
1 6	5 28.04	+15 41.4	1.805	2.731	8.6	19.5	1 6	5 26.42	+19 28.9	1.759	2.688	8.5	19.8
1 16	5 21.32	+14 21.8	1.882	2.738	12.2	19.7	1 16	5 18.84	+19 22.8	1.835	2.696	12.3	20.0
1 26	5 17.24	+13 17.1	1.981	2.746	15.3	19.9	1 26	5 14.07	+19 21.4	1.933	2.703	15.4	20.2
454067	2012 <i>KZ</i> ₄₉		12 18.4 256°11	3°3/18.1 18			329702	2003 <i>UG</i> ₂₇₄		12 18.4 46°34	6°2/17.4 18		
11 17	6 8.10	+13 58.1	2.332	3.168	11.1	21.5	11 17	6 9.11	+9 1.0	1.907	2.741	13.4	19.9
11 27	6 2.44	+13 27.2	2.252	3.161	8.3	21.3	11 27	6 3.19	+7 42.4	1.857	2.755	10.3	19.7
12 7	5 55.10	+13 1.1	2.199	3.154	5.3	21.1	12 7	5 55.48	+6 33.6	1.831	2.771	7.5	19.6
12 17	5 46.75	+12 41.2	2.174	3.146	3.4	21.0	12 17	5 46.82	+5 38.6	1.833	2.786	6.2	19.5
12 27	5 38.25	+12 28.8	2.179	3.139	4.7	21.1	12 27	5 38.22	+5 0.4	1.863	2.802	7.3	19.6
1 6	5 30.48	+12 24.5	2.214	3.131	7.7	21.3	1 6	5 30.66	+4 40.1	1.920	2.818	9.9	19.8
1 16	5 24.19	+12 28.3	2.274	3.124	10.7	21.4	1 16	5 24.90	+4 36.7	2.002	2.835	12.6	20.0
1 26	5 19.93	+12 39.7	2.358	3.116	13.3	21.6	1 26	5 21.42	+4 47.7	2.105	2.851	15.1	20.2
340182	2005 <i>YO</i> ₁₉₂		12 18.4 21°11	0°8/18.4 18			517777	2015 <i>OV</i> ₈₉		12 18.4 115°98	2°4/18.4 18		
11 17	6 11.25	+20 58.5	1.165	2.038	17.3	20.0	11 17	6 14.43	+28 58.6	2.181	3.017	11.8	21.4
11 27	6 5.88	+21 10.2	1.114	2.045	12.5	19.7	11 27	6 7.14	+29 42.3	2.121	3.031	8.6	21.2
12 7	5 57.40	+21 25.1	1.084	2.053	6.9	19.5	12 7	5 57.76	+30 21.5	2.087	3.046	5.1	21.0
12 17	5 47.05	+21 41.3	1.078	2.062	1.2	19.1	12 17	5 47.12	+30 52.8	2.082	3.060	2.5	20.9
12 27	5 36.60	+21 57.3	1.098	2.072	5.2	19.4	12 27	5 36.39	+31 14.3	2.108	3.073	4.2	21.0
1 6	5 27.82	+22 13.0	1.142	2.083	10.7	19.8	1 6	5 26.68	+31 26.0	2.163	3.087	7.5	21.3
1 16	5 21.98	+22 28.9	1.209	2.095	15.4	20.1	1 16	5 18.94	+31 29.8	2.246	3.100	10.6	21.5
1 26	5 19.97	+22 46.0	1.295	2.108	19.4	20.4	1 26	5 13.76	+31 28.8	2.351	3.112	13.3	21.7
380134	1999 <i>JX</i> ₁₁		12 18.4 171°18	3°3/17.9 18			401368	2013 <i>BO</i> ₆₃		12 18.4 203°88	3°9/18.9 18		
11 17	6 22.20	+28 31.8	1.925	2.753	13.4	20.9	11 17	6 15.55	+35 41.1	2.271	3.094	11.9	21.6
11 27	6 13.23	+29 59.8	1.852	2.759	9.9	20.7	11 27	6 8.05	+35 56.3	2.191	3.089	9.0	21.4
12 7	6 1.38	+31 25.4	1.806	2.763	6.0	20.5	12 7	5 58.31	+36 1.3	2.137	3.085	6.0	21.2
12 17	5 47.58	+32 41.6	1.791	2.766	3.4	20.3	12 17	5 47.20	+35 52.8	2.112	3.080	4.0	21.0
12 27	5 33.30	+33 43.0	1.807	2.769	5.3	20.4	12 27	5 35.93	+35 30.0	2.117	3.074	5.0	21.1
1 6	5 20.09	+34 27.5	1.854	2.770	9.1	20.7	1 6	5 25.74	+34 54.7	2.151	3.068	7.9	21.3
1 16	5 9.29	+34 57.1	1.929	2.770	12.6	20.9	1 16	5 17.59	+34 10.8	2.212	3.061	10.9	21.4
1 26	5 1.76	+35 16.1	2.025	2.770	15.6	21.1	1 26	5 12.16	+33 23.3	2.297	3.054	13.6	21.6
178239	2006 <i>WR</i> ₁₆₉		12 18.4 171°14	0°2/18.4 18			144190	2004 <i>BB</i> ₁₂₀		12 18.4 192°47	3°5/18.5 18		
11 17	6 11.47	+23 34.7	2.008	2.854	12.3	20.7	11 17	6 14.51	+32 1.7	2.052	2.888	12.5	19.9
11 27	6 5.12	+23 41.2	1.936	2.855	8.8	20.5	11 27	6 7.50	+32 42.0	1.979	2.887	9.3	19.7
12 7	5 56.68	+23 46.8	1.890	2.855	4.9	20.3	12 7	5 58.09	+33 15.6	1.931	2.886	5.9	19.5
12 17	5 46.96	+23 50.2	1.872	2.856	0.6	20.0	12 17	5 47.18	+33 38.5	1.911	2.884	3.5	19.3
12 27	5 37.09	+23 50.8	1.884	2.856	3.6	20.2	12 27	5 36.01	+33 48.5	1.921	2.883	5.0	19.4
1 6	5 28.20	+23 49.2	1.925	2.857	7.7	20.5	1 6	5 25.89	+33 46.1	1.959	2.881	8.3	19.6
1 16	5 21.22	+23 46.8	1.992	2.857	11.3	20.7	1 16	5 17.88	+33 34.1	2.024	2.878	11.6	19.8
1 26	5 16.78	+23 45.2	2.082	2.857	14.3	20.9	1 26	5 12.70	+33 16.6	2.112	2.876	14.5	20.0
152928	2000 <i>EG</i> ₉₁		12 18.4 268°49	2°6/18.2 18			297349	1999 <i>XR</i> ₂₄₅		12 18.4 336°31	4°4/18.6 17		

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
215299	2001 SC ₁₁₂		12 18.4 56°68	2°1/18.3	18		422016	2014 QZ ₃₃₃		12 18.5 150°34	1°6/18.4	17	
11 17	6 11.32	+18 54.6	1.704	2.556	13.8	20.0	11 17	6 9.68	+18 38.9	2.238	3.080	11.3	21.9
11 27	6 5.03	+18 32.4	1.652	2.572	9.9	19.8	11 27	6 3.63	+18 33.8	2.167	3.082	8.2	21.7
12 7	5 56.59	+18 12.9	1.624	2.588	5.7	19.6	12 7	5 55.81	+18 31.2	2.122	3.085	4.7	21.5
12 17	5 46.98	+17 56.8	1.623	2.604	2.2	19.4	12 17	5 46.94	+18 31.0	2.106	3.087	1.6	21.3
12 27	5 37.43	+17 44.8	1.652	2.621	4.5	19.6	12 27	5 37.96	+18 33.3	2.120	3.090	3.7	21.4
1 6	5 29.11	+17 37.9	1.707	2.638	8.6	19.9	1 6	5 29.82	+18 38.3	2.163	3.092	7.2	21.7
1 16	5 22.93	+17 36.7	1.789	2.655	12.3	20.1	1 16	5 23.29	+18 46.3	2.234	3.094	10.4	21.9
1 26	5 19.42	+17 41.4	1.892	2.672	15.3	20.4	1 26	5 18.95	+18 57.4	2.328	3.095	13.2	22.1
27060	1998 SU ₃₇		12 18.4 304°89	4°3/18.0	18 R		252008	2000 GZ ₁₄		12 18.5 207°51	6°0/18.7	18	
11 17	6 12.12	+15 24.9	1.440	2.296	15.7	18.0	11 17	6 17.20	+40 31.9	2.252	3.062	12.4	20.8
11 27	6 6.14	+14 39.7	1.371	2.290	11.6	17.7	11 27	6 9.53	+41 18.5	2.176	3.058	9.8	20.7
12 7	5 57.47	+13 59.8	1.324	2.284	7.3	17.4	12 7	5 59.28	+41 52.7	2.124	3.053	7.4	20.5
12 17	5 47.12	+13 28.0	1.303	2.279	4.3	17.2	12 17	5 47.40	+42 9.3	2.100	3.047	6.0	20.4
12 27	5 36.55	+13 6.9	1.309	2.273	6.5	17.4	12 27	5 35.24	+42 5.7	2.104	3.042	6.7	20.4
1 6	5 27.22	+12 58.1	1.342	2.268	10.8	17.6	1 6	5 24.19	+41 43.3	2.137	3.035	9.0	20.6
1 16	5 20.32	+13 1.6	1.398	2.263	15.1	17.8	1 16	5 15.40	+41 6.4	2.196	3.029	11.7	20.7
1 26	5 16.60	+13 16.4	1.473	2.258	18.7	18.1	1 26	5 9.62	+40 20.7	2.278	3.022	14.1	20.9
120470	1992 DY ₁₀		12 18.4 262°43	0°9/18.4	18		120860	1998 QW ₅₉		12 18.5 112°05	1°8/18.4	18	
11 17	6 13.58	+22 15.9	1.549	2.404	14.8	20.1	11 17	6 9.69	+17 36.5	2.400	3.238	10.8	21.1
11 27	6 7.09	+21 57.0	1.479	2.401	10.7	19.8	11 27	6 3.45	+17 27.9	2.339	3.252	7.8	21.0
12 7	5 57.95	+21 37.1	1.433	2.399	5.9	19.5	12 7	5 55.63	+17 22.3	2.304	3.265	4.5	20.8
12 17	5 47.18	+21 16.0	1.413	2.397	1.1	19.2	12 17	5 46.92	+17 19.7	2.298	3.278	1.9	20.6
12 27	5 36.23	+20 54.6	1.422	2.394	4.6	19.5	12 27	5 38.19	+17 20.3	2.323	3.291	3.6	20.8
1 6	5 26.57	+20 34.9	1.458	2.392	9.5	19.7	1 6	5 30.30	+17 24.4	2.378	3.304	6.8	21.0
1 16	5 19.35	+20 19.1	1.519	2.390	13.8	20.0	1 16	5 23.93	+17 32.0	2.461	3.316	9.8	21.2
1 26	5 15.28	+20 9.0	1.600	2.387	17.4	20.2	1 26	5 19.59	+17 43.2	2.567	3.328	12.3	21.4
400361	2007 VL ₁₈₉		12 18.4 345°97	11°4/16.2	18		16558	1991 VQ ₂		12 18.5 14°18	20°6/14.3	18 R	
11 17	6 9.89	- 2 21.7	1.716	2.516	16.1	21.0	11 17	6 24.60	+53 32.2	0.962	1.781	24.4	15.8
11 27	6 4.07	- 4 12.0	1.659	2.515	13.8	20.9	11 27	6 19.86	+57 38.0	0.936	1.787	22.3	15.7
12 7	5 56.14	- 5 43.0	1.624	2.514	12.0	20.8	12 7	6 7.50	+61 5.9	0.928	1.795	20.9	15.6
12 17	5 46.94	- 6 47.4	1.613	2.513	11.4	20.7	12 17	5 48.65	+63 32.2	0.938	1.805	20.6	15.7
12 27	5 37.62	- 7 20.5	1.628	2.512	12.2	20.8	12 27	5 27.62	+64 43.5	0.966	1.818	21.4	15.8
1 6	5 29.31	- 7 22.0	1.666	2.512	14.1	20.9	1 6	5 10.27	+64 45.2	1.009	1.832	22.9	15.9
1 16	5 22.94	- 6 55.1	1.725	2.511	16.3	21.1	1 16	5 0.67	+63 55.0	1.067	1.848	24.6	16.1
1 26	5 19.14	- 6 5.6	1.802	2.511	18.5	21.2	1 26	4 59.99	+62 33.2	1.135	1.865	26.2	16.3
156773	2003 AY ₅₄		12 18.4 341°15	4°1/18.6	18		465974	2011 CG ₂₅		12 18.5 358°39	3°1/18.6	17	
11 17	6 12.89	+30 56.0	1.215	2.081	17.2	20.0	11 17	6 8.71	+13 55.4	1.813	2.660	13.3	20.6
11 27	6 7.52	+31 26.4	1.148	2.072	12.8	19.7	11 27	6 3.30	+14 4.3	1.743	2.658	9.8	20.4
12 7	5 58.58	+31 48.3	1.102	2.064	7.9	19.4	12 7	5 55.78	+14 21.8	1.698	2.657	6.1	20.1
12 17	5 47.29	+31 56.3	1.079	2.057	4.2	19.2	12 17	5 46.95	+14 47.8	1.680	2.657	3.2	20.0
12 27	5 35.58	+31 47.7	1.082	2.051	6.5	19.3	12 27	5 37.92	+15 21.4	1.690	2.656	4.9	20.1
1 6	5 25.52	+31 24.4	1.109	2.046	11.4	19.6	1 6	5 29.82	+16 1.2	1.728	2.657	8.6	20.3
1 16	5 18.69	+30 51.9	1.159	2.041	16.2	19.8	1 16	5 23.59	+16 45.3	1.792	2.657	12.3	20.5
1 26	5 15.98	+30 16.5	1.227	2.038	20.3	20.1	1 26	5 19.90	+17 32.3	1.877	2.659	15.4	20.7
144781	2004 HZ ₂₉		12 18.4 304°29	0°3/18.4	18		221629	2006 YP ₁₇		12 18.5 353°40	1°9/18.4	18	
11 17	6 13.42	+23 36.1	1.395	2.256	15.8	20.0	11 17	6 9.96	+19 40.2	1.105	1.982	17.8	19.9
11 27	6 7.33	+23 21.1	1.322	2.247	11.4	19.8	11 27	6 5.27	+19 33.0	1.044	1.976	12.9	19.6
12 7	5 58.24	+23 3.7	1.271	2.239	6.3	19.5	12 7	5 57.28	+19 30.0	1.003	1.972	7.3	19.3
12 17	5 47.23	+22 43.2	1.246	2.230	0.9	19.1	12 17	5 47.17	+19 31.1	0.986	1.968	2.1	19.0
12 27	5 35.92	+22 20.3	1.249	2.222	4.8	19.3	12 27	5 36.74	+19 36.3	0.992	1.966	5.7	19.2
1 6	5 25.97	+21 57.2	1.277	2.214	10.2	19.6	1 6	5 27.88	+19 45.8	1.023	1.965	11.5	19.5
1 16	5 18.70	+21 36.9	1.330	2.206	15.0	19.9	1 16	5 22.02	+20 0.0	1.076	1.965	16.6	19.8
1 26	5 14.93	+21 22.1	1.402	2.199	18.9	20.1	1 26	5 20.00	+20 18.9	1.146	1.966	20.9	20.1
440827	2006 RB ₃₈		12 18.5 32°90	6°3/18.7	17		45717	2000 GZ ₁₁		12 18.5 28°80	2°6/18.3	17	
11 17	6 15.98	+35 0.6	1.197	2.055	18.0	20.2	11 17	6 8.51	+16 56.8	1.845	2.696	13.0	18.9
11 27	6 9.32	+36 3.3	1.167	2.083	13.5	20.0	11 27	6 3.00	+16 35.3	1.786	2.704	9.4	18.7
12 7	5 59.24	+36 50.8	1.159	2.112	9.1	19.9	12 7	5 55.52	+16 18.0	1.751	2.713	5.6	18.5
12 17	5 47.34	+37 16.3	1.175	2.143	6.4	19.8	12 17	5 46.91	+16 5.9	1.744	2.723	2.7	18.4
12 27	5 35.71	+37 17.5	1.215	2.174	7.7	20.0	12 27	5 38.27	+15 59.8	1.765	2.733	4.6	18.5
1 6	5 26.28	+36 58.3	1.281	2.206	11.3	20.3	1 6	5 30.66	+16 0.1	1.815	2.743	8.3	18.8
1 16	5 20.28	+36 25.7	1.369	2.239	15.0	20.6	1 16	5 24.93	+16 6.9	1.889	2.754	11.8	19.0
1 26	5 18.21	+35 47.1	1.476	2.273	18.2	20.9	1 26	5 21.64	+16 19.5	1.986	2.765	14.7	19.2
486992	2014 NA ₄₈		12 18.5 207°78	0°4/18.5	18		246736	2009 BV ₆₄		12 18.5 171°33	5°1/18.4	18	
11 17	6 12.20	+21 15.0	2.141	2.982	11.8	21.3	11 17	6 10.43	+ 6 30.4	2.503	3.313	11.3	21.7
11 27	6 5.62	+21 31.2	2.062	2.978	8.5	21.1	11 27	6 3.94	+ 6 8.8	2.432	3.317	8.8	21.5
12 7	5 56.99	+21 48.9	2.009	2.974	4.7	20.9	12 7	5 55.91	+ 5 57.2	2.388	3.321	6.4	21.4
12 17	5 47.08	+22 6.6	1.985	2.969	0.7	20.6	12 17	5 46.97	+ 5 57.3	2.372	3.324	5.1	21.3
12 27	5 36.93	+22 23.3	1.992	2.964	3.6	20.8	12 27	5 37.94	+ 6 9.7	2.387	3.326	5.9	21.4
1 6	5 27.63	+22 38.7	2.028	2.958	7.5	21.0	1 6	5 29.62	+ 6 33.7	2.431	3.328	8.1	21.5
1 16	5 20.09	+22 53.1	2.091	2.952	11.0	21.2	1 16	5 22.72	+ 7 7.8	2.501	3.329	10.6	21.7
1 26	5 14.98	+23 7.7	2.178	2.945	14.0	21.4	1 26	5 17.74	+ 7 49.8	2.596	3.329	12.8	21.8
405460	2004 TT ₂₇₆		12 18.5 11°99	0°1/18.5	16		29144	1988 FB		12 18.5 324°21	1°5/18.5	18	
11 17	6 7.81	+22 55.4	1.335										

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
446569	2014 <i>OD</i> ₁₁₆		12 18.5	50°38'	4.3°/18.7	18	344997	2005 <i>AG</i> ₅₇		12 18.5	8°72'	13°9'/19.4	18
11 17	6 10.36	+10 32.1	1.906	2.742	13.3	21.2	11 17	6 2.90	- 0 37.0	0.915	1.775	22.0	18.5
11 27	6 4.36	+10 37.2	1.838	2.743	10.0	21.0	11 27	6 0.15	- 1 52.7	0.878	1.778	18.6	18.3
12 7	5 56.32	+10 53.3	1.793	2.745	6.6	20.8	12 7	5 54.37	- 2 34.5	0.858	1.784	15.5	18.2
12 17	5 47.04	+11 20.7	1.776	2.746	4.3	20.6	12 17	5 46.81	- 2 34.4	0.855	1.793	13.9	18.1
12 27	5 37.59	+11 58.7	1.788	2.748	5.6	20.7	12 27	5 39.20	- 1 50.1	0.873	1.804	14.5	18.2
1 6	5 29.04	+12 45.6	1.828	2.749	8.8	20.9	1 6	5 33.19	- 0 27.4	0.910	1.817	16.9	18.4
1 16	5 22.31	+13 38.9	1.895	2.751	12.2	21.1	1 16	5 30.00	+ 1 23.0	0.965	1.834	20.0	18.6
1 26	5 18.03	+14 36.4	1.984	2.753	15.1	21.3	1 26	5 30.29	+ 3 29.1	1.037	1.852	23.0	18.9
27331	2000 <i>CE</i> ₅₈		12 18.5	224°64'	5°3'/18.5	18	438337	2006 <i>PH</i> ₂₅		12 18.5	61°92'	7°9'/20.0	17
11 17	6 10.35	+ 7 18.4	2.160	2.980	12.5	18.1	11 17	6 20.45	+44 23.7	1.681	2.493	15.9	20.2
11 27	6 4.20	+ 7 5.3	2.081	2.973	9.7	17.9	11 27	6 12.15	+44 48.9	1.632	2.509	12.8	20.0
12 7	5 56.20	+ 7 3.5	2.026	2.966	7.0	17.7	12 7	6 0.72	+44 52.8	1.604	2.526	9.8	19.9
12 17	5 47.03	+ 7 14.8	2.000	2.957	5.3	17.6	12 17	5 47.61	+44 30.2	1.601	2.544	8.1	19.8
12 27	5 37.64	+ 7 39.6	2.002	2.949	6.3	17.6	12 27	5 34.75	+43 40.4	1.625	2.561	8.5	19.9
1 6	5 29.00	+ 8 16.7	2.034	2.940	8.9	17.8	1 6	5 23.92	+42 28.8	1.676	2.578	10.8	20.1
1 16	5 21.95	+ 9 4.1	2.091	2.931	11.9	18.0	1 16	5 16.29	+41 3.7	1.751	2.596	13.6	20.3
1 26	5 17.10	+ 9 59.2	2.171	2.922	14.5	18.1	1 26	5 12.38	+39 34.3	1.848	2.613	16.2	20.5
46914	1998 <i>RX</i> ₇₄		12 18.5	351°98'	0°8'/18.5	18	77455	2001 <i>HV</i> ₉		12 18.5	325°54'	4°2'/17.9	18
11 17	6 10.28	+25 23.1	1.365	2.232	15.7	18.0	11 17	6 14.60	+29 21.4	1.540	2.392	15.0	18.6
11 27	6 5.13	+25 25.4	1.298	2.226	11.3	17.7	11 27	6 8.42	+30 45.9	1.465	2.383	11.1	18.3
12 7	5 57.06	+25 24.6	1.253	2.221	6.3	17.4	12 7	5 59.05	+32 8.8	1.414	2.374	7.0	18.0
12 17	5 47.15	+25 19.0	1.234	2.217	1.2	17.1	12 17	5 47.46	+33 22.6	1.390	2.365	4.2	17.9
12 27	5 36.99	+25 8.1	1.240	2.214	4.8	17.3	12 27	5 35.22	+34 21.0	1.394	2.357	6.3	18.0
1 6	5 28.20	+24 53.6	1.273	2.212	9.9	17.6	1 6	5 24.11	+35 1.6	1.424	2.349	10.5	18.2
1 16	5 22.07	+24 38.3	1.329	2.211	14.6	17.9	1 16	5 15.65	+35 26.2	1.479	2.341	14.6	18.4
1 26	5 19.36	+24 25.0	1.404	2.211	18.4	18.1	1 26	5 10.86	+35 39.4	1.554	2.335	18.1	18.6
303127	2004 <i>CL</i> ₇₆		12 18.5	13°60'	8°8'/18.9	18	196906	2003 <i>TF</i> ₁₈		12 18.5	28°64'	1°1'/18.6	18
11 17	6 8.49	+ 3 23.3	1.410	2.246	17.1	19.9	11 17	6 13.12	+27 2.0	1.469	2.328	15.3	19.6
11 27	6 3.43	+ 2 49.2	1.355	2.249	13.7	19.7	11 27	6 6.86	+26 49.1	1.410	2.333	11.0	19.4
12 7	5 55.94	+ 2 35.7	1.321	2.253	10.6	19.5	12 7	5 57.86	+26 30.4	1.373	2.339	6.2	19.1
12 17	5 47.00	+ 2 46.6	1.311	2.258	8.8	19.5	12 17	5 47.27	+26 4.7	1.362	2.345	1.4	18.8
12 27	5 37.94	+ 3 22.7	1.325	2.264	9.7	19.5	12 27	5 36.65	+25 32.9	1.379	2.352	4.5	19.0
1 6	5 30.08	+ 4 21.3	1.364	2.271	12.4	19.7	1 6	5 27.53	+24 58.0	1.422	2.359	9.4	19.3
1 16	5 24.47	+ 5 37.0	1.426	2.279	15.7	19.9	1 16	5 21.02	+24 23.7	1.490	2.366	13.7	19.6
1 26	5 21.78	+ 7 3.5	1.508	2.287	18.6	20.1	1 26	5 17.77	+23 53.6	1.579	2.374	17.2	19.9
267250	2001 <i>PC</i> ₂₅		12 18.5	135°52'	3°7'/18.3	18	215965	2005 <i>QL</i> ₃₂		12 18.5	137°92'	1°0'/18.5	18
11 17	6 14.23	+13 50.3	1.869	2.704	13.5	21.0	11 17	6 17.07	+25 57.1	1.866	2.706	13.3	21.3
11 27	6 7.00	+13 29.0	1.809	2.718	10.0	20.8	11 27	6 9.19	+26 4.4	1.805	2.719	9.6	21.1
12 7	5 57.69	+13 14.6	1.775	2.730	6.3	20.6	12 7	5 58.97	+26 8.0	1.769	2.732	5.3	20.9
12 17	5 47.22	+13 7.9	1.769	2.742	3.7	20.5	12 17	5 47.42	+26 6.0	1.761	2.744	1.2	20.6
12 27	5 36.73	+13 9.6	1.792	2.754	5.3	20.6	12 27	5 35.85	+25 57.8	1.785	2.756	4.0	20.8
1 6	5 27.36	+13 19.7	1.844	2.764	8.8	20.8	1 6	5 25.57	+25 45.0	1.837	2.767	8.1	21.1
1 16	5 20.00	+13 37.4	1.923	2.775	12.2	21.1	1 16	5 17.55	+25 30.0	1.916	2.777	11.9	21.3
1 26	5 15.23	+14 1.7	2.023	2.784	15.1	21.3	1 26	5 12.41	+25 15.8	2.017	2.786	14.9	21.6
459713	2013 <i>PM</i> ₃₉		12 18.5	235°68'	6°5'/19.1	18	459752	2013 <i>QL</i> ₄₂		12 18.5	130°39'	3°9'/18.4	17
11 17	6 15.93	+44 49.1	2.547	3.338	11.7	21.5	11 17	6 7.77	+10 33.6	2.465	3.293	10.9	21.9
11 27	6 8.47	+45 25.8	2.467	3.331	9.6	21.3	11 27	6 2.11	+10 16.6	2.397	3.298	8.2	21.8
12 7	5 58.65	+45 48.2	2.412	3.323	7.6	21.2	12 7	5 54.94	+10 7.3	2.355	3.302	5.6	21.6
12 17	5 47.35	+45 52.0	2.384	3.315	6.5	21.1	12 17	5 46.90	+10 6.7	2.342	3.307	3.9	21.5
12 27	5 35.85	+45 35.0	2.385	3.306	7.0	21.1	12 27	5 38.78	+10 15.2	2.358	3.311	4.9	21.6
1 6	5 25.42	+44 59.0	2.414	3.298	8.7	21.2	1 6	5 31.37	+10 32.7	2.403	3.315	7.5	21.7
1 16	5 17.11	+44 8.2	2.468	3.289	10.9	21.3	1 16	5 25.34	+10 57.9	2.475	3.319	10.1	21.9
1 26	5 11.62	+43 8.3	2.546	3.280	13.0	21.5	1 26	5 21.20	+11 29.5	2.571	3.323	12.5	22.1
168419	1998 <i>QE</i> ₅₀		12 18.5	43°81'	6°3'/19.0	18	59496	1999 <i>JY</i> ₆		12 18.5	189°52'	3°0'/18.4	18
11 17	6 18.25	+36 24.2	1.306	2.154	17.4	19.1	11 17	6 12.70	+15 20.7	1.855	2.696	13.3	19.8
11 27	6 10.76	+37 11.6	1.274	2.183	13.2	18.9	11 27	6 6.12	+15 11.2	1.783	2.695	9.8	19.5
12 7	5 59.99	+37 42.7	1.263	2.213	9.0	18.7	12 7	5 57.35	+15 7.7	1.735	2.695	6.0	19.3
12 17	5 47.50	+37 51.7	1.277	2.243	6.4	18.7	12 17	5 47.22	+15 10.5	1.716	2.693	3.1	19.1
12 27	5 35.34	+37 37.4	1.317	2.274	7.5	18.8	12 27	5 36.91	+15 19.9	1.726	2.692	4.9	19.3
1 6	5 25.35	+37 4.1	1.382	2.305	10.9	19.1	1 6	5 27.60	+15 35.6	1.764	2.690	8.8	19.5
1 16	5 18.72	+36 19.2	1.471	2.336	14.5	19.4	1 16	5 20.25	+15 57.1	1.829	2.687	12.4	19.7
1 26	5 15.94	+35 30.2	1.580	2.368	17.5	19.7	1 26	5 15.53	+16 23.6	1.915	2.684	15.6	19.9
370899	2005 <i>EC</i> ₃₃₀		12 18.5	301°40'	0°2'/18.5	18	252573	2001 <i>WT</i> ₅₅		12 18.5	51°46'	2°6'/18.5	18
11 17	6 9.08	+22 58.2	2.153	3.000	11.5	20.9	11 17	6 12.96	+29 24.7	1.836	2.682	13.2	20.2
11 27	6 3.45	+22 58.5	2.069	2.988	8.3	20.6	11 27	6 6.50	+29 55.9	1.771	2.687	9.7	20.0
12 7	5 55.85	+22 58.3	2.010	2.976	4.6	20.4	12 7	5 57.62	+30 21.8	1.731	2.692	5.8	19.8
12 17	5 47.00	+22 56.7	1.980	2.964	0.6	20.1	12 17	5 47.26	+30 38.9	1.718	2.696	2.7	19.6
12 27	5 37.91	+22 53.5	1.979	2.952	3.5	20.3	12 27	5 36.74	+30 45.6	1.734	2.702	4.6	19.8
1 6	5 29.62	+22 49.4	2.008	2.940	7.4	20.5	1 6	5 27.39	+30 42.6	1.778	2.707	8.4	20.0
1 16	5 23.02	+22 45.4	2.063	2.928	10.9	20.7	1 16	5 20.25	+30 32.5	1.848	2.712	12.0	20.2
1 26	5 18.76	+22 43.0	2.141	2.917	13.9	20.9	1 26	5 16.02	+30 18.9	1.939	2.717	15.1	20.4
463010	2011 <i>GX</i> ₁₂		12 18.5	320°51'	3°1'/18.1	17	60660	2000 <i>FL</i> ₅₀		12 18.5			

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
398439	2011 <i>UZ</i> ₃₇		12 18.5 132°40	5°2/18.5 18			364073	2005 <i>YZ</i> ₂₀		12 18.5 108°54	0°3/18.5 18		
11 17	6 17.62	+37 7.4	2.103	2.924	12.8	21.2	11 17	6 11.02	+22 5.9	2.299	3.140	11.1	21.2
11 27	6 9.77	+38 2.1	2.041	2.935	9.8	21.0	11 27	6 4.55	+22 13.0	2.238	3.153	7.9	21.0
12 7	5 59.40	+38 45.9	2.005	2.945	6.9	20.9	12 7	5 56.33	+22 20.3	2.203	3.167	4.4	20.8
12 17	5 47.50	+39 13.8	1.997	2.955	5.3	20.8	12 17	5 47.13	+22 26.6	2.197	3.180	0.6	20.5
12 27	5 35.43	+39 23.2	2.018	2.965	6.2	20.9	12 27	5 37.89	+22 31.7	2.222	3.193	3.2	20.8
1 6	5 24.58	+39 15.2	2.068	2.974	8.8	21.0	1 6	5 29.55	+22 35.8	2.276	3.206	6.8	21.0
1 16	5 16.05	+38 54.0	2.144	2.983	11.6	21.2	1 16	5 22.88	+22 39.7	2.358	3.219	9.9	21.2
1 26	5 10.53	+38 24.7	2.242	2.992	14.1	21.4	1 26	5 18.40	+22 44.5	2.464	3.231	12.6	21.5
490457	2009 <i>SE</i> ₂₅₀		12 18.5 23°09	6°9/18.7 18			411152	2010 <i>AS</i> ₃₉		12 18.5 346°19	0°5/18.4 18		
11 17	6 16.40	+35 52.9	1.199	2.055	18.1	20.6	11 17	6 10.48	+22 28.1	1.959	2.808	12.4	19.4
11 27	6 10.17	+36 54.6	1.146	2.060	13.9	20.4	11 27	6 4.66	+23 13.4	1.884	2.804	8.9	19.2
12 7	6 0.09	+37 42.1	1.114	2.066	9.6	20.1	12 7	5 56.64	+24 1.0	1.835	2.800	5.0	19.0
12 17	5 47.60	+38 7.3	1.106	2.073	7.0	20.0	12 17	5 47.19	+24 47.9	1.813	2.797	0.8	18.7
12 27	5 34.91	+38 5.9	1.122	2.080	8.4	20.1	12 27	5 37.44	+25 31.5	1.822	2.794	3.8	18.9
1 6	5 24.24	+37 40.9	1.163	2.088	12.3	20.4	1 6	5 28.56	+26 10.2	1.859	2.792	7.9	19.1
1 16	5 17.16	+36 59.8	1.225	2.097	16.4	20.6	1 16	5 21.55	+26 43.9	1.923	2.790	11.5	19.4
1 26	5 14.46	+36 11.3	1.306	2.106	19.9	20.9	1 26	5 17.14	+27 13.5	2.009	2.788	14.6	19.6
487093	2014 <i>OC</i> ₁₃₀		12 18.5 15°14	3°5/18.8 17			354441	2003 <i>YX</i> ₁₀₅		12 18.5 18°45	1°7/18.9 18		
11 17	6 13.11	+32 22.1	1.701	2.548	14.1	21.0	11 17	6 13.13	+30 31.1	1.199	2.066	17.4	19.1
11 27	6 6.78	+32 35.6	1.636	2.550	10.5	20.8	11 27	6 7.18	+29 36.8	1.148	2.074	12.6	18.8
12 7	5 57.82	+32 39.9	1.594	2.552	6.5	20.5	12 7	5 58.11	+28 29.2	1.118	2.084	7.2	18.6
12 17	5 47.30	+32 31.6	1.578	2.554	3.6	20.4	12 17	5 47.36	+27 9.4	1.112	2.095	2.0	18.3
12 27	5 36.66	+32 10.1	1.591	2.557	5.2	20.5	12 27	5 36.82	+25 42.3	1.133	2.107	5.1	18.5
1 6	5 27.36	+31 37.7	1.631	2.561	9.0	20.7	1 6	5 28.23	+24 15.3	1.180	2.120	10.4	18.9
1 16	5 20.51	+30 58.9	1.696	2.564	12.7	20.9	1 16	5 22.71	+22 55.5	1.250	2.135	15.1	19.2
1 26	5 16.78	+30 18.5	1.783	2.568	16.0	21.2	1 26	5 20.81	+21 47.7	1.339	2.151	18.9	19.5
481971	2009 <i>FH</i> ₅		12 18.5 348°76	1°2/18.4 17			150889	2001 <i>ST</i> ₂₅₇		12 18.5 104°50	3°8/18.4 18		
11 17	6 7.37	+21 19.6	1.148	2.027	17.1	20.6	11 17	6 14.20	+14 19.5	1.598	2.443	14.9	20.1
11 27	6 3.44	+21 12.1	1.081	2.015	12.4	20.3	11 27	6 7.27	+14 2.0	1.544	2.457	11.0	19.9
12 7	5 56.33	+21 6.3	1.035	2.004	7.0	20.0	12 7	5 57.98	+13 52.2	1.513	2.471	6.8	19.7
12 17	5 47.13	+21 2.0	1.012	1.995	1.5	19.6	12 17	5 47.35	+13 51.0	1.508	2.484	3.8	19.5
12 27	5 37.55	+20 59.4	1.013	1.988	5.4	19.9	12 27	5 36.72	+13 58.8	1.533	2.497	5.7	19.7
1 6	5 29.39	+20 59.3	1.039	1.982	11.1	20.2	1 6	5 27.39	+14 15.0	1.585	2.510	9.6	19.9
1 16	5 24.08	+21 3.1	1.086	1.978	16.2	20.4	1 16	5 20.34	+14 38.8	1.661	2.522	13.4	20.2
1 26	5 22.49	+21 11.4	1.151	1.976	20.5	20.7	1 26	5 16.19	+15 8.7	1.759	2.534	16.5	20.4
493650	2015 <i>RU</i> ₂₃		12 18.5 13°48	11°8/20.4 17			298033	2002 <i>PC</i> ₁₅₂		12 18.5 45°43	4°1/18.7 18		
11 17	6 18.47	+49 9.2	1.341	2.155	19.0	20.2	11 17	6 11.38	+12 11.7	1.632	2.476	14.7	19.9
11 27	6 11.93	+50 7.1	1.291	2.160	16.1	20.0	11 27	6 5.34	+12 16.7	1.570	2.482	10.9	19.6
12 7	6 1.11	+50 37.1	1.260	2.165	13.5	19.9	12 7	5 56.99	+12 32.5	1.532	2.488	7.0	19.4
12 17	5 47.74	+50 30.0	1.250	2.172	12.0	19.8	12 17	5 47.24	+12 59.4	1.520	2.494	4.1	19.3
12 27	5 34.39	+49 42.7	1.263	2.180	12.3	19.8	12 27	5 37.34	+13 36.4	1.537	2.500	5.7	19.4
1 6	5 23.54	+48 21.2	1.299	2.189	14.2	20.0	1 6	5 28.55	+14 21.5	1.580	2.507	9.5	19.6
1 16	5 16.78	+46 37.0	1.356	2.199	16.8	20.2	1 16	5 21.90	+15 12.3	1.649	2.514	13.2	19.9
1 26	5 14.71	+44 42.8	1.432	2.211	19.5	20.4	1 26	5 18.04	+16 6.5	1.740	2.521	16.5	20.1
40847	1999 <i>TU</i> ₁₀₂		12 18.5 15°89	11°8/19.9 18			177810	2005 <i>MW</i> ₈		12 18.5 112°35	2°7/18.4 18		
11 17	6 6.44	- 4 3.5	1.394	2.208	18.4	16.9	11 17	6 11.28	+15 11.2	2.100	2.937	12.1	20.8
11 27	6 1.90	- 4 45.5	1.351	2.217	15.7	16.7	11 27	6 4.79	+15 3.7	2.040	2.951	8.9	20.6
12 7	5 55.08	- 4 58.9	1.327	2.229	13.3	16.6	12 7	5 56.49	+15 1.6	2.006	2.964	5.4	20.4
12 17	5 46.95	- 4 39.1	1.324	2.241	11.9	16.6	12 17	5 47.16	+15 5.3	2.000	2.977	2.8	20.3
12 27	5 38.80	- 3 45.7	1.345	2.255	12.3	16.6	12 27	5 37.80	+15 14.7	2.024	2.989	4.4	20.4
1 6	5 31.88	- 2 23.1	1.389	2.271	14.1	16.8	1 6	5 29.39	+15 29.5	2.078	3.001	7.7	20.6
1 16	5 27.13	- 0 38.9	1.454	2.287	16.5	17.0	1 16	5 22.72	+15 49.2	2.158	3.013	10.9	20.8
1 26	5 25.16	+ 1 18.2	1.539	2.305	18.9	17.2	1 26	5 18.33	+16 13.2	2.261	3.025	13.6	21.1
9217	Kitagawa		12 18.5 90°19	0°4/18.5 18			150827	2001 <i>SL</i> ₂₀		12 18.5 103°93	1°9/18.6 18		
11 17	6 16.82	+23 8.0	1.479	2.332	15.5	18.8	11 17	6 18.20	+27 40.0	1.732	2.574	14.1	19.7
11 27	6 9.40	+23 31.3	1.428	2.349	11.1	18.6	11 27	6 10.10	+28 4.5	1.682	2.597	10.2	19.6
12 7	5 59.23	+23 54.5	1.401	2.367	6.1	18.4	12 7	5 59.51	+28 23.7	1.657	2.619	5.8	19.3
12 17	5 47.50	+24 14.5	1.400	2.384	0.9	18.1	12 17	5 47.55	+28 34.8	1.659	2.641	2.1	19.2
12 27	5 35.77	+24 29.8	1.428	2.401	4.5	18.4	12 27	5 35.68	+28 36.3	1.692	2.662	4.4	19.4
1 6	5 25.60	+24 40.6	1.484	2.418	9.3	18.7	1 6	5 25.27	+28 29.8	1.753	2.682	8.5	19.6
1 16	5 18.10	+24 48.5	1.564	2.434	13.5	19.0	1 16	5 17.36	+28 18.3	1.840	2.702	12.2	19.9
1 26	5 13.92	+24 55.8	1.666	2.450	16.9	19.3	1 26	5 12.52	+28 5.3	1.950	2.721	15.3	20.2
362205	2009 <i>HB</i> ₃₄		12 18.5 221°58	3°2/18.2 18			48337	2002 <i>PT</i> ₆		12 18.5 98°21	0°8/18.5 18		
11 17	6 10.78	+15 4.1	2.025	2.865	12.4	21.9	11 17	6 13.15	+20 58.8	1.836	2.683	13.2	20.1
11 27	6 4.62	+14 38.9	1.949	2.861	9.2	21.6	11 27	6 6.38	+21 1.1	1.778	2.696	9.5	19.9
12 7	5 56.49	+14 18.5	1.898	2.856	5.7	21.4	12 7	5 57.45	+21 4.6	1.745	2.710	5.2	19.7
12 17	5 47.15	+14 4.2	1.876	2.851	3.3	21.3	12 17	5 47.29	+21 8.3	1.740	2.723	1.0	19.4
12 27	5 37.63	+13 57.1	1.882	2.846	4.9	21.4	12 27	5 37.11	+21 11.9	1.764	2.736	3.9	19.7
1 6	5 28.99	+13 57.6	1.918	2.840	8.4	21.6	1 6	5 28.08	+21 15.8	1.817	2.749	8.1	20.0
1 16	5 22.11	+14 5.8	1.980	2.834	11.8	21.8	1 16	5 21.14	+21 20.9	1.896	2.761	11.8	20.2
1 26	5 17.60	+14 21.1	2.064	2.828	14.7	22.0	1 26	5 16.86	+21 28.0	1.998	2.774	14.8	20.4
497937	2006 <i>WQ</i> ₅₇		12 18.5 72°94	11°3/15.8 17			145059	2005 <i>GL</i> ₂₀		12 18.5 168°34	1°2		

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
486575	2013 <i>HW</i> ₁₄₅		12 18.5 192°27	0°3/18.5 18			61657	2000 <i>QZ</i> ₁₁₃		12 18.5 26°23	1°3/18.4 18		
11 17	6 11.56	+22 50.1	2.048	2.893	12.1	21.9	11 17	6 10.42	+20 4.9	1.770	2.622	13.4	19.3
11 27	6 5.23	+22 46.9	1.974	2.892	8.7	21.7	11 27	6 4.59	+19 57.6	1.705	2.626	9.6	19.1
12 7	5 56.85	+22 42.9	1.926	2.892	4.8	21.4	12 7	5 56.57	+19 52.3	1.665	2.630	5.4	18.8
12 17	5 47.24	+22 37.5	1.907	2.891	0.7	21.1	12 17	5 47.23	+19 48.7	1.652	2.634	1.5	18.6
12 27	5 37.47	+22 30.5	1.917	2.890	3.6	21.4	12 27	5 37.79	+19 47.0	1.667	2.639	4.2	18.8
1 6	5 28.66	+22 22.8	1.957	2.888	7.6	21.6	1 6	5 29.42	+19 47.7	1.711	2.644	8.4	19.1
1 16	5 21.71	+22 15.9	2.023	2.887	11.2	21.8	1 16	5 23.10	+19 51.4	1.780	2.649	12.2	19.3
1 26	5 17.23	+22 11.1	2.112	2.886	14.2	22.0	1 26	5 19.43	+19 58.8	1.870	2.654	15.4	19.5
82958	2001 <i>QP</i> ₁₂₈		12 18.5 55°13	6°7/18.1 17			513619	2011 <i>HG</i> ₇₅		12 18.5 190°36	0°4/18.5 18		
11 17	6 6.84	+2 49.8	2.361	3.169	12.0	19.2	11 17	6 14.97	+22 34.9	1.961	2.802	12.7	22.3
11 27	6 1.51	+2 7.7	2.297	3.172	9.7	19.0	11 27	6 7.75	+22 29.8	1.885	2.801	9.2	22.0
12 7	5 54.67	+1 38.3	2.257	3.175	7.7	18.9	12 7	5 58.29	+22 23.9	1.835	2.799	5.1	21.8
12 17	5 46.95	+1 24.2	2.244	3.178	6.7	18.9	12 17	5 47.47	+22 16.2	1.813	2.797	0.8	21.5
12 27	5 39.14	+1 26.9	2.259	3.181	7.3	18.9	12 27	5 36.46	+22 6.8	1.822	2.794	3.8	21.7
1 6	5 32.06	+1 46.0	2.301	3.184	9.2	19.0	1 6	5 26.49	+21 56.6	1.861	2.790	8.0	21.9
1 16	5 26.36	+2 19.4	2.369	3.187	11.4	19.2	1 16	5 18.54	+21 47.5	1.926	2.786	11.8	22.2
1 26	5 22.55	+3 4.2	2.458	3.190	13.5	19.4	1 26	5 13.27	+21 41.1	2.013	2.781	15.0	22.4
27658	Dmitrijbagalej		12 18.5 81°94	4°6/18.9 18			385713	2005 <i>UJ</i> ₁₀₃		12 18.5 333°98	1°9/18.4 18		
11 17	6 18.35	+35 57.9	1.977	2.802	13.3	18.3	11 17	6 11.05	+19 46.5	1.276	2.144	16.5	21.0
11 27	6 10.09	+36 35.4	1.934	2.832	10.0	18.1	11 27	6 5.87	+19 34.2	1.206	2.134	12.0	20.7
12 7	5 59.45	+37 1.2	1.916	2.862	6.8	18.0	12 7	5 57.63	+19 24.9	1.157	2.124	6.9	20.4
12 17	5 47.56	+37 11.2	1.926	2.891	4.7	17.9	12 17	5 47.40	+19 18.6	1.133	2.115	2.1	20.0
12 27	5 35.83	+37 4.3	1.966	2.920	5.7	18.1	12 27	5 36.80	+19 15.9	1.135	2.107	5.4	20.2
1 6	5 25.57	+36 43.0	2.034	2.948	8.5	18.3	1 6	5 27.53	+19 17.5	1.162	2.100	10.8	20.5
1 16	5 17.75	+36 11.7	2.128	2.976	11.4	18.5	1 16	5 20.98	+19 24.4	1.212	2.094	15.7	20.8
1 26	5 12.91	+35 35.6	2.245	3.003	13.9	18.7	1 26	5 17.98	+19 36.9	1.280	2.088	19.8	21.0
407151	2009 <i>TD</i> ₃₉		12 18.5 60°87	6°8/18.9 18			168726	2000 <i>OP</i> ₂₉		12 18.5 153°05	3°1/18.3 17		
11 17	6 9.33	+3 30.8	1.977	2.792	13.7	20.5	11 17	6 16.65	+16 7.8	1.699	2.539	14.4	20.2
11 27	6 3.38	+3 8.8	1.930	2.813	10.9	20.4	11 27	6 9.00	+15 45.6	1.636	2.549	10.6	20.0
12 7	5 55.71	+3 2.3	1.907	2.833	8.3	20.2	12 7	5 58.98	+15 28.3	1.598	2.557	6.3	19.7
12 17	5 47.09	+3 13.1	1.910	2.854	6.8	20.2	12 17	5 47.56	+15 16.7	1.588	2.565	3.2	19.6
12 27	5 38.52	+3 41.3	1.941	2.874	7.5	20.3	12 27	5 36.09	+15 11.8	1.607	2.572	5.2	19.7
1 6	5 30.92	+4 24.9	1.999	2.895	9.7	20.4	1 6	5 25.87	+15 13.8	1.654	2.579	9.3	20.0
1 16	5 25.04	+5 20.7	2.082	2.916	12.2	20.6	1 16	5 17.91	+15 23.1	1.728	2.584	13.2	20.2
1 26	5 21.38	+6 24.8	2.188	2.936	14.5	20.9	1 26	5 12.87	+15 39.0	1.823	2.589	16.4	20.4
366127	2012 <i>DS</i> ₅₈		12 18.5 105°58	4°7/18.5 18			328491	2009 <i>OX</i> ₄		12 18.5 111°73	3°4/18.6 18		
11 17	6 9.11	+8 56.4	2.234	3.059	11.9	21.0	11 17	6 16.12	+14 25.8	1.619	2.460	15.0	21.6
11 27	6 3.17	+8 38.4	2.172	3.069	9.1	20.8	11 27	6 8.61	+14 23.3	1.566	2.479	11.0	21.4
12 7	5 55.60	+8 30.1	2.136	3.079	6.4	20.7	12 7	5 58.73	+14 28.8	1.538	2.497	6.7	21.2
12 17	5 47.09	+8 32.8	2.128	3.089	4.7	20.6	12 17	5 47.52	+14 42.2	1.537	2.514	3.5	21.1
12 27	5 38.52	+8 46.9	2.149	3.098	5.7	20.7	12 27	5 36.34	+15 2.9	1.565	2.531	5.3	21.2
1 6	5 30.78	+9 11.5	2.198	3.108	8.2	20.8	1 6	5 26.50	+15 29.8	1.621	2.547	9.3	21.5
1 16	5 24.58	+9 45.2	2.274	3.117	10.9	21.0	1 16	5 18.99	+16 1.7	1.703	2.563	13.1	21.8
1 26	5 20.44	+10 25.8	2.373	3.126	13.4	21.2	1 26	5 14.41	+16 37.5	1.806	2.578	16.3	22.0
407142	2009 <i>TO</i> ₁₀		12 18.5 81°97	3°7/18.4 18			110239	2001 <i>SN</i> ₂₃₂		12 18.5 109°23	2°4/18.4 18		
11 17	6 14.48	+32 27.6	2.120	2.953	12.2	20.4	11 17	6 11.53	+16 38.5	2.079	2.919	12.2	20.8
11 27	6 7.37	+33 19.8	2.065	2.970	9.1	20.2	11 27	6 4.99	+16 22.8	2.020	2.933	8.8	20.7
12 7	5 58.05	+34 4.8	2.035	2.988	5.8	20.1	12 7	5 56.63	+16 11.2	1.986	2.946	5.2	20.5
12 17	5 47.42	+34 38.5	2.034	3.005	3.7	20.0	12 17	5 47.25	+16 4.0	1.982	2.960	2.5	20.3
12 27	5 36.69	+34 58.7	2.063	3.022	5.0	20.1	12 27	5 37.86	+16 1.9	2.007	2.973	4.3	20.5
1 6	5 27.08	+35 5.9	2.120	3.039	7.9	20.3	1 6	5 29.45	+16 4.9	2.061	2.986	7.7	20.7
1 16	5 19.53	+35 2.7	2.204	3.055	10.9	20.5	1 16	5 22.82	+16 13.1	2.142	2.999	10.9	20.9
1 26	5 14.68	+34 52.8	2.311	3.072	13.5	20.7	1 26	5 18.49	+16 26.3	2.246	3.011	13.7	21.1
332001	2005 <i>JN</i> ₁₅₆		12 18.5 356°68	0°8/18.5 18			118318	1998 <i>XW</i>		12 18.5 310°63	0°6/18.5 18		
11 17	6 14.80	+24 17.5	1.320	2.182	16.4	20.9	11 17	6 12.85	+23 45.7	1.354	2.217	16.0	19.4
11 27	6 8.51	+24 35.9	1.256	2.181	11.9	20.6	11 27	6 7.28	+24 5.4	1.275	2.201	11.6	19.1
12 7	5 59.05	+24 53.5	1.213	2.180	6.6	20.3	12 7	5 58.51	+24 25.5	1.219	2.186	6.5	18.7
12 17	5 47.58	+25 7.1	1.197	2.180	1.2	20.0	12 17	5 47.54	+24 43.2	1.188	2.171	1.1	18.3
12 27	5 35.82	+25 14.9	1.207	2.180	5.0	20.2	12 27	5 36.01	+24 56.4	1.183	2.157	5.0	18.6
1 6	5 25.56	+25 17.6	1.243	2.180	10.3	20.5	1 6	5 25.72	+25 4.8	1.205	2.143	10.5	18.8
1 16	5 18.18	+25 17.3	1.302	2.180	15.1	20.8	1 16	5 18.15	+25 10.3	1.249	2.129	15.5	19.1
1 26	5 14.49	+25 17.1	1.381	2.181	19.0	21.1	1 26	5 14.28	+25 15.4	1.313	2.116	19.7	19.3
110243	2001 <i>SV</i> ₂₃₃		12 18.5 162°84	0°2/18.5 18			400895	2010 <i>RN</i> ₁₀₂		12 18.5 139°00	1°6/18.4 18		
11 17	6 11.92	+23 21.7	2.022	2.867	12.2	19.9	11 17	6 11.16	+19 33.7	2.023	2.868	12.3	21.5
11 27	6 5.54	+23 32.2	1.951	2.868	8.8	19.7	11 27	6 4.89	+19 18.0	1.955	2.871	8.8	21.2
12 7	5 57.05	+23 42.1	1.905	2.870	4.9	19.5	12 7	5 56.65	+19 3.9	1.911	2.875	5.0	21.0
12 17	5 47.30	+23 50.0	1.887	2.871	0.7	19.2	12 17	5 47.26	+18 51.5	1.896	2.878	1.7	20.8
12 27	5 37.38	+23 55.1	1.900	2.872	3.6	19.4	12 27	5 37.77	+18 41.5	1.911	2.881	3.9	21.0
1 6	5 28.43	+23 57.7	1.941	2.873	7.6	19.7	1 6	5 29.24	+18 34.7	1.955	2.884	7.8	21.2
1 16	5 21.37	+23 59.2	2.010	2.874	11.2	19.9	1 16	5 22.54	+18 31.9	2.025	2.887	11.3	21.4
1 26	5 16.84	+24 1.0	2.100	2.875	14.2	20.1	1 26	5 18.25	+18 33.6	2.118	2.889	14.2	21.6
274583	2008 <i>TF</i> ₇		12 18.5 343°39	7°3/18.6 17			138947	2001 <i>BA</i> ₄₀		12 18.5 171°82	2°2/18.9 15		

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
53647	2000 <i>DE</i> ₂₆		12 18.5 171°68	1°1/18.6 18			330178	2006 <i>DD</i> ₆		12 18.5 281°50	3°6/18.6 18		
11 17	6 16.31	+26 10.8	1.955	2.794	12.9	19.6	11 17	6 12.43	+33 5.9	2.176	3.010	11.9	20.6
11 27	6 8.75	+26 22.2	1.884	2.798	9.3	19.4	11 27	6 6.05	+33 40.7	2.100	3.006	8.9	20.4
12 7	5 58.86	+26 30.1	1.838	2.801	5.2	19.2	12 7	5 57.44	+34 8.3	2.048	3.001	5.8	20.2
12 17	5 47.57	+26 32.5	1.821	2.804	1.3	18.9	12 17	5 47.43	+34 25.2	2.025	2.996	3.7	20.1
12 27	5 36.12	+26 28.4	1.834	2.805	3.9	19.1	12 27	5 37.15	+34 29.5	2.031	2.992	4.9	20.1
1 6	5 25.80	+26 19.0	1.877	2.807	8.0	19.4	1 6	5 27.83	+34 21.9	2.066	2.987	7.9	20.3
1 16	5 17.61	+26 6.5	1.947	2.807	11.7	19.6	1 16	5 20.45	+34 5.1	2.127	2.982	11.1	20.5
1 26	5 12.22	+25 53.8	2.039	2.807	14.8	19.8	1 26	5 15.71	+33 42.9	2.211	2.978	13.8	20.7
317447	2002 <i>QF</i> ₁₂₄		12 18.5 67°13	0°2/18.5 17			225641	2001 <i>FO</i> ₈₉		12 18.5 182°42	5°1/18.7 18		
11 17	6 9.97	+23 24.9	2.180	3.025	11.5	21.0	11 17	6 19.55	+35 10.4	1.735	2.567	14.6	21.7
11 27	6 3.93	+23 15.4	2.114	3.032	8.2	20.8	11 27	6 11.66	+35 55.8	1.665	2.567	11.1	21.4
12 7	5 56.08	+23 4.5	2.075	3.040	4.5	20.6	12 7	6 0.73	+36 30.5	1.619	2.568	7.5	21.2
12 17	5 47.19	+22 51.8	2.064	3.048	0.6	20.3	12 17	5 47.87	+36 48.6	1.601	2.568	5.2	21.1
12 27	5 38.26	+22 37.8	2.083	3.056	3.3	20.5	12 27	5 34.73	+36 47.1	1.611	2.567	6.5	21.2
1 6	5 30.26	+22 23.5	2.132	3.064	7.0	20.8	1 6	5 23.00	+36 27.8	1.648	2.566	9.9	21.4
1 16	5 23.99	+22 10.4	2.207	3.071	10.4	21.0	1 16	5 14.00	+35 55.5	1.711	2.564	13.4	21.6
1 26	5 19.98	+21 59.9	2.306	3.079	13.1	21.2	1 26	5 8.54	+35 16.9	1.795	2.561	16.6	21.8
490585	2009 <i>WE</i> ₁₁₉		12 18.5 124°81	1°5/18.3 17			75591	2000 <i>AN</i> ₁₈		12 18.5 77°79	1°2/18.5 18		
11 17	6 9.72	+19 43.1	2.305	3.147	11.1	21.9	11 17	6 17.30	+23 51.8	1.383	2.238	16.2	18.3
11 27	6 3.65	+19 19.0	2.236	3.152	8.0	21.7	11 27	6 10.03	+24 36.4	1.332	2.254	11.6	18.1
12 7	5 55.89	+18 55.7	2.193	3.156	4.5	21.5	12 7	5 59.78	+25 21.0	1.305	2.271	6.5	17.9
12 17	5 47.17	+18 33.9	2.179	3.161	1.6	21.3	12 17	5 47.75	+26 0.9	1.304	2.287	1.4	17.6
12 27	5 38.39	+18 14.5	2.196	3.165	3.6	21.5	12 27	5 35.66	+26 33.0	1.331	2.303	4.8	17.8
1 6	5 30.46	+17 58.6	2.242	3.170	7.0	21.7	1 6	5 25.19	+26 56.7	1.385	2.319	9.8	18.2
1 16	5 24.12	+17 47.2	2.315	3.174	10.2	21.9	1 16	5 17.57	+27 13.8	1.463	2.335	14.1	18.5
1 26	5 19.89	+17 40.8	2.412	3.178	12.8	22.1	1 26	5 13.51	+27 27.0	1.562	2.351	17.7	18.7
34496	2000 <i>SF</i> ₁₄₇		12 18.5 104°71	0°9/18.6 18			102727	1999 <i>VF</i> ₁₀₁		12 18.5 116°45	0°8/18.6 18 R		
11 17	6 11.73	+25 47.2	2.030	2.875	12.2	19.2	11 17	6 13.57	+25 1.3	1.761	2.610	13.6	20.1
11 27	6 5.41	+25 55.4	1.961	2.878	8.8	19.0	11 27	6 6.99	+25 11.8	1.694	2.613	9.8	19.9
12 7	5 56.99	+26 0.8	1.917	2.881	4.9	18.7	12 7	5 57.98	+25 20.1	1.651	2.616	5.5	19.6
12 17	5 47.32	+26 1.8	1.901	2.884	1.1	18.5	12 17	5 47.52	+25 24.2	1.636	2.620	1.1	19.3
12 27	5 37.53	+25 58.0	1.916	2.887	3.7	18.7	12 27	5 36.90	+25 23.4	1.650	2.623	4.0	19.5
1 6	5 28.75	+25 50.1	1.959	2.890	7.6	18.9	1 6	5 27.45	+25 18.4	1.693	2.626	8.4	19.8
1 16	5 21.88	+25 40.1	2.028	2.893	11.1	19.1	1 16	5 20.23	+25 11.4	1.761	2.629	12.3	20.1
1 26	5 17.54	+25 30.1	2.120	2.896	14.1	19.3	1 26	5 15.90	+25 4.7	1.851	2.632	15.6	20.3
174936	2004 <i>CU</i> ₆₂		12 18.5 181°48	3°3/18.8 18			221990	1997 <i>GP</i> ₁₈		12 18.5 174°93	1°4/18.5 18		
11 17	6 11.76	+12 21.2	2.056	2.889	12.6	20.2	11 17	6 15.02	+19 46.6	1.844	2.686	13.4	21.2
11 27	6 5.35	+12 36.5	1.983	2.889	9.3	20.0	11 27	6 7.87	+19 40.5	1.773	2.689	9.7	21.0
12 7	5 56.95	+13 0.8	1.935	2.889	5.9	19.8	12 7	5 58.42	+19 36.2	1.727	2.691	5.5	20.8
12 17	5 47.33	+13 33.9	1.915	2.889	3.4	19.6	12 17	5 47.58	+19 33.3	1.710	2.692	1.6	20.5
12 27	5 37.50	+14 14.6	1.926	2.889	4.8	19.7	12 27	5 36.58	+19 31.8	1.723	2.693	4.2	20.7
1 6	5 28.51	+15 1.3	1.965	2.889	8.1	19.9	1 6	5 26.67	+19 32.2	1.764	2.693	8.4	21.0
1 16	5 21.25	+15 52.0	2.032	2.888	11.5	20.1	1 16	5 18.86	+19 35.4	1.832	2.693	12.3	21.2
1 26	5 16.35	+16 45.1	2.122	2.887	14.4	20.3	1 26	5 13.81	+19 42.3	1.922	2.692	15.5	21.4
152730	1998 <i>VZ</i> ₂₂		12 18.5 41°01	0°7/18.5 18			366815	2005 <i>EP</i> ₇₃		12 18.5 351°26	4°1/18.5 17		
11 17	6 13.96	+22 30.8	1.188	2.057	17.4	19.4	11 17	6 7.64	+12 14.4	1.863	2.708	13.1	20.3
11 27	6 7.76	+22 18.8	1.142	2.071	12.5	19.1	11 27	6 2.57	+12 1.6	1.792	2.703	9.9	20.1
12 7	5 58.50	+22 6.5	1.117	2.085	6.9	18.8	12 7	5 55.50	+11 57.8	1.745	2.699	6.4	19.9
12 17	5 47.53	+21 53.3	1.117	2.101	1.1	18.5	12 17	5 47.19	+12 4.0	1.725	2.696	4.2	19.7
12 27	5 36.64	+21 39.9	1.143	2.116	5.1	18.8	12 27	5 38.69	+12 20.6	1.732	2.694	5.5	19.8
1 6	5 27.56	+21 28.1	1.194	2.133	10.5	19.2	1 6	5 31.07	+12 46.8	1.768	2.691	8.9	20.0
1 16	5 21.45	+21 19.9	1.268	2.150	15.1	19.5	1 16	5 25.22	+13 21.2	1.828	2.690	12.3	20.2
1 26	5 18.95	+21 16.7	1.361	2.167	18.9	19.8	1 26	5 21.78	+14 1.9	1.911	2.689	15.3	20.4
295257	2008 <i>GK</i> ₅₀		12 18.5 197°66	1°9/18.6 17			58447	1996 <i>HF</i> ₂₄		12 18.5 285°91	1°0/18.5 18		
11 17	6 12.54	+28 2.5	2.009	2.852	12.4	21.5	11 17	6 13.20	+20 35.6	1.525	2.381	14.9	19.5
11 27	6 6.11	+28 25.3	1.936	2.852	9.0	21.3	11 27	6 7.17	+20 40.1	1.446	2.368	10.9	19.3
12 7	5 57.45	+28 44.0	1.889	2.851	5.2	21.1	12 7	5 58.32	+20 47.1	1.389	2.355	6.1	19.0
12 17	5 47.42	+28 56.2	1.870	2.851	2.0	20.9	12 17	5 47.60	+20 55.6	1.359	2.343	1.3	18.6
12 27	5 37.18	+29 0.3	1.881	2.850	4.1	21.0	12 27	5 36.43	+21 4.6	1.357	2.330	4.7	18.8
1 6	5 27.95	+28 57.0	1.920	2.850	7.8	21.2	1 6	5 26.38	+21 14.3	1.382	2.317	9.7	19.1
1 16	5 20.72	+28 48.5	1.986	2.849	11.4	21.5	1 16	5 18.72	+21 25.5	1.431	2.305	14.3	19.3
1 26	5 16.15	+28 37.6	2.074	2.849	14.4	21.7	1 26	5 14.33	+21 39.2	1.501	2.292	18.2	19.5
477344	2009 <i>UB</i> ₃₃		12 18.5 20°81	0°7/18.5 16			262753	2006 <i>XO</i> ₅₇		12 18.5 252°89	1°8/18.3 17		
11 17	6 11.83	+22 21.5	1.092	1.968	18.0	21.0	11 17	6 11.02	+19 6.7	2.150	2.992	11.7	21.3
11 27	6 6.55	+22 15.8	1.042	1.974	12.9	20.7	11 27	6 4.86	+18 42.0	2.064	2.979	8.5	21.0
12 7	5 57.99	+22 10.6	1.013	1.982	7.2	20.4	12 7	5 56.73	+18 18.3	2.004	2.966	4.9	20.8
12 17	5 47.49	+22 4.9	1.007	1.991	1.1	20.1	12 17	5 47.37	+17 56.4	1.972	2.953	1.9	20.6
12 27	5 36.93	+21 58.8	1.027	2.001	5.3	20.4	12 27	5 37.78	+17 37.2	1.970	2.939	4.0	20.7
1 6	5 28.17	+21 53.7	1.070	2.012	11.0	20.8	1 6	5 28.99	+17 22.0	1.998	2.925	7.8	20.9
1 16	5 22.52	+21 51.3	1.136	2.024	16.0	21.1	1 16	5 21.88	+17 11.8	2.053	2.911	11.3	21.1
1 26	5 20.65	+21 53.2	1.219	2.037	20.0	21.4	1 26	5 17.10	+17 7.5	2.130	2.896	14.3	21.3
225168	2008 <i>GN</i> ₁₂₉		12 18.5 226°88	4°7/18.2 18			77364	2001 <i>FQ</i> ₁₃₀		12 18.5 198°17</			

EPHEMERIDES

12 18.5

12 18.5

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
291809	2006 <i>KH</i> ₉₁		12 18.5 124°90	3°0/18.6 18			484170	2006 <i>UF</i> ₁₇₅		12 18.5 57°62	9°7/18.5 18		
11 17	6 13.07	+14 3.3	1.979	2.814	12.9	21.2	11 17	6 21.43	+45 28.2	1.699	2.505	16.0	20.6
11 27	6 6.24	+14 7.5	1.918	2.827	9.5	21.0	11 27	6 13.53	+47 5.6	1.652	2.520	13.2	20.5
12 7	5 57.42	+14 18.9	1.882	2.839	5.8	20.8	12 7	6 2.00	+48 23.4	1.628	2.535	10.9	20.4
12 17	5 47.46	+14 37.3	1.874	2.851	3.1	20.6	12 17	5 48.15	+49 12.4	1.629	2.550	9.7	20.3
12 27	5 37.43	+15 2.0	1.897	2.862	4.7	20.8	12 27	5 34.01	+49 28.3	1.655	2.566	10.3	20.4
1 6	5 28.40	+15 32.0	1.949	2.873	8.1	21.0	1 6	5 21.69	+49 13.3	1.707	2.582	12.3	20.6
1 16	5 21.24	+16 6.2	2.027	2.884	11.5	21.2	1 16	5 12.74	+48 34.9	1.781	2.598	14.6	20.7
1 26	5 16.52	+16 43.4	2.129	2.894	14.4	21.5	1 26	5 7.97	+47 42.3	1.875	2.614	16.9	20.9
325387	2008 <i>TZ</i> ₃₇		12 18.5 146°40	4°1/18.1 18			314356	2005 <i>TC</i> ₁₅₈		12 18.5 312°83	5°1/18.7 17		
11 17	6 8.17	+10 0.2	2.672	3.494	10.3	21.2	11 17	6 14.20	+36 6.6	1.884	2.718	13.5	20.4
11 27	6 2.35	+9 27.6	2.606	3.502	7.9	21.1	11 27	6 7.73	+36 48.1	1.809	2.711	10.4	20.2
12 7	5 55.15	+9 1.8	2.566	3.508	5.5	20.9	12 7	5 58.58	+37 19.2	1.758	2.705	7.2	20.0
12 17	5 47.16	+8 44.6	2.554	3.515	4.1	20.8	12 17	5 47.68	+37 35.1	1.734	2.698	5.2	19.9
12 27	5 39.12	+8 36.8	2.573	3.521	5.0	20.9	12 27	5 36.48	+37 33.2	1.738	2.692	6.3	19.9
1 6	5 31.76	+8 39.7	2.622	3.527	7.2	21.1	1 6	5 26.43	+37 14.6	1.769	2.686	9.3	20.1
1 16	5 25.70	+8 48.6	2.698	3.533	9.7	21.2	1 16	5 18.75	+36 43.5	1.826	2.681	12.6	20.3
1 26	5 21.38	+9 8.4	2.797	3.538	11.8	21.4	1 26	5 14.23	+36 5.4	1.904	2.675	15.6	20.5
31293	1998 <i>FP</i> ₇₀		12 18.5 289°94	0°1/18.5 18			358576	2007 <i>TO</i> ₄₂₃		12 18.5 292°58	6°0/17.6 18		
11 17	6 9.08	+23 30.0	2.449	3.291	10.5	19.2	11 17	6 10.69	+10 45.7	1.718	2.558	14.3	20.6
11 27	6 3.43	+23 35.0	2.351	3.268	7.6	19.0	11 27	6 4.91	+9 40.3	1.643	2.549	11.0	20.4
12 7	5 55.96	+23 39.4	2.280	3.244	4.2	18.7	12 7	5 56.89	+8 42.6	1.592	2.539	7.7	20.2
12 17	5 47.29	+23 42.1	2.237	3.221	0.6	18.4	12 17	5 47.46	+7 56.7	1.568	2.530	6.0	20.1
12 27	5 38.30	+23 42.7	2.226	3.198	3.2	18.6	12 27	5 37.81	+7 26.1	1.571	2.521	7.4	20.1
1 6	5 29.93	+23 41.5	2.243	3.174	6.8	18.8	1 6	5 29.14	+7 12.4	1.602	2.511	10.7	20.3
1 16	5 23.03	+23 39.5	2.289	3.151	10.1	18.9	1 16	5 22.43	+7 15.3	1.656	2.502	14.1	20.5
1 26	5 18.23	+23 38.0	2.358	3.127	13.0	19.1	1 26	5 18.40	+7 32.7	1.730	2.493	17.2	20.7
14232	Curtismiller		12 18.5 261°77	0°5/18.4 18			475866	2007 <i>CM</i> ₇		12 18.5 336°29	4°1/18.8 18		
11 17	6 13.60	+24 3.6	1.840	2.687	13.2	17.3	11 17	6 14.80	+31 49.9	1.268	2.129	17.0	21.2
11 27	6 6.98	+23 28.0	1.757	2.676	9.5	17.1	11 27	6 8.91	+32 9.2	1.201	2.122	12.7	20.9
12 7	5 58.01	+22 48.2	1.699	2.664	5.3	16.8	12 7	5 59.51	+32 18.1	1.154	2.115	7.9	20.6
12 17	5 47.57	+22 4.6	1.670	2.653	0.9	16.5	12 17	5 47.83	+32 11.8	1.132	2.109	4.2	20.4
12 27	5 36.92	+21 19.0	1.669	2.642	4.1	16.7	12 27	5 35.81	+31 48.5	1.135	2.104	6.3	20.5
1 6	5 27.33	+20 34.4	1.698	2.630	8.5	16.9	1 6	5 25.45	+31 11.2	1.164	2.099	11.1	20.7
1 16	5 19.86	+19 54.1	1.753	2.618	12.6	17.2	1 16	5 18.27	+30 26.0	1.215	2.095	15.8	21.0
1 26	5 15.18	+19 20.5	1.830	2.606	15.9	17.4	1 26	5 15.14	+29 39.7	1.285	2.091	19.8	21.2
113941	2002 <i>TM</i> ₂₉₅		12 18.5 100°94	0°7/18.7 18			449141	2013 <i>AK</i> ₅₈		12 18.5 217°68	0°4/18.5 18		
11 17	6 15.37	+27 8.7	1.979	2.819	12.7	19.7	11 17	6 12.78	+21 43.1	2.135	2.975	11.9	21.7
11 27	6 7.83	+26 42.9	1.923	2.837	9.1	19.5	11 27	6 6.19	+21 53.2	2.053	2.969	8.5	21.5
12 7	5 58.23	+26 11.5	1.892	2.856	5.1	19.3	12 7	5 57.53	+22 4.1	1.997	2.961	4.8	21.3
12 17	5 47.57	+25 34.4	1.890	2.873	1.0	19.0	12 17	5 47.55	+22 14.5	1.970	2.954	0.7	21.0
12 27	5 37.05	+24 52.9	1.919	2.891	3.6	19.3	12 27	5 37.32	+22 23.7	1.974	2.946	3.5	21.2
1 6	5 27.80	+24 9.9	1.977	2.908	7.6	19.5	1 6	5 27.92	+22 31.7	2.007	2.938	7.5	21.4
1 16	5 20.66	+23 28.6	2.062	2.924	11.1	19.8	1 16	5 20.30	+22 39.2	2.068	2.929	11.1	21.6
1 26	5 16.15	+22 51.8	2.171	2.941	13.9	20.0	1 26	5 15.12	+22 47.5	2.151	2.919	14.1	21.8
122748	2000 <i>SX</i> ₅₆		12 18.5 35°22	0°1/18.5 18			64305	2001 <i>UD</i> ₂₇		12 18.5 94°27	5°1/18.6 18		
11 17	6 13.40	+23 45.7	1.149	2.021	17.6	19.7	11 17	6 10.71	+8 49.1	2.013	2.840	13.0	19.2
11 27	6 7.41	+23 46.5	1.110	2.039	12.6	19.4	11 27	6 4.47	+8 27.9	1.957	2.855	9.9	19.1
12 7	5 58.35	+23 46.0	1.091	2.059	6.9	19.2	12 7	5 56.44	+8 17.4	1.926	2.870	6.9	18.9
12 17	5 47.60	+23 42.5	1.096	2.080	0.9	18.8	12 17	5 47.40	+8 19.1	1.923	2.884	5.1	18.8
12 27	5 37.01	+23 36.0	1.127	2.101	5.0	19.2	12 27	5 38.34	+8 33.4	1.948	2.898	6.1	18.9
1 6	5 28.31	+23 28.0	1.183	2.124	10.4	19.6	1 6	5 30.24	+8 59.5	2.002	2.912	8.8	19.1
1 16	5 22.64	+23 21.0	1.262	2.147	15.0	19.9	1 16	5 23.87	+9 35.3	2.081	2.926	11.7	19.3
1 26	5 20.57	+23 16.9	1.360	2.171	18.7	20.2	1 26	5 19.77	+10 18.5	2.183	2.939	14.3	19.5
488720	2004 <i>GC</i> ₄₉		12 18.5 320°61	3°4/18.1 17			172671	2003 <i>YS</i> ₁₁₉		12 18.5 338°94	3°3/18.7 17		
11 17	6 9.55	+17 18.7	1.510	2.369	14.9	21.4	11 17	6 10.14	+30 2.9	1.279	2.147	16.4	20.1
11 27	6 4.53	+16 37.0	1.426	2.348	11.0	21.1	11 27	6 5.59	+30 20.9	1.203	2.130	12.2	19.8
12 7	5 56.87	+15 57.8	1.365	2.327	6.7	20.8	12 7	5 57.72	+30 31.2	1.150	2.114	7.4	19.5
12 17	5 47.45	+15 23.5	1.329	2.307	3.5	20.6	12 17	5 47.61	+30 29.8	1.120	2.099	3.5	19.2
12 27	5 37.61	+14 56.7	1.321	2.288	5.8	20.7	12 27	5 37.01	+30 14.7	1.115	2.086	5.8	19.3
1 6	5 28.79	+14 39.5	1.338	2.269	10.4	20.9	1 6	5 27.81	+29 48.0	1.135	2.074	10.9	19.5
1 16	5 22.19	+14 33.1	1.380	2.251	14.9	21.1	1 16	5 21.54	+29 14.2	1.178	2.064	15.7	19.8
1 26	5 18.68	+14 37.4	1.440	2.234	18.7	21.3	1 26	5 19.12	+28 39.0	1.239	2.055	19.9	20.0
334489	2002 <i>QY</i> ₅₁		12 18.5 184°63	5°5/18.5 18			33056	Ogunimachi		12 18.5 20°36	1°8/18.5 18		
11 17	6 11.09	+6 46.1	2.226	3.042	12.3	21.5	11 17	6 11.49	+19 21.4	1.185	2.056	17.3	17.9
11 27	6 4.72	+6 23.5	2.154	3.042	9.6	21.3	11 27	6 6.17	+19 20.6	1.132	2.062	12.5	17.7
12 7	5 56.59	+6 11.8	2.107	3.042	7.0	21.2	12 7	5 57.81	+19 24.5	1.101	2.069	7.1	17.4
12 17	5 47.40	+6 13.1	2.088	3.041	5.5	21.1	12 17	5 47.61	+19 32.5	1.094	2.077	2.0	17.1
12 27	5 38.06	+6 28.0	2.098	3.040	6.4	21.1	12 27	5 37.31	+19 43.8	1.113	2.086	5.3	17.4
1 6	5 29.51	+6 55.8	2.137	3.038	8.8	21.3	1 6	5 28.60	+19 58.2	1.156	2.096	10.6	17.7
1 16	5 22.51	+7 34.7	2.202	3.036	11.6	21.4	1 16	5 22.74	+20 16.0	1.222	2.107	15.4	18.0
1 26	5 17.66	+8 22.1	2.290	3.033	14.1	21.6	1 26	5 20.45	+20 36.9	1.307	2.118	19.3	18.3
352143	2007 <i>LR</i> ₃₂		12 18.5 46°85	0°0/18.5 16			337571	2001 <i>SP</i> ₃₀₄		12 18.5 93°44	0°2/18.5 18		
11 17													

EPHEMERIDES

12 18.5

12 18.6

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
517764	2015 <i>OX</i> ₇₃		12 18.5 121°47'	6°7'/18.5 18			327114	2005 <i>EV</i> ₇		12 18.5 162°12'	2°4'/18.7 18		
11 17	6 11.87	+ 4 25.6	2.035	2.847	13.5	21.8	11 17	6 18.54	+29 1.4	1.738	2.578	14.2	21.0
11 27	6 5.27	+ 3 49.2	1.980	2.862	10.7	21.6	11 27	6 10.70	+29 22.3	1.671	2.584	10.3	20.7
12 7	5 56.87	+ 3 26.6	1.949	2.876	8.1	21.5	12 7	6 0.15	+29 37.1	1.629	2.589	6.1	20.5
12 17	5 47.48	+ 3 20.3	1.946	2.890	6.7	21.5	12 17	5 47.96	+29 42.3	1.614	2.594	2.5	20.3
12 27	5 38.09	+ 3 31.2	1.971	2.904	7.5	21.5	12 27	5 35.62	+29 36.6	1.629	2.598	4.7	20.4
1 6	5 29.65	+ 3 58.3	2.024	2.917	9.7	21.7	1 6	5 24.62	+29 21.4	1.672	2.601	8.9	20.7
1 16	5 22.95	+ 4 39.0	2.102	2.929	12.3	21.9	1 16	5 16.12	+29 0.4	1.742	2.603	12.8	20.9
1 26	5 18.52	+ 5 29.9	2.202	2.941	14.7	22.1	1 26	5 10.84	+28 37.8	1.833	2.605	16.1	21.2
478496	2012 <i>RB</i> ₄₀		12 18.5 56°20'	3°3'/18.7 18			491000	2011 <i>GL</i> ₇		12 18.6 219°33'	7°4'/17.9 18		
11 17	6 17.56	+29 39.8	1.309	2.165	16.9	20.5	11 17	6 6.95	- 2 2.4	2.699	3.479	11.4	22.0
11 27	6 10.33	+30 15.9	1.267	2.188	12.3	20.2	11 27	6 1.58	- 2 45.7	2.627	3.474	9.6	21.8
12 7	5 59.98	+30 44.1	1.248	2.210	7.3	20.0	12 7	5 54.82	- 3 15.2	2.579	3.469	8.1	21.7
12 17	5 47.90	+30 59.5	1.254	2.233	3.5	19.9	12 17	5 47.24	- 3 28.0	2.557	3.464	7.4	21.7
12 27	5 35.96	+31 0.5	1.287	2.256	5.7	20.1	12 27	5 39.52	- 3 22.6	2.563	3.458	7.9	21.7
1 6	5 25.91	+30 49.3	1.346	2.279	10.2	20.4	1 6	5 32.39	- 2 59.4	2.597	3.452	9.3	21.8
1 16	5 18.96	+30 30.5	1.429	2.303	14.3	20.7	1 16	5 26.47	- 2 20.3	2.655	3.446	11.1	21.9
1 26	5 15.71	+30 9.1	1.532	2.326	17.7	21.0	1 26	5 22.23	- 1 28.6	2.735	3.440	12.9	22.0
471218	2010 <i>VX</i> ₂₀₅		12 18.5 63°04'	3°9'/18.3 18			232726	2004 <i>CK</i> ₆₅		12 18.6 246°16'	0°6'/18.6 18		
11 17	6 15.37	+16 58.3	1.204	2.066	17.7	20.9	11 17	6 9.17	+25 9.2	3.041	3.874	8.9	21.3
11 27	6 8.69	+16 14.1	1.156	2.080	12.9	20.7	11 27	6 3.22	+25 19.5	2.945	3.857	6.4	21.1
12 7	5 59.06	+15 35.5	1.131	2.094	7.7	20.4	12 7	5 55.77	+25 28.3	2.876	3.839	3.6	20.9
12 17	5 47.78	+15 5.1	1.130	2.108	4.0	20.2	12 17	5 47.37	+25 34.4	2.838	3.821	0.7	20.6
12 27	5 36.60	+14 44.9	1.155	2.122	6.4	20.4	12 27	5 38.75	+25 37.4	2.832	3.803	2.7	20.7
1 6	5 27.15	+14 36.4	1.205	2.137	11.2	20.7	1 6	5 30.65	+25 37.4	2.856	3.784	5.7	20.9
1 16	5 20.61	+14 39.6	1.278	2.152	15.7	21.1	1 16	5 23.76	+25 35.3	2.910	3.765	8.4	21.1
1 26	5 17.59	+14 53.1	1.371	2.166	19.4	21.3	1 26	5 18.61	+25 32.4	2.988	3.746	10.8	21.2
197449	2003 <i>YK</i> ₁₁₁		12 18.5 35°44'	8°0'/17.7 18			337793	2001 <i>UA</i> ₂₀₄		12 18.6 306°90'	4°9'/18.6 18		
11 17	6 8.04	+ 3 29.2	1.873	2.694	14.1	19.2	11 17	6 15.73	+33 0.7	1.460	2.310	15.8	19.9
11 27	6 2.66	+ 2 17.5	1.824	2.706	11.4	19.1	11 27	6 9.45	+33 45.7	1.386	2.300	11.9	19.6
12 7	5 55.48	+ 1 20.8	1.798	2.719	9.1	19.0	12 7	5 59.83	+34 22.1	1.334	2.290	7.8	19.4
12 17	5 47.30	+ 0 43.1	1.798	2.732	8.0	18.9	12 17	5 47.96	+34 43.4	1.308	2.280	5.0	19.2
12 27	5 39.12	+ 0 27.2	1.824	2.746	8.8	19.0	12 27	5 35.59	+34 46.1	1.308	2.271	6.6	19.3
1 6	5 31.93	+ 0 32.5	1.877	2.760	10.9	19.2	1 6	5 24.63	+34 31.2	1.334	2.262	10.8	19.5
1 16	5 26.47	+ 0 56.7	1.952	2.775	13.3	19.3	1 16	5 16.58	+34 3.5	1.384	2.253	15.0	19.7
1 26	5 23.28	+ 1 35.8	2.049	2.789	15.6	19.5	1 26	5 12.39	+33 29.5	1.454	2.245	18.7	19.9
369493	2010 <i>UE</i> ₇₁		12 18.5 77°19'	1°7'/18.6 18			211260	2002 <i>RH</i> ₁₅		12 18.6 61°04'	10°4'/18.9 18		
11 17	6 19.73	+26 25.6	1.264	2.121	17.3	20.9	11 17	6 10.99	- 2 8.6	1.641	2.443	16.6	19.5
11 27	6 11.83	+26 44.7	1.222	2.145	12.4	20.6	11 27	6 4.87	- 3 8.3	1.601	2.464	13.9	19.4
12 7	6 0.78	+26 59.0	1.203	2.168	7.0	20.4	12 7	5 56.73	- 3 45.1	1.583	2.484	11.6	19.3
12 17	5 48.01	+27 5.1	1.209	2.191	1.9	20.1	12 17	5 47.49	- 3 54.7	1.589	2.505	10.4	19.3
12 27	5 35.45	+27 1.7	1.242	2.214	5.1	20.4	12 27	5 38.33	- 3 35.7	1.620	2.525	10.9	19.3
1 6	5 24.87	+26 51.2	1.302	2.237	10.2	20.8	1 6	5 30.37	- 2 51.0	1.676	2.546	12.7	19.5
1 16	5 17.47	+26 37.3	1.385	2.260	14.6	21.1	1 16	5 24.45	- 1 45.5	1.754	2.567	15.0	19.7
1 26	5 13.83	+26 23.9	1.488	2.282	18.2	21.4	1 26	5 21.09	- 0 25.9	1.852	2.588	17.2	19.9
382309	2013 <i>PA</i> ₃₄		12 18.5 75°20'	6°5'/18.1 18			418749	2008 <i>UF</i> ₁₆₂		12 18.6 329°97'	5°1'/18.7 18		
11 17	6 8.11	+ 3 23.6	2.367	3.175	12.0	20.4	11 17	6 13.24	+37 58.1	2.260	3.082	11.9	20.9
11 27	6 2.38	+ 2 35.0	2.319	3.194	9.6	20.3	11 27	6 6.74	+38 43.4	2.187	3.080	9.3	20.8
12 7	5 55.21	+ 1 59.1	2.295	3.214	7.5	20.2	12 7	5 57.93	+39 18.6	2.139	3.078	6.7	20.6
12 17	5 47.27	+ 1 38.2	2.299	3.233	6.5	20.1	12 17	5 47.68	+39 39.2	2.119	3.076	5.2	20.5
12 27	5 39.36	+ 1 33.7	2.330	3.252	7.1	20.2	12 27	5 37.17	+39 43.1	2.127	3.074	6.0	20.5
1 6	5 32.26	+ 1 45.2	2.390	3.271	8.9	20.4	1 6	5 27.65	+39 31.1	2.164	3.072	8.4	20.7
1 16	5 26.59	+ 2 10.6	2.475	3.291	11.1	20.5	1 16	5 20.15	+39 6.5	2.226	3.070	11.1	20.9
1 26	5 22.79	+ 2 47.1	2.582	3.310	13.0	20.7	1 26	5 15.37	+38 34.0	2.311	3.068	13.6	21.0
165055	2000 <i>EP</i> ₇₆		12 18.5 355°47'	0°8'/18.5 18			23822	1998 <i>QC</i> ₇₀		12 18.6 17°44'	2°5'/18.2 18		
11 17	6 9.49	+22 38.8	1.215	2.089	16.7	18.8	11 17	6 9.89	+18 27.1	1.934	2.782	12.6	18.3
11 27	6 5.02	+23 21.5	1.151	2.082	12.1	18.5	11 27	6 4.10	+17 45.0	1.867	2.784	9.1	18.1
12 7	5 57.37	+24 7.8	1.109	2.077	6.8	18.2	12 7	5 56.34	+17 4.5	1.825	2.787	5.4	17.9
12 17	5 47.61	+24 53.7	1.090	2.074	1.2	17.8	12 17	5 47.45	+16 27.2	1.810	2.789	2.5	17.7
12 27	5 37.43	+25 35.3	1.097	2.072	5.1	18.1	12 27	5 38.49	+15 55.2	1.825	2.792	4.5	17.8
1 6	5 28.63	+26 10.6	1.129	2.071	10.6	18.4	1 6	5 30.52	+15 30.1	1.868	2.795	8.2	18.1
1 16	5 22.67	+26 39.8	1.183	2.072	15.5	18.7	1 16	5 24.39	+15 13.1	1.937	2.799	11.7	18.3
1 26	5 20.43	+27 4.5	1.257	2.074	19.6	19.0	1 26	5 20.67	+15 4.4	2.028	2.802	14.7	18.5
76690	2000 <i>HZ</i> ₇₃		12 18.5 118°77'	4°7'/18.7 18			302708	2002 <i>TM</i> ₁₉₂		12 18.6 62°87'	0°6'/18.5 17		
11 17	6 7.84	+ 6 59.3	2.530	3.347	11.0	19.0	11 17	6 16.64	+24 13.6	1.604	2.453	14.7	20.0
11 27	6 2.24	+ 6 48.1	2.463	3.353	8.5	18.9	11 27	6 8.87	+23 31.3	1.565	2.484	10.4	19.8
12 7	5 55.18	+ 6 47.1	2.422	3.358	6.2	18.7	12 7	5 58.85	+22 45.8	1.550	2.515	5.7	19.6
12 17	5 47.28	+ 6 57.2	2.409	3.364	4.8	18.7	12 17	5 47.77	+21 58.3	1.563	2.547	0.9	19.3
12 27	5 39.28	+ 7 18.8	2.425	3.369	5.5	18.7	12 27	5 37.04	+21 11.4	1.605	2.578	4.2	19.7
1 6	5 31.97	+ 7 50.8	2.471	3.375	7.7	18.9	1 6	5 27.93	+20 28.1	1.676	2.608	8.6	20.0
1 16	5 25.98	+ 8 31.6	2.543	3.380	10.1	19.0	1 16	5 21.28	+19 51.3	1.772	2.639	12.4	20.3
1 26	5 21.81	+ 9 19.0	2.639	3.385	12.3	19.2	1 26	5 17.54	+19 22.6	1.891	2.669	15.4	20.6
474771	2005 <i>QE</i> ₁₁₇		12 18.5 77°52'	1°1'/18.5 18			134119	2004 <i>YY</i> ₁₃		12 18.			

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
413766	2006 <i>DD</i> ₂₁₅		12 18.6	2°76	5°2/18.9	17	347370	2012 <i>RU</i> ₆		12 18.6	49°44	1°8/18.5	18
11 17	6 13.35	+36 57.8	1.927	2.759	13.3	21.0	11 17	6 14.70	+19 51.6	1.248	2.112	17.1	20.4
11 27	6 7.03	+37 33.4	1.859	2.759	10.2	20.8	11 27	6 8.11	+19 38.4	1.209	2.134	12.2	20.2
12 7	5 58.16	+37 57.7	1.814	2.759	7.2	20.6	12 7	5 58.71	+19 28.4	1.190	2.157	6.9	20.0
12 17	5 47.72	+38 6.2	1.796	2.759	5.3	20.5	12 17	5 47.80	+19 21.4	1.198	2.180	2.0	19.7
12 27	5 37.08	+37 57.2	1.807	2.760	6.2	20.6	12 27	5 37.09	+19 17.7	1.231	2.204	5.1	20.0
1 6	5 27.65	+37 32.1	1.844	2.761	9.0	20.7	1 6	5 28.13	+19 17.9	1.291	2.227	10.1	20.3
1 16	5 20.53	+36 55.4	1.907	2.762	12.2	20.9	1 16	5 22.00	+19 23.0	1.374	2.252	14.5	20.7
1 26	5 16.43	+36 12.5	1.992	2.764	15.0	21.1	1 26	5 19.24	+19 32.9	1.477	2.276	18.0	21.0
10232	1997 <i>WR</i> ₄₉		12 18.6	116°22	0°6/18.5	18	33015	1997 <i>GF</i> ₇		12 18.6	77°66	1°5/18.5	18
11 17	6 9.83	+21 20.9	2.741	3.576	9.7	19.0	11 17	6 18.71	+20 2.4	1.208	2.068	17.8	19.0
11 27	6 3.56	+21 20.1	2.680	3.593	6.9	18.8	11 27	6 11.08	+20 2.8	1.167	2.090	12.8	18.8
12 7	5 55.87	+21 19.6	2.646	3.609	3.8	18.7	12 7	6 0.39	+20 6.4	1.147	2.113	7.1	18.5
12 17	5 47.39	+21 19.0	2.642	3.625	0.8	18.4	12 17	5 48.04	+20 11.8	1.153	2.136	1.7	18.3
12 27	5 38.90	+21 18.1	2.669	3.641	2.8	18.6	12 27	5 35.87	+20 18.3	1.185	2.158	5.2	18.6
1 6	5 31.16	+21 17.4	2.727	3.656	5.9	18.9	1 6	5 25.62	+20 26.2	1.244	2.180	10.5	18.9
1 16	5 24.80	+21 17.5	2.814	3.671	8.6	19.1	1 16	5 18.46	+20 36.7	1.326	2.202	15.1	19.3
1 26	5 20.27	+21 19.1	2.925	3.685	10.9	19.2	1 26	5 14.97	+20 50.3	1.428	2.223	18.7	19.6
25912	Recawkwell		12 18.6	134°33	3°7/18.6	18	225126	2008 <i>EE</i> ₁₄₉		12 18.6	262°93	1°7/18.4	18
11 17	6 18.92	+31 19.5	1.659	2.499	14.7	18.1	11 17	6 14.67	+20 16.4	1.515	2.369	15.1	21.2
11 27	6 11.13	+32 0.6	1.598	2.509	10.9	17.9	11 27	6 8.27	+19 59.0	1.435	2.356	11.1	20.9
12 7	6 0.46	+32 34.0	1.561	2.518	6.8	17.7	12 7	5 59.02	+19 42.8	1.378	2.343	6.3	20.6
12 17	5 48.04	+32 54.7	1.551	2.527	3.8	17.5	12 17	5 47.89	+19 27.6	1.348	2.330	1.9	20.3
12 27	5 35.45	+33 0.1	1.571	2.535	5.5	17.6	12 27	5 36.36	+19 14.4	1.345	2.317	4.9	20.5
1 6	5 24.33	+32 51.7	1.618	2.543	9.4	17.9	1 6	5 25.98	+19 4.5	1.370	2.303	10.0	20.7
1 16	5 15.89	+32 33.5	1.690	2.550	13.2	18.1	1 16	5 18.05	+18 59.4	1.419	2.289	14.6	21.0
1 26	5 10.86	+32 10.6	1.784	2.557	16.4	18.4	1 26	5 13.41	+19 0.5	1.488	2.276	18.5	21.2
186759	2004 <i>CN</i> ₉₅		12 18.6	163°06	11°9/19.1	18	444562	2006 <i>SP</i> ₃₆₈		12 18.6	46°05	4°0/18.2	17
11 17	6 13.14	- 9 33.9	1.922	2.674	16.3	21.0	11 17	6 11.94	+15 50.1	1.514	2.368	15.1	20.3
11 27	6 6.37	-10 28.9	1.866	2.679	14.4	20.9	11 27	6 5.76	+15 0.0	1.468	2.387	11.1	20.1
12 7	5 57.60	-10 58.8	1.830	2.684	12.7	20.8	12 7	5 57.29	+14 15.7	1.446	2.406	6.8	19.9
12 17	5 47.65	-10 58.6	1.818	2.688	11.9	20.8	12 17	5 47.62	+13 39.8	1.450	2.425	4.0	19.8
12 27	5 37.60	-10 26.4	1.831	2.692	12.3	20.8	12 27	5 38.07	+13 14.5	1.482	2.445	5.9	20.0
1 6	5 28.53	- 9 24.6	1.868	2.695	13.6	20.9	1 6	5 29.90	+13 1.0	1.540	2.466	9.7	20.2
1 16	5 21.31	- 7 58.4	1.927	2.697	15.4	21.0	1 16	5 24.02	+12 59.0	1.622	2.487	13.4	20.5
1 26	5 16.54	- 6 15.1	2.006	2.699	17.3	21.2	1 26	5 20.96	+13 7.4	1.726	2.508	16.5	20.8
70273	1999 <i>RF</i> ₁₀₉		12 18.6	148°54	1°9/18.8	18	267171	2000 <i>JZ</i> ₅		12 18.6	247°71	4°7/18.1	18
11 17	6 15.90	+29 43.3	1.879	2.719	13.3	19.3	11 17	6 7.68	+ 8 40.7	2.514	3.336	10.9	20.2
11 27	6 8.58	+29 33.9	1.811	2.724	9.7	19.1	11 27	6 2.23	+ 8 4.7	2.434	3.328	8.4	20.0
12 7	5 58.88	+29 16.7	1.768	2.729	5.6	18.9	12 7	5 55.26	+ 7 36.6	2.381	3.320	6.1	19.9
12 17	5 47.82	+28 50.3	1.753	2.733	2.1	18.6	12 17	5 47.36	+ 7 18.3	2.356	3.312	4.7	19.8
12 27	5 36.73	+28 15.1	1.767	2.738	4.1	18.8	12 27	5 39.31	+ 7 11.4	2.360	3.304	5.7	19.8
1 6	5 26.89	+27 33.8	1.811	2.741	8.2	19.0	1 6	5 31.89	+ 7 16.1	2.393	3.296	8.0	19.9
1 16	5 19.32	+26 50.5	1.881	2.745	11.9	19.3	1 16	5 25.79	+ 7 31.5	2.452	3.287	10.5	20.1
1 26	5 14.64	+26 9.2	1.974	2.748	15.0	19.5	1 26	5 21.53	+ 7 56.3	2.535	3.279	12.8	20.3
447485	2006 <i>RV</i> ₃₂		12 18.6	63°03	6°3/19.3	18	109189	2001 <i>QT</i> ₇₂		12 18.6	165°66	3°4/18.2	18
11 17	6 20.85	+39 6.6	1.676	2.501	15.3	21.0	11 17	6 11.08	+12 15.4	2.727	3.547	10.2	21.2
11 27	6 12.30	+39 49.2	1.641	2.534	11.8	20.8	11 27	6 4.45	+11 42.2	2.656	3.554	7.6	21.0
12 7	6 0.92	+40 15.4	1.630	2.568	8.4	20.7	12 7	5 56.39	+11 14.0	2.612	3.560	5.0	20.9
12 17	5 48.08	+40 20.0	1.644	2.601	6.4	20.6	12 17	5 47.51	+10 52.2	2.599	3.565	3.5	20.8
12 27	5 35.04	+40 2.2	1.687	2.634	7.2	20.8	12 27	5 38.58	+10 38.1	2.616	3.570	4.5	20.8
1 6	5 24.90	+39 25.8	1.757	2.667	9.8	21.0	1 6	5 30.36	+10 32.0	2.665	3.574	7.0	21.0
1 16	5 17.22	+38 37.5	1.851	2.700	12.8	21.2	1 16	5 23.47	+10 33.9	2.741	3.577	9.5	21.2
1 26	5 13.02	+37 44.3	1.967	2.732	15.4	21.5	1 26	5 18.38	+10 43.0	2.841	3.579	11.7	21.4
503415	2016 <i>DC</i> ₂		12 18.6	42°78	1°2/18.9	17	201328	2002 <i>TO</i> ₁₄₄		12 18.6	64°23	5°4/18.9	18
11 17	6 24.88	+33 21.9	0.895	1.762	21.8	19.8	11 17	6 8.87	+ 6 18.1	2.190	3.010	12.4	19.8
11 27	6 16.29	+31 20.8	0.844	1.771	16.0	19.5	11 27	6 3.08	+ 6 6.3	2.138	3.028	9.6	19.7
12 7	6 3.42	+28 52.4	0.813	1.780	9.1	19.2	12 7	5 55.69	+ 6 6.5	2.110	3.046	7.0	19.6
12 17	5 48.41	+26 1.9	0.806	1.790	1.9	18.8	12 17	5 47.41	+ 6 20.1	2.109	3.064	5.4	19.5
12 27	5 34.07	+23 3.4	0.825	1.800	6.2	19.1	12 27	5 39.13	+ 6 46.9	2.138	3.082	6.2	19.6
1 6	5 22.75	+20 15.5	0.870	1.811	13.0	19.5	1 6	5 31.71	+ 7 25.5	2.195	3.100	8.4	19.7
1 16	5 15.77	+17 52.5	0.936	1.822	18.8	19.9	1 16	5 25.84	+ 8 13.4	2.277	3.118	11.0	19.9
1 26	5 13.51	+16 0.4	1.020	1.834	23.4	20.3	1 26	5 22.01	+ 9 7.8	2.383	3.136	13.3	20.1
14139	1998 <i>RX</i> ₇₂		12 18.6	30°40	5°5/18.4	18	384341	2009 <i>TC</i> ₉		12 18.6	15°87	0°3/18.5	18
11 17	6 8.81	+10 36.9	1.594	2.441	14.8	17.4	11 17	6 12.42	+24 18.4	1.104	1.979	17.9	20.1
11 27	6 3.47	+10 0.1	1.547	2.457	11.2	17.2	11 27	6 7.08	+23 51.6	1.051	1.982	12.9	19.9
12 7	5 56.03	+ 9 34.6	1.524	2.475	7.7	17.0	12 7	5 58.42	+23 21.3	1.018	1.987	7.2	19.6
12 17	5 47.43	+ 9 22.8	1.527	2.493	5.5	16.9	12 17	5 47.81	+22 47.5	1.010	1.994	1.0	19.2
12 27	5 38.89	+ 9 25.9	1.556	2.511	6.8	17.1	12 27	5 37.15	+22 12.3	1.026	2.001	5.3	19.5
1 6	5 31.52	+ 9 42.9	1.612	2.531	9.9	17.3	1 6	5 28.30	+21 39.1	1.067	2.009	11.0	19.8
1 16	5 26.21	+10 11.9	1.692	2.551	13.2	17.5	1 16	5 22.57	+21 11.6	1.130	2.018	16.0	20.2
1 26	5 23.49	+10 49.9	1.792	2.572	16.1	17.8	1 26	5 20.65	+20 52.0	1.211	2.029	20.1	20.5
487998	2015 <i>TD</i> ₃₄₅		12 18.6	313°31	5°9/18.1	18	211325	2002 <i>SC</i> ₆₃		12 18.6	265°69	0	

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12 18.6

12 18.6

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
135728	2002 <i>PN</i> ₁₁₇		12 18.6 172°36'	2°0'/18.9 18			227838	2007 <i>CE</i> ₆₃		12 18.6 303°61'	4°4'/18.5 18		
11 17	6 15.73	+30 38.6	2.132	2.965	12.2	20.0	11 17	6 11.85	+14 5.7	1.386	2.242	16.1	20.2
11 27	6 8.26	+30 24.1	2.059	2.968	8.9	19.8	11 27	6 6.46	+13 47.4	1.305	2.224	12.1	19.9
12 7	5 58.66	+30 1.4	2.011	2.970	5.3	19.6	12 7	5 58.15	+13 38.2	1.247	2.206	7.7	19.6
12 17	5 47.83	+29 29.4	1.992	2.972	2.1	19.4	12 17	5 47.83	+13 39.6	1.213	2.189	4.4	19.4
12 27	5 36.97	+28 48.5	2.004	2.973	3.9	19.5	12 27	5 36.98	+13 52.8	1.205	2.171	6.5	19.5
1 6	5 27.24	+28 1.6	2.045	2.974	7.5	19.8	1 6	5 27.18	+14 17.4	1.223	2.154	11.2	19.7
1 16	5 19.54	+27 12.4	2.114	2.974	10.9	20.0	1 16	5 19.82	+14 52.0	1.265	2.138	15.8	19.9
1 26	5 14.48	+26 25.0	2.207	2.974	13.8	20.2	1 26	5 15.83	+15 34.6	1.325	2.122	19.9	20.1
245913	2006 <i>QR</i> ₁₄₆		12 18.6 177°88'	0°8'/18.6 18			432691	2011 <i>BQ</i> ₇₅		12 18.6 222°09'	3°8'/19.1 18		
11 17	6 13.69	+25 47.8	2.241	3.078	11.5	21.9	11 17	6 13.35	+37 24.1	2.823	3.636	10.1	21.7
11 27	6 6.76	+25 55.0	2.167	3.080	8.3	21.7	11 27	6 6.39	+37 34.7	2.737	3.627	7.7	21.5
12 7	5 57.84	+25 59.4	2.118	3.081	4.6	21.5	12 7	5 57.60	+37 35.7	2.678	3.618	5.4	21.4
12 17	5 47.73	+25 59.3	2.099	3.082	1.0	21.2	12 17	5 47.72	+37 24.7	2.647	3.609	3.8	21.3
12 27	5 37.47	+25 54.5	2.111	3.082	3.4	21.4	12 27	5 37.70	+37 0.9	2.647	3.599	4.5	21.3
1 6	5 28.13	+25 45.5	2.152	3.082	7.1	21.6	1 6	5 28.50	+36 26.0	2.677	3.589	6.8	21.4
1 16	5 20.58	+25 34.3	2.222	3.081	10.5	21.8	1 16	5 20.92	+35 42.8	2.735	3.579	9.3	21.6
1 26	5 15.43	+25 23.1	2.314	3.080	13.3	22.0	1 26	5 15.56	+34 55.4	2.818	3.568	11.5	21.7
108644	2001 <i>NT</i> ₁₀		12 18.6 148°06'	1°8'/18.9 18			56255	1999 <i>JV</i> ₈₁		12 18.6 184°00'	0°4'/18.6 18		
11 17	6 15.25	+30 7.5	2.214	3.047	11.8	20.0	11 17	6 12.34	+23 35.7	2.493	3.328	10.5	19.9
11 27	6 7.80	+29 52.2	2.145	3.054	8.6	19.8	11 27	6 5.68	+23 57.6	2.416	3.329	7.6	19.7
12 7	5 58.35	+29 29.6	2.102	3.062	5.0	19.6	12 7	5 57.23	+24 19.0	2.365	3.328	4.2	19.5
12 17	5 47.79	+28 58.5	2.088	3.069	1.9	19.4	12 17	5 47.68	+24 38.3	2.344	3.328	0.7	19.2
12 27	5 37.25	+28 19.6	2.105	3.075	3.7	19.5	12 27	5 37.94	+24 54.4	2.355	3.327	3.1	19.4
1 6	5 27.80	+27 35.6	2.153	3.081	7.2	19.7	1 6	5 28.94	+25 7.2	2.396	3.325	6.6	19.6
1 16	5 20.32	+26 49.9	2.228	3.087	10.5	20.0	1 16	5 21.50	+25 17.3	2.465	3.323	9.7	19.8
1 26	5 15.34	+26 6.0	2.326	3.092	13.3	20.2	1 26	5 16.19	+25 26.1	2.559	3.320	12.3	20.0
198175	2004 <i>TG</i> ₁₀₃		12 18.6 275°56'	1°1'/18.5 18			324208	2006 <i>AS</i> ₁₀₃		12 18.6 167°90'	4°1'/18.3 17		
11 17	6 13.37	+21 40.8	1.629	2.481	14.3	19.9	11 17	6 8.62	+10 2.3	2.567	3.390	10.7	22.0
11 27	6 7.05	+21 21.3	1.557	2.478	10.3	19.7	11 27	6 2.83	+9 35.3	2.496	3.393	8.1	21.8
12 7	5 58.20	+21 1.4	1.510	2.475	5.8	19.4	12 7	5 55.57	+9 15.5	2.451	3.395	5.6	21.7
12 17	5 47.79	+20 41.1	1.489	2.472	1.3	19.1	12 17	5 47.45	+9 4.5	2.435	3.397	4.1	21.6
12 27	5 37.19	+20 21.3	1.497	2.470	4.4	19.3	12 27	5 39.24	+9 3.1	2.449	3.399	5.1	21.6
1 6	5 27.78	+20 3.7	1.533	2.467	9.1	19.6	1 6	5 31.71	+9 11.4	2.493	3.401	7.4	21.8
1 16	5 20.66	+19 50.2	1.594	2.464	13.3	19.8	1 16	5 25.51	+9 28.5	2.563	3.402	10.0	21.9
1 26	5 16.53	+19 42.2	1.675	2.461	16.8	20.1	1 26	5 21.14	+9 53.1	2.657	3.403	12.3	22.1
441249	2007 <i>VW</i> ₂₅₂		12 18.6 23°13'	3°4'/18.6 17			56300	1999 <i>RB</i> ₆₀		12 18.6 152°39'	5°0'/19.3 18		
11 17	6 9.87	+16 10.1	1.141	2.013	17.7	20.3	11 17	6 16.92	+41 14.6	2.661	3.461	11.0	20.1
11 27	6 4.93	+16 1.4	1.098	2.027	12.9	20.1	11 27	6 8.99	+41 36.0	2.593	3.469	8.7	20.0
12 7	5 57.10	+16 1.6	1.077	2.042	7.7	19.9	12 7	5 59.03	+41 44.9	2.551	3.477	6.5	19.8
12 17	5 47.63	+16 11.1	1.079	2.059	3.5	19.7	12 17	5 47.93	+41 38.0	2.537	3.485	5.1	19.8
12 27	5 38.20	+16 29.4	1.106	2.077	6.0	19.9	12 27	5 36.80	+41 14.6	2.553	3.492	5.6	19.8
1 6	5 30.40	+16 55.2	1.158	2.096	10.8	20.2	1 6	5 26.75	+40 36.5	2.599	3.499	7.6	19.9
1 16	5 25.38	+17 26.9	1.232	2.117	15.3	20.5	1 16	5 18.66	+39 47.7	2.672	3.504	9.8	20.1
1 26	5 23.74	+18 2.7	1.325	2.139	18.9	20.8	1 26	5 13.09	+38 53.2	2.769	3.510	11.9	20.3
190950	2001 <i>VM</i> ₆₂		12 18.6 91°68'	2°9'/18.7 18			329668	2003 <i>TM</i> ₅₆		12 18.6 305°10'	3°0'/18.5 18		
11 17	6 18.09	+29 43.3	1.592	2.437	15.0	20.5	11 17	6 12.39	+30 39.2	2.196	3.033	11.7	20.9
11 27	6 10.44	+30 14.1	1.541	2.455	10.9	20.3	11 27	6 6.08	+31 23.9	2.121	3.031	8.6	20.7
12 7	6 0.03	+30 37.8	1.513	2.474	6.5	20.1	12 7	5 57.61	+32 3.9	2.072	3.029	5.4	20.5
12 17	5 48.04	+30 50.5	1.513	2.491	3.1	19.9	12 17	5 47.75	+32 35.5	2.051	3.027	3.1	20.4
12 27	5 36.07	+30 50.6	1.541	2.509	5.0	20.1	12 27	5 37.62	+32 56.4	2.061	3.024	4.5	20.5
1 6	5 25.67	+30 39.7	1.597	2.526	9.2	20.3	1 6	5 28.36	+33 6.6	2.099	3.022	7.7	20.7
1 16	5 17.95	+30 21.8	1.678	2.543	13.0	20.6	1 16	5 20.95	+33 7.7	2.164	3.020	10.9	20.9
1 26	5 13.56	+30 1.3	1.780	2.560	16.2	20.9	1 26	5 16.10	+33 3.0	2.252	3.018	13.6	21.0
356744	2011 <i>UG</i> ₂₀₉		12 18.6 303°22'	5°1'/18.6 17			302662	2002 <i>SW</i> ₄		12 18.6 10°58'	8°4'/18.2 18		
11 17	6 14.79	+34 32.0	1.643	2.485	14.7	20.7	11 17	6 6.83	+8 0.7	1.155	2.018	18.2	19.3
11 27	6 8.67	+35 12.4	1.557	2.466	11.3	20.4	11 27	6 2.74	+6 56.7	1.108	2.022	14.3	19.1
12 7	5 59.42	+35 43.5	1.494	2.446	7.6	20.2	12 7	5 55.93	+6 10.0	1.080	2.028	10.5	18.9
12 17	5 48.01	+35 59.4	1.457	2.427	5.1	20.0	12 17	5 47.51	+5 46.0	1.076	2.035	8.5	18.8
12 27	5 36.01	+35 56.7	1.448	2.408	6.6	20.0	12 27	5 39.03	+5 47.6	1.094	2.045	9.7	18.9
1 6	5 25.18	+35 36.2	1.465	2.389	10.3	20.2	1 6	5 31.97	+6 13.6	1.136	2.055	13.1	19.1
1 16	5 16.97	+35 2.5	1.507	2.371	14.3	20.4	1 16	5 27.45	+6 59.5	1.198	2.068	16.8	19.4
1 26	5 12.35	+34 21.8	1.568	2.352	17.8	20.6	1 26	5 26.14	+7 59.6	1.279	2.082	20.1	19.6
172088	2002 <i>CB</i> ₂₁₁		12 18.6 349°49'	2°7'/18.7 18			368055	2012 <i>HF</i> ₄₅		12 18.6 258°10'	0°6'/18.6 18		
11 17	6 15.03	+28 0.5	1.139	2.008	18.0	20.0	11 17	6 10.16	+21 24.0	2.231	3.074	11.3	21.3
11 27	6 9.29	+28 24.1	1.077	2.004	13.2	19.7	11 27	6 4.28	+21 25.4	2.152	3.069	8.1	21.1
12 7	5 59.87	+28 42.2	1.035	2.001	7.7	19.4	12 7	5 56.52	+21 27.4	2.099	3.063	4.5	20.8
12 17	5 48.06	+28 50.1	1.017	1.999	2.9	19.1	12 17	5 47.60	+21 29.6	2.074	3.057	0.9	20.6
12 27	5 35.88	+28 45.5	1.025	1.997	5.9	19.3	12 27	5 38.48	+21 31.5	2.080	3.052	3.4	20.7
1 6	5 25.46	+28 30.2	1.056	1.996	11.5	19.6	1 6	5 30.15	+21 33.5	2.114	3.046	7.1	21.0
1 16	5 18.38	+28 8.9	1.110	1.995	16.6	19.9	1 16	5 23.45	+21 36.3	2.176	3.040	10.5	21.2
1 26	5 15.51	+27 46.8	1.181	1.995	20.8	20.2	1 26	5 18.99	+21 40.9	2.261	3.034	13.4	21.4
375133	2007 <i>WS</i> ₄₉		12 18.6 64°41'	0°7'/18.6 17			227099	2005 <i>MR</i> ₄₉		12 18.6 52°89'	1°1'/18.6		

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
287997	2003 <i>UT</i> ₁₉₀		12 18.6	68°67'	1°1/18.6	18	519006	2010 <i>JX</i> ₉₄		12 18.6	218°44'	2°3/18.4	18
11 17	6 16.63	+25 6.7	1.580	2.430	14.8	20.8	11 17	6 15.31	+27 33.2	2.054	2.891	12.4	21.6
11 27	6 9.19	+25 29.3	1.538	2.457	10.6	20.7	11 27	6 8.35	+28 27.4	1.974	2.886	9.0	21.4
12 7	5 59.24	+25 49.2	1.520	2.485	5.9	20.5	12 7	5 58.98	+29 19.8	1.921	2.881	5.4	21.2
12 17	5 47.96	+26 3.6	1.529	2.512	1.3	20.2	12 17	5 48.01	+30 6.1	1.896	2.875	2.4	20.9
12 27	5 36.82	+26 11.5	1.567	2.539	4.2	20.5	12 27	5 36.64	+30 43.1	1.902	2.869	4.3	21.1
1 6	5 27.23	+26 13.7	1.633	2.566	8.7	20.8	1 6	5 26.15	+31 9.8	1.937	2.863	8.1	21.3
1 16	5 20.16	+26 12.5	1.724	2.593	12.5	21.1	1 16	5 17.64	+31 27.3	1.999	2.856	11.6	21.5
1 26	5 16.18	+26 10.3	1.837	2.620	15.6	21.4	1 26	5 11.89	+31 38.4	2.084	2.849	14.6	21.7
361196	2006 <i>RX</i> ₁₇		12 18.6	26°17'	7°9/17.5	17	454663	2014 <i>QT</i> ₃₃₇		12 18.6	262°90'	3°3/19.1	17
11 17	6 9.92	+ 8 12.1	1.456	2.301	16.1	19.9	11 17	6 14.92	+33 46.2	1.969	2.804	13.0	20.9
11 27	6 4.46	+ 6 44.0	1.407	2.310	12.6	19.7	11 27	6 8.01	+33 41.9	1.893	2.799	9.7	20.7
12 7	5 56.69	+ 5 28.8	1.379	2.320	9.4	19.5	12 7	5 58.70	+33 27.0	1.841	2.795	6.2	20.4
12 17	5 47.62	+ 4 32.3	1.377	2.330	7.9	19.5	12 17	5 47.95	+32 59.1	1.816	2.791	3.4	20.3
12 27	5 38.56	+ 3 58.7	1.401	2.341	9.1	19.6	12 27	5 37.09	+32 18.1	1.821	2.787	4.8	20.3
1 6	5 30.77	+ 3 48.7	1.450	2.353	12.1	19.8	1 6	5 27.41	+31 27.1	1.855	2.782	8.3	20.5
1 16	5 25.19	+ 4 0.1	1.521	2.366	15.3	20.0	1 16	5 19.96	+30 30.7	1.915	2.778	11.8	20.7
1 26	5 22.43	+ 4 28.8	1.611	2.379	18.1	20.3	1 26	5 15.39	+29 34.0	1.998	2.774	14.8	20.9
53360	1999 <i>JU</i> ₇₅		12 18.6	264°60'	3°7/18.9	18	272344	2005 <i>SA</i> ₁₂₇		12 18.6	264°18'	1°5/18.6	18
11 17	6 14.38	+33 43.4	2.025	2.859	12.7	18.4	11 17	6 15.66	+26 27.4	1.611	2.461	14.6	21.0
11 27	6 7.71	+34 2.2	1.943	2.849	9.5	18.1	11 27	6 9.08	+26 42.9	1.527	2.446	10.7	20.7
12 7	5 58.59	+34 12.2	1.885	2.838	6.2	17.9	12 7	5 59.58	+26 55.1	1.468	2.432	6.1	20.4
12 17	5 47.91	+34 9.7	1.855	2.827	3.8	17.8	12 17	5 48.11	+27 1.1	1.435	2.417	1.7	20.1
12 27	5 36.95	+33 53.4	1.854	2.816	5.1	17.8	12 27	5 36.16	+26 59.2	1.430	2.402	4.6	20.3
1 6	5 27.03	+33 25.0	1.882	2.806	8.4	18.0	1 6	5 25.33	+26 50.3	1.453	2.387	9.5	20.5
1 16	5 19.25	+32 48.0	1.936	2.795	11.8	18.2	1 16	5 16.96	+26 37.1	1.501	2.371	14.0	20.8
1 26	5 14.35	+32 7.4	2.012	2.783	14.8	18.4	1 26	5 11.95	+26 23.3	1.570	2.355	17.7	21.0
49294	1998 <i>VG</i> ₂		12 18.6	54°35'	2°5/18.7	18	139394	2001 <i>NU</i> ₁₂		12 18.6	92°97'	1°2/18.7	18
11 17	6 19.65	+27 55.8	1.161	2.022	18.2	18.2	11 17	6 13.66	+27 17.2	1.850	2.696	13.2	19.7
11 27	6 11.88	+28 21.1	1.130	2.053	13.1	18.0	11 27	6 7.05	+27 13.1	1.783	2.700	9.5	19.4
12 7	6 0.85	+28 39.3	1.120	2.085	7.5	17.8	12 7	5 58.13	+27 4.0	1.741	2.705	5.4	19.2
12 17	5 48.18	+28 46.3	1.135	2.117	2.7	17.6	12 17	5 47.87	+26 48.5	1.727	2.710	1.4	18.9
12 27	5 35.91	+28 41.2	1.177	2.149	5.4	17.9	12 27	5 37.53	+26 26.8	1.742	2.714	3.9	19.1
1 6	5 25.85	+28 27.0	1.244	2.181	10.4	18.2	1 6	5 28.37	+26 0.8	1.786	2.719	8.1	19.4
1 16	5 19.16	+28 8.2	1.335	2.213	14.8	18.6	1 16	5 21.36	+25 33.5	1.856	2.723	11.8	19.6
1 26	5 16.31	+27 49.3	1.445	2.245	18.3	18.9	1 26	5 17.13	+25 7.8	1.948	2.728	15.0	19.9
101770	1999 <i>FL</i> ₅₆		12 18.6	309°54'	0°8/18.6	18	270762	2002 <i>RZ</i> ₁₂₄		12 18.6	105°24'	1°1/18.5	18
11 17	6 9.91	+24 57.3	2.184	3.029	11.5	19.5	11 17	6 16.81	+22 12.3	1.524	2.374	15.2	20.8
11 27	6 4.25	+25 17.1	2.102	3.019	8.3	19.3	11 27	6 9.44	+21 46.5	1.468	2.388	10.9	20.6
12 7	5 56.58	+25 35.8	2.045	3.010	4.7	19.0	12 7	5 59.47	+21 19.5	1.436	2.401	6.1	20.4
12 17	5 47.63	+25 51.5	2.017	3.000	1.0	18.8	12 17	5 48.05	+20 51.7	1.431	2.414	1.3	20.1
12 27	5 38.42	+26 3.2	2.019	2.991	3.5	18.9	12 27	5 36.69	+20 24.4	1.455	2.427	4.5	20.3
1 6	5 29.99	+26 10.7	2.050	2.982	7.3	19.2	1 6	5 26.82	+19 59.9	1.507	2.440	9.3	20.6
1 16	5 23.25	+26 15.1	2.107	2.973	10.7	19.4	1 16	5 19.51	+19 40.4	1.583	2.452	13.5	20.9
1 26	5 18.86	+26 18.0	2.188	2.965	13.6	19.5	1 26	5 15.35	+19 27.5	1.681	2.463	16.9	21.2
272060	2005 <i>ED</i> ₁₈₆		12 18.6	292°58'	6°3/18.0	18	167336	2003 <i>UA</i> ₂₈₉		12 18.6	107°19'	0°8/18.6	18
11 17	6 7.47	+ 4 44.3	2.293	3.108	12.0	20.9	11 17	6 15.66	+25 18.1	1.918	2.759	13.0	21.3
11 27	6 2.23	+ 4 1.6	2.216	3.099	9.7	20.7	11 27	6 8.28	+25 28.8	1.863	2.778	9.3	21.1
12 7	5 55.35	+ 3 30.2	2.165	3.090	7.5	20.6	12 7	5 58.73	+25 36.7	1.833	2.796	5.2	20.9
12 17	5 47.47	+ 3 13.0	2.140	3.082	6.3	20.5	12 17	5 47.97	+25 40.1	1.831	2.814	1.1	20.6
12 27	5 39.41	+ 3 11.7	2.143	3.074	7.1	20.5	12 27	5 37.22	+25 38.3	1.860	2.832	3.7	20.9
1 6	5 32.02	+ 3 26.3	2.174	3.065	9.2	20.6	1 6	5 27.69	+25 32.3	1.917	2.848	7.7	21.1
1 16	5 26.05	+ 3 55.3	2.230	3.057	11.7	20.8	1 16	5 20.29	+25 24.2	2.002	2.865	11.3	21.4
1 26	5 22.05	+ 4 35.9	2.308	3.049	14.0	20.9	1 26	5 15.59	+25 16.3	2.109	2.881	14.2	21.6
174055	2002 <i>CE</i> ₇₅		12 18.6	172°83'	1°3/18.6	18	273588	2007 <i>CO</i> ₄₆		12 18.6	216°98'	3°5/18.9	18
11 17	6 18.39	+26 11.6	1.675	2.519	14.4	20.8	11 17	6 17.76	+32 23.3	1.743	2.581	14.2	20.7
11 27	6 10.71	+26 25.9	1.606	2.522	10.5	20.6	11 27	6 10.39	+32 38.9	1.666	2.576	10.6	20.4
12 7	6 0.28	+26 36.7	1.561	2.525	5.9	20.3	12 7	6 0.19	+32 45.1	1.614	2.570	6.7	20.2
12 17	5 48.16	+26 41.0	1.544	2.527	1.5	20.1	12 17	5 48.19	+32 38.2	1.588	2.564	3.6	20.0
12 27	5 35.84	+26 37.8	1.556	2.528	4.4	20.3	12 27	5 35.93	+32 16.8	1.592	2.558	5.3	20.1
1 6	5 24.84	+26 28.2	1.597	2.529	9.0	20.5	1 6	5 24.97	+31 43.1	1.624	2.551	9.2	20.3
1 16	5 16.33	+26 15.1	1.664	2.529	13.1	20.8	1 16	5 16.55	+31 1.8	1.681	2.544	13.1	20.5
1 26	5 11.05	+26 1.9	1.752	2.528	16.6	21.0	1 26	5 11.44	+30 18.6	1.760	2.537	16.5	20.7
246387	2007 <i>UF</i> ₂₄		12 18.6	76°85'	1°4/18.6	18	418803	2008 <i>VG</i> ₁₈		12 18.6	270°05'	7°9/17.2	16
11 17	6 14.66	+25 34.9	1.697	2.546	14.0	20.7	11 17	6 20.04	+45 52.5	2.514	3.297	12.0	21.1
11 27	6 7.93	+26 8.3	1.638	2.557	10.1	20.5	11 27	6 12.23	+47 32.1	2.430	3.281	10.1	21.0
12 7	5 58.68	+26 39.6	1.603	2.568	5.7	20.2	12 7	6 1.43	+48 59.8	2.372	3.266	8.5	20.8
12 17	5 47.94	+27 5.7	1.596	2.579	1.6	20.0	12 17	5 48.41	+50 8.0	2.341	3.250	7.9	20.8
12 27	5 37.06	+27 24.5	1.618	2.590	4.3	20.2	12 27	5 34.52	+50 51.6	2.339	3.233	8.5	20.8
1 6	5 27.44	+27 36.1	1.668	2.601	8.6	20.5	1 6	5 21.36	+51 9.8	2.364	3.217	10.2	20.9
1 16	5 20.15	+27 42.1	1.744	2.612	12.4	20.7	1 16	5 10.39	+51 5.8	2.413	3.200	12.2	21.0
1 26	5 15.87	+27 45.3	1.841	2.623	15.6	21.0	1 26	5 2.65	+50 45.6	2.484	3.184	14.1	21.1
319457	2006 <i>LM</i> ₃		12 18.6	196°36'	4°7/18.0	18	337069	1998 <i>FX</i> ₁₃₄		12 18.6			

EPHEMERIDES

12 18.6

12 18.6

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
459917	2014 <i>ML</i> ₃₈		12 18.6 50°35'	2.4/18.6	16		515042	2010 <i>CU</i> ₆₂		12 18.6 245°24'	0.9/18.6	18	
11 17	6 11.73	+16 29.9	1.748	2.595	13.7	21.2	11 17	6 13.87	+20 55.1	1.817	2.663	13.4	22.1
11 27	6 5.46	+16 30.9	1.704	2.621	9.9	21.0	11 27	6 7.39	+20 57.2	1.734	2.652	9.7	21.8
12 7	5 57.15	+16 37.6	1.685	2.647	5.8	20.8	12 7	5 58.49	+21 0.8	1.676	2.641	5.5	21.6
12 17	5 47.76	+16 49.5	1.693	2.673	2.5	20.7	12 17	5 48.00	+21 4.8	1.646	2.630	1.1	21.2
12 27	5 38.45	+17 6.1	1.730	2.699	4.4	20.8	12 27	5 37.15	+21 8.8	1.646	2.618	4.1	21.4
1 6	5 30.34	+17 26.7	1.795	2.726	8.2	21.1	1 6	5 27.27	+21 13.1	1.674	2.606	8.6	21.7
1 16	5 24.28	+17 50.7	1.886	2.752	11.7	21.4	1 16	5 19.44	+21 18.5	1.727	2.593	12.6	21.9
1 26	5 20.78	+18 17.5	1.999	2.779	14.6	21.6	1 26	5 14.43	+21 26.3	1.803	2.581	16.1	22.1
42580	1997 <i>CX</i> ₂₂		12 18.6 348°97'	0.2/18.6	18		437979	2003 <i>SG</i> ₄₃		12 18.6 71°44'	6.6/18.6	15	
11 17	6 12.78	+23 41.0	1.508	2.366	15.0	19.0	11 17	6 14.23	+7 22.0	1.611	2.441	15.6	21.5
11 27	6 6.90	+23 45.8	1.439	2.363	10.8	18.7	11 27	6 7.19	+6 40.4	1.574	2.471	12.0	21.4
12 7	5 58.28	+23 49.7	1.394	2.361	6.0	18.5	12 7	5 58.07	+6 13.3	1.561	2.500	8.6	21.2
12 17	5 47.94	+23 51.1	1.375	2.359	0.9	18.1	12 17	5 47.90	+6 3.4	1.574	2.530	6.7	21.2
12 27	5 37.35	+23 49.2	1.384	2.357	4.4	18.4	12 27	5 37.92	+6 11.3	1.614	2.559	7.7	21.3
1 6	5 28.03	+23 44.9	1.419	2.356	9.3	18.6	1 6	5 29.30	+6 35.6	1.681	2.588	10.5	21.6
1 16	5 21.16	+23 40.2	1.479	2.355	13.7	18.9	1 16	5 22.86	+7 13.2	1.773	2.617	13.5	21.8
1 26	5 17.51	+23 37.2	1.559	2.355	17.4	19.1	1 26	5 19.11	+8 0.3	1.886	2.645	16.1	22.1
228918	2003 <i>SM</i> ₂₂₅		12 18.6 59°31'	4.9/18.3	18		129072	2004 <i>VD</i> ₅₇		12 18.6 102°01'	2.5/18.8	18	
11 17	6 8.90	+9 55.0	2.085	2.916	12.4	19.9	11 17	6 11.57	+13 47.9	2.232	3.064	11.7	19.8
11 27	6 3.27	+9 20.2	2.026	2.927	9.5	19.7	11 27	6 5.15	+14 10.2	2.169	3.076	8.6	19.6
12 7	5 55.92	+8 54.5	1.992	2.937	6.6	19.5	12 7	5 56.98	+14 39.7	2.132	3.089	5.2	19.4
12 17	5 47.59	+8 39.9	1.986	2.948	4.9	19.5	12 17	5 47.76	+15 15.5	2.124	3.101	2.6	19.3
12 27	5 39.23	+8 37.4	2.008	2.959	5.9	19.5	12 27	5 38.45	+15 56.4	2.147	3.113	4.1	19.4
1 6	5 31.75	+8 47.1	2.059	2.970	8.6	19.7	1 6	5 29.97	+16 40.6	2.199	3.125	7.3	19.6
1 16	5 25.90	+9 7.5	2.135	2.980	11.4	19.9	1 16	5 23.11	+17 26.8	2.280	3.137	10.4	19.8
1 26	5 22.19	+9 36.8	2.233	2.992	13.9	20.1	1 26	5 18.41	+18 13.9	2.384	3.148	13.0	20.0
459354	2012 <i>HO</i> ₆₉		12 18.6 105°46'	2.8/18.3	17		424226	2007 <i>RR</i> ₁₄₁		12 18.6 66°93'	1.4/18.7	18	
11 17	6 13.95	+29 22.2	2.310	3.143	11.3	21.2	11 17	6 19.53	+26 10.4	1.139	2.003	18.4	21.0
11 27	6 7.11	+30 25.0	2.242	3.150	8.3	21.0	11 27	6 12.00	+26 22.0	1.099	2.024	13.2	20.8
12 7	5 58.18	+31 24.4	2.200	3.157	5.1	20.8	12 7	6 1.08	+26 28.9	1.080	2.046	7.4	20.6
12 17	5 47.93	+32 16.3	2.188	3.164	2.8	20.7	12 17	5 48.32	+26 27.8	1.085	2.068	1.8	20.3
12 27	5 37.40	+32 57.7	2.207	3.170	4.3	20.8	12 27	5 35.79	+26 18.2	1.117	2.090	5.3	20.6
1 6	5 27.72	+33 27.8	2.256	3.177	7.4	21.0	1 6	5 25.39	+26 2.5	1.174	2.112	10.7	20.9
1 16	5 19.82	+33 47.7	2.332	3.183	10.4	21.2	1 16	5 18.36	+25 45.0	1.254	2.134	15.4	21.3
1 26	5 14.39	+34 0.2	2.431	3.189	13.0	21.4	1 26	5 15.30	+25 29.5	1.353	2.156	19.2	21.6
77185	Cherryh		12 18.6 211°34'	1.5/18.7	18		320023	2007 <i>DT</i> ₇₅		12 18.6 199°77'	0.7/18.6	17	
11 17	6 14.39	+27 27.5	2.184	3.021	11.8	20.7	11 17	6 11.54	+25 17.3	2.211	3.052	11.5	21.3
11 27	6 7.47	+27 41.0	2.103	3.015	8.6	20.5	11 27	6 5.33	+25 26.1	2.136	3.051	8.3	21.0
12 7	5 58.39	+27 50.8	2.047	3.008	4.9	20.3	12 7	5 57.16	+25 32.7	2.086	3.050	4.6	20.8
12 17	5 47.96	+27 54.5	2.020	3.001	1.6	20.0	12 17	5 47.80	+25 35.7	2.066	3.049	1.0	20.5
12 27	5 37.28	+27 51.2	2.023	2.994	3.7	20.2	12 27	5 38.26	+25 34.6	2.076	3.048	3.4	20.7
1 6	5 27.51	+27 41.8	2.057	2.986	7.5	20.4	1 6	5 29.60	+25 29.8	2.115	3.046	7.1	21.0
1 16	5 19.59	+27 28.3	2.117	2.977	10.9	20.6	1 16	5 22.67	+25 23.1	2.181	3.045	10.5	21.2
1 26	5 14.21	+27 13.6	2.201	2.968	13.9	20.8	1 26	5 18.10	+25 16.2	2.270	3.043	13.3	21.4
180056	2003 <i>BO</i> ₃₉		12 18.6 184°88'	2.6/18.9	18		50753	2000 <i>EO</i> ₁₇₇		12 18.6 175°41'	4.8/18.1	18	
11 17	6 14.55	+32 12.9	2.330	3.159	11.4	20.6	11 17	6 10.99	+9 56.3	2.271	3.095	11.8	19.3
11 27	6 7.41	+32 11.9	2.253	3.159	8.4	20.4	11 27	6 4.70	+9 13.3	2.201	3.097	9.1	19.1
12 7	5 58.26	+32 2.8	2.203	3.159	5.2	20.2	12 7	5 56.71	+8 37.9	2.156	3.099	6.3	18.9
12 17	5 47.93	+31 43.8	2.181	3.158	2.7	20.1	12 17	5 47.73	+8 12.5	2.140	3.100	4.8	18.8
12 27	5 37.51	+31 14.8	2.191	3.157	4.0	20.2	12 27	5 38.65	+7 58.6	2.153	3.101	5.9	18.9
1 6	5 28.08	+30 37.7	2.230	3.155	7.2	20.4	1 6	5 30.36	+7 56.7	2.196	3.101	8.4	19.0
1 16	5 20.53	+29 56.0	2.296	3.153	10.3	20.6	1 16	5 23.62	+8 6.2	2.264	3.101	11.2	19.2
1 26	5 15.43	+29 13.5	2.387	3.151	13.0	20.7	1 26	5 18.97	+8 25.5	2.356	3.100	13.7	19.4
329444	2002 <i>PC</i> ₆₆		12 18.6 133°43'	3.0/18.6	18		414284	2008 <i>ML</i> ₅		12 18.6 77°91'	5.2/19.2	18	
11 17	6 16.20	+15 28.7	1.710	2.550	14.4	21.7	11 17	6 10.38	+5 46.9	2.237	3.051	12.3	20.1
11 27	6 8.82	+15 21.1	1.651	2.563	10.5	21.5	11 27	6 4.18	+5 50.1	2.184	3.071	9.6	20.0
12 7	5 59.11	+15 19.8	1.616	2.575	6.3	21.3	12 7	5 56.37	+6 6.0	2.155	3.090	6.9	19.8
12 17	5 48.05	+15 25.0	1.609	2.587	3.1	21.1	12 17	5 47.68	+6 35.1	2.155	3.110	5.3	19.8
12 27	5 36.94	+15 36.5	1.632	2.599	5.0	21.3	12 27	5 38.97	+7 16.7	2.184	3.129	6.0	19.8
1 6	5 27.05	+15 53.8	1.683	2.609	9.0	21.5	1 6	5 31.12	+8 8.7	2.242	3.148	8.2	20.0
1 16	5 19.38	+16 16.5	1.760	2.619	12.8	21.8	1 16	5 24.82	+9 8.4	2.327	3.167	10.8	20.2
1 26	5 14.55	+16 43.7	1.858	2.628	16.0	22.0	1 26	5 20.57	+10 13.0	2.435	3.186	13.1	20.4
15596	2000 <i>GZ</i> ₉₅		12 18.6 158°34'	0.9/18.7	18		302717	2002 <i>TE</i> ₂₇₆		12 18.6 125°28'	0.3/18.6	18	
11 17	6 16.43	+25 47.6	1.968	2.807	12.8	18.5	11 17	6 14.01	+23 5.0	2.151	2.990	11.9	20.6
11 27	6 8.92	+25 53.1	1.900	2.814	9.2	18.3	11 27	6 6.92	+22 57.3	2.090	3.005	8.5	20.4
12 7	5 59.16	+25 55.2	1.857	2.821	5.2	18.0	12 7	5 57.94	+22 48.3	2.055	3.019	4.7	20.2
12 17	5 48.06	+25 52.2	1.843	2.826	1.1	17.8	12 17	5 47.90	+22 37.4	2.049	3.033	0.7	19.9
12 27	5 36.86	+25 43.7	1.860	2.832	3.8	18.0	12 27	5 37.86	+22 25.0	2.074	3.046	3.4	20.1
1 6	5 26.78	+25 30.9	1.906	2.836	7.8	18.2	1 6	5 28.86	+22 12.0	2.129	3.059	7.2	20.4
1 16	5 18.82	+25 16.1	1.979	2.840	11.5	18.5	1 16	5 21.70	+22 0.1	2.211	3.072	10.5	20.6
1 26	5 13.59	+25 1.9	2.075	2.843	14.5	18.7	1 26	5 16.92	+21 50.7	2.317	3.083	13.3	20.8
439519	2014 <i>BD</i> ₄₂		12 18.6 261°98'	4.2/18.9	18		67111	2000 <i>AL</i> ₁₀₁		12 18.6 50°53'	3.4/18.5	18	
11 17													

EPHEMERIDES

12 18.6

12 18.6

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
183800	2004 <i>BM</i> ₄₀		12 18.6 309°68	3°4/18.7	18		295524	2008 <i>RY</i> ₁₁₆		12 18.6 31°36	2°5/18.7	16	
11 17	6 13.57	+15 3.6	1.374	2.229	16.3	19.8	11 17	6 11.35	+29 48.8	1.951	2.796	12.6	20.7
11 27	6 7.63	+15 5.3	1.304	2.224	12.1	19.5	11 27	6 5.40	+30 11.9	1.890	2.805	9.2	20.5
12 7	5 58.79	+15 16.3	1.257	2.218	7.3	19.3	12 7	5 57.27	+30 29.2	1.854	2.814	5.5	20.3
12 17	5 48.06	+15 36.9	1.235	2.213	3.6	19.0	12 17	5 47.85	+30 38.3	1.845	2.824	2.6	20.2
12 27	5 36.95	+16 6.2	1.240	2.209	5.8	19.1	12 27	5 38.33	+30 37.9	1.865	2.834	4.3	20.3
1 6	5 27.08	+16 42.5	1.271	2.204	10.6	19.4	1 6	5 29.90	+30 29.0	1.914	2.844	7.8	20.5
1 16	5 19.74	+17 24.3	1.325	2.200	15.2	19.7	1 16	5 23.51	+30 14.3	1.988	2.855	11.2	20.8
1 26	5 15.79	+18 10.0	1.400	2.196	19.0	19.9	1 26	5 19.77	+29 56.8	2.085	2.866	14.1	21.0
421106	2013 <i>QX</i> ₆₈		12 18.6 168°47	2°9/18.9	18		290108	2005 <i>QO</i> ₁₁₇		12 18.6 270°53	2°1/18.6	18	
11 17	6 12.24	+33 11.1	2.492	3.321	10.8	21.2	11 17	6 11.07	+17 31.0	1.943	2.787	12.7	21.1
11 27	6 5.71	+33 20.8	2.419	3.322	8.0	21.0	11 27	6 5.15	+17 25.2	1.868	2.784	9.2	20.9
12 7	5 57.32	+33 22.9	2.371	3.324	5.1	20.8	12 7	5 57.14	+17 23.5	1.818	2.780	5.4	20.7
12 17	5 47.83	+33 15.3	2.351	3.325	3.0	20.7	12 17	5 47.84	+17 25.8	1.795	2.776	2.2	20.4
12 27	5 38.24	+32 57.5	2.362	3.326	4.1	20.7	12 27	5 38.32	+17 32.3	1.803	2.772	4.3	20.6
1 6	5 29.55	+32 31.0	2.403	3.326	6.9	20.9	1 6	5 29.71	+17 42.9	1.838	2.768	8.1	20.8
1 16	5 22.57	+31 58.5	2.472	3.327	9.7	21.1	1 16	5 22.91	+17 57.6	1.900	2.764	11.8	21.0
1 26	5 17.87	+31 23.4	2.564	3.327	12.2	21.3	1 26	5 18.60	+18 16.2	1.984	2.760	14.9	21.2
30529	2001 <i>NE</i> ₁₈		12 18.6 10°79	0°6/18.7	18		505662	2014 <i>TL</i> ₄₄		12 18.6 357°50	3°5/18.3	16	
11 17	6 11.47	+27 15.1	2.185	3.027	11.6	17.6	11 17	6 8.36	+15 12.1	1.852	2.701	13.0	20.6
11 27	6 5.20	+26 43.5	2.112	3.027	8.3	17.4	11 27	6 3.21	+14 39.3	1.783	2.699	9.6	20.3
12 7	5 57.03	+26 6.2	2.064	3.028	4.7	17.2	12 7	5 56.06	+14 11.6	1.739	2.697	6.0	20.1
12 17	5 47.79	+25 23.5	2.046	3.029	0.9	16.9	12 17	5 47.70	+13 50.8	1.721	2.696	3.5	20.0
12 27	5 38.51	+24 36.7	2.058	3.030	3.3	17.1	12 27	5 39.19	+13 38.5	1.732	2.696	5.2	20.1
1 6	5 30.22	+23 48.5	2.099	3.032	7.1	17.3	1 6	5 31.62	+13 35.2	1.770	2.696	8.7	20.3
1 16	5 23.72	+23 2.0	2.168	3.033	10.5	17.6	1 16	5 25.86	+13 40.9	1.833	2.696	12.2	20.5
1 26	5 19.57	+22 19.7	2.260	3.035	13.3	17.8	1 26	5 22.52	+13 54.7	1.918	2.698	15.2	20.7
195986	2002 <i>RO</i> ₂₁₆		12 18.6 144°24	3°5/18.8	17		399819	2005 <i>SW</i> ₂₅₃		12 18.6 115°88	3°7/18.5	18	
11 17	6 12.86	+34 42.9	2.544	3.367	10.7	20.3	11 17	6 11.68	+11 43.5	2.397	3.221	11.3	21.8
11 27	6 6.18	+35 11.0	2.474	3.373	8.1	20.2	11 27	6 5.02	+11 23.8	2.342	3.242	8.4	21.7
12 7	5 57.60	+35 31.1	2.430	3.377	5.4	20.0	12 7	5 56.83	+11 11.0	2.313	3.262	5.5	21.5
12 17	5 47.87	+35 40.5	2.415	3.382	3.6	19.9	12 17	5 47.79	+11 6.1	2.313	3.281	3.7	21.4
12 27	5 38.02	+35 37.9	2.430	3.387	4.5	20.0	12 27	5 38.79	+11 9.5	2.344	3.300	4.8	21.6
1 6	5 29.06	+35 24.3	2.474	3.391	7.0	20.1	1 6	5 30.63	+11 21.0	2.405	3.318	7.4	21.7
1 16	5 21.82	+35 2.4	2.546	3.395	9.7	20.3	1 16	5 24.00	+11 39.7	2.493	3.336	10.1	21.9
1 26	5 16.90	+34 35.5	2.642	3.399	12.1	20.5	1 26	5 19.37	+12 4.4	2.604	3.353	12.4	22.1
199836	2007 <i>EE</i> ₂₇		12 18.6 134°38	1°7/18.7	18		44949	1999 <i>VX</i> ₆₃		12 18.6 317°38	3°5/18.4	18	
11 17	6 17.17	+28 15.5	1.975	2.811	12.9	21.9	11 17	6 13.96	+29 24.6	1.529	2.383	15.0	18.4
11 27	6 9.42	+28 24.7	1.913	2.825	9.3	21.7	11 27	6 8.15	+30 17.4	1.451	2.370	11.1	18.2
12 7	5 59.42	+28 28.4	1.877	2.838	5.4	21.5	12 7	5 59.24	+31 6.7	1.396	2.357	6.9	17.9
12 17	5 48.13	+28 24.5	1.869	2.851	1.9	21.3	12 17	5 48.20	+31 46.9	1.368	2.345	3.6	17.7
12 27	5 36.82	+28 12.5	1.892	2.863	4.0	21.4	12 27	5 36.59	+32 13.7	1.366	2.334	5.7	17.8
1 6	5 26.74	+27 54.0	1.945	2.874	7.8	21.7	1 6	5 26.13	+32 26.5	1.391	2.322	10.1	18.0
1 16	5 18.83	+27 31.9	2.024	2.885	11.3	21.9	1 16	5 18.27	+32 27.7	1.441	2.311	14.4	18.2
1 26	5 13.70	+27 9.5	2.127	2.895	14.3	22.2	1 26	5 13.98	+32 21.9	1.510	2.301	18.1	18.4
305798	2009 <i>DB</i> ₈₆		12 18.6 75°79	1°8/18.8	18		269593	2009 <i>YU</i> ₂		12 18.6 260°72	2°3/18.7	18	
11 17	6 14.54	+28 11.9	1.731	2.578	13.9	20.7	11 17	6 9.12	+15 21.8	2.382	3.219	10.9	20.1
11 27	6 7.81	+28 16.7	1.670	2.587	10.0	20.5	11 27	6 3.46	+15 28.3	2.304	3.214	8.0	19.9
12 7	5 58.64	+28 15.9	1.633	2.596	5.8	20.3	12 7	5 56.12	+15 40.1	2.251	3.209	4.8	19.7
12 17	5 48.03	+28 7.3	1.623	2.605	2.0	20.1	12 17	5 47.73	+15 57.1	2.227	3.205	2.3	19.5
12 27	5 37.37	+27 50.7	1.643	2.614	4.2	20.2	12 27	5 39.13	+16 18.9	2.233	3.200	3.8	19.6
1 6	5 28.01	+27 28.0	1.690	2.623	8.4	20.5	1 6	5 31.23	+16 44.8	2.269	3.195	7.0	19.8
1 16	5 20.98	+27 2.5	1.763	2.632	12.3	20.8	1 16	5 24.76	+17 14.0	2.332	3.191	10.1	20.0
1 26	5 16.92	+26 37.5	1.858	2.641	15.5	21.0	1 26	5 20.30	+17 46.0	2.419	3.186	12.8	20.2
460849	2014 <i>WA</i> ₁₀₃		12 18.6 251°73	3°5/18.5	18		462747	2010 <i>CQ</i> ₈₃		12 18.6 308°32	2°4/18.6	16	
11 17	6 12.94	+32 25.9	2.279	3.111	11.5	20.9	11 17	6 8.57	+16 10.1	2.169	3.011	11.6	21.3
11 27	6 6.50	+33 12.8	2.204	3.110	8.6	20.7	11 27	6 3.26	+16 3.9	2.085	2.998	8.5	21.1
12 7	5 57.91	+33 53.8	2.156	3.108	5.6	20.5	12 7	5 56.09	+16 2.4	2.026	2.986	5.2	20.8
12 17	5 47.94	+34 25.1	2.135	3.106	3.5	20.3	12 17	5 47.73	+16 6.0	1.995	2.974	2.5	20.6
12 27	5 37.70	+34 44.3	2.145	3.105	4.8	20.4	12 27	5 39.12	+16 14.7	1.994	2.962	4.2	20.7
1 6	5 28.32	+34 51.5	2.183	3.103	7.7	20.6	1 6	5 31.23	+16 28.6	2.022	2.950	7.6	20.9
1 16	5 20.78	+34 48.7	2.249	3.101	10.7	20.8	1 16	5 24.89	+16 47.3	2.076	2.938	11.0	21.1
1 26	5 15.77	+34 39.4	2.337	3.099	13.3	21.0	1 26	5 20.74	+17 10.2	2.153	2.927	13.9	21.3
482516	2012 <i>TC</i> ₁₅₉		12 18.6 95°69	0°9/18.6	18		161235	2003 <i>AV</i> ₁₄		12 18.6 355°09	1°4/18.3	17	
11 17	6 17.35	+25 12.3	1.646	2.492	14.5	21.8	11 17	6 8.51	+24 24.8	1.179	2.055	16.9	18.5
11 27	6 9.77	+25 27.7	1.595	2.512	10.4	21.6	11 27	6 4.28	+23 15.3	1.114	2.047	12.2	18.2
12 7	5 59.67	+25 40.2	1.568	2.533	5.8	21.4	12 7	5 57.01	+21 58.5	1.070	2.040	6.9	17.9
12 17	5 48.17	+25 47.6	1.569	2.552	1.2	21.1	12 17	5 47.87	+20 37.5	1.051	2.034	1.6	17.6
12 27	5 36.72	+25 48.9	1.599	2.572	4.2	21.3	12 27	5 38.57	+19 17.9	1.057	2.031	5.4	17.8
1 6	5 26.72	+25 45.2	1.658	2.590	8.6	21.7	1 6	5 30.81	+18 6.1	1.088	2.030	11.0	18.1
1 16	5 19.20	+25 38.8	1.742	2.609	12.5	21.9	1 16	5 25.83	+17 7.0	1.141	2.030	15.9	18.4
1 26	5 14.75	+25 32.4	1.848	2.627	15.7	22.2	1 26	5 24.38	+16 23.1	1.213	2.032	20.0	18.7
216557	2001 <i>VC</i> ₂₁		12 18.6 72°										

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
17569	1994 <i>LB</i> ₈	12 18.6 178°68		2°1/18.2 18			460981	2014 <i>WW</i> ₃₃₀	12 18.6 303°03		1°0/18.7 18		
11 17	6 14.81	+20 28.1	1.960	2.800	12.8	17.6	11 17	6 10.00	+18 59.9	2.248	3.090	11.3	20.5
11 27	6 7.69	+19 32.7	1.887	2.801	9.3	17.3	11 27	6 4.24	+19 19.3	2.171	3.086	8.2	20.3
12 7	5 58.49	+18 35.9	1.840	2.802	5.3	17.1	12 7	5 56.63	+19 42.2	2.119	3.083	4.6	20.1
12 17	5 48.08	+17 39.6	1.822	2.802	2.1	16.9	12 17	5 47.85	+20 7.4	2.097	3.079	1.2	19.8
12 27	5 37.62	+16 46.5	1.834	2.802	4.4	17.0	12 27	5 38.86	+20 33.8	2.104	3.076	3.4	20.0
1 6	5 28.23	+15 59.6	1.876	2.802	8.3	17.3	1 6	5 30.60	+21 0.7	2.142	3.073	7.1	20.2
1 16	5 20.82	+15 21.3	1.945	2.801	11.9	17.5	1 16	5 23.92	+21 27.7	2.206	3.070	10.4	20.4
1 26	5 15.97	+14 52.7	2.037	2.800	15.0	17.7	1 26	5 19.44	+21 54.9	2.294	3.067	13.2	20.6
85166	1989 <i>OC</i>	12 18.6 165°74		2°4/18.9 18			327680	2006 <i>RT</i> ₃₈	12 18.6 128°04		0°9/18.7 18		
11 17	6 18.13	+31 7.8	2.248	3.074	11.9	20.0	11 17	6 18.90	+24 50.2	1.654	2.498	14.6	21.3
11 27	6 10.02	+31 13.8	2.177	3.081	8.7	19.8	11 27	6 11.00	+25 9.0	1.596	2.513	10.5	21.1
12 7	5 59.76	+31 12.2	2.131	3.088	5.3	19.6	12 7	6 0.46	+25 25.6	1.563	2.527	5.9	20.8
12 17	5 48.26	+31 0.8	2.115	3.093	2.5	19.5	12 17	5 48.39	+25 37.1	1.558	2.541	1.2	20.6
12 27	5 36.70	+30 39.2	2.131	3.097	4.0	19.6	12 27	5 36.28	+25 42.4	1.582	2.554	4.2	20.8
1 6	5 26.24	+30 9.3	2.176	3.101	7.4	19.8	1 6	5 25.57	+25 42.2	1.634	2.566	8.8	21.1
1 16	5 17.79	+29 34.5	2.250	3.104	10.6	20.0	1 16	5 17.37	+25 38.8	1.713	2.578	12.8	21.4
1 26	5 11.97	+28 58.7	2.347	3.105	13.4	20.2	1 26	5 12.34	+25 35.0	1.813	2.589	16.1	21.6
99096	2001 <i>FU</i> ₄₂	12 18.6 251°21		0°3/18.6 18			31563	1999 <i>FW</i> ₈	12 18.6 290°19		1°3/18.6 18		
11 17	6 10.75	+24 4.6	2.399	3.238	10.7	19.6	11 17	6 13.34	+19 53.8	1.533	2.387	14.9	18.3
11 27	6 4.74	+24 11.3	2.313	3.228	7.8	19.4	11 27	6 7.44	+19 57.2	1.452	2.374	10.9	18.1
12 7	5 56.89	+24 16.7	2.253	3.217	4.3	19.2	12 7	5 58.75	+20 3.9	1.395	2.361	6.2	17.8
12 17	5 47.87	+24 19.9	2.222	3.205	0.7	18.9	12 17	5 48.18	+20 12.9	1.364	2.347	1.6	17.4
12 27	5 38.61	+24 20.3	2.222	3.194	3.2	19.1	12 27	5 37.16	+20 23.6	1.361	2.334	4.7	17.6
1 6	5 30.07	+24 18.3	2.251	3.182	6.8	19.3	1 6	5 27.21	+20 35.8	1.385	2.321	9.7	17.9
1 16	5 23.08	+24 15.0	2.308	3.170	10.0	19.5	1 16	5 19.60	+20 50.2	1.434	2.308	14.3	18.1
1 26	5 18.25	+24 11.9	2.389	3.158	12.8	19.6	1 26	5 15.22	+21 7.3	1.503	2.295	18.1	18.3
185058	2006 <i>RL</i> ₂₃	12 18.6 34°32		6°4/18.9 18			300434	2007 <i>TR</i> ₂₈	12 18.6 104°95		0°9/18.6 15		
11 17	6 18.25	+35 28.4	1.206	2.060	18.2	19.5	11 17	6 15.16	+21 1.5	1.978	2.818	12.7	22.4
11 27	6 11.66	+36 15.7	1.153	2.067	13.9	19.3	11 27	6 7.82	+20 54.1	1.925	2.840	9.1	22.2
12 7	6 1.26	+36 48.8	1.121	2.073	9.4	19.1	12 7	5 58.50	+20 47.2	1.898	2.862	5.1	22.0
12 17	5 48.50	+37 0.1	1.112	2.081	6.5	18.9	12 17	5 48.11	+20 40.3	1.900	2.883	1.2	21.8
12 27	5 35.59	+36 46.5	1.128	2.089	7.9	19.0	12 27	5 37.79	+20 33.8	1.932	2.903	3.7	22.0
1 6	5 24.71	+36 11.6	1.169	2.097	11.9	19.3	1 6	5 28.63	+20 28.4	1.993	2.923	7.6	22.3
1 16	5 17.41	+35 23.1	1.232	2.106	16.1	19.5	1 16	5 21.45	+20 25.1	2.082	2.943	11.0	22.5
1 26	5 14.43	+34 29.7	1.314	2.115	19.8	19.8	1 26	5 16.81	+20 24.9	2.193	2.962	13.9	22.8
11160	1998 <i>BH</i> ₇	12 18.6 204°34		0°9/18.6 18			164947	1999 <i>XN</i> ₂₀₁	12 18.6 25°50		4°1/18.6 18		
11 17	6 16.21	+21 20.1	1.565	2.415	14.9	17.6	11 17	6 13.52	+29 54.4	1.146	2.016	17.8	19.1
11 27	6 9.31	+21 15.1	1.493	2.412	10.8	17.4	11 27	6 8.03	+30 47.2	1.105	2.031	13.1	18.9
12 7	5 59.66	+21 10.8	1.444	2.409	6.1	17.1	12 7	5 59.13	+31 32.4	1.084	2.047	8.0	18.7
12 17	5 48.28	+21 6.4	1.423	2.406	1.3	16.8	12 17	5 48.22	+32 3.6	1.087	2.065	4.2	18.5
12 27	5 36.62	+21 1.8	1.430	2.402	4.5	17.0	12 27	5 37.31	+32 17.9	1.115	2.084	6.4	18.7
1 6	5 26.20	+20 57.7	1.465	2.398	9.4	17.3	1 6	5 28.29	+32 16.6	1.168	2.104	11.0	19.0
1 16	5 18.23	+20 55.9	1.524	2.394	13.8	17.5	1 16	5 22.52	+32 4.5	1.242	2.125	15.3	19.4
1 26	5 13.48	+20 57.8	1.605	2.389	17.5	17.7	1 26	5 20.65	+31 46.9	1.336	2.148	18.9	19.7
80370	1999 <i>XG</i> ₁₅₄	12 18.6 53°29		3°1/18.3 18			232120	2001 <i>YC</i> ₁₄₆	12 18.6 302°60		2°1/18.8 18		
11 17	6 14.90	+18 31.5	1.248	2.110	17.1	18.9	11 17	6 14.41	+28 21.1	1.490	2.345	15.3	19.8
11 27	6 8.46	+17 48.6	1.199	2.123	12.5	18.7	11 27	6 8.42	+28 29.6	1.410	2.331	11.2	19.5
12 7	5 59.13	+17 9.3	1.171	2.136	7.3	18.4	12 7	5 59.37	+28 32.3	1.353	2.317	6.6	19.2
12 17	5 48.18	+16 35.4	1.169	2.149	3.2	18.2	12 17	5 48.29	+28 25.9	1.322	2.303	2.3	18.9
12 27	5 37.30	+16 9.5	1.193	2.163	5.9	18.4	12 27	5 36.76	+28 9.3	1.318	2.290	4.9	19.0
1 6	5 28.08	+15 53.3	1.243	2.177	10.7	18.7	1 6	5 26.49	+27 44.3	1.341	2.277	9.9	19.3
1 16	5 21.68	+15 47.6	1.316	2.191	15.2	19.0	1 16	5 18.85	+27 15.0	1.388	2.264	14.5	19.5
1 26	5 18.69	+15 51.9	1.408	2.206	18.9	19.3	1 26	5 14.74	+26 45.8	1.455	2.252	18.4	19.7
487089	2014 <i>OF</i> ₁₂₄	12 18.6 172°52		0°7/18.7 17			147002	2002 <i>PT</i> ₁₂₁	12 18.6 60°58		0°8/18.6 18		
11 17	6 13.06	+26 5.6	1.982	2.826	12.5	22.0	11 17	6 16.40	+23 23.9	1.281	2.142	16.9	19.7
11 27	6 6.58	+25 57.5	1.910	2.827	9.0	21.8	11 27	6 9.55	+22 54.0	1.231	2.156	12.1	19.4
12 7	5 57.95	+25 45.5	1.863	2.827	5.1	21.5	12 7	5 59.75	+22 21.8	1.203	2.170	6.7	19.2
12 17	5 48.02	+25 28.6	1.845	2.828	1.0	21.2	12 17	5 48.30	+21 47.5	1.201	2.184	1.2	18.9
12 27	5 37.97	+25 7.1	1.856	2.828	3.6	21.4	12 27	5 36.96	+21 13.1	1.225	2.199	4.9	19.2
1 6	5 28.97	+24 42.7	1.896	2.828	7.7	21.7	1 6	5 27.37	+20 41.6	1.276	2.214	10.1	19.5
1 16	5 21.94	+24 17.9	1.962	2.828	11.4	21.9	1 16	5 20.68	+20 16.1	1.351	2.228	14.7	19.8
1 26	5 17.52	+23 55.2	2.051	2.828	14.4	22.1	1 26	5 17.49	+19 58.4	1.445	2.243	18.4	20.1
415509	2014 <i>PM</i> ₄₈	12 18.6 193°94		0°8/18.6 18			210508	1998 <i>MV</i> ₁₅	12 18.6 138°53		2°5/18.9 18		
11 17	6 11.47	+20 45.3	2.093	2.936	12.0	21.4	11 17	6 16.44	+31 14.7	2.058	2.891	12.5	20.9
11 27	6 5.35	+20 48.7	2.019	2.936	8.6	21.2	11 27	6 8.94	+31 19.0	1.992	2.900	9.2	20.7
12 7	5 57.25	+20 53.5	1.971	2.935	4.8	20.9	12 7	5 59.22	+31 15.5	1.952	2.910	5.6	20.5
12 17	5 47.93	+20 58.9	1.951	2.934	1.0	20.6	12 17	5 48.23	+31 1.8	1.941	2.919	2.7	20.4
12 27	5 38.44	+21 4.5	1.961	2.933	3.6	20.8	12 27	5 37.22	+30 37.9	1.960	2.927	4.2	20.5
1 6	5 29.82	+21 10.5	2.001	2.933	7.4	21.1	1 6	5 27.40	+30 5.8	2.008	2.935	7.7	20.7
1 16	5 22.95	+21 17.5	2.067	2.931	10.9	21.3	1 16	5 19.70	+29 29.2	2.083	2.943	11.1	20.9
1 26	5 18.46	+21 26.3	2.156	2.930	13.9	21.5	1 26	5 14.73	+28 52.0	2.182	2.950	13.9	21.1
493299	2014 <i>UV</i> ₁₈₂	12 18.6 21°18		1°6/18.6 17			159127	2004 <i>VW</i> ₇₃	12 18.6 35°04		4°3/18.8 18		
11 17	6 11.42	+26 23.0											

EPHEMERIDES

12 18.6

12 18.7

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
310343	2011 <i>UU</i> ₂₁₆	12 18.6 176°17'		2°6'/18.2 18			323588	2004 <i>TW</i> ₂₃₈	12 18.7 101°38'		7°1'/18.7 17		
11 17	6 12.88	+16 51.6	2.279	3.112	11.5	21.5	11 17	6 18.67	+43 37.3	2.261	3.059	12.7	20.6
446782	2015 <i>PN</i> ₂₉₃	12 18.6 143°98'		1°4'/18.5 18			461402	2001 <i>SK</i> ₂₆₄	12 18.7 24°70'		22°2'/13.7 17		
11 17	6 14.25	+20 4.1	2.126	2.963	12.0	21.7	11 17	6 13.28	-11 24.1	0.963	1.766	25.6	20.2
332829	2010 <i>AU</i> ₁	12 18.6		2°73' 6°8'/19.7 17			358156	2006 <i>RT</i> ₇₄	12 18.7 217°97'		6°1'/18.2 18		
11 17	6 9.10	+3 10.3	1.829	2.648	14.5	19.2	11 17	6 10.83	+6 15.4	2.136	2.953	12.7	21.9
42811	1999 <i>JN</i> ₈₁	12 18.6		94°00' 19°4'/15.9 18			340140	2005 <i>YW</i> ₂₅	12 18.7 290°24'		1°0'/18.6 18		
11 17	6 19.81	-8 34.0	1.048	1.846	24.3	16.9	11 17	6 13.43	+20 37.8	1.554	2.408	14.8	21.4
38437	1999 <i>RV</i> ₂₄₂	12 18.6		179°70' 2°5'/18.7 18			266466	2007 <i>PZ</i> ₁₇	12 18.7 185°56'		3°8'/19.3 18		
11 17	6 13.49	+15 28.6	2.108	2.942	12.3	19.4	11 17	6 13.90	+38 4.1	2.883	3.692	10.0	20.9
458458	2011 <i>BV</i> ₂₉	12 18.6		205°10' 1°5'/18.7 18			154469	2003 <i>DR</i> ₁₇	12 18.7 174°99'		3°7'/18.9 18		
11 17	6 10.60	+17 27.3	2.405	3.241	10.9	21.4	11 17	6 18.06	+32 49.0	1.893	2.725	13.5	19.8
485613	2011 <i>UU</i> ₃₁₉	12 18.6		62°36' 1°6'/18.7 17			418755	2008 <i>UK</i> ₁₈₉	12 18.7 327°55'		7°0'/18.7 17		
11 17	6 15.11	+26 30.7	1.627	2.477	14.4	21.4	11 17	6 16.00	+42 52.3	2.204	3.010	12.8	20.6
447994	2008 <i>CS</i> ₁₉₇	12 18.6		334°45' 1°5'/18.5 18			475250	2005 <i>WP</i> ₄₀	12 18.7 58°27'		1°0'/18.6 18		
11 17	6 11.57	+19 54.2	1.873	2.721	12.9	21.4	11 17	6 16.28	+23 32.7	1.367	2.224	16.2	20.4
467963	2012 <i>JT</i> ₁₇	12 18.6		32°20' 10°9'/19.0 17 C			412785	2014 <i>PQ</i> ₁₅	12 18.7 82°12'		0°5'/18.7 18		
11 17	6 40.47	+7 48.7	0.704	1.553	28.0	20.0	11 17	6 12.40	+24 49.0	1.990	2.835	12.4	21.3

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
118559	2000 FT ₃₇		12 18.7 183°37	0°5/18.7 18			120971	1998 VN ₄₉		12 18.7 43°07	4°6/18.8 17		
11 17	6 16.30	+23 36.0	1.872	2.713	13.2	20.0	11 17	6 13.95	+35 24.1	2.039	2.871	12.7	19.2
11 27	6 9.13	+23 57.3	1.799	2.714	9.6	19.8	11 27	6 7.47	+36 4.6	1.975	2.877	9.7	19.0
12 7	5 59.55	+24 18.3	1.750	2.714	5.3	19.5	12 7	5 58.62	+36 35.6	1.936	2.883	6.6	18.8
12 17	5 48.43	+24 36.5	1.730	2.714	0.9	19.2	12 17	5 48.33	+36 53.0	1.923	2.889	4.6	18.7
12 27	5 37.06	+24 50.5	1.740	2.713	3.9	19.4	12 27	5 37.86	+36 54.9	1.940	2.896	5.6	18.8
1 6	5 26.73	+25 0.2	1.780	2.711	8.2	19.7	1 6	5 28.51	+36 42.3	1.985	2.902	8.4	19.0
1 16	5 18.53	+25 6.8	1.845	2.709	12.1	19.9	1 16	5 21.32	+36 18.7	2.055	2.909	11.5	19.2
1 26	5 13.17	+25 12.5	1.934	2.706	15.3	20.1	1 26	5 16.94	+35 48.9	2.148	2.916	14.1	19.4
173060	2006 SA ₅₉		12 18.7 233°15	1°1/18.8 18			21590	1998 TK		12 18.7 255°69	3°3/18.2 18		
11 17	6 14.80	+27 54.9	2.039	2.878	12.4	20.1	11 17	6 9.53	+14 26.3	2.297	3.132	11.3	18.2
11 27	6 7.91	+27 34.8	1.957	2.871	9.0	19.9	11 27	6 3.84	+13 49.5	2.218	3.126	8.4	18.0
12 7	5 58.79	+27 8.3	1.900	2.863	5.2	19.6	12 7	5 56.44	+13 16.9	2.165	3.120	5.4	17.8
12 17	5 48.32	+26 34.7	1.872	2.855	1.3	19.3	12 17	5 48.01	+12 50.2	2.141	3.113	3.4	17.6
12 27	5 37.67	+25 54.6	1.874	2.846	3.7	19.5	12 27	5 39.42	+12 30.9	2.147	3.107	4.7	17.7
1 6	5 28.06	+25 10.7	1.905	2.837	7.7	19.7	1 6	5 31.57	+12 19.9	2.181	3.100	7.7	17.9
1 16	5 20.43	+24 26.4	1.964	2.828	11.5	19.9	1 16	5 25.21	+12 17.4	2.243	3.094	10.7	18.1
1 26	5 15.47	+23 45.2	2.046	2.819	14.6	20.1	1 26	5 20.91	+12 23.1	2.327	3.087	13.4	18.3
342050	2008 RY ₁₃₄		12 18.7 133°33	1°6/18.6 18			369029	2007 XC ₅₈		12 18.7 50°57	3°5/18.7 18		
11 17	6 15.64	+19 0.2	1.921	2.760	13.1	22.4	11 17	6 18.95	+28 19.1	1.066	1.933	19.0	20.1
11 27	6 8.34	+18 53.2	1.861	2.774	9.4	22.2	11 27	6 12.07	+29 10.7	1.027	1.953	13.9	19.9
12 7	5 58.94	+18 48.6	1.825	2.787	5.4	22.0	12 7	6 1.47	+29 55.9	1.008	1.973	8.2	19.7
12 17	5 48.33	+18 46.1	1.818	2.800	1.8	21.8	12 17	5 48.74	+30 28.0	1.014	1.994	3.7	19.5
12 27	5 37.69	+18 45.8	1.842	2.812	4.0	21.9	12 27	5 36.08	+30 43.5	1.044	2.015	6.2	19.7
1 6	5 28.15	+18 48.1	1.894	2.823	8.0	22.2	1 6	5 25.63	+30 44.2	1.099	2.036	11.4	20.1
1 16	5 20.63	+18 53.4	1.974	2.834	11.6	22.4	1 16	5 18.78	+30 35.0	1.176	2.058	16.1	20.4
1 26	5 15.72	+19 2.4	2.076	2.844	14.6	22.7	1 26	5 16.17	+30 21.6	1.272	2.081	19.9	20.7
179266	2001 UY ₁₇₆		12 18.7 236°45	0°8/18.6 18			256986	2008 EL ₁₂₉		12 18.7 111°54	0°7/18.7 18		
11 17	6 12.07	+21 40.5	1.959	2.804	12.5	20.6	11 17	6 12.36	+20 44.2	2.024	2.868	12.3	20.8
11 27	6 5.94	+21 31.8	1.885	2.803	9.0	20.4	11 27	6 6.06	+20 55.7	1.957	2.874	8.8	20.6
12 7	5 57.70	+21 23.2	1.837	2.801	5.1	20.2	12 7	5 57.74	+21 8.8	1.916	2.880	4.9	20.3
12 17	5 48.17	+21 14.3	1.816	2.799	1.0	19.9	12 17	5 48.20	+21 22.5	1.903	2.886	1.0	20.1
12 27	5 38.46	+21 5.3	1.825	2.798	3.7	20.1	12 27	5 38.52	+21 36.0	1.920	2.892	3.6	20.3
1 6	5 29.71	+20 57.1	1.863	2.796	7.8	20.3	1 6	5 29.78	+21 49.0	1.965	2.898	7.5	20.5
1 16	5 22.85	+20 51.1	1.927	2.794	11.5	20.6	1 16	5 22.88	+22 2.1	2.038	2.903	11.0	20.7
1 26	5 18.52	+20 48.3	2.014	2.792	14.6	20.8	1 26	5 18.43	+22 15.9	2.134	2.909	14.0	21.0
333739	2009 WO ₁₈₀		12 18.7 102°64	1°0/18.7 18			327778	2006 UV ₁₅₆		12 18.7 115°25	2°8/18.6 18		
11 17	6 17.45	+20 24.1	1.663	2.507	14.5	21.7	11 17	6 17.35	+16 44.9	1.617	2.459	14.9	21.2
11 27	6 9.81	+20 28.2	1.613	2.529	10.4	21.5	11 27	6 9.78	+16 30.2	1.564	2.478	10.9	21.0
12 7	5 59.79	+20 34.1	1.587	2.551	5.8	21.3	12 7	5 59.81	+16 20.6	1.535	2.495	6.4	20.8
12 17	5 48.45	+20 40.7	1.588	2.571	1.3	21.0	12 17	5 48.49	+16 16.3	1.533	2.512	2.9	20.6
12 27	5 37.17	+20 47.2	1.619	2.592	4.2	21.3	12 27	5 37.21	+16 17.7	1.561	2.529	5.0	20.8
1 6	5 27.27	+20 54.0	1.679	2.611	8.6	21.6	1 6	5 27.29	+16 24.9	1.616	2.545	9.2	21.1
1 16	5 19.73	+21 2.0	1.765	2.630	12.5	21.9	1 16	5 19.72	+16 37.8	1.698	2.560	13.1	21.4
1 26	5 15.14	+21 12.1	1.872	2.649	15.6	22.1	1 26	5 15.12	+16 56.1	1.800	2.574	16.3	21.6
303619	2005 JQ ₅₀		12 18.7 189°04	0°1/18.7 18			219197	1999 UM ₄₀		12 18.7 8°42	0°2/18.7 17		
11 17	6 13.36	+23 0.0	1.929	2.774	12.8	21.4	11 17	6 9.56	+23 51.8	1.448	2.313	15.0	19.5
11 27	6 6.94	+23 11.5	1.857	2.774	9.2	21.2	11 27	6 4.65	+23 37.4	1.388	2.315	10.8	19.2
12 7	5 58.30	+23 23.0	1.809	2.773	5.1	20.9	12 7	5 57.16	+23 21.1	1.351	2.319	6.0	19.0
12 17	5 48.26	+23 32.7	1.789	2.773	0.7	20.6	12 17	5 48.12	+23 2.5	1.340	2.324	0.9	18.6
12 27	5 38.01	+23 39.8	1.799	2.772	3.7	20.8	12 27	5 38.98	+22 42.4	1.355	2.330	4.3	18.9
1 6	5 28.75	+23 44.6	1.838	2.771	7.9	21.1	1 6	5 31.14	+22 22.7	1.397	2.337	9.2	19.2
1 16	5 21.45	+23 48.1	1.903	2.770	11.6	21.3	1 16	5 25.70	+22 5.6	1.463	2.345	13.5	19.5
1 26	5 16.80	+23 52.0	1.991	2.769	14.8	21.5	1 26	5 23.32	+21 53.0	1.549	2.355	17.0	19.7
231496	2008 QU ₂₉		12 18.7 100°29	3°0/18.9 18			132415	2002 GC ₁₂₇		12 18.7 70°49	1°7/18.7 18		
11 17	6 17.94	+30 36.4	1.617	2.460	14.9	20.7	11 17	6 15.01	+27 7.3	1.638	2.488	14.4	20.2
11 27	6 10.52	+30 54.4	1.559	2.473	10.9	20.5	11 27	6 8.46	+27 23.7	1.574	2.492	10.4	19.9
12 7	5 6.03	+31 4.3	1.526	2.485	6.6	20.3	12 7	5 59.26	+27 36.0	1.533	2.497	6.0	19.7
12 17	5 48.55	+31 2.6	1.519	2.497	3.1	20.1	12 17	5 48.44	+27 41.4	1.519	2.501	1.9	19.4
12 27	5 36.73	+30 48.5	1.541	2.509	5.0	20.3	12 27	5 37.46	+27 38.7	1.534	2.506	4.4	19.6
1 6	5 26.42	+30 24.0	1.591	2.521	9.1	20.5	1 6	5 27.76	+27 29.2	1.576	2.511	8.8	19.9
1 16	5 18.75	+29 53.7	1.666	2.533	13.0	20.8	1 16	5 20.48	+27 15.6	1.644	2.515	12.9	20.1
1 26	5 14.38	+29 22.2	1.762	2.544	16.2	21.0	1 26	5 16.33	+27 1.3	1.733	2.520	16.3	20.4
481802	2008 TU ₁₀₂		12 18.7 47°25	2°7/18.7 16			158579	2002 KT ₁₂		12 18.7 158°04	3°2/18.9 18		
11 17	6 16.52	+28 13.5	1.282	2.142	16.9	20.9	11 17	6 10.28	+12 2.0	2.340	3.168	11.4	20.2
11 27	6 9.85	+28 43.8	1.239	2.162	12.3	20.7	11 27	6 4.34	+12 9.4	2.267	3.171	8.5	20.0
12 7	5 6.06	+29 7.9	1.218	2.182	7.1	20.4	12 7	5 56.72	+12 24.7	2.221	3.173	5.5	19.8
12 17	5 48.52	+29 21.8	1.222	2.203	2.8	20.2	12 17	5 48.07	+12 48.0	2.202	3.175	3.3	19.6
12 27	5 37.06	+29 23.6	1.253	2.224	5.3	20.5	12 27	5 39.26	+13 18.7	2.215	3.176	4.4	19.7
1 6	5 27.41	+29 15.3	1.309	2.245	10.0	20.8	1 6	5 31.17	+13 55.6	2.257	3.178	7.4	19.9
1 16	5 20.80	+29 0.8	1.389	2.267	14.3	21.1	1 16	5 24.55	+14 37.4	2.326	3.179	10.3	20.1
1 26	5 17.82	+28 44.5	1.489	2.289	17.9	21.4	1 26	5 19.96	+15 22.5	2.419	3.181	12.9	20.3
99858	2002 OX ₂₀		12 18.7 218°19	4°6/18.9 18			100331	1995 QV ₉		12 18.7 196°97	4°3/18.9 18		
11 17	6 12.66	+ 9 11.3	2.116	2.									

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
447665	2006 <i>WR</i> ₉₄		12 18.7	15°44'	1.4°/18.6	17	28885	2000 <i>KH</i> ₅₆		12 18.7	99°37'	2.5°/18.4	18 R
11 17	6 10.55	+20 21.0	1.399	2.263	15.5	21.3	11 17	6 12.74	+17 28.2	2.029	2.869	12.4	17.8
11 27	6 5.38	+20 13.5	1.342	2.268	11.2	21.0	11 27	6 6.15	+16 56.6	1.972	2.884	9.0	17.6
12 7	5 57.58	+20 8.5	1.307	2.274	6.3	20.8	12 7	5 57.70	+16 27.9	1.940	2.900	5.4	17.4
12 17	5 48.20	+20 5.7	1.298	2.281	1.7	20.5	12 17	5 48.23	+16 3.3	1.937	2.915	2.6	17.2
12 27	5 38.70	+20 5.3	1.316	2.289	4.7	20.7	12 27	5 38.78	+15 44.0	1.963	2.930	4.3	17.4
1 6	5 30.53	+20 7.8	1.359	2.298	9.5	21.0	1 6	5 30.36	+15 30.9	2.019	2.944	7.8	17.6
1 16	5 24.81	+20 13.8	1.427	2.308	13.8	21.3	1 16	5 23.76	+15 24.7	2.101	2.959	11.1	17.9
1 26	5 22.20	+20 23.7	1.515	2.319	17.4	21.5	1 26	5 19.51	+15 25.3	2.206	2.973	13.9	18.1
193541	2000 <i>YO</i> ₁₁₃		12 18.7	57°81'	0.7°/18.7	18	253803	2003 <i>XZ</i> ₂₅		12 18.7	114°49'	5.3°/17.9	18
11 17	6 17.85	+23 42.9	1.387	2.242	16.2	18.5	11 17	6 12.51	+12 0.6	1.809	2.646	13.8	19.9
11 27	6 10.38	+24 10.7	1.352	2.273	11.5	18.3	11 27	6 6.21	+10 55.1	1.745	2.650	10.5	19.7
12 7	6 0.18	+24 37.4	1.339	2.305	6.4	18.1	12 7	5 57.84	+9 56.5	1.705	2.654	7.2	19.5
12 17	5 48.55	+24 59.7	1.353	2.336	1.1	17.9	12 17	5 48.26	+9 8.2	1.693	2.658	5.3	19.4
12 27	5 37.14	+25 15.8	1.395	2.368	4.4	18.2	12 27	5 38.60	+8 33.6	1.710	2.662	6.7	19.5
1 6	5 27.48	+25 26.4	1.463	2.399	9.2	18.5	1 6	5 30.00	+8 13.9	1.754	2.665	9.8	19.7
1 16	5 20.60	+25 33.3	1.557	2.431	13.3	18.9	1 16	5 23.33	+8 9.0	1.823	2.669	13.1	19.9
1 26	5 17.04	+25 38.9	1.671	2.462	16.6	19.2	1 26	5 19.19	+8 17.3	1.913	2.673	15.9	20.1
244393	2002 <i>PS</i> ₉₀		12 18.7	45°94'	3.4°/18.7	18	64527	2001 <i>VF</i> ₁₀₅		12 18.7	304°17'	2.9°/18.7	17
11 17	6 12.97	+15 20.9	1.422	2.277	15.9	20.1	11 17	6 13.76	+30 4.5	1.910	2.753	13.0	19.7
11 27	6 6.84	+15 12.3	1.378	2.297	11.6	19.9	11 27	6 7.46	+30 36.7	1.836	2.749	9.6	19.4
12 7	5 58.24	+15 11.7	1.357	2.318	7.0	19.7	12 7	5 58.71	+31 3.7	1.787	2.746	5.8	19.2
12 17	5 48.28	+15 19.4	1.361	2.339	3.5	19.6	12 17	5 48.41	+31 21.7	1.765	2.742	3.0	19.0
12 27	5 38.40	+15 35.0	1.393	2.361	5.4	19.7	12 27	5 37.81	+31 28.9	1.772	2.739	4.6	19.1
1 6	5 29.94	+15 57.7	1.451	2.383	9.6	20.0	1 6	5 28.25	+31 25.7	1.807	2.736	8.3	19.3
1 16	5 23.90	+16 26.0	1.533	2.406	13.6	20.3	1 16	5 20.82	+31 14.6	1.868	2.733	11.9	19.6
1 26	5 20.86	+16 58.8	1.637	2.429	16.9	20.6	1 26	5 16.25	+30 59.3	1.952	2.730	15.0	19.8
132384	2002 <i>GT</i> ₈₄		12 18.7	170°73'	3.5°/18.5	18	518647	2008 <i>QG</i> ₄₆		12 18.7	111°75'	8.9°/18.9	18
11 17	6 12.92	+12 56.3	2.235	3.062	11.9	20.5	11 17	6 8.77	-7 29.3	2.573	3.324	12.6	21.3
11 27	6 6.24	+12 38.7	2.163	3.066	8.9	20.3	11 27	6 3.02	-8 14.4	2.522	3.338	11.0	21.2
12 7	5 57.77	+12 27.4	2.118	3.070	5.7	20.1	12 7	5 55.89	-8 41.2	2.494	3.351	9.6	21.1
12 17	5 48.23	+12 23.5	2.101	3.073	3.6	20.0	12 17	5 47.98	-8 46.8	2.491	3.365	9.0	21.1
12 27	5 38.56	+12 27.5	2.115	3.075	4.8	20.1	12 27	5 40.04	-8 30.1	2.514	3.378	9.3	21.2
1 6	5 29.72	+12 39.2	2.159	3.076	7.8	20.3	1 6	5 32.82	-7 52.4	2.563	3.390	10.3	21.3
1 16	5 22.49	+12 58.1	2.229	3.077	10.9	20.5	1 16	5 26.92	-6 56.8	2.636	3.403	11.8	21.4
1 26	5 17.45	+13 23.1	2.323	3.077	13.6	20.7	1 26	5 22.79	-5 47.7	2.731	3.415	13.3	21.5
216603	2002 <i>RX</i> ₃₉		12 18.7	115°58'	0.8°/18.6	18	442211	2011 <i>HP</i> ₅		12 18.7	205°28'	4.2°/18.5	18
11 17	6 10.28	+20 30.1	2.455	3.294	10.6	20.6	11 17	6 14.08	+11 16.0	2.135	2.959	12.5	22.5
11 27	6 4.27	+20 30.1	2.389	3.303	7.6	20.4	11 27	6 7.25	+10 57.0	2.054	2.953	9.5	22.3
12 7	5 56.63	+20 31.2	2.349	3.312	4.3	20.2	12 7	5 58.44	+10 46.0	1.999	2.947	6.3	22.1
12 17	5 48.06	+20 32.9	2.338	3.321	1.0	20.0	12 17	5 48.38	+10 44.1	1.972	2.939	4.3	22.0
12 27	5 39.41	+20 35.1	2.358	3.329	3.1	20.2	12 27	5 38.08	+10 52.2	1.975	2.931	5.5	22.1
1 6	5 31.54	+20 38.2	2.407	3.338	6.4	20.4	1 6	5 28.56	+11 10.0	2.007	2.922	8.6	22.2
1 16	5 25.17	+20 42.5	2.485	3.346	9.5	20.6	1 16	5 20.73	+11 36.4	2.067	2.912	11.8	22.4
1 26	5 20.80	+20 48.6	2.586	3.354	12.0	20.8	1 26	5 15.22	+12 10.1	2.149	2.901	14.6	22.6
178095	2006 <i>SD</i> ₂₂₁		12 18.7	169°05'	0.1°/18.7	18	20730	<i>Jorgecarvano</i>		12 18.7	186°53'	3.2°/18.6	18
11 17	6 17.39	+23 1.7	1.615	2.462	14.7	21.5	11 17	6 13.08	+13 2.8	2.341	3.166	11.5	18.9
11 27	6 10.14	+23 3.4	1.547	2.465	10.6	21.3	11 27	6 6.36	+12 54.9	2.264	3.166	8.6	18.7
12 7	6 0.20	+23 4.4	1.503	2.468	5.9	21.0	12 7	5 57.87	+12 53.3	2.213	3.165	5.5	18.5
12 17	5 48.60	+23 3.0	1.486	2.470	0.9	20.7	12 17	5 48.29	+12 58.7	2.191	3.163	3.3	18.3
12 27	5 36.80	+22 58.7	1.499	2.471	4.3	20.9	12 27	5 38.54	+13 11.1	2.200	3.161	4.5	18.4
1 6	5 26.29	+22 52.6	1.539	2.473	9.1	21.2	1 6	5 29.54	+13 30.1	2.239	3.158	7.6	18.6
1 16	5 18.23	+22 46.6	1.605	2.473	13.3	21.5	1 16	5 22.08	+13 55.1	2.306	3.154	10.6	18.8
1 26	5 13.35	+22 42.9	1.692	2.473	16.8	21.7	1 26	5 16.74	+14 24.9	2.396	3.150	13.2	19.0
380978	2006 <i>SY</i> ₄₉		12 18.7	82°86'	2.1°/18.6	18	251504	2008 <i>EC</i> ₁₄₆		12 18.7	301°02'	3.2°/18.5	18
11 17	6 19.24	+18 42.8	1.403	2.252	16.4	21.6	11 17	6 11.01	+15 24.0	1.915	2.758	12.9	20.5
11 27	6 11.24	+18 30.7	1.363	2.281	11.8	21.4	11 27	6 5.19	+15 1.8	1.843	2.756	9.5	20.3
12 7	6 0.61	+18 22.4	1.347	2.310	6.7	21.2	12 7	5 57.33	+14 44.8	1.795	2.753	5.9	20.0
12 17	5 48.63	+18 17.5	1.357	2.339	2.3	21.0	12 17	5 48.22	+14 34.1	1.775	2.751	3.2	19.9
12 27	5 36.90	+18 16.3	1.396	2.366	5.0	21.2	12 27	5 38.92	+14 30.6	1.784	2.749	4.9	20.0
1 6	5 26.88	+18 19.2	1.461	2.394	9.6	21.5	1 6	5 30.54	+14 34.6	1.821	2.747	8.5	20.2
1 16	5 19.58	+18 26.8	1.552	2.420	13.7	21.9	1 16	5 23.98	+14 45.9	1.884	2.746	12.0	20.4
1 26	5 15.55	+18 39.1	1.664	2.446	17.0	22.2	1 26	5 19.86	+15 3.8	1.969	2.744	15.0	20.6
409379	2005 <i>CK</i> ₂₉		12 18.7	218°36'	3.5°/18.7	18	60550	2000 <i>EX</i> ₈₇		12 18.7	293°84'	1.9°/18.6	18
11 17	6 9.05	+11 38.4	2.412	3.241	11.1	21.1	11 17	6 11.87	+18 38.3	1.754	2.603	13.6	19.4
11 27	6 3.44	+11 34.9	2.337	3.239	8.3	20.9	11 27	6 6.17	+18 32.7	1.669	2.588	10.0	19.1
12 7	5 56.22	+11 39.0	2.287	3.238	5.5	20.7	12 7	5 58.06	+18 30.6	1.609	2.572	5.8	18.8
12 17	5 48.02	+11 51.2	2.266	3.236	3.5	20.6	12 17	5 48.35	+18 31.9	1.576	2.557	2.0	18.6
12 27	5 39.65	+12 11.5	2.275	3.234	4.6	20.6	12 27	5 38.24	+18 36.5	1.571	2.542	4.5	18.7
1 6	5 31.96	+12 39.2	2.313	3.232	7.3	20.8	1 6	5 29.02	+18 44.7	1.594	2.527	8.9	18.9
1 16	5 25.66	+13 13.1	2.378	3.230	10.2	21.0	1 16	5 21.81	+18 56.8	1.642	2.512	13.0	19.1
1 26	5 21.31	+13 51.8	2.467	3.228	12.7	21.2	1 26	5 17.40	+19 13.0	1.712	2.497	16.5	19.3
240978	2006 <i>JC</i> ₄₅		12 18.7	17°55'	6.1°/17.9	18	223069	2002 <i>TJ</i> ₂₄₀		12 18.7	84°71		

EPHEMERIDES

12 18.7

12 18.7

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
105718	2000 <i>SN</i> ₇₇		12 18.7	55°16	0°3/18.7	18	115053	2003 <i>RP</i> ₆		12 18.7	59°13	4°7/19.0	18
11 17	6 12.37	+24 15.0	1.904	2.751	12.8	20.2	11 17	6 11.25	+9 6.0	1.967	2.796	13.2	19.1
11 27	6 6.23	+24 16.0	1.837	2.756	9.2	19.9	11 27	6 5.07	+9 0.0	1.923	2.822	10.0	18.9
12 7	5 57.92	+24 15.2	1.795	2.760	5.1	19.7	12 7	5 57.12	+9 5.2	1.902	2.848	6.8	18.8
12 17	5 48.31	+24 11.6	1.781	2.765	0.8	19.4	12 17	5 48.22	+9 22.2	1.909	2.874	4.8	18.7
12 27	5 38.59	+24 5.0	1.797	2.770	3.6	19.6	12 27	5 39.38	+9 50.5	1.946	2.900	5.7	18.8
1 6	5 29.91	+23 56.2	1.840	2.774	7.8	19.9	1 6	5 31.56	+10 28.5	2.010	2.926	8.5	19.0
1 16	5 23.21	+23 46.9	1.910	2.779	11.5	20.1	1 16	5 25.50	+11 13.9	2.100	2.952	11.3	19.3
1 26	5 19.13	+23 39.1	2.003	2.784	14.6	20.3	1 26	5 21.70	+12 4.1	2.214	2.978	13.9	19.5
49511	1999 <i>CT</i> ₂₅		12 18.7	14°85	0°0/18.7	18	215773	2004 <i>GX</i> ₃₁		12 18.7	140°17	1°5/18.7	18
11 17	6 11.46	+22 26.2	1.375	2.240	15.7	18.3	11 17	6 14.34	+27 8.4	2.420	3.253	10.9	21.1
11 27	6 6.20	+22 45.2	1.317	2.244	11.3	18.1	11 27	6 7.31	+27 35.6	2.354	3.264	7.9	20.9
12 7	5 58.14	+23 5.5	1.282	2.249	6.3	17.8	12 7	5 58.42	+27 59.8	2.314	3.275	4.5	20.7
12 17	5 48.36	+23 25.0	1.272	2.256	0.9	17.4	12 17	5 48.43	+28 18.6	2.304	3.285	1.6	20.5
12 27	5 38.40	+23 42.1	1.289	2.263	4.5	17.7	12 27	5 38.32	+28 30.7	2.326	3.295	3.4	20.7
1 6	5 29.80	+23 56.3	1.331	2.271	9.5	18.0	1 6	5 29.09	+28 36.5	2.377	3.305	6.7	20.9
1 16	5 23.75	+24 8.8	1.398	2.280	14.0	18.3	1 16	5 21.54	+28 37.3	2.457	3.314	9.7	21.1
1 26	5 20.99	+24 20.9	1.485	2.290	17.6	18.6	1 26	5 16.27	+28 35.3	2.560	3.322	12.3	21.3
447887	2007 <i>VU</i> ₃₂₆		12 18.7	70°44	2°0/18.5	17	191988	2005 <i>WK</i> ₁₅₃		12 18.7	128°47	0°9/18.8	18
11 17	6 17.39	+25 21.9	1.661	2.507	14.4	21.5	11 17	6 17.34	+25 49.5	1.811	2.653	13.6	21.1
11 27	6 10.10	+26 29.4	1.610	2.526	10.4	21.3	11 27	6 9.83	+25 55.6	1.751	2.666	9.8	20.9
12 7	6 0.17	+27 35.9	1.583	2.546	6.0	21.1	12 7	5 59.93	+25 58.3	1.715	2.678	5.5	20.7
12 17	5 48.66	+28 35.9	1.585	2.566	2.2	20.9	12 17	5 48.65	+25 55.7	1.708	2.691	1.2	20.4
12 27	5 37.00	+29 25.5	1.616	2.586	4.6	21.1	12 27	5 37.33	+25 47.2	1.730	2.702	3.9	20.6
1 6	5 26.67	+30 3.3	1.675	2.605	8.8	21.4	1 6	5 27.28	+25 34.3	1.781	2.713	8.2	20.9
1 16	5 18.79	+30 30.9	1.761	2.625	12.5	21.7	1 16	5 19.51	+25 19.4	1.859	2.724	12.0	21.1
1 26	5 14.06	+30 51.1	1.868	2.645	15.6	21.9	1 26	5 14.63	+25 5.3	1.959	2.733	15.1	21.4
517922	2015 <i>TZ</i> ₁₆₇		12 18.7	55°59	1°7/18.5	18	302738	2002 <i>UV</i> ₃		12 18.7	67°42	2°6/18.7	18
11 17	6 15.64	+24 26.1	1.681	2.529	14.2	20.6	11 17	6 19.88	+28 30.7	1.694	2.533	14.5	20.9
11 27	6 8.90	+25 33.0	1.623	2.541	10.2	20.4	11 27	6 11.58	+29 16.9	1.659	2.571	10.4	20.7
12 7	5 59.55	+26 40.5	1.589	2.553	5.8	20.2	12 7	6 0.82	+29 57.0	1.649	2.609	6.1	20.5
12 17	5 48.58	+27 43.5	1.584	2.566	1.9	20.0	12 17	5 48.76	+30 26.7	1.667	2.646	2.8	20.4
12 27	5 37.36	+28 37.7	1.608	2.579	4.4	20.2	12 27	5 36.91	+30 44.2	1.715	2.683	4.6	20.6
1 6	5 27.34	+29 21.5	1.660	2.592	8.7	20.5	1 6	5 26.65	+30 50.4	1.791	2.719	8.5	20.9
1 16	5 19.66	+29 55.5	1.738	2.605	12.6	20.7	1 16	5 18.95	+30 48.5	1.893	2.755	11.9	21.2
1 26	5 15.05	+30 22.0	1.838	2.618	15.7	21.0	1 26	5 14.35	+30 42.3	2.018	2.790	14.8	21.5
396703	2002 <i>TU</i> ₃₅₃		12 18.7	108°69	6°1/18.2	18	168425	1998 <i>RB</i> ₂₉		12 18.7	192°40	4°8/19.0	18
11 17	6 11.59	+8 16.1	1.852	2.681	13.9	21.0	11 17	6 18.60	+38 24.6	2.467	3.275	11.5	21.0
11 27	6 5.53	+7 26.3	1.791	2.687	10.8	20.8	11 27	6 10.64	+38 57.0	2.388	3.273	8.9	20.9
12 7	5 57.48	+6 47.4	1.753	2.693	7.8	20.6	12 7	6 0.40	+39 18.6	2.335	3.271	6.4	20.7
12 17	5 48.26	+6 22.7	1.742	2.698	6.2	20.5	12 17	5 48.74	+39 25.3	2.311	3.267	4.8	20.6
12 27	5 38.95	+6 14.0	1.759	2.704	7.2	20.6	12 27	5 36.86	+39 15.5	2.316	3.263	5.6	20.6
1 6	5 30.62	+6 21.3	1.803	2.709	10.0	20.8	1 6	5 25.97	+38 50.4	2.352	3.258	7.9	20.8
1 16	5 24.14	+6 43.2	1.873	2.714	13.0	21.0	1 16	5 17.09	+38 13.7	2.414	3.252	10.6	20.9
1 26	5 20.09	+7 16.8	1.963	2.719	15.7	21.2	1 26	5 10.90	+37 30.4	2.501	3.246	13.0	21.1
74876	1999 <i>TN</i> ₁₀₃		12 18.7	247°51	5°2/18.9	18	42856	1999 <i>RO</i> ₇₃		12 18.7	5°60	9°7/18.0	18
11 17	6 19.43	+34 53.1	1.553	2.392	15.6	19.2	11 17	6 9.42	+4 27.9	1.323	2.165	17.6	17.8
11 27	6 12.23	+35 27.2	1.477	2.383	11.9	19.0	11 27	6 4.60	+3 10.8	1.268	2.165	14.3	17.6
12 7	6 1.68	+35 50.0	1.423	2.374	8.0	18.7	12 7	5 57.22	+2 12.0	1.234	2.165	11.2	17.4
12 17	5 48.91	+35 55.4	1.395	2.365	5.3	18.5	12 17	5 48.27	+1 37.9	1.222	2.167	9.7	17.4
12 27	5 35.70	+35 40.4	1.395	2.355	6.7	18.6	12 27	5 39.16	+1 32.3	1.235	2.170	10.7	17.4
1 6	5 23.92	+35 7.1	1.421	2.345	10.5	18.8	1 6	5 31.29	+1 54.4	1.272	2.173	13.5	17.6
1 16	5 15.08	+34 21.4	1.472	2.335	14.6	19.0	1 16	5 25.76	+2 40.3	1.329	2.178	16.8	17.8
1 26	5 10.06	+33 30.7	1.543	2.325	18.2	19.2	1 26	5 23.26	+3 43.7	1.405	2.183	19.8	18.0
447535	2006 <i>SM</i> ₂₃₀		12 18.7	38°45	2°7/18.5	18	486441	2013 <i>FY</i> ₂₂		12 18.7	296°50	0°6/18.7	17
11 17	6 11.94	+17 25.2	1.783	2.630	13.5	21.1	11 17	6 12.90	+24 31.7	1.746	2.596	13.6	22.0
11 27	6 5.95	+16 56.5	1.715	2.632	9.9	20.9	11 27	6 7.02	+24 41.8	1.663	2.583	9.9	21.7
12 7	5 57.78	+16 31.1	1.673	2.634	5.9	20.7	12 7	5 58.59	+24 50.6	1.605	2.570	5.6	21.4
12 17	5 48.31	+16 10.3	1.657	2.636	2.8	20.5	12 17	5 48.49	+24 56.1	1.574	2.558	1.0	21.1
12 27	5 38.71	+15 55.4	1.670	2.638	4.8	20.6	12 27	5 38.00	+24 57.3	1.572	2.545	4.0	21.3
1 6	5 30.15	+15 47.3	1.711	2.640	8.7	20.9	1 6	5 28.49	+24 54.8	1.597	2.533	8.6	21.5
1 16	5 23.59	+15 46.6	1.778	2.643	12.4	21.1	1 16	5 21.13	+24 50.3	1.648	2.520	12.8	21.7
1 26	5 19.65	+15 53.0	1.866	2.645	15.6	21.3	1 26	5 16.70	+24 46.0	1.721	2.508	16.3	22.0
489136	2006 <i>DM</i> ₁₀₈		12 18.7	150°63	5°6/19.2	17	489079	2006 <i>AA</i> ₅₃		12 18.7	326°42	3°6/18.8	17
11 17	6 15.68	+41 2.9	2.382	3.189	11.9	21.8	11 17	6 10.14	+12 11.8	2.069	2.904	12.4	21.1
11 27	6 8.61	+41 36.3	2.312	3.192	9.4	21.7	11 27	6 4.49	+12 10.5	1.995	2.902	9.3	20.9
12 7	5 59.26	+41 57.0	2.266	3.194	7.1	21.5	12 7	5 56.95	+12 17.6	1.947	2.900	6.0	20.7
12 17	5 48.54	+42 1.1	2.248	3.195	5.7	21.4	12 17	5 48.24	+12 33.8	1.926	2.898	3.7	20.6
12 27	5 37.66	+41 47.0	2.259	3.197	6.3	21.5	12 27	5 39.32	+12 58.7	1.934	2.896	5.0	20.7
1 6	5 27.87	+41 16.3	2.298	3.199	8.3	21.6	1 6	5 31.20	+13 31.5	1.971	2.895	8.1	20.9
1 16	5 20.15	+40 33.1	2.363	3.200	10.8	21.8	1 16	5 24.71	+14 10.4	2.035	2.893	11.4	21.1
1 26	5 15.14	+39 42.6	2.451	3.202	13.1	21.9	1 26	5 20.49	+14 54.0	2.121	2.892	14.2	21.2
478623	2012 <i>TC</i> ₁₇₃		12 18.7	145°11	1°2/18.8	18	97544	2000 <i>DG</i> ₄₇		12 18.7	345°62		

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12 18.7

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
154390	2003 <i>AE</i> ₁₉		12 18.7 324°75	1.4/18.6	18		185619	2008 <i>CH</i> ₉₇		12 18.7 91°63	3.1/18.7	18	
11 17	6 11.87	+21 17.5	1.235	2.104	16.8	20.1	11 17	6 11.83	+14 34.9	1.904	2.745	13.1	20.5
11 27	6 7.01	+21 2.9	1.159	2.088	12.3	19.8	11 27	6 5.80	+14 30.9	1.838	2.749	9.7	20.3
12 7	5 58.90	+20 49.1	1.104	2.072	7.0	19.4	12 7	5 57.73	+14 33.8	1.796	2.753	6.0	20.0
12 17	5 48.57	+20 36.1	1.073	2.056	1.7	19.0	12 17	5 48.42	+14 43.8	1.781	2.758	3.2	19.9
12 27	5 37.69	+20 24.5	1.068	2.042	5.3	19.2	12 27	5 38.95	+15 0.8	1.796	2.762	4.7	20.0
1 6	5 28.10	+20 15.6	1.087	2.028	11.0	19.5	1 6	5 30.43	+15 24.0	1.839	2.766	8.3	20.2
1 16	5 21.30	+20 11.5	1.129	2.015	16.2	19.8	1 16	5 23.74	+15 52.6	1.908	2.770	11.8	20.4
1 26	5 18.23	+20 13.5	1.189	2.004	20.6	20.0	1 26	5 19.52	+16 25.4	2.000	2.775	14.8	20.6
158880	2004 <i>PE</i> ₄₅		12 18.7 170°29	0.6/18.7	18		74075	1998 <i>MG</i> ₂₉		12 18.7 87°90	0.1/18.7	18	
11 17	6 15.61	+21 10.8	1.924	2.764	13.0	20.9	11 17	6 16.67	+22 4.1	1.847	2.688	13.4	19.6
11 27	6 8.57	+21 19.3	1.853	2.768	9.4	20.7	11 27	6 9.17	+22 23.4	1.800	2.716	9.6	19.4
12 7	5 59.28	+21 29.0	1.807	2.771	5.2	20.4	12 7	5 59.51	+22 42.9	1.778	2.742	5.3	19.2
12 17	5 48.60	+21 38.5	1.790	2.773	1.0	20.1	12 17	5 48.67	+23 0.9	1.785	2.769	0.8	18.9
12 27	5 37.73	+21 47.2	1.802	2.775	3.8	20.3	12 27	5 37.90	+23 16.0	1.822	2.794	3.7	19.2
1 6	5 27.88	+21 55.1	1.845	2.776	8.0	20.6	1 6	5 28.39	+23 28.4	1.888	2.820	7.8	19.5
1 16	5 20.04	+22 3.0	1.913	2.777	11.7	20.8	1 16	5 21.04	+23 39.0	1.980	2.845	11.4	19.8
1 26	5 14.89	+22 12.1	2.005	2.777	14.9	21.1	1 26	5 16.39	+23 49.2	2.096	2.869	14.3	20.0
168588	1999 <i>YN</i> ₁₉		12 18.7 359°10	1.4/18.8	17		231128	2005 <i>SM</i> ₂₅₁		12 18.7 69°49	0.7/18.7	18	
11 17	6 10.29	+27 8.3	1.183	2.057	17.1	19.6	11 17	6 18.93	+21 2.7	1.363	2.216	16.5	20.4
11 27	6 5.84	+27 0.9	1.122	2.052	12.4	19.4	11 27	6 11.20	+21 14.1	1.325	2.246	11.8	20.2
12 7	5 58.16	+26 47.4	1.082	2.049	7.1	19.1	12 7	6 0.74	+21 27.2	1.311	2.276	6.5	20.0
12 17	5 48.46	+26 26.1	1.065	2.048	1.8	18.7	12 17	5 48.85	+21 39.9	1.322	2.306	1.2	19.7
12 27	5 38.52	+25 57.5	1.073	2.048	5.0	18.9	12 27	5 37.19	+21 51.2	1.362	2.335	4.5	20.0
1 6	5 30.17	+25 24.6	1.106	2.050	10.5	19.2	1 6	5 27.28	+22 1.3	1.429	2.365	9.4	20.4
1 16	5 24.74	+24 51.8	1.161	2.053	15.5	19.5	1 16	5 20.17	+22 11.5	1.520	2.394	13.6	20.7
1 26	5 23.02	+24 22.8	1.236	2.058	19.6	19.8	1 26	5 16.41	+22 22.9	1.633	2.422	17.0	21.0
450893	2008 <i>BR</i> ₁₇		12 18.7 359°63	5.5/19.4	18		421567	2014 <i>OQ</i> ₁₉₂		12 18.7 123°41	1.0/18.7	18	
11 17	6 11.93	+7 42.5	1.658	2.491	15.1	20.3	11 17	6 11.49	+20 1.2	2.260	3.099	11.3	21.4
11 27	6 6.15	+7 55.2	1.590	2.490	11.6	20.1	11 27	6 5.32	+20 1.1	2.192	3.107	8.2	21.2
12 7	5 58.03	+8 23.8	1.544	2.490	8.1	19.9	12 7	5 57.37	+20 2.6	2.151	3.114	4.6	21.0
12 17	5 48.44	+9 9.0	1.524	2.489	5.6	19.7	12 17	5 48.37	+20 5.3	2.139	3.121	1.2	20.8
12 27	5 38.58	+10 9.3	1.532	2.490	6.6	19.8	12 27	5 39.28	+20 9.0	2.157	3.128	3.4	21.0
1 6	5 29.69	+11 21.4	1.568	2.490	9.9	20.0	1 6	5 31.02	+20 13.8	2.204	3.135	6.9	21.2
1 16	5 22.83	+12 41.2	1.629	2.491	13.5	20.2	1 16	5 24.39	+20 20.2	2.279	3.142	10.1	21.4
1 26	5 18.71	+14 4.5	1.712	2.492	16.7	20.4	1 26	5 19.95	+20 28.7	2.378	3.148	12.9	21.6
244942	2003 <i>YT</i> ₆₉		12 18.7 98°06	2.3/18.7	18		477324	2009 <i>TF</i> ₂		12 18.7 320°73	2.3/18.8	18	
11 17	6 14.79	+17 6.4	1.886	2.726	13.2	21.1	11 17	6 13.71	+27 40.8	1.220	2.087	17.1	20.6
11 27	6 7.75	+16 59.0	1.835	2.747	9.6	20.9	11 27	6 8.62	+27 56.7	1.143	2.069	12.7	20.3
12 7	5 58.69	+16 55.8	1.808	2.768	5.6	20.7	12 7	5 59.97	+28 7.7	1.086	2.052	7.4	20.0
12 17	5 48.52	+16 56.9	1.809	2.789	2.4	20.6	12 17	5 48.82	+28 9.9	1.054	2.036	2.6	19.6
12 27	5 38.39	+17 2.2	1.840	2.809	4.3	20.7	12 27	5 37.02	+28 1.0	1.047	2.020	5.6	19.8
1 6	5 29.40	+17 11.7	1.901	2.829	8.0	21.0	1 6	5 26.62	+27 42.7	1.065	2.006	11.2	20.0
1 16	5 22.40	+17 25.2	1.987	2.848	11.5	21.3	1 16	5 19.27	+27 18.9	1.105	1.992	16.5	20.3
1 26	5 17.95	+17 42.6	2.097	2.867	14.4	21.5	1 26	5 16.01	+26 54.9	1.163	1.978	20.9	20.5
139370	2001 <i>MJ</i> ₁₄		12 18.7 119°43	1.0/18.8	18		484287	2007 <i>RC</i> ₁₀		12 18.7 169°00	6.7/18.1	18	
11 17	6 14.67	+26 36.9	2.089	2.927	12.2	20.2	11 17	6 7.33	-6 8.0	3.566	4.310	9.5	22.4
11 27	6 7.69	+26 36.1	2.026	2.940	8.8	20.0	11 27	6 1.79	-6 50.1	3.502	4.315	8.2	22.3
12 7	5 58.68	+26 31.4	1.989	2.952	4.9	19.8	12 7	5 55.22	-7 19.5	3.462	4.319	7.2	22.2
12 17	5 48.52	+26 21.5	1.981	2.964	1.2	19.5	12 17	5 48.06	-7 34.3	3.450	4.323	6.7	22.2
12 27	5 38.33	+26 6.3	2.003	2.975	3.5	19.7	12 27	5 40.82	-7 33.1	3.466	4.327	7.0	22.2
1 6	5 29.22	+25 47.3	2.055	2.987	7.3	20.0	1 6	5 34.06	-7 16.5	3.508	4.329	8.0	22.3
1 16	5 22.05	+25 26.8	2.134	2.997	10.7	20.2	1 16	5 28.22	-6 46.0	3.577	4.332	9.2	22.4
1 26	5 17.38	+25 7.3	2.236	3.008	13.5	20.4	1 26	5 23.69	-6 4.0	3.668	4.333	10.4	22.5
199107	2005 <i>YH</i> ₄₇		12 18.7 49°89	1.0/18.8	18		263445	2008 <i>DZ</i> ₈₆		12 18.7 73°50	2.6/18.9	18	
11 17	6 16.28	+25 17.2	1.278	2.139	16.9	20.1	11 17	6 14.49	+30 31.6	1.890	2.731	13.1	20.6
11 27	6 9.65	+25 28.5	1.234	2.158	12.1	19.9	11 27	6 7.91	+30 44.8	1.824	2.736	9.7	20.4
12 7	6 0.03	+25 36.9	1.212	2.178	6.8	19.6	12 7	5 58.97	+30 51.0	1.783	2.742	5.8	20.2
12 17	5 48.72	+25 39.7	1.215	2.198	1.4	19.3	12 17	5 48.63	+30 47.7	1.769	2.747	2.8	20.0
12 27	5 37.52	+25 36.1	1.245	2.219	4.7	19.6	12 27	5 38.16	+30 33.9	1.784	2.753	4.4	20.1
1 6	5 28.07	+25 27.9	1.301	2.240	9.8	20.0	1 6	5 28.87	+30 11.5	1.828	2.759	8.1	20.4
1 16	5 21.56	+25 17.8	1.380	2.261	14.3	20.3	1 16	5 21.76	+29 43.7	1.898	2.764	11.7	20.6
1 26	5 18.58	+25 8.9	1.480	2.282	17.9	20.6	1 26	5 17.48	+29 14.4	1.990	2.770	14.7	20.8
274418	2008 <i>SS</i> ₁₀		12 18.7 39°47	0.2/18.7	17		151899	2004 <i>EP</i>		12 18.7 114°48	1.4/18.7	18	
11 17	6 10.94	+22 54.2	1.923	2.772	12.6	20.8	11 17	6 16.80	+19 14.5	1.632	2.477	14.7	20.3
11 27	6 5.15	+22 53.2	1.863	2.782	9.0	20.6	11 27	6 9.60	+19 23.1	1.575	2.491	10.6	20.0
12 7	5 57.33	+22 51.6	1.829	2.794	5.0	20.4	12 7	5 59.91	+19 35.3	1.541	2.505	6.0	19.8
12 17	5 48.34	+22 48.8	1.822	2.806	0.8	20.1	12 17	5 48.77	+19 49.5	1.535	2.518	1.6	19.5
12 27	5 39.29	+22 44.7	1.844	2.818	3.5	20.3	12 27	5 37.55	+20 4.9	1.558	2.530	4.3	19.8
1 6	5 31.29	+22 39.9	1.895	2.830	7.5	20.6	1 6	5 27.62	+20 21.2	1.610	2.543	8.8	20.1
1 16	5 25.19	+22 35.8	1.972	2.843	11.1	20.8	1 16	5 20.04	+20 38.6	1.687	2.554	12.8	20.3
1 26	5 21.56	+22 33.5	2.072	2.856	14.1	21.1	1 26	5 15.44	+20 57.7	1.786	2.566	16.1	20.6
112821	2002 <i>QX</i> ₇		12 18.7 182°89	0.6/18.7	18		57798	2001 <i>VM</i> ₁₀₁		12 18.7 197°18	0.8/18.8	18	</

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
369861	2012 <i>KN</i> ₆	12 18.7 208°56		4°6/18.3 17			280636	2004 <i>YO</i> ₁₃	12 18.7 62°65		0°3/18.7 18		
11 17	6 9.40	+10 6.2	2.337	3.163	11.5	21.5	11 17	6 18.24	+22 42.3	1.455	2.306	15.8	19.9
11 27	6 3.77	+9 29.2	2.263	3.161	8.8	21.4	11 27	6 10.55	+22 43.3	1.420	2.340	11.2	19.7
12 7	5 56.50	+8 59.7	2.215	3.159	6.1	21.2	12 7	6 0.33	+22 43.8	1.408	2.373	6.2	19.5
12 17	5 48.27	+8 39.7	2.196	3.157	4.6	21.1	12 17	5 48.85	+22 42.4	1.423	2.407	0.9	19.2
12 27	5 39.89	+8 30.8	2.205	3.155	5.6	21.2	12 27	5 37.66	+22 38.8	1.467	2.440	4.2	19.5
1 6	5 32.24	+8 33.0	2.244	3.153	8.1	21.3	1 6	5 28.16	+22 34.3	1.538	2.474	8.9	19.9
1 16	5 26.02	+8 45.9	2.309	3.150	10.8	21.5	1 16	5 21.31	+22 30.7	1.635	2.507	12.9	20.2
1 26	5 21.78	+9 7.8	2.396	3.148	13.3	21.7	1 26	5 17.62	+22 29.6	1.752	2.539	16.1	20.5
86649	2000 <i>EM</i> ₁₅₂	12 18.7 299°34		0°7/18.8 18			446084	2013 <i>CX</i> ₁₇₈	12 18.7 285°91		0°3/18.7 18		
11 17	6 15.14	+25 31.6	1.426	2.283	15.7	19.1	11 17	6 13.41	+22 9.4	1.772	2.620	13.5	21.3
11 27	6 9.06	+25 27.8	1.350	2.273	11.4	18.8	11 27	6 7.26	+22 19.5	1.699	2.618	9.8	21.1
12 7	5 59.93	+25 20.2	1.298	2.264	6.5	18.5	12 7	5 58.71	+22 30.5	1.651	2.616	5.5	20.8
12 17	5 48.81	+25 7.0	1.271	2.254	1.2	18.2	12 17	5 48.65	+22 40.8	1.630	2.614	0.9	20.5
12 27	5 37.29	+24 48.0	1.272	2.245	4.6	18.4	12 27	5 38.34	+22 49.5	1.638	2.612	3.9	20.7
1 6	5 27.09	+24 25.2	1.298	2.236	9.9	18.7	1 6	5 29.05	+22 56.7	1.675	2.610	8.4	21.0
1 16	5 19.56	+24 1.9	1.349	2.228	14.7	18.9	1 16	5 21.86	+23 3.3	1.737	2.608	12.4	21.2
1 26	5 15.54	+23 41.7	1.420	2.219	18.7	19.1	1 26	5 17.49	+23 10.8	1.821	2.606	15.7	21.4
152176	2005 <i>PO</i> ₃	12 18.7 172°88		3°7/18.7 18			436850	2012 <i>SZ</i> ₂₆	12 18.7 113°70		1°9/18.7 18		
11 17	6 16.37	+33 19.5	2.313	3.137	11.6	20.8	11 17	6 15.99	+18 57.7	1.681	2.525	14.3	21.4
11 27	6 9.12	+34 7.2	2.240	3.140	8.7	20.6	11 27	6 8.94	+18 46.4	1.623	2.539	10.4	21.2
12 7	5 59.65	+34 48.1	2.193	3.142	5.8	20.5	12 7	5 59.53	+18 38.0	1.589	2.552	6.0	21.0
12 17	5 48.76	+35 18.0	2.175	3.144	3.8	20.3	12 17	5 48.76	+18 32.3	1.583	2.565	2.0	20.8
12 27	5 37.61	+35 34.7	2.187	3.145	4.9	20.4	12 27	5 37.96	+18 29.6	1.606	2.577	4.4	21.0
1 6	5 27.37	+35 38.3	2.229	3.146	7.7	20.6	1 6	5 28.41	+18 30.3	1.657	2.589	8.7	21.3
1 16	5 19.03	+35 31.2	2.298	3.146	10.6	20.8	1 16	5 21.11	+18 35.2	1.734	2.600	12.6	21.5
1 26	5 13.31	+35 17.4	2.391	3.146	13.2	21.0	1 26	5 16.67	+18 44.6	1.833	2.611	15.8	21.8
168685	2000 <i>GM</i> ₁₂	12 18.7 210°67		4°6/18.2 18			19932	1981 <i>EU</i> ₄	12 18.7 156°12		0°4/18.7 18		
11 17	6 8.02	+6 19.1	3.094	3.899	9.5	20.7	11 17	6 11.89	+23 16.8	2.337	3.176	11.0	17.5
11 27	6 2.48	+5 47.0	3.012	3.892	7.5	20.6	11 27	6 5.59	+22 55.6	2.265	3.179	7.9	17.3
12 7	5 55.70	+5 22.6	2.957	3.885	5.6	20.5	12 7	5 57.54	+22 32.7	2.218	3.182	4.4	17.1
12 17	5 48.16	+5 7.6	2.930	3.877	4.6	20.4	12 17	5 48.47	+22 7.9	2.201	3.184	0.8	16.9
12 27	5 40.49	+5 3.3	2.934	3.868	5.2	20.4	12 27	5 39.32	+21 42.3	2.215	3.187	3.2	17.1
1 6	5 33.31	+5 9.6	2.968	3.860	7.0	20.5	1 6	5 31.02	+21 17.1	2.258	3.189	6.8	17.3
1 16	5 27.20	+5 25.8	3.029	3.850	9.1	20.6	1 16	5 24.35	+20 54.2	2.329	3.191	10.0	17.5
1 26	5 22.58	+5 50.6	3.113	3.840	11.0	20.8	1 26	5 19.84	+20 35.0	2.424	3.193	12.7	17.7
313551	2003 <i>BV</i> ₁₂	12 18.7 285°11		4°7/18.7 18			462991	2011 <i>FS</i> ₄₁	12 18.7 337°40		8°4/19.3 17		
11 17	6 10.99	+10 23.7	1.914	2.747	13.3	20.6	11 17	6 8.62	+0 30.2	1.838	2.648	14.8	20.4
11 27	6 5.36	+10 11.8	1.830	2.733	10.2	20.4	11 27	6 3.66	+0 11.2	1.764	2.638	12.2	20.2
12 7	5 57.62	+10 10.1	1.770	2.719	6.9	20.1	12 7	5 56.66	+0 11.3	1.712	2.628	9.8	20.0
12 17	5 48.47	+10 20.1	1.737	2.704	4.8	20.0	12 17	5 48.35	+0 33.8	1.684	2.619	8.4	19.9
12 27	5 38.98	+10 42.4	1.733	2.690	6.0	20.0	12 27	5 39.77	+1 19.5	1.683	2.610	9.0	19.9
1 6	5 30.24	+11 15.9	1.756	2.676	9.2	20.2	1 6	5 31.98	+2 26.2	1.708	2.602	11.1	20.0
1 16	5 23.25	+11 59.1	1.806	2.662	12.7	20.4	1 16	5 25.90	+3 49.6	1.758	2.595	13.9	20.2
1 26	5 18.71	+12 49.4	1.877	2.648	15.8	20.5	1 26	5 22.23	+5 24.1	1.828	2.589	16.5	20.4
243265	2007 <i>YR</i> ₆₁	12 18.7 135°43		2°5/18.7 18			197607	2004 <i>JQ</i> ₁₆	12 18.7 184°95		1°5/18.6 18		
11 17	6 12.12	+16 23.6	1.943	2.784	12.8	20.6	11 17	6 15.87	+20 10.4	1.893	2.733	13.2	21.2
11 27	6 6.02	+16 16.2	1.874	2.787	9.4	20.4	11 27	6 8.80	+19 52.6	1.819	2.734	9.6	21.0
12 7	5 57.88	+16 13.7	1.829	2.789	5.6	20.2	12 7	5 59.48	+19 35.5	1.771	2.733	5.5	20.8
12 17	5 48.50	+16 16.3	1.813	2.792	2.6	20.0	12 17	5 48.78	+19 19.3	1.751	2.733	1.7	20.5
12 27	5 38.95	+16 24.2	1.826	2.794	4.4	20.1	12 27	5 37.90	+19 4.7	1.760	2.731	4.1	20.7
1 6	5 30.33	+16 37.1	1.867	2.796	8.1	20.4	1 6	5 28.06	+18 52.7	1.799	2.729	8.3	20.9
1 16	5 23.55	+16 54.8	1.935	2.798	11.6	20.6	1 16	5 20.25	+18 44.8	1.865	2.726	12.1	21.2
1 26	5 19.22	+17 16.8	2.025	2.800	14.7	20.8	1 26	5 15.13	+18 41.9	1.952	2.723	15.3	21.4
97466	2000 <i>CV</i> ₃₁	12 18.7 162°25		2°6/19.1 18			47953	2000 <i>QJ</i> ₂₇	12 18.7 94°71		0°9/18.8 18		
11 17	6 12.98	+32 15.1	2.442	3.271	10.9	19.7	11 17	6 13.45	+25 39.7	2.008	2.850	12.4	19.5
11 27	6 6.45	+32 20.1	2.368	3.273	8.1	19.5	11 27	6 6.98	+25 49.8	1.944	2.860	8.9	19.3
12 7	5 58.03	+32 17.9	2.320	3.275	5.0	19.3	12 7	5 58.42	+25 57.3	1.905	2.869	5.0	19.1
12 17	5 48.52	+32 6.6	2.301	3.277	2.7	19.2	12 17	5 48.61	+26 0.4	1.895	2.878	1.2	18.9
12 27	5 38.90	+31 45.9	2.313	3.278	3.9	19.3	12 27	5 38.71	+25 58.7	1.914	2.887	3.6	19.1
1 6	5 30.19	+31 17.2	2.354	3.280	6.8	19.4	1 6	5 29.85	+25 52.8	1.963	2.895	7.5	19.3
1 16	5 23.20	+30 43.4	2.422	3.281	9.8	19.6	1 16	5 22.93	+25 44.6	2.038	2.904	11.0	19.5
1 26	5 18.50	+30 7.9	2.515	3.282	12.3	19.8	1 26	5 18.56	+25 36.2	2.135	2.913	13.9	19.8
447924	2007 <i>YP</i> ₇₃	12 18.7 354°65		1°3/18.9 17			404393	2013 <i>GY</i> ₄₇	12 18.7 189°69		0°1/18.7 18		
11 17	6 13.18	+27 8.7	1.601	2.455	14.5	21.1	11 17	6 13.10	+22 5.3	1.955	2.799	12.6	21.2
11 27	6 7.30	+27 5.5	1.532	2.453	10.5	20.8	11 27	6 6.86	+22 24.6	1.882	2.799	9.1	21.0
12 7	5 58.79	+26 57.2	1.486	2.451	6.0	20.6	12 7	5 58.43	+22 44.9	1.834	2.799	5.1	20.8
12 17	5 48.65	+26 42.2	1.467	2.450	1.6	20.3	12 17	5 48.63	+23 4.6	1.815	2.798	0.8	20.5
12 27	5 38.31	+26 20.5	1.476	2.449	4.3	20.5	12 27	5 38.59	+23 22.4	1.825	2.798	3.6	20.7
1 6	5 29.22	+25 54.1	1.511	2.448	8.9	20.7	1 6	5 29.48	+23 37.9	1.864	2.798	7.8	20.9
1 16	5 22.51	+25 26.3	1.572	2.448	13.1	21.0	1 16	5 22.27	+23 51.7	1.930	2.797	11.5	21.2
1 26	5 18.90	+25 0.5	1.654	2.449	16.6	21.2	1 26	5 17.65	+24 5.0	2.018	2.797	14.6	21.4
519735	2013 <i>CA</i> ₂₂₆	12 18.7 152°69		5°0/19.1 17			473347	2015 <i>TU</i> ₁₉₃	12 18.7 63°77		0°4/18.8 18		
11 17	6 17.46	+37 13.6	2.050	2.872	1								

EPHEMERIDES

12 18.7

12 18.8

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
21208	1994 <i>PW</i> ₂₉		12 18.7	40°15	6°0/18.5	18	414702	2009 <i>WK</i> ₁₇₀		12 18.7	99°70	2°7/18.7	17
11 17	6 10.00	+ 8 24.3	1.807	2.641	14.0	18.4	11 17	6 13.39	+30 28.4	2.273	3.107	11.5	21.0
11 27	6 4.48	+ 7 42.9	1.751	2.650	10.8	18.2	11 27	6 6.91	+31 5.3	2.206	3.114	8.4	20.9
12 7	5 57.01	+ 7 13.1	1.718	2.659	7.8	18.1	12 7	5 58.41	+31 37.0	2.165	3.122	5.2	20.7
12 17	5 48.41	+ 6 57.7	1.711	2.669	6.0	18.0	12 17	5 48.66	+32 0.5	2.153	3.129	2.8	20.5
12 27	5 39.74	+ 6 58.1	1.732	2.680	7.0	18.1	12 27	5 38.74	+32 14.1	2.171	3.136	4.1	20.6
1 6	5 32.06	+ 7 13.8	1.780	2.690	9.8	18.2	1 6	5 29.73	+32 18.0	2.218	3.143	7.2	20.8
1 16	5 26.22	+ 7 42.9	1.852	2.701	12.8	18.5	1 16	5 22.52	+32 14.2	2.292	3.150	10.3	21.1
1 26	5 22.78	+ 8 22.3	1.946	2.712	15.5	18.7	1 26	5 17.75	+32 5.7	2.390	3.157	12.9	21.2
373127	2011 <i>HA</i> ₇₃		12 18.7	227°76	4°3/18.3	18	407175	2009 <i>UY</i> ₆₁		12 18.8	44°00	4°2/18.7	17
11 17	6 8.57	+ 9 49.9	2.525	3.348	10.8	21.6	11 17	6 14.52	+33 33.4	1.986	2.821	12.9	21.1
11 27	6 3.12	+ 9 16.8	2.448	3.344	8.3	21.4	11 27	6 8.07	+34 20.7	1.920	2.825	9.7	20.9
12 7	5 56.16	+ 8 51.0	2.398	3.340	5.8	21.3	12 7	5 59.19	+35 0.2	1.880	2.831	6.4	20.7
12 17	5 48.28	+ 8 34.2	2.375	3.336	4.4	21.2	12 17	5 48.80	+35 27.4	1.866	2.836	4.2	20.6
12 27	5 40.27	+ 8 27.7	2.383	3.332	5.3	21.2	12 27	5 38.17	+35 40.0	1.882	2.841	5.4	20.7
1 6	5 32.89	+ 8 31.6	2.419	3.327	7.6	21.4	1 6	5 28.63	+35 38.6	1.926	2.847	8.5	20.9
1 16	5 26.83	+ 8 45.4	2.482	3.323	10.2	21.5	1 16	5 21.24	+35 26.0	1.996	2.852	11.6	21.1
1 26	5 22.60	+ 9 7.7	2.569	3.318	12.6	21.7	1 26	5 16.70	+35 6.8	2.087	2.858	14.4	21.3
406240	2007 <i>CB</i> ₄₈		12 18.7	234°77	3°5/18.6	18	447188	2005 <i>SW</i> ₁₁₂		12 18.8	46°00	6°5/18.1	17
11 17	6 10.51	+12 22.6	2.363	3.192	11.3	21.5	11 17	6 11.35	+ 9 12.8	1.662	2.500	14.8	20.8
11 27	6 4.66	+12 6.7	2.280	3.182	8.5	21.3	11 27	6 5.49	+ 8 3.9	1.615	2.516	11.4	20.6
12 7	5 57.09	+11 57.4	2.222	3.173	5.6	21.1	12 7	5 57.57	+ 7 6.3	1.591	2.533	8.2	20.5
12 17	5 48.44	+11 55.6	2.193	3.163	3.6	20.9	12 17	5 48.53	+ 6 24.1	1.593	2.550	6.5	20.4
12 27	5 39.55	+12 2.0	2.193	3.152	4.7	21.0	12 27	5 39.54	+ 5 59.9	1.623	2.568	7.6	20.5
1 6	5 31.33	+12 16.4	2.224	3.142	7.6	21.2	1 6	5 31.72	+ 5 54.1	1.679	2.586	10.5	20.8
1 16	5 24.55	+12 38.2	2.281	3.131	10.6	21.3	1 16	5 25.90	+ 6 5.0	1.758	2.604	13.5	21.0
1 26	5 19.79	+13 6.3	2.361	3.120	13.3	21.5	1 26	5 22.63	+ 6 29.5	1.859	2.622	16.2	21.2
97662	2000 <i>FD</i> ₂₆		12 18.7	232°71	1°9/18.8	18	514172	2015 <i>MG</i> ₂₉		12 18.8	255°54	0°6/18.8	18
11 17	6 11.80	+29 13.8	2.520	3.353	10.5	19.8	11 17	6 16.75	+24 48.2	1.545	2.396	15.1	22.4
11 27	6 5.65	+29 34.2	2.438	3.347	7.7	19.6	11 27	6 10.14	+24 50.6	1.465	2.384	11.0	22.1
12 7	5 57.66	+29 50.3	2.383	3.341	4.6	19.4	12 7	6 0.58	+24 50.5	1.407	2.372	6.2	21.8
12 17	5 48.53	+30 0.2	2.356	3.335	2.1	19.2	12 17	5 49.03	+24 45.8	1.376	2.360	1.1	21.4
12 27	5 39.16	+30 2.8	2.360	3.329	3.5	19.3	12 27	5 37.04	+24 35.8	1.374	2.347	4.5	21.6
1 6	5 30.54	+29 58.4	2.395	3.322	6.6	19.5	1 6	5 26.22	+24 21.8	1.399	2.334	9.6	21.9
1 16	5 23.47	+29 48.8	2.456	3.315	9.6	19.7	1 16	5 17.91	+24 6.6	1.448	2.321	14.2	22.1
1 26	5 18.58	+29 36.3	2.542	3.309	12.2	19.9	1 26	5 13.00	+23 53.3	1.518	2.308	18.1	22.4
490938	2011 <i>CL</i> ₈₅		12 18.7	245°40	7°3/18.7	18	134905	2000 <i>XA</i> ₂₆		12 18.8	23°65	6°8/19.1	18
11 17	6 8.70	- 1 6.9	2.554	3.338	11.8	21.5	11 17	6 17.87	+35 42.5	1.092	1.953	19.2	18.5
11 27	6 3.23	- 1 36.5	2.475	3.329	9.9	21.3	11 27	6 11.88	+36 31.2	1.042	1.958	14.7	18.3
12 7	5 56.24	- 1 51.5	2.420	3.318	8.2	21.2	12 7	6 1.82	+37 4.6	1.011	1.965	10.1	18.0
12 17	5 48.31	- 1 49.5	2.391	3.308	7.3	21.1	12 17	5 49.22	+37 14.4	1.003	1.972	7.0	17.9
12 27	5 40.18	- 1 29.0	2.391	3.298	7.8	21.1	12 27	5 36.44	+36 57.5	1.019	1.980	8.3	18.0
1 6	5 32.64	- 0 51.1	2.418	3.287	9.4	21.2	1 6	5 25.83	+36 17.9	1.058	1.989	12.5	18.3
1 16	5 26.35	+ 0 2.1	2.470	3.276	11.4	21.3	1 16	5 19.02	+35 24.1	1.119	1.999	16.9	18.5
1 26	5 21.86	+ 1 7.0	2.545	3.265	13.4	21.5	1 26	5 16.74	+34 25.6	1.197	2.009	20.7	18.8
401669	2013 <i>GO</i> ₁₂₀		12 18.7	134°56	1°9/18.8	18	267582	2002 <i>QE</i> ₁₁₁		12 18.8	31°36	2°9/18.7	17
11 17	6 14.14	+28 8.0	2.096	2.934	12.1	21.5	11 17	6 9.76	+15 34.4	1.961	2.805	12.6	20.7
11 27	6 7.52	+28 30.5	2.027	2.940	8.8	21.3	11 27	6 4.30	+15 19.4	1.898	2.812	9.3	20.6
12 7	5 58.75	+28 48.9	1.984	2.945	5.2	21.1	12 7	5 56.94	+15 9.8	1.860	2.819	5.7	20.4
12 17	5 48.69	+29 0.7	1.969	2.950	2.0	20.9	12 17	5 48.46	+15 6.4	1.850	2.827	3.0	20.2
12 27	5 38.46	+29 4.6	1.985	2.954	3.8	21.0	12 27	5 39.88	+15 9.5	1.868	2.835	4.5	20.3
1 6	5 29.21	+29 1.2	2.029	2.959	7.5	21.2	1 6	5 32.22	+15 19.1	1.915	2.843	8.0	20.5
1 16	5 21.90	+28 52.7	2.100	2.963	10.9	21.5	1 16	5 26.31	+15 34.8	1.987	2.851	11.3	20.8
1 26	5 17.14	+28 41.7	2.195	2.967	13.7	21.7	1 26	5 22.71	+15 55.7	2.082	2.860	14.2	21.0
141673	2002 <i>JB</i> ₁₀₅		12 18.7	208°62	0°3/18.8	18	189425	1997 <i>SF</i> ₉		12 18.8	107°02	0°5/18.7	18
11 17	6 17.97	+23 20.3	1.812	2.652	13.7	21.1	11 17	6 17.03	+22 45.9	1.695	2.540	14.2	20.4
11 27	6 10.62	+23 35.6	1.732	2.646	9.9	20.8	11 27	6 9.69	+22 35.1	1.639	2.556	10.2	20.2
12 7	6 0.67	+23 50.5	1.676	2.639	5.6	20.6	12 7	5 59.97	+22 23.3	1.608	2.572	5.7	19.9
12 17	5 49.02	+24 2.9	1.648	2.632	0.9	20.2	12 17	5 48.91	+22 9.7	1.605	2.588	1.0	19.6
12 27	5 36.99	+24 11.3	1.651	2.624	4.0	20.4	12 27	5 37.88	+21 54.9	1.630	2.603	4.0	19.9
1 6	5 26.00	+24 16.0	1.683	2.615	8.6	20.7	1 6	5 28.18	+21 40.3	1.685	2.618	8.4	20.2
1 16	5 17.21	+24 18.3	1.741	2.605	12.7	20.9	1 16	5 20.80	+21 27.8	1.765	2.633	12.4	20.5
1 26	5 11.41	+24 20.7	1.821	2.594	16.1	21.1	1 26	5 16.35	+21 19.1	1.867	2.647	15.6	20.7
483436	2001 <i>PY</i> ₆₆		12 18.7	134°14	2°0/18.5	18	350911	2002 <i>RH</i> ₂₅₆		12 18.8	153°04	0°9/18.7	18
11 17	6 13.56	+19 16.1	2.178	3.015	11.8	21.0	11 17	6 14.29	+21 59.7	2.032	2.872	12.4	21.5
11 27	6 6.79	+18 38.4	2.113	3.025	8.5	20.8	11 27	6 7.52	+21 39.5	1.963	2.878	8.9	21.3
12 7	5 58.21	+18 1.4	2.074	3.035	5.0	20.6	12 7	5 58.72	+21 18.4	1.919	2.883	5.0	21.0
12 17	5 48.62	+17 26.4	2.064	3.044	2.0	20.4	12 17	5 48.73	+20 56.6	1.904	2.887	1.1	20.8
12 27	5 39.01	+16 54.9	2.085	3.053	3.9	20.6	12 27	5 38.65	+20 34.8	1.920	2.892	3.6	21.0
1 6	5 30.36	+16 28.5	2.135	3.061	7.4	20.8	1 6	5 29.58	+20 14.6	1.965	2.896	7.6	21.2
1 16	5 23.44	+16 8.4	2.213	3.069	10.7	21.0	1 16	5 22.40	+19 57.4	2.036	2.899	11.2	21.4
1 26	5 18.79	+15 55.3	2.314	3.077	13.4	21.2	1 26	5 17.70	+19 44.9	2.131	2.902	14.1	21.7
340219	2006 <i>AQ</i> ₁₀₅		12 18.7	303°25	2°5/18.9	18	235202	2003 <i>SP</i> ₁₅₈		12 18.8	138°67		

EPHEMERIDES

12 18.8

12 18.8

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
450384	2005 <i>LV</i> ₁₈		12 18.8 140°95	3°8/18.3	15		231419	2007 <i>EO</i> ₃₈		12 18.8 69°94	3°7/18.8	18	
11 17	6 12.57	+12 44.3	2.333	3.159	11.5	22.3	11 17	6 14.60	+14 28.0	1.466	2.315	15.8	20.1
11 27	6 5.96	+12 1.7	2.269	3.170	8.6	22.2	11 27	6 8.20	+14 17.0	1.412	2.327	11.7	19.9
12 7	5 57.73	+11 24.7	2.232	3.181	5.7	22.0	12 7	5 59.27	+14 14.8	1.381	2.340	7.2	19.7
12 17	5 48.58	+10 55.0	2.223	3.191	3.9	21.9	12 17	5 48.85	+14 21.7	1.376	2.353	3.9	19.5
12 27	5 39.39	+10 34.3	2.245	3.200	5.0	22.0	12 27	5 38.36	+14 37.8	1.399	2.366	5.7	19.7
1 6	5 31.05	+10 23.3	2.297	3.210	7.7	22.2	1 6	5 29.21	+15 2.0	1.448	2.379	9.8	19.9
1 16	5 24.27	+10 21.9	2.376	3.218	10.5	22.4	1 16	5 22.45	+15 32.9	1.522	2.391	13.9	20.2
1 26	5 19.54	+10 29.2	2.478	3.226	13.0	22.6	1 26	5 18.74	+16 9.0	1.617	2.404	17.2	20.5
330880	2009 <i>RV</i> ₃₀		12 18.8 115°60	2°4/18.6	18		396278	2014 <i>CJ</i> ₂₂		12 18.8 322°25	0°7/18.7	18	
11 17	6 17.31	+18 14.8	1.646	2.489	14.7	21.5	11 17	6 13.38	+23 9.3	1.311	2.176	16.3	20.7
11 27	6 9.88	+17 51.9	1.591	2.506	10.6	21.3	11 27	6 8.00	+22 46.2	1.236	2.163	11.9	20.4
12 7	6 0.07	+17 32.2	1.560	2.522	6.2	21.1	12 7	5 59.49	+22 20.8	1.183	2.150	6.8	20.0
12 17	5 48.93	+17 16.2	1.557	2.538	2.5	20.9	12 17	5 48.92	+21 52.9	1.155	2.139	1.2	19.6
12 27	5 37.82	+17 4.7	1.583	2.553	4.7	21.0	12 27	5 37.92	+21 23.7	1.153	2.127	4.9	19.9
1 6	5 28.03	+16 58.8	1.638	2.567	9.0	21.3	1 6	5 28.24	+20 56.0	1.177	2.117	10.5	20.1
1 16	5 20.57	+16 59.0	1.718	2.581	12.9	21.6	1 16	5 21.29	+20 32.8	1.224	2.107	15.5	20.4
1 26	5 16.03	+17 5.5	1.819	2.594	16.1	21.8	1 26	5 17.94	+20 16.6	1.290	2.098	19.7	20.7
157221	2004 <i>RM</i> ₅₆		12 18.8 116°25	8°2/19.5	18		320042	2007 <i>DR</i> ₁₁₄		12 18.8 260°54	1°0/18.7	17	
11 17	6 25.99	+45 23.9	1.961	2.751	14.7	20.7	11 17	6 11.30	+20 15.5	2.120	2.963	11.8	21.0
11 27	6 16.59	+46 26.9	1.911	2.772	12.0	20.5	11 27	6 5.43	+20 16.7	2.046	2.962	8.6	20.8
12 7	6 4.01	+47 10.9	1.884	2.791	9.6	20.4	12 7	5 57.62	+20 19.6	1.998	2.961	4.8	20.6
12 17	5 49.54	+47 29.0	1.884	2.810	8.3	20.4	12 17	5 48.61	+20 23.6	1.978	2.960	1.2	20.3
12 27	5 35.03	+47 18.6	1.911	2.828	8.7	20.5	12 27	5 39.42	+20 28.6	1.987	2.959	3.5	20.5
1 6	5 22.29	+46 42.7	1.965	2.846	10.6	20.6	1 6	5 31.07	+20 34.6	2.026	2.958	7.3	20.7
1 16	5 12.63	+45 48.4	2.044	2.863	12.9	20.8	1 16	5 24.41	+20 42.1	2.092	2.957	10.8	20.9
1 26	5 6.72	+44 44.2	2.145	2.879	15.2	21.0	1 26	5 20.07	+20 51.7	2.180	2.956	13.7	21.1
490538	2009 <i>VK</i> ₃₈		12 18.8 60°47	1°8/18.8	16		185157	2006 <i>SY</i> ₂₀₃		12 18.8 30°37	5°6/18.6	18	
11 17	6 19.43	+26 53.1	1.258	2.115	17.4	21.2	11 17	6 13.73	+12 30.1	1.241	2.098	17.6	20.3
11 27	6 11.93	+27 9.4	1.220	2.142	12.5	21.0	11 27	6 7.98	+11 53.0	1.185	2.102	13.3	20.1
12 7	6 1.34	+27 20.4	1.204	2.169	7.1	20.8	12 7	5 59.32	+11 27.2	1.151	2.107	8.7	19.8
12 17	5 49.12	+27 22.9	1.213	2.196	2.1	20.6	12 17	5 48.88	+11 15.6	1.140	2.112	5.7	19.7
12 27	5 37.14	+27 16.1	1.250	2.223	4.9	20.8	12 27	5 38.28	+11 19.9	1.155	2.117	7.4	19.8
1 6	5 27.11	+27 2.4	1.313	2.250	9.9	21.2	1 6	5 29.13	+11 39.4	1.195	2.123	11.7	20.0
1 16	5 20.20	+26 45.6	1.399	2.277	14.3	21.5	1 16	5 22.65	+12 12.0	1.257	2.130	16.0	20.3
1 26	5 16.93	+26 29.4	1.506	2.304	17.8	21.8	1 26	5 19.58	+12 54.4	1.338	2.136	19.6	20.6
390721	2003 <i>GF</i> ₄₃		12 18.8 253°72	10°0/17.0	18		329694	2003 <i>UM</i> ₂₂₈		12 18.8 26°08	3°9/18.7	17	
11 17	6 25.93	+44 53.0	1.808	2.606	15.5	21.1	11 17	6 13.65	+32 35.3	1.950	2.789	12.9	20.0
11 27	6 17.79	+46 57.0	1.730	2.592	13.0	20.9	11 27	6 7.48	+33 24.9	1.885	2.793	9.7	19.8
12 7	6 5.47	+48 47.7	1.675	2.578	10.9	20.8	12 7	5 58.91	+34 7.7	1.845	2.798	6.3	19.6
12 17	5 49.88	+50 12.9	1.646	2.563	10.0	20.7	12 17	5 48.82	+34 39.1	1.833	2.804	4.0	19.5
12 27	5 32.98	+51 3.9	1.645	2.548	10.9	20.7	12 27	5 38.49	+34 56.7	1.849	2.810	5.3	19.6
1 6	5 17.18	+51 19.2	1.669	2.532	13.1	20.8	1 6	5 29.22	+35 0.7	1.893	2.816	8.4	19.8
1 16	5 4.63	+51 4.4	1.715	2.516	15.8	20.9	1 16	5 22.09	+34 53.7	1.963	2.822	11.7	20.0
1 26	4 56.69	+50 29.6	1.781	2.500	18.3	21.1	1 26	5 17.79	+34 40.0	2.055	2.829	14.5	20.2
296812	2009 <i>VN</i> ₁₀₀		12 18.8 117°85	1°0/18.7	17		517342	2014 <i>JH</i> ₆₆		12 18.8 228°50	2°5/18.6	18	
11 17	6 12.47	+25 17.6	2.332	3.170	11.1	20.4	11 17	6 13.52	+17 16.4	1.997	2.836	12.6	22.3
11 27	6 6.16	+25 48.0	2.263	3.177	8.0	20.2	11 27	6 7.14	+16 55.2	1.915	2.827	9.3	22.1
12 7	5 57.97	+26 16.9	2.221	3.183	4.5	20.0	12 7	5 58.63	+16 37.0	1.858	2.818	5.6	21.8
12 17	5 48.65	+26 42.4	2.207	3.190	1.2	19.8	12 17	5 48.78	+16 22.6	1.830	2.809	2.6	21.6
12 27	5 39.15	+27 2.8	2.224	3.196	3.3	20.0	12 27	5 38.67	+16 13.0	1.832	2.799	4.4	21.7
1 6	5 30.47	+27 17.9	2.271	3.202	6.8	20.2	1 6	5 29.42	+16 8.8	1.862	2.789	8.2	22.0
1 16	5 23.44	+27 28.6	2.346	3.208	9.9	20.4	1 16	5 21.97	+16 10.6	1.919	2.779	11.9	22.2
1 26	5 18.65	+27 36.6	2.444	3.214	12.6	20.6	1 26	5 17.00	+16 18.5	1.998	2.768	15.0	22.3
488190	2015 <i>XX</i> ₁₇₇		12 18.8 29°05	3°5/18.7	18		302720	2002 <i>TC</i> ₂₉₄		12 18.8 26°57	4°2/18.8	18	
11 17	6 10.87	+14 5.1	1.810	2.653	13.5	21.2	11 17	6 15.07	+31 53.3	1.491	2.343	15.5	20.2
11 27	6 5.26	+13 50.7	1.745	2.657	10.0	21.0	11 27	6 8.98	+32 37.2	1.434	2.349	11.5	19.9
12 7	5 57.55	+13 43.5	1.704	2.661	6.3	20.8	12 7	5 59.91	+33 12.9	1.399	2.357	7.3	19.7
12 17	5 48.58	+13 44.5	1.691	2.666	3.6	20.6	12 17	5 48.99	+33 35.2	1.390	2.365	4.3	19.6
12 27	5 39.47	+13 54.1	1.706	2.670	5.1	20.7	12 27	5 37.87	+33 41.4	1.408	2.373	5.9	19.7
1 6	5 31.34	+14 11.8	1.748	2.675	8.7	20.9	1 6	5 28.21	+33 32.9	1.452	2.383	9.8	19.9
1 16	5 25.09	+14 36.7	1.816	2.681	12.2	21.2	1 16	5 21.29	+33 13.6	1.521	2.392	13.7	20.2
1 26	5 21.35	+15 7.3	1.906	2.686	15.3	21.4	1 26	5 17.84	+32 49.0	1.610	2.403	17.1	20.4
208770	2002 <i>PO</i> ₁₁₅		12 18.8 104°38	0°4/18.7	18		439273	2012 <i>UY</i> ₃₇		12 18.8 27°73	7°1/18.2	17	
11 17	6 16.37	+24 31.0	1.910	2.750	13.1	19.5	11 17	6 11.80	+11 24.0	1.157	2.019	18.2	19.9
11 27	6 8.97	+23 51.0	1.851	2.766	9.4	19.3	11 27	6 6.53	+10 9.5	1.113	2.030	13.9	19.7
12 7	5 59.48	+23 7.2	1.817	2.781	5.2	19.0	12 7	5 58.44	+9 7.6	1.089	2.042	9.6	19.5
12 17	5 48.86	+22 20.4	1.812	2.796	0.9	18.8	12 17	5 48.75	+8 23.8	1.089	2.056	7.2	19.4
12 27	5 38.34	+21 32.5	1.838	2.810	3.7	19.0	12 27	5 39.09	+8 1.9	1.114	2.070	8.7	19.5
1 6	5 29.06	+20 46.5	1.893	2.825	7.8	19.3	1 6	5 31.02	+8 1.9	1.162	2.085	12.5	19.8
1 16	5 21.88	+20 5.3	1.975	2.838	11.4	19.5	1 16	5 25.63	+8 21.5	1.232	2.101	16.5	20.0
1 26	5 17.35	+19 31.1	2.080	2.852	14.4	19.8	1 26	5 23.56	+8 56.2	1.320	2.118	19.9	20.3
453739	2011 <i>BD</i> ₁₂₅		12 18.8 107°50	2°7/18.9	17		202792	2008 <i>QB</i> ₆		12 18.8			

EPHEMERIDES

12 18.8

12 18.8

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
103363	2000 <i>AL</i> ₁₀₀		12 18.8	4°38	3°0/18.8	18	113358	2002 <i>RU</i> ₂₄₅		12 18.8	310°82	7°6/19.5	18
11 17	6 10.05	+16 56.0	1.212	2.082	17.0	18.0	11 17	6 17.09	+44 43.1	2.063	2.866	13.6	19.3
11 27	6 5.53	+16 51.2	1.154	2.081	12.5	17.7	11 27	6 10.33	+45 19.2	1.980	2.850	11.2	19.2
12 7	5 58.05	+16 54.2	1.116	2.081	7.4	17.5	12 7	6 0.68	+45 39.0	1.920	2.835	9.0	19.0
12 17	5 48.72	+17 5.3	1.103	2.083	3.1	17.2	12 17	5 49.14	+45 36.7	1.885	2.820	7.6	18.9
12 27	5 39.13	+17 24.0	1.114	2.086	5.6	17.4	12 27	5 37.24	+45 9.4	1.877	2.805	8.1	18.9
1 6	5 30.92	+17 49.3	1.151	2.091	10.7	17.7	1 6	5 26.60	+44 19.2	1.895	2.790	10.2	19.0
1 16	5 25.36	+18 19.9	1.209	2.096	15.3	18.0	1 16	5 18.48	+43 11.7	1.939	2.776	12.8	19.1
1 26	5 23.23	+18 54.7	1.287	2.103	19.3	18.2	1 26	5 13.70	+41 54.5	2.005	2.762	15.4	19.3
59753	1999 <i>LA</i> ₂₈		12 18.8	74°32	1°8/18.6	18	518242	2016 <i>UO</i> ₆₁		12 18.8	325°24	4°7/18.9	18
11 17	6 17.98	+21 13.4	1.285	2.143	17.0	19.1	11 17	6 13.05	+12 44.5	1.341	2.195	16.7	20.8
11 27	6 10.83	+20 37.1	1.237	2.159	12.3	18.9	11 27	6 7.57	+12 35.1	1.271	2.188	12.6	20.6
12 7	6 0.77	+20 0.9	1.211	2.176	7.0	18.6	12 7	5 59.20	+12 37.5	1.223	2.181	8.1	20.3
12 17	5 49.10	+19 25.9	1.211	2.193	2.0	18.4	12 17	5 48.93	+12 53.1	1.200	2.174	4.8	20.1
12 27	5 37.55	+18 54.3	1.238	2.210	5.1	18.6	12 27	5 38.24	+13 21.8	1.202	2.168	6.6	20.2
1 6	5 27.75	+18 28.6	1.291	2.227	10.2	18.9	1 6	5 28.73	+14 2.0	1.231	2.162	11.0	20.4
1 16	5 20.82	+18 10.8	1.368	2.243	14.7	19.3	1 16	5 21.72	+14 51.0	1.282	2.157	15.5	20.7
1 26	5 17.35	+18 1.8	1.465	2.260	18.4	19.5	1 26	5 18.06	+15 46.2	1.353	2.152	19.4	20.9
521930	2015 <i>UR</i> ₈₉		12 18.8	129°39	2°2/18.9	18	147172	2002 <i>VQ</i> ₂₉		12 18.8	41°81	4°3/19.0	18
11 17	6 15.35	+29 33.8	2.036	2.873	12.5	21.9	11 17	6 14.26	+13 9.2	1.251	2.107	17.5	19.1
11 27	6 8.44	+29 48.9	1.970	2.881	9.1	21.7	11 27	6 8.34	+13 11.0	1.199	2.117	13.0	18.9
12 7	5 59.33	+29 58.2	1.929	2.888	5.4	21.5	12 7	5 59.53	+13 25.4	1.168	2.128	8.2	18.6
12 17	5 48.89	+29 59.2	1.916	2.895	2.4	21.3	12 17	5 48.96	+13 52.3	1.162	2.139	4.5	18.5
12 27	5 38.35	+29 51.1	1.933	2.902	4.0	21.4	12 27	5 38.26	+14 30.4	1.182	2.150	6.3	18.6
1 6	5 28.89	+29 35.2	1.979	2.909	7.7	21.6	1 6	5 29.04	+15 17.1	1.228	2.162	10.8	18.9
1 16	5 21.46	+29 14.2	2.052	2.915	11.1	21.9	1 16	5 22.51	+16 9.5	1.297	2.174	15.2	19.2
1 26	5 16.71	+28 51.5	2.148	2.921	14.0	22.1	1 26	5 19.38	+17 5.0	1.385	2.187	18.9	19.5
272282	2005 <i>SX</i>		12 18.8	169°88	1°8/18.6	18	43957	Invernizzi		12 18.8	349°21	5°4/18.9	18
11 17	6 16.37	+20 13.0	1.726	2.570	14.1	20.6	11 17	6 10.58	+11 3.0	1.344	2.198	16.6	17.6
11 27	6 9.33	+19 45.4	1.657	2.573	10.2	20.4	11 27	6 5.73	+10 51.6	1.277	2.192	12.7	17.4
12 7	5 59.88	+19 18.2	1.612	2.575	5.9	20.2	12 7	5 58.14	+10 54.1	1.232	2.187	8.5	17.1
12 17	5 48.98	+18 52.2	1.596	2.577	1.9	19.9	12 17	5 48.76	+11 12.1	1.210	2.182	5.5	17.0
12 27	5 37.95	+18 28.5	1.608	2.579	4.4	20.1	12 27	5 39.04	+11 45.9	1.215	2.178	7.0	17.0
1 6	5 28.09	+18 8.9	1.649	2.580	8.8	20.3	1 6	5 30.46	+12 33.1	1.245	2.175	11.1	17.3
1 16	5 20.44	+17 55.1	1.716	2.580	12.8	20.6	1 16	5 24.28	+13 30.6	1.298	2.174	15.3	17.5
1 26	5 15.66	+17 47.9	1.805	2.580	16.1	20.8	1 26	5 21.30	+14 34.6	1.371	2.173	19.0	17.7
197763	2004 <i>PK</i> ₃₅		12 18.8	136°36	0°4/18.8	18	239583	2008 <i>TC</i> ₁₇₂		12 18.8	267°81	3°3/18.5	18
11 17	6 16.95	+24 41.8	1.881	2.721	13.2	21.2	11 17	6 13.53	+16 16.7	1.748	2.592	13.9	20.8
11 27	6 9.60	+24 44.2	1.817	2.732	9.5	21.0	11 27	6 7.46	+15 45.3	1.664	2.577	10.3	20.5
12 7	5 59.96	+24 44.1	1.779	2.743	5.3	20.8	12 7	5 58.98	+15 17.6	1.603	2.562	6.4	20.3
12 17	5 48.99	+24 40.1	1.770	2.753	0.9	20.5	12 17	5 48.90	+14 55.4	1.570	2.547	3.4	20.0
12 27	5 37.95	+24 31.9	1.790	2.763	3.7	20.7	12 27	5 38.45	+14 40.2	1.565	2.531	5.3	20.1
1 6	5 28.08	+24 20.6	1.840	2.772	7.9	21.0	1 6	5 28.91	+14 33.2	1.588	2.515	9.4	20.3
1 16	5 20.36	+24 8.4	1.916	2.781	11.7	21.2	1 16	5 21.38	+14 35.0	1.636	2.499	13.4	20.5
1 26	5 15.42	+23 57.5	2.015	2.789	14.7	21.5	1 26	5 16.63	+14 45.4	1.706	2.483	16.9	20.7
269832	2000 <i>BK</i> ₆		12 18.8	29°07	6°4/21.0	18	456826	2007 <i>TH</i> ₄₂₂		12 18.8	20°91	0°2/18.7	16
11 17	6 23.96	+ 1 35.3	0.873	1.714	24.5	19.0	11 17	5 50.64	+18 4.8	28.874	29.705	1.0	22.5
11 27	6 16.63	+ 3 54.5	0.815	1.720	19.1	18.7	11 27	5 49.60	+18 5.7	28.800	29.709	0.7	22.5
12 7	6 4.81	+ 7 3.8	0.776	1.727	12.8	18.4	12 7	5 48.46	+18 6.8	28.754	29.714	0.4	22.4
12 17	5 49.81	+10 55.6	0.761	1.734	7.2	18.1	12 17	5 47.26	+18 8.2	28.739	29.719	0.2	22.4
12 27	5 34.02	+15 9.6	0.773	1.743	8.0	18.2	12 27	5 46.06	+18 9.9	28.755	29.724	0.3	22.4
1 6	5 20.11	+19 19.6	0.812	1.752	13.9	18.6	1 6	5 44.89	+18 11.9	28.802	29.728	0.6	22.5
1 16	5 10.18	+23 6.2	0.875	1.762	19.7	18.9	1 16	5 43.81	+18 14.2	28.878	29.733	0.9	22.5
1 26	5 5.41	+26 21.5	0.958	1.773	24.5	19.3	1 26	5 42.86	+18 16.8	28.980	29.738	1.2	22.6
493446	2014 <i>WJ</i> ₃₆₁		12 18.8	337°47	3°2/18.4	17	374680	2006 <i>QL</i> ₄₄		12 18.8	136°93	1°7/18.7	17
11 17	6 13.82	+30 1.4	2.194	3.029	11.8	21.3	11 17	6 18.30	+19 37.3	1.677	2.518	14.5	21.6
11 27	6 7.50	+31 6.5	2.118	3.027	8.7	21.1	11 27	6 10.68	+19 22.4	1.617	2.531	10.5	21.4
12 7	5 58.93	+32 8.4	2.068	3.024	5.5	20.9	12 7	6 0.61	+19 9.5	1.581	2.544	6.0	21.2
12 17	5 48.86	+33 2.5	2.048	3.022	3.2	20.8	12 17	5 49.13	+18 58.2	1.573	2.555	1.9	21.0
12 27	5 38.41	+33 45.5	2.057	3.020	4.6	20.9	12 27	5 37.60	+18 49.2	1.595	2.566	4.4	21.1
1 6	5 28.76	+34 16.2	2.096	3.018	7.8	21.1	1 6	5 27.37	+18 43.4	1.645	2.576	8.8	21.4
1 16	5 20.93	+34 35.9	2.161	3.016	11.0	21.3	1 16	5 19.47	+18 41.7	1.722	2.585	12.8	21.7
1 26	5 15.68	+34 47.2	2.250	3.014	13.7	21.4	1 26	5 14.54	+18 45.1	1.820	2.594	16.1	21.9
250496	2004 <i>FN</i> ₄₃		12 18.8	131°83	2°9/18.8	18	179264	2001 <i>UT</i> ₁₆₄		12 18.8	117°52	2°2/18.8	18
11 17	6 15.28	+30 33.8	1.966	2.803	12.8	20.6	11 17	6 16.12	+28 48.0	2.194	3.027	11.9	20.3
11 27	6 8.57	+31 3.9	1.897	2.807	9.5	20.4	11 27	6 8.87	+29 24.6	2.134	3.043	8.7	20.2
12 7	5 59.49	+31 28.0	1.853	2.811	5.8	20.1	12 7	5 59.53	+29 56.7	2.100	3.058	5.2	20.0
12 17	5 48.94	+31 42.7	1.837	2.814	3.0	20.0	12 17	5 48.96	+30 21.3	2.094	3.073	2.3	19.8
12 27	5 38.18	+31 46.1	1.851	2.817	4.5	20.1	12 27	5 38.29	+30 36.7	2.120	3.088	3.9	19.9
1 6	5 28.50	+31 39.2	1.893	2.821	8.1	20.3	1 6	5 28.63	+30 43.1	2.175	3.102	7.3	20.2
1 16	5 20.94	+31 24.7	1.961	2.824	11.5	20.5	1 16	5 20.89	+30 42.5	2.258	3.116	10.4	20.4
1 26	5 16.18	+31 6.3	2.052	2.826	14.5	20.7	1 26	5 15.68	+30 37.8	2.364	3.129	13.1	20.6
215962	2005 <i>PA</i>		12 18.8	126°95	1°1/18.7	18	172217	2002 <i>RK</i> ₄₄		12 18.8	32°27		

EPHEMERIDES

12 18.8

12 18.8

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
156793	2003 <i>BY</i> ₁₄		12 18.8 253°05	0°0/18.8 18			309977	2009 <i>HO</i> ₆₁		12 18.8 26°76	2°5/18.7 17		
11 17	6 15.84	+22 53.3	1.748	2.594	13.8	20.8	11 17	6 12.21	+18 6.2	1.582	2.435	14.6	20.4
11 27	6 9.29	+23 5.5	1.662	2.579	10.1	20.5	11 27	6 6.50	+17 46.1	1.520	2.440	10.7	20.2
12 7	6 0.09	+23 18.0	1.600	2.565	5.7	20.2	12 7	5 58.38	+17 29.9	1.482	2.445	6.3	20.0
12 17	5 49.09	+23 28.9	1.566	2.550	0.9	19.8	12 17	5 48.84	+17 18.2	1.470	2.450	2.6	19.8
12 27	5 37.62	+23 36.9	1.561	2.535	4.1	20.1	12 27	5 39.16	+17 11.8	1.486	2.456	4.8	19.9
1 6	5 27.10	+23 42.1	1.585	2.519	8.8	20.3	1 6	5 30.66	+17 11.4	1.529	2.463	9.1	20.2
1 16	5 18.75	+23 45.8	1.634	2.503	13.1	20.5	1 16	5 24.36	+17 17.1	1.597	2.470	13.1	20.4
1 26	5 13.41	+23 49.9	1.705	2.486	16.7	20.7	1 26	5 20.93	+17 28.9	1.686	2.477	16.5	20.7
134981	2001 <i>FK</i> ₅₇		12 18.8 243°71	4°1/18.9 18			305256	2007 <i>YN</i> ₉		12 18.8 90°22	2°8/18.8 18		
11 17	6 14.33	+35 27.4	2.368	3.191	11.4	20.4	11 17	6 15.34	+29 28.5	1.837	2.679	13.4	20.8
11 27	6 7.78	+36 2.5	2.287	3.184	8.7	20.2	11 27	6 8.78	+30 4.5	1.769	2.682	9.9	20.6
12 7	5 59.04	+36 29.4	2.232	3.177	6.0	20.0	12 7	5 59.71	+30 35.5	1.725	2.685	6.0	20.4
12 17	5 48.92	+36 44.4	2.205	3.170	4.2	19.9	12 17	5 49.05	+30 57.8	1.709	2.687	2.9	20.2
12 27	5 38.50	+36 45.5	2.208	3.163	5.1	19.9	12 27	5 38.14	+31 9.1	1.722	2.690	4.6	20.3
1 6	5 28.95	+36 33.5	2.239	3.155	7.7	20.1	1 6	5 28.35	+31 9.8	1.763	2.693	8.4	20.6
1 16	5 21.24	+36 11.1	2.298	3.148	10.6	20.3	1 16	5 20.77	+31 2.5	1.830	2.695	12.1	20.8
1 26	5 16.06	+35 42.4	2.380	3.140	13.1	20.4	1 26	5 16.15	+30 50.9	1.919	2.698	15.2	21.0
230196	2001 <i>SR</i> ₁₅₆		12 18.8 20°26	4°6/19.3 18			515261	2012 <i>RC</i> ₄		12 18.8 84°09	7°9/20.6 18		
11 17	6 15.77	+33 33.7	1.147	2.010	18.3	19.5	11 17	6 28.10	+44 34.4	1.620	2.423	16.7	20.8
11 27	6 10.02	+33 41.6	1.096	2.016	13.7	19.2	11 27	6 18.06	+44 52.8	1.577	2.451	13.4	20.6
12 7	6 0.65	+33 35.4	1.064	2.024	8.7	19.0	12 7	6 4.72	+44 48.2	1.557	2.478	10.2	20.5
12 17	5 49.16	+33 10.6	1.056	2.032	4.9	18.8	12 17	5 49.77	+44 15.1	1.562	2.506	8.1	20.4
12 27	5 37.64	+32 27.4	1.073	2.042	6.5	18.9	12 27	5 35.32	+43 13.8	1.595	2.532	8.5	20.5
1 6	5 28.12	+31 30.8	1.114	2.053	11.2	19.2	1 6	5 23.23	+41 50.8	1.655	2.559	10.8	20.7
1 16	5 22.00	+30 28.6	1.178	2.064	15.7	19.5	1 16	5 14.66	+40 16.2	1.740	2.584	13.7	21.0
1 26	5 19.93	+29 28.1	1.261	2.077	19.6	19.8	1 26	5 10.05	+38 39.5	1.847	2.610	16.3	21.2
265984	2006 <i>DS</i> ₅₅		12 18.8 44°14	5°2/19.1 18			320444	2007 <i>VS</i> ₁₉₀		12 18.8 74°34	1°4/18.8 18		
11 17	6 10.22	+ 8 16.6	1.934	2.763	13.4	20.3	11 17	6 21.70	+24 46.5	1.217	2.073	17.9	20.2
11 27	6 4.64	+ 8 7.6	1.875	2.773	10.3	20.1	11 27	6 13.73	+25 22.9	1.178	2.100	12.9	20.0
12 7	5 57.18	+ 8 10.6	1.840	2.783	7.2	20.0	12 7	6 2.50	+25 57.1	1.161	2.126	7.2	19.8
12 17	5 48.62	+ 8 27.0	1.832	2.794	5.3	19.9	12 17	5 49.46	+26 24.4	1.169	2.152	1.8	19.5
12 27	5 39.96	+ 8 56.5	1.852	2.805	6.1	20.0	12 27	5 36.58	+26 42.2	1.205	2.178	5.0	19.8
1 6	5 32.22	+ 9 37.5	1.900	2.816	8.9	20.1	1 6	5 25.72	+26 51.3	1.267	2.204	10.3	20.2
1 16	5 26.20	+10 27.5	1.974	2.827	11.9	20.4	1 16	5 18.10	+26 54.8	1.353	2.229	14.8	20.5
1 26	5 22.47	+11 23.7	2.070	2.839	14.6	20.6	1 26	5 14.34	+26 56.2	1.458	2.254	18.4	20.8
493274	2014 <i>UT</i> ₁₄₂		12 18.8 99°32	2°0/18.9 17			456028	2005 <i>YZ</i> ₁₀₄		12 18.8 33°02	1°1/18.9 17		
11 17	6 13.10	+29 42.7	2.363	3.197	11.1	21.8	11 17	6 13.11	+27 44.7	2.092	2.933	12.1	21.0
11 27	6 6.57	+29 56.8	2.300	3.210	8.1	21.6	11 27	6 6.81	+27 32.9	2.019	2.933	8.8	20.8
12 7	5 58.20	+30 5.6	2.264	3.222	4.8	21.4	12 7	5 58.44	+27 15.8	1.971	2.934	5.0	20.5
12 17	5 48.77	+30 7.2	2.256	3.235	2.2	21.3	12 17	5 48.86	+26 52.6	1.952	2.934	1.4	20.3
12 27	5 39.28	+30 1.1	2.279	3.247	3.6	21.4	12 27	5 39.16	+26 23.7	1.962	2.934	3.5	20.4
1 6	5 30.72	+29 48.1	2.331	3.260	6.7	21.6	1 6	5 30.46	+25 51.0	2.002	2.935	7.3	20.7
1 16	5 23.90	+29 30.5	2.411	3.272	9.7	21.8	1 16	5 23.63	+25 17.4	2.068	2.935	10.8	20.9
1 26	5 19.35	+29 11.1	2.515	3.284	12.3	22.0	1 26	5 19.29	+24 45.6	2.158	2.936	13.8	21.1
11549	1992 <i>YY</i>		12 18.8 217°03	0°1/18.8 18			249917	2001 <i>SN</i> ₂₃₄		12 18.8 14°18	8°9/18.3 18		
11 17	6 15.91	+25 39.2	1.890	2.731	13.1	16.4	11 17	6 9.19	+ 4 48.6	1.443	2.281	16.6	19.7
11 27	6 8.97	+25 9.5	1.812	2.727	9.5	16.2	11 27	6 4.38	+ 3 39.8	1.391	2.286	13.4	19.5
12 7	5 59.70	+24 34.8	1.759	2.722	5.3	15.9	12 7	5 57.22	+ 2 48.2	1.359	2.291	10.4	19.3
12 17	5 49.02	+23 54.9	1.734	2.718	0.8	15.6	12 17	5 48.68	+ 2 19.1	1.352	2.297	8.9	19.3
12 27	5 38.18	+23 11.1	1.739	2.712	3.8	15.8	12 27	5 40.04	+ 2 15.4	1.370	2.305	9.8	19.3
1 6	5 28.44	+22 26.4	1.774	2.707	8.1	16.1	1 6	5 32.55	+ 2 36.3	1.411	2.313	12.5	19.5
1 16	5 20.81	+21 44.2	1.835	2.701	12.0	16.3	1 16	5 27.21	+ 3 18.2	1.475	2.322	15.5	19.7
1 26	5 15.95	+21 7.3	1.919	2.695	15.3	16.5	1 26	5 24.66	+ 4 15.7	1.558	2.332	18.4	19.9
132787	2002 <i>PE</i> ₁₃₅		12 18.8 67°46	2°0/18.9 18			465479	2008 <i>TV</i> ₆		12 18.8 39°20	11°8/18.4 18		
11 17	6 13.19	+28 49.9	2.160	2.999	11.8	19.5	11 17	6 8.78	- 8 53.5	1.968	2.729	15.6	20.6
11 27	6 6.75	+29 13.7	2.105	3.016	8.6	19.3	11 27	6 3.54	-10 17.9	1.927	2.743	13.8	20.5
12 7	5 58.34	+29 32.8	2.074	3.034	5.1	19.1	12 7	5 56.54	-11 18.5	1.907	2.757	12.4	20.4
12 17	5 48.81	+29 44.9	2.073	3.052	2.2	19.0	12 17	5 48.57	-11 50.1	1.910	2.772	11.8	20.4
12 27	5 39.23	+29 48.9	2.101	3.070	3.8	19.1	12 27	5 40.57	-11 50.6	1.936	2.787	12.2	20.5
1 6	5 30.67	+29 45.6	2.158	3.088	7.1	19.3	1 6	5 33.49	-11 21.4	1.985	2.803	13.3	20.6
1 16	5 23.98	+29 37.0	2.243	3.106	10.3	19.6	1 16	5 28.06	-10 27.0	2.056	2.819	14.8	20.7
1 26	5 19.71	+29 25.7	2.350	3.124	12.9	19.8	1 26	5 24.80	- 9 13.4	2.145	2.835	16.4	20.9
229720	2007 <i>EK</i> ₂₁₉		12 18.8 78°93	0°5/18.8 18			190504	Hermanottó		12 18.8 250°45	1°6/18.7 18		
11 17	6 13.41	+21 47.1	2.150	2.989	11.8	21.1	11 17	6 15.31	+19 36.6	1.686	2.532	14.2	21.2
11 27	6 6.71	+21 47.0	2.100	3.015	8.5	20.9	11 27	6 8.90	+19 31.3	1.603	2.520	10.4	20.9
12 7	5 58.23	+21 47.1	2.077	3.040	4.7	20.7	12 7	5 59.88	+19 28.6	1.545	2.508	6.0	20.6
12 17	5 48.79	+21 46.7	2.082	3.065	0.9	20.5	12 17	5 49.13	+19 27.9	1.514	2.496	1.8	20.3
12 27	5 39.40	+21 45.6	2.117	3.090	3.3	20.7	12 27	5 37.97	+19 29.1	1.511	2.483	4.4	20.5
1 6	5 31.04	+21 44.4	2.183	3.115	6.9	21.0	1 6	5 27.80	+19 32.7	1.537	2.470	9.1	20.7
1 16	5 24.47	+21 44.0	2.275	3.139	10.1	21.2	1 16	5 19.80	+19 39.4	1.588	2.457	13.4	20.9
1 26	5 20.17	+21 45.4	2.391	3.163	12.8	21.4	1 26	5 14.79	+19 50.1	1.660	2.443	17.1	21.1
222877	2002 <i>GG</i> ₄₅		12 18.8 123°77	4°5/18.9 18			86875	2000 <i>HN</i> ₂₁		12 18.8 147°86	1°3		

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
297524	2001 <i>DC</i> ₃₅		12 18.8 297°93	2°0/18.9	17		268580	2006 <i>BT</i> ₁₂₅		12 18.8 347°61	0°6/18.8	17	
11 17	6 14.88	+28 33.2	1.625	2.475	14.5	20.4	11 17	6 10.54	+21 30.7	1.731	2.585	13.5	21.1
11 27	6 8.81	+28 39.4	1.545	2.462	10.7	20.2	11 27	6 5.35	+21 33.6	1.658	2.579	9.8	20.9
12 7	5 59.91	+28 39.8	1.487	2.450	6.3	19.9	12 7	5 57.83	+21 37.8	1.608	2.574	5.5	20.6
12 17	5 49.15	+28 31.4	1.456	2.437	2.3	19.6	12 17	5 48.83	+21 42.5	1.586	2.569	1.1	20.3
12 27	5 37.99	+28 13.5	1.453	2.425	4.6	19.7	12 27	5 39.56	+21 47.1	1.591	2.565	3.9	20.5
1 6	5 27.97	+27 47.7	1.477	2.413	9.2	20.0	1 6	5 31.28	+21 51.9	1.625	2.562	8.4	20.8
1 16	5 20.38	+27 17.8	1.526	2.401	13.5	20.2	1 16	5 25.01	+21 57.7	1.683	2.559	12.4	21.0
1 26	5 16.03	+26 47.9	1.597	2.389	17.2	20.4	1 26	5 21.49	+22 5.4	1.763	2.557	15.8	21.2
243498	2009 <i>US</i> ₁₃₀		12 18.8 207°35	0°0/18.8	18		82121	2001 <i>FQ</i> ₇₇		12 18.8 117°84	3°5/18.8	18	
11 17	6 12.86	+25 8.6	2.405	3.241	10.9	20.3	11 17	6 20.34	+30 17.5	1.623	2.463	15.0	19.2
11 27	6 6.39	+24 42.7	2.325	3.238	7.8	20.1	11 27	6 12.59	+31 5.4	1.566	2.477	11.1	19.0
12 7	5 58.15	+24 13.2	2.271	3.234	4.4	19.9	12 7	6 1.91	+31 46.7	1.532	2.490	6.8	18.8
12 17	5 48.85	+23 40.1	2.247	3.231	0.7	19.6	12 17	5 49.46	+32 16.1	1.526	2.502	3.6	18.7
12 27	5 39.44	+23 4.4	2.254	3.227	3.1	19.8	12 27	5 36.84	+32 30.8	1.548	2.514	5.4	18.8
1 6	5 30.86	+22 28.0	2.291	3.223	6.7	20.0	1 6	5 25.67	+32 31.5	1.599	2.526	9.3	19.1
1 16	5 23.90	+21 53.2	2.357	3.218	9.9	20.2	1 16	5 17.19	+32 22.0	1.674	2.537	13.2	19.3
1 26	5 19.10	+21 22.1	2.446	3.214	12.6	20.4	1 26	5 12.14	+32 7.1	1.771	2.548	16.4	19.6
480144	2015 <i>FP</i> ₁₇₆		12 18.8 325°08	2°5/19.0	18		3360	Syrinx		12 18.8 53°50	5°2/18.5	17	
11 17	6 16.89	+29 9.3	1.214	2.076	17.5	21.0	11 17	6 34.53	+12 8.0	1.617	2.421	16.8	19.8
11 27	6 10.89	+29 11.1	1.145	2.069	13.0	20.7	11 27	6 20.92	+10 59.2	1.614	2.503	12.2	19.7
12 7	6 1.31	+29 4.5	1.098	2.063	7.7	20.4	12 7	6 5.58	+10 0.8	1.638	2.582	7.9	19.6
12 17	5 49.38	+28 45.9	1.075	2.057	2.8	20.1	12 17	5 49.93	+ 9 15.6	1.694	2.658	5.3	19.6
12 27	5 37.06	+28 14.8	1.078	2.051	5.5	20.3	12 27	5 35.45	+ 8 45.5	1.782	2.733	6.6	19.8
1 6	5 26.41	+27 34.6	1.106	2.046	11.0	20.6	1 6	5 23.26	+ 8 30.4	1.902	2.804	9.7	20.2
1 16	5 18.96	+26 51.0	1.157	2.041	16.1	20.8	1 16	5 13.99	+ 8 28.8	2.049	2.874	12.7	20.5
1 26	5 15.59	+26 10.1	1.226	2.037	20.3	21.1	1 26	5 7.87	+ 8 38.1	2.218	2.941	15.0	20.8
25021	Nischaykumar		12 18.8 143°36	2°4/18.7	18		77411	2001 <i>FX</i> ₁₇₂		12 18.8 225°51	4°7/18.6	18	
11 17	6 16.25	+17 58.6	1.649	2.494	14.6	19.6	11 17	6 18.63	+35 56.4	2.291	3.108	12.0	20.0
11 27	6 9.34	+17 42.1	1.585	2.500	10.6	19.4	11 27	6 11.13	+36 50.1	2.204	3.096	9.2	19.8
12 7	5 59.98	+17 29.2	1.545	2.507	6.2	19.1	12 7	6 1.11	+37 35.8	2.143	3.085	6.5	19.6
12 17	5 49.14	+17 20.4	1.532	2.513	2.5	18.9	12 17	5 49.39	+38 8.3	2.111	3.072	4.7	19.5
12 27	5 38.17	+17 16.1	1.549	2.518	4.7	19.1	12 27	5 37.18	+38 24.6	2.109	3.059	5.7	19.5
1 6	5 28.41	+17 16.8	1.593	2.524	9.1	19.3	1 6	5 25.82	+38 24.4	2.136	3.045	8.4	19.6
1 16	5 20.90	+17 23.0	1.662	2.528	13.1	19.6	1 16	5 16.46	+38 10.8	2.190	3.031	11.4	19.8
1 26	5 16.33	+17 34.9	1.753	2.533	16.4	19.8	1 26	5 9.93	+37 48.4	2.267	3.016	14.0	20.0
458523	2011 <i>CV</i> ₈₃		12 18.8 241°77	2°8/19.1	18		275999	2001 <i>XP</i> ₂₂₂		12 18.8 118°45	0°9/18.7	18	
11 17	6 13.33	+32 39.6	2.391	3.221	11.1	21.1	11 17	6 13.10	+21 53.0	2.011	2.854	12.4	20.6
11 27	6 6.92	+32 45.9	2.311	3.215	8.3	20.9	11 27	6 6.79	+21 35.2	1.943	2.859	8.9	20.4
12 7	5 58.52	+32 44.7	2.255	3.209	5.2	20.7	12 7	5 58.46	+21 17.0	1.900	2.864	5.0	20.2
12 17	5 48.92	+32 33.8	2.229	3.204	2.9	20.6	12 17	5 48.94	+20 58.2	1.885	2.868	1.1	19.9
12 27	5 39.13	+32 12.7	2.233	3.198	4.0	20.6	12 27	5 39.32	+20 39.7	1.900	2.873	3.6	20.1
1 6	5 30.23	+31 42.9	2.266	3.192	7.0	20.8	1 6	5 30.69	+20 22.7	1.945	2.877	7.6	20.4
1 16	5 23.07	+31 7.3	2.326	3.186	10.1	21.0	1 16	5 23.91	+20 8.7	2.016	2.882	11.1	20.6
1 26	5 18.27	+30 29.5	2.411	3.179	12.8	21.2	1 26	5 19.59	+19 58.9	2.109	2.886	14.1	20.8
422896	2002 <i>RJ</i> ₅₀		12 18.8 91°82	7°0/18.9	18		95607	2002 <i>FZ</i> ₃₁		12 18.8 141°63	6°5/19.0	18	
11 17	6 9.39	+ 0 4.8	2.484	3.274	12.0	21.0	11 17	6 10.31	+ 2 1.1	2.428	3.224	12.0	19.8
11 27	6 3.65	- 0 30.4	2.433	3.292	9.9	20.9	11 27	6 4.44	+ 1 38.2	2.363	3.231	9.7	19.7
12 7	5 56.51	- 0 51.2	2.406	3.310	8.0	20.8	12 7	5 57.03	+ 1 28.9	2.323	3.238	7.6	19.5
12 17	5 48.59	- 0 55.5	2.406	3.327	7.0	20.7	12 17	5 48.73	+ 1 35.0	2.311	3.245	6.5	19.5
12 27	5 40.66	- 0 42.3	2.434	3.345	7.5	20.8	12 27	5 40.33	+ 1 57.3	2.327	3.251	7.0	19.5
1 6	5 33.47	- 0 12.9	2.489	3.362	9.0	20.9	1 6	5 32.63	+ 2 34.6	2.371	3.257	8.8	19.6
1 16	5 27.63	+ 0 30.4	2.571	3.379	10.9	21.1	1 16	5 26.32	+ 3 24.4	2.441	3.262	11.0	19.8
1 26	5 23.60	+ 1 24.1	2.674	3.396	12.8	21.2	1 26	5 21.89	+ 4 23.4	2.534	3.267	13.1	20.0
101922	1999 <i>RG</i> ₁₆		12 18.8 204°88	3°5/18.6	18		296223	2009 <i>CR</i> ₃₃		12 18.8 26°49	0°3/18.8	18	
11 17	6 16.24	+15 0.8	1.748	2.585	14.2	20.1	11 17	6 13.82	+22 46.4	1.520	2.376	15.0	21.2
11 27	6 9.34	+14 37.2	1.671	2.581	10.6	19.8	11 27	6 7.88	+22 45.8	1.458	2.380	10.8	21.0
12 7	6 0.02	+14 19.4	1.619	2.576	6.6	19.6	12 7	5 59.30	+22 45.1	1.418	2.384	6.1	20.7
12 17	5 49.16	+14 8.5	1.595	2.571	3.6	19.4	12 17	5 49.11	+22 43.0	1.405	2.388	1.0	20.4
12 27	5 38.02	+14 5.5	1.600	2.565	5.4	19.5	12 27	5 38.73	+22 39.3	1.419	2.393	4.2	20.6
1 6	5 27.90	+14 10.9	1.633	2.558	9.4	19.7	1 6	5 29.64	+22 34.7	1.461	2.398	9.1	20.9
1 16	5 19.86	+14 24.4	1.692	2.550	13.3	19.9	1 16	5 22.95	+22 31.1	1.527	2.404	13.3	21.2
1 26	5 14.65	+14 45.3	1.772	2.542	16.6	20.2	1 26	5 19.36	+22 29.9	1.614	2.410	16.9	21.4
292368	2006 <i>SF</i> ₂₄₉		12 18.8 179°28	1°6/18.7	18		44630	1999 <i>RY</i> ₈₃		12 18.8 5°93	5°1/18.8	18	
11 17	6 13.10	+19 30.7	2.014	2.856	12.4	21.3	11 17	6 14.08	+12 43.3	1.296	2.151	17.2	19.0
11 27	6 6.81	+19 15.5	1.942	2.856	9.0	21.1	11 27	6 8.33	+12 22.2	1.234	2.150	12.9	18.8
12 7	5 58.48	+19 1.9	1.894	2.857	5.2	20.9	12 7	5 59.67	+12 12.4	1.194	2.151	8.4	18.5
12 17	5 48.92	+18 50.1	1.875	2.857	1.7	20.7	12 17	5 49.18	+12 15.9	1.178	2.151	5.2	18.3
12 27	5 39.19	+18 40.6	1.886	2.857	3.9	20.8	12 27	5 38.40	+12 33.3	1.187	2.152	6.9	18.4
1 6	5 30.39	+18 34.2	1.926	2.857	7.8	21.1	1 6	5 28.95	+13 3.5	1.223	2.153	11.2	18.7
1 16	5 23.40	+18 31.7	1.992	2.856	11.3	21.3	1 16	5 22.10	+13 44.0	1.281	2.155	15.6	19.0
1 26	5 18.86	+18 33.7	2.081	2.855	14.3	21.5	1 26	5 18.62	+14 32.2	1.358	2.156	19.4	19.2
223036	2002 <i>TU</i> ₃₁		12 18.8 84°81	4°1/18.7	18		78344	2002 <i>PA</i> ₉₃		12 18.8 336°57	2°2/18.3	18	

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
107915	2001 FZ ₁₀₀	12 18.8 297°21	0°6/18.7 18				291268	2006 BJ ₈₇	12 18.8 129°38	2°1/18.9 18			
11 17	6 11.98	+23 22.1	2.068	2.912	12.1	19.5	11 17	6 11.19	+15 24.0	2.572	3.401	10.5	21.2
11 27	6 6.08	+22 53.0	1.985	2.902	8.7	19.3	11 27	6 5.06	+15 28.8	2.506	3.412	7.7	21.0
12 7	5 58.14	+22 21.2	1.928	2.892	4.9	19.0	12 7	5 57.40	+15 38.3	2.466	3.423	4.6	20.8
12 17	5 48.94	+21 47.2	1.899	2.883	0.9	18.7	12 17	5 48.85	+15 52.3	2.457	3.434	2.2	20.7
12 27	5 39.53	+21 12.3	1.900	2.873	3.5	18.9	12 27	5 40.22	+16 10.3	2.478	3.444	3.5	20.8
1 6	5 31.01	+20 38.3	1.930	2.863	7.6	19.2	1 6	5 32.29	+16 31.9	2.529	3.454	6.4	21.0
1 16	5 24.27	+20 7.7	1.987	2.854	11.2	19.4	1 16	5 25.74	+16 56.4	2.608	3.464	9.3	21.2
1 26	5 19.94	+19 42.4	2.067	2.845	14.3	19.6	1 26	5 21.07	+17 23.4	2.712	3.473	11.7	21.4
196805	2003 SZ ₂₀₉	12 18.8 50°66	2°5/19.0 17				298420	2003 SO ₃₆₁	12 18.8 41°41	1°3/18.9 18			
11 17	6 13.37	+30 24.9	1.994	2.834	12.6	19.9	11 17	6 8.81	+27 45.4	2.830	3.665	9.4	20.3
11 27	6 7.11	+30 39.8	1.935	2.846	9.2	19.7	11 27	6 3.39	+28 0.9	2.760	3.671	6.8	20.1
12 7	5 58.68	+30 48.3	1.900	2.859	5.6	19.5	12 7	5 56.50	+28 13.4	2.717	3.677	4.0	20.0
12 17	5 49.01	+30 48.0	1.894	2.872	2.7	19.4	12 17	5 48.72	+28 21.6	2.703	3.684	1.5	19.8
12 27	5 39.28	+30 38.2	1.916	2.885	4.2	19.5	12 27	5 40.83	+28 24.8	2.720	3.690	2.9	19.9
1 6	5 30.67	+30 20.3	1.967	2.898	7.6	19.7	1 6	5 33.61	+28 23.4	2.767	3.697	5.7	20.1
1 16	5 24.08	+29 57.3	2.045	2.911	10.9	20.0	1 16	5 27.71	+28 18.5	2.842	3.704	8.4	20.3
1 26	5 20.10	+29 32.4	2.145	2.925	13.8	20.2	1 26	5 23.62	+28 11.6	2.941	3.710	10.7	20.5
323240	2003 SC ₁₈₈	12 18.8 84°46	2°1/18.7 18				278712	2008 SE ₃₆	12 18.8 152°83	2°0/18.9 18			
11 17	6 19.87	+19 56.8	1.369	2.219	16.6	20.0	11 17	6 18.10	+28 22.6	1.972	2.806	12.9	21.6
11 27	6 12.00	+19 26.5	1.326	2.245	12.0	19.8	11 27	6 10.58	+28 45.8	1.904	2.815	9.4	21.4
12 7	6 1.42	+18 58.1	1.306	2.270	6.8	19.6	12 7	6 0.71	+29 4.2	1.862	2.822	5.6	21.2
12 17	5 49.42	+18 32.4	1.313	2.295	2.3	19.4	12 17	5 49.39	+29 14.8	1.849	2.829	2.2	20.9
12 27	5 37.65	+18 10.7	1.348	2.319	5.0	19.6	12 27	5 37.91	+29 16.3	1.866	2.836	4.1	21.1
1 6	5 27.61	+17 54.9	1.410	2.343	9.8	19.9	1 6	5 27.56	+29 9.5	1.912	2.841	7.9	21.3
1 16	5 20.35	+17 46.1	1.496	2.367	14.0	20.2	1 16	5 19.35	+28 57.1	1.985	2.846	11.5	21.6
1 26	5 16.42	+17 44.9	1.604	2.390	17.4	20.5	1 26	5 13.97	+28 42.3	2.081	2.851	14.5	21.8
183186	2002 SM ₅₉	12 18.8 212°58	3°5/18.8 18				520620	2014 OC ₄₁₃	12 18.8 206°80	4°5/18.7 18			
11 17	6 19.21	+29 58.3	1.606	2.448	15.0	20.3	11 17	6 11.52	+10 59.1	2.065	2.895	12.6	21.7
11 27	6 12.07	+30 44.6	1.532	2.445	11.1	20.1	11 27	6 5.65	+10 34.2	1.992	2.894	9.6	21.5
12 7	6 1.84	+31 25.6	1.482	2.441	6.9	19.8	12 7	5 57.89	+10 17.7	1.944	2.892	6.5	21.3
12 17	5 49.55	+31 56.1	1.460	2.437	3.6	19.6	12 17	5 48.96	+10 11.1	1.923	2.889	4.5	21.2
12 27	5 36.80	+32 12.2	1.465	2.432	5.5	19.7	12 27	5 39.84	+10 15.5	1.931	2.887	5.6	21.3
1 6	5 25.30	+32 14.3	1.498	2.427	9.7	19.9	1 6	5 31.53	+10 30.6	1.968	2.885	8.6	21.5
1 16	5 16.45	+32 5.7	1.556	2.421	13.8	20.2	1 16	5 24.86	+10 55.4	2.031	2.882	11.7	21.7
1 26	5 11.13	+31 51.2	1.635	2.416	17.4	20.4	1 26	5 20.46	+11 28.1	2.116	2.879	14.5	21.8
58968	1998 RJ ₆	12 18.8 246°14	3°1/18.9 18				421136	2013 RQ ₇	12 18.8 163°36	2°7/19.1 18			
11 17	6 18.15	+30 29.1	1.581	2.426	15.1	18.5	11 17	6 13.29	+32 53.6	2.552	3.378	10.6	21.4
11 27	6 11.30	+30 50.3	1.505	2.418	11.2	18.2	11 27	6 6.78	+33 1.9	2.478	3.380	7.9	21.3
12 7	6 1.39	+31 4.2	1.451	2.411	6.9	17.9	12 7	5 58.45	+33 3.0	2.430	3.383	5.0	21.1
12 17	5 49.48	+31 6.5	1.425	2.403	3.3	17.7	12 17	5 49.04	+32 54.9	2.411	3.385	2.8	21.0
12 27	5 37.16	+30 55.4	1.426	2.395	5.2	17.8	12 27	5 39.51	+32 37.0	2.422	3.386	3.9	21.0
1 6	5 26.13	+30 32.5	1.455	2.387	9.7	18.0	1 6	5 30.85	+32 10.8	2.463	3.388	6.6	21.2
1 16	5 17.75	+30 2.0	1.508	2.378	13.9	18.3	1 16	5 23.84	+31 38.9	2.532	3.389	9.5	21.4
1 26	5 12.88	+29 29.3	1.583	2.370	17.6	18.5	1 26	5 19.05	+31 4.6	2.625	3.390	11.9	21.6
172748	2004 CX ₉₆	12 18.8 255°74	1°8/19.0 17				332995	2011 GM ₆₃	12 18.8 232°87	3°5/19.1 18			
11 17	6 15.01	+29 6.7	1.905	2.746	13.1	20.2	11 17	6 10.08	+10 18.9	2.640	3.460	10.5	20.8
11 27	6 8.48	+29 2.0	1.827	2.741	9.6	19.9	11 27	6 4.35	+10 27.5	2.556	3.453	8.0	20.6
12 7	5 59.56	+28 50.8	1.775	2.736	5.6	19.7	12 7	5 57.08	+10 44.4	2.499	3.445	5.3	20.4
12 17	5 49.17	+28 31.2	1.750	2.731	2.0	19.4	12 17	5 48.83	+11 9.9	2.470	3.438	3.5	20.3
12 27	5 38.57	+28 3.2	1.754	2.725	4.0	19.6	12 27	5 40.37	+11 43.6	2.473	3.430	4.4	20.3
1 6	5 29.05	+27 28.9	1.787	2.720	8.1	19.8	1 6	5 32.46	+12 24.2	2.505	3.422	6.9	20.5
1 16	5 21.66	+26 51.9	1.847	2.715	11.8	20.0	1 16	5 25.81	+13 10.4	2.565	3.414	9.6	20.6
1 26	5 17.07	+26 15.8	1.929	2.710	15.1	20.2	1 26	5 20.96	+14 0.4	2.650	3.406	12.1	20.8
464289	2016 AP ₇₄	12 18.8 307°90	1°8/18.6 18				493948	2016 AH ₂₄	12 18.8 190°04	1°0/18.8 18			
11 17	6 10.41	+19 26.1	2.172	3.014	11.6	21.1	11 17	6 10.71	+19 46.7	2.585	3.420	10.2	21.8
11 27	6 4.83	+18 56.4	2.092	3.007	8.4	20.9	11 27	6 4.81	+19 46.6	2.508	3.419	7.4	21.6
12 7	5 57.40	+18 27.6	2.037	2.999	4.9	20.6	12 7	5 57.33	+19 48.0	2.456	3.418	4.2	21.4
12 17	5 48.83	+18 0.4	2.011	2.992	1.9	20.4	12 17	5 48.87	+19 50.6	2.435	3.417	1.2	21.2
12 27	5 40.08	+17 36.3	2.015	2.985	3.8	20.6	12 27	5 40.25	+19 54.3	2.444	3.415	3.0	21.3
1 6	5 32.12	+17 16.4	2.048	2.978	7.4	20.8	1 6	5 32.30	+19 59.2	2.484	3.414	6.3	21.5
1 16	5 25.78	+17 1.9	2.107	2.971	10.8	21.0	1 16	5 25.73	+20 5.7	2.551	3.411	9.3	21.7
1 26	5 21.65	+16 53.5	2.190	2.964	13.7	21.1	1 26	5 21.07	+20 14.1	2.643	3.409	11.8	21.9
77395	2001 FG ₁₅₉	12 18.8 76°97	6°8/19.2 18				479530	2014 BL ₃₆	12 18.8 110°06	1°6/18.9 18			
11 17	6 20.96	+39 45.4	1.722	2.543	15.1	18.4	11 17	6 16.96	+26 55.6	1.568	2.417	15.0	21.5
11 27	6 13.12	+40 42.5	1.673	2.562	11.9	18.3	11 27	6 10.22	+27 10.8	1.503	2.421	10.9	21.3
12 7	6 2.25	+41 24.2	1.648	2.581	8.8	18.1	12 7	6 0.69	+27 22.0	1.462	2.425	6.3	21.0
12 17	5 49.59	+41 44.2	1.648	2.600	6.9	18.1	12 17	5 49.42	+27 26.1	1.447	2.429	1.9	20.8
12 27	5 36.87	+41 40.1	1.676	2.619	7.7	18.2	12 27	5 37.94	+27 22.1	1.460	2.433	4.4	20.9
1 6	5 25.81	+41 14.4	1.730	2.637	10.2	18.4	1 6	5 27.79	+27 11.1	1.501	2.436	9.1	21.2
1 16	5 17.64	+40 33.2	1.810	2.656	13.2	18.6	1 16	5 20.18	+26 56.1	1.567	2.440	13.3	21.5
1 26	5 13.04	+39 44.0	1.910	2.674	15.8	18.8	1 26	5 15.85	+26 40.7	1.654	2.443	16.8	21.7
330761	2008 SR ₂₅₆	12 18.8 186°54	5°3/19.1 18				3780	Maury	12 18.8 113°10	1°1/18.8 18			
11 17	6 16.86	+43 28.5	3.151	3.935	9.8								

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
312234	2007 <i>YO</i> ₁₀		12 18.8 211 ^o 10		2 ^o 7/18.9 18		458582	2011 <i>FL</i> ₈		12 18.9 252 ^o 28		6 ^o 7/18.9 18	
11 17	6 15.42	+29 45.0	1.974	2.813	12.8	20.9	11 17	6 17.33	+44 22.8	2.562	3.353	11.6	21.2
11 27	6 8.82	+30 15.6	1.900	2.811	9.4	20.7	11 27	6 10.23	+45 17.5	2.482	3.344	9.6	21.0
12 7	5 59.83	+30 41.2	1.850	2.809	5.7	20.4	12 7	6 0.68	+45 59.5	2.425	3.334	7.7	20.9
12 17	5 49.31	+30 58.3	1.828	2.806	2.8	20.2	12 17	5 49.51	+46 23.6	2.396	3.323	6.7	20.8
12 27	5 38.49	+31 5.0	1.836	2.804	4.4	20.3	12 27	5 37.93	+46 27.1	2.395	3.313	7.2	20.8
1 6	5 28.68	+31 1.8	1.872	2.801	8.1	20.6	1 6	5 27.27	+46 10.6	2.422	3.303	8.9	20.9
1 16	5 20.94	+30 51.1	1.935	2.799	11.6	20.8	1 16	5 18.63	+45 37.6	2.474	3.292	11.0	21.0
1 26	5 15.99	+30 36.5	2.020	2.796	14.7	21.0	1 26	5 12.79	+44 53.5	2.549	3.281	13.1	21.2
414010	2007 <i>GJ</i> ₇₁		12 18.8 153 ^o 14		4 ^o 3/18.7 17		56233	1999 <i>JK</i> ₄₂		12 18.9 355 ^o 20		6 ^o 9/17.4 18	
11 17	6 15.93	+36 28.4	2.638	3.451	10.7	21.2	11 17	6 11.40	+10 4.8	1.642	2.482	14.8	18.0
11 27	6 8.82	+37 21.2	2.568	3.457	8.2	21.0	11 27	6 5.90	+8 31.5	1.577	2.480	11.6	17.8
12 7	5 59.69	+38 5.9	2.524	3.463	5.8	20.9	12 7	5 58.17	+7 6.2	1.535	2.478	8.5	17.6
12 17	5 49.28	+38 38.6	2.510	3.468	4.3	20.8	12 17	5 49.10	+5 54.5	1.520	2.476	6.9	17.5
12 27	5 38.62	+38 57.1	2.526	3.473	5.1	20.8	12 27	5 39.88	+5 1.5	1.532	2.475	8.2	17.6
1 6	5 28.77	+39 1.5	2.572	3.478	7.3	21.0	1 6	5 31.71	+4 29.4	1.571	2.475	11.2	17.7
1 16	5 20.65	+38 54.2	2.645	3.482	9.7	21.2	1 16	5 25.55	+4 18.0	1.632	2.475	14.5	17.9
1 26	5 14.90	+38 38.9	2.741	3.486	11.9	21.3	1 26	5 22.04	+4 24.8	1.714	2.476	17.4	18.2
24296	Marychristie		12 18.8 84 ^o 72		3 ^o 2/18.8 18		431755	2008 <i>GE</i> ₈₁		12 18.9 202 ^o 39		1 ^o 0/18.8 18	
11 17	6 14.16	+15 25.7	1.715	2.558	14.2	19.1	11 17	6 16.98	+20 22.9	1.898	2.736	13.2	22.2
11 27	6 7.74	+15 10.8	1.659	2.572	10.4	18.9	11 27	6 9.89	+20 24.8	1.819	2.732	9.6	22.0
12 7	5 59.10	+15 2.1	1.627	2.585	6.4	18.7	12 7	6 0.44	+20 28.4	1.765	2.727	5.5	21.8
12 17	5 49.19	+15 0.4	1.622	2.599	3.3	18.5	12 17	5 49.47	+20 32.8	1.739	2.722	1.3	21.5
12 27	5 39.22	+15 5.9	1.645	2.612	5.0	18.7	12 27	5 38.20	+20 37.3	1.743	2.716	3.9	21.6
1 6	5 30.41	+15 18.4	1.697	2.625	8.8	18.9	1 6	5 27.88	+20 42.3	1.777	2.709	8.2	21.9
1 16	5 23.67	+15 37.2	1.774	2.639	12.4	19.2	1 16	5 19.57	+20 48.5	1.838	2.701	12.1	22.1
1 26	5 19.63	+16 1.4	1.873	2.652	15.5	19.4	1 26	5 14.02	+20 57.1	1.920	2.692	15.4	22.3
9995	Alouette		12 18.8 242 ^o 64		1 ^o 3/18.9 18		303035	2003 <i>YS</i> ₃₀		12 18.9 336 ^o 30		2 ^o 7/18.4 17	
11 17	6 16.91	+26 18.1	1.806	2.648	13.6	19.2	11 17	6 12.68	+24 11.5	1.255	2.123	16.7	19.7
11 27	6 10.12	+26 32.0	1.721	2.636	10.0	18.9	11 27	6 8.18	+25 40.3	1.175	2.102	12.3	19.4
12 7	6 0.68	+26 42.9	1.661	2.623	5.7	18.7	12 7	6 0.17	+27 16.6	1.117	2.083	7.2	19.1
12 17	5 49.47	+26 48.2	1.628	2.610	1.6	18.3	12 17	5 49.51	+28 52.9	1.084	2.066	2.9	18.7
12 27	5 37.83	+26 46.6	1.624	2.596	4.1	18.5	12 27	5 37.87	+30 20.9	1.078	2.049	5.9	18.9
1 6	5 27.18	+26 38.5	1.649	2.582	8.6	18.7	1 6	5 27.24	+31 34.9	1.096	2.034	11.4	19.1
1 16	5 18.72	+26 26.5	1.700	2.568	12.7	19.0	1 16	5 19.46	+32 33.3	1.137	2.020	16.4	19.4
1 26	5 13.29	+26 13.8	1.774	2.553	16.3	19.2	1 26	5 15.75	+33 18.4	1.197	2.008	20.7	19.6
247776	2003 <i>QL</i> ₁₀₇		12 18.8 72 ^o 59		0 ^o 6/18.9 18		324880	2007 <i>TT</i> ₃₉₂		12 18.9 48 ^o 31		3 ^o 9/18.9 18	
11 17	6 15.99	+20 13.8	1.601	2.449	14.7	20.1	11 17	6 19.38	+29 14.7	1.073	1.939	19.1	20.2
11 27	6 9.29	+20 44.2	1.547	2.465	10.6	19.9	11 27	6 12.82	+30 3.2	1.030	1.954	14.0	19.9
12 7	6 0.07	+21 18.1	1.516	2.480	5.9	19.6	12 7	6 2.46	+30 44.6	1.006	1.969	8.5	19.7
12 17	5 49.35	+21 52.9	1.512	2.496	1.1	19.3	12 17	5 49.80	+31 12.0	1.006	1.985	4.1	19.5
12 27	5 38.53	+22 26.2	1.538	2.511	4.1	19.6	12 27	5 37.09	+31 22.0	1.032	2.002	6.4	19.7
1 6	5 28.97	+22 56.9	1.591	2.527	8.6	19.9	1 6	5 26.49	+31 16.4	1.081	2.019	11.5	20.0
1 16	5 21.74	+23 25.1	1.670	2.542	12.7	20.2	1 16	5 19.49	+31 0.6	1.152	2.036	16.2	20.3
1 26	5 17.52	+23 51.5	1.771	2.558	16.0	20.4	1 26	5 16.79	+30 40.8	1.242	2.054	20.1	20.6
486287	2013 <i>CY</i> ₅₄		12 18.8 274 ^o 49		4 ^o 1/18.9 17		263471	2008 <i>ET</i> ₆₆		12 18.9 147 ^o 85		0 ^o 1/18.9 18	
11 17	6 16.30	+33 21.3	1.871	2.706	13.5	21.2	11 17	6 13.51	+23 29.2	2.148	2.988	11.8	21.1
11 27	6 9.78	+33 55.5	1.788	2.694	10.2	21.0	11 27	6 7.10	+23 22.7	2.078	2.992	8.5	20.9
12 7	6 0.54	+34 21.6	1.728	2.681	6.7	20.7	12 7	5 58.73	+23 14.9	2.033	2.996	4.8	20.8
12 17	5 49.46	+34 35.3	1.696	2.668	4.2	20.6	12 17	5 49.21	+23 4.9	2.017	3.000	0.8	20.3
12 27	5 37.94	+34 33.8	1.693	2.655	5.5	20.6	12 27	5 39.56	+22 53.0	2.031	3.004	3.3	20.6
1 6	5 27.45	+34 18.0	1.717	2.641	9.0	20.8	1 6	5 30.83	+22 40.3	2.075	3.007	7.1	20.8
1 16	5 19.24	+33 51.4	1.767	2.628	12.7	21.0	1 16	5 23.87	+22 28.1	2.145	3.011	10.6	21.0
1 26	5 14.15	+33 19.2	1.838	2.615	15.9	21.2	1 26	5 19.27	+22 18.1	2.240	3.014	13.4	21.2
347978	2003 <i>SY</i> ₈₆		12 18.8 55 ^o 37		2 ^o 3/18.8 18		413773	2006 <i>GU</i> ₃₃		12 18.9 74 ^o 64		4 ^o 7/19.1 17	
11 17	6 17.19	+27 14.0	1.451	2.304	15.7	20.4	11 17	6 15.34	+36 49.2	2.211	3.034	12.2	20.8
11 27	6 10.40	+27 52.1	1.405	2.324	11.4	20.2	11 27	6 8.63	+37 27.7	2.148	3.043	9.3	20.6
12 7	6 0.76	+28 26.0	1.381	2.344	6.6	20.0	12 7	5 59.68	+37 56.1	2.110	3.052	6.5	20.4
12 17	5 49.48	+28 51.5	1.384	2.365	2.5	19.7	12 17	5 49.37	+38 10.5	2.100	3.061	4.8	20.3
12 27	5 38.18	+29 6.3	1.414	2.385	4.8	19.9	12 27	5 38.91	+38 9.1	2.118	3.070	5.6	20.4
1 6	5 28.44	+29 11.2	1.471	2.406	9.3	20.3	1 6	5 29.52	+37 53.3	2.166	3.079	8.1	20.6
1 16	5 21.41	+29 9.1	1.553	2.427	13.3	20.6	1 16	5 22.17	+37 26.4	2.239	3.089	10.8	20.8
1 26	5 17.75	+29 3.5	1.656	2.449	16.7	20.8	1 26	5 17.49	+36 53.1	2.335	3.098	13.3	21.0
419422	2010 <i>BA</i>		12 18.8 294 ^o 54		0 ^o 4/18.9 18		409030	2003 <i>GP</i> ₂₈		12 18.9 172 ^o 02		4 ^o 2/18.9 18	
11 17	6 11.06	+24 22.7	2.254	3.096	11.3	21.5	11 17	6 16.77	+37 33.6	2.844	3.650	10.2	22.2
11 27	6 5.46	+24 32.1	2.166	3.082	8.2	21.3	11 27	6 9.35	+38 17.9	2.770	3.654	7.9	22.1
12 7	5 57.89	+24 40.4	2.104	3.067	4.6	21.0	12 7	5 59.99	+38 53.6	2.722	3.657	5.6	21.9
12 17	5 49.04	+24 46.3	2.069	3.053	0.9	20.7	12 17	5 49.43	+39 17.3	2.704	3.660	4.3	21.9
12 27	5 39.89	+24 49.1	2.065	3.038	3.2	20.9	12 27	5 38.63	+39 26.9	2.717	3.662	4.9	21.9
1 6	5 31.44	+24 49.0	2.090	3.024	7.0	21.1	1 6	5 28.61	+39 22.9	2.760	3.664	7.0	22.0
1 16	5 24.60	+24 47.2	2.143	3.010	10.5	21.3	1 16	5 20.23	+39 7.9	2.830	3.664	9.3	22.2
1 26	5 20.03	+24 45.2	2.218	2.996	13.4	21.5	1 26	5 14.13	+38 45.4	2.925	3.665	11.4	22.4
													

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
101634	1999 <i>CN</i> ₃₆		12 18.9	3°91	12°1	22.2 18	264789	2002 <i>MG</i> ₆		12 18.9	264°65	3°2	18.9 17
11 17	6 11.06	-10 33.6	1.713	2.472	17.7	18.6	11 17	6 10.44	+12 59.3	2.263	3.095	11.6	20.8
11 27	6 5.63	-10 32.6	1.650	2.471	15.6	18.4	11 27	6 4.85	+12 57.0	2.188	3.093	8.7	20.6
12 7	5 58.04	-10 0.5	1.607	2.472	13.6	18.3	12 7	5 57.51	+13 1.8	2.138	3.091	5.5	20.4
12 17	5 49.13	-8 53.5	1.586	2.474	12.3	18.2	12 17	5 49.09	+13 14.2	2.116	3.089	3.3	20.3
12 27	5 40.02	-7 11.8	1.589	2.477	12.3	18.2	12 27	5 40.46	+13 34.0	2.124	3.087	4.5	20.4
1 6	5 31.89	-5 0.9	1.618	2.481	13.5	18.3	1 6	5 32.55	+14 0.5	2.161	3.085	7.5	20.6
1 16	5 25.66	-2 29.3	1.671	2.486	15.5	18.4	1 16	5 26.13	+14 32.6	2.225	3.083	10.6	20.8
1 26	5 22.00	+0 13.3	1.746	2.492	17.7	18.6	1 26	5 21.78	+15 9.1	2.313	3.081	13.2	20.9
243027	2006 <i>UG</i> ₂₂₆		12 18.9	105°38	0°1	18.9 18	331084	2009 <i>WS</i> ₁₁₂		12 18.9	113°95	1°7	18.8 18
11 17	6 14.35	+24 20.4	1.899	2.743	13.0	20.6	11 17	6 17.89	+19 59.5	1.691	2.533	14.4	21.2
11 27	6 7.90	+24 11.2	1.832	2.748	9.3	20.4	11 27	6 10.46	+19 40.4	1.635	2.550	10.4	21.0
12 7	5 59.26	+23 59.6	1.790	2.754	5.2	20.2	12 7	6 0.68	+19 22.7	1.604	2.567	5.9	20.7
12 17	5 49.32	+23 45.0	1.775	2.759	0.8	19.9	12 17	5 49.58	+19 6.5	1.601	2.583	1.9	20.5
12 27	5 39.27	+23 27.6	1.791	2.764	3.6	20.1	12 27	5 38.50	+18 52.7	1.627	2.598	4.3	20.7
1 6	5 30.29	+23 8.9	1.835	2.769	7.8	20.4	1 6	5 28.73	+18 42.3	1.682	2.613	8.6	21.0
1 16	5 23.32	+22 51.0	1.905	2.774	11.5	20.6	1 16	5 21.24	+18 36.5	1.762	2.628	12.5	21.3
1 26	5 19.00	+22 35.8	1.998	2.779	14.6	20.8	1 26	5 16.63	+18 36.1	1.865	2.642	15.7	21.5
226408	2003 <i>QM</i> ₈₁		12 18.9	48°08	5°0	18.9 18	54042	2000 <i>GR</i> ₁₁₃		12 18.9	108°69	4°3	18.4 18
11 17	6 10.21	+8 54.6	2.051	2.879	12.8	20.0	11 17	6 13.73	+12 8.2	2.143	2.969	12.4	19.0
11 27	6 4.71	+8 33.9	1.987	2.885	9.8	19.8	11 27	6 7.03	+11 21.8	2.088	2.988	9.3	18.8
12 7	5 57.41	+8 23.7	1.948	2.891	6.9	19.7	12 7	5 58.61	+10 42.1	2.059	3.006	6.2	18.6
12 17	5 49.03	+8 25.5	1.936	2.897	5.1	19.6	12 17	5 49.25	+10 11.3	2.059	3.025	4.3	18.6
12 27	5 40.54	+8 40.1	1.952	2.904	6.0	19.6	12 27	5 39.92	+9 51.0	2.088	3.042	5.4	18.7
1 6	5 32.88	+9 6.4	1.996	2.910	8.6	19.8	1 6	5 31.55	+9 41.8	2.147	3.059	8.2	18.9
1 16	5 26.84	+9 42.8	2.067	2.917	11.6	20.0	1 16	5 24.87	+9 43.3	2.232	3.076	11.1	19.1
1 26	5 22.98	+10 26.7	2.159	2.924	14.2	20.2	1 26	5 20.37	+9 54.2	2.340	3.092	13.6	19.3
369191	2008 <i>TY</i> ₁₆		12 18.9	22°39	1°4	18.7 17	54295	2000 <i>JO</i> ₅₉		12 18.9	318°58	1°8	18.6 18
11 17	6 10.48	+20 31.8	1.844	2.695	13.0	20.2	11 17	6 15.69	+22 36.1	1.395	2.252	16.0	18.5
11 27	6 5.11	+20 11.1	1.783	2.703	9.4	20.0	11 27	6 9.55	+21 39.5	1.322	2.245	11.7	18.2
12 7	5 57.69	+19 51.3	1.747	2.711	5.3	19.8	12 7	6 0.48	+20 38.7	1.273	2.238	6.7	17.9
12 17	5 49.08	+19 33.1	1.737	2.719	1.6	19.6	12 17	5 49.58	+19 35.6	1.249	2.231	2.0	17.6
12 27	5 40.40	+19 17.3	1.757	2.729	3.9	19.8	12 27	5 38.44	+18 34.2	1.253	2.225	5.1	17.8
1 6	5 32.74	+19 4.9	1.804	2.739	7.9	20.0	1 6	5 28.66	+17 38.8	1.283	2.219	10.3	18.0
1 16	5 26.97	+18 56.9	1.877	2.749	11.5	20.3	1 16	5 21.51	+16 53.6	1.338	2.214	15.0	18.3
1 26	5 23.67	+18 54.0	1.972	2.760	14.5	20.5	1 26	5 17.73	+16 20.5	1.412	2.208	18.9	18.5
411067	2009 <i>VO</i> ₆₁		12 18.9	251°85	1°1	18.8 17 R	177979	2006 <i>QV</i> ₂₄		12 18.9	65°63	1°6	18.9 18
11 17	6 11.38	+20 52.1	2.219	3.060	11.5	20.9	11 17	6 14.64	+18 52.1	1.690	2.537	14.2	19.9
11 27	6 5.55	+20 35.7	2.144	3.059	8.3	20.7	11 27	6 8.13	+18 52.1	1.641	2.557	10.2	19.7
12 7	5 57.89	+20 19.7	2.095	3.058	4.7	20.4	12 7	5 59.38	+18 55.5	1.615	2.578	5.8	19.5
12 17	5 49.12	+20 4.2	2.075	3.057	1.3	20.2	12 17	5 49.39	+19 1.9	1.617	2.599	1.9	19.2
12 27	5 40.21	+19 49.7	2.085	3.057	3.4	20.4	12 27	5 39.40	+19 10.7	1.647	2.619	4.1	19.4
1 6	5 32.11	+19 37.3	2.124	3.056	7.1	20.6	1 6	5 30.65	+19 21.8	1.706	2.640	8.3	19.7
1 16	5 25.63	+19 27.9	2.190	3.055	10.4	20.8	1 16	5 24.06	+19 35.5	1.790	2.660	12.1	20.0
1 26	5 21.36	+19 22.5	2.279	3.054	13.2	21.0	1 26	5 20.20	+19 51.8	1.896	2.681	15.2	20.3
209891	2005 <i>LK</i> ₁₅		12 18.9	220°89	0°0	18.9 18	234606	2002 <i>AG</i> ₄₆		12 18.9	318°75	2°1	18.8 18
11 17	6 14.27	+22 43.3	2.025	2.866	12.4	20.7	11 17	6 12.77	+19 4.6	1.374	2.235	16.0	20.9
11 27	6 7.89	+22 55.0	1.946	2.861	9.0	20.4	11 27	6 7.66	+18 55.4	1.295	2.219	11.7	20.6
12 7	5 59.33	+23 6.8	1.892	2.856	5.1	20.2	12 7	5 59.59	+18 50.0	1.239	2.204	6.9	20.3
12 17	5 49.37	+23 17.3	1.867	2.850	0.8	19.9	12 17	5 49.48	+18 48.6	1.207	2.189	2.3	20.0
12 27	5 39.12	+23 25.6	1.871	2.845	3.5	20.1	12 27	5 38.84	+18 51.3	1.202	2.175	5.1	20.1
1 6	5 29.75	+23 31.7	1.905	2.839	7.6	20.3	1 6	5 29.31	+18 58.4	1.223	2.161	10.3	20.4
1 16	5 22.22	+23 36.6	1.966	2.832	11.3	20.5	1 16	5 22.27	+19 10.4	1.267	2.149	15.2	20.6
1 26	5 17.24	+23 41.8	2.049	2.826	14.4	20.7	1 26	5 18.64	+19 27.7	1.330	2.136	19.3	20.8
285280	1998 <i>SF</i> ₂₈		12 18.9	54°38	4°5	19.1 18	272631	2005 <i>WC</i> ₆₉		12 18.9	151°81	0°9	18.8 18
11 17	6 21.47	+31 46.0	1.190	2.045	18.3	20.2	11 17	6 16.98	+21 16.0	1.935	2.773	13.0	21.8
11 27	6 13.87	+32 27.1	1.156	2.073	13.5	20.0	11 27	6 9.73	+21 8.5	1.869	2.782	9.4	21.6
12 7	6 2.81	+32 56.9	1.143	2.102	8.4	19.8	12 7	6 0.29	+21 1.4	1.827	2.790	5.3	21.4
12 17	5 49.89	+33 9.5	1.155	2.130	4.6	19.7	12 17	5 49.55	+20 53.9	1.814	2.797	1.2	21.1
12 27	5 37.23	+33 3.4	1.192	2.159	6.4	19.8	12 27	5 38.70	+20 46.4	1.832	2.804	3.7	21.3
1 6	5 26.76	+32 42.0	1.255	2.188	10.7	20.2	1 6	5 28.92	+20 39.5	1.879	2.810	7.9	21.6
1 16	5 19.73	+32 11.5	1.342	2.218	14.9	20.5	1 16	5 21.16	+20 34.6	1.953	2.816	11.5	21.8
1 26	5 16.69	+31 38.4	1.447	2.247	18.3	20.8	1 26	5 16.04	+20 33.0	2.049	2.821	14.6	22.0
112932	2002 <i>RQ</i> ₂		12 18.9	91°99	0°3	18.9 18	115395	2003 <i>SR</i> ₂₈₆		12 18.9	343°31	0°2	18.9 18
11 17	6 12.01	+24 16.6	2.375	3.213	10.9	20.2	11 17	6 12.33	+25 47.0	1.995	2.839	12.4	19.1
11 27	6 5.86	+24 20.9	2.312	3.226	7.8	20.0	11 27	6 6.45	+25 18.6	1.919	2.836	9.0	18.9
12 7	5 58.00	+24 23.8	2.276	3.239	4.4	19.8	12 7	5 58.49	+24 45.7	1.868	2.832	5.1	18.6
12 17	5 49.15	+24 24.3	2.268	3.252	0.8	19.6	12 17	5 49.27	+24 8.4	1.846	2.829	0.9	18.3
12 27	5 40.23	+24 22.0	2.291	3.264	3.0	19.8	12 27	5 39.91	+23 27.9	1.853	2.826	3.5	18.5
1 6	5 32.17	+24 17.5	2.344	3.277	6.4	20.0	1 6	5 31.54	+22 46.7	1.889	2.824	7.5	18.8
1 16	5 25.70	+24 12.1	2.425	3.290	9.5	20.2	1 16	5 25.04	+22 7.7	1.951	2.822	11.2	19.0
1 26	5 21.35	+24 7.1	2.529	3.302	12.1	20.4	1 26	5 21.05	+21 33.3	2.036	2.820	14.3	19.2
330372	2006 <i>WU</i> ₉₄		12 18.9	84°97	0°3	18.9 18	373064	2011 <i>FJ</i> ₃₇		12 18.9	255°04	4	

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
484461	2008 <i>CD</i> ₂₀	12 18.9 263°54	4°1/19.2 17				414956	2011 <i>BZ</i> ₁₁₇	12 18.9 73°80	7°3/19.8 17			
11 17	6 16.35	+34 48.5	2.007	2.836	13.0	21.3	11 17	6 19.22	+45 20.3	2.178	2.972	13.3	21.1
11 27	6 9.67	+35 8.0	1.925	2.826	9.9	21.1	11 27	6 11.72	+45 59.6	2.116	2.980	10.9	21.0
12 7	6 0.45	+35 17.6	1.867	2.817	6.6	20.9	12 7	6 1.55	+46 22.2	2.077	2.987	8.7	20.9
12 17	5 49.61	+35 13.7	1.837	2.807	4.2	20.7	12 17	5 49.79	+46 23.1	2.064	2.994	7.4	20.8
12 27	5 38.46	+34 54.7	1.836	2.797	5.3	20.8	12 27	5 37.93	+46 0.3	2.079	3.002	7.8	20.8
1 6	5 28.36	+34 22.3	1.863	2.787	8.5	21.0	1 6	5 27.44	+45 16.4	2.121	3.009	9.6	21.0
1 16	5 20.45	+33 40.5	1.917	2.777	11.9	21.2	1 16	5 19.44	+44 16.8	2.188	3.017	11.8	21.1
1 26	5 15.46	+32 54.7	1.993	2.767	14.9	21.3	1 26	5 14.60	+43 8.5	2.277	3.024	14.0	21.3
137439	1999 <i>TL</i> ₂₃₃	12 18.9 133°01	0°6/18.8 18				25503	1999 <i>XW</i> ₉₃	12 18.9 218°56	3°4/19.1 18			
11 17	6 19.72	+22 49.5	1.808	2.645	13.8	20.9	11 17	6 13.83	+12 16.7	2.035	2.864	12.8	18.1
11 27	6 11.71	+22 31.3	1.749	2.661	10.0	20.7	11 27	6 7.52	+12 28.5	1.956	2.860	9.6	17.9
12 7	6 1.37	+22 11.4	1.714	2.677	5.6	20.5	12 7	5 59.14	+12 49.6	1.901	2.854	6.2	17.7
12 17	5 49.73	+21 49.5	1.709	2.692	1.1	20.2	12 17	5 49.43	+13 19.9	1.875	2.849	3.5	17.5
12 27	5 38.11	+21 26.4	1.734	2.706	3.9	20.4	12 27	5 39.40	+13 58.5	1.879	2.843	4.8	17.5
1 6	5 27.79	+21 3.9	1.788	2.719	8.2	20.7	1 6	5 30.15	+14 43.6	1.912	2.837	8.2	17.7
1 16	5 19.74	+20 44.3	1.869	2.732	12.0	21.0	1 16	5 22.60	+15 33.5	1.972	2.830	11.7	17.9
1 26	5 14.55	+20 29.3	1.972	2.743	15.1	21.2	1 26	5 17.45	+16 26.4	2.055	2.823	14.7	18.1
24183	1999 <i>XV</i> ₁₁	12 18.9 33°01	3°7/19.4 18				270243	2001 <i>UA</i> ₁₈	12 18.9 82°64	4°1/18.9 18			
11 17	6 18.07	+32 8.6	1.155	2.016	18.3	17.8	11 17	6 20.40	+32 2.1	1.529	2.370	15.7	19.9
11 27	6 11.73	+32 5.8	1.104	2.025	13.6	17.5	11 27	6 12.82	+32 45.5	1.479	2.389	11.6	19.7
12 7	6 1.82	+31 50.0	1.073	2.034	8.3	17.3	12 7	6 2.25	+33 19.8	1.452	2.407	7.4	19.5
12 17	5 49.82	+31 17.8	1.066	2.045	4.0	17.1	12 17	5 49.91	+33 39.7	1.451	2.426	4.3	19.3
12 27	5 37.84	+30 30.0	1.084	2.056	5.9	17.2	12 27	5 37.53	+33 42.9	1.479	2.444	5.8	19.5
1 6	5 27.88	+29 32.0	1.128	2.067	10.9	17.5	1 6	5 26.77	+33 31.1	1.534	2.462	9.6	19.7
1 16	5 21.31	+28 31.1	1.194	2.080	15.6	17.8	1 16	5 18.87	+33 9.1	1.614	2.480	13.4	20.0
1 26	5 18.77	+27 33.9	1.279	2.092	19.5	18.1	1 26	5 14.50	+32 42.4	1.714	2.497	16.6	20.2
215352	2001 <i>XZ</i> ₈₇	12 18.9 353°12	0°3/18.9 18				234579	2001 <i>XH</i> ₂₁₇	12 18.9 337°51	0°6/18.9 18			
11 17	6 15.32	+21 29.3	1.113	1.983	18.2	19.4	11 17	6 12.94	+21 10.0	1.292	2.157	16.5	19.7
11 27	6 9.95	+21 49.8	1.051	1.979	13.3	19.1	11 27	6 7.94	+21 25.1	1.220	2.147	12.0	19.4
12 7	6 1.02	+22 14.2	1.009	1.977	7.5	18.7	12 7	5 59.81	+21 43.8	1.171	2.138	6.9	19.1
12 17	5 49.73	+22 39.5	0.991	1.975	1.3	18.3	12 17	5 49.57	+22 4.0	1.146	2.129	1.3	18.7
12 27	5 37.98	+23 3.2	0.999	1.974	5.2	18.6	12 27	5 38.83	+22 24.0	1.147	2.122	4.8	18.9
1 6	5 27.80	+23 24.2	1.030	1.973	11.2	18.9	1 6	5 29.33	+22 43.0	1.174	2.115	10.3	19.2
1 16	5 20.76	+23 43.4	1.084	1.974	16.5	19.2	1 16	5 22.52	+23 1.5	1.223	2.109	15.3	19.5
1 26	5 17.78	+24 2.3	1.156	1.974	20.9	19.5	1 26	5 19.30	+23 20.5	1.292	2.104	19.4	19.8
319696	2006 <i>TC</i> ₁₁₈	12 18.9 48°93	4°5/19.2 18				65778	1995 <i>SD</i> ₃₃	12 18.9 67°51	0°0/18.9 18			
11 17	6 13.02	+11 9.6	1.615	2.456	15.0	20.4	11 17	6 16.34	+23 26.5	1.547	2.398	15.0	19.8
11 27	6 7.07	+11 12.4	1.563	2.471	11.3	20.2	11 27	6 9.62	+23 29.5	1.495	2.415	10.8	19.6
12 7	5 58.86	+11 27.0	1.534	2.486	7.4	20.0	12 7	6 0.34	+23 31.6	1.468	2.432	6.0	19.3
12 17	5 49.34	+11 53.7	1.530	2.502	4.6	19.9	12 17	5 49.60	+23 31.2	1.467	2.450	1.0	19.0
12 27	5 39.75	+12 31.5	1.555	2.518	5.8	20.0	12 27	5 38.87	+23 27.9	1.494	2.468	4.1	19.3
1 6	5 31.30	+13 18.0	1.607	2.534	9.3	20.3	1 6	5 29.54	+23 22.7	1.549	2.485	8.7	19.6
1 16	5 24.95	+14 10.7	1.685	2.551	12.9	20.5	1 16	5 22.67	+23 17.5	1.629	2.503	12.8	19.9
1 26	5 21.33	+15 6.9	1.784	2.568	16.0	20.8	1 26	5 18.86	+23 14.2	1.730	2.521	16.1	20.2
523325	2017 <i>BT</i> ₁₃₈	12 18.9 177°03	3°2/19.2 17				520743	2014 <i>QJ</i> ₄₇₄	12 18.9 95°04	10°4/17.3 18			
11 17	6 14.80	+33 53.2	2.377	3.202	11.3	21.4	11 17	6 10.45	-9 10.3	2.447	3.189	13.4	21.4
11 27	6 8.09	+34 4.8	2.302	3.203	8.5	21.2	11 27	6 4.61	-10 43.7	2.403	3.203	11.9	21.4
12 7	5 59.37	+34 8.0	2.253	3.204	5.5	21.0	12 7	5 57.28	-11 57.6	2.381	3.217	10.8	21.3
12 17	5 49.42	+34 0.5	2.232	3.204	3.3	20.9	12 17	5 49.11	-12 47.5	2.384	3.231	10.4	21.3
12 27	5 39.34	+33 41.5	2.242	3.204	4.3	21.0	12 27	5 40.90	-13 10.8	2.412	3.244	10.7	21.3
1 6	5 30.19	+33 12.6	2.281	3.204	7.2	21.1	1 6	5 33.42	-13 8.1	2.464	3.257	11.8	21.4
1 16	5 22.86	+32 36.8	2.347	3.204	10.1	21.3	1 16	5 27.34	-12 42.1	2.538	3.271	13.1	21.6
1 26	5 17.96	+31 58.1	2.437	3.204	12.7	21.5	1 26	5 23.12	-11 57.3	2.631	3.284	14.4	21.7
225333	1998 <i>QB</i> ₁₀₅	12 18.9 90°66	0°6/18.8 18				26401	<i>Sobotište</i>	12 18.9 19°92	0°4/18.9 18			
11 17	6 25.27	+20 51.5	1.705	2.534	14.9	20.1	11 17	6 16.30	+21 52.5	1.277	2.138	16.9	18.0
11 27	6 15.77	+22 9.1	1.662	2.571	10.6	19.9	11 27	6 10.33	+22 37.2	1.216	2.141	12.3	17.7
12 7	6 3.68	+23 28.8	1.645	2.607	5.9	19.7	12 7	6 1.12	+23 26.0	1.177	2.143	6.9	17.4
12 17	5 50.11	+24 44.7	1.658	2.642	1.1	19.5	12 17	5 49.79	+24 14.5	1.163	2.147	1.2	17.1
12 27	5 36.57	+25 52.1	1.704	2.676	4.0	19.8	12 27	5 38.07	+24 58.5	1.176	2.150	4.8	17.3
1 6	5 24.52	+26 48.9	1.780	2.709	8.4	20.1	1 6	5 27.77	+25 36.1	1.214	2.154	10.3	17.6
1 16	5 15.04	+27 35.5	1.883	2.740	12.2	20.4	1 16	5 20.33	+26 7.4	1.277	2.159	15.1	17.9
1 26	5 8.77	+28 14.4	2.009	2.771	15.2	20.7	1 26	5 16.62	+26 34.4	1.359	2.164	19.0	18.2
422546	2014 <i>TP</i> ₂₉	12 18.9 145°80	0°4/18.9 18				45519	2000 <i>BS</i> ₃₃	12 18.9 160°13	5°0/19.2 18			
11 17	6 12.18	+21 56.2	2.762	3.593	9.8	21.8	11 17	6 10.49	+5 51.9	2.518	3.326	11.3	19.4
11 27	6 5.79	+21 54.2	2.693	3.603	7.0	21.7	11 27	6 4.70	+5 48.6	2.447	3.329	8.9	19.3
12 7	5 57.92	+21 52.0	2.651	3.613	3.9	21.5	12 7	5 57.40	+5 56.5	2.400	3.332	6.5	19.1
12 17	5 49.19	+21 49.1	2.640	3.623	0.8	21.2	12 17	5 49.16	+6 16.5	2.382	3.334	5.0	19.0
12 27	5 40.38	+21 45.6	2.660	3.632	2.7	21.4	12 27	5 40.78	+6 48.7	2.393	3.337	5.6	19.1
1 6	5 32.28	+21 41.8	2.710	3.640	5.8	21.6	1 6	5 33.04	+7 31.7	2.434	3.339	7.8	19.2
1 16	5 25.55	+21 38.6	2.790	3.648	8.6	21.8	1 16	5 26.62	+8 23.4	2.502	3.341	10.2	19.4
1 26	5 20.67	+21 36.9	2.894	3.656	11.0	22.0	1 26	5 22.04	+9 21.2	2.594	3.342	12.5	19.5
145138	2005 <i>GB</i> ₁₆₃	12 18.9 348°42	8°6/17.5 18				138467	2000 <i>JL</i> ₄₄	12 18.9 193°46	2°1/18.8			

EPHEMERIDES

12 18.9

12 18.9

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
303072	2003 YZ ₁₅₄	12 18.9 317°58		7°8/17.8 17			227111	2005 NH ₅₂	12 18.9 181°53		1°8/19.0 18		
11 17	6 18.25	+37 26.8	1.552	2.388	15.8	19.3	11 17	6 19.63	+28 36.3	2.023	2.854	12.8	21.8
11 27	6 12.24	+39 10.5	1.473	2.372	12.5	19.1	11 27	6 11.80	+28 44.8	1.947	2.855	9.4	21.5
12 7	6 2.55	+40 46.2	1.417	2.356	9.4	18.8	12 7	6 1.58	+28 47.6	1.897	2.856	5.5	21.3
12 17	5 50.10	+42 3.8	1.387	2.340	7.8	18.7	12 17	5 49.89	+28 42.4	1.875	2.856	2.0	21.1
12 27	5 36.63	+42 55.3	1.383	2.325	9.1	18.7	12 27	5 37.99	+28 28.4	1.885	2.855	3.9	21.2
1 6	5 24.25	+43 18.5	1.404	2.310	12.2	18.9	1 6	5 27.17	+28 7.0	1.924	2.853	7.8	21.5
1 16	5 14.80	+43 17.3	1.449	2.296	15.8	19.1	1 16	5 18.49	+27 41.3	1.990	2.851	11.5	21.7
1 26	5 9.53	+42 59.3	1.512	2.282	19.0	19.3	1 26	5 12.62	+27 15.0	2.080	2.847	14.6	21.9
233685	2008 RG ₁₂₁	12 18.9 288°54		0°3/18.9 18			187117	2005 QG ₇₃	12 18.9 83°87		0°9/18.9 18		
11 17	6 15.04	+22 44.2	1.551	2.404	14.9	20.8	11 17	6 14.44	+26 30.4	1.948	2.790	12.8	20.4
11 27	6 9.13	+22 42.6	1.469	2.390	10.9	20.5	11 27	6 8.00	+26 25.3	1.883	2.798	9.2	20.2
12 7	6 0.37	+22 40.7	1.410	2.376	6.2	20.2	12 7	5 59.40	+26 16.1	1.843	2.806	5.2	20.0
12 17	5 49.71	+22 37.3	1.378	2.361	1.1	19.8	12 17	5 49.53	+26 1.8	1.831	2.813	1.2	19.7
12 27	5 38.55	+22 32.0	1.373	2.347	4.3	20.0	12 27	5 39.58	+25 42.5	1.848	2.821	3.6	19.9
1 6	5 28.47	+22 25.6	1.396	2.333	9.4	20.3	1 6	5 30.71	+25 19.9	1.894	2.829	7.6	20.2
1 16	5 20.74	+22 19.9	1.443	2.319	14.0	20.5	1 16	5 23.84	+24 56.3	1.967	2.837	11.2	20.4
1 26	5 16.26	+22 17.1	1.511	2.305	17.9	20.7	1 26	5 19.58	+24 34.3	2.063	2.844	14.2	20.6
110649	2001 TK ₁₆₉	12 18.9 98°24		2°8/19.2 18			344955	2004 VB ₈₁	12 18.9 24°00		0°5/18.9 18		
11 17	6 15.76	+31 38.5	1.978	2.814	12.9	19.7	11 17	6 8.75	+24 53.8	2.719	3.558	9.7	20.9
11 27	6 9.02	+31 43.9	1.911	2.819	9.5	19.5	11 27	6 3.50	+25 3.3	2.648	3.561	7.0	20.7
12 7	6 0.00	+31 41.2	1.868	2.825	5.9	19.3	12 7	5 56.75	+25 11.4	2.602	3.565	3.9	20.5
12 17	5 49.61	+31 28.2	1.853	2.830	2.9	19.1	12 17	5 49.10	+25 17.1	2.586	3.569	0.8	20.3
12 27	5 39.12	+31 4.4	1.868	2.836	4.3	19.2	12 27	5 41.32	+25 19.9	2.601	3.574	2.7	20.4
1 6	5 29.78	+30 31.9	1.911	2.841	7.9	19.4	1 6	5 34.20	+25 20.3	2.645	3.578	5.8	20.6
1 16	5 22.55	+29 54.4	1.981	2.846	11.3	19.7	1 16	5 28.40	+25 18.9	2.717	3.583	8.6	20.8
1 26	5 18.08	+29 15.9	2.074	2.852	14.2	19.9	1 26	5 24.43	+25 17.0	2.814	3.588	11.0	21.0
415412	2013 PQ ₅₂	12 18.9 290°62		0°5/18.9 18			94362	2001 RS ₄₆	12 18.9 255°73		17°5/15.6 18		
11 17	6 12.06	+25 55.0	2.277	3.116	11.3	20.5	11 17	6 35.84	+51 6.6	1.139	1.940	22.5	18.8
11 27	6 6.11	+25 40.1	2.198	3.112	8.1	20.2	11 27	6 28.36	+54 27.7	1.089	1.937	20.0	18.6
12 7	5 58.29	+25 21.6	2.145	3.108	4.6	20.0	12 7	6 13.46	+57 24.5	1.057	1.934	18.1	18.5
12 17	5 49.34	+24 59.0	2.121	3.104	0.9	19.7	12 17	5 52.11	+59 32.6	1.047	1.930	17.6	18.4
12 27	5 40.23	+24 32.9	2.127	3.100	3.1	19.9	12 27	5 28.09	+60 35.1	1.057	1.927	18.5	18.5
1 6	5 31.96	+24 4.7	2.163	3.096	6.8	20.1	1 6	5 6.76	+60 32.3	1.086	1.923	20.6	18.6
1 16	5 25.35	+23 36.6	2.226	3.093	10.2	20.3	1 16	4 52.29	+59 40.0	1.132	1.919	23.1	18.8
1 26	5 20.98	+23 10.9	2.312	3.089	13.0	20.5	1 26	4 46.32	+58 19.3	1.191	1.916	25.5	19.0
361280	2006 TC ₁₉	12 18.9 68°15		0°2/18.9 18			171125	2005 GR ₂₃	12 18.9 256°31		4°3/18.7 18		
11 17	6 14.51	+24 17.9	1.784	2.631	13.5	20.7	11 17	6 12.87	+12 13.7	1.959	2.792	13.1	20.8
11 27	6 8.15	+24 15.5	1.723	2.641	9.8	20.5	11 27	6 6.94	+11 48.0	1.875	2.779	9.9	20.5
12 7	5 59.52	+24 11.2	1.687	2.651	5.5	20.3	12 7	5 58.90	+11 29.7	1.815	2.766	6.6	20.3
12 17	5 49.54	+24 3.9	1.678	2.661	0.9	20.0	12 17	5 49.48	+11 20.7	1.783	2.752	4.4	20.1
12 27	5 39.48	+23 53.4	1.698	2.672	3.7	20.2	12 27	5 39.73	+11 22.0	1.779	2.738	5.6	20.2
1 6	5 30.58	+23 41.1	1.747	2.682	8.0	20.5	1 6	5 30.74	+11 33.9	1.804	2.724	9.0	20.4
1 16	5 23.81	+23 28.8	1.821	2.693	11.8	20.8	1 16	5 23.49	+11 55.6	1.855	2.710	12.4	20.5
1 26	5 19.78	+23 18.5	1.918	2.704	15.0	21.0	1 26	5 18.67	+12 25.6	1.928	2.696	15.5	20.7
46544	1988 QO	12 18.9 121°21		0°1/18.9 18			262204	2006 SU ₂₀₅	12 18.9 16°45		0°8/18.9 18		
11 17	6 20.11	+24 19.2	1.786	2.624	14.0	20.0	11 17	6 12.67	+20 52.1	1.505	2.363	15.0	20.2
11 27	6 12.04	+24 12.9	1.731	2.644	10.0	19.8	11 27	6 7.22	+20 59.2	1.444	2.366	10.9	19.9
12 7	6 1.61	+24 4.0	1.700	2.663	5.6	19.5	12 7	5 59.17	+21 8.8	1.405	2.370	6.1	19.7
12 17	5 49.87	+23 51.3	1.698	2.682	0.9	19.2	12 17	5 49.52	+21 19.6	1.392	2.375	1.3	19.4
12 27	5 38.17	+23 35.0	1.726	2.699	3.8	19.5	12 27	5 39.66	+21 30.8	1.407	2.381	4.2	19.6
1 6	5 27.83	+23 16.8	1.784	2.716	8.1	19.8	1 6	5 31.02	+21 42.1	1.449	2.387	9.0	19.9
1 16	5 19.81	+22 59.2	1.868	2.733	11.9	20.1	1 16	5 24.70	+21 54.3	1.515	2.394	13.3	20.2
1 26	5 14.70	+22 44.4	1.975	2.748	15.0	20.3	1 26	5 21.42	+22 8.0	1.602	2.402	16.8	20.4
368503	2003 UY ₁₂₇	12 18.9 101°25		0°9/18.8 18			518922	2010 GU ₄₉	12 18.9 348°42		12°4/21.5 16		
11 17	6 12.29	+21 55.0	2.331	3.169	11.1	20.2	11 17	6 27.46	+58 49.9	1.992	2.723	16.4	20.0
11 27	6 6.08	+21 27.6	2.265	3.179	8.0	20.0	11 27	6 18.91	+59 40.3	1.926	2.718	14.8	19.8
12 7	5 58.17	+20 59.4	2.226	3.188	4.5	19.8	12 7	6 6.08	+60 3.7	1.880	2.713	13.3	19.7
12 17	5 49.31	+20 30.8	2.215	3.198	1.1	19.6	12 17	5 50.64	+59 51.6	1.855	2.709	12.5	19.6
12 27	5 40.42	+20 3.0	2.236	3.208	3.2	19.8	12 27	5 35.15	+59 0.3	1.852	2.706	12.5	19.6
1 6	5 32.40	+19 37.3	2.286	3.217	6.7	20.0	1 6	5 22.08	+57 33.6	1.873	2.702	13.5	19.7
1 16	5 25.97	+19 15.2	2.364	3.226	9.8	20.3	1 16	5 13.06	+55 40.5	1.917	2.700	15.0	19.8
1 26	5 21.66	+18 58.0	2.465	3.235	12.5	20.5	1 26	5 8.73	+53 32.2	1.981	2.698	16.8	19.9
452586	2005 JP ₇₁	12 18.9 217°09		1°7/19.0 18			101161	1998 RJ ₇₈	12 18.9 24°76		0°0/18.9 18		
11 17	6 14.46	+16 35.5	2.108	2.942	12.3	21.7	11 17	6 14.51	+22 3.7	1.115	1.986	18.1	19.1
11 27	6 8.00	+16 59.8	2.027	2.936	9.0	21.5	11 27	6 9.18	+22 27.2	1.065	1.994	13.1	18.8
12 7	5 59.46	+17 30.1	1.971	2.931	5.3	21.2	12 7	6 0.50	+22 53.3	1.035	2.003	7.4	18.5
12 17	5 49.55	+18 5.2	1.944	2.925	1.9	21.0	12 17	5 49.75	+23 18.8	1.030	2.013	1.2	18.2
12 27	5 39.31	+18 43.5	1.947	2.918	3.8	21.1	12 27	5 38.82	+23 41.4	1.049	2.024	5.0	18.5
1 6	5 29.83	+19 23.6	1.981	2.911	7.6	21.3	1 6	5 29.58	+24 0.3	1.093	2.036	10.7	18.8
1 16	5 22.03	+20 4.3	2.042	2.904	11.2	21.6	1 16	5 23.42	+24 16.6	1.159	2.049	15.6	19.1
1 26	5 16.63	+20 45.3	2.126	2.896	14.2	21.8	1 26	5 21.08	+24 31.9	1.245	2.063	19.7	19.4
233951	2009 XJ	12 18.9 329°53		0°3/18.9 18			408633	2014 LF ₁₃	12 18.9 163°16		0°4/18.9 18		
11 17	6 11.43	+23 22.2	1.938	2.786	12.6	20.3	11 17	6 15.10	+24 42.5	2.267			

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
488027	2015 <i>UP</i> ₂₈		12 18.9	8°09	0°7/18.9	17	85205	1992 <i>EM</i> ₆		12 18.9	311°95	1°0/18.9	18
11 17	6 13.91	+24 4.5	1.688	2.539	14.0	21.7	11 17	6 14.76	+24 24.2	1.355	2.216	16.1	19.3
11 27	6 8.03	+24 29.1	1.620	2.539	10.1	21.4	11 27	6 9.41	+24 48.9	1.275	2.199	11.9	19.0
12 7	5 59.62	+24 53.5	1.575	2.540	5.7	21.2	12 7	6 0.80	+25 14.1	1.217	2.183	6.8	18.6
12 17	5 49.61	+25 15.1	1.558	2.541	1.2	20.9	12 17	5 49.89	+25 36.3	1.183	2.166	1.5	18.2
12 27	5 39.32	+25 32.1	1.569	2.542	4.0	21.1	12 27	5 38.29	+25 52.8	1.176	2.151	4.8	18.4
1 6	5 30.11	+25 44.3	1.607	2.544	8.5	21.3	1 6	5 27.85	+26 3.1	1.195	2.135	10.4	18.7
1 16	5 23.10	+25 52.9	1.671	2.546	12.5	21.6	1 16	5 20.09	+26 9.0	1.238	2.121	15.4	18.9
1 26	5 19.03	+25 59.8	1.757	2.548	15.9	21.8	1 26	5 16.04	+26 13.2	1.300	2.107	19.6	19.2
443252	2014 <i>EJ</i> ₃		12 18.9	44°83	5°2/18.9	18	274398	2008 <i>RY</i> ₁₂₁		12 18.9	248°37	0°9/18.8	17
11 17	6 13.92	+12 1.1	1.368	2.218	16.7	20.9	11 17	6 11.50	+21 20.4	2.323	3.162	11.1	21.6
11 27	6 8.09	+11 35.3	1.315	2.228	12.6	20.7	11 27	6 5.69	+21 6.9	2.243	3.157	8.0	21.4
12 7	5 59.62	+11 21.2	1.284	2.238	8.3	20.5	12 7	5 58.09	+20 53.4	2.189	3.152	4.6	21.2
12 17	5 49.60	+11 20.6	1.278	2.249	5.3	20.3	12 17	5 49.39	+20 40.0	2.164	3.147	1.1	20.9
12 27	5 39.47	+11 34.3	1.298	2.261	6.8	20.4	12 27	5 40.50	+20 26.9	2.169	3.142	3.2	21.1
1 6	5 30.68	+12 0.9	1.344	2.272	10.7	20.7	1 6	5 32.37	+20 15.1	2.204	3.136	6.8	21.3
1 16	5 24.34	+12 38.2	1.414	2.284	14.7	21.0	1 16	5 25.78	+20 5.7	2.267	3.131	10.1	21.5
1 26	5 21.10	+13 23.1	1.504	2.297	18.1	21.2	1 26	5 21.32	+19 59.7	2.352	3.126	12.9	21.7
355436	2007 <i>VR</i> ₆₂		12 18.9	47°86	4°9/18.6	18	171656	2000 <i>GW</i> ₁₆₇		12 18.9	213°75	1°0/18.9	18
11 17	6 17.90	+32 41.6	1.653	2.493	14.7	20.4	11 17	6 13.74	+20 13.0	2.227	3.063	11.6	21.1
11 27	6 11.21	+33 52.3	1.591	2.499	11.1	20.2	11 27	6 7.39	+20 12.2	2.145	3.057	8.4	20.9
12 7	6 1.55	+34 56.0	1.553	2.505	7.4	20.0	12 7	5 59.09	+20 12.9	2.089	3.051	4.8	20.6
12 17	5 49.95	+35 45.9	1.542	2.511	4.9	19.9	12 17	5 49.56	+20 14.6	2.062	3.044	1.3	20.4
12 27	5 37.97	+36 17.8	1.559	2.518	6.3	20.0	12 27	5 39.77	+20 16.9	2.065	3.037	3.4	20.5
1 6	5 27.27	+36 31.4	1.603	2.524	9.8	20.2	1 6	5 30.76	+20 20.2	2.099	3.030	7.2	20.7
1 16	5 19.17	+36 30.1	1.671	2.531	13.3	20.4	1 16	5 23.38	+20 25.0	2.159	3.022	10.6	20.9
1 26	5 14.49	+36 19.3	1.761	2.538	16.4	20.6	1 26	5 18.28	+20 32.1	2.243	3.014	13.5	21.1
381706	2009 <i>NB</i> ₂		12 18.9	94°49	1°7/18.9	18	84686	2002 <i>VG</i> ₁₀₂		12 18.9	90°70	1°2/18.9	18
11 17	6 19.07	+19 9.5	1.498	2.344	15.7	21.6	11 17	6 14.13	+20 31.1	1.865	2.708	13.2	19.8
11 27	6 11.56	+19 5.4	1.449	2.365	11.3	21.4	11 27	6 7.80	+20 23.3	1.802	2.718	9.5	19.6
12 7	6 1.46	+19 4.6	1.424	2.387	6.5	21.2	12 7	5 59.32	+20 16.9	1.764	2.727	5.4	19.4
12 17	5 49.91	+19 6.5	1.426	2.408	2.0	20.9	12 17	5 49.59	+20 11.5	1.754	2.737	1.4	19.1
12 27	5 38.41	+19 10.6	1.456	2.428	4.5	21.1	12 27	5 39.75	+20 7.2	1.774	2.746	3.8	19.3
1 6	5 28.40	+19 17.3	1.514	2.448	9.2	21.5	1 6	5 30.97	+20 4.7	1.822	2.756	7.9	19.6
1 16	5 20.93	+19 27.0	1.598	2.468	13.3	21.8	1 16	5 24.17	+20 4.8	1.896	2.765	11.6	19.8
1 26	5 16.60	+19 40.3	1.702	2.487	16.6	22.0	1 26	5 19.95	+20 8.2	1.993	2.774	14.6	20.0
287163	2002 <i>RQ</i> ₂₄₄		12 18.9	150°47	4°8/19.4	18	364637	2007 <i>TN</i> ₁₀₆		12 18.9	248°12	7°2/18.9	18
11 17	6 19.68	+37 41.8	2.192	3.007	12.5	21.6	11 17	6 20.31	+40 29.3	1.837	2.653	14.5	20.6
11 27	6 11.82	+38 5.8	2.125	3.015	9.7	21.5	11 27	6 13.11	+41 31.9	1.763	2.648	11.6	20.4
12 7	6 1.59	+38 18.0	2.083	3.022	6.8	21.3	12 7	6 2.72	+42 21.1	1.712	2.641	8.8	20.2
12 17	5 49.94	+38 14.6	2.068	3.030	4.8	21.2	12 17	5 50.19	+42 50.0	1.687	2.635	7.2	20.1
12 27	5 38.19	+37 54.3	2.084	3.036	5.6	21.3	12 27	5 37.16	+42 54.2	1.690	2.629	8.0	20.1
1 6	5 27.63	+37 19.4	2.128	3.042	8.2	21.4	1 6	5 25.40	+42 34.8	1.720	2.622	10.5	20.2
1 16	5 19.30	+36 34.1	2.200	3.048	11.0	21.6	1 16	5 16.35	+41 57.0	1.774	2.616	13.6	20.4
1 26	5 13.81	+35 43.9	2.294	3.053	13.6	21.8	1 26	5 10.91	+41 8.2	1.849	2.609	16.4	20.6
223885	2004 <i>VL</i> ₆		12 18.9	24°66	3°9/18.6	17	263064	2007 <i>JA</i> ₁₁		12 18.9	218°65	0°5/18.9	18
11 17	6 15.13	+30 46.4	1.813	2.655	13.6	19.6	11 17	6 11.99	+22 9.9	2.454	3.290	10.7	21.3
11 27	6 8.96	+31 54.0	1.750	2.660	10.1	19.4	11 27	6 5.99	+22 4.2	2.373	3.285	7.7	21.1
12 7	6 0.20	+32 56.8	1.711	2.666	6.4	19.2	12 7	5 58.25	+21 58.2	2.317	3.280	4.3	20.9
12 17	5 49.74	+33 49.3	1.700	2.673	3.9	19.0	12 17	5 49.43	+21 51.4	2.291	3.274	0.8	20.6
12 27	5 38.95	+34 27.7	1.717	2.680	5.4	19.2	12 27	5 40.42	+21 43.9	2.296	3.268	3.0	20.8
1 6	5 29.24	+34 51.3	1.762	2.687	8.8	19.4	1 6	5 32.13	+21 36.3	2.330	3.262	6.5	21.0
1 16	5 21.76	+35 2.0	1.833	2.695	12.3	19.6	1 16	5 25.31	+21 29.7	2.393	3.256	9.7	21.2
1 26	5 17.31	+35 3.9	1.925	2.703	15.2	19.8	1 26	5 20.56	+21 25.2	2.479	3.249	12.4	21.4
321787	2010 <i>ON</i> ₉₈		12 18.9	28°79	7°8/18.1	17	447498	2006 <i>RZ</i> ₈₂		12 18.9	71°20	1°3/18.9	17
11 17	6 19.33	+38 50.3	1.651	2.479	15.3	20.0	11 17	6 13.70	+20 16.0	1.809	2.655	13.4	21.6
11 27	6 12.60	+40 36.4	1.596	2.487	12.2	19.8	11 27	6 7.60	+20 6.7	1.743	2.660	9.7	21.4
12 7	6 2.51	+42 10.4	1.563	2.495	9.3	19.7	12 7	5 59.27	+19 59.0	1.701	2.664	5.6	21.1
12 17	5 50.14	+43 23.2	1.557	2.504	7.8	19.6	12 17	5 49.60	+19 52.7	1.686	2.668	1.6	20.9
12 27	5 37.25	+44 8.6	1.578	2.514	8.7	19.7	12 27	5 39.77	+19 48.0	1.701	2.673	3.9	21.1
1 6	5 25.72	+44 26.7	1.625	2.523	11.3	19.9	1 6	5 30.99	+19 45.6	1.743	2.677	8.1	21.3
1 16	5 17.08	+44 22.2	1.695	2.534	14.3	20.1	1 16	5 24.21	+19 46.2	1.812	2.682	11.9	21.6
1 26	5 12.28	+44 2.4	1.786	2.544	16.9	20.3	1 26	5 20.07	+19 50.5	1.903	2.687	15.1	21.8
420142	2011 <i>FA</i> ₈₅		12 18.9	192°61	1°4/18.9	18	427176	2014 <i>UO</i> ₂₁₅		12 18.9	38°47	0°3/18.9	18
11 17	6 10.95	+17 41.5	2.506	3.339	10.5	20.7	11 17	6 14.73	+19 7.8	1.730	2.576	13.9	20.1
11 27	6 5.18	+17 53.1	2.429	3.339	7.7	20.5	11 27	6 8.38	+20 11.0	1.680	2.597	10.0	19.9
12 7	5 57.76	+18 8.4	2.378	3.338	4.5	20.3	12 7	5 59.72	+21 19.3	1.654	2.618	5.6	19.7
12 17	5 49.33	+18 26.8	2.356	3.337	1.6	20.1	12 17	5 49.68	+22 28.7	1.656	2.640	1.0	19.5
12 27	5 40.70	+18 47.5	2.365	3.336	3.2	20.2	12 27	5 39.50	+23 35.3	1.688	2.662	3.7	19.7
1 6	5 32.73	+19 10.0	2.405	3.335	6.5	20.4	1 6	5 30.45	+24 36.3	1.749	2.685	8.0	20.0
1 16	5 26.14	+19 34.0	2.472	3.333	9.5	20.6	1 16	5 23.51	+25 30.8	1.836	2.708	11.7	20.3
1 26	5 21.50	+19 59.2	2.563	3.332	12.1	20.8	1 26	5 19.33	+26 19.0	1.947	2.731	14.8	20.6
300430	2007 <i>TC</i> ₁₆		12 18.9	48°40	4°3/19.1	18	139908	2001 <i>RD</i> ₁₀₇		12 18.9	109°12		

EPHEMERIDES

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
111333	2001 XR ₉₀		12 18.9 28°62'	1.2°/19.0	18		75214	1999 VF ₂₀₂		12 18.9 80°15'	0.3°/18.9	18	
11 17	6 14.11	+26 50.2	1.790	2.637	13.5	20.0	11 17	6 18.21	+24 13.3	1.381	2.236	16.3	19.2
11 27	6 8.02	+26 50.8	1.723	2.640	9.8	19.8	11 27	6 11.34	+23 46.8	1.323	2.245	11.8	19.0
12 7	5 59.56	+26 47.3	1.679	2.643	5.6	19.6	12 7	6 1.54	+23 16.8	1.288	2.253	6.6	18.7
12 17	5 49.66	+26 38.1	1.664	2.646	1.5	19.3	12 17	5 50.03	+22 43.3	1.279	2.262	1.1	18.4
12 27	5 39.59	+26 22.8	1.677	2.650	3.8	19.5	12 27	5 38.48	+22 7.8	1.297	2.271	4.5	18.6
1 6	5 30.66	+26 3.0	1.718	2.654	8.1	19.8	1 6	5 28.49	+21 33.4	1.342	2.280	9.7	19.0
1 16	5 23.87	+25 41.4	1.785	2.658	11.9	20.0	1 16	5 21.25	+21 3.4	1.412	2.289	14.2	19.3
1 26	5 19.88	+25 20.9	1.874	2.662	15.2	20.2	1 26	5 17.44	+20 40.3	1.502	2.298	17.9	19.5
102459	1999 TD ₂₂₆		12 18.9 155°21'	0°2°/18.9	18		419397	2010 AD ₃₂		12 18.9 266°34'	4°0°/18.9	18	
11 17	6 19.14	+23 57.1	1.832	2.670	13.6	20.8	11 17	6 9.55	+10 15.4	2.444	3.268	11.1	21.0
11 27	6 11.52	+24 0.7	1.765	2.678	9.9	20.6	11 27	6 4.18	+10 4.6	2.369	3.267	8.5	20.8
12 7	6 1.48	+24 2.5	1.724	2.686	5.6	20.4	12 7	5 57.24	+10 2.0	2.320	3.265	5.8	20.7
12 17	5 49.98	+24 1.0	1.710	2.694	0.9	20.1	12 17	5 49.33	+10 8.5	2.298	3.264	4.0	20.5
12 27	5 38.34	+23 55.5	1.727	2.700	3.8	20.3	12 27	5 41.25	+10 24.5	2.307	3.262	4.9	20.6
1 6	5 27.87	+23 47.2	1.773	2.706	8.1	20.6	1 6	5 33.81	+10 49.3	2.344	3.261	7.4	20.8
1 16	5 19.61	+23 38.0	1.845	2.710	12.0	20.8	1 16	5 27.71	+11 21.6	2.409	3.259	10.1	20.9
1 26	5 14.25	+23 30.3	1.941	2.714	15.2	21.0	1 26	5 23.50	+12 0.0	2.497	3.257	12.6	21.1
60497	2000 DH ₉₁		12 18.9 112°28'	4°8°/18.8	18		319986	2007 CW ₆₂		12 18.9 285°56'	6°6°/19.2	18	
11 17	6 10.09	+7 25.8	2.503	3.317	11.2	19.4	11 17	6 11.50	+3 59.2	2.056	2.867	13.4	20.8
11 27	6 4.41	+7 1.8	2.441	3.328	8.7	19.2	11 27	6 5.96	+3 45.1	1.968	2.849	10.8	20.6
12 7	5 57.27	+6 47.2	2.404	3.339	6.3	19.1	12 7	5 58.42	+3 45.6	1.903	2.830	8.2	20.4
12 17	5 49.28	+6 43.6	2.395	3.350	4.9	19.0	12 17	5 49.56	+4 3.3	1.865	2.812	6.7	20.3
12 27	5 41.23	+6 51.7	2.416	3.360	5.6	19.1	12 27	5 40.30	+4 39.1	1.855	2.794	7.4	20.3
1 6	5 33.86	+7 10.9	2.466	3.370	7.7	19.2	1 6	5 31.69	+5 31.4	1.873	2.776	9.8	20.4
1 16	5 27.84	+7 39.8	2.543	3.380	10.1	19.4	1 16	5 24.64	+6 37.4	1.916	2.757	12.7	20.6
1 26	5 23.64	+8 16.4	2.643	3.390	12.3	19.6	1 26	5 19.84	+7 53.1	1.982	2.739	15.5	20.7
45512	2000 BD ₂₃		12 18.9 333°43'	3°1°/19.3	18		224791	2006 SS ₂₇₃		12 18.9 260°70'	4°3°/18.5	18	
11 17	6 14.14	+33 1.9	2.105	2.938	12.3	18.9	11 17	6 15.58	+15 22.7	1.460	2.309	15.9	20.7
11 27	6 7.90	+33 7.0	2.029	2.935	9.2	18.7	11 27	6 9.41	+14 35.8	1.390	2.305	11.9	20.4
12 7	5 59.45	+33 3.3	1.979	2.933	5.8	18.5	12 7	6 0.52	+13 54.0	1.343	2.300	7.5	20.2
12 17	5 49.65	+32 48.7	1.956	2.930	3.3	18.3	12 17	5 49.90	+13 20.2	1.321	2.296	4.4	20.0
12 27	5 39.68	+32 22.6	1.962	2.928	4.4	18.4	12 27	5 39.00	+12 57.1	1.327	2.292	6.3	20.1
1 6	5 30.73	+31 46.9	1.997	2.925	7.7	18.6	1 6	5 29.30	+12 46.1	1.360	2.288	10.6	20.3
1 16	5 23.75	+31 5.3	2.058	2.923	11.0	18.8	1 16	5 21.99	+12 47.7	1.416	2.283	14.8	20.6
1 26	5 19.38	+30 21.8	2.143	2.921	13.8	19.0	1 26	5 17.84	+13 0.6	1.493	2.279	18.5	20.8
228685	2002 ND ₆₁		12 18.9 194°91'	3°4°/19.2	18		238681	2005 EM ₂₁₂		12 18.9 283°08'	5°8°/18.5	18	
11 17	6 11.45	+11 4.4	2.378	3.201	11.4	20.1	11 17	6 16.46	+39 10.2	2.347	3.160	11.9	20.2
11 27	6 5.59	+11 18.1	2.301	3.200	8.6	19.9	11 27	6 9.86	+40 17.4	2.264	3.148	9.4	20.0
12 7	5 58.04	+11 40.7	2.250	3.200	5.6	19.7	12 7	6 0.77	+41 15.4	2.206	3.136	7.1	19.8
12 17	5 49.43	+12 12.0	2.228	3.199	3.5	19.6	12 17	5 49.96	+41 58.7	2.176	3.124	5.8	19.7
12 27	5 40.60	+12 51.4	2.237	3.198	4.4	19.7	12 27	5 38.62	+42 23.7	2.175	3.112	6.6	19.8
1 6	5 32.43	+13 37.2	2.275	3.197	7.3	19.8	1 6	5 28.07	+42 30.1	2.202	3.100	8.8	19.9
1 16	5 25.69	+14 27.6	2.341	3.196	10.2	20.0	1 16	5 19.47	+42 20.4	2.254	3.088	11.4	20.0
1 26	5 20.93	+15 21.0	2.431	3.195	12.8	20.2	1 26	5 13.66	+41 59.5	2.329	3.076	13.8	20.2
208856	2002 SV ₉		12 18.9 68°20'	1°3°/18.9	18		311300	2005 JF ₃₄		12 18.9 97°83'	4°8°/18.7	18	
11 17	6 14.24	+19 49.2	1.721	2.568	13.9	20.2	11 17	6 13.13	+11 8.0	1.913	2.745	13.4	21.3
11 27	6 8.05	+19 47.8	1.660	2.578	10.1	20.0	11 27	6 6.96	+10 32.7	1.854	2.756	10.2	21.1
12 7	5 59.55	+19 48.9	1.624	2.587	5.8	19.8	12 7	5 58.85	+10 6.1	1.820	2.767	6.9	20.9
12 17	5 49.68	+19 52.0	1.614	2.597	1.6	19.5	12 17	5 49.61	+9 50.2	1.813	2.778	4.8	20.8
12 27	5 39.69	+19 56.7	1.634	2.606	4.0	19.7	12 27	5 40.31	+9 46.4	1.834	2.789	5.9	20.9
1 6	5 30.83	+20 3.2	1.681	2.616	8.3	20.0	1 6	5 31.98	+9 54.4	1.884	2.800	8.9	21.1
1 16	5 24.06	+20 12.0	1.754	2.626	12.2	20.2	1 16	5 25.46	+10 13.3	1.959	2.811	12.0	21.3
1 26	5 20.05	+20 23.7	1.849	2.635	15.4	20.5	1 26	5 21.31	+10 40.9	2.056	2.821	14.8	21.5
248264	2005 GU ₁₄₉		12 18.9 214°50'	0°1°/18.9	18		41373	2000 AR ₁₀₁		12 18.9 62°67'	1°6°/18.9	18	
11 17	6 14.72	+22 13.8	2.100	2.938	12.1	21.5	11 17	6 14.35	+25 58.7	2.014	2.855	12.4	19.0
11 27	6 8.27	+22 28.2	2.019	2.933	8.8	21.3	11 27	6 8.07	+26 41.5	1.949	2.863	9.0	18.8
12 7	5 59.68	+22 43.4	1.964	2.927	5.0	21.0	12 7	5 59.59	+27 22.9	1.910	2.872	5.2	18.6
12 17	5 49.72	+22 57.8	1.938	2.922	0.8	20.7	12 17	5 49.75	+27 59.6	1.899	2.880	1.8	18.4
12 27	5 39.47	+23 10.3	1.942	2.915	3.4	20.9	12 27	5 39.68	+28 29.2	1.918	2.889	3.8	18.6
1 6	5 30.03	+23 20.8	1.976	2.909	7.4	21.1	1 6	5 30.56	+28 51.2	1.965	2.897	7.5	18.8
1 16	5 22.38	+23 30.0	2.037	2.902	11.0	21.3	1 16	5 23.36	+29 6.5	2.040	2.906	11.0	19.1
1 26	5 17.19	+23 39.1	2.120	2.895	14.1	21.5	1 26	5 18.74	+29 17.2	2.137	2.915	13.9	19.3
57208	2001 QB ₅₇		12 18.9 8°31'	0°2°/18.9	18		443619	2014 MM ₂		12 18.9 319°61'	0°5°/18.9	18	
11 17	6 12.27	+22 32.9	1.389	2.252	15.7	18.1	11 17	6 15.68	+24 52.8	1.577	2.428	14.8	19.9
11 27	6 7.23	+22 57.9	1.328	2.253	11.4	17.9	11 27	6 9.42	+24 8.0	1.502	2.422	10.8	19.7
12 7	5 59.36	+23 24.7	1.289	2.256	6.4	17.6	12 7	6 0.48	+23 17.6	1.451	2.416	6.1	19.4
12 17	5 49.69	+23 50.8	1.276	2.259	1.1	17.3	12 17	5 49.91	+22 22.4	1.427	2.410	1.1	19.0
12 27	5 39.73	+24 13.9	1.289	2.264	4.4	17.5	12 27	5 39.13	+21 24.9	1.431	2.405	4.2	19.3
1 6	5 31.05	+24 33.4	1.328	2.269	9.4	17.8	1 6	5 29.59	+20 29.3	1.463	2.400	9.2	19.5
1 16	5 24.88	+24 50.0	1.391	2.276	13.9	18.1	1 16	5 22.45	+19 39.6	1.520	2.395	13.6	19.8
1 26	5 21.98	+25 5.0	1.475	2.283	17.6	18.4	1 26	5 18.42	+18 58.8	1.599	2.390	17.2	20.0
256366	2006 XF ₆₆		12 18.9 16°32'	4°3°/19.8	17		419326	2009 WR ₁₁₉		12 18.9 174°18'	1°9°/18.9	17	
11 17	6 16.43	+35 39.3	1.478	2.322									

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
274393	2008 <i>RN</i> ₁₁₂		12 18.9 103°15	3°2/18.7	17		112272	2002 <i>LZ</i> ₂₂		12 18.9 72°01	1°5/18.7	18	
11 17	6 10.93	+14 18.8	2.341	3.173	11.3	20.6	11 17	6 16.87	+22 1.2	1.633	2.479	14.6	19.2
11 27	6 5.16	+13 48.5	2.275	3.181	8.4	20.4	11 27	6 9.86	+21 15.2	1.580	2.498	10.5	18.9
12 7	5 57.78	+13 23.0	2.235	3.189	5.3	20.2	12 7	6 0.52	+20 27.9	1.553	2.516	6.0	18.7
12 17	5 49.46	+13 3.7	2.224	3.197	3.2	20.1	12 17	5 49.93	+19 40.8	1.552	2.535	1.7	18.5
12 27	5 41.07	+12 51.6	2.243	3.204	4.4	20.2	12 27	5 39.44	+18 56.3	1.581	2.553	4.3	18.7
1 6	5 33.45	+12 47.1	2.291	3.212	7.3	20.4	1 6	5 30.34	+18 17.2	1.638	2.571	8.7	19.0
1 16	5 27.30	+12 50.3	2.365	3.219	10.2	20.6	1 16	5 23.56	+17 45.7	1.721	2.590	12.5	19.3
1 26	5 23.14	+13 0.3	2.464	3.227	12.7	20.8	1 26	5 19.63	+17 23.2	1.825	2.608	15.7	19.5
283997	2004 <i>TM</i> ₄₆		12 18.9 195°97	3°1/18.7	18		149950	2005 <i>TW</i> ₁₃		12 18.9 293°66	5°3/18.9	18	
11 17	6 14.73	+16 50.3	1.681	2.525	14.3	20.4	11 17	6 19.09	+33 50.3	1.477	2.321	16.0	19.7
11 27	6 8.51	+16 19.9	1.611	2.525	10.6	20.2	11 27	6 12.54	+34 40.0	1.407	2.316	12.2	19.5
12 7	5 59.91	+15 53.6	1.565	2.524	6.4	20.0	12 7	6 2.58	+35 20.5	1.358	2.310	8.2	19.3
12 17	5 49.84	+15 32.7	1.546	2.524	3.2	19.8	12 17	5 50.34	+35 44.9	1.335	2.305	5.4	19.1
12 27	5 39.55	+15 18.5	1.555	2.523	5.1	19.9	12 27	5 37.59	+35 49.3	1.339	2.300	6.8	19.1
1 6	5 30.34	+15 12.1	1.593	2.522	9.2	20.1	1 6	5 26.24	+35 34.6	1.369	2.295	10.7	19.4
1 16	5 23.24	+15 13.9	1.655	2.522	13.1	20.4	1 16	5 17.84	+35 6.0	1.422	2.290	14.8	19.6
1 26	5 18.95	+15 23.5	1.739	2.521	16.4	20.6	1 26	5 13.29	+34 30.2	1.496	2.285	18.3	19.8
48472	Mössbauer		12 18.9 277°61	3°5/19.2	18		133291	2003 <i>SX</i> ₂₈		12 18.9 212°53	3°7/19.3	18	
11 17	6 18.44	+31 21.0	1.489	2.335	15.7	18.6	11 17	6 18.79	+34 10.8	2.036	2.862	12.9	20.1
11 27	6 11.88	+31 39.7	1.414	2.328	11.8	18.3	11 27	6 11.45	+34 24.3	1.956	2.857	9.8	19.9
12 7	6 2.11	+31 49.7	1.363	2.321	7.3	18.0	12 7	6 1.59	+34 28.0	1.901	2.851	6.4	19.7
12 17	5 50.23	+31 46.7	1.337	2.314	3.7	17.8	12 17	5 50.15	+34 18.5	1.873	2.845	3.9	19.5
12 27	5 37.93	+31 28.7	1.338	2.307	5.5	17.9	12 27	5 38.45	+33 54.5	1.875	2.838	5.0	19.5
1 6	5 27.01	+30 57.9	1.366	2.300	10.0	18.1	1 6	5 27.85	+33 18.1	1.906	2.831	8.3	19.7
1 16	5 18.89	+30 19.3	1.419	2.293	14.4	18.4	1 16	5 19.45	+32 33.5	1.964	2.823	11.7	19.9
1 26	5 14.42	+29 38.8	1.492	2.286	18.1	18.6	1 26	5 13.97	+31 45.9	2.045	2.815	14.7	20.1
149426	2003 <i>BN</i> ₃₉		12 18.9 215°49	0°3/18.9	17		307291	2002 <i>PF</i> ₁₃₉		12 18.9 114°08	5°5/19.0	18	
11 17	6 14.15	+24 42.1	2.206	3.043	11.6	20.7	11 17	6 14.36	+ 6 15.5	2.245	3.053	12.5	21.1
11 27	6 7.77	+24 36.6	2.126	3.039	8.4	20.5	11 27	6 7.53	+ 5 50.2	2.193	3.075	9.8	21.0
12 7	5 59.38	+24 28.7	2.071	3.034	4.8	20.3	12 7	5 59.07	+ 5 36.3	2.166	3.098	7.1	20.9
12 17	5 49.75	+24 17.6	2.045	3.028	0.8	20.0	12 17	5 49.70	+ 5 35.5	2.168	3.119	5.6	20.8
12 27	5 39.91	+24 3.3	2.049	3.023	3.2	20.2	12 27	5 40.35	+ 5 48.3	2.199	3.140	6.3	20.9
1 6	5 30.90	+23 46.8	2.084	3.017	7.1	20.4	1 6	5 31.88	+ 6 13.7	2.259	3.160	8.5	21.1
1 16	5 23.63	+23 30.0	2.145	3.011	10.6	20.6	1 16	5 25.02	+ 6 49.7	2.346	3.179	11.0	21.2
1 26	5 18.71	+23 14.8	2.230	3.004	13.5	20.8	1 26	5 20.24	+ 7 33.5	2.456	3.198	13.3	21.4
271045	2003 <i>FR</i> ₈		12 18.9 191°08	16°5/20.1	17		447578	2006 <i>TS</i> ₁₀₀		12 18.9 9°20	4°2/18.4	18	
11 17	6 37.64	+54 39.7	1.209	1.991	22.5	20.7	11 17	6 12.36	+15 28.9	1.606	2.456	14.6	20.6
11 27	6 28.71	+56 33.2	1.156	1.991	19.9	20.5	11 27	6 6.83	+14 31.7	1.542	2.457	10.9	20.4
12 7	6 12.87	+57 54.4	1.120	1.991	17.7	20.4	12 7	5 58.97	+13 39.0	1.501	2.458	7.0	20.2
12 17	5 52.09	+58 24.9	1.103	1.990	16.5	20.3	12 17	5 49.71	+12 54.0	1.486	2.460	4.3	20.0
12 27	5 30.53	+57 54.5	1.107	1.989	16.8	20.3	12 27	5 40.31	+12 19.7	1.499	2.462	5.9	20.1
1 6	5 12.68	+56 29.0	1.131	1.987	18.5	20.4	1 6	5 32.03	+11 57.8	1.539	2.465	9.7	20.3
1 16	5 1.29	+54 25.4	1.173	1.986	21.0	20.6	1 16	5 25.84	+11 48.9	1.604	2.469	13.5	20.6
1 26	4 57.04	+52 3.7	1.233	1.984	23.5	20.8	1 26	5 22.41	+11 52.0	1.689	2.473	16.8	20.8
269896	2000 <i>GA</i> ₁₁₉		12 18.9 175°74	0°2/18.9	18		457891	2009 <i>TR</i> ₁₂		12 18.9 28°02	0°7/18.9	17	
11 17	6 17.72	+23 57.5	1.903	2.741	13.2	22.0	11 17	6 12.84	+24 39.0	1.473	2.332	15.2	20.6
11 27	6 10.54	+23 59.5	1.831	2.744	9.6	21.7	11 27	6 7.33	+24 48.7	1.427	2.350	10.9	20.4
12 7	6 1.01	+23 59.8	1.783	2.746	5.4	21.5	12 7	5 59.26	+24 56.6	1.403	2.369	6.1	20.2
12 17	5 50.02	+23 57.0	1.764	2.747	0.9	21.2	12 17	5 49.75	+25 0.9	1.405	2.388	1.2	19.9
12 27	5 38.83	+23 50.7	1.775	2.748	3.7	21.4	12 27	5 40.23	+25 0.9	1.434	2.409	4.1	20.2
1 6	5 28.69	+23 41.7	1.815	2.748	8.0	21.7	1 6	5 32.10	+24 57.5	1.491	2.430	8.7	20.5
1 16	5 20.63	+23 32.0	1.882	2.747	11.8	21.9	1 16	5 26.39	+24 52.7	1.571	2.453	12.8	20.8
1 26	5 15.35	+23 23.7	1.971	2.746	15.0	22.1	1 26	5 23.70	+24 48.4	1.673	2.476	16.1	21.1
489497	2007 <i>JM</i> ₁₄		12 18.9 228°63	4°2/18.8	18		239372	2007 <i>RA</i> ₂₈₄		12 18.9 153°98	2°8/18.8	18	
11 17	6 15.98	+35 26.5	2.507	3.325	11.0	22.0	11 17	6 14.69	+15 44.4	2.029	2.863	12.7	21.7
11 27	6 9.22	+36 14.6	2.424	3.317	8.5	21.8	11 27	6 8.11	+15 27.1	1.961	2.869	9.3	21.5
12 7	6 0.29	+36 55.3	2.366	3.309	5.9	21.6	12 7	5 59.55	+15 14.6	1.918	2.875	5.7	21.3
12 17	5 49.92	+37 24.8	2.337	3.300	4.2	21.5	12 17	5 49.81	+15 7.5	1.904	2.880	2.9	21.1
12 27	5 39.18	+37 40.5	2.338	3.291	5.1	21.6	12 27	5 39.92	+15 6.4	1.919	2.885	4.5	21.2
1 6	5 29.19	+37 42.4	2.369	3.281	7.6	21.7	1 6	5 30.95	+15 11.4	1.964	2.890	8.0	21.4
1 16	5 20.92	+37 32.8	2.427	3.272	10.3	21.9	1 16	5 23.77	+15 22.4	2.035	2.894	11.3	21.6
1 26	5 15.12	+37 15.3	2.508	3.262	12.7	22.0	1 26	5 18.98	+15 39.0	2.129	2.897	14.2	21.9
283213	2010 <i>NY</i> ₅₅		12 18.9 110°77	0°1/18.9	18		319643	2006 <i>SM</i> ₃₉₉		12 18.9 55°93	1°9/18.9	18	
11 17	6 15.22	+24 7.5	2.188	3.024	11.8	21.5	11 17	6 13.64	+18 21.7	1.717	2.564	14.0	20.9
11 27	6 8.34	+24 1.1	2.128	3.041	8.5	21.3	11 27	6 7.64	+18 16.3	1.657	2.573	10.2	20.7
12 7	5 59.58	+23 52.7	2.095	3.058	4.7	21.1	12 7	5 59.38	+18 14.7	1.620	2.583	5.9	20.5
12 17	5 49.77	+23 41.7	2.090	3.074	0.8	20.9	12 17	5 49.78	+18 16.8	1.611	2.592	2.1	20.3
12 27	5 39.95	+23 28.2	2.117	3.090	3.2	21.1	12 27	5 40.05	+18 22.4	1.631	2.602	4.2	20.4
1 6	5 31.13	+23 13.4	2.173	3.105	6.9	21.4	1 6	5 31.42	+18 31.7	1.678	2.612	8.4	20.7
1 16	5 24.11	+22 58.9	2.256	3.120	10.2	21.6	1 16	5 24.86	+18 44.6	1.751	2.622	12.2	20.9
1 26	5 19.42	+22 46.4	2.363	3.135	12.9	21.8	1 26	5 20.99	+19 1.1	1.845	2.632	15.4	21.2
79374	1997 <i>EB</i> ₅₉		12 18.9 173°49	3°0/19.1	18		393671	2004 <i>RP</i> ₁₀₉		12 18.9 50°			

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2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
461619	2005 AY ₇₄	12 18.9 298°14		3°4/19.4 18			139748	2001 QQ ₂₇₄	12 18.9 62°29		0°5/18.9 18		
11 17	6 14.55	+34 1.5	2.148	2.978	12.2	21.2	11 17	6 14.98	+23 29.4	1.759	2.606	13.7	19.6
11 27	6 8.39	+34 6.1	2.055	2.959	9.2	20.9	11 27	6 8.72	+23 56.1	1.697	2.615	9.9	19.4
12 7	5 59.89	+34 1.3	1.988	2.940	6.0	20.7	12 7	6 0.06	+24 23.0	1.660	2.624	5.6	19.1
12 17	5 49.89	+33 44.4	1.948	2.921	3.6	20.5	12 17	5 49.94	+24 47.5	1.649	2.633	1.1	18.8
12 27	5 39.55	+33 14.6	1.937	2.902	4.7	20.6	12 27	5 39.63	+25 7.7	1.668	2.642	3.8	19.1
1 6	5 30.10	+32 33.5	1.956	2.883	7.9	20.7	1 6	5 30.43	+25 23.5	1.715	2.651	8.1	19.4
1 16	5 22.60	+31 45.1	2.000	2.864	11.3	20.9	1 16	5 23.36	+25 35.7	1.789	2.661	12.0	19.6
1 26	5 17.78	+30 53.9	2.069	2.846	14.3	21.1	1 26	5 19.10	+25 46.0	1.884	2.670	15.2	19.8
215203	2000 SO ₁₉₁	12 18.9 105°29		3°0/19.0 18			64190	2001 TY ₆₉	12 18.9 336°30		0°3/18.9 18		
11 17	6 23.29	+29 22.0	1.499	2.340	16.0	21.2	11 17	6 13.56	+23 16.5	1.258	2.124	16.8	19.3
11 27	6 14.95	+29 57.2	1.450	2.362	11.7	21.0	11 27	6 8.57	+23 6.9	1.187	2.114	12.3	19.0
12 7	6 3.59	+30 25.6	1.424	2.383	7.0	20.8	12 7	6 0.36	+22 56.2	1.137	2.104	7.0	18.7
12 17	5 50.49	+30 42.2	1.425	2.403	3.2	20.6	12 17	5 50.03	+22 43.3	1.112	2.095	1.2	18.3
12 27	5 37.38	+30 45.0	1.454	2.423	5.1	20.8	12 27	5 39.24	+22 28.5	1.112	2.087	4.8	18.5
1 6	5 25.98	+30 35.7	1.512	2.443	9.4	21.1	1 6	5 29.80	+22 13.5	1.138	2.080	10.5	18.8
1 16	5 17.49	+30 18.6	1.594	2.461	13.5	21.3	1 16	5 23.12	+22 0.8	1.186	2.074	15.5	19.1
1 26	5 12.58	+29 58.7	1.698	2.479	16.8	21.6	1 26	5 20.12	+21 52.6	1.253	2.068	19.7	19.4
234691	2002 GO ₁₁₅	12 18.9 139°31		1°0/18.9 18			487542	2014 UF ₁₉₄	12 18.9 141°87		3°1/18.9 17		
11 17	6 17.46	+25 21.1	2.241	3.072	11.7	21.5	11 17	6 15.19	+32 16.8	2.438	3.264	11.1	21.4
11 27	6 10.05	+25 46.3	2.177	3.086	8.5	21.3	11 27	6 8.50	+32 55.8	2.368	3.270	8.3	21.2
12 7	6 0.62	+26 9.5	2.138	3.099	4.8	21.1	12 7	5 59.83	+33 28.8	2.324	3.276	5.3	21.0
12 17	5 50.00	+26 28.3	2.130	3.112	1.3	20.9	12 17	5 49.91	+33 52.6	2.310	3.281	3.2	20.9
12 27	5 39.25	+26 41.6	2.152	3.124	3.3	21.1	12 27	5 39.78	+34 5.3	2.325	3.287	4.3	21.0
1 6	5 29.45	+26 49.3	2.205	3.135	6.9	21.3	1 6	5 30.49	+34 7.2	2.371	3.292	7.0	21.2
1 16	5 21.47	+26 52.8	2.286	3.146	10.2	21.5	1 16	5 22.92	+34 0.5	2.443	3.297	9.9	21.4
1 26	5 15.92	+26 54.2	2.391	3.156	13.0	21.7	1 26	5 17.71	+33 48.1	2.540	3.301	12.4	21.6
493241	2014 UA ₉₃	12 18.9 99°97		3°3/18.8 17			382035	2011 CF ₃₅	12 18.9 288°62		0°6/19.0 18		
11 17	6 14.67	+31 45.8	2.346	3.175	11.3	21.3	11 17	6 16.84	+25 14.8	1.411	2.266	16.0	21.0
11 27	6 8.22	+32 35.6	2.276	3.180	8.4	21.1	11 27	6 10.77	+25 11.5	1.333	2.255	11.7	20.7
12 7	5 59.70	+32 20.0	2.232	3.184	5.4	20.9	12 7	6 1.56	+25 4.8	1.278	2.243	6.7	20.4
12 17	5 49.86	+33 55.4	2.217	3.189	3.3	20.8	12 17	5 50.24	+24 52.9	1.249	2.232	1.3	20.0
12 27	5 39.76	+34 19.5	2.233	3.194	4.4	20.9	12 27	5 38.44	+24 35.3	1.246	2.221	4.6	20.2
1 6	5 30.49	+34 32.0	2.277	3.199	7.3	21.0	1 6	5 27.90	+24 13.8	1.271	2.210	10.0	20.5
1 16	5 22.97	+34 34.7	2.349	3.203	10.2	21.2	1 16	5 20.04	+23 51.8	1.319	2.199	14.8	20.7
1 26	5 17.88	+34 30.8	2.444	3.208	12.7	21.4	1 26	5 15.75	+23 32.8	1.387	2.188	18.9	21.0
452617	2005 QX ₁₄₇	12 18.9 137°03		0°9/18.9 18			47678	2000 CT ₇₅	12 18.9 228°77		6°4/18.3 18 R		
11 17	6 15.34	+25 19.8	2.389	3.220	11.1	21.9	11 17	6 9.54	+ 2 42.4	2.600	3.397	11.3	18.3
11 27	6 8.44	+25 41.1	2.323	3.233	8.0	21.7	11 27	6 4.14	+ 1 54.9	2.523	3.391	9.2	18.2
12 7	5 59.70	+26 0.5	2.283	3.244	4.5	21.5	12 7	5 57.27	+ 1 18.6	2.471	3.384	7.4	18.0
12 17	5 49.86	+26 16.0	2.273	3.256	1.1	21.3	12 17	5 49.49	+ 0 56.2	2.447	3.377	6.4	18.0
12 27	5 39.89	+26 26.8	2.294	3.266	3.1	21.5	12 27	5 41.54	+ 0 49.5	2.451	3.370	7.0	18.0
1 6	5 30.78	+26 32.8	2.346	3.277	6.6	21.7	1 6	5 34.17	+ 0 58.6	2.483	3.362	8.7	18.1
1 16	5 23.33	+26 35.3	2.425	3.286	9.7	21.9	1 16	5 28.03	+ 1 22.1	2.541	3.354	10.9	18.2
1 26	5 18.11	+26 36.0	2.529	3.295	12.3	22.1	1 26	5 23.63	+ 1 57.6	2.621	3.346	12.9	18.4
104214	2000 EJ ₁₁₈	12 18.9 214°15		6°0/18.9 18			134969	2001 EL ₁	12 18.9 14°89		0°7/19.0 18 R		
11 17	6 19.39	+38 34.3	2.014	2.832	13.4	19.8	11 17	6 13.75	+19 19.5	0.980	1.858	19.4	18.3
11 27	6 12.19	+39 31.6	1.940	2.828	10.5	19.6	11 27	6 9.11	+20 4.6	0.930	1.862	14.1	18.0
12 7	6 2.18	+40 17.7	1.890	2.825	7.7	19.4	12 7	6 0.80	+20 58.5	0.899	1.867	8.0	17.7
12 17	5 50.31	+40 46.7	1.867	2.821	6.1	19.3	12 17	5 50.12	+21 56.9	0.891	1.874	1.5	17.3
12 27	5 38.01	+40 55.2	1.873	2.817	6.9	19.3	12 27	5 39.08	+22 54.7	0.907	1.883	5.3	17.6
1 6	5 26.82	+40 43.9	1.906	2.813	9.4	19.5	1 6	5 29.78	+23 48.1	0.946	1.892	11.5	18.0
1 16	5 18.00	+40 16.8	1.965	2.808	12.4	19.6	1 16	5 23.78	+24 35.7	1.006	1.903	16.8	18.3
1 26	5 12.38	+39 40.0	2.046	2.803	15.1	19.8	1 26	5 21.94	+25 18.1	1.085	1.915	21.2	18.6
245314	2005 EH ₅₈	12 18.9 16°25		9°6/18.6 18			98902	2001 BK ₅₃	12 18.9 143°53		4°1/19.3 18		
11 17	6 11.77	+ 1 28.7	1.602	2.418	16.3	19.9	11 17	6 14.92	+10 10.9	2.115	2.936	12.7	19.6
11 27	6 6.38	+ 0 23.5	1.543	2.420	13.5	19.7	11 27	6 8.22	+10 14.7	2.049	2.946	9.6	19.4
12 7	5 58.73	- 0 23.0	1.506	2.422	10.9	19.6	12 7	5 59.62	+10 28.4	2.008	2.955	6.4	19.3
12 17	5 49.71	- 0 45.7	1.493	2.424	9.6	19.5	12 17	5 49.89	+10 52.4	1.996	2.964	4.2	19.1
12 27	5 40.51	- 0 41.7	1.505	2.426	10.3	19.6	12 27	5 40.01	+11 26.1	2.013	2.972	5.2	19.2
1 6	5 32.34	- 0 11.9	1.541	2.429	12.6	19.7	1 6	5 30.98	+12 7.8	2.060	2.979	8.1	19.4
1 16	5 26.16	+ 0 39.7	1.601	2.432	15.3	19.9	1 16	5 23.63	+12 55.6	2.135	2.987	11.2	19.6
1 26	5 22.65	+ 1 47.4	1.680	2.436	17.9	20.1	1 26	5 18.56	+13 47.5	2.232	2.993	13.9	19.8
410599	2008 HL ₃₂	12 18.9 141°07		0°8/18.9 18			432948	2012 GM ₁₀	12 18.9 293°31		3°2/18.8 18		
11 17	6 14.12	+25 19.4	2.559	3.389	10.4	22.2	11 17	6 16.27	+17 57.9	1.286	2.144	17.0	21.7
11 27	6 7.49	+25 39.6	2.490	3.400	7.5	22.0	11 27	6 10.37	+17 26.4	1.216	2.137	12.6	21.4
12 7	5 59.14	+25 58.0	2.449	3.410	4.3	21.8	12 7	6 1.33	+16 58.6	1.167	2.130	7.6	21.1
12 17	5 49.78	+26 12.9	2.437	3.420	1.1	21.6	12 17	5 50.23	+16 36.1	1.143	2.123	3.3	20.9
12 27	5 40.28	+26 23.5	2.457	3.429	2.9	21.7	12 27	5 38.72	+16 20.6	1.146	2.116	5.8	21.0
1 6	5 31.55	+26 29.7	2.507	3.438	6.2	22.0	1 6	5 28.53	+16 13.6	1.174	2.110	11.0	21.3
1 16	5 24.34	+26 32.6	2.585	3.446	9.2	22.2	1 16	5 21.06	+16 15.9	1.225	2.103	15.9	21.5
1 26	5 19.22	+26 33.9	2.688	3.454	11.7	22.4	1 26	5 17.16	+16 27.4	1.295	2.097	20.0	21.8
44720	1999 TS ₉	12 18.9 126°45		2°9/19.0 18			275890	2001 TV ₄₈	12 18.9 118°41		5°3/19.3 18		
11 17	6 21.80	+29 45.0	1.723	2.557	14.5	18.8	11 17	6 23.86	+37 6.9				

EPHEMERIDES

12 18.9

12 19.0

2020/21	α_{2000}	δ_{2000}	Δ	r	β	V	2020/21	α_{2000}	δ_{2000}	Δ	r	β	V
321008	2008 <i>KE</i> ₂₇		12 18.9 316°32	4.4/18.9	17		202776	2007 <i>TK</i> ₃₄₈		12 18.9 65°82	0.9/18.9	18	
11 17	6 11.59	+11 43.5	1.887	2.723	13.4	21.3	11 17	6 15.62	+20 54.9	1.577	2.427	14.8	20.2
11 27	6 6.13	+11 22.1	1.812	2.718	10.2	21.1	11 27	6 9.31	+20 59.5	1.519	2.438	10.7	20.0
12 7	5 58.60	+11 9.4	1.762	2.713	6.8	20.9	12 7	6 0.45	+21 6.0	1.484	2.448	6.1	19.8
12 17	5 49.75	+11 7.0	1.739	2.708	4.5	20.8	12 17	5 50.09	+21 13.2	1.476	2.459	1.3	19.5
12 27	5 40.66	+11 15.8	1.744	2.703	5.7	20.8	12 27	5 39.59	+21 20.4	1.496	2.470	4.1	19.7
1 6	5 32.40	+11 35.3	1.776	2.699	8.9	21.0	1 6	5 30.34	+21 27.8	1.544	2.481	8.7	20.0
1 16	5 25.90	+12 4.4	1.834	2.694	12.3	21.2	1 16	5 23.42	+21 36.2	1.617	2.492	12.9	20.3
1 26	5 21.82	+12 41.1	1.915	2.690	15.4	21.4	1 26	5 19.48	+21 46.4	1.712	2.503	16.3	20.5
370894	2005 <i>EZ</i> ₂₇₀		12 18.9 277°49	6.6/18.9	18		394881	2008 <i>UW</i> ₉₃		12 18.9 357°17	0.6/19.0	18	
11 17	6 9.50	+2 14.9	2.381	3.181	12.1	20.7	11 17	6 13.62	+19 26.7	1.249	2.114	17.0	19.7
11 27	6 4.23	+1 46.9	2.307	3.177	9.9	20.6	11 27	6 8.62	+20 11.6	1.185	2.111	12.4	19.4
12 7	5 57.38	+1 32.3	2.257	3.172	7.8	20.4	12 7	6 0.45	+21 4.6	1.141	2.108	7.1	19.1
12 17	5 49.54	+1 33.5	2.234	3.168	6.7	20.4	12 17	5 50.14	+22 1.8	1.123	2.106	1.3	18.8
12 27	5 41.52	+1 51.4	2.239	3.164	7.2	20.4	12 27	5 39.33	+22 58.9	1.131	2.106	4.7	19.0
1 6	5 34.13	+2 25.3	2.272	3.160	9.0	20.5	1 6	5 29.80	+23 52.7	1.164	2.106	10.3	19.3
1 16	5 28.09	+3 12.9	2.331	3.156	11.3	20.6	1 16	5 23.01	+24 41.7	1.220	2.107	15.2	19.6
1 26	5 23.93	+4 10.9	2.412	3.152	13.5	20.8	1 26	5 19.86	+25 26.1	1.296	2.110	19.3	19.9
301890	1998 <i>QO</i> ₉₄		12 18.9 107°29	7.2/20.1	18		116639	2004 <i>CF</i>		12 18.9 30°43	5.9/17.8	18	
11 17	6 24.61	+44 31.4	2.054	2.847	14.0	20.4	11 17	6 21.24	+32 6.4	1.586	2.424	15.4	18.4
11 27	6 15.68	+45 7.6	2.002	2.867	11.4	20.3	11 27	6 14.13	+34 12.0	1.523	2.429	11.7	18.2
12 7	6 3.93	+45 25.9	1.973	2.887	8.8	20.2	12 7	6 3.63	+36 13.5	1.486	2.435	8.0	18.0
12 17	5 50.62	+45 21.1	1.971	2.906	7.3	20.1	12 17	5 50.70	+38 0.6	1.476	2.441	5.9	17.9
12 27	5 37.39	+44 51.6	1.997	2.925	7.7	20.2	12 27	5 37.04	+39 24.8	1.496	2.447	7.5	18.0
1 6	5 25.81	+44 1.0	2.051	2.943	9.6	20.3	1 6	5 24.55	+40 23.2	1.542	2.453	10.9	18.2
1 16	5 16.99	+42 55.7	2.130	2.961	12.0	20.5	1 16	5 14.84	+40 58.4	1.613	2.460	14.4	18.4
1 26	5 11.56	+41 43.5	2.232	2.978	14.3	20.7	1 26	5 8.97	+41 16.4	1.705	2.468	17.5	18.6
326796	2003 <i>SP</i> ₃₀₂		12 18.9 45°90	1°1/18.8	17		212959	2009 <i>BD</i> ₆₅		12 18.9 167°94	1°9/18.9	18	
11 17	6 12.49	+21 40.6	2.043	2.887	12.2	20.1	11 17	6 14.56	+18 5.1	2.072	2.908	12.3	21.4
11 27	6 6.57	+21 10.9	1.977	2.893	8.8	19.9	11 27	6 8.11	+17 56.6	2.000	2.911	9.0	21.2
12 7	5 58.73	+20 40.6	1.936	2.899	5.0	19.7	12 7	5 59.65	+17 51.2	1.954	2.914	5.3	21.0
12 17	5 49.77	+20 10.2	1.923	2.905	1.4	19.4	12 17	5 49.97	+17 48.9	1.936	2.916	2.1	20.8
12 27	5 40.73	+19 41.1	1.939	2.912	3.6	19.6	12 27	5 40.12	+17 49.7	1.948	2.918	3.9	20.9
1 6	5 32.65	+19 14.9	1.985	2.918	7.4	19.9	1 6	5 31.15	+17 54.0	1.990	2.920	7.6	21.2
1 16	5 26.34	+18 53.2	2.058	2.925	10.8	20.1	1 16	5 23.93	+18 2.0	2.058	2.921	11.1	21.4
1 26	5 22.37	+18 37.1	2.153	2.932	13.8	20.3	1 26	5 19.09	+18 13.8	2.149	2.921	14.0	21.6
340911	2007 <i>DB</i> ₅₂		12 18.9 185°10	3°6/19.3	18		443981	2003 <i>UF</i> ₃₇₉		12 18.9 109°57	8°0/18.7	15	
11 17	6 19.75	+32 36.0	1.781	2.615	14.2	21.5	11 17	6 14.71	+1 24.3	2.021	2.817	14.1	22.9
11 27	6 12.39	+32 54.4	1.709	2.615	10.6	21.3	11 27	6 7.96	+0 24.7	1.973	2.838	11.5	22.7
12 7	6 2.25	+33 3.7	1.660	2.615	6.7	21.1	12 7	5 59.43	-0 19.1	1.949	2.858	9.2	22.6
12 17	5 50.38	+33 0.0	1.639	2.614	3.7	20.9	12 17	5 49.92	-0 43.3	1.952	2.878	8.1	22.6
12 27	5 38.26	+32 41.9	1.647	2.613	5.1	21.0	12 27	5 40.43	-0 46.3	1.983	2.898	8.6	22.7
1 6	5 27.41	+32 11.3	1.683	2.612	8.9	21.2	1 6	5 31.92	-0 29.0	2.041	2.916	10.5	22.8
1 16	5 19.02	+31 32.9	1.746	2.610	12.6	21.4	1 16	5 25.15	+0 5.8	2.123	2.935	12.8	23.0
1 26	5 13.85	+30 51.9	1.830	2.608	15.9	21.7	1 26	5 20.63	+0 53.8	2.226	2.952	14.9	23.2
229663	2006 <i>KX</i> ₂₀		12 18.9 235°81	0°9/19.0	18		226430	2003 <i>SU</i> ₂₄		12 18.9 69°26	7°8/18.7	18	
11 17	6 11.78	+19 18.2	2.419	3.254	10.8	20.1	11 17	6 11.17	+1 12.3	2.112	2.911	13.5	20.2
11 27	6 5.97	+19 38.3	2.339	3.250	7.9	19.9	11 27	6 5.40	+0 15.0	2.065	2.931	11.0	20.1
12 7	5 58.41	+20 1.4	2.285	3.247	4.5	19.6	12 7	5 57.99	-0 26.7	2.042	2.950	8.9	20.0
12 17	5 49.73	+20 26.4	2.261	3.243	1.2	19.4	12 17	5 49.68	-0 49.6	2.045	2.970	7.8	20.0
12 27	5 40.81	+20 52.2	2.267	3.239	3.1	19.5	12 27	5 41.37	-0 52.0	2.076	2.989	8.4	20.0
1 6	5 32.54	+21 18.2	2.303	3.236	6.6	19.8	1 6	5 33.94	-0 34.9	2.132	3.009	10.1	20.2
1 16	5 25.72	+21 43.9	2.367	3.232	9.7	20.0	1 16	5 28.09	+0 1.0	2.214	3.028	12.2	20.4
1 26	5 20.94	+22 9.5	2.456	3.228	12.5	20.1	1 26	5 24.29	+0 46.0	2.317	3.047	14.3	20.6
166252	2002 <i>GJ</i> ₂₅		12 18.9 125°99	1°5/18.9	18		495389	2014 <i>QX</i> ₂₄₃		12 18.9 357°72	5°7/18.6	17	
11 17	6 15.90	+19 20.9	1.998	2.835	12.7	21.2	11 17	6 13.49	+33 44.5	1.494	2.345	15.5	20.2
11 27	6 9.02	+19 11.7	1.936	2.848	9.2	21.0	11 27	6 8.50	+34 56.5	1.429	2.341	11.8	19.9
12 7	6 0.10	+19 4.6	1.900	2.861	5.3	20.8	12 7	6 0.39	+36 0.8	1.386	2.338	8.1	19.7
12 17	5 50.01	+18 59.3	1.892	2.874	1.7	20.6	12 17	5 50.16	+36 50.4	1.368	2.336	5.7	19.6
12 27	5 39.85	+18 56.0	1.915	2.886	3.8	20.8	12 27	5 39.43	+37 20.5	1.376	2.335	7.0	19.7
1 6	5 30.71	+18 55.2	1.966	2.897	7.6	21.0	1 6	5 29.95	+37 30.6	1.410	2.335	10.6	19.9
1 16	5 23.46	+18 57.6	2.045	2.908	11.1	21.3	1 16	5 23.16	+37 24.2	1.468	2.337	14.3	20.1
1 26	5 18.68	+19 3.5	2.147	2.919	14.0	21.5	1 26	5 19.96	+37 6.9	1.545	2.340	17.6	20.3
457475	2008 <i>UB</i> ₂₃₉		12 18.9 57°67	2°1/18.5	18		210020	2006 <i>KV</i> ₄₂		12 19.0 68°55	1°2/18.9	18	
11 17	6 15.77	+20 53.4	2.014	2.852	12.6	20.2	11 17	6 18.73	+24 49.2	1.619	2.464	14.8	19.7
11 27	6 8.64	+19 42.4	1.965	2.877	9.1	20.1	11 27	6 11.40	+25 22.4	1.576	2.492	10.6	19.5
12 7	5 59.73	+18 30.7	1.942	2.903	5.3	19.9	12 7	6 1.55	+25 53.6	1.557	2.520	6.0	19.3
12 17	5 49.93	+17 20.9	1.949	2.929	2.2	19.7	12 17	5 50.31	+26 19.6	1.565	2.548	1.5	19.1
12 27	5 40.31	+16 16.2	1.986	2.954	4.1	19.9	12 27	5 39.12	+26 38.5	1.603	2.576	4.0	19.3
1 6	5 31.87	+15 19.8	2.054	2.980	7.6	20.2	1 6	5 29.37	+26 50.4	1.668	2.603	8.4	19.7
1 16	5 25.34	+14 33.5	2.148	3.006	10.9	20.4	1 16	5 22.06	+26 57.3	1.759	2.630	12.2	20.0
1 26	5 21.17	+13 58.3	2.266	3.032	13.6	20.7	1 26	5 17.80	+27 1.7	1.873	2.657	15.3	20.2
348722	2006 <i>DS</i> ₇₁		12 18.9 67°40	2°4/18.9	18		204149	2003 <i>YG</i> ₁₁₃		12 19.0 249°40	0°3/18.9	18	