

EPHEMERIDES

7 20.9

7 21.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
26286	1998 SV ₆₅		7 20.9 72°89	8°1/25.4	18		85981	1999 HS ₃		7 20.9 140°09	4°9/24.1	18	
6 20	20 24.90	+ 0 19.8	1.496	2.340	17.4	16.9	6 20	20 25.07	- 4 6.9	1.949	2.797	13.8	19.5
6 30	20 19.30	+ 0 31.8	1.445	2.355	14.1	16.8	6 30	20 19.17	- 4 28.5	1.885	2.806	10.8	19.3
7 10	20 11.70	+ 0 18.8	1.414	2.369	10.9	16.6	7 10	20 11.58	- 5 7.7	1.844	2.814	7.6	19.1
7 20	20 2.95	- 0 19.2	1.405	2.384	8.5	16.5	7 20	20 2.98	- 6 2.9	1.828	2.822	5.2	19.0
7 30	19 54.14	- 1 19.3	1.420	2.399	8.4	16.5	7 30	19 54.26	- 7 10.7	1.839	2.830	5.5	19.0
8 9	19 46.42	- 2 35.5	1.460	2.413	10.5	16.7	8 9	19 46.34	- 8 26.0	1.877	2.837	8.1	19.2
8 19	19 40.66	- 4 0.4	1.522	2.428	13.5	16.9	8 19	19 39.98	- 9 43.6	1.941	2.844	11.1	19.4
8 29	19 37.46	- 5 26.9	1.605	2.442	16.4	17.1	8 29	19 35.76	-10 59.0	2.028	2.851	14.0	19.6
167133	2003 SS ₁₆₄		7 20.9 222°02	6°5/24.8	18		94330	2001 FV ₁₆₂		7 20.9 172°64	3°3/23.2	18	
6 20	20 23.12	- 0 47.6	2.045	2.878	13.8	20.2	6 20	20 21.61	- 8 18.0	2.439	3.298	11.0	19.9
6 30	20 17.80	- 0 39.5	1.970	2.874	11.2	20.1	6 30	20 16.52	- 8 27.8	2.366	3.298	8.3	19.7
7 10	20 10.85	- 0 49.7	1.916	2.870	8.6	19.9	7 10	20 10.09	- 8 48.7	2.319	3.299	5.6	19.6
7 20	20 2.87	- 1 18.4	1.887	2.865	6.8	19.8	7 20	20 2.85	- 9 19.5	2.297	3.299	3.5	19.4
7 30	19 54.69	- 2 4.1	1.884	2.861	6.8	19.8	7 30	19 55.48	- 9 58.2	2.304	3.300	4.1	19.5
8 9	19 47.18	- 3 3.1	1.906	2.856	8.7	19.9	8 9	19 48.70	-10 41.8	2.338	3.300	6.6	19.6
8 19	19 41.08	- 4 10.7	1.954	2.851	11.4	20.0	8 19	19 43.12	-11 27.4	2.398	3.300	9.3	19.8
8 29	19 37.00	- 5 21.9	2.024	2.845	14.1	20.2	8 29	19 39.24	-12 12.2	2.481	3.300	11.8	20.0
506274	2016 RQ ₁₃		7 20.9 64°87	2°0/21.6	17		514717	2006 UE ₁₃₄		7 20.9 193°22	4°1/23.8	18	
6 20	20 29.14	-16 30.9	1.575	2.465	14.3	20.4	6 20	20 22.43	- 4 37.9	2.940	3.774	10.0	23.3
6 30	20 22.11	-16 5.2	1.530	2.485	10.3	20.2	6 30	20 16.91	- 4 33.0	2.860	3.771	7.9	23.1
7 10	20 13.10	-15 46.2	1.509	2.506	5.9	20.0	7 10	20 10.24	- 4 38.8	2.805	3.768	5.7	23.0
7 20	20 3.07	-15 32.7	1.513	2.526	2.1	19.8	7 20	20 2.86	- 4 55.1	2.777	3.765	4.2	22.9
7 30	19 53.19	-15 23.2	1.543	2.547	4.4	20.0	7 30	19 55.36	- 5 20.7	2.777	3.761	4.5	22.9
8 9	19 44.61	-15 16.2	1.599	2.567	8.5	20.3	8 9	19 48.34	- 5 53.6	2.806	3.756	6.2	23.0
8 19	19 38.14	-15 10.6	1.679	2.588	12.3	20.5	8 19	19 42.31	- 6 31.3	2.861	3.751	8.4	23.1
8 29	19 34.31	-15 5.2	1.780	2.608	15.4	20.8	8 29	19 37.73	- 7 11.3	2.941	3.746	10.6	23.3
38576	1999 XL ₃		7 20.9 120°51	5°2/24.7	18		242662	2005 QC ₁₅₆		7 20.9 304°56	3°6/19.8	18	
6 20	20 22.00	- 0 54.0	2.794	3.612	10.9	19.4	6 20	20 29.43	-31 12.3	2.040	2.931	11.5	19.8
6 30	20 16.55	- 0 38.8	2.732	3.627	8.8	19.3	6 30	20 22.35	-31 14.3	1.971	2.925	8.4	19.6
7 10	20 9.99	- 0 36.8	2.695	3.641	6.8	19.2	7 10	20 13.32	-31 10.0	1.926	2.919	5.3	19.4
7 20	20 2.81	- 0 47.8	2.683	3.655	5.4	19.1	7 20	20 3.15	-30 55.9	1.907	2.913	3.6	19.3
7 30	19 55.58	- 1 11.0	2.699	3.668	5.5	19.1	7 30	19 52.92	-30 29.9	1.917	2.907	5.4	19.4
8 9	19 48.92	- 1 44.1	2.742	3.681	6.9	19.2	8 9	19 43.73	-29 52.3	1.953	2.901	8.6	19.6
8 19	19 43.34	- 2 24.2	2.811	3.694	8.8	19.4	8 19	19 36.45	-29 5.0	2.013	2.895	11.8	19.7
8 29	19 39.24	- 3 8.3	2.903	3.707	10.7	19.5	8 29	19 31.67	-28 11.0	2.095	2.890	14.6	19.9
352995	2009 BZ ₁₁₁		7 20.9 335°59	0°1/20.9	18		511997	2015 KR ₁₃₀		7 20.9 202°26	2°3/19.5	18	
6 20	20 27.61	-22 41.1	1.412	2.319	14.6	19.7	6 20	20 26.31	-23 46.7	2.065	2.959	11.2	21.2
6 30	20 21.65	-22 4.3	1.340	2.305	10.4	19.4	6 30	20 20.23	-24 54.4	1.997	2.956	7.9	21.0
7 10	20 13.17	-21 26.5	1.289	2.291	5.7	19.1	7 10	20 12.26	-26 5.1	1.953	2.953	4.4	20.8
7 20	20 3.11	-20 46.2	1.263	2.279	0.5	18.7	7 20	20 3.08	-27 13.3	1.938	2.949	2.3	20.6
7 30	19 52.82	-20 2.5	1.262	2.267	4.8	19.0	7 30	19 53.62	-28 13.8	1.950	2.945	4.8	20.8
8 9	19 43.73	-19 16.2	1.285	2.256	9.8	19.3	8 9	19 44.92	-29 2.9	1.990	2.941	8.3	21.0
8 19	19 36.97	-18 28.8	1.331	2.247	14.3	19.5	8 19	19 37.85	-29 39.0	2.054	2.936	11.6	21.2
8 29	19 33.30	-17 41.7	1.397	2.238	18.2	19.7	8 29	19 33.09	-30 2.3	2.140	2.931	14.4	21.4
67774	2000 UO ₇₉		7 20.9 285°72	3°1/21.9	18		474311	2002 AG ₆₅		7 20.9 206°62	0°8/21.6	18	
6 20	20 27.01	-13 42.8	1.388	2.282	15.6	19.5	6 20	20 22.93	-15 54.1	3.114	3.985	8.5	22.6
6 30	20 21.32	-13 30.0	1.311	2.266	11.6	19.2	6 30	20 17.27	-16 17.2	3.031	3.978	6.1	22.4
7 10	20 13.07	-13 28.7	1.256	2.251	7.1	18.9	7 10	20 10.45	-16 45.4	2.975	3.970	3.4	22.2
7 20	20 3.11	-13 37.5	1.223	2.235	3.2	18.6	7 20	20 2.91	-17 16.8	2.947	3.962	0.9	22.0
7 30	19 52.70	-13 54.1	1.216	2.220	5.3	18.7	7 30	19 55.22	-17 49.3	2.950	3.953	2.6	22.1
8 9	19 43.28	-14 15.1	1.233	2.204	10.1	18.9	8 9	19 47.97	-18 20.9	2.982	3.944	5.3	22.3
8 19	19 36.07	-14 37.4	1.272	2.189	14.8	19.1	8 19	19 41.70	-18 50.1	3.041	3.934	7.9	22.4
8 29	19 31.92	-14 58.3	1.330	2.174	18.8	19.4	8 29	19 36.86	-19 15.6	3.124	3.923	10.1	22.6
119277	2001 RZ ₈₈		7 20.9 350°62	2°7/19.9	18		438746	2008 TD ₁₇₂		7 21.0 103°22	4°4/23.3	17	
6 20	20 21.81	-23 38.0	1.061	1.989	16.4	18.7	6 20	20 25.10	- 7 18.7	1.975	2.835	13.2	21.2
6 30	20 18.11	-24 17.7	1.004	1.980	11.7	18.4	6 30	20 19.11	- 7 10.5	1.919	2.849	10.1	21.0
7 10	20 11.49	-25 1.9	0.967	1.972	6.5	18.1	7 10	20 11.51	- 7 15.8	1.885	2.863	6.9	20.9
7 20	20 2.97	-25 43.8	0.951	1.965	2.7	17.8	7 20	20 3.01	- 7 33.7	1.878	2.876	4.6	20.8
7 30	19 54.14	-26 16.4	0.957	1.960	6.5	18.1	7 30	19 54.48	- 8 2.2	1.897	2.890	5.2	20.8
8 9	19 46.71	-26 35.1	0.984	1.957	11.9	18.3	8 9	19 46.80	- 8 38.0	1.943	2.903	7.8	21.0
8 19	19 42.03	-26 38.9	1.031	1.955	16.7	18.6	8 19	19 40.69	- 9 17.7	2.013	2.916	10.8	21.2
8 29	19 40.91	-26 28.9	1.095	1.955	20.9	18.9	8 29	19 36.67	- 9 58.1	2.106	2.929	13.6	21.4
476223	2007 UW ₁₃₄		7 20.9 295°86	0°1/21.0	18		338767	2003 UF ₂₄₈		7 21.0 229°30	3°6/19.4	18	
6 20	20 24.54	-18 57.7	1.817	2.712	12.4	21.4	6 20	20 28.34	-29 15.2	1.914	2.809	11.9	20.9
6 30	20 19.08	-19 19.0	1.744	2.704	8.9	21.2	6 30	20 21.74	-29 45.6	1.848	2.806	8.6	20.7
7 10	20 11.66	-19 46.2	1.694	2.695	4.8	20.9	7 10	20 13.08	-30 12.6	1.807	2.802	5.3	20.5
7 20	20 2.99	-20 16.2	1.670	2.686	0.5	20.6	7 20	20 3.16	-30 31.4	1.792	2.799	3.6	20.3
7 30	19 54.08	-20 45.3	1.673	2.677	4.0	20.8	7 30	19 53.10	-30 38.5	1.804	2.795	5.7	20.5
8 9	19 46.00	-21 10.4	1.702	2.669	8.2	21.1	8 9	19 44.05	-30 32.6	1.843	2.791	9.1	20.7
8 19	19 39.65	-21 29.8	1.755	2.660	12.0	21.3	8 19	19 36.93	-30 14.6	1.905	2.787	12.3	20.9
8 29	19 35.71	-21 42.5	1.828	2.652	15.3	21.5	8 29	19 32.39	-29 46.7	1.987	2.783	15.2	21.1
154951	2004 TR ₉₂		7 20.9 351°26	3°3/19.8	18		311490	2005 VZ ₁₁₇		7 21.0 170°90	5°6/16.7	18	

EPHEMERIDES

7 21.0

7 21.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
280896	2005 <i>WL</i> ₁₈₇		7 21.0 131°82	0°8/21.4	17		249646	1999 <i>TN</i> ₂₃₇		7 21.0 219°09	2°5/22.9	18	
6 20	20 27.90	-17 36.1	2.007	2.891	12.0	21.7	6 20	20 21.89	-9 24.8	3.153	4.005	8.9	21.7
6 30	20 21.10	-17 43.9	1.950	2.903	8.5	21.6	6 30	20 16.54	-9 33.2	3.065	3.994	6.8	21.5
7 10	20 12.59	-17 57.1	1.917	2.915	4.7	21.3	7 10	20 10.09	-9 49.6	3.003	3.983	4.4	21.4
7 20	20 3.12	-18 12.9	1.911	2.926	0.9	21.1	7 20	20 2.95	-10 13.2	2.968	3.972	2.7	21.2
7 30	19 53.62	-18 29.1	1.933	2.937	3.6	21.3	7 30	19 55.64	-10 42.4	2.963	3.960	3.3	21.3
8 9	19 45.06	-18 43.3	1.983	2.948	7.4	21.6	8 9	19 48.75	-11 15.3	2.987	3.947	5.5	21.4
8 19	19 38.19	-18 54.3	2.058	2.958	10.8	21.8	8 19	19 42.77	-11 49.9	3.039	3.934	7.8	21.5
8 29	19 33.56	-19 1.5	2.155	2.967	13.6	22.0	8 29	19 38.14	-12 24.3	3.115	3.920	10.0	21.7
373589	2002 <i>CG</i> ₁₆		7 21.0 96°88	7°8/17.2	18		24107	1999 <i>VS</i> ₁₉		7 21.0 259°09	4°8/23.6	18	
6 20	20 32.95	-39 32.2	1.812	2.694	13.1	20.1	6 20	20 22.32	-4 52.4	2.474	3.317	11.4	18.7
6 30	20 25.15	-40 44.8	1.777	2.712	10.4	20.0	6 30	20 17.08	-4 32.2	2.389	3.305	9.0	18.5
7 10	20 14.92	-41 44.2	1.765	2.730	8.3	19.9	7 10	20 10.47	-4 23.8	2.329	3.294	6.6	18.3
7 20	20 3.33	-42 23.2	1.777	2.747	7.9	19.9	7 20	20 2.98	-4 27.7	2.294	3.282	5.0	18.2
7 30	19 51.80	-42 37.8	1.816	2.764	9.3	20.0	7 30	19 55.30	-4 43.1	2.287	3.271	5.3	18.2
8 9	19 41.75	-42 28.1	1.878	2.781	11.6	20.2	8 9	19 48.15	-5 7.9	2.307	3.259	7.3	18.3
8 19	19 34.18	-41 57.9	1.962	2.797	14.0	20.4	8 19	19 42.16	-5 39.7	2.352	3.247	9.8	18.5
8 29	19 29.70	-41 12.3	2.065	2.813	16.2	20.6	8 29	19 37.85	-6 15.4	2.420	3.234	12.3	18.6
502370	2015 <i>BT</i> ₂₄₀		7 21.0 211°54	1°4/21.7	17		177216	2003 <i>UX</i> ₁₆₄		7 21.0 213°83	1°4/21.6	18	
6 20	20 26.74	-14 33.6	1.706	2.592	13.6	22.0	6 20	20 28.25	-15 32.6	1.815	2.698	13.1	21.3
6 30	20 20.72	-15 5.8	1.635	2.588	9.9	21.8	6 30	20 21.72	-15 46.9	1.740	2.692	9.5	21.1
7 10	20 12.61	-15 49.1	1.587	2.584	5.6	21.5	7 10	20 13.14	-16 9.8	1.688	2.684	5.4	20.8
7 20	20 3.14	-16 40.0	1.564	2.579	1.6	21.2	7 20	20 3.24	-16 38.5	1.662	2.676	1.6	20.5
7 30	19 53.40	-17 33.9	1.569	2.574	4.1	21.4	7 30	19 53.06	-17 9.8	1.664	2.668	4.1	20.7
8 9	19 44.53	-18 26.3	1.600	2.568	8.5	21.7	8 9	19 43.73	-17 40.3	1.692	2.659	8.3	20.9
8 19	19 37.51	-19 13.5	1.655	2.562	12.5	21.9	8 19	19 36.19	-18 7.7	1.746	2.649	12.2	21.2
8 29	19 33.05	-19 53.5	1.732	2.556	15.9	22.1	8 29	19 31.14	-18 30.3	1.820	2.639	15.5	21.4
21654	1999 <i>PZ</i>		7 21.0 338°54	5°5/23.4	18		81796	2000 <i>KH</i>		7 21.0 239°75	0°8/21.4	18	
6 20	20 17.64	-8 22.5	0.965	1.877	19.1	16.8	6 20	20 24.30	-16 58.4	2.023	2.911	11.7	20.0
6 30	20 15.29	-8 30.9	0.897	1.858	14.8	16.4	6 30	20 18.72	-17 15.5	1.954	2.909	8.4	19.8
7 10	20 10.12	-9 5.9	0.846	1.839	9.9	16.1	7 10	20 11.42	-17 39.1	1.909	2.907	4.7	19.5
7 20	20 2.94	-10 7.3	0.814	1.822	5.9	15.8	7 20	20 3.09	-18 6.7	1.890	2.905	1.0	19.2
7 30	19 55.18	-11 29.9	0.803	1.807	6.9	15.8	7 30	19 54.59	-18 35.4	1.898	2.903	3.6	19.4
8 9	19 48.54	-13 4.5	0.812	1.794	11.9	16.0	8 9	19 46.85	-19 2.2	1.934	2.901	7.4	19.7
8 19	19 44.46	-14 40.8	0.840	1.783	17.2	16.3	8 19	19 40.67	-19 25.3	1.994	2.898	10.8	19.9
8 29	19 43.99	-16 9.6	0.884	1.774	22.0	16.5	8 29	19 36.63	-19 43.5	2.076	2.896	13.8	20.1
107195	2001 <i>BB</i> ₃₁		7 21.0 196°36	0°7/21.4	18		391024	2005 <i>SL</i> ₂₅₆		7 21.0 339°52	6°3/18.0	18	
6 20	20 27.59	-16 6.6	1.762	2.649	13.2	20.2	6 20	20 27.11	-35 32.7	1.795	2.691	12.5	20.2
6 30	20 21.29	-16 48.3	1.692	2.647	9.5	20.0	6 30	20 21.15	-36 21.8	1.735	2.685	9.6	20.0
7 10	20 12.90	-17 39.6	1.646	2.644	5.2	19.7	7 10	20 12.90	-37 2.5	1.698	2.679	7.1	19.8
7 20	20 3.18	-18 36.5	1.625	2.641	0.9	19.4	7 20	20 3.23	-37 28.8	1.685	2.674	6.3	19.8
7 30	19 53.19	-19 34.0	1.633	2.637	4.0	19.6	7 30	19 53.40	-37 36.1	1.698	2.669	8.0	19.8
8 9	19 44.08	-20 27.4	1.667	2.633	8.4	19.9	8 9	19 44.70	-37 23.7	1.735	2.665	10.8	20.0
8 19	19 36.81	-21 13.7	1.726	2.628	12.3	20.1	8 19	19 38.15	-36 53.4	1.795	2.661	13.8	20.2
8 29	19 32.07	-21 51.2	1.806	2.623	15.7	20.3	8 29	19 34.44	-36 9.0	1.873	2.657	16.4	20.4
70546	1999 <i>TB</i> ₁₂₈		7 21.0 172°56	4°5/23.6	18		207915	2008 <i>VU</i> ₃₈		7 21.0 242°10	6°0/24.3	18	
6 20	20 24.74	-5 50.8	2.272	3.119	12.1	19.8	6 20	20 24.36	-1 35.6	2.296	3.124	12.6	21.1
6 30	20 18.80	-5 43.5	2.201	3.122	9.4	19.6	6 30	20 18.67	-1 22.2	2.205	3.108	10.3	20.9
7 10	20 11.36	-5 49.1	2.154	3.124	6.7	19.4	7 10	20 11.41	-1 24.2	2.137	3.091	7.9	20.8
7 20	20 3.04	-6 7.1	2.132	3.126	4.7	19.3	7 20	20 3.10	-1 42.3	2.095	3.073	6.2	20.6
7 30	19 54.58	-6 35.9	2.139	3.128	5.1	19.4	7 30	19 54.50	-2 15.7	2.079	3.055	6.3	20.6
8 9	19 46.79	-7 12.8	2.173	3.129	7.4	19.5	8 9	19 46.42	-3 1.6	2.090	3.037	8.3	20.7
8 19	19 40.35	-7 54.6	2.232	3.129	10.2	19.7	8 19	19 39.59	-3 56.4	2.127	3.017	10.9	20.8
8 29	19 35.79	-8 38.0	2.315	3.129	12.7	19.9	8 29	19 34.63	-4 55.9	2.186	2.998	13.5	21.0
202722	2007 <i>HU</i> ₄₃		7 21.0 354°47	10°9/26.2	18		514484	2016 <i>VO</i> ₁₉		7 21.0 240°96	2°7/22.8	18	
6 20	20 21.70	+ 4 0.8	1.426	2.261	18.6	19.9	6 20	20 22.26	-10 15.7	2.234	3.103	11.5	20.7
6 30	20 17.33	+ 4 49.8	1.363	2.258	15.8	19.7	6 30	20 17.16	-10 36.9	2.160	3.100	8.6	20.5
7 10	20 10.84	+ 5 11.3	1.318	2.255	13.2	19.5	7 10	20 10.55	-11 9.3	2.110	3.097	5.4	20.3
7 20	20 3.01	+ 5 2.2	1.294	2.253	11.3	19.4	7 20	20 3.02	-11 51.2	2.086	3.094	2.9	20.1
7 30	19 54.92	+ 4 22.4	1.291	2.251	11.1	19.4	7 30	19 55.31	-12 39.7	2.090	3.091	3.8	20.2
8 9	19 47.78	+ 3 16.4	1.310	2.251	12.6	19.5	8 9	19 48.22	-13 31.3	2.122	3.088	6.9	20.4
8 19	19 42.55	+ 1 51.7	1.350	2.251	15.2	19.7	8 19	19 42.45	-14 22.7	2.179	3.085	10.0	20.6
8 29	19 39.95	+ 0 17.0	1.409	2.252	18.0	19.8	8 29	19 38.54	-15 11.1	2.259	3.081	12.8	20.8
442506	2011 <i>WJ</i> ₂₂		7 21.0 254°45	0°7/20.6	18		476110	2007 <i>TF</i> ₁₅₈		7 21.0 300°05	3°7/22.5	18	
6 20	20 24.36	-21 18.0	2.236	3.127	10.6	22.0	6 20	20 24.01	-10 58.4	1.736	2.616	13.7	21.6
6 30	20 18.71	-21 43.2	2.159	3.117	7.5	21.8	6 30	20 18.89	-10 48.7	1.648	2.593	10.4	21.3
7 10	20 11.40	-22 11.5	2.108	3.108	4.0	21.5	7 10	20 11.72	-10 50.9	1.581	2.570	6.7	21.1
7 20	20 3.06	-22 39.9	2.083	3.099	0.8	21.3	7 20	20 3.14	-11 4.7	1.540	2.547	3.8	20.8
7 30	19 54.51	-23 5.4	2.087	3.089	3.6	21.5	7 30	19 54.15	-11 28.1	1.524	2.525	5.1	20.8
8 9	19 46.65	-23 25.6	2.118	3.079	7.2	21.7	8 9	19 45.83	-11 58.1	1.534	2.502	8.8	21.0
8 19	19 40.22	-23 39.2	2.174	3.070	10.5	21.9	8 19	19 39.19	-12 31.5	1.568	2.480	12.8	21.2
8 29	19 35.83	-23 46.1	2.252	3.060	13.3	22.1	8 29	19 34.99	-13 4.9	1.622	2.458	16.3	21.4
422849	2002 <i>GO</i> ₁₈₂		7 21.0 61°45	2°9/19.8	17		247892	2003 <i>UA</i> ₂₂₆		7 21.0 24			

EPHEMERIDES

7 21.0

7 21.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
506811	2007 <i>RP</i> ₄₀		7 21.0 303°47'	2.2°/20.2	17		137733	1999 <i>XG</i> ₁₂₂		7 21.0 124°75'	9.4°/24.6	18	
6 20	20 27.00	-22 47.0	1.221	2.135	15.8	21.4	6 20	20 30.08	+ 2 42.4	1.839	2.648	16.0	19.2
6 30	20 21.78	-23 26.3	1.150	2.119	11.3	21.1	6 30	20 22.74	+ 3 58.1	1.784	2.664	13.4	19.1
7 10	20 13.58	-24 11.3	1.100	2.103	6.2	20.8	7 10	20 13.57	+ 4 53.5	1.751	2.678	11.1	18.9
7 20	20 3.33	-24 55.6	1.072	2.087	2.2	20.5	7 20	20 3.34	+ 5 25.5	1.742	2.692	9.6	18.9
7 30	19 52.54	-25 32.3	1.068	2.071	6.1	20.7	7 30	19 53.08	+ 5 33.4	1.759	2.706	9.6	18.9
8 9	19 42.92	-25 56.7	1.088	2.056	11.5	21.0	8 9	19 43.79	+ 5 19.5	1.800	2.718	11.1	19.0
8 19	19 35.92	-26 7.3	1.127	2.041	16.5	21.2	8 19	19 36.29	+ 4 48.2	1.864	2.731	13.3	19.2
8 29	19 32.51	-26 4.8	1.184	2.026	20.7	21.4	8 29	19 31.17	+ 4 5.1	1.949	2.742	15.5	19.4
436180	2009 <i>WJ</i> ₂₂		7 21.0 180°04'	1.6°/21.9	17		432761	2011 <i>FX</i> ₈		7 21.0 34°55'	2.3°/22.1	17	
6 20	20 26.42	-14 30.9	2.184	3.060	11.5	22.5	6 20	20 24.31	-13 16.9	1.486	2.379	14.8	21.0
6 30	20 20.09	-14 44.7	2.114	3.061	8.3	22.3	6 30	20 19.10	-13 35.9	1.430	2.386	10.8	20.7
7 10	20 12.13	-15 6.2	2.068	3.062	4.8	22.1	7 10	20 11.78	-14 7.6	1.396	2.392	6.4	20.5
7 20	20 3.18	-15 33.3	2.049	3.062	1.7	21.9	7 20	20 3.20	-14 49.0	1.387	2.400	2.5	20.3
7 30	19 54.08	-16 3.2	2.059	3.062	3.5	22.0	7 30	19 54.50	-15 35.6	1.402	2.407	4.5	20.4
8 9	19 45.72	-16 33.3	2.096	3.061	7.0	22.3	8 9	19 46.88	-16 22.7	1.443	2.415	8.8	20.7
8 19	19 38.83	-17 1.3	2.159	3.060	10.3	22.5	8 19	19 41.26	-17 6.6	1.507	2.424	12.9	21.0
8 29	19 33.99	-17 25.8	2.246	3.057	13.2	22.7	8 29	19 38.28	-17 44.3	1.591	2.432	16.3	21.2
328096	2008 <i>AR</i>		7 21.0 170°72'	1.3°/20.3	17		358831	2008 <i>EE</i> ₁₆₅		7 21.0 343°26'	0.2°/20.9	18	
6 20	20 29.08	-21 29.6	1.854	2.745	12.4	21.7	6 20	20 23.65	-19 55.1	1.923	2.819	11.8	20.6
6 30	20 22.27	-22 16.8	1.791	2.749	8.8	21.5	6 30	20 18.38	-20 14.1	1.856	2.816	8.4	20.4
7 10	20 13.42	-23 8.0	1.752	2.752	4.7	21.2	7 10	20 11.31	-20 37.6	1.812	2.813	4.5	20.1
7 20	20 3.31	-23 58.3	1.740	2.755	1.3	21.0	7 20	20 3.16	-21 2.6	1.794	2.810	0.4	19.8
7 30	19 53.01	-24 42.8	1.756	2.757	4.4	21.2	7 30	19 54.84	-21 25.8	1.803	2.807	3.8	20.1
8 9	19 43.66	-25 18.4	1.799	2.758	8.5	21.5	8 9	19 47.34	-21 44.8	1.838	2.805	7.7	20.3
8 19	19 36.19	-25 43.4	1.867	2.759	12.1	21.7	8 19	19 41.47	-21 58.2	1.898	2.803	11.3	20.5
8 29	19 31.25	-25 58.3	1.955	2.759	15.1	21.9	8 29	19 37.84	-22 5.2	1.979	2.801	14.3	20.7
386410	2008 <i>UB</i> ₂₅₀		7 21.0 269°17'	0.6°/20.7	16		510304	2011 <i>QQ</i> ₂₉		7 21.0 339°73'	10.1°/24.8	18	
6 20	20 25.79	-20 4.4	1.756	2.652	12.7	21.7	6 20	20 20.56	+ 0 42.6	1.413	2.266	17.7	20.5
6 30	20 20.11	-20 37.9	1.683	2.644	9.0	21.4	6 30	20 16.66	+ 1 41.5	1.341	2.252	14.9	20.2
7 10	20 12.34	-21 17.2	1.633	2.634	4.9	21.2	7 10	20 10.60	+ 2 17.2	1.288	2.238	12.2	20.0
7 20	20 3.23	-21 58.2	1.609	2.625	0.7	20.9	7 20	20 3.10	+ 2 25.9	1.255	2.225	10.3	19.9
7 30	19 53.82	-22 36.5	1.612	2.616	4.3	21.1	7 30	19 55.24	+ 2 6.7	1.244	2.214	10.4	19.9
8 9	19 45.28	-23 8.5	1.642	2.607	8.6	21.3	8 9	19 48.23	+ 1 22.4	1.255	2.204	12.4	19.9
8 19	19 38.55	-23 32.3	1.694	2.597	12.5	21.6	8 19	19 43.10	+ 0 19.1	1.287	2.194	15.3	20.1
8 29	19 34.38	-23 47.3	1.768	2.588	15.8	21.8	8 29	19 40.65	- 0 55.4	1.337	2.186	18.4	20.3
63102	2000 <i>WD</i> ₁₄₉		7 21.0 257°45'	1.6°/19.9	18		42113	<i>Jura</i>		7 21.0 334°97'	1.9°/20.1	18	
6 20	20 23.65	-22 18.7	2.259	3.152	10.4	19.3	6 20	20 23.33	-21 35.4	1.418	2.330	14.2	18.7
6 30	20 18.28	-23 17.7	2.185	3.144	7.4	19.1	6 30	20 18.79	-22 35.0	1.352	2.319	10.1	18.4
7 10	20 11.23	-24 20.6	2.137	3.137	4.0	18.9	7 10	20 11.81	-23 42.0	1.307	2.310	5.5	18.1
7 20	20 3.12	-25 22.9	2.116	3.130	1.6	18.7	7 20	20 3.22	-24 49.8	1.286	2.300	1.9	17.9
7 30	19 54.76	-26 20.2	2.123	3.122	4.1	18.9	7 30	19 54.26	-25 51.6	1.290	2.292	5.5	18.1
8 9	19 47.03	-27 8.9	2.159	3.114	7.5	19.1	8 9	19 46.30	-26 41.7	1.318	2.284	10.2	18.3
8 19	19 40.70	-27 47.3	2.219	3.107	10.6	19.3	8 19	19 40.51	-27 17.6	1.369	2.277	14.5	18.6
8 29	19 36.40	-28 14.9	2.302	3.099	13.3	19.4	8 29	19 37.70	-27 38.8	1.438	2.271	18.2	18.8
32688	4025 <i>T</i> ₋₁		7 21.0 94°42'	0.1°/21.1	18		264240	2010 <i>TZ</i> ₇₉		7 21.0 282°42'	5.3°/17.9	18	
6 20	20 26.56	-18 21.8	1.632	2.529	13.5	19.2	6 20	20 26.66	-34 56.0	2.208	3.098	10.8	20.2
6 30	20 20.59	-18 53.9	1.576	2.535	9.6	18.9	6 30	20 20.57	-35 48.2	2.142	3.089	8.2	20.0
7 10	20 12.54	-19 33.2	1.542	2.542	5.2	18.7	7 10	20 12.53	-36 33.9	2.100	3.080	6.0	19.8
7 20	20 3.25	-20 15.3	1.533	2.549	0.5	18.4	7 20	20 3.29	-37 8.1	2.084	3.072	5.4	19.8
7 30	19 53.84	-20 55.7	1.551	2.556	4.2	18.7	7 30	19 53.83	-37 26.7	2.094	3.063	6.9	19.8
8 9	19 45.49	-21 30.7	1.595	2.563	8.6	18.9	8 9	19 45.23	-37 28.5	2.131	3.054	9.4	20.0
8 19	19 39.11	-21 58.3	1.663	2.569	12.5	19.2	8 19	19 38.36	-37 14.2	2.191	3.046	12.0	20.1
8 29	19 35.34	-22 17.6	1.751	2.576	15.8	19.4	8 29	19 33.89	-36 46.6	2.271	3.037	14.4	20.3
129208	2005 <i>NO</i> ₅₆		7 21.0 12°30'	0.6°/21.3	18		105507	2000 <i>RZ</i> ₆		7 21.0 256°35'	6.0°/17.4	18	
6 20	20 23.85	-18 7.3	1.781	2.677	12.6	19.9	6 20	20 28.36	-37 57.3	2.334	3.215	10.6	19.8
6 30	20 18.55	-18 17.7	1.719	2.679	9.0	19.7	6 30	20 21.77	-38 50.3	2.266	3.203	8.4	19.7
7 10	20 11.39	-18 34.2	1.681	2.681	4.9	19.5	7 10	20 13.19	-39 35.0	2.222	3.192	6.5	19.6
7 20	20 3.14	-18 54.0	1.667	2.683	0.8	19.2	7 20	20 3.36	-40 6.1	2.204	3.180	6.1	19.5
7 30	19 54.77	-19 14.1	1.681	2.686	3.8	19.4	7 30	19 53.30	-40 19.9	2.212	3.168	7.4	19.6
8 9	19 47.31	-19 32.0	1.720	2.689	7.9	19.7	8 9	19 44.10	-40 15.1	2.247	3.156	9.7	19.7
8 19	19 41.60	-19 45.8	1.784	2.693	11.6	19.9	8 19	19 36.67	-39 53.3	2.304	3.143	12.1	19.8
8 29	19 38.23	-19 54.7	1.868	2.697	14.8	20.1	8 29	19 31.66	-39 17.5	2.382	3.131	14.3	20.0
467412	2005 <i>MJ</i> ₃₀		7 21.0 357°61'	4.1°/22.2	17		164597	6025 <i>P-L</i>		7 21.0 287°88'	3.3°/19.9	17	
6 20	20 19.28	-13 55.3	0.917	1.843	18.6	19.8	6 20	20 30.68	-26 46.4	1.322	2.230	15.3	19.8
6 30	20 16.40	-13 22.8	0.865	1.835	13.8	19.5	6 30	20 24.13	-27 11.1	1.260	2.225	11.0	19.5
7 10	20 10.65	-13 5.2	0.830	1.830	8.6	19.2	7 10	20 14.71	-27 34.3	1.220	2.220	6.4	19.3
7 20	20 3.08	-13 2.2	0.815	1.827	4.3	18.9	7 20	20 3.51	-27 49.9	1.203	2.215	3.3	19.1
7 30	19 55.28	-13 11.6	0.820	1.826	6.4	19.1	7 30	19 52.08	-27 52.9	1.211	2.210	6.4	19.2
8 9	19 48.92	-13 29.2	0.845	1.827	11.6	19.4	8 9	19 42.05	-27 41.7	1.243	2.205	11.1	19.5
8 19	19 45.27	-13 50.3	0.889	1.831	16.7	19.6	8 19	19 34.70	-27 17.8	1.297	2.200	15.5	19.7
8 29	19 45.12	-14 10.6	0.949	1.836	21.0	19.9	8 29	19 30.81	-26 44.0	1.369	2.195	19.3	20.0
235800	2004 <i>XX</i> ₂₄		7 21.0 197°21'	1.3°/21.7	18		254433						

EPHEMERIDES

7 21.0

7 21.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
189598	2000 <i>WG</i> ₁₂₀		7 21.0 294°99	1°1/21.4	18		505555	2014 <i>AS</i> ₇		7 21.1 113°49	0°8/20.7	17	
6 20	20 27.26	-17 59.0	1.643	2.537	13.6	19.3	6 20	20 29.53	-22 59.8	2.091	2.978	11.4	21.5
6 30	20 21.40	-17 47.9	1.554	2.512	9.9	19.0	6 30	20 22.24	-22 57.5	2.037	2.993	8.0	21.3
7 10	20 13.19	-17 42.2	1.488	2.487	5.6	18.7	7 10	20 13.27	-22 55.4	2.008	3.008	4.3	21.1
7 20	20 3.38	-17 40.0	1.446	2.461	1.3	18.3	7 20	20 3.40	-22 51.1	2.006	3.022	0.8	20.9
7 30	19 53.09	-17 39.1	1.431	2.436	4.4	18.5	7 30	19 53.60	-22 42.8	2.033	3.036	3.7	21.1
8 9	19 43.59	-17 37.6	1.441	2.411	9.2	18.7	8 9	19 44.80	-22 29.9	2.088	3.049	7.3	21.4
8 19	19 36.01	-17 34.3	1.475	2.385	13.6	18.9	8 19	19 37.76	-22 12.6	2.168	3.062	10.6	21.6
8 29	19 31.18	-17 28.7	1.529	2.360	17.4	19.1	8 29	19 32.97	-21 51.6	2.271	3.075	13.3	21.8
315210	2007 <i>RO</i> ₄₈		7 21.0 142°47	1°0/21.5	17		327741	2006 <i>SE</i> ₃₆₅		7 21.1 271°80	3°7/22.4	18	
6 20	20 29.10	-16 18.3	1.568	2.458	14.3	21.7	6 20	20 26.87	-11 45.5	1.522	2.406	15.0	21.0
6 30	20 22.45	-16 40.7	1.510	2.466	10.3	21.5	6 30	20 21.07	-11 31.4	1.448	2.396	11.3	20.7
7 10	20 13.59	-17 12.0	1.474	2.473	5.7	21.3	7 10	20 12.98	-11 29.6	1.395	2.386	7.2	20.4
7 20	20 3.41	-17 48.6	1.464	2.480	1.3	21.0	7 20	20 3.40	-11 39.4	1.367	2.376	3.9	20.2
7 30	19 53.11	-18 26.1	1.481	2.486	4.3	21.2	7 30	19 53.48	-11 58.6	1.364	2.365	5.3	20.3
8 9	19 43.93	-19 0.7	1.524	2.492	8.8	21.5	8 9	19 44.49	-12 24.0	1.386	2.355	9.5	20.5
8 19	19 36.85	-19 30.0	1.590	2.497	12.9	21.8	8 19	19 37.52	-12 52.2	1.431	2.345	13.7	20.7
8 29	19 32.55	-19 52.5	1.677	2.502	16.3	22.0	8 29	19 33.32	-13 20.1	1.496	2.334	17.3	20.9
233596	2007 <i>RY</i> ₁₃₄		7 21.0 21°75	7°2/18.8	17		440208	2004 <i>NQ</i> ₁₇		7 21.1 325°88	4°9/19.3	17	
6 20	20 30.83	-37 3.7	1.488	2.386	14.5	18.9	6 20	20 27.24	-30 49.8	1.546	2.452	13.6	19.6
6 30	20 23.98	-37 36.8	1.441	2.391	11.2	18.7	6 30	20 21.93	-31 14.5	1.445	2.406	10.2	19.3
7 10	20 14.47	-37 57.2	1.416	2.397	8.3	18.5	7 10	20 13.78	-31 34.9	1.365	2.361	6.6	18.9
7 20	20 3.48	-37 58.4	1.414	2.403	7.2	18.5	7 20	20 3.51	-31 44.7	1.310	2.315	4.9	18.7
7 30	19 52.58	-37 37.0	1.436	2.410	8.9	18.6	7 30	19 52.41	-31 38.1	1.279	2.271	7.3	18.7
8 9	19 43.31	-36 54.0	1.483	2.418	11.9	18.8	8 9	19 42.09	-31 12.6	1.272	2.227	11.7	18.9
8 19	19 36.73	-35 53.8	1.550	2.426	15.1	19.0	8 19	19 34.00	-30 29.3	1.287	2.183	16.1	19.0
8 29	19 33.44	-34 42.0	1.637	2.434	17.9	19.2	8 29	19 29.24	-29 31.7	1.320	2.141	20.1	19.2
291788	2006 <i>KM</i> ₅₃		7 21.0 57°75	3°1/19.3	18		308514	2005 <i>UM</i> ₃₄		7 21.1 198°05	4°1/18.3	18	
6 20	20 25.98	-25 21.8	1.698	2.601	12.7	20.4	6 20	20 25.87	-32 19.8	2.521	3.409	9.7	21.0
6 30	20 20.25	-26 28.8	1.646	2.609	9.0	20.2	6 30	20 19.77	-33 10.1	2.457	3.407	7.2	20.8
7 10	20 12.41	-27 36.9	1.618	2.617	5.2	20.0	7 10	20 12.03	-33 56.2	2.419	3.405	4.9	20.7
7 20	20 3.30	-28 39.7	1.615	2.625	3.1	19.9	7 20	20 3.30	-34 33.7	2.408	3.403	4.1	20.6
7 30	19 54.04	-29 31.5	1.639	2.633	5.7	20.0	7 30	19 54.41	-34 59.3	2.425	3.401	5.6	20.7
8 9	19 45.84	-30 8.9	1.688	2.642	9.4	20.3	8 9	19 46.24	-35 11.3	2.469	3.398	8.0	20.9
8 19	19 39.62	-30 31.2	1.761	2.650	12.9	20.5	8 19	19 39.55	-35 10.3	2.537	3.395	10.5	21.0
8 29	19 36.04	-30 39.6	1.854	2.659	15.8	20.7	8 29	19 34.89	-34 57.7	2.627	3.392	12.7	21.2
131146	2001 <i>BN</i> ₇₃		7 21.0 106°26	2°6/22.0	18		38293	1999 <i>RK</i> ₈₅		7 21.1 232°46	0°6/21.4	18	
6 20	20 27.75	-13 57.1	1.887	2.765	12.9	19.9	6 20	20 23.20	-17 6.1	2.433	3.315	10.2	19.9
6 30	20 21.11	-13 34.7	1.829	2.776	9.4	19.8	6 30	20 17.80	-17 27.4	2.356	3.309	7.3	19.7
7 10	20 12.71	-13 20.2	1.794	2.786	5.7	19.6	7 10	20 10.95	-17 54.4	2.305	3.303	4.0	19.5
7 20	20 3.33	-13 12.4	1.786	2.796	2.7	19.4	7 20	20 3.20	-18 24.7	2.281	3.296	0.8	19.2
7 30	19 53.93	-13 10.3	1.805	2.806	4.2	19.5	7 30	19 55.28	-18 55.7	2.285	3.290	3.1	19.4
8 9	19 45.49	-13 11.9	1.851	2.816	7.8	19.7	8 9	19 47.95	-19 25.0	2.318	3.283	6.4	19.6
8 19	19 38.80	-13 15.8	1.921	2.825	11.2	20.0	8 19	19 41.88	-19 50.7	2.376	3.276	9.5	19.8
8 29	19 34.39	-13 20.3	2.014	2.835	14.1	20.2	8 29	19 37.62	-20 11.7	2.457	3.269	12.2	20.0
508236	2015 <i>HP</i> ₂₇		7 21.0 135°51	0°5/20.8	17		364740	2007 <i>VC</i> ₂₂₆		7 21.1 8°14	1°5/21.6	17	
6 20	20 26.27	-19 42.6	1.788	2.683	12.6	21.5	6 20	20 24.69	-16 38.8	1.039	1.956	17.6	20.7
6 30	20 20.33	-20 19.1	1.726	2.686	8.9	21.2	6 30	20 20.08	-16 44.8	0.988	1.957	12.7	20.4
7 10	20 12.42	-21 1.1	1.688	2.689	4.8	21.0	7 10	20 12.61	-17 2.8	0.956	1.958	7.2	20.1
7 20	20 3.31	-21 44.4	1.677	2.693	0.6	20.7	7 20	20 3.39	-17 29.2	0.945	1.961	1.8	19.8
7 30	19 54.05	-22 24.8	1.692	2.696	4.1	21.0	7 30	19 53.98	-17 58.8	0.957	1.964	5.3	20.0
8 9	19 45.73	-22 58.7	1.734	2.699	8.2	21.2	8 9	19 46.06	-18 26.8	0.990	1.968	11.0	20.3
8 19	19 39.23	-23 24.4	1.800	2.702	12.0	21.5	8 19	19 40.86	-18 50.0	1.044	1.974	16.0	20.6
8 29	19 35.19	-23 41.4	1.887	2.704	15.1	21.7	8 29	19 39.14	-19 6.1	1.114	1.980	20.2	20.9
243333	2008 <i>TR</i> ₆₉		7 21.0 264°40	2°2/19.9	18		123747	2001 <i>AV</i> ₂₅		7 21.1 193°31	15°7/17.0	18	
6 20	20 26.78	-24 11.0	1.858	2.755	12.1	21.2	6 20	20 52.85	-52 14.7	1.232	2.084	19.9	19.8
6 30	20 20.86	-24 53.9	1.780	2.741	8.6	20.9	6 30	20 41.37	-53 35.9	1.188	2.083	17.7	19.7
7 10	20 12.81	-25 39.3	1.727	2.727	4.8	20.7	7 10	20 24.52	-54 25.5	1.163	2.082	16.1	19.6
7 20	20 3.37	-26 22.1	1.700	2.712	2.2	20.5	7 20	20 4.53	-54 28.2	1.157	2.080	15.8	19.6
7 30	19 53.57	-26 57.8	1.700	2.698	4.9	20.6	7 30	19 44.84	-53 37.3	1.171	2.077	16.9	19.6
8 9	19 44.59	-27 23.2	1.726	2.683	8.9	20.8	8 9	19 28.74	-51 58.6	1.205	2.073	19.1	19.8
8 19	19 37.40	-27 37.0	1.776	2.668	12.6	21.0	8 19	19 18.05	-49 45.8	1.257	2.069	21.6	19.9
8 29	19 32.77	-27 40.0	1.846	2.653	15.8	21.2	8 29	19 13.23	-47 14.1	1.325	2.065	24.0	20.1
29243	1992 <i>JC</i> ₁		7 21.1 257°52	4°3/18.8	18		91975	1999 <i>VN</i> ₉₄		7 21.1 255°77	0°6/20.7	18	
6 20	20 28.63	-28 45.3	1.721	2.621	12.8	18.7	6 20	20 23.91	-21 0.1	2.466	3.354	9.9	20.7
6 30	20 22.40	-29 48.5	1.649	2.609	9.3	18.5	6 30	20 18.35	-21 22.9	2.384	3.341	7.0	20.5
7 10	20 13.74	-30 50.9	1.601	2.596	5.9	18.3	7 10	20 11.28	-21 48.8	2.328	3.328	3.8	20.3
7 20	20 3.46	-31 45.5	1.578	2.583	4.4	18.1	7 20	20 3.26	-22 15.1	2.299	3.315	0.6	20.0
7 30	19 52.78	-32 26.4	1.582	2.570	6.7	18.3	7 30	19 55.02	-22 39.0	2.299	3.301	3.3	20.2
8 9	19 43.05	-32 50.0	1.611	2.556	10.4	18.4	8 9	19 47.36	-22 58.4	2.326	3.288	6.7	20.4
8 19	19 35.40	-32 56.5	1.663	2.542	14.0	18.6	8 19	19 40.99	-23 12.2	2.379	3.274	9.7	20.6
8 29	19 30.67	-32 47.9	1.734	2.528	17.1	18.8	8 29	19 36.46	-23 19.9	2.455	3.260	12.4	20.8
280300	2003 <i>QA</i> ₁₆		7 21.1 324°74	4°5/22.9	18								

EPHEMERIDES

7 21.1

7 21.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
272263	2005 <i>QU</i> ₁₇₂		7 21.1 265°81	4.3/22.9	17		131037	2000 <i>YN</i>		7 21.1 223°27	8.3/18.7	18	
6 20	20 26.06	- 9 6.9	1.766	2.636	14.0	21.1	6 20	20 38.55	-43 8.1	1.856	2.722	13.6	19.6
6 30	20 20.35	- 8 58.2	1.680	2.618	10.7	20.9	6 30	20 29.27	-43 30.8	1.796	2.720	11.0	19.4
7 10	20 12.57	- 9 3.0	1.616	2.599	7.2	20.6	7 10	20 17.30	-43 36.4	1.760	2.717	9.0	19.3
7 20	20 3.40	- 9 20.9	1.577	2.581	4.5	20.4	7 20	20 3.88	-43 18.5	1.748	2.714	8.3	19.3
7 30	19 53.82	- 9 50.1	1.564	2.562	5.4	20.5	7 30	19 50.59	-42 34.5	1.763	2.712	9.5	19.3
8 9	19 44.93	-10 27.4	1.577	2.542	8.9	20.6	8 9	19 38.97	-41 26.4	1.802	2.709	11.8	19.5
8 19	19 37.73	-11 8.9	1.615	2.523	12.7	20.8	8 19	19 30.13	-39 59.9	1.864	2.706	14.4	19.6
8 29	19 32.97	-11 51.0	1.673	2.503	16.2	21.0	8 29	19 24.67	-38 21.8	1.947	2.702	16.8	19.8
113653	2002 <i>TY</i> ₈₁		7 21.1 321°60	5.3/18.5	17		141503	2002 <i>EW</i> ₅₈		7 21.1 2°22	3.2/23.1	18	
6 20	20 25.92	-28 5.2	1.254	2.172	15.2	19.2	6 20	20 19.33	- 9 36.0	2.290	3.161	11.2	18.4
6 30	20 21.12	-29 24.1	1.190	2.158	11.1	18.9	6 30	20 15.10	- 9 40.0	2.222	3.161	8.4	18.2
7 10	20 13.33	-30 44.4	1.146	2.144	7.1	18.7	7 10	20 9.52	- 9 54.7	2.176	3.161	5.5	18.0
7 20	20 3.50	-31 56.6	1.126	2.131	5.4	18.5	7 20	20 3.13	-10 19.0	2.157	3.161	3.3	17.9
7 30	19 53.15	-32 51.7	1.129	2.119	8.3	18.7	7 30	19 56.63	-10 50.9	2.164	3.163	4.0	17.9
8 9	19 44.01	-33 24.5	1.154	2.107	12.7	18.9	8 9	19 50.73	-11 27.5	2.198	3.165	6.7	18.1
8 19	19 37.53	-33 34.7	1.200	2.096	17.0	19.1	8 19	19 46.06	-12 6.2	2.258	3.167	9.5	18.3
8 29	19 34.66	-33 24.9	1.262	2.086	20.7	19.3	8 29	19 43.09	-12 44.0	2.340	3.171	12.1	18.5
243704	2000 <i>CT</i> ₆₄		7 21.1 171°24	1.9/20.1	17		134309	4552 <i>P-L</i>		7 21.1 324°11	10.1/16.8	18	
6 20	20 27.63	-25 22.9	2.226	3.116	10.7	21.1	6 20	20 30.81	-41 50.7	1.445	2.337	15.2	19.5
6 30	20 21.02	-25 46.1	2.162	3.118	7.6	20.9	6 30	20 24.66	-42 55.3	1.381	2.319	12.6	19.3
7 10	20 12.72	-26 8.7	2.122	3.121	4.2	20.7	7 10	20 15.26	-43 44.7	1.339	2.302	10.6	19.1
7 20	20 3.42	-26 27.3	2.110	3.122	1.9	20.5	7 20	20 3.72	-44 9.3	1.318	2.286	10.2	19.1
7 30	19 54.02	-26 39.1	2.126	3.124	4.2	20.7	7 30	19 51.82	-44 2.6	1.320	2.271	11.8	19.1
8 9	19 45.46	-26 42.6	2.170	3.125	7.5	20.9	8 9	19 41.47	-43 24.1	1.344	2.256	14.6	19.2
8 19	19 38.50	-26 37.8	2.239	3.126	10.6	21.1	8 19	19 34.12	-42 18.6	1.387	2.242	17.7	19.4
8 29	19 33.70	-26 25.6	2.330	3.126	13.2	21.3	8 29	19 30.64	-40 53.4	1.447	2.229	20.5	19.6
418904	2009 <i>BZ</i> ₆₉		7 21.1 79°34	3.1/20.3	17		62971	2000 <i>VZ</i> ₄₉		7 21.1 213°50	0.4/20.8	18	
6 20	20 32.81	-26 59.7	1.292	2.199	15.7	20.5	6 20	20 24.08	-20 38.5	2.721	3.605	9.2	20.2
6 30	20 25.53	-27 9.0	1.239	2.203	11.2	20.3	6 30	20 18.34	-20 59.2	2.644	3.598	6.5	20.0
7 10	20 15.42	-27 15.1	1.207	2.207	6.4	20.0	7 10	20 11.24	-21 22.6	2.592	3.592	3.5	19.8
7 20	20 3.68	-27 12.7	1.199	2.212	3.1	19.8	7 20	20 3.32	-21 46.3	2.569	3.584	0.5	19.5
7 30	19 51.93	-26 58.3	1.216	2.216	6.1	20.0	7 30	19 55.24	-22 8.0	2.574	3.577	3.0	19.7
8 9	19 41.80	-26 31.7	1.257	2.220	10.9	20.3	8 9	19 47.71	-22 25.8	2.608	3.569	6.1	19.9
8 19	19 34.46	-25 55.2	1.320	2.225	15.2	20.6	8 19	19 41.37	-22 38.8	2.669	3.561	8.9	20.1
8 29	19 30.59	-25 11.9	1.402	2.229	18.9	20.8	8 29	19 36.70	-22 46.6	2.753	3.552	11.3	20.3
291889	2006 <i>PQ</i> ₃₀		7 21.1 304°66	1.2/21.7	18		192683	1999 <i>SO</i> ₂₇		7 21.1 292°10	6.0/22.5	18	
6 20	20 23.01	-14 33.0	1.765	2.655	13.0	20.0	6 20	20 27.51	- 7 51.2	1.741	2.605	14.4	19.5
6 30	20 18.25	-15 14.7	1.681	2.636	9.5	19.8	6 30	20 21.42	- 6 49.1	1.652	2.583	11.4	19.3
7 10	20 11.47	-16 8.8	1.620	2.618	5.4	19.5	7 10	20 13.20	- 5 57.5	1.586	2.561	8.2	19.0
7 20	20 3.31	-17 11.8	1.584	2.599	1.4	19.2	7 20	20 3.53	- 5 18.6	1.545	2.539	6.1	18.8
7 30	19 54.74	-18 18.8	1.575	2.581	4.0	19.3	7 30	19 53.43	- 4 53.7	1.530	2.517	6.9	18.8
8 9	19 46.85	-19 24.6	1.593	2.563	8.4	19.5	8 9	19 44.05	- 4 42.2	1.540	2.495	10.0	19.0
8 19	19 40.59	-20 24.9	1.634	2.545	12.4	19.7	8 19	19 36.40	- 4 42.4	1.574	2.473	13.5	19.1
8 29	19 36.76	-21 16.8	1.697	2.528	15.9	19.9	8 29	19 31.25	- 4 51.2	1.628	2.451	16.8	19.3
213102	1999 <i>WW</i> ₁₀		7 21.1 297°73	2.1°5/26.8	17		414960	2011 <i>CS</i> ₄		7 21.1 302°43	3.4/21.1	18	
6 20	20 26.11	+16 16.6	1.100	1.884	25.9	20.2	6 20	20 33.60	-20 5.5	0.683	1.615	22.2	21.2
6 30	20 21.29	+18 48.0	1.043	1.873	24.2	20.0	6 30	20 29.16	-18 48.6	0.594	1.571	16.8	20.6
7 10	20 13.47	+20 41.2	0.999	1.862	22.7	19.8	7 10	20 19.31	-17 21.7	0.520	1.525	10.1	20.0
7 20	20 3.53	+21 44.4	0.969	1.851	21.7	19.7	7 20	20 4.31	-15 41.2	0.463	1.478	3.6	19.4
7 30	19 52.90	+21 49.9	0.954	1.840	21.6	19.7	7 30	19 45.94	-13 46.4	0.424	1.432	9.4	19.4
8 9	19 43.32	+20 58.3	0.955	1.830	22.3	19.7	8 9	19 27.42	-11 42.4	0.402	1.385	19.2	19.6
8 19	19 36.28	+19 17.7	0.969	1.820	23.9	19.8	8 19	19 12.19	- 9 39.1	0.393	1.338	28.9	19.8
8 29	19 32.88	+17 1.6	0.997	1.810	25.8	19.9	8 29	19 2.95	- 7 45.2	0.394	1.293	37.5	19.9
336655	2009 <i>XC</i> ₇		7 21.1 187°65	2.8/19.8	18		408904	2001 <i>VN</i> ₅₆		7 21.1 183°57	1.3/21.5	17	
6 20	20 29.54	-27 17.4	1.980	2.873	11.7	20.9	6 20	20 30.57	-16 56.6	1.552	2.442	14.5	20.8
6 30	20 22.59	-27 46.8	1.915	2.872	8.4	20.7	6 30	20 23.62	-16 56.3	1.487	2.443	10.5	20.6
7 10	20 13.65	-28 14.2	1.875	2.872	4.9	20.5	7 10	20 14.35	-17 3.3	1.445	2.443	5.9	20.3
7 20	20 3.51	-28 35.4	1.861	2.870	2.8	20.3	7 20	20 3.64	-17 15.1	1.427	2.442	1.5	20.0
7 30	19 53.24	-28 46.7	1.874	2.869	5.1	20.5	7 30	19 52.76	-17 28.6	1.437	2.441	4.4	20.2
8 9	19 43.93	-28 46.8	1.915	2.867	8.6	20.7	8 9	19 42.99	-17 41.1	1.472	2.440	9.1	20.5
8 19	19 36.48	-28 36.1	1.980	2.864	11.9	20.9	8 19	19 35.39	-17 51.0	1.531	2.438	13.3	20.7
8 29	19 31.53	-28 16.3	2.066	2.861	14.7	21.1	8 29	19 30.65	-17 57.3	1.610	2.436	16.9	21.0
222456	2001 <i>RR</i> ₇		7 21.1 307°59	4.9/22.9	18		398279	2010 <i>UK</i> ₂		7 21.1 332°36	2.3/22.1	18	
6 20	20 23.94	- 9 8.7	1.403	2.289	16.0	20.5	6 20	20 22.91	-14 9.3	1.837	2.725	12.7	20.7
6 30	20 19.29	- 8 58.6	1.319	2.266	12.3	20.2	6 30	20 17.98	-14 1.9	1.762	2.714	9.3	20.5
7 10	20 12.20	- 9 5.3	1.256	2.244	8.3	19.9	7 10	20 11.24	-14 3.3	1.710	2.704	5.6	20.3
7 20	20 3.40	- 9 28.8	1.216	2.222	5.1	19.7	7 20	20 3.35	-14 12.0	1.683	2.695	2.5	20.1
7 30	19 54.05	-10 7.0	1.200	2.200	6.2	19.7	7 30	19 55.23	-14 26.2	1.682	2.686	4.1	20.1
8 9	19 45.51	-10 55.5	1.207	2.178	10.3	19.9	8 9	19 47.87	-14 43.3	1.707	2.677	7.9	20.4
8 19	19 38.96	-11 49.0	1.237	2.158	14.8	20.1	8 19	19 42.13	-15 1.0	1.756	2.669	11.6	20.6
8 29	19 35.34	-12 42.5	1.285	2.137	18.8	20.3	8 29	19 38.63	-15 17.3	1.827	2.662	14.8	20.8
158716 </													

EPHEMERIDES

7 21.1

7 21.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
264940	2002 VT ₉₃		7 21.1 267°82	0°6/20.9	18		200282	1999 YB ₅		7 21.1 221°85	2°3/19.6	18	
6 20	20 28.60	-21 14.4	1.564	2.464	13.9	20.2	6 20	20 26.52	-24 45.4	2.202	3.093	10.7	20.5
6 30	20 22.35	-21 24.3	1.494	2.456	9.9	20.0	6 30	20 20.46	-25 41.6	2.128	3.086	7.6	20.3
7 10	20 13.74	-21 37.8	1.447	2.448	5.4	19.7	7 10	20 12.59	-26 39.8	2.079	3.078	4.3	20.1
7 20	20 3.63	-21 51.3	1.424	2.440	0.7	19.3	7 20	20 3.55	-27 34.9	2.058	3.069	2.3	20.0
7 30	19 53.25	-22 1.3	1.427	2.432	4.6	19.6	7 30	19 54.23	-28 22.7	2.066	3.061	4.6	20.1
8 9	19 43.93	-22 5.4	1.456	2.424	9.3	19.9	8 9	19 45.60	-28 59.9	2.100	3.051	8.0	20.3
8 19	19 36.73	-22 3.0	1.508	2.415	13.5	20.1	8 19	19 38.50	-29 25.4	2.160	3.042	11.1	20.5
8 29	19 32.41	-21 54.3	1.580	2.407	17.1	20.3	8 29	19 33.58	-29 39.5	2.241	3.031	13.9	20.7
470644	2008 SJ ₁₁₀		7 21.1 292°70	7°6/25.0	16		340313	2006 DV ₇		7 21.1 135°76	4°9/24.3	17	
6 20	20 23.20	- 0 19.8	1.704	2.546	15.7	21.4	6 20	20 24.97	- 3 46.7	2.154	2.995	12.9	21.3
6 30	20 18.36	- 0 5.8	1.623	2.532	12.9	21.2	6 30	20 19.11	- 3 59.3	2.091	3.006	10.1	21.1
7 10	20 11.54	- 0 13.7	1.563	2.518	10.1	21.0	7 10	20 11.73	- 4 27.7	2.051	3.017	7.3	21.0
7 20	20 3.42	- 0 44.4	1.525	2.504	8.0	20.9	7 20	20 3.47	- 5 10.7	2.036	3.027	5.2	20.9
7 30	19 54.92	- 1 37.0	1.512	2.491	8.0	20.8	7 30	19 55.10	- 6 5.8	2.049	3.037	5.3	20.9
8 9	19 47.13	- 2 46.9	1.523	2.477	10.2	20.9	8 9	19 47.47	- 7 8.8	2.090	3.047	7.6	21.1
8 19	19 40.98	- 4 8.2	1.558	2.464	13.2	21.1	8 19	19 41.24	- 8 15.4	2.156	3.056	10.4	21.3
8 29	19 37.20	- 5 34.2	1.614	2.450	16.4	21.3	8 29	19 36.96	- 9 21.5	2.245	3.064	12.9	21.4
418966	2009 HO ₂₁		7 21.1 66°44	8°0/24.5	17		78207	2002 NU ₅₅		7 21.1 283°12	2°5/22.1	18	
6 20	20 26.35	- 2 32.7	1.344	2.206	18.0	20.9	6 20	20 25.60	-13 49.0	1.864	2.746	12.8	19.6
6 30	20 20.70	- 2 2.6	1.292	2.215	14.4	20.7	6 30	20 19.96	-13 37.9	1.782	2.731	9.5	19.4
7 10	20 12.79	- 1 55.9	1.259	2.225	10.8	20.5	7 10	20 12.38	-13 35.4	1.723	2.716	5.8	19.1
7 20	20 3.53	- 2 13.5	1.247	2.234	8.3	20.4	7 20	20 3.55	-13 40.2	1.690	2.701	2.7	18.9
7 30	19 54.17	- 2 53.3	1.260	2.244	8.4	20.4	7 30	19 54.42	-13 50.8	1.683	2.686	4.3	19.0
8 9	19 45.98	- 3 50.0	1.295	2.254	11.0	20.6	8 9	19 46.03	-14 4.7	1.703	2.671	8.1	19.2
8 19	19 39.96	- 4 56.7	1.353	2.264	14.4	20.8	8 19	19 39.27	-14 19.9	1.747	2.656	11.9	19.4
8 29	19 36.77	- 6 6.6	1.430	2.274	17.7	21.1	8 29	19 34.83	-14 34.4	1.813	2.641	15.2	19.5
520066	2013 WH ₁₁₂		7 21.1 115°07	6°5/23.5	18		342818	2008 XD ₁₄		7 21.1 196°65	1°6/21.9	18	
6 20	20 29.59	- 3 28.0	2.084	2.917	13.6	21.1	6 20	20 26.44	-14 57.1	2.333	3.207	10.9	22.0
6 30	20 22.28	- 2 25.2	2.027	2.933	10.9	21.0	6 30	20 20.15	-14 58.3	2.258	3.204	7.9	21.8
7 10	20 13.38	- 1 36.3	1.994	2.948	8.3	20.8	7 10	20 12.32	-15 5.8	2.207	3.201	4.6	21.5
7 20	20 3.60	- 1 2.9	1.987	2.964	6.6	20.8	7 20	20 3.55	-15 18.2	2.184	3.197	1.8	21.3
7 30	19 53.81	- 0 45.5	2.007	2.979	6.9	20.8	7 30	19 54.62	-15 33.4	2.190	3.193	3.4	21.5
8 9	19 44.91	- 0 42.6	2.055	2.993	8.9	20.9	8 9	19 46.35	-15 49.5	2.223	3.188	6.7	21.7
8 19	19 37.61	- 0 51.5	2.127	3.007	11.3	21.1	8 19	19 39.47	-16 4.9	2.283	3.182	9.9	21.8
8 29	19 32.43	- 1 8.7	2.221	3.020	13.7	21.3	8 29	19 34.50	-16 18.2	2.366	3.176	12.6	22.0
506661	2006 SV ₂₁₁		7 21.1 249°30	0°4/21.3	17		123241	2000 UL ₆₀		7 21.1 286°71	0°3/20.9	18	R
6 20	20 27.96	-17 53.5	1.698	2.589	13.4	22.7	6 20	20 26.86	-20 10.5	1.667	2.565	13.2	19.9
6 30	20 21.84	-18 15.6	1.619	2.576	9.6	22.4	6 30	20 21.12	-20 24.3	1.588	2.549	9.5	19.7
7 10	20 13.48	-18 45.4	1.563	2.563	5.3	22.2	7 10	20 13.12	-20 43.1	1.532	2.533	5.2	19.4
7 20	20 3.63	-19 19.3	1.533	2.549	0.7	21.8	7 20	20 3.65	-21 3.5	1.501	2.517	0.5	19.0
7 30	19 53.40	-19 53.4	1.529	2.534	4.2	22.0	7 30	19 53.82	-21 22.0	1.497	2.502	4.3	19.3
8 9	19 44.01	-20 23.9	1.552	2.519	8.8	22.3	8 9	19 44.85	-21 35.6	1.518	2.486	8.9	19.5
8 19	19 36.50	-20 48.5	1.599	2.504	13.0	22.5	8 19	19 37.80	-21 42.9	1.563	2.470	13.1	19.7
8 29	19 31.68	-21 6.3	1.666	2.489	16.5	22.7	8 29	19 33.45	-21 43.8	1.628	2.455	16.7	19.9
240233	2002 TC ₁₇₀		7 21.1 300°76	7°7/23.9	18		165646	2001 HP ₁₉		7 21.1 314°95	3°3/22.6	17	
6 20	20 24.12	- 1 49.9	1.807	2.650	14.9	19.4	6 20	20 24.56	-11 10.6	1.822	2.699	13.3	20.5
6 30	20 18.96	- 0 58.5	1.721	2.631	12.3	19.2	6 30	20 19.15	-11 6.4	1.752	2.696	9.9	20.3
7 10	20 11.86	- 0 23.7	1.657	2.612	9.7	19.0	7 10	20 11.90	-11 13.8	1.705	2.694	6.3	20.1
7 20	20 3.47	- 0 7.7	1.616	2.592	7.9	18.9	7 20	20 3.52	-11 31.5	1.683	2.691	3.5	19.9
7 30	19 54.69	- 0 11.6	1.600	2.573	8.2	18.8	7 30	19 54.96	-11 57.3	1.688	2.689	4.6	20.0
8 9	19 46.57	- 0 33.4	1.609	2.555	10.3	18.9	8 9	19 47.20	-12 28.0	1.719	2.687	8.1	20.2
8 19	19 40.01	- 1 9.6	1.640	2.536	13.3	19.1	8 19	19 41.09	-13 0.5	1.774	2.684	11.6	20.4
8 29	19 35.74	- 1 55.3	1.692	2.518	16.2	19.2	8 29	19 37.25	-13 31.9	1.850	2.682	14.8	20.6
358959	2008 KF ₄₂		7 21.1 71°70	1°6/22.1	18		130109	1999 XC ₆₅		7 21.1 292°60	3°0/19.4	18	
6 20	20 22.41	-13 23.5	2.245	3.123	11.1	20.7	6 20	20 26.00	-25 28.3	1.741	2.643	12.5	19.8
6 30	20 17.33	-13 55.8	2.179	3.127	8.1	20.5	6 30	20 20.50	-26 27.9	1.671	2.634	9.0	19.5
7 10	20 10.78	-14 37.2	2.138	3.132	4.7	20.3	7 10	20 12.78	-27 29.7	1.625	2.624	5.2	19.3
7 20	20 3.35	-15 25.1	2.123	3.136	1.7	20.1	7 20	20 3.63	-28 27.6	1.604	2.614	3.1	19.1
7 30	19 55.78	-16 16.2	2.136	3.140	3.3	20.3	7 30	19 54.13	-29 15.8	1.610	2.605	5.7	19.3
8 9	19 48.88	-17 7.0	2.177	3.145	6.6	20.5	8 9	19 45.51	-29 50.5	1.641	2.595	9.5	19.5
8 19	19 43.30	-17 54.6	2.244	3.150	9.8	20.7	8 19	19 38.80	-30 10.7	1.695	2.586	13.2	19.7
8 29	19 39.58	-18 36.9	2.334	3.154	12.5	20.9	8 29	19 34.76	-30 17.2	1.770	2.576	16.4	19.9
253807	2003 YP ₆		7 21.1 220°69	3°9/19.6	17		294086	2007 TU ₂₀₀		7 21.1 289°43	1°0/21.6	18	
6 20	20 31.46	-28 54.5	1.655	2.552	13.3	20.8	6 20	20 25.16	-16 54.9	1.852	2.742	12.5	21.2
6 30	20 24.39	-29 27.8	1.589	2.547	9.7	20.6	6 30	20 19.62	-17 4.8	1.779	2.734	9.0	20.9
7 10	20 14.84	-29 57.7	1.546	2.542	5.9	20.3	7 10	20 12.19	-17 21.6	1.729	2.727	5.1	20.7
7 20	20 3.76	-30 18.7	1.529	2.536	3.9	20.2	7 20	20 3.56	-17 43.0	1.705	2.720	1.2	20.4
7 30	19 52.46	-30 26.0	1.538	2.530	6.2	20.3	7 30	19 54.71	-18 6.0	1.708	2.713	3.8	20.6
8 9	19 42.34	-30 18.4	1.572	2.524	10.1	20.5	8 9	19 46.66	-18 27.9	1.737	2.706	7.9	20.8
8 19	19 34.48	-29 57.2	1.630	2.517	13.8	20.8	8 19	19 40.29	-18 46.6	1.791	2.699	11.7	21.0
8 29	19 29.64	-29 25.1	1.708	2.510	17.0	21.0	8 29	19 36.25	-19 0.8	1.866	2.693	14.9	21.2
509156	2006 DA ₁₄		7 21.1 124°63	1°2/20.5	17		225286	1994 PD ₅		7 21.1 344°08	2°6/22.0	18	
6 20													

EPHEMERIDES

7 21.1

7 21.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
154818	2004 QA ₉		7 21.1 285°23	0°8/21.6	18		323346	2003 UP ₂₉₉		7 21.1 287°13	5°7/18.7	17	
6 20	20 22.78	-16 16.1	2.261	3.146	10.8	20.1	6 20	20 30.07	-30 48.3	1.389	2.297	14.7	20.8
6 30	20 17.73	-16 42.2	2.179	3.132	7.8	19.9	6 30	20 23.99	-31 49.3	1.322	2.283	11.0	20.6
7 10	20 11.10	-17 15.5	2.121	3.118	4.4	19.7	7 10	20 14.93	-32 47.0	1.276	2.270	7.3	20.3
7 20	20 3.46	-17 53.5	2.089	3.105	1.0	19.4	7 20	20 3.89	-33 32.9	1.254	2.256	5.8	20.2
7 30	19 55.56	-18 33.3	2.086	3.091	3.3	19.6	7 30	19 52.37	-33 59.7	1.257	2.243	8.2	20.3
8 9	19 48.24	-19 11.6	2.110	3.077	6.8	19.8	8 9	19 42.10	-34 4.5	1.282	2.229	12.3	20.5
8 19	19 42.23	-19 46.3	2.160	3.064	10.2	20.0	8 19	19 34.47	-33 48.6	1.329	2.216	16.3	20.7
8 29	19 38.13	-20 15.5	2.232	3.050	13.0	20.1	8 29	19 30.38	-33 16.1	1.394	2.203	19.8	20.9
490026	2008 SH ₂₈₈		7 21.1 197°80	0°9/20.6	18		248098	2004 RG ₈₅		7 21.1 187°94	2°7/19.6	18	R
6 20	20 26.39	-20 55.7	1.932	2.825	11.9	21.8	6 20	20 25.24	-27 50.1	2.386	3.278	10.0	20.1
6 30	20 20.45	-21 33.8	1.865	2.824	8.4	21.6	6 30	20 19.38	-28 22.2	2.321	3.278	7.2	19.9
7 10	20 12.62	-22 16.3	1.822	2.823	4.5	21.4	7 10	20 11.95	-28 52.4	2.282	3.278	4.3	19.8
7 20	20 3.61	-22 59.1	1.805	2.821	1.0	21.1	7 20	20 3.56	-29 17.3	2.269	3.277	2.7	19.6
7 30	19 54.40	-23 37.9	1.816	2.819	4.1	21.3	7 30	19 55.07	-29 33.9	2.285	3.277	4.5	19.8
8 9	19 46.02	-24 9.7	1.854	2.817	8.0	21.6	8 9	19 47.31	-29 40.7	2.328	3.277	7.4	19.9
8 19	19 39.33	-24 32.9	1.917	2.814	11.5	21.8	8 19	19 41.01	-29 37.7	2.395	3.276	10.2	20.1
8 29	19 34.98	-24 47.1	2.000	2.812	14.6	22.0	8 29	19 36.72	-29 25.9	2.485	3.276	12.7	20.3
371636	2007 BL ₆		7 21.1 234°78	3°1/19.5	18		371922	2008 EE ₇		7 21.1 113°14	2°9/22.6	17	
6 20	20 28.79	-25 47.4	1.796	2.693	12.5	21.0	6 20	20 26.74	-11 17.5	1.590	2.471	14.7	21.2
6 30	20 22.46	-26 45.4	1.723	2.683	8.9	20.7	6 30	20 20.84	-11 38.8	1.531	2.478	10.9	21.0
7 10	20 13.85	-27 45.0	1.675	2.673	5.2	20.5	7 10	20 12.88	-12 14.2	1.494	2.486	6.7	20.8
7 20	20 3.75	-28 40.1	1.653	2.663	3.1	20.3	7 20	20 3.67	-13 0.8	1.483	2.493	3.2	20.6
7 30	19 53.28	-29 25.0	1.658	2.652	5.6	20.5	7 30	19 54.32	-13 54.2	1.497	2.501	4.6	20.7
8 9	19 43.69	-29 56.2	1.689	2.640	9.5	20.7	8 9	19 45.99	-14 49.6	1.538	2.508	8.6	20.9
8 19	19 36.04	-30 13.0	1.743	2.629	13.2	20.9	8 19	19 39.58	-15 42.6	1.602	2.514	12.5	21.2
8 29	19 31.11	-30 16.4	1.818	2.616	16.3	21.1	8 29	19 35.77	-16 30.1	1.687	2.521	15.9	21.4
417643	2006 XL ₅₆		7 21.1 169°80	1°9/21.9	17		118852	2000 SV ₂₇₆		7 21.1 139°66	6°7/16.7	18	
6 20	20 28.32	-15 11.2	1.754	2.638	13.4	21.3	6 20	20 30.47	-42 40.1	2.649	3.511	10.1	19.8
6 30	20 21.84	-15 7.0	1.688	2.640	9.8	21.1	6 30	20 23.14	-43 36.0	2.603	3.520	8.3	19.7
7 10	20 13.37	-15 10.7	1.646	2.641	5.7	20.8	7 10	20 13.98	-44 20.5	2.581	3.529	7.0	19.6
7 20	20 3.69	-15 20.5	1.630	2.643	2.1	20.6	7 20	20 3.78	-44 49.1	2.586	3.538	6.8	19.6
7 30	19 53.87	-15 34.1	1.640	2.644	4.2	20.8	7 30	19 53.53	-44 58.8	2.618	3.546	7.7	19.7
8 9	19 45.01	-15 48.9	1.677	2.645	8.2	21.0	8 9	19 44.24	-44 49.6	2.674	3.554	9.4	19.8
8 19	19 38.00	-16 3.0	1.738	2.645	12.0	21.2	8 19	19 36.72	-44 23.5	2.754	3.562	11.2	20.0
8 29	19 33.49	-16 14.8	1.821	2.646	15.3	21.5	8 29	19 31.53	-43 43.9	2.854	3.569	12.8	20.1
42408	9555 P-L		7 21.1 259°02	2°7/19.5	18		387704	2002 XZ ₆₁		7 21.1 333°91	15°3/21.1	18	
6 20	20 25.37	-27 49.7	2.505	3.395	9.6	19.9	6 20	20 34.65	-1 7.4	0.954	1.823	23.1	19.4
6 30	20 19.53	-28 25.1	2.424	3.380	6.9	19.7	6 30	20 27.51	+ 2 6.4	0.900	1.818	19.7	19.2
7 10	20 12.07	-28 59.4	2.369	3.364	4.2	19.5	7 10	20 16.94	+ 5 0.5	0.865	1.814	16.7	19.0
7 20	20 3.57	-29 28.9	2.341	3.349	2.7	19.4	7 20	20 4.12	+ 7 21.0	0.849	1.810	15.3	18.9
7 30	19 54.84	-29 50.3	2.342	3.333	4.5	19.5	7 30	19 50.86	+ 8 57.0	0.854	1.807	16.2	18.9
8 9	19 46.72	-30 1.9	2.370	3.317	7.4	19.6	8 9	19 39.19	+ 9 46.3	0.878	1.804	18.9	19.1
8 19	19 39.96	-30 3.3	2.423	3.301	10.2	19.8	8 19	19 30.64	+ 9 54.1	0.918	1.801	22.2	19.3
8 29	19 35.15	-29 55.4	2.499	3.284	12.7	19.9	8 29	19 26.17	+ 9 30.8	0.973	1.800	25.3	19.5
374949	2007 CR ₂		7 21.1 172°08	0°7/20.8	17		26742	2001 HW ₃₆		7 21.1 37°37	4°6/22.9	18	
6 20	20 29.47	-21 31.2	1.948	2.837	12.0	22.1	6 20	20 25.36	-10 1.8	1.452	2.337	15.6	18.5
6 30	20 22.55	-21 45.9	1.883	2.840	8.5	21.9	6 30	20 19.82	-9 34.4	1.407	2.353	11.8	18.3
7 10	20 13.71	-22 3.1	1.842	2.842	4.6	21.7	7 10	20 12.27	-9 21.5	1.383	2.370	7.8	18.1
7 20	20 3.73	-22 19.4	1.828	2.844	0.8	21.4	7 20	20 3.61	-9 22.4	1.383	2.388	4.8	18.0
7 30	19 53.64	-22 32.0	1.842	2.845	3.9	21.7	7 30	19 55.00	-9 35.2	1.408	2.406	5.7	18.1
8 9	19 44.49	-22 38.9	1.884	2.846	7.9	21.9	8 9	19 47.57	-9 56.6	1.457	2.425	9.2	18.4
8 19	19 37.13	-22 39.6	1.950	2.847	11.4	22.1	8 19	19 42.17	-10 22.7	1.529	2.445	12.8	18.6
8 29	19 32.17	-22 34.4	2.038	2.847	14.4	22.3	8 29	19 39.35	-10 50.0	1.621	2.465	16.0	18.9
103779	2000 DN ₅		7 21.1 200°83	10°9/10.4	18		510602	2012 TB ₁₉		7 21.1 236°45	4°5/18.2	18	
6 20	20 38.92	-52 51.0	2.383	3.205	12.4	19.8	6 20	20 28.15	-30 52.9	2.134	3.025	11.0	22.0
6 30	20 30.45	-55 6.9	2.341	3.202	11.3	19.7	6 30	20 21.84	-32 3.6	2.061	3.014	8.2	21.8
7 10	20 18.62	-57 5.0	2.324	3.198	10.9	19.6	7 10	20 13.48	-33 11.9	2.014	3.003	5.5	21.7
7 20	20 4.28	-58 36.5	2.331	3.194	11.3	19.7	7 20	20 3.76	-34 11.8	1.994	2.991	4.6	21.6
7 30	19 48.99	-59 35.2	2.361	3.189	12.3	19.7	7 30	19 53.68	-34 58.1	2.001	2.979	6.4	21.7
8 9	19 34.68	-60 0.5	2.413	3.183	13.7	19.8	8 9	19 44.35	-35 27.8	2.035	2.966	9.3	21.8
8 19	19 23.02	-59 56.2	2.483	3.178	15.1	19.9	8 19	19 36.73	-35 40.8	2.093	2.954	12.3	22.0
8 29	19 15.18	-59 28.6	2.569	3.172	16.3	20.0	8 29	19 31.56	-35 39.0	2.171	2.940	14.9	22.2
399900	2005 WV ₁₅₂		7 21.1 333°01	3°2/22.4	18		240431	2003 WX ₉₀		7 21.1 342°55	8°7/16.4	18	
6 20	20 24.04	-12 3.0	1.986	2.862	12.4	20.6	6 20	20 30.39	-40 29.2	1.741	2.627	13.4	19.7
6 30	20 18.67	-11 39.4	1.913	2.857	9.3	20.4	6 30	20 23.89	-41 51.6	1.690	2.625	10.9	19.5
7 10	20 11.61	-11 24.7	1.863	2.851	5.9	20.2	7 10	20 14.73	-43 1.7	1.662	2.624	9.0	19.4
7 20	20 3.53	-11 18.5	1.839	2.846	3.4	20.0	7 20	20 3.89	-43 51.2	1.658	2.622	8.8	19.4
7 30	19 55.27	-11 19.7	1.841	2.841	4.4	20.1	7 30	19 52.80	-44 14.5	1.678	2.621	10.3	19.5
8 9	19 47.76	-11 26.5	1.871	2.837	7.7	20.3	8 9	19 43.01	-44 10.7	1.721	2.620	12.7	19.6
8 19	19 41.76	-11 36.9	1.924	2.832	11.0	20.5	8 19	19 35.69	-43 43.0	1.784	2.619	15.2	19.8
8 29	19 37.86	-11 48.8	2.000	2.828	13.9	20.7	8 29	19 31.61	-42 56.5	1.866	2.618	17.5	20.0
521467	2015 OD ₉₂		7 21.1 173°89	6°4/25.4	18		145753	1996 AK ₆		7 21.1 2°29	2°8/20.0	17	
6 20													

EPHEMERIDES

7 21.1

7 21.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
310700	2002 <i>JN</i> ₁₀		7 21.1 119°41'	4.8/17.1	18		422811	2001 <i>YQ</i> ₁₃₇		7 21.1 159°70'	3.6/19.4	17	
6 20	20 27.58	-34 35.3	2.748	3.629	9.2	20.7	6 20	20 30.72	-29 43.3	2.033	2.923	11.6	21.1
6 30	20 21.00	-35 58.8	2.704	3.645	7.0	20.6	6 30	20 23.48	-30 18.0	1.974	2.928	8.4	20.9
7 10	20 12.83	-37 16.5	2.686	3.661	5.2	20.5	7 10	20 14.27	-30 48.7	1.940	2.933	5.2	20.7
7 20	20 3.70	-38 23.5	2.696	3.677	4.8	20.5	7 20	20 3.90	-31 10.8	1.933	2.938	3.6	20.6
7 30	19 54.42	-39 15.8	2.735	3.692	6.1	20.6	7 30	19 53.45	-31 20.7	1.954	2.942	5.5	20.7
8 9	19 45.83	-39 51.7	2.801	3.707	8.1	20.7	8 9	19 44.03	-31 17.4	2.001	2.946	8.7	20.9
8 19	19 38.67	-40 11.8	2.892	3.722	10.1	20.9	8 19	19 36.50	-31 2.0	2.073	2.949	11.8	21.1
8 29	19 33.49	-40 17.8	3.005	3.736	11.9	21.1	8 29	19 31.48	-30 36.7	2.166	2.951	14.4	21.3
510759	2012 <i>XA</i> ₁₃₈		7 21.1 277°50'	2.7/19.8	18		345480	2006 <i>HY</i> ₈₀		7 21.1 170°56'	6.0/23.9	18	
6 20	20 27.15	-26 0.8	1.885	2.783	11.9	21.6	6 20	20 25.35	-3 56.0	1.988	2.833	13.7	21.2
6 30	20 21.25	-26 40.2	1.805	2.766	8.6	21.4	6 30	20 19.59	-3 27.7	1.919	2.835	10.9	21.1
7 10	20 13.21	-27 20.3	1.749	2.748	5.0	21.1	7 10	20 12.15	-3 14.6	1.873	2.836	8.1	20.9
7 20	20 3.75	-27 56.2	1.719	2.730	2.7	20.9	7 20	20 3.69	-3 17.2	1.851	2.837	6.2	20.8
7 30	19 53.92	-28 23.3	1.716	2.713	5.2	21.1	7 30	19 55.07	-3 34.8	1.855	2.837	6.4	20.8
8 9	19 44.89	-28 39.0	1.740	2.695	9.0	21.3	8 9	19 47.20	-4 4.7	1.886	2.838	8.6	20.9
8 19	19 37.65	-28 42.5	1.787	2.677	12.7	21.4	8 19	19 40.83	-4 43.1	1.941	2.838	11.4	21.1
8 29	19 32.97	-28 35.1	1.854	2.658	15.8	21.6	8 29	19 36.56	-5 26.2	2.018	2.839	14.1	21.3
92024	1999 <i>VK</i> ₁₆₉		7 21.1 202°35'	0.8/21.6	18		334044	2001 <i>FS</i> ₁₁₆		7 21.1 233°63'	9.3/27.9	18	
6 20	20 23.71	-16 58.8	2.661	3.539	9.6	20.2	6 20	20 25.05	+13 50.7	2.821	3.535	13.1	20.6
6 30	20 18.13	-17 5.9	2.586	3.536	6.9	20.0	6 30	20 19.15	+14 15.7	2.724	3.517	11.8	20.4
7 10	20 11.23	-17 17.6	2.537	3.533	3.9	19.8	7 10	20 11.87	+14 20.4	2.647	3.497	10.5	20.3
7 20	20 3.54	-17 32.2	2.515	3.530	1.0	19.6	7 20	20 3.67	+14 2.6	2.593	3.477	9.6	20.2
7 30	19 55.73	-17 47.9	2.522	3.526	2.9	19.7	7 30	19 55.17	+13 21.8	2.563	3.455	9.3	20.2
8 9	19 48.48	-18 2.8	2.558	3.523	5.9	19.9	8 9	19 47.08	+12 19.9	2.559	3.433	9.9	20.2
8 19	19 42.41	-18 15.8	2.620	3.519	8.8	20.1	8 19	19 40.03	+11 0.4	2.579	3.410	11.2	20.2
8 29	19 37.99	-18 25.9	2.705	3.514	11.2	20.3	8 29	19 34.55	+9 28.6	2.622	3.385	12.7	20.3
74625	Tieproject		7 21.1 296°23'	2.7/22.2	18		320919	2008 <i>GT</i> ₁₀₂		7 21.1 33°22'	0.2/21.0	17	
6 20	20 26.32	-13 19.3	1.396	2.289	15.6	19.8	6 20	20 25.15	-17 41.5	1.233	2.143	16.0	19.4
6 30	20 21.24	-13 25.9	1.305	2.261	11.6	19.5	6 30	20 20.19	-18 35.4	1.185	2.152	11.3	19.1
7 10	20 13.50	-13 46.4	1.236	2.232	7.1	19.1	7 10	20 12.73	-19 40.1	1.159	2.162	6.1	18.9
7 20	20 3.82	-14 19.1	1.190	2.202	3.0	18.8	7 20	20 3.75	-20 49.1	1.156	2.173	0.6	18.5
7 30	19 53.39	-15 0.6	1.168	2.173	5.2	18.9	7 30	19 54.66	-21 55.0	1.178	2.184	4.9	18.9
8 9	19 43.69	-15 46.0	1.171	2.144	10.3	19.1	8 9	19 46.89	-22 52.0	1.223	2.196	10.0	19.2
8 19	19 36.07	-16 30.8	1.196	2.115	15.3	19.3	8 19	19 41.52	-23 36.5	1.290	2.208	14.5	19.5
8 29	19 31.56	-17 11.2	1.239	2.086	19.7	19.5	8 29	19 39.24	-24 7.6	1.376	2.221	18.2	19.8
313111	2000 <i>XF</i> ₉		7 21.1 119°95'	0.2/21.2	18		114192	2002 <i>VH</i> ₈₉		7 21.1 233°73'	1.2/21.7	18	
6 20	20 38.34	-22 16.3	1.700	2.581	13.9	19.9	6 20	20 28.68	-16 19.2	2.020	2.899	12.1	21.1
6 30	20 28.73	-21 32.9	1.645	2.598	9.9	19.7	6 30	20 22.12	-16 26.3	1.935	2.885	8.8	20.8
7 10	20 16.97	-20 48.5	1.615	2.614	5.3	19.5	7 10	20 13.62	-16 40.2	1.874	2.870	5.0	20.6
7 20	20 4.12	-20 1.9	1.613	2.629	0.6	19.1	7 20	20 3.86	-16 58.5	1.840	2.855	1.4	20.3
7 30	19 51.50	-19 13.3	1.640	2.644	4.2	19.5	7 30	19 53.76	-17 18.8	1.834	2.838	3.7	20.4
8 9	19 40.35	-18 23.9	1.695	2.658	8.6	19.8	8 9	19 44.36	-17 38.5	1.856	2.821	7.7	20.6
8 19	19 31.57	-17 35.4	1.776	2.671	12.4	20.0	8 19	19 36.56	-17 55.7	1.903	2.804	11.5	20.8
8 29	19 25.69	-16 49.3	1.878	2.684	15.6	20.3	8 29	19 31.06	-18 9.2	1.972	2.785	14.7	21.0
396823	2004 <i>RJ</i> ₅₈		7 21.1 343°69'	8.2/26.3	18		420392	2012 <i>CH</i> ₂₁		7 21.1 313°29'	2.1/20.6	18	
6 20	20 19.25	+ 2 0.5	1.652	2.491	16.3	20.0	6 20	20 29.57	-24 52.2	1.195	2.108	16.1	20.3
6 30	20 15.62	+ 1 58.7	1.575	2.479	13.6	19.8	6 30	20 23.79	-24 53.8	1.125	2.093	11.6	20.0
7 10	20 10.14	+ 1 31.4	1.518	2.467	10.8	19.6	7 10	20 14.92	-24 55.1	1.075	2.078	6.5	19.6
7 20	20 3.45	+ 0 37.6	1.482	2.457	8.7	19.5	7 20	20 4.01	-24 51.0	1.048	2.063	2.2	19.3
7 30	19 56.45	- 0 40.7	1.471	2.448	8.4	19.5	7 30	19 52.65	-24 37.7	1.045	2.049	6.0	19.5
8 9	19 50.16	- 2 17.6	1.483	2.439	10.2	19.5	8 9	19 42.65	-24 13.7	1.065	2.035	11.4	19.8
8 19	19 45.47	- 4 5.8	1.519	2.432	13.0	19.7	8 19	19 35.41	-23 40.3	1.105	2.022	16.5	20.0
8 29	19 43.06	- 5 57.0	1.576	2.426	16.0	19.9	8 29	19 31.85	-23 0.2	1.163	2.010	20.7	20.3
150192	1998 <i>QY</i> ₅₆		7 21.1 274°37'	3.1/22.5	17		181782	1998 <i>AO</i> ₁₁		7 21.1 15°09'	1.3/20.6	17	
6 20	20 26.73	-11 37.7	1.681	2.560	14.1	20.9	6 20	20 20.18	-19 36.9	0.820	1.757	18.8	18.3
6 30	20 21.11	-11 45.9	1.590	2.537	10.6	20.6	6 30	20 17.36	-20 31.7	0.784	1.764	13.3	18.0
7 10	20 13.24	-12 7.4	1.522	2.513	6.7	20.3	7 10	20 11.42	-21 37.8	0.766	1.772	7.1	17.7
7 20	20 3.79	-12 40.7	1.478	2.489	3.3	20.1	7 20	20 3.62	-22 46.3	0.767	1.783	1.4	17.4
7 30	19 53.80	-13 22.8	1.461	2.464	4.8	20.1	7 30	19 55.76	-23 47.7	0.789	1.796	6.2	17.7
8 9	19 44.47	-14 9.5	1.470	2.439	9.0	20.3	8 9	19 49.65	-24 35.0	0.830	1.810	12.1	18.1
8 19	19 36.90	-14 56.8	1.503	2.414	13.3	20.5	8 19	19 46.54	-25 5.1	0.890	1.827	17.3	18.5
8 29	19 31.95	-15 41.3	1.556	2.388	17.1	20.7	8 29	19 47.09	-25 18.0	0.965	1.845	21.4	18.8
188558	2004 <i>TF</i> ₆₇		7 21.1 351°01'	12.2/12.2	18		323267	2003 <i>SX</i> ₃₃₄		7 21.1 229°28'	5.1/19.0	17	
6 20	20 28.24	-48 5.3	1.654	2.526	14.7	18.3	6 20	20 31.91	-30 51.6	1.546	2.446	14.0	21.6
6 30	20 23.00	-50 7.5	1.611	2.519	13.0	18.2	6 30	20 24.99	-31 41.6	1.483	2.440	10.3	21.4
7 10	20 14.56	-51 51.2	1.589	2.512	12.2	18.1	7 10	20 15.38	-32 27.1	1.442	2.435	6.8	21.1
7 20	20 3.94	-53 6.2	1.589	2.507	12.6	18.1	7 20	20 4.05	-33 0.7	1.427	2.429	5.2	21.0
7 30	19 52.84	-53 45.9	1.611	2.502	13.9	18.2	7 30	19 52.45	-33 17.0	1.437	2.423	7.4	21.1
8 9	19 43.16	-53 49.5	1.652	2.499	15.8	18.3	8 9	19 42.10	-33 14.0	1.471	2.417	11.1	21.3
8 19	19 36.39	-53 21.1	1.711	2.496	17.8	18.5	8 19	19 34.22	-32 53.5	1.528	2.410	14.9	21.6
8 29	19 33.46	-52 27.3	1.785	2.495	19.6	18.6	8 29	19 29.60	-32 19.3	1.604	2.403	18.1	21.8
193331	2000 <i>TN</i> ₂₉		7 21.1 337°14'	25.9/ 7.5	17		331512	2000 <					

EPHEMERIDES

7 21.1

7 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
298338	2003 <i>GG</i> ₂		7 21.1 142°27'	0°2'/21.2 18			105525	2000 <i>RL</i> ₂₆		7 21.2 347°56'	2°8'/20.5 18		
6 20	20 25.46	-19 12.0	2.571	3.452	9.8	21.6	6 20	20 28.51	-28 13.2	1.546	2.450	13.7	18.9
6 30	20 19.35	-19 23.4	2.508	3.461	6.9	21.4	6 30	20 22.37	-27 58.9	1.479	2.442	9.9	18.6
7 10	20 11.91	-19 38.1	2.471	3.470	3.8	21.2	7 10	20 13.86	-27 39.6	1.436	2.435	5.7	18.4
7 20	20 3.69	-19 53.8	2.462	3.478	0.4	21.0	7 20	20 3.93	-27 11.8	1.416	2.428	2.8	18.2
7 30	19 55.41	-20 8.6	2.482	3.486	2.9	21.2	7 30	19 53.90	-26 33.7	1.423	2.423	5.4	18.3
8 9	19 47.82	-20 20.7	2.530	3.494	6.1	21.4	8 9	19 45.10	-25 46.1	1.454	2.418	9.6	18.6
8 19	19 41.51	-20 29.4	2.605	3.501	8.9	21.6	8 19	19 38.56	-24 51.3	1.509	2.414	13.6	18.8
8 29	19 36.96	-20 34.0	2.703	3.508	11.4	21.8	8 29	19 34.95	-23 52.2	1.583	2.412	17.0	19.0
85230	1993 <i>FM</i> ₅₂		7 21.2 33°26'	1°1'/21.7 18			260468	2005 <i>BQ</i> ₉		7 21.2 211°33'	0°4'/21.0 17		
6 20	20 23.69	-15 53.9	1.740	2.633	13.0	19.3	6 20	20 30.31	-20 18.2	1.607	2.501	13.8	21.5
6 30	20 18.59	-16 16.0	1.685	2.642	9.3	19.1	6 30	20 23.60	-20 34.1	1.538	2.497	9.9	21.3
7 10	20 11.67	-16 46.7	1.653	2.651	5.3	18.8	7 10	20 14.54	-20 54.8	1.492	2.493	5.4	21.0
7 20	20 3.68	-17 22.9	1.646	2.661	1.3	18.6	7 20	20 4.01	-21 16.3	1.472	2.488	0.6	20.6
7 30	19 55.61	-18 0.8	1.666	2.671	3.8	18.8	7 30	19 53.22	-21 34.8	1.478	2.482	4.4	20.9
8 9	19 48.47	-18 36.9	1.711	2.682	7.8	19.1	8 9	19 43.48	-21 47.7	1.510	2.477	9.1	21.2
8 19	19 43.06	-19 8.6	1.781	2.693	11.5	19.3	8 19	19 35.85	-21 53.8	1.566	2.470	13.3	21.4
8 29	19 39.96	-19 34.2	1.872	2.705	14.6	19.5	8 29	19 31.06	-21 53.3	1.642	2.464	16.8	21.6
202565	2006 <i>EO</i> ₂₃		7 21.2 5°24'	0°4'/20.9 17			53708	2000 <i>DZ</i> ₁₀₃		7 21.2 305°99'	4°2'/19.3 18		
6 20	20 25.57	-20 20.3	1.438	2.345	14.4	20.3	6 20	20 29.33	-28 16.3	1.515	2.419	13.9	19.5
6 30	20 20.32	-20 37.3	1.380	2.344	10.2	20.0	6 30	20 23.10	-29 7.0	1.456	2.418	10.1	19.3
7 10	20 12.76	-20 59.8	1.343	2.345	5.5	19.7	7 10	20 14.33	-29 55.7	1.420	2.416	6.2	19.1
7 20	20 3.80	-21 23.7	1.330	2.346	0.7	19.4	7 20	20 3.99	-30 35.8	1.408	2.415	4.2	18.9
7 30	19 54.68	-21 44.9	1.342	2.348	4.6	19.7	7 30	19 53.42	-31 1.6	1.422	2.414	6.7	19.1
8 9	19 46.69	-22 0.4	1.379	2.350	9.3	20.0	8 9	19 44.07	-31 10.7	1.461	2.413	10.6	19.3
8 19	19 40.86	-22 8.9	1.438	2.353	13.5	20.2	8 19	19 37.08	-31 3.9	1.521	2.412	14.4	19.5
8 29	19 37.88	-22 9.9	1.517	2.356	17.1	20.5	8 29	19 33.17	-30 43.7	1.601	2.411	17.7	19.8
213263	2001 <i>FD</i> ₁₆₆		7 21.2 348°46'	7°5'/17.9 18			183932	2004 <i>DT</i> ₆		7 21.2 175°76'	0°7'/20.8 17		
6 20	20 30.55	-37 54.9	1.647	2.539	13.6	19.3	6 20	20 29.37	-20 41.4	1.896	2.785	12.3	21.5
6 30	20 23.97	-38 46.8	1.592	2.537	10.7	19.1	6 30	20 22.62	-21 11.2	1.831	2.788	8.7	21.2
7 10	20 14.78	-39 27.3	1.559	2.534	8.3	19.0	7 10	20 13.88	-21 45.1	1.790	2.790	4.7	21.0
7 20	20 4.01	-39 49.2	1.550	2.532	7.6	18.9	7 20	20 3.94	-22 19.1	1.775	2.791	0.8	20.7
7 30	19 53.11	-39 47.9	1.566	2.531	9.1	19.0	7 30	19 53.82	-22 49.2	1.789	2.792	4.0	21.0
8 9	19 43.58	-39 23.2	1.606	2.529	11.9	19.2	8 9	19 44.62	-23 12.8	1.829	2.792	8.1	21.2
8 19	19 36.55	-38 38.5	1.667	2.528	14.9	19.4	8 19	19 37.23	-23 28.6	1.894	2.791	11.7	21.4
8 29	19 32.70	-37 38.8	1.747	2.528	17.5	19.5	8 29	19 32.29	-23 36.7	1.981	2.790	14.8	21.6
363060	1999 <i>VF</i> ₂₀₇		7 21.2 292°95'	2°8'/22.6 18			391588	2007 <i>TC</i> ₄₀₅		7 21.2 230°72'	2°1'/20.1 18		
6 20	20 23.01	-11 29.2	2.200	3.072	11.5	21.1	6 20	20 26.87	-25 6.8	2.089	2.982	11.1	21.8
6 30	20 17.93	-11 27.0	2.119	3.061	8.6	20.8	6 30	20 20.80	-25 37.6	2.018	2.977	7.9	21.6
7 10	20 11.28	-11 34.3	2.061	3.049	5.5	20.6	7 10	20 12.89	-26 8.7	1.972	2.971	4.5	21.3
7 20	20 3.65	-11 50.2	2.030	3.038	3.0	20.5	7 20	20 3.84	-26 36.3	1.953	2.966	2.1	21.2
7 30	19 55.80	-12 12.7	2.027	3.027	4.0	20.5	7 30	19 54.59	-26 56.8	1.962	2.960	4.4	21.3
8 9	19 48.55	-12 39.4	2.050	3.016	7.1	20.7	8 9	19 46.15	-27 8.2	1.998	2.954	7.9	21.5
8 19	19 42.63	-13 7.8	2.098	3.005	10.3	20.9	8 19	19 39.34	-27 10.1	2.058	2.948	11.2	21.7
8 29	19 38.60	-13 35.6	2.169	2.995	13.1	21.0	8 29	19 34.80	-27 3.3	2.140	2.941	14.1	21.9
28179	1998 <i>WR</i> ₁		7 21.2 47°60'	3°4'/22.2 18			207911	2008 <i>UE</i> ₃₀₅		7 21.2 227°37'	0°8'/20.7 18		
6 20	20 28.69	-13 46.4	1.121	2.024	17.8	17.3	6 20	20 25.68	-20 40.1	2.042	2.933	11.4	20.1
6 30	20 22.74	-13 27.7	1.075	2.034	13.1	17.1	6 30	20 19.96	-21 16.8	1.970	2.929	8.1	19.9
7 10	20 14.12	-13 22.6	1.049	2.045	7.9	16.8	7 10	20 12.45	-21 58.0	1.924	2.924	4.4	19.6
7 20	20 3.94	-13 29.2	1.045	2.057	3.6	16.6	7 20	20 3.80	-22 39.8	1.904	2.919	0.8	19.4
7 30	19 53.77	-13 44.4	1.064	2.069	5.6	16.8	7 30	19 54.92	-23 18.4	1.912	2.914	3.8	19.6
8 9	19 45.13	-14 4.2	1.106	2.081	10.5	17.1	8 9	19 46.80	-23 50.7	1.946	2.909	7.6	19.8
8 19	19 39.14	-14 25.2	1.170	2.094	15.1	17.4	8 19	19 40.25	-24 15.1	2.006	2.904	11.1	20.0
8 29	19 36.45	-14 44.3	1.251	2.107	19.0	17.7	8 29	19 35.90	-24 31.0	2.088	2.899	14.1	20.2
262511	2006 <i>UZ</i> ₂₆₈		7 21.2 26°72'	1°7'/20.5 17			115443	2003 <i>TK</i> ₈		7 21.2 338°85'	2°5'/20.6 18		
6 20	20 26.40	-22 14.7	1.115	2.034	16.6	19.7	6 20	20 30.79	-27 41.1	1.449	2.353	14.4	18.0
6 30	20 21.27	-22 46.4	1.072	2.043	11.7	19.4	6 30	20 24.13	-27 19.6	1.382	2.344	10.4	17.7
7 10	20 13.38	-23 22.6	1.049	2.052	6.3	19.2	7 10	20 14.87	-26 52.6	1.336	2.336	6.0	17.4
7 20	20 3.87	-23 57.0	1.048	2.063	1.7	18.9	7 20	20 4.05	-26 16.9	1.315	2.329	2.5	17.2
7 30	19 54.34	-24 23.9	1.070	2.074	5.7	19.2	7 30	19 53.11	-25 30.9	1.320	2.322	5.4	17.4
8 9	19 46.37	-24 39.9	1.115	2.087	10.8	19.5	8 9	19 43.51	-24 35.9	1.350	2.316	10.0	17.6
8 19	19 41.10	-24 44.3	1.180	2.100	15.4	19.8	8 19	19 36.37	-23 34.7	1.403	2.310	14.3	17.9
8 29	19 39.19	-24 38.1	1.263	2.114	19.2	20.1	8 29	19 32.40	-22 30.6	1.475	2.306	17.9	18.1
478209	2011 <i>UV</i> ₂₈₃		7 21.2 128°56'	5°9'/16.9 18			436449	2011 <i>CW</i> ₆₉		7 21.2 226°84'	2°5'/19.9 18		
6 20	20 28.16	-37 22.0	2.427	3.307	10.3	21.4	6 20	20 30.57	-25 55.6	1.960	2.850	11.9	21.9
6 30	20 21.66	-38 37.1	2.378	3.315	8.0	21.2	6 30	20 23.61	-26 29.6	1.882	2.839	8.5	21.6
7 10	20 13.32	-39 44.2	2.355	3.324	6.3	21.2	7 10	20 14.51	-27 3.5	1.829	2.827	4.9	21.4
7 20	20 3.87	-40 37.9	2.358	3.331	6.0	21.1	7 20	20 4.02	-27 32.6	1.803	2.815	2.5	21.2
7 30	19 54.25	-41 14.3	2.389	3.339	7.3	21.2	7 30	19 53.22	-27 52.9	1.805	2.801	5.0	21.3
8 9	19 45.49	-41 31.9	2.445	3.347	9.3	21.4	8 9	19 43.27	-28 2.0	1.834	2.787	8.7	21.5
8 19	19 38.40	-41 32.1	2.525	3.354	11.5	21.5	8 19	19 35.15	-27 59.8	1.887	2.773	12.3	21.7
8 29	19 33.59	-41 17.4	2.625	3.361	13.4	21.7	8 29	19 29.60	-27 47.9	1.962	2.758	15.4	21.9
216925	1998 <i>QE</i> ₇₂		7 21.2 346°63'	5°0'/22.4 18			247007						

EPHEMERIDES

7 21.2

7 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
334021	2000 WZ ₆₂		7 21.2 270°34	0°1/21.2 18			299117	2005 EX ₁₆₀		7 21.2 316°90	2°5/22.5 18		
6 20	20 28.16	-19 28.4	1.965	2.852	12.0	21.1	6 20	20 24.54	-12 16.5	1.897	2.776	12.8	20.8
6 30	20 21.95	-19 42.8	1.871	2.826	8.7	20.8	6 30	20 19.18	-12 27.8	1.829	2.775	9.4	20.6
7 10	20 13.67	-20 2.2	1.801	2.800	4.8	20.5	7 10	20 12.05	-12 50.0	1.783	2.775	5.8	20.3
7 20	20 3.95	-20 23.7	1.757	2.773	0.5	20.1	7 20	20 3.83	-13 21.1	1.764	2.774	2.7	20.1
7 30	19 53.77	-20 44.0	1.742	2.746	3.9	20.4	7 30	19 55.43	-13 58.1	1.771	2.774	4.0	20.2
8 9	19 44.22	-21 0.4	1.753	2.718	8.2	20.6	8 9	19 47.80	-14 37.6	1.805	2.774	7.6	20.4
8 19	19 36.28	-21 11.6	1.789	2.690	12.1	20.7	8 19	19 41.76	-15 16.5	1.863	2.773	11.2	20.7
8 29	19 30.75	-21 16.8	1.847	2.661	15.5	20.9	8 29	19 37.91	-15 52.0	1.943	2.773	14.3	20.9
228566	2001 XW ₁₉₉		7 21.2 210°36	1°5/21.9 18			349081	2007 CB ₅₅		7 21.2 314°70	0°2/21.1 18		
6 20	20 27.47	-15 12.6	2.226	3.100	11.3	21.7	6 20	20 25.47	-20 51.4	2.122	3.013	11.1	20.2
6 30	20 21.08	-15 20.1	2.146	3.093	8.2	21.5	6 30	20 19.71	-20 55.2	2.052	3.009	7.9	20.0
7 10	20 13.00	-15 34.5	2.092	3.086	4.8	21.3	7 10	20 12.29	-21 1.6	2.006	3.006	4.3	19.8
7 20	20 3.87	-15 53.8	2.064	3.078	1.6	21.0	7 20	20 3.85	-21 8.3	1.987	3.003	0.5	19.5
7 30	19 54.51	-16 15.7	2.065	3.069	3.5	21.1	7 30	19 55.28	-21 13.0	1.996	3.000	3.5	19.7
8 9	19 45.83	-16 37.8	2.094	3.059	7.0	21.4	8 9	19 47.49	-21 14.2	2.031	2.997	7.2	19.9
8 19	19 38.58	-16 58.4	2.149	3.049	10.4	21.5	8 19	19 41.22	-21 11.2	2.092	2.994	10.5	20.2
8 29	19 33.37	-17 15.9	2.227	3.038	13.3	21.7	8 29	19 37.05	-21 3.9	2.175	2.991	13.4	20.3
251872	1999 VP ₁₈		7 21.2 199°60	1°1/20.7 17			59377	1999 FF ₁		7 21.2 356°04	15°9/15.5 17		
6 20	20 30.03	-21 54.2	1.893	2.782	12.3	21.8	6 20	20 21.18	-46 37.5	0.874	1.792	20.1	16.8
6 30	20 23.16	-22 21.0	1.822	2.779	8.7	21.6	6 30	20 19.13	-48 6.1	0.835	1.780	17.7	16.6
7 10	20 14.23	-22 50.8	1.775	2.775	4.7	21.4	7 10	20 12.87	-49 5.9	0.811	1.770	16.2	16.5
7 20	20 4.01	-23 19.6	1.755	2.771	1.1	21.1	7 20	20 3.93	-49 23.5	0.804	1.764	16.1	16.4
7 30	19 53.55	-23 43.5	1.763	2.766	4.2	21.3	7 30	19 54.81	-48 51.2	0.813	1.760	17.6	16.5
8 9	19 43.99	-24 0.1	1.798	2.760	8.3	21.6	8 9	19 48.07	-47 31.6	0.838	1.760	20.0	16.6
8 19	19 36.27	-24 8.5	1.858	2.753	12.0	21.8	8 19	19 45.30	-45 34.2	0.879	1.762	22.9	16.8
8 29	19 31.07	-24 9.2	1.939	2.746	15.1	22.0	8 29	19 47.09	-43 10.9	0.933	1.768	25.6	17.1
205047	1998 UE ₅₀		7 21.2 297°32	0°9/21.7 18			82606	2001 OO ₉₇		7 21.2 347°85	2°9/20.0 18		
6 20	20 24.11	-15 24.0	1.755	2.646	13.0	20.0	6 20	20 22.65	-23 43.4	1.071	1.997	16.4	18.3
6 30	20 19.16	-16 5.9	1.674	2.630	9.4	19.7	6 30	20 19.02	-24 29.0	1.012	1.987	11.7	18.0
7 10	20 12.17	-16 59.1	1.617	2.615	5.3	19.5	7 10	20 12.43	-25 19.7	0.973	1.977	6.6	17.7
7 20	20 3.80	-18 0.0	1.585	2.600	1.2	19.1	7 20	20 3.89	-26 8.2	0.956	1.969	2.9	17.5
7 30	19 55.05	-19 3.6	1.579	2.585	3.9	19.3	7 30	19 54.98	-26 46.9	0.960	1.963	6.6	17.7
8 9	19 47.00	-20 5.0	1.600	2.570	8.4	19.5	8 9	19 47.41	-27 10.9	0.986	1.958	11.9	17.9
8 19	19 40.63	-21 0.0	1.646	2.556	12.4	19.8	8 19	19 42.55	-27 18.8	1.031	1.954	16.8	18.2
8 29	19 36.70	-21 46.2	1.712	2.541	15.9	20.0	8 29	19 41.27	-27 11.5	1.093	1.953	20.9	18.5
476684	2008 TE ₇₉		7 21.2 1°14	5°3/23.3 16			80146	1999 TJ ₁₅₅		7 21.2 220°38	1°7/20.4 18		
6 20	20 17.50	-9 42.1	0.964	1.880	18.8	20.4	6 20	20 30.35	-23 32.8	1.899	2.790	12.2	20.8
6 30	20 15.18	-9 31.6	0.913	1.875	14.4	20.1	6 30	20 23.49	-24 5.5	1.823	2.781	8.7	20.5
7 10	20 10.22	-9 43.2	0.879	1.873	9.5	19.8	7 10	20 14.50	-24 40.2	1.772	2.771	4.8	20.3
7 20	20 3.60	-10 16.1	0.865	1.873	5.7	19.6	7 20	20 4.11	-25 12.5	1.746	2.760	1.7	20.0
7 30	19 56.74	-11 6.0	0.871	1.875	6.7	19.7	7 30	19 53.41	-25 38.1	1.749	2.749	4.6	20.2
8 9	19 51.17	-12 5.8	0.898	1.880	11.1	19.9	8 9	19 43.57	-25 54.4	1.779	2.737	8.6	20.4
8 19	19 48.08	-13 7.6	0.944	1.886	15.8	20.2	8 19	19 35.57	-26 0.8	1.833	2.725	12.3	20.6
8 29	19 48.21	-14 5.0	1.007	1.895	20.0	20.5	8 29	19 30.14	-25 58.0	1.909	2.711	15.5	20.8
258708	2002 GV ₆₇		7 21.2 146°24	4°4/23.1 17			95422	2002 CG ₂₃₂		7 21.2 285°31	1°3/21.9 18		
6 20	20 27.55	-8 50.8	1.507	2.383	15.7	20.9	6 20	20 24.96	-13 29.2	1.669	2.556	13.8	19.8
6 30	20 21.60	-8 51.3	1.445	2.386	11.9	20.7	6 30	20 19.89	-14 25.6	1.587	2.541	10.1	19.6
7 10	20 13.45	-9 8.2	1.404	2.390	7.9	20.5	7 10	20 12.66	-15 37.1	1.528	2.525	5.8	19.3
7 20	20 3.94	-9 40.0	1.387	2.393	4.7	20.3	7 20	20 3.93	-16 59.4	1.495	2.510	1.6	19.0
7 30	19 54.24	-10 23.5	1.396	2.396	5.6	20.4	7 30	19 54.72	-18 26.4	1.489	2.494	4.1	19.1
8 9	19 45.57	-11 13.9	1.430	2.398	9.3	20.6	8 9	19 46.22	-19 51.4	1.508	2.479	8.7	19.4
8 19	19 38.91	-12 6.3	1.487	2.401	13.2	20.8	8 19	19 39.47	-21 9.1	1.553	2.463	13.0	19.6
8 29	19 34.96	-12 56.6	1.565	2.403	16.7	21.1	8 29	19 35.30	-22 15.9	1.618	2.448	16.6	19.8
397118	2005 VJ ₁₁₇		7 21.2 334°15	3°5/19.4 15			147788	2005 QE ₁₆₁		7 21.2 53°81	0°9/20.7 18		
6 20	20 24.61	-27 31.1	1.795	2.699	12.1	21.1	6 20	20 24.89	-21 19.9	1.990	2.884	11.5	19.8
6 30	20 19.52	-28 17.2	1.727	2.689	8.7	20.8	6 30	20 19.37	-21 51.1	1.931	2.890	8.1	19.6
7 10	20 12.34	-29 2.7	1.682	2.680	5.3	20.6	7 10	20 12.12	-22 25.8	1.896	2.897	4.4	19.4
7 20	20 3.84	-29 42.4	1.663	2.671	3.5	20.5	7 20	20 3.85	-23 0.1	1.887	2.903	0.9	19.1
7 30	19 55.07	-30 11.5	1.670	2.663	5.7	20.6	7 30	19 55.47	-23 30.7	1.906	2.909	3.8	19.4
8 9	19 47.20	-30 27.3	1.702	2.656	9.3	20.8	8 9	19 47.94	-23 54.8	1.952	2.916	7.6	19.6
8 19	19 41.17	-30 29.6	1.757	2.649	12.8	21.0	8 19	19 42.03	-24 11.3	2.022	2.923	10.9	19.8
8 29	19 37.69	-30 19.7	1.833	2.642	15.8	21.2	8 29	19 38.30	-24 19.9	2.114	2.929	13.8	20.0
178720	2000 SE ₂₆₃		7 21.2 238°23	4°9/18.3 18			442115	2010 TE ₁₆₆		7 21.2 337°84	1°1/21.6 18		
6 20	20 27.61	-33 50.5	2.232	3.121	10.7	20.0	6 20	20 25.15	-17 38.9	1.940	2.830	12.0	20.1
6 30	20 21.37	-34 40.7	2.168	3.116	8.1	19.8	6 30	20 19.60	-17 26.2	1.869	2.824	8.7	19.9
7 10	20 13.24	-35 25.3	2.129	3.112	5.8	19.7	7 10	20 12.27	-17 18.3	1.822	2.819	4.9	19.7
7 20	20 3.94	-35 59.1	2.116	3.108	5.0	19.6	7 20	20 3.87	-17 13.9	1.800	2.815	1.3	19.4
7 30	19 54.45	-36 18.3	2.130	3.103	6.5	19.7	7 30	19 55.32	-17 11.2	1.805	2.810	3.7	19.6
8 9	19 45.82	-36 21.6	2.171	3.098	9.0	19.8	8 9	19 47.57	-17 8.8	1.837	2.806	7.5	19.8
8 19	19 38.89	-36 9.8	2.235	3.094	11.7	20.0	8 19	19 41.43	-17 5.5	1.894	2.803	11.1	20.0
8 29	19 34.29	-35 45.3	2.319	3.089	14.0	20.2	8 29	19 37.51	-17 0.7	1.972	2.799	14.2	20.2
322640	1998 SV ₁₅₅		7 21.2 351°53	6°5/18.6 18			490576	2009 WF ₈₃		7 21.2 159°22	1°3/20.6 17		
6 20	20 27												

EPHEMERIDES

7 21.2

7 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
445447	2010 <i>UY</i> ₇₉	7 21.2 344°88 13°2/13.8 15						254003	2004 <i>FM</i> ₅	7 21.2 249°30 20°3/11.3 17				
6 20	20 25.44	-46 21.9	1.314	2.206	16.4	20.3	6 20	20 53.78	-58 38.3	1.138	1.974	22.2	20.6	
6 30	20 21.47	-47 59.6	1.258	2.186	14.4	20.1	6 30	20 44.29	-60 54.3	1.101	1.966	20.9	20.5	
7 10	20 13.97	-49 18.2	1.222	2.166	13.3	20.0	7 10	20 27.51	-62 34.0	1.080	1.957	20.4	20.4	
7 20	20 4.08	-50 6.2	1.205	2.149	13.5	19.9	7 20	20 5.62	-63 18.1	1.075	1.948	20.7	20.4	
7 30	19 53.68	-50 15.5	1.208	2.133	15.0	20.0	7 30	19 43.22	-62 56.1	1.086	1.938	21.9	20.5	
8 9	19 44.93	-49 45.1	1.230	2.119	17.4	20.1	8 9	19 25.21	-61 32.8	1.111	1.928	23.7	20.6	
8 19	19 39.44	-48 39.8	1.268	2.107	20.0	20.2	8 19	19 14.31	-59 23.2	1.151	1.918	25.7	20.7	
8 29	19 38.14	-47 7.6	1.322	2.096	22.5	20.4	8 29	19 10.91	-56 44.0	1.202	1.908	27.6	20.8	
133401	2003 <i>SG</i> ₁₆₉	7 21.2 265°83 5°3/24.2 18						175392	2006 <i>MH</i> ₁₄	7 21.2 311°04 9°4/16.2 18				
6 20	20 24.14	-4 0.5	1.993	2.840	13.5	20.3	6 20	20 30.94	-41 40.4	1.669	2.554	13.9	19.4	
6 30	20 18.96	-4 8.7	1.905	2.824	10.7	20.1	6 30	20 24.77	-42 51.8	1.595	2.528	11.5	19.2	
7 10	20 12.01	-4 34.3	1.839	2.808	7.8	19.9	7 10	20 15.57	-43 50.9	1.543	2.503	9.8	19.1	
7 20	20 3.86	-5 17.0	1.798	2.791	5.6	19.8	7 20	20 4.31	-44 28.7	1.515	2.479	9.5	19.0	
7 30	19 55.36	-5 14.5	1.784	2.774	5.8	19.7	7 30	19 52.49	-44 38.4	1.510	2.454	11.1	19.0	
8 9	19 47.43	-7 22.8	1.796	2.757	8.4	19.9	8 9	19 41.85	-44 18.2	1.527	2.430	13.8	19.1	
8 19	19 40.91	-8 36.8	1.833	2.739	11.6	20.0	8 19	19 33.83	-43 31.4	1.565	2.406	16.7	19.3	
8 29	19 36.50	-9 51.6	1.893	2.721	14.6	20.2	8 29	19 29.38	-42 23.8	1.619	2.383	19.4	19.4	
476270	2007 <i>VC</i> ₁₆₁	7 21.2 249°96 0°8/21.6 18						151356	2002 <i>CQ</i> ₂₉₆	7 21.2 214°62 0°1/21.2 18				
6 20	20 24.92	-16 27.1	2.047	2.932	11.7	21.9	6 20	20 24.32	-18 52.9	2.489	3.372	10.0	21.1	
6 30	20 19.44	-16 52.0	1.971	2.925	8.4	21.7	6 30	20 18.77	-19 15.1	2.414	3.367	7.1	20.9	
7 10	20 12.21	-17 24.3	1.920	2.917	4.7	21.4	7 10	20 11.77	-19 41.6	2.364	3.363	3.9	20.7	
7 20	20 3.88	-18 1.4	1.894	2.910	1.0	21.2	7 20	20 3.87	-20 9.9	2.342	3.358	0.4	20.4	
7 30	19 55.30	-18 39.8	1.897	2.902	3.5	21.3	7 30	19 55.81	-20 37.3	2.348	3.352	3.0	20.6	
8 9	19 47.41	-19 16.3	1.927	2.894	7.3	21.6	8 9	19 48.35	-21 1.8	2.383	3.347	6.4	20.8	
8 19	19 41.03	-19 48.6	1.982	2.887	10.9	21.8	8 19	19 42.14	-21 21.7	2.443	3.341	9.4	21.0	
8 29	19 36.77	-20 15.0	2.059	2.879	13.9	22.0	8 29	19 37.72	-21 36.4	2.527	3.335	12.0	21.2	
479280	2013 <i>GG</i> ₁₈	7 21.2 160°25 3°3/18.8 18						400884	2010 <i>PK</i> ₈₀	7 21.2 217°80 3°0/23.3 18				
6 20	20 25.81	-29 21.1	2.616	3.504	9.4	22.3	6 20	20 22.91	-8 45.2	2.497	3.354	10.8	21.5	
6 30	20 19.83	-30 17.4	2.555	3.508	6.8	22.2	6 30	20 17.74	-9 0.1	2.418	3.349	8.2	21.3	
7 10	20 12.32	-31 11.5	2.520	3.512	4.3	22.0	7 10	20 11.21	-9 25.9	2.363	3.344	5.4	21.1	
7 20	20 3.89	-31 59.2	2.514	3.516	3.3	22.0	7 20	20 3.83	-10 1.4	2.335	3.339	3.2	21.0	
7 30	19 55.31	-32 37.1	2.536	3.519	4.8	22.1	7 30	19 56.27	-10 44.2	2.335	3.333	3.8	21.0	
8 9	19 47.39	-33 3.2	2.585	3.522	7.4	22.2	8 9	19 49.23	-11 31.4	2.364	3.327	6.4	21.2	
8 19	19 40.83	-33 17.2	2.660	3.525	9.8	22.4	8 19	19 43.36	-12 20.0	2.418	3.321	9.2	21.3	
8 29	19 36.16	-33 20.2	2.757	3.528	12.0	22.6	8 29	19 39.15	-13 7.3	2.496	3.315	11.8	21.5	
95636	2002 <i>GA</i> ₅₅	7 21.2 228°71 3°3/22.9 18						58872	1998 <i>HY</i> ₁₁₇	7 21.2 171°49 4°2/18.5 18				
6 20	20 23.67	-9 30.6	2.423	3.283	11.0	20.0	6 20	20 29.82	-31 1.8	2.304	3.190	10.5	20.1	
6 30	20 18.27	-9 20.1	2.345	3.278	8.4	19.8	6 30	20 22.89	-32 6.2	2.244	3.194	7.8	19.9	
7 10	20 11.47	-9 19.0	2.292	3.273	5.6	19.6	7 10	20 14.09	-33 7.0	2.209	3.197	5.2	19.8	
7 20	20 3.81	-9 27.0	2.266	3.268	3.5	19.5	7 20	20 4.15	-33 58.8	2.202	3.200	4.2	19.7	
7 30	19 55.99	-9 42.6	2.267	3.263	4.1	19.5	7 30	19 54.01	-34 37.4	2.224	3.202	5.9	19.8	
8 9	19 48.75	-10 3.8	2.296	3.258	6.7	19.7	8 9	19 44.68	-35 0.7	2.273	3.203	8.6	20.0	
8 19	19 42.73	-10 28.4	2.351	3.253	9.5	19.8	8 19	19 37.02	-35 9.0	2.346	3.204	11.2	20.2	
8 29	19 38.45	-10 54.1	2.429	3.247	12.1	20.0	8 29	19 31.64	-35 4.2	2.441	3.204	13.6	20.3	
463123	2011 <i>UE</i> ₃₃₆	7 21.2 311°79 5°8/23.3 17						445431	2010 <i>UX</i> ₃₄	7 21.2 243°37 0°5/20.9 18				
6 20	20 24.50	-8 30.7	1.095	1.992	18.6	21.0	6 20	20 25.02	-21 22.4	2.478	3.364	9.9	21.6	
6 30	20 20.30	-8 19.2	1.022	1.974	14.4	20.7	6 30	20 19.28	-21 33.8	2.401	3.356	7.0	21.5	
7 10	20 13.20	-8 29.5	0.968	1.957	9.8	20.4	7 10	20 12.06	-21 47.4	2.349	3.348	3.8	21.2	
7 20	20 4.03	-9 1.8	0.933	1.939	6.1	20.2	7 20	20 3.93	-22 0.7	2.324	3.340	0.6	21.0	
7 30	19 54.21	-9 53.4	0.921	1.923	7.1	20.2	7 30	19 55.63	-22 11.7	2.328	3.332	3.2	21.2	
8 9	19 45.42	-10 57.9	0.931	1.907	11.8	20.4	8 9	19 47.96	-22 18.7	2.360	3.323	6.5	21.4	
8 19	19 39.10	-12 7.8	0.960	1.892	16.9	20.6	8 19	19 41.58	-22 20.9	2.418	3.314	9.5	21.5	
8 29	19 36.32	-13 16.0	1.006	1.877	21.5	20.8	8 29	19 37.04	-22 18.3	2.499	3.305	12.1	21.7	
408839	2001 <i>RH</i> ₁₁₈	7 21.2 270°95 4°0/19.7 17						26645	2000 <i>JJ</i> ₆₆	7 21.2 249°50 1°1/22.0 18				
6 20	20 32.44	-27 42.1	1.415	2.318	14.8	21.6	6 20	20 21.79	-14 17.3	2.617	3.492	9.8	17.6	
6 30	20 25.80	-28 20.3	1.336	2.297	10.8	21.3	6 30	20 16.93	-14 52.2	2.543	3.490	7.1	17.5	
7 10	20 16.13	-28 57.8	1.278	2.276	6.5	21.0	7 10	20 10.77	-15 34.6	2.493	3.488	4.1	17.3	
7 20	20 4.35	-29 27.3	1.245	2.255	4.0	20.8	7 20	20 3.81	-16 22.3	2.471	3.485	1.3	17.1	
7 30	19 51.94	-29 42.6	1.237	2.233	6.9	20.9	7 30	19 56.68	-17 12.4	2.478	3.483	2.9	17.2	
8 9	19 40.63	-29 40.7	1.254	2.210	11.6	21.1	8 9	19 50.07	-18 1.7	2.514	3.481	5.9	17.4	
8 19	19 31.88	-29 22.4	1.292	2.188	16.1	21.3	8 19	19 44.58	-18 47.8	2.576	3.478	8.8	17.6	
8 29	19 26.67	-28 51.0	1.348	2.165	20.0	21.5	8 29	19 40.68	-19 29.0	2.661	3.476	11.3	17.7	
269996	2000 <i>WH</i> ₁₂₉	7 21.2 325°36 4°8/19.0 18						7176	<i>Kuniji</i>	7 21.2 253°57 3°4/22.7 18				
6 20	20 25.90	-28 30.2	1.357	2.271	14.6	19.7	6 20	20 25.77	-10 41.0	2.085	2.953	12.3	17.6	
6 30	20 21.10	-29 28.0	1.288	2.254	10.7	19.4	6 30	20 20.03	-10 26.7	2.003	2.941	9.3	17.4	
7 10	20 13.53	-30 25.5	1.240	2.238	6.7	19.1	7 10	20 12.57	-10 22.3	1.944	2.929	6.1	17.2	
7 20	20 4.06	-31 14.9	1.216	2.222	4.9	19.0	7 20	20 4.01	-10 27.2	1.911	2.917	3.6	17.0	
7 30	19 54.12	-31 49.1	1.215	2.208	7.5	19.1	7 30	19 55.19	-10 40.1	1.906	2.904	4.5	17.0	
8 9	19 45.30	-32 4.2	1.238	2.194	11.8	19.3	8 9	19 47.02	-10 58.9	1.928	2.892	7.6	17.2	
8 19	19 38.93	-32 0.2	1.282	2.181	16.0	19.5	8 19	19 40.29	-11 21.0	1.974	2.879	10.9	17.4	
8 29	19 35.91	-31 39.8	1.343	2.168	19.6	19.7	8 29	19 35.63	-11 44.2	2.043	2.866	13.9	17.5	
185480	2007 <i>CX</i> ₂₇	7 21.2 138°13 1°9/22.5 18						307157	2002 <i>CO</i> ₂₉₉	7 21.2 102°87 3°4/19.9 18				
6 20	20 22.85	-12 5.4	2.317	3.189	11.0	20.3	6 20	20 32.43	-26 25.1	1.454	2.355	14.6	20.2	
6 30	20 17.76	-12 36.9	2.247	3.190	8.1	20.1	6 30							

EPHEMERIDES

7 21.2

7 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
263221	2008 <i>AJ</i> ₄₄		7 21.2 202°21	0°5/21.5	18		107292	2001 <i>CZ</i>		7 21.2 205°24	0°9/20.8	18	
6 20	20 27.74	-16 26.2	1.612	2.503	14.0	20.4	6 20	20 30.03	-21 4.7	1.810	2.700	12.7	20.4
6 30	20 21.84	-17 9.9	1.545	2.502	10.0	20.2	6 30	20 23.34	-21 38.0	1.738	2.695	9.1	20.2
7 10	20 13.70	-18 4.0	1.500	2.500	5.6	19.9	7 10	20 14.49	-22 15.6	1.690	2.690	4.9	19.9
7 20	20 4.14	-19 3.9	1.481	2.497	0.9	19.6	7 20	20 4.27	-22 53.2	1.669	2.685	1.0	19.6
7 30	19 54.28	-20 4.1	1.489	2.495	4.2	19.8	7 30	19 53.76	-23 26.6	1.676	2.678	4.3	19.8
8 9	19 45.36	-20 59.5	1.523	2.492	8.8	20.1	8 9	19 44.16	-23 52.4	1.709	2.671	8.5	20.1
8 19	19 38.39	-21 46.7	1.581	2.488	13.0	20.3	8 19	19 36.43	-24 9.4	1.766	2.664	12.4	20.3
8 29	19 34.12	-22 24.0	1.659	2.485	16.5	20.6	8 29	19 31.31	-24 17.6	1.845	2.655	15.6	20.5
380297	2002 <i>CD</i> ₂₀₅		7 21.2 184°13	0°5/21.4	18		509463	2007 <i>RP</i> ₁₁₃		7 21.2 307°57	4°3/22.6	17	
6 20	20 27.28	-17 29.5	2.107	2.989	11.5	22.1	6 20	20 25.73	-11 45.9	1.187	2.086	17.3	21.3
6 30	20 21.05	-17 54.6	2.037	2.990	8.3	21.9	6 30	20 21.16	-11 29.8	1.107	2.063	13.2	21.0
7 10	20 13.09	-18 25.9	1.992	2.989	4.6	21.7	7 10	20 13.73	-11 29.2	1.046	2.039	8.5	20.6
7 20	20 4.07	-19 0.3	1.973	2.989	0.7	21.4	7 20	20 4.22	-11 44.1	1.006	2.016	4.5	20.3
7 30	19 54.86	-19 34.6	1.983	2.988	3.4	21.6	7 30	19 54.00	-12 12.0	0.990	1.993	6.2	20.4
8 9	19 46.40	-20 5.8	2.021	2.986	7.2	21.8	8 9	19 44.70	-12 48.5	0.996	1.971	11.3	20.6
8 19	19 39.48	-20 32.1	2.084	2.984	10.6	22.0	8 19	19 37.77	-13 28.9	1.022	1.950	16.5	20.8
8 29	19 34.70	-20 52.5	2.169	2.981	13.6	22.2	8 29	19 34.26	-14 8.3	1.066	1.929	21.1	21.0
60408	2000 <i>CB</i> ₆		7 21.2 247°67	3°7/22.6	18		5296	Friedrich		7 21.2 52°78	0°5/20.9	18	
6 20	20 27.83	-11 26.0	1.618	2.497	14.6	19.7	6 20	20 24.58	-20 10.2	2.010	2.903	11.5	16.7
6 30	20 21.86	-11 12.4	1.544	2.489	11.0	19.4	6 30	20 19.15	-20 39.1	1.954	2.913	8.1	16.5
7 10	20 13.71	-11 10.7	1.492	2.481	7.0	19.2	7 10	20 12.06	-21 12.1	1.923	2.923	4.4	16.3
7 20	20 4.15	-11 20.3	1.465	2.473	3.9	19.0	7 20	20 4.00	-21 45.7	1.917	2.933	0.6	16.1
7 30	19 54.28	-11 39.0	1.464	2.465	5.1	19.0	7 30	19 55.86	-22 16.7	1.940	2.944	3.6	16.3
8 9	19 45.31	-12 3.8	1.488	2.456	9.0	19.2	8 9	19 48.57	-22 42.4	1.989	2.954	7.3	16.6
8 19	19 38.23	-12 31.4	1.536	2.448	13.0	19.4	8 19	19 42.85	-23 1.4	2.062	2.965	10.6	16.8
8 29	19 33.78	-12 59.0	1.605	2.439	16.5	19.6	8 29	19 39.26	-23 13.2	2.158	2.976	13.4	17.0
513088	2017 <i>WY</i> ₂₁		7 21.2 340°78	5°6/23.3	17		3588	Kirik		7 21.2 238°02	1°3/20.4	18	
6 20	20 21.18	- 8 59.9	1.039	1.945	18.7	20.4	6 20	20 25.12	-24 13.8	2.785	3.670	9.0	17.8
6 30	20 17.92	- 8 49.7	0.974	1.931	14.4	20.1	6 30	20 19.29	-24 30.7	2.703	3.658	6.4	17.6
7 10	20 11.89	- 9 1.5	0.927	1.918	9.7	19.8	7 10	20 12.08	-24 48.0	2.648	3.646	3.5	17.4
7 20	20 3.97	- 9 35.4	0.900	1.907	5.9	19.5	7 20	20 4.01	-25 3.1	2.620	3.634	1.3	17.2
7 30	19 55.57	-10 27.8	0.895	1.898	6.9	19.6	7 30	19 55.77	-25 13.9	2.622	3.622	3.3	17.3
8 9	19 48.31	-11 31.9	0.910	1.889	11.5	19.8	8 9	19 48.08	-25 18.9	2.652	3.609	6.2	17.5
8 19	19 43.53	-12 40.1	0.945	1.882	16.4	20.0	8 19	19 41.57	-25 17.8	2.709	3.596	8.9	17.6
8 29	19 42.17	-13 45.3	0.997	1.877	20.8	20.3	8 29	19 36.75	-25 10.7	2.789	3.583	11.3	17.8
150139	1995 <i>WW</i> ₃₈		7 21.2 233°65	0°1/21.2	18		379192	2009 <i>SG</i> ₁₆		7 21.2 300°30	0°3/21.3	18	
6 20	20 25.12	-19 42.4	2.606	3.488	9.6	22.0	6 20	20 26.25	-17 49.3	1.435	2.336	14.7	20.9
6 30	20 19.34	-19 58.4	2.523	3.477	6.9	21.8	6 30	20 21.28	-18 18.9	1.348	2.310	10.7	20.6
7 10	20 12.11	-20 17.7	2.466	3.465	3.7	21.6	7 10	20 13.69	-18 59.1	1.282	2.283	6.0	20.3
7 20	20 3.98	-20 38.2	2.436	3.452	0.4	21.3	7 20	20 4.22	-19 46.1	1.240	2.256	0.8	19.9
7 30	19 55.64	-20 57.5	2.436	3.440	3.0	21.5	7 30	19 54.07	-20 34.4	1.224	2.230	4.7	20.1
8 9	19 47.85	-21 13.6	2.464	3.427	6.2	21.7	8 9	19 44.69	-21 18.8	1.232	2.204	10.1	20.3
8 19	19 41.28	-21 25.6	2.518	3.413	9.2	21.9	8 19	19 37.39	-21 55.5	1.262	2.178	14.9	20.5
8 29	19 36.45	-21 32.8	2.595	3.400	11.8	22.0	8 29	19 33.17	-22 22.8	1.311	2.152	19.2	20.7
239529	2008 <i>RO</i> ₅₇		7 21.2 225°29	0°1/21.3	18		93429	2000 <i>SE</i> ₃₁₇		7 21.2 18°63	5°1/22.4	18	
6 20	20 27.63	-18 53.6	2.293	3.174	10.8	22.4	6 20	20 28.47	-12 0.6	1.315	2.205	16.5	18.6
6 30	20 21.29	-19 11.4	2.210	3.163	7.7	22.2	6 30	20 22.43	-10 52.8	1.260	2.210	12.5	18.4
7 10	20 13.24	-19 33.7	2.152	3.150	4.2	21.9	7 10	20 14.02	- 9 56.0	1.226	2.215	8.3	18.1
7 20	20 4.11	-19 57.9	2.122	3.138	0.5	21.6	7 20	20 4.22	- 9 12.1	1.216	2.221	5.3	18.0
7 30	19 54.71	-20 21.1	2.120	3.124	3.3	21.8	7 30	19 54.37	- 8 41.8	1.230	2.228	6.5	18.1
8 9	19 45.95	-20 41.2	2.146	3.110	7.0	22.0	8 9	19 45.80	- 8 24.0	1.268	2.235	10.3	18.3
8 19	19 38.60	-20 56.7	2.199	3.095	10.3	22.2	8 19	19 39.52	- 8 16.5	1.328	2.244	14.3	18.6
8 29	19 33.28	-21 6.9	2.274	3.080	13.2	22.4	8 29	19 36.21	- 8 16.0	1.406	2.253	17.8	18.8
152491	2005 <i>WX</i> ₉₀		7 21.2 140°73	1°8/20.0	18		108008	2001 <i>FK</i> ₁₄₁		7 21.2 330°63	3°0/20.0	18	
6 20	20 24.97	-24 45.3	2.546	3.434	9.6	20.6	6 20	20 25.65	-24 27.9	1.171	2.090	15.9	18.9
6 30	20 19.21	-25 22.1	2.484	3.440	6.8	20.5	6 30	20 21.15	-25 10.2	1.105	2.076	11.4	18.6
7 10	20 12.01	-25 59.3	2.448	3.446	3.8	20.3	7 10	20 13.68	-25 56.2	1.060	2.063	6.5	18.3
7 20	20 3.97	-26 33.6	2.440	3.452	1.8	20.1	7 20	20 4.21	-26 39.0	1.037	2.050	3.0	18.0
7 30	19 55.82	-27 1.9	2.461	3.458	3.7	20.3	7 30	19 54.28	-27 11.5	1.037	2.039	6.5	18.2
8 9	19 48.34	-27 22.5	2.509	3.463	6.7	20.5	8 9	19 45.59	-27 29.4	1.060	2.028	11.7	18.5
8 19	19 42.18	-27 34.6	2.583	3.468	9.4	20.7	8 19	19 39.55	-27 31.7	1.102	2.019	16.5	18.7
8 29	19 37.84	-27 38.6	2.680	3.473	11.8	20.9	8 29	19 37.07	-27 19.9	1.162	2.010	20.7	19.0
343631	2010 <i>HB</i> ₁₀₅		7 21.2 163°10	4°6/18.6	16		430629	2003 <i>QW</i> ₂₇		7 21.2 346°76	12°9/17.5	17	
6 20	20 28.86	-31 50.0	2.076	2.967	11.3	20.9	6 20	20 28.73	-44 41.9	1.087	1.990	18.2	19.2
6 30	20 22.35	-32 46.4	2.018	2.969	8.4	20.8	6 30	20 24.07	-45 35.2	1.032	1.973	15.5	19.0
7 10	20 13.87	-33 38.2	1.984	2.972	5.7	20.6	7 10	20 15.49	-46 5.4	0.995	1.958	13.4	18.8
7 20	20 4.18	-34 19.8	1.977	2.974	4.7	20.5	7 20	20 4.40	-46 1.0	0.977	1.945	12.9	18.8
7 30	19 54.32	-34 47.1	1.997	2.976	6.3	20.7	7 30	19 53.08	-45 15.4	0.978	1.933	14.4	18.8
8 9	19 45.40	-34 58.4	2.044	2.978	9.2	20.8	8 9	19 43.88	-43 50.5	0.999	1.924	17.2	18.9
8 19	19 38.29	-34 54.3	2.114	2.979	12.0	21.0	8 19	19 38.37	-41 54.8	1.036	1.916	20.4	19.1
8 29	19 33.64	-34 37.2	2.205	2.980	14.5	21.2	8 29	19 37.31	-39 39.1	1.090	1.911	23.5	19.3
509831	2008 <i>XC</i> ₆		7 21.2 276°70	2°9/22.1	18		40087	1998 <i>MU</i> ₃₄		7 21			

EPHEMERIDES

7 21.2

7 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
46923	1998 <i>SG</i> ₂₄		7 21.2 251°29	2°2/20.2	18		434361	2004 <i>TL</i> ₃		7 21.2 271°51	6°8/24.5	18	
6 20	20 28.81	-23 46.9	1.605	2.505	13.5	18.5	6 20	20 25.05	-2 6.6	1.863	2.705	14.6	21.8
6 30	20 22.75	-24 29.8	1.536	2.498	9.6	18.3	6 30	20 19.79	-1 48.1	1.776	2.687	11.9	21.6
7 10	20 14.29	-25 15.7	1.490	2.491	5.4	18.0	7 10	20 12.61	-1 47.8	1.709	2.668	9.1	21.4
7 20	20 4.29	-25 58.9	1.469	2.483	2.2	17.8	7 20	20 4.15	-2 6.8	1.667	2.650	7.0	21.2
7 30	19 53.95	-26 34.2	1.475	2.475	5.3	17.9	7 30	19 55.27	-2 44.2	1.650	2.631	7.2	21.2
8 9	19 44.62	-26 58.0	1.506	2.467	9.6	18.2	8 9	19 47.01	-3 36.9	1.658	2.612	9.5	21.3
8 19	19 37.38	-27 9.4	1.560	2.459	13.6	18.4	8 19	19 40.26	-4 39.9	1.691	2.593	12.6	21.5
8 29	19 33.01	-27 9.3	1.634	2.451	17.1	18.6	8 29	19 35.75	-5 47.9	1.745	2.574	15.6	21.6
259543	2003 <i>US</i> ₉₅		7 21.2 353°35	1°0/21.5	18		80697	2000 <i>CC</i> ₁		7 21.2 240°89	0°4/21.0	18	
6 20	20 21.90	-17 39.9	0.936	1.864	18.1	19.5	6 20	20 29.31	-20 3.4	1.830	2.719	12.7	20.8
6 30	20 18.64	-17 46.0	0.882	1.855	13.1	19.2	6 30	20 22.91	-20 28.6	1.749	2.706	9.1	20.6
7 10	20 12.35	-18 4.0	0.845	1.849	7.4	18.9	7 10	20 14.34	-20 59.0	1.691	2.691	5.0	20.3
7 20	20 4.09	-18 30.1	0.828	1.844	1.4	18.5	7 20	20 4.34	-21 30.9	1.660	2.676	0.6	20.0
7 30	19 55.48	-18 59.0	0.833	1.841	5.5	18.8	7 30	19 53.95	-22 0.3	1.657	2.661	4.1	20.2
8 9	19 48.32	-19 25.3	0.857	1.839	11.5	19.1	8 9	19 44.35	-22 24.1	1.680	2.645	8.5	20.4
8 19	19 43.97	-19 45.4	0.901	1.840	16.9	19.4	8 19	19 36.55	-22 40.6	1.728	2.628	12.4	20.6
8 29	19 43.28	-19 57.1	0.961	1.842	21.4	19.7	8 29	19 31.30	-22 49.5	1.796	2.611	15.8	20.8
88666	2001 <i>RP</i> ₇₉		7 21.2 327°14	0°4/21.0	18		142168	2002 <i>RC</i> ₃₅		7 21.2 220°25	3°1/20.2	17	
6 20	20 22.09	-18 4.2	0.969	1.895	17.8	18.3	6 20	20 32.58	-27 46.8	1.648	2.543	13.5	20.1
6 30	20 19.02	-18 50.1	0.899	1.873	12.9	18.0	6 30	20 25.34	-28 2.6	1.581	2.539	9.7	19.9
7 10	20 12.76	-19 52.2	0.847	1.852	7.1	17.6	7 10	20 15.65	-28 15.2	1.537	2.535	5.7	19.6
7 20	20 4.16	-21 4.5	0.816	1.832	0.8	17.1	7 20	20 4.48	-28 19.7	1.519	2.530	3.1	19.4
7 30	19 54.78	-22 18.1	0.806	1.813	6.0	17.4	7 30	19 53.12	-28 12.8	1.528	2.525	5.6	19.6
8 9	19 46.54	-23 23.8	0.816	1.796	12.4	17.7	8 9	19 42.94	-27 53.6	1.563	2.520	9.7	19.8
8 19	19 41.12	-24 15.6	0.845	1.779	18.2	17.9	8 19	19 35.04	-27 23.5	1.621	2.514	13.5	20.0
8 29	19 39.66	-24 50.6	0.889	1.765	23.2	18.2	8 29	19 30.11	-26 45.3	1.699	2.508	16.8	20.2
70927	1999 <i>VX</i> ₂₁₀		7 21.2 338°29	0°2/21.3	17 R		238829	2005 <i>SZ</i> ₁₈₅		7 21.2 354°26	3°7/23.6	18	
6 20	20 26.20	-19 39.7	1.498	2.400	14.1	18.9	6 20	20 19.38	-7 57.8	2.206	3.072	11.7	19.1
6 30	20 20.87	-19 40.5	1.430	2.393	10.1	18.6	6 30	20 15.43	-8 5.3	2.132	3.066	9.0	18.9
7 10	20 13.25	-19 46.4	1.385	2.386	5.6	18.3	7 10	20 10.08	-8 25.5	2.081	3.062	6.1	18.7
7 20	20 4.18	-19 54.5	1.364	2.380	0.7	18.0	7 20	20 3.85	-8 57.2	2.056	3.058	3.9	18.6
7 30	19 54.87	-20 1.9	1.369	2.375	4.3	18.2	7 30	19 57.46	-9 38.3	2.058	3.055	4.3	18.6
8 9	19 46.61	-20 6.1	1.398	2.370	9.1	18.5	8 9	19 51.65	-10 25.5	2.086	3.053	6.9	18.7
8 19	19 40.41	-20 6.0	1.450	2.365	13.4	18.8	8 19	19 47.07	-11 15.3	2.139	3.051	9.8	18.9
8 29	19 37.02	-20 1.0	1.521	2.361	17.0	19.0	8 29	19 44.24	-12 4.5	2.214	3.050	12.5	19.1
159942	2005 <i>WK</i> ₁₈₅		7 21.2 193°99	5°4/23.8	18		184923	2005 <i>UN</i> ₅₀₂		7 21.2 55°18	2°5/19.4	18	
6 20	20 26.77	-4 56.7	2.092	2.936	13.1	20.5	6 20	20 24.85	-24 4.7	2.087	2.983	11.0	19.7
6 30	20 20.69	-4 32.9	2.017	2.934	10.4	20.3	6 30	20 19.48	-25 23.8	2.029	2.989	7.8	19.5
7 10	20 12.94	-4 23.0	1.966	2.932	7.6	20.1	7 10	20 12.34	-26 45.5	1.996	2.995	4.5	19.3
7 20	20 4.15	-4 27.2	1.940	2.929	5.6	20.0	7 20	20 4.11	-28 4.0	1.991	3.001	2.5	19.2
7 30	19 55.17	-4 44.7	1.941	2.926	5.9	20.0	7 30	19 55.66	-29 13.9	2.014	3.008	4.8	19.3
8 9	19 46.88	-5 13.0	1.969	2.923	8.2	20.2	8 9	19 47.97	-30 11.3	2.064	3.014	8.1	19.5
8 19	19 40.05	-5 48.8	2.022	2.919	11.1	20.3	8 19	19 41.84	-30 54.7	2.138	3.021	11.2	19.7
8 29	19 35.25	-6 28.4	2.097	2.914	13.8	20.5	8 29	19 37.88	-31 24.2	2.234	3.028	13.8	19.9
446685	2015 <i>OW</i> ₁₅		7 21.2 294°48	3°4/19.7	18		404914	2014 <i>KB</i> ₉₈		7 21.2 50°46	2°0/20.1	18	
6 20	20 27.77	-29 28.8	2.059	2.952	11.3	21.2	6 20	20 25.11	-23 57.1	1.970	2.868	11.5	20.8
6 30	20 21.58	-29 51.7	1.989	2.945	8.2	21.0	6 30	20 19.62	-24 41.5	1.918	2.878	8.1	20.6
7 10	20 13.48	-30 11.2	1.944	2.938	5.1	20.8	7 10	20 12.38	-25 27.3	1.889	2.889	4.5	20.4
7 20	20 4.21	-30 23.1	1.925	2.931	3.4	20.7	7 20	20 4.11	-26 10.1	1.887	2.900	2.0	20.2
7 30	19 54.78	-30 24.2	1.933	2.924	5.3	20.8	7 30	19 55.75	-26 45.8	1.912	2.911	4.4	20.4
8 9	19 46.22	-30 13.6	1.967	2.917	8.5	21.0	8 9	19 48.28	-27 12.0	1.964	2.922	7.9	20.7
8 19	19 39.42	-29 52.0	2.026	2.910	11.6	21.2	8 19	19 42.48	-27 27.8	2.039	2.934	11.1	20.9
8 29	19 34.98	-29 21.3	2.106	2.904	14.4	21.3	8 29	19 38.90	-27 33.7	2.137	2.945	13.8	21.1
143686	2003 <i>TW</i> ₁₁		7 21.2 239°82	4°1/23.0	18		130603	2000 <i>SE</i> ₇		7 21.2 277°84	0°4/21.0	18	
6 20	20 27.51	-9 32.7	1.586	2.461	15.0	20.3	6 20	20 27.04	-18 54.3	1.828	2.720	12.6	19.9
6 30	20 21.71	-9 31.2	1.512	2.454	11.4	20.1	6 30	20 21.43	-19 35.2	1.737	2.695	9.1	19.7
7 10	20 13.71	-9 44.9	1.460	2.446	7.5	19.8	7 10	20 13.62	-20 24.1	1.669	2.669	5.0	19.4
7 20	20 4.25	-10 12.4	1.431	2.438	4.4	19.6	7 20	20 4.28	-21 17.1	1.627	2.643	0.6	19.0
7 30	19 54.45	-10 51.1	1.429	2.429	5.4	19.6	7 30	19 54.38	-22 9.3	1.613	2.617	4.2	19.2
8 9	19 45.52	-11 36.8	1.452	2.420	9.2	19.8	8 9	19 45.10	-22 56.2	1.625	2.590	8.6	19.4
8 19	19 38.49	-12 25.0	1.499	2.411	13.2	20.1	8 19	19 37.50	-23 34.8	1.661	2.563	12.8	19.6
8 29	19 34.11	-13 11.7	1.566	2.402	16.8	20.3	8 29	19 32.41	-24 3.8	1.718	2.536	16.3	19.8
506608	2006 <i>BA</i> ₁₈₅		7 21.2 211°48	0°4/21.0	17		497239	2005 <i>EY</i> ₁₆₅		7 21.2 113°01	5°1/19.4	17	
6 20	20 27.18	-19 21.5	1.947	2.836	12.0	22.1	6 20	20 32.75	-30 57.4	1.463	2.364	14.5	21.4
6 30	20 21.20	-19 57.9	1.876	2.832	8.6	21.9	6 30	20 25.66	-31 40.1	1.411	2.369	10.7	21.2
7 10	20 13.31	-20 40.2	1.828	2.828	4.7	21.7	7 10	20 15.88	-32 17.0	1.381	2.374	6.9	21.0
7 20	20 4.21	-21 24.3	1.807	2.823	0.6	21.3	7 20	20 4.50	-32 41.1	1.375	2.378	5.1	20.9
7 30	19 54.85	-22 6.3	1.814	2.818	3.8	21.6	7 30	19 53.04	-32 47.5	1.395	2.383	7.3	21.0
8 9	19 46.27	-22 42.6	1.848	2.812	7.8	21.8	8 9	19 43.04	-32 35.3	1.439	2.387	11.1	21.3
8 19	19 39.35	-23 11.3	1.906	2.806	11.5	22.0	8 19	19 35.63	-32 7.0	1.505	2.392	14.8	21.5
8 29	19 34.74	-23 31.7	1.987	2.800	14.6	22.2	8 29	19 31.51	-31 26.5	1.590	2.396	17.9	21.7
510682	2012 <i>UW</i> ₅₇		7 21.2 228°01	6°5/24.5	18		521425	2015 <i>MM</i> ₁₄₈					

EPHEMERIDES

7 21.2

7 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
325971	2010 VX ₁₄₃		7 21.2 98°33	1°8/22.1	17		149811	2005 MZ ₈		7 21.2 63°09	1°7/22.3	18	
6 20	20 27.93	-14 6.1	1.508	2.398	14.9	21.3	6 20	20 23.90	-12 56.7	2.013	2.891	12.1	20.0
6 30	20 21.94	-14 33.8	1.454	2.407	10.8	21.1	6 30	20 18.75	-13 31.6	1.946	2.894	8.9	19.8
7 10	20 13.76	-15 13.4	1.421	2.417	6.2	20.9	7 10	20 11.93	-14 17.2	1.902	2.896	5.3	19.5
7 20	20 4.27	-16 1.2	1.413	2.427	2.0	20.6	7 20	20 4.09	-15 10.7	1.885	2.898	2.0	19.3
7 30	19 54.66	-16 52.3	1.431	2.436	4.3	20.8	7 30	19 56.06	-16 8.1	1.896	2.901	3.6	19.4
8 9	19 46.15	-17 41.8	1.475	2.446	8.8	21.1	8 9	19 48.76	-17 5.2	1.933	2.903	7.2	19.7
8 19	19 39.70	-18 26.2	1.542	2.455	12.9	21.3	8 19	19 42.92	-17 58.6	1.996	2.905	10.6	19.9
8 29	19 35.98	-19 3.2	1.629	2.464	16.3	21.6	8 29	19 39.16	-18 45.9	2.082	2.908	13.6	20.1
333995	2000 SB ₃₁₃		7 21.2 319°75	8°6/23.1	18		393323	2014 AJ ₅₃		7 21.2 137°22	0°2/21.4	18	
6 20	20 25.83	-4 26.0	1.411	2.278	17.0	19.6	6 20	20 26.23	-16 32.4	2.021	2.905	11.9	20.8
6 30	20 20.79	-3 5.5	1.332	2.258	13.9	19.4	6 30	20 20.41	-17 29.9	1.958	2.912	8.5	20.6
7 10	20 13.35	-2 0.3	1.272	2.238	10.8	19.2	7 10	20 12.84	-18 35.6	1.920	2.919	4.6	20.3
7 20	20 4.25	-1 14.9	1.235	2.220	8.8	19.0	7 20	20 4.19	-19 45.3	1.910	2.925	0.6	20.0
7 30	19 54.66	-0 51.8	1.222	2.201	9.3	19.0	7 30	19 55.36	-20 53.9	1.927	2.932	3.5	20.3
8 9	19 45.89	-0 50.3	1.231	2.184	12.1	19.1	8 9	19 47.30	-21 57.1	1.973	2.938	7.4	20.6
8 19	19 39.12	-1 7.1	1.261	2.167	15.7	19.2	8 19	19 40.80	-22 51.8	2.044	2.944	10.8	20.8
8 29	19 35.21	-1 36.9	1.309	2.151	19.1	19.4	8 29	19 36.47	-23 36.6	2.137	2.949	13.7	21.0
480375	2015 KL ₃₇		7 21.2 285°51	1°0/21.8	18		287214	2002 SL ₇₀		7 21.2 231°79	2°3/20.1	18	
6 20	20 24.98	-15 32.0	1.819	2.707	12.8	21.0	6 20	20 27.44	-25 37.1	1.992	2.887	11.5	21.1
6 30	20 19.72	-16 5.8	1.748	2.702	9.2	20.8	6 30	20 21.37	-26 8.4	1.925	2.884	8.2	20.9
7 10	20 12.55	-16 49.3	1.699	2.697	5.2	20.5	7 10	20 13.40	-26 39.5	1.882	2.881	4.7	20.7
7 20	20 4.15	-17 39.2	1.677	2.692	1.3	20.2	7 20	20 4.26	-27 6.5	1.866	2.877	2.3	20.5
7 30	19 55.47	-18 31.1	1.681	2.687	3.8	20.4	7 30	19 54.92	-27 25.7	1.877	2.874	4.6	20.7
8 9	19 47.58	-19 20.9	1.712	2.681	7.9	20.7	8 9	19 46.45	-27 35.0	1.914	2.871	8.2	20.9
8 19	19 41.34	-20 5.4	1.767	2.676	11.7	20.9	8 19	19 39.70	-27 34.2	1.976	2.867	11.6	21.1
8 29	19 37.43	-20 42.3	1.844	2.671	15.0	21.1	8 29	19 35.30	-27 24.4	2.059	2.863	14.4	21.3
390157	2012 VX ₉₅		7 21.2 254°87	0°5/21.5	18		247534	2002 RS ₂₇		7 21.2 258°47	1°6/22.1	18	
6 20	20 25.59	-17 25.9	1.966	2.854	12.0	21.6	6 20	20 24.93	-14 12.1	1.974	2.856	12.2	21.1
6 30	20 20.07	-17 52.6	1.891	2.846	8.6	21.3	6 30	20 19.58	-14 35.5	1.898	2.848	8.9	20.9
7 10	20 12.70	-18 26.5	1.840	2.838	4.8	21.1	7 10	20 12.44	-15 8.7	1.846	2.841	5.2	20.6
7 20	20 4.17	-19 4.3	1.815	2.831	0.8	20.8	7 20	20 4.16	-15 48.9	1.819	2.833	1.8	20.4
7 30	19 55.37	-19 42.5	1.818	2.823	3.6	21.0	7 30	19 55.61	-16 32.9	1.820	2.825	3.7	20.5
8 9	19 47.29	-20 17.9	1.847	2.815	7.6	21.2	8 9	19 47.76	-17 17.0	1.848	2.817	7.5	20.7
8 19	19 40.79	-20 47.9	1.901	2.806	11.2	21.4	8 19	19 41.43	-17 58.0	1.901	2.809	11.1	20.9
8 29	19 36.52	-21 11.4	1.977	2.798	14.4	21.6	8 29	19 37.26	-18 34.0	1.976	2.801	14.2	21.1
327016	2004 RR ₁₆₃		7 21.2 237°40	7°1/15.4	17		504002	2005 AM ₁₆		7 21.2 128°92	0°8/21.6	18	
6 20	20 33.75	-49 5.9	3.294	4.122	9.2	22.9	6 20	20 29.47	-18 12.7	2.161	3.040	11.4	21.4
6 30	20 25.64	-49 54.4	3.223	4.104	8.0	22.8	6 30	20 22.45	-18 2.3	2.102	3.052	8.2	21.2
7 10	20 15.65	-50 30.6	3.177	4.086	7.2	22.7	7 10	20 13.82	-17 55.6	2.067	3.064	4.6	21.0
7 20	20 4.49	-50 50.1	3.157	4.068	7.2	22.7	7 20	20 4.30	-17 51.0	2.061	3.076	1.0	20.8
7 30	19 53.12	-50 50.2	3.163	4.049	8.0	22.7	7 30	19 54.78	-17 47.0	2.083	3.087	3.3	21.0
8 9	19 42.55	-50 30.7	3.194	4.029	9.2	22.8	8 9	19 46.14	-17 42.4	2.133	3.098	6.9	21.2
8 19	19 33.63	-49 53.5	3.248	4.009	10.6	22.8	8 19	19 39.11	-17 36.4	2.208	3.108	10.2	21.4
8 29	19 26.99	-49 2.0	3.322	3.988	12.0	22.9	8 29	19 34.19	-17 28.9	2.307	3.118	12.9	21.6
8625	Simonhelberg		7 21.2 283°38	1°1/20.8	18 R		467076	2016 DQ ₂₀		7 21.2 16°86	1°6/20.7	17	
6 20	20 27.97	-22 25.7	1.702	2.600	13.0	18.5	6 20	20 24.83	-21 44.4	0.914	1.844	18.2	20.0
6 30	20 22.00	-22 41.7	1.631	2.592	9.3	18.2	6 30	20 20.68	-22 12.1	0.874	1.849	12.9	19.7
7 10	20 13.84	-23 0.4	1.582	2.583	5.1	18.0	7 10	20 13.40	-22 46.0	0.851	1.856	7.0	19.4
7 20	20 4.30	-23 17.8	1.559	2.575	1.2	17.7	7 20	20 4.27	-23 19.4	0.849	1.865	1.6	19.1
7 30	19 54.49	-23 30.6	1.563	2.566	4.4	17.9	7 30	19 55.08	-23 45.9	0.868	1.874	6.1	19.4
8 9	19 45.62	-23 36.3	1.592	2.558	8.8	18.1	8 9	19 47.63	-24 1.2	0.908	1.886	11.8	19.8
8 19	19 38.69	-23 34.3	1.645	2.549	12.7	18.4	8 19	19 43.18	-24 4.3	0.967	1.898	16.8	20.1
8 29	19 34.42	-23 25.2	1.718	2.541	16.1	18.6	8 29	19 42.41	-23 56.2	1.042	1.912	21.0	20.4
293746	2007 RQ ₄₉		7 21.2 222°75	0°6/20.9	17		472440	2015 BE ₃₀₅		7 21.2 58°37	13°6/16.8	18	
6 20	20 30.40	-20 29.2	1.539	2.435	14.2	21.3	6 20	20 44.85	-54 28.3	1.650	2.482	16.6	20.3
6 30	20 23.90	-20 51.5	1.470	2.430	10.2	21.0	6 30	20 34.83	-55 30.5	1.616	2.489	14.9	20.2
7 10	20 14.95	-21 19.1	1.423	2.424	5.5	20.7	7 10	20 20.98	-56 5.2	1.600	2.496	13.8	20.1
7 20	20 4.43	-21 47.6	1.402	2.418	0.8	20.4	7 20	20 5.11	-56 3.4	1.605	2.504	13.6	20.1
7 30	19 53.59	-22 12.5	1.407	2.411	4.6	20.7	7 30	19 49.65	-55 21.5	1.632	2.511	14.4	20.2
8 9	19 43.81	-22 30.8	1.437	2.404	9.4	20.9	8 9	19 36.83	-54 3.5	1.679	2.519	15.9	20.3
8 19	19 36.21	-22 41.0	1.491	2.397	13.7	21.2	8 19	19 28.00	-52 18.1	1.745	2.526	17.6	20.4
8 29	19 31.56	-22 43.3	1.565	2.389	17.3	21.4	8 29	19 23.64	-50 15.3	1.828	2.534	19.3	20.6
336154	2008 RL ₁		7 21.2 58°71	6°0/24.9	17		122118	2000 JN ₁₃		7 21.2 86°39	0°1/21.2	17	
6 20	20 24.54	-2 52.0	1.573	2.429	16.1	20.4	6 20	20 29.91	-18 53.2	1.277	2.181	16.0	20.1
6 30	20 19.44	-3 13.7	1.515	2.439	12.7	20.2	6 30	20 23.72	-19 20.0	1.224	2.188	11.4	19.8
7 10	20 12.37	-3 58.0	1.479	2.449	9.2	20.0	7 10	20 14.89	-19 54.7	1.193	2.194	6.2	19.6
7 20	20 4.13	-5 3.1	1.465	2.459	6.4	19.9	7 20	20 4.47	-20 32.4	1.185	2.201	0.7	19.2
7 30	19 55.74	-6 24.6	1.477	2.469	6.4	19.9	7 30	19 53.90	-21 7.7	1.202	2.208	4.9	19.5
8 9	19 48.30	-7 55.7	1.515	2.480	9.1	20.1	8 9	19 44.70	-21 36.3	1.243	2.214	10.0	19.8
8 19	19 42.67	-9 29.3	1.576	2.491	12.5	20.3	8 19	19 38.00	-21 56.4	1.306	2.221	14.6	20.1
8 29	19 39.50	-10 59.3	1.659	2.502	15.7	20.5	8 29	19 34.53	-22 7.5	1.388	2.227	18.4	20.4
305403	2008 CR ₈₄		7 21.2 211°89	3°2/23.2	18		382757	2003 FS ₃₇		7 21.2 59°76	3°1/22.6	17	
6 20	20 23.62	-8 58.5											

EPHEMERIDES

7 21.2

7 21.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
280625	2004 XT ₁₀₃		7 21.2 308°20	3°0/19.7 18			245391	2005 GW ₁₃₄		7 21.3 133°32	4°2/23.5 18		
6 20	20 26.30	-24 16.1	1.501	2.409	13.8	19.6	6 20	20 25.28	-7 28.8	2.111	2.967	12.6	20.8
6 30	20 21.44	-25 14.0	1.412	2.377	10.0	19.3	6 30	20 19.61	-7 20.3	2.045	2.974	9.7	20.7
7 10	20 13.90	-26 17.8	1.345	2.345	5.8	19.0	7 10	20 12.37	-7 24.3	2.003	2.979	6.6	20.5
7 20	20 4.40	-27 21.1	1.302	2.314	3.0	18.7	7 20	20 4.21	-7 40.2	1.987	2.985	4.4	20.4
7 30	19 54.12	-28 16.5	1.284	2.282	6.2	18.8	7 30	19 55.93	-8 6.3	1.997	2.991	4.9	20.4
8 9	19 44.56	-28 58.4	1.290	2.251	10.9	19.0	8 9	19 48.38	-8 39.6	2.035	2.996	7.5	20.6
8 19	19 37.09	-29 24.3	1.319	2.220	15.4	19.2	8 19	19 42.25	-9 17.1	2.098	3.001	10.4	20.8
8 29	19 32.76	-29 34.4	1.366	2.190	19.4	19.4	8 29	19 38.09	-9 55.5	2.183	3.006	13.1	21.0
38127	1999 JL ₄₅		7 21.2 250°47	3°9/22.7 18			478487	2012 RA ₁₈		7 21.3 0°03	11°1/26.3 16		
6 20	20 28.28	-10 54.5	1.501	2.381	15.4	18.9	6 20	20 12.05	-1 24.5	0.828	1.735	22.0	19.9
6 30	20 22.41	-10 46.5	1.427	2.372	11.6	18.7	6 30	20 11.59	-0 32.1	0.780	1.727	18.3	19.6
7 10	20 14.18	-10 52.5	1.374	2.363	7.5	18.4	7 10	20 8.53	-0 14.2	0.747	1.722	14.6	19.4
7 20	20 4.41	-11 11.3	1.346	2.354	4.1	18.2	7 20	20 3.79	-0 35.1	0.731	1.721	11.7	19.2
7 30	19 54.26	-11 40.5	1.343	2.344	5.4	18.2	7 30	19 58.79	-1 33.1	0.732	1.723	11.3	19.2
8 9	19 45.03	-12 16.2	1.365	2.334	9.5	18.4	8 9	19 55.05	-2 59.9	0.751	1.727	13.7	19.4
8 19	19 37.82	-12 54.3	1.410	2.324	13.8	18.7	8 19	19 53.76	-4 43.3	0.787	1.736	17.3	19.6
8 29	19 33.43	-13 31.3	1.475	2.314	17.5	18.9	8 29	19 55.72	-6 30.1	0.839	1.747	21.1	19.9
266166	2006 UF ₂₁₇		7 21.2 254°69	0°3/21.1 18			184889	2005 UY ₂₃₄		7 21.3 66°89	3°6/19.0 18		
6 20	20 28.96	-19 43.4	1.667	2.561	13.4	21.4	6 20	20 26.00	-28 52.1	2.124	3.019	10.9	19.8
6 30	20 22.83	-20 4.5	1.589	2.548	9.7	21.2	6 30	20 20.28	-29 49.8	2.071	3.028	7.9	19.6
7 10	20 14.40	-20 31.4	1.534	2.535	5.3	20.9	7 10	20 12.80	-30 45.3	2.043	3.036	5.0	19.5
7 20	20 4.43	-21 0.5	1.505	2.521	0.6	20.5	7 20	20 4.26	-31 33.5	2.041	3.045	3.6	19.4
7 30	19 54.08	-21 27.5	1.502	2.507	4.3	20.8	7 30	19 55.60	-32 10.3	2.067	3.054	5.5	19.5
8 9	19 44.59	-21 49.3	1.525	2.492	8.9	21.0	8 9	19 47.80	-32 33.6	2.120	3.063	8.4	19.7
8 19	19 37.05	-22 4.0	1.572	2.478	13.1	21.2	8 19	19 41.63	-32 43.4	2.196	3.072	11.2	19.9
8 29	19 32.25	-22 11.4	1.639	2.463	16.7	21.4	8 29	19 37.69	-32 40.9	2.293	3.081	13.7	20.1
482355	2011 WS ₉₈		7 21.3 75°53	10°4/12.7 18			249593	1997 CL ₉		7 21.3 110°45	2°5/20.0 18		
6 20	20 33.32	-48 53.4	2.150	3.000	12.6	21.0	6 20	20 28.00	-27 45.8	2.335	3.224	10.3	21.5
6 30	20 26.28	-50 52.6	2.115	3.005	11.2	20.9	6 30	20 21.45	-28 4.7	2.280	3.235	7.4	21.4
7 10	20 16.42	-52 34.8	2.103	3.011	10.4	20.9	7 10	20 13.32	-28 21.0	2.250	3.246	4.3	21.2
7 20	20 4.67	-53 51.9	2.115	3.017	10.6	20.9	7 20	20 4.31	-28 31.6	2.247	3.257	2.5	21.1
7 30	19 52.46	-54 38.7	2.150	3.022	11.7	21.0	7 30	19 55.30	-28 34.2	2.273	3.267	4.3	21.2
8 9	19 41.41	-54 54.8	2.208	3.028	13.2	21.1	8 9	19 47.15	-28 27.8	2.326	3.278	7.3	21.4
8 19	19 32.83	-54 43.5	2.284	3.034	14.8	21.2	8 19	19 40.55	-28 12.9	2.404	3.288	10.1	21.6
8 29	19 27.59	-54 10.6	2.377	3.040	16.3	21.4	8 29	19 36.02	-27 51.0	2.505	3.298	12.5	21.8
328202	2008 EA ₅₀		7 21.3 277°56	1°2/21.8 17			478153	2011 UM ₁₅₇		7 21.3 205°79	3°7/18.8 18		
6 20	20 27.14	-15 40.1	1.479	2.374	14.8	21.1	6 20	20 26.55	-29 48.8	2.318	3.209	10.3	21.7
6 30	20 21.62	-16 7.4	1.412	2.370	10.7	20.8	6 30	20 20.66	-30 45.3	2.253	3.207	7.5	21.5
7 10	20 13.75	-16 46.0	1.367	2.366	6.1	20.5	7 10	20 13.02	-31 39.5	2.213	3.204	4.9	21.4
7 20	20 4.37	-17 32.0	1.346	2.362	1.5	20.2	7 20	20 4.29	-32 26.6	2.201	3.202	3.7	21.3
7 30	19 54.68	-18 20.5	1.351	2.357	4.4	20.4	7 30	19 55.36	-33 2.5	2.216	3.199	5.4	21.4
8 9	19 45.98	-19 6.6	1.381	2.353	9.2	20.7	8 9	19 47.15	-33 25.1	2.258	3.196	8.2	21.6
8 19	19 39.35	-19 46.9	1.434	2.349	13.5	20.9	8 19	19 40.46	-33 34.3	2.325	3.193	10.9	21.7
8 29	19 35.56	-20 19.2	1.507	2.345	17.3	21.2	8 29	19 35.91	-33 31.2	2.413	3.190	13.3	21.9
380875	2006 CU ₅₉		7 21.3 126°71	4°5/19.5 18			448710	2010 XV ₈₇		7 21.3 341°06	1°1/20.7 18		
6 20	20 33.67	-33 6.7	2.048	2.932	11.8	21.0	6 20	20 23.41	-21 36.1	1.743	2.646	12.5	21.0
6 30	20 25.64	-33 28.6	1.997	2.945	8.7	20.8	6 30	20 18.75	-22 3.8	1.673	2.636	8.9	20.7
7 10	20 15.63	-33 42.9	1.971	2.957	5.8	20.7	7 10	20 12.11	-22 35.7	1.625	2.627	4.8	20.5
7 20	20 4.56	-33 45.4	1.971	2.969	4.5	20.6	7 20	20 4.20	-23 7.9	1.603	2.618	1.1	20.2
7 30	19 53.57	-33 33.4	1.999	2.981	6.0	20.7	7 30	19 56.03	-23 36.6	1.606	2.610	4.2	20.4
8 9	19 43.77	-33 7.2	2.053	2.992	8.9	20.9	8 9	19 48.69	-23 58.5	1.635	2.603	8.4	20.6
8 19	19 36.01	-32 29.1	2.133	3.002	11.7	21.1	8 19	19 43.11	-24 12.1	1.688	2.596	12.2	20.8
8 29	19 30.84	-31 42.4	2.233	3.013	14.2	21.3	8 29	19 39.95	-24 17.2	1.761	2.591	15.5	21.0
442556	2012 AH ₇		7 21.3 251°54	1°5/22.3 18			60329	2000 AL ₁₁		7 21.3 315°75	3°4/19.1 18		
6 20	20 23.30	-13 27.1	2.411	3.285	10.6	21.3	6 20	20 24.85	-27 45.0	2.093	2.991	10.9	18.9
6 30	20 18.20	-13 59.4	2.330	3.275	7.7	21.1	6 30	20 19.61	-28 43.9	2.024	2.983	7.9	18.7
7 10	20 11.64	-14 40.6	2.273	3.266	4.6	20.9	7 10	20 12.52	-29 42.6	1.980	2.976	4.9	18.5
7 20	20 4.13	-15 28.5	2.243	3.256	1.7	20.6	7 20	20 4.25	-30 35.9	1.962	2.968	3.4	18.4
7 30	19 56.38	-16 19.9	2.242	3.246	3.1	20.7	7 30	19 55.70	-31 19.1	1.972	2.961	5.4	18.5
8 9	19 49.17	-17 11.5	2.269	3.236	6.4	20.9	8 9	19 47.89	-31 49.4	2.008	2.954	8.5	18.7
8 19	19 43.15	-18 0.4	2.322	3.226	9.5	21.1	8 19	19 41.67	-32 5.9	2.067	2.948	11.6	18.8
8 29	19 38.90	-18 44.5	2.398	3.215	12.3	21.3	8 29	19 37.70	-32 9.6	2.148	2.941	14.3	19.0
131558	2001 VB ₃₆		7 21.3 280°81	3°5/22.5 18			469428	2002 AV ₁₄₂		7 21.3 233°59	1°6/21.9 18		
6 20	20 27.99	-12 21.6	1.343	2.234	16.2	19.7	6 20	20 30.10	-16 18.9	2.110	2.985	11.8	22.2
6 30	20 22.51	-12 16.3	1.267	2.219	12.2	19.4	6 30	20 23.19	-16 2.2	2.024	2.971	8.6	22.0
7 10	20 14.39	-12 25.0	1.210	2.204	7.6	19.1	7 10	20 14.43	-15 50.4	1.963	2.958	5.1	21.7
7 20	20 4.47	-12 46.4	1.177	2.188	3.7	18.8	7 20	20 4.47	-15 42.3	1.930	2.943	1.8	21.5
7 30	19 54.01	-13 17.6	1.169	2.173	5.4	18.9	7 30	19 54.24	-15 36.6	1.924	2.928	3.7	21.6
8 9	19 44.51	-13 54.2	1.184	2.157	10.2	19.1	8 9	19 44.71	-15 31.9	1.947	2.912	7.5	21.8
8 19	19 37.22	-14 31.9	1.222	2.142	15.0	19.3	8 19	19 36.75	-15 27.4	1.996	2.896	11.1	22.0
8 29	19 33.06	-15 7.2	1.278	2.126	19.1	19.5	8 29	19 31.01	-15 22.2	2.067	2.879	14.1	22.2
221636	2007 AJ ₂₅		7 21.3 142°29	1°3/21.8 18			342008	2008 RY ₄₆		7 21.3 267°69	0°2/21.3 18		
6 20													

EPHEMERIDES

7 21.3

7 21.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
318269	2004 <i>ST</i> ₄₂		7 21.3 230°99	3°6/23.5	18		7338	1990 <i>VJ</i> ₃		7 21.3 241°12	2°4/22.4	18	
6 20	20 22.97	- 7 41.4	2.546	3.398	10.8	20.7	6 20	20 25.33	-12 59.9	2.279	3.150	11.2	17.2
6 30	20 17.85	- 7 40.5	2.466	3.392	8.3	20.5	6 30	20 19.65	-12 47.5	2.202	3.144	8.3	17.0
7 10	20 11.40	- 7 50.2	2.410	3.386	5.7	20.3	7 10	20 12.43	-12 42.6	2.149	3.139	5.2	16.8
7 20	20 4.12	- 8 10.1	2.380	3.379	3.8	20.2	7 20	20 4.28	-12 44.2	2.123	3.133	2.6	16.6
7 30	19 56.67	- 8 38.4	2.379	3.373	4.2	20.2	7 30	19 55.95	-12 51.2	2.126	3.127	3.7	16.7
8 9	19 49.73	- 9 12.8	2.405	3.366	6.5	20.3	8 9	19 48.26	-13 1.6	2.155	3.121	6.8	16.8
8 19	19 43.92	- 9 50.7	2.457	3.359	9.2	20.5	8 19	19 41.91	-13 13.7	2.210	3.115	9.9	17.0
8 29	19 39.74	-10 29.3	2.533	3.352	11.6	20.7	8 29	19 37.45	-13 25.9	2.288	3.108	12.7	17.2
351823	2006 <i>PB</i> ₃₂		7 21.3 312°14	2°0/20.5	18		247069	2000 <i>RM</i> ₃₁		7 21.3 308°05	3°0/22.1	18	
6 20	20 27.64	-25 1.5	1.640	2.542	13.2	20.3	6 20	20 26.97	-14 35.8	1.210	2.113	16.8	19.6
6 30	20 22.06	-25 9.9	1.555	2.517	9.5	20.0	6 30	20 22.08	-14 18.2	1.131	2.091	12.5	19.3
7 10	20 14.07	-25 18.2	1.492	2.493	5.4	19.7	7 10	20 14.32	-14 12.1	1.073	2.070	7.6	19.0
7 20	20 4.45	-25 22.4	1.454	2.468	2.0	19.4	7 20	20 4.53	-14 16.5	1.036	2.049	3.3	18.7
7 30	19 54.39	-25 19.1	1.442	2.444	5.0	19.6	7 30	19 54.09	-14 28.8	1.023	2.028	5.6	18.7
8 9	19 45.19	-25 6.5	1.456	2.421	9.5	19.8	8 9	19 44.64	-14 45.8	1.032	2.008	10.9	19.0
8 19	19 37.99	-24 44.7	1.492	2.398	13.7	20.0	8 19	19 37.59	-15 4.2	1.062	1.988	16.1	19.2
8 29	19 33.64	-24 15.2	1.548	2.375	17.4	20.1	8 29	19 33.95	-15 21.1	1.110	1.969	20.7	19.4
264912	2002 <i>TF</i> ₂₁₄		7 21.3 229°21	0°9/21.7	18		163701	2003 <i>FC</i> ₅₃		7 21.3 30°78	4°4/22.7	17	
6 20	20 28.02	-15 44.3	1.892	2.774	12.7	21.5	6 20	20 26.45	-12 21.6	0.940	1.852	19.5	18.7
6 30	20 21.95	-16 18.4	1.812	2.764	9.2	21.2	6 30	20 21.56	-11 58.0	0.902	1.865	14.5	18.4
7 10	20 13.86	-17 1.9	1.756	2.753	5.2	21.0	7 10	20 13.81	-11 52.2	0.883	1.879	9.1	18.2
7 20	20 4.43	-17 51.5	1.726	2.741	1.2	20.6	7 20	20 4.44	-12 2.6	0.883	1.894	4.7	18.0
7 30	19 54.63	-18 42.9	1.723	2.728	3.8	20.8	7 30	19 55.11	-12 25.5	0.905	1.910	6.3	18.2
8 9	19 45.54	-19 32.0	1.748	2.715	8.0	21.0	8 9	19 47.47	-12 55.4	0.948	1.927	11.2	18.5
8 19	19 38.11	-20 15.6	1.798	2.702	11.9	21.3	8 19	19 42.66	-13 27.3	1.011	1.945	16.0	18.8
8 29	19 33.06	-20 51.9	1.870	2.688	15.2	21.4	8 29	19 41.31	-13 56.7	1.091	1.964	20.0	19.2
447238	2005 <i>US</i> ₁₉₁		7 21.3 239°56	2°6/19.7	18		370883	2005 <i>EA</i> ₁₅₉		7 21.3 49°76	0°4/21.1	17	
6 20	20 25.92	-27 15.5	2.455	3.345	9.8	22.0	6 20	20 29.11	-19 57.9	1.213	2.122	16.3	20.6
6 30	20 20.12	-27 52.5	2.381	3.337	7.1	21.8	6 30	20 23.14	-20 17.4	1.170	2.135	11.6	20.4
7 10	20 12.71	-28 28.7	2.333	3.329	4.2	21.6	7 10	20 14.56	-20 43.1	1.147	2.150	6.3	20.1
7 20	20 4.29	-29 0.3	2.311	3.320	2.6	21.5	7 20	20 4.52	-21 10.2	1.148	2.164	0.7	19.8
7 30	19 55.66	-29 24.0	2.319	3.311	4.4	21.6	7 30	19 54.50	-21 33.9	1.173	2.179	4.9	20.2
8 9	19 47.69	-29 38.1	2.353	3.302	7.3	21.8	8 9	19 45.99	-21 50.9	1.222	2.194	10.0	20.5
8 19	19 41.09	-29 42.0	2.413	3.293	10.2	22.0	8 19	19 40.04	-21 59.8	1.292	2.210	14.5	20.8
8 29	19 36.46	-29 36.7	2.494	3.283	12.6	22.1	8 29	19 37.29	-22 0.9	1.381	2.226	18.2	21.1
147964	1994 <i>PP</i> ₉		7 21.3 319°00	0°8/21.6	17		512626	2016 <i>TJ</i> ₄₂		7 21.3 246°43	0°8/21.7	18	
6 20	20 24.74	-17 6.2	1.258	2.166	15.8	19.2	6 20	20 25.53	-17 5.6	2.069	2.954	11.6	21.6
6 30	20 20.39	-17 27.7	1.182	2.147	11.5	18.9	6 30	20 19.96	-17 20.2	1.996	2.950	8.3	21.4
7 10	20 13.34	-18 0.9	1.126	2.127	6.5	18.6	7 10	20 12.67	-17 41.2	1.947	2.945	4.7	21.2
7 20	20 4.39	-18 42.2	1.093	2.108	1.2	18.2	7 20	20 4.33	-18 6.0	1.925	2.940	1.0	20.9
7 30	19 54.87	-19 26.1	1.083	2.090	4.9	18.4	7 30	19 55.77	-18 31.8	1.930	2.935	3.4	21.1
8 9	19 46.31	-20 7.2	1.097	2.073	10.4	18.6	8 9	19 47.94	-18 56.1	1.962	2.930	7.2	21.3
8 19	19 40.05	-20 41.7	1.132	2.057	15.5	18.9	8 19	19 41.60	-19 16.9	2.020	2.925	10.7	21.5
8 29	19 37.06	-21 7.2	1.185	2.041	19.8	19.1	8 29	19 37.37	-19 33.0	2.099	2.920	13.6	21.7
238989	2006 <i>BD</i> ₂₄₈		7 21.3 224°84	3°7/19.8	14 C		23793	1998 <i>QK</i> ₂₆		7 21.3 289°87	0°2/21.4	18	
6 20	20 32.40	-30 31.7	2.050	2.936	11.6	21.7	6 20	20 24.46	-18 42.6	2.235	3.122	10.8	18.9
6 30	20 24.97	-30 51.2	1.976	2.928	8.5	21.5	6 30	20 19.22	-18 59.0	2.147	3.102	7.7	18.7
7 10	20 15.44	-31 5.7	1.927	2.918	5.4	21.3	7 10	20 12.31	-19 20.5	2.083	3.082	4.3	18.4
7 20	20 4.62	-31 11.0	1.904	2.909	3.7	21.2	7 20	20 4.30	-19 44.6	2.046	3.062	0.6	18.1
7 30	19 53.60	-31 3.7	1.910	2.899	5.5	21.3	7 30	19 55.98	-20 8.6	2.037	3.042	3.3	18.3
8 9	19 43.54	-30 43.4	1.942	2.888	8.8	21.4	8 9	19 48.23	-20 30.0	2.056	3.022	7.0	18.5
8 19	19 35.38	-30 11.3	1.999	2.877	12.0	21.6	8 19	19 41.83	-20 47.2	2.099	3.002	10.4	18.7
8 29	19 29.80	-29 30.3	2.078	2.866	14.9	21.8	8 29	19 37.42	-20 59.2	2.165	2.983	13.4	18.8
472332	2015 <i>AV</i> ₂₀₅		7 21.3 277°98	1°2/20.7	17		342702	2008 <i>VW</i> ₇₇		7 21.3 148°41	4°6/23.5	18	
6 20	20 28.26	-20 9.3	1.432	2.335	14.7	20.8	6 20	20 26.85	- 6 44.9	2.223	3.071	12.3	21.2
6 30	20 22.77	-20 59.8	1.354	2.317	10.6	20.6	6 30	20 20.66	- 6 20.0	2.156	3.078	9.6	21.0
7 10	20 14.60	-21 59.4	1.298	2.299	5.8	20.2	7 10	20 12.95	- 6 6.9	2.114	3.085	6.8	20.9
7 20	20 4.55	-23 2.3	1.266	2.282	1.2	19.9	7 20	20 4.36	- 6 5.6	2.097	3.091	4.8	20.8
7 30	19 53.90	-24 1.6	1.260	2.263	5.2	20.1	7 30	19 55.66	- 6 15.2	2.109	3.097	5.2	20.8
8 9	19 44.15	-24 51.6	1.278	2.245	10.3	20.3	8 9	19 47.68	- 6 33.5	2.147	3.103	7.5	21.0
8 19	19 36.59	-25 29.0	1.319	2.227	15.0	20.6	8 19	19 41.10	- 6 57.9	2.211	3.108	10.3	21.1
8 29	19 32.19	-25 53.2	1.379	2.209	19.0	20.8	8 29	19 36.44	- 7 25.5	2.298	3.113	12.8	21.3
76179	2000 <i>EM</i> ₃₆		7 21.3 240°84	2°1/19.9	18		521483	2015 <i>OC</i> ₉₄		7 21.3 34°23	1°6/20.7	18	
6 20	20 27.18	-24 16.8	2.295	3.183	10.5	19.8	6 20	20 27.85	-24 55.7	1.878	2.774	12.1	20.8
6 30	20 21.18	-25 7.9	2.212	3.169	7.5	19.6	6 30	20 21.63	-24 55.4	1.822	2.782	8.6	20.6
7 10	20 13.38	-26 1.4	2.156	3.154	4.2	19.3	7 10	20 13.55	-24 54.2	1.789	2.789	4.7	20.4
7 20	20 4.39	-26 52.7	2.126	3.138	2.1	19.2	7 20	20 4.42	-24 49.4	1.782	2.797	1.6	20.2
7 30	19 55.06	-27 37.7	2.126	3.122	4.3	19.3	7 30	19 55.29	-24 38.7	1.803	2.805	4.2	20.4
8 9	19 46.32	-28 13.3	2.153	3.106	7.7	19.5	8 9	19 47.18	-24 21.5	1.850	2.813	7.9	20.6
8 19	19 39.02	-28 38.2	2.205	3.089	10.9	19.6	8 19	19 40.90	-23 58.4	1.921	2.822	11.4	20.9
8 29	19 33.82	-28 52.4	2.280	3.071	13.6	19.8	8 29	19 37.00	-23 30.5	2.014	2.831	14.3	21.1
20967	1978 <i>VF</i> ₆		7 21.3 146°07	2°4/22.2	18		66116	1998 <i>S</i>					

EPHEMERIDES

7 21.3

7 21.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
344462	2002 <i>ND</i> ₆₃		7 21.3 10°36	1.4/20.7	16		77964	2002 <i>JT</i> ₁		7 21.3 320°17	2.8/22.2	18	R
6 20	20 27.29	-23 0.4	1.598	2.500	13.4	20.8	6 20	20 25.73	-14 35.8	1.186	2.092	16.8	18.8
6 30	20 21.57	-23 16.0	1.538	2.501	9.6	20.6	6 30	20 21.17	-14 25.9	1.114	2.075	12.5	18.5
7 10	20 13.67	-23 33.6	1.501	2.502	5.2	20.3	7 10	20 13.81	-14 28.6	1.061	2.059	7.5	18.1
7 20	20 4.45	-23 49.3	1.489	2.504	1.4	20.0	7 20	20 4.53	-14 42.2	1.030	2.044	3.1	17.8
7 30	19 55.10	-23 59.5	1.502	2.506	4.6	20.3	7 30	19 54.72	-15 3.6	1.023	2.029	5.4	17.9
8 9	19 46.83	-24 2.2	1.541	2.508	8.9	20.5	8 9	19 45.97	-15 28.8	1.038	2.015	10.7	18.2
8 19	19 40.60	-23 57.0	1.604	2.511	12.8	20.8	8 19	19 39.64	-15 54.0	1.073	2.002	15.8	18.4
8 29	19 37.08	-23 44.6	1.686	2.514	16.1	21.0	8 29	19 36.66	-16 16.1	1.126	1.989	20.2	18.7
94132	2000 <i>YO</i> ₁₁₅		7 21.3 115°81	1.8/20.6	18		254126	2004 <i>PQ</i> ₁₁		7 21.3 290°36	1.7/22.3	18	
6 20	20 29.42	-26 52.1	2.375	3.260	10.3	18.4	6 20	20 23.60	-13 54.8	2.160	3.039	11.4	20.3
6 30	20 22.43	-26 45.3	2.311	3.265	7.3	18.2	6 30	20 18.63	-14 12.7	2.075	3.023	8.4	20.1
7 10	20 13.88	-26 35.8	2.273	3.270	4.2	18.0	7 10	20 12.01	-14 39.6	2.013	3.007	5.0	19.8
7 20	20 4.47	-26 21.3	2.263	3.276	1.8	17.9	7 20	20 4.30	-15 13.7	1.978	2.991	1.9	19.6
7 30	19 55.06	-26 0.4	2.282	3.281	3.8	18.0	7 30	19 56.30	-15 52.0	1.970	2.975	3.5	19.7
8 9	19 46.52	-25 33.0	2.329	3.286	6.9	18.2	8 9	19 48.86	-16 31.4	1.990	2.959	7.0	19.9
8 19	19 39.54	-25 0.0	2.402	3.291	9.9	18.4	8 19	19 42.77	-17 9.1	2.035	2.943	10.5	20.1
8 29	19 34.62	-24 22.9	2.498	3.296	12.4	18.6	8 29	19 38.64	-17 43.0	2.102	2.927	13.5	20.2
185858	2000 <i>GB</i>		7 21.3 40°91	3.0/20.2	17		470669	2008 <i>SL</i> ₁₉₉		7 21.3 282°56	8.9/25.7	16	
6 20	20 29.01	-25 26.1	1.293	2.204	15.3	19.9	6 20	20 25.31	+ 4 2.4	1.949	2.756	15.3	22.2
6 30	20 23.08	-26 1.4	1.249	2.215	10.9	19.7	6 30	20 20.12	+ 4 23.8	1.846	2.725	13.1	22.0
7 10	20 14.57	-26 36.7	1.225	2.226	6.2	19.5	7 10	20 12.98	+ 4 23.1	1.764	2.693	10.8	21.8
7 20	20 4.56	-27 5.8	1.226	2.238	3.0	19.3	7 20	20 4.43	+ 3 57.9	1.704	2.661	9.2	21.6
7 30	19 54.54	-27 23.7	1.250	2.250	6.0	19.5	7 30	19 55.32	+ 3 7.5	1.669	2.629	9.0	21.5
8 9	19 45.99	-27 28.2	1.299	2.263	10.5	19.8	8 9	19 46.63	+ 1 55.0	1.659	2.596	10.7	21.5
8 19	19 39.98	-27 20.0	1.369	2.276	14.6	20.1	8 19	19 39.33	+ 0 25.7	1.673	2.563	13.4	21.6
8 29	19 37.16	-27 1.2	1.458	2.290	18.0	20.4	8 29	19 34.20	- 1 13.5	1.709	2.529	16.3	21.8
219144	1998 <i>XY</i> ₁₉		7 21.3 250°72	2.3/19.8	18		166433	2002 <i>PX</i> ₃₀		7 21.3 306°95	3.5/23.0	18	
6 20	20 24.75	-26 3.1	2.431	3.322	9.8	20.3	6 20	20 24.23	-10 6.6	1.750	2.627	13.8	20.1
6 30	20 19.29	-26 42.8	2.362	3.319	7.0	20.1	6 30	20 19.32	-10 14.5	1.673	2.616	10.4	19.9
7 10	20 12.27	-27 22.6	2.319	3.316	4.1	19.9	7 10	20 12.47	-10 36.4	1.619	2.607	6.7	19.6
7 20	20 4.30	-27 58.7	2.302	3.313	2.3	19.8	7 20	20 4.36	-11 10.8	1.590	2.597	3.7	19.4
7 30	19 56.16	-28 27.8	2.314	3.309	4.2	19.9	7 30	19 55.95	-11 54.6	1.586	2.588	4.7	19.5
8 9	19 48.66	-28 47.9	2.354	3.306	7.2	20.1	8 9	19 48.27	-12 43.9	1.608	2.578	8.3	19.7
8 19	19 42.53	-28 58.3	2.418	3.303	10.0	20.3	8 19	19 42.23	-13 34.4	1.654	2.569	12.0	19.9
8 29	19 38.31	-28 59.5	2.505	3.299	12.5	20.4	8 29	19 38.53	-14 22.4	1.722	2.561	15.4	20.1
28079	1998 <i>QY</i> ₆₃		7 21.3 234°46	6.2/26.4	18		24750	Ohm		7 21.3 242°13	0.9/20.8	18	
6 20	20 22.39	+ 2 59.9	2.554	3.355	12.3	17.6	6 20	20 26.58	-21 39.4	2.051	2.942	11.4	19.4
6 30	20 17.49	+ 2 45.7	2.470	3.348	10.2	17.4	6 30	20 20.77	-22 2.4	1.979	2.937	8.1	19.2
7 10	20 11.26	+ 2 13.5	2.408	3.342	8.1	17.3	7 10	20 13.16	-22 28.4	1.932	2.932	4.4	19.0
7 20	20 4.19	+ 1 23.2	2.371	3.335	6.6	17.2	7 20	20 4.44	-22 54.1	1.912	2.927	0.9	18.7
7 30	19 56.93	+ 0 16.6	2.361	3.328	6.4	17.2	7 30	19 55.51	-23 16.2	1.919	2.922	3.8	18.9
8 9	19 50.14	- 1 2.7	2.379	3.321	7.7	17.2	8 9	19 47.34	-23 32.4	1.953	2.917	7.6	19.1
8 19	19 44.45	- 2 30.2	2.423	3.313	9.7	17.4	8 19	19 40.77	-23 41.6	2.012	2.911	11.0	19.3
8 29	19 40.35	- 4 0.8	2.491	3.306	11.9	17.5	8 29	19 36.39	-23 43.8	2.093	2.906	13.9	19.5
123592	2000 <i>XP</i> ₄₆		7 21.3 311°25	7.2/19.1	18		316394	2010 <i>TQ</i> ₅₀		7 21.3 272°22	0.4/21.6	18	
6 20	20 33.67	-36 56.2	1.500	2.395	14.6	18.8	6 20	20 23.65	-16 43.0	2.265	3.148	10.8	20.7
6 30	20 26.74	-37 20.4	1.426	2.375	11.4	18.6	6 30	20 18.58	-17 22.0	2.188	3.141	7.7	20.5
7 10	20 16.77	-37 32.4	1.374	2.355	8.4	18.3	7 10	20 11.94	-18 8.3	2.135	3.133	4.3	20.3
7 20	20 4.85	-37 24.8	1.345	2.336	7.2	18.2	7 20	20 4.30	-18 58.9	2.110	3.126	0.7	20.0
7 30	19 52.57	-36 52.9	1.340	2.317	9.0	18.3	7 30	19 56.42	-19 50.2	2.113	3.118	3.2	20.2
8 9	19 41.69	-35 56.9	1.360	2.299	12.4	18.4	8 9	19 49.12	-20 38.7	2.144	3.111	6.8	20.4
8 19	19 33.56	-34 41.6	1.401	2.281	16.0	18.6	8 19	19 43.14	-21 21.7	2.200	3.103	10.0	20.6
8 29	19 29.01	-33 13.3	1.461	2.264	19.4	18.8	8 29	19 39.06	-21 57.7	2.279	3.096	12.9	20.8
417992	2007 <i>TJ</i> ₃₄₆		7 21.3 262°34	6.0/18.6	17		357899	2005 <i>VZ</i> ₂₆		7 21.3 120°70	10.3/29.3	16	
6 20	20 31.89	-31 20.4	1.420	2.324	14.7	21.1	6 20	20 23.81	+15 26.3	2.637	3.345	14.1	20.7
6 30	20 25.50	-32 28.7	1.356	2.314	11.0	20.9	6 30	20 18.41	+16 18.9	2.576	3.356	12.7	20.6
7 10	20 16.14	-33 33.2	1.313	2.304	7.5	20.6	7 10	20 11.72	+16 50.0	2.534	3.366	11.5	20.6
7 20	20 4.78	-34 25.0	1.295	2.295	6.1	20.5	7 20	20 4.27	+16 57.2	2.514	3.376	10.6	20.5
7 30	19 52.98	-34 56.8	1.301	2.284	8.4	20.6	7 30	19 56.71	+16 40.2	2.517	3.386	10.3	20.5
8 9	19 42.43	-35 5.5	1.331	2.274	12.3	20.8	8 9	19 49.71	+16 1.0	2.542	3.396	10.7	20.6
8 19	19 34.51	-34 52.7	1.382	2.264	16.1	21.0	8 19	19 43.86	+15 3.2	2.590	3.405	11.6	20.6
8 29	19 30.11	-34 22.5	1.451	2.253	19.5	21.3	8 29	19 39.64	+13 52.0	2.658	3.414	12.8	20.7
380819	2005 <i>YV</i> ₁₃₄		7 21.3 226°09	3.0/19.6	17		17304	4637 <i>P-L</i>		7 21.3 297°46	3.3/22.7	18	
6 20	20 29.05	-26 26.1	1.974	2.867	11.7	21.2	6 20	20 26.21	-11 42.6	1.286	2.180	16.6	18.8
6 30	20 22.73	-27 19.5	1.901	2.859	8.4	21.0	6 30	20 21.42	-11 54.4	1.207	2.162	12.5	18.5
7 10	20 14.32	-28 13.4	1.853	2.850	5.0	20.7	7 10	20 13.95	-12 23.5	1.149	2.143	7.8	18.2
7 20	20 4.56	-29 2.5	1.832	2.841	3.0	20.6	7 20	20 4.58	-13 7.9	1.114	2.125	3.7	17.9
7 30	19 54.48	-29 41.7	1.838	2.831	5.3	20.7	7 30	19 54.60	-14 3.3	1.103	2.108	5.4	18.0
8 9	19 45.19	-30 8.3	1.871	2.821	8.8	20.9	8 9	19 45.52	-15 3.7	1.115	2.090	10.4	18.2
8 19	19 37.68	-30 21.4	1.928	2.811	12.2	21.1	8 19	19 38.66	-16 3.1	1.148	2.073	15.4	18.4
8 29	19 32.64	-30 22.2	2.006	2.800	15.1	21.3	8 29	19 34.99	-16 57.0	1.201	2.056	19.7	18.7
510511	2012 <i>BR</i> ₅₃		7 21.3 190°15	2.0/22.9	18		94250	2001 <i>CZ</i> ₂₆	</				

EPHEMERIDES

7 21.3

7 21.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
134658	1999 VS ₈₅	7 21.3 228°48		0°9/20.9 18			395818	2012 XE ₄₁	7 21.3 240°03		1°6/22.1 18		
6 20	20 30.28	-21 27.2	1.736	2.628	13.1	20.4	6 20	20 26.47	-15 19.1	2.090	2.969	11.8	21.6
6 30	20 23.73	-21 49.9	1.661	2.619	9.4	20.1	6 30	20 20.66	-15 20.3	2.013	2.961	8.6	21.4
7 10	20 14.93	-22 16.2	1.610	2.610	5.1	19.8	7 10	20 13.11	-15 28.6	1.959	2.953	5.0	21.1
7 20	20 4.68	-22 42.4	1.585	2.601	1.0	19.5	7 20	20 4.49	-15 42.2	1.932	2.945	1.8	20.9
7 30	19 54.10	-23 4.3	1.588	2.591	4.3	19.8	7 30	19 55.63	-15 58.9	1.932	2.936	3.6	21.0
8 9	19 44.44	-23 19.2	1.616	2.581	8.8	20.0	8 9	19 47.46	-16 16.4	1.960	2.928	7.2	21.2
8 19	19 36.72	-23 26.1	1.669	2.570	12.8	20.2	8 19	19 40.77	-16 32.9	2.013	2.919	10.7	21.4
8 29	19 31.69	-23 25.3	1.742	2.559	16.2	20.4	8 29	19 36.18	-16 46.9	2.088	2.909	13.7	21.6
284437	2007 DB ₉₈	7 21.3 98°48		3°5/19.9 17			486149	2012 XA ₅₁	7 21.3 287°21		7°0/17.2 18		
6 20	20 32.46	-28 43.0	1.744	2.638	13.0	21.2	6 20	20 29.79	-35 23.3	1.770	2.663	12.8	22.0
6 30	20 25.01	-29 12.0	1.699	2.655	9.3	21.0	6 30	20 23.80	-36 44.1	1.696	2.644	10.0	21.8
7 10	20 15.44	-29 37.0	1.677	2.672	5.6	20.8	7 10	20 15.19	-37 59.4	1.646	2.624	7.6	21.6
7 20	20 4.71	-29 53.0	1.681	2.689	3.5	20.7	7 20	20 4.75	-39 0.9	1.621	2.605	7.1	21.5
7 30	19 54.06	-29 56.8	1.713	2.706	5.6	20.9	7 30	19 53.76	-39 41.5	1.621	2.585	8.9	21.6
8 9	19 44.69	-29 47.7	1.770	2.722	9.1	21.1	8 9	19 43.69	-39 58.3	1.645	2.566	11.9	21.7
8 19	19 37.50	-29 27.1	1.851	2.738	12.5	21.4	8 19	19 35.78	-39 52.2	1.691	2.546	15.0	21.9
8 29	19 33.05	-28 57.6	1.953	2.753	15.3	21.6	8 29	19 30.97	-39 26.9	1.756	2.527	17.8	22.1
384032	2008 UF ₁₄₈	7 21.3 115°03		4°5/18.8 17			46971	1998 SE ₁₃₈	7 21.3 349°88		3°7/19.7 18		
6 20	20 30.24	-31 45.1	2.123	3.011	11.2	21.4	6 20	20 27.74	-28 7.0	1.616	2.520	13.2	18.2
6 30	20 23.31	-32 42.1	2.077	3.027	8.3	21.3	6 30	20 22.04	-28 43.7	1.555	2.517	9.6	18.0
7 10	20 14.50	-33 33.8	2.056	3.043	5.6	21.1	7 10	20 14.03	-29 18.2	1.517	2.514	5.8	17.8
7 20	20 4.61	-34 15.1	2.061	3.058	4.5	21.1	7 20	20 4.60	-29 45.1	1.504	2.512	3.7	17.6
7 30	19 54.68	-34 42.0	2.094	3.073	6.1	21.2	7 30	19 54.97	-29 59.9	1.516	2.511	6.0	17.8
8 9	19 45.74	-34 53.2	2.154	3.087	8.8	21.4	8 9	19 46.43	-30 0.6	1.553	2.509	9.8	18.0
8 19	19 38.63	-34 49.6	2.238	3.101	11.5	21.6	8 19	19 40.03	-29 47.9	1.613	2.508	13.5	18.2
8 29	19 33.92	-34 33.8	2.342	3.115	13.8	21.8	8 29	19 36.44	-29 23.8	1.693	2.508	16.6	18.4
469617	2004 QO ₁₅	7 21.3 329°91		0°3/21.2 18			211151	2002 GX ₁₄₆	7 21.3 50°64		2°3/20.4 17		
6 20	20 26.64	-21 44.5	1.239	2.152	15.7	20.7	6 20	20 29.12	-22 39.0	1.187	2.100	16.3	19.9
6 30	20 21.80	-21 29.9	1.165	2.133	11.3	20.4	6 30	20 23.34	-23 30.4	1.145	2.113	11.5	19.6
7 10	20 14.15	-21 17.7	1.111	2.114	6.3	20.0	7 10	20 14.83	-24 26.1	1.123	2.125	6.3	19.4
7 20	20 4.61	-21 5.0	1.080	2.096	0.8	19.6	7 20	20 4.70	-25 18.5	1.124	2.139	2.3	19.2
7 30	19 54.59	-20 49.1	1.073	2.079	5.1	19.9	7 30	19 54.53	-26 0.9	1.150	2.152	5.8	19.4
8 9	19 45.72	-20 28.7	1.088	2.064	10.6	20.1	8 9	19 45.88	-26 29.5	1.199	2.166	10.8	19.7
8 19	19 39.31	-20 3.7	1.125	2.049	15.6	20.4	8 19	19 39.90	-26 43.4	1.268	2.180	15.2	20.0
8 29	19 36.26	-19 35.0	1.179	2.036	19.9	20.6	8 29	19 37.25	-26 44.2	1.357	2.195	18.8	20.3
45965	2001 BP ₂₀	7 21.3 8°89		3°3/19.7 18			154761	2004 PR ₁₄	7 21.3 135°54		6°3/18.9 18		
6 20	20 25.68	-23 17.9	1.127	2.047	16.3	17.9	6 20	20 34.91	-36 44.0	1.859	2.741	12.8	19.8
6 30	20 21.19	-24 33.6	1.076	2.048	11.6	17.6	6 30	20 26.90	-37 19.5	1.807	2.749	9.9	19.6
7 10	20 13.80	-25 55.4	1.046	2.049	6.6	17.4	7 10	20 16.56	-37 44.3	1.778	2.756	7.3	19.5
7 20	20 4.56	-27 14.1	1.039	2.052	3.3	17.2	7 20	20 4.91	-37 52.7	1.776	2.763	6.3	19.4
7 30	19 55.02	-28 20.4	1.055	2.055	6.8	17.4	7 30	19 53.27	-37 41.3	1.799	2.769	7.7	19.5
8 9	19 46.87	-29 8.4	1.093	2.059	11.8	17.7	8 9	19 42.98	-37 10.5	1.848	2.775	10.4	19.7
8 19	19 41.41	-29 36.5	1.151	2.064	16.3	18.0	8 19	19 35.03	-36 23.6	1.921	2.781	13.2	19.9
8 29	19 39.44	-29 45.9	1.227	2.070	20.1	18.2	8 29	19 30.04	-35 25.4	2.013	2.786	15.8	20.1
432624	2010 VQ ₆₂	7 21.3 248°60		0°8/20.9 17			251799	1999 TK ₃₆	7 21.3 317°59		5°6/23.9 17		
6 20	20 30.26	-21 13.6	1.687	2.580	13.3	22.2	6 20	20 22.50	-5 42.7	1.812	2.674	14.0	20.3
6 30	20 23.82	-21 33.3	1.608	2.567	9.6	21.9	6 30	20 18.18	-5 27.6	1.718	2.646	11.1	20.1
7 10	20 15.04	-21 57.2	1.553	2.553	5.3	21.6	7 10	20 11.95	-5 28.4	1.645	2.619	8.1	19.8
7 20	20 4.71	-22 21.3	1.523	2.538	0.9	21.3	7 20	20 4.40	-5 45.7	1.597	2.592	5.8	19.6
7 30	19 53.97	-22 41.5	1.520	2.523	4.4	21.5	7 30	19 56.38	-6 18.6	1.573	2.565	6.2	19.6
8 9	19 44.12	-22 55.0	1.543	2.508	9.0	21.7	8 9	19 48.91	-7 4.0	1.575	2.539	9.0	19.7
8 19	19 36.25	-23 0.8	1.589	2.492	13.2	22.0	8 19	19 42.91	-7 57.6	1.600	2.513	12.5	19.9
8 29	19 31.15	-22 59.0	1.657	2.476	16.7	22.2	8 29	19 39.16	-8 54.7	1.646	2.488	15.8	20.0
284561	2007 TN ₃₀	7 21.3 342°54		1°8/20.7 18			230409	2002 KG ₉	7 21.3 53°17		0°1/21.3 18		
6 20	20 27.16	-24 19.7	1.466	2.373	14.1	19.9	6 20	20 25.85	-16 9.9	1.562	2.457	14.1	19.6
6 30	20 21.75	-24 26.4	1.400	2.365	10.1	19.7	6 30	20 20.58	-17 22.5	1.510	2.469	10.0	19.4
7 10	20 13.91	-24 33.5	1.356	2.358	5.6	19.4	7 10	20 13.20	-18 46.2	1.481	2.481	5.5	19.2
7 20	20 4.57	-24 37.2	1.337	2.351	1.8	19.1	7 20	20 4.53	-20 14.8	1.477	2.493	0.6	18.8
7 30	19 54.99	-24 34.0	1.342	2.346	5.0	19.3	7 30	19 55.70	-21 41.0	1.500	2.506	4.2	19.2
8 9	19 46.55	-24 22.5	1.372	2.341	9.6	19.6	8 9	19 47.88	-22 58.8	1.549	2.518	8.7	19.4
8 19	19 40.31	-24 2.7	1.425	2.336	13.8	19.8	8 19	19 42.01	-24 4.1	1.622	2.531	12.6	19.7
8 29	19 37.01	-23 36.2	1.497	2.333	17.4	20.0	8 29	19 38.74	-24 55.5	1.716	2.544	15.9	20.0
179507	2002 CK ₁₃₂	7 21.3 58°10		4°6/24.2 17			60579	2000 EK ₁₂₇	7 21.3 327°46		0°9/20.8 18		
6 20	20 23.40	-5 33.5	2.039	2.892	13.0	19.5	6 20	20 25.13	-20 20.3	1.717	2.616	12.8	18.6
6 30	20 18.32	-5 39.1	1.983	2.908	10.1	19.4	6 30	20 20.08	-21 3.4	1.648	2.610	9.1	18.4
7 10	20 11.74	-5 59.6	1.950	2.923	7.1	19.2	7 10	20 12.96	-21 52.8	1.602	2.604	5.0	18.1
7 20	20 4.30	-6 33.9	1.942	2.938	4.9	19.1	7 20	20 4.52	-22 43.8	1.582	2.598	1.0	17.8
7 30	19 56.80	-7 19.4	1.961	2.954	5.1	19.1	7 30	19 55.78	-23 31.5	1.588	2.592	4.3	18.1
8 9	19 50.06	-8 12.2	2.007	2.969	7.5	19.3	8 9	19 47.89	-24 11.7	1.620	2.587	8.6	18.3
8 19	19 44.74	-9 8.2	2.077	2.985	10.3	19.5	8 19	19 41.80	-24 42.3	1.676	2.582	12.4	18.5
8 29	19 41.35	-10 3.7	2.170	3.001	12.9	19.7	8 29	19 38.21	-25 2.4	1.752	2.578	15.7	18.7
164804	1999 JL ₇₅	7 21.3 129°61		1°1/20.8 17			39329	2001 XW ₁₅₄	7 21.3 122°27		0°1/21.4 18		
6 20	20 32.03	-21 44.0	1.549	2.444	14.2	20.3	6 20</						

EPHEMERIDES

7 21.3

7 21.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
106428	2000 <i>VV</i> ₄₃		7 21.3 109°04	5°0/18.7	18		137777	1999 <i>XN</i> ₂₁₈		7 21.3 256°48	1°3/20.7	18	R
6 20	20 28.82	-34 18.8	2.194	3.081	10.9	19.5	6 20	20 29.24	-21 18.8	1.704	2.598	13.2	20.1
6 30	20 22.39	-34 59.9	2.136	3.083	8.3	19.4	6 30	20 23.20	-22 1.6	1.622	2.582	9.4	19.8
7 10	20 14.07	-35 34.3	2.103	3.086	5.9	19.2	7 10	20 14.80	-22 50.3	1.564	2.565	5.2	19.5
7 20	20 4.65	-35 57.3	2.097	3.088	5.0	19.2	7 20	20 4.79	-23 39.8	1.532	2.547	1.3	19.2
7 30	19 55.13	-36 5.4	2.117	3.091	6.4	19.3	7 30	19 54.29	-24 24.8	1.527	2.530	4.7	19.4
8 9	19 46.55	-35 58.0	2.163	3.093	8.9	19.4	8 9	19 44.57	-25 1.1	1.548	2.511	9.2	19.7
8 19	19 39.73	-35 36.3	2.233	3.095	11.6	19.6	8 19	19 36.77	-25 26.7	1.593	2.493	13.3	19.9
8 29	19 35.27	-35 3.1	2.324	3.098	13.9	19.8	8 29	19 31.71	-25 41.3	1.658	2.474	16.9	20.1
489961	2008 <i>SN</i> ₂₇		7 21.3 326°31	1°4/20.8	16		152622	1996 <i>TS</i> ₃₅		7 21.3 28°29	0°5/21.1	17	
6 20	20 25.80	-22 6.8	1.353	2.264	14.8	21.1	6 20	20 25.13	-18 45.0	1.211	2.124	16.0	18.9
6 30	20 21.07	-22 28.8	1.280	2.247	10.6	20.8	6 30	20 20.43	-19 32.5	1.168	2.135	11.4	18.7
7 10	20 13.73	-22 55.6	1.229	2.232	5.9	20.5	7 10	20 13.24	-20 29.1	1.145	2.148	6.1	18.4
7 20	20 4.64	-23 22.3	1.201	2.217	1.4	20.1	7 20	20 4.58	-21 28.6	1.145	2.161	0.8	18.1
7 30	19 55.11	-23 44.2	1.198	2.203	5.1	20.3	7 30	19 55.85	-22 24.1	1.169	2.175	4.9	18.4
8 9	19 46.61	-23 57.7	1.218	2.189	10.2	20.6	8 9	19 48.45	-23 10.3	1.217	2.191	9.9	18.8
8 19	19 40.38	-24 1.4	1.259	2.176	14.9	20.8	8 19	19 43.45	-23 44.6	1.286	2.207	14.4	19.1
8 29	19 37.28	-23 55.4	1.320	2.165	18.8	21.0	8 29	19 41.50	-24 6.3	1.374	2.223	18.0	19.4
77449	2001 <i>HN</i> ₆		7 21.3 5°03	0°3/21.2	18		285857	2001 <i>GD</i> ₃		7 21.3 31°19	10°6/30.1	17	
6 20	20 25.79	-19 5.3	1.739	2.635	12.9	19.8	6 20	20 22.48	+ 9 24.7	0.986	1.824	24.8	18.7
6 30	20 20.45	-19 37.9	1.676	2.635	9.2	19.5	6 30	20 18.65	+ 7 59.7	0.948	1.847	20.7	18.5
7 10	20 13.12	-20 16.9	1.635	2.635	5.0	19.3	7 10	20 12.28	+ 5 44.2	0.925	1.872	16.2	18.4
7 20	20 4.55	-20 58.3	1.620	2.636	0.6	19.0	7 20	20 4.47	+ 2 43.0	0.922	1.898	12.3	18.3
7 30	19 55.78	-21 38.0	1.631	2.636	4.0	19.2	7 30	19 56.67	- 0 50.7	0.941	1.926	10.6	18.3
8 9	19 47.90	-22 12.2	1.669	2.637	8.2	19.5	8 9	19 50.33	- 4 36.7	0.984	1.955	12.1	18.5
8 19	19 41.81	-22 38.9	1.730	2.638	12.0	19.7	8 19	19 46.49	- 8 15.4	1.050	1.985	15.5	18.7
8 29	19 38.15	-22 57.2	1.812	2.639	15.2	19.9	8 29	19 45.77	-11 32.0	1.138	2.015	19.0	19.1
318194	2004 <i>RB</i> ₁₀₈		7 21.3 287°57	3°7/23.3	18		432419	2010 <i>AQ</i> ₅₉		7 21.3 132°21	3°0/19.5	17	
6 20	20 23.46	- 8 47.6	2.235	3.096	11.8	21.1	6 20	20 28.53	-25 18.4	1.951	2.844	11.8	20.9
6 30	20 18.49	- 8 42.9	2.149	3.082	9.0	20.9	6 30	20 22.30	-26 32.1	1.895	2.853	8.4	20.7
7 10	20 11.96	- 8 49.4	2.086	3.067	6.1	20.7	7 10	20 14.11	-27 46.9	1.864	2.861	4.9	20.5
7 20	20 4.43	- 9 6.6	2.050	3.052	3.9	20.5	7 20	20 4.69	-28 56.8	1.860	2.869	3.0	20.4
7 30	19 56.62	- 9 33.0	2.040	3.037	4.4	20.6	7 30	19 55.08	-29 56.3	1.884	2.876	5.2	20.6
8 9	19 49.36	-10 5.8	2.058	3.022	7.2	20.7	8 9	19 46.35	-30 42.0	1.935	2.884	8.6	20.8
8 19	19 43.37	-10 42.4	2.101	3.007	10.3	20.9	8 19	19 39.39	-31 12.7	2.010	2.891	11.9	21.0
8 29	19 39.22	-11 19.7	2.166	2.993	13.1	21.0	8 29	19 34.85	-31 29.6	2.106	2.897	14.6	21.2
71209	1999 <i>XX</i> ₂₄₈		7 21.3 296°10	2°3/19.8	18		276084	2002 <i>CF</i> ₂₉₄		7 21.3 152°34	3°4/19.2	18	
6 20	20 25.96	-21 42.8	1.715	2.615	12.8	19.0	6 20	20 28.28	-25 7.8	1.772	2.670	12.6	19.8
6 30	20 20.86	-23 8.2	1.640	2.602	9.1	18.8	6 30	20 22.37	-26 35.7	1.712	2.672	9.0	19.6
7 10	20 13.52	-24 41.6	1.588	2.588	5.1	18.5	7 10	20 14.26	-28 6.3	1.677	2.675	5.3	19.4
7 20	20 4.63	-26 16.0	1.562	2.575	2.3	18.3	7 20	20 4.72	-29 32.2	1.668	2.677	3.4	19.3
7 30	19 55.24	-27 44.0	1.564	2.562	5.3	18.4	7 30	19 54.88	-30 46.4	1.687	2.678	5.9	19.4
8 9	19 46.58	-28 59.4	1.591	2.549	9.5	18.7	8 9	19 45.93	-31 44.5	1.732	2.680	9.5	19.7
8 19	19 39.73	-29 58.6	1.643	2.536	13.4	18.9	8 19	19 38.89	-32 24.9	1.800	2.682	13.0	19.9
8 29	19 35.53	-30 41.1	1.714	2.524	16.7	19.1	8 29	19 34.51	-32 48.7	1.889	2.683	15.9	20.1
416052	2002 <i>GP</i> ₇₄		7 21.3 72°57	8°5/25.7	17		75681	2000 <i>AL</i> ₉₈		7 21.3 195°52	0°5/21.0	18	
6 20	20 28.29	- 0 0.1	1.347	2.195	18.7	20.7	6 20	20 28.66	-18 48.2	1.885	2.772	12.5	18.6
6 30	20 22.27	+ 0 18.3	1.305	2.217	15.2	20.5	6 30	20 22.46	-19 39.0	1.814	2.770	8.9	18.4
7 10	20 14.08	+ 0 10.1	1.282	2.239	11.6	20.4	7 10	20 14.24	-20 36.9	1.768	2.768	4.8	18.2
7 20	20 4.66	- 0 24.7	1.280	2.261	9.0	20.3	7 20	20 4.72	-21 37.4	1.749	2.765	0.7	17.8
7 30	19 55.27	- 1 22.8	1.302	2.283	8.8	20.4	7 30	19 54.91	-22 35.2	1.757	2.761	4.0	18.1
8 9	19 47.14	- 2 37.5	1.348	2.304	11.0	20.5	8 9	19 45.90	-23 26.2	1.793	2.757	8.1	18.3
8 19	19 41.18	- 4 0.8	1.416	2.326	14.0	20.8	8 19	19 38.60	-24 7.8	1.854	2.752	11.8	18.6
8 29	19 37.99	- 5 25.3	1.504	2.347	17.0	21.0	8 29	19 33.73	-24 39.1	1.936	2.747	15.0	18.8
504168	2006 <i>SO</i> ₃₆₀		7 21.3 288°30	3°6/22.8	18		256612	2007 <i>VL</i> ₉₇		7 21.3 4°81	3°1/20.4	17	
6 20	20 26.73	-11 20.3	1.469	2.354	15.4	21.4	6 20	20 27.51	-25 13.9	1.020	1.944	17.3	20.2
6 30	20 21.53	-11 20.4	1.389	2.338	11.6	21.2	6 30	20 22.68	-25 37.9	0.970	1.943	12.4	19.9
7 10	20 13.92	-11 35.1	1.331	2.322	7.4	20.9	7 10	20 14.70	-26 2.7	0.940	1.943	7.0	19.6
7 20	20 4.68	-12 3.1	1.297	2.306	3.8	20.6	7 20	20 4.78	-26 21.5	0.930	1.944	3.1	19.4
7 30	19 54.95	-12 41.4	1.287	2.290	5.2	20.7	7 30	19 54.67	-26 28.8	0.943	1.947	6.6	19.6
8 9	19 46.06	-13 25.4	1.302	2.274	9.6	20.9	8 9	19 46.21	-26 22.2	0.978	1.950	11.9	19.9
8 19	19 39.14	-14 10.9	1.340	2.259	14.0	21.1	8 19	19 40.73	-26 2.7	1.031	1.955	16.8	20.2
8 29	19 35.08	-14 53.8	1.397	2.243	17.9	21.3	8 29	19 38.97	-25 32.6	1.102	1.960	20.9	20.5
271722	2004 <i>RH</i> ₂₃₃		7 21.3 338°13	5°1/19.5	18		523049	2016 <i>QD</i> ₈₀		7 21.3 112°79	1°5/22.1	17	
6 20	20 24.41	-28 50.9	1.132	2.055	16.0	19.6	6 20	20 26.63	-15 6.0	1.825	2.709	12.9	21.7
6 30	20 20.58	-29 31.4	1.065	2.036	11.8	19.3	6 30	20 20.90	-15 22.2	1.762	2.714	9.4	21.5
7 10	20 13.68	-30 9.9	1.017	2.017	7.4	19.0	7 10	20 13.32	-15 47.2	1.722	2.718	5.4	21.3
7 20	20 4.66	-30 38.8	0.992	2.000	5.1	18.8	7 20	20 4.60	-16 18.4	1.708	2.722	1.7	21.1
7 30	19 55.12	-30 51.1	0.988	1.984	7.9	18.9	7 30	19 55.74	-16 52.4	1.721	2.727	3.8	21.2
8 9	19 46.88	-30 43.5	1.005	1.970	12.7	19.1	8 9	19 47.74	-17 25.9	1.761	2.731	7.7	21.5
8 19	19 41.39	-30 16.9	1.042	1.958	17.3	19.4	8 19	19 41.43	-17 56.2	1.825	2.735	11.4	21.7
8 29	19 39.61	-29 34.9	1.095	1.947	21.4	19.6	8 29	19 37.44	-18 21.6	1.911	2.739	14.5	21.9
126174	2002 <i>AA</i> ₁₀		7 21.3 193°66	0°6/20.9	18		243897						

EPHEMERIDES

7 21.3

7 21.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
68293	2001 <i>FF</i> ₄₉		7 21.3 247°63	5°4/18.8	18		446498	2014 <i>KL</i> ₅₇		7 21.3	9°21	5°1/24.2	18
6 20	20 32.25	-34 54.6	2.069	2.953	11.6	18.7	6 20	20 22.99	-5 18.0	1.998	2.852	13.2	20.7
6 30	20 25.07	-35 30.6	1.996	2.941	8.9	18.5	6 30	20 18.21	-5 9.7	1.929	2.853	10.4	20.6
7 10	20 15.69	-35 59.2	1.946	2.928	6.4	18.4	7 10	20 11.84	-5 16.4	1.884	2.854	7.5	20.4
7 20	20 4.90	-36 14.8	1.923	2.914	5.4	18.3	7 20	20 4.49	-5 37.9	1.862	2.856	5.3	20.3
7 30	19 53.86	-36 13.8	1.927	2.901	6.9	18.4	7 30	19 56.98	-6 12.3	1.867	2.857	5.6	20.3
8 9	19 43.78	-35 55.1	1.956	2.887	9.7	18.5	8 9	19 50.16	-6 56.3	1.898	2.859	7.9	20.4
8 19	19 35.66	-35 20.8	2.010	2.873	12.6	18.7	8 19	19 44.75	-7 46.0	1.953	2.862	10.8	20.6
8 29	19 30.21	-34 34.1	2.084	2.858	15.3	18.8	8 29	19 41.32	-8 37.3	2.031	2.864	13.6	20.8
226341	2003 <i>FE</i> ₈₀		7 21.3 87°63	2°9/22.8	17		478835	2012 <i>VE</i> ₄₀		7 21.3 287°63	1°3/20.7	18	
6 20	20 27.45	-11 5.7	1.674	2.550	14.3	20.3	6 20	20 27.16	-22 15.2	1.793	2.690	12.5	21.4
6 30	20 21.49	-11 23.7	1.622	2.567	10.6	20.1	6 30	20 21.59	-22 42.6	1.714	2.675	8.9	21.1
7 10	20 13.61	-11 54.8	1.593	2.583	6.6	19.9	7 10	20 13.88	-23 13.5	1.659	2.659	4.9	20.8
7 20	20 4.64	-12 36.4	1.589	2.599	3.2	19.7	7 20	20 4.76	-23 44.1	1.629	2.644	1.3	20.6
7 30	19 55.62	-13 24.4	1.611	2.615	4.4	19.8	7 30	19 55.27	-24 10.0	1.626	2.629	4.4	20.7
8 9	19 47.60	-14 14.5	1.660	2.630	8.1	20.1	8 9	19 46.58	-24 28.5	1.649	2.613	8.6	21.0
8 19	19 41.42	-15 2.7	1.733	2.646	11.7	20.3	8 19	19 39.67	-24 38.2	1.695	2.598	12.5	21.2
8 29	19 37.67	-15 46.2	1.828	2.661	14.9	20.6	8 29	19 35.30	-24 39.2	1.763	2.583	15.9	21.4
232903	2004 <i>XO</i> ₈₇		7 21.3 254°74	0°5/21.1	18		507301	2011 <i>LY</i> ₇		7 21.3 277°91	4°8/18.4	18	
6 20	20 27.57	-20 7.8	1.915	2.806	12.1	21.2	6 20	20 28.34	-29 4.7	1.736	2.636	12.7	21.0
6 30	20 21.72	-20 36.1	1.836	2.793	8.7	20.9	6 30	20 22.68	-30 27.4	1.665	2.623	9.3	20.7
7 10	20 13.86	-21 9.5	1.780	2.780	4.8	20.7	7 10	20 14.59	-31 50.3	1.618	2.610	6.1	20.5
7 20	20 4.70	-21 44.5	1.751	2.766	0.7	20.3	7 20	20 4.86	-33 5.6	1.596	2.597	4.9	20.4
7 30	19 55.19	-22 17.2	1.749	2.753	3.9	20.6	7 30	19 54.63	-34 6.3	1.601	2.584	7.1	20.5
8 9	19 46.41	-22 44.4	1.773	2.739	8.1	20.8	8 9	19 45.26	-34 48.1	1.631	2.572	10.6	20.7
8 19	19 39.30	-23 4.3	1.823	2.725	11.8	21.0	8 19	19 37.88	-35 10.2	1.684	2.559	14.1	20.9
8 29	19 34.56	-23 16.4	1.894	2.710	15.1	21.2	8 29	19 33.35	-35 14.5	1.756	2.546	17.1	21.1
54501	2000 <i>OB</i> ₅₂		7 21.3 318°95	10°7/17.1	18		158453	2002 <i>CP</i> ₁₂₇		7 21.3 57°31	1°1/21.8	17	
6 20	20 35.25	-44 16.3	1.505	2.385	15.5	17.0	6 20	20 27.57	-16 31.5	1.521	2.415	14.5	19.7
6 30	20 28.16	-45 16.5	1.447	2.373	13.0	16.8	6 30	20 21.77	-16 46.2	1.472	2.429	10.4	19.5
7 10	20 17.72	-45 58.8	1.409	2.361	11.2	16.7	7 10	20 13.86	-17 9.6	1.445	2.443	5.8	19.3
7 20	20 5.16	-46 13.8	1.393	2.351	10.8	16.7	7 20	20 4.75	-17 38.2	1.442	2.457	1.4	19.0
7 30	19 52.36	-45 55.7	1.400	2.340	12.1	16.7	7 30	19 55.60	-18 8.1	1.465	2.471	4.1	19.3
8 9	19 41.27	-45 5.1	1.428	2.330	14.6	16.8	8 9	19 47.59	-18 35.9	1.514	2.486	8.5	19.6
8 19	19 33.31	-43 47.8	1.477	2.320	17.4	17.0	8 19	19 41.62	-18 59.2	1.586	2.501	12.5	19.8
8 29	19 29.27	-42 11.8	1.543	2.311	20.0	17.2	8 29	19 38.29	-19 16.6	1.679	2.515	15.8	20.1
428053	2006 <i>DM</i> ₁₉₇		7 21.3 53°24	2°4/20.8	17		30485	2000 <i>PK</i> ₁₆		7 21.3 221°76	0°3/21.6	18	
6 20	20 35.13	-27 51.1	1.488	2.385	14.6	19.5	6 20	20 25.16	-17 30.8	2.577	3.455	9.8	19.1
6 30	20 26.97	-27 29.0	1.448	2.406	10.4	19.3	6 30	20 19.58	-18 0.6	2.496	3.446	7.1	18.9
7 10	20 16.53	-27 1.9	1.430	2.428	5.9	19.1	7 10	20 12.55	-18 35.8	2.440	3.437	3.9	18.7
7 20	20 5.00	-26 26.9	1.438	2.450	2.5	18.9	7 20	20 4.60	-19 14.0	2.412	3.428	0.6	18.4
7 30	19 53.79	-25 43.4	1.472	2.473	5.1	19.1	7 30	19 56.43	-19 52.3	2.413	3.418	2.9	18.6
8 9	19 44.22	-24 52.8	1.532	2.496	9.3	19.4	8 9	19 48.78	-20 28.0	2.443	3.407	6.2	18.8
8 19	19 37.17	-23 58.0	1.616	2.518	13.0	19.7	8 19	19 42.31	-20 59.4	2.499	3.397	9.2	19.0
8 29	19 33.13	-23 1.7	1.721	2.541	16.2	20.0	8 29	19 37.57	-21 25.1	2.578	3.385	11.8	19.1
3206	Wuhan		7 21.3 253°27	3°5/19.3	18		80941	2000 <i>DN</i> ₈₆		7 21.3 303°22	4°4/19.3	18	
6 20	20 29.58	-27 25.2	2.004	2.896	11.6	17.8	6 20	20 28.33	-27 1.5	1.360	2.270	14.8	18.6
6 30	20 23.28	-28 23.6	1.921	2.877	8.4	17.6	6 30	20 23.25	-28 4.1	1.279	2.244	10.8	18.3
7 10	20 14.81	-29 22.6	1.863	2.858	5.2	17.4	7 10	20 15.19	-29 9.7	1.219	2.218	6.7	18.0
7 20	20 4.84	-30 16.4	1.832	2.839	3.5	17.2	7 20	20 4.96	-30 10.2	1.183	2.192	4.4	17.8
7 30	19 54.41	-30 59.6	1.828	2.819	5.6	17.3	7 30	19 53.96	-30 57.4	1.172	2.166	7.4	17.9
8 9	19 44.67	-31 29.0	1.852	2.798	9.2	17.5	8 9	19 43.87	-31 25.9	1.184	2.141	12.0	18.0
8 19	19 36.66	-31 43.6	1.899	2.777	12.6	17.7	8 19	19 36.21	-31 34.6	1.216	2.116	16.6	18.2
8 29	19 31.17	-31 44.7	1.967	2.755	15.6	17.8	8 29	19 32.07	-31 25.4	1.266	2.091	20.6	18.4
214744	2006 <i>TQ</i> ₅₁		7 21.3 271°87	0°1/21.4	18		94305	2001 <i>FX</i> ₂		7 21.3 161°63	4°8/18.4	18	
6 20	20 25.16	-18 25.9	2.089	2.976	11.4	21.0	6 20	20 30.17	-38 22.7	2.974	3.842	9.0	20.5
6 30	20 19.80	-18 51.3	2.015	2.971	8.1	20.8	6 30	20 22.98	-38 52.4	2.917	3.847	7.0	20.4
7 10	20 12.73	-19 22.4	1.966	2.965	4.5	20.5	7 10	20 14.32	-39 14.0	2.885	3.852	5.4	20.3
7 20	20 4.59	-19 56.3	1.943	2.959	0.6	20.2	7 20	20 4.81	-39 24.1	2.881	3.857	4.9	20.2
7 30	19 56.22	-20 29.7	1.948	2.953	3.4	20.4	7 30	19 55.28	-39 20.4	2.905	3.861	5.8	20.3
8 9	19 48.54	-20 59.7	1.980	2.947	7.2	20.7	8 9	19 46.53	-39 3.0	2.956	3.865	7.6	20.4
8 19	19 42.33	-21 24.4	2.037	2.941	10.7	20.9	8 19	19 39.24	-38 33.1	3.032	3.868	9.6	20.6
8 29	19 38.21	-21 42.7	2.116	2.936	13.6	21.1	8 29	19 33.88	-37 53.2	3.130	3.871	11.3	20.7
504480	2008 <i>EN</i> ₁₄₉		7 21.3 124°61	5°3/19.0	17		310129	2011 <i>GA</i> ₅₇		7 21.3 350°18	7°3/24.7	16	
6 20	20 32.57	-31 44.6	1.610	2.506	13.7	21.4	6 20	20 21.50	-3 58.5	1.260	2.139	17.9	20.0
6 30	20 25.54	-32 38.3	1.559	2.513	10.1	21.2	6 30	20 17.92	-3 44.4	1.195	2.131	14.3	19.7
7 10	20 16.00	-33 26.0	1.530	2.520	6.8	21.0	7 10	20 12.01	-3 54.5	1.149	2.124	10.6	19.5
7 20	20 4.97	-34 0.9	1.527	2.526	5.4	21.0	7 20	20 4.56	-4 29.7	1.123	2.118	7.7	19.3
7 30	19 53.83	-34 17.9	1.549	2.532	7.3	21.1	7 30	19 56.78	-5 27.2	1.120	2.114	7.8	19.3
8 9	19 44.00	-34 15.7	1.596	2.538	10.7	21.3	8 9	19 49.96	-6 41.1	1.140	2.110	10.8	19.5
8 19	19 36.56	-33 56.4	1.666	2.544	14.1	21.5	8 19	19 45.20	-8 3.3	1.180	2.108	14.7	19.7
8 29	19 32.19	-33 23.7	1.755	2.549	17.0	21.8	8 29	19 43.30	-9 26.2	1.240	2.107	18.4	19.9
3715	Stohl		7 21.3 288°32	2°1/22.3	18		37704	1996 <i>EK</i> ₉		7 21.3 39°10	0°5/21		

EPHEMERIDES

7 21.3

7 21.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
475986	2007 <i>PZ</i> ₃₃		7 21.3 318°50	4°0/19.9	18		304296	2006 <i>SY</i> ₈₇		7 21.4 257°19	0°5/21.6	18	
6 20	20 28.52	-28 45.1	1.459	2.366	14.2	20.3	6 20	20 25.70	-17 52.3	2.064	2.950	11.6	21.2
6 30	20 23.13	-29 6.0	1.377	2.340	10.4	20.0	6 30	20 20.21	-18 10.2	1.993	2.947	8.3	21.0
7 10	20 14.99	-29 23.9	1.317	2.315	6.4	19.7	7 10	20 13.00	-18 34.0	1.946	2.944	4.6	20.8
7 20	20 4.95	-29 33.1	1.281	2.291	4.0	19.5	7 20	20 4.74	-19 0.9	1.925	2.941	0.8	20.5
7 30	19 54.38	-29 28.6	1.270	2.266	6.5	19.6	7 30	19 56.27	-19 28.0	1.932	2.938	3.4	20.7
8 9	19 44.83	-29 8.5	1.282	2.243	10.9	19.8	8 9	19 48.53	-19 52.7	1.966	2.934	7.2	20.9
8 19	19 37.61	-28 34.1	1.316	2.221	15.3	20.0	8 19	19 42.29	-20 13.0	2.025	2.931	10.6	21.1
8 29	19 33.63	-27 48.4	1.369	2.199	19.1	20.2	8 29	19 38.15	-20 28.1	2.106	2.928	13.6	21.3
48975	1998 <i>QH</i> ₄₀		7 21.4 282°42	1°4/21.9	18		216530	2001 <i>OF</i> ₁₁₁		7 21.4 301°94	4°3/24.0	18	
6 20	20 28.87	-16 30.5	1.583	2.474	14.2	18.5	6 20	20 23.43	-6 14.9	1.909	2.769	13.5	20.3
6 30	20 23.10	-16 32.6	1.495	2.450	10.4	18.2	6 30	20 18.75	-6 36.1	1.828	2.758	10.5	20.1
7 10	20 14.89	-16 43.1	1.428	2.426	6.0	17.9	7 10	20 12.29	-7 14.2	1.769	2.747	7.3	19.9
7 20	20 4.95	-16 59.8	1.387	2.401	1.7	17.5	7 20	20 4.66	-8 8.0	1.735	2.736	4.7	19.7
7 30	19 54.44	-17 19.4	1.371	2.377	4.4	17.7	7 30	19 56.71	-9 14.3	1.728	2.725	5.0	19.7
8 9	19 44.67	-17 38.9	1.381	2.352	9.3	17.9	8 9	19 49.39	-10 28.3	1.747	2.714	8.0	19.8
8 19	19 36.84	-17 55.8	1.414	2.327	13.8	18.1	8 19	19 43.51	-11 44.7	1.790	2.704	11.4	20.0
8 29	19 31.84	-18 8.6	1.467	2.302	17.8	18.3	8 29	19 39.76	-12 58.8	1.857	2.693	14.5	20.2
272546	2005 <i>UH</i> ₃₆₇		7 21.4 135°72	1°5/20.5	17		358763	2008 <i>CJ</i> ₂₀₆		7 21.4 10°33	3°3/23.4	18	
6 20	20 29.33	-22 12.5	1.958	2.847	12.0	21.4	6 20	20 23.23	-9 17.3	1.879	2.751	13.2	20.6
6 30	20 22.80	-22 58.3	1.901	2.858	8.4	21.2	6 30	20 18.53	-9 39.2	1.812	2.752	9.9	20.4
7 10	20 14.39	-23 46.9	1.869	2.869	4.6	20.9	7 10	20 12.11	-10 15.1	1.767	2.753	6.4	20.2
7 20	20 4.86	-24 33.8	1.864	2.879	1.5	20.7	7 20	20 4.63	-11 3.1	1.748	2.755	3.6	20.1
7 30	19 55.21	-25 14.5	1.888	2.888	4.2	21.0	7 30	19 56.96	-11 59.7	1.755	2.757	4.3	20.1
8 9	19 46.48	-25 46.3	1.938	2.897	7.9	21.2	8 9	19 50.02	-13 0.3	1.789	2.759	7.6	20.3
8 19	19 39.49	-26 7.9	2.013	2.906	11.3	21.4	8 19	19 44.59	-14 0.7	1.847	2.762	11.0	20.5
8 29	19 34.86	-26 19.8	2.110	2.914	14.1	21.6	8 29	19 41.27	-14 57.2	1.928	2.765	14.1	20.7
470302	2007 <i>HR</i> ₃₇		7 21.4 63°98	0°7/21.7	17		287191	2002 <i>SD</i> ₅		7 21.4 325°11	5°9/23.9	18	
6 20	20 27.79	-16 32.5	1.510	2.404	14.5	21.1	6 20	20 22.32	-6 10.0	1.477	2.352	15.9	20.1
6 30	20 21.94	-17 3.9	1.464	2.421	10.4	20.9	6 30	20 18.43	-6 59.3	1.392	2.329	12.6	19.8
7 10	20 13.98	-17 44.4	1.440	2.439	5.8	20.7	7 10	20 12.33	-6 7.8	1.328	2.307	9.0	19.5
7 20	20 4.81	-18 29.7	1.440	2.456	1.1	20.4	7 20	20 4.68	-6 36.2	1.286	2.285	6.2	19.3
7 30	19 55.62	-19 14.8	1.467	2.473	4.1	20.7	7 30	19 56.52	-7 22.8	1.268	2.264	6.7	19.3
8 9	19 47.58	-19 55.6	1.520	2.491	8.6	21.0	8 9	19 49.06	-8 22.9	1.274	2.244	10.0	19.4
8 19	19 41.61	-20 29.4	1.595	2.509	12.5	21.3	8 19	19 43.40	-9 30.8	1.301	2.225	14.0	19.6
8 29	19 38.29	-20 55.1	1.692	2.526	15.8	21.5	8 29	19 40.40	-10 40.2	1.349	2.206	17.8	19.8
306504	1999 <i>VU</i> ₅₁		7 21.4 296°35	8°7/16.5	18		263518	2008 <i>EA</i> ₁₄₉		7 21.4 136°71	1°9/20.5	17	
6 20	20 31.69	-39 48.4	1.699	2.586	13.6	20.1	6 20	20 31.94	-24 9.2	1.863	2.752	12.5	22.1
6 30	20 25.44	-41 6.9	1.629	2.566	11.1	19.9	6 30	20 24.70	-24 42.1	1.809	2.765	8.8	21.9
7 10	20 16.28	-42 15.2	1.581	2.546	9.1	19.7	7 10	20 15.45	-25 15.7	1.779	2.777	4.9	21.7
7 20	20 5.13	-43 4.2	1.557	2.526	8.8	19.7	7 20	20 5.03	-25 45.3	1.775	2.789	1.9	21.5
7 30	19 53.42	-43 27.1	1.557	2.506	10.5	19.7	7 30	19 54.55	-26 7.2	1.800	2.799	4.5	21.7
8 9	19 42.82	-43 21.8	1.580	2.487	13.2	19.8	8 9	19 45.13	-26 19.3	1.851	2.810	8.3	22.0
8 19	19 34.70	-42 50.8	1.624	2.467	16.1	20.0	8 19	19 37.66	-26 21.6	1.927	2.819	11.8	22.2
8 29	19 30.00	-41 59.4	1.685	2.448	18.8	20.1	8 29	19 32.74	-26 15.2	2.025	2.828	14.7	22.4
186820	2004 <i>FA</i> ₂₆		7 21.4 69°62	2°6/22.5	17		506480	2003 <i>QV</i> ₅₂		7 21.4 350°11	10°8/19.2	17	
6 20	20 28.41	-13 17.2	1.452	2.340	15.4	20.1	6 20	20 21.91	-37 48.0	0.757	1.696	19.8	19.8
6 30	20 22.43	-13 22.9	1.402	2.354	11.3	19.9	6 30	20 19.88	-38 22.5	0.707	1.678	15.8	19.5
7 10	20 14.27	-13 40.7	1.374	2.369	6.8	19.7	7 10	20 13.74	-38 37.2	0.673	1.664	12.2	19.3
7 20	20 4.86	-14 8.1	1.371	2.383	2.9	19.5	7 20	20 4.86	-38 20.7	0.655	1.652	10.8	19.1
7 30	19 55.40	-14 41.1	1.392	2.397	4.6	19.6	7 30	19 55.63	-37 26.0	0.655	1.643	12.8	19.2
8 9	19 47.12	-15 15.8	1.439	2.411	8.8	19.9	8 9	19 48.53	-35 55.3	0.671	1.637	16.9	19.4
8 19	19 40.96	-15 48.8	1.509	2.426	12.9	20.2	8 19	19 45.25	-33 57.8	0.704	1.634	21.4	19.6
8 29	19 37.52	-16 17.5	1.599	2.440	16.3	20.4	8 29	19 46.58	-31 44.3	0.750	1.635	25.4	19.9
495235	2013 <i>HX</i> ₈₁		7 21.4 211°19	4°7/24.5	18		346004	2007 <i>TD</i> ₂₀₇		7 21.4 63°53	2°7/22.7	16	
6 20	20 23.77	-2 42.5	2.913	3.735	10.4	22.0	6 20	20 25.82	-12 4.0	1.793	2.672	13.4	21.4
6 30	20 18.42	-2 30.5	2.828	3.728	8.3	21.9	6 30	20 20.39	-12 11.9	1.730	2.676	9.9	21.2
7 10	20 11.88	-2 30.2	2.767	3.721	6.3	21.7	7 10	20 13.13	-12 31.2	1.691	2.681	6.1	21.0
7 20	20 4.59	-2 41.6	2.733	3.713	4.9	21.6	7 20	20 4.76	-12 59.9	1.676	2.686	3.0	20.8
7 30	19 57.13	-3 4.0	2.727	3.704	5.0	21.6	7 30	19 56.24	-13 35.1	1.688	2.691	4.2	20.9
8 9	19 50.10	-3 35.4	2.748	3.695	6.5	21.7	8 9	19 48.57	-14 13.0	1.726	2.696	7.8	21.1
8 19	19 44.04	-4 13.3	2.796	3.686	8.6	21.9	8 19	19 42.56	-14 50.5	1.789	2.701	11.4	21.3
8 29	19 39.42	-4 55.0	2.869	3.676	10.7	22.0	8 29	19 38.84	-15 24.9	1.873	2.707	14.5	21.5
416645	2004 <i>TV</i> ₇₆		7 21.4 215°89	1°7/20.7	17		305189	2007 <i>VM</i> ₃₁₉		7 21.4 162°79	0°1/21.4	18	
6 20	20 30.78	-22 26.4	1.333	2.238	15.4	21.3	6 20	20 25.80	-18 39.5	2.103	2.990	11.4	20.9
6 30	20 24.58	-22 58.2	1.274	2.238	11.0	21.1	6 30	20 20.24	-19 6.1	2.036	2.991	8.1	20.7
7 10	20 15.68	-23 34.0	1.236	2.237	6.1	20.8	7 10	20 13.01	-19 38.1	1.993	2.992	4.4	20.5
7 20	20 5.06	-24 8.3	1.222	2.237	1.7	20.5	7 20	20 4.75	-20 12.4	1.977	2.993	0.5	20.2
7 30	19 54.18	-24 35.5	1.232	2.236	5.3	20.7	7 30	19 56.32	-20 45.7	1.989	2.994	3.4	20.4
8 9	19 44.57	-24 52.1	1.267	2.235	10.3	21.0	8 9	19 48.62	-21 15.2	2.028	2.995	7.1	20.6
8 19	19 37.45	-24 57.5	1.325	2.234	14.8	21.3	8 19	19 42.41	-21 39.0	2.092	2.995	10.5	20.9
8 29	19 33.59	-24 52.6	1.400	2.234	18.6	21.5	8 29	19 38.27	-21 56.4	2.178	2.996	13.3	21.0
224218	2005 <i>SY</i> ₃₇		7 21.4 197°70	5°3/18.9	18		175686	1995 <i></i>					

EPHEMERIDES

7 21.4

7 21.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
250839	2005 <i>UC</i> ₁₄₉	7 21.4 335°37		0°2/21.4 18			112429	2002 <i>NC</i> ₅₁	7 21.4 352°45		2°5/22.1 18		
6 20	20 23.63	-19 17.5	1.550	2.455	13.7	20.2	6 20	20 27.80	-16 1.2	1.190	2.095	16.8	18.9
6 30	20 19.30	-19 27.0	1.473	2.437	9.8	19.9	6 30	20 22.57	-15 34.4	1.130	2.091	12.3	18.6
7 10	20 12.75	-19 42.8	1.418	2.420	5.5	19.6	7 10	20 14.63	-15 16.9	1.089	2.088	7.3	18.3
7 20	20 4.74	-20 1.9	1.387	2.403	0.7	19.2	7 20	20 5.00	-15 7.6	1.072	2.085	2.8	18.0
7 30	19 56.36	-20 20.8	1.382	2.388	4.2	19.5	7 30	19 55.11	-15 4.4	1.077	2.083	5.2	18.2
8 9	19 48.82	-20 36.5	1.400	2.374	8.9	19.7	8 9	19 46.49	-15 5.0	1.106	2.082	10.3	18.5
8 19	19 43.17	-20 46.9	1.442	2.361	13.2	19.9	8 19	19 40.36	-15 7.1	1.156	2.082	15.1	18.7
8 29	19 40.19	-20 51.0	1.503	2.348	16.9	20.1	8 29	19 37.48	-15 8.8	1.224	2.083	19.2	19.0
423506	2005 <i>TC</i> ₁₈₉	7 21.4 137°35		3°0/19.8 17			511196	2013 <i>YM</i> ₁₂₄	7 21.4 232°53		0°8/20.9 17		
6 20	20 31.95	-28 27.2	2.293	3.176	10.7	22.1	6 20	20 27.37	-18 54.5	2.046	2.932	11.7	21.6
6 30	20 24.45	-29 5.5	2.241	3.193	7.7	21.9	6 30	20 21.59	-19 59.6	1.967	2.922	8.3	21.4
7 10	20 15.23	-29 40.7	2.215	3.208	4.7	21.8	7 10	20 13.90	-21 12.6	1.913	2.912	4.5	21.1
7 20	20 5.03	-30 8.8	2.216	3.223	3.0	21.7	7 20	20 4.92	-22 28.5	1.886	2.902	0.8	20.8
7 30	19 54.81	-30 26.6	2.247	3.237	4.8	21.8	7 30	19 55.55	-23 41.9	1.888	2.891	3.9	21.0
8 9	19 45.51	-30 32.8	2.305	3.250	7.7	22.0	8 9	19 46.81	-24 48.0	1.917	2.879	7.8	21.3
8 19	19 37.90	-30 27.9	2.388	3.262	10.5	22.2	8 19	19 39.58	-25 43.8	1.972	2.867	11.4	21.5
8 29	19 32.52	-30 13.8	2.494	3.274	12.9	22.4	8 29	19 34.60	-26 27.9	2.049	2.855	14.5	21.7
387325	2012 <i>VA</i> ₇₉	7 21.4 13°59		10°8/14.2 18			71958	2000 <i>WR</i> ₁₁₀	7 21.4 303°28		0°5/21.5 18		
6 20	20 30.91	-43 12.0	1.582	2.467	14.6	19.6	6 20	20 29.13	-19 21.7	1.273	2.178	15.9	19.5
6 30	20 25.08	-45 18.6	1.542	2.469	12.3	19.4	6 30	20 23.68	-19 17.6	1.197	2.161	11.6	19.2
7 10	20 16.16	-47 9.7	1.525	2.471	11.0	19.4	7 10	20 15.38	-19 19.7	1.142	2.143	6.5	18.8
7 20	20 5.17	-48 34.7	1.530	2.474	11.1	19.4	7 20	20 5.12	-19 25.0	1.110	2.126	1.0	18.4
7 30	19 53.76	-49 26.2	1.558	2.478	12.6	19.5	7 30	19 54.31	-19 29.8	1.103	2.109	4.9	18.6
8 9	19 43.73	-49 43.1	1.608	2.482	14.8	19.6	8 9	19 44.58	-19 31.6	1.118	2.093	10.5	18.9
8 19	19 36.50	-49 29.1	1.676	2.486	17.1	19.8	8 19	19 37.28	-19 28.8	1.155	2.077	15.6	19.2
8 29	19 32.95	-48 50.7	1.760	2.491	19.2	20.0	8 29	19 33.36	-19 21.3	1.211	2.061	19.9	19.4
57897	2002 <i>CV</i> ₂₁₃	7 21.4 312°09		3°5/23.2 18			473079	2015 <i>HC</i> ₁₁₅	7 21.4 350°10		0°8/21.8 18		
6 20	20 23.99	-9 42.2	1.522	2.405	15.1	18.4	6 20	20 21.29	-14 49.2	1.253	2.163	15.8	19.6
6 30	20 19.59	-10 7.0	1.441	2.387	11.5	18.1	6 30	20 17.94	-15 48.1	1.189	2.153	11.5	19.3
7 10	20 12.96	-10 49.9	1.380	2.370	7.4	17.8	7 10	20 12.15	-17 4.0	1.144	2.145	6.5	19.0
7 20	20 4.79	-11 48.8	1.343	2.352	3.9	17.6	7 20	20 4.71	-18 31.1	1.123	2.139	1.3	18.7
7 30	19 56.12	-12 59.4	1.332	2.336	4.9	17.6	7 30	19 56.87	-20 1.4	1.126	2.133	4.6	18.9
8 9	19 48.19	-14 15.5	1.345	2.319	9.1	17.8	8 9	19 50.02	-21 26.6	1.152	2.129	9.9	19.2
8 19	19 42.07	-15 31.2	1.382	2.303	13.5	18.0	8 19	19 45.32	-22 40.6	1.200	2.126	14.6	19.5
8 29	19 38.62	-16 41.1	1.439	2.288	17.3	18.2	8 29	19 43.63	-23 39.6	1.266	2.125	18.6	19.7
125146	2001 <i>UU</i> ₇₉	7 21.4 158°17		1°9/20.4 18			509817	2008 <i>WF</i> ₁	7 21.4 265°37		5°2/23.2 18		
6 20	20 29.78	-23 46.1	1.924	2.815	12.1	20.3	6 20	20 28.33	-7 14.2	2.009	2.862	13.2	21.8
6 30	20 23.22	-24 25.2	1.863	2.821	8.6	20.1	6 30	20 22.23	-6 34.9	1.917	2.841	10.4	21.5
7 10	20 14.70	-25 5.9	1.826	2.825	4.8	19.9	7 10	20 14.24	-6 6.9	1.848	2.820	7.5	21.3
7 20	20 4.98	-25 43.6	1.816	2.830	1.9	19.7	7 20	20 4.97	-5 51.1	1.804	2.798	5.4	21.2
7 30	19 55.10	-26 14.1	1.834	2.833	4.4	19.9	7 30	19 55.29	-5 47.6	1.788	2.776	5.9	21.1
8 9	19 46.15	-26 35.1	1.878	2.837	8.2	20.1	8 9	19 46.20	-5 55.0	1.798	2.754	8.7	21.3
8 19	19 38.99	-26 45.7	1.947	2.840	11.6	20.3	8 19	19 38.57	-6 11.0	1.833	2.731	11.9	21.4
8 29	19 34.27	-26 46.8	2.038	2.842	14.6	20.5	8 29	19 33.12	-6 32.6	1.889	2.708	15.0	21.6
51087	2000 <i>GB</i> ₁₇₇	7 21.4 157°94		1°6/22.2 18			155033	2005 <i>QY</i> ₁₁₆	7 21.4 257°96		0°7/21.0 18		
6 20	20 26.01	-14 32.1	2.014	2.893	12.1	19.4	6 20	20 29.61	-21 0.0	1.789	2.680	12.8	21.3
6 30	20 20.42	-14 46.1	1.946	2.895	8.8	19.2	6 30	20 23.42	-21 22.7	1.706	2.663	9.2	21.0
7 10	20 13.13	-15 8.6	1.902	2.896	5.2	18.9	7 10	20 15.00	-21 49.9	1.646	2.646	5.1	20.7
7 20	20 4.79	-15 37.2	1.884	2.898	1.9	18.7	7 20	20 5.06	-22 17.8	1.613	2.628	0.9	20.4
7 30	19 56.29	-16 9.2	1.894	2.899	3.5	18.8	7 30	19 54.70	-22 42.3	1.606	2.610	4.2	20.6
8 9	19 48.53	-16 41.5	1.931	2.900	7.2	19.1	8 9	19 45.11	-23 0.5	1.626	2.591	8.6	20.8
8 19	19 42.29	-17 11.5	1.993	2.901	10.7	19.3	8 19	19 37.35	-23 11.0	1.670	2.572	12.7	21.0
8 29	19 38.16	-17 37.6	2.077	2.902	13.6	19.5	8 29	19 32.19	-23 13.7	1.735	2.553	16.2	21.2
128586	Jeremias	7 21.4 265°47		6°3/25.5 18			342196	2008 <i>SK</i> ₂₁₁	7 21.4 333°17		11°1/25.7 16		
6 20	20 22.73	+ 0 41.1	2.424	3.240	12.4	19.7	6 20	20 22.75	+ 2 42.5	1.383	2.226	18.6	20.3
6 30	20 17.91	+ 0 55.2	2.341	3.231	10.3	19.6	6 30	20 18.78	+ 3 43.5	1.311	2.211	15.9	20.1
7 10	20 11.71	+ 0 53.2	2.281	3.223	8.1	19.4	7 10	20 12.54	+ 4 19.0	1.256	2.198	13.3	19.9
7 20	20 4.62	+ 0 34.4	2.246	3.214	6.6	19.3	7 20	20 4.77	+ 4 24.7	1.222	2.185	11.4	19.7
7 30	19 57.32	-0 0.2	2.237	3.205	6.5	19.3	7 30	19 56.56	+ 3 59.2	1.209	2.173	11.2	19.7
8 9	19 50.53	-0 48.1	2.254	3.196	8.0	19.3	8 9	19 49.17	+ 3 5.7	1.217	2.162	13.0	19.8
8 19	19 44.87	-1 45.6	2.296	3.187	10.2	19.5	8 19	19 43.68	+ 1 50.8	1.246	2.152	15.8	19.9
8 29	19 40.87	-2 48.4	2.361	3.178	12.4	19.6	8 29	19 40.94	+ 0 23.1	1.293	2.143	18.9	20.1
42900	1999 <i>RB</i> ₁₉₅	7 21.4 325°86		5°5/22.8 18			230898	2004 <i>TK</i> ₃₄	7 21.4 189°67		0°6/21.7 17		
6 20	20 24.55	-11 1.3	1.108	2.011	18.0	18.2	6 20	20 27.94	-17 33.7	1.904	2.789	12.4	21.5
6 30	20 20.60	-10 18.8	1.033	1.989	13.9	17.9	6 30	20 21.92	-17 49.2	1.835	2.789	8.9	21.2
7 10	20 13.78	-9 51.0	0.976	1.967	9.3	17.5	7 10	20 14.01	-18 11.0	1.790	2.788	5.0	21.0
7 20	20 4.92	-9 39.4	0.940	1.947	5.8	17.3	7 20	20 4.94	-18 36.4	1.771	2.787	1.0	20.7
7 30	19 55.41	-9 43.8	0.926	1.928	7.1	17.3	7 30	19 55.66	-19 2.2	1.780	2.786	3.6	20.9
8 9	19 46.90	-10 1.2	0.933	1.910	11.7	17.5	8 9	19 47.21	-19 25.6	1.816	2.784	7.7	21.2
8 19	19 40.82	-10 27.4	0.960	1.893	16.7	17.7	8 19	19 40.44	-19 44.6	1.877	2.783	11.3	21.4
8 29	19 38.20	-10 57.4	1.004	1.878	21.3	17.9	8 29	19 35.97	-19 58.5	1.959	2.781	14.4	21.6
383172	2005 <i>VF</i> ₁₀₈	7 21.4 156°37		4°3/18.9 17									

EPHEMERIDES

7 21.4

7 21.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
254530	2005 <i>EB</i> ₁₂₅		7 21.4 161°82	1°4/21.9	17		240205	2002 <i>RO</i> ₁₈₆		7 21.4 319°67	7°5/24.6	18	
6 20	20 28.92	-15 37.9	1.495	2.387	14.8	20.5	6 20	20 24.07	-2 17.8	1.670	2.520	15.6	19.8
6 30	20 22.98	-15 55.9	1.432	2.388	10.8	20.2	6 30	20 19.43	-1 39.9	1.591	2.506	12.7	19.6
7 10	20 14.73	-16 24.2	1.392	2.389	6.2	20.0	7 10	20 12.80	-1 20.5	1.534	2.493	9.9	19.4
7 20	20 5.03	-16 59.5	1.375	2.390	1.7	19.7	7 20	20 4.85	-1 21.7	1.499	2.480	7.8	19.2
7 30	19 55.09	-17 37.4	1.385	2.391	4.3	19.9	7 30	19 56.55	-1 43.2	1.488	2.468	7.9	19.2
8 9	19 46.19	-18 13.8	1.420	2.392	9.0	20.2	8 9	19 48.95	-2 22.1	1.501	2.456	10.2	19.3
8 19	19 39.39	-18 45.5	1.478	2.392	13.3	20.4	8 19	19 43.00	-3 13.8	1.537	2.444	13.3	19.4
8 29	19 35.40	-19 10.9	1.556	2.393	16.9	20.7	8 29	19 39.43	-4 12.6	1.593	2.433	16.4	19.6
242525	2005 <i>AQ</i> ₂₂		7 21.4 230°11	1°6/20.5	18		199371	2006 <i>BA</i> ₂₁₁		7 21.4 111°07	2°1/20.7	18	
6 20	20 29.13	-24 4.1	2.260	3.146	10.7	22.0	6 20	20 32.49	-26 30.2	1.886	2.776	12.3	19.8
6 30	20 22.68	-24 32.4	2.179	3.134	7.7	21.8	6 30	20 25.06	-26 30.8	1.830	2.786	8.8	19.6
7 10	20 14.42	-25 1.8	2.123	3.121	4.3	21.6	7 10	20 15.67	-26 28.7	1.798	2.796	5.0	19.4
7 20	20 5.00	-25 28.7	2.094	3.107	1.7	21.4	7 20	20 5.18	-26 20.9	1.793	2.806	2.1	19.3
7 30	19 55.28	-25 49.9	2.094	3.093	4.0	21.5	7 30	19 54.72	-26 5.2	1.816	2.815	4.5	19.4
8 9	19 46.23	-26 3.1	2.121	3.079	7.5	21.7	8 9	19 45.39	-25 41.4	1.865	2.825	8.2	19.7
8 19	19 38.69	-26 7.8	2.175	3.064	10.8	21.9	8 19	19 38.04	-25 10.6	1.940	2.834	11.6	19.9
8 29	19 33.29	-26 4.4	2.250	3.048	13.6	22.1	8 29	19 33.23	-24 34.8	2.036	2.843	14.5	20.1
211118	2002 <i>GR</i> ₁₄		7 21.4 51°63	5°4/19.4	17		246053	2006 <i>UA</i> ₃₃₈		7 21.4 332°68	1°2/21.9	18	
6 20	20 31.88	-29 39.5	1.196	2.108	16.2	19.4	6 20	20 26.53	-17 35.0	1.919	2.806	12.2	19.9
6 30	20 25.54	-30 34.6	1.155	2.119	11.8	19.2	6 30	20 20.92	-17 20.2	1.846	2.800	8.9	19.7
7 10	20 16.24	-31 24.9	1.135	2.131	7.5	19.0	7 10	20 13.49	-17 10.3	1.798	2.795	5.1	19.4
7 20	20 5.21	-32 1.9	1.138	2.143	5.4	18.9	7 20	20 4.93	-17 4.0	1.775	2.790	1.4	19.2
7 30	19 54.18	-32 19.6	1.164	2.156	7.9	19.1	7 30	19 56.20	-16 59.4	1.779	2.785	3.6	19.3
8 9	19 44.85	-32 16.4	1.213	2.169	12.0	19.3	8 9	19 48.27	-16 55.4	1.810	2.780	7.5	19.6
8 19	19 38.44	-31 55.1	1.283	2.182	16.0	19.6	8 19	19 41.96	-16 50.7	1.865	2.776	11.2	19.8
8 29	19 35.58	-31 19.9	1.371	2.195	19.4	19.9	8 29	19 37.89	-16 44.6	1.943	2.772	14.3	20.0
371468	2006 <i>TF</i> ₄		7 21.4 242°25	1°6/20.7	18		293368	2007 <i>EE</i> ₁₁		7 21.4 52°87	0°2/21.5	18	
6 20	20 30.74	-23 9.8	1.752	2.645	12.9	21.8	6 20	20 24.65	-17 53.5	2.060	2.949	11.5	20.6
6 30	20 24.25	-23 38.2	1.675	2.633	9.3	21.5	6 30	20 19.41	-18 22.5	2.006	2.961	8.2	20.4
7 10	20 15.46	-24 9.2	1.621	2.620	5.2	21.3	7 10	20 12.57	-18 57.4	1.975	2.974	4.5	20.2
7 20	20 5.14	-24 38.3	1.592	2.607	1.7	21.0	7 20	20 4.82	-19 35.0	1.971	2.987	0.6	20.0
7 30	19 54.44	-25 1.1	1.591	2.593	4.7	21.2	7 30	19 56.98	-20 11.9	1.994	3.000	3.3	20.2
8 9	19 44.60	-25 14.9	1.617	2.579	9.0	21.4	8 9	19 49.94	-20 45.1	2.044	3.013	6.9	20.5
8 19	19 36.71	-25 18.8	1.666	2.564	12.9	21.6	8 19	19 44.38	-21 12.8	2.120	3.026	10.2	20.7
8 29	19 31.54	-25 13.6	1.736	2.549	16.4	21.8	8 29	19 40.85	-21 34.0	2.217	3.039	13.0	20.9
118946	2000 <i>WQ</i> ₆₉		7 21.4 318°40	6°1/18.4	18		100894	1998 <i>HK</i> ₁₄₅		7 21.4 23°01	5°0/19.2	18	
6 20	20 29.13	-35 38.2	1.898	2.789	12.2	19.6	6 20	20 26.69	-26 22.9	1.061	1.984	16.8	18.5
6 30	20 23.09	-36 22.8	1.831	2.778	9.4	19.4	6 30	20 22.13	-27 46.0	1.020	1.992	12.1	18.3
7 10	20 14.78	-36 59.5	1.787	2.768	6.9	19.2	7 10	20 14.54	-29 10.1	1.000	2.000	7.3	18.0
7 20	20 5.05	-37 22.4	1.769	2.757	6.1	19.1	7 20	20 5.08	-30 24.7	1.001	2.009	5.0	17.9
7 30	19 55.06	-37 27.2	1.776	2.748	7.6	19.2	7 30	19 55.46	-31 20.7	1.024	2.020	8.0	18.1
8 9	19 46.09	-37 12.8	1.808	2.738	10.4	19.3	8 9	19 47.43	-31 53.8	1.070	2.031	12.5	18.4
8 19	19 39.14	-36 41.0	1.862	2.729	13.3	19.5	8 19	19 42.28	-32 4.3	1.135	2.043	16.8	18.7
8 29	19 34.94	-35 55.4	1.937	2.720	16.0	19.7	8 29	19 40.74	-31 55.3	1.216	2.057	20.4	19.0
480110	2015 <i>FX</i> ₆₉		7 21.4 201°47	1°3/20.5	18		509117	2005 <i>WQ</i> ₉₉		7 21.4 300°18	3°5/19.1	18	
6 20	20 27.41	-19 41.5	1.778	2.671	12.8	20.4	6 20	20 25.88	-28 10.0	2.123	3.018	10.9	21.0
6 30	20 21.79	-20 59.3	1.711	2.670	9.1	20.2	6 30	20 20.54	-29 10.5	2.053	3.010	7.9	20.8
7 10	20 14.07	-22 25.2	1.668	2.669	4.9	20.0	7 10	20 13.34	-30 10.5	2.008	3.002	5.0	20.6
7 20	20 4.97	-23 52.9	1.652	2.667	1.4	19.7	7 20	20 4.94	-31 4.8	1.989	2.994	3.6	20.5
7 30	19 55.53	-25 15.6	1.664	2.666	4.5	19.9	7 30	19 56.24	-31 48.7	1.998	2.986	5.5	20.6
8 9	19 46.90	-26 27.8	1.703	2.664	8.7	20.2	8 9	19 48.25	-32 19.3	2.033	2.979	8.5	20.8
8 19	19 40.04	-27 26.2	1.766	2.663	12.4	20.4	8 19	19 41.84	-32 35.9	2.093	2.971	11.6	21.0
8 29	19 35.69	-28 10.1	1.850	2.661	15.6	20.6	8 29	19 37.66	-32 39.4	2.173	2.964	14.2	21.2
339415	2005 <i>CF</i> ₆₅		7 21.4 267°76	0°1/21.3	18		260844	2005 <i>QS</i> ₆₁		7 21.4 358°21	0°9/21.0	18	
6 20	20 27.45	-18 23.1	2.036	2.921	11.8	21.2	6 20	20 28.08	-23 7.9	1.863	2.758	12.2	20.1
6 30	20 21.73	-18 59.7	1.944	2.898	8.5	20.9	6 30	20 22.06	-23 4.7	1.798	2.757	8.7	19.9
7 10	20 14.04	-19 43.7	1.875	2.874	4.7	20.7	7 10	20 14.11	-23 2.2	1.756	2.756	4.8	19.6
7 20	20 4.98	-20 31.6	1.834	2.850	0.6	20.3	7 20	20 5.03	-22 57.7	1.740	2.756	1.0	19.4
7 30	19 55.44	-21 19.1	1.820	2.825	3.7	20.5	7 30	19 55.83	-22 49.0	1.752	2.756	3.9	19.6
8 9	19 46.45	-22 2.5	1.834	2.799	7.8	20.7	8 9	19 47.56	-22 35.3	1.789	2.756	7.9	19.8
8 19	19 38.96	-22 39.2	1.873	2.774	11.6	20.9	8 19	19 41.09	-22 16.5	1.851	2.756	11.5	20.0
8 29	19 33.71	-23 7.7	1.934	2.747	14.9	21.1	8 29	19 37.00	-21 53.4	1.935	2.757	14.6	20.3
326055	2011 <i>AO</i> ₁₁		7 21.4 222°74	0°8/20.8	18		415050	2012 <i>AK</i> ₂		7 21.4 189°65	1°7/22.0	17	
6 20	20 23.64	-20 50.0	2.697	3.582	9.2	21.0	6 20	20 31.19	-15 44.5	1.576	2.461	14.5	21.9
6 30	20 18.52	-21 33.0	2.623	3.578	6.5	20.9	6 30	20 24.55	-15 43.3	1.509	2.461	10.6	21.6
7 10	20 12.05	-22 19.5	2.575	3.574	3.5	20.7	7 10	20 15.61	-15 50.7	1.464	2.460	6.2	21.4
7 20	20 4.73	-23 6.5	2.555	3.570	0.8	20.4	7 20	20 5.23	-16 4.3	1.445	2.459	2.0	21.1
7 30	19 57.22	-23 50.8	2.564	3.566	3.1	20.6	7 30	19 54.60	-16 21.2	1.452	2.457	4.3	21.2
8 9	19 50.22	-24 29.8	2.601	3.561	6.1	20.8	8 9	19 45.01	-16 38.4	1.485	2.455	8.9	21.5
8 19	19 44.35	-25 1.9	2.664	3.557	8.9	21.0	8 19	19 37.48	-16 53.9	1.542	2.452	13.0	21.8
8 29	19 40.12	-25 26.4	2.751	3.552	11.3	21.1	8 29	19 32.74	-17 6.0	1.619	2.449	16.6	22.0
501545	2014 <i>JC</i> ₆₆		7 21.4 343°78	3°9/18.9	18		504885	2010 <					

EPHEMERIDES

7 21.4

7 21.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
263105	2007 <i>TV</i> ₃₃₂		7 21.4 208°17'	2.4/22.4	17		280920	2005 <i>YT</i> ₂₄₅		7 21.4 141°16'	1.9/22.4	17	
6 20	20 30.26	-13 33.6	1.704	2.582	14.0	21.5	6 20	20 28.26	-14 4.4	2.000	2.875	12.4	21.7
6 30	20 23.80	-13 35.0	1.631	2.577	10.4	21.3	6 30	20 22.01	-14 11.2	1.937	2.883	9.0	21.5
7 10	20 15.19	-13 46.6	1.580	2.572	6.3	21.0	7 10	20 14.04	-14 26.4	1.898	2.891	5.4	21.3
7 20	20 5.18	-14 6.6	1.555	2.567	2.7	20.8	7 20	20 5.05	-14 48.0	1.886	2.899	2.1	21.1
7 30	19 54.88	-14 32.1	1.557	2.561	4.3	20.9	7 30	19 55.95	-15 13.2	1.902	2.906	3.7	21.3
8 9	19 45.45	-14 59.8	1.585	2.554	8.5	21.1	8 9	19 47.67	-15 39.5	1.945	2.913	7.3	21.5
8 19	19 37.88	-15 26.9	1.638	2.547	12.5	21.3	8 19	19 40.98	-16 4.4	2.013	2.919	10.7	21.7
8 29	19 32.90	-15 51.3	1.711	2.539	16.0	21.6	8 29	19 36.46	-16 26.4	2.103	2.925	13.6	21.9
206580	2003 <i>WU</i> ₃		7 21.4 230°77'	3.1/19.4	18		487682	2015 <i>PB</i> ₂₆₀		7 21.4 275°88'	1.3/22.2	18	
6 20	20 28.16	-26 59.2	2.141	3.033	11.0	20.4	6 20	20 24.42	-13 56.0	2.135	3.013	11.6	21.3
6 30	20 22.16	-27 58.6	2.068	3.024	7.9	20.2	6 30	20 19.41	-14 36.4	2.052	3.001	8.5	21.0
7 10	20 14.25	-28 58.3	2.020	3.016	4.8	20.0	7 10	20 12.71	-15 27.1	1.994	2.989	4.9	20.8
7 20	20 5.07	-29 53.1	1.999	3.006	3.1	19.9	7 20	20 4.90	-16 25.3	1.963	2.977	1.5	20.5
7 30	19 55.57	-30 38.3	2.006	2.997	5.2	20.0	7 30	19 56.78	-17 26.9	1.960	2.965	3.3	20.6
8 9	19 46.77	-31 10.8	2.040	2.987	8.4	20.2	8 9	19 49.23	-18 27.9	1.984	2.953	7.0	20.9
8 19	19 39.56	-31 29.8	2.099	2.977	11.5	20.4	8 19	19 43.03	-19 24.6	2.034	2.941	10.5	21.1
8 29	19 34.64	-31 36.2	2.178	2.967	14.3	20.6	8 29	19 38.82	-20 14.5	2.106	2.929	13.5	21.2
480672	2015 <i>OC</i> ₇₃		7 21.4 275°83'	0.2/21.5	18		519760	2013 <i>DM</i> ₁₇		7 21.4 166°11'	6.0/17.8	18	
6 20	20 27.29	-19 54.6	2.111	2.997	11.3	21.0	6 20	20 30.36	-38 57.4	2.447	3.321	10.4	21.7
6 30	20 21.37	-19 51.2	2.036	2.990	8.1	20.8	6 30	20 23.57	-39 46.0	2.391	3.323	8.3	21.6
7 10	20 13.71	-19 50.8	1.985	2.983	4.5	20.6	7 10	20 14.92	-40 25.4	2.359	3.324	6.5	21.5
7 20	20 5.00	-19 51.5	1.961	2.976	0.6	20.2	7 20	20 5.17	-40 50.7	2.354	3.326	6.1	21.4
7 30	19 56.09	-19 51.2	1.964	2.969	3.4	20.5	7 30	19 55.30	-40 58.9	2.376	3.327	7.2	21.5
8 9	19 47.92	-19 48.6	1.995	2.963	7.2	20.7	8 9	19 46.32	-40 49.4	2.423	3.329	9.2	21.6
8 19	19 41.29	-19 42.8	2.051	2.956	10.6	20.9	8 19	19 39.08	-40 23.8	2.494	3.330	11.4	21.8
8 29	19 36.77	-19 33.8	2.130	2.949	13.5	21.1	8 29	19 34.16	-39 45.3	2.585	3.331	13.3	21.9
190650	2000 <i>XN</i> ₄₀		7 21.4 190°60'	4.7/19.0	18		199553	2006 <i>EU</i> ₁₈		7 21.4 327°68'	1.0/20.9	18	
6 20	20 33.00	-34 12.8	2.323	3.201	10.8	20.5	6 20	20 27.31	-21 44.7	1.569	2.471	13.7	20.1
6 30	20 25.43	-34 48.1	2.257	3.200	8.1	20.4	6 30	20 21.91	-22 5.5	1.502	2.464	9.8	19.9
7 10	20 15.93	-35 16.6	2.216	3.198	5.7	20.2	7 10	20 14.23	-22 30.2	1.456	2.457	5.4	19.6
7 20	20 5.28	-35 33.7	2.203	3.195	4.7	20.1	7 20	20 5.10	-22 54.8	1.436	2.451	1.1	19.3
7 30	19 54.48	-35 36.1	2.217	3.192	6.1	20.2	7 30	19 55.68	-23 15.1	1.441	2.446	4.5	19.5
8 9	19 44.60	-35 23.3	2.259	3.188	8.7	20.4	8 9	19 47.25	-23 28.3	1.471	2.440	9.0	19.8
8 19	19 36.49	-34 56.6	2.326	3.184	11.3	20.5	8 19	19 40.84	-23 33.3	1.525	2.435	13.2	20.0
8 29	19 30.77	-34 19.1	2.414	3.179	13.7	20.7	8 29	19 37.18	-23 30.1	1.598	2.430	16.7	20.2
267126	2000 <i>DC</i> ₁₁₃		7 21.4 321°31'	10.6/20.9	16		99610	2002 <i>GS</i> ₆₆		7 21.4 1°96'	0.7/21.1	18	
6 20	20 47.81	-42 12.6	0.980	1.874	20.5	19.8	6 20	20 27.37	-20 23.5	1.675	2.572	13.2	19.6
6 30	20 38.05	-42 6.4	0.923	1.867	16.6	19.6	6 30	20 21.78	-20 53.3	1.612	2.572	9.4	19.4
7 10	20 23.52	-41 31.9	0.883	1.860	12.7	19.3	7 10	20 14.09	-21 28.4	1.571	2.572	5.1	19.2
7 20	20 6.22	-40 17.7	0.865	1.853	10.7	19.2	7 20	20 5.08	-22 4.6	1.556	2.572	0.8	18.9
7 30	19 49.15	-38 20.7	0.868	1.847	12.1	19.3	7 30	19 55.86	-22 37.5	1.567	2.572	4.2	19.1
8 9	19 35.13	-35 49.7	0.893	1.842	16.0	19.4	8 9	19 47.58	-23 3.9	1.604	2.572	8.5	19.4
8 19	19 25.84	-33 0.8	0.938	1.837	20.4	19.7	8 19	19 41.20	-23 22.1	1.665	2.573	12.4	19.6
8 29	19 21.82	-30 8.8	1.000	1.832	24.4	20.0	8 29	19 37.39	-23 31.7	1.746	2.573	15.7	19.8
217648	1998 <i>QB</i> ₂₀		7 21.4 312°10'	1.6/22.1	18		454814	2015 <i>RH</i> ₉₉		7 21.4 290°14'	2.8/20.0	18	
6 20	20 25.27	-16 11.1	1.966	2.852	12.1	19.4	6 20	20 27.57	-28 26.9	2.237	3.128	10.6	20.4
6 30	20 20.14	-16 1.4	1.878	2.830	8.9	19.1	6 30	20 21.60	-28 46.4	2.164	3.119	7.7	20.2
7 10	20 13.16	-15 58.0	1.813	2.808	5.2	18.9	7 10	20 13.87	-29 3.3	2.115	3.110	4.7	20.0
7 20	20 4.95	-15 59.4	1.773	2.787	1.8	18.6	7 20	20 5.05	-29 14.1	2.093	3.102	2.8	19.9
7 30	19 56.39	-16 4.0	1.761	2.766	3.7	18.7	7 30	19 56.06	-29 16.0	2.099	3.093	4.7	20.0
8 9	19 48.46	-16 9.9	1.775	2.745	7.6	18.9	8 9	19 47.82	-29 7.8	2.132	3.085	7.8	20.1
8 19	19 42.02	-16 15.4	1.813	2.724	11.4	19.1	8 19	19 41.15	-28 50.0	2.190	3.076	10.8	20.3
8 29	19 37.78	-16 19.4	1.873	2.704	14.6	19.2	8 29	19 36.63	-28 23.9	2.269	3.068	13.5	20.5
243993	2001 <i>RN</i> ₁₃₂		7 21.4 348°41'	1.1/20.9	18		107962	2001 <i>FK</i> ₁₂₃		7 21.4 259°50'	4.3/19.5	18	
6 20	20 23.33	-20 49.5	1.402	2.313	14.4	19.8	6 20	20 30.71	-31 6.0	1.860	2.753	12.3	19.6
6 30	20 19.27	-21 25.5	1.337	2.304	10.3	19.5	6 30	20 24.14	-31 37.9	1.795	2.749	9.1	19.4
7 10	20 12.86	-22 8.3	1.293	2.296	5.6	19.2	7 10	20 15.37	-32 4.8	1.754	2.745	5.9	19.2
7 20	20 4.91	-22 52.8	1.273	2.289	1.2	18.9	7 20	20 5.25	-32 21.6	1.738	2.740	4.3	19.1
7 30	19 56.64	-23 33.7	1.277	2.282	4.8	19.1	7 30	19 54.93	-32 24.5	1.748	2.736	6.2	19.2
8 9	19 49.37	-24 6.5	1.306	2.278	9.6	19.4	8 9	19 45.65	-32 12.4	1.785	2.731	9.4	19.4
8 19	19 44.18	-24 28.7	1.356	2.274	13.9	19.6	8 19	19 38.37	-31 46.7	1.845	2.727	12.7	19.6
8 29	19 41.84	-24 39.9	1.425	2.271	17.6	19.9	8 29	19 33.78	-31 10.2	1.926	2.722	15.6	19.8
397402	2006 <i>WY</i> ₁₀₂		7 21.4 354°67'	4.1/23.2	18		106812	2000 <i>XV</i> ₄₀		7 21.4 156°72'	6.0/17.6	18	
6 20	20 25.26	- 9 21.4	1.941	2.808	13.0	21.0	6 20	20 31.28	-40 55.8	2.745	3.609	9.8	19.5
6 30	20 19.96	- 8 59.3	1.872	2.807	10.0	20.8	6 30	20 24.06	-41 39.8	2.692	3.615	7.8	19.4
7 10	20 12.96	- 8 48.7	1.825	2.806	6.7	20.7	7 10	20 15.12	-42 14.0	2.664	3.620	6.4	19.3
7 20	20 4.92	- 8 49.4	1.803	2.805	4.3	20.5	7 20	20 5.20	-42 34.0	2.663	3.625	6.0	19.3
7 30	19 56.70	- 9 0.1	1.809	2.805	4.9	20.5	7 30	19 55.22	-42 37.2	2.689	3.630	7.0	19.4
8 9	19 49.22	- 9 18.5	1.840	2.805	7.8	20.7	8 9	19 46.11	-42 23.5	2.740	3.634	8.7	19.5
8 19	19 43.26	- 9 41.8	1.895	2.805	11.1	20.9	8 19	19 38.63	-41 54.5	2.816	3.638	10.6	19.6
8 29	19 39.40	-10 7.1	1.973	2.805	14.0	21.1	8 29	19 33.32	-41 13.4	2.913	3.642	12.3	19.8
282278	2002 <i>OB</i> ₁₆		7 21.4 336°97'	4.1/23.9	18		27557						

EPHEMERIDES

7 21.4

7 21.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
485198	2010 <i>TS</i> ₁₆₈	7 21.4 284°72		6°8/24.4 17			470617	2008 <i>RJ</i> ₁₁₈	7 21.4 71°15		5°4/19.2 17		
6 20	20 24.85	- 0 49.7	2.294	3.118	12.8	20.6	6 20	20 31.70	-32 54.9	1.681	2.576	13.3	20.9
6 30	20 19.59	- 0 4.1	2.205	3.100	10.6	20.4	6 30	20 24.97	-33 38.5	1.630	2.583	9.9	20.7
7 10	20 12.78	+ 0 27.5	2.137	3.082	8.4	20.3	7 10	20 15.86	-34 15.1	1.602	2.590	6.8	20.5
7 20	20 4.93	+ 0 43.3	2.095	3.063	7.0	20.2	7 20	20 5.37	-34 38.4	1.599	2.596	5.5	20.4
7 30	19 56.78	+ 0 42.8	2.079	3.045	7.1	20.1	7 30	19 54.81	-34 44.2	1.621	2.603	7.2	20.6
8 9	19 49.12	+ 0 27.3	2.088	3.027	8.7	20.2	8 9	19 45.50	-34 31.9	1.669	2.610	10.4	20.8
8 19	19 42.68	- 0 0.4	2.122	3.009	11.1	20.3	8 19	19 38.48	-34 3.6	1.739	2.617	13.6	21.0
8 29	19 38.05	- 0 36.7	2.178	2.990	13.5	20.4	8 29	19 34.38	-33 23.0	1.829	2.624	16.4	21.2
312371	2008 <i>EA</i> ₁₅	7 21.4 245°84		2°1/20.2 18			187480	2006 <i>QX</i> ₃₉	7 21.4 17°97		6°7/18.9 17		
6 20	20 27.24	-25 49.4	2.385	3.274	10.1	21.3	6 20	20 30.96	-32 16.6	1.204	2.116	16.1	19.4
6 30	20 21.31	-26 19.2	2.307	3.262	7.3	21.1	6 30	20 25.16	-33 17.1	1.157	2.119	12.1	19.2
7 10	20 13.72	-26 49.0	2.253	3.250	4.2	20.9	7 10	20 16.25	-34 10.4	1.130	2.122	8.3	19.0
7 20	20 5.05	-27 15.2	2.226	3.238	2.1	20.7	7 20	20 5.44	-34 47.6	1.126	2.126	6.7	18.9
7 30	19 56.14	-27 34.8	2.228	3.225	4.1	20.9	7 30	19 54.47	-35 1.9	1.145	2.130	9.0	19.0
8 9	19 47.87	-27 45.7	2.258	3.213	7.3	21.0	8 9	19 45.13	-34 52.1	1.185	2.135	12.8	19.3
8 19	19 41.00	-27 47.5	2.313	3.200	10.3	21.2	8 19	19 38.73	-34 21.2	1.246	2.141	16.7	19.5
8 29	19 36.13	-27 40.9	2.390	3.186	12.9	21.4	8 29	19 36.00	-33 34.5	1.325	2.147	20.0	19.8
83367	2001 <i>SL</i> ₂	7 21.4 208°94		0°6/21.8 18			350260	2012 <i>TL</i> ₁₆₉	7 21.4 264°57		7°6/16.5 18		
6 20	20 25.69	-17 3.6	2.051	2.936	11.7	19.5	6 20	20 31.85	-38 36.0	1.977	2.858	12.2	20.9
6 30	20 20.27	-17 24.8	1.983	2.936	8.4	19.3	6 30	20 25.34	-40 0.4	1.906	2.842	9.8	20.7
7 10	20 13.15	-17 52.7	1.938	2.936	4.7	19.1	7 10	20 16.28	-41 16.8	1.860	2.825	8.0	20.6
7 20	20 4.99	-18 24.5	1.920	2.936	1.0	18.8	7 20	20 5.47	-42 17.2	1.838	2.808	7.7	20.5
7 30	19 56.64	-18 57.1	1.930	2.935	3.3	19.0	7 30	19 54.14	-42 55.3	1.843	2.791	9.2	20.6
8 9	19 49.02	-19 27.5	1.966	2.935	7.1	19.2	8 9	19 43.68	-43 8.8	1.872	2.773	11.7	20.7
8 19	19 42.89	-19 53.6	2.028	2.935	10.6	19.4	8 19	19 35.32	-42 59.0	1.923	2.756	14.3	20.8
8 29	19 38.85	-20 14.2	2.111	2.934	13.5	19.6	8 29	19 29.92	-42 30.1	1.992	2.738	16.8	21.0
187684	2008 <i>DW</i> ₁₆	7 21.4 135°39		4°2/23.4 17			445521	2010 <i>XL</i> ₅₂	7 21.4 100°71		14°3/23.2 17		
6 20	20 28.47	- 8 43.1	1.656	2.524	14.8	20.9	6 20	20 37.25	+ 1 20.1	1.094	1.938	22.4	19.5
6 30	20 22.46	- 8 45.6	1.595	2.531	11.3	20.7	6 30	20 29.44	+ 4 2.2	1.044	1.945	19.1	19.3
7 10	20 14.42	- 9 3.3	1.555	2.538	7.5	20.5	7 10	20 18.56	+ 6 19.2	1.014	1.951	16.1	19.2
7 20	20 5.16	- 9 34.6	1.540	2.544	4.5	20.4	7 20	20 5.78	+ 8 1.0	1.004	1.957	14.5	19.1
7 30	19 55.72	-10 16.6	1.551	2.550	5.2	20.4	7 30	19 52.75	+ 9 1.0	1.015	1.963	14.8	19.1
8 9	19 47.22	-11 4.8	1.588	2.556	8.6	20.6	8 9	19 41.26	+ 9 20.0	1.047	1.969	16.9	19.3
8 19	19 40.56	-11 54.9	1.650	2.561	12.3	20.9	8 19	19 32.63	+ 9 4.5	1.098	1.974	19.8	19.5
8 29	19 36.39	-12 43.1	1.732	2.566	15.5	21.1	8 29	19 27.70	+ 8 24.6	1.164	1.980	22.6	19.7
171422	2007 <i>EL</i> ₁₄	7 21.4 343°15		4°5/23.4 17			98746	2000 <i>YQ</i> ₄₉	7 21.4 296°60		1°0/21.8 18 R		
6 20	20 25.13	- 9 20.9	1.421	2.305	15.9	20.0	6 20	20 27.63	-17 34.5	1.639	2.532	13.7	19.6
6 30	20 20.43	- 9 16.1	1.355	2.300	12.2	19.8	6 30	20 22.19	-17 36.4	1.556	2.513	10.0	19.3
7 10	20 13.47	- 9 27.9	1.308	2.295	8.1	19.6	7 10	20 14.50	-17 45.2	1.496	2.495	5.7	19.0
7 20	20 5.05	- 9 55.5	1.285	2.291	4.8	19.4	7 20	20 5.27	-17 58.7	1.461	2.476	1.3	18.7
7 30	19 56.33	-10 35.7	1.287	2.288	5.6	19.4	7 30	19 55.61	-18 13.9	1.452	2.458	4.1	18.8
8 9	19 48.55	-11 24.0	1.312	2.285	9.5	19.6	8 9	19 46.74	-18 27.9	1.468	2.440	8.8	19.1
8 19	19 42.75	-12 15.1	1.360	2.282	13.6	19.8	8 19	19 39.73	-18 38.8	1.508	2.422	13.1	19.3
8 29	19 39.68	-13 4.5	1.427	2.280	17.2	20.1	8 29	19 35.38	-18 45.4	1.568	2.404	16.8	19.5
398977	2013 <i>EC</i> ₆₀	7 21.4 15°89		3°8/23.7 18			24605	Tsykalyuk	7 21.4 302°68		0°5/21.3 18		
6 20	20 23.07	- 7 56.3	2.004	2.868	12.8	20.6	6 20	20 30.03	-22 31.1	1.727	2.621	13.0	17.1
6 30	20 18.40	- 8 8.4	1.937	2.870	9.8	20.4	6 30	20 23.80	-22 15.3	1.644	2.603	9.4	16.9
7 10	20 12.13	- 8 34.5	1.892	2.873	6.6	20.2	7 10	20 15.32	-21 59.9	1.585	2.585	5.2	16.6
7 20	20 4.88	- 9 13.0	1.873	2.876	4.1	20.0	7 20	20 5.37	-21 42.4	1.551	2.567	0.8	16.2
7 30	19 57.46	-10 1.2	1.880	2.879	4.5	20.1	7 30	19 55.08	-21 21.2	1.544	2.549	4.1	16.4
8 9	19 50.72	-10 55.1	1.914	2.882	7.4	20.2	8 9	19 45.68	-20 55.3	1.564	2.532	8.6	16.7
8 19	19 45.40	-11 50.8	1.973	2.886	10.5	20.4	8 19	19 38.19	-20 25.4	1.607	2.515	12.8	16.9
8 29	19 42.04	-12 44.6	2.055	2.890	13.4	20.6	8 29	19 33.38	-19 52.4	1.671	2.498	16.3	17.1
487677	2015 <i>PT</i> ₁₈₄	7 21.4 233°58		0°2/21.5 18			142335	2002 <i>RU</i> ₁₈₉	7 21.4 251°93		4°2/23.3 18		
6 20	20 24.64	-17 26.9	2.324	3.206	10.6	21.7	6 20	20 27.71	- 9 12.2	1.621	2.493	14.9	20.2
6 30	20 19.44	-18 6.8	2.249	3.202	7.6	21.5	6 30	20 22.15	- 9 11.2	1.545	2.485	11.4	19.9
7 10	20 12.69	-18 53.3	2.200	3.197	4.2	21.3	7 10	20 14.42	- 9 25.4	1.491	2.476	7.6	19.7
7 20	20 4.96	-19 43.2	2.177	3.193	0.6	21.0	7 20	20 5.26	- 9 53.7	1.462	2.467	4.5	19.5
7 30	19 57.00	-20 32.9	2.183	3.189	3.1	21.2	7 30	19 55.74	-10 33.4	1.458	2.458	5.3	19.5
8 9	19 49.63	-21 19.2	2.218	3.184	6.6	21.4	8 9	19 47.02	-11 20.5	1.479	2.448	9.0	19.7
8 19	19 43.56	-21 59.6	2.277	3.179	9.8	21.6	8 19	19 40.12	-12 10.3	1.524	2.439	12.9	19.9
8 29	19 39.35	-22 32.7	2.360	3.174	12.5	21.8	8 29	19 35.80	-12 58.8	1.590	2.429	16.5	20.1
390253	2012 <i>XZ</i> ₉₇	7 21.4 215°18		2°1/20.4 18			221745	2007 <i>EK</i> ₁₅₃	7 21.4 301°87		2°8/23.3 18		
6 20	20 28.29	-25 6.2	2.034	2.926	11.4	20.9	6 20	20 23.22	- 9 53.6	2.199	3.066	11.7	20.1
6 30	20 22.22	-25 34.9	1.966	2.924	8.2	20.7	6 30	20 18.50	-10 16.4	2.120	3.058	8.8	19.9
7 10	20 14.27	-26 4.0	1.923	2.921	4.6	20.4	7 10	20 12.23	-10 51.1	2.064	3.050	5.7	19.7
7 20	20 5.17	-26 29.4	1.906	2.919	2.1	20.3	7 20	20 4.97	-11 36.2	2.035	3.042	3.1	19.5
7 30	19 55.88	-26 47.6	1.917	2.916	4.4	20.4	7 30	19 57.47	-12 28.6	2.032	3.034	3.8	19.5
8 9	19 47.41	-26 56.8	1.954	2.913	7.9	20.6	8 9	19 50.53	-13 24.7	2.058	3.027	6.8	19.7
8 19	19 40.61	-26 56.5	2.017	2.910	11.3	20.8	8 19	19 44.87	-14 20.9	2.108	3.019	10.0	19.9
8 29	19 36.11	-26 47.5	2.100	2.907	14.1	21.0	8 29	19 41.06	-15 13.9	2.182	3.012	12.9	20.0
391891	2008 <i>UA</i> ₅₉	7 21.4 227°05		0°4/21.2 17			127967	2003 <i>HJ</i> ₂₇	7 21.4 50°61		3°0/20.1 17		

EPHEMERIDES

7 21.4

7 21.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
77092	2001 DA ₄₇		7 21.4 138°53	2°6/22.7	17		181431	2006 SA ₃₂₁		7 21.5 95°53	5°2/19.2	17	
6 20	20 30.20	-12 20.3	1.765	2.638	13.8	20.2	6 20	20 32.20	-30 18.2	1.481	2.382	14.4	20.0
6 30	20 23.60	-12 27.8	1.705	2.649	10.2	20.0	6 30	20 25.61	-31 17.7	1.431	2.389	10.6	19.8
7 10	20 15.05	-12 46.3	1.669	2.659	6.3	19.8	7 10	20 16.38	-32 12.9	1.403	2.395	6.9	19.6
7 20	20 5.34	-13 13.7	1.658	2.669	2.9	19.6	7 20	20 5.55	-32 56.1	1.399	2.402	5.2	19.6
7 30	19 55.51	-13 46.8	1.675	2.678	4.2	19.7	7 30	19 54.57	-33 21.7	1.421	2.408	7.4	19.7
8 9	19 46.64	-14 22.2	1.718	2.687	8.0	20.0	8 9	19 44.92	-33 27.6	1.467	2.414	11.0	19.9
8 19	19 39.58	-14 56.6	1.786	2.695	11.7	20.2	8 19	19 37.76	-33 15.5	1.535	2.420	14.6	20.2
8 29	19 34.97	-15 27.9	1.876	2.702	14.8	20.5	8 29	19 33.79	-32 49.0	1.622	2.426	17.7	20.4
142395	2002 ST ₁₈		7 21.4 14°44	1°6/20.9	17		450339	2004 TO ₁₇₆		7 21.5 309°64	9°5/15.6	17	
6 20	20 26.42	-22 6.5	1.053	1.974	17.1	19.6	6 20	20 32.51	-45 51.9	2.028	2.891	12.7	20.9
6 30	20 21.90	-22 31.0	1.006	1.978	12.2	19.3	6 30	20 25.93	-47 0.1	1.961	2.872	10.9	20.7
7 10	20 14.47	-23 0.5	0.979	1.983	6.7	19.0	7 10	20 16.66	-47 54.0	1.916	2.853	9.7	20.6
7 20	20 5.28	-23 29.2	0.974	1.989	1.7	18.7	7 20	20 5.61	-48 26.1	1.895	2.834	9.6	20.6
7 30	19 55.96	-23 51.3	0.991	1.997	5.6	19.0	7 30	19 54.16	-48 31.3	1.897	2.815	10.8	20.6
8 9	19 48.17	-24 3.3	1.030	2.005	11.0	19.4	8 9	19 43.82	-48 8.8	1.922	2.796	12.7	20.7
8 19	19 43.12	-24 4.2	1.089	2.015	15.8	19.7	8 19	19 35.84	-47 21.6	1.968	2.778	14.9	20.8
8 29	19 41.52	-23 54.8	1.165	2.026	19.8	20.0	8 29	19 31.04	-46 15.1	2.032	2.760	17.0	20.9
410675	2008 UZ ₆₆		7 21.4 314°73	2°9/22.9	18		435797	2008 VM ₄		7 21.5 315°89	9°0/24.1	16	
6 20	20 23.33	-11 6.4	2.483	3.348	10.6	20.7	6 20	20 24.98	-2 22.7	1.446	2.304	17.1	20.8
6 30	20 18.40	-10 53.1	2.403	3.340	8.0	20.5	6 30	20 20.55	-1 21.0	1.359	2.278	14.2	20.6
7 10	20 12.11	-10 48.0	2.347	3.332	5.2	20.3	7 10	20 13.75	-0 37.9	1.292	2.252	11.2	20.3
7 20	20 4.98	-10 50.4	2.318	3.324	3.0	20.1	7 20	20 5.25	-0 17.1	1.246	2.227	9.2	20.1
7 30	19 57.67	-10 59.4	2.317	3.316	3.7	20.2	7 30	19 56.14	-0 20.5	1.223	2.202	9.4	20.1
8 9	19 50.89	-11 13.1	2.343	3.308	6.4	20.3	8 9	19 47.69	-0 46.5	1.223	2.178	12.0	20.2
8 19	19 45.27	-11 29.6	2.395	3.301	9.2	20.5	8 19	19 41.09	-1 30.8	1.244	2.154	15.5	20.3
8 29	19 41.30	-11 47.0	2.469	3.293	11.8	20.7	8 29	19 37.26	-2 26.7	1.283	2.131	19.1	20.5
60810	2000 HT ₂₈		7 21.4 320°37	1°3/20.8	18		360653	2004 RV ₈		7 21.5 341°94	4°0/20.5	17	
6 20	20 26.94	-22 24.7	1.857	2.753	12.2	19.4	6 20	20 26.10	-27 11.7	0.888	1.820	18.3	19.5
6 30	20 21.41	-22 51.7	1.789	2.749	8.7	19.2	6 30	20 22.42	-27 22.1	0.829	1.805	13.4	19.2
7 10	20 13.93	-23 21.6	1.745	2.745	4.8	18.9	7 10	20 15.14	-27 29.8	0.789	1.792	7.9	18.8
7 20	20 5.22	-23 50.5	1.726	2.741	1.3	18.7	7 20	20 5.44	-27 27.9	0.767	1.780	4.0	18.5
7 30	19 56.28	-24 14.7	1.735	2.738	4.1	18.9	7 30	19 55.23	-27 11.0	0.766	1.770	7.4	18.7
8 9	19 48.19	-24 31.6	1.770	2.735	8.1	19.1	8 9	19 46.69	-26 37.5	0.784	1.761	13.2	19.0
8 19	19 41.83	-24 40.1	1.828	2.731	11.7	19.3	8 19	19 41.41	-25 49.9	0.821	1.755	18.7	19.2
8 29	19 37.85	-24 40.5	1.908	2.728	14.8	19.5	8 29	19 40.35	-24 52.4	0.872	1.750	23.3	19.5
289579	2005 EN ₃₂₃		7 21.4 262°95	2°5/22.8	18		211256	2002 QW ₁₃₀		7 21.5 229°52	1°0/20.9	17	
6 20	20 26.97	-11 25.7	2.149	3.015	12.0	21.4	6 20	20 30.33	-21 8.4	1.779	2.669	12.9	21.8
6 30	20 21.35	-11 43.0	2.052	2.992	9.0	21.1	6 30	20 24.01	-21 42.5	1.703	2.660	9.2	21.6
7 10	20 13.92	-12 11.6	1.979	2.967	5.7	20.9	7 10	20 15.46	-22 21.3	1.651	2.650	5.1	21.3
7 20	20 5.24	-12 49.9	1.933	2.943	2.8	20.7	7 20	20 5.46	-23 0.6	1.624	2.640	1.1	21.0
7 30	19 56.11	-13 35.0	1.914	2.917	3.9	20.7	7 30	19 55.08	-23 35.7	1.626	2.629	4.3	21.2
8 9	19 47.47	-14 23.6	1.924	2.891	7.4	20.9	8 9	19 45.54	-24 3.2	1.653	2.618	8.6	21.5
8 19	19 40.16	-15 12.1	1.959	2.865	10.9	21.0	8 19	19 37.85	-24 21.5	1.705	2.606	12.6	21.7
8 29	19 34.89	-15 57.8	2.017	2.838	14.1	21.2	8 29	19 32.77	-24 30.6	1.778	2.593	15.9	21.9
364459	2007 AW ₁₆		7 21.4 194°68	3°6/18.7	18		126485	2002 CA ₅₃		7 21.5 10°39	0°6/21.9	18	
6 20	20 26.97	-29 2.8	2.431	3.320	10.0	20.9	6 20	20 24.02	-15 43.6	1.886	2.775	12.4	19.1
6 30	20 21.21	-30 15.7	2.366	3.319	7.3	20.7	6 30	20 19.27	-16 29.0	1.821	2.776	8.9	18.9
7 10	20 13.75	-31 27.5	2.326	3.317	4.7	20.5	7 10	20 12.74	-17 24.0	1.780	2.777	5.0	18.7
7 20	20 5.21	-32 33.0	2.315	3.316	3.7	20.5	7 20	20 5.10	-18 24.7	1.764	2.779	1.0	18.4
7 30	19 56.39	-32 27.6	2.332	3.314	5.3	20.6	7 30	19 57.24	-19 26.4	1.775	2.782	3.5	18.6
8 9	19 48.20	-34 8.7	2.376	3.312	8.0	20.7	8 9	19 50.12	-20 24.7	1.814	2.784	7.5	18.9
8 19	19 41.42	-34 35.4	2.445	3.309	10.6	20.9	8 19	19 44.56	-21 16.2	1.876	2.787	11.1	19.1
8 29	19 36.67	-34 48.7	2.535	3.307	12.9	21.1	8 29	19 41.18	-21 59.0	1.961	2.790	14.2	19.3
69195	1164 T ₋₂		7 21.4 320°94	1°5/20.8	18		16081	1999 SR ₁₅		7 21.5 21°54	3°2/22.8	18	
6 20	20 26.46	-22 31.3	1.434	2.342	14.3	19.5	6 20	20 25.44	-12 15.4	1.819	2.698	13.2	17.1
6 30	20 21.69	-22 54.1	1.357	2.322	10.3	19.3	6 30	20 20.19	-11 55.6	1.758	2.703	9.9	16.9
7 10	20 14.37	-23 21.2	1.301	2.302	5.7	18.9	7 10	20 13.19	-11 45.7	1.720	2.709	6.3	16.7
7 20	20 5.31	-23 47.9	1.269	2.284	1.6	18.6	7 20	20 5.15	-11 44.9	1.707	2.715	3.4	16.6
7 30	19 55.75	-24 9.5	1.261	2.266	5.0	18.8	7 30	19 57.00	-11 51.7	1.720	2.721	4.4	16.6
8 9	19 47.13	-24 22.5	1.278	2.248	10.0	19.0	8 9	19 49.70	-12 3.8	1.759	2.728	7.8	16.9
8 19	19 40.64	-24 25.4	1.316	2.231	14.5	19.3	8 19	19 44.03	-12 18.9	1.822	2.736	11.2	17.1
8 29	19 37.19	-24 18.7	1.374	2.216	18.4	19.5	8 29	19 40.56	-12 34.5	1.907	2.744	14.2	17.3
75996	2000 DS ₁₄		7 21.4 104°89	0°6/21.1	18		471649	2012 TN ₁₀₁		7 21.5 108°01	7°4/25.4	18	
6 20	20 27.55	-20 10.5	2.009	2.897	11.7	19.4	6 20	20 25.89	+ 0 1.5	1.899	2.728	14.9	21.0
6 30	20 21.60	-20 43.4	1.952	2.908	8.3	19.2	6 30	20 20.48	+ 0 29.8	1.834	2.733	12.2	20.8
7 10	20 13.93	-21 20.5	1.920	2.919	4.5	19.0	7 10	20 13.35	+ 0 39.0	1.790	2.737	9.6	20.7
7 20	20 5.22	-21 58.1	1.914	2.930	0.7	18.8	7 20	20 5.18	+ 0 28.0	1.770	2.742	7.7	20.6
7 30	19 56.42	-22 32.5	1.937	2.941	3.6	19.0	7 30	19 56.83	-0 2.1	1.775	2.747	7.6	20.6
8 9	19 48.47	-23 1.0	1.986	2.951	7.3	19.3	8 9	19 49.24	-0 48.0	1.805	2.751	9.4	20.7
8 19	19 42.14	-23 22.2	2.060	2.961	10.7	19.5	8 19	19 43.17	-1 44.9	1.859	2.756	11.9	20.9
8 29	19 37.99	-23 35.6	2.157	2.971	13.5	19.7	8 29	19 39.22	-2 47.6	1.935	2.760	14.5	21.1
223243	2003 FN ₁₈		7 21.4 203°13	0°3/21.6	17		508479	2016 PZ ₁₃		7 21.5 66°53	7°6/17.1	17	
6 20	20												

EPHEMERIDES

7 21.5

7 21.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
93069	2000 <i>SX</i> ₂₄		7 21.5 272°91	1.3°/20.9	18	R	115846	2003 <i>UA</i> ₂₆₅		7 21.5 206°47	1.4°/20.5	18	
6 20	20 29.92	-23 0.4	1.772	2.666	12.8	19.7	6 20	20 24.59	-23 25.9	2.596	3.484	9.4	19.8
6 30	20 23.76	-23 13.7	1.691	2.650	9.2	19.5	6 30	20 19.33	-23 59.3	2.527	3.483	6.7	19.6
7 10	20 15.35	-23 29.0	1.634	2.633	5.1	19.2	7 10	20 12.66	-24 34.2	2.483	3.482	3.7	19.4
7 20	20 5.46	-23 42.4	1.602	2.617	1.4	18.9	7 20	20 5.13	-25 7.6	2.467	3.481	1.4	19.3
7 30	19 55.19	-23 50.7	1.597	2.600	4.4	19.1	7 30	19 57.45	-25 36.6	2.480	3.480	3.4	19.4
8 9	19 45.75	-23 51.5	1.618	2.583	8.7	19.3	8 9	19 50.34	-25 59.1	2.520	3.479	6.4	19.6
8 19	19 38.18	-23 44.5	1.663	2.566	12.7	19.5	8 19	19 44.46	-26 14.1	2.586	3.478	9.2	19.8
8 29	19 33.25	-23 30.4	1.729	2.549	16.1	19.7	8 29	19 40.31	-26 21.7	2.675	3.477	11.6	20.0
21124	1992 <i>YR</i> ₂		7 21.5 52°56	3°1/20.1	18		384484	2010 <i>CZ</i> ₅₆		7 21.5 165°03	5°7/19.1	18	
6 20	20 29.78	-24 39.0	1.369	2.276	14.9	17.9	6 20	20 35.70	-37 7.8	2.132	3.007	11.7	21.2
6 30	20 23.95	-25 33.9	1.317	2.281	10.7	17.7	6 30	20 27.52	-37 34.9	2.074	3.011	9.1	21.1
7 10	20 15.52	-26 31.0	1.286	2.287	6.1	17.4	7 10	20 17.22	-37 51.9	2.040	3.014	6.7	20.9
7 20	20 5.49	-27 23.1	1.280	2.292	3.1	17.2	7 20	20 5.72	-37 53.8	2.032	3.017	5.8	20.9
7 30	19 55.25	-28 4.0	1.299	2.298	6.0	17.4	7 30	19 54.21	-37 37.8	2.052	3.020	7.0	21.0
8 9	19 46.29	-28 29.8	1.342	2.304	10.4	17.7	8 9	19 43.87	-37 4.3	2.098	3.022	9.5	21.1
8 19	19 39.75	-28 40.3	1.407	2.311	14.5	18.0	8 19	19 35.61	-36 16.2	2.169	3.024	12.1	21.3
8 29	19 36.35	-28 37.1	1.491	2.317	18.0	18.2	8 29	19 30.03	-35 17.4	2.260	3.025	14.5	21.5
245395	2005 <i>GQ</i> ₁₆₆		7 21.5 69°06	2°3/20.3	16		440198	2004 <i>GS</i> ₂		7 21.5 108°62	7°2/26.3	17	
6 20	20 27.84	-24 45.7	1.874	2.770	12.1	20.8	6 20	20 31.05	+ 2 38.5	1.071	1.921	22.4	20.3
6 30	20 22.03	-25 24.4	1.814	2.774	8.6	20.6	6 30	20 25.25	+ 0 56.6	1.012	1.930	17.9	20.1
7 10	20 14.27	-26 4.0	1.779	2.777	4.9	20.4	7 10	20 16.46	- 1 31.1	0.970	1.939	12.9	19.8
7 20	20 5.33	-26 39.9	1.769	2.781	2.3	20.2	7 20	20 5.68	- 4 39.4	0.951	1.948	8.3	19.6
7 30	19 56.22	-27 8.1	1.786	2.785	4.7	20.4	7 30	19 54.45	- 8 14.1	0.957	1.956	7.6	19.6
8 9	19 48.03	-27 26.1	1.830	2.789	8.3	20.6	8 9	19 44.51	-11 54.9	0.989	1.964	11.4	19.8
8 19	19 41.61	-27 33.2	1.898	2.794	11.7	20.8	8 19	19 37.26	-15 23.0	1.045	1.972	16.3	20.1
8 29	19 37.61	-27 30.5	1.987	2.798	14.7	21.0	8 29	19 33.61	-18 25.8	1.123	1.979	20.7	20.5
183681	2003 <i>YO</i>		7 21.5 154°33	1°0/22.1	17		452976	2007 <i>ES</i> ₁₃₁		7 21.5 269°59	3°5/23.7	18	
6 20	20 29.47	-14 12.5	1.947	2.822	12.7	20.5	6 20	20 23.55	- 8 3.3	2.355	3.211	11.4	20.9
6 30	20 23.08	-15 3.5	1.883	2.830	9.2	20.2	6 30	20 18.67	- 8 10.6	2.275	3.204	8.8	20.7
7 10	20 14.82	-16 4.8	1.843	2.838	5.3	20.0	7 10	20 12.35	- 8 29.6	2.219	3.197	5.9	20.5
7 20	20 5.40	-17 12.5	1.831	2.845	1.4	19.8	7 20	20 5.12	- 8 59.4	2.188	3.190	3.7	20.4
7 30	19 55.78	-18 21.4	1.846	2.852	3.5	19.9	7 30	19 57.67	- 9 37.9	2.186	3.183	4.2	20.4
8 9	19 46.96	-19 26.9	1.890	2.858	7.5	20.2	8 9	19 50.75	-10 22.3	2.211	3.176	6.7	20.5
8 19	19 39.78	-20 25.5	1.960	2.863	11.1	20.4	8 19	19 45.03	-11 9.2	2.261	3.168	9.6	20.7
8 29	19 34.87	-21 15.1	2.052	2.867	14.1	20.7	8 29	19 41.04	-11 55.8	2.335	3.161	12.3	20.9
176767	2002 <i>RN</i> ₁₉₀		7 21.5 11°68	0°5/21.3	18		22549	1998 <i>FQ</i> ₉₄		7 21.5 286°45	2°5/22.9	18	
6 20	20 25.80	-20 21.4	1.026	1.948	17.4	19.3	6 20	20 24.36	-11 7.7	2.068	2.940	12.2	18.4
6 30	20 21.51	-20 35.5	0.979	1.951	12.5	19.0	6 30	20 19.44	-11 32.5	1.990	2.931	9.1	18.1
7 10	20 14.31	-20 56.7	0.951	1.954	6.8	18.8	7 10	20 12.86	-12 9.3	1.934	2.923	5.7	17.9
7 20	20 5.34	-21 20.3	0.944	1.960	0.9	18.4	7 20	20 5.19	-12 55.9	1.905	2.915	2.8	17.7
7 30	19 56.21	-21 40.8	0.959	1.966	5.3	18.7	7 30	19 57.25	-13 49.1	1.903	2.907	3.7	17.8
8 9	19 48.60	-21 54.5	0.996	1.974	10.9	19.0	8 9	19 49.92	-14 44.9	1.929	2.899	7.1	18.0
8 19	19 43.71	-21 59.6	1.053	1.983	15.8	19.4	8 19	19 43.96	-15 39.6	1.979	2.891	10.6	18.2
8 29	19 42.28	-21 56.1	1.127	1.994	19.9	19.7	8 29	19 40.00	-16 30.2	2.053	2.883	13.6	18.3
413439	2005 <i>BH</i> ₇		7 21.5 179°41	1°6/20.7	17		304263	2006 <i>RP</i> ₈₃		7 21.5 311°10	3°5/23.2	18	
6 20	20 31.03	-21 34.2	1.612	2.507	13.8	21.4	6 20	20 24.86	-10 17.1	1.854	2.727	13.3	20.9
6 30	20 24.60	-22 23.6	1.549	2.508	9.8	21.2	6 30	20 19.94	-10 16.6	1.777	2.718	10.1	20.7
7 10	20 15.82	-23 18.2	1.509	2.509	5.4	20.9	7 10	20 13.20	-10 28.5	1.723	2.709	6.6	20.4
7 20	20 5.54	-24 12.2	1.495	2.509	1.6	20.7	7 20	20 5.26	-10 51.8	1.693	2.700	3.7	20.3
7 30	19 54.97	-24 59.8	1.507	2.509	4.8	20.9	7 30	19 57.04	-11 24.3	1.690	2.691	4.5	20.3
8 9	19 45.42	-25 37.1	1.545	2.509	9.2	21.2	8 9	19 49.51	-12 2.4	1.713	2.682	7.9	20.5
8 19	19 37.95	-26 2.3	1.607	2.508	13.2	21.4	8 19	19 43.51	-12 42.7	1.760	2.674	11.5	20.7
8 29	19 33.31	-26 15.9	1.689	2.506	16.6	21.6	8 29	19 39.72	-13 21.9	1.828	2.666	14.7	20.9
115650	2003 <i>UU</i> ₁₃₅		7 21.5 150°46	2°7/20.5	18		507744	2013 <i>XL</i> ₂₄		7 21.5 194°46	6°5/17.5	18	
6 20	20 32.91	-26 1.8	1.538	2.435	14.1	19.9	6 20	20 32.26	-36 46.0	2.100	2.981	11.6	21.4
6 30	20 25.97	-26 25.3	1.479	2.438	10.1	19.6	6 30	20 25.37	-38 1.1	2.041	2.979	9.1	21.2
7 10	20 16.55	-26 47.8	1.443	2.441	5.8	19.4	7 10	20 16.24	-39 8.5	2.006	2.977	7.0	21.1
7 20	20 5.63	-27 4.1	1.432	2.444	2.8	19.2	7 20	20 5.66	-40 1.5	1.997	2.975	6.5	21.1
7 30	19 54.56	-27 10.1	1.447	2.447	5.4	19.4	7 30	19 54.78	-40 34.9	2.015	2.972	8.0	21.1
8 9	19 44.73	-27 4.2	1.488	2.449	9.7	19.6	8 9	19 44.83	-40 47.1	2.058	2.968	10.4	21.3
8 19	19 37.24	-26 47.4	1.551	2.451	13.7	19.9	8 19	19 36.84	-40 39.5	2.125	2.965	12.9	21.5
8 29	19 32.76	-26 21.7	1.635	2.453	17.0	20.1	8 29	19 31.52	-40 15.6	2.211	2.960	15.2	21.6
418227	2008 <i>CC</i> ₂₀₄		7 21.5 170°62	0°1/21.5	17		225238	Hristobotev		7 21.5 14°59	0°3/21.6	17	
6 20	20 30.23	-18 21.2	1.845	2.730	12.8	22.3	6 20	20 24.48	-18 21.0	0.990	1.912	17.8	19.7
6 30	20 23.73	-18 53.8	1.779	2.733	9.2	22.0	6 30	20 20.60	-18 39.2	0.946	1.917	12.8	19.4
7 10	20 15.22	-19 32.9	1.738	2.736	5.0	21.8	7 10	20 13.84	-19 8.0	0.920	1.923	7.1	19.2
7 20	20 5.47	-20 14.6	1.723	2.739	0.7	21.5	7 20	20 5.35	-19 42.3	0.916	1.931	1.0	18.8
7 30	19 55.50	-20 54.8	1.735	2.740	3.8	21.7	7 30	19 56.72	-20 16.2	0.933	1.941	5.1	19.1
8 9	19 46.40	-21 29.8	1.775	2.742	8.0	22.0	8 9	19 49.61	-20 44.6	0.972	1.952	10.8	19.5
8 19	19 39.10	-21 57.8	1.840	2.742	11.7	22.2	8 19	19 45.19	-21 4.6	1.030	1.964	15.7	19.8
8 29	19 34.24	-22 17.9	1.926	2.742	14.9	22.4	8 29	19 44.19	-21 15.0	1.106	1.978	19.8	20.1
151	Abundantia		7 21.5 121°										

EPHEMERIDES

7 21.5

7 21.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
266691	2009 <i>PB</i>		7 21.5 334°51	8°0/22.4 18			239109	2006 <i>HL77</i>		7 21.5 36°58	8°4/26.5 18		
6 20	20 19.90	-10 46.9	0.906	1.825	19.5	18.2	6 20	20 24.34	+ 1 52.8	1.626	2.458	16.8	19.9
6 30	20 17.97	- 9 19.6	0.822	1.785	15.5	17.8	6 30	20 19.62	+ 2 8.7	1.568	2.466	13.9	19.7
7 10	20 12.88	- 8 1.5	0.755	1.746	11.2	17.4	7 10	20 13.03	+ 2 0.1	1.529	2.475	11.0	19.6
7 20	20 5.30	- 6 57.9	0.705	1.710	8.2	17.1	7 20	20 5.29	+ 1 26.5	1.513	2.484	8.9	19.5
7 30	19 56.64	- 6 13.6	0.675	1.675	9.5	17.0	7 30	19 57.39	+ 0 29.8	1.520	2.493	8.6	19.5
8 9	19 48.77	- 5 50.7	0.663	1.643	14.3	17.1	8 9	19 50.37	- 0 44.8	1.552	2.503	10.2	19.6
8 19	19 43.50	- 5 47.7	0.667	1.614	19.9	17.3	8 19	19 45.04	- 2 10.3	1.606	2.513	12.9	19.8
8 29	19 42.24	- 5 59.7	0.685	1.588	25.1	17.4	8 29	19 42.04	- 3 39.6	1.682	2.523	15.6	20.0
187421	2005 <i>VF111</i>		7 21.5 178°21	4°8/18.3 18			250512	2004 <i>LW6</i>		7 21.5 27°41	4°2/22.9 16		
6 20	20 28.08	-33 31.1	2.365	3.251	10.3	20.4	6 20	20 26.74	-11 56.1	1.402	2.291	15.8	19.3
6 30	20 22.08	-34 29.4	2.305	3.251	7.8	20.2	6 30	20 21.37	-11 15.5	1.360	2.309	11.8	19.1
7 10	20 14.30	-35 22.7	2.269	3.251	5.6	20.1	7 10	20 13.94	-10 47.6	1.339	2.329	7.6	18.9
7 20	20 5.42	-36 5.9	2.261	3.252	4.8	20.0	7 20	20 5.40	-10 32.2	1.342	2.349	4.4	18.8
7 30	19 56.33	-36 35.4	2.280	3.252	6.2	20.1	7 30	19 56.91	-10 27.9	1.369	2.370	5.4	18.9
8 9	19 48.01	-36 49.3	2.325	3.252	8.6	20.3	8 9	19 49.64	-10 32.2	1.421	2.392	9.0	19.2
8 19	19 41.25	-36 48.1	2.395	3.251	11.1	20.4	8 19	19 44.43	-10 42.1	1.495	2.415	12.7	19.4
8 29	19 36.67	-36 34.0	2.485	3.251	13.3	20.6	8 29	19 41.82	-10 54.6	1.589	2.439	15.9	19.7
427725	2004 <i>NZ3</i>		7 21.5 350°89	7°5/16.9 17			477467	2009 <i>XA20</i>		7 21.5 114°86	0°8/21.8 17		
6 20	20 22.71	-28 59.1	1.084	2.011	16.2	19.6	6 20	20 31.66	-18 43.9	1.967	2.847	12.3	21.3
6 30	20 19.75	-31 15.0	1.031	2.001	12.0	19.3	6 30	20 24.49	-18 28.9	1.910	2.860	8.8	21.1
7 10	20 13.66	-33 34.0	0.998	1.993	8.4	19.1	7 10	20 15.55	-18 17.4	1.877	2.874	5.0	20.9
7 20	20 5.37	-35 41.8	0.987	1.986	7.7	19.0	7 20	20 5.62	-18 7.9	1.871	2.887	1.1	20.6
7 30	19 56.48	-37 25.1	0.999	1.981	10.6	19.2	7 30	19 55.69	-17 58.8	1.894	2.899	3.5	20.8
8 9	19 48.85	-38 35.8	1.032	1.977	14.7	19.4	8 9	19 46.75	-17 49.0	1.944	2.912	7.3	21.1
8 19	19 44.03	-39 12.7	1.083	1.975	18.8	19.6	8 19	19 39.57	-17 38.1	2.020	2.923	10.8	21.3
8 29	19 43.04	-39 19.4	1.149	1.975	22.3	19.9	8 29	19 34.69	-17 25.8	2.118	2.935	13.7	21.6
476227	2007 <i>VX18</i>		7 21.5 83°34	0°1/21.4 16			145534	<i>Jhonga</i>		7 21.5 2°41	1°1/20.9 18 R		
6 20	20 27.12	-19 5.1	1.898	2.788	12.3	21.8	6 20	20 25.03	-19 54.4	1.416	2.323	14.5	19.0
6 30	20 21.47	-19 29.0	1.836	2.792	8.7	21.5	6 30	20 20.54	-20 44.9	1.357	2.322	10.3	18.8
7 10	20 13.98	-19 58.3	1.798	2.797	4.8	21.3	7 10	20 13.72	-21 43.5	1.320	2.321	5.7	18.5
7 20	20 5.39	-20 29.6	1.786	2.801	0.6	21.0	7 20	20 5.41	-22 44.3	1.306	2.322	1.2	18.2
7 30	19 56.63	-20 59.4	1.801	2.806	3.6	21.3	7 30	19 56.82	-23 41.0	1.318	2.323	4.7	18.4
8 9	19 48.73	-21 24.9	1.842	2.811	7.6	21.5	8 9	19 49.26	-24 28.6	1.354	2.325	9.4	18.7
8 19	19 42.48	-21 44.3	1.909	2.815	11.1	21.7	8 19	19 43.80	-25 4.2	1.413	2.328	13.7	19.0
8 29	19 38.51	-21 57.0	1.997	2.820	14.2	22.0	8 29	19 41.16	-25 27.1	1.491	2.332	17.3	19.2
56851	2000 <i>QU64</i>		7 21.5 351°70	3°4/23.6 18			327199	2005 <i>NQ</i>		7 21.5 13°78	0°4/21.6 17		
6 20	20 23.18	- 8 32.7	1.747	2.621	13.9	18.4	6 20	20 26.01	-19 15.8	1.037	1.957	17.5	20.3
6 30	20 18.82	- 9 5.4	1.677	2.617	10.6	18.2	6 30	20 21.63	-19 16.3	0.991	1.961	12.5	20.0
7 10	20 12.61	- 9 54.8	1.628	2.614	6.9	18.0	7 10	20 14.42	-19 24.8	0.964	1.966	7.0	19.7
7 20	20 5.22	-10 58.4	1.604	2.612	3.8	17.8	7 20	20 5.51	-19 37.4	0.957	1.973	1.0	19.3
7 30	19 57.55	-12 12.0	1.607	2.609	4.5	17.8	7 30	19 56.48	-19 49.9	0.974	1.982	5.0	19.6
8 9	19 50.61	-13 29.8	1.635	2.608	7.9	18.0	8 9	19 48.95	-19 58.7	1.012	1.991	10.6	20.0
8 19	19 45.25	-14 46.4	1.688	2.607	11.6	18.2	8 19	19 44.09	-20 2.1	1.070	2.002	15.5	20.3
8 29	19 42.13	-15 57.4	1.763	2.607	14.9	18.4	8 29	19 42.61	-19 59.3	1.146	2.014	19.5	20.6
352645	2008 <i>LW2</i>		7 21.5 72°05	0°9/22.1 17			105690	2000 <i>SA58</i>		7 21.5 278°62	0°3/21.7 18		
6 20	20 25.60	-14 38.2	2.180	3.057	11.4	21.6	6 20	20 25.68	-17 52.8	2.163	3.048	11.2	20.4
6 30	20 20.09	-15 28.7	2.132	3.080	8.2	21.5	6 30	20 20.44	-18 16.2	2.079	3.032	8.1	20.2
7 10	20 13.10	-16 27.5	2.107	3.103	4.6	21.3	7 10	20 13.48	-18 45.9	2.019	3.017	4.5	19.9
7 20	20 5.26	-17 30.7	2.111	3.125	1.2	21.1	7 20	20 5.39	-19 19.1	1.985	3.001	0.7	19.6
7 30	19 57.37	-18 34.2	2.142	3.148	3.1	21.3	7 30	19 56.98	-19 52.7	1.979	2.985	3.3	19.8
8 9	19 50.23	-19 34.1	2.202	3.170	6.5	21.5	8 9	19 49.16	-20 23.7	2.001	2.969	7.1	20.0
8 19	19 44.51	-20 27.6	2.288	3.193	9.6	21.7	8 19	19 42.71	-20 50.1	2.048	2.953	10.6	20.2
8 29	19 40.68	-21 13.0	2.397	3.215	12.2	22.0	8 29	19 38.29	-21 10.6	2.117	2.937	13.6	20.4
94861	2001 <i>XJ214</i>		7 21.5 272°11	1°7/22.2 18			42879	1999 <i>RD136</i>		7 21.5 320°27	1°2/21.1 18		
6 20	20 28.63	-14 19.7	1.369	2.263	15.8	19.5	6 20	20 26.10	-20 53.8	1.138	2.055	16.5	19.2
6 30	20 23.28	-14 48.1	1.296	2.252	11.6	19.2	6 30	20 22.04	-21 22.1	1.062	2.032	11.9	18.9
7 10	20 15.34	-15 30.7	1.244	2.241	6.8	18.9	7 10	20 14.94	-21 59.1	1.006	2.009	6.7	18.5
7 20	20 5.62	-16 24.0	1.216	2.231	2.1	18.6	7 20	20 5.63	-22 39.2	0.972	1.987	1.4	18.1
7 30	19 55.39	-17 22.3	1.213	2.220	4.6	18.8	7 30	19 55.58	-23 16.0	0.960	1.966	5.6	18.3
8 9	19 46.11	-18 19.7	1.234	2.209	9.7	19.0	8 9	19 46.56	-23 43.9	0.970	1.946	11.5	18.6
8 19	19 39.01	-19 11.6	1.278	2.198	14.5	19.3	8 19	19 40.10	-24 0.2	1.000	1.927	16.9	18.8
8 29	19 34.97	-19 54.8	1.342	2.187	18.6	19.5	8 29	19 37.28	-24 4.3	1.047	1.909	21.5	19.1
332851	2010 <i>MO59</i>		7 21.5 86°72	1°9/22.4 18			510592	2012 <i>SE38</i>		7 21.5 206°26	0°9/21.9 18		
6 20	20 27.41	-14 27.8	1.834	2.715	13.0	20.4	6 20	20 27.74	-16 34.2	1.846	2.731	12.8	21.9
6 30	20 21.68	-14 30.3	1.772	2.721	9.5	20.2	6 30	20 22.01	-16 50.5	1.777	2.730	9.2	21.6
7 10	20 14.10	-14 41.6	1.732	2.726	5.7	20.0	7 10	20 14.37	-17 14.3	1.732	2.728	5.3	21.4
7 20	20 5.43	-14 59.6	1.719	2.731	2.2	19.8	7 20	20 5.52	-17 43.0	1.712	2.727	1.3	21.1
7 30	19 56.61	-15 21.7	1.732	2.737	3.8	19.9	7 30	19 56.45	-18 13.1	1.720	2.725	3.6	21.3
8 9	19 48.65	-15 45.1	1.772	2.742	7.6	20.2	8 9	19 48.19	-18 41.6	1.754	2.724	7.7	21.5
8 19	19 42.38	-16 7.4	1.836	2.748	11.2	20.4	8 19	19 41.61	-19 6.2	1.812	2.722	11.5	21.8
8 29	19 38.38	-16 26.8	1.922	2.753	14.3	20.6	8 29	19 37.36	-19 25.5	1.893	2.720	14.7	22.0
348112	2003 <i>YG128</i>		7 21.5 231°95	3°3/19.9 18			207278	2005 <i>FL6</i>		7 21.5 21°86	4°3/19.1 16		
6 20	2												

EPHEMERIDES

7 21.5

7 21.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
307085	2002 <i>AF</i> ₁₂₃		7 21.5 179°95	0°7/22.0	18		450033	2015 <i>RA</i> ₁		7 21.5 221°16	4°9/18.9	18	
6 20	20 25.09	-15 38.1	2.614	3.487	9.9	21.2	6 20	20 30.50	-36 6.2	2.511	3.388	10.1	20.7
6 30	20 19.69	-16 15.9	2.541	3.488	7.1	21.1	6 30	20 23.73	-36 34.5	2.445	3.384	7.8	20.5
7 10	20 12.94	-17 0.5	2.493	3.488	4.0	20.9	7 10	20 15.22	-36 55.3	2.404	3.380	5.7	20.4
7 20	20 5.33	-17 49.1	2.474	3.489	1.0	20.6	7 20	20 5.68	-37 4.5	2.390	3.376	4.9	20.3
7 30	19 57.54	-18 38.8	2.483	3.488	2.8	20.8	7 30	19 56.03	-36 59.6	2.403	3.372	6.1	20.4
8 9	19 50.28	-19 26.5	2.521	3.488	5.9	21.0	8 9	19 47.21	-36 40.1	2.443	3.368	8.3	20.6
8 19	19 44.17	-20 9.8	2.586	3.487	8.8	21.2	8 19	19 39.99	-36 7.4	2.508	3.363	10.7	20.7
8 29	19 39.71	-20 47.4	2.675	3.486	11.3	21.3	8 29	19 34.94	-35 24.3	2.594	3.359	12.8	20.9
237120	2008 <i>TC</i> ₁₇₈		7 21.5 220°25	8°3/27.5	18		401230	2012 <i>AN</i> ₁₃		7 21.5 263°62	0°6/21.9	18	
6 20	20 25.21	+ 5 32.1	1.976	2.773	15.5	20.2	6 20	20 24.77	-16 6.1	2.321	3.201	10.7	21.1
6 30	20 20.11	+ 5 24.5	1.898	2.770	13.1	20.1	6 30	20 19.70	-16 44.9	2.240	3.190	7.7	20.9
7 10	20 13.30	+ 4 52.4	1.841	2.767	10.7	19.9	7 10	20 13.07	-17 31.5	2.183	3.180	4.4	20.7
7 20	20 5.39	+ 3 55.0	1.807	2.764	8.8	19.8	7 20	20 5.41	-18 22.9	2.154	3.169	0.9	20.4
7 30	19 57.20	+ 2 34.2	1.799	2.760	8.4	19.8	7 30	19 57.48	-19 15.7	2.153	3.158	3.1	20.6
8 9	19 49.65	+ 0 55.1	1.816	2.757	9.7	19.8	8 9	19 50.07	-20 6.3	2.179	3.147	6.6	20.8
8 19	19 43.54	- 0 55.3	1.858	2.753	12.0	20.0	8 19	19 43.93	-20 51.9	2.232	3.136	9.9	21.0
8 29	19 39.48	- 2 49.9	1.923	2.749	14.5	20.1	8 29	19 39.63	-21 30.8	2.308	3.125	12.7	21.1
191003	2001 <i>YW</i> ₈₅		7 21.5 149°13	1°0/20.9	17		444763	2007 <i>RN</i> ₂₂₇		7 21.5 294°84	18°2/1.8	17	
6 20	20 30.85	-22 26.2	2.243	3.124	11.0	21.4	6 20	20 25.25	+16 55.3	1.105	1.886	26.0	20.9
6 30	20 23.88	-22 46.7	2.182	3.135	7.8	21.2	6 30	20 21.38	+17 37.2	1.033	1.872	23.9	20.7
7 10	20 15.24	-23 8.6	2.147	3.145	4.3	21.0	7 10	20 14.59	+17 31.4	0.974	1.858	21.5	20.4
7 20	20 5.64	-23 28.8	2.139	3.154	1.1	20.8	7 20	20 5.67	+16 28.0	0.929	1.844	19.5	20.3
7 30	19 55.95	-23 44.4	2.160	3.163	3.5	21.0	7 30	19 55.98	+14 22.8	0.901	1.831	18.3	20.1
8 9	19 47.09	-23 53.9	2.210	3.171	7.0	21.2	8 9	19 47.19	+11 21.6	0.891	1.817	18.7	20.1
8 19	19 39.80	-23 56.7	2.285	3.178	10.1	21.5	8 19	19 40.79	+ 7 39.4	0.901	1.804	20.6	20.2
8 29	19 34.63	-23 53.2	2.383	3.185	12.8	21.7	8 29	19 37.91	+ 3 37.0	0.929	1.792	23.4	20.3
33216	1998 <i>FW</i> ₉₆		7 21.5 111°22	5°7/24.9	18		145729	1994 <i>RS</i> ₄		7 21.5 110°76	0°2/21.6	18	
6 20	20 28.22	- 2 35.2	2.072	2.903	13.7	19.5	6 20	20 25.61	-18 8.7	2.218	3.102	11.0	20.5
6 30	20 21.97	- 2 27.2	2.018	2.924	10.9	19.3	6 30	20 20.25	-18 34.3	2.152	3.105	7.8	20.3
7 10	20 14.17	- 2 35.6	1.986	2.944	8.1	19.2	7 10	20 13.33	-19 5.4	2.110	3.108	4.3	20.1
7 20	20 5.50	- 3 0.0	1.980	2.964	6.0	19.1	7 20	20 5.45	-19 39.1	2.095	3.111	0.7	19.8
7 30	19 56.78	- 3 38.3	2.001	2.983	6.0	19.2	7 30	19 57.41	-20 12.3	2.108	3.113	3.1	20.0
8 9	19 48.87	- 4 27.0	2.049	3.002	8.0	19.3	8 9	19 50.05	-20 42.4	2.148	3.116	6.7	20.2
8 19	19 42.45	- 5 21.7	2.122	3.020	10.6	19.5	8 19	19 44.07	-21 7.5	2.214	3.119	9.9	20.4
8 29	19 38.04	- 6 18.3	2.218	3.037	13.1	19.7	8 29	19 40.04	-21 26.6	2.303	3.121	12.7	20.6
137778	1999 <i>XL</i> ₂₂₀		7 21.5 221°84	4°4/19.8	18		41102	1999 <i>VX</i> ₆₆		7 21.5 186°76	1°5/22.4	18	
6 20	20 34.68	-30 56.7	1.759	2.649	13.1	20.4	6 20	20 25.01	-14 31.8	2.472	3.345	10.4	20.0
6 30	20 27.26	-31 25.0	1.690	2.642	9.7	20.2	6 30	20 19.69	-14 40.4	2.400	3.345	7.6	19.8
7 10	20 17.37	-31 48.1	1.644	2.635	6.2	20.0	7 10	20 12.97	-14 55.6	2.352	3.344	4.5	19.6
7 20	20 5.94	-32 0.2	1.624	2.627	4.4	19.8	7 20	20 5.40	-15 16.0	2.331	3.344	1.7	19.4
7 30	19 54.26	-31 57.3	1.631	2.620	6.4	19.9	7 30	19 57.68	-15 39.4	2.339	3.343	3.0	19.5
8 9	19 43.69	-31 38.3	1.663	2.611	9.9	20.1	8 9	19 50.54	-16 3.5	2.374	3.342	6.1	19.7
8 19	19 35.33	-31 5.3	1.720	2.602	13.4	20.3	8 19	19 44.60	-16 26.6	2.436	3.341	9.1	19.9
8 29	19 29.93	-30 21.7	1.796	2.593	16.5	20.5	8 29	19 40.39	-16 47.1	2.521	3.340	11.7	20.0
234323	2001 <i>DR</i> ₂₀		7 21.5 51°87	8°4/18.4	18		441000	2007 <i>DT</i> ₄₆		7 21.5 277°72	0°2/21.6	17	
6 20	20 34.88	-40 26.1	1.603	2.487	14.4	19.4	6 20	20 25.39	-17 44.4	2.181	3.065	11.1	21.7
6 30	20 27.51	-41 17.2	1.565	2.501	11.5	19.3	6 30	20 20.26	-18 16.6	2.098	3.051	8.0	21.5
7 10	20 17.46	-41 53.2	1.548	2.514	9.2	19.2	7 10	20 13.43	-18 55.6	2.039	3.037	4.5	21.3
7 20	20 5.93	-42 7.1	1.555	2.529	8.5	19.2	7 20	20 5.48	-19 38.4	2.007	3.022	0.7	20.9
7 30	19 54.52	-41 55.2	1.587	2.543	9.8	19.3	7 30	19 57.21	-20 21.4	2.002	3.008	3.3	21.1
8 9	19 44.74	-41 18.7	1.642	2.557	12.2	19.4	8 9	19 49.51	-21 1.4	2.026	2.993	7.0	21.3
8 19	19 37.67	-40 22.3	1.718	2.572	14.8	19.7	8 19	19 43.16	-21 36.0	2.074	2.979	10.5	21.5
8 29	19 33.88	-39 12.0	1.813	2.587	17.2	19.9	8 29	19 38.82	-22 3.7	2.145	2.964	13.4	21.7
100684	1997 <i>YX</i> ₁		7 21.5 188°14	0°2/21.4	18		349262	2007 <i>TD</i> ₁₈₄		7 21.5 255°11	4°4/18.8	18	
6 20	20 29.24	-19 16.7	2.252	3.131	11.0	20.0	6 20	20 29.17	-30 36.1	2.106	2.997	11.2	20.7
6 30	20 22.85	-19 48.5	2.179	3.130	7.9	19.8	6 30	20 23.19	-31 38.8	2.032	2.984	8.3	20.5
7 10	20 14.76	-20 25.0	2.131	3.129	4.3	19.6	7 10	20 15.14	-32 39.3	1.982	2.971	5.6	20.3
7 20	20 5.61	-21 3.0	2.111	3.127	0.6	19.3	7 20	20 5.71	-33 31.9	1.958	2.958	4.4	20.2
7 30	19 56.23	-21 38.9	2.120	3.124	3.3	19.5	7 30	19 55.91	-34 11.5	1.962	2.944	6.2	20.3
8 9	19 47.53	-22 10.2	2.157	3.121	6.9	19.8	8 9	19 46.82	-34 35.3	1.993	2.930	9.2	20.4
8 19	19 40.28	-22 35.0	2.220	3.117	10.2	20.0	8 19	19 39.41	-34 43.2	2.047	2.916	12.2	20.6
8 29	19 35.08	-22 52.8	2.306	3.112	13.0	20.1	8 29	19 34.42	-34 36.8	2.122	2.902	14.9	20.8
35005	1979 <i>MY</i> ₃		7 21.5 318°27	0°4/21.7	18	R	384823	2012 <i>RO</i> ₁₈		7 21.5 34°40	1°5/22.2	18	
6 20	20 25.28	-16 39.6	1.427	2.328	14.8	18.5	6 20	20 27.60	-15 50.7	1.671	2.559	13.7	20.8
6 30	20 20.89	-17 21.1	1.350	2.311	10.8	18.2	6 30	20 22.04	-15 57.6	1.608	2.562	10.0	20.6
7 10	20 14.06	-18 15.2	1.295	2.295	6.1	17.9	7 10	20 14.45	-16 13.0	1.568	2.564	5.8	20.4
7 20	20 5.54	-19 17.2	1.264	2.280	1.0	17.6	7 20	20 5.62	-16 34.5	1.552	2.567	1.8	20.1
7 30	19 56.50	-20 21.3	1.258	2.265	4.4	17.8	7 30	19 56.60	-16 58.8	1.563	2.569	3.9	20.3
8 9	19 48.29	-21 21.3	1.276	2.250	9.5	18.0	8 9	19 48.51	-17 22.9	1.600	2.572	8.1	20.5
8 19	19 42.10	-22 12.6	1.317	2.237	14.1	18.2	8 19	19 42.25	-17 44.3	1.661	2.575	12.0	20.8
8 29	19 38.82	-22 52.9	1.377	2.224	18.1	18.5	8 29	19 38.47	-18 1.5	1.743	2.578	15.4	21.0
289180	2004 <i>VT</i> ₇₄		7 21.5 283°21	6°5/16.5	18		197539						

EPHEMERIDES

7 21.5

7 21.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
71866	2000 VN ₂₇		7 21.5 282°99	3°5/19.9	18		434224	2003 SA ₁₉₁		7 21.5 304°70	8°1/25.6	18	
6 20	20 30.16	-24 55.2	1.399	2.305	14.8	19.4	6 20	20 24.49	+ 0 18.1	1.686	2.523	16.1	20.7
6 30	20 24.66	-25 58.2	1.324	2.287	10.7	19.1	6 30	20 20.00	+ 0 40.7	1.601	2.505	13.3	20.5
7 10	20 16.31	-27 5.9	1.270	2.269	6.3	18.8	7 10	20 13.49	+ 0 41.5	1.536	2.487	10.6	20.3
7 20	20 5.92	-28 10.7	1.240	2.251	3.5	18.6	7 20	20 5.59	+ 0 18.5	1.494	2.469	8.5	20.1
7 30	19 54.86	-29 4.7	1.235	2.233	6.5	18.7	7 30	19 57.24	- 0 27.8	1.475	2.452	8.4	20.1
8 9	19 44.76	-29 42.5	1.255	2.215	11.2	18.9	8 9	19 49.52	- 1 33.5	1.481	2.435	10.4	20.1
8 19	19 36.99	-30 2.4	1.296	2.197	15.7	19.1	8 19	19 43.38	- 2 52.7	1.510	2.418	13.4	20.3
8 29	19 32.57	-30 5.7	1.355	2.179	19.6	19.3	8 29	19 39.61	- 4 18.6	1.559	2.401	16.6	20.5
957	Camelia		7 21.5 208°85	6°5/24.9	18		445407	2010 TO ₆₀		7 21.5 231°30	1°1/20.9	18	
6 20	20 25.71	- 0 34.9	2.324	3.143	12.8	15.0	6 20	20 27.40	-23 28.5	2.588	3.471	9.6	21.6
6 30	20 20.26	- 0 0.7	2.247	3.140	10.5	14.8	6 30	20 21.45	-23 41.3	2.509	3.462	6.9	21.4
7 10	20 13.33	+ 0 18.6	2.193	3.137	8.3	14.7	7 10	20 14.01	-23 54.8	2.455	3.453	3.8	21.2
7 20	20 5.48	+ 0 21.9	2.165	3.134	6.7	14.6	7 20	20 5.65	-24 6.6	2.429	3.444	1.1	21.0
7 30	19 57.43	+ 0 9.3	2.162	3.130	6.7	14.6	7 30	19 57.09	-24 14.3	2.432	3.434	3.2	21.1
8 9	19 49.95	- 0 17.0	2.186	3.127	8.3	14.6	8 9	19 49.13	-24 16.6	2.464	3.425	6.4	21.3
8 19	19 43.70	- 0 54.0	2.234	3.123	10.5	14.8	8 19	19 42.44	-24 13.0	2.521	3.414	9.3	21.5
8 29	19 39.23	- 1 37.7	2.306	3.119	12.8	14.9	8 29	19 37.55	-24 3.9	2.602	3.404	11.8	21.7
19503	1998 KE ₆₅		7 21.5 118°36	3°7/18.9	18		436617	2011 LE ₂		7 21.5 347°73	1°9/22.5	16	
6 20	20 28.15	-29 49.1	2.419	3.306	10.1	18.1	6 20	20 23.92	-13 48.1	1.368	2.268	15.4	20.6
6 30	20 22.07	-30 56.1	2.367	3.318	7.3	17.9	6 30	20 19.87	-14 16.2	1.302	2.260	11.4	20.3
7 10	20 14.34	-32 0.4	2.340	3.330	4.8	17.8	7 10	20 13.50	-14 58.9	1.257	2.254	6.7	20.1
7 20	20 5.62	-32 57.1	2.342	3.341	3.7	17.7	7 20	20 5.60	-15 52.7	1.234	2.248	2.3	19.8
7 30	19 56.74	-33 42.1	2.371	3.353	5.3	17.8	7 30	19 57.33	-16 52.4	1.236	2.244	4.4	19.9
8 9	19 48.60	-34 13.4	2.428	3.364	7.8	18.0	8 9	19 50.01	-17 51.8	1.263	2.240	9.2	20.2
8 19	19 41.94	-34 30.8	2.510	3.374	10.4	18.2	8 19	19 44.71	-18 46.2	1.311	2.237	13.7	20.4
8 29	19 37.31	-34 35.6	2.613	3.385	12.6	18.4	8 29	19 42.22	-19 32.1	1.379	2.235	17.6	20.7
443433	2014 HQ ₁₃₃		7 21.5 95°82	1°7/20.7	16		156159	2001 TK ₁₀₄		7 21.5 149°30	2°5/20.3	18	
6 20	20 28.43	-24 22.2	2.146	3.035	11.1	21.8	6 20	20 30.42	-24 54.8	1.822	2.716	12.5	19.9
6 30	20 22.28	-24 45.2	2.090	3.047	7.9	21.6	6 30	20 24.06	-25 41.9	1.763	2.721	8.9	19.7
7 10	20 14.45	-25 8.5	2.060	3.058	4.4	21.4	7 10	20 15.61	-26 30.0	1.727	2.725	5.1	19.5
7 20	20 5.67	-25 28.7	2.056	3.070	1.7	21.2	7 20	20 5.87	-27 13.9	1.718	2.730	2.5	19.3
7 30	19 56.83	-25 42.9	2.081	3.081	3.9	21.4	7 30	19 55.93	-27 48.9	1.736	2.734	4.9	19.5
8 9	19 48.84	-25 49.6	2.132	3.092	7.3	21.6	8 9	19 46.95	-28 12.1	1.780	2.737	8.7	19.7
8 19	19 42.44	-25 48.4	2.209	3.103	10.4	21.8	8 19	19 39.86	-28 23.1	1.848	2.741	12.2	20.0
8 29	19 38.16	-25 40.0	2.307	3.114	13.0	22.0	8 29	19 35.33	-28 23.0	1.938	2.744	15.2	20.2
188735	2005 UQ ₇₉		7 21.5 215°17	6°0/25.9	18		107247	2001 BB ₅₉		7 21.5 247°51	3°9/24.1	18	
6 20	20 23.87	+ 2 46.5	2.991	3.782	10.9	21.0	6 20	20 26.44	- 6 30.0	2.096	2.947	12.8	20.0
6 30	20 18.74	+ 3 3.4	2.905	3.774	9.1	20.8	6 30	20 21.08	- 6 57.8	2.007	2.933	9.9	19.8
7 10	20 12.44	+ 3 6.2	2.841	3.765	7.4	20.7	7 10	20 13.97	- 7 41.5	1.942	2.918	6.8	19.6
7 20	20 5.41	+ 2 54.3	2.803	3.756	6.2	20.6	7 20	20 5.67	- 8 39.7	1.902	2.903	4.2	19.4
7 30	19 58.19	+ 2 28.1	2.792	3.747	6.1	20.6	7 30	19 57.00	- 9 49.2	1.890	2.887	4.6	19.4
8 9	19 51.37	+ 1 49.7	2.808	3.737	7.2	20.6	8 9	19 48.84	-11 5.3	1.905	2.871	7.5	19.5
8 19	19 45.47	+ 1 1.6	2.850	3.727	8.9	20.7	8 19	19 42.03	-12 23.2	1.947	2.855	10.9	19.7
8 29	19 40.94	+ 0 7.4	2.916	3.716	10.7	20.9	8 29	19 37.24	-13 38.5	2.012	2.838	13.9	19.9
389981	2012 TB ₂₅₅		7 21.5 260°55	6°9/17.8	18		420383	2012 BQ ₁₅₀		7 21.5 155°70	4°0/19.8	17	
6 20	20 33.29	-38 8.7	2.009	2.889	12.1	21.2	6 20	20 33.69	-28 12.3	1.599	2.495	13.8	21.3
6 30	20 26.38	-39 6.5	1.937	2.873	9.6	21.1	6 30	20 26.67	-29 0.8	1.543	2.500	10.0	21.1
7 10	20 17.02	-39 55.4	1.888	2.857	7.6	20.9	7 10	20 17.15	-29 47.1	1.509	2.504	6.2	20.9
7 20	20 6.05	-40 28.5	1.865	2.841	7.0	20.8	7 20	20 6.10	-30 24.6	1.501	2.508	4.0	20.7
7 30	19 54.68	-40 40.9	1.867	2.825	8.4	20.9	7 30	19 54.85	-30 48.1	1.519	2.512	6.3	20.9
8 9	19 44.28	-40 31.1	1.895	2.808	10.9	21.0	8 9	19 44.81	-30 55.3	1.563	2.515	10.1	21.1
8 19	19 35.95	-40 1.2	1.945	2.792	13.7	21.2	8 19	19 37.07	-30 47.4	1.629	2.518	13.8	21.4
8 29	19 30.50	-39 15.2	2.015	2.774	16.2	21.3	8 29	19 32.36	-30 27.1	1.716	2.520	16.9	21.6
358723	2008 BX ₄₇		7 21.5 166°79	3°1/23.6	18		111597	2002 AA ₇₅		7 21.5 1°71	0°7/21.3	18	
6 20	20 24.72	- 8 40.7	2.464	3.319	11.0	21.8	6 20	20 28.44	-22 43.9	1.745	2.641	12.8	19.0
6 30	20 19.50	- 8 53.7	2.392	3.321	8.4	21.6	6 30	20 22.63	-22 34.6	1.681	2.641	9.2	18.7
7 10	20 12.91	- 9 17.6	2.344	3.323	5.6	21.4	7 10	20 14.80	-22 26.3	1.640	2.640	5.0	18.5
7 20	20 5.48	- 9 51.0	2.322	3.325	3.3	21.3	7 20	20 5.77	-22 16.5	1.625	2.640	0.9	18.2
7 30	19 57.89	-10 31.8	2.328	3.327	3.8	21.3	7 30	19 56.62	-22 3.2	1.636	2.641	3.9	18.4
8 9	19 50.86	-11 17.0	2.363	3.328	6.3	21.5	8 9	19 48.44	-21 45.4	1.673	2.642	8.1	18.7
8 19	19 45.01	-12 3.5	2.424	3.329	9.1	21.6	8 19	19 42.14	-21 23.4	1.734	2.644	11.9	18.9
8 29	19 40.83	-12 48.7	2.508	3.330	11.6	21.8	8 29	19 38.32	-20 57.8	1.817	2.647	15.1	19.1
63904	2001 SR ₁₇		7 21.5 14°98	1°3/21.1	18		253634	2003 UE ₁₀₆		7 21.6 185°84	0°4/21.7	17	
6 20	20 27.31	-20 55.8	0.951	1.875	18.2	18.9	6 20	20 30.89	-17 38.5	1.806	2.690	13.1	21.7
6 30	20 22.91	-21 27.0	0.905	1.878	13.0	18.6	6 30	20 24.40	-18 6.3	1.737	2.690	9.4	21.5
7 10	20 15.36	-22 6.0	0.878	1.882	7.2	18.3	7 10	20 15.82	-18 41.4	1.692	2.689	5.3	21.2
7 20	20 5.83	-22 46.2	0.871	1.887	1.5	18.0	7 20	20 5.93	-19 20.1	1.673	2.688	0.9	20.9
7 30	19 56.10	-23 20.4	0.886	1.893	5.8	18.3	7 30	19 55.77	-19 58.3	1.681	2.687	3.8	21.1
8 9	19 47.98	-23 43.7	0.923	1.900	11.6	18.6	8 9	19 46.47	-20 32.5	1.717	2.684	8.1	21.4
8 19	19 42.83	-23 54.6	0.978	1.909	16.7	18.9	8 19	19 38.97	-21 0.3	1.777	2.682	11.9	21.6
8 29	19 41.39	-23 53.4	1.050	1.918	21.0	19.3	8 29	19 33.98	-21 21.0	1.858	2.678	15.2	21.8
177097	2003 FO ₉₂		7 21.5 56°05	4°2/24.1	18		515975	2015 RY ₁₄₁		7 21.6 269°58	1°2/20.9	18	
6 20	20 24.46												

EPHEMERIDES

7 21.6

7 21.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
502095	2015 <i>AL</i> ₂₅₂		7 21.6 226°38'	1.5°/20.9	17		192299	1992 <i>EW</i> ₄		7 21.6 86°22'	4.4°/19.7	17	
6 20	20 31.65	-22 23.8	1.712	2.604	13.3	22.1	6 20	20 33.96	-31 30.0	1.891	2.779	12.4	20.4
6 30	20 25.16	-22 56.1	1.638	2.596	9.5	21.9	6 30	20 26.35	-32 4.9	1.853	2.803	9.1	20.3
7 10	20 16.36	-23 31.9	1.588	2.587	5.3	21.6	7 10	20 16.74	-32 33.5	1.839	2.828	5.9	20.1
7 20	20 6.02	-24 6.6	1.563	2.578	1.5	21.3	7 20	20 6.09	-32 50.8	1.851	2.852	4.4	20.1
7 30	19 55.31	-24 35.6	1.565	2.568	4.5	21.5	7 30	19 55.56	-32 53.9	1.891	2.876	6.0	20.2
8 9	19 45.49	-24 55.6	1.594	2.558	8.9	21.8	8 9	19 46.28	-32 42.4	1.956	2.900	8.9	20.5
8 19	19 37.64	-25 5.6	1.646	2.547	13.0	22.0	8 19	19 39.10	-32 18.3	2.046	2.923	11.9	20.7
8 29	19 32.53	-25 6.2	1.720	2.536	16.4	22.2	8 29	19 34.52	-31 44.6	2.157	2.946	14.4	20.9
193383	2000 <i>VT</i> ₂₇		7 21.6 258°26'	2.4°/20.1	18		165644	2001 <i>HB</i> ₂		7 21.6 35°57'	8.9°/26.1	17	
6 20	20 30.20	-25 0.7	2.100	2.988	11.3	20.5	6 20	20 25.40	+ 1 16.0	1.575	2.411	17.1	19.1
6 30	20 23.98	-25 49.2	2.010	2.965	8.2	20.2	6 30	20 20.49	+ 1 58.7	1.522	2.422	14.2	18.9
7 10	20 15.68	-26 39.9	1.945	2.942	4.8	20.0	7 10	20 13.66	+ 2 17.9	1.489	2.433	11.3	18.8
7 20	20 5.94	-27 28.1	1.907	2.918	2.4	19.8	7 20	20 5.69	+ 2 12.2	1.477	2.445	9.3	18.7
7 30	19 55.69	-28 8.9	1.897	2.893	4.7	19.9	7 30	19 57.59	+ 1 42.4	1.489	2.458	9.1	18.7
8 9	19 46.02	-28 38.9	1.914	2.868	8.4	20.1	8 9	19 50.43	+ 0 52.7	1.524	2.471	10.7	18.9
8 19	19 37.93	-28 57.0	1.956	2.842	11.9	20.2	8 19	19 45.04	- 0 10.8	1.582	2.484	13.3	19.0
8 29	19 32.18	-29 3.4	2.020	2.816	15.0	20.4	8 29	19 42.02	- 1 21.3	1.660	2.498	15.9	19.3
244294	2002 <i>EK</i> ₁₄₈		7 21.6 222°14'	4.2°/19.1	18		255058	2005 <i>TR</i> ₁₆₀		7 21.6 348°41'	1.9°/20.7	18	
6 20	20 28.94	-32 32.7	2.414	3.299	10.2	20.4	6 20	20 27.49	-24 42.1	2.023	2.916	11.4	20.9
6 30	20 22.74	-33 11.5	2.347	3.295	7.6	20.2	6 30	20 21.84	-25 3.6	1.957	2.915	8.2	20.7
7 10	20 14.81	-33 45.6	2.305	3.290	5.2	20.0	7 10	20 14.38	-25 25.6	1.915	2.913	4.6	20.4
7 20	20 5.80	-34 10.7	2.290	3.286	4.2	20.0	7 20	20 5.80	-25 44.4	1.899	2.912	1.9	20.2
7 30	19 56.61	-34 23.7	2.302	3.281	5.6	20.0	7 30	19 57.06	-25 56.9	1.910	2.911	4.1	20.4
8 9	19 48.17	-34 23.2	2.341	3.276	8.1	20.2	8 9	19 49.13	-26 1.5	1.949	2.910	7.7	20.6
8 19	19 41.26	-34 9.8	2.405	3.271	10.7	20.4	8 19	19 42.82	-25 57.6	2.011	2.910	11.1	20.8
8 29	19 36.47	-33 45.6	2.490	3.266	13.0	20.5	8 29	19 38.75	-25 46.1	2.096	2.909	13.9	21.0
255242	2005 <i>UV</i> ₄₆₀		7 21.6 120°34'	0.8°/21.1	18		349813	2009 <i>BH</i> ₁₄₅		7 21.6 228°17'	1.5°/20.9	18	
6 20	20 26.42	-21 47.6	2.368	3.254	10.3	21.1	6 20	20 28.89	-23 26.6	2.061	2.950	11.4	21.8
6 30	20 20.80	-22 10.4	2.304	3.259	7.3	20.9	6 30	20 22.85	-23 49.2	1.989	2.945	8.2	21.6
7 10	20 13.68	-22 35.4	2.265	3.264	4.0	20.7	7 10	20 14.96	-24 13.4	1.941	2.940	4.6	21.4
7 20	20 5.66	-22 59.8	2.253	3.269	0.9	20.5	7 20	20 5.90	-24 35.5	1.920	2.935	1.5	21.2
7 30	19 57.52	-23 20.9	2.270	3.273	3.3	20.7	7 30	19 56.61	-24 52.4	1.927	2.929	3.9	21.3
8 9	19 50.06	-23 36.8	2.314	3.278	6.6	20.9	8 9	19 48.09	-25 1.9	1.961	2.923	7.6	21.5
8 19	19 43.96	-23 46.5	2.385	3.283	9.6	21.1	8 19	19 41.18	-25 3.4	2.020	2.917	11.1	21.7
8 29	19 39.73	-23 49.9	2.477	3.287	12.1	21.3	8 29	19 36.52	-24 57.5	2.100	2.911	14.0	21.9
39404	9582 <i>P-L</i>		7 21.6 22°16'	8.1°/27.2	18		336851	2011 <i>FQ</i> ₅₀		7 21.6 73°60'	1.3°/21.1	17	
6 20	20 22.28	+ 2 35.2	1.645	2.477	16.6	17.7	6 20	20 30.55	-22 40.4	1.609	2.506	13.7	20.9
6 30	20 18.22	+ 2 33.0	1.589	2.487	13.8	17.6	6 30	20 24.27	-22 56.7	1.554	2.513	9.7	20.7
7 10	20 12.39	+ 2 5.4	1.553	2.498	10.9	17.4	7 10	20 15.79	-23 15.2	1.521	2.521	5.4	20.5
7 20	20 5.49	+ 1 12.3	1.538	2.510	8.7	17.3	7 20	20 6.01	-23 31.8	1.513	2.528	1.4	20.2
7 30	19 58.45	- 0 3.2	1.548	2.523	8.2	17.3	7 30	19 56.12	-23 43.1	1.532	2.536	4.4	20.4
8 9	19 52.24	- 1 35.0	1.582	2.536	9.8	17.5	8 9	19 47.36	-23 46.8	1.576	2.543	8.7	20.7
8 19	19 47.66	- 3 15.6	1.639	2.551	12.3	17.6	8 19	19 40.66	-23 42.8	1.644	2.551	12.6	21.0
8 29	19 45.27	- 4 57.7	1.718	2.566	15.0	17.9	8 29	19 36.68	-23 31.7	1.732	2.559	15.9	21.2
385565	2004 <i>TD</i> ₁₉₆		7 21.6 273°94'	3.1°/20.2	16		359888	2011 <i>WZ</i> ₄₄		7 21.6 187°90'	1.8°/22.5	18	
6 20	20 30.02	-26 37.3	1.731	2.628	12.9	21.8	6 20	20 26.25	-14 27.9	2.222	3.097	11.3	21.1
6 30	20 24.03	-27 13.4	1.660	2.619	9.3	21.6	6 30	20 20.76	-14 27.2	2.151	3.097	8.3	20.9
7 10	20 15.74	-27 49.3	1.613	2.610	5.5	21.4	7 10	20 13.72	-14 33.7	2.105	3.097	5.0	20.7
7 20	20 5.97	-28 19.7	1.590	2.601	3.1	21.2	7 20	20 5.73	-14 45.8	2.084	3.096	2.0	20.5
7 30	19 55.87	-28 39.9	1.595	2.592	5.4	21.3	7 30	19 57.57	-15 1.6	2.092	3.096	3.3	20.6
8 9	19 46.69	-28 47.6	1.624	2.582	9.3	21.5	8 9	19 50.08	-15 19.0	2.127	3.096	6.7	20.8
8 19	19 39.49	-28 42.7	1.678	2.573	13.0	21.7	8 19	19 43.94	-15 36.1	2.187	3.095	9.9	21.0
8 29	19 35.01	-28 26.7	1.751	2.564	16.3	21.9	8 29	19 39.72	-15 51.3	2.271	3.095	12.6	21.2
13603	1994 <i>PV</i> ₃₇		7 21.6 5°15'	2.0°/22.3	18		174194	2002 <i>QW</i> ₁₉		7 21.6 294°92'	0.5°/21.4	18	
6 20	20 24.34	-15 12.1	1.058	1.973	17.7	17.3	6 20	20 29.67	-21 42.5	1.810	2.701	12.7	19.5
6 30	20 20.56	-15 21.2	1.006	1.972	12.9	17.0	6 30	20 23.76	-21 40.2	1.721	2.678	9.2	19.2
7 10	20 14.02	-15 44.6	0.972	1.972	7.6	16.8	7 10	20 15.63	-21 40.0	1.655	2.654	5.1	18.9
7 20	20 5.74	-16 18.8	0.960	1.974	2.4	16.5	7 20	20 6.01	-21 39.2	1.615	2.630	0.8	18.6
7 30	19 57.19	-16 58.6	0.970	1.978	5.0	16.6	7 30	19 55.95	-21 35.1	1.601	2.607	4.0	18.8
8 9	19 49.95	-17 38.2	1.001	1.982	10.4	17.0	8 9	19 46.61	-21 26.2	1.615	2.583	8.4	19.0
8 19	19 45.24	-18 13.1	1.053	1.988	15.4	17.3	8 19	19 39.04	-21 12.0	1.652	2.559	12.5	19.2
8 29	19 43.81	-18 40.3	1.123	1.996	19.5	17.5	8 29	19 34.03	-20 53.0	1.710	2.536	16.0	19.4
323710	2005 <i>HK</i> ₇		7 21.6 197°65'	1.7°/20.8	17		423015	2003 <i>SR</i> ₄₀₃		7 21.6 280°99'	3.7°/20.2	17	
6 20	20 32.29	-23 4.4	1.771	2.661	13.0	21.4	6 20	20 32.32	-27 13.1	1.419	2.322	14.8	21.4
6 30	20 25.53	-23 40.4	1.702	2.659	9.3	21.2	6 30	20 26.21	-27 48.9	1.345	2.306	10.8	21.1
7 10	20 16.52	-24 19.2	1.657	2.656	5.2	20.9	7 10	20 17.21	-28 24.2	1.293	2.290	6.5	20.9
7 20	20 6.08	-24 55.7	1.638	2.652	1.8	20.7	7 20	20 6.25	-28 52.4	1.264	2.274	3.7	20.6
7 30	19 55.34	-25 25.5	1.647	2.648	4.6	20.9	7 30	19 54.75	-29 7.6	1.261	2.258	6.4	20.8
8 9	19 45.53	-25 45.6	1.681	2.643	8.7	21.1	8 9	19 44.33	-29 7.0	1.281	2.242	11.0	21.0
8 19	19 37.67	-25 55.1	1.741	2.638	12.6	21.4	8 19	19 36.36	-28 51.2	1.324	2.225	15.4	21.2
8 29	19 32.48	-25 55.0	1.821	2.631	15.8	21.6	8 29	19 31.75	-28 22.7	1.385	2.209	19.2	21.4
230904	2004 <i>TG</i> ₇₅		7 21.6 325°09'	1.6°/20.9	18		1						

EPHEMERIDES

7 21.6

7 21.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
382550	2001 <i>UP</i> ₂₀₉	7 21.6 293°46'		4°5'/23.2 17			511232	2014 <i>BG</i> ₁₂	7 21.6 64°40'		0°1'/21.6 17		
6 20	20 27.94	-10 2.3	1.553	2.429	15.2	21.1	6 20	20 28.87	-19 42.8	1.766	2.657	12.9	21.1
6 30	20 22.64	-9 38.5	1.473	2.414	11.7	20.9	6 30	20 22.92	-19 50.9	1.707	2.663	9.3	20.9
7 10	20 15.07	-9 28.0	1.414	2.399	7.8	20.6	7 10	20 15.02	-20 3.5	1.671	2.670	5.1	20.7
7 20	20 5.95	-9 30.9	1.379	2.384	4.8	20.4	7 20	20 5.96	-20 17.5	1.661	2.677	0.7	20.4
7 30	19 56.39	-9 45.7	1.370	2.369	5.7	20.4	7 30	19 56.77	-20 30.1	1.677	2.683	3.7	20.6
8 9	19 47.61	-10 9.7	1.385	2.354	9.4	20.6	8 9	19 48.55	-20 39.1	1.720	2.690	7.9	20.9
8 19	19 40.69	-10 39.3	1.423	2.340	13.5	20.8	8 19	19 42.15	-20 43.3	1.787	2.697	11.6	21.1
8 29	19 36.45	-11 10.6	1.481	2.325	17.2	21.0	8 29	19 38.17	-20 42.5	1.876	2.704	14.8	21.4
178403	1998 <i>QT</i> ₃	7 21.6 264°62'		11°8'/29.1 17			99080	2001 <i>FV</i> ₁₆	7 21.6 104°38'		5°3'/24.8 18		
6 20	20 28.33	+ 9 0.8	1.241	2.051	22.2	19.8	6 20	20 26.28	- 4 4.9	1.938	2.783	13.9	19.9
6 30	20 23.44	+ 8 37.0	1.161	2.040	19.1	19.5	6 30	20 20.91	- 4 5.3	1.875	2.792	11.0	19.7
7 10	20 15.77	+ 7 29.7	1.098	2.028	15.8	19.3	7 10	20 13.86	- 4 22.5	1.833	2.800	8.0	19.5
7 20	20 6.09	+ 5 34.8	1.054	2.015	12.9	19.1	7 20	20 5.80	- 4 55.9	1.817	2.808	5.7	19.4
7 30	19 55.68	+ 2 55.0	1.032	2.003	11.8	19.0	7 30	19 57.59	- 5 42.9	1.827	2.816	5.7	19.4
8 9	19 46.10	- 0 18.4	1.034	1.990	13.4	19.0	8 9	19 50.12	- 6 39.6	1.863	2.824	8.1	19.6
8 19	19 38.72	- 3 48.5	1.059	1.978	16.9	19.2	8 19	19 44.15	- 7 41.3	1.924	2.832	11.0	19.8
8 29	19 34.61	- 7 17.9	1.105	1.965	20.7	19.4	8 29	19 40.26	- 8 43.5	2.008	2.840	13.8	20.0
187556	2006 <i>VZ</i> ₂₂	7 21.6 195°60'		2°7'/20.1 17			188543	2004 <i>RN</i> ₃₃₉	7 21.6 298°84'		7°9'/27.9 18		
6 20	20 31.90	-25 44.2	1.999	2.886	11.8	21.6	6 20	20 23.34	+ 6 41.2	2.271	3.055	14.1	19.5
6 30	20 25.12	-26 31.7	1.929	2.884	8.5	21.4	6 30	20 18.80	+ 6 26.8	2.179	3.040	12.1	19.3
7 10	20 16.29	-27 19.7	1.884	2.881	5.0	21.2	7 10	20 12.74	+ 5 49.3	2.108	3.025	10.0	19.2
7 20	20 6.12	-28 3.1	1.867	2.877	2.7	21.0	7 20	20 5.66	+ 4 48.0	2.061	3.010	8.4	19.0
7 30	19 55.67	-28 37.4	1.877	2.873	4.9	21.2	7 30	19 58.27	+ 3 24.3	2.039	2.995	7.9	19.0
8 9	19 46.05	-28 59.8	1.914	2.867	8.4	21.4	8 9	19 51.34	+ 1 42.5	2.043	2.980	9.0	19.0
8 19	19 38.19	-29 9.9	1.976	2.862	11.8	21.6	8 19	19 45.60	- 0 11.4	2.074	2.966	11.0	19.1
8 29	19 32.80	-29 8.8	2.060	2.855	14.7	21.8	8 29	19 41.64	- 2 10.6	2.128	2.952	13.4	19.3
292483	2006 <i>SR</i> ₃₉₈	7 21.6 355°26'		0°4'/21.7 17			317830	2003 <i>SZ</i> ₃₂₀	7 21.6 217°72'		1°3'/22.3 17		
6 20	20 24.62	-18 51.9	0.993	1.916	17.8	20.4	6 20	20 29.34	-14 37.3	1.564	2.450	14.6	20.7
6 30	20 21.02	-18 58.7	0.938	1.909	12.9	20.1	6 30	20 23.62	-15 11.7	1.494	2.447	10.7	20.5
7 10	20 14.43	-19 15.0	0.901	1.904	7.2	19.8	7 10	20 15.60	-15 58.4	1.447	2.443	6.2	20.2
7 20	20 5.88	-19 37.0	0.885	1.901	1.1	19.4	7 20	20 6.07	-16 53.5	1.424	2.439	1.8	19.9
7 30	19 56.99	-19 59.3	0.891	1.899	5.2	19.7	7 30	19 56.17	-17 51.8	1.428	2.435	4.1	20.1
8 9	19 49.47	-20 17.6	0.917	1.899	11.1	20.0	8 9	19 47.16	-18 48.1	1.458	2.430	8.8	20.3
8 19	19 44.67	-20 29.0	0.963	1.900	16.3	20.3	8 19	19 40.11	-19 38.4	1.512	2.425	13.0	20.6
8 29	19 43.43	-20 32.3	1.026	1.903	20.7	20.6	8 29	19 35.79	-20 20.1	1.586	2.420	16.7	20.8
330044	2005 <i>UK</i> ₃₁₀	7 21.6 14°97'		5°4'/19.5 17			350244	2012 <i>TD</i> ₈₀	7 21.6 183°89'		1°6'/20.7 18		
6 20	20 26.75	-28 24.8	1.052	1.976	16.9	19.5	6 20	20 29.31	-23 52.3	2.263	3.148	10.7	21.8
6 30	20 22.48	-29 24.3	1.011	1.981	12.3	19.2	6 30	20 23.02	-24 21.5	2.194	3.148	7.7	21.6
7 10	20 15.15	-30 21.3	0.989	1.988	7.7	19.0	7 10	20 15.02	-24 51.7	2.150	3.148	4.3	21.4
7 20	20 5.97	-31 6.7	0.988	1.996	5.4	18.9	7 20	20 5.98	-25 19.5	2.134	3.147	1.6	21.2
7 30	19 56.65	-31 33.4	1.010	2.005	8.0	19.1	7 30	19 56.74	-25 41.6	2.146	3.146	3.8	21.4
8 9	19 48.95	-31 38.7	1.053	2.016	12.4	19.4	8 9	19 48.24	-25 56.1	2.186	3.145	7.2	21.6
8 19	19 44.12	-31 24.2	1.115	2.028	16.7	19.7	8 19	19 41.23	-26 2.2	2.251	3.143	10.3	21.8
8 29	19 42.86	-30 53.6	1.194	2.041	20.3	19.9	8 29	19 36.30	-26 0.5	2.339	3.141	13.0	22.0
99698	2002 <i>JY</i> ₃₁	7 21.6 97°92'		0°1'/21.6 18			266106	2006 <i>SO</i> ₁₉₇	7 21.6 296°62'		1°2'/21.1 18		
6 20	20 28.82	-18 44.4	1.816	2.704	12.8	19.6	6 20	20 29.61	-21 30.9	1.392	2.295	15.0	20.9
6 30	20 22.84	-19 12.3	1.760	2.715	9.1	19.4	6 30	20 24.32	-21 56.2	1.309	2.272	10.8	20.5
7 10	20 14.95	-19 45.9	1.728	2.726	5.0	19.2	7 10	20 16.25	-22 27.6	1.248	2.249	6.1	20.2
7 20	20 5.94	-20 21.8	1.721	2.737	0.7	18.9	7 20	20 6.19	-23 0.1	1.211	2.226	1.4	19.8
7 30	19 56.81	-20 55.8	1.742	2.748	3.6	19.1	7 30	19 55.46	-23 28.3	1.198	2.203	5.1	20.0
8 9	19 48.61	-21 25.0	1.790	2.758	7.7	19.4	8 9	19 45.60	-23 48.1	1.210	2.181	10.3	20.3
8 19	19 42.18	-21 47.6	1.862	2.769	11.4	19.7	8 19	19 37.97	-23 57.7	1.243	2.158	15.2	20.5
8 29	19 38.11	-22 2.9	1.955	2.779	14.4	19.9	8 29	19 33.58	-23 57.1	1.296	2.136	19.4	20.7
15563	Remsberg	7 21.6 179°42'		1°3'/20.9 18 R			393125	2013 <i>BA</i> ₄₀	7 21.6 17°07'		2°9'/20.1 18		
6 20	20 31.40	-22 20.4	1.932	2.819	12.2	19.5	6 20	20 26.92	-26 1.9	1.786	2.686	12.4	20.3
6 30	20 24.71	-22 49.4	1.866	2.821	8.7	19.3	6 30	20 21.67	-26 46.1	1.728	2.689	8.9	20.1
7 10	20 16.02	-23 21.1	1.823	2.822	4.8	19.1	7 10	20 14.40	-27 30.5	1.694	2.692	5.2	19.9
7 20	20 6.10	-23 51.2	1.807	2.822	1.3	18.8	7 20	20 5.89	-28 10.0	1.686	2.696	2.9	19.8
7 30	19 55.96	-24 16.1	1.819	2.822	4.0	19.0	7 30	19 57.20	-28 40.1	1.703	2.700	5.1	19.9
8 9	19 46.69	-24 33.4	1.859	2.821	8.0	19.3	8 9	19 49.45	-28 58.3	1.747	2.705	8.7	20.2
8 19	19 39.19	-24 42.0	1.923	2.820	11.5	19.5	8 19	19 43.52	-29 4.1	1.813	2.710	12.2	20.4
8 29	19 34.12	-24 42.6	2.009	2.818	14.6	19.7	8 29	19 40.06	-28 58.7	1.901	2.716	15.1	20.6
72591	2001 <i>FO</i> ₅	7 21.6 22°44'		3°4'/20.4 18			237581	2001 <i>DZ</i> ₁₀₈	7 21.6 208°35'		1°1'/22.3 18		
6 20	20 30.48	-28 2.3	1.555	2.457	13.8	18.5	6 20	20 27.36	-14 10.6	2.170	3.043	11.6	20.8
6 30	20 24.37	-28 19.5	1.500	2.461	10.0	18.3	6 30	20 21.71	-14 53.0	2.092	3.038	8.5	20.6
7 10	20 15.91	-28 33.5	1.468	2.465	6.0	18.1	7 10	20 14.36	-15 45.1	2.039	3.033	4.9	20.4
7 20	20 6.08	-28 39.6	1.460	2.470	3.4	17.9	7 20	20 5.89	-16 43.9	2.013	3.027	1.5	20.1
7 30	19 56.15	-28 34.3	1.478	2.476	5.6	18.1	7 30	19 57.14	-17 45.2	2.016	3.022	3.2	20.2
8 9	19 47.45	-28 16.9	1.521	2.482	9.5	18.3	8 9	19 48.98	-18 45.0	2.047	3.015	6.9	20.5
8 19	19 40.98	-27 48.6	1.586	2.488	13.3	18.6	8 19	19 42.20	-19 39.9	2.104	3.008	10.3	20.7
8 29	19 37.37	-27 11.9	1.672	2.495	16.5	18.8	8 29	19 37.44	-20 27.8	2.183	3.001	13.3	20.9
512785	2016 <i>UL</i> ₇₂	7 21.6 261°59'		7°6'/25.5 18			344651	2003 <i>RB</i> ₁₈	7 21.6 356°26'		8°0'/23.7 16		

EPHEMERIDES

7 21.6

7 21.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
276452	2003 <i>FG</i> ₅₃		7 21.6	49°61'	7°5'/25.8	17	306188	2011 <i>NJ</i>		7 21.6	356°80'	4°6'/20.4	17
6 20	20 25.15	+ 0 36.1	1.960	2.785	14.6	19.9	6 20	20 24.59	-29 32.7	1.066	1.992	16.5	18.7
6 30	20 20.05	+ 1 10.9	1.903	2.797	12.0	19.8	6 30	20 21.00	-29 39.4	1.012	1.984	12.1	18.4
7 10	20 13.36	+ 1 26.8	1.867	2.810	9.6	19.6	7 10	20 14.41	-29 40.0	0.977	1.977	7.5	18.2
7 20	20 5.74	+ 1 22.8	1.855	2.822	7.8	19.5	7 20	20 5.94	-29 28.9	0.962	1.972	4.6	18.0
7 30	19 58.02	+ 0 59.9	1.867	2.835	7.6	19.6	7 30	19 57.24	-29 2.3	0.970	1.970	7.2	18.1
8 9	19 51.05	+ 0 21.1	1.905	2.848	9.2	19.7	8 9	19 50.05	-28 19.9	0.998	1.970	11.8	18.4
8 19	19 45.54	- 0 29.2	1.966	2.861	11.4	19.9	8 19	19 45.62	-27 24.7	1.047	1.972	16.4	18.7
8 29	19 42.01	- 1 25.8	2.049	2.875	13.8	20.0	8 29	19 44.69	-26 20.7	1.112	1.977	20.3	18.9
512258	2016 <i>ER</i> ₆₅		7 21.6	66°72'	3°9'/20.4	17	153079	2000 <i>RF</i> ₄		7 21.6	336°74'	11°7'/16.4	18
6 20	20 34.68	-28 0.2	1.282	2.187	15.9	20.9	6 20	20 31.93	-42 59.5	1.289	2.184	16.5	18.6
6 30	20 27.56	-28 29.7	1.243	2.205	11.4	20.7	6 30	20 26.63	-44 23.6	1.234	2.170	13.9	18.4
7 10	20 17.70	-28 55.4	1.225	2.222	6.8	20.5	7 10	20 17.73	-45 31.0	1.199	2.157	12.1	18.3
7 20	20 6.35	-29 10.9	1.231	2.240	3.9	20.4	7 20	20 6.42	-46 10.3	1.184	2.146	11.8	18.2
7 30	19 55.10	-29 12.0	1.261	2.258	6.4	20.6	7 30	19 54.64	-46 13.6	1.190	2.135	13.4	18.3
8 9	19 45.53	-28 58.1	1.315	2.276	10.7	20.9	8 9	19 44.53	-45 40.2	1.217	2.125	16.1	18.4
8 19	19 38.71	-28 31.3	1.391	2.294	14.7	21.1	8 19	19 37.68	-44 35.5	1.261	2.117	19.0	18.6
8 29	19 35.24	-27 55.1	1.486	2.312	18.0	21.4	8 29	19 34.99	-43 7.6	1.322	2.109	21.8	18.8
507243	2011 <i>BZ</i> ₄₇		7 21.6	183°41'	0°8'/21.4	17	253664	2003 <i>UV</i> ₁₇₈		7 21.6	278°73'	1°6'/22.2	18
6 20	20 34.53	-23 25.6	1.664	2.554	13.7	21.3	6 20	20 29.83	-15 31.7	1.502	2.392	14.9	20.9
6 30	20 27.11	-23 7.6	1.598	2.554	9.8	21.1	6 30	20 24.26	-15 41.2	1.416	2.370	11.0	20.6
7 10	20 17.40	-22 49.0	1.555	2.554	5.4	20.8	7 10	20 16.14	-16 1.4	1.352	2.348	6.5	20.3
7 20	20 6.32	-22 27.2	1.538	2.554	1.0	20.5	7 20	20 6.21	-16 29.8	1.312	2.326	2.0	20.0
7 30	19 55.11	-22 0.5	1.549	2.554	4.2	20.8	7 30	19 55.64	-17 2.6	1.297	2.304	4.4	20.1
8 9	19 45.06	-21 29.0	1.586	2.553	8.7	21.0	8 9	19 45.83	-17 35.6	1.308	2.281	9.5	20.3
8 19	19 37.16	-20 53.6	1.647	2.553	12.7	21.3	8 19	19 38.01	-18 5.5	1.341	2.258	14.2	20.5
8 29	19 32.07	-20 15.9	1.730	2.552	16.1	21.5	8 29	19 33.13	-18 30.2	1.395	2.235	18.3	20.7
520503	2014 <i>LQ</i> ₃₀		7 21.6	80°79'	5°9'/26.0	16	339124	2004 <i>RB</i> ₂₉₂		7 21.6	103°01'	19°3'/3.5	17
6 20	20 24.32	+ 0 4.6	2.262	3.083	13.0	21.2	6 20	20 27.65	+20 10.1	1.203	1.949	26.0	20.5
6 30	20 19.30	- 0 1.1	2.201	3.097	10.6	21.0	6 30	20 22.88	+21 20.0	1.148	1.950	24.1	20.4
7 10	20 12.90	- 0 24.3	2.163	3.110	8.1	20.9	7 10	20 15.39	+21 44.5	1.104	1.951	22.1	20.2
7 20	20 5.69	- 1 4.3	2.148	3.124	6.3	20.8	7 20	20 6.09	+21 15.5	1.074	1.952	20.4	20.1
7 30	19 58.37	- 1 59.2	2.161	3.138	6.1	20.8	7 30	19 56.35	+19 49.9	1.061	1.953	19.4	20.1
8 9	19 51.70	- 3 4.9	2.200	3.151	7.6	21.0	8 9	19 47.70	+17 33.0	1.064	1.954	19.4	20.1
8 19	19 46.28	- 4 17.0	2.265	3.165	9.9	21.1	8 19	19 41.42	+14 36.8	1.086	1.954	20.6	20.2
8 29	19 42.61	- 5 30.8	2.353	3.178	12.2	21.3	8 29	19 38.40	+11 17.8	1.126	1.955	22.4	20.3
481112	2005 <i>TZ</i> ₁₂₄		7 21.6	314°29'	6°4'/24.9	18	7382	Bozhenkova		7 21.6	291°59'	0°1'/21.7	18
6 20	20 24.43	- 2 7.6	2.045	2.882	13.6	21.1	6 20	20 25.59	-18 34.1	2.276	3.160	10.7	18.1
6 30	20 19.64	- 1 42.6	1.967	2.874	11.1	21.0	6 30	20 20.50	-18 55.3	2.184	3.137	7.7	17.8
7 10	20 13.21	- 1 34.0	1.911	2.867	8.5	20.8	7 10	20 13.75	-19 22.1	2.117	3.115	4.3	17.6
7 20	20 5.75	- 1 42.4	1.880	2.859	6.7	20.7	7 20	20 5.86	-19 51.7	2.077	3.092	0.7	17.3
7 30	19 58.02	- 2 7.3	1.874	2.852	6.7	20.6	7 30	19 57.63	-20 21.5	2.064	3.070	3.2	17.4
8 9	19 50.89	- 2 45.8	1.893	2.846	8.6	20.7	8 9	19 49.89	-20 48.5	2.079	3.047	6.9	17.6
8 19	19 45.12	- 3 34.2	1.937	2.839	11.2	20.9	8 19	19 43.45	-21 11.0	2.120	3.025	10.3	17.8
8 29	19 41.30	- 4 27.8	2.003	2.833	13.9	21.1	8 29	19 38.93	-21 27.8	2.183	3.002	13.2	18.0
355617	2008 <i>DH</i> ₃₇		7 21.6	32°22'	0°4'/21.8	18	347804	2002 <i>JS</i> ₁₀₄		7 21.6	3°56'	4°9'/19.1	17
6 20	20 25.84	-17 57.7	1.859	2.750	12.4	20.8	6 20	20 25.62	-27 21.4	1.286	2.203	15.0	19.5
6 30	20 20.70	-18 15.9	1.802	2.758	8.9	20.6	6 30	20 21.44	-28 42.6	1.234	2.202	10.9	19.3
7 10	20 13.79	-18 40.3	1.767	2.766	5.0	20.4	7 10	20 14.58	-30 4.7	1.204	2.202	6.8	19.0
7 20	20 5.82	-19 8.0	1.758	2.774	0.9	20.1	7 20	20 5.99	-31 18.6	1.196	2.203	5.0	18.9
7 30	19 57.73	-19 35.7	1.776	2.783	3.5	20.3	7 30	19 57.08	-32 16.2	1.213	2.205	7.5	19.1
8 9	19 50.48	-20 0.5	1.821	2.792	7.4	20.6	8 9	19 49.37	-32 53.0	1.252	2.209	11.6	19.3
8 19	19 44.86	-20 20.5	1.890	2.801	11.0	20.8	8 19	19 44.08	-33 8.4	1.312	2.213	15.5	19.6
8 29	19 41.46	-20 34.7	1.980	2.811	14.0	21.0	8 29	19 42.00	-33 4.7	1.390	2.219	18.9	19.8
211029	2002 <i>AE</i> ₁₂₇		7 21.6	97°06'	1°0'/22.1	17	7524	1991 <i>RW</i> ₁₉		7 21.6	4°32'	2°2'/22.3	18
6 20	20 30.44	-15 21.8	1.382	2.275	15.7	20.8	6 20	20 24.66	-16 14.7	0.982	1.902	18.2	16.8
6 30	20 24.45	-16 2.1	1.330	2.286	11.4	20.6	6 30	20 20.97	-16 1.4	0.932	1.900	13.3	16.5
7 10	20 16.04	-16 54.5	1.299	2.297	6.5	20.4	7 10	20 14.38	-16 0.2	0.899	1.900	7.8	16.2
7 20	20 6.14	-17 53.9	1.292	2.307	1.5	20.1	7 20	20 5.97	-16 8.8	0.888	1.902	2.6	15.9
7 30	19 56.07	-18 54.1	1.311	2.318	4.3	20.3	7 30	19 57.31	-16 23.6	0.897	1.905	5.2	16.1
8 9	19 47.18	-19 49.7	1.355	2.328	9.2	20.6	8 9	19 50.07	-16 40.2	0.928	1.911	10.8	16.4
8 19	19 40.53	-20 36.9	1.422	2.338	13.6	20.9	8 19	19 45.50	-16 55.3	0.978	1.917	15.9	16.7
8 29	19 36.83	-21 13.9	1.509	2.348	17.2	21.2	8 29	19 44.37	-17 6.3	1.046	1.925	20.2	17.0
294318	2007 <i>VH</i> ₅₁		7 21.6	15°33'	0°5'/21.4	18	211148	2002 <i>GU</i> ₁₁₄		7 21.6	15°58'	4°9'/23.8	17
6 20	20 28.15	-21 3.6	1.717	2.612	13.0	20.4	6 20	20 22.93	- 9 6.6	0.943	1.852	19.8	19.3
6 30	20 22.53	-21 14.5	1.655	2.614	9.3	20.2	6 30	20 19.68	- 9 16.8	0.898	1.857	15.0	19.0
7 10	20 14.88	-21 28.9	1.616	2.616	5.1	20.0	7 10	20 13.65	- 9 51.6	0.871	1.864	9.8	18.8
7 20	20 5.99	-21 43.6	1.602	2.618	0.8	19.6	7 20	20 5.87	-10 48.1	0.863	1.873	5.4	18.6
7 30	19 56.93	-21 55.5	1.615	2.620	3.9	19.9	7 30	19 57.89	-11 59.7	0.877	1.883	6.2	18.7
8 9	19 48.82	-22 2.4	1.653	2.623	8.2	20.2	8 9	19 51.30	-13 17.4	0.912	1.894	10.9	19.0
8 19	19 42.57	-22 3.3	1.716	2.626	12.0	20.4	8 19	19 47.31	-14 32.7	0.966	1.907	15.7	19.3
8 29	19 38.80	-21 58.1	1.799	2.629	15.2	20.6	8 29	19 46.65	-15 39.2	1.038	1.922	19.9	19.6
4510	Shawna		7 21.6	325°61'	6°0'/19.6	18	435277	2007 <i>TS</i> ₃₀₅		7 2			

EPHEMERIDES

7 21.6

7 21.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
38924	2000 <i>SB</i> ₂₂₂		7 21.6 177°18	0°9/22.3 18			260607	2005 <i>GY</i> ₁₈		7 21.6 185°47	2°2/20.6 17		
6 20	20 25.33	-14 49.7	2.444	3.317	10.5	18.9	6 20	20 32.86	-24 19.0	1.695	2.588	13.3	21.5
6 30	20 20.09	-15 26.9	2.372	3.318	7.6	18.7	6 30	20 26.07	-24 54.6	1.631	2.588	9.6	21.3
7 10	20 13.41	-16 11.9	2.324	3.318	4.4	18.5	7 10	20 16.97	-25 31.7	1.589	2.588	5.4	21.0
7 20	20 5.83	-17 2.0	2.304	3.319	1.2	18.3	7 20	20 6.40	-26 5.0	1.574	2.587	2.3	20.8
7 30	19 58.06	-17 53.8	2.313	3.319	2.9	18.4	7 30	19 55.56	-26 30.0	1.585	2.586	4.9	21.0
8 9	19 50.84	-18 44.2	2.351	3.319	6.2	18.6	8 9	19 45.75	-26 43.9	1.623	2.584	9.1	21.2
8 19	19 44.82	-19 30.5	2.414	3.319	9.2	18.8	8 19	19 38.00	-26 46.5	1.685	2.582	12.9	21.5
8 29	19 40.55	-20 10.8	2.502	3.319	11.8	19.0	8 29	19 33.04	-26 39.0	1.767	2.579	16.2	21.7
65535	6773 <i>P-L</i>		7 21.6 235°84	0°9/21.2 18			502638	2015 <i>CC</i> ₃₅		7 21.6 141°24	2°8/20.3 17		
6 20	20 30.44	-20 45.6	1.856	2.744	12.6	20.1	6 20	20 32.56	-26 1.8	1.768	2.660	12.9	21.5
6 30	20 24.27	-21 21.2	1.777	2.733	9.0	19.8	6 30	20 25.72	-26 41.3	1.711	2.668	9.2	21.3
7 10	20 15.96	-22 2.0	1.722	2.721	5.0	19.6	7 10	20 16.69	-27 20.3	1.679	2.675	5.4	21.1
7 20	20 6.21	-22 43.7	1.693	2.708	1.0	19.3	7 20	20 6.35	-27 53.6	1.672	2.683	2.8	21.0
7 30	19 56.06	-23 21.8	1.691	2.695	4.1	19.5	7 30	19 55.86	-28 16.8	1.692	2.689	5.1	21.1
8 9	19 46.65	-23 52.9	1.717	2.682	8.3	19.7	8 9	19 46.43	-28 27.7	1.739	2.696	8.9	21.4
8 19	19 38.98	-24 15.2	1.767	2.668	12.2	19.9	8 19	19 39.03	-28 26.6	1.809	2.701	12.4	21.6
8 29	19 33.82	-24 28.2	1.838	2.653	15.5	20.1	8 29	19 34.30	-28 15.0	1.901	2.707	15.4	21.8
42229	2001 <i>DC</i> ₉₉		7 21.6 350°24	9°0/28.5 18			433407	2013 <i>TZ</i> ₃₆		7 21.6 237°77	0°5/21.4 18		
6 20	20 22.84	+ 8 29.1	2.209	2.984	14.7	17.8	6 20	20 30.00	-19 29.3	1.838	2.725	12.7	21.9
6 30	20 18.43	+ 8 41.4	2.135	2.982	12.8	17.7	6 30	20 23.98	-20 5.2	1.759	2.714	9.2	21.7
7 10	20 12.54	+ 8 30.9	2.080	2.980	10.9	17.5	7 10	20 15.83	-20 47.5	1.703	2.702	5.1	21.4
7 20	20 5.73	+ 7 56.2	2.047	2.979	9.4	17.4	7 20	20 6.25	-21 32.2	1.674	2.690	0.8	21.1
7 30	19 58.71	+ 6 58.1	2.039	2.978	9.0	17.4	7 30	19 56.26	-22 14.8	1.672	2.677	3.9	21.3
8 9	19 52.25	+ 5 40.2	2.055	2.977	9.8	17.5	8 9	19 47.00	-22 51.4	1.697	2.664	8.2	21.5
8 19	19 47.03	+ 4 7.9	2.095	2.976	11.5	17.6	8 19	19 39.47	-23 19.8	1.747	2.650	12.2	21.8
8 29	19 43.59	+ 2 27.4	2.158	2.975	13.4	17.7	8 29	19 34.43	-23 39.2	1.818	2.636	15.5	22.0
468121	2014 <i>SN</i> ₂₉₈		7 21.6 97°18	4°9/23.4 17			182023	2000 <i>AG</i> ₂₇		7 21.6 143°65	1°6/20.9 17		
6 20	20 30.96	- 9 38.6	1.354	2.233	16.9	20.7	6 20	20 31.69	-22 30.3	1.731	2.622	13.2	21.0
6 30	20 24.85	- 9 12.6	1.297	2.239	12.9	20.5	6 30	20 25.11	-23 7.8	1.672	2.629	9.4	20.7
7 10	20 16.31	- 9 2.3	1.259	2.244	8.6	20.2	7 10	20 16.37	-23 48.2	1.637	2.636	5.2	20.5
7 20	20 6.28	- 9 7.3	1.246	2.250	5.3	20.1	7 20	20 6.32	-24 26.7	1.628	2.643	1.6	20.3
7 30	19 56.05	- 9 25.5	1.256	2.256	6.1	20.1	7 30	19 56.09	-24 58.7	1.646	2.649	4.4	20.5
8 9	19 46.98	- 9 53.2	1.291	2.261	9.9	20.4	8 9	19 46.87	-25 21.4	1.691	2.654	8.5	20.7
8 19	19 40.13	-10 26.1	1.349	2.267	14.0	20.6	8 19	19 39.63	-25 33.9	1.760	2.660	12.3	21.0
8 29	19 36.24	-11 0.0	1.426	2.272	17.6	20.9	8 29	19 35.01	-25 36.7	1.849	2.664	15.4	21.2
470823	2008 <i>WQ</i> ₅₉		7 21.6 323°12	3°5/22.9 18			358363	2006 <i>WK</i> ₁₉₉		7 21.6 236°40	0°2/21.8 18		
6 20	20 24.24	-12 20.4	1.292	2.190	16.2	19.9	6 20	20 26.86	-18 28.0	2.363	3.243	10.5	22.3
6 30	20 20.56	-12 17.0	1.204	2.160	12.3	19.6	6 30	20 21.29	-18 45.4	2.284	3.235	7.6	22.1
7 10	20 14.27	-12 28.9	1.135	2.130	7.9	19.3	7 10	20 14.15	-19 7.5	2.229	3.226	4.2	21.9
7 20	20 6.04	-12 55.3	1.089	2.100	3.8	19.0	7 20	20 6.02	-19 32.1	2.201	3.217	0.7	21.6
7 30	19 57.04	-13 33.4	1.066	2.072	5.3	19.0	7 30	19 57.64	-19 56.4	2.202	3.208	3.0	21.8
8 9	19 48.75	-14 18.5	1.066	2.044	10.3	19.1	8 9	19 49.84	-20 18.1	2.231	3.198	6.5	22.0
8 19	19 42.52	-15 5.5	1.086	2.018	15.4	19.4	8 19	19 43.34	-20 35.8	2.286	3.189	9.7	22.1
8 29	19 39.40	-15 49.7	1.125	1.993	19.9	19.5	8 29	19 38.71	-20 48.4	2.363	3.179	12.5	22.3
89891	2002 <i>CQ</i> ₂₅₆		7 21.6 339°49	0°4/21.3 18			323727	2005 <i>JJ</i> ₁₅₃		7 21.6 111°64	2°1/20.7 17		
6 20	20 25.17	-18 41.7	1.946	2.837	11.9	19.3	6 20	20 33.09	-23 36.8	1.562	2.457	14.1	21.5
6 30	20 20.35	-19 31.3	1.876	2.833	8.5	19.1	6 30	20 26.21	-24 13.9	1.512	2.470	10.0	21.3
7 10	20 13.72	-20 28.2	1.830	2.830	4.7	18.9	7 10	20 17.00	-24 52.8	1.484	2.483	5.6	21.1
7 20	20 5.91	-21 28.1	1.811	2.826	0.7	18.6	7 20	20 6.43	-25 28.0	1.482	2.496	2.1	20.9
7 30	19 57.84	-22 26.2	1.818	2.823	3.6	18.8	7 30	19 55.76	-25 54.7	1.507	2.508	4.9	21.1
8 9	19 50.45	-23 18.5	1.853	2.820	7.6	19.0	8 9	19 46.33	-26 10.4	1.557	2.520	9.2	21.4
8 19	19 44.59	-24 2.1	1.912	2.818	11.1	19.2	8 19	19 39.11	-26 14.9	1.631	2.532	13.0	21.6
8 29	19 40.91	-24 35.8	1.992	2.816	14.2	19.4	8 29	19 34.77	-26 9.4	1.725	2.543	16.3	21.9
50548	2000 <i>EC</i> ₁₉		7 21.6 130°93	1°0/21.1 18			140421	2001 <i>TJ</i> ₉₂		7 21.6 210°63	4°9/24.6 18		
6 20	20 31.38	-21 12.6	1.748	2.637	13.1	19.6	6 20	20 25.73	- 3 54.5	2.485	3.317	11.7	20.8
6 30	20 24.82	-21 46.5	1.691	2.647	9.3	19.4	6 30	20 20.36	- 3 41.1	2.404	3.312	9.3	20.6
7 10	20 16.16	-22 24.3	1.658	2.657	5.1	19.1	7 10	20 13.60	- 3 40.6	2.347	3.307	6.9	20.5
7 20	20 6.26	-23 1.6	1.651	2.666	1.2	18.9	7 20	20 5.95	- 3 53.0	2.316	3.302	5.1	20.3
7 30	19 56.22	-23 33.9	1.671	2.675	4.1	19.1	7 30	19 58.09	- 4 17.3	2.312	3.296	5.2	20.3
8 9	19 47.19	-23 58.4	1.718	2.684	8.3	19.4	8 9	19 50.74	- 4 51.2	2.336	3.289	7.1	20.5
8 19	19 40.09	-24 13.8	1.790	2.692	12.0	19.6	8 19	19 44.54	- 5 31.7	2.385	3.283	9.6	20.6
8 29	19 35.55	-24 20.6	1.882	2.699	15.1	19.9	8 29	19 40.00	- 6 15.6	2.458	3.276	12.0	20.8
238239	2003 <i>UQ</i> ₂₂₆		7 21.6 237°89	7°4/17.3 18			247397	2002 <i>AT</i> ₁₅₆		7 21.6 167°60	1°5/22.6 18		
6 20	20 33.58	-39 48.4	2.087	2.962	12.0	21.0	6 20	20 25.33	-13 26.5	2.338	3.210	11.0	20.8
6 30	20 26.64	-40 54.7	2.023	2.953	9.6	20.8	6 30	20 20.16	-13 56.5	2.267	3.211	8.0	20.6
7 10	20 17.32	-41 50.9	1.983	2.944	7.8	20.7	7 10	20 13.51	-14 35.3	2.220	3.212	4.8	20.4
7 20	20 6.45	-42 30.4	1.967	2.935	7.4	20.6	7 20	20 5.94	-15 20.6	2.200	3.213	1.8	20.2
7 30	19 55.23	-42 48.2	1.978	2.925	8.7	20.7	7 30	19 58.17	-16 9.1	2.209	3.214	3.1	20.3
8 9	19 45.00	-42 43.2	2.013	2.915	11.0	20.8	8 9	19 50.99	-16 57.6	2.245	3.215	6.3	20.5
8 19	19 36.82	-42 17.4	2.071	2.905	13.4	21.0	8 19	19 45.07	-17 43.2	2.308	3.216	9.4	20.7
8 29	19 31.46	-41 34.9	2.148	2.894	15.7	21.1	8 29	19 40.94	-18 23.9	2.394	3.216	12.1	20.9
150314	1999 <i>UQ</i> ₅₄		7 21.6 140°47	1°4/22.4 18			232814						

EPHEMERIDES

7 21.6

7 21.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
314519	2005 <i>YM</i> ₂		7 21.6 298°92	3°9/23.4	18		314471	2005 <i>WS</i> ₇₂		7 21.6 261°92	4°5/18.6	18	
6 20	20 26.28	- 9 24.0	2.176	3.037	12.1	20.9	6 20	20 28.12	-32 6.7	2.317	3.205	10.4	20.6
6 30	20 20.91	- 8 57.6	2.099	3.031	9.3	20.7	6 30	20 22.43	-33 7.7	2.248	3.197	7.8	20.4
7 10	20 13.95	- 8 41.2	2.046	3.025	6.3	20.5	7 10	20 14.90	-34 5.3	2.204	3.189	5.4	20.3
7 20	20 6.01	- 8 34.6	2.018	3.019	4.1	20.4	7 20	20 6.17	-34 54.3	2.186	3.180	4.5	20.2
7 30	19 57.85	- 8 37.2	2.018	3.013	4.6	20.4	7 30	19 57.15	-35 30.3	2.196	3.172	6.0	20.3
8 9	19 50.31	- 8 47.2	2.044	3.008	7.3	20.6	8 9	19 48.80	-35 51.2	2.232	3.164	8.6	20.4
8 19	19 44.12	- 9 2.5	2.096	3.002	10.3	20.8	8 19	19 41.98	-35 56.9	2.292	3.155	11.3	20.6
8 29	19 39.82	- 9 20.5	2.170	2.997	13.1	20.9	8 29	19 37.33	-35 49.0	2.374	3.147	13.7	20.8
427167	2014 <i>UC</i> ₁₉₇		7 21.6 331°20	0°8/21.9	17		244854	2003 <i>UE</i> ₁₅₀		7 21.6 247°84	2°1/20.4	18	
6 20	20 23.19	-16 39.1	0.923	1.848	18.6	20.2	6 20	20 28.36	-23 29.7	1.950	2.842	11.9	20.3
6 30	20 20.45	-17 5.6	0.856	1.828	13.6	19.9	6 30	20 22.74	-24 22.8	1.877	2.835	8.5	20.1
7 10	20 14.48	-17 48.9	0.806	1.809	7.8	19.5	7 10	20 15.13	-25 19.1	1.829	2.828	4.8	19.9
7 20	20 6.14	-18 44.6	0.775	1.791	1.5	19.0	7 20	20 6.21	-26 13.8	1.808	2.820	2.1	19.7
7 30	19 57.02	-19 45.2	0.766	1.775	5.5	19.2	7 30	19 56.95	-27 1.8	1.813	2.813	4.5	19.8
8 9	19 49.04	-20 42.5	0.776	1.760	12.0	19.5	8 9	19 48.42	-27 39.5	1.846	2.805	8.3	20.0
8 19	19 43.87	-21 30.2	0.804	1.746	18.0	19.8	8 19	19 41.54	-28 5.3	1.903	2.797	11.8	20.2
8 29	19 42.65	-22 4.4	0.848	1.735	23.0	20.0	8 29	19 37.02	-28 19.5	1.981	2.789	14.8	20.4
70238	1999 <i>RS</i> ₆₉		7 21.6 146°76	0°4/21.8	18		12905	1998 <i>RJ</i> ₇₂		7 21.6 30°51	0°7/21.3	18	
6 20	20 31.10	-17 28.6	1.648	2.535	13.9	19.2	6 20	20 25.91	-20 41.1	1.902	2.796	12.0	17.6
6 30	20 24.74	-17 58.9	1.587	2.541	10.0	19.0	6 30	20 20.81	-21 9.2	1.846	2.804	8.5	17.4
7 10	20 16.21	-18 37.2	1.550	2.548	5.6	18.7	7 10	20 13.95	-21 41.5	1.813	2.812	4.7	17.1
7 20	20 6.33	-19 19.4	1.538	2.553	0.9	18.4	7 20	20 6.03	-22 14.2	1.806	2.821	0.9	16.9
7 30	19 56.25	-20 0.8	1.553	2.559	3.9	18.7	7 30	19 57.98	-22 43.8	1.825	2.830	3.6	17.1
8 9	19 47.15	-20 37.7	1.594	2.564	8.4	18.9	8 9	19 50.78	-23 7.7	1.872	2.840	7.5	17.4
8 19	19 40.02	-21 7.6	1.659	2.568	12.4	19.2	8 19	19 45.20	-23 24.3	1.942	2.850	10.9	17.6
8 29	19 35.53	-21 29.5	1.745	2.572	15.7	19.4	8 29	19 41.81	-23 33.2	2.034	2.860	13.8	17.8
191669	2004 <i>QD</i> ₁₁		7 21.6 6°57	4°1/19.9	17		430052	2013 <i>RP</i> ₉₅		7 21.6 284°10	2°7/22.5	18	
6 20	20 24.94	-25 32.5	1.092	2.015	16.4	18.9	6 20	20 30.76	-14 6.6	1.529	2.413	15.0	20.6
6 30	20 21.21	-26 35.2	1.044	2.016	11.8	18.6	6 30	20 25.03	-13 57.2	1.434	2.384	11.3	20.3
7 10	20 14.59	-27 40.3	1.016	2.018	7.0	18.4	7 10	20 16.71	-13 58.2	1.362	2.355	6.9	19.9
7 20	20 6.12	-28 39.1	1.010	2.021	4.1	18.2	7 20	20 6.48	-14 8.2	1.313	2.326	3.0	19.6
7 30	19 57.39	-29 23.8	1.026	2.026	7.1	18.4	7 30	19 55.50	-14 25.0	1.291	2.296	4.8	19.7
8 9	19 50.07	-29 49.6	1.064	2.032	11.8	18.7	8 9	19 45.17	-14 45.4	1.293	2.265	9.6	19.9
8 19	19 45.40	-29 56.3	1.122	2.039	16.2	19.0	8 19	19 36.75	-15 6.6	1.319	2.235	14.4	20.1
8 29	19 44.15	-29 45.8	1.197	2.048	20.0	19.2	8 29	19 31.27	-15 26.2	1.364	2.204	18.6	20.2
438982	2010 <i>PU</i> ₃₆		7 21.6 298°57	3°7/23.2	18		113311	2002 <i>RK</i> ₁₈₉		7 21.6 259°59	1°0/22.1	18	
6 20	20 26.77	-10 5.9	2.201	3.062	11.9	20.7	6 20	20 27.83	-16 51.6	1.932	2.816	12.4	20.1
6 30	20 21.24	- 9 34.8	2.123	3.055	9.1	20.5	6 30	20 22.23	-16 59.9	1.860	2.812	9.0	19.9
7 10	20 14.14	- 9 12.7	2.069	3.049	6.2	20.3	7 10	20 14.79	-17 14.9	1.811	2.807	5.1	19.7
7 20	20 6.05	- 8 59.7	2.041	3.043	3.9	20.1	7 20	20 6.17	-17 34.2	1.788	2.803	1.3	19.4
7 30	19 57.75	- 8 55.4	2.041	3.037	4.5	20.2	7 30	19 57.31	-17 55.2	1.792	2.798	3.5	19.5
8 9	19 50.08	- 8 58.1	2.067	3.031	7.2	20.3	8 9	19 49.20	-18 15.1	1.823	2.794	7.4	19.8
8 19	19 43.74	- 9 6.1	2.119	3.025	10.2	20.5	8 19	19 42.68	-18 32.0	1.879	2.789	11.1	20.0
8 29	19 39.31	- 9 17.3	2.194	3.019	13.0	20.7	8 29	19 38.38	-18 44.8	1.957	2.785	14.2	20.2
439757	2015 <i>FR</i> ₃₃₅		7 21.6 2°29	7°5/25.5	17		232824	2004 <i>SQ</i> ₂₅		7 21.6 252°64	1°9/22.6	18	
6 20	20 25.61	- 0 56.1	1.710	2.550	15.7	20.8	6 20	20 28.87	-13 58.8	2.068	2.940	12.2	21.4
6 30	20 20.74	- 0 29.6	1.643	2.550	12.9	20.6	6 30	20 23.00	-14 5.7	1.978	2.922	9.0	21.2
7 10	20 13.98	- 0 23.5	1.596	2.550	10.0	20.4	7 10	20 15.26	-14 21.3	1.911	2.903	5.5	21.0
7 20	20 6.03	- 0 38.8	1.571	2.550	7.9	20.3	7 20	20 6.25	-14 44.0	1.872	2.884	2.2	20.7
7 30	19 57.83	- 1 14.4	1.572	2.550	7.8	20.3	7 30	19 56.84	-15 11.1	1.860	2.864	3.6	20.8
8 9	19 50.40	- 2 6.5	1.597	2.551	9.7	20.4	8 9	19 47.99	-15 39.9	1.875	2.844	7.4	21.0
8 19	19 44.60	- 3 9.7	1.645	2.552	12.6	20.6	8 19	19 40.59	-16 7.8	1.916	2.823	11.1	21.2
8 29	19 41.08	- 4 18.0	1.714	2.553	15.4	20.8	8 29	19 35.34	-16 32.9	1.979	2.802	14.3	21.3
127028	2002 <i>GA</i> ₂₃		7 21.6 85°95	0°5/21.4	17		48468	1991 <i>SS</i> ₁		7 21.6 307°62	5°2/19.4	18	
6 20	20 30.10	-20 23.1	1.741	2.632	13.1	20.1	6 20	20 31.61	-28 18.0	1.333	2.240	15.2	19.7
6 30	20 23.85	-20 44.7	1.689	2.646	9.3	19.9	6 30	20 26.48	-29 18.4	1.235	2.197	11.4	19.4
7 10	20 15.62	-21 10.5	1.661	2.660	5.1	19.7	7 10	20 17.97	-30 22.2	1.157	2.154	7.4	19.0
7 20	20 6.25	-21 36.6	1.658	2.674	0.8	19.4	7 20	20 6.72	-31 20.7	1.103	2.110	5.2	18.8
7 30	19 56.82	-21 59.6	1.683	2.688	3.8	19.6	7 30	19 54.13	-32 4.5	1.073	2.066	8.1	18.8
8 9	19 48.42	-22 16.8	1.734	2.702	8.0	19.9	8 9	19 42.12	-32 27.0	1.065	2.021	13.2	18.9
8 19	19 41.91	-22 27.1	1.809	2.716	11.6	20.2	8 19	19 32.51	-32 26.4	1.078	1.977	18.3	19.1
8 29	19 37.87	-22 30.6	1.905	2.729	14.7	20.4	8 29	19 26.76	-32 5.4	1.107	1.934	22.9	19.2
469519	2003 <i>SB</i> ₃₈		7 21.6 312°06	1°7/21.2	18		472956	2015 <i>GJ</i> ₃₃		7 21.6 166°26	4°0/24.1	17	
6 20	20 32.14	-25 8.9	1.498	2.398	14.3	20.5	6 20	20 27.76	- 6 49.6	2.014	2.866	13.2	21.5
6 30	20 26.13	-24 53.8	1.406	2.366	10.5	20.2	6 30	20 22.06	- 7 7.8	1.944	2.869	10.2	21.3
7 10	20 17.33	-24 36.2	1.335	2.335	6.0	19.8	7 10	20 14.65	- 7 40.9	1.896	2.873	6.9	21.1
7 20	20 6.55	-24 12.6	1.289	2.304	1.8	19.5	7 20	20 6.16	- 8 27.5	1.875	2.876	4.3	20.9
7 30	19 55.11	-23 40.3	1.268	2.273	5.0	19.6	7 30	19 57.45	- 9 24.3	1.881	2.878	4.7	21.0
8 9	19 44.54	-22 58.8	1.273	2.243	10.1	19.8	8 9	19 49.43	-10 27.2	1.914	2.880	7.5	21.1
8 19	19 36.19	-22 9.7	1.300	2.213	14.8	20.0	8 19	19 42.87	-11 31.6	1.973	2.881	10.7	21.3
8 29	19 31.02	-21 15.7	1.347	2.184	19.0	20.2	8 29	19 38.39	-12 33.7	2.054	2.882	13.6	21.5
166579	2002 <i>RR</i> ₁₃₅		7 21.6 269°40	2°8/19.8	18		440989	20					

EPHEMERIDES

7 21.6

7 21.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
361858	2008 <i>EH</i> ₄₇		7 21.6 228°20	6°3/26.1	18		414400	2009 <i>BY</i> ₃₁		7 21.7 296°12	1°1/21.2	17	
6 20	20 24.24	+ 1 10.7	2.393	3.204	12.7	21.1	6 20	20 29.21	-19 38.6	1.239	2.147	16.1	21.2
6 30	20 19.37	+ 1 14.8	2.313	3.200	10.5	20.9	6 30	20 24.26	-20 28.1	1.169	2.133	11.7	20.9
7 10	20 13.10	+ 1 1.8	2.256	3.196	8.3	20.8	7 10	20 16.40	-21 28.4	1.118	2.120	6.5	20.6
7 20	20 5.94	+ 0 31.4	2.223	3.192	6.6	20.7	7 20	20 6.49	-22 33.1	1.091	2.107	1.3	20.2
7 30	19 58.56	- 0 15.2	2.217	3.187	6.4	20.6	7 30	19 55.94	-23 34.5	1.088	2.094	5.3	20.4
8 9	19 51.69	- 1 14.7	2.237	3.183	7.9	20.7	8 9	19 46.42	-24 26.0	1.108	2.081	10.8	20.7
8 19	19 45.97	- 2 23.1	2.283	3.178	10.1	20.9	8 19	19 39.34	-25 4.2	1.150	2.068	15.9	20.9
8 29	19 41.93	- 3 35.8	2.352	3.173	12.4	21.0	8 29	19 35.69	-25 27.9	1.210	2.056	20.1	21.2
425936	2011 <i>GH</i> ₆₄		7 21.6 29°73	4°9/18.7	17		234288	2000 <i>XY</i> ₁₂		7 21.7 236°13	1°0/22.1	18	
6 20	20 28.08	-26 37.7	1.390	2.300	14.6	19.7	6 20	20 31.14	-17 51.3	2.029	2.907	12.1	20.6
6 30	20 23.12	-28 26.7	1.343	2.307	10.5	19.5	6 30	20 24.58	-17 38.9	1.948	2.897	8.8	20.4
7 10	20 15.55	-30 17.3	1.319	2.315	6.6	19.3	7 10	20 16.12	-17 30.7	1.891	2.886	5.1	20.1
7 20	20 6.30	-31 59.5	1.319	2.324	5.0	19.3	7 20	20 6.44	-17 25.2	1.860	2.875	1.3	19.8
7 30	19 56.74	-33 23.9	1.344	2.333	7.5	19.4	7 30	19 56.47	-17 20.6	1.858	2.864	3.5	20.0
8 9	19 48.34	-34 25.3	1.394	2.342	11.4	19.7	8 9	19 47.24	-17 15.6	1.884	2.852	7.4	20.2
8 19	19 42.28	-35 2.8	1.465	2.353	15.0	19.9	8 19	19 39.61	-17 9.4	1.934	2.840	11.1	20.4
8 29	19 39.33	-35 18.8	1.554	2.363	18.1	20.2	8 29	19 34.23	-17 1.5	2.007	2.827	14.2	20.6
356630	2011 <i>US</i> ₃₂		7 21.6 289°80	3°0/20.4	18		30172	Giedraitis		7 21.7 20°32	0°9/22.1	18	
6 20	20 30.22	-28 7.1	1.951	2.843	11.9	20.8	6 20	20 27.01	-16 32.5	1.904	2.789	12.4	19.0
6 30	20 24.07	-28 25.2	1.876	2.831	8.6	20.6	6 30	20 21.67	-16 51.4	1.837	2.789	9.0	18.8
7 10	20 15.86	-28 40.8	1.824	2.820	5.2	20.4	7 10	20 14.50	-17 17.9	1.793	2.790	5.1	18.5
7 20	20 6.34	-28 49.7	1.799	2.808	3.0	20.2	7 20	20 6.20	-17 49.2	1.775	2.790	1.2	18.3
7 30	19 56.55	-28 48.8	1.801	2.797	5.0	20.3	7 30	19 57.69	-18 21.9	1.785	2.791	3.4	18.4
8 9	19 47.60	-28 36.7	1.829	2.786	8.5	20.5	8 9	19 49.94	-18 52.8	1.821	2.792	7.4	18.7
8 19	19 40.45	-28 14.1	1.881	2.774	12.0	20.7	8 19	19 43.80	-19 19.7	1.882	2.793	11.0	18.9
8 29	19 35.76	-27 42.8	1.955	2.763	15.0	20.9	8 29	19 39.86	-19 41.0	1.964	2.794	14.1	19.1
236433	2006 <i>DG</i> ₁₃₅		7 21.6 255°80	0°5/21.4	18		322701	2000 <i>AO</i> ₂₃₁		7 21.7 251°47	1°9/20.1	18	
6 20	20 29.07	-20 11.4	1.801	2.692	12.8	21.8	6 20	20 26.27	-23 25.9	2.561	3.446	9.6	20.9
6 30	20 23.32	-20 36.2	1.727	2.684	9.2	21.5	6 30	20 20.96	-24 31.4	2.480	3.434	6.9	20.7
7 10	20 15.49	-21 6.1	1.677	2.676	5.1	21.3	7 10	20 14.08	-25 40.2	2.425	3.422	3.9	20.5
7 20	20 6.30	-21 37.5	1.652	2.668	0.8	21.0	7 20	20 6.15	-26 48.1	2.398	3.410	1.9	20.3
7 30	19 56.79	-22 6.4	1.654	2.660	3.9	21.2	7 30	19 57.89	-27 50.6	2.401	3.398	3.9	20.4
8 9	19 48.08	-22 29.7	1.683	2.651	8.2	21.4	8 9	19 50.09	-28 44.3	2.432	3.385	6.9	20.6
8 19	19 41.13	-22 45.8	1.736	2.643	12.0	21.6	8 19	19 43.49	-29 27.5	2.489	3.373	9.8	20.8
8 29	19 36.65	-22 54.2	1.810	2.634	15.4	21.8	8 29	19 38.69	-29 59.4	2.569	3.360	12.3	20.9
354175	2002 <i>CD</i> ₂₉₆		7 21.6 90°37	3°0/20.2	18		326927	2004 <i>BP</i> ₂₈		7 21.7 238°84	2°4/20.8	18	
6 20	20 29.58	-28 47.8	2.209	3.097	10.8	20.9	6 20	20 33.28	-25 31.7	1.630	2.524	13.7	20.9
6 30	20 23.30	-29 7.1	2.148	3.102	7.8	20.7	6 30	20 26.57	-25 50.6	1.559	2.517	9.9	20.6
7 10	20 15.28	-29 23.2	2.112	3.106	4.8	20.5	7 10	20 17.40	-26 9.1	1.511	2.509	5.7	20.4
7 20	20 6.25	-29 32.7	2.103	3.110	3.0	20.4	7 20	20 6.64	-26 22.5	1.489	2.501	2.4	20.1
7 30	19 57.13	-29 33.0	2.121	3.115	4.6	20.5	7 30	19 55.56	-26 26.9	1.493	2.493	5.1	20.3
8 9	19 48.87	-29 23.0	2.167	3.119	7.7	20.7	8 9	19 45.52	-26 20.4	1.522	2.485	9.4	20.5
8 19	19 42.22	-29 3.6	2.237	3.124	10.6	20.9	8 19	19 37.63	-26 3.5	1.575	2.476	13.4	20.7
8 29	19 37.74	-28 36.2	2.329	3.128	13.2	21.1	8 29	19 32.66	-25 38.0	1.649	2.467	16.9	20.9
205644	2001 <i>XN</i> ₅₅		7 21.6 239°67	1°8/20.8	18		404794	2014 <i>JU</i> ₅₉		7 21.7 196°92	3°8/24.0	18	
6 20	20 31.46	-21 36.6	1.446	2.345	14.8	20.3	6 20	20 25.35	- 7 22.3	2.270	3.122	11.9	21.7
6 30	20 25.52	-22 27.5	1.377	2.338	10.6	20.0	6 30	20 20.23	- 7 25.3	2.196	3.121	9.2	21.5
7 10	20 16.92	-23 25.0	1.331	2.331	5.9	19.7	7 10	20 13.62	- 7 40.6	2.145	3.121	6.3	21.3
7 20	20 6.53	-24 22.7	1.309	2.323	1.8	19.4	7 20	20 6.09	- 8 7.4	2.120	3.119	4.1	21.2
7 30	19 55.67	-25 14.0	1.313	2.316	5.2	19.6	7 30	19 58.35	- 8 43.7	2.123	3.118	4.4	21.2
8 9	19 45.82	-25 53.9	1.341	2.307	10.0	19.9	8 9	19 51.20	- 9 26.5	2.152	3.117	6.9	21.3
8 19	19 38.21	-26 20.4	1.393	2.299	14.5	20.1	8 19	19 45.30	-10 12.5	2.208	3.116	9.8	21.5
8 29	19 33.72	-26 33.8	1.463	2.290	18.2	20.4	8 29	19 41.20	-10 58.6	2.286	3.114	12.4	21.7
188158	2002 <i>GY</i> ₉₇		7 21.7 98°18	2°2/19.9	18		429669	2011 <i>GK</i> ₆₇		7 21.7 91°19	3°0/19.9	17	
6 20	20 26.92	-24 1.3	2.307	3.196	10.4	20.5	6 20	20 31.51	-24 25.4	1.759	2.652	12.9	20.5
6 30	20 21.41	-25 11.9	2.250	3.206	7.4	20.3	6 30	20 24.97	-25 45.4	1.717	2.674	9.2	20.3
7 10	20 14.27	-26 24.5	2.218	3.215	4.2	20.1	7 10	20 16.33	-27 6.6	1.699	2.696	5.3	20.1
7 20	20 6.12	-27 34.2	2.214	3.225	2.2	20.0	7 20	20 6.47	-28 22.1	1.708	2.718	3.0	20.0
7 30	19 57.78	-28 36.3	2.239	3.234	4.2	20.2	7 30	19 56.51	-29 25.9	1.744	2.739	5.3	20.2
8 9	19 50.11	-29 27.5	2.291	3.243	7.3	20.4	8 9	19 47.61	-30 14.3	1.806	2.760	8.9	20.5
8 19	19 43.84	-30 6.4	2.369	3.253	10.2	20.6	8 19	19 40.69	-30 46.7	1.893	2.780	12.2	20.7
8 29	19 39.54	-30 33.2	2.469	3.262	12.7	20.8	8 29	19 36.35	-31 4.3	2.001	2.800	15.0	21.0
357555	2004 <i>TS</i> ₂₆		7 21.7 331°56	7°9/26.5	18		146841	2002 <i>AP</i> ₄₉		7 21.7 70°74	0°1/21.7	18	
6 20	20 23.46	+ 3 0.0	2.086	2.898	14.3	20.2	6 20	20 27.56	-19 9.2	2.071	2.957	11.6	19.8
6 30	20 19.01	+ 3 23.2	2.010	2.892	12.1	20.0	6 30	20 21.82	-19 26.8	2.019	2.973	8.2	19.7
7 10	20 12.98	+ 3 26.6	1.954	2.886	9.8	19.9	7 10	20 14.47	-19 48.8	1.990	2.989	4.5	19.5
7 20	20 5.95	+ 3 9.0	1.922	2.880	8.2	19.8	7 20	20 6.21	-20 12.4	1.989	3.005	0.7	19.2
7 30	19 58.67	+ 2 30.8	1.913	2.875	8.0	19.8	7 30	19 57.89	-20 34.5	2.015	3.021	3.2	19.4
8 9	19 51.96	+ 1 35.3	1.930	2.870	9.3	19.8	8 9	19 50.40	-20 53.1	2.068	3.037	6.9	19.7
8 19	19 46.55	+ 0 27.1	1.971	2.865	11.5	20.0	8 19	19 44.45	-21 6.8	2.147	3.053	10.1	19.9
8 29	19 43.01	- 0 48.3	2.034	2.861	13.8	20.1	8 29	19 40.55	-21 15.0	2.247	3.069	12.9	20.1
237599	2001 <i>OH</i> ₄		7 21.7 285°93	2°6/20.6	18		41250	1999 <i>XA</i> ₄₁					

EPHEMERIDES

7 21.7

7 21.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
436294	2010 <i>DP</i> ₄₆		7 21.7 59°02	4 ¹ /23.8 16			4999	MPC		7 21.7 154°31	2 ⁹ /23.6 18		
6 20	20 26.75	- 8 25.0	1.787	2.653	14.0	21.3	6 20	20 25.31	- 9 25.1	2.266	3.126	11.7	17.1
6 30	20 21.52	- 8 26.8	1.721	2.656	10.7	21.1	6 30	20 20.22	- 9 45.1	2.194	3.128	8.8	16.9
7 10	20 14.45	- 8 43.1	1.677	2.659	7.2	20.9	7 10	20 13.65	-10 16.8	2.147	3.129	5.7	16.7
7 20	20 6.22	- 9 12.7	1.658	2.661	4.4	20.7	7 20	20 6.15	-10 58.4	2.125	3.131	3.2	16.5
7 30	19 57.78	- 9 53.0	1.665	2.664	4.9	20.8	7 30	19 58.46	-11 47.1	2.132	3.133	3.7	16.6
8 9	19 50.13	-10 39.9	1.698	2.667	8.0	20.9	8 9	19 51.36	-12 39.5	2.166	3.134	6.6	16.8
8 19	19 44.09	-11 29.3	1.756	2.670	11.5	21.2	8 19	19 45.52	-13 32.0	2.226	3.136	9.6	17.0
8 29	19 40.30	-12 17.5	1.835	2.673	14.6	21.4	8 29	19 41.49	-14 21.9	2.309	3.137	12.3	17.1
32257	2000 <i>OW</i> ₅₂		7 21.7 140°64	5°0/18.7 18			314557	2005 <i>YV</i> ₁₅₈		7 21.7 151°44	1°0/22.3 18		
6 20	20 30.06	-34 28.2	2.285	3.168	10.7	18.0	6 20	20 25.27	-15 30.5	2.637	3.509	9.8	22.0
6 30	20 23.78	-35 17.8	2.228	3.172	8.1	17.8	6 30	20 20.02	-15 52.3	2.567	3.513	7.1	21.8
7 10	20 15.65	-36 1.2	2.195	3.175	5.9	17.7	7 10	20 13.47	-16 20.3	2.523	3.517	4.1	21.6
7 20	20 6.39	-36 33.4	2.188	3.178	5.1	17.6	7 20	20 6.12	-16 52.3	2.507	3.521	1.2	21.4
7 30	19 56.98	-36 50.9	2.209	3.180	6.4	17.7	7 30	19 58.63	-17 25.9	2.519	3.525	2.7	21.5
8 9	19 48.41	-36 52.4	2.256	3.183	8.8	17.9	8 9	19 51.68	-17 58.7	2.560	3.528	5.7	21.7
8 19	19 41.51	-36 39.1	2.327	3.186	11.3	18.0	8 19	19 45.87	-18 28.7	2.627	3.532	8.6	21.9
8 29	19 36.88	-36 13.2	2.418	3.188	13.5	18.2	8 29	19 41.66	-18 54.7	2.718	3.535	11.0	22.1
244143	2001 <i>WH</i> ₅		7 21.7 326°33	3°7/20.2 17			514814	2007 <i>TM</i> ₄₂₀		7 21.7 257°24	9°1/16.2 18		
6 20	20 26.81	-24 7.6	1.027	1.951	17.2	20.0	6 20	20 41.65	-48 58.6	2.426	3.258	11.9	22.4
6 30	20 23.05	-25 6.9	0.961	1.934	12.5	19.7	6 30	20 32.60	-49 51.9	2.349	3.235	10.4	22.3
7 10	20 15.97	-26 13.3	0.915	1.917	7.3	19.4	7 10	20 20.80	-50 29.6	2.296	3.211	9.3	22.2
7 20	20 6.50	-27 18.0	0.889	1.902	3.7	19.1	7 20	20 7.22	-50 44.7	2.267	3.187	9.2	22.1
7 30	19 56.31	-28 11.4	0.885	1.887	7.2	19.2	7 30	19 53.27	-50 32.7	2.264	3.162	10.1	22.1
8 9	19 47.34	-28 46.6	0.903	1.874	12.8	19.5	8 9	19 40.47	-49 53.6	2.285	3.137	11.8	22.2
8 19	19 41.24	-29 1.6	0.939	1.862	18.1	19.7	8 19	19 30.06	-48 50.9	2.328	3.111	13.7	22.3
8 29	19 39.10	-28 57.7	0.991	1.851	22.5	20.0	8 29	19 22.85	-47 30.5	2.391	3.084	15.5	22.4
479173	2013 <i>CZ</i> ₄₄		7 21.7 272°84	4°8/19.5 18			173973	2001 <i>XL</i> ₁₂₂		7 21.7 151°61	4°3/18.9 18		
6 20	20 33.98	-33 47.7	2.163	3.044	11.4	21.5	6 20	20 29.03	-30 56.3	2.236	3.124	10.7	20.5
6 30	20 26.85	-34 14.0	2.075	3.019	8.6	21.3	6 30	20 23.10	-31 59.1	2.177	3.127	7.9	20.3
7 10	20 17.51	-34 33.9	2.010	2.994	6.0	21.1	7 10	20 15.33	-32 58.7	2.142	3.130	5.3	20.2
7 20	20 6.69	-34 42.3	1.973	2.968	4.8	20.9	7 20	20 6.42	-33 49.9	2.135	3.132	4.3	20.1
7 30	19 55.47	-34 35.5	1.963	2.943	6.3	21.0	7 30	19 57.27	-34 28.2	2.155	3.135	5.8	20.2
8 9	19 45.03	-34 12.3	1.979	2.916	9.2	21.1	8 9	19 48.89	-34 51.6	2.201	3.137	8.5	20.4
8 19	19 36.39	-33 34.3	2.020	2.890	12.3	21.3	8 19	19 42.10	-35 0.0	2.272	3.139	11.2	20.6
8 29	19 30.31	-32 44.6	2.083	2.863	15.1	21.4	8 29	19 37.53	-34 55.1	2.364	3.141	13.6	20.7
117843	2005 <i>JU</i> ₁₂₃		7 21.7 104°60	4°8/19.7 17			427499	2002 <i>CZ</i> ₅₈		7 21.7 276°45	8°6/18.1 17		
6 20	20 33.68	-29 49.5	1.496	2.395	14.4	19.9	6 20	20 46.62	-40 35.0	1.780	2.643	14.2	23.4
6 30	20 26.96	-30 39.2	1.444	2.401	10.6	19.7	6 30	20 37.09	-41 29.2	1.678	2.602	11.6	23.1
7 10	20 17.63	-31 24.8	1.415	2.408	6.8	19.5	7 10	20 23.83	-42 11.6	1.599	2.560	9.4	22.9
7 20	20 6.70	-31 59.4	1.410	2.414	4.8	19.4	7 20	20 7.74	-42 31.6	1.545	2.516	8.7	22.7
7 30	19 55.61	-32 17.5	1.430	2.420	6.9	19.5	7 30	19 50.53	-42 20.8	1.517	2.471	10.3	22.7
8 9	19 45.84	-32 17.5	1.475	2.426	10.7	19.7	8 9	19 34.31	-41 37.0	1.515	2.424	13.5	22.8
8 19	19 38.51	-32 0.9	1.543	2.432	14.3	20.0	8 19	19 20.89	-40 24.4	1.537	2.376	17.0	22.9
8 29	19 34.34	-31 31.3	1.630	2.438	17.5	20.2	8 29	19 11.53	-38 51.3	1.577	2.327	20.3	23.0
257277	2009 <i>HX</i> ₄		7 21.7 6°02	5°7/19.4 17			62618	2000 <i>SD</i> ₃₄₈		7 21.7 264°82	4°4/18.6 18		
6 20	20 28.63	-28 28.3	1.069	1.990	16.9	19.5	6 20	20 28.36	-30 27.6	2.169	3.060	10.9	19.1
6 30	20 24.09	-29 36.7	1.021	1.990	12.4	19.3	6 30	20 22.77	-31 41.0	2.100	3.052	8.1	18.9
7 10	20 16.34	-30 43.8	0.992	1.990	7.9	19.0	7 10	20 15.24	-32 52.7	2.056	3.044	5.5	18.7
7 20	20 6.55	-31 39.6	0.985	1.992	5.7	18.9	7 20	20 6.42	-33 56.7	2.039	3.036	4.5	18.6
7 30	19 56.43	-32 15.8	1.000	1.994	8.4	19.1	7 30	19 57.23	-34 47.8	2.049	3.029	6.1	18.7
8 9	19 47.87	-32 28.8	1.037	1.998	12.9	19.3	8 9	19 48.72	-35 23.0	2.085	3.021	8.9	18.9
8 19	19 42.24	-32 19.7	1.093	2.003	17.2	19.6	8 19	19 41.80	-35 41.9	2.146	3.012	11.8	19.1
8 29	19 40.36	-31 52.6	1.165	2.008	20.9	19.9	8 29	19 37.16	-35 45.7	2.227	3.004	14.3	19.2
522429	2016 <i>CV</i> ₃₁₄		7 21.7 17°15	3°6/19.9 17			325093	2008 <i>DB</i> ₅₄		7 21.7 144°31	0°6/21.9 17		
6 20	20 28.72	-24 17.0	1.204	2.118	16.0	20.5	6 20	20 31.00	-16 53.5	1.702	2.586	13.7	21.3
6 30	20 23.83	-25 30.4	1.153	2.120	11.5	20.2	6 30	20 24.69	-17 23.1	1.641	2.593	9.9	21.1
7 10	20 16.09	-26 48.0	1.122	2.123	6.7	20.0	7 10	20 16.27	-18 0.9	1.603	2.600	5.6	20.8
7 20	20 6.51	-28 1.2	1.115	2.127	3.6	19.8	7 20	20 6.56	-18 43.1	1.591	2.607	1.1	20.6
7 30	19 56.61	-29 1.2	1.132	2.131	6.7	20.0	7 30	19 56.64	-19 25.3	1.607	2.613	3.8	20.8
8 9	19 48.02	-29 42.9	1.172	2.136	11.4	20.3	8 9	19 47.68	-20 3.6	1.649	2.619	8.1	21.0
8 19	19 42.02	-30 5.1	1.232	2.141	15.7	20.6	8 19	19 40.61	-20 35.5	1.715	2.624	12.0	21.3
8 29	19 39.40	-30 9.6	1.310	2.147	19.4	20.8	8 29	19 36.09	-20 59.9	1.802	2.628	15.3	21.5
247737	2003 <i>JD</i> ₁₀		7 21.7 8°93	1°2/22.3 18			342553	2008 <i>UV</i> ₂₄₁		7 21.7 301°09	4°4/19.1 18		
6 20	20 23.22	-15 16.5	1.477	2.376	14.5	19.2	6 20	20 28.72	-27 3.1	1.574	2.478	13.5	20.5
6 30	20 19.33	-15 46.1	1.420	2.379	10.5	19.0	6 30	20 23.73	-28 22.7	1.493	2.454	9.9	20.3
7 10	20 13.36	-16 27.1	1.385	2.384	6.1	18.8	7 10	20 16.11	-29 46.0	1.435	2.430	6.3	20.0
7 20	20 6.10	-17 15.8	1.374	2.389	1.7	18.5	7 20	20 6.58	-31 5.1	1.401	2.407	4.5	19.8
7 30	19 58.65	-18 7.4	1.388	2.396	3.9	18.7	7 30	19 56.33	-32 11.9	1.393	2.384	7.0	19.9
8 9	19 52.13	-18 56.8	1.427	2.403	8.4	19.0	8 9	19 46.81	-33 0.6	1.410	2.361	11.0	20.1
8 19	19 47.48	-19 40.3	1.488	2.412	12.5	19.2	8 19	19 39.34	-33 29.4	1.448	2.338	15.1	20.3
8 29	19 45.35	-20 15.4	1.570	2.422	16.0	19.5	8 29	19 34.92	-33 39.2	1.506	2.315	18.6	20.5
478472	2012 <i>QJ</i> ₂₃		7 21.7 233°30	5°5/19.5 18			465256						

EPHEMERIDES

7 21.7

7 21.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
217651	1998 <i>QF</i> ₃₅		7 21.7 315°08	5°2/25.2	18		472236	2014 <i>HF</i> ₁₂		7 21.7 252°19	5°0/24.5	18	
6 20	20 23.40	- 3 11.3	1.978	2.824	13.7	19.7	6 20	20 26.12	- 4 49.9	2.205	3.047	12.6	21.0
6 30	20 19.21	- 3 36.5	1.886	2.804	11.0	19.5	6 30	20 20.92	- 4 38.8	2.120	3.036	10.0	20.8
7 10	20 13.27	- 4 21.3	1.816	2.783	8.0	19.3	7 10	20 14.13	- 4 41.7	2.059	3.025	7.3	20.6
7 20	20 6.14	- 5 25.2	1.771	2.764	5.6	19.1	7 20	20 6.29	- 4 58.5	2.023	3.013	5.3	20.5
7 30	19 58.60	- 6 45.1	1.751	2.744	5.5	19.1	7 30	19 58.17	- 5 28.1	2.014	3.002	5.4	20.4
8 9	19 51.54	- 8 16.1	1.759	2.725	8.0	19.2	8 9	19 50.57	- 6 7.8	2.031	2.990	7.7	20.6
8 19	19 45.81	- 9 52.1	1.791	2.706	11.3	19.3	8 19	19 44.25	- 6 54.0	2.074	2.978	10.5	20.7
8 29	19 42.09	-11 27.1	1.847	2.688	14.4	19.5	8 29	19 39.79	- 7 43.1	2.139	2.966	13.2	20.9
93136	2000 <i>SZ</i> ₇₀		7 21.7 253°27	2°5/20.4	18		73162	2002 <i>GA</i> ₁₅₁		7 21.7 358°36	1°7/21.2	18	
6 20	20 30.70	-25 17.7	1.883	2.775	12.2	20.1	6 20	20 28.08	-23 33.3	0.992	1.915	17.7	18.4
6 30	20 24.60	-25 55.5	1.805	2.762	8.8	19.9	6 30	20 23.71	-23 33.6	0.939	1.911	12.8	18.1
7 10	20 16.33	-26 34.4	1.751	2.748	5.1	19.6	7 10	20 16.16	-23 36.0	0.905	1.908	7.2	17.8
7 20	20 6.60	-27 9.7	1.723	2.735	2.5	19.4	7 20	20 6.61	-23 35.6	0.891	1.907	1.9	17.5
7 30	19 56.48	-27 36.8	1.722	2.721	4.9	19.6	7 30	19 56.77	-23 28.2	0.900	1.907	5.7	17.7
8 9	19 47.13	-27 52.9	1.748	2.706	8.7	19.8	8 9	19 48.48	-23 11.9	0.929	1.908	11.4	18.0
8 19	19 39.56	-27 57.4	1.797	2.692	12.4	20.0	8 19	19 43.10	-22 47.3	0.978	1.911	16.6	18.3
8 29	19 34.54	-27 51.1	1.868	2.677	15.6	20.1	8 29	19 41.42	-22 15.8	1.044	1.915	20.9	18.6
489597	2007 <i>TV</i> ₁₆₁		7 21.7 271°87	6°6/18.8	17		390503	2014 <i>BV</i>		7 21.7 225°88	4°0/19.9	18	
6 20	20 34.64	-32 48.4	1.440	2.339	14.9	21.3	6 20	20 33.60	-30 59.8	2.047	2.932	11.7	21.6
6 30	20 28.24	-33 53.4	1.368	2.322	11.3	21.0	6 30	20 26.52	-31 27.8	1.974	2.924	8.7	21.4
7 10	20 18.71	-34 53.8	1.318	2.305	8.0	20.8	7 10	20 17.32	-31 51.1	1.925	2.915	5.6	21.2
7 20	20 6.98	-35 40.3	1.291	2.287	6.7	20.7	7 20	20 6.76	-32 4.9	1.903	2.906	4.0	21.1
7 30	19 54.59	-36 5.3	1.289	2.270	8.8	20.7	7 30	19 55.95	-32 5.7	1.909	2.896	5.7	21.2
8 9	19 43.35	-36 5.6	1.310	2.252	12.6	20.9	8 9	19 46.04	-31 52.4	1.941	2.886	8.9	21.3
8 19	19 34.73	-35 42.9	1.353	2.234	16.5	21.1	8 19	19 37.98	-31 26.1	1.997	2.876	12.0	21.5
8 29	19 29.74	-35 2.1	1.413	2.215	20.0	21.3	8 29	19 32.47	-30 49.6	2.075	2.865	14.8	21.7
208043	1999 <i>RW</i> ₁₉₀		7 21.7 267°63	0°9/22.1	18		382577	2002 <i>CY</i> ₆₇		7 21.7 95°64	3°7/20.7	18	
6 20	20 28.65	-16 29.2	1.952	2.833	12.4	21.2	6 20	20 35.69	-30 14.4	1.690	2.581	13.5	20.3
6 30	20 23.04	-16 46.3	1.863	2.814	9.0	20.9	6 30	20 28.12	-30 15.0	1.629	2.583	9.9	20.1
7 10	20 15.44	-17 11.2	1.798	2.794	5.2	20.6	7 10	20 18.19	-30 9.2	1.591	2.585	6.1	19.8
7 20	20 6.48	-17 41.5	1.759	2.774	1.3	20.3	7 20	20 6.88	-29 53.0	1.579	2.587	3.7	19.7
7 30	19 57.07	-18 13.8	1.747	2.753	3.5	20.4	7 30	19 55.51	-29 23.8	1.594	2.589	5.6	19.8
8 9	19 48.26	-18 44.9	1.762	2.732	7.7	20.7	8 9	19 45.41	-28 42.2	1.634	2.591	9.4	20.1
8 19	19 40.99	-19 12.3	1.803	2.711	11.6	20.9	8 19	19 37.60	-27 50.9	1.699	2.593	13.0	20.3
8 29	19 35.98	-19 34.5	1.865	2.690	14.9	21.0	8 29	19 32.70	-26 53.3	1.785	2.595	16.1	20.5
502052	2015 <i>AZ</i> ₁₅₈		7 21.7 107°32	0°4/21.9	17		173769	2001 <i>RC</i> ₁₄₃		7 21.7 300°28	0°2/21.6	18	
6 20	20 30.62	-17 26.3	1.680	2.567	13.7	21.5	6 20	20 28.98	-20 56.2	1.857	2.747	12.4	20.2
6 30	20 24.37	-17 57.0	1.627	2.580	9.8	21.3	6 30	20 23.34	-20 54.7	1.772	2.728	9.0	19.9
7 10	20 16.07	-18 35.3	1.596	2.593	5.5	21.0	7 10	20 15.63	-20 56.1	1.711	2.710	5.0	19.7
7 20	20 6.55	-19 17.2	1.591	2.606	0.9	20.7	7 20	20 6.54	-20 57.8	1.675	2.691	0.7	19.3
7 30	19 56.90	-19 58.1	1.612	2.619	3.8	21.0	7 30	19 57.07	-20 57.4	1.667	2.673	3.7	19.5
8 9	19 48.26	-20 34.5	1.661	2.631	8.1	21.3	8 9	19 48.33	-20 53.1	1.685	2.654	8.0	19.7
8 19	19 41.54	-21 4.0	1.733	2.643	11.9	21.5	8 19	19 41.28	-20 44.2	1.727	2.636	11.9	19.9
8 29	19 37.35	-21 25.7	1.827	2.654	15.1	21.8	8 29	19 36.65	-20 30.8	1.790	2.618	15.3	20.1
394551	2007 <i>UG</i> ₇₅		7 21.7 184°16	1°8/22.8	18		51451	2001 <i>FE</i> ₃₁		7 21.7 50°07	1°5/22.2	18	
6 20	20 27.55	-13 25.8	2.672	3.533	10.1	22.4	6 20	20 30.30	-16 13.9	1.245	2.145	16.6	18.8
6 30	20 21.64	-13 29.5	2.595	3.533	7.4	22.2	6 30	20 24.55	-16 20.7	1.201	2.160	12.0	18.6
7 10	20 14.38	-13 40.0	2.545	3.533	4.5	22.1	7 10	20 16.30	-16 38.0	1.177	2.175	6.9	18.4
7 20	20 6.30	-13 55.8	2.521	3.532	2.0	21.9	7 20	20 6.62	-17 2.2	1.176	2.191	1.9	18.1
7 30	19 58.06	-14 15.1	2.528	3.531	3.0	22.0	7 30	19 56.89	-17 28.9	1.199	2.207	4.5	18.3
8 9	19 50.35	-14 36.0	2.562	3.529	5.8	22.1	8 9	19 48.53	-17 54.1	1.247	2.223	9.4	18.6
8 19	19 43.78	-14 56.9	2.624	3.526	8.6	22.3	8 19	19 42.57	-18 15.2	1.316	2.240	13.9	18.9
8 29	19 38.85	-15 16.1	2.710	3.523	11.1	22.5	8 29	19 39.66	-18 30.6	1.405	2.257	17.5	19.2
361671	2007 <i>TU</i> ₄₅₀		7 21.7 4°09	3°2/22.9	17		250745	2005 <i>SS</i> ₁₅₉		7 21.7 281°90	0°6/21.9	18	
6 20	20 24.75	-12 39.3	0.981	1.893	18.9	19.3	6 20	20 28.36	-18 53.2	2.145	3.027	11.4	20.6
6 30	20 21.19	-12 48.8	0.928	1.892	14.1	19.0	6 30	20 22.58	-18 46.2	2.063	3.015	8.2	20.3
7 10	20 14.73	-13 17.4	0.894	1.892	8.6	18.7	7 10	20 15.07	-18 42.8	2.006	3.003	4.7	20.1
7 20	20 6.38	-14 2.0	0.880	1.893	3.7	18.5	7 20	20 6.45	-18 41.4	1.976	2.991	0.9	19.8
7 30	19 57.69	-14 56.7	0.888	1.895	5.4	18.6	7 30	19 57.57	-18 40.0	1.973	2.979	3.2	20.0
8 9	19 50.33	-15 54.1	0.916	1.899	10.8	18.9	8 9	19 49.35	-18 37.3	1.998	2.967	7.0	20.2
8 19	19 45.60	-16 47.8	0.965	1.904	16.0	19.2	8 19	19 42.59	-18 32.4	2.048	2.955	10.5	20.4
8 29	19 44.33	-17 33.2	1.031	1.910	20.3	19.5	8 29	19 37.90	-18 24.9	2.121	2.943	13.5	20.6
360316	2001 <i>SX</i> ₁₆₁		7 21.7 331°74	5°2/20.2	17		168591	2000 <i>AF</i> ₁₆		7 21.7 295°00	3°4/22.6	18	
6 20	20 27.46	-28 21.9	0.930	1.859	18.0	19.8	6 20	20 30.52	-13 18.5	1.751	2.626	13.8	19.3
6 30	20 23.85	-28 55.0	0.866	1.839	13.4	19.5	6 30	20 24.59	-12 38.9	1.655	2.599	10.5	19.0
7 10	20 16.59	-29 26.3	0.819	1.820	8.3	19.1	7 10	20 16.42	-12 6.3	1.582	2.571	6.7	18.8
7 20	20 6.70	-29 47.1	0.792	1.802	5.2	18.9	7 20	20 6.67	-11 40.9	1.535	2.543	3.7	18.5
7 30	19 56.07	-29 49.6	0.785	1.786	8.3	19.0	7 30	19 56.37	-11 22.6	1.514	2.515	4.9	18.5
8 9	19 46.91	-29 30.2	0.798	1.771	13.8	19.2	8 9	19 46.68	-11 10.5	1.519	2.487	8.9	18.7
8 19	19 40.97	-28 51.0	0.829	1.758	19.2	19.5	8 19	19 38.69	-11 3.4	1.549	2.460	13.0	18.9
8 29	19 39.33	-27 56.3	0.875	1.747	23.8	19.7	8 29	19 33.24	-10 59.7	1.599	2.432	16.6	19.0
216710	2005 <i>CC</i> ₁₄		7 21.7 120°93	1°1/21.2	17		24919						

EPHEMERIDES

7 21.7

7 21.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
188090	2001 <i>XL</i> ₁₅₇		7 21.7 164°77	2°2/23.1	18		318249	2004 <i>RK</i> ₃₀₉		7 21.7 235°67	5°4/25.3	18	
6 20	20 26.85	-11 57.0	2.813	3.670	9.8	21.3	6 20	20 24.68	-0 55.1	2.749	3.564	11.1	21.2
6 30	20 21.06	-11 52.8	2.741	3.675	7.3	21.1	6 30	20 19.66	-0 38.8	2.662	3.553	9.1	21.1
7 10	20 14.05	-11 55.6	2.695	3.679	4.6	21.0	7 10	20 13.37	-0 35.7	2.598	3.543	7.1	20.9
7 20	20 6.30	-12 4.3	2.676	3.683	2.4	20.8	7 20	20 6.27	-0 46.3	2.560	3.532	5.6	20.8
7 30	19 58.43	-12 17.6	2.686	3.687	3.1	20.9	7 30	19 58.94	-1 9.9	2.549	3.521	5.6	20.8
8 9	19 51.08	-12 33.8	2.725	3.690	5.6	21.1	8 9	19 52.04	-1 44.5	2.565	3.509	7.0	20.9
8 19	19 44.82	-12 51.3	2.791	3.693	8.2	21.2	8 19	19 46.12	-2 27.4	2.607	3.498	9.1	21.0
8 29	19 40.09	-13 8.5	2.881	3.695	10.5	21.4	8 29	19 41.69	-3 15.3	2.672	3.486	11.3	21.1
367737	2010 <i>UX</i> ₇₆		7 21.7 335°54	3°5/20.1	18		181091	2005 <i>QW</i> ₅₃		7 21.7 30°36	1°2/21.3	17	
6 20	20 23.87	-22 41.4	1.003	1.931	17.2	19.4	6 20	20 29.25	-21 24.7	1.172	2.084	16.5	19.7
6 30	20 20.97	-23 56.1	0.938	1.913	12.4	19.1	6 30	20 24.05	-21 47.7	1.127	2.094	11.8	19.5
7 10	20 14.88	-25 21.9	0.893	1.896	7.2	18.8	7 10	20 16.17	-22 15.8	1.103	2.105	6.5	19.2
7 20	20 6.49	-26 49.2	0.868	1.881	3.5	18.5	7 20	20 6.68	-22 43.7	1.101	2.117	1.4	18.9
7 30	19 57.35	-28 7.1	0.864	1.867	7.2	18.7	7 30	19 57.11	-23 6.2	1.123	2.129	5.0	19.2
8 9	19 49.38	-29 6.8	0.882	1.854	12.8	18.9	8 9	19 48.98	-23 20.1	1.168	2.142	10.1	19.5
8 19	19 44.18	-29 44.1	0.918	1.843	18.1	19.2	8 19	19 43.40	-23 24.2	1.234	2.156	14.7	19.8
8 29	19 42.86	-29 59.2	0.970	1.834	22.6	19.4	8 29	19 41.04	-23 19.2	1.319	2.171	18.4	20.1
442143	2010 <i>UF</i> ₉₉		7 21.7 312°70	2°2/22.7	16		509090	2005 <i>UW</i> ₂₃₉		7 21.7 214°89	3°8/19.1	18	
6 20	20 25.73	-13 57.1	1.971	2.850	12.3	21.2	6 20	20 27.93	-29 41.4	2.306	3.195	10.4	21.3
6 30	20 20.86	-13 54.0	1.887	2.834	9.2	21.0	6 30	20 22.34	-30 44.3	2.242	3.194	7.6	21.1
7 10	20 14.19	-13 59.5	1.826	2.819	5.6	20.7	7 10	20 14.99	-31 45.3	2.202	3.192	5.0	21.0
7 20	20 6.34	-14 12.3	1.791	2.803	2.4	20.5	7 20	20 6.51	-32 39.4	2.190	3.191	3.8	20.9
7 30	19 58.16	-14 30.4	1.783	2.788	3.7	20.5	7 30	19 57.78	-33 22.3	2.206	3.189	5.4	21.0
8 9	19 50.59	-14 51.2	1.801	2.773	7.4	20.7	8 9	19 49.71	-33 51.4	2.248	3.187	8.2	21.1
8 19	19 44.47	-15 12.3	1.844	2.759	11.0	20.9	8 19	19 43.13	-34 6.3	2.315	3.186	10.9	21.3
8 29	19 40.47	-15 31.6	1.909	2.745	14.2	21.1	8 29	19 38.65	-34 8.3	2.403	3.184	13.3	21.5
96065	4785 <i>P-L</i>		7 21.7 271°28	0°4/21.9	18		92027	1999 <i>VH</i> ₁₇₇		7 21.7 337°22	5°9/17.4	18	
6 20	20 26.23	-17 54.0	2.378	3.258	10.5	21.0	6 20	20 27.66	-32 51.1	1.935	2.830	11.8	18.9
6 30	20 20.99	-18 11.2	2.292	3.243	7.6	20.8	6 30	20 22.59	-34 27.8	1.873	2.824	9.0	18.7
7 10	20 14.18	-18 33.8	2.231	3.228	4.3	20.6	7 10	20 15.33	-36 1.2	1.836	2.818	6.6	18.6
7 20	20 6.34	-18 59.5	2.197	3.212	0.8	20.3	7 20	20 6.59	-37 23.9	1.824	2.812	6.0	18.5
7 30	19 58.21	-19 25.7	2.191	3.197	3.0	20.4	7 30	19 57.42	-38 29.2	1.839	2.807	7.7	18.6
8 9	19 50.60	-19 49.8	2.212	3.181	6.5	20.6	8 9	19 49.02	-39 13.5	1.879	2.802	10.5	18.8
8 19	19 44.24	-20 10.3	2.260	3.165	9.7	20.8	8 19	19 42.42	-39 36.6	1.941	2.798	13.3	18.9
8 29	19 39.71	-20 26.0	2.330	3.149	12.5	21.0	8 29	19 38.39	-39 40.8	2.023	2.794	15.8	19.1
67704	2000 <i>TS</i> ₂₁		7 21.7 6°09	1°9/20.8	18		437649	2014 <i>BZ</i> ₅₂		7 21.7 150°84	2°4/20.2	18	
6 20	20 24.97	-19 49.1	0.973	1.897	17.9	18.5	6 20	20 30.20	-25 7.7	2.205	3.091	10.9	22.1
6 30	20 21.53	-20 59.6	0.924	1.897	12.8	18.2	6 30	20 23.89	-26 1.7	2.144	3.098	7.8	21.9
7 10	20 15.02	-22 22.3	0.893	1.897	7.1	17.9	7 10	20 15.81	-26 56.5	2.109	3.106	4.5	21.7
7 20	20 6.50	-23 48.1	0.884	1.899	2.0	17.6	7 20	20 6.64	-27 47.3	2.102	3.112	2.4	21.5
7 30	19 57.59	-25 6.7	0.897	1.903	6.1	17.8	7 30	19 57.28	-28 29.9	2.123	3.119	4.4	21.7
8 9	19 50.10	-26 10.0	0.931	1.908	11.7	18.2	8 9	19 48.68	-29 1.7	2.172	3.125	7.6	21.9
8 19	19 45.38	-26 53.9	0.985	1.914	16.8	18.5	8 19	19 41.63	-29 21.8	2.245	3.130	10.6	22.1
8 29	19 44.31	-27 18.3	1.055	1.921	21.0	18.8	8 29	19 36.73	-29 31.0	2.341	3.135	13.2	22.3
217828	2001 <i>GT</i>		7 21.7 28°34	17°1/7.9	18		33984	2000 <i>NU</i> ₂₄		7 21.7 310°34	1°4/22.1	18	
6 20	20 34.30	-44 46.4	0.979	1.882	19.7	18.0	6 20	20 28.83	-17 30.5	1.421	2.318	15.1	17.8
6 30	20 29.92	-49 34.5	0.971	1.898	17.7	18.0	6 30	20 23.85	-17 20.0	1.334	2.293	11.1	17.5
7 10	20 20.57	-53 48.5	0.985	1.916	17.1	18.0	7 10	20 16.24	-17 16.8	1.269	2.267	6.5	17.2
7 20	20 7.40	-57 5.8	1.020	1.934	18.2	18.1	7 20	20 6.76	-17 18.7	1.226	2.241	1.8	16.8
7 30	19 53.07	-59 14.5	1.075	1.954	20.1	18.3	7 30	19 56.63	-17 23.3	1.209	2.216	4.5	16.9
8 9	19 40.95	-60 17.4	1.145	1.976	22.3	18.5	8 9	19 47.28	-17 27.9	1.216	2.192	9.7	17.2
8 19	19 33.57	-60 26.0	1.229	1.998	24.2	18.8	8 19	19 40.00	-17 30.6	1.245	2.168	14.6	17.4
8 29	19 32.12	-59 54.5	1.323	2.022	25.8	19.0	8 29	19 35.75	-17 30.2	1.293	2.144	18.8	17.6
41950	2000 <i>XA</i> ₉		7 21.7 267°00	6°5/17.5	18		419765	2010 <i>VX</i> ₁₂₂		7 21.7 89°38	2°6/22.7	17	
6 20	20 31.86	-34 15.1	1.881	2.771	12.4	19.0	6 20	20 32.37	-13 51.5	1.520	2.401	15.2	21.2
6 30	20 25.80	-35 44.4	1.808	2.754	9.6	18.8	6 30	20 25.69	-13 41.7	1.470	2.418	11.2	20.9
7 10	20 17.21	-37 9.9	1.758	2.737	7.2	18.6	7 10	20 16.86	-13 42.2	1.443	2.435	6.8	20.7
7 20	20 6.84	-38 23.2	1.734	2.719	6.6	18.6	7 20	20 6.80	-13 51.2	1.440	2.452	2.9	20.5
7 30	19 55.86	-39 17.5	1.736	2.701	8.3	18.6	7 30	19 56.71	-14 6.1	1.464	2.468	4.4	20.7
8 9	19 45.65	-39 49.1	1.763	2.683	11.2	18.8	8 9	19 47.81	-14 23.6	1.513	2.485	8.5	21.0
8 19	19 37.42	-39 58.1	1.813	2.665	14.3	18.9	8 19	19 41.00	-14 41.4	1.586	2.501	12.5	21.2
8 29	19 32.08	-39 47.7	1.881	2.647	17.0	19.1	8 29	19 36.88	-14 57.4	1.680	2.517	15.8	21.5
66050	1998 <i>QB</i> ₈₇		7 21.7 267°84	0°5/21.5	18		417871	2007 <i>MB</i> ₂₄		7 21.7 54°24	23°9/29.0	14 C	
6 20	20 29.56	-22 31.7	2.399	3.281	10.4	18.4	6 20	21 26.38	+31 24.6	1.125	1.705	35.1	21.1
6 30	20 23.30	-22 21.4	2.318	3.270	7.4	18.2	6 30	21 3.47	+35 29.0	1.153	1.798	31.7	21.1
7 10	20 15.42	-22 11.5	2.261	3.259	4.1	18.0	7 10	20 36.97	+38 9.8	1.197	1.888	28.7	21.2
7 20	20 6.55	-22 0.0	2.232	3.248	0.7	17.7	7 20	20 9.61	+39 20.1	1.258	1.973	26.5	21.4
7 30	19 57.48	-21 45.5	2.232	3.237	3.1	17.9	7 30	19 44.56	+39 6.8	1.338	2.055	25.0	21.6
8 9	19 49.07	-21 27.3	2.260	3.226	6.6	18.1	8 9	19 24.17	+37 49.8	1.434	2.132	24.3	21.8
8 19	19 42.04	-21 5.5	2.315	3.215	9.7	18.3	8 19	19 9.37	+35 51.8	1.545	2.206	23.9	22.0
8 29	19 36.96	-20 40.6	2.392	3.203	12.5	18.5	8 29	19 0.09	+33 33.4	1.669	2.277	23.9	22.2
432613	2010 <i>US</i> ₄₁		7 21.7 271°68	1°4/22.2	18		511066	2013 <i>TC</i> ₇					

EPHEMERIDES

7 21.7

7 21.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
66531	1999 <i>RX</i> ₁₀₈	7 21.7 324°91		8°0/24.5 18			333969	2000 <i>GL</i> ₁₂₂	7 21.7 216°67		14°9/31.2 17		
6 20	20 26.71	-3 7.6	1.536	2.390	16.5	18.5	6 20	20 29.85	+14 32.7	1.342	2.109	22.8	20.8
6 30	20 21.93	-2 12.2	1.461	2.379	13.5	18.3	6 30	20 24.52	+14 55.9	1.271	2.105	20.5	20.7
7 10	20 14.98	-1 34.8	1.406	2.367	10.4	18.1	7 10	20 16.60	+14 38.5	1.215	2.101	18.0	20.5
7 20	20 6.57	-1 18.1	1.374	2.356	8.3	17.9	7 20	20 6.87	+13 34.5	1.176	2.095	15.9	20.3
7 30	19 57.76	-1 22.9	1.365	2.346	8.4	17.9	7 30	19 56.60	+11 43.4	1.158	2.090	14.9	20.2
8 9	19 49.73	-1 46.8	1.380	2.336	10.8	18.0	8 9	19 47.23	+9 12.1	1.161	2.084	15.5	20.3
8 19	19 43.47	-2 25.5	1.417	2.327	14.0	18.2	8 19	19 40.00	+6 13.3	1.186	2.077	17.6	20.4
8 29	19 39.79	-3 13.2	1.474	2.319	17.2	18.4	8 29	19 35.82	+3 2.2	1.231	2.070	20.3	20.5
310199	2011 <i>SM</i> ₁₂₁	7 21.7 310°39		0°8/22.1 18			48364	3096 <i>T</i> ₋₂	7 21.7 20°13		6°0/19.5 18		
6 20	20 27.17	-17 4.0	1.859	2.746	12.6	20.7	6 20	20 31.84	-30 57.7	1.211	2.122	16.1	17.9
6 30	20 21.98	-17 16.7	1.785	2.739	9.2	20.5	6 30	20 26.21	-31 52.0	1.164	2.126	12.0	17.7
7 10	20 14.88	-17 36.5	1.735	2.732	5.2	20.2	7 10	20 17.53	-32 40.8	1.137	2.130	8.0	17.5
7 20	20 6.55	-18 1.0	1.710	2.725	1.2	19.9	7 20	20 6.99	-33 15.6	1.132	2.135	6.0	17.4
7 30	19 57.93	-18 26.9	1.711	2.718	3.5	20.1	7 30	19 56.24	-33 29.9	1.150	2.140	8.3	17.5
8 9	19 50.05	-18 51.4	1.740	2.712	7.6	20.3	8 9	19 47.05	-33 22.1	1.191	2.146	12.2	17.8
8 19	19 43.79	-19 12.1	1.792	2.705	11.4	20.5	8 19	19 40.69	-32 54.7	1.253	2.153	16.2	18.0
8 29	19 39.79	-19 27.8	1.866	2.699	14.6	20.7	8 29	19 37.89	-32 12.4	1.332	2.160	19.6	18.3
68765	2002 <i>EE</i> ₉₉	7 21.7 343°36		4°1/23.1 18			172473	2003 <i>SB</i> ₅₅	7 21.7 298°33		1°3/21.3 18 R		
6 20	20 25.56	-12 18.3	1.065	1.971	18.2	17.7	6 20	20 32.18	-22 58.6	1.318	2.222	15.6	19.8
6 30	20 21.79	-12 1.5	1.002	1.961	13.8	17.4	6 30	20 26.40	-23 2.7	1.243	2.206	11.3	19.5
7 10	20 15.17	-12 1.1	0.957	1.952	8.8	17.1	7 10	20 17.72	-23 8.9	1.189	2.190	6.4	19.2
7 20	20 6.62	-12 16.5	0.933	1.944	4.5	16.8	7 20	20 7.05	-23 13.1	1.158	2.174	1.5	18.8
7 30	19 57.60	-12 44.6	0.931	1.937	5.9	16.8	7 30	19 55.82	-23 11.2	1.152	2.158	5.1	19.0
8 9	19 49.72	-13 20.2	0.951	1.932	10.9	17.1	8 9	19 45.69	-23 0.8	1.170	2.142	10.4	19.3
8 19	19 44.33	-13 58.2	0.990	1.927	15.9	17.4	8 19	19 38.00	-22 42.2	1.209	2.127	15.3	19.5
8 29	19 42.33	-14 33.8	1.047	1.924	20.3	17.6	8 29	19 33.69	-22 16.6	1.267	2.112	19.5	19.7
335802	2007 <i>HF</i> ₄₆	7 21.7 104°26		0°6/22.1 17			500169	2012 <i>FC</i> ₂₁	7 21.7 92°84		5°2/19.7 17		
6 20	20 28.86	-14 49.1	1.716	2.599	13.7	20.2	6 20	20 34.73	-30 47.3	1.464	2.363	14.7	21.1
6 30	20 23.24	-15 53.8	1.657	2.608	9.9	20.0	6 30	20 27.83	-31 37.0	1.416	2.372	10.8	20.9
7 10	20 15.58	-17 10.2	1.621	2.617	5.6	19.8	7 10	20 18.26	-32 21.3	1.391	2.382	7.1	20.7
7 20	20 6.66	-18 33.0	1.611	2.627	1.1	19.5	7 20	20 7.09	-32 52.9	1.389	2.392	5.2	20.6
7 30	19 57.49	-19 56.0	1.629	2.635	3.7	19.7	7 30	19 55.82	-33 6.7	1.413	2.401	7.2	20.8
8 9	19 49.18	-21 13.2	1.674	2.644	8.0	20.0	8 9	19 45.95	-33 1.4	1.461	2.410	10.9	21.0
8 19	19 42.65	-22 20.4	1.743	2.653	11.9	20.2	8 19	19 38.63	-32 39.2	1.531	2.420	14.5	21.3
8 29	19 38.57	-23 15.7	1.835	2.661	15.1	20.5	8 29	19 34.52	-32 3.9	1.621	2.429	17.6	21.5
427656	2003 <i>YX</i> ₇₃	7 21.7 255°21		2°3/22.5 17			464846	2005 <i>EX</i> ₂₃₀	7 21.7 116°45		0°2/21.8 17		
6 20	20 32.64	-14 41.7	1.777	2.652	13.7	22.1	6 20	20 32.60	-17 12.8	1.685	2.568	13.9	21.7
6 30	20 26.13	-14 29.4	1.686	2.632	10.2	21.8	6 30	20 25.83	-17 54.6	1.635	2.587	9.9	21.5
7 10	20 17.33	-14 24.9	1.619	2.610	6.2	21.5	7 10	20 16.97	-18 44.3	1.607	2.604	5.5	21.3
7 20	20 6.95	-14 27.0	1.576	2.588	2.6	21.2	7 20	20 6.89	-19 37.2	1.606	2.622	0.9	21.0
7 30	19 56.03	-14 33.9	1.561	2.566	4.2	21.3	7 30	19 56.71	-20 28.2	1.632	2.638	3.8	21.2
8 9	19 45.78	-14 43.2	1.573	2.542	8.5	21.5	8 9	19 47.59	-21 13.2	1.685	2.654	8.1	21.5
8 19	19 37.28	-14 53.1	1.610	2.519	12.7	21.7	8 19	19 40.43	-21 49.9	1.763	2.669	11.9	21.8
8 29	19 31.36	-15 1.9	1.667	2.494	16.4	21.9	8 29	19 35.85	-22 17.4	1.862	2.683	15.1	22.0
393178	2013 <i>CP</i> ₇₃	7 21.7 7°00		0°7/21.3 18			51137	2000 <i>HS</i> ₄₄	7 21.7 233°44		4°3/19.3 18		
6 20	20 25.82	-19 31.5	1.821	2.716	12.5	20.1	6 20	20 32.94	-29 25.6	1.916	2.805	12.2	19.9
6 30	20 21.04	-20 17.7	1.758	2.716	8.9	19.9	6 30	20 26.38	-30 27.7	1.841	2.793	9.0	19.7
7 10	20 14.36	-21 10.4	1.718	2.717	4.9	19.7	7 10	20 17.48	-31 28.4	1.789	2.780	5.9	19.4
7 20	20 6.48	-22 5.3	1.703	2.719	0.9	19.4	7 20	20 7.00	-32 21.4	1.765	2.767	4.3	19.3
7 30	19 58.35	-22 57.3	1.715	2.720	3.8	19.6	7 30	19 56.06	-33 1.0	1.767	2.753	6.3	19.4
8 9	19 51.01	-23 42.7	1.754	2.723	7.8	19.9	8 9	19 45.90	-33 23.9	1.796	2.739	9.6	19.6
8 19	19 45.31	-24 18.8	1.816	2.725	11.5	20.1	8 19	19 37.62	-33 30.1	1.849	2.724	13.0	19.8
8 29	19 41.89	-24 44.8	1.900	2.728	14.6	20.3	8 29	19 32.02	-33 21.6	1.921	2.708	15.9	19.9
176476	2001 <i>XM</i> ₁₆₄	7 21.7 62°68		2°7/20.0 18			193212	2000 <i>QE</i> ₂₂₄	7 21.7 256°64		3°6/20.1 18 R		
6 20	20 28.83	-24 34.9	1.931	2.824	11.9	19.3	6 20	20 34.24	-29 43.8	2.093	2.976	11.6	20.9
6 30	20 22.99	-25 46.1	1.891	2.849	8.5	19.1	6 30	20 27.16	-30 11.1	2.004	2.954	8.6	20.6
7 10	20 15.33	-26 57.9	1.876	2.873	4.9	19.0	7 10	20 17.86	-30 35.2	1.940	2.931	5.4	20.4
7 20	20 6.61	-28 4.7	1.887	2.898	2.7	18.9	7 20	20 7.06	-30 51.2	1.902	2.907	3.6	20.3
7 30	19 57.84	-29 1.4	1.927	2.922	4.8	19.1	7 30	19 55.81	-30 55.2	1.892	2.883	5.4	20.3
8 9	19 49.99	-29 44.9	1.992	2.947	8.1	19.3	8 9	19 45.29	-30 45.7	1.910	2.858	8.8	20.5
8 19	19 43.88	-30 14.4	2.083	2.971	11.2	19.6	8 19	19 36.52	-30 23.2	1.952	2.833	12.2	20.6
8 29	19 40.05	-30 30.8	2.194	2.996	13.8	19.8	8 29	19 30.29	-29 50.1	2.016	2.807	15.2	20.8
253663	2003 <i>UC</i> ₁₇₆	7 21.7 273°29		3°0/20.5 17			390740	2003 <i>SO</i> ₅₃	7 21.7 232°47		2°4/20.6 18		
6 20	20 32.25	-25 27.2	1.460	2.361	14.6	21.0	6 20	20 31.85	-26 40.5	2.165	3.050	11.2	21.7
6 30	20 26.28	-26 5.5	1.387	2.348	10.6	20.7	6 30	20 25.22	-27 1.2	2.087	3.039	8.1	21.5
7 10	20 17.57	-26 45.5	1.337	2.335	6.2	20.5	7 10	20 16.66	-27 20.7	2.033	3.028	4.8	21.3
7 20	20 6.99	-27 20.8	1.310	2.322	3.0	20.2	7 20	20 6.88	-27 35.2	2.006	3.017	2.4	21.1
7 30	19 55.91	-27 45.7	1.309	2.309	5.8	20.4	7 30	19 56.80	-27 41.5	2.008	3.005	4.4	21.2
8 9	19 45.86	-27 56.8	1.333	2.296	10.4	20.6	8 9	19 47.47	-27 38.1	2.036	2.993	7.8	21.4
8 19	19 38.10	-27 53.8	1.379	2.283	14.7	20.8	8 19	19 39.77	-27 25.2	2.091	2.980	11.1	21.6
8 29	19 33.54	-27 38.6	1.444	2.270	18.5	21.0	8 29	19 34.34	-27 4.0	2.167	2.967	14.0	21.7
106446	2000 <i>VT</i> ₅₅	7 21.7 324°85		4°1/20.4 18			63883	2001 <i>SO</i>	7 21.7 269°49		1°3/21.0 18		

EPHEMERIDES

7 21.7

7 21.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
153264	2001 <i>CT</i> ₁₄		7 21.7 135°02	0°6/21.2	18		37249	2000 <i>WZ</i> ₁₈₂		7 21.8 228°16	0°1/21.8	18	
6 20	20 26.47	-20 28.1	2.832	3.710	9.1	21.4	6 20	20 28.91	-16 20.0	1.998	2.877	12.2	18.5
6 30	20 20.91	-21 9.8	2.771	3.721	6.4	21.3	6 30	20 23.26	-17 23.6	1.919	2.869	8.8	18.3
7 10	20 14.07	-21 54.5	2.735	3.733	3.5	21.1	7 10	20 15.69	-18 37.5	1.863	2.860	5.0	18.1
7 20	20 6.47	-22 39.3	2.728	3.744	0.8	20.9	7 20	20 6.80	-19 57.0	1.835	2.851	0.8	17.7
7 30	19 58.75	-23 21.3	2.751	3.754	2.8	21.1	7 30	19 57.49	-21 16.7	1.836	2.842	3.5	17.9
8 9	19 51.57	-23 58.2	2.802	3.764	5.7	21.3	8 9	19 48.78	-22 31.1	1.865	2.832	7.6	18.2
8 19	19 45.50	-24 28.4	2.881	3.774	8.3	21.5	8 19	19 41.57	-23 36.5	1.919	2.821	11.3	18.4
8 29	19 41.00	-24 51.6	2.983	3.783	10.5	21.6	8 29	19 36.59	-24 30.8	1.996	2.811	14.5	18.6
100522	1997 <i>CA</i>		7 21.7 215°47	0°1/21.7	18		112306	2002 <i>LL</i> ₄₇		7 21.8 349°25	4°2/24.4	18	
6 20	20 27.67	-19 49.9	2.450	3.329	10.2	20.3	6 20	20 20.32	- 6 47.7	1.174	2.067	17.9	18.4
6 30	20 21.97	-20 3.3	2.374	3.325	7.3	20.1	6 30	20 17.88	- 7 42.8	1.104	2.054	13.8	18.1
7 10	20 14.75	-20 20.1	2.323	3.320	4.1	19.9	7 10	20 13.00	- 9 6.7	1.054	2.043	9.2	17.8
7 20	20 6.58	-20 37.9	2.299	3.315	0.6	19.6	7 20	20 6.41	-10 56.2	1.025	2.034	4.9	17.5
7 30	19 58.22	-20 54.4	2.304	3.309	2.9	19.8	7 30	19 59.31	-13 3.1	1.019	2.026	5.3	17.5
8 9	19 50.45	-21 7.7	2.337	3.304	6.3	20.0	8 9	19 53.09	-15 16.0	1.037	2.020	9.9	17.7
8 19	19 43.95	-21 16.7	2.396	3.298	9.4	20.2	8 19	19 48.96	-17 23.7	1.076	2.015	14.7	18.0
8 29	19 39.28	-21 20.9	2.478	3.291	12.0	20.4	8 29	19 47.84	-19 17.2	1.135	2.013	19.0	18.3
86139	1999 <i>RT</i> ₁₈₂		7 21.7 258°06	2°2/23.1	18		325038	2008 <i>CL</i> ₁₀₃		7 21.8 19°50	2°2/22.5	17	
6 20	20 25.86	-12 9.2	2.440	3.305	10.8	20.0	6 20	20 29.80	-15 53.9	1.241	2.142	16.6	20.1
6 30	20 20.71	-12 16.3	2.354	3.292	8.1	19.8	6 30	20 24.42	-15 36.7	1.187	2.145	12.2	19.9
7 10	20 14.08	-12 32.1	2.292	3.279	5.1	19.6	7 10	20 16.46	-15 29.5	1.152	2.149	7.2	19.6
7 20	20 6.50	-12 55.2	2.256	3.265	2.5	19.4	7 20	20 6.91	-15 30.2	1.140	2.154	2.6	19.3
7 30	19 58.63	-13 23.7	2.249	3.252	3.3	19.4	7 30	19 57.16	-15 36.4	1.152	2.159	4.7	19.5
8 9	19 51.26	-13 54.9	2.269	3.238	6.3	19.6	8 9	19 48.67	-15 44.9	1.188	2.165	9.7	19.8
8 19	19 45.05	-14 26.7	2.316	3.224	9.4	19.8	8 19	19 42.56	-15 53.4	1.245	2.171	14.3	20.1
8 29	19 40.56	-14 56.8	2.386	3.209	12.1	19.9	8 29	19 39.54	-15 59.8	1.322	2.178	18.1	20.3
506715	2006 <i>UE</i> ₁₉₆		7 21.7 330°79	3°9/20.3	17		128603	2004 <i>QP</i> ₁₃		7 21.8 317°23	1°6/22.4	18	
6 20	20 27.46	-25 46.2	1.118	2.038	16.5	21.0	6 20	20 27.44	-16 5.7	2.042	2.923	11.9	19.6
6 30	20 23.43	-26 29.8	1.051	2.021	12.0	20.7	6 30	20 22.04	-15 52.7	1.966	2.915	8.8	19.4
7 10	20 16.25	-27 16.1	1.003	2.004	7.1	20.3	7 10	20 14.90	-15 45.6	1.913	2.907	5.2	19.2
7 20	20 6.87	-27 57.7	0.977	1.989	3.9	20.1	7 20	20 6.67	-15 43.1	1.886	2.899	1.9	18.9
7 30	19 56.86	-28 26.7	0.974	1.975	7.0	20.2	7 30	19 58.20	-15 43.8	1.886	2.892	3.4	19.0
8 9	19 48.05	-28 38.8	0.992	1.962	12.1	20.5	8 9	19 50.42	-15 45.8	1.913	2.884	7.1	19.2
8 19	19 41.95	-28 33.2	1.030	1.950	17.1	20.7	8 19	19 44.11	-15 47.9	1.966	2.877	10.6	19.4
8 29	19 39.56	-28 12.0	1.084	1.940	21.3	21.0	8 29	19 39.88	-15 48.9	2.040	2.871	13.6	19.6
140748	2001 <i>UD</i> ₁₁₀		7 21.8 167°16	3°8/23.9	18		238290	2003 <i>WC</i> ₁₅₀		7 21.8 294°24	0°4/21.5	18	
6 20	20 26.51	- 7 50.5	2.237	3.089	12.1	20.1	6 20	20 27.65	-19 1.2	1.796	2.687	12.8	20.2
6 30	20 21.18	- 7 47.1	2.165	3.091	9.3	19.9	6 30	20 22.48	-19 40.6	1.724	2.680	9.2	19.9
7 10	20 14.33	- 7 55.7	2.116	3.092	6.4	19.8	7 10	20 15.28	-20 27.1	1.674	2.673	5.1	19.7
7 20	20 6.55	- 8 15.4	2.094	3.094	4.1	19.6	7 20	20 6.74	-21 16.7	1.651	2.666	0.8	19.4
7 30	19 58.58	- 8 44.4	2.099	3.095	4.4	19.7	7 30	19 57.86	-22 4.7	1.654	2.660	3.8	19.6
8 9	19 51.21	- 9 20.0	2.131	3.096	7.0	19.8	8 9	19 49.73	-22 46.9	1.683	2.653	8.1	19.8
8 19	19 45.15	- 9 59.1	2.189	3.096	9.9	20.0	8 19	19 43.28	-23 20.8	1.737	2.646	11.9	20.0
8 29	19 40.92	-10 38.7	2.270	3.097	12.5	20.2	8 29	19 39.23	-23 45.3	1.812	2.640	15.2	20.2
22476	1997 <i>EM</i> ₂₃		7 21.8 312°53	3°5/19.6	18		164522	2006 <i>HU</i> ₄₃		7 21.8 49°66	1°0/22.2	18	
6 20	20 27.23	-23 46.6	1.514	2.420	13.9	16.4	6 20	20 28.71	-16 51.6	1.679	2.568	13.6	20.4
6 30	20 22.75	-25 17.0	1.436	2.400	10.0	16.1	6 30	20 23.14	-17 0.3	1.620	2.574	9.9	20.1
7 10	20 15.71	-25 55.4	1.381	2.380	5.9	15.9	7 10	20 15.56	-17 16.6	1.584	2.581	5.7	19.9
7 20	20 6.80	-28 33.8	1.351	2.361	3.5	15.7	7 20	20 6.77	-17 37.6	1.573	2.588	1.4	19.6
7 30	19 57.21	-30 3.1	1.346	2.342	6.3	15.8	7 30	19 57.83	-18 0.2	1.589	2.595	3.7	19.8
8 9	19 48.34	-31 16.2	1.366	2.324	10.7	16.0	8 9	19 49.82	-18 21.5	1.630	2.603	7.9	20.1
8 19	19 41.48	-32 9.5	1.409	2.306	14.9	16.2	8 19	19 43.65	-18 39.2	1.695	2.610	11.8	20.3
8 29	19 37.62	-32 42.9	1.470	2.289	18.5	16.4	8 29	19 39.92	-18 52.1	1.782	2.618	15.1	20.6
370257	2002 <i>PT</i> ₁₉₂		7 21.8 323°71	1°7/22.3	17		291420	2006 <i>DN</i> ₁₂		7 21.8 35°32	6°2/19.9	17	
6 20	20 26.38	-16 7.2	1.166	2.075	16.8	20.7	6 20	20 34.48	-34 26.8	1.415	2.314	15.1	19.9
6 30	20 22.44	-16 11.2	1.091	2.054	12.5	20.4	6 30	20 27.66	-34 50.5	1.372	2.325	11.4	19.7
7 10	20 15.65	-16 27.5	1.035	2.034	7.4	20.1	7 10	20 18.15	-35 3.6	1.351	2.338	7.9	19.6
7 20	20 6.80	-16 53.4	1.000	2.015	2.2	19.7	7 20	20 7.16	-35 0.2	1.353	2.351	6.2	19.5
7 30	19 57.28	-17 24.8	0.989	1.997	4.9	19.8	7 30	19 56.26	-34 36.9	1.380	2.364	7.8	19.6
8 9	19 48.71	-17 56.7	0.999	1.979	10.6	20.1	8 9	19 46.96	-33 54.9	1.430	2.378	11.2	19.9
8 19	19 42.51	-18 25.0	1.030	1.963	15.9	20.3	8 19	19 40.34	-32 58.1	1.502	2.393	14.6	20.1
8 29	19 39.70	-18 46.9	1.079	1.948	20.4	20.5	8 29	19 36.96	-31 51.5	1.594	2.408	17.6	20.3
388919	2008 <i>SR</i> ₁₂₃		7 21.8 207°07	3°2/19.9	18		216311	2007 <i>TZ</i> ₁₃₉		7 21.8 220°23	13°2/27.2	18	
6 20	20 31.70	-28 47.3	2.334	3.216	10.6	22.4	6 20	20 31.13	+13 6.7	1.896	2.637	17.9	20.4
6 30	20 25.04	-29 26.3	2.260	3.211	7.7	22.3	6 30	20 24.92	+14 33.2	1.820	2.629	16.2	20.3
7 10	20 16.55	-30 3.1	2.212	3.204	4.8	22.1	7 10	20 16.65	+15 34.5	1.762	2.620	14.6	20.1
7 20	20 6.89	-30 33.6	2.192	3.197	3.2	21.9	7 20	20 6.98	+16 5.6	1.724	2.610	13.5	20.0
7 30	19 56.98	-30 54.0	2.200	3.190	4.9	22.0	7 30	19 56.84	+16 3.3	1.709	2.599	13.3	20.0
8 9	19 47.77	-31 2.6	2.235	3.182	7.8	22.2	8 9	19 47.31	+15 29.0	1.715	2.588	14.0	20.0
8 19	19 40.11	-30 59.4	2.296	3.173	10.7	22.4	8 19	19 39.36	+14 27.3	1.742	2.576	15.5	20.1
8 29	19 34.61	-30 46.0	2.379	3.164	13.3	22.6	8 29	19 33.75	+13 5.7	1.788	2.564	17.4	20.2
173585	2001 <i>CC</i> ₁₄		7 21.8 231°74	3°3/20.4	18		475999						

EPHEMERIDES

7 21.8

7 21.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
397689	2008 <i>CN</i> ₄₃		7 21.8 181°57	0°3/21.9	18		370246	2002 <i>PL</i> ₁₇₄		7 21.8 323°93	1°2/22.2	16	
6 20	20 26.98	-17 33.7	2.643	3.516	9.8	22.0	6 20	20 25.60	-16 20.4	1.140	2.051	16.9	21.2
6 30	20 21.41	-18 4.7	2.569	3.517	7.0	21.8	6 30	20 22.01	-16 38.1	1.063	2.028	12.5	20.9
7 10	20 14.46	-18 40.9	2.521	3.517	3.9	21.6	7 10	20 15.51	-17 9.6	1.005	2.006	7.3	20.6
7 20	20 6.64	-19 19.7	2.501	3.517	0.7	21.3	7 20	20 6.88	-17 51.6	0.969	1.984	1.8	20.1
7 30	19 58.64	-19 58.3	2.511	3.516	2.7	21.5	7 30	19 57.51	-18 38.7	0.955	1.964	4.9	20.3
8 9	19 51.16	-20 34.1	2.549	3.515	5.9	21.7	8 9	19 49.04	-19 24.5	0.964	1.945	10.8	20.5
8 19	19 44.83	-21 5.3	2.614	3.514	8.7	21.9	8 19	19 42.96	-20 4.3	0.993	1.926	16.2	20.8
8 29	19 40.17	-21 30.9	2.702	3.512	11.2	22.1	8 29	19 40.35	-20 34.7	1.039	1.909	20.9	21.0
68223	2001 <i>DJ</i>		7 21.8	1°36	7°8/18.6	18	286	<i>Iclea</i>		7 21.8 304°13	4°0/24.8	18	
6 20	20 36.78	-44 7.5	2.175	3.034	12.1	18.5	6 20	20 24.41	-5 3.3	2.317	3.160	12.0	14.0
6 30	20 28.87	-44 34.1	2.119	3.034	10.0	18.4	6 30	20 19.73	-5 31.4	2.239	3.158	9.4	13.9
7 10	20 18.71	-44 45.9	2.086	3.033	8.4	18.3	7 10	20 13.59	-6 14.5	2.185	3.155	6.6	13.7
7 20	20 7.28	-44 37.8	2.077	3.034	7.8	18.3	7 20	20 6.54	-7 11.2	2.156	3.153	4.4	13.5
7 30	19 55.86	-44 7.0	2.094	3.034	8.8	18.3	7 30	19 59.25	-8 18.5	2.156	3.151	4.4	13.5
8 9	19 45.73	-43 14.7	2.137	3.034	10.6	18.4	8 9	19 52.48	-9 32.4	2.183	3.149	6.7	13.7
8 19	19 37.84	-42 4.7	2.202	3.035	12.8	18.6	8 19	19 46.89	-10 48.4	2.236	3.147	9.6	13.9
8 29	19 32.76	-40 42.2	2.288	3.036	14.8	18.7	8 29	19 43.03	-12 2.4	2.314	3.145	12.2	14.0
410710	2009 <i>BQ</i> ₂₄		7 21.8 121°32	0°9/22.2	16		145816	1998 <i>SC</i> ₁₅₂		7 21.8 356°24	1°9/21.1	17	
6 20	20 34.33	-16 32.1	1.662	2.541	14.2	22.0	6 20	20 26.19	-22 26.0	1.055	1.977	17.0	18.8
6 30	20 27.08	-16 50.3	1.610	2.560	10.3	21.8	6 30	20 22.38	-22 54.5	1.000	1.972	12.3	18.5
7 10	20 17.71	-17 16.2	1.582	2.578	5.8	21.6	7 10	20 15.60	-23 28.6	0.964	1.968	6.9	18.2
7 20	20 7.14	-17 46.3	1.580	2.595	1.4	21.4	7 20	20 6.87	-24 2.2	0.950	1.965	2.0	17.9
7 30	19 56.50	-18 16.8	1.606	2.612	3.8	21.6	7 30	19 57.77	-24 28.9	0.957	1.964	5.7	18.1
8 9	19 46.99	-18 44.4	1.658	2.628	8.1	21.9	8 9	19 50.02	-24 44.5	0.987	1.964	11.2	18.4
8 19	19 39.51	-19 7.1	1.735	2.643	12.0	22.1	8 19	19 44.95	-24 47.5	1.036	1.965	16.1	18.7
8 29	19 34.67	-19 24.0	1.833	2.657	15.2	22.4	8 29	19 43.39	-24 38.6	1.102	1.968	20.3	19.0
65881	1997 <i>YO</i> ₅		7 21.8 198°86	0°2/21.7	17		396519	2014 <i>GD</i> ₁₈		7 21.8 14°79	4°9/19.4	18	
6 20	20 31.48	-18 2.7	1.636	2.524	14.0	19.7	6 20	20 30.33	-32 28.6	1.895	2.787	12.2	20.7
6 30	20 25.38	-18 46.6	1.567	2.522	10.1	19.4	6 30	20 24.38	-33 11.0	1.837	2.789	9.1	20.6
7 10	20 16.97	-19 39.4	1.521	2.519	5.6	19.2	7 10	20 16.31	-33 47.9	1.803	2.790	6.2	20.4
7 20	20 7.05	-20 36.0	1.501	2.516	0.8	18.8	7 20	20 6.95	-34 13.7	1.794	2.792	4.9	20.3
7 30	19 56.75	-21 31.1	1.507	2.513	4.0	19.1	7 30	19 57.42	-34 24.6	1.812	2.794	6.5	20.4
8 9	19 47.34	-22 19.8	1.540	2.509	8.7	19.3	8 9	19 48.87	-34 19.3	1.855	2.796	9.4	20.6
8 19	19 39.86	-22 59.3	1.597	2.505	12.8	19.6	8 19	19 42.25	-33 59.0	1.921	2.799	12.4	20.8
8 29	19 35.10	-23 28.4	1.674	2.500	16.3	19.8	8 29	19 38.19	-33 26.4	2.007	2.802	15.1	21.0
491706	2012 <i>UJ</i> ₁₁₅		7 21.8 344°12	3°4/20.6	18		107495	2001 <i>DP</i> ₄₃		7 21.8 32°11	1°3/21.3	18	
6 20	20 27.13	-26 11.3	1.228	2.144	15.6	20.7	6 20	20 30.21	-22 0.1	1.084	1.999	17.3	18.8
6 30	20 22.90	-26 37.9	1.164	2.132	11.3	20.4	6 30	20 24.93	-22 17.3	1.043	2.011	12.3	18.5
7 10	20 15.84	-27 4.8	1.121	2.121	6.7	20.1	7 10	20 16.80	-22 38.8	1.022	2.025	6.8	18.3
7 20	20 6.90	-27 25.9	1.099	2.111	3.4	19.9	7 20	20 7.02	-22 59.3	1.023	2.039	1.5	18.0
7 30	19 57.54	-27 35.9	1.101	2.103	6.2	20.0	7 30	19 57.22	-23 13.8	1.047	2.054	5.2	18.3
8 9	19 49.37	-27 31.7	1.125	2.095	11.0	20.2	8 9	19 49.00	-23 19.4	1.094	2.070	10.5	18.6
8 19	19 43.69	-27 13.9	1.170	2.089	15.6	20.5	8 19	19 43.52	-23 15.7	1.161	2.087	15.1	19.0
8 29	19 41.34	-26 44.3	1.233	2.085	19.5	20.7	8 29	19 41.40	-23 3.5	1.247	2.104	19.0	19.3
122791	2000 <i>SJ</i> ₉₂		7 21.8 295°13	5°7/23.8	18		363657	2004 <i>SO</i> ₂₄		7 21.8 316°28	13°3/31.0	18	
6 20	20 28.51	-7 25.1	1.624	2.489	15.3	19.5	6 20	20 24.07	+19 30.3	2.219	2.909	16.9	20.5
6 30	20 23.22	-6 49.1	1.546	2.476	12.0	19.2	6 30	20 19.68	+20 33.9	2.142	2.898	15.7	20.4
7 10	20 15.78	-6 27.5	1.488	2.464	8.5	19.0	7 10	20 13.66	+21 11.4	2.081	2.886	14.6	20.3
7 20	20 6.88	-6 21.3	1.454	2.451	5.9	18.8	7 20	20 6.56	+21 18.6	2.039	2.875	13.7	20.2
7 30	19 57.57	-6 29.9	1.445	2.439	6.4	18.8	7 30	19 59.13	+20 53.6	2.016	2.865	13.3	20.2
8 9	19 49.00	-6 51.0	1.461	2.426	9.5	19.0	8 9	19 52.20	+19 57.8	2.013	2.854	13.6	20.2
8 19	19 42.18	-7 21.0	1.500	2.414	13.1	19.2	8 19	19 46.55	+18 35.4	2.031	2.844	14.4	20.2
8 29	19 37.89	-7 55.5	1.560	2.402	16.6	19.4	8 29	19 42.78	+16 52.9	2.068	2.834	15.6	20.3
168339	1995 <i>FS</i> ₈		7 21.8 114°86	3°7/20.1	18		438320	2006 <i>KC</i> ₅		7 21.8 297°72	3°9/23.5	18	
6 20	20 34.58	-26 45.5	1.517	2.414	14.4	20.2	6 20	20 27.76	-9 51.4	1.802	2.670	13.8	21.2
6 30	20 27.64	-27 40.5	1.469	2.427	10.4	20.0	6 30	20 22.46	-9 37.8	1.728	2.665	10.6	21.0
7 10	20 18.19	-28 34.5	1.443	2.439	6.2	19.8	7 10	20 15.25	-9 36.5	1.677	2.660	7.0	20.8
7 20	20 7.23	-29 20.7	1.442	2.451	3.7	19.7	7 20	20 6.81	-9 47.1	1.651	2.656	4.2	20.6
7 30	19 56.13	-29 53.3	1.467	2.463	6.0	19.9	7 30	19 58.10	-10 7.7	1.651	2.651	4.8	20.6
8 9	19 46.32	-30 9.9	1.518	2.474	10.0	20.1	8 9	19 50.12	-10 35.3	1.678	2.647	8.1	20.8
8 19	19 38.86	-30 11.0	1.592	2.485	13.7	20.4	8 19	19 43.75	-11 6.8	1.728	2.642	11.7	21.0
8 29	19 34.45	-29 59.1	1.685	2.495	16.9	20.6	8 29	19 39.65	-11 38.8	1.800	2.638	14.8	21.2
81153	2000 <i>ES</i> ₁₅₀		7 21.8 46°89	3°4/23.4	18	R	350151	2011 <i>SJ</i> ₁₀₁		7 21.8 208°32	0°7/21.4	18	
6 20	20 28.35	-10 24.3	1.509	2.388	15.5	18.8	6 20	20 28.46	-21 2.7	2.254	3.138	10.8	21.7
6 30	20 23.12	-10 38.5	1.446	2.390	11.6	18.6	6 30	20 22.71	-21 27.5	2.181	3.134	7.8	21.5
7 10	20 15.69	-11 8.4	1.404	2.393	7.4	18.4	7 10	20 15.29	-21 55.6	2.133	3.131	4.3	21.3
7 20	20 6.86	-11 51.7	1.386	2.395	3.8	18.2	7 20	20 6.82	-22 23.9	2.112	3.127	0.9	21.0
7 30	19 57.75	-12 44.3	1.394	2.398	4.7	18.2	7 30	19 58.12	-22 49.3	2.119	3.123	3.3	21.2
8 9	19 49.56	-13 40.9	1.426	2.400	8.7	18.5	8 9	19 50.08	-23 9.5	2.154	3.119	6.9	21.4
8 19	19 43.30	-14 36.7	1.482	2.403	12.8	18.7	8 19	19 43.44	-23 23.3	2.214	3.115	10.1	21.6
8 29	19 39.66	-15 27.8	1.559	2.406	16.3	18.9	8 29	19 38.80	-23 30.3	2.297	3.110	12.9	21.8
345868	2007 <i>QE</i> ₂		7 21.8 265°20	5°1/23.9	18		217140	2002 <i>GL</i> ₁₇₇					

EPHEMERIDES

7 21.8

7 21.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
131802	2002 AR ₅₆	7 21.8 59°00'		0°9'/22.1 17			137420	1999 TT ₁₉₅	7 21.8 231°34'		2°1'/22.5 17		
6 20	20 31.69	-16 46.6	1.176	2.078	17.2	19.8	6 20	20 31.99	-15 21.7	1.629	2.511	14.3	20.1
6 30	20 25.77	-17 7.9	1.134	2.095	12.4	19.6	6 30	20 25.71	-15 10.3	1.556	2.505	10.6	19.8
7 10	20 17.20	-17 39.9	1.113	2.112	7.0	19.4	7 10	20 17.17	-15 7.1	1.505	2.499	6.3	19.6
7 20	20 7.10	-18 17.8	1.115	2.130	1.5	19.1	7 20	20 7.16	-15 10.5	1.480	2.493	2.4	19.3
7 30	19 56.98	-18 56.0	1.140	2.148	4.5	19.3	7 30	19 56.81	-15 18.2	1.480	2.486	4.2	19.4
8 9	19 48.31	-19 29.9	1.190	2.166	9.8	19.7	8 9	19 47.36	-15 27.7	1.507	2.479	8.6	19.7
8 19	19 42.21	-19 56.6	1.261	2.184	14.3	20.0	8 19	19 39.84	-15 37.1	1.558	2.472	12.7	19.9
8 29	19 39.30	-20 15.0	1.351	2.203	18.1	20.3	8 29	19 34.99	-15 44.9	1.629	2.464	16.3	20.1
421203	2013 RK ₉₁	7 21.8 140°25'		6°0'/24.9 17			257779	2000 DL ₁₂	7 21.8 163°96'		0°8'/21.4 17		
6 20	20 29.37	-3 16.0	1.875	2.713	14.6	21.5	6 20	20 32.06	-20 54.9	1.844	2.730	12.7	21.3
6 30	20 23.44	-3 4.3	1.811	2.722	11.7	21.3	6 30	20 25.53	-21 22.0	1.780	2.734	9.1	21.0
7 10	20 15.71	-3 10.0	1.768	2.730	8.6	21.1	7 10	20 16.95	-21 53.1	1.739	2.738	5.1	20.8
7 20	20 6.89	-3 33.1	1.751	2.738	6.3	21.0	7 20	20 7.12	-22 24.1	1.725	2.741	1.0	20.5
7 30	19 57.87	-4 11.6	1.759	2.745	6.3	21.0	7 30	19 57.07	-22 51.3	1.739	2.744	3.8	20.8
8 9	19 49.65	-5 1.8	1.794	2.752	8.6	21.2	8 9	19 47.91	-23 11.8	1.780	2.746	8.0	21.0
8 19	19 43.01	-5 58.9	1.854	2.759	11.5	21.3	8 19	19 40.57	-23 24.5	1.845	2.748	11.7	21.2
8 29	19 38.56	-6 58.2	1.935	2.765	14.3	21.6	8 29	19 35.70	-23 29.4	1.932	2.749	14.8	21.5
244413	2002 PQ ₁₈₆	7 21.8 359°28'		5°4'/20.1 17			274443	2008 SH ₄₇	7 21.8 326°90'		5°5'/19.4 18		
6 20	20 33.99	-33 41.5	1.597	2.491	13.9	20.0	6 20	20 29.64	-30 28.3	1.409	2.316	14.6	19.6
6 30	20 27.27	-33 57.3	1.538	2.489	10.5	19.8	6 30	20 24.63	-31 23.8	1.342	2.302	10.9	19.3
7 10	20 18.01	-34 4.3	1.501	2.489	7.2	19.6	7 10	20 16.82	-32 16.4	1.297	2.290	7.2	19.1
7 20	20 7.24	-33 56.9	1.489	2.488	5.4	19.5	7 20	20 7.13	-32 58.5	1.275	2.277	5.5	19.0
7 30	19 56.36	-33 32.0	1.502	2.488	7.1	19.6	7 30	19 56.95	-33 23.2	1.277	2.266	7.7	19.1
8 9	19 46.79	-32 49.8	1.539	2.489	10.4	19.8	8 9	19 47.87	-33 27.6	1.302	2.255	11.6	19.2
8 19	19 39.61	-31 53.7	1.600	2.490	13.9	20.0	8 19	19 41.20	-33 12.3	1.349	2.245	15.5	19.5
8 29	19 35.49	-30 48.0	1.681	2.491	16.9	20.2	8 29	19 37.80	-32 40.8	1.413	2.236	19.0	19.7
238619	2005 BG ₂₄	7 21.8 83°94'		1°8'/21.1 18			174622	2003 SN ₆₇	7 21.8 299°56'		4°2'/19.9 18		
6 20	20 33.55	-25 16.2	1.891	2.778	12.4	19.8	6 20	20 30.76	-26 18.0	1.309	2.217	15.4	19.6
6 30	20 26.32	-25 19.9	1.844	2.798	8.9	19.7	6 30	20 25.70	-27 16.2	1.232	2.196	11.3	19.3
7 10	20 17.22	-25 22.3	1.820	2.818	5.0	19.5	7 10	20 17.59	-28 17.8	1.177	2.175	6.9	19.0
7 20	20 7.10	-25 20.3	1.824	2.837	1.8	19.3	7 20	20 7.27	-29 14.9	1.144	2.154	4.2	18.7
7 30	19 57.05	-25 11.6	1.855	2.856	4.1	19.5	7 30	19 56.19	-29 59.1	1.136	2.134	7.0	18.8
8 9	19 48.11	-24 55.8	1.913	2.876	7.8	19.8	8 9	19 46.07	-30 25.3	1.151	2.113	11.8	19.0
8 19	19 41.09	-24 33.4	1.996	2.895	11.1	20.0	8 19	19 38.41	-30 32.3	1.187	2.093	16.5	19.3
8 29	19 36.51	-24 6.0	2.101	2.913	13.9	20.2	8 29	19 34.30	-30 22.0	1.241	2.073	20.5	19.5
280596	2004 VF ₃₄	7 21.8 134°95'		6°7'/25.3 17			48675	1995 YA ₂₃	7 21.8 251°17'		0°3'/21.7 18		
6 20	20 28.00	-1 43.6	1.913	2.746	14.6	20.9	6 20	20 31.53	-19 42.9	1.739	2.627	13.3	19.9
6 30	20 22.46	-1 18.1	1.847	2.751	11.8	20.7	6 30	20 25.45	-20 4.2	1.658	2.612	9.6	19.6
7 10	20 15.18	-1 10.4	1.802	2.756	9.1	20.6	7 10	20 17.08	-20 31.4	1.599	2.598	5.4	19.3
7 20	20 6.82	-1 21.1	1.781	2.760	7.0	20.5	7 20	20 7.17	-21 0.8	1.567	2.582	0.8	19.0
7 30	19 58.25	-1 49.2	1.785	2.764	7.0	20.5	7 30	19 56.79	-21 28.2	1.561	2.567	4.0	19.2
8 9	19 50.41	-2 31.3	1.816	2.768	8.9	20.6	8 9	19 47.17	-21 50.5	1.582	2.551	8.5	19.4
8 19	19 44.08	-3 23.2	1.870	2.772	11.6	20.8	8 19	19 39.37	-22 5.7	1.627	2.534	12.7	19.6
8 29	19 39.87	-4 19.8	1.947	2.776	14.3	21.0	8 29	19 34.21	-22 13.5	1.693	2.518	16.2	19.8
401784	2014 FP ₂₃	7 21.8 144°85'		3°9'/24.1 18			11239	Marcgraf	7 21.8 222°56'		2°3'/22.9 18		
6 20	20 27.87	-7 23.9	2.320	3.167	11.9	21.6	6 20	20 29.73	-12 43.7	2.061	2.928	12.4	18.4
6 30	20 22.11	-7 17.4	2.253	3.175	9.2	21.4	6 30	20 23.76	-12 48.5	1.980	2.920	9.2	18.2
7 10	20 14.88	-7 22.5	2.210	3.183	6.4	21.2	7 10	20 15.97	-13 2.8	1.922	2.911	5.7	18.0
7 20	20 6.78	-7 38.5	2.193	3.190	4.2	21.1	7 20	20 6.99	-13 25.0	1.890	2.901	2.6	17.8
7 30	19 58.53	-8 3.7	2.203	3.197	4.4	21.1	7 30	19 57.69	-13 52.8	1.887	2.891	3.7	17.8
8 9	19 50.92	-8 35.6	2.242	3.204	6.8	21.3	8 9	19 49.02	-14 23.1	1.911	2.880	7.3	18.0
8 19	19 44.60	-9 11.2	2.306	3.210	9.6	21.5	8 19	19 41.81	-14 53.4	1.960	2.868	10.8	18.2
8 29	19 40.07	-9 47.8	2.394	3.216	12.1	21.7	8 29	19 36.72	-15 21.4	2.032	2.857	13.9	18.4
418120	2007 YO ₃₇	7 21.8 81°16'		1°9'/20.9 17			128880	2004 SE ₅₅	7 21.8 322°24'		0°6'/21.5 18		
6 20	20 33.39	-22 46.8	1.427	2.326	15.0	21.0	6 20	20 26.00	-20 22.6	1.876	2.770	12.2	19.4
6 30	20 26.74	-23 28.0	1.385	2.345	10.7	20.8	6 30	20 21.33	-20 47.3	1.796	2.754	8.8	19.2
7 10	20 17.66	-24 11.8	1.364	2.364	5.9	20.6	7 10	20 14.72	-21 17.3	1.739	2.738	4.9	18.9
7 20	20 7.20	-24 52.5	1.369	2.383	2.0	20.4	7 20	20 6.81	-21 49.1	1.707	2.723	0.9	18.6
7 30	19 56.72	-25 24.7	1.399	2.402	4.9	20.6	7 30	19 58.52	-22 19.0	1.702	2.707	3.7	18.8
8 9	19 47.59	-25 45.5	1.454	2.420	9.4	21.0	8 9	19 50.91	-22 43.9	1.723	2.693	7.8	19.0
8 19	19 40.80	-25 54.5	1.532	2.439	13.4	21.2	8 19	19 44.86	-23 1.8	1.768	2.679	11.6	19.2
8 29	19 36.98	-25 52.9	1.631	2.457	16.7	21.5	8 29	19 41.10	-23 12.0	1.834	2.665	14.9	19.4
69094	2003 BA ₄₉	7 21.8 113°52'		1°7'/22.8 18			480142	2015 FD ₁₇₀	7 21.8 32°54'		7°1'/25.9 16		
6 20	20 26.73	-13 33.9	2.160	3.033	11.7	20.1	6 20	20 25.50	-1 55.4	1.423	2.280	17.5	20.5
6 30	20 21.44	-13 53.7	2.094	3.038	8.6	19.9	6 30	20 21.06	-1 55.4	1.371	2.291	14.0	20.3
7 10	20 14.57	-14 22.5	2.051	3.043	5.2	19.7	7 10	20 14.54	-2 19.8	1.338	2.303	10.4	20.1
7 20	20 6.74	-14 57.9	2.035	3.047	2.0	19.5	7 20	20 6.77	-3 7.9	1.327	2.316	7.6	20.0
7 30	19 58.73	-15 36.9	2.047	3.052	3.2	19.6	7 30	19 58.82	-4 16.1	1.340	2.329	7.4	20.0
8 9	19 51.38	-16 16.5	2.086	3.057	6.6	19.8	8 9	19 51.86	-5 37.7	1.377	2.343	9.8	20.2
8 19	19 45.41	-16 53.9	2.151	3.062	9.9	20.0	8 19	19 46.78	-7 5.2	1.436	2.358	13.1	20.4
8 29	19 41.36	-17 27.1	2.239	3.066	12.7	20.2	8 29	19 44.24	-8 31.6	1.517	2.373	16.2	20.7
200244	1999 VL ₁₁₉	7 21.8 264°49'		3°5'/23.4 18			344658	2003 SH ₅₄	7 21.8 300°45'		2°1'/22.6 18		
6 20	20 28.40	-10 38.0	1.876	2.744	13.4	20.7	6 20	20 28.92	-15 18.3				

EPHEMERIDES

7 21.8

7 21.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
511751	2015 <i>DC</i> ₁₃₈		7 21.8 204°28	0°2/21.9	17		50709	2000 <i>EK</i> ₁₃₃		7 21.8 205°22	0°6/22.1	18	
6 20	20 28.60	-14 29.6	1.795	2.676	13.3	20.8	6 20	20 31.37	-17 17.6	1.910	2.789	12.7	20.3
6 30	20 23.23	-16 0.0	1.725	2.675	9.6	20.6	6 30	20 25.06	-17 34.6	1.835	2.785	9.2	20.1
7 10	20 15.79	-17 44.3	1.678	2.675	5.4	20.3	7 10	20 16.75	-17 58.4	1.784	2.780	5.3	19.8
7 20	20 6.98	-19 36.3	1.659	2.674	0.9	20.0	7 20	20 7.15	-18 26.1	1.759	2.775	1.1	19.5
7 30	19 57.76	-21 28.4	1.668	2.674	3.7	20.2	7 30	19 57.24	-18 54.4	1.763	2.769	3.5	19.7
8 9	19 49.22	-23 13.2	1.705	2.673	8.1	20.5	8 9	19 48.09	-19 20.2	1.793	2.762	7.6	19.9
8 19	19 42.34	-24 45.4	1.768	2.672	12.0	20.7	8 19	19 40.61	-19 41.5	1.848	2.755	11.4	20.1
8 29	19 37.85	-26 2.2	1.853	2.672	15.3	20.9	8 29	19 35.48	-19 57.3	1.926	2.748	14.7	20.3
165036	2000 <i>DB</i> ₇₆		7 21.8 127°55	3°1/23.7	18		468797	2012 <i>FC</i> ₆₇		7 21.8 174°34	2°4/23.0	17	
6 20	20 27.20	-9 15.5	2.075	2.935	12.6	20.1	6 20	20 30.08	-12 17.1	1.570	2.449	14.9	21.5
6 30	20 21.82	-9 32.7	2.009	2.942	9.5	19.9	6 30	20 24.38	-12 40.1	1.504	2.450	11.1	21.2
7 10	20 14.81	-10 2.4	1.966	2.948	6.2	19.7	7 10	20 16.46	-13 16.9	1.459	2.451	6.8	21.0
7 20	20 6.81	-10 42.9	1.949	2.954	3.5	19.5	7 20	20 7.11	-14 4.5	1.440	2.451	2.9	20.7
7 30	19 58.62	-11 31.0	1.959	2.960	4.0	19.6	7 30	19 57.44	-14 58.4	1.446	2.452	4.2	20.8
8 9	19 51.11	-12 23.1	1.997	2.966	7.0	19.8	8 9	19 48.67	-15 53.6	1.479	2.452	8.5	21.1
8 19	19 45.01	-13 15.5	2.060	2.972	10.2	20.0	8 19	19 41.80	-16 45.7	1.535	2.452	12.7	21.3
8 29	19 40.89	-14 4.9	2.147	2.977	13.1	20.2	8 29	19 37.59	-17 31.5	1.612	2.452	16.2	21.6
288815	2004 <i>RM</i> ₁₇₆		7 21.8 267°66	7°1/26.4	18		390873	2004 <i>TT</i> ₁₆₄		7 21.8 268°76	1°9/22.7	18	
6 20	20 24.85	+ 3 39.1	2.533	3.325	12.6	21.2	6 20	20 28.82	-14 1.1	1.844	2.722	13.1	22.2
6 30	20 20.04	+ 3 59.9	2.440	3.308	10.7	21.0	6 30	20 23.38	-14 11.3	1.759	2.706	9.8	21.9
7 10	20 13.82	+ 4 3.9	2.368	3.290	8.8	20.9	7 10	20 15.90	-14 31.5	1.697	2.689	5.9	21.7
7 20	20 6.67	+ 3 49.8	2.321	3.273	7.4	20.7	7 20	20 7.04	-14 59.8	1.660	2.673	2.3	21.4
7 30	19 59.21	+ 3 17.8	2.300	3.255	7.2	20.7	7 30	19 57.74	-15 33.0	1.650	2.656	3.8	21.5
8 9	19 52.15	+ 2 30.1	2.304	3.236	8.4	20.7	8 9	19 49.08	-16 7.9	1.667	2.639	7.9	21.7
8 19	19 46.14	+ 1 30.1	2.334	3.218	10.3	20.8	8 19	19 42.00	-16 41.3	1.708	2.622	11.8	21.9
8 29	19 41.73	+ 0 22.4	2.387	3.199	12.5	21.0	8 29	19 37.26	-17 10.9	1.771	2.604	15.3	22.1
390738	2003 <i>SB</i> ₅		7 21.8 284°77	7°5/17.9	18		355182	2006 <i>WQ</i> ₉₂		7 21.8 192°76	1°4/20.9	18	
6 20	20 35.55	-38 38.2	1.895	2.773	12.8	20.5	6 20	20 28.03	-22 56.8	2.372	3.256	10.3	21.6
6 30	20 28.68	-39 34.4	1.811	2.746	10.3	20.2	6 30	20 22.39	-23 32.0	2.301	3.255	7.4	21.4
7 10	20 19.06	-40 21.5	1.750	2.718	8.2	20.1	7 10	20 15.14	-24 9.4	2.256	3.254	4.1	21.2
7 20	20 7.51	-40 51.9	1.714	2.690	7.5	20.0	7 20	20 6.90	-24 45.4	2.238	3.252	1.4	21.0
7 30	19 55.35	-40 59.5	1.704	2.662	9.0	20.0	7 30	19 58.44	-25 16.7	2.249	3.251	3.5	21.2
8 9	19 44.09	-40 42.7	1.718	2.634	11.7	20.1	8 9	19 50.61	-25 41.1	2.288	3.249	6.8	21.4
8 19	19 35.02	-40 3.3	1.754	2.605	14.7	20.2	8 19	19 44.13	-25 57.3	2.352	3.246	9.8	21.6
8 29	19 29.09	-39 6.2	1.810	2.576	17.5	20.4	8 29	19 39.56	-26 5.4	2.438	3.244	12.4	21.7
174831	2003 <i>YC</i> ₈₂		7 21.8 237°71	1°2/21.3	17		409026	2003 <i>FL</i> ₂₃		7 21.8 92°45	2°9/23.1	17	
6 20	20 32.75	-22 19.2	1.627	2.520	13.8	20.8	6 20	20 31.45	-12 4.4	1.312	2.198	16.8	21.1
6 30	20 26.39	-22 37.8	1.555	2.512	9.9	20.5	6 30	20 25.54	-12 20.4	1.259	2.209	12.5	20.9
7 10	20 17.61	-22 59.5	1.505	2.504	5.6	20.2	7 10	20 17.15	-12 51.9	1.227	2.219	7.7	20.6
7 20	20 7.27	-23 20.1	1.481	2.496	1.4	19.9	7 20	20 7.22	-13 35.6	1.218	2.229	3.4	20.4
7 30	19 56.55	-23 35.4	1.483	2.488	4.4	20.1	7 30	19 57.09	-14 26.5	1.233	2.239	4.8	20.5
8 9	19 46.79	-23 42.9	1.511	2.479	9.0	20.4	8 9	19 48.17	-15 19.0	1.274	2.249	9.4	20.8
8 19	19 39.06	-23 41.9	1.563	2.470	13.1	20.6	8 19	19 41.52	-16 8.3	1.337	2.259	13.8	21.1
8 29	19 34.16	-23 33.0	1.635	2.461	16.7	20.8	8 29	19 37.88	-16 51.1	1.420	2.269	17.5	21.4
522939	2016 <i>PS</i> ₁₁₂		7 21.8 276°87	0°3/21.9	18		90931	1997 <i>SR</i> ₃₂		7 21.8 281°03	2°4/20.9	18	
6 20	20 27.53	-17 33.8	1.953	2.838	12.2	21.1	6 20	20 32.98	-24 8.9	1.382	2.283	15.2	19.0
6 30	20 22.33	-18 4.2	1.875	2.828	8.8	20.8	6 30	20 27.12	-24 38.3	1.302	2.264	11.1	18.7
7 10	20 15.25	-18 42.2	1.820	2.817	5.0	20.6	7 10	20 18.33	-25 10.8	1.244	2.244	6.4	18.4
7 20	20 6.91	-19 24.4	1.791	2.806	0.9	20.2	7 20	20 7.46	-25 40.5	1.210	2.224	2.5	18.1
7 30	19 58.22	-20 7.0	1.789	2.795	3.4	20.4	7 30	19 55.91	-26 1.6	1.201	2.204	5.6	18.3
8 9	19 50.18	-20 46.4	1.814	2.785	7.5	20.7	8 9	19 45.31	-26 10.3	1.217	2.184	10.7	18.5
8 19	19 43.67	-21 20.0	1.864	2.774	11.2	20.9	8 19	19 37.09	-26 6.1	1.254	2.164	15.4	18.7
8 29	19 39.36	-21 46.3	1.936	2.763	14.4	21.1	8 29	19 32.25	-25 50.4	1.310	2.144	19.6	18.9
384441	2010 <i>AX</i> ₂₄		7 21.8 197°64	0°6/22.3	18		157558	2005 <i>UY</i> ₁₀₅		7 21.8 181°50	2°1/22.9	18	
6 20	20 30.42	-13 10.8	2.150	3.015	12.0	20.9	6 20	20 29.71	-13 10.0	1.972	2.842	12.7	21.2
6 30	20 24.29	-14 39.8	2.070	3.013	8.8	20.7	6 30	20 23.76	-13 24.0	1.901	2.843	9.4	21.0
7 10	20 16.32	-16 22.0	2.016	3.010	5.0	20.4	7 10	20 15.98	-13 47.9	1.853	2.843	5.7	20.8
7 20	20 7.09	-18 12.2	1.991	3.006	1.1	20.1	7 20	20 7.05	-14 19.5	1.832	2.843	2.4	20.5
7 30	19 57.43	-20 3.8	1.996	3.002	3.2	20.3	7 30	19 57.87	-14 55.7	1.838	2.843	3.6	20.6
8 9	19 48.32	-21 50.3	2.031	2.997	7.2	20.5	8 9	19 49.42	-15 33.2	1.872	2.842	7.3	20.9
8 19	19 40.60	-23 26.7	2.094	2.992	10.7	20.8	8 19	19 42.51	-16 9.1	1.931	2.840	10.9	21.1
8 29	19 34.96	-24 50.2	2.181	2.986	13.7	21.0	8 29	19 37.79	-16 41.1	2.012	2.839	13.9	21.3
438790	2008 <i>WV</i> ₁₃₉		7 21.8 134°68	3°1/19.8	18		218238	2002 <i>WT</i> ₂₆		7 21.8 342°20	0°8/22.1	17	
6 20	20 30.39	-26 29.5	2.160	3.048	11.1	21.1	6 20	20 25.69	-17 56.4	1.086	2.002	17.2	20.1
6 30	20 24.20	-27 35.9	2.104	3.057	8.0	20.9	6 30	20 22.06	-18 3.5	1.021	1.989	12.6	19.8
7 10	20 16.19	-28 42.4	2.073	3.067	4.8	20.7	7 10	20 15.53	-18 21.2	0.976	1.977	7.2	19.5
7 20	20 7.05	-29 43.4	2.069	3.076	3.1	20.6	7 20	20 7.02	-18 45.9	0.952	1.967	1.5	19.1
7 30	19 57.70	-30 34.3	2.093	3.085	4.9	20.8	7 30	19 58.00	-19 12.7	0.950	1.958	4.9	19.3
8 9	19 49.12	-31 12.2	2.145	3.093	8.0	21.0	8 9	19 50.14	-19 36.9	0.969	1.951	10.6	19.6
8 19	19 42.13	-31 36.4	2.222	3.101	10.9	21.2	8 19	19 44.78	-19 55.2	1.009	1.944	15.9	19.8
8 29	19 37.35	-31 47.8	2.320	3.109	13.5	21.4	8 29	19 42.86	-20 5.7	1.066	1.940	20.3	20.1
49764	1999 <i>VE</i> ₂₁₂		7 21.8 57°94	0°9/22.2	18		280919						

EPHEMERIDES

7 21.8

7 21.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
477045	2009 AT ₄₂		7 21.8 239°49	1°0/21.4	18		455073	2015 UQ ₄₄		7 21.8 290°24	1°5/22.9	18	
6 20	20 32.69	-23 31.7	2.165	3.047	11.3	21.4	6 20	20 24.38	-13 24.2	2.511	3.381	10.3	20.7
6 30	20 25.87	-23 30.0	2.083	3.035	8.2	21.2	6 30	20 19.72	-13 51.3	2.431	3.373	7.6	20.5
7 10	20 17.17	-23 28.2	2.025	3.022	4.6	20.9	7 10	20 13.67	-14 27.0	2.375	3.366	4.6	20.3
7 20	20 7.26	-23 23.8	1.994	3.009	1.2	20.7	7 20	20 6.73	-15 9.0	2.346	3.359	1.8	20.1
7 30	19 57.07	-23 14.7	1.992	2.996	3.6	20.8	7 30	19 59.55	-15 54.7	2.346	3.351	2.9	20.2
8 9	19 47.61	-22 59.7	2.018	2.982	7.3	21.0	8 9	19 52.85	-16 41.0	2.373	3.344	6.0	20.4
8 19	19 39.73	-22 39.2	2.070	2.968	10.8	21.2	8 19	19 47.26	-17 25.2	2.427	3.337	8.9	20.5
8 29	19 34.09	-22 14.0	2.144	2.954	13.8	21.4	8 29	19 43.31	-18 5.3	2.505	3.330	11.6	20.7
252753	2002 EW ₃₃		7 21.8 279°71	5°2/19.1	18		303	Josephina		7 21.8 255°43	2°3/20.6	18	
6 20	20 31.23	-34 48.0	2.195	3.078	11.1	20.0	6 20	20 28.97	-26 40.9	2.313	3.200	10.5	13.9
6 30	20 24.95	-35 25.7	2.128	3.071	8.5	19.9	6 30	20 23.13	-27 2.6	2.241	3.195	7.5	13.7
7 10	20 16.68	-35 56.6	2.084	3.064	6.1	19.7	7 10	20 15.60	-27 23.2	2.194	3.190	4.5	13.5
7 20	20 7.17	-36 15.9	2.066	3.057	5.2	19.6	7 20	20 7.03	-27 39.4	2.174	3.185	2.3	13.4
7 30	19 57.44	-36 20.2	2.076	3.050	6.5	19.7	7 30	19 58.25	-27 48.3	2.182	3.179	4.1	13.5
8 9	19 48.56	-36 8.3	2.111	3.043	9.0	19.8	8 9	19 50.17	-27 48.5	2.217	3.174	7.2	13.7
8 19	19 41.41	-35 41.6	2.170	3.036	11.7	20.0	8 19	19 43.53	-27 39.9	2.277	3.169	10.2	13.8
8 29	19 36.64	-35 2.8	2.251	3.029	14.2	20.2	8 29	19 38.93	-27 23.4	2.360	3.163	12.9	14.0
240666	2005 EN ₆₈		7 21.8 88°92	4°0/24.0	17		166070	2002 CC ₈₀		7 21.8 92°12	0°7/21.5	17	
6 20	20 28.15	-7 59.3	1.950	2.808	13.4	20.9	6 20	20 32.64	-19 43.7	1.379	2.276	15.5	20.0
6 30	20 22.51	-7 58.3	1.894	2.823	10.2	20.7	6 30	20 26.38	-20 21.7	1.329	2.289	11.1	19.8
7 10	20 15.21	-8 10.6	1.860	2.838	6.9	20.5	7 10	20 17.62	-21 6.4	1.301	2.301	6.1	19.6
7 20	20 6.93	-8 35.2	1.852	2.853	4.3	20.4	7 20	20 7.34	-21 52.4	1.297	2.313	1.1	19.2
7 30	19 58.56	-9 9.5	1.871	2.868	4.7	20.5	7 30	19 56.92	-22 34.0	1.319	2.325	4.5	19.5
8 9	19 50.99	-9 50.0	1.916	2.883	7.4	20.6	8 9	19 47.75	-23 7.0	1.366	2.337	9.4	19.8
8 19	19 44.94	-10 33.3	1.987	2.898	10.5	20.9	8 19	19 40.91	-23 29.7	1.435	2.348	13.7	20.1
8 29	19 40.97	-11 15.9	2.079	2.912	13.3	21.1	8 29	19 37.09	-23 41.9	1.524	2.360	17.2	20.4
131674	2001 XE ₁₈₃		7 21.8 270°46	0°2/21.9	18		349782	2009 BN ₄₅		7 21.8 218°17	1°9/22.8	18	
6 20	20 31.97	-18 17.7	1.440	2.334	15.2	20.5	6 20	20 27.62	-13 34.2	2.021	2.895	12.3	21.6
6 30	20 26.23	-18 38.0	1.358	2.315	11.1	20.2	6 30	20 22.27	-13 49.4	1.948	2.893	9.1	21.4
7 10	20 17.78	-19 7.1	1.298	2.297	6.3	19.9	7 10	20 15.17	-14 14.1	1.899	2.891	5.5	21.1
7 20	20 7.40	-19 41.2	1.262	2.278	1.1	19.5	7 20	20 6.97	-14 46.1	1.876	2.888	2.2	20.9
7 30	19 56.37	-20 15.4	1.251	2.258	4.4	19.6	7 30	19 58.51	-15 22.5	1.880	2.886	3.5	21.0
8 9	19 46.17	-20 45.3	1.266	2.238	9.7	19.9	8 9	19 50.73	-15 59.9	1.912	2.883	7.1	21.2
8 19	19 38.10	-21 8.2	1.303	2.218	14.6	20.1	8 19	19 44.41	-16 35.7	1.969	2.881	10.6	21.4
8 29	19 33.14	-21 22.9	1.359	2.198	18.7	20.3	8 29	19 40.16	-17 7.4	2.048	2.878	13.6	21.6
91747	1999 TT ₁₈₅		7 21.8 146°59	4°5/24.2	18		84625	2002 VR ₄₆		7 21.8 228°75	4°3/23.8	18	
6 20	20 27.33	-5 52.3	2.532	3.370	11.3	19.5	6 20	20 29.33	-8 55.6	1.621	2.489	15.1	20.0
6 30	20 21.67	-5 21.6	2.462	3.374	8.9	19.3	6 30	20 23.81	-8 49.7	1.550	2.487	11.6	19.7
7 10	20 14.67	-5 1.7	2.415	3.379	6.5	19.2	7 10	20 16.16	-8 58.8	1.502	2.484	7.8	19.5
7 20	20 6.87	-4 52.8	2.394	3.383	4.7	19.0	7 20	20 7.13	-9 22.2	1.477	2.481	4.7	19.3
7 30	19 58.92	-4 54.3	2.402	3.387	4.9	19.1	7 30	19 57.78	-9 57.1	1.478	2.478	5.2	19.4
8 9	19 51.55	-5 4.8	2.436	3.391	6.8	19.2	8 9	19 49.25	-10 39.8	1.505	2.475	8.7	19.6
8 19	19 45.33	-5 22.0	2.497	3.394	9.2	19.4	8 19	19 42.53	-11 25.7	1.555	2.472	12.6	19.8
8 29	19 40.76	-5 43.5	2.581	3.398	11.5	19.5	8 29	19 38.33	-12 11.0	1.627	2.469	16.0	20.0
341416	2007 TU ₁₈₉		7 21.8 219°55	2°0/20.6	18		179435	2002 AC ₈₃		7 21.8 314°73	0°7/21.6	18	
6 20	20 30.79	-25 47.2	2.576	3.455	9.8	22.6	6 20	20 30.52	-22 53.4	1.900	2.790	12.3	19.9
6 30	20 24.34	-26 15.0	2.494	3.444	7.1	22.4	6 30	20 24.49	-22 41.7	1.824	2.780	8.8	19.6
7 10	20 16.26	-26 42.5	2.438	3.433	4.1	22.2	7 10	20 16.46	-22 30.4	1.771	2.769	4.9	19.4
7 20	20 7.13	-27 6.5	2.410	3.421	2.0	22.0	7 20	20 7.17	-22 17.2	1.744	2.759	1.0	19.1
7 30	19 57.73	-27 23.9	2.411	3.409	3.8	22.1	7 30	19 57.63	-22 0.2	1.744	2.750	3.7	19.3
8 9	19 48.91	-27 33.2	2.441	3.396	6.8	22.3	8 9	19 48.92	-21 38.6	1.772	2.740	7.8	19.5
8 19	19 41.40	-27 33.8	2.497	3.382	9.7	22.5	8 19	19 41.93	-21 12.8	1.823	2.731	11.5	19.7
8 29	19 35.80	-27 26.4	2.576	3.368	12.2	22.6	8 29	19 37.33	-20 43.5	1.897	2.723	14.7	19.9
346582	2008 VO ₆₈		7 21.8 287°41	2°0/20.6	18		1588	Descamisada		7 21.8 339°82	2°1/20.4	18	
6 20	20 28.47	-21 42.9	1.773	2.667	12.7	20.3	6 20	20 26.85	-23 3.8	1.942	2.837	11.8	15.7
6 30	20 23.38	-22 50.3	1.690	2.649	9.2	20.1	6 30	20 21.91	-24 6.0	1.875	2.833	8.4	15.5
7 10	20 16.04	-24 4.9	1.631	2.630	5.2	19.8	7 10	20 15.06	-25 12.3	1.832	2.830	4.8	15.3
7 20	20 7.12	-25 21.1	1.598	2.611	2.0	19.5	7 20	20 6.96	-26 17.3	1.815	2.827	2.1	15.1
7 30	19 57.63	-26 32.3	1.592	2.593	4.8	19.7	7 30	19 58.55	-27 15.7	1.825	2.825	4.5	15.3
8 9	19 48.77	-27 33.0	1.612	2.574	9.0	19.9	8 9	19 50.84	-28 3.6	1.862	2.822	8.1	15.5
8 19	19 41.62	-28 20.1	1.656	2.555	12.9	20.1	8 19	19 44.72	-28 38.9	1.923	2.820	11.6	15.7
8 29	19 37.03	-28 52.8	1.720	2.537	16.4	20.3	8 29	19 40.86	-29 1.5	2.005	2.818	14.5	15.9
392186	2009 QR ₂₁		7 21.8 7°46	9°0/29.9	18		36524	2000 QS ₈₀		7 21.8 271°79	1°2/21.3	18	
6 20	20 23.13	+ 8 21.1	1.609	2.409	18.3	19.7	6 20	20 30.85	-22 10.9	1.759	2.650	13.0	18.8
6 30	20 19.34	+ 7 28.0	1.539	2.411	15.6	19.5	6 30	20 25.00	-22 32.6	1.678	2.635	9.4	18.5
7 10	20 13.64	+ 6 0.1	1.488	2.414	12.7	19.3	7 10	20 16.90	-22 57.7	1.621	2.619	5.3	18.3
7 20	20 6.73	+ 3 57.7	1.458	2.419	10.1	19.2	7 20	20 7.27	-23 22.4	1.589	2.604	1.3	18.0
7 30	19 59.54	+ 1 26.0	1.454	2.425	9.0	19.1	7 30	19 57.21	-23 42.6	1.583	2.588	4.2	18.1
8 9	19 53.10	-1 25.0	1.475	2.432	10.2	19.2	8 9	19 47.91	-23 55.4	1.604	2.572	8.6	18.4
8 19	19 48.30	-4 23.4	1.522	2.440	12.7	19.4	8 19	19 40.44	-23 59.7	1.649	2.555	12.6	18.6
8 29	19 45.80	-7 17.5	1.594	2.449	15.6	19.6	8 29	19 35.57	-23 55.9	1.715	2.539	16.1	18.8
364091	2005 YO ₁₂₇		7 21.8 236°89	5°4/17.4	18		515207	2011 WG ₆₄		7 21.8 257°62	4°2/19.1	18	
6 20	20 30.11	-36 35.2	2.704	3.578									

EPHEMERIDES

7 21.8

7 21.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
308996	2006 <i>UV</i> ₃₇		7 21.8 127°22	2°2/20.6	18		202660	2006 <i>KK</i> ₃₉		7 21.8	7°31	4°6/18.9	17
6 20	20 29.08	-25 21.1	2.201	3.089	10.9	20.7	6 20	20 29.25	-27 36.9	1.702	2.602	12.9	19.5
6 30	20 23.23	-25 55.3	2.139	3.094	7.8	20.6	6 30	20 23.97	-29 12.1	1.644	2.602	9.4	19.3
7 10	20 15.66	-26 29.7	2.102	3.098	4.5	20.4	7 10	20 16.37	-30 48.4	1.609	2.602	6.1	19.1
7 20	20 7.06	-27 0.4	2.092	3.103	2.2	20.2	7 20	20 7.24	-32 17.6	1.600	2.603	4.6	19.0
7 30	19 58.30	-27 24.0	2.109	3.108	4.1	20.4	7 30	19 57.70	-33 32.2	1.617	2.604	6.7	19.1
8 9	19 50.28	-27 38.6	2.154	3.112	7.3	20.6	8 9	19 49.03	-34 27.7	1.660	2.605	10.2	19.3
8 19	19 43.79	-27 43.6	2.224	3.116	10.4	20.8	8 19	19 42.32	-35 2.8	1.726	2.606	13.5	19.5
8 29	19 39.39	-27 39.7	2.316	3.121	13.0	21.0	8 29	19 38.33	-35 19.1	1.812	2.607	16.4	19.8
134959	2001 <i>DU</i> ₃₄		7 21.8 133°11	2°0/22.8	17		220282	2003 <i>BP</i> ₄₈		7 21.8 249°41	2°4/23.1	18	
6 20	20 31.41	-13 2.3	1.698	2.573	14.2	20.6	6 20	20 29.65	-11 51.2	1.898	2.766	13.2	21.0
6 30	20 25.14	-13 30.6	1.639	2.584	10.5	20.4	6 30	20 24.00	-12 13.2	1.809	2.750	9.9	20.7
7 10	20 16.82	-14 10.8	1.602	2.594	6.3	20.2	7 10	20 16.32	-12 47.7	1.744	2.733	6.2	20.5
7 20	20 7.25	-14 59.5	1.592	2.604	2.4	20.0	7 20	20 7.23	-13 32.7	1.705	2.715	2.8	20.2
7 30	19 57.48	-15 52.2	1.608	2.614	3.8	20.1	7 30	19 57.67	-14 24.6	1.693	2.697	3.9	20.3
8 9	19 48.64	-16 44.3	1.651	2.623	8.0	20.3	8 9	19 48.68	-15 19.0	1.708	2.679	7.8	20.5
8 19	19 41.65	-17 32.3	1.719	2.631	11.8	20.6	8 19	19 41.21	-16 12.2	1.748	2.660	11.7	20.7
8 29	19 37.14	-18 13.6	1.808	2.639	15.1	20.8	8 29	19 36.04	-17 0.9	1.811	2.640	15.1	20.8
175031	2004 <i>FF</i> ₄₄		7 21.8 70°35	2°1/20.8	18		48578	1994 <i>PL</i> ₁₁		7 21.8 345°70	0°3/21.8	18	
6 20	20 30.04	-25 13.0	1.946	2.837	11.9	19.8	6 20	20 30.83	-21 9.5	1.270	2.176	15.9	18.1
6 30	20 24.02	-25 36.1	1.889	2.845	8.5	19.6	6 30	20 25.42	-21 2.2	1.207	2.170	11.5	17.8
7 10	20 16.13	-25 59.0	1.856	2.854	4.9	19.4	7 10	20 17.27	-20 58.7	1.165	2.166	6.5	17.5
7 20	20 7.14	-26 17.9	1.849	2.862	2.1	19.3	7 20	20 7.38	-20 55.8	1.146	2.162	1.0	17.1
7 30	19 58.03	-26 29.6	1.870	2.870	4.3	19.4	7 30	19 57.16	-20 50.3	1.151	2.158	4.6	17.4
8 9	19 49.83	-26 32.5	1.917	2.879	7.8	19.7	8 9	19 48.17	-20 40.2	1.180	2.156	9.9	17.7
8 19	19 43.36	-26 26.5	1.988	2.887	11.1	19.9	8 19	19 41.60	-20 25.3	1.230	2.154	14.6	17.9
8 29	19 39.21	-26 12.6	2.082	2.896	14.0	20.1	8 29	19 38.25	-20 6.0	1.299	2.152	18.6	18.2
149555	2003 <i>KN</i> ₃₁		7 21.8 249°07	1°4/20.8	18		15570	2000 <i>GT</i> ₆₀		7 21.8 300°03	1°0/22.3	18	
6 20	20 26.96	-21 33.6	2.290	3.176	10.6	19.8	6 20	20 29.09	-16 41.2	1.477	2.371	14.8	17.8
6 30	20 21.77	-22 34.2	2.216	3.171	7.6	19.6	6 30	20 24.01	-16 54.3	1.401	2.357	10.9	17.6
7 10	20 14.91	-23 39.4	2.167	3.166	4.2	19.4	7 10	20 16.48	-17 17.1	1.346	2.343	6.3	17.3
7 20	20 6.96	-24 44.8	2.146	3.160	1.5	19.2	7 20	20 7.27	-17 46.6	1.314	2.329	1.6	16.9
7 30	19 58.71	-25 45.9	2.154	3.155	3.7	19.3	7 30	19 57.57	-18 18.7	1.308	2.316	4.2	17.1
8 9	19 51.02	-26 39.0	2.189	3.149	7.1	19.5	8 9	19 48.72	-18 49.4	1.327	2.302	9.1	17.3
8 19	19 44.65	-27 21.8	2.250	3.144	10.2	19.7	8 19	19 41.85	-19 15.5	1.369	2.289	13.7	17.6
8 29	19 40.23	-27 53.7	2.333	3.138	12.9	19.9	8 29	19 37.85	-19 35.3	1.431	2.277	17.6	17.8
292630	2006 <i>UD</i> ₂₃		7 21.8 211°29	0°9/21.4	17		39503	1981 <i>EC</i> ₃₈		7 21.8 305°94	2°0/22.5	18	
6 20	20 32.66	-21 25.2	1.840	2.726	12.8	22.2	6 20	20 29.93	-15 28.6	1.307	2.204	16.2	18.7
6 30	20 26.13	-21 49.1	1.767	2.721	9.2	21.9	6 30	20 24.80	-15 28.3	1.236	2.193	12.0	18.4
7 10	20 17.45	-22 16.8	1.716	2.715	5.1	21.7	7 10	20 16.99	-15 39.2	1.186	2.182	7.1	18.1
7 20	20 7.37	-22 44.2	1.693	2.708	1.1	21.4	7 20	20 7.37	-15 58.8	1.158	2.172	2.4	17.8
7 30	19 56.96	-23 7.5	1.697	2.701	4.0	21.6	7 30	19 57.25	-16 23.5	1.155	2.162	4.6	17.9
8 9	19 47.38	-23 24.0	1.727	2.693	8.2	21.8	8 9	19 48.13	-16 49.3	1.176	2.152	9.8	18.2
8 19	19 39.60	-23 32.5	1.783	2.685	12.0	22.0	8 19	19 41.25	-17 12.9	1.218	2.143	14.6	18.4
8 29	19 34.35	-23 33.3	1.859	2.676	15.3	22.2	8 29	19 37.50	-17 32.0	1.279	2.134	18.7	18.6
358868	2008 <i>FE</i> ₁₁₁		7 21.8 357°75	5°4/18.9	18		511437	2014 <i>JB</i> ₁₄		7 21.8 188°56	4°1/19.0	18	
6 20	20 29.98	-34 18.0	2.007	2.896	11.7	20.0	6 20	20 29.43	-30 16.3	2.288	3.174	10.6	21.6
6 30	20 24.18	-35 5.4	1.948	2.895	8.9	19.9	6 30	20 23.62	-31 21.8	2.224	3.174	7.8	21.4
7 10	20 16.32	-35 46.3	1.913	2.894	6.4	19.7	7 10	20 15.99	-32 25.1	2.185	3.173	5.2	21.2
7 20	20 7.19	-36 15.3	1.902	2.894	5.5	19.6	7 20	20 7.19	-33 20.7	2.174	3.173	4.1	21.2
7 30	19 57.86	-36 28.3	1.919	2.894	6.9	19.7	7 30	19 58.11	-34 4.3	2.190	3.172	5.6	21.3
8 9	19 49.44	-36 24.1	1.960	2.894	9.5	19.9	8 9	19 49.71	-34 33.3	2.233	3.171	8.3	21.4
8 19	19 42.87	-36 4.0	2.025	2.894	12.3	20.1	8 19	19 42.84	-34 47.5	2.301	3.169	11.0	21.6
8 29	19 38.77	-35 30.6	2.110	2.895	14.8	20.3	8 29	19 38.12	-34 48.2	2.390	3.168	13.4	21.8
42939	1999 <i>TJ</i> ₃₁		7 21.8 102°35	0°5/21.6	18		269739	1998 <i>TB</i> ₁₁		7 21.8 273°33	2°5/20.6	18	
6 20	20 29.96	-20 23.9	1.784	2.674	12.9	18.7	6 20	20 32.46	-24 31.0	1.720	2.613	13.2	21.3
6 30	20 24.14	-20 43.9	1.720	2.676	9.2	18.4	6 30	20 26.43	-25 12.9	1.631	2.588	9.6	21.1
7 10	20 16.29	-21 8.4	1.680	2.679	5.1	18.2	7 10	20 17.88	-25 57.9	1.564	2.562	5.6	20.8
7 20	20 7.19	-21 33.8	1.665	2.681	0.9	17.9	7 20	20 7.53	-26 40.7	1.524	2.536	2.6	20.5
7 30	19 57.89	-21 56.5	1.678	2.683	3.7	18.1	7 30	19 56.50	-27 15.6	1.510	2.510	5.2	20.6
8 9	19 49.46	-22 13.7	1.716	2.685	7.9	18.4	8 9	19 46.14	-27 38.7	1.522	2.483	9.5	20.8
8 19	19 42.83	-22 24.3	1.779	2.688	11.7	18.6	8 19	19 37.67	-27 48.7	1.557	2.455	13.7	21.0
8 29	19 38.63	-22 27.9	1.863	2.690	14.9	18.8	8 29	19 32.04	-27 46.4	1.613	2.428	17.3	21.2
103681	2000 <i>CN</i> ₆₂		7 21.8 185°17	3°3/24.1	18		512646	2016 <i>TC</i> ₅₉		7 21.8 294°18	1°2/21.3	18	
6 20	20 27.69	- 7 33.8	2.694	3.534	10.6	20.7	6 20	20 30.18	-22 56.2	1.833	2.725	12.5	21.3
6 30	20 21.94	- 7 38.0	2.615	3.534	8.2	20.5	6 30	20 24.36	-23 7.7	1.761	2.718	9.0	21.1
7 10	20 14.87	- 7 52.4	2.561	3.534	5.6	20.3	7 10	20 16.48	-23 21.0	1.712	2.711	5.1	20.9
7 20	20 6.97	- 8 16.4	2.534	3.532	3.6	20.2	7 20	20 7.28	-23 32.8	1.688	2.703	1.3	20.6
7 30	19 58.89	- 8 48.2	2.536	3.531	3.9	20.2	7 30	19 57.80	-23 39.8	1.692	2.696	4.0	20.8
8 9	19 51.28	- 9 25.3	2.566	3.528	6.1	20.4	8 9	19 49.15	-23 40.1	1.722	2.689	8.1	21.0
8 19	19 44.77	-10 5.2	2.623	3.525	8.7	20.5	8 19	19 42.28	-23 33.4	1.776	2.682	11.8	21.2
8 29	19 39.83	-10 45.3	2.705	3.521	11.1	20.7	8 29	19 37.85	-23 20.0	1.851	2.676	15.1	21.4
423740	2006 <i>BD</i> ₂₃₆		7 21.8 41°66	2°6/20.6	17		343406						

EPHEMERIDES

7 21.8

7 21.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291146	2005 YB ₂₄₆		7 21.8 314°65	2°5/23.7	18		504551	2008 SW ₂₂₉		7 21.9 176°68	1°9/20.9	18	
6 20	20 28.26	- 6 54.3	1.542	2.409	15.8	19.8	6 20	20 32.29	-25 15.8	2.306	3.186	10.7	22.3
6 30	20 23.40	- 8 42.2	1.460	2.398	12.0	19.5	6 30	20 25.49	-25 37.7	2.237	3.189	7.7	22.1
7 10	20 16.19	-10 57.8	1.400	2.388	7.5	19.3	7 10	20 16.97	-25 59.3	2.194	3.190	4.4	21.9
7 20	20 7.28	-13 35.2	1.366	2.378	3.2	19.0	7 20	20 7.39	-26 17.1	2.179	3.191	1.9	21.7
7 30	19 57.72	-16 24.1	1.361	2.368	4.2	19.0	7 30	19 57.64	-26 28.2	2.192	3.192	3.8	21.9
8 9	19 48.79	-19 11.9	1.384	2.359	8.9	19.3	8 9	19 48.65	-26 31.1	2.234	3.192	7.1	22.1
8 19	19 41.65	-21 47.6	1.433	2.350	13.5	19.5	8 19	19 41.18	-26 25.8	2.301	3.191	10.2	22.3
8 29	19 37.21	-24 4.2	1.505	2.341	17.4	19.7	8 29	19 35.82	-26 13.1	2.391	3.190	12.8	22.5
521530	2015 OW ₉₉		7 21.9 331°89	1°4/22.5	18		21153	1993 MF ₁		7 21.9 264°46	0°1/21.9	18	
6 20	20 27.79	-16 33.7	2.007	2.888	12.1	20.9	6 20	20 32.75	-20 44.1	1.935	2.817	12.4	17.9
6 30	20 22.43	-16 21.0	1.933	2.882	8.8	20.7	6 30	20 26.17	-20 30.1	1.850	2.802	9.0	17.7
7 10	20 15.32	-16 14.0	1.882	2.876	5.2	20.5	7 10	20 17.52	-20 18.0	1.789	2.786	5.1	17.4
7 20	20 7.12	-16 11.4	1.857	2.871	1.8	20.3	7 20	20 7.50	-20 5.7	1.755	2.770	0.8	17.1
7 30	19 58.68	-16 11.4	1.860	2.866	3.4	20.4	7 30	19 57.14	-19 51.5	1.748	2.754	3.5	17.3
8 9	19 50.96	-16 12.5	1.889	2.861	7.1	20.6	8 9	19 47.53	-19 34.3	1.769	2.738	7.8	17.5
8 19	19 44.73	-16 13.4	1.943	2.856	10.6	20.8	8 19	19 39.62	-19 14.1	1.815	2.722	11.6	17.7
8 29	19 40.61	-16 12.9	2.020	2.852	13.7	21.0	8 29	19 34.13	-18 51.2	1.883	2.705	14.9	17.9
424364	2007 VW ₁₉₇		7 21.9 271°30	2°3/22.6	18		355197	2006 XR ₁₆		7 21.9 155°25	0°5/21.6	18	
6 20	20 32.30	-15 1.1	1.549	2.432	14.9	21.8	6 20	20 29.30	-21 31.7	2.392	3.272	10.4	20.9
6 30	20 26.34	-14 51.3	1.461	2.411	11.1	21.5	6 30	20 23.25	-21 35.8	2.324	3.275	7.4	20.7
7 10	20 17.85	-14 50.6	1.396	2.389	6.8	21.2	7 10	20 15.68	-21 41.6	2.281	3.278	4.1	20.5
7 20	20 7.56	-14 57.5	1.355	2.368	2.6	20.9	7 20	20 7.20	-21 47.0	2.265	3.281	0.7	20.3
7 30	19 56.65	-15 9.6	1.340	2.345	4.5	21.0	7 30	19 58.58	-21 49.9	2.278	3.283	3.0	20.5
8 9	19 46.47	-15 24.1	1.350	2.323	9.2	21.2	8 9	19 50.65	-21 49.1	2.319	3.286	6.4	20.7
8 19	19 38.24	-15 38.4	1.384	2.300	13.8	21.4	8 19	19 44.09	-21 43.9	2.386	3.288	9.4	20.9
8 29	19 32.88	-15 50.9	1.438	2.277	17.9	21.6	8 29	19 39.41	-21 34.6	2.477	3.290	12.0	21.1
364046	2005 WV ₉₆		7 21.9 201°54	1°8/22.9	18		360926	2005 TW ₅₄		7 21.9 200°76	5°2/25.5	18	
6 20	20 26.64	-13 45.5	2.560	3.426	10.3	21.6	6 20	20 25.54	- 1 25.2	2.676	3.492	11.4	21.6
6 30	20 21.29	-13 48.5	2.484	3.424	7.6	21.4	6 30	20 20.47	- 1 15.8	2.596	3.490	9.2	21.4
7 10	20 14.57	-13 58.2	2.432	3.422	4.6	21.2	7 10	20 14.12	- 1 19.9	2.538	3.486	7.1	21.3
7 20	20 7.00	-14 13.5	2.408	3.419	2.0	21.0	7 20	20 6.96	- 1 37.7	2.507	3.483	5.5	21.2
7 30	19 59.24	-14 32.5	2.412	3.416	3.0	21.1	7 30	19 59.60	- 2 8.2	2.503	3.479	5.4	21.1
8 9	19 52.01	-14 53.1	2.444	3.413	5.9	21.3	8 9	19 52.69	- 2 49.1	2.526	3.475	6.9	21.2
8 19	19 45.93	-15 13.6	2.503	3.410	8.8	21.5	8 19	19 46.82	- 3 37.3	2.575	3.470	9.1	21.4
8 29	19 41.51	-15 32.4	2.585	3.407	11.4	21.6	8 29	19 42.47	- 4 29.3	2.648	3.466	11.2	21.5
187833	1999 VO ₁₀₅		7 21.9 347°93	4°5/24.1	18		233398	2006 FW ₂₉		7 21.9 336°51	4°4/19.8	18	
6 20	20 26.27	- 7 13.0	2.167	3.019	12.4	19.7	6 20	20 30.28	-29 6.5	1.616	2.516	13.4	19.8
6 30	20 21.20	- 6 51.1	2.094	3.018	9.7	19.5	6 30	20 24.79	-29 56.8	1.554	2.512	9.9	19.6
7 10	20 14.58	- 6 41.2	2.044	3.017	6.9	19.4	7 10	20 16.88	-30 45.0	1.514	2.507	6.3	19.4
7 20	20 7.00	- 6 43.2	2.020	3.016	4.7	19.2	7 20	20 7.42	-31 24.8	1.498	2.503	4.4	19.3
7 30	19 59.22	- 6 56.1	2.022	3.015	5.0	19.2	7 30	19 57.62	-31 50.6	1.508	2.500	6.5	19.4
8 9	19 52.05	- 7 17.7	2.051	3.014	7.3	19.4	8 9	19 48.84	-31 59.9	1.543	2.496	10.1	19.6
8 19	19 46.19	- 7 45.1	2.105	3.013	10.2	19.6	8 19	19 42.16	-31 53.0	1.600	2.493	13.7	19.8
8 29	19 42.19	- 8 15.5	2.182	3.013	12.9	19.7	8 29	19 38.34	-31 32.4	1.677	2.491	16.8	20.0
183820	2004 BH ₇₇		7 21.9 262°21	0°8/21.5	18		114575	2003 BH ₇₁		7 21.9 316°00	8°0/18.6	18	
6 20	20 32.42	-21 0.5	1.620	2.512	13.9	21.2	6 20	20 32.12	-34 0.4	1.243	2.151	16.0	18.1
6 30	20 26.34	-21 20.3	1.539	2.496	10.1	21.0	6 30	20 27.37	-35 2.8	1.156	2.114	12.5	17.8
7 10	20 17.80	-21 45.0	1.480	2.479	5.7	20.7	7 10	20 19.01	-36 0.9	1.089	2.077	9.2	17.5
7 20	20 7.55	-22 10.5	1.447	2.462	1.1	20.3	7 20	20 7.84	-36 43.9	1.044	2.040	8.0	17.3
7 30	19 56.77	-22 32.5	1.440	2.445	4.3	20.5	7 30	19 55.49	-37 2.0	1.022	2.004	10.3	17.3
8 9	19 46.81	-22 47.8	1.458	2.428	9.1	20.8	8 9	19 44.08	-36 50.1	1.020	1.968	14.6	17.4
8 19	19 38.83	-22 54.9	1.501	2.410	13.4	21.0	8 19	19 35.49	-36 9.7	1.038	1.933	19.2	17.6
8 29	19 33.68	-22 54.0	1.563	2.392	17.2	21.2	8 29	19 31.08	-35 6.4	1.071	1.900	23.4	17.7
498289	2007 VK ₇₅		7 21.9 304°92	3°2/20.5	17		382572	2002 AJ ₁₄₉		7 21.9 220°05	0°1/21.8	18	
6 20	20 30.15	-24 1.7	1.216	2.127	16.1	21.2	6 20	20 31.83	-19 37.2	2.268	3.143	11.1	23.5
6 30	20 25.48	-24 52.5	1.139	2.105	11.7	20.9	6 30	20 25.27	-19 49.8	2.184	3.133	8.0	23.2
7 10	20 17.67	-25 49.4	1.083	2.083	6.9	20.6	7 10	20 16.93	-20 6.2	2.125	3.122	4.5	23.0
7 20	20 7.56	-26 45.1	1.049	2.062	3.2	20.3	7 20	20 7.42	-20 23.7	2.094	3.110	0.7	22.7
7 30	19 56.62	-27 31.3	1.038	2.040	6.4	20.4	7 30	19 57.60	-20 39.7	2.091	3.097	3.2	22.9
8 9	19 46.63	-28 2.2	1.051	2.019	11.8	20.7	8 9	19 48.39	-20 52.1	2.117	3.083	6.9	23.1
8 19	19 39.18	-28 15.8	1.083	1.999	16.9	20.9	8 19	19 40.62	-20 59.8	2.169	3.069	10.3	23.3
8 29	19 35.39	-28 13.0	1.133	1.979	21.2	21.1	8 29	19 34.91	-21 2.4	2.244	3.054	13.2	23.5
291821	2006 KU ₁₁₈		7 21.9 344°58	2°6/22.8	17		254376	2004 TN ₁₃₆		7 21.9 212°46	3°2/20.0	18	
6 20	20 25.25	-14 29.9	1.030	1.943	18.1	19.6	6 20	20 29.61	-30 13.6	2.533	3.416	9.8	20.5
6 30	20 21.85	-14 29.7	0.968	1.932	13.5	19.3	6 30	20 23.55	-30 40.7	2.464	3.413	7.2	20.4
7 10	20 15.52	-14 44.9	0.924	1.922	8.2	19.0	7 10	20 15.89	-31 4.5	2.420	3.410	4.6	20.2
7 20	20 7.20	-15 13.1	0.900	1.914	3.1	18.7	7 20	20 7.25	-31 21.4	2.403	3.406	3.2	20.1
7 30	19 58.36	-15 49.0	0.899	1.907	5.2	18.8	7 30	19 58.44	-31 28.9	2.415	3.403	4.6	20.2
8 9	19 50.67	-16 29.1	0.918	1.901	10.8	19.1	8 9	19 50.31	-31 25.6	2.454	3.400	7.2	20.3
8 19	19 45.53	-17 6.1	0.957	1.897	16.1	19.4	8 19	19 43.57	-31 11.9	2.518	3.396	9.9	20.5
8 29	19 43.86	-17 36.7	1.014	1.894	20.6	19.6	8 29	19 38.78	-30 49.3	2.605	3.392	12.2	20.7
373198	2012 DD ₇₉		7 21.9 86°60	1°2/21.4	17		324917	2007 VW ₂₉₂		7 21.9 231°38	2°3/20.6	17	

EPHEMERIDES

7 21.9

7 21.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
74764	Rudolfpešek		7 21.9 219°00	1°6/21.2	18		162147	1998 XV ₅₆		7 21.9 278°49	3°8/23.4	18	
6 20	20 34.64	-23 43.5	1.982	2.864	12.2	20.3	6 20	20 28.73	-10 22.1	1.963	2.827	13.0	19.4
6 30	20 27.54	-24 2.7	1.903	2.855	8.8	20.1	6 30	20 23.27	-10 1.2	1.876	2.810	10.0	19.2
7 10	20 18.31	-24 23.0	1.847	2.844	5.0	19.8	7 10	20 15.94	-9 50.7	1.811	2.794	6.7	18.9
7 20	20 7.68	-24 40.6	1.819	2.833	1.6	19.6	7 20	20 7.34	-9 50.4	1.772	2.777	4.0	18.7
7 30	19 56.68	-24 52.0	1.818	2.821	4.1	19.7	7 30	19 58.36	-9 59.3	1.760	2.760	4.7	18.7
8 9	19 46.47	-24 55.0	1.846	2.808	8.1	19.9	8 9	19 49.96	-10 15.2	1.775	2.742	7.9	18.9
8 19	19 38.02	-24 49.5	1.898	2.794	11.7	20.1	8 19	19 43.03	-10 35.6	1.814	2.725	11.4	19.1
8 29	19 32.05	-24 36.5	1.973	2.779	14.9	20.3	8 29	19 38.25	-10 57.9	1.875	2.708	14.6	19.2
198304	2004 TC ₃₂₅		7 21.9 205°31	3°3/23.6	18		9448	Donaldavies		7 21.9 194°47	0°9/22.4	18	
6 20	20 29.14	-9 46.0	2.142	2.999	12.4	21.1	6 20	20 28.65	-16 3.9	1.927	2.807	12.5	18.4
6 30	20 23.34	-9 45.3	2.064	2.995	9.4	20.9	6 30	20 23.16	-16 27.1	1.857	2.807	9.1	18.2
7 10	20 15.86	-9 55.6	2.009	2.990	6.2	20.7	7 10	20 15.83	-16 58.5	1.811	2.806	5.3	18.0
7 20	20 7.29	-10 16.1	1.981	2.985	3.6	20.5	7 20	20 7.32	-17 35.0	1.791	2.805	1.4	17.7
7 30	19 58.45	-10 44.6	1.980	2.980	4.1	20.5	7 30	19 58.55	-18 13.3	1.798	2.805	3.3	17.8
8 9	19 50.22	-11 18.3	2.007	2.974	7.1	20.7	8 9	19 50.51	-18 49.8	1.832	2.804	7.3	18.1
8 19	19 43.37	-11 54.4	2.059	2.967	10.4	20.9	8 19	19 44.04	-19 22.0	1.891	2.803	11.0	18.3
8 29	19 38.51	-12 29.9	2.134	2.960	13.3	21.1	8 29	19 39.77	-19 48.2	1.972	2.801	14.1	18.5
168124	2006 FL ₄₄		7 21.9 29°43	0°8/21.6	17		412479	2014 HX ₁₈₀		7 21.9 18°31	5°3/18.4	18	
6 20	20 30.61	-20 28.1	1.075	1.988	17.5	19.9	6 20	20 28.75	-31 17.2	1.887	2.783	12.0	19.7
6 30	20 25.49	-20 50.3	1.028	1.995	12.6	19.6	6 30	20 23.51	-32 42.6	1.832	2.785	9.0	19.5
7 10	20 17.42	-21 19.5	1.001	2.003	7.0	19.3	7 10	20 16.14	-34 4.9	1.801	2.788	6.3	19.4
7 20	20 7.55	-21 50.3	0.995	2.011	1.3	19.0	7 20	20 7.38	-35 17.1	1.796	2.791	5.3	19.3
7 30	19 57.50	-22 16.7	1.013	2.020	5.1	19.3	7 30	19 58.31	-36 13.2	1.818	2.795	7.0	19.4
8 9	19 48.94	-22 34.8	1.053	2.030	10.6	19.6	8 9	19 50.08	-36 50.1	1.865	2.799	9.9	19.6
8 19	19 43.12	-22 43.1	1.114	2.041	15.5	19.9	8 19	19 43.69	-37 7.7	1.934	2.803	12.8	19.8
8 29	19 40.76	-22 41.8	1.192	2.052	19.5	20.2	8 29	19 39.82	-37 8.1	2.024	2.807	15.4	20.0
92282	2000 DP ₃₂		7 21.9 294°32	3°3/20.3	18		288814	2004 RS ₁₇₄		7 21.9 285°44	10°0/29.9	18	
6 20	20 31.35	-29 56.3	2.278	3.162	10.7	19.1	6 20	20 24.83	+13 11.3	2.373	3.106	14.9	21.0
6 30	20 25.15	-30 13.2	2.184	3.134	7.9	18.8	6 30	20 20.26	+13 22.9	2.281	3.089	13.3	20.8
7 10	20 16.98	-30 26.7	2.114	3.105	5.0	18.6	7 10	20 14.17	+13 10.2	2.207	3.073	11.8	20.7
7 20	20 7.49	-30 32.8	2.071	3.076	3.3	18.4	7 20	20 7.07	+12 31.1	2.155	3.056	10.5	20.6
7 30	19 57.59	-30 28.5	2.056	3.048	5.0	18.5	7 30	19 59.63	+11 25.2	2.126	3.039	10.0	20.5
8 9	19 48.31	-30 12.3	2.067	3.018	8.1	18.6	8 9	19 52.62	+9 55.5	2.122	3.022	10.5	20.5
8 19	19 40.54	-29 44.9	2.105	2.989	11.2	18.8	8 19	19 46.75	+8 7.2	2.141	3.006	11.9	20.6
8 29	19 35.00	-29 8.1	2.163	2.960	14.1	18.9	8 29	19 42.61	+6 7.0	2.184	2.989	13.7	20.7
286140	2001 TU ₁₉₃		7 21.9 20°51	4°7/23.5	17		313925	2004 RY ₃₆		7 21.9 276°35	4°2/24.7	18	
6 20	20 28.58	-10 53.3	1.022	1.924	19.3	19.6	6 20	20 25.25	-5 24.2	2.350	3.193	11.9	21.1
6 30	20 24.05	-10 36.0	0.973	1.928	14.6	19.4	6 30	20 20.53	-5 34.0	2.260	3.178	9.4	20.9
7 10	20 16.65	-10 37.6	0.941	1.933	9.5	19.1	7 10	20 14.31	-5 57.9	2.193	3.162	6.7	20.7
7 20	20 7.44	-10 57.2	0.930	1.939	5.2	18.9	7 20	20 7.09	-6 35.1	2.152	3.147	4.6	20.6
7 30	19 57.97	-11 30.9	0.941	1.946	6.2	19.0	7 30	19 59.55	-7 23.7	2.138	3.132	4.6	20.5
8 9	19 49.87	-12 12.8	0.974	1.954	10.8	19.3	8 9	19 52.45	-8 20.4	2.152	3.116	6.9	20.6
8 19	19 44.38	-12 57.1	1.027	1.962	15.6	19.6	8 19	19 46.49	-9 21.5	2.192	3.101	9.8	20.8
8 29	19 42.29	-13 38.6	1.097	1.971	19.8	19.9	8 29	19 42.25	-10 23.0	2.255	3.085	12.5	21.0
65762	1994 RG		7 21.9 307°33	1°7/22.6	18		173590	2001 DU ₁₁		7 21.9 196°97	0°1/21.9	17	
6 20	20 28.15	-15 31.1	1.603	2.492	14.2	19.1	6 20	20 32.13	-18 24.0	1.740	2.625	13.4	21.0
6 30	20 23.28	-15 31.9	1.518	2.471	10.5	18.8	6 30	20 25.89	-18 55.1	1.670	2.623	9.7	20.7
7 10	20 16.12	-15 42.0	1.455	2.450	6.3	18.5	7 10	20 17.46	-19 33.3	1.623	2.620	5.5	20.5
7 20	20 7.37	-15 59.7	1.416	2.430	2.2	18.2	7 20	20 7.61	-20 14.8	1.602	2.617	0.9	20.2
7 30	19 58.10	-16 21.9	1.402	2.409	4.1	18.3	7 30	19 57.41	-20 55.0	1.608	2.614	3.8	20.4
8 9	19 49.52	-16 45.4	1.414	2.389	8.7	18.5	8 9	19 48.06	-21 30.0	1.640	2.610	8.2	20.6
8 19	19 42.73	-17 7.3	1.449	2.370	13.0	18.7	8 19	19 40.55	-21 57.7	1.698	2.605	12.2	20.9
8 29	19 38.58	-17 25.5	1.505	2.351	16.9	18.9	8 29	19 35.61	-22 17.2	1.776	2.600	15.6	21.1
472074	2013 YR ₉₂		7 21.9 219°13	3°9/23.2	17		440453	2005 SP ₉₇		7 21.9 307°19	5°9/18.7	18	
6 20	20 32.10	-11 15.8	1.875	2.739	13.6	21.6	6 20	20 31.12	-35 15.9	1.982	2.868	11.9	20.6
6 30	20 25.63	-10 38.5	1.799	2.734	10.3	21.4	6 30	20 25.22	-36 5.9	1.913	2.858	9.2	20.4
7 10	20 17.20	-10 10.2	1.747	2.729	6.8	21.2	7 10	20 17.10	-36 49.1	1.869	2.848	6.8	20.2
7 20	20 7.52	-9 51.3	1.720	2.724	4.1	21.0	7 20	20 7.55	-37 19.4	1.849	2.837	5.9	20.2
7 30	19 57.57	-9 41.3	1.720	2.719	4.9	21.1	7 30	19 57.67	-37 32.5	1.856	2.827	7.4	20.2
8 9	19 48.38	-9 38.7	1.747	2.713	8.1	21.2	8 9	19 48.68	-37 26.7	1.887	2.818	10.0	20.4
8 19	19 40.85	-9 41.7	1.799	2.707	11.7	21.4	8 19	19 41.58	-37 3.5	1.942	2.808	12.9	20.5
8 29	19 35.65	-9 48.2	1.873	2.700	14.8	21.6	8 29	19 37.09	-36 25.8	2.017	2.799	15.5	20.7
129742	1999 CU ₆₅		7 21.9 265°62	4°4/24.9	18		188944	2007 DW ₄₆		7 21.9 44°27	1°5/21.2	18	
6 20	20 26.72	-4 45.9	2.154	2.996	12.9	19.7	6 20	20 29.49	-24 29.5	2.165	3.052	11.1	19.9
6 30	20 21.73	-5 12.5	2.062	2.979	10.1	19.5	6 30	20 23.58	-24 37.5	2.101	3.056	7.9	19.7
7 10	20 15.05	-5 56.0	1.992	2.962	7.2	19.3	7 10	20 15.97	-24 45.5	2.061	3.059	4.5	19.5
7 20	20 7.20	-6 55.4	1.948	2.945	4.8	19.1	7 20	20 7.36	-24 50.6	2.048	3.062	1.6	19.3
7 30	19 58.94	-8 7.8	1.932	2.927	4.8	19.1	7 30	19 58.62	-24 50.4	2.063	3.066	3.6	19.5
8 9	19 51.13	-9 28.7	1.943	2.909	7.4	19.2	8 9	19 50.66	-24 43.9	2.105	3.069	7.1	19.7
8 19	19 44.58	-10 52.8	1.980	2.891	10.6	19.4	8 19	19 44.24	-24 30.9	2.173	3.073	10.3	19.9
8 29	19 39.94	-12 15.4	2.041	2.872	13.6	19.5	8 29	19 39.92	-24 12.1	2.262	3.077	13.0	20.1
380296	2002 CU ₁₉₉		7 21.9 137°86	2°2/20.9	17		287987	2003 US ₁₇₅		7 21.9 219°99	4°9/24.6	18	
6 20	20 32.92	-25 29.1	1.849</										

EPHEMERIDES

7 21.9

7 21.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
504837	2010 <i>RC</i> ₄₇		7 21.9 305°59	2°7/20.9	17		30049	Violamocz		7 21.9 86°12	2°5/20.9	18	
6 20	20 32.05	-24 55.3	1.261	2.169	15.9	21.2	6 20	20 34.96	-25 24.2	1.560	2.454	14.2	18.7
6 30	20 26.70	-25 17.4	1.188	2.152	11.6	20.9	6 30	20 27.86	-25 51.0	1.517	2.474	10.2	18.5
7 10	20 18.32	-25 41.2	1.135	2.135	6.7	20.6	7 10	20 18.47	-26 17.2	1.495	2.493	5.8	18.3
7 20	20 7.80	-26 0.8	1.105	2.118	2.8	20.3	7 20	20 7.79	-26 37.6	1.499	2.512	2.6	18.2
7 30	19 56.66	-26 10.5	1.099	2.102	5.8	20.5	7 30	19 57.13	-26 48.4	1.530	2.531	5.0	18.4
8 9	19 46.62	-26 7.4	1.116	2.086	11.1	20.7	8 9	19 47.77	-26 48.0	1.586	2.549	9.0	18.6
8 19	19 39.13	-25 51.3	1.154	2.071	15.9	21.0	8 19	19 40.68	-26 37.2	1.666	2.568	12.8	18.9
8 29	19 35.16	-25 24.5	1.211	2.056	20.2	21.2	8 29	19 36.44	-26 17.8	1.766	2.586	15.9	19.2
382485	2001 <i>BL</i> ₃		7 21.9 186°96	10°3/15.0	17		308668	2006 <i>BF</i> ₂₇₅		7 21.9 236°17	2°0/22.7	17	
6 20	20 38.73	-31 38.4	1.094	2.002	17.8	20.4	6 20	20 31.56	-14 23.7	1.368	2.257	16.1	21.4
6 30	20 32.56	-35 14.2	1.046	2.002	13.7	20.2	6 30	20 25.89	-14 37.2	1.301	2.254	11.9	21.2
7 10	20 22.17	-38 51.2	1.021	2.002	10.8	20.0	7 10	20 17.65	-15 3.3	1.256	2.251	7.1	20.9
7 20	20 8.49	-42 6.9	1.021	2.001	10.8	20.0	7 20	20 7.70	-15 39.2	1.234	2.247	2.5	20.6
7 30	19 53.53	-44 41.5	1.045	2.000	13.7	20.2	7 30	19 57.34	-16 20.1	1.237	2.244	4.4	20.7
8 9	19 39.85	-46 26.1	1.091	1.999	17.6	20.4	8 9	19 48.00	-17 1.4	1.265	2.240	9.4	21.0
8 19	19 29.71	-47 22.9	1.155	1.997	21.3	20.7	8 19	19 40.85	-17 38.9	1.315	2.236	14.0	21.2
8 29	19 24.51	-47 41.0	1.233	1.995	24.4	20.9	8 29	19 36.73	-18 10.3	1.385	2.233	18.0	21.5
3985	Raybatson		7 21.9 52°05	5°3/18.4	18		172126	2002 <i>HV</i> ₄		7 21.9 78°20	3°2/20.8	17	
6 20	20 30.09	-30 24.4	1.778	2.674	12.6	15.5	6 20	20 35.05	-26 2.6	1.344	2.245	15.5	19.8
6 30	20 24.55	-32 0.4	1.729	2.683	9.4	15.4	6 30	20 28.29	-26 36.2	1.299	2.259	11.2	19.5
7 10	20 16.75	-33 33.7	1.703	2.691	6.4	15.2	7 10	20 18.86	-27 8.9	1.275	2.273	6.5	19.3
7 20	20 7.52	-34 56.4	1.704	2.700	5.4	15.2	7 20	20 7.87	-27 34.5	1.275	2.287	3.2	19.1
7 30	19 57.98	-36 1.9	1.731	2.709	7.2	15.3	7 30	19 56.83	-27 48.1	1.301	2.301	5.8	19.3
8 9	19 49.37	-36 46.6	1.783	2.718	10.2	15.5	8 9	19 47.24	-27 47.8	1.351	2.315	10.2	19.6
8 19	19 42.72	-37 10.6	1.858	2.727	13.2	15.7	8 19	19 40.22	-27 34.8	1.423	2.329	14.2	19.9
8 29	19 38.75	-37 16.1	1.953	2.736	15.8	15.9	8 29	19 36.41	-27 11.5	1.514	2.342	17.7	20.2
521313	2015 <i>KJ</i> ₁₇₀		7 21.9 36°45	0°5/21.6	16		147050	2002 <i>RJ</i> ₈₈		7 21.9 332°05	1°6/22.5	18	
6 20	20 28.42	-19 19.3	1.743	2.635	13.1	21.4	6 20	20 26.11	-16 18.3	1.118	2.029	17.2	18.8
6 30	20 23.17	-19 58.1	1.682	2.638	9.4	21.2	6 30	20 22.50	-16 22.0	1.047	2.012	12.7	18.5
7 10	20 15.90	-20 43.3	1.643	2.642	5.2	20.9	7 10	20 16.00	-16 38.1	0.995	1.995	7.5	18.1
7 20	20 7.37	-21 30.8	1.629	2.645	0.9	20.6	7 20	20 7.47	-17 4.0	0.964	1.979	2.2	17.8
7 30	19 58.60	-22 15.8	1.643	2.649	3.8	20.8	7 30	19 58.29	-17 35.1	0.955	1.964	4.8	17.9
8 9	19 50.67	-22 54.4	1.682	2.653	8.0	21.1	8 9	19 50.13	-18 6.3	0.969	1.950	10.6	18.2
8 19	19 44.50	-23 24.5	1.746	2.656	11.8	21.3	8 19	19 44.39	-18 33.6	1.002	1.938	15.9	18.4
8 29	19 40.74	-23 45.2	1.831	2.661	15.0	21.6	8 29	19 42.06	-18 54.2	1.053	1.927	20.5	18.7
389028	2008 <i>UE</i> ₃₁₉		7 21.9 276°91	1°6/21.2	18		291090	2005 <i>YL</i> ₁₃₃		7 21.9 257°67	2°1/20.9	18	
6 20	20 31.70	-23 34.6	1.828	2.718	12.6	21.9	6 20	20 31.16	-23 45.7	1.747	2.640	13.0	21.3
6 30	20 25.71	-23 53.0	1.742	2.698	9.2	21.7	6 30	20 25.32	-24 22.7	1.673	2.631	9.4	21.0
7 10	20 17.45	-24 13.4	1.679	2.677	5.2	21.4	7 10	20 17.23	-25 2.5	1.623	2.621	5.4	20.8
7 20	20 7.65	-24 31.7	1.641	2.656	1.7	21.1	7 20	20 7.64	-25 40.1	1.598	2.612	2.1	20.5
7 30	19 57.35	-24 44.3	1.631	2.634	4.3	21.2	7 30	19 57.65	-26 10.8	1.600	2.602	4.7	20.7
8 9	19 47.77	-24 48.5	1.647	2.613	8.6	21.5	8 9	19 48.49	-26 31.3	1.628	2.592	8.8	20.9
8 19	19 39.96	-24 43.8	1.687	2.591	12.5	21.6	8 19	19 41.18	-26 40.5	1.680	2.582	12.7	21.1
8 29	19 34.73	-24 30.9	1.749	2.569	16.0	21.8	8 29	19 36.52	-26 39.2	1.753	2.572	16.0	21.3
162485	2000 <i>PA</i> ₁₄		7 21.9 87°27	0°7/22.1	17		499417	2010 <i>CH</i> ₅₇		7 21.9 197°69	9°2/16.4	18	
6 20	20 36.20	-19 26.6	1.318	2.211	16.3	19.5	6 20	20 47.88	-53 2.1	2.728	3.531	11.5	22.9
6 30	20 28.99	-19 10.9	1.268	2.225	11.8	19.3	6 30	20 37.11	-53 53.1	2.670	3.526	10.3	22.8
7 10	20 19.19	-19 0.1	1.240	2.238	6.6	19.0	7 10	20 23.67	-54 26.2	2.636	3.521	9.4	22.8
7 20	20 7.89	-18 51.7	1.236	2.252	1.3	18.7	7 20	20 8.65	-54 35.3	2.627	3.515	9.3	22.7
7 30	19 56.58	-18 43.1	1.258	2.265	4.3	19.0	7 30	19 53.55	-54 17.0	2.642	3.509	10.0	22.8
8 9	19 46.70	-18 32.8	1.304	2.278	9.4	19.3	8 9	19 39.87	-53 32.3	2.682	3.501	11.2	22.9
8 19	19 39.35	-18 20.5	1.373	2.291	13.8	19.6	8 19	19 28.76	-52 25.4	2.745	3.493	12.6	23.0
8 29	19 35.16	-18 6.0	1.462	2.303	17.5	19.9	8 29	19 20.90	-51 2.4	2.827	3.483	14.1	23.1
48313	2002 <i>ND</i> ₁₂		7 21.9 337°79	2°3/22.7	18		180248	2003 <i>UX</i> ₂₆₅		7 21.9 267°37	0°3/22.0	18	
6 20	20 23.82	-15 1.9	1.012	1.929	18.0	18.6	6 20	20 32.12	-18 32.8	1.553	2.443	14.5	20.8
6 30	20 21.00	-15 3.4	0.944	1.910	13.5	18.3	6 30	20 26.25	-18 44.7	1.471	2.427	10.6	20.5
7 10	20 15.22	-15 20.1	0.893	1.893	8.1	17.9	7 10	20 17.88	-19 3.8	1.412	2.410	6.0	20.2
7 20	20 7.32	-15 49.9	0.863	1.877	2.9	17.5	7 20	20 7.76	-19 26.8	1.378	2.394	1.1	19.9
7 30	19 58.75	-16 28.1	0.854	1.862	5.2	17.6	7 30	19 57.10	-19 49.7	1.370	2.377	4.1	20.0
8 9	19 51.24	-17 8.8	0.865	1.850	11.0	17.9	8 9	19 47.25	-20 9.1	1.387	2.359	9.1	20.3
8 19	19 46.25	-17 46.5	0.896	1.839	16.5	18.2	8 19	19 39.39	-20 22.8	1.427	2.342	13.6	20.5
8 29	19 44.82	-18 17.2	0.944	1.829	21.3	18.4	8 29	19 34.41	-20 30.1	1.488	2.324	17.5	20.7
123714	2000 <i>YH</i> ₁₂₄		7 21.9 230°91	3°4/23.8	18		370864	2005 <i>EF</i> ₂₇		7 21.9 54°55	3°2/20.8	17	
6 20	20 26.81	- 8 58.5	2.471	3.322	11.1	20.1	6 20	20 34.33	-25 30.9	1.185	2.093	16.7	20.6
6 30	20 21.53	- 8 49.6	2.389	3.315	8.5	19.9	6 30	20 27.87	-26 6.8	1.150	2.114	11.9	20.4
7 10	20 14.82	- 8 50.5	2.331	3.308	5.8	19.7	7 10	20 18.62	-26 42.2	1.136	2.135	6.9	20.1
7 20	20 7.21	- 9 0.6	2.300	3.301	3.6	19.5	7 20	20 7.83	-27 10.4	1.145	2.157	3.2	20.0
7 30	19 59.36	- 9 18.8	2.297	3.294	4.0	19.6	7 30	19 57.13	-27 26.0	1.178	2.179	6.0	20.2
8 9	19 52.02	- 9 42.8	2.321	3.286	6.5	19.7	8 9	19 48.09	-27 27.4	1.234	2.201	10.6	20.5
8 19	19 45.82	-10 10.4	2.372	3.278	9.3	19.9	8 19	19 41.81	-27 15.7	1.312	2.224	14.8	20.8
8 29	19 41.31	-10 39.1	2.446	3.270	11.8	20.0	8 29	19 38.88	-26 53.4	1.408	2.246	18.2	21.1
475156	2005 <i>UJ</i> ₃₈₆		7 21.9 191°32	4°9/18.5	18		71885	Denning		7 2			

EPHEMERIDES

7 21.9

7 21.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
69897	1998 <i>SN</i> ₁₃₁		7 21.9 200°90	2.4/20.8	18		32412	2000 <i>RW</i> ₂₅		7 21.9 211°39	3.1/23.5	18	
6 20	20 31.67	-26 24.6	2.087	2.973	11.5	18.7	6 20	20 27.96	-10 48.6	2.308	3.167	11.5	17.9
6 30	20 25.31	-26 47.1	2.018	2.971	8.3	18.5	6 30	20 22.43	-10 34.4	2.232	3.165	8.7	17.7
7 10	20 17.04	-27 8.7	1.974	2.969	4.9	18.3	7 10	20 15.37	-10 29.0	2.180	3.162	5.7	17.6
7 20	20 7.60	-27 25.3	1.956	2.967	2.4	18.1	7 20	20 7.37	-10 32.0	2.154	3.159	3.3	17.4
7 30	19 57.94	-27 34.0	1.966	2.964	4.4	18.2	7 30	19 59.15	-10 42.0	2.157	3.156	3.9	17.4
8 9	19 49.09	-27 33.0	2.003	2.961	7.8	18.4	8 9	19 51.53	-10 57.1	2.186	3.153	6.7	17.6
8 19	19 41.90	-27 22.6	2.065	2.958	11.0	18.6	8 19	19 45.17	-11 15.3	2.242	3.150	9.7	17.8
8 29	19 36.99	-27 3.9	2.149	2.955	13.9	18.8	8 29	19 40.64	-11 34.3	2.321	3.146	12.3	18.0
515918	2015 <i>PP</i> ₃₁₁		7 21.9 237°42	1.4/22.6	18		254408	2004 <i>TZ</i> ₃₃₁		7 21.9 338°80	3.4/20.2	18	
6 20	20 29.09	-15 57.0	2.341	3.212	11.0	21.3	6 20	20 27.82	-27 48.8	1.862	2.760	12.1	19.8
6 30	20 23.24	-15 47.1	2.260	3.204	8.0	21.1	6 30	20 22.84	-28 27.4	1.794	2.752	8.8	19.6
7 10	20 15.82	-15 42.5	2.204	3.196	4.8	20.8	7 10	20 15.81	-29 5.1	1.748	2.744	5.4	19.3
7 20	20 7.41	-15 41.9	2.175	3.188	1.7	20.6	7 20	20 7.45	-29 36.9	1.728	2.736	3.4	19.2
7 30	19 58.76	-15 43.9	2.175	3.180	3.1	20.7	7 30	19 58.80	-29 58.5	1.734	2.729	5.3	19.3
8 9	19 50.70	-15 46.9	2.202	3.171	6.4	20.9	8 9	19 50.95	-30 7.6	1.766	2.723	8.8	19.5
8 19	19 43.95	-15 49.7	2.256	3.163	9.6	21.1	8 19	19 44.85	-30 4.0	1.821	2.717	12.2	19.7
8 29	19 39.07	-15 51.3	2.332	3.154	12.4	21.3	8 29	19 41.17	-29 48.9	1.897	2.712	15.1	19.9
410805	2009 <i>KW</i> ₁		7 21.9 45°21	0.1/21.9	15		213466	2002 <i>CE</i> ₂₃₆		7 21.9 153°86	0.5/21.7	17	
6 20	20 29.26	-18 39.4	1.618	2.511	13.8	21.0	6 20	20 33.88	-19 38.5	1.654	2.540	13.9	22.1
6 30	20 23.62	-19 4.4	1.580	2.537	9.8	20.9	6 30	20 27.18	-20 10.7	1.593	2.547	10.0	21.9
7 10	20 16.05	-19 35.4	1.565	2.563	5.5	20.7	7 10	20 18.22	-20 48.7	1.556	2.554	5.6	21.6
7 20	20 7.43	-20 8.4	1.574	2.590	0.9	20.4	7 20	20 7.85	-21 28.0	1.544	2.559	1.0	21.3
7 30	19 58.83	-20 39.5	1.610	2.617	3.6	20.7	7 30	19 57.24	-22 4.0	1.559	2.565	4.0	21.6
8 9	19 51.33	-21 5.6	1.672	2.645	7.8	21.0	8 9	19 47.64	-22 33.2	1.601	2.569	8.5	21.9
8 19	19 45.74	-21 25.0	1.758	2.672	11.5	21.3	8 19	19 40.05	-22 53.8	1.667	2.574	12.5	22.1
8 29	19 42.57	-21 37.2	1.865	2.700	14.5	21.5	8 29	19 35.17	-23 5.8	1.754	2.577	15.8	22.3
123513	2000 <i>WV</i> ₁₈₈		7 21.9 294°65	0.2/21.8	18		313371	2002 <i>JD</i> ₉₈		7 21.9 20°03	5.0/18.9	17	
6 20	20 30.25	-19 57.5	1.619	2.512	13.8	20.1	6 20	20 26.11	-22 16.9	0.970	1.896	17.8	18.9
6 30	20 24.84	-20 8.4	1.536	2.493	10.0	19.9	6 30	20 22.73	-24 44.9	0.930	1.904	12.7	18.6
7 10	20 17.06	-20 24.7	1.476	2.475	5.7	19.6	7 10	20 16.19	-27 23.2	0.911	1.913	7.5	18.3
7 20	20 7.65	-20 43.1	1.441	2.456	0.9	19.2	7 20	20 7.55	-29 55.9	0.913	1.923	5.0	18.2
7 30	19 57.73	-21 0.1	1.431	2.438	4.0	19.4	7 30	19 58.48	-32 7.4	0.939	1.935	8.4	18.5
8 9	19 48.57	-21 12.5	1.447	2.420	8.8	19.6	8 9	19 50.86	-33 47.8	0.986	1.947	13.3	18.8
8 19	19 41.31	-21 18.9	1.487	2.401	13.2	19.8	8 19	19 46.10	-34 54.4	1.052	1.962	17.8	19.1
8 29	19 36.77	-21 18.6	1.546	2.383	16.9	20.0	8 29	19 45.08	-35 29.8	1.135	1.977	21.5	19.4
33301	1998 <i>KH</i> ₄₇		7 21.9 106°29	5.4/24.8	18		249774	2000 <i>WD</i> ₁₈		7 21.9 219°07	4.2/24.3	18	
6 20	20 27.04	-3 56.2	2.254	3.089	12.6	17.9	6 20	20 26.76	-6 31.2	2.448	3.291	11.5	20.5
6 30	20 21.74	-3 28.6	2.184	3.093	10.1	17.7	6 30	20 21.51	-6 16.2	2.369	3.286	9.0	20.4
7 10	20 14.96	-3 14.4	2.138	3.097	7.5	17.5	7 10	20 14.85	-6 12.4	2.313	3.282	6.4	20.2
7 20	20 7.27	-3 14.3	2.116	3.100	5.7	17.4	7 20	20 7.30	-6 19.7	2.284	3.278	4.5	20.1
7 30	19 59.41	-3 27.3	2.122	3.104	5.7	17.5	7 30	19 59.53	-6 37.1	2.282	3.273	4.6	20.1
8 9	19 52.16	-3 51.4	2.154	3.108	7.6	17.6	8 9	19 52.27	-7 2.5	2.308	3.268	6.8	20.2
8 19	19 46.17	-4 23.5	2.211	3.111	10.1	17.7	8 19	19 46.17	-7 33.2	2.359	3.263	9.4	20.4
8 29	19 41.98	-5 0.1	2.290	3.115	12.5	17.9	8 29	19 41.75	-8 6.6	2.434	3.258	11.9	20.5
255450	2005 <i>YZ</i> ₃₅		7 21.9 268°87	1.4/22.6	18		191731	2004 <i>RZ</i> ₃₀₉		7 21.9 322°28	9.3/25.0	18	
6 20	20 28.71	-16 20.8	2.347	3.219	10.9	20.5	6 20	20 25.60	-1 45.4	1.370	2.228	17.9	19.6
6 30	20 22.95	-16 4.2	2.268	3.213	8.0	20.3	6 30	20 21.74	-0 49.3	1.286	2.204	14.9	19.3
7 10	20 15.66	-15 52.3	2.215	3.207	4.7	20.1	7 10	20 15.47	-0 14.0	1.221	2.180	11.8	19.0
7 20	20 7.40	-15 44.0	2.188	3.201	1.7	19.8	7 20	20 7.45	-0 3.4	1.176	2.157	9.6	18.9
7 30	19 58.94	-15 38.3	2.189	3.195	3.1	19.9	7 30	19 58.76	-0 19.1	1.154	2.134	9.6	18.8
8 9	19 51.09	-15 33.8	2.219	3.188	6.4	20.1	8 9	19 50.73	-0 58.9	1.153	2.113	12.1	18.9
8 19	19 44.54	-15 29.5	2.274	3.182	9.5	20.3	8 19	19 44.56	-1 57.2	1.174	2.092	15.6	19.0
8 29	19 39.85	-15 24.7	2.353	3.176	12.3	20.5	8 29	19 41.22	-3 6.7	1.213	2.073	19.2	19.2
262560	2006 <i>VC</i> ₂₇		7 21.9 306°79	4.4/23.4	17		443593	2014 <i>KJ</i> ₉₁		7 21.9 289°53	1.3/22.8	18	
6 20	20 29.36	-10 54.6	1.382	2.266	16.3	20.7	6 20	20 26.09	-13 7.5	2.159	3.032	11.7	20.9
6 30	20 24.36	-10 30.7	1.307	2.252	12.5	20.4	6 30	20 21.33	-13 58.0	2.076	3.021	8.6	20.7
7 10	20 16.85	-10 20.6	1.252	2.239	8.3	20.1	7 10	20 14.90	-15 0.1	2.017	3.009	5.1	20.4
7 20	20 7.63	-10 24.3	1.219	2.226	4.8	19.9	7 20	20 7.33	-16 10.6	1.985	2.998	1.7	20.2
7 30	19 57.90	-10 40.3	1.211	2.214	5.7	19.9	7 30	19 59.41	-17 25.1	1.980	2.987	3.1	20.3
8 9	19 49.03	-11 5.2	1.227	2.201	9.8	20.1	8 9	19 51.98	-18 38.9	2.004	2.976	6.8	20.5
8 19	19 42.21	-11 35.0	1.265	2.190	14.2	20.3	8 19	19 45.85	-19 47.8	2.054	2.965	10.3	20.7
8 29	19 38.30	-12 5.9	1.323	2.178	18.2	20.5	8 29	19 41.64	-20 48.9	2.127	2.954	13.3	20.9
35150	1993 <i>FR</i> ₄₁		7 21.9 11°63	0.6/22.2	18		493554	2015 <i>JL</i> ₅		7 21.9 50°47	5.0/23.5	18	
6 20	20 26.61	-17 39.1	1.605	2.501	13.8	18.2	6 20	20 31.26	-9 29.6	1.689	2.554	14.8	20.7
6 30	20 21.97	-17 54.1	1.546	2.504	10.0	18.0	6 30	20 25.11	-8 38.3	1.628	2.560	11.4	20.5
7 10	20 15.29	-18 16.7	1.509	2.507	5.7	17.7	7 10	20 16.98	-7 58.6	1.589	2.567	7.8	20.3
7 20	20 7.35	-18 43.8	1.496	2.512	1.2	17.4	7 20	20 7.66	-7 31.4	1.574	2.574	5.2	20.2
7 30	19 59.21	-19 11.7	1.510	2.517	3.7	17.6	7 30	19 58.19	-7 16.8	1.586	2.581	5.8	20.2
8 9	19 51.98	-19 37.1	1.548	2.523	8.0	17.9	8 9	19 49.64	-7 13.1	1.624	2.588	8.8	20.4
8 19	19 46.55	-19 57.5	1.610	2.530	12.0	18.2	8 19	19 42.90	-7 17.9	1.685	2.595	12.1	20.6
8 29	19 43.58	-20 11.7	1.692	2.537	15.3	18.4	8 29	19 38.58	-7 28.2	1.768	2.603	15.2	20.9
494850	2008 <i>CZ</i> ₇₇		7 21.9 53°										

EPHEMERIDES

7 21.9

7 21.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
256500	2007 <i>EW</i> ₇₈		7 21.9 129°57	0°2/21.8	18		322041	2010 <i>VN</i> ₃₉		7 21.9 303°72	4°4/24.6	18	
6 20	20 27.31	-19 37.9	2.564	3.443	9.9	21.1	6 20	20 25.65	-5 52.0	2.316	3.161	12.0	20.3
6 30	20 21.85	-20 2.9	2.500	3.450	7.1	20.9	6 30	20 20.81	-5 41.9	2.240	3.158	9.4	20.2
7 10	20 15.01	-20 31.4	2.461	3.458	3.9	20.7	7 10	20 14.51	-5 44.5	2.187	3.155	6.8	20.0
7 20	20 7.34	-21 0.9	2.450	3.465	0.6	20.5	7 20	20 7.31	-5 59.5	2.159	3.152	4.7	19.9
7 30	19 59.53	-21 28.8	2.467	3.473	2.7	20.7	7 30	19 59.88	-6 25.5	2.158	3.149	4.8	19.9
8 9	19 52.31	-21 53.0	2.513	3.480	5.9	20.9	8 9	19 53.00	-7 0.0	2.184	3.146	7.0	20.0
8 19	19 46.30	-22 12.1	2.585	3.486	8.8	21.1	8 19	19 47.30	-7 39.9	2.236	3.144	9.7	20.2
8 29	19 41.99	-22 25.5	2.680	3.493	11.2	21.3	8 29	19 43.33	-8 21.9	2.310	3.141	12.2	20.3
375697	2009 <i>OD</i> ₂₁		7 21.9 339°57	5°1/23.3	18		417743	2007 <i>DZ</i> ₃		7 21.9 83°52	0°3/21.8	16	
6 20	20 25.47	-11 45.5	1.066	1.971	18.3	19.9	6 20	20 35.11	-20 28.7	1.695	2.579	13.8	21.9
6 30	20 22.05	-11 4.2	0.998	1.955	14.1	19.6	6 30	20 27.72	-20 38.7	1.655	2.608	9.8	21.7
7 10	20 15.78	-10 37.8	0.948	1.940	9.4	19.2	7 10	20 18.34	-20 52.0	1.639	2.636	5.4	21.5
7 20	20 7.52	-10 27.2	0.918	1.927	5.5	19.0	7 20	20 7.91	-21 5.2	1.648	2.664	0.9	21.3
7 30	19 58.68	-10 31.8	0.910	1.914	6.5	19.0	7 30	19 57.58	-21 15.3	1.685	2.691	3.7	21.5
8 9	19 50.89	-10 48.3	0.923	1.904	11.2	19.2	8 9	19 48.48	-21 20.6	1.749	2.718	7.8	21.8
8 19	19 45.51	-11 12.3	0.956	1.895	16.1	19.5	8 19	19 41.42	-21 20.4	1.838	2.744	11.5	22.1
8 29	19 43.51	-11 38.9	1.006	1.887	20.6	19.7	8 29	19 36.94	-21 15.1	1.948	2.770	14.5	22.4
41106	1999 <i>VL</i> ₆₉		7 21.9 303°80	1°0/21.4	18		371604	2006 <i>WY</i> ₁₅₂		7 21.9 240°35	0°4/22.1	18	
6 20	20 27.46	-21 39.9	2.048	2.938	11.5	18.2	6 20	20 32.56	-18 39.9	1.793	2.676	13.2	21.4
6 30	20 22.45	-22 7.0	1.965	2.921	8.3	18.0	6 30	20 26.28	-18 45.4	1.713	2.665	9.6	21.1
7 10	20 15.58	-22 37.8	1.906	2.904	4.6	17.7	7 10	20 17.80	-18 56.4	1.657	2.653	5.5	20.9
7 20	20 7.47	-23 9.1	1.872	2.888	1.2	17.4	7 20	20 7.87	-19 10.0	1.626	2.641	1.1	20.5
7 30	19 58.98	-23 37.3	1.867	2.871	3.6	17.6	7 30	19 57.54	-19 23.4	1.622	2.629	3.7	20.7
8 9	19 51.10	-23 59.4	1.888	2.855	7.5	17.8	8 9	19 47.99	-19 33.9	1.645	2.616	8.1	20.9
8 19	19 44.69	-24 13.9	1.933	2.839	11.1	18.0	8 19	19 40.20	-19 40.3	1.693	2.603	12.1	21.2
8 29	19 40.44	-24 20.5	2.001	2.823	14.2	18.2	8 29	19 34.95	-19 41.9	1.762	2.589	15.6	21.4
512746	2016 <i>UU</i> ₃₁		7 21.9 345°65	19°3/18.3	18		239309	2007 <i>QW</i> ₇		7 21.9 331°13	1°6/22.7	18	
6 20	20 31.12	+6 7.1	1.114	1.945	22.9	19.2	6 20	20 26.78	-14 36.0	1.537	2.428	14.5	19.9
6 30	20 26.19	+10 12.0	1.051	1.925	21.0	19.0	6 30	20 22.34	-14 58.0	1.464	2.418	10.7	19.6
7 10	20 18.20	+13 58.1	1.007	1.907	19.7	18.8	7 10	20 15.68	-15 32.1	1.413	2.409	6.4	19.3
7 20	20 7.96	+17 9.2	0.983	1.891	19.3	18.7	7 20	20 7.53	-16 15.3	1.386	2.400	2.1	19.1
7 30	19 56.86	+19 31.4	0.978	1.877	20.0	18.7	7 30	19 58.97	-17 3.3	1.384	2.392	3.9	19.2
8 9	19 46.62	+20 59.3	0.991	1.866	21.7	18.8	8 9	19 51.20	-17 51.2	1.408	2.384	8.5	19.4
8 19	19 38.75	+21 35.2	1.018	1.857	23.8	18.9	8 19	19 45.27	-18 35.0	1.454	2.377	12.8	19.6
8 29	19 34.42	+21 28.3	1.058	1.850	25.9	19.0	8 29	19 41.94	-19 11.9	1.521	2.371	16.5	19.9
470776	2008 <i>UU</i> ₂₅₈		7 21.9 339°14	1°1/22.3	16		126789	2002 <i>EV</i> ₁₉		7 21.9 70°78	2°3/23.2	17	
6 20	20 25.82	-17 34.0	1.222	2.131	16.2	20.7	6 20	20 28.64	-12 3.2	1.671	2.549	14.3	19.8
6 30	20 22.11	-17 34.3	1.151	2.115	11.9	20.4	6 30	20 23.35	-12 29.6	1.612	2.557	10.6	19.5
7 10	20 15.74	-17 44.2	1.099	2.100	6.9	20.0	7 10	20 16.08	-13 9.0	1.575	2.566	6.5	19.3
7 20	20 7.53	-18 0.8	1.070	2.086	1.7	19.7	7 20	20 7.58	-13 58.4	1.563	2.574	2.8	19.1
7 30	19 58.80	-18 20.4	1.064	2.073	4.5	19.8	7 30	19 58.87	-14 53.5	1.577	2.583	3.9	19.2
8 9	19 51.04	-18 39.1	1.081	2.062	9.9	20.1	8 9	19 51.02	-15 49.4	1.617	2.592	7.9	19.5
8 19	19 45.54	-18 53.8	1.119	2.052	14.9	20.3	8 19	19 44.93	-16 42.0	1.682	2.600	11.7	19.7
8 29	19 43.18	-19 2.7	1.175	2.043	19.2	20.6	8 29	19 41.24	-17 28.4	1.768	2.609	15.0	20.0
313997	2004 <i>TG</i> ₂₅₅		7 21.9 244°30	1°6/22.6	17		398602	2011 <i>WJ</i> ₁₀₈		7 21.9 168°15	3°1/19.8	18	
6 20	20 32.06	-15 0.2	1.498	2.383	15.2	21.7	6 20	20 28.83	-27 34.7	2.331	3.218	10.4	20.9
6 30	20 26.24	-15 17.1	1.422	2.373	11.2	21.4	6 30	20 23.23	-28 32.2	2.267	3.219	7.5	20.8
7 10	20 17.92	-15 45.5	1.368	2.363	6.7	21.1	7 10	20 15.94	-29 29.1	2.227	3.220	4.7	20.6
7 20	20 7.89	-16 22.4	1.338	2.352	2.1	20.8	7 20	20 7.56	-30 20.8	2.216	3.221	3.1	20.5
7 30	19 57.34	-17 3.4	1.334	2.341	4.2	20.9	7 30	19 58.93	-31 3.2	2.232	3.222	4.8	20.6
8 9	19 47.64	-17 44.0	1.355	2.329	9.1	21.2	8 9	19 50.95	-31 33.7	2.275	3.223	7.6	20.8
8 19	19 39.97	-18 20.6	1.400	2.317	13.6	21.4	8 19	19 44.40	-31 51.6	2.344	3.224	10.4	21.0
8 29	19 35.18	-18 50.9	1.465	2.305	17.5	21.7	8 29	19 39.87	-31 57.7	2.434	3.224	12.9	21.1
418044	2007 <i>VV</i> ₉₅		7 21.9 213°70	4°3/20.0	17		478269	2011 <i>UO</i> ₄₀₈		7 21.9 274°96	4°2/24.1	18	
6 20	20 34.81	-28 20.9	1.581	2.475	14.0	21.6	6 20	20 27.49	-7 25.5	2.130	2.982	12.6	21.9
6 30	20 28.23	-29 14.1	1.516	2.471	10.3	21.3	6 30	20 22.38	-7 17.9	2.038	2.963	9.9	21.6
7 10	20 19.02	-30 6.0	1.473	2.467	6.5	21.1	7 10	20 15.54	-7 23.0	1.969	2.943	6.9	21.4
7 20	20 8.06	-30 49.5	1.456	2.462	4.3	21.0	7 20	20 7.52	-7 40.7	1.925	2.923	4.5	21.2
7 30	19 56.70	-31 18.7	1.465	2.457	6.5	21.1	7 30	19 59.10	-8 9.4	1.907	2.903	4.8	21.2
8 9	19 46.41	-31 30.7	1.499	2.452	10.3	21.3	8 9	19 51.16	-8 46.5	1.917	2.883	7.5	21.4
8 19	19 38.38	-31 25.9	1.555	2.446	14.2	21.5	8 19	19 44.50	-9 28.8	1.952	2.862	10.8	21.5
8 29	19 33.43	-31 7.1	1.632	2.440	17.5	21.7	8 29	19 39.80	-10 12.6	2.010	2.842	13.8	21.7
60170	1999 <i>US</i> ₄₅		7 21.9 145°20	2°9/22.9	18		514270	2015 <i>RN</i> ₈₆		7 21.9 289°00	4°1/24.2	18	
6 20	20 32.43	-13 28.6	1.553	2.432	15.1	19.2	6 20	20 26.19	-7 22.5	2.270	3.120	12.0	20.9
6 30	20 26.20	-13 12.2	1.489	2.435	11.2	19.0	6 30	20 21.26	-7 9.1	2.189	3.112	9.3	20.7
7 10	20 17.73	-13 6.2	1.447	2.438	7.0	18.8	7 10	20 14.81	-7 7.3	2.132	3.105	6.6	20.5
7 20	20 7.84	-13 9.2	1.430	2.440	3.3	18.5	7 20	20 7.39	-7 17.0	2.100	3.097	4.4	20.4
7 30	19 57.71	-13 19.1	1.438	2.443	4.5	18.6	7 30	19 59.71	-7 36.8	2.095	3.089	4.6	20.4
8 9	19 48.57	-13 33.1	1.472	2.445	8.7	18.9	8 9	19 52.57	-8 4.6	2.118	3.082	7.0	20.5
8 19	19 41.42	-13 48.8	1.530	2.447	12.7	19.1	8 19	19 46.64	-8 37.4	2.165	3.074	9.9	20.7
8 29	19 36.97	-14 3.8	1.608	2.448	16.2	19.4	8 29	19 42.50	-9 12.3	2.236	3.067	12.6	20.8
232538	2003 <i>SV</i> ₈₇		7 21.9 348°20	5°4/25.1	17		123844	2001 <i>CN</i> ₂₉					

EPHEMERIDES

7 21.9

7 21.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
66765	1999 <i>TJ</i> ₁₉₁		7 21.9 64°64'	7.1/25.6	18	R	108104	2001 <i>FM</i> ₁₈₉		7 21.9 293°71'	2.3/20.9	18	
6 20	20 27.24	+ 0 29.1	2.263	3.076	13.3	18.2	6 20	20 31.61	-25 25.4	1.780	2.673	12.8	19.4
6 30	20 21.94	+ 1 16.7	2.194	3.079	11.0	18.0	6 30	20 25.60	-25 45.9	1.712	2.669	9.2	19.2
7 10	20 15.15	+ 1 48.7	2.147	3.083	8.9	17.9	7 10	20 17.43	-26 6.4	1.668	2.666	5.4	19.0
7 20	20 7.45	+ 2 3.5	2.124	3.086	7.3	17.8	7 20	20 7.89	-26 22.5	1.649	2.662	2.3	18.8
7 30	19 59.57	+ 2 1.0	2.128	3.090	7.2	17.8	7 30	19 58.09	-26 30.8	1.657	2.658	4.6	18.9
8 9	19 52.27	+ 1 43.1	2.157	3.094	8.6	17.9	8 9	19 49.20	-26 29.3	1.691	2.655	8.5	19.1
8 19	19 46.23	+ 1 12.8	2.210	3.097	10.7	18.1	8 19	19 42.19	-26 18.0	1.749	2.652	12.2	19.4
8 29	19 41.98	+ 0 34.1	2.286	3.101	12.9	18.2	8 29	19 37.76	-25 58.3	1.828	2.648	15.4	19.6
326145	2012 <i>BP</i> ₅₃		7 21.9 29°07'	1.3/21.5	17		131186	Pauluckas		7 21.9 60°89'	0.5/22.2	17	
6 20	20 32.85	-22 19.9	1.303	2.206	15.8	20.1	6 20	20 29.19	-16 56.5	1.665	2.554	13.7	19.5
6 30	20 26.93	-22 34.6	1.246	2.208	11.4	19.8	6 30	20 23.78	-17 28.9	1.611	2.565	9.9	19.3
7 10	20 18.31	-22 52.8	1.211	2.211	6.4	19.5	7 10	20 16.35	-18 9.8	1.580	2.577	5.6	19.1
7 20	20 7.99	-23 9.6	1.198	2.214	1.6	19.2	7 20	20 7.70	-18 55.1	1.574	2.589	1.1	18.8
7 30	19 57.42	-23 20.7	1.211	2.217	4.8	19.5	7 30	19 58.90	-19 40.2	1.594	2.601	3.6	19.0
8 9	19 48.12	-23 23.5	1.248	2.220	9.9	19.8	8 9	19 51.03	-20 21.2	1.641	2.614	7.9	19.3
8 19	19 41.28	-23 17.5	1.306	2.224	14.4	20.0	8 19	19 44.98	-20 55.4	1.711	2.626	11.7	19.6
8 29	19 37.64	-23 3.7	1.384	2.228	18.2	20.3	8 29	19 41.37	-21 21.5	1.803	2.639	14.9	19.8
512588	2016 <i>SB</i> ₄₇		7 21.9 309°39'	5.7/24.5	18		134775	2000 <i>DT</i> ₃₄		7 21.9 13°42'	1.6/22.8	18	R
6 20	20 27.22	- 5 56.1	1.683	2.543	15.1	20.8	6 20	20 27.43	-14 18.4	1.677	2.563	13.8	19.8
6 30	20 22.48	- 5 37.2	1.605	2.531	11.9	20.6	6 30	20 22.57	-14 41.3	1.613	2.564	10.2	19.5
7 10	20 15.71	- 5 34.8	1.548	2.520	8.6	20.3	7 10	20 15.73	-15 15.1	1.571	2.566	6.0	19.3
7 20	20 7.58	- 5 49.4	1.514	2.509	6.0	20.2	7 20	20 7.61	-15 56.9	1.554	2.568	2.1	19.0
7 30	19 59.04	- 6 19.7	1.505	2.498	6.2	20.2	7 30	19 59.24	-16 42.6	1.563	2.570	3.7	19.2
8 9	19 51.19	- 7 2.1	1.521	2.488	9.0	20.3	8 9	19 51.68	-17 28.0	1.598	2.573	7.9	19.4
8 19	19 44.96	- 7 52.1	1.561	2.478	12.5	20.5	8 19	19 45.84	-18 9.5	1.657	2.577	11.8	19.7
8 29	19 41.10	- 8 44.9	1.621	2.468	15.8	20.7	8 29	19 42.38	-18 44.7	1.737	2.580	15.1	19.9
254432	2004 <i>YR</i> ₁₃		7 21.9 228°26'	1.1/22.3	17		348074	2003 <i>WP</i> ₂₆		7 21.9 226°02'	11.1/26.4	18	
6 20	20 33.91	-17 48.3	1.501	2.389	15.0	20.6	6 20	20 32.34	+ 9 29.8	2.088	2.843	16.0	21.4
6 30	20 27.49	-17 40.7	1.431	2.384	11.0	20.4	6 30	20 25.93	+10 46.5	2.003	2.831	14.2	21.3
7 10	20 18.58	-17 39.6	1.383	2.379	6.4	20.1	7 10	20 17.61	+11 42.5	1.939	2.818	12.5	21.1
7 20	20 8.06	-17 42.6	1.359	2.374	1.6	19.8	7 20	20 7.95	+12 13.3	1.896	2.804	11.4	21.0
7 30	19 57.17	-17 46.9	1.362	2.369	4.1	19.9	7 30	19 57.82	+12 16.6	1.878	2.789	11.2	21.0
8 9	19 47.30	-17 50.2	1.390	2.363	9.0	20.2	8 9	19 48.21	+11 53.4	1.883	2.773	12.2	21.0
8 19	19 39.57	-17 51.1	1.442	2.358	13.4	20.4	8 19	19 39.99	+11 7.3	1.911	2.757	13.9	21.1
8 29	19 34.75	-17 48.9	1.513	2.352	17.2	20.7	8 29	19 33.90	+10 4.4	1.960	2.740	15.9	21.2
166440	2002 <i>PH</i> ₄₃		7 21.9 3°69'	2.4/21.4	18		94332	2001 <i>KF</i>		7 21.9 41°32'	13.7/1.4	18	
6 20	20 31.06	-26 22.1	1.299	2.207	15.5	19.2	6 20	20 28.72	+13 49.4	1.028	1.830	26.3	18.7
6 30	20 25.65	-26 11.1	1.243	2.207	11.2	19.0	6 30	20 24.40	+13 7.5	0.968	1.835	23.0	18.4
7 10	20 17.57	-25 57.4	1.207	2.207	6.5	18.7	7 10	20 17.15	+11 30.1	0.922	1.840	19.3	18.2
7 20	20 7.88	-25 37.3	1.194	2.208	2.5	18.5	7 20	20 7.90	+ 8 53.1	0.892	1.845	15.8	18.0
7 30	19 58.04	-25 8.5	1.206	2.211	5.2	18.7	7 30	19 58.15	+ 5 22.4	0.883	1.850	13.8	18.0
8 9	19 49.53	-24 30.8	1.242	2.214	9.9	18.9	8 9	19 49.58	+ 1 15.4	0.897	1.856	14.6	18.0
8 19	19 43.47	-23 46.1	1.299	2.219	14.3	19.2	8 19	19 43.57	- 3 4.2	0.934	1.863	17.5	18.2
8 29	19 40.56	-22 56.9	1.376	2.225	18.0	19.5	8 29	19 41.07	- 7 13.8	0.992	1.869	21.2	18.5
244054	2001 <i>TM</i> ₆₈		7 21.9 267°90'	6.3/24.8	18		77291	2001 <i>FL</i> ₇₁		7 21.9 201°78'	3.5/23.9	17	
6 20	20 29.05	- 4 2.8	1.765	2.611	15.1	20.4	6 20	20 30.94	- 8 36.8	1.926	2.781	13.6	20.8
6 30	20 23.79	- 3 39.2	1.679	2.595	12.1	20.1	6 30	20 24.96	- 8 55.0	1.847	2.777	10.4	20.6
7 10	20 16.47	- 3 32.7	1.615	2.580	9.0	19.9	7 10	20 17.05	- 9 27.7	1.792	2.773	6.9	20.4
7 20	20 7.73	- 3 44.3	1.575	2.564	6.7	19.7	7 20	20 7.86	-10 13.1	1.762	2.767	3.9	20.2
7 30	19 58.53	- 4 13.3	1.560	2.548	6.8	19.7	7 30	19 58.32	-11 8.1	1.760	2.761	4.4	20.2
8 9	19 49.93	- 4 56.4	1.571	2.532	9.3	19.8	8 9	19 49.43	-12 8.1	1.786	2.755	7.7	20.4
8 19	19 42.90	- 5 49.3	1.605	2.515	12.7	20.0	8 19	19 42.07	-13 8.8	1.836	2.747	11.3	20.6
8 29	19 38.22	- 6 46.7	1.661	2.499	15.9	20.2	8 29	19 36.94	-14 6.4	1.910	2.739	14.5	20.8
443056	2013 <i>FG</i> ₆		7 21.9 291°14'	2.6/19.9	18		420481	2012 <i>EW</i> ₃		7 21.9 100°16'	1.8/21.4	17	
6 20	20 28.12	-23 27.2	2.169	3.058	11.0	20.4	6 20	20 35.64	-24 24.9	1.459	2.354	14.9	20.8
6 30	20 22.94	-24 58.0	2.097	3.052	7.9	20.2	6 30	20 28.70	-24 30.0	1.403	2.361	10.7	20.6
7 10	20 15.92	-26 33.5	2.050	3.046	4.6	20.0	7 10	20 19.22	-24 35.1	1.368	2.367	6.1	20.3
7 20	20 7.64	-28 7.7	2.031	3.040	2.6	19.8	7 20	20 8.21	-24 35.9	1.359	2.373	2.0	20.1
7 30	19 58.94	-29 34.3	2.040	3.035	4.7	20.0	7 30	19 57.06	-24 29.2	1.375	2.379	4.7	20.3
8 9	19 50.79	-30 48.6	2.078	3.029	8.0	20.2	8 9	19 47.20	-24 13.8	1.417	2.385	9.4	20.6
8 19	19 44.05	-31 47.9	2.140	3.024	11.2	20.3	8 19	19 39.71	-23 50.5	1.481	2.391	13.5	20.8
8 29	19 39.41	-32 31.7	2.225	3.018	13.9	20.5	8 29	19 35.28	-23 21.3	1.566	2.397	17.0	21.1
141172	2001 <i>XL</i> ₁₅₀		7 21.9 18°94'	1.0/21.4	18		310683	2002 <i>GA</i> ₅₃		7 21.9 113°06'	2.4/23.1	17	
6 20	20 28.11	-21 12.0	1.957	2.847	11.9	20.1	6 20	20 33.86	-12 24.2	1.661	2.532	14.7	21.5
6 30	20 22.88	-21 44.0	1.892	2.849	8.5	19.8	6 30	20 27.01	-12 41.7	1.611	2.552	10.9	21.4
7 10	20 15.82	-22 20.0	1.851	2.850	4.8	19.6	7 10	20 18.11	-13 10.9	1.583	2.572	6.6	21.1
7 20	20 7.61	-22 56.2	1.837	2.852	1.1	19.4	7 20	20 8.02	-13 49.0	1.580	2.592	2.8	21.0
7 30	19 59.18	-23 28.9	1.849	2.854	3.6	19.6	7 30	19 57.86	-14 32.0	1.605	2.610	4.0	21.1
8 9	19 51.50	-23 55.1	1.888	2.856	7.5	19.8	8 9	19 48.75	-15 15.5	1.657	2.628	8.0	21.4
8 19	19 45.40	-24 13.3	1.952	2.858	10.9	20.0	8 19	19 41.57	-15 56.4	1.733	2.645	11.7	21.6
8 29	19 41.50	-24 23.1	2.037	2.860	13.9	20.2	8 29	19 36.93	-16 32.1	1.831	2.662	14.9	21.9
490252	2008 <i>WH</i> ₁₀₇		7 21.9 291°84'										

EPHEMERIDES

7 21.9

7 21.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
318395	2004 <i>XQ</i> ₆₆		7 21.9 130°53	4.4/18.2	18		85942	1999 <i>EB</i> ₆		7 21.9 268°61	9.3/17.5	18	
6 20	20 29.25	-33 37.7	2.867	3.744	9.0	20.7	6 20	20 37.89	-41 59.3	1.709	2.583	14.2	18.4
6 30	20 23.39	-34 52.1	2.813	3.754	6.8	20.5	6 30	20 30.78	-43 7.3	1.647	2.573	11.7	18.2
7 10	20 16.03	-36 2.2	2.786	3.763	5.0	20.4	7 10	20 20.64	-44 1.8	1.607	2.563	9.8	18.1
7 20	20 7.70	-37 3.5	2.787	3.772	4.4	20.4	7 20	20 8.52	-44 34.1	1.591	2.553	9.3	18.1
7 30	19 59.14	-37 52.1	2.816	3.781	5.5	20.5	7 30	19 55.98	-44 38.2	1.599	2.543	10.6	18.1
8 9	19 51.15	-38 26.4	2.873	3.790	7.5	20.6	8 9	19 44.73	-44 13.3	1.631	2.533	13.0	18.2
8 19	19 44.40	-38 46.0	2.954	3.798	9.6	20.8	8 19	19 36.13	-43 23.3	1.683	2.523	15.7	18.4
8 29	19 39.46	-38 52.5	3.058	3.806	11.4	20.9	8 29	19 31.02	-42 14.5	1.753	2.513	18.2	18.6
357088	2001 <i>SQ</i> ₂₅₃		7 21.9 269°07	5.5/25.2	18		255225	2005 <i>UM</i> ₄₀₈		7 21.9 123°64	2.5/23.5	18	
6 20	20 26.82	-2 47.5	2.275	3.105	12.7	21.6	6 20	20 26.96	-11 6.9	2.361	3.222	11.2	21.2
6 30	20 21.84	-2 39.2	2.181	3.086	10.3	21.4	6 30	20 21.74	-11 14.5	2.293	3.228	8.4	21.0
7 10	20 15.26	-2 45.9	2.110	3.067	7.7	21.2	7 10	20 15.08	-11 31.6	2.249	3.234	5.4	20.8
7 20	20 7.59	-3 8.3	2.063	3.047	5.8	21.1	7 20	20 7.56	-11 56.6	2.232	3.240	2.8	20.7
7 30	19 59.54	-3 45.1	2.043	3.027	5.8	21.0	7 30	19 59.87	-12 27.4	2.243	3.245	3.4	20.7
8 9	19 51.92	-4 33.7	2.050	3.007	7.8	21.1	8 9	19 52.77	-13 1.4	2.281	3.250	6.2	20.9
8 19	19 45.47	-5 30.3	2.082	2.986	10.5	21.2	8 19	19 46.90	-13 35.8	2.345	3.256	9.2	21.1
8 29	19 40.81	-6 30.7	2.138	2.965	13.2	21.4	8 29	19 42.77	-14 8.6	2.433	3.261	11.8	21.3
83245	2001 <i>RQ</i> ₅₇		7 21.9 16°36	2.5/20.9	17		207303	2005 <i>GX</i> ₅₁		7 21.9 233°03	6.7/17.8	18	
6 20	20 28.25	-23 15.4	1.102	2.020	16.8	18.3	6 20	20 34.15	-38 31.4	2.188	3.062	11.5	20.8
6 30	20 23.96	-23 56.2	1.056	2.025	12.1	18.1	6 30	20 27.47	-39 36.1	2.122	3.054	9.2	20.7
7 10	20 16.79	-24 41.2	1.029	2.031	6.8	17.8	7 10	20 18.55	-40 32.3	2.080	3.045	7.3	20.5
7 20	20 7.84	-25 23.4	1.025	2.039	2.6	17.6	7 20	20 8.16	-41 13.7	2.064	3.036	6.8	20.5
7 30	19 58.68	-25 56.3	1.043	2.048	5.8	17.8	7 30	19 57.40	-41 35.5	2.075	3.027	8.0	20.6
8 9	19 50.92	-26 15.7	1.084	2.058	10.8	18.1	8 9	19 47.49	-41 36.2	2.110	3.018	10.3	20.7
8 19	19 45.78	-26 20.8	1.145	2.069	15.4	18.4	8 19	19 39.45	-41 17.4	2.169	3.008	12.7	20.8
8 29	19 43.99	-26 13.0	1.223	2.081	19.3	18.7	8 29	19 34.03	-40 42.5	2.247	2.998	15.0	21.0
434781	2006 <i>KP</i> ₁₁₆		7 21.9 359°97	18.2/2.3	17		436567	2011 <i>HL</i> ₅₂		7 21.9 26°37	3.5/19.8	18	
6 20	20 15.01	+11 51.0	0.973	1.809	25.1	19.4	6 20	20 30.15	-24 37.5	1.658	2.556	13.3	20.3
6 30	20 14.47	+13 34.6	0.925	1.801	23.0	19.2	6 30	20 24.81	-26 7.9	1.598	2.557	9.6	20.1
7 10	20 11.53	+14 35.5	0.889	1.796	20.9	19.0	7 10	20 17.15	-27 42.4	1.561	2.558	5.7	19.9
7 20	20 6.98	+14 45.5	0.868	1.795	19.2	18.9	7 20	20 7.94	-29 13.1	1.550	2.559	3.5	19.7
7 30	20 2.06	+14 1.0	0.861	1.796	18.3	18.9	7 30	19 58.31	-30 32.3	1.566	2.560	5.9	19.9
8 9	19 58.16	+12 26.9	0.870	1.801	18.5	18.9	8 9	19 49.55	-31 34.7	1.607	2.561	9.7	20.1
8 19	19 56.40	+10 14.5	0.896	1.809	19.7	19.0	8 19	19 42.72	-32 18.3	1.672	2.562	13.3	20.3
8 29	19 57.62	+7 39.2	0.937	1.820	21.7	19.2	8 29	19 38.62	-32 44.1	1.757	2.564	16.4	20.6
270809	2002 <i>RN</i> ₂₆₆		7 21.9 293°67	1.3/21.5	18		213864	2003 <i>SQ</i> ₁₅₀		7 21.9 295°34	4.6/19.7	18	
6 20	20 31.35	-21 35.0	1.433	2.332	14.9	20.9	6 20	20 31.69	-26 53.4	1.337	2.243	15.2	19.5
6 30	20 26.08	-22 1.6	1.350	2.310	10.8	20.6	6 30	20 26.55	-28 5.8	1.267	2.229	11.2	19.2
7 10	20 18.07	-22 34.1	1.289	2.289	6.1	20.3	7 10	20 18.43	-29 21.2	1.218	2.215	7.0	19.0
7 20	20 8.10	-23 7.7	1.252	2.267	1.5	20.0	7 20	20 8.18	-30 30.8	1.194	2.201	4.6	18.8
7 30	19 57.44	-23 37.0	1.240	2.245	4.8	20.1	7 30	19 57.26	-31 26.0	1.193	2.187	7.3	18.9
8 9	19 47.59	-23 57.8	1.252	2.223	10.0	20.4	8 9	19 47.33	-32 1.2	1.216	2.174	11.7	19.1
8 19	19 39.88	-24 8.2	1.287	2.202	14.7	20.6	8 19	19 39.85	-32 15.5	1.260	2.160	16.1	19.3
8 29	19 35.31	-24 8.3	1.340	2.181	18.9	20.8	8 29	19 35.82	-32 11.0	1.322	2.147	19.9	19.6
474893	2005 <i>SK</i> ₁₇₆		7 21.9 200°73	3.0/23.8	18		481180	2005 <i>UX</i> ₂₇₉		7 21.9 219°42	3.9/24.4	18	
6 20	20 27.01	-9 35.5	2.565	3.417	10.7	21.5	6 20	20 26.61	-6 31.9	2.584	3.424	11.0	22.0
6 30	20 21.72	-9 33.7	2.487	3.414	8.2	21.3	6 30	20 21.44	-6 23.6	2.502	3.418	8.6	21.9
7 10	20 15.06	-9 41.4	2.432	3.411	5.5	21.1	7 10	20 14.92	-6 26.2	2.444	3.412	6.1	21.7
7 20	20 7.54	-9 57.5	2.405	3.408	3.2	21.0	7 20	20 7.55	-6 39.4	2.412	3.406	4.2	21.6
7 30	19 59.83	-10 20.6	2.406	3.405	3.6	21.0	7 30	19 59.94	-7 2.1	2.408	3.400	4.3	21.6
8 9	19 52.60	-10 48.4	2.435	3.401	6.1	21.2	8 9	19 52.81	-7 32.1	2.432	3.393	6.4	21.7
8 19	19 46.50	-11 18.7	2.490	3.397	8.9	21.3	8 19	19 46.76	-8 6.7	2.482	3.386	9.0	21.8
8 29	19 42.01	-11 49.0	2.569	3.393	11.4	21.5	8 29	19 42.29	-8 43.3	2.556	3.379	11.4	22.0
144344	2004 <i>DQ</i> ₃₃		7 21.9 234°83	1.6/22.8	18		314066	2005 <i>BZ</i> ₉		7 21.9 208°04	1.9/21.0	16	
6 20	20 30.45	-13 41.4	1.721	2.598	13.9	20.5	6 20	20 33.42	-22 20.6	1.620	2.511	13.9	21.3
6 30	20 24.87	-14 13.0	1.643	2.590	10.3	20.3	6 30	20 27.17	-23 9.6	1.551	2.508	10.0	21.1
7 10	20 17.13	-14 56.9	1.589	2.582	6.2	20.0	7 10	20 18.48	-24 3.5	1.505	2.503	5.7	20.8
7 20	20 7.92	-15 50.0	1.559	2.573	2.1	19.8	7 20	20 8.17	-24 56.4	1.485	2.499	2.0	20.6
7 30	19 58.27	-16 47.7	1.557	2.563	3.8	19.9	7 30	19 57.42	-25 42.5	1.491	2.494	4.8	20.8
8 9	19 49.34	-17 45.0	1.581	2.554	8.1	20.1	8 9	19 47.59	-26 17.5	1.523	2.488	9.2	21.0
8 19	19 42.12	-18 37.8	1.629	2.544	12.2	20.3	8 19	19 39.80	-26 39.9	1.579	2.482	13.3	21.2
8 29	19 37.40	-19 23.5	1.699	2.533	15.8	20.5	8 29	19 34.85	-26 50.1	1.656	2.475	16.8	21.5
429598	2011 <i>EQ</i> ₇₁		7 21.9 56°81	4.0/20.3	17		512411	2016 <i>PX</i> ₇₅		7 21.9 344°28	7.2/19.9	18	
6 20	20 32.84	-27 50.3	1.472	2.373	14.5	20.5	6 20	20 34.65	-36 29.6	1.425	2.321	15.2	19.6
6 30	20 26.66	-28 39.0	1.431	2.390	10.5	20.3	6 30	20 28.44	-36 51.4	1.363	2.312	11.8	19.4
7 10	20 18.06	-29 25.4	1.412	2.407	6.4	20.1	7 10	20 19.28	-37 1.1	1.322	2.304	8.6	19.2
7 20	20 8.04	-30 2.7	1.417	2.425	4.0	20.0	7 20	20 8.29	-36 51.9	1.304	2.297	7.2	19.1
7 30	19 57.98	-30 26.1	1.447	2.442	6.2	20.2	7 30	19 57.06	-36 19.6	1.310	2.291	8.7	19.2
8 9	19 49.22	-30 33.5	1.503	2.460	9.9	20.5	8 9	19 47.26	-35 24.8	1.340	2.286	12.0	19.4
8 19	19 42.79	-30 26.0	1.580	2.478	13.5	20.7	8 19	19 40.15	-34 12.0	1.391	2.282	15.5	19.6
8 29	19 39.30	-30 6.2	1.678	2.497	16.6	21.0	8 29	19 36.48	-32 47.3	1.461	2.278	18.7	19.8
198479	2004 <i>XD</i> ₃₉		7 21.9 130°46	5.7/25.6	18 R		489356	2006 <i>UF</i>					

EPHEMERIDES

7 21.9

7 22.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
146328	2001 <i>NV</i> ₆		7 21.9 334°96	1°8/21.1	18		93753	2000 <i>WO</i> ₅		7 21.9 99°60	8°1/17.8	18	
6 20	20 25.76	-19 56.7	1.163	2.079	16.3	19.3	6 20	20 35.31	-39 1.2	1.742	2.624	13.6	19.4
6 30	20 22.35	-21 1.5	1.095	2.063	11.8	19.0	6 30	20 28.68	-40 17.3	1.691	2.626	10.9	19.2
7 10	20 16.10	-22 18.8	1.047	2.049	6.7	18.7	7 10	20 19.38	-41 22.3	1.663	2.628	8.7	19.1
7 20	20 7.80	-23 41.3	1.021	2.036	1.9	18.3	7 20	20 8.37	-42 8.2	1.658	2.630	8.2	19.1
7 30	19 58.84	-25 0.0	1.018	2.023	5.5	18.5	7 30	19 57.07	-42 29.4	1.679	2.632	9.5	19.2
8 9	19 50.86	-26 6.6	1.037	2.012	11.0	18.8	8 9	19 46.97	-42 24.8	1.724	2.634	12.0	19.3
8 19	19 45.26	-26 56.5	1.077	2.002	16.1	19.0	8 19	19 39.27	-41 57.2	1.789	2.636	14.7	19.5
8 29	19 43.06	-27 28.2	1.135	1.994	20.4	19.3	8 29	19 34.72	-41 11.7	1.874	2.638	17.1	19.7
355114	2006 <i>UX</i> ₆₈		7 21.9 267°91	0°9/21.5	18		91308	1999 <i>FY</i> ₅₂		7 21.9 251°31	4°8/20.2	18	
6 20	20 28.71	-20 54.9	2.183	3.067	11.1	21.3	6 20	20 36.24	-29 46.2	1.431	2.329	15.0	18.5
6 30	20 23.34	-21 28.9	2.098	3.051	8.0	21.1	6 30	20 29.60	-30 26.1	1.365	2.321	11.1	18.3
7 10	20 16.18	-22 7.4	2.038	3.035	4.5	20.9	7 10	20 20.03	-31 2.5	1.320	2.313	7.2	18.0
7 20	20 7.80	-22 47.0	2.004	3.019	1.0	20.6	7 20	20 8.50	-31 28.2	1.299	2.305	4.8	17.9
7 30	19 59.04	-23 23.9	1.998	3.002	3.4	20.7	7 30	19 56.52	-31 37.1	1.304	2.297	7.0	18.0
8 9	19 50.82	-23 55.0	2.019	2.986	7.2	20.9	8 9	19 45.76	-31 27.4	1.332	2.288	11.1	18.2
8 19	19 43.99	-24 18.5	2.066	2.969	10.6	21.1	8 19	19 37.54	-31 0.6	1.383	2.279	15.2	18.4
8 29	19 39.21	-24 33.8	2.136	2.951	13.6	21.3	8 29	19 32.72	-30 20.7	1.453	2.270	18.8	18.7
201171	2002 <i>NJ</i> ₆₃		7 21.9 289°39	1°7/20.9	18		136449	2005 <i>EA</i> ₁₄₀		7 21.9 17°99	8°5/17.1	17	
6 20	20 28.85	-21 28.0	1.806	2.699	12.6	20.5	6 20	20 32.21	-38 19.9	1.630	2.520	13.9	18.9
6 30	20 23.72	-22 30.8	1.734	2.692	9.1	20.3	6 30	20 26.59	-39 52.6	1.583	2.523	11.1	18.7
7 10	20 16.50	-23 39.9	1.686	2.685	5.1	20.0	7 10	20 18.26	-41 14.9	1.559	2.526	9.0	18.6
7 20	20 7.86	-24 49.7	1.664	2.678	1.8	19.8	7 20	20 8.19	-42 17.8	1.558	2.530	8.6	18.6
7 30	19 58.81	-25 54.2	1.669	2.671	4.4	19.9	7 30	19 57.77	-42 55.0	1.582	2.534	10.0	18.7
8 9	19 50.47	-26 48.7	1.700	2.664	8.5	20.2	8 9	19 48.55	-43 4.6	1.628	2.539	12.6	18.8
8 19	19 43.81	-27 30.5	1.755	2.657	12.2	20.4	8 19	19 41.72	-42 49.2	1.695	2.544	15.2	19.0
8 29	19 39.60	-27 59.2	1.831	2.650	15.4	20.6	8 29	19 38.06	-42 13.6	1.781	2.550	17.7	19.2
377578	2005 <i>NJ</i> ₂₁		7 21.9 0°60	4°0/23.1	17		518979	2010 <i>HU</i> ₈₈		7 21.9 58°91	1°0/22.6	18	
6 20	20 27.02	-13 42.4	1.053	1.961	18.3	20.1	6 20	20 28.78	-13 58.1	1.610	2.494	14.4	20.6
6 30	20 23.11	-13 5.5	0.998	1.958	13.7	19.8	6 30	20 23.57	-14 56.7	1.559	2.510	10.4	20.4
7 10	20 16.38	-12 41.9	0.961	1.956	8.7	19.6	7 10	20 16.33	-16 7.8	1.530	2.525	6.0	20.2
7 20	20 7.85	-12 31.5	0.945	1.956	4.4	19.3	7 20	20 7.85	-17 26.3	1.526	2.541	1.6	19.9
7 30	19 58.99	-12 32.6	0.951	1.957	5.7	19.4	7 30	19 59.18	-18 45.7	1.549	2.557	3.6	20.1
8 9	19 51.38	-12 40.0	0.978	1.959	10.6	19.7	8 9	19 51.45	-20 0.2	1.598	2.572	8.0	20.4
8 19	19 46.28	-12 55.8	1.026	1.963	15.4	20.0	8 19	19 45.54	-21 5.5	1.672	2.589	11.9	20.7
8 29	19 44.47	-13 10.5	1.091	1.969	19.6	20.2	8 29	19 42.09	-21 59.3	1.768	2.605	15.1	21.0
306345	2011 <i>SP</i> ₁₅₁		7 21.9 60°21	0°6/22.3	18		102936	1999 <i>XH</i> ₄₄		7 21.9 175°27	3°5/23.9	18	
6 20	20 28.38	-17 0.1	1.981	2.863	12.2	21.0	6 20	20 29.88	-8 47.7	2.466	3.311	11.3	20.4
6 30	20 23.07	-17 22.1	1.913	2.863	8.8	20.8	6 30	20 23.80	-8 34.9	2.391	3.314	8.7	20.2
7 10	20 15.98	-17 51.1	1.868	2.864	5.1	20.6	7 10	20 16.27	-8 31.8	2.341	3.316	5.9	20.0
7 20	20 7.76	-18 24.4	1.849	2.864	1.1	20.3	7 20	20 7.84	-8 37.9	2.317	3.317	3.7	19.9
7 30	19 59.30	-18 58.5	1.858	2.865	3.2	20.5	7 30	19 59.22	-8 52.0	2.322	3.318	4.1	19.9
8 9	19 51.56	-19 30.3	1.894	2.866	7.1	20.7	8 9	19 51.18	-9 12.0	2.356	3.319	6.5	20.1
8 19	19 45.32	-19 57.5	1.954	2.866	10.7	20.9	8 19	19 44.36	-9 35.7	2.416	3.319	9.3	20.2
8 29	19 41.22	-20 18.8	2.037	2.867	13.7	21.1	8 29	19 39.28	-10 0.8	2.499	3.318	11.8	20.4
39351	2002 <i>AB</i> ₁₂₂		7 21.9 284°32	1°0/21.5	18		257673	1999 <i>VK</i> ₁₀₆		7 21.9 237°98	0°6/22.3	17	
6 20	20 31.29	-19 42.4	1.347	2.247	15.6	18.9	6 20	20 32.45	-17 30.6	1.732	2.615	13.6	21.8
6 30	20 26.15	-20 26.2	1.269	2.230	11.3	18.6	6 30	20 26.36	-17 44.9	1.653	2.604	9.9	21.5
7 10	20 18.19	-21 20.0	1.213	2.213	6.4	18.2	7 10	20 18.02	-18 6.7	1.597	2.593	5.7	21.2
7 20	20 8.19	-22 18.1	1.180	2.195	1.3	17.9	7 20	20 8.17	-18 32.9	1.566	2.582	1.2	20.9
7 30	19 57.48	-23 13.6	1.172	2.178	4.9	18.0	7 30	19 57.88	-18 59.8	1.563	2.570	3.7	21.1
8 9	19 47.62	-24 0.5	1.188	2.161	10.3	18.3	8 9	19 48.35	-19 24.2	1.585	2.557	8.2	21.3
8 19	19 39.99	-24 35.3	1.226	2.143	15.2	18.5	8 19	19 40.62	-19 43.9	1.633	2.544	12.4	21.5
8 29	19 35.62	-24 57.2	1.283	2.126	19.4	18.8	8 29	19 35.47	-19 57.7	1.701	2.531	15.9	21.7
167488	2003 <i>YN</i> ₆₆		7 21.9 243°36	0°3/21.7	18		174637	2003 <i>SK</i> ₁₃₇		7 22.0 300°79	0°8/22.3	18	
6 20	20 29.27	-18 7.4	2.318	3.194	10.9	19.9	6 20	20 30.56	-17 38.1	1.309	2.209	16.0	20.0
6 30	20 23.69	-19 1.9	2.229	3.178	7.9	19.7	6 30	20 25.67	-17 47.4	1.228	2.188	11.8	19.7
7 10	20 16.37	-20 3.9	2.166	3.162	4.4	19.5	7 10	20 17.95	-18 6.4	1.168	2.167	6.8	19.3
7 20	20 7.85	-21 9.6	2.130	3.146	0.7	19.2	7 20	20 8.21	-18 31.9	1.131	2.146	1.5	18.9
7 30	19 58.90	-22 14.5	2.124	3.129	3.2	19.3	7 30	19 57.74	-18 59.4	1.118	2.126	4.5	19.1
8 9	19 50.41	-23 14.5	2.146	3.112	6.9	19.5	8 9	19 48.12	-19 24.6	1.129	2.106	10.1	19.3
8 19	19 43.18	-24 6.7	2.194	3.094	10.2	19.7	8 19	19 40.72	-19 44.6	1.161	2.086	15.2	19.6
8 29	19 37.89	-24 49.6	2.266	3.075	13.1	19.9	8 29	19 36.57	-19 57.6	1.212	2.067	19.6	19.8
138296	2000 <i>GE</i> ₄₀		7 21.9 206°78	3°1/20.5	17		250534	2004 <i>QW</i> ₄		7 22.0 331°58	0°8/22.3	18	
6 20	20 34.14	-26 56.8	1.927	2.813	12.3	21.0	6 20	20 29.30	-18 59.1	1.825	2.713	12.8	19.4
6 30	20 27.43	-27 37.0	1.856	2.808	8.9	20.8	6 30	20 23.92	-18 39.5	1.748	2.701	9.3	19.2
7 10	20 18.53	-28 16.6	1.809	2.803	5.4	20.6	7 10	20 16.56	-18 23.5	1.694	2.691	5.4	18.9
7 20	20 8.22	-28 50.4	1.788	2.797	3.1	20.4	7 20	20 7.93	-18 9.7	1.665	2.680	1.3	18.6
7 30	19 57.57	-29 14.0	1.795	2.791	5.1	20.5	7 30	19 59.00	-17 56.6	1.663	2.670	3.5	18.8
8 9	19 47.75	-29 25.1	1.829	2.784	8.7	20.7	8 9	19 50.84	-17 43.1	1.688	2.661	7.7	19.0
8 19	19 39.77	-29 23.4	1.888	2.777	12.1	20.9	8 19	19 44.34	-17 28.5	1.737	2.652	11.5	19.2
8 29	19 34.34	-29 10.8	1.967	2.769	15.1	21.1	8 29	19 40.19	-17 12.4	1.807	2.644	14.8	19.4
166669	2002 <i>TQ</i> ₆₁		7 21.9 241°67	0°5/21.8	18		376384	2012					