

EPHEMERIDES

8 4.9

8 5.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
287085	2002 <i>RN</i> ₆₉		8 4.9 284°55	3°0/ 3.4 18			180266	2003 <i>WQ</i> ₃₄		8 5.0 263°11	4°6/ 2.3 18	R	
6 30	21 29.16	-22 4.2	1.563	2.434	15.5	20.9	6 30	21 29.02	-24 40.3	1.494	2.370	15.8	20.4
7 10	21 24.58	-22 36.3	1.470	2.409	11.9	20.6	7 10	21 24.41	-25 36.5	1.423	2.364	12.1	20.2
7 20	21 17.11	-23 14.4	1.398	2.384	7.8	20.3	7 20	21 16.92	-26 36.6	1.373	2.357	8.1	19.9
7 30	21 7.33	-23 52.4	1.350	2.359	3.8	20.0	7 30	21 7.26	-27 32.9	1.346	2.350	4.9	19.7
8 9	20 56.35	-24 23.6	1.327	2.333	4.2	19.9	8 9	20 56.64	-28 17.2	1.345	2.343	5.7	19.7
8 19	20 45.53	-24 42.4	1.330	2.307	8.6	20.1	8 19	20 46.48	-28 43.7	1.368	2.336	9.5	19.9
8 29	20 36.32	-24 45.7	1.357	2.281	13.3	20.3	8 29	20 38.16	-28 50.2	1.415	2.329	13.6	20.2
9 8	20 29.85	-24 33.3	1.404	2.255	17.4	20.5	9 8	20 32.67	-28 37.8	1.482	2.322	17.2	20.4
59914	1999 <i>RX</i> ₁₅₇		8 4.9 9°62	7°7/ 1.3 18			318213	2004 <i>RZ</i> ₁₈₃		8 5.0 311°87	9°9/ 29.7 18		
6 30	21 31.39	-36 11.9	1.659	2.525	14.9	18.2	6 30	21 38.71	-46 53.6	2.174	2.995	13.5	20.0
7 10	21 25.86	-36 43.5	1.602	2.527	12.0	18.1	7 10	21 31.27	-47 38.1	2.112	2.988	11.8	19.9
7 20	21 17.52	-37 5.7	1.567	2.530	9.3	17.9	7 20	21 20.94	-48 7.8	2.071	2.981	10.4	19.8
7 30	21 7.30	-37 11.1	1.555	2.534	7.8	17.8	7 30	21 8.66	-48 14.9	2.054	2.974	9.9	19.8
8 9	20 56.53	-36 54.4	1.568	2.538	8.4	17.9	8 9	20 55.80	-47 54.4	2.060	2.967	10.5	19.8
8 19	20 46.59	-36 14.4	1.605	2.544	10.7	18.0	8 19	20 43.82	-47 5.4	2.091	2.960	12.0	19.9
8 29	20 38.72	-35 13.4	1.665	2.550	13.6	18.2	8 29	20 33.99	-45 50.9	2.144	2.954	13.8	20.0
9 8	20 33.68	-33 56.2	1.745	2.556	16.3	18.4	9 8	20 27.11	-44 16.7	2.218	2.947	15.6	20.1
373769	2002 <i>TE</i> ₂₆₈		8 4.9 303°16	2°2/ 3.9 18			342946	2009 <i>AY</i> ₃₆		8 5.0 312°83	3°1/ 2.7 18		
6 30	21 28.03	-20 52.2	1.388	2.265	16.6	20.8	6 30	21 24.81	-21 46.2	1.761	2.632	14.0	20.2
7 10	21 23.93	-21 6.8	1.301	2.243	12.8	20.5	7 10	21 20.74	-22 45.1	1.688	2.628	10.6	20.0
7 20	21 16.79	-21 27.4	1.234	2.221	8.3	20.2	7 20	21 14.33	-23 50.2	1.638	2.623	6.8	19.8
7 30	21 7.24	-21 48.9	1.189	2.200	3.5	19.8	7 30	21 6.22	-24 55.0	1.612	2.619	3.6	19.6
8 9	20 56.47	-22 4.8	1.169	2.178	3.6	19.8	8 9	20 57.35	-25 52.7	1.613	2.615	4.2	19.6
8 19	20 45.96	-22 10.4	1.174	2.157	8.6	20.0	8 19	20 48.83	-26 37.8	1.640	2.611	7.8	19.8
8 29	20 37.25	-22 2.8	1.201	2.136	13.7	20.2	8 29	20 41.74	-27 6.9	1.691	2.608	11.6	20.0
9 8	20 31.50	-21 42.0	1.248	2.116	18.1	20.4	9 8	20 36.92	-27 19.6	1.764	2.604	14.9	20.2
28940	2000 <i>UD</i> ₁		8 4.9 5°17	1°3/ 4.2 18			97150	1999 <i>VW</i> ₁₅₆		8 5.0 68°07	6°3/ 30.6 18	R	
6 30	21 20.08	-17 39.4	1.375	2.260	16.3	17.6	6 30	21 26.32	-33 42.4	2.213	3.074	11.9	18.4
7 10	21 17.47	-18 9.8	1.314	2.261	12.3	17.4	7 10	21 21.50	-34 56.0	2.159	3.083	9.4	18.2
7 20	21 12.34	-18 50.0	1.273	2.262	7.8	17.1	7 20	21 14.60	-36 4.9	2.130	3.092	7.3	18.1
7 30	21 5.41	-19 34.8	1.254	2.265	3.0	16.9	7 30	21 6.25	-37 2.6	2.126	3.101	6.3	18.1
8 9	20 57.79	-20 17.8	1.259	2.270	2.8	16.9	8 9	20 57.36	-37 43.6	2.148	3.110	7.1	18.1
8 19	20 50.68	-20 53.2	1.289	2.276	7.5	17.2	8 19	20 48.92	-38 4.9	2.196	3.119	9.1	18.3
8 29	20 45.24	-21 16.9	1.341	2.283	12.0	17.5	8 29	20 41.86	-38 6.1	2.268	3.128	11.4	18.5
9 8	20 42.29	-21 27.2	1.414	2.292	15.8	17.7	9 8	20 36.86	-37 49.2	2.360	3.137	13.5	18.6
194386	2001 <i>VG</i> ₅		8 4.9 88°35	6°2/ 9.9 18	R		123736	2001 <i>AQ</i> ₁₁		8 5.0 247°06	1°2/ 6.1 18		
6 30	21 36.38	+ 3 23.0	2.092	2.841	16.2	21.6	6 30	21 23.08	-11 7.7	2.663	3.491	11.1	20.7
7 10	21 28.36	+ 3 38.2	2.048	2.892	13.4	21.5	7 10	21 18.64	-11 23.8	2.564	3.476	8.6	20.5
7 20	21 18.52	+ 3 33.7	2.025	2.941	10.3	21.4	7 20	21 12.64	-11 48.8	2.488	3.460	5.7	20.3
7 30	21 7.59	+ 3 9.7	2.028	2.989	7.6	21.4	7 30	21 5.51	-12 21.0	2.438	3.445	2.7	20.1
8 9	20 56.47	+ 2 28.8	2.058	3.035	6.2	21.4	8 9	20 57.83	-12 57.6	2.418	3.428	1.6	20.0
8 19	20 46.08	+ 1 35.3	2.118	3.079	7.1	21.5	8 19	20 50.28	-13 35.7	2.426	3.412	4.5	20.2
8 29	20 37.22	+ 0 34.3	2.205	3.122	9.3	21.7	8 29	20 43.54	-14 12.1	2.462	3.395	7.7	20.4
9 8	20 30.42	- 0 28.4	2.318	3.163	11.7	21.9	9 8	20 38.21	-14 44.3	2.523	3.378	10.5	20.5
319416	2006 <i>HG</i> ₃₈		8 5.0 118°25	1°3/ 4.2 17			74789	1999 <i>SY</i> ₅		8 5.0 304°25	0°8/ 4.3 18		
6 30	21 29.26	-16 54.7	1.469	2.334	16.6	21.4	6 30	21 22.75	- 9 31.2	1.366	2.228	17.8	17.6
7 10	21 24.28	-17 41.1	1.408	2.344	12.5	21.1	7 10	21 20.23	-11 25.2	1.257	2.191	13.9	17.3
7 20	21 16.62	-18 38.2	1.368	2.354	7.9	20.9	7 20	21 14.77	-13 54.4	1.168	2.153	9.1	16.9
7 30	21 7.06	-19 39.6	1.352	2.363	3.0	20.6	7 30	21 6.69	-16 53.9	1.104	2.115	3.4	16.5
8 9	20 56.78	-20 38.1	1.363	2.372	2.8	20.6	8 9	20 56.85	-20 11.4	1.067	2.077	3.1	16.3
8 19	20 47.08	-21 27.2	1.398	2.381	7.6	21.0	8 19	20 46.59	-23 29.7	1.056	2.039	9.4	16.6
8 29	20 39.20	-22 2.8	1.459	2.390	12.0	21.2	8 29	20 37.59	-26 31.1	1.071	2.002	15.4	16.8
9 8	20 34.00	-22 23.7	1.540	2.398	15.8	21.5	9 8	20 31.37	-29 3.7	1.107	1.964	20.7	17.0
102383	1999 <i>TH</i> ₁₅₂		8 5.0 301°49	1°4/ 5.9 18			24469	2000 <i>SN</i> ₂₈₇		8 5.0 165°43	5°1/ 8.4 18		
6 30	21 23.97	-11 53.4	1.662	2.516	15.5	19.9	6 30	21 27.46	- 2 19.9	2.121	2.918	14.6	18.7
7 10	21 20.31	-12 2.4	1.564	2.492	12.1	19.6	7 10	21 22.15	- 1 47.9	2.041	2.922	11.9	18.5
7 20	21 14.23	-12 24.7	1.487	2.467	8.1	19.3	7 20	21 14.94	- 1 30.2	1.982	2.925	9.0	18.3
7 30	21 6.24	-12 58.1	1.434	2.442	3.7	19.0	7 30	21 6.39	- 1 27.6	1.947	2.928	6.3	18.2
8 9	20 57.23	-13 38.8	1.406	2.418	2.1	18.8	8 9	20 57.28	- 1 39.0	1.939	2.931	5.1	18.1
8 19	20 48.32	-14 21.7	1.404	2.394	6.7	19.0	8 19	20 48.46	- 2 2.1	1.959	2.933	6.6	18.2
8 29	20 40.71	-15 1.8	1.427	2.370	11.3	19.2	8 29	20 40.80	- 2 33.2	2.005	2.934	9.3	18.4
9 8	20 35.37	-15 35.0	1.471	2.346	15.5	19.4	9 8	20 34.96	- 3 8.1	2.074	2.935	12.2	18.6
359440	2010 <i>MX</i> ₇₅		8 5.0 256°85	4°8/ 1.9 18			85015	Gaskell		8 5.0 178°26	1°0/ 4.4 18		
6 30	21 30.25	-31 5.5	2.261	3.116	11.9	20.6	6 30	21 29.19	-17 33.4	1.854	2.708	14.2	20.5
7 10	21 24.36	-31 30.9	2.186	3.111	9.3	20.4	7 10	21 23.82	-18 3.7	1.780	2.709	10.8	20.3
7 20	21 16.36	-31 52.4	2.135	3.106	6.7	20.2	7 20	21 16.18	-18 41.5	1.727	2.710	6.8	20.1
7 30	21 6.90	-32 4.9	2.109	3.101	4.9	20.1	7 30	21 6.90	-19 22.6	1.701	2.711	2.6	19.8
8 9	20 56.90	-32 4.4	2.111	3.096	5.4	20.1	8 9	20 56.94	-20 1.6	1.701	2.711	2.3	19.8
8 19	20 47.34	-31 48.7	2.140	3.091	7.8	20.3	8 19	20 47.37	-20 34.1	1.729	2.711	6.5	20.0
8 29	20 39.18	-31 18.1	2.195	3.085	10.5	20.4	8 29	20 39.24	-20 57.1	1.783	2.710	10.5	20.3
9 8	20 33.11	-30 34.6	2.273	3.080	13.1	20.6	9 8	20 33.33	-21 9.3	1.859	2.708	13.9	20.5
275473	2011 <i>DZ</i> ₂₂		8 5.0 196°95	0°9/ 4.4 18			273590	2007 <i>CR</i> ₄₇		8 5.0 280°29	0°6/		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
301767	2010 <i>JX</i> ₇₃		8 5.0 358°65	2°9/ 3.2 18			493684	2015 <i>SU</i> ₁		8 5.0 236°78	0°8/ 4.4 17		
6 30	21 24.41	-21 35.5	1.629	2.504	14.7	20.4	6 30	21 25.91	-19 12.5	2.935	3.775	9.9	21.9
7 10	21 20.53	-22 18.9	1.561	2.503	11.1	20.2	7 10	21 20.63	-19 20.7	2.839	3.762	7.5	21.7
7 20	21 14.24	-23 7.8	1.515	2.501	7.1	19.9	7 20	21 13.85	-19 31.9	2.768	3.748	4.8	21.5
7 30	21 6.20	-23 56.4	1.492	2.501	3.5	19.7	7 30	21 5.99	-19 43.8	2.724	3.734	1.8	21.3
8 9	20 57.45	-24 38.1	1.496	2.501	4.0	19.7	8 9	20 57.67	-19 53.9	2.709	3.719	1.6	21.2
8 19	20 49.14	-25 8.1	1.525	2.501	7.8	20.0	8 19	20 49.52	-20 0.1	2.724	3.704	4.6	21.4
8 29	20 42.39	-25 23.5	1.578	2.502	11.7	20.2	8 29	20 42.21	-20 0.9	2.768	3.689	7.4	21.6
9 8	20 38.02	-25 24.0	1.652	2.504	15.2	20.4	9 8	20 36.29	-19 55.8	2.836	3.673	10.0	21.7
33131	1998 <i>CW</i> ₃		8 5.0 141°29	0°0/ 4.8 18			235088	2003 <i>HD</i> ₂₂		8 5.0 48°42	10°8/ 28.9 17		
6 30	21 26.57	-14 7.6	2.070	2.914	13.3	18.7	6 30	21 30.66	-38 27.8	1.425	2.299	16.5	19.6
7 10	21 21.54	-14 46.0	2.000	2.923	10.1	18.5	7 10	21 25.97	-40 19.8	1.391	2.313	13.7	19.4
7 20	21 14.58	-15 34.0	1.953	2.933	6.4	18.3	7 20	21 17.98	-42 0.1	1.378	2.328	11.5	19.3
7 30	21 6.26	-16 27.7	1.932	2.942	2.5	18.0	7 30	21 7.67	-43 16.6	1.387	2.344	10.8	19.3
8 9	20 57.42	-17 22.3	1.938	2.950	1.6	18.0	8 9	20 56.62	-44 0.9	1.418	2.360	11.8	19.4
8 19	20 48.94	-18 13.2	1.973	2.958	5.6	18.3	8 19	20 46.50	-44 10.1	1.472	2.376	14.0	19.6
8 29	20 41.69	-18 56.7	2.035	2.965	9.2	18.5	8 29	20 38.80	-43 46.8	1.545	2.392	16.4	19.8
9 8	20 36.33	-19 30.4	2.121	2.972	12.3	18.7	9 8	20 34.38	-42 57.5	1.636	2.409	18.7	20.0
260131	2004 <i>PG</i> ₉₅		8 5.0 306°34	1°0/ 5.5 17			306733	2000 <i>WH</i> ₁₆₇		8 5.0 272°69	2°9/ 6.9 18		
6 30	21 27.46	-15 11.3	2.017	2.863	13.5	20.2	6 30	21 25.25	-7 31.8	1.941	2.770	14.6	21.5
7 10	21 22.49	-14 46.5	1.919	2.842	10.4	19.9	7 10	21 20.97	-7 37.8	1.837	2.746	11.7	21.2
7 20	21 15.37	-14 27.1	1.842	2.821	6.9	19.7	7 20	21 14.53	-7 58.4	1.754	2.721	8.2	21.0
7 30	21 6.65	-14 11.6	1.791	2.800	3.0	19.4	7 30	21 6.39	-8 32.8	1.696	2.697	4.5	20.7
8 9	20 57.16	-13 58.2	1.768	2.779	1.8	19.3	8 9	20 57.35	-9 18.1	1.664	2.672	3.0	20.5
8 19	20 47.86	-13 45.2	1.772	2.759	5.8	19.5	8 19	20 48.35	-10 9.9	1.659	2.646	6.1	20.7
8 29	20 39.75	-13 30.8	1.802	2.738	9.8	19.7	8 29	20 40.43	-11 3.4	1.681	2.620	10.1	20.9
9 8	20 33.63	-13 14.0	1.856	2.718	13.3	19.9	9 8	20 34.47	-11 53.8	1.725	2.594	13.9	21.0
59456	1999 <i>GJ</i> ₃₈		8 5.0 53°75	4°0/ 2.9 18			399840	2005 <i>UZ</i> ₃₂		8 5.0 80°25	4°6/ 8.8 18		
6 30	21 29.24	-21 39.3	1.121	2.011	18.9	18.6	6 30	21 22.47	-1 40.3	2.233	3.033	13.9	21.1
7 10	21 24.78	-22 42.3	1.083	2.031	14.2	18.4	7 10	21 18.30	-1 31.5	2.157	3.039	11.3	21.0
7 20	21 17.11	-23 51.5	1.063	2.052	9.1	18.2	7 20	21 12.47	-1 38.1	2.101	3.046	8.5	20.8
7 30	21 7.28	-24 57.2	1.065	2.073	4.6	18.0	7 30	21 5.48	-2 0.0	2.070	3.052	5.9	20.7
8 9	20 56.86	-25 50.0	1.091	2.095	5.3	18.1	8 9	20 58.02	-2 35.1	2.065	3.058	4.6	20.6
8 19	20 47.44	-26 23.8	1.140	2.117	9.7	18.4	8 19	20 50.84	-3 20.3	2.087	3.065	5.9	20.7
8 29	20 40.42	-26 36.6	1.211	2.139	14.2	18.8	8 29	20 44.68	-4 11.3	2.135	3.071	8.5	20.9
9 8	20 36.60	-26 30.2	1.301	2.162	17.9	19.1	9 8	20 40.12	-5 3.5	2.208	3.077	11.2	21.1
478851	2012 <i>VF</i> ₆₃		8 5.0 230°49	0°8/ 4.5 18			512592	2016 <i>SB</i> ₄₉		8 5.0 177°97	1°6/ 6.2 18		
6 30	21 25.28	-16 37.5	1.995	2.849	13.3	22.1	6 30	21 23.82	-10 19.4	2.016	2.855	13.8	21.7
7 10	21 20.79	-17 12.7	1.914	2.844	10.1	21.9	7 10	21 19.57	-10 37.2	1.938	2.855	10.7	21.5
7 20	21 14.24	-17 56.5	1.856	2.839	6.4	21.7	7 20	21 13.41	-11 7.1	1.881	2.856	7.1	21.3
7 30	21 6.19	-18 44.6	1.823	2.834	2.4	21.4	7 30	21 5.87	-11 46.8	1.850	2.856	3.4	21.0
8 9	20 57.49	-19 32.2	1.818	2.829	2.1	21.4	8 9	20 57.76	-12 32.5	1.845	2.856	2.0	20.9
8 19	20 49.05	-20 14.6	1.840	2.823	6.1	21.7	8 19	20 49.93	-13 19.8	1.868	2.856	5.5	21.2
8 29	20 41.84	-20 48.4	1.889	2.817	9.9	21.9	8 29	20 43.26	-14 4.6	1.917	2.856	9.1	21.4
9 8	20 36.59	-21 11.5	1.960	2.811	13.2	22.1	9 8	20 38.43	-14 43.4	1.990	2.855	12.4	21.6
225844	2001 <i>XP</i> ₁₃₁		8 5.0 240°38	0°3/ 4.8 18			479263	2013 <i>EN</i> ₁₁₁		8 5.0 138°57	4°5/ 1.3 18		
6 30	21 26.79	-15 49.6	1.820	2.674	14.3	20.6	6 30	21 26.27	-29 22.8	2.359	3.219	11.3	20.8
7 10	21 22.14	-16 15.6	1.737	2.667	11.0	20.4	7 10	21 21.30	-30 13.1	2.293	3.222	8.7	20.6
7 20	21 15.22	-16 51.0	1.676	2.659	7.0	20.2	7 20	21 14.43	-31 1.9	2.251	3.224	6.2	20.5
7 30	21 6.60	-17 32.0	1.640	2.651	2.7	19.9	7 30	21 6.24	-31 43.7	2.234	3.227	4.6	20.4
8 9	20 57.22	-18 13.7	1.631	2.642	2.0	19.8	8 9	20 57.54	-32 13.9	2.246	3.229	5.2	20.4
8 19	20 48.12	-18 51.2	1.648	2.633	6.4	20.1	8 19	20 49.21	-32 29.6	2.284	3.231	7.5	20.6
8 29	20 40.36	-19 20.9	1.692	2.624	10.6	20.3	8 29	20 42.10	-32 29.9	2.347	3.234	10.1	20.8
9 8	20 34.79	-19 40.5	1.758	2.615	14.2	20.5	9 8	20 36.85	-32 15.9	2.433	3.236	12.5	20.9
500186	2012 <i>GH</i> ₃		8 5.0 178°22	0°5/ 5.3 17			88574	2001 <i>QM</i> ₂₄₈		8 5.0 325°72	3°2/ 3.6 17		
6 30	21 28.43	-13 19.5	1.782	2.628	14.9	22.3	6 30	21 23.58	-20 31.6	1.036	1.937	19.2	19.0
7 10	21 23.32	-13 46.5	1.706	2.630	11.5	22.1	7 10	21 21.30	-21 6.1	0.964	1.919	14.7	18.7
7 20	21 15.92	-14 25.1	1.652	2.631	7.4	21.8	7 20	21 15.54	-21 51.1	0.910	1.902	9.5	18.3
7 30	21 6.85	-15 11.6	1.622	2.632	3.0	21.6	7 30	21 6.97	-22 39.5	0.875	1.886	4.3	18.0
8 9	20 57.07	-16 0.9	1.620	2.632	1.8	21.5	8 9	20 57.01	-23 21.7	0.862	1.871	4.7	17.9
8 19	20 47.65	-16 47.8	1.645	2.632	6.3	21.8	8 19	20 47.45	-23 49.6	0.871	1.857	10.3	18.2
8 29	20 39.66	-17 28.1	1.696	2.631	10.4	22.0	8 29	20 40.12	-23 58.4	0.899	1.844	15.9	18.5
9 8	20 33.90	-17 58.9	1.770	2.629	14.0	22.2	9 8	20 36.31	-23 47.6	0.945	1.832	20.9	18.7
3939	Huruhata		8 5.0 15°58	12°7/ 25.6 18			12517	Grayzeck		8 5.0 23°18	0°2/ 5.2 17		
6 30	21 36.53	-52 37.3	1.985	2.798	14.9	16.0	6 30	21 23.32	-14 31.7	1.021	1.913	20.1	18.4
7 10	21 30.37	-54 4.1	1.948	2.800	13.6	15.9	7 10	21 20.52	-14 47.0	0.974	1.923	15.3	18.1
7 20	21 20.75	-55 11.9	1.930	2.803	12.9	15.8	7 20	21 14.57	-15 17.6	0.944	1.933	9.8	17.8
7 30	21 8.71	-55 51.3	1.934	2.806	12.8	15.8	7 30	21 6.41	-15 58.4	0.934	1.945	3.8	17.6
8 9	20 55.91	-55 56.8	1.958	2.809	13.5	15.9	8 9	20 57.50	-16 41.9	0.946	1.959	2.4	17.5
8 19	20 44.12	-55 27.5	2.003	2.813	14.7	16.0	8 19	20 49.42	-17 20.8	0.981	1.973	8.2	17.9
8 29	20 34.91	-54 27.0	2.066	2.818	16.1	16.1	8 29	20 43.56	-17 49.9	1.037	1.989	13.5	18.3
9 8	20 29.14	-53 2.0	2.146	2.822	17.5	16.2	9 8	20 40.80	-18 6.2	1.111	2.005	17.9	18.6
308320	2005 <i>MK</i> ₂₉		8 5.0 94°23	3°8/ 7.6 18			463192	2012 <i>BB</i> ₁₂₈		8 5.0 26°20	2°1/ 4.4 17		

EPHEMERIDES

8 5.0

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
500136	2012 <i>CO</i> ₄₆		8 5.0 276°78	7°3/ 3.3	17 C		238012	2002 <i>TV</i> ₃₀₄		8 5.0 32°81	6°1/ 1.3	16	
6 30	21 34.61	-24 1.2	0.487	1.422	27.7	23.1	6 30	21 26.56	-28 39.6	1.475	2.357	15.5	19.6
7 10	21 33.81	-24 38.0	0.424	1.397	22.2	22.6	7 10	21 22.38	-29 46.1	1.428	2.369	12.0	19.4
7 20	21 26.50	-25 29.9	0.371	1.369	15.3	22.1	7 20	21 15.49	-30 51.0	1.402	2.382	8.4	19.2
7 30	21 12.33	-26 23.6	0.330	1.341	8.5	21.5	7 30	21 6.73	-31 45.7	1.400	2.396	6.2	19.1
8 9	20 52.86	-26 56.7	0.303	1.311	9.5	21.3	8 9	20 57.37	-32 22.7	1.422	2.410	7.1	19.2
8 19	20 31.74	-26 48.4	0.289	1.282	18.6	21.5	8 19	20 48.72	-32 38.2	1.469	2.425	10.1	19.4
8 29	20 14.03	-25 51.3	0.286	1.252	28.5	21.7	8 29	20 42.01	-32 31.7	1.538	2.440	13.4	19.6
9 8	20 3.38	-24 15.1	0.290	1.222	37.6	22.0	9 8	20 38.01	-32 6.0	1.626	2.456	16.4	19.9
476306	2007 <i>WW</i> ₃₀		8 5.0 235°71	6°3/ 9.1	18		509248	2006 <i>US</i> ₈		8 5.0 264°11	0°5/ 5.4	17	
6 30	21 25.47	+ 0 19.9	2.108	2.896	14.9	20.7	6 30	21 27.40	-13 43.2	1.668	2.521	15.5	22.8
7 10	21 20.76	+ 1 3.0	2.023	2.892	12.5	20.5	7 10	21 22.93	-14 1.0	1.577	2.505	12.0	22.5
7 20	21 14.17	+ 1 30.6	1.957	2.889	9.8	20.3	7 20	21 15.95	-14 30.8	1.506	2.488	7.8	22.2
7 30	21 6.20	+ 1 41.1	1.915	2.885	7.4	20.1	7 30	21 7.01	-15 9.6	1.460	2.470	3.2	21.9
8 9	20 57.61	+ 1 34.7	1.899	2.880	6.3	20.1	8 9	20 57.09	-15 52.4	1.440	2.452	1.9	21.8
8 19	20 49.24	+ 1 13.4	1.909	2.876	7.3	20.1	8 19	20 47.34	-16 34.0	1.447	2.434	6.8	22.0
8 29	20 41.96	+ 0 40.7	1.946	2.872	9.8	20.3	8 29	20 38.99	-17 9.8	1.478	2.416	11.4	22.3
9 8	20 36.45	+ 0 1.3	2.005	2.867	12.5	20.4	9 8	20 33.01	-17 36.4	1.532	2.397	15.5	22.5
441008	2007 <i>DV</i> ₁₀₀		8 5.0 104°54	3°6/ 2.7	18		32730	1951 <i>RX</i>		8 5.0 313°05	2°8/ 3.9	18	
6 30	21 29.47	-28 4.3	2.329	3.184	11.6	20.7	6 30	21 27.90	-21 48.9	1.142	2.033	18.5	17.3
7 10	21 23.60	-28 22.2	2.261	3.189	8.9	20.5	7 10	21 24.51	-21 57.9	1.059	2.008	14.4	17.0
7 20	21 15.83	-28 37.9	2.217	3.194	6.0	20.3	7 20	21 17.60	-22 12.5	0.995	1.985	9.4	16.6
7 30	21 6.77	-28 47.1	2.199	3.199	3.9	20.2	7 30	21 7.81	-22 26.5	0.951	1.962	4.2	16.2
8 9	20 57.29	-28 46.4	2.210	3.204	4.3	20.2	8 9	20 56.52	-22 32.8	0.930	1.939	4.2	16.2
8 19	20 48.27	-28 34.0	2.248	3.209	6.8	20.4	8 19	20 45.51	-22 26.0	0.932	1.917	9.8	16.4
8 29	20 40.57	-28 9.8	2.312	3.213	9.6	20.6	8 29	20 36.64	-22 3.6	0.954	1.896	15.5	16.6
9 8	20 34.81	-27 35.0	2.400	3.218	12.1	20.8	9 8	20 31.26	-21 26.6	0.994	1.876	20.5	16.9
11503	1990 <i>BF</i>		8 5.0 192°06	0°6/ 4.7	18		172437	2003 <i>QO</i> ₃₇		8 5.0 22°54	0°8/ 5.4	17	
6 30	21 30.28	-17 8.3	1.720	2.575	15.0	17.8	6 30	21 23.92	-13 50.2	0.997	1.889	20.5	19.6
7 10	21 24.85	-17 24.0	1.645	2.574	11.5	17.5	7 10	21 21.07	-13 56.9	0.949	1.897	15.7	19.3
7 20	21 16.97	-17 47.4	1.590	2.573	7.3	17.3	7 20	21 14.98	-14 19.9	0.917	1.906	10.2	19.1
7 30	21 7.31	-18 14.5	1.561	2.571	2.8	17.0	7 30	21 6.61	-14 54.5	0.905	1.916	4.1	18.8
8 9	20 56.90	-18 40.6	1.558	2.569	2.1	17.0	8 9	20 57.44	-15 33.7	0.915	1.927	2.4	18.7
8 19	20 46.91	-19 1.6	1.582	2.566	6.7	17.2	8 19	20 49.09	-16 10.6	0.947	1.940	8.3	19.1
8 29	20 38.47	-19 14.4	1.632	2.563	11.0	17.5	8 29	20 43.02	-16 39.3	1.000	1.954	13.6	19.4
9 8	20 32.43	-19 17.9	1.704	2.560	14.6	17.7	9 8	20 40.13	-16 56.5	1.071	1.968	18.2	19.8
19143	1989 <i>SA</i> ₁₀		8 5.0 236°19	4°5/ 2.7	18		347074	2010 <i>FO</i> ₁₀₀		8 5.0 175°28	1°1/ 5.9	16	
6 30	21 32.04	-25 51.1	1.558	2.428	15.6	18.5	6 30	21 25.03	-11 40.5	1.954	2.797	14.0	21.9
7 10	21 26.63	-26 30.6	1.485	2.422	12.0	18.3	7 10	21 20.57	-12 0.4	1.876	2.797	10.8	21.7
7 20	21 18.33	-27 11.6	1.433	2.415	8.0	18.1	7 20	21 14.10	-12 31.9	1.821	2.798	7.1	21.5
7 30	21 7.88	-27 46.9	1.406	2.409	4.8	17.9	7 30	21 6.20	-13 12.1	1.790	2.798	3.1	21.2
8 9	20 56.52	-28 9.4	1.403	2.402	5.5	17.9	8 9	20 57.68	-13 57.1	1.787	2.798	1.8	21.1
8 19	20 45.67	-28 14.7	1.427	2.395	9.2	18.1	8 19	20 49.48	-14 42.2	1.811	2.798	5.6	21.4
8 29	20 36.69	-28 1.8	1.474	2.387	13.2	18.3	8 29	20 42.50	-15 23.5	1.861	2.798	9.4	21.6
9 8	20 30.55	-27 32.6	1.541	2.379	16.8	18.5	9 8	20 37.45	-15 57.7	1.935	2.798	12.8	21.8
25217	1998 <i>TX</i> ₁		8 5.0 314°73	2°6/ 7.0	18		513730	2012 <i>TS</i> ₂₀₈		8 5.0 271°47	0°5/ 5.3	18	
6 30	21 22.12	- 7 1.6	1.773	2.611	15.4	19.1	6 30	21 26.83	-14 33.6	1.941	2.789	13.8	22.3
7 10	21 18.61	- 7 28.4	1.690	2.605	12.1	18.8	7 10	21 22.15	-14 41.4	1.845	2.770	10.7	22.0
7 20	21 12.99	- 8 12.8	1.628	2.599	8.4	18.6	7 20	21 15.27	-14 58.2	1.771	2.751	7.0	21.8
7 30	21 5.80	- 9 12.6	1.590	2.592	4.5	18.4	7 30	21 6.71	-15 21.2	1.722	2.731	2.8	21.5
8 9	20 57.89	-10 23.3	1.577	2.586	2.8	18.2	8 9	20 57.31	-15 46.9	1.700	2.711	1.7	21.3
8 19	20 50.21	-11 38.8	1.591	2.581	6.0	18.4	8 19	20 48.07	-16 11.6	1.705	2.691	6.0	21.6
8 29	20 43.77	-12 52.7	1.631	2.575	10.0	18.7	8 29	20 40.03	-16 31.8	1.736	2.671	10.2	21.8
9 8	20 39.35	-13 59.6	1.694	2.570	13.7	18.9	9 8	20 34.03	-16 45.3	1.790	2.650	13.8	22.0
256702	2008 <i>AJ</i> ₄		8 5.0 256°71	0°0/ 4.8	18		45821	2000 <i>QS</i> ₁₁₄		8 5.0 61°98	0°8/ 5.5	18	
6 30	21 27.89	-14 18.7	1.668	2.522	15.4	21.6	6 30	21 26.17	-11 43.1	1.280	2.147	18.4	18.9
7 10	21 23.35	-14 48.6	1.576	2.505	11.9	21.3	7 10	21 22.25	-12 20.4	1.221	2.156	14.2	18.7
7 20	21 16.24	-15 31.0	1.505	2.487	7.7	21.0	7 20	21 15.54	-13 15.2	1.182	2.165	9.2	18.5
7 30	21 7.13	-16 22.4	1.458	2.468	3.0	20.7	7 30	21 6.81	-14 22.6	1.165	2.174	3.8	18.2
8 9	20 56.98	-17 16.9	1.437	2.449	2.0	20.6	8 9	20 57.31	-15 34.8	1.172	2.184	2.1	18.1
8 19	20 46.97	-18 8.6	1.443	2.429	7.0	20.8	8 19	20 48.40	-16 43.7	1.203	2.193	7.4	18.4
8 29	20 38.36	-18 52.3	1.475	2.409	11.6	21.1	8 29	20 41.38	-17 42.6	1.258	2.203	12.3	18.8
9 8	20 32.15	-19 24.8	1.528	2.389	15.7	21.3	9 8	20 37.13	-18 27.6	1.334	2.213	16.5	19.0
73643	1978 <i>UA</i> ₅		8 5.0 303°91	1°5/ 4.3	18		69596	1998 <i>FT</i> ₁₄		8 5.0 155°32	3°1/ 3.5	18 R	
6 30	21 26.66	-18 27.6	1.327	2.206	17.2	19.5	6 30	21 31.99	-22 56.0	1.529	2.397	15.9	18.7
7 10	21 23.02	-18 47.0	1.243	2.186	13.2	19.2	7 10	21 26.45	-23 21.5	1.462	2.399	12.1	18.5
7 20	21 16.33	-19 16.2	1.178	2.166	8.5	18.9	7 20	21 18.11	-23 50.2	1.417	2.401	7.8	18.2
7 30	21 7.24	-19 50.1	1.135	2.146	3.4	18.6	7 30	21 7.78	-24 15.9	1.395	2.403	3.8	18.0
8 9	20 56.91	-20 22.1	1.117	2.127	3.1	18.5	8 9	20 56.69	-24 32.9	1.400	2.405	4.1	18.0
8 19	20 46.83	-20 46.3	1.122	2.108	8.5	18.8	8 19	20 46.20	-24 37.0	1.430	2.407	8.2	18.3
8 29	20 38.54	-20 58.4	1.150	2.090	13.7	19.0	8 29	20 37.61	-24 27.1	1.484	2.408	12.4	18.5
9 8	20 33.22	-20 56.9	1.197	2.072	18.3	19.2	9 8	20 31.79	-24 4.3	1.560	2.409	16.1	18.7
417321	2006 <i>BJ</i> ₂₄₇		8 5.0 54°92	2°0/ 4.3	17		264228	2010 <i>RS</i> ₁₆₆		8 5.0 281°29			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
448395	2009 <i>QM</i> ₄₅		8 5.1 333°19	5°4/ 1.5 18			357925	2005 <i>WZ</i> ₁₂₉		8 5.1 1°18	3°8/ 6.6 17		
6 30	21 24.46	-28 59.5	1.747	2.624	13.8	20.5	6 30	21 21.57	-10 17.1	0.887	1.781	22.2	20.3
7 10	21 20.73	-29 45.2	1.668	2.607	10.7	20.3	7 10	21 19.71	-9 47.2	0.831	1.778	17.5	20.0
7 20	21 14.51	-30 30.3	1.611	2.590	7.6	20.0	7 20	21 14.41	-9 37.5	0.791	1.776	12.1	19.7
7 30	21 6.44	-31 7.9	1.578	2.575	5.5	19.9	7 30	21 6.52	-9 47.4	0.769	1.776	6.4	19.4
8 9	20 57.54	-31 31.7	1.571	2.560	6.4	19.9	8 9	20 57.56	-10 12.7	0.767	1.777	4.1	19.2
8 19	20 48.99	-31 37.5	1.587	2.546	9.3	20.1	8 19	20 49.27	-10 46.7	0.785	1.780	9.0	19.5
8 29	20 41.97	-31 24.1	1.628	2.532	12.7	20.2	8 29	20 43.33	-11 22.1	0.823	1.785	14.6	19.9
9 8	20 37.35	-30 52.9	1.688	2.520	15.9	20.4	9 8	20 40.82	-11 52.1	0.878	1.791	19.6	20.2
145783	1998 <i>KF</i>		8 5.1 343°05	1°9/ 6.1 18			516614	2007 <i>TQ</i> ₃₆₂		8 5.1 261°48	4°3/ 1.6 18		
6 30	21 22.09	-11 49.6	1.629	2.488	15.5	19.2	6 30	21 27.37	-27 0.3	2.168	3.029	12.1	21.8
7 10	21 18.77	-11 40.6	1.549	2.478	12.1	18.9	7 10	21 22.52	-27 57.9	2.080	3.011	9.3	21.6
7 20	21 13.18	-11 43.3	1.488	2.468	8.1	18.7	7 20	21 15.50	-28 57.1	2.015	2.993	6.5	21.4
7 30	21 5.91	-11 56.2	1.451	2.458	3.9	18.4	7 30	21 6.82	-29 52.0	1.977	2.974	4.5	21.2
8 9	20 57.89	-12 16.0	1.439	2.450	2.4	18.3	8 9	20 57.35	-30 36.6	1.966	2.955	5.2	21.3
8 19	20 50.17	-12 39.0	1.453	2.443	6.4	18.5	8 19	20 48.05	-31 6.5	1.981	2.936	8.0	21.4
8 29	20 43.82	-13 1.1	1.490	2.436	10.6	18.8	8 29	20 39.96	-31 19.5	2.022	2.916	11.1	21.5
9 8	20 39.67	-13 19.1	1.549	2.431	14.4	19.0	9 8	20 33.90	-31 16.1	2.085	2.896	14.0	21.7
19997	1990 <i>WM</i> ₁		8 5.1 267°87	0°4/ 5.4 18			335591	2006 <i>DY</i> ₁₃₁		8 5.1 217°12	1°8/ 3.7 18		
6 30	21 22.85	-13 7.5	2.247	3.091	12.4	18.9	6 30	21 27.73	-19 50.9	2.117	2.970	12.7	21.7
7 10	21 18.80	-13 40.2	2.156	3.079	9.5	18.7	7 10	21 22.63	-20 29.0	2.033	2.963	9.6	21.5
7 20	21 12.95	-14 23.1	2.087	3.067	6.2	18.5	7 20	21 15.46	-21 12.7	1.972	2.955	6.1	21.3
7 30	21 5.78	-15 13.3	2.045	3.054	2.5	18.3	7 30	21 6.78	-21 57.6	1.938	2.947	2.6	21.1
8 9	20 57.98	-16 6.7	2.030	3.042	1.5	18.1	8 9	20 57.41	-22 38.7	1.932	2.939	2.8	21.1
8 19	20 50.35	-16 58.9	2.044	3.030	5.2	18.4	8 19	20 48.29	-23 12.0	1.953	2.930	6.4	21.3
8 29	20 43.70	-17 46.1	2.084	3.017	8.8	18.6	8 29	20 40.39	-23 34.5	2.001	2.920	9.9	21.5
9 8	20 38.71	-18 25.2	2.148	3.005	12.0	18.8	9 8	20 34.44	-23 45.4	2.072	2.910	13.1	21.7
16252	Franfrost		8 5.1 309°73	1°5/ 5.9 18			478957	2012 <i>XH</i> ₆₆		8 5.1 264°66	1°8/ 6.4 18		
6 30	21 23.71	-11 52.4	1.426	2.291	17.0	17.4	6 30	21 23.43	-9 16.9	1.932	2.771	14.3	21.7
7 10	21 20.48	-12 2.2	1.339	2.272	13.3	17.1	7 10	21 19.44	-9 42.3	1.851	2.767	11.1	21.4
7 20	21 14.57	-12 27.3	1.271	2.252	8.9	16.8	7 20	21 13.46	-10 21.8	1.790	2.764	7.5	21.2
7 30	21 6.55	-13 5.4	1.225	2.234	4.0	16.5	7 30	21 6.02	-11 12.9	1.755	2.760	3.7	21.0
8 9	20 57.44	-13 51.5	1.204	2.215	2.3	16.3	8 9	20 57.93	-12 11.4	1.746	2.757	2.1	20.9
8 19	20 48.51	-14 39.7	1.207	2.197	7.3	16.5	8 19	20 50.09	-13 12.2	1.765	2.753	5.6	21.1
8 29	20 41.12	-15 24.1	1.233	2.180	12.3	16.8	8 29	20 43.42	-14 10.2	1.809	2.750	9.5	21.3
9 8	20 36.32	-16 0.0	1.280	2.163	16.8	17.0	9 8	20 38.66	-15 1.3	1.878	2.746	12.9	21.5
507291	2011 <i>HK</i> ₇₅		8 5.1 130°00	3°0/ 2.7 17			506607	2006 <i>BX</i> ₁₄₃		8 5.1 226°79	1°9/ 6.2 18		
6 30	21 26.94	-20 42.3	1.833	2.697	13.9	21.9	6 30	21 29.60	-11 15.9	2.259	3.083	13.0	22.6
7 10	21 22.23	-21 58.7	1.769	2.705	10.4	21.7	7 10	21 23.88	-11 4.4	2.162	3.071	10.1	22.4
7 20	21 15.27	-23 22.0	1.728	2.713	6.7	21.5	7 20	21 16.20	-11 1.5	2.088	3.058	6.9	22.1
7 30	21 6.68	-24 45.0	1.713	2.720	3.4	21.3	7 30	21 7.07	-11 5.7	2.040	3.044	3.4	21.9
8 9	20 57.43	-26 0.5	1.725	2.727	4.1	21.3	8 9	20 57.25	-11 15.0	2.021	3.030	2.2	21.8
8 19	20 48.58	-27 2.5	1.765	2.734	7.6	21.6	8 19	20 47.61	-11 27.0	2.030	3.015	5.4	22.0
8 29	20 41.16	-27 47.4	1.829	2.741	11.1	21.8	8 29	20 39.05	-11 39.2	2.067	2.999	8.9	22.2
9 8	20 35.95	-28 14.7	1.916	2.747	14.3	22.0	9 8	20 32.30	-11 49.2	2.129	2.983	12.2	22.3
477920	2011 <i>PO</i> ₁₃		8 5.1 351°39	4°6/ 3.6 18			504839	2010 <i>RO</i> ₆₈		8 5.1 346°05	5°2/ 7.9 17		
6 30	21 33.86	-29 6.1	1.455	2.327	16.3	19.9	6 30	21 13.52	-5 32.2	0.896	1.788	22.2	20.0
7 10	21 28.05	-28 54.8	1.385	2.322	12.7	19.7	7 10	21 13.59	-5 24.2	0.829	1.772	18.0	19.7
7 20	21 19.19	-28 37.8	1.336	2.317	8.6	19.4	7 20	21 10.58	-5 45.7	0.778	1.758	13.1	19.3
7 30	21 8.20	-28 9.4	1.310	2.313	5.2	19.2	7 30	21 5.12	-6 37.7	0.743	1.746	7.9	19.0
8 9	20 56.48	-27 25.6	1.309	2.310	5.4	19.2	8 9	20 58.47	-7 55.3	0.728	1.736	5.3	18.8
8 19	20 45.55	-26 25.8	1.334	2.308	9.1	19.5	8 19	20 52.17	-9 28.7	0.732	1.729	9.0	19.0
8 29	20 36.79	-25 12.4	1.383	2.306	13.2	19.7	8 29	20 47.91	-11 5.2	0.755	1.723	14.5	19.3
9 8	20 31.07	-23 49.8	1.453	2.306	16.8	19.9	9 8	20 46.87	-12 32.5	0.796	1.720	19.7	19.6
398661	2012 <i>UL</i> ₅₂		8 5.1 207°51	2°9/ 7.2 18			380206	2001 <i>DK</i> ₈		8 5.1 98°09	5°3/ 5.9 17		
6 30	21 24.92	-6 51.7	2.177	2.997	13.5	22.0	6 30	21 44.34	-12 32.5	1.050	1.904	22.5	19.6
7 10	21 20.33	-6 56.3	2.090	2.993	10.7	21.8	7 10	21 36.53	-10 42.5	0.990	1.914	17.8	19.3
7 20	21 13.90	-7 14.0	2.025	2.989	7.5	21.6	7 20	21 24.86	-8 59.9	0.950	1.923	12.4	19.0
7 30	21 6.14	-7 43.5	1.986	2.984	4.3	21.3	7 30	21 10.45	-7 28.1	0.931	1.932	7.1	18.8
8 9	20 57.79	-8 22.3	1.973	2.980	3.0	21.3	8 9	20 55.14	-6 10.5	0.937	1.941	5.7	18.8
8 19	20 49.66	-9 6.6	1.989	2.974	5.4	21.4	8 19	20 40.97	-5 9.0	0.967	1.950	10.0	19.0
8 29	20 42.58	-9 52.4	2.031	2.969	8.8	21.6	8 29	20 29.71	-4 23.3	1.020	1.959	15.1	19.3
9 8	20 37.24	-10 35.7	2.098	2.963	11.9	21.8	9 8	20 22.38	-3 49.8	1.093	1.967	19.6	19.6
404836	2014 <i>JR</i> ₇₇		8 5.1 315°34	0°6/ 5.5 18			349758	2009 <i>AM</i> ₁₃		8 5.1 22°28	1°1/ 4.3 17		
6 30	21 22.92	-13 17.2	1.900	2.752	13.9	20.9	6 30	21 21.78	-15 4.7	1.468	2.342	16.1	19.7
7 10	21 19.13	-13 37.4	1.815	2.743	10.7	20.7	7 10	21 18.69	-16 7.7	1.408	2.348	12.2	19.4
7 20	21 13.29	-14 8.4	1.752	2.733	7.0	20.4	7 20	21 13.18	-17 24.3	1.368	2.356	7.7	19.2
7 30	21 5.94	-14 47.5	1.714	2.724	2.9	20.1	7 30	21 5.94	-18 48.0	1.353	2.364	2.9	18.9
8 9	20 57.91	-15 30.3	1.703	2.715	1.6	20.0	8 9	20 58.02	-20 10.6	1.363	2.373	2.6	18.9
8 19	20 50.11	-16 12.4	1.718	2.706	5.8	20.3	8 19	20 50.56	-21 24.6	1.398	2.383	7.3	19.2
8 29	20 43.50	-16 49.6	1.759	2.698	9.8	20.5	8 29	20 44.68	-22 24.3	1.457	2.393	11.6	19.5
9 8	20 38.85	-17 18.9	1.823	2.689	13.3	20.7	9 8	20 41.19	-23 6.8	1.537	2.404	15.3	19.8
518575	2007 <i>JP</i> ₄₆		8 5.1 101°32	6°2/ 9.2 17			50393	2000 <i>CN</i> ₉₄		8 5.1 110°73	3°8/ 2.6 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
342530	2008 <i>UK</i> ₂₁₄	8 5.1 279°61	6°2/ 1.3 18				264820	2002 <i>PF</i> ₁₅₁	8 5.1 325°04	0°5/ 4.9 17			
6 30	21 31.56	-31 12.2	1.810	2.674	14.0	21.0	6 30	21 27.04	-18 14.1	1.218	2.101	18.1	19.9
7 10	21 26.21	-31 59.1	1.725	2.654	11.1	20.8	7 10	21 23.46	-18 3.1	1.140	2.084	14.0	19.6
7 20	21 18.11	-32 43.5	1.662	2.634	8.1	20.6	7 20	21 16.70	-17 59.4	1.081	2.069	9.1	19.3
7 30	21 7.90	-33 17.9	1.623	2.613	6.2	20.4	7 30	21 7.47	-17 59.4	1.043	2.054	3.5	18.9
8 9	20 56.71	-33 35.5	1.610	2.593	7.0	20.4	8 9	20 57.07	-17 58.3	1.028	2.040	2.5	18.8
8 19	20 45.85	-33 32.1	1.623	2.572	9.9	20.5	8 19	20 47.06	-17 52.4	1.037	2.027	8.3	19.1
8 29	20 36.64	-33 7.2	1.660	2.551	13.2	20.7	8 29	20 39.04	-17 38.9	1.067	2.014	13.7	19.4
9 8	20 30.08	-32 23.6	1.717	2.530	16.4	20.9	9 8	20 34.14	-17 17.1	1.117	2.003	18.5	19.6
437125	2012 <i>UV</i> ₁₄₅	8 5.1 327°92	0°3/ 5.3 18				20075	1994 <i>BX</i>	8 5.1 99°58	4°5/ 2.2 18			
6 30	21 23.86	-13 17.3	1.719	2.575	14.9	21.6	6 30	21 29.79	-23 59.7	1.488	2.362	15.9	18.5
7 10	21 20.02	-13 51.7	1.642	2.572	11.5	21.3	7 10	21 24.86	-25 11.0	1.433	2.373	12.1	18.3
7 20	21 13.95	-14 38.8	1.587	2.569	7.4	21.1	7 20	21 17.17	-26 26.2	1.399	2.383	8.0	18.1
7 30	21 6.24	-15 34.7	1.556	2.566	2.9	20.8	7 30	21 7.51	-27 36.8	1.390	2.394	4.8	17.9
8 9	20 57.81	-16 33.9	1.552	2.564	1.8	20.7	8 9	20 57.12	-28 34.3	1.407	2.404	5.6	18.0
8 19	20 49.69	-17 30.6	1.574	2.561	6.3	21.0	8 19	20 47.37	-29 13.0	1.448	2.414	9.2	18.2
8 29	20 42.93	-18 19.8	1.621	2.559	10.5	21.3	8 29	20 39.52	-29 30.9	1.513	2.424	13.1	18.5
9 8	20 38.33	-18 58.2	1.690	2.557	14.2	21.5	9 8	20 34.43	-29 29.4	1.598	2.434	16.4	18.7
145084	2005 <i>GE</i> ₅₃	8 5.1 9°68	6°7/ 1.6 18				482353	2011 <i>WH</i> ₇₉	8 5.1 273°41	0°1/ 4.9 18			
6 30	21 28.02	-28 16.2	1.220	2.111	17.5	19.5	6 30	21 24.68	-15 48.5	2.110	2.960	12.8	22.0
7 10	21 24.17	-29 18.8	1.166	2.112	13.6	19.2	7 10	21 20.29	-16 7.4	2.025	2.952	9.8	21.8
7 20	21 17.02	-30 21.3	1.131	2.114	9.6	19.0	7 20	21 13.97	-16 33.9	1.963	2.944	6.3	21.6
7 30	21 7.48	-31 13.4	1.117	2.116	6.8	18.9	7 30	21 6.25	-17 5.2	1.926	2.936	2.4	21.3
8 9	20 57.04	-31 45.9	1.127	2.119	7.8	18.9	8 9	20 57.91	-17 37.2	1.917	2.928	1.6	21.3
8 19	20 47.36	-31 53.8	1.159	2.122	11.4	19.2	8 19	20 49.81	-18 6.5	1.935	2.920	5.6	21.5
8 29	20 39.98	-31 36.6	1.212	2.126	15.4	19.4	8 29	20 42.83	-18 29.8	1.980	2.912	9.3	21.7
9 8	20 35.85	-30 58.1	1.284	2.131	19.0	19.7	9 8	20 37.69	-18 45.3	2.048	2.904	12.5	21.9
253961	2004 <i>DN</i> ₄₅	8 5.1 218°16	17°1/30.2 17				368878	2006 <i>RS</i> ₁₈	8 5.1 319°58	4°6/ 6.7 18			
6 30	21 57.58	-50 18.4	1.178	2.011	21.8	20.4	6 30	21 24.43	- 9 37.4	1.187	2.057	19.4	20.5
7 10	21 48.59	-51 44.3	1.128	2.007	19.6	20.3	7 10	21 21.60	- 8 49.9	1.099	2.031	15.7	20.2
7 20	21 33.50	-52 45.4	1.095	2.002	17.8	20.1	7 20	21 15.65	- 8 15.9	1.028	2.005	11.2	19.9
7 30	21 13.91	-53 2.3	1.080	1.997	17.1	20.1	7 30	21 7.15	- 7 56.7	0.978	1.980	6.5	19.5
8 9	20 53.04	-52 22.3	1.084	1.991	17.8	20.1	8 9	20 57.23	- 7 51.5	0.949	1.957	4.8	19.4
8 19	20 34.47	-50 45.4	1.108	1.984	19.7	20.2	8 19	20 47.41	- 7 57.9	0.943	1.934	8.8	19.5
8 29	20 20.89	-48 23.2	1.150	1.977	22.1	20.4	8 29	20 39.34	- 8 11.5	0.958	1.912	14.1	19.7
9 8	20 13.24	-45 32.4	1.208	1.970	24.7	20.5	9 8	20 34.33	- 8 27.1	0.992	1.891	19.1	19.9
387262	2012 <i>UC</i> ₁₀₂	8 5.1 98°89	5°6/ 1.1 16				73209	2002 <i>JM</i> ₁₉	8 5.1 338°52	3°7/ 2.9 18			
6 30	21 28.89	-29 48.1	1.906	2.772	13.3	20.9	6 30	21 19.24	-19 16.9	1.041	1.945	18.8	18.3
7 10	21 23.72	-30 51.0	1.849	2.780	10.3	20.7	7 10	21 17.93	-20 27.7	0.973	1.930	14.3	18.0
7 20	21 16.21	-31 51.8	1.814	2.788	7.4	20.6	7 20	21 13.38	-21 54.1	0.923	1.916	9.2	17.7
7 30	21 7.07	-32 43.4	1.805	2.796	5.6	20.5	7 30	21 6.26	-23 27.1	0.893	1.904	4.4	17.3
8 9	20 57.33	-33 19.7	1.822	2.804	6.4	20.5	8 9	20 57.88	-24 54.6	0.886	1.892	5.3	17.4
8 19	20 48.12	-33 37.2	1.865	2.812	9.0	20.7	8 19	20 49.88	-26 5.5	0.899	1.882	10.6	17.6
8 29	20 40.50	-33 35.2	1.933	2.820	11.9	20.9	8 29	20 43.97	-26 52.3	0.933	1.874	15.9	17.9
9 8	20 35.20	-33 15.8	2.021	2.828	14.5	21.1	9 8	20 41.35	-27 12.9	0.984	1.867	20.6	18.1
319183	2005 <i>YD</i> ₁₃₁	8 5.1 199°63	0°8/ 4.3 18				445504	2010 <i>VP</i> ₂₁₁	8 5.1 230°12	4°0/ 8.5 18			
6 30	21 22.80	-17 5.3	2.656	3.502	10.6	21.3	6 30	21 22.43	- 2 36.0	2.532	3.329	12.5	21.3
7 10	21 18.46	-17 44.5	2.574	3.500	8.0	21.1	7 10	21 18.22	- 2 27.4	2.442	3.324	10.2	21.1
7 20	21 12.60	-18 29.9	2.516	3.498	5.1	20.9	7 20	21 12.49	- 2 32.0	2.374	3.319	7.6	20.9
7 30	21 5.65	-19 18.1	2.485	3.495	1.9	20.7	7 30	21 5.66	- 2 49.6	2.331	3.314	5.2	20.8
8 9	20 58.23	-20 5.5	2.483	3.493	1.7	20.7	8 9	20 58.34	- 3 18.6	2.315	3.309	4.0	20.7
8 19	20 51.01	-20 48.5	2.509	3.490	4.9	20.9	8 19	20 51.19	- 3 56.4	2.326	3.304	5.4	20.8
8 29	20 44.68	-21 24.3	2.563	3.487	7.9	21.1	8 29	20 44.90	- 4 39.7	2.365	3.299	7.9	20.9
9 8	20 39.78	-21 51.4	2.642	3.483	10.5	21.3	9 8	20 40.04	- 5 24.4	2.429	3.293	10.5	21.1
500163	2012 <i>FS</i>	8 5.1 162°26	1°9/ 3.8 17				61922	2000 <i>RA</i> ₂	8 5.1 22°29	5°1/ 2.2 18			
6 30	21 29.91	-18 56.0	1.789	2.646	14.5	22.3	6 30	21 30.51	-28 3.1	1.644	2.515	14.8	18.1
7 10	21 24.53	-19 46.2	1.720	2.652	10.9	22.1	7 10	21 25.30	-28 44.3	1.580	2.515	11.5	17.9
7 20	21 16.78	-20 43.9	1.673	2.657	6.9	21.9	7 20	21 17.41	-29 24.3	1.537	2.516	7.9	17.7
7 30	21 7.32	-21 43.4	1.651	2.661	2.9	21.6	7 30	21 7.62	-29 56.2	1.518	2.517	5.3	17.5
8 9	20 57.17	-22 38.2	1.657	2.665	3.1	21.6	8 9	20 57.11	-30 13.7	1.525	2.518	6.0	17.6
8 19	20 47.44	-23 23.1	1.690	2.668	7.1	21.9	8 19	20 47.18	-30 13.3	1.557	2.519	9.1	17.8
8 29	20 39.23	-23 54.8	1.749	2.670	11.0	22.1	8 29	20 39.07	-29 54.5	1.613	2.520	12.7	18.0
9 8	20 33.33	-24 12.3	1.830	2.672	14.4	22.4	9 8	20 33.61	-29 19.7	1.690	2.521	15.9	18.2
352309	2007 <i>UZ</i> ₄₆	8 5.1 283°83	3°3/ 7.4 18				118099	2210 <i>T</i> ₋₃	8 5.1 342°51	2°8/ 6.5 18			
6 30	21 23.49	- 6 15.3	1.952	2.779	14.6	21.2	6 30	21 27.17	-10 12.3	1.289	2.150	18.7	19.2
7 10	21 19.60	- 6 18.1	1.855	2.761	11.7	21.0	7 10	21 23.17	-10 1.6	1.219	2.147	14.7	18.9
7 20	21 13.66	- 6 36.1	1.779	2.743	8.3	20.7	7 20	21 16.29	-10 7.1	1.168	2.145	10.0	18.6
7 30	21 6.17	- 7 8.5	1.726	2.724	4.9	20.5	7 30	21 7.26	-10 27.1	1.138	2.144	5.1	18.4
8 9	20 57.88	- 7 52.8	1.700	2.706	3.4	20.3	8 9	20 57.31	-10 57.7	1.132	2.142	3.2	18.2
8 19	20 49.71	- 8 44.9	1.701	2.688	6.0	20.5	8 19	20 47.81	-11 33.3	1.150	2.141	7.6	18.5
8 29	20 42.62	- 9 39.6	1.728	2.669	9.8	20.7	8 29	20 40.17	-12 8.5	1.192	2.140	12.5	18.8
9 8	20 37.42	-10 32.3	1.778	2.651	13.3	20.8	9 8	20 35.35	-12 38.5	1.253	2.139	16.8	19.0
36239	1999 <i>VA</i> ₃₀	8 5.1 7°60	1°4/ 4.1 18				297589	2001 <i>SG</i> ₈₃	8 5.1 275°6				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
516087	2015 TZ ₃₄₅		8 5.1 337°29	4°3/ 8.7	18		278076	2007 AD ₂₂		8 5.1 121°36	1°8/ 3.8	18	
6 30	21 20.60	- 2 11.3	2.109	2.919	14.2	20.8	6 30	21 27.00	-21 58.8	2.307	3.161	11.7	20.4
7 10	21 17.15	- 2 17.6	2.024	2.914	11.6	20.6	7 10	21 21.82	-22 14.3	2.234	3.163	8.9	20.2
7 20	21 11.96	- 2 41.0	1.959	2.910	8.6	20.4	7 20	21 14.82	-22 32.0	2.184	3.166	5.7	20.1
7 30	21 5.49	- 3 20.8	1.918	2.906	5.7	20.2	7 30	21 6.57	-22 48.4	2.161	3.169	2.6	19.9
8 9	20 58.46	- 4 14.5	1.903	2.902	4.3	20.1	8 9	20 57.86	-23 0.0	2.165	3.172	2.7	19.9
8 19	20 51.63	- 5 18.0	1.915	2.898	5.9	20.2	8 19	20 49.51	-23 4.5	2.198	3.175	5.8	20.1
8 29	20 45.81	- 6 26.2	1.953	2.895	8.8	20.4	8 29	20 42.33	-23 0.3	2.258	3.177	8.9	20.3
9 8	20 41.64	- 7 33.8	2.016	2.892	11.8	20.5	9 8	20 36.95	-22 47.6	2.341	3.180	11.7	20.5
238603	2005 AS ₄₈		8 5.1 258°81	0°5/ 5.4	18		509856	2008 YM ₁₃₃		8 5.1 239°35	2°1/ 3.4	18	
6 30	21 25.18	-13 21.9	1.898	2.747	14.1	20.9	6 30	21 26.00	-19 57.1	2.104	2.961	12.6	22.4
7 10	21 20.90	-13 45.5	1.813	2.739	10.8	20.7	7 10	21 21.43	-20 48.4	2.019	2.951	9.5	22.2
7 20	21 14.49	-14 20.1	1.750	2.730	7.1	20.4	7 20	21 14.80	-21 46.4	1.957	2.940	6.1	22.0
7 30	21 6.51	-15 2.6	1.712	2.722	2.9	20.1	7 30	21 6.65	-22 46.0	1.921	2.930	2.8	21.7
8 9	20 57.80	-15 48.6	1.701	2.713	1.7	20.0	8 9	20 57.77	-23 41.8	1.913	2.918	3.1	21.7
8 19	20 49.33	-16 33.3	1.717	2.704	5.9	20.3	8 19	20 49.09	-24 28.8	1.932	2.907	6.6	21.9
8 29	20 42.09	-17 12.5	1.759	2.695	10.0	20.5	8 29	20 41.58	-25 3.7	1.978	2.895	10.1	22.1
9 8	20 36.87	-17 43.3	1.824	2.686	13.5	20.7	9 8	20 35.98	-25 25.2	2.046	2.883	13.3	22.3
254320	2004 RL ₃₄₂		8 5.1 32°20	5°8/ 9.4	18		178194	2006 UE ₂₂₇		8 5.1 133°16	4°2/ 2.9	17	
6 30	21 22.47	- 0 13.9	1.953	2.755	15.5	19.9	6 30	21 31.90	-25 25.1	1.583	2.451	15.4	20.2
7 10	21 18.59	+ 0 10.4	1.882	2.762	12.8	19.7	7 10	21 26.38	-26 2.8	1.519	2.455	11.8	20.0
7 20	21 12.86	+ 0 17.0	1.830	2.770	9.9	19.6	7 20	21 18.13	-26 41.7	1.477	2.459	7.8	19.8
7 30	21 5.83	+ 0 5.2	1.801	2.778	7.1	19.4	7 30	21 7.93	-27 14.9	1.459	2.463	4.6	19.6
8 9	20 58.28	- 0 23.3	1.798	2.786	5.8	19.4	8 9	20 57.01	-27 36.1	1.467	2.467	5.1	19.6
8 19	20 51.05	- 1 5.3	1.820	2.795	6.9	19.4	8 19	20 46.70	-27 41.4	1.501	2.470	8.7	19.8
8 29	20 44.98	- 1 56.0	1.868	2.804	9.5	19.6	8 29	20 38.27	-27 29.9	1.559	2.473	12.5	20.1
9 8	20 40.72	- 2 49.9	1.938	2.813	12.3	19.8	9 8	20 32.56	-27 3.5	1.637	2.476	15.9	20.3
481520	2007 FZ ₄₄		8 5.1 151°13	4°6/ 1.4	18		143915	2003 YC ₇₉		8 5.1 164°36	0°3/ 4.9	18 R	
6 30	21 29.72	-32 25.9	2.708	3.555	10.4	21.7	6 30	21 29.87	-15 50.1	1.854	2.702	14.4	20.6
7 10	21 23.69	-32 58.7	2.643	3.561	8.1	21.5	7 10	21 24.39	-16 13.2	1.781	2.707	11.0	20.4
7 20	21 15.90	-33 27.3	2.602	3.567	6.0	21.4	7 20	21 16.67	-16 44.9	1.730	2.711	7.0	20.2
7 30	21 6.95	-33 47.2	2.587	3.572	4.7	21.3	7 30	21 7.35	-17 21.3	1.704	2.715	2.7	19.9
8 9	20 57.59	-33 55.0	2.601	3.577	5.2	21.4	8 9	20 57.37	-17 57.6	1.706	2.718	1.8	19.9
8 19	20 48.65	-33 48.9	2.643	3.582	7.0	21.5	8 19	20 47.81	-18 29.6	1.736	2.720	6.2	20.2
8 29	20 40.90	-33 28.9	2.711	3.586	9.3	21.7	8 29	20 39.68	-18 53.9	1.791	2.722	10.2	20.4
9 8	20 34.92	-32 56.6	2.802	3.591	11.4	21.8	9 8	20 33.74	-19 9.0	1.870	2.724	13.6	20.6
255821	2006 SB ₆₈		8 5.1 163°59	2°3/ 6.7	17		173815	2001 SG ₂₉₈		8 5.1 265°16	0°7/ 5.6	18	
6 30	21 27.57	- 8 15.0	1.872	2.701	15.0	21.0	6 30	21 24.59	-13 24.6	2.065	2.911	13.2	20.6
7 10	21 22.60	- 8 36.5	1.796	2.706	11.8	20.7	7 10	21 20.26	-13 40.4	1.982	2.905	10.2	20.4
7 20	21 15.50	- 9 12.9	1.741	2.711	8.0	20.5	7 20	21 13.99	-14 5.8	1.920	2.899	6.6	20.1
7 30	21 6.88	-10 1.7	1.711	2.714	4.1	20.3	7 30	21 6.31	-14 38.0	1.885	2.893	2.8	19.9
8 9	20 57.61	-10 58.7	1.708	2.718	2.5	20.2	8 9	20 58.02	-15 13.5	1.876	2.888	1.6	19.8
8 19	20 48.67	-11 58.5	1.733	2.721	5.9	20.4	8 19	20 49.98	-15 48.2	1.895	2.882	5.5	20.0
8 29	20 41.04	-12 56.1	1.784	2.723	9.7	20.7	8 29	20 43.07	-16 18.8	1.940	2.876	9.2	20.2
9 8	20 35.46	-13 47.3	1.859	2.724	13.2	20.9	9 8	20 38.00	-16 42.7	2.008	2.870	12.5	20.4
338713	2003 UD ₆₇		8 5.1 214°73	6°9/ 10.5	18		387791	2003 UW ₃₇₇		8 5.1 224°02	4°6/ 8.8	18	
6 30	21 23.66	+ 3 34.1	1.984	2.763	16.1	21.0	6 30	21 24.22	- 1 12.8	2.259	3.052	13.9	21.9
7 10	21 19.57	+ 3 54.7	1.901	2.761	13.6	20.8	7 10	21 19.83	- 1 14.5	2.165	3.044	11.4	21.7
7 20	21 13.56	+ 3 55.0	1.837	2.759	10.9	20.6	7 20	21 13.66	- 1 32.6	2.092	3.035	8.6	21.5
7 30	21 6.14	+ 3 33.5	1.795	2.757	8.3	20.4	7 30	21 6.19	- 2 7.1	2.043	3.026	5.9	21.3
8 9	20 58.08	+ 2 51.4	1.778	2.755	7.0	20.4	8 9	20 58.09	- 2 55.7	2.021	3.016	4.6	21.2
8 19	20 50.25	+ 1 52.1	1.786	2.753	7.7	20.4	8 19	20 50.14	- 3 55.1	2.027	3.006	6.0	21.3
8 29	20 43.53	+ 0 40.9	1.820	2.751	10.1	20.5	8 29	20 43.15	- 5 0.3	2.060	2.995	8.8	21.4
9 8	20 38.65	- 0 35.5	1.878	2.748	12.8	20.7	9 8	20 37.80	- 6 6.4	2.118	2.985	11.7	21.6
426055	2012 BA ₅₃		8 5.1 251°29	0°4/ 5.3	17		190571	2000 SH ₂₀₆		8 5.1 323°25	3°5/ 7.1	18	
6 30	21 26.35	-12 34.9	1.464	2.324	16.9	21.2	6 30	21 20.94	- 7 44.6	1.358	2.218	18.0	20.1
7 10	21 22.38	-13 14.7	1.387	2.319	13.0	20.9	7 10	21 18.53	- 7 43.0	1.270	2.196	14.4	19.8
7 20	21 15.74	-14 10.7	1.330	2.313	8.5	20.6	7 20	21 13.46	- 8 0.8	1.199	2.174	10.2	19.5
7 30	21 7.08	-15 18.5	1.297	2.307	3.4	20.3	7 30	21 6.29	- 8 37.5	1.150	2.154	5.7	19.2
8 9	20 57.46	-16 31.0	1.289	2.301	2.0	20.2	8 9	20 58.01	- 9 29.4	1.125	2.134	3.7	19.0
8 19	20 48.16	-17 40.7	1.307	2.295	7.2	20.5	8 19	20 49.86	-10 30.8	1.123	2.114	7.5	19.2
8 29	20 40.47	-18 41.1	1.348	2.289	12.0	20.8	8 29	20 43.20	-11 34.1	1.143	2.096	12.4	19.4
9 8	20 35.37	-19 28.0	1.411	2.282	16.2	21.0	9 8	20 39.13	-12 32.4	1.184	2.079	17.0	19.7
285007	2010 XO ₅₅		8 5.1 231°60	0°2/ 4.9	18		332324	Bobmcdonald		8 5.1 169°73	2°1/ 6.8	17	
6 30	21 28.06	-15 10.1	1.805	2.656	14.6	21.6	6 30	21 26.70	- 7 21.8	1.979	2.803	14.5	21.9
7 10	21 23.26	-15 40.7	1.719	2.646	11.2	21.4	7 10	21 21.88	- 8 0.5	1.900	2.807	11.4	21.7
7 20	21 16.10	-16 21.7	1.655	2.636	7.2	21.1	7 20	21 15.04	- 8 55.1	1.842	2.810	7.8	21.5
7 30	21 7.18	-17 9.5	1.615	2.626	2.8	20.8	7 30	21 6.74	-10 2.9	1.810	2.813	4.0	21.3
8 9	20 57.40	-17 58.5	1.603	2.615	1.9	20.7	8 9	20 57.79	-11 18.9	1.806	2.815	2.3	21.2
8 19	20 47.86	-18 43.7	1.618	2.603	6.5	21.0	8 19	20 49.12	-12 37.3	1.829	2.817	5.6	21.4
8 29	20 39.67	-19 20.7	1.659	2.591	10.7	21.2	8 29	20 41.65	-13 52.2	1.880	2.818	9.4	21.6
9 8	20 33.70	-19 47.1	1.722	2.578	14.5	21.5	9 8	20 36.12	-14 59.0	1.956	2.818	12.7	21.9
511691	2015 BC ₅₃₄		8 5.1 216°47	5°8/ 1.5	18		472034	2013 YR ₂₈		8 5.1 149°52	2°4/ 3.2	18	
6 30	21 33.86	-31 59.5											

EPHEMERIDES

8 5.1

8 5.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
49032	1998 <i>QS</i> ₁₀₄		8 5.1 18 ^o 01	1 ^o 0/ 5.8 18			294160	2007 <i>TP</i> ₃₅₇		8 5.1 331 ^o 63	2 ^o 8/ 6.8 18		
6 30	21 22.29	-10 42.4	1.228	2.101	18.7	18.2	6 30	21 23.39	-9 13.4	1.617	2.467	16.1	20.5
7 10	21 19.51	-11 26.2	1.167	2.105	14.4	18.0	7 10	21 19.85	-9 7.5	1.536	2.458	12.7	20.2
7 20	21 13.97	-12 30.1	1.125	2.109	9.4	17.7	7 20	21 14.00	-9 16.1	1.475	2.449	8.8	20.0
7 30	21 6.41	-13 49.2	1.105	2.114	4.0	17.4	7 30	21 6.41	-9 37.9	1.437	2.441	4.7	19.7
8 9	20 58.01	-15 15.0	1.108	2.120	2.1	17.3	8 9	20 58.04	-10 9.7	1.424	2.433	3.0	19.6
8 19	20 50.12	-16 38.4	1.135	2.127	7.5	17.7	8 19	20 49.94	-10 47.1	1.436	2.426	6.5	19.8
8 29	20 44.05	-17 51.3	1.186	2.134	12.5	18.0	8 29	20 43.23	-11 25.3	1.473	2.419	10.7	20.0
9 8	20 40.71	-18 48.5	1.256	2.143	16.8	18.2	9 8	20 38.74	-11 59.8	1.532	2.413	14.6	20.3
12137	Williefowler		8 5.1 1 ^o 72	1 ^o 7/ 4.1 18			479156	2013 <i>CN</i> ₆		8 5.1 294 ^o 78	2 ^o 2/ 6.5 18		
6 30	21 28.05	-20 11.3	1.720	2.584	14.6	18.4	6 30	21 24.77	-10 22.2	1.901	2.741	14.4	21.6
7 10	21 23.24	-20 29.5	1.649	2.584	11.1	18.1	7 10	21 20.62	-10 17.3	1.810	2.727	11.3	21.4
7 20	21 16.04	-20 52.9	1.599	2.584	7.1	17.9	7 20	21 14.37	-10 24.0	1.740	2.713	7.7	21.1
7 30	21 7.14	-21 16.8	1.574	2.584	2.9	17.6	7 30	21 6.54	-10 40.9	1.695	2.699	3.9	20.9
8 9	20 57.57	-21 36.4	1.575	2.584	2.8	17.6	8 9	20 57.96	-11 5.3	1.676	2.685	2.5	20.7
8 19	20 48.44	-21 48.1	1.603	2.585	6.9	17.9	8 19	20 49.56	-11 33.6	1.683	2.672	5.9	20.9
8 29	20 40.86	-21 49.6	1.655	2.585	11.0	18.1	8 29	20 42.35	-12 2.0	1.717	2.658	9.8	21.1
9 8	20 35.61	-21 40.7	1.730	2.585	14.5	18.4	9 8	20 37.11	-12 27.1	1.773	2.645	13.4	21.3
227163	2005 <i>QE</i> ₁₈		8 5.1 312 ^o 55	1 ^o 7/ 6.1 18			256883	2008 <i>DF</i> ₃₇		8 5.1 115 ^o 06	0 ^o 3/ 4.8 18		
6 30	21 22.24	-10 24.2	1.366	2.232	17.6	20.5	6 30	21 25.09	-16 20.5	2.313	3.159	12.0	21.3
7 10	21 19.57	-10 45.2	1.277	2.209	13.8	20.2	7 10	21 20.35	-16 43.0	2.242	3.167	9.1	21.2
7 20	21 14.18	-11 25.0	1.206	2.187	9.3	19.9	7 20	21 13.89	-17 12.0	2.194	3.175	5.7	21.0
7 30	21 6.59	-12 21.6	1.157	2.165	4.3	19.6	7 30	21 6.26	-17 44.3	2.173	3.183	2.2	20.7
8 9	20 57.83	-13 29.4	1.131	2.143	2.4	19.4	8 9	20 58.19	-18 16.3	2.180	3.191	1.6	20.7
8 19	20 49.17	-14 40.9	1.130	2.122	7.5	19.6	8 19	20 50.44	-18 44.7	2.215	3.198	5.1	21.0
8 29	20 42.02	-15 48.3	1.152	2.102	12.7	19.9	8 29	20 43.77	-19 7.1	2.277	3.206	8.4	21.2
9 8	20 37.52	-16 45.4	1.195	2.082	17.4	20.1	9 8	20 38.79	-19 21.8	2.363	3.213	11.2	21.4
233451	2006 <i>HR</i> ₁₁₅		8 5.1 170 ^o 65	6 ^o 5/ 31.0 18			231858	2000 <i>SZ</i> ₁₆₅		8 5.1 269 ^o 16	4 ^o 1/ 2.8 18		
6 30	21 31.62	-34 20.3	2.186	3.039	12.3	20.8	6 30	21 32.90	-26 58.9	1.928	2.785	13.5	21.1
7 10	21 25.72	-35 27.0	2.124	3.042	9.9	20.7	7 10	21 27.07	-27 24.7	1.833	2.763	10.5	20.9
7 20	21 17.52	-36 28.7	2.085	3.045	7.6	20.6	7 20	21 18.65	-27 50.3	1.761	2.740	7.2	20.6
7 30	21 7.69	-37 18.3	2.073	3.047	6.5	20.5	7 30	21 8.25	-28 9.8	1.714	2.716	4.4	20.4
8 9	20 57.23	-37 50.3	2.086	3.048	7.3	20.5	8 9	20 56.89	-28 17.7	1.695	2.692	4.9	20.4
8 19	20 47.22	-38 1.6	2.126	3.050	9.3	20.7	8 19	20 45.77	-28 10.6	1.702	2.667	8.2	20.6
8 29	20 38.72	-37 52.1	2.191	3.050	11.8	20.8	8 29	20 36.12	-27 47.4	1.735	2.642	11.9	20.7
9 8	20 32.48	-37 24.4	2.276	3.051	14.0	21.0	9 8	20 28.90	-27 9.8	1.790	2.617	15.3	20.9
443813	1999 <i>TQ</i> ₆₈		8 5.1 289 ^o 44	5 ^o 3/ 9.4 15			4858	Vorobjov		8 5.1 223 ^o 31	0 ^o 7/ 4.7 18		
6 30	21 22.10	+ 0 5.1	2.263	3.054	14.0	21.6	6 30	21 31.23	-17 6.4	1.527	2.387	16.3	17.9
7 10	21 18.21	+ 0 21.3	2.172	3.046	11.6	21.4	7 10	21 26.06	-17 24.8	1.448	2.381	12.5	17.6
7 20	21 12.63	+ 0 21.5	2.102	3.038	9.0	21.2	7 20	21 18.11	-17 52.3	1.390	2.374	8.0	17.4
7 30	21 5.81	+ 0 5.1	2.055	3.030	6.5	21.1	7 30	21 8.05	-18 24.6	1.356	2.367	3.1	17.0
8 9	20 58.41	- 0 26.6	2.035	3.022	5.3	21.0	8 9	20 57.04	-18 55.8	1.348	2.359	2.4	17.0
8 19	20 51.18	- 1 10.9	2.041	3.014	6.4	21.0	8 19	20 46.41	-19 21.1	1.366	2.351	7.4	17.3
8 29	20 44.89	- 2 3.6	2.073	3.007	8.8	21.2	8 29	20 37.50	-19 36.9	1.408	2.343	12.1	17.5
9 8	20 40.18	- 3 0.0	2.130	2.999	11.6	21.3	9 8	20 31.27	-19 41.7	1.472	2.334	16.2	17.8
100501	1996 <i>XA</i> ₁₉		8 5.1 222 ^o 63	5 ^o 9/ 31.7 18			327164	2005 <i>JX</i> ₂		8 5.1 32 ^o 35	1 ^o 1/ 5.7 17		
6 30	21 31.13	-28 42.5	1.819	2.683	13.9	20.1	6 30	21 25.60	-12 51.9	1.182	2.058	19.0	20.6
7 10	21 25.88	-30 6.4	1.744	2.675	10.9	19.9	7 10	21 22.02	-13 2.5	1.128	2.068	14.6	20.4
7 20	21 17.95	-31 31.8	1.691	2.665	7.8	19.7	7 20	21 15.54	-13 28.5	1.093	2.078	9.5	20.1
7 30	21 7.97	-32 49.9	1.664	2.655	6.0	19.6	7 30	21 7.02	-14 6.1	1.079	2.089	4.0	19.8
8 9	20 57.01	-33 52.4	1.663	2.644	7.0	19.6	8 9	20 57.76	-14 48.7	1.089	2.101	2.2	19.7
8 19	20 46.33	-34 33.6	1.689	2.633	9.9	19.8	8 19	20 49.19	-15 30.1	1.122	2.114	7.5	20.1
8 29	20 37.23	-34 51.4	1.738	2.621	13.2	20.0	8 29	20 42.64	-16 4.6	1.177	2.127	12.5	20.4
9 8	20 30.69	-34 47.3	1.808	2.608	16.2	20.1	9 8	20 38.96	-16 28.8	1.253	2.140	16.7	20.7
58545	1997 <i>EG</i> ₄₃		8 5.1 298 ^o 59	3 ^o 1/ 7.8 18			205413	2001 <i>FX</i> ₈₅		8 5.1 334 ^o 37	2 ^o 0/ 6.3 18		
6 30	21 21.83	- 5 11.4	2.144	2.964	13.7	19.5	6 30	21 22.76	-10 44.1	1.563	2.420	16.2	20.2
7 10	21 18.09	- 5 28.4	2.058	2.959	10.9	19.3	7 10	21 19.47	-10 50.2	1.483	2.411	12.6	19.9
7 20	21 12.59	- 6 0.7	1.993	2.954	7.8	19.1	7 20	21 13.81	-11 10.8	1.423	2.402	8.5	19.7
7 30	21 5.80	- 6 47.0	1.953	2.950	4.6	18.9	7 30	21 6.38	-11 43.7	1.386	2.393	4.1	19.4
8 9	20 58.43	- 7 44.0	1.940	2.945	3.2	18.8	8 9	20 58.12	-12 24.9	1.374	2.385	2.4	19.2
8 19	20 51.27	- 8 47.5	1.954	2.941	5.4	18.9	8 19	20 50.15	-13 9.2	1.387	2.378	6.5	19.5
8 29	20 45.11	- 9 52.4	1.995	2.936	8.7	19.1	8 29	20 43.60	-13 51.3	1.424	2.371	11.0	19.7
9 8	20 40.61	-10 54.0	2.060	2.932	11.8	19.3	9 8	20 39.33	-14 26.9	1.483	2.365	14.9	20.0
514036	2014 <i>LO</i> ₂₂		8 5.1 13 ^o 37	5 ^o 8/ 8.7 18			204085	2003 <i>WY</i> ₄₇		8 5.1 337 ^o 93	3 ^o 8/ 2.4 18		
6 30	21 23.86	- 2 30.3	1.817	2.632	16.0	20.5	6 30	21 24.25	-22 32.5	1.612	2.489	14.7	19.8
7 10	21 19.81	- 1 44.7	1.744	2.635	13.1	20.3	7 10	21 20.68	-23 40.1	1.541	2.484	11.2	19.6
7 20	21 13.75	- 1 15.0	1.692	2.639	10.0	20.1	7 20	21 14.61	-24 54.2	1.493	2.479	7.3	19.4
7 30	21 6.25	- 1 2.4	1.662	2.643	7.1	19.9	7 30	21 6.69	-26 7.4	1.468	2.474	4.1	19.2
8 9	20 58.17	- 1 6.3	1.657	2.648	5.8	19.9	8 9	20 57.94	-27 12.0	1.469	2.470	4.9	19.2
8 19	20 50.43	- 1 24.3	1.678	2.654	7.3	20.0	8 19	20 49.54	-28 1.4	1.496	2.466	8.6	19.4
8 29	20 43.96	- 1 52.2	1.723	2.660	10.1	20.2	8 29	20 42.69	-28 32.2	1.546	2.463	12.5	19.6
9 8	20 39.44	- 2 25.3	1.791	2.667	13.1	20.4	9 8	20 38.27	-28 44.0	1.616	2.460	15.9	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
73905	1997 <i>GB</i> ₁₂		8 5.1 156°85	0°9/ 5.8 18			297031	2010 <i>GE</i> ₁₀₆		8 5.1 27°45	2°7/ 3.2 18		
6 30	21 29.01	-12 18.1	1.886	2.725	14.5	21.0	6 30	21 25.50	-21 3.7	1.830	2.697	13.7	20.5
7 10	21 23.70	-12 38.3	1.813	2.732	11.2	20.8	7 10	21 21.26	-21 56.5	1.761	2.698	10.4	20.2
7 20	21 16.24	-13 9.8	1.761	2.738	7.3	20.5	7 20	21 14.79	-22 55.1	1.714	2.699	6.7	20.0
7 30	21 7.25	-13 49.4	1.736	2.744	3.1	20.3	7 30	21 6.73	-23 53.8	1.692	2.700	3.2	19.8
8 9	20 57.64	-14 32.6	1.737	2.749	1.7	20.2	8 9	20 58.00	-24 46.3	1.697	2.701	3.7	19.9
8 19	20 48.41	-15 15.0	1.766	2.753	5.8	20.5	8 19	20 49.64	-25 27.6	1.728	2.703	7.3	20.1
8 29	20 40.54	-15 52.6	1.822	2.757	9.8	20.7	8 29	20 42.66	-25 54.8	1.785	2.704	10.9	20.3
9 8	20 34.77	-16 22.5	1.901	2.760	13.2	21.0	9 8	20 37.85	-26 7.0	1.863	2.706	14.1	20.5
60477	2000 <i>DE</i> ₃₇		8 5.1 263°79	2°0/ 6.8 18			272836	2006 <i>BH</i> ₇		8 5.1 11°87	0°5/ 4.8 16		
6 30	21 23.02	- 7 24.3	1.990	2.821	14.2	19.1	6 30	21 20.86	-14 45.6	1.174	2.061	18.3	19.9
7 10	21 19.21	- 8 3.9	1.901	2.812	11.2	18.8	7 10	21 18.55	-15 23.5	1.118	2.065	14.0	19.6
7 20	21 13.44	- 9 0.2	1.833	2.803	7.7	18.6	7 20	21 13.42	-16 16.5	1.081	2.070	8.9	19.3
7 30	21 6.21	-10 10.5	1.790	2.794	3.9	18.4	7 30	21 6.26	-17 18.9	1.065	2.076	3.4	19.1
8 9	20 58.27	-11 30.1	1.775	2.785	2.2	18.2	8 9	20 58.31	-18 22.5	1.072	2.084	2.4	19.0
8 19	20 50.49	-12 53.1	1.787	2.776	5.6	18.4	8 19	20 50.94	-19 19.5	1.102	2.093	7.9	19.4
8 29	20 43.80	-14 13.5	1.826	2.766	9.4	18.6	8 29	20 45.46	-20 3.8	1.155	2.103	12.8	19.7
9 8	20 38.93	-15 26.0	1.889	2.757	12.9	18.8	9 8	20 42.75	-20 32.3	1.227	2.114	17.0	20.0
66085	1998 <i>RG</i> ₆₇		8 5.1 321°68	0°7/ 5.6 18			444727	2007 <i>FN</i> ₂₇		8 5.1 37°77	3°2/ 7.9 18		
6 30	21 23.56	-14 9.2	2.030	2.881	13.2	18.6	6 30	21 21.65	- 4 52.1	2.197	3.014	13.5	21.0
7 10	21 19.57	-14 13.1	1.943	2.869	10.2	18.4	7 10	21 17.86	- 5 4.5	2.119	3.017	10.8	20.8
7 20	21 13.63	-14 25.4	1.878	2.858	6.7	18.2	7 20	21 12.40	- 5 31.6	2.062	3.021	7.7	20.6
7 30	21 6.26	-14 43.8	1.838	2.847	2.8	17.9	7 30	21 5.76	- 6 12.0	2.030	3.025	4.7	20.4
8 9	20 58.25	-15 5.4	1.825	2.837	1.6	17.8	8 9	20 58.62	- 7 2.8	2.025	3.029	3.3	20.4
8 19	20 50.47	-15 26.6	1.839	2.827	5.5	18.0	8 19	20 51.73	- 8 0.0	2.048	3.033	5.3	20.5
8 29	20 43.81	-15 44.5	1.878	2.817	9.3	18.2	8 29	20 45.86	- 8 58.9	2.097	3.038	8.3	20.7
9 8	20 39.00	-15 56.9	1.941	2.807	12.6	18.4	9 8	20 41.59	- 9 55.1	2.170	3.042	11.3	20.9
402201	2004 <i>TX</i> ₃₆₇		8 5.1 237°22	2°0/ 3.4 17			474630	2004 <i>TF</i> ₂₆₉		8 5.1 301°58	3°0/ 6.8 16		
6 30	21 24.88	-22 10.0	2.720	3.570	10.3	22.4	6 30	21 24.23	- 8 32.1	1.604	2.451	16.3	22.3
7 10	21 20.13	-22 41.5	2.631	3.560	7.8	22.2	7 10	21 20.79	- 8 31.7	1.503	2.422	13.1	22.0
7 20	21 13.78	-23 15.7	2.568	3.549	5.0	22.0	7 20	21 14.86	- 8 47.4	1.421	2.394	9.1	21.7
7 30	21 6.27	-23 49.1	2.531	3.538	2.4	21.8	7 30	21 6.91	- 9 18.6	1.362	2.365	5.0	21.4
8 9	20 58.26	-24 18.3	2.523	3.527	2.7	21.8	8 9	20 57.83	-10 2.0	1.328	2.337	3.2	21.2
8 19	20 50.43	-24 40.2	2.544	3.516	5.4	22.0	8 19	20 48.74	-10 53.0	1.319	2.308	6.9	21.3
8 29	20 43.50	-24 53.1	2.591	3.504	8.2	22.2	8 29	20 40.92	-11 45.7	1.334	2.280	11.6	21.5
9 8	20 38.07	-24 56.4	2.664	3.492	10.8	22.3	9 8	20 35.41	-12 34.5	1.371	2.252	16.0	21.7
370655	2004 <i>CD</i> ₈		8 5.1 221°51	0°4/ 4.9 17			251779	1999 <i>RL</i> ₇₀		8 5.1 341°70	5°4/ 9.3 18		
6 30	21 29.67	-16 14.1	1.871	2.720	14.2	22.2	6 30	21 20.00	- 0 47.8	1.805	2.619	16.1	20.1
7 10	21 24.42	-16 36.0	1.785	2.712	10.9	22.0	7 10	21 17.06	- 0 45.5	1.720	2.611	13.3	19.9
7 20	21 16.85	-17 6.4	1.721	2.703	7.0	21.8	7 20	21 12.14	- 1 3.5	1.655	2.603	10.1	19.7
7 30	21 7.55	-17 41.7	1.683	2.693	2.7	21.5	7 30	21 5.74	- 1 42.0	1.612	2.596	7.0	19.5
8 9	20 57.44	-18 17.2	1.672	2.683	1.9	21.4	8 9	20 58.65	- 2 38.6	1.594	2.590	5.4	19.4
8 19	20 47.58	-18 48.3	1.688	2.672	6.4	21.7	8 19	20 51.78	- 3 48.8	1.602	2.584	6.9	19.5
8 29	20 39.08	-19 11.7	1.730	2.661	10.5	21.9	8 29	20 46.05	- 5 6.1	1.634	2.579	10.0	19.7
9 8	20 32.77	-19 25.6	1.796	2.649	14.1	22.1	9 8	20 42.22	- 6 23.8	1.690	2.574	13.3	19.9
34645	2000 <i>WT</i> ₆₇		8 5.1 346°83	3°6/ 2.2 18			369027	2007 <i>XC</i> ₄		8 5.1 198°43	3°1/ 7.1 17		
6 30	21 22.52	-22 24.5	1.802	2.677	13.6	18.2	6 30	21 29.41	- 7 30.0	1.861	2.684	15.3	21.8
7 10	21 19.12	-23 38.6	1.731	2.672	10.3	18.0	7 10	21 24.14	- 7 27.6	1.776	2.681	12.2	21.6
7 20	21 13.51	-24 59.0	1.682	2.668	6.7	17.8	7 20	21 16.63	- 7 39.5	1.713	2.678	8.5	21.4
7 30	21 6.26	-26 18.8	1.659	2.664	3.9	17.6	7 30	21 7.48	- 8 4.3	1.674	2.673	4.8	21.2
8 9	20 58.27	-27 30.7	1.661	2.661	4.7	17.6	8 9	20 57.56	- 8 39.3	1.661	2.668	3.2	21.1
8 19	20 50.58	-28 28.5	1.690	2.658	8.0	17.8	8 19	20 47.92	- 9 20.3	1.677	2.662	6.2	21.2
8 29	20 44.23	-29 8.7	1.743	2.655	11.6	18.0	8 29	20 39.57	-10 2.8	1.718	2.656	10.1	21.4
9 8	20 40.02	-29 30.4	1.818	2.654	14.7	18.2	9 8	20 33.35	-10 42.5	1.783	2.649	13.6	21.7
190558	2000 <i>SE</i> ₇₈		8 5.1 353°55	2°6/ 6.5 17			353587	2011 <i>TK</i> ₂		8 5.1 230°63	0°6/ 5.6 18		
6 30	21 20.57	-10 27.5	1.180	2.058	18.9	19.8	6 30	21 25.04	-13 29.3	2.087	2.931	13.1	21.3
7 10	21 18.39	-10 22.2	1.113	2.051	14.9	19.5	7 10	21 20.59	-13 45.6	2.006	2.929	10.1	21.1
7 20	21 13.40	-10 34.7	1.063	2.045	10.1	19.2	7 20	21 14.24	-14 11.1	1.947	2.926	6.6	20.9
7 30	21 6.29	-11 3.1	1.034	2.041	5.0	18.9	7 30	21 6.52	-14 43.3	1.915	2.923	2.7	20.6
8 9	20 58.25	-11 42.8	1.027	2.038	3.0	18.8	8 9	20 58.21	-15 18.4	1.909	2.921	1.5	20.5
8 19	20 50.64	-12 27.4	1.043	2.036	7.6	19.1	8 19	20 50.16	-15 52.6	1.931	2.918	5.4	20.8
8 29	20 44.84	-13 10.3	1.080	2.036	12.6	19.4	8 29	20 43.26	-16 22.6	1.979	2.915	9.1	21.0
9 8	20 41.82	-13 46.0	1.137	2.037	17.1	19.6	9 8	20 38.17	-16 45.9	2.051	2.912	12.3	21.2
135985	2002 <i>UV</i> ₁₆		8 5.1 350°85	8°2/11.5 18			177289	2003 <i>XA</i> ₁		8 5.1 288°69	5°4/ 2.4 18		
6 30	21 18.81	+ 4 44.1	1.533	2.335	19.0	19.3	6 30	21 30.92	-26 54.3	1.417	2.295	16.4	20.2
7 10	21 16.46	+ 4 56.8	1.455	2.329	16.2	19.1	7 10	21 26.29	-27 39.0	1.342	2.282	12.7	20.0
7 20	21 11.89	+ 4 42.0	1.393	2.323	13.1	18.9	7 20	21 18.52	-28 25.2	1.287	2.269	8.7	19.7
7 30	21 5.66	+ 3 57.4	1.352	2.319	10.1	18.7	7 30	21 8.33	-29 4.6	1.255	2.256	5.7	19.5
8 9	20 58.65	+ 2 44.9	1.333	2.315	8.2	18.6	8 9	20 57.04	-29 29.0	1.247	2.244	6.4	19.5
8 19	20 51.89	+ 1 9.9	1.338	2.312	8.9	18.7	8 19	20 46.19	-29 33.4	1.264	2.231	10.2	19.7
8 29	20 46.47	- 0 38.9	1.366	2.310	11.6	18.8	8 29	20 37.34	-29 16.3	1.303	2.219	14.4	19.9
9 8	20 43.21	- 2 31.3	1.417	2.310	14.8	19.0	9 8	20 31.55	-28 40.4	1.362	2.207	18.2	20.1
73915	1997 <i>GD</i> ₄₃		8 5.1 154°28	0°5/ 5.4 17 R			117983	2240 <i>T</i> ₋₁		8 5.1 56°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
67582	2000 <i>SN</i> ₁₁₉		8 5.2 126°95	5°3/ 2.0	18		339347	2005 <i>AU</i> ₆		8 5.2 270°45	2°7/ 3.2	18	
6 30	21 31.42	-26 13.8	1.465	2.340	16.1	18.6	6 30	21 28.11	-21 48.7	2.016	2.875	13.0	20.9
7 10	21 26.36	-27 19.4	1.407	2.345	12.4	18.4	7 10	21 23.38	-22 34.4	1.918	2.850	10.0	20.6
7 20	21 18.37	-28 27.0	1.369	2.350	8.4	18.2	7 20	21 16.35	-23 25.9	1.842	2.825	6.5	20.4
7 30	21 8.25	-29 27.7	1.354	2.355	5.6	18.1	7 30	21 7.53	-24 18.1	1.792	2.799	3.3	20.1
8 9	20 57.30	-30 13.0	1.365	2.359	6.4	18.1	8 9	20 57.76	-25 5.1	1.770	2.773	3.7	20.1
8 19	20 46.98	-30 37.7	1.401	2.364	9.9	18.3	8 19	20 48.06	-25 41.7	1.774	2.747	7.3	20.3
8 29	20 38.64	-30 40.5	1.460	2.368	13.7	18.6	8 29	20 39.55	-26 4.8	1.805	2.720	11.1	20.4
9 8	20 33.21	-30 23.6	1.539	2.372	17.1	18.8	9 8	20 33.13	-26 13.3	1.858	2.692	14.5	20.6
513532	2010 <i>DC</i> ₂		8 5.2 194°86	1°5/ 4.2	18		18682	1998 <i>FH</i> ₁₀₇		8 5.2 351°59	4°8/ 8.4	18	R
6 30	21 31.29	-20 45.9	2.227	3.073	12.4	21.5	6 30	21 23.39	-3 42.6	1.896	2.715	15.3	17.8
7 10	21 25.25	-20 56.3	2.146	3.071	9.4	21.3	7 10	21 19.52	-3 18.4	1.816	2.712	12.4	17.6
7 20	21 17.20	-21 9.6	2.087	3.068	6.0	21.1	7 20	21 13.68	-3 9.7	1.757	2.710	9.3	17.4
7 30	21 7.71	-21 22.2	2.056	3.065	2.5	20.9	7 30	21 6.41	-3 16.8	1.720	2.708	6.2	17.2
8 9	20 57.65	-21 30.7	2.053	3.061	2.4	20.9	8 9	20 58.52	-3 38.3	1.709	2.707	4.8	17.1
8 19	20 47.92	-21 32.5	2.078	3.057	5.9	21.1	8 19	20 50.89	-4 10.9	1.724	2.705	6.5	17.2
8 29	20 39.45	-21 26.2	2.131	3.052	9.3	21.3	8 29	20 44.43	-4 50.5	1.764	2.705	9.7	17.4
9 8	20 32.93	-21 11.8	2.208	3.047	12.4	21.5	9 8	20 39.86	-5 32.0	1.827	2.704	12.8	17.6
237908	2002 <i>PO</i> ₅₄		8 5.2 339°82	7°9/ 31.7	18		286554	2002 <i>CK</i> ₁₇₈		8 5.2 101°91	1°4/ 4.5	17	
6 30	21 23.85	-31 16.5	1.293	2.187	16.6	18.4	6 30	21 33.44	-19 50.4	1.399	2.265	17.2	20.4
7 10	21 21.26	-32 19.4	1.223	2.169	13.2	18.2	7 10	21 27.80	-19 53.9	1.335	2.271	13.1	20.2
7 20	21 15.49	-33 20.4	1.173	2.151	9.9	18.0	7 20	21 19.23	-20 2.9	1.292	2.277	8.4	19.9
7 30	21 7.25	-34 9.4	1.144	2.135	8.0	17.8	7 30	21 8.59	-20 12.5	1.273	2.283	3.3	19.6
8 9	20 57.89	-34 37.0	1.137	2.121	9.0	17.8	8 9	20 57.20	-20 17.6	1.279	2.289	2.8	19.6
8 19	20 48.99	-34 37.5	1.152	2.108	12.3	18.0	8 19	20 46.51	-20 14.9	1.310	2.295	7.7	19.9
8 29	20 42.16	-34 10.0	1.188	2.096	16.1	18.2	8 29	20 37.85	-20 2.7	1.365	2.300	12.4	20.2
9 8	20 38.47	-33 18.2	1.241	2.086	19.6	18.4	9 8	20 32.09	-19 41.4	1.442	2.306	16.3	20.5
233703	2008 <i>SK</i> ₅₈		8 5.2 291°72	1°5/ 6.1	18		355747	2008 <i>HJ</i> ₆₃		8 5.2 81°37	3°5/ 2.1	18	
6 30	21 24.54	-10 54.5	1.706	2.555	15.4	20.8	6 30	21 25.56	-24 45.3	2.240	3.101	11.8	20.7
7 10	21 20.73	-11 13.5	1.621	2.545	12.0	20.6	7 10	21 20.91	-25 49.0	2.184	3.117	8.9	20.6
7 20	21 14.64	-11 46.8	1.557	2.534	8.0	20.3	7 20	21 14.40	-26 54.2	2.152	3.133	5.9	20.4
7 30	21 6.82	-12 31.9	1.516	2.523	3.7	20.1	7 30	21 6.64	-27 55.4	2.147	3.149	3.7	20.3
8 9	20 58.17	-13 24.0	1.501	2.513	2.0	19.9	8 9	20 58.42	-28 47.3	2.170	3.164	4.3	20.4
8 19	20 49.74	-14 17.9	1.513	2.502	6.3	20.2	8 19	20 50.58	-29 26.3	2.220	3.180	6.9	20.6
8 29	20 42.62	-15 8.1	1.550	2.492	10.6	20.4	8 29	20 43.95	-29 50.4	2.296	3.196	9.7	20.8
9 8	20 37.68	-15 50.5	1.609	2.482	14.4	20.6	9 8	20 39.15	-29 59.9	2.394	3.211	12.2	21.0
6866	Kukai		8 5.2 34°67	2°1/ 3.4	18		11401	Pierralba		8 5.2 357°94	4°5/ 3.6	18	
6 30	21 23.45	-19 6.8	2.009	2.871	12.9	16.6	6 30	21 24.18	-24 23.7	0.904	1.815	20.3	15.9
7 10	21 19.54	-20 9.1	1.939	2.874	9.7	16.4	7 10	21 22.07	-24 38.9	0.850	1.810	15.6	15.6
7 20	21 13.66	-21 18.8	1.893	2.878	6.1	16.2	7 20	21 16.21	-24 56.6	0.813	1.806	10.3	15.3
7 30	21 6.37	-22 30.3	1.872	2.881	2.7	15.9	7 30	21 7.57	-25 9.0	0.795	1.803	5.4	15.0
8 9	20 58.49	-23 37.7	1.879	2.885	3.1	16.0	8 9	20 57.83	-25 8.0	0.796	1.803	5.7	15.0
8 19	20 50.90	-24 35.6	1.913	2.889	6.5	16.2	8 19	20 48.94	-24 49.2	0.819	1.805	10.8	15.3
8 29	20 44.52	-25 20.4	1.972	2.893	10.0	16.4	8 29	20 42.67	-24 12.0	0.860	1.808	16.1	15.6
9 8	20 40.04	-25 50.7	2.055	2.897	13.0	16.6	9 8	20 40.06	-23 19.3	0.918	1.813	20.7	15.9
286493	2002 <i>AN</i> ₂₀₉		8 5.2 187°97	2°0/ 3.8	18		477874	2011 <i>HN</i> ₅₂		8 5.2 72°98	5°7/ 9.8	17	
6 30	21 28.01	-22 26.5	2.408	3.259	11.4	20.7	6 30	21 23.90	+ 1 5.6	1.718	2.520	17.3	21.1
7 10	21 22.63	-22 42.9	2.330	3.258	8.6	20.5	7 10	21 19.99	+ 0 55.5	1.650	2.532	14.2	20.9
7 20	21 15.45	-23 1.2	2.276	3.257	5.6	20.3	7 20	21 14.00	+ 0 22.3	1.601	2.544	10.8	20.7
7 30	21 7.03	-23 17.8	2.249	3.257	2.6	20.1	7 30	21 6.53	- 0 33.5	1.575	2.555	7.5	20.6
8 9	20 58.11	-23 29.4	2.250	3.256	2.7	20.1	8 9	20 58.47	- 1 48.3	1.574	2.567	5.8	20.5
8 19	20 49.52	-23 33.5	2.279	3.254	5.7	20.3	8 19	20 50.79	- 3 16.0	1.598	2.579	7.1	20.6
8 29	20 42.05	-23 28.8	2.336	3.253	8.8	20.5	8 29	20 44.45	- 4 49.0	1.649	2.591	10.1	20.8
9 8	20 36.33	-23 15.4	2.416	3.251	11.5	20.7	9 8	20 40.15	- 6 19.8	1.723	2.603	13.3	21.0
423856	2006 <i>QL</i> ₁₃₈		8 5.2 358°84	4°0/ 3.7	16		507972	2015 <i>BZ</i> ₇₆		8 5.2 357°35	3°4/ 3.6	17	
6 30	21 20.88	-23 29.9	0.856	1.774	20.5	20.2	6 30	21 26.93	-22 24.8	1.204	2.094	17.8	20.1
7 10	21 19.62	-23 40.4	0.804	1.767	15.7	19.9	7 10	21 23.39	-22 53.1	1.142	2.091	13.6	19.9
7 20	21 14.66	-23 54.6	0.768	1.763	10.3	19.6	7 20	21 16.70	-23 26.9	1.099	2.088	8.8	19.6
7 30	21 6.95	-24 5.0	0.751	1.761	5.1	19.3	7 30	21 7.69	-23 58.9	1.078	2.087	4.3	19.3
8 9	20 58.16	-24 4.0	0.753	1.761	5.3	19.3	8 9	20 57.75	-24 21.8	1.080	2.087	4.6	19.4
8 19	20 50.21	-23 46.8	0.775	1.764	10.6	19.6	8 19	20 48.44	-24 30.4	1.105	2.087	9.3	19.6
8 29	20 44.84	-23 12.4	0.815	1.768	16.0	20.0	8 29	20 41.24	-24 22.5	1.152	2.088	14.0	19.9
9 8	20 43.06	-22 23.1	0.872	1.775	20.7	20.3	9 8	20 37.15	-23 59.1	1.218	2.091	18.2	20.2
44301	1998 <i>QM</i> ₉₆		8 5.2 43°38	0°6/ 5.4	17		294330	2007 <i>VK</i> ₆₄		8 5.2 309°20	0°8/ 4.6	18	
6 30	21 30.67	-16 30.8	1.598	2.455	15.9	17.9	6 30	21 25.65	-17 34.5	1.808	2.669	14.1	21.0
7 10	21 25.22	-16 7.4	1.535	2.465	12.1	17.7	7 10	21 21.47	-17 54.3	1.726	2.660	10.8	20.8
7 20	21 17.34	-15 50.6	1.494	2.475	7.8	17.5	7 20	21 15.05	-18 21.8	1.667	2.651	6.9	20.5
7 30	21 7.79	-15 37.8	1.476	2.486	3.2	17.2	7 30	21 6.98	-18 53.0	1.631	2.642	2.7	20.3
8 9	20 57.69	-15 26.6	1.485	2.497	1.8	17.2	8 9	20 58.17	-19 23.3	1.623	2.633	2.1	20.2
8 19	20 48.21	-15 14.6	1.520	2.508	6.4	17.5	8 19	20 49.64	-19 48.5	1.640	2.625	6.4	20.5
8 29	20 40.45	-15 0.3	1.581	2.520	10.6	17.8	8 29	20 42.45	-20 5.5	1.683	2.617	10.5	20.7
9 8	20 35.13	-14 42.6	1.663	2.532	14.3	18.0	9 8	20 37.40	-20 12.6	1.748	2.609	14.1	20.9
372847	2010 <i>VK</i> ₁₀₁		8 5.2 221°62	0°3/ 5.4	17		213690	2002 <i>TH</i> ₂₂₉		8 5.2 313°19	7°2/ 10.5	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
60281	1999 <i>XF</i> ₉₅		8 5.2 222°02	1°4/ 4.3	18		395725	2012 <i>UB</i> ₃₁		8 5.2 341°21	4°6/ 2.4	18	
6 30	21 29.82	-18 37.9	1.807	2.662	14.4	20.1	6 30	21 26.82	-25 31.5	1.570	2.448	15.0	20.5
7 10	21 24.69	-19 8.6	1.724	2.655	11.0	19.9	7 10	21 22.78	-26 22.5	1.502	2.443	11.5	20.2
7 20	21 17.15	-19 46.6	1.664	2.647	7.0	19.6	7 20	21 16.09	-27 16.0	1.455	2.439	7.8	20.0
7 30	21 7.82	-20 27.2	1.629	2.639	2.8	19.4	7 30	21 7.45	-28 4.7	1.432	2.435	4.9	19.8
8 9	20 57.67	-21 5.0	1.621	2.630	2.6	19.3	8 9	20 57.99	-28 41.6	1.434	2.431	5.6	19.9
8 19	20 47.81	-21 35.4	1.640	2.621	6.9	19.6	8 19	20 48.97	-29 1.6	1.461	2.428	9.0	20.1
8 29	20 39.37	-21 55.0	1.685	2.612	11.0	19.8	8 29	20 41.66	-29 2.9	1.511	2.426	12.8	20.3
9 8	20 33.23	-22 2.9	1.752	2.602	14.6	20.0	9 8	20 36.93	-28 46.5	1.581	2.423	16.2	20.5
423861	2006 <i>RD</i> ₂		8 5.2 232°23	6°0/10.4	18		352619	2008 <i>FV</i> ₂		8 5.2 85°79	0°2/ 5.0	17	
6 30	21 26.47	+ 3 59.1	2.090	2.857	15.7	21.9	6 30	21 25.69	-15 38.7	2.207	3.053	12.5	21.6
7 10	21 21.88	+ 3 39.0	1.986	2.842	13.3	21.7	7 10	21 20.90	-16 2.5	2.144	3.069	9.4	21.4
7 20	21 15.27	+ 2 55.7	1.902	2.827	10.4	21.5	7 20	21 14.36	-16 33.3	2.105	3.085	6.0	21.2
7 30	21 7.10	+ 1 48.5	1.841	2.810	7.6	21.3	7 30	21 6.65	-17 8.0	2.091	3.101	2.3	21.0
8 9	20 58.10	+ 0 19.7	1.807	2.793	6.0	21.2	8 9	20 58.52	-17 42.6	2.106	3.117	1.5	21.0
8 19	20 49.15	- 1 25.7	1.801	2.775	7.0	21.2	8 19	20 50.79	-18 13.8	2.148	3.133	5.1	21.3
8 29	20 41.21	- 3 20.4	1.823	2.756	9.8	21.3	8 29	20 44.21	-18 38.8	2.218	3.149	8.5	21.5
9 8	20 35.07	- 5 16.3	1.870	2.737	13.0	21.5	9 8	20 39.37	-18 56.1	2.311	3.164	11.4	21.7
254406	2004 <i>TM</i> ₃₂₂		8 5.2 238°03	4°6/ 9.1	18		198360	2004 <i>VX</i> ₁₂		8 5.2 342°05	2°8/ 3.5	18	
6 30	21 22.73	- 1 12.9	2.478	3.269	12.9	20.4	6 30	21 17.56	-18 40.5	1.097	2.000	18.1	18.9
7 10	21 18.58	- 0 56.6	2.392	3.267	10.6	20.2	7 10	21 16.60	-19 31.8	1.024	1.981	13.9	18.6
7 20	21 12.88	- 0 54.2	2.326	3.265	8.1	20.1	7 20	21 12.62	-20 37.5	0.970	1.963	8.9	18.3
7 30	21 6.08	- 1 5.8	2.285	3.263	5.7	19.9	7 30	21 6.25	-21 50.4	0.936	1.947	3.9	18.0
8 9	20 58.79	- 1 30.2	2.271	3.261	4.6	19.8	8 9	20 58.68	-23 0.6	0.923	1.932	4.3	17.9
8 19	20 51.68	- 2 4.9	2.284	3.258	5.7	19.9	8 19	20 51.44	-23 58.7	0.933	1.920	9.6	18.2
8 29	20 45.46	- 2 46.5	2.324	3.256	8.1	20.1	8 29	20 46.10	-24 37.7	0.963	1.909	14.9	18.5
9 8	20 40.69	- 3 31.0	2.388	3.254	10.6	20.2	9 8	20 43.82	-24 54.7	1.010	1.900	19.6	18.7
476672	2008 <i>TX</i> ₃₉		8 5.2 202°88	8°6/30.4	16		233811	2008 <i>UN</i> ₁₅₅		8 5.2 197°56	0°1/ 5.1	16	
6 30	21 33.21	-37 54.0	1.845	2.701	14.1	21.4	6 30	21 26.53	-15 5.8	1.870	2.722	14.1	21.5
7 10	21 27.54	-39 5.2	1.786	2.700	11.6	21.2	7 10	21 22.01	-15 31.9	1.793	2.721	10.8	21.3
7 20	21 19.05	-40 8.0	1.749	2.699	9.5	21.1	7 20	21 15.34	-16 7.5	1.739	2.720	6.9	21.1
7 30	21 8.55	-40 53.8	1.736	2.698	8.6	21.0	7 30	21 7.12	-16 49.1	1.709	2.719	2.7	20.8
8 9	20 57.28	-41 15.8	1.748	2.697	9.4	21.1	8 9	20 58.22	-17 31.8	1.706	2.718	1.7	20.7
8 19	20 46.61	-41 11.0	1.784	2.696	11.5	21.2	8 19	20 49.65	-18 11.0	1.731	2.717	6.0	21.0
8 29	20 37.85	-40 40.5	1.842	2.695	13.9	21.4	8 29	20 42.38	-18 43.1	1.781	2.715	10.0	21.3
9 8	20 31.87	-39 48.7	1.920	2.694	16.3	21.5	9 8	20 37.18	-19 5.7	1.854	2.714	13.4	21.5
328125	2008 <i>AV</i> ₁₁₁		8 5.2 196°76	0°3/ 4.9	17		339189	2004 <i>TC</i> ₁₇₀		8 5.2 311°31	5°9/ 1.5	16	
6 30	21 29.12	-15 7.5	1.781	2.631	14.8	22.2	6 30	21 26.56	-26 43.6	1.440	2.323	15.8	21.3
7 10	21 24.11	-15 39.6	1.703	2.629	11.3	22.0	7 10	21 23.30	-27 47.8	1.346	2.290	12.4	21.0
7 20	21 16.76	-16 22.2	1.646	2.627	7.3	21.7	7 20	21 16.93	-28 57.3	1.273	2.256	8.7	20.7
7 30	21 7.67	-17 11.1	1.614	2.624	2.8	21.4	7 30	21 7.99	-30 3.5	1.224	2.224	6.1	20.4
8 9	20 57.80	-18 0.8	1.609	2.620	1.9	21.4	8 9	20 57.58	-30 56.6	1.198	2.191	7.2	20.4
8 19	20 48.24	-18 46.2	1.631	2.616	6.4	21.6	8 19	20 47.21	-31 28.6	1.195	2.159	11.1	20.5
8 29	20 40.10	-19 23.1	1.679	2.611	10.6	21.9	8 29	20 38.51	-31 35.5	1.214	2.127	15.5	20.7
9 8	20 34.21	-19 49.1	1.750	2.606	14.3	22.1	9 8	20 32.80	-31 18.0	1.252	2.096	19.6	20.9
439153	2011 <i>UM</i> ₂₂₅		8 5.2 358°18	1°0/ 4.5	18		108970	2001 <i>PK</i> ₄₁		8 5.2 5°62	1°5/ 6.1	18	
6 30	21 24.50	-17 12.3	1.838	2.700	13.9	21.1	6 30	21 22.40	-10 17.4	1.284	2.153	18.3	19.1
7 10	21 20.50	-17 46.5	1.765	2.699	10.6	20.9	7 10	21 19.64	-10 50.3	1.218	2.153	14.2	18.8
7 20	21 14.38	-18 29.1	1.714	2.698	6.7	20.6	7 20	21 14.20	-11 42.8	1.171	2.153	9.4	18.5
7 30	21 6.72	-19 15.7	1.687	2.698	2.6	20.4	7 30	21 6.76	-12 50.9	1.146	2.155	4.2	18.2
8 9	20 58.40	-20 1.1	1.688	2.698	2.2	20.3	8 9	20 58.45	-14 7.3	1.145	2.157	2.2	18.1
8 19	20 50.43	-20 40.5	1.714	2.698	6.3	20.6	8 19	20 50.58	-15 23.7	1.168	2.160	7.2	18.4
8 29	20 43.76	-21 10.4	1.766	2.699	10.2	20.8	8 29	20 44.43	-16 32.3	1.213	2.163	12.1	18.7
9 8	20 39.16	-21 29.0	1.841	2.699	13.6	21.1	9 8	20 40.92	-17 27.8	1.280	2.168	16.4	19.0
142387	2002 <i>SV</i> ₁₀		8 5.2 129°07	2°0/ 3.9	17		188374	2004 <i>CW</i> ₃		8 5.2 164°44	0°6/ 4.8	17	
6 30	21 28.67	-19 8.8	1.575	2.442	15.6	20.1	6 30	21 30.01	-16 21.6	1.876	2.724	14.2	21.9
7 10	21 24.00	-19 51.0	1.508	2.445	11.8	19.9	7 10	21 24.60	-16 49.6	1.803	2.729	10.8	21.7
7 20	21 16.77	-20 41.1	1.463	2.448	7.5	19.6	7 20	21 16.97	-17 25.9	1.752	2.734	6.9	21.5
7 30	21 7.68	-21 33.3	1.441	2.451	3.2	19.4	7 30	21 7.75	-18 6.4	1.727	2.737	2.6	21.3
8 9	20 57.82	-22 20.9	1.446	2.454	3.2	19.4	8 9	20 57.87	-18 46.1	1.729	2.740	1.9	21.2
8 19	20 48.43	-22 58.3	1.476	2.457	7.5	19.6	8 19	20 48.37	-19 20.7	1.759	2.743	6.2	21.5
8 29	20 40.71	-23 22.2	1.531	2.460	11.8	19.9	8 29	20 40.29	-19 46.8	1.815	2.745	10.1	21.7
9 8	20 35.50	-23 31.8	1.607	2.462	15.4	20.1	9 8	20 34.37	-20 2.9	1.894	2.746	13.5	22.0
118464	1999 <i>XE</i> ₆₁		8 5.2 282°37	2°0/ 3.5	18		321403	2009 <i>QJ</i>		8 5.2 350°60	0°4/ 5.5	18	
6 30	21 23.95	-20 17.6	2.297	3.154	11.7	19.7	6 30	21 26.04	-15 23.0	2.210	3.054	12.5	20.7
7 10	21 19.84	-21 1.5	2.206	3.138	8.9	19.5	7 10	21 21.28	-15 19.2	2.130	3.054	9.6	20.5
7 20	21 13.87	-21 51.0	2.139	3.122	5.7	19.3	7 20	21 14.69	-15 21.8	2.074	3.053	6.2	20.3
7 30	21 6.53	-22 41.9	2.097	3.106	2.6	19.0	7 30	21 6.83	-15 28.5	2.043	3.052	2.5	20.0
8 9	20 58.51	-23 29.6	2.084	3.090	2.8	19.0	8 9	20 58.45	-15 36.7	2.040	3.052	1.4	20.0
8 19	20 50.65	-24 9.8	2.098	3.074	6.1	19.2	8 19	20 50.38	-15 44.0	2.064	3.051	5.1	20.2
8 29	20 43.79	-24 39.5	2.139	3.057	9.4	19.4	8 29	20 43.43	-15 48.1	2.116	3.051	8.6	20.4
9 8	20 38.64	-24 57.3	2.202	3.041	12.4	19.6	9 8	20 38.23	-15 47.8	2.191	3.051	11.7	20.6
262842	2007 <i>BT</i> ₆		8 5.2 51°22	0°3/ 4.9	18		444366	2005 <i>XP</i> ₇₂		8 5.2 277°68			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
136231	2003 <i>WH</i> ₁₁₈	8 5.2 298°80	6°0/ 1.9 18				248973	2007 <i>CS</i> ₄	8 5.2 359°18	1°5/ 6.6 18			
6 30	21 29.39	-27 8.6	1.363	2.246	16.6	19.5	6 30	21 21.97	-8 41.5	2.171	3.003	13.1	20.2
7 10	21 25.38	-28 7.1	1.288	2.230	12.9	19.2	7 10	21 18.29	-9 25.3	2.089	3.003	10.2	20.0
7 20	21 18.15	-29 8.2	1.232	2.214	9.0	19.0	7 20	21 12.86	-10 23.1	2.030	3.003	6.9	19.8
7 30	21 8.41	-30 3.0	1.199	2.199	6.2	18.8	7 30	21 6.17	-11 32.1	1.997	3.003	3.3	19.6
8 9	20 57.45	-30 41.9	1.190	2.184	7.1	18.8	8 9	20 58.92	-12 47.6	1.991	3.003	1.7	19.5
8 19	20 46.86	-30 58.6	1.204	2.169	10.9	19.0	8 19	20 51.88	-14 4.4	2.014	3.003	5.0	19.7
8 29	20 38.26	-30 51.1	1.240	2.154	15.1	19.2	8 29	20 45.85	-15 17.1	2.063	3.003	8.5	19.9
9 8	20 32.79	-30 21.5	1.295	2.140	19.0	19.4	9 8	20 41.46	-16 21.8	2.138	3.003	11.7	20.2
325970	2010 <i>VN</i> ₁₃₅	8 5.2 274°52	1°8/ 6.6 18				440519	2005 <i>UT</i> ₇₂	8 5.2 294°61	2°3/ 6.8 17			
6 30	21 23.73	-9 58.2	2.393	3.221	12.2	21.7	6 30	21 24.43	-9 1.5	2.177	3.006	13.2	21.8
7 10	21 19.54	-10 5.2	2.293	3.204	9.6	21.5	7 10	21 20.39	-9 6.5	2.063	2.973	10.5	21.6
7 20	21 13.65	-10 22.4	2.216	3.186	6.5	21.2	7 20	21 14.40	-9 23.5	1.971	2.940	7.3	21.3
7 30	21 6.48	-10 48.5	2.164	3.168	3.3	21.0	7 30	21 6.85	-9 51.6	1.904	2.907	3.9	21.1
8 9	20 58.68	-11 20.7	2.140	3.150	2.0	20.9	8 9	20 58.45	-10 28.2	1.864	2.874	2.4	20.9
8 19	20 50.99	-11 56.1	2.144	3.132	4.9	21.1	8 19	20 50.02	-11 9.8	1.852	2.840	5.5	21.1
8 29	20 44.19	-12 31.1	2.175	3.113	8.3	21.2	8 29	20 42.49	-11 52.4	1.866	2.806	9.3	21.2
9 8	20 38.93	-13 2.9	2.231	3.095	11.3	21.4	9 8	20 36.66	-12 32.1	1.904	2.772	12.8	21.4
190542	2000 <i>RR</i> ₇₈	8 5.2 14°71	4°3/ 7.9 17				92006	1999 <i>VR</i> ₁₅₅	8 5.2 188°57	0°4/ 4.8 18			
6 30	21 22.24	-5 12.0	1.335	2.185	18.8	20.4	6 30	21 24.34	-16 47.5	2.787	3.627	10.3	20.9
7 10	21 19.35	-5 15.0	1.270	2.188	15.0	20.2	7 10	21 19.69	-17 12.2	2.704	3.627	7.8	20.7
7 20	21 13.92	-5 40.1	1.223	2.192	10.7	19.9	7 20	21 13.56	-17 42.3	2.646	3.625	5.0	20.5
7 30	21 6.65	-6 25.9	1.198	2.197	6.4	19.7	7 30	21 6.40	-18 15.0	2.614	3.624	1.9	20.3
8 9	20 58.60	-7 27.9	1.196	2.203	4.3	19.6	8 9	20 58.80	-18 47.4	2.611	3.622	1.4	20.3
8 19	20 50.99	-8 39.1	1.218	2.209	7.2	19.8	8 19	20 51.41	-19 16.4	2.638	3.620	4.5	20.5
8 29	20 45.01	-9 51.5	1.264	2.216	11.5	20.0	8 29	20 44.87	-19 40.0	2.692	3.618	7.4	20.7
9 8	20 41.52	-10 58.2	1.330	2.224	15.5	20.3	9 8	20 39.71	-19 56.7	2.771	3.615	10.0	20.8
504430	2008 <i>AR</i> ₅₆	8 5.2 4°81	1°1/ 4.5 17				95262	2002 <i>CL</i> ₆₁	8 5.2 231°32	2°9/ 2.8 18			
6 30	21 22.37	-14 24.9	1.160	2.046	18.7	20.5	6 30	21 26.99	-20 36.9	1.978	2.838	13.2	19.7
7 10	21 19.95	-15 28.9	1.099	2.045	14.2	20.3	7 10	21 22.50	-21 52.8	1.895	2.829	10.0	19.5
7 20	21 14.57	-16 51.4	1.056	2.045	9.1	20.0	7 20	21 15.79	-23 16.6	1.836	2.819	6.5	19.3
7 30	21 6.96	-18 24.9	1.035	2.046	3.4	19.7	7 30	21 7.39	-24 42.1	1.802	2.809	3.3	19.0
8 9	20 58.39	-19 59.2	1.037	2.048	2.9	19.6	8 9	20 58.16	-26 2.1	1.797	2.799	4.0	19.1
8 19	20 50.29	-21 23.8	1.063	2.051	8.5	20.0	8 19	20 49.09	-27 10.1	1.819	2.788	7.4	19.3
8 29	20 44.12	-22 30.9	1.111	2.055	13.6	20.3	8 29	20 41.25	-28 2.0	1.867	2.777	11.0	19.5
9 8	20 40.88	-23 17.0	1.178	2.059	18.0	20.6	9 8	20 35.48	-28 36.3	1.937	2.765	14.2	19.7
80154	1999 <i>TL</i> ₂₀₀	8 5.2 294°37	2°6/ 6.6 18				491769	2012 <i>WO</i> ₄	8 5.2 358°75	0°2/ 5.3 18			
6 30	21 25.84	-9 42.9	1.452	2.306	17.4	19.6	6 30	21 24.15	-16 42.3	1.203	2.089	18.1	20.3
7 10	21 22.33	-9 43.3	1.357	2.282	13.8	19.3	7 10	21 21.17	-16 28.8	1.139	2.084	14.0	20.1
7 20	21 16.09	-10 0.1	1.282	2.258	9.5	19.0	7 20	21 15.27	-16 24.4	1.093	2.081	9.0	19.8
7 30	21 7.62	-10 32.2	1.229	2.234	4.9	18.7	7 30	21 7.22	-16 26.1	1.069	2.080	3.6	19.5
8 9	20 57.93	-11 15.9	1.200	2.210	2.9	18.5	8 9	20 58.31	-16 29.6	1.067	2.080	2.1	19.4
8 19	20 48.28	-12 5.6	1.195	2.186	7.3	18.7	8 19	20 49.96	-16 31.0	1.089	2.081	7.6	19.7
8 29	20 40.08	-12 55.2	1.215	2.162	12.4	18.9	8 29	20 43.54	-16 27.2	1.133	2.084	12.7	20.0
9 8	20 34.47	-13 39.1	1.255	2.139	17.0	19.1	9 8	20 39.99	-16 16.2	1.196	2.088	17.1	20.3
169634	2002 <i>JW</i> ₁₂	8 5.2 194°84	10°8/ 27.1 17				308032	2004 <i>SN</i> ₁₁	8 5.2 288°14	4°3/ 1.9 18			
6 30	21 38.74	-43 25.5	1.907	2.745	14.5	20.3	6 30	21 27.70	-23 43.2	1.766	2.634	14.1	20.5
7 10	21 32.24	-45 19.5	1.853	2.743	12.5	20.2	7 10	21 23.61	-24 55.5	1.666	2.603	10.9	20.3
7 20	21 22.42	-47 2.3	1.821	2.740	11.2	20.1	7 20	21 16.86	-26 15.8	1.588	2.571	7.3	20.0
7 30	21 10.04	-48 22.6	1.813	2.736	10.9	20.1	7 30	21 7.94	-27 36.8	1.536	2.539	4.6	19.8
8 9	20 56.51	-49 12.1	1.829	2.731	11.8	20.1	8 9	20 57.77	-28 50.1	1.510	2.506	5.5	19.7
8 19	20 43.49	-49 27.1	1.867	2.726	13.6	20.2	8 19	20 47.55	-29 48.2	1.510	2.473	9.2	19.9
8 29	20 32.62	-49 9.2	1.927	2.720	15.7	20.4	8 29	20 38.63	-30 26.3	1.534	2.440	13.2	20.0
9 8	20 25.01	-48 24.3	2.004	2.713	17.7	20.5	9 8	20 32.13	-30 43.4	1.578	2.407	16.9	20.2
358926	2008 <i>HV</i> ₁₇	8 5.2 59°95	1°7/ 6.7 18				478408	2012 <i>CQ</i> ₁₈	8 5.2 187°71	4°7/ 10.2 18			
6 30	21 22.47	-8 46.2	2.147	2.979	13.3	20.9	6 30	21 22.50	+ 2 40.9	3.068	3.824	11.4	22.1
7 10	21 18.60	-9 17.9	2.075	2.987	10.3	20.7	7 10	21 18.15	+ 2 48.3	2.976	3.823	9.6	22.0
7 20	21 13.01	-10 2.7	2.024	2.996	7.0	20.5	7 20	21 12.53	+ 2 42.2	2.906	3.822	7.6	21.9
7 30	21 6.20	-10 57.9	1.999	3.004	3.4	20.3	7 30	21 6.00	+ 2 22.3	2.860	3.820	5.7	21.7
8 9	20 58.90	-11 59.3	2.002	3.012	1.9	20.2	8 9	20 59.08	+ 1 49.8	2.842	3.818	4.8	21.7
8 19	20 51.89	-13 2.3	2.032	3.021	5.0	20.5	8 19	20 52.29	+ 1 6.8	2.852	3.816	5.4	21.7
8 29	20 45.94	-14 2.2	2.089	3.029	8.4	20.7	8 29	20 46.20	+ 0 16.3	2.890	3.813	7.1	21.8
9 8	20 41.65	-14 55.3	2.170	3.038	11.5	20.9	9 8	20 41.28	- 0 37.9	2.953	3.809	9.1	22.0
345484	2006 <i>HU</i> ₉₈	8 5.2 71°60	5°7/ 1.1 18				193493	2000 <i>YZ</i> ₇	8 5.2 250°02	1°5/ 6.3 18			
6 30	21 28.60	-29 16.7	1.810	2.679	13.8	21.3	6 30	21 26.44	-10 33.5	2.088	2.921	13.6	21.6
7 10	21 23.87	-30 24.1	1.747	2.680	10.7	21.1	7 10	21 21.89	-10 50.3	1.991	2.905	10.6	21.4
7 20	21 16.67	-31 30.7	1.707	2.682	7.7	21.0	7 20	21 15.31	-11 19.2	1.915	2.888	7.2	21.1
7 30	21 7.69	-32 28.8	1.691	2.683	5.8	20.8	7 30	21 7.20	-11 58.0	1.865	2.871	3.4	20.9
8 9	20 57.99	-33 11.4	1.702	2.685	6.6	20.9	8 9	20 58.31	-12 43.3	1.842	2.853	1.9	20.7
8 19	20 48.74	-33 34.4	1.737	2.686	9.3	21.1	8 19	20 49.52	-13 30.8	1.847	2.835	5.5	20.9
8 29	20 41.09	-33 36.5	1.797	2.688	12.4	21.3	8 29	20 41.79	-14 16.1	1.879	2.816	9.4	21.1
9 8	20 35.86	-33 19.8	1.877	2.689	15.2	21.5	9 8	20 35.90	-14 55.8	1.935	2.797	12.9	21.3
159014	2004 <i>TK</i> ₂₄	8 5.2 174°59	1°1/ 6.2 18				128053	2003 <i>MB</i> ₉	8 5.2 13°32	8°2/ 12.6			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
513143	2002 <i>RM</i> ₁₇₉		8 5.2 298°01	2°1/ 6.7	18		153119	2000 <i>SN</i> ₈₆		8 5.2 9°24	7°0/10.5	16	
6 30	21 24.13	- 9 27.1	1.865	2.705	14.6	21.6	6 30	21 18.26	+ 2 0.1	1.229	2.063	21.0	18.9
7 10	21 20.25	- 9 37.8	1.780	2.697	11.5	21.4	7 10	21 16.52	+ 1 47.9	1.164	2.065	17.5	18.6
7 20	21 14.30	-10 2.1	1.716	2.689	7.8	21.2	7 20	21 12.24	+ 1 3.3	1.116	2.068	13.5	18.4
7 30	21 6.80	-10 38.2	1.677	2.681	4.0	20.9	7 30	21 6.07	- 0 14.0	1.088	2.073	9.4	18.2
8 9	20 58.58	-11 22.4	1.663	2.674	2.3	20.8	8 9	20 59.09	- 1 58.9	1.081	2.078	7.0	18.1
8 19	20 50.58	-12 10.2	1.677	2.666	5.8	21.0	8 19	20 52.51	- 4 1.9	1.098	2.085	8.4	18.2
8 29	20 43.78	-12 56.8	1.716	2.658	9.7	21.2	8 29	20 47.57	- 6 10.7	1.137	2.093	12.1	18.4
9 8	20 38.94	-13 38.2	1.778	2.651	13.3	21.4	9 8	20 45.14	- 8 13.4	1.198	2.103	16.0	18.7
231848	2000 <i>SR</i> ₃₁		8 5.2 283°91	1°5/ 4.3	18		162405	2000 <i>DH</i> ₇₈		8 5.2 200°92	2°0/ 3.9	18	
6 30	21 29.08	-19 6.4	1.796	2.654	14.3	21.4	6 30	21 29.48	-22 1.0	2.193	3.044	12.3	20.5
7 10	21 24.44	-19 28.3	1.694	2.626	11.1	21.1	7 10	21 24.01	-22 19.9	2.114	3.042	9.4	20.3
7 20	21 17.25	-19 57.2	1.614	2.597	7.2	20.8	7 20	21 16.53	-22 41.4	2.058	3.039	6.0	20.1
7 30	21 8.05	-20 29.0	1.558	2.568	2.9	20.5	7 30	21 7.64	-23 1.5	2.028	3.036	2.8	19.8
8 9	20 57.76	-20 58.6	1.530	2.539	2.7	20.4	8 9	20 58.16	-23 16.3	2.027	3.033	2.8	19.8
8 19	20 47.51	-21 21.1	1.527	2.510	7.2	20.6	8 19	20 49.01	-23 23.0	2.053	3.029	6.1	20.0
8 29	20 38.56	-21 33.3	1.550	2.480	11.6	20.8	8 29	20 41.10	-23 20.1	2.106	3.026	9.5	20.2
9 8	20 31.91	-21 33.7	1.596	2.450	15.5	21.0	9 8	20 35.13	-23 7.6	2.183	3.021	12.5	20.4
148076	1998 <i>XJ</i> ₁		8 5.2 252°99	0°0/ 5.1	18		434043	2001 <i>TC</i> ₅₇		8 5.2 314°70	1°5/ 5.9	18	
6 30	21 28.01	-14 50.7	1.820	2.670	14.5	21.2	6 30	21 24.42	-12 28.6	1.374	2.242	17.4	20.7
7 10	21 23.41	-15 17.9	1.728	2.655	11.2	20.9	7 10	21 21.34	-12 30.2	1.287	2.221	13.6	20.4
7 20	21 16.46	-15 56.0	1.658	2.639	7.3	20.6	7 20	21 15.49	-12 46.1	1.218	2.200	9.1	20.1
7 30	21 7.69	-16 41.2	1.613	2.623	2.9	20.3	7 30	21 7.43	-13 14.2	1.172	2.180	4.1	19.7
8 9	20 58.01	-17 28.7	1.594	2.606	1.8	20.2	8 9	20 58.21	-13 50.0	1.149	2.161	2.2	19.5
8 19	20 48.49	-18 13.2	1.602	2.589	6.4	20.5	8 19	20 49.15	-14 28.0	1.150	2.142	7.4	19.8
8 29	20 40.24	-18 50.3	1.637	2.571	10.7	20.7	8 29	20 41.66	-15 2.6	1.175	2.124	12.5	20.0
9 8	20 34.18	-19 17.3	1.694	2.553	14.5	20.9	9 8	20 36.85	-15 29.5	1.219	2.106	17.1	20.3
395295	2011 <i>FJ</i> ₄₇		8 5.2 52°81	19°3/27.8	17		86899	2000 <i>HQ</i> ₄₀		8 5.2 40°84	3°2/ 6.9	18	
6 30	21 22.99	+29 48.9	1.124	1.793	31.3	21.2	6 30	21 27.95	- 9 35.6	1.393	2.246	18.0	18.8
7 10	21 20.45	+30 32.2	1.079	1.811	29.2	21.0	7 10	21 23.56	- 9 13.1	1.331	2.254	14.2	18.6
7 20	21 14.85	+30 21.9	1.040	1.830	26.8	20.9	7 20	21 16.55	- 9 5.5	1.289	2.262	9.8	18.4
7 30	21 7.06	+29 8.7	1.011	1.850	24.1	20.8	7 30	21 7.70	- 9 11.7	1.268	2.271	5.3	18.1
8 9	20 58.47	+26 49.9	0.996	1.870	21.7	20.7	8 9	20 58.14	- 9 28.6	1.272	2.281	3.4	18.0
8 19	20 50.59	+23 30.8	0.997	1.891	19.9	20.7	8 19	20 49.15	- 9 51.8	1.301	2.291	7.0	18.3
8 29	20 44.86	+19 26.9	1.017	1.912	19.3	20.7	8 29	20 41.92	-10 16.8	1.354	2.301	11.4	18.6
9 8	20 42.17	+15 1.3	1.059	1.933	20.1	20.9	9 8	20 37.27	-10 39.4	1.427	2.311	15.3	18.8
320698	2008 <i>DZ</i> ₁₇		8 5.2 3°65	0°3/ 5.4	17		25224	1998 <i>TD</i> ₂₇		8 5.2 52°37	3°7/ 2.7	18	
6 30	21 16.93	-13 2.8	0.929	1.832	20.6	18.8	6 30	21 27.77	-24 37.1	1.813	2.680	13.8	17.8
7 10	21 16.23	-13 33.5	0.875	1.830	15.8	18.5	7 10	21 23.10	-25 23.0	1.748	2.684	10.5	17.6
7 20	21 12.37	-14 24.8	0.838	1.830	10.3	18.2	7 20	21 16.13	-26 11.0	1.706	2.688	7.0	17.4
7 30	21 6.17	-15 31.2	0.820	1.831	4.1	17.9	7 30	21 7.51	-26 55.1	1.688	2.692	4.1	17.3
8 9	20 58.99	-16 43.3	0.823	1.835	2.3	17.8	8 9	20 58.26	-27 29.5	1.697	2.696	4.6	17.3
8 19	20 52.41	-17 51.0	0.846	1.841	8.5	18.1	8 19	20 49.45	-27 50.1	1.732	2.700	7.8	17.5
8 29	20 47.96	-18 45.9	0.890	1.849	14.1	18.5	8 29	20 42.15	-27 55.1	1.791	2.704	11.3	17.7
9 8	20 46.62	-19 22.9	0.951	1.859	18.9	18.8	9 8	20 37.12	-27 45.3	1.872	2.708	14.3	17.9
131835	2002 <i>AJ</i> ₁₁₃		8 5.2 225°47	1°2/ 4.5	18		21674	Renaldowebb		8 5.2 303°27	3°5/ 8.0	18	
6 30	21 29.54	-17 11.2	1.511	2.374	16.3	20.6	6 30	21 22.07	- 3 37.8	1.679	2.508	16.5	18.1
7 10	21 24.91	-17 46.6	1.435	2.370	12.4	20.3	7 10	21 18.99	- 4 16.7	1.588	2.494	13.3	17.9
7 20	21 17.55	-18 32.5	1.380	2.365	8.0	20.0	7 20	21 13.69	- 5 18.8	1.516	2.480	9.6	17.6
7 30	21 8.13	-19 23.5	1.349	2.359	3.1	19.7	7 30	21 6.65	- 6 42.6	1.468	2.466	5.6	17.3
8 9	20 57.77	-20 13.1	1.343	2.354	2.7	19.7	8 9	20 58.72	- 8 23.1	1.445	2.452	3.5	17.2
8 19	20 47.77	-20 54.9	1.364	2.348	7.5	20.0	8 19	20 50.92	-10 12.5	1.449	2.439	6.4	17.3
8 29	20 39.45	-21 24.8	1.408	2.342	12.2	20.2	8 29	20 44.32	-12 2.2	1.479	2.426	10.6	17.5
9 8	20 33.77	-21 41.0	1.474	2.335	16.2	20.5	9 8	20 39.84	-13 43.9	1.531	2.413	14.6	17.8
514876	2008 <i>HS</i> ₄₃		8 5.2 243°14	9°1/27.6	18		453964	2012 <i>BZ</i> ₇₅		8 5.2 43°38	0°6/ 5.6	18	
6 30	21 32.74	-44 41.9	2.397	3.228	12.1	21.4	6 30	21 26.00	-14 51.6	2.181	3.025	12.7	20.8
7 10	21 26.95	-45 59.8	2.337	3.221	10.5	21.3	7 10	21 21.26	-14 49.1	2.107	3.029	9.7	20.7
7 20	21 18.64	-47 7.1	2.300	3.213	9.4	21.2	7 20	21 14.71	-14 53.5	2.055	3.033	6.3	20.5
7 30	21 8.50	-47 56.2	2.286	3.206	9.1	21.1	7 30	21 6.91	-15 2.5	2.028	3.037	2.6	20.2
8 9	20 57.58	-48 21.6	2.298	3.198	9.9	21.2	8 9	20 58.63	-15 13.4	2.029	3.041	1.4	20.1
8 19	20 47.09	-48 20.9	2.332	3.190	11.3	21.3	8 19	20 50.67	-15 23.6	2.058	3.046	5.1	20.4
8 29	20 38.22	-47 55.0	2.389	3.182	13.0	21.4	8 29	20 43.86	-15 31.0	2.114	3.050	8.6	20.6
9 8	20 31.81	-47 7.6	2.464	3.174	14.7	21.5	9 8	20 38.80	-15 33.8	2.194	3.055	11.6	20.8
377580	2005 <i>NC</i> ₃₃		8 5.2 305°56	0°3/ 5.4	18		243781	2000 <i>SC</i> ₂₂		8 5.2 257°05	12°4/27.4	18	
6 30	21 26.21	-14 55.1	1.408	2.277	17.0	20.9	6 30	21 50.62	-52 22.6	2.101	2.893	14.9	21.5
7 10	21 22.67	-15 3.2	1.321	2.257	13.2	20.6	7 10	21 41.51	-53 30.8	2.031	2.873	13.5	21.4
7 20	21 16.32	-15 23.3	1.253	2.237	8.6	20.3	7 20	21 28.43	-54 21.4	1.981	2.852	12.6	21.3
7 30	21 7.73	-15 52.2	1.208	2.218	3.5	20.0	7 30	21 12.42	-54 43.2	1.953	2.832	12.4	21.3
8 9	20 57.99	-16 24.7	1.187	2.199	2.0	19.8	8 9	20 55.31	-54 28.8	1.948	2.810	13.1	21.3
8 19	20 48.43	-16 55.5	1.190	2.180	7.5	20.1	8 19	20 39.22	-53 36.3	1.965	2.788	14.4	21.3
8 29	20 40.47	-17 19.7	1.217	2.162	12.6	20.3	8 29	20 26.01	-52 9.5	2.003	2.766	16.2	21.4
9 8	20 35.21	-17 34.1	1.264	2.144	17.1	20.6	9 8	20 16.77	-50 16.9	2.060	2.743	17.9	21.5
250929	2005 <i>WK</i> ₁₁₇		8 5.2 77°52	9°3/28.1	18 R		436996	2012 <i>TV</i> ₂₁₇		8 5.2			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
373828	2002 <i>XH</i> ₃₉	8 5.2 287°45	3°2/ 6.9	18			138631	2000 <i>RE</i> ₈	8 5.2 79°39	8°3/ 3.2	18		
6 30	21 27.23	- 9 4.7	1.562	2.407	16.8	21.2	6 30	21 53.49	-39 59.6	1.679	2.508	16.5	19.0
7 10	21 23.19	- 8 49.7	1.468	2.386	13.4	20.9	7 10	21 42.40	-40 3.3	1.632	2.531	13.4	18.9
7 20	21 16.54	- 8 49.0	1.393	2.365	9.4	20.6	7 20	21 28.11	-39 51.1	1.607	2.554	10.5	18.7
7 30	21 7.83	- 9 2.1	1.341	2.344	5.2	20.3	7 30	21 11.98	-39 14.8	1.607	2.577	8.5	18.7
8 9	20 58.01	- 9 26.4	1.314	2.323	3.4	20.2	8 9	20 55.84	-38 11.2	1.635	2.599	8.7	18.7
8 19	20 48.29	- 9 58.1	1.313	2.302	7.1	20.3	8 19	20 41.38	-36 42.8	1.690	2.622	10.8	18.9
8 29	20 39.96	-10 32.1	1.335	2.281	11.7	20.5	8 29	20 29.89	-34 56.0	1.771	2.644	13.5	19.1
9 8	20 34.07	-11 3.9	1.380	2.260	16.0	20.7	9 8	20 21.97	-32 59.3	1.874	2.665	16.0	19.4
185322	2006 <i>VF</i> ₅	8 5.2 276°20	0°0/ 4.9	18			440984	2007 <i>CZ</i> ₅₁	8 5.2 241°38	3°2/ 2.5	18		
6 30	21 25.35	-15 24.0	2.075	2.924	13.0	21.2	6 30	21 27.78	-26 6.8	2.641	3.491	10.5	21.9
7 10	21 21.03	-15 42.1	1.988	2.915	10.0	21.0	7 10	21 22.58	-26 43.6	2.550	3.477	8.1	21.7
7 20	21 14.73	-16 8.5	1.924	2.905	6.4	20.7	7 20	21 15.60	-27 20.9	2.484	3.462	5.5	21.5
7 30	21 6.99	-16 40.0	1.885	2.895	2.5	20.5	7 30	21 7.32	-27 54.7	2.446	3.446	3.4	21.4
8 9	20 58.58	-17 12.9	1.873	2.885	1.6	20.4	8 9	20 58.44	-28 20.8	2.435	3.430	3.9	21.4
8 19	20 50.38	-17 43.4	1.888	2.875	5.6	20.6	8 19	20 49.74	-28 36.4	2.453	3.414	6.3	21.5
8 29	20 43.31	-18 8.2	1.930	2.865	9.3	20.8	8 29	20 42.02	-28 39.8	2.498	3.397	9.0	21.7
9 8	20 38.09	-18 25.2	1.996	2.855	12.7	21.0	9 8	20 35.94	-28 31.3	2.566	3.380	11.6	21.8
390335	2013 <i>CL</i> ₁₅	8 5.2 14°06	0°3/ 5.5	18			49132	1998 <i>SW</i> ₂₄	8 5.2 261°22	0°6/ 5.7	18		
6 30	21 22.70	-12 14.6	1.984	2.832	13.6	20.5	6 30	21 25.76	-11 53.0	1.579	2.434	16.1	18.7
7 10	21 19.03	-13 4.1	1.908	2.833	10.4	20.3	7 10	21 21.88	-12 33.3	1.503	2.431	12.5	18.5
7 20	21 13.45	-14 6.3	1.854	2.834	6.7	20.1	7 20	21 15.55	-13 29.3	1.447	2.428	8.2	18.2
7 30	21 6.48	-15 17.2	1.826	2.835	2.7	19.9	7 30	21 7.39	-14 36.8	1.415	2.425	3.4	17.9
8 9	20 58.90	-16 31.4	1.825	2.837	1.5	19.8	8 9	20 58.38	-15 49.5	1.409	2.421	1.8	17.8
8 19	20 51.57	-17 43.0	1.851	2.838	5.6	20.1	8 19	20 49.68	-17 0.2	1.429	2.418	6.6	18.1
8 29	20 45.38	-18 47.0	1.904	2.840	9.3	20.3	8 29	20 42.44	-18 2.8	1.474	2.415	11.2	18.4
9 8	20 41.02	-19 40.1	1.980	2.842	12.6	20.5	9 8	20 37.55	-18 53.1	1.541	2.411	15.1	18.6
352244	2007 <i>TO</i> ₁₄₃	8 5.2 267°58	2°1/ 3.8	18			74697	1999 <i>RZ</i> ₁₄₁	8 5.2 233°31	2°4/ 3.8	18		
6 30	21 27.86	-21 8.0	1.952	2.811	13.3	21.2	6 30	21 30.51	-20 41.7	1.673	2.535	15.0	19.4
7 10	21 23.13	-21 35.6	1.867	2.800	10.2	20.9	7 10	21 25.51	-21 18.1	1.593	2.527	11.5	19.1
7 20	21 16.17	-22 7.8	1.805	2.788	6.5	20.7	7 20	21 17.90	-22 1.0	1.535	2.519	7.4	18.9
7 30	21 7.57	-22 40.1	1.768	2.777	3.0	20.5	7 30	21 8.32	-22 44.5	1.501	2.510	3.4	18.6
8 9	20 58.22	-23 7.6	1.759	2.765	3.1	20.4	8 9	20 57.83	-23 22.5	1.494	2.501	3.5	18.6
8 19	20 49.13	-23 26.4	1.776	2.754	6.8	20.7	8 19	20 47.66	-23 49.9	1.513	2.491	7.7	18.8
8 29	20 41.34	-23 34.1	1.819	2.742	10.5	20.9	8 29	20 39.06	-24 3.5	1.557	2.481	11.9	19.1
9 8	20 35.65	-23 30.2	1.884	2.730	13.8	21.0	9 8	20 32.96	-24 3.2	1.622	2.471	15.6	19.3
3446	<i>Combes</i>	8 5.2 178°96	4°4/ 2.3	18			112099	2002 <i>JZ</i> ₃₃	8 5.2 34°01	2°2/ 4.0	17		
6 30	21 32.38	-26 25.2	1.889	2.748	13.7	17.7	6 30	21 26.15	-17 58.5	1.148	2.036	18.7	19.3
7 10	21 26.62	-27 19.4	1.819	2.749	10.5	17.5	7 10	21 22.77	-18 48.3	1.097	2.045	14.1	19.1
7 20	21 18.41	-28 14.6	1.773	2.751	7.2	17.3	7 20	21 16.33	-19 49.9	1.065	2.055	9.0	18.8
7 30	21 8.43	-29 4.0	1.752	2.751	4.6	17.1	7 30	21 7.69	-20 55.4	1.055	2.066	3.7	18.5
8 9	20 57.72	-29 41.4	1.758	2.751	5.3	17.2	8 9	20 58.26	-21 55.7	1.068	2.077	3.6	18.6
8 19	20 47.44	-30 2.4	1.791	2.750	8.3	17.3	8 19	20 49.54	-22 43.2	1.104	2.090	8.7	18.9
8 29	20 38.73	-30 5.8	1.849	2.749	11.6	17.5	8 29	20 42.94	-23 13.7	1.162	2.102	13.6	19.2
9 8	20 32.40	-29 52.9	1.928	2.747	14.7	17.7	9 8	20 39.36	-23 26.1	1.240	2.116	17.7	19.5
348271	2004 <i>TZ</i> ₃₄₅	8 5.2 247°70	3°8/ 8.5	18			44901	1999 <i>VS</i> ₁₈	8 5.2 40°86	0°4/ 5.0	17		
6 30	21 23.52	- 2 47.4	2.823	3.612	11.5	21.4	6 30	21 28.49	-16 19.6	1.138	2.019	19.2	19.6
7 10	21 19.13	- 2 37.7	2.719	3.596	9.4	21.3	7 10	21 24.39	-16 32.8	1.092	2.035	14.6	19.4
7 20	21 13.29	- 2 39.7	2.637	3.580	7.1	21.1	7 20	21 17.24	-16 57.6	1.063	2.051	9.3	19.1
7 30	21 6.38	- 2 53.3	2.581	3.563	4.8	20.9	7 30	21 8.00	-17 28.5	1.057	2.068	3.6	18.8
8 9	20 58.95	- 3 17.3	2.552	3.546	3.8	20.8	8 9	20 58.11	-17 59.0	1.074	2.086	2.3	18.8
8 19	20 51.60	- 3 49.6	2.552	3.529	5.0	20.9	8 19	20 49.08	-18 23.6	1.114	2.104	7.9	19.2
8 29	20 44.98	- 4 27.3	2.579	3.511	7.4	21.0	8 29	20 42.24	-18 38.3	1.176	2.123	12.8	19.5
9 8	20 39.64	- 5 7.1	2.633	3.493	9.9	21.2	9 8	20 38.42	-18 41.9	1.259	2.142	17.0	19.9
25017	1998 <i>QG</i> ₆	8 5.2 282°75	8°3/13.3	18			349800	2009 <i>BN</i> ₈₉	8 5.2 246°65	0°3/ 5.5	18		
6 30	21 21.28	+11 18.9	2.482	3.198	14.7	19.3	6 30	21 23.96	-11 42.6	1.979	2.824	13.8	21.0
7 10	21 17.67	+11 44.2	2.384	3.186	13.0	19.2	7 10	21 20.07	-12 40.2	1.896	2.819	10.6	20.8
7 20	21 12.47	+11 49.3	2.305	3.174	11.2	19.0	7 20	21 14.19	-13 51.9	1.836	2.815	6.9	20.6
7 30	21 6.09	+11 31.8	2.247	3.162	9.5	18.9	7 30	21 6.82	-15 13.5	1.801	2.810	2.8	20.3
8 9	20 59.14	+10 51.5	2.213	3.150	8.4	18.8	8 9	20 58.75	-16 39.2	1.794	2.806	1.5	20.2
8 19	20 52.29	+ 9 50.5	2.204	3.138	8.5	18.8	8 19	20 50.88	-18 2.4	1.814	2.801	5.7	20.5
8 29	20 46.26	+ 8 32.8	2.221	3.126	9.7	18.8	8 29	20 44.13	-19 17.5	1.861	2.796	9.6	20.7
9 8	20 41.68	+ 7 4.4	2.261	3.114	11.6	18.9	9 8	20 39.26	-20 20.5	1.932	2.791	13.0	20.9
255402	2005 <i>WA</i> ₁₈₉	8 5.2 187°48	3°2/ 2.3	18			100287	1995 <i>CK</i> ₅	8 5.2 264°84	1°7/ 6.1	17		
6 30	21 24.89	-24 18.8	2.390	3.249	11.2	20.4	6 30	21 28.73	-11 57.3	1.464	2.319	17.2	20.8
7 10	21 20.48	-25 16.8	2.317	3.249	8.5	20.3	7 10	21 24.39	-11 58.6	1.382	2.309	13.4	20.5
7 20	21 14.27	-26 17.3	2.268	3.248	5.6	20.1	7 20	21 17.32	-12 13.7	1.320	2.299	9.0	20.2
7 30	21 6.79	-27 15.3	2.246	3.248	3.4	19.9	7 30	21 8.14	-12 40.2	1.281	2.288	4.1	19.9
8 9	20 58.75	-28 5.8	2.251	3.248	4.0	20.0	8 9	20 57.94	-13 13.8	1.267	2.278	2.3	19.8
8 19	20 50.96	-28 44.9	2.285	3.247	6.6	20.2	8 19	20 48.02	-13 49.3	1.278	2.268	7.1	20.0
8 29	20 44.23	-29 10.5	2.344	3.246	9.4	20.3	8 29	20 39.71	-14 21.8	1.313	2.257	11.9	20.3
9 8	20 39.20	-29 22.2	2.426	3.245	12.0	20.5	9 8	20 34.03	-14 47.3	1.369	2.246	16.2	20.5
18816	1999 <i>LW</i> ₂₅	8 5.2 334°83	6°1/ 7.7	18			479749	2014 <i>EZ</i> ₁₂	8 5.2 64°34	0°3/ 4.9	17		

EPHEMERIDES

8 5.2

8 5.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
515222	2012 <i>BM</i> ₅₀		8 5.2 352°04	1.8/ 6.5	18		509084	2005 <i>UF</i> ₁₅₁		8 5.3 108°12	4.7/ 1.3	18	
6 30	21 25.70	-11 18.9	2.276	3.108	12.6	21.4	6 30	21 27.88	-30 16.5	2.445	3.300	11.1	21.6
7 10	21 21.00	-11 8.7	2.195	3.108	9.8	21.2	7 10	21 22.67	-31 10.3	2.388	3.313	8.6	21.5
7 20	21 14.57	-11 7.1	2.136	3.108	6.6	21.0	7 20	21 15.62	-32 1.6	2.355	3.325	6.2	21.3
7 30	21 6.91	-11 12.8	2.103	3.108	3.3	20.8	7 30	21 7.32	-32 45.1	2.348	3.337	4.7	21.3
8 9	20 58.73	-11 23.5	2.098	3.108	2.0	20.7	8 9	20 58.58	-33 16.4	2.369	3.348	5.3	21.3
8 19	20 50.83	-11 36.9	2.120	3.108	5.0	20.9	8 19	20 50.22	-33 32.9	2.417	3.360	7.4	21.5
8 29	20 43.97	-11 50.4	2.170	3.108	8.3	21.1	8 29	20 43.09	-33 33.8	2.490	3.371	9.8	21.7
9 8	20 38.78	-12 1.8	2.244	3.108	11.3	21.3	9 8	20 37.77	-33 20.4	2.586	3.382	12.0	21.8
297161	2010 <i>VU</i> ₂₆		8 5.2 224°15	4.0/ 7.6	18		514009	2014 <i>JK</i> ₅₅		8 5.3 241°70	14.0/ 18.1	18	
6 30	21 27.94	- 6 9.0	1.654	2.483	16.7	21.0	6 30	21 45.95	-58 35.4	2.218	2.989	14.8	21.4
7 10	21 23.40	- 5 56.2	1.573	2.479	13.4	20.7	7 10	21 39.21	-60 49.4	2.174	2.974	14.2	21.4
7 20	21 16.47	- 5 59.7	1.511	2.475	9.6	20.5	7 20	21 27.87	-62 44.5	2.150	2.959	14.0	21.3
7 30	21 7.75	- 6 19.3	1.473	2.470	5.8	20.3	7 30	21 12.61	-64 9.6	2.147	2.944	14.4	21.3
8 9	20 58.20	- 6 52.1	1.460	2.465	4.1	20.2	8 9	20 55.23	-64 56.5	2.163	2.928	15.2	21.3
8 19	20 48.92	- 7 34.1	1.473	2.460	6.8	20.3	8 19	20 38.27	-65 2.5	2.197	2.911	16.3	21.4
8 29	20 41.06	- 8 19.9	1.511	2.454	10.8	20.5	8 29	20 24.28	-64 30.9	2.247	2.894	17.5	21.5
9 8	20 35.47	- 9 4.3	1.572	2.449	14.5	20.7	9 8	20 14.89	-63 28.9	2.309	2.876	18.6	21.6
178164	2006 <i>UN</i> ₃₂		8 5.2 133°50	0.1/ 5.1	18		285932	2001 <i>QA</i> ₂₆₂		8 5.3 332°06	12.1/ 4.2	12	C
6 30	21 25.68	-15 34.6	2.191	3.038	12.5	21.2	6 30	21 53.22	-41 20.8	0.953	1.822	23.1	19.8
7 10	21 21.07	-15 56.6	2.117	3.041	9.6	21.0	7 10	21 45.19	-41 19.4	0.892	1.814	19.4	19.5
7 20	21 14.64	-16 26.0	2.065	3.045	6.1	20.8	7 20	21 31.50	-40 54.2	0.846	1.806	15.5	19.3
7 30	21 6.94	-16 59.8	2.039	3.049	2.4	20.5	7 30	21 13.75	-39 49.1	0.820	1.800	12.6	19.1
8 9	20 58.72	-17 34.1	2.041	3.052	1.5	20.5	8 9	20 54.86	-37 55.1	0.815	1.794	12.5	19.1
8 19	20 50.79	-18 5.4	2.070	3.056	5.3	20.7	8 19	20 38.02	-35 16.3	0.831	1.788	15.5	19.2
8 29	20 43.99	-18 30.7	2.127	3.059	8.7	21.0	8 29	20 25.65	-32 8.1	0.869	1.784	19.8	19.4
9 8	20 38.94	-18 48.3	2.207	3.062	11.8	21.2	9 8	20 18.74	-28 48.9	0.925	1.780	24.0	19.7
35894	1999 <i>JF</i> ₈₃		8 5.2 349°46	7.7/ 10.9	18		415037	2011 <i>YV</i> ₃₂		8 5.3 211°72	2.1/ 6.5	17	
6 30	21 18.29	+ 2 59.6	1.303	2.128	20.6	17.1	6 30	21 29.70	- 9 47.7	1.708	2.544	15.9	21.7
7 10	21 16.56	+ 2 59.5	1.228	2.120	17.4	16.9	7 10	21 24.75	- 9 59.9	1.624	2.539	12.5	21.4
7 20	21 12.33	+ 2 28.0	1.168	2.113	13.7	16.6	7 20	21 17.37	-10 26.6	1.560	2.533	8.5	21.2
7 30	21 6.19	+ 1 23.2	1.128	2.108	10.0	16.4	7 30	21 8.15	-11 5.7	1.521	2.526	4.2	20.9
8 9	20 59.13	- 0 11.7	1.110	2.103	7.7	16.3	8 9	20 58.05	-11 53.0	1.507	2.518	2.4	20.8
8 19	20 52.34	- 2 8.9	1.115	2.099	8.8	16.3	8 19	20 48.20	-12 43.1	1.521	2.510	6.4	21.0
8 29	20 47.06	- 4 17.2	1.143	2.097	12.3	16.5	8 29	20 39.75	-13 31.0	1.561	2.501	10.7	21.2
9 8	20 44.25	- 6 24.0	1.192	2.096	16.2	16.8	9 8	20 33.59	-14 12.5	1.623	2.491	14.6	21.5
174795	2003 <i>WN</i> ₁₄₅		8 5.2 251°19	2.9/ 3.4	18		281011	2006 <i>ET</i> ₂		8 5.3 9°46	1.4/ 4.5	16	
6 30	21 28.88	-20 38.2	1.584	2.453	15.4	20.6	6 30	21 23.69	-17 54.1	1.276	2.161	17.4	20.5
7 10	21 24.46	-21 32.4	1.505	2.443	11.8	20.3	7 10	21 20.72	-18 21.4	1.217	2.162	13.2	20.3
7 20	21 17.34	-22 34.9	1.448	2.433	7.6	20.1	7 20	21 14.96	-18 58.7	1.176	2.165	8.4	20.0
7 30	21 8.15	-23 39.1	1.414	2.423	3.7	19.8	7 30	21 7.21	-19 40.4	1.158	2.170	3.3	19.7
8 9	20 57.96	-24 37.2	1.407	2.412	4.1	19.8	8 9	20 58.67	-20 19.8	1.164	2.175	2.8	19.7
8 19	20 48.05	-25 22.8	1.425	2.401	8.3	20.0	8 19	20 50.68	-20 51.0	1.193	2.181	7.8	20.0
8 29	20 39.74	-25 51.8	1.467	2.390	12.6	20.3	8 29	20 44.54	-21 9.9	1.245	2.189	12.5	20.3
9 8	20 34.01	-26 3.4	1.531	2.379	16.4	20.5	9 8	20 41.12	-21 15.2	1.317	2.197	16.6	20.6
445377	2010 <i>PU</i> ₇₁		8 5.2 227°96	9.6/ 13.9	17		112001	2002 <i>GW</i> ₁₃₇		8 5.3 326°41	2.3/ 3.3	18	
6 30	21 25.41	+16 44.5	2.874	3.528	14.1	20.8	6 30	21 23.40	-20 20.6	2.119	2.981	12.3	19.3
7 10	21 20.63	+17 52.3	2.780	3.519	12.8	20.7	7 10	21 19.58	-21 17.6	2.042	2.977	9.3	19.1
7 20	21 14.31	+18 42.5	2.703	3.510	11.5	20.6	7 20	21 13.85	-22 20.9	1.988	2.973	6.0	18.9
7 30	21 6.84	+19 11.6	2.647	3.500	10.4	20.5	7 30	21 6.71	-23 25.3	1.960	2.968	2.9	18.7
8 9	20 58.78	+19 18.2	2.614	3.490	9.7	20.4	8 9	20 58.95	-24 25.4	1.960	2.964	3.2	18.7
8 19	20 50.78	+19 2.4	2.605	3.480	9.7	20.4	8 19	20 51.42	-25 16.1	1.986	2.961	6.5	18.9
8 29	20 43.54	+18 26.3	2.620	3.470	10.4	20.5	8 29	20 45.00	-25 54.3	2.039	2.957	9.8	19.1
9 8	20 37.63	+17 34.3	2.658	3.459	11.6	20.5	9 8	20 40.40	-26 18.6	2.114	2.954	12.8	19.3
359459	2010 <i>NJ</i> ₄₉		8 5.2 86°42	7.1/ 30.8	18		365998	2012 <i>BP</i> ₉₁		8 5.3 199°28	0.6/ 4.9	17	
6 30	21 30.62	-37 13.8	2.223	3.075	12.2	20.9	6 30	21 30.19	-16 12.8	1.575	2.434	16.0	21.8
7 10	21 25.10	-38 12.2	2.167	3.079	10.0	20.8	7 10	21 25.29	-16 39.2	1.501	2.432	12.3	21.5
7 20	21 17.33	-39 3.2	2.133	3.083	8.0	20.7	7 20	21 17.78	-17 16.0	1.447	2.430	7.9	21.3
7 30	21 8.01	-39 40.3	2.124	3.088	7.1	20.6	7 30	21 8.32	-17 58.4	1.417	2.428	3.0	21.0
8 9	20 58.14	-39 58.5	2.141	3.092	7.8	20.7	8 9	20 58.00	-18 40.7	1.414	2.425	2.2	20.9
8 19	20 48.76	-39 55.6	2.183	3.097	9.6	20.8	8 19	20 48.06	-19 17.4	1.436	2.422	7.0	21.2
8 29	20 40.91	-39 32.1	2.249	3.101	11.8	20.9	8 29	20 39.75	-19 44.4	1.483	2.418	11.6	21.5
9 8	20 35.29	-38 50.9	2.336	3.105	13.9	21.1	9 8	20 33.97	-20 0.0	1.552	2.415	15.5	21.7
250663	2005 <i>NT</i> ₂₂		8 5.2 315°75	2.1/ 6.4	18		424000	2006 <i>VT</i> ₁₂₅		8 5.3 104°02	4.8/ 8.2	17	
6 30	21 27.31	-11 47.3	1.962	2.800	14.1	20.4	6 30	21 29.22	- 4 24.0	1.672	2.491	17.0	21.1
7 10	21 22.55	-11 24.7	1.877	2.794	11.0	20.2	7 10	21 24.14	- 4 1.8	1.606	2.504	13.7	20.9
7 20	21 15.73	-11 10.9	1.815	2.788	7.5	20.0	7 20	21 16.79	- 3 56.8	1.560	2.516	10.0	20.7
7 30	21 7.43	-11 4.9	1.778	2.782	3.8	19.7	7 30	21 7.86	- 4 8.7	1.538	2.529	6.4	20.5
8 9	20 58.47	-11 4.6	1.767	2.777	2.3	19.6	8 9	20 58.31	- 4 35.1	1.541	2.541	4.8	20.5
8 19	20 49.79	-11 7.9	1.784	2.772	5.7	19.8	8 19	20 49.23	- 5 12.1	1.570	2.553	6.9	20.6
8 29	20 42.34	-11 12.1	1.827	2.766	9.4	20.0	8 29	20 41.64	- 5 54.6	1.624	2.565	10.4	20.9
9 8	20 36.85	-11 15.0	1.893	2.761	12.8	20.2	9 8	20 36.29	- 6 37.4	1.702	2.576	13.7	21.1
323023	2002 <i>QX</i> ₂₁		8 5.3 349°91	1.4/ 4.8	17		209920	2005 <i>SN</i>					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
286961	2002 <i>PU</i> ₁₈₂		8 5.3 300°99	0°0/ 5.1 18			488384	2016 <i>WA</i> ₄₇		8 5.3 187°53	4°3/ 9.5 18		
6 30	21 23.03	-12 31.9	1.753	2.608	14.8	21.1	6 30	21 23.40	+ 0 13.4	3.058	3.827	11.2	22.2
7 10	21 19.78	-13 24.9	1.659	2.588	11.4	20.9	7 10	21 18.89	+ 0 25.6	2.967	3.826	9.2	22.1
7 20	21 14.28	-14 33.9	1.586	2.568	7.4	20.6	7 20	21 13.09	+ 0 25.7	2.898	3.825	7.2	21.9
7 30	21 6.99	-15 54.8	1.537	2.547	3.0	20.3	7 30	21 6.39	+ 0 13.5	2.854	3.824	5.2	21.8
8 9	20 58.76	-17 21.3	1.515	2.527	1.8	20.1	8 9	20 59.28	- 0 9.8	2.838	3.822	4.3	21.8
8 19	20 50.60	-18 46.0	1.520	2.507	6.5	20.4	8 19	20 52.31	- 0 42.4	2.850	3.819	5.1	21.8
8 29	20 43.63	-20 2.2	1.550	2.487	11.0	20.6	8 29	20 46.05	- 1 21.4	2.890	3.816	6.9	21.9
9 8	20 38.76	-21 5.0	1.602	2.468	14.9	20.8	9 8	20 40.97	- 2 3.6	2.956	3.813	9.0	22.1
163010	2001 <i>TM</i> ₄₅		8 5.3 310°51	3°8/ 8.4 18			202651	2006 <i>JO</i> ₅₆		8 5.3 82°96	3°2/ 3.3 17		
6 30	21 21.81	- 3 44.5	2.552	3.355	12.2	19.7	6 30	21 29.31	-23 22.2	1.799	2.663	14.1	20.3
7 10	21 17.98	- 3 31.7	2.460	3.346	9.9	19.5	7 10	21 24.23	-24 1.5	1.739	2.674	10.7	20.1
7 20	21 12.64	- 3 31.1	2.389	3.338	7.4	19.3	7 20	21 16.87	-24 43.4	1.702	2.685	6.9	19.9
7 30	21 6.21	- 3 42.5	2.343	3.329	4.9	19.2	7 30	21 7.92	-25 22.3	1.690	2.696	3.7	19.7
8 9	20 59.28	- 4 4.5	2.324	3.321	3.8	19.1	8 9	20 58.40	-25 52.5	1.705	2.707	4.0	19.8
8 19	20 52.51	- 4 34.8	2.332	3.313	5.2	19.2	8 19	20 49.41	-26 10.4	1.746	2.718	7.4	20.0
8 29	20 46.55	- 5 10.3	2.368	3.304	7.7	19.3	8 29	20 41.97	-26 14.4	1.812	2.729	10.9	20.3
9 8	20 41.97	- 5 47.4	2.428	3.296	10.3	19.5	9 8	20 36.81	-26 5.0	1.900	2.740	14.0	20.5
426651	2013 <i>SO</i> ₈₀		8 5.3 127°38	2°0/ 4.0 17			179752	2002 <i>RW</i> ₂₀₄		8 5.3 21°02	3°7/ 3.7 17		
6 30	21 31.65	-20 31.2	1.826	2.681	14.3	21.3	6 30	21 30.24	-23 33.6	1.242	2.126	17.8	20.0
7 10	21 25.92	-21 0.9	1.763	2.693	10.8	21.1	7 10	21 25.86	-23 56.4	1.185	2.130	13.6	19.8
7 20	21 17.89	-21 35.3	1.722	2.704	6.9	20.9	7 20	21 18.35	-24 22.3	1.147	2.134	8.9	19.5
7 30	21 8.28	-22 9.3	1.707	2.716	3.0	20.6	7 30	21 8.58	-24 44.4	1.131	2.139	4.5	19.3
8 9	20 58.09	-22 37.7	1.719	2.726	3.0	20.7	8 9	20 58.01	-24 55.9	1.139	2.144	4.7	19.3
8 19	20 48.42	-22 56.9	1.758	2.736	6.8	20.9	8 19	20 48.17	-24 52.8	1.170	2.151	9.1	19.6
8 29	20 40.31	-23 4.9	1.823	2.746	10.5	21.2	8 29	20 40.53	-24 33.9	1.224	2.157	13.6	19.9
9 8	20 34.48	-23 1.5	1.911	2.755	13.7	21.4	9 8	20 35.97	-24 1.2	1.298	2.165	17.6	20.2
154763	2004 <i>PJ</i> ₁₅		8 5.3 320°19	0°1/ 5.1 18			209801	2005 <i>GK</i> ₅₅		8 5.3 331°26	2°0/ 6.7 18		
6 30	21 22.61	-14 0.0	2.104	2.954	12.8	19.7	6 30	21 23.79	- 9 42.6	1.753	2.599	15.2	20.5
7 10	21 18.95	-14 45.1	2.022	2.949	9.8	19.5	7 10	21 20.17	- 9 55.3	1.673	2.593	11.9	20.3
7 20	21 13.44	-15 41.0	1.963	2.944	6.3	19.3	7 20	21 14.39	-10 22.3	1.613	2.588	8.1	20.1
7 30	21 6.57	-16 43.8	1.929	2.939	2.5	19.0	7 30	21 7.01	-11 1.5	1.578	2.583	4.0	19.8
8 9	20 59.08	-17 48.6	1.923	2.935	1.6	19.0	8 9	20 58.91	-11 48.9	1.567	2.578	2.3	19.7
8 19	20 51.79	-18 50.2	1.944	2.930	5.5	19.2	8 19	20 51.07	-12 39.4	1.584	2.574	5.9	19.9
8 29	20 45.56	-19 44.4	1.992	2.926	9.1	19.4	8 29	20 44.50	-13 28.0	1.625	2.570	10.0	20.2
9 8	20 41.07	-20 28.0	2.063	2.922	12.3	19.6	9 8	20 39.98	-14 10.4	1.689	2.566	13.7	20.4
246294	2007 <i>TN</i> ₈₁		8 5.3 314°71	2°0/ 6.6 18			323204	2003 <i>RY</i> ₂₂		8 5.3 275°10	10°8/ 16.1 18		
6 30	21 22.89	- 9 41.4	1.656	2.506	15.7	20.4	6 30	21 22.59	+19 47.8	2.653	3.294	15.3	19.9
7 10	21 19.70	- 9 58.1	1.567	2.490	12.4	20.2	7 10	21 18.70	+20 46.5	2.558	3.281	14.2	19.7
7 20	21 14.22	-10 30.7	1.498	2.474	8.4	19.9	7 20	21 13.21	+21 24.3	2.479	3.269	12.9	19.6
7 30	21 6.96	-11 17.1	1.453	2.459	4.2	19.6	7 30	21 6.51	+21 37.6	2.419	3.256	11.7	19.5
8 9	20 58.82	-12 12.9	1.433	2.444	2.3	19.5	8 9	20 59.21	+21 24.7	2.380	3.244	11.0	19.4
8 19	20 50.83	-13 12.5	1.438	2.429	6.3	19.7	8 19	20 51.97	+20 45.9	2.363	3.231	10.8	19.4
8 29	20 44.12	-14 10.0	1.468	2.415	10.7	19.9	8 29	20 45.52	+19 43.8	2.369	3.218	11.4	19.4
9 8	20 39.58	-15 0.3	1.521	2.401	14.7	20.1	9 8	20 40.50	+18 23.8	2.397	3.205	12.5	19.5
317759	2003 <i>SY</i> ₇₇		8 5.3 26°14	2°2/ 6.2 17			349390	2007 <i>XT</i> ₁₅		8 5.3 269°57	0°4/ 4.9 18		
6 30	21 28.04	-13 1.2	1.065	1.945	20.4	19.7	6 30	21 27.43	-17 8.6	2.024	2.875	13.3	21.0
7 10	21 24.30	-12 34.2	1.013	1.953	15.8	19.4	7 10	21 22.74	-17 19.8	1.936	2.863	10.2	20.8
7 20	21 17.37	-12 21.5	0.978	1.962	10.6	19.2	7 20	21 15.95	-17 37.6	1.870	2.852	6.5	20.5
7 30	21 8.18	-12 21.0	0.964	1.972	4.9	18.9	7 30	21 7.63	-17 59.0	1.830	2.840	2.5	20.3
8 9	20 58.19	-12 28.7	0.972	1.983	2.8	18.8	8 9	20 58.58	-18 20.0	1.817	2.828	1.7	20.2
8 19	20 49.00	-12 39.9	1.002	1.995	7.9	19.2	8 19	20 49.77	-18 37.3	1.831	2.817	5.8	20.4
8 29	20 42.05	-12 50.3	1.055	2.008	13.1	19.5	8 29	20 42.15	-18 48.3	1.872	2.805	9.7	20.6
9 8	20 38.24	-12 56.3	1.126	2.022	17.6	19.8	9 8	20 36.49	-18 51.5	1.936	2.793	13.1	20.8
79007	4289 <i>P-L</i>		8 5.3 265°93	2°2/ 4.1 18			254589	2005 <i>GT</i> ₅₉		8 5.3 174°18	1°0/ 5.9 17		
6 30	21 30.45	-20 26.3	1.536	2.403	15.9	19.8	6 30	21 29.26	-11 39.2	1.776	2.617	15.2	21.6
7 10	21 25.73	-20 51.9	1.456	2.392	12.2	19.5	7 10	21 24.27	-12 4.7	1.700	2.620	11.8	21.4
7 20	21 18.21	-21 24.1	1.396	2.381	7.9	19.3	7 20	21 16.99	-12 43.3	1.645	2.622	7.8	21.1
7 30	21 8.56	-21 57.3	1.361	2.370	3.4	19.0	7 30	21 8.04	-13 31.5	1.615	2.623	3.4	20.9
8 9	20 57.91	-22 25.4	1.350	2.359	3.4	18.9	8 9	20 58.35	-14 24.5	1.612	2.624	1.8	20.8
8 19	20 47.59	-22 43.4	1.366	2.347	7.9	19.2	8 19	20 48.99	-15 17.0	1.636	2.624	6.1	21.0
8 29	20 38.96	-22 48.5	1.405	2.336	12.4	19.4	8 29	20 41.03	-16 4.0	1.687	2.624	10.2	21.3
9 8	20 33.01	-22 40.2	1.466	2.324	16.4	19.6	9 8	20 35.26	-16 42.3	1.760	2.623	13.9	21.5
438726	2008 <i>SL</i> ₂₄₈		8 5.3 122°49	4°6/ 8.8 17			142383	2002 <i>SX</i> ₆		8 5.3 21°47	1°9/ 6.3 17		
6 30	21 25.27	- 2 9.7	1.884	2.692	15.7	21.5	6 30	21 23.47	-11 24.0	1.049	1.933	20.3	19.2
7 10	21 21.03	- 2 12.7	1.809	2.698	12.8	21.3	7 10	21 20.86	-11 28.4	0.999	1.941	15.8	19.0
7 20	21 14.79	- 2 34.2	1.753	2.704	9.5	21.1	7 20	21 15.21	-11 51.4	0.966	1.951	10.5	18.7
7 30	21 7.11	- 3 13.6	1.722	2.709	6.3	20.9	7 30	21 7.39	-12 29.6	0.953	1.962	4.8	18.5
8 9	20 58.82	- 4 7.9	1.716	2.715	4.6	20.8	8 9	20 58.77	-13 16.2	0.962	1.974	2.5	18.4
8 19	20 50.84	- 5 12.5	1.737	2.720	6.3	21.0	8 19	20 50.87	-14 3.9	0.994	1.988	7.7	18.7
8 29	20 44.07	- 6 21.4	1.784	2.725	9.5	21.2	8 29	20 45.06	-14 46.0	1.047	2.003	12.9	19.1
9 8	20 39.22	- 7 28.9	1.855	2.730	12.7	21.4	9 8	20 42.23	-15 17.8	1.119	2.019	17.4	19.4
142093	2002 <i>QM</i> ₅₄		8 5.3 280°92	0°6/ 4.9 18			177634	2004 <i>KL</i> ₄		8 5.3 45°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
477987	2011 SY ₁₀₄		8 5.3 278°91	7.8/11.0	16		474522	2003 UQ ₂₇₁		8 5.3 273°74	8.4/11.4	18	
6 30	21 23.93	+ 5 32.4	2.122	2.884	15.7	21.7	6 30	21 24.40	+ 6 48.2	2.046	2.802	16.3	21.4
7 10	21 19.99	+ 6 11.9	2.028	2.871	13.5	21.5	7 10	21 20.49	+ 7 25.0	1.945	2.783	14.2	21.2
7 20	21 14.17	+ 6 32.5	1.953	2.859	11.2	21.3	7 20	21 14.60	+ 7 41.3	1.863	2.765	11.9	21.0
7 30	21 6.94	+ 6 31.8	1.899	2.846	9.0	21.2	7 30	21 7.15	+ 7 34.1	1.802	2.745	9.7	20.8
8 9	20 59.00	+ 6 9.4	1.870	2.834	7.8	21.1	8 9	20 58.89	+ 7 2.9	1.765	2.726	8.5	20.7
8 19	20 51.16	+ 5 27.3	1.867	2.821	8.4	21.1	8 19	20 50.67	+ 6 9.4	1.753	2.707	8.9	20.7
8 29	20 44.31	+ 4 29.7	1.888	2.809	10.3	21.2	8 29	20 43.43	+ 4 58.4	1.766	2.687	10.9	20.8
9 8	20 39.16	+ 3 22.6	1.932	2.796	12.8	21.3	9 8	20 37.98	+ 3 36.7	1.802	2.667	13.5	20.9
450122	2015 RW ₁₂₄		8 5.3 32°86	2.7/3.5	18		61158	2000 NN ₁₅		8 5.3 348°80	1.9/4.1	18	
6 30	21 28.44	-24 6.2	2.150	3.007	12.3	20.9	6 30	21 24.16	-17 56.8	1.354	2.235	16.8	18.5
7 10	21 23.30	-24 24.2	2.078	3.009	9.4	20.7	7 10	21 21.12	-18 42.2	1.286	2.230	12.8	18.2
7 20	21 16.17	-24 43.2	2.029	3.010	6.1	20.5	7 20	21 15.34	-19 38.9	1.237	2.225	8.2	18.0
7 30	21 7.66	-24 59.0	2.006	3.012	3.2	20.3	7 30	21 7.49	-20 40.8	1.211	2.221	3.4	17.7
8 9	20 58.62	-25 7.9	2.010	3.013	3.4	20.3	8 9	20 58.73	-21 40.0	1.209	2.218	3.2	17.7
8 19	20 49.97	-25 7.3	2.042	3.015	6.4	20.5	8 19	20 50.36	-22 29.4	1.231	2.216	8.1	17.9
8 29	20 42.61	-24 56.1	2.099	3.017	9.6	20.7	8 29	20 43.73	-23 3.9	1.276	2.215	12.8	18.2
9 8	20 37.19	-24 34.8	2.180	3.018	12.5	20.9	9 8	20 39.76	-23 21.9	1.342	2.214	16.8	18.5
95693	2002 JA ₇₀		8 5.3 33°34	9.0/28.7	18		208129	2000 DX ₆₂		8 5.3 277°98	3.7/8.2	18	
6 30	21 28.38	-39 27.1	1.946	2.805	13.4	18.2	6 30	21 24.89	- 3 31.0	2.118	2.925	14.3	20.7
7 10	21 23.88	-41 1.2	1.903	2.814	11.2	18.0	7 10	21 20.89	- 3 47.6	2.005	2.896	11.6	20.4
7 20	21 16.83	-42 25.9	1.881	2.823	9.5	18.0	7 20	21 14.89	- 4 21.8	1.912	2.866	8.5	20.2
7 30	21 7.97	-43 32.7	1.884	2.832	9.0	17.9	7 30	21 7.29	- 5 13.3	1.844	2.836	5.4	19.9
8 9	20 58.43	-44 15.1	1.910	2.842	9.8	18.0	8 9	20 58.80	- 6 19.5	1.802	2.805	3.8	19.8
8 19	20 49.43	-43 30.5	1.960	2.852	11.6	18.1	8 19	20 50.25	- 7 36.0	1.789	2.774	5.9	19.8
8 29	20 42.13	-44 19.4	2.032	2.863	13.7	18.3	8 29	20 42.59	- 8 56.9	1.802	2.743	9.5	20.0
9 8	20 37.35	-43 45.8	2.123	2.874	15.6	18.5	9 8	20 36.66	-10 16.3	1.840	2.711	13.0	20.2
442008	2010 OF ₄₀		8 5.3 326°15	9.8/29.1	18		175671	1994 SV ₆		8 5.3 22°56	2.7/3.7	18	
6 30	21 29.45	-39 57.9	1.747	2.609	14.5	20.3	6 30	21 25.09	-21 37.3	1.523	2.401	15.4	19.7
7 10	21 25.23	-41 14.0	1.677	2.590	12.3	20.1	7 10	21 21.35	-22 9.2	1.470	2.412	11.6	19.5
7 20	21 18.02	-42 21.4	1.628	2.573	10.5	20.0	7 20	21 15.17	-22 45.7	1.437	2.424	7.4	19.2
7 30	21 8.55	-43 10.4	1.602	2.555	9.8	19.9	7 30	21 7.32	-23 21.1	1.428	2.437	3.5	19.0
8 9	20 58.05	-43 33.3	1.599	2.539	10.8	19.9	8 9	20 58.90	-23 49.5	1.444	2.451	3.7	19.1
8 19	20 48.00	-43 26.1	1.618	2.523	12.9	20.0	8 19	20 51.07	-24 6.8	1.485	2.465	7.5	19.4
8 29	20 39.84	-42 49.4	1.659	2.508	15.4	20.1	8 29	20 44.90	-24 10.9	1.550	2.481	11.5	19.6
9 8	20 34.58	-41 47.8	1.718	2.493	17.9	20.3	9 8	20 41.13	-24 2.0	1.636	2.497	14.9	19.9
88064	2000 VR ₄₆		8 5.3 124°01	6.4/12.4	18		78441	2002 RQ ₁₃		8 5.3 359°73	1.5/6.1	17	
6 30	21 25.48	+ 9 27.0	3.221	3.922	11.9	20.1	6 30	21 20.27	-11 56.2	1.020	1.911	20.2	19.1
7 10	21 20.32	+10 1.1	3.148	3.942	10.3	20.0	7 10	21 18.69	-12 6.8	0.960	1.907	15.7	18.8
7 20	21 13.93	+10 20.3	3.096	3.962	8.7	19.9	7 20	21 14.02	-12 36.8	0.917	1.905	10.4	18.5
7 30	21 6.72	+10 23.5	3.068	3.981	7.3	19.9	7 30	21 7.03	-13 22.7	0.894	1.904	4.6	18.2
8 9	20 59.19	+10 10.8	3.065	3.999	6.5	19.8	8 9	20 59.03	-14 17.4	0.892	1.904	2.4	18.0
8 19	20 51.88	+ 9 43.9	3.090	4.017	6.6	19.9	8 19	20 51.56	-15 12.9	0.911	1.906	8.0	18.4
8 29	20 45.32	+ 9 5.3	3.142	4.034	7.6	20.0	8 29	20 46.11	-16 1.2	0.952	1.910	13.5	18.7
9 8	20 39.94	+ 8 18.8	3.219	4.050	9.0	20.1	9 8	20 43.71	-16 37.1	1.010	1.916	18.3	19.0
176388	2001 UR ₅₇		8 5.3 290°24	0.9/5.9	18		138933	2001 BT ₈		8 5.3 323°12	1.0/4.6	18	
6 30	21 24.83	-12 47.1	2.013	2.858	13.5	20.8	6 30	21 26.42	-19 4.7	2.105	2.960	12.7	19.3
7 10	21 20.72	-13 2.3	1.929	2.851	10.5	20.6	7 10	21 21.84	-19 14.4	2.025	2.954	9.6	19.1
7 20	21 14.64	-13 27.8	1.866	2.844	6.9	20.3	7 20	21 15.31	-19 28.7	1.967	2.949	6.2	18.9
7 30	21 7.12	-14 1.0	1.829	2.837	3.0	20.1	7 30	21 7.37	-19 44.5	1.935	2.945	2.4	18.6
8 9	20 58.93	-14 38.3	1.818	2.830	1.6	20.0	8 9	20 58.85	-19 58.2	1.930	2.940	2.0	18.6
8 19	20 50.97	-15 15.6	1.835	2.824	5.5	20.2	8 19	20 50.62	-20 6.9	1.952	2.935	5.7	18.8
8 29	20 44.15	-15 49.2	1.878	2.817	9.3	20.4	8 29	20 43.57	-20 8.6	2.001	2.931	9.3	19.1
9 8	20 39.18	-16 16.1	1.944	2.810	12.6	20.6	9 8	20 38.39	-20 2.4	2.073	2.927	12.4	19.3
510757	2012 XH ₁₂₆		8 5.3 329°82	4.1/7.0	18		479676	2014 DJ ₈₃		8 5.3 134°58	2.0/6.8	17	
6 30	21 24.29	- 9 29.6	1.341	2.202	18.1	20.2	6 30	21 25.66	- 8 58.8	2.032	2.862	14.0	21.8
7 10	21 21.31	- 8 46.5	1.254	2.181	14.5	19.9	7 10	21 21.23	- 9 14.6	1.957	2.868	10.9	21.6
7 20	21 15.57	- 8 16.3	1.186	2.161	10.3	19.6	7 20	21 14.89	- 9 43.2	1.903	2.872	7.4	21.4
7 30	21 7.64	- 7 59.9	1.139	2.141	6.0	19.3	7 30	21 7.21	-10 22.5	1.874	2.877	3.8	21.2
8 9	20 58.58	- 7 56.2	1.115	2.123	4.3	19.2	8 9	20 58.95	-11 8.9	1.872	2.882	2.2	21.1
8 19	20 49.69	- 8 2.6	1.115	2.105	7.8	19.3	8 19	20 50.99	-11 58.1	1.898	2.886	5.3	21.3
8 29	20 42.38	- 8 15.1	1.137	2.089	12.6	19.5	8 29	20 44.18	-12 45.6	1.950	2.890	8.9	21.6
9 8	20 37.73	- 8 29.2	1.180	2.074	17.0	19.7	9 8	20 39.19	-13 27.9	2.026	2.894	12.1	21.8
138873	2000 XV ₃₄		8 5.3 155°27	4.3/2.9	17		521076	2015 DG ₂₄₀		8 5.3 237°93	3.7/2.7	18	
6 30	21 36.25	-27 5.1	1.848	2.702	14.2	19.9	6 30	21 28.66	-22 45.2	1.687	2.555	14.6	21.1
7 10	21 29.55	-27 39.0	1.783	2.710	10.9	19.7	7 10	21 24.18	-23 48.0	1.613	2.550	11.2	20.9
7 20	21 20.31	-28 11.9	1.741	2.717	7.4	19.5	7 20	21 17.15	-24 56.6	1.560	2.544	7.4	20.6
7 30	21 9.31	-28 37.6	1.724	2.724	4.6	19.4	7 30	21 8.19	-26 4.2	1.533	2.538	4.1	20.4
8 9	20 57.69	-28 50.6	1.734	2.730	5.0	19.4	8 9	20 58.34	-27 3.0	1.531	2.532	4.7	20.4
8 19	20 46.65	-28 47.9	1.772	2.735	8.1	19.6	8 19	20 48.81	-27 47.1	1.555	2.525	8.4	20.7
8 29	20 37.36	-28 29.5	1.835	2.740	11.5	19.8	8 29	20 40.81	-28 13.2	1.604	2.519	12.2	20.9
9 8	20 30.61	-27 57.4	1.921	2.743	14.5	20.0	9 8	20 35.27	-28 21.1	1.674	2.512	15.7	21.1
144353	2004 DY ₃₉		8 5.3 63°09	0.6/5.6	17		6843	Heremon		8 5.3 136°29	5.0/2.1	18	
6 30	21 28.49	-13 22.6	1.403	2.265	17.4								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
209374	2004 <i>EC</i> ₂₂		8 5.3 51°47'	0°7'	5.8	18	266177	2006 <i>VT</i> ₁₈		8 5.3 259°85'	1°3'	6.0	17
6 30	21 25.20	-13 2.1	1.987	2.832	13.7	20.4	6 30	21 28.60	-12 23.6	1.652	2.500	15.8	21.7
7 10	21 20.97	-13 21.6	1.911	2.833	10.5	20.2	7 10	21 24.12	-12 29.8	1.564	2.488	12.4	21.5
7 20	21 14.77	-13 51.3	1.856	2.835	6.9	20.0	7 20	21 17.14	-12 48.4	1.497	2.475	8.3	21.2
7 30	21 7.17	-14 28.4	1.827	2.836	2.9	19.8	7 30	21 8.24	-13 16.9	1.454	2.462	3.7	20.9
8 9	20 58.98	-15 8.8	1.826	2.838	1.5	19.7	8 9	20 58.38	-13 51.1	1.436	2.448	2.0	20.8
8 19	20 51.08	-15 48.3	1.851	2.839	5.5	19.9	8 19	20 48.73	-14 26.4	1.445	2.435	6.5	21.0
8 29	20 44.37	-16 23.2	1.902	2.841	9.2	20.2	8 29	20 40.49	-14 58.2	1.479	2.421	11.1	21.3
9 8	20 39.54	-16 50.8	1.977	2.842	12.5	20.4	9 8	20 34.60	-15 23.2	1.536	2.407	15.1	21.5
362852	2012 <i>BS</i> ₃₂		8 5.3 188°95'	2°8'	2.7	18	339201	2004 <i>TK</i> ₂₂₆		8 5.3 127°10'	7°3'	31.6	18
6 30	21 24.60	-22 38.7	2.435	3.292	11.1	21.0	6 30	21 34.25	-34 50.0	1.874	2.731	13.9	20.5
7 10	21 20.30	-23 39.8	2.360	3.291	8.4	20.8	7 10	21 28.22	-35 51.0	1.819	2.738	11.2	20.4
7 20	21 14.26	-24 44.8	2.309	3.291	5.5	20.6	7 20	21 19.57	-36 45.5	1.786	2.746	8.6	20.2
7 30	21 6.96	-25 48.6	2.286	3.290	3.1	20.5	7 30	21 9.09	-37 25.6	1.777	2.753	7.3	20.2
8 9	20 59.11	-26 46.3	2.290	3.289	3.6	20.5	8 9	20 57.96	-37 45.1	1.795	2.760	8.0	20.2
8 19	20 51.48	-27 33.8	2.322	3.289	6.3	20.7	8 19	20 47.48	-37 41.5	1.837	2.766	10.2	20.4
8 29	20 44.85	-28 8.4	2.381	3.287	9.1	20.9	8 29	20 38.82	-37 15.6	1.903	2.773	12.8	20.6
9 8	20 39.85	-28 29.5	2.464	3.286	11.7	21.1	9 8	20 32.77	-36 31.1	1.990	2.779	15.3	20.8
368658	2005 <i>EJ</i> ₂₂₃		8 5.3 116°46'	0°6'	5.7	17	482415	2012 <i>BB</i> ₉₄		8 5.3 223°30'	1°2'	4.4	18
6 30	21 28.35	-12 24.0	1.550	2.403	16.5	20.6	6 30	21 27.50	-20 22.7	2.547	3.392	11.0	22.0
7 10	21 23.83	-12 59.2	1.484	2.411	12.7	20.4	7 10	21 22.34	-20 33.1	2.462	3.387	8.4	21.8
7 20	21 16.82	-13 48.7	1.439	2.419	8.3	20.2	7 20	21 15.50	-20 46.4	2.401	3.382	5.3	21.6
7 30	21 8.03	-14 48.0	1.417	2.427	3.4	19.9	7 30	21 7.46	-20 59.8	2.368	3.377	2.2	21.4
8 9	20 58.50	-15 51.0	1.422	2.434	1.8	19.8	8 9	20 58.92	-21 10.1	2.362	3.371	2.0	21.3
8 19	20 49.42	-16 51.1	1.453	2.441	6.6	20.1	8 19	20 50.63	-21 15.2	2.385	3.365	5.1	21.6
8 29	20 41.93	-17 42.8	1.508	2.448	11.0	20.4	8 29	20 43.34	-21 13.5	2.436	3.359	8.2	21.7
9 8	20 36.87	-18 22.9	1.586	2.455	14.9	20.7	9 8	20 37.65	-21 4.5	2.512	3.353	11.0	21.9
130909	2000 <i>VG</i> ₄₆		8 5.3 266°87'	4°2'	8.3	18	36353	2000 <i>NP</i> ₂₆		8 5.3 295°19'	1°6'	6.2	18
6 30	21 25.00	-3 52.9	1.878	2.695	15.5	20.8	6 30	21 25.85	-11 10.3	1.328	2.192	18.1	18.8
7 10	21 21.08	-3 56.4	1.784	2.680	12.6	20.5	7 10	21 22.70	-11 26.8	1.239	2.170	14.3	18.5
7 20	21 15.03	-4 17.7	1.709	2.665	9.2	20.3	7 20	21 16.63	-12 1.5	1.168	2.149	9.6	18.1
7 30	21 7.36	-4 56.4	1.658	2.650	5.8	20.1	7 30	21 8.17	-12 51.9	1.119	2.127	4.4	17.8
8 9	20 58.85	-5 50.0	1.632	2.635	4.2	19.9	8 9	20 58.40	-13 52.5	1.093	2.105	2.3	17.6
8 19	20 50.45	-6 53.7	1.634	2.619	6.4	20.0	8 19	20 48.69	-14 55.9	1.092	2.084	7.7	17.8
8 29	20 43.17	-8 2.0	1.661	2.604	10.0	20.2	8 29	20 40.58	-15 54.8	1.114	2.063	13.1	18.1
9 8	20 37.83	-9 8.8	1.711	2.588	13.6	20.4	9 8	20 35.26	-16 43.2	1.156	2.042	17.9	18.3
423014	2003 <i>SG</i> ₃₉₅		8 5.3 170°33'	0°6'	4.8	17	138049	2000 <i>DO</i> ₃₃		8 5.3 254°40'	0°3'	5.5	18
6 30	21 29.01	-15 1.1	1.707	2.560	15.2	21.8	6 30	21 29.30	-14 54.7	1.659	2.512	15.6	20.1
7 10	21 24.24	-15 49.2	1.634	2.563	11.6	21.6	7 10	21 24.63	-15 3.8	1.575	2.503	12.0	19.8
7 20	21 17.07	-16 49.2	1.583	2.565	7.4	21.4	7 20	21 17.45	-15 23.0	1.513	2.493	7.8	19.5
7 30	21 8.14	-17 55.9	1.557	2.567	2.9	21.1	7 30	21 8.37	-15 49.0	1.474	2.484	3.2	19.2
8 9	20 58.43	-19 2.7	1.557	2.569	2.1	21.1	8 9	20 58.39	-16 17.4	1.462	2.474	1.8	19.1
8 19	20 49.07	-20 3.4	1.585	2.569	6.7	21.4	8 19	20 48.69	-16 43.6	1.476	2.464	6.6	19.4
8 29	20 41.17	-20 53.1	1.638	2.570	10.9	21.6	8 29	20 40.45	-17 4.0	1.514	2.453	11.1	19.6
9 8	20 35.58	-21 29.3	1.714	2.570	14.5	21.8	9 8	20 34.59	-17 16.3	1.576	2.443	15.0	19.9
50602	2000 <i>EM</i> ₅₀		8 5.3 260°01'	0°1'	5.4	18	2153	Akiyama		8 5.3 243°67'	0°5'	4.9	18
6 30	21 30.23	-15 56.6	1.656	2.510	15.5	18.6	6 30	21 24.90	-16 47.9	2.579	3.421	11.0	17.4
7 10	21 25.33	-15 58.1	1.571	2.500	12.0	18.4	7 10	21 20.42	-17 12.4	2.487	3.411	8.4	17.2
7 20	21 17.88	-16 8.0	1.508	2.489	7.8	18.1	7 20	21 14.32	-17 42.8	2.420	3.400	5.4	17.0
7 30	21 8.49	-16 23.3	1.469	2.479	3.1	17.8	7 30	21 7.03	-18 16.5	2.379	3.389	2.1	16.8
8 9	20 58.20	-16 39.8	1.456	2.468	1.8	17.7	8 9	20 59.20	-18 50.1	2.366	3.377	1.5	16.7
8 19	20 48.20	-16 53.7	1.469	2.457	6.7	18.0	8 19	20 51.52	-19 20.4	2.382	3.366	4.8	16.9
8 29	20 39.70	-17 1.9	1.507	2.445	11.2	18.2	8 29	20 44.72	-19 44.8	2.426	3.354	8.0	17.1
9 8	20 33.63	-17 2.6	1.568	2.434	15.1	18.4	9 8	20 39.42	-20 1.8	2.494	3.342	10.8	17.3
100910	1998 <i>KR</i> ₂₃		8 5.3 161°16'	0°8'	4.7	18	211488	2003 <i>HA</i> ₄₄		8 5.3 2°44'	0°7'	4.9	18
6 30	21 29.61	-15 45.9	1.752	2.603	14.9	19.7	6 30	21 14.29	-13 59.5	0.937	1.846	20.0	18.5
7 10	21 24.61	-16 30.9	1.680	2.609	11.4	19.5	7 10	21 14.31	-14 48.3	0.884	1.842	15.3	18.2
7 20	21 17.26	-17 26.5	1.631	2.613	7.3	19.3	7 20	21 11.30	-15 57.5	0.847	1.841	9.8	17.9
7 30	21 8.21	-18 27.5	1.607	2.617	2.8	19.0	7 30	21 6.03	-17 20.4	0.830	1.842	3.8	17.6
8 9	20 58.42	-19 27.8	1.610	2.621	2.1	19.0	8 9	20 59.80	-18 46.1	0.834	1.846	2.7	17.5
8 19	20 49.01	-20 21.5	1.640	2.623	6.6	19.3	8 19	20 54.13	-19 3.6	0.858	1.852	8.7	17.9
8 29	20 41.05	-21 4.4	1.695	2.626	10.7	19.5	8 29	20 50.46	-21 4.1	0.903	1.861	14.1	18.2
9 8	20 35.37	-21 34.3	1.774	2.628	14.2	19.7	9 8	20 49.77	-21 43.0	0.965	1.872	18.8	18.5
18542	Broglio		8 5.3 57°09'	8°9'	29.8	18	503741	2016 <i>LU</i> ₂₈		8 5.3 101°00'	0°2'	5.2	17
6 30	21 30.52	-35 16.4	1.615	2.485	15.1	17.9	6 30	21 27.49	-13 30.2	1.489	2.349	16.7	21.1
7 10	21 25.92	-36 57.6	1.566	2.491	12.2	17.7	7 10	21 23.33	-14 20.2	1.424	2.355	12.8	20.9
7 20	21 18.38	-38 32.7	1.538	2.497	9.9	17.6	7 20	21 16.62	-15 24.8	1.379	2.362	8.2	20.6
7 30	21 8.69	-39 51.0	1.534	2.503	8.9	17.5	7 30	21 8.02	-16 38.7	1.357	2.368	3.2	20.4
8 9	20 58.15	-40 43.9	1.554	2.509	9.9	17.6	8 9	20 58.65	-17 54.3	1.362	2.374	2.0	20.3
8 19	20 48.20	-41 7.4	1.598	2.515	12.2	17.8	8 19	20 49.70	-19 4.3	1.392	2.380	7.0	20.6
8 29	20 40.23	-41 1.7	1.663	2.522	14.9	17.9	8 29	20 42.39	-20 2.6	1.447	2.386	11.5	20.9
9 8	20 35.14	-40 31.1	1.746	2.528	17.4	18.1	9 8	20 37.57	-20 46.2	1.524	2.391	15.4	21.2
471827	2012 <i>XQ</i> ₄₃		8 5.3 294°79'	3°4'	2.9	18	305449	2008 <i>CL</i> ₂₀₉		8 5.3 126°78'	1°4'	6.4	18
6 30													

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
20714	1999 <i>XS</i> ₃₆		8 5.3 194°20	4°2/ 2.0	18		180961	2005 <i>MJ</i> ₃₅		8 5.3 34°17	0°0/ 5.1	17	
6 30	21 28.32	-29 3.0	2.438	3.293	11.2	18.2	6 30	21 26.80	-15 5.2	1.134	2.016	19.3	20.0
7 10	21 23.14	-29 40.5	2.367	3.292	8.6	18.0	7 10	21 23.25	-15 22.3	1.087	2.030	14.7	19.7
7 20	21 16.09	-30 16.4	2.318	3.292	6.1	17.9	7 20	21 16.70	-15 52.9	1.058	2.045	9.4	19.5
7 30	21 7.73	-30 45.7	2.296	3.291	4.3	17.8	7 30	21 8.08	-16 31.6	1.051	2.062	3.7	19.2
8 9	20 58.85	-31 4.5	2.302	3.290	4.8	17.8	8 9	20 58.77	-17 11.5	1.066	2.079	2.1	19.2
8 19	20 50.31	-31 10.1	2.335	3.288	7.0	17.9	8 19	20 50.25	-17 46.3	1.105	2.096	7.7	19.6
8 29	20 42.94	-31 1.7	2.394	3.287	9.7	18.1	8 29	20 43.84	-18 11.4	1.166	2.115	12.7	19.9
9 8	20 37.38	-30 40.4	2.476	3.286	12.1	18.3	9 8	20 40.36	-18 24.5	1.247	2.134	16.8	20.2
507938	2015 <i>AR</i> ₁₇₈		8 5.3 268°04	0°9/ 4.8	17		127355	2002 <i>JX</i> ₁₂₆		8 5.3 264°16	8°9/ 26.7	18	
6 30	21 30.11	-17 13.4	1.542	2.403	16.1	22.0	6 30	21 30.06	-43 8.2	2.402	3.240	11.8	19.8
7 10	21 25.61	-17 36.0	1.452	2.386	12.4	21.7	7 10	21 25.12	-44 46.1	2.342	3.232	10.2	19.7
7 20	21 18.32	-18 8.7	1.384	2.367	8.1	21.4	7 20	21 17.75	-46 15.0	2.306	3.224	9.2	19.6
7 30	21 8.81	-18 46.9	1.338	2.349	3.2	21.1	7 30	21 8.53	-47 27.3	2.294	3.216	9.0	19.5
8 9	20 58.16	-19 24.7	1.319	2.330	2.4	21.0	8 9	20 58.45	-48 16.6	2.307	3.208	9.8	19.6
8 19	20 47.68	-19 56.5	1.325	2.311	7.5	21.3	8 19	20 48.64	-48 40.1	2.344	3.200	11.3	19.7
8 29	20 38.75	-20 18.0	1.356	2.292	12.4	21.5	8 29	20 40.25	-48 37.6	2.402	3.192	13.1	19.8
9 8	20 32.45	-20 27.3	1.407	2.272	16.6	21.7	9 8	20 34.18	-48 12.3	2.479	3.184	14.7	19.9
3022	Dobermann		8 5.3 256°43	15°0/ 17.3	18 A		147476	2004 <i>CK</i> ₂₄		8 5.3 31°38	0°8/ 5.8	17 R	
6 30	21 25.11	+18 16.3	1.304	2.031	25.2	17.3	6 30	21 25.92	-13 11.6	1.198	2.073	18.9	19.2
7 10	21 22.19	+18 50.2	1.220	2.020	23.1	17.1	7 10	21 22.51	-13 28.1	1.144	2.083	14.5	19.0
7 20	21 16.33	+18 42.6	1.148	2.009	20.5	16.8	7 20	21 16.23	-13 59.8	1.109	2.094	9.4	18.8
7 30	21 8.10	+17 44.4	1.091	1.997	17.8	16.6	7 30	21 7.92	-14 42.4	1.096	2.106	3.9	18.5
8 9	20 58.56	+15 51.6	1.051	1.985	15.7	16.5	8 9	20 58.86	-15 29.2	1.106	2.119	2.0	18.4
8 19	20 49.10	+13 7.3	1.033	1.973	15.1	16.4	8 19	20 50.46	-16 13.6	1.140	2.132	7.4	18.8
8 29	20 41.27	+9 43.9	1.036	1.961	16.4	16.4	8 29	20 44.02	-16 50.0	1.196	2.146	12.3	19.1
9 8	20 36.27	+6 0.6	1.061	1.948	19.1	16.5	9 8	20 40.39	-17 15.1	1.273	2.161	16.5	19.4
318304	2004 <i>TU</i> ₈₇		8 5.3 226°79	0°7/ 6.0	18		12473	Levi-Civita		8 5.3 6°62	8°2/ 30.4	18	
6 30	21 23.99	-12 24.1	3.008	3.833	10.0	22.3	6 30	21 23.99	-29 56.1	1.333	2.225	16.3	17.1
7 10	21 19.51	-12 44.5	2.910	3.822	7.8	22.1	7 10	21 21.35	-31 49.9	1.282	2.226	12.8	16.9
7 20	21 13.64	-13 12.3	2.837	3.810	5.1	21.9	7 20	21 15.69	-33 43.8	1.251	2.227	9.7	16.8
7 30	21 6.77	-13 45.6	2.790	3.797	2.3	21.7	7 30	21 7.78	-35 25.7	1.243	2.230	8.2	16.7
8 9	20 59.44	-14 21.8	2.773	3.784	1.2	21.6	8 9	20 58.91	-36 44.5	1.258	2.233	9.5	16.8
8 19	20 52.20	-14 58.2	2.785	3.771	4.0	21.8	8 19	20 50.56	-37 33.4	1.296	2.238	12.5	17.0
8 29	20 45.68	-15 32.2	2.825	3.757	6.8	21.9	8 29	20 44.19	-37 50.8	1.354	2.243	15.8	17.2
9 8	20 40.40	-16 1.6	2.892	3.743	9.4	22.1	9 8	20 40.77	-37 39.6	1.430	2.250	18.8	17.4
69474	1996 <i>XA</i> ₃		8 5.3 277°19	4°2/ 7.3	18		312515	2009 <i>DD</i> ₁₅		8 5.3 60°23	1°6/ 4.6	17	
6 30	21 29.47	-7 40.8	1.556	2.392	17.2	19.2	6 30	21 32.74	-18 24.2	1.179	2.056	19.1	20.3
7 10	21 25.03	-7 8.9	1.462	2.373	13.9	18.9	7 10	21 27.56	-18 50.3	1.138	2.079	14.4	20.1
7 20	21 17.91	-6 50.9	1.388	2.354	10.0	18.6	7 20	21 19.33	-19 25.2	1.117	2.103	9.1	19.9
7 30	21 8.67	-6 47.4	1.336	2.334	6.0	18.3	7 30	21 9.07	-20 2.2	1.117	2.127	3.6	19.6
8 9	20 58.29	-6 56.9	1.309	2.315	4.3	18.2	8 9	20 58.26	-20 34.2	1.141	2.152	3.0	19.7
8 19	20 48.01	-7 16.5	1.308	2.295	7.4	18.3	8 19	20 48.45	-20 56.0	1.190	2.176	8.1	20.0
8 29	20 39.15	-7 42.0	1.331	2.275	11.9	18.5	8 29	20 40.93	-21 5.2	1.261	2.201	12.8	20.4
9 8	20 32.77	-8 8.6	1.375	2.254	16.1	18.7	9 8	20 36.47	-21 1.6	1.353	2.225	16.7	20.7
269406	2009 <i>RK</i> ₂₉		8 5.3 249°67	4°5/ 8.2	18		106888	2000 <i>YM</i> ₃₉		8 5.3 222°16	2°8/ 6.9	18	
6 30	21 26.55	-4 24.2	1.697	2.520	16.6	20.5	6 30	21 29.06	-8 37.9	1.683	2.518	16.2	20.2
7 10	21 22.41	-4 15.0	1.614	2.514	13.5	20.3	7 10	21 24.38	-8 38.6	1.600	2.512	12.8	20.0
7 20	21 15.98	-4 23.6	1.550	2.508	9.8	20.1	7 20	21 17.30	-8 54.2	1.536	2.506	8.9	19.7
7 30	21 7.82	-4 49.9	1.509	2.502	6.2	19.9	7 30	21 8.38	-9 23.3	1.496	2.499	4.8	19.5
8 9	20 58.84	-5 31.4	1.494	2.496	4.5	19.8	8 9	20 58.60	-10 2.4	1.483	2.492	2.9	19.3
8 19	20 50.09	-6 23.5	1.504	2.490	6.8	19.9	8 19	20 49.06	-10 46.7	1.495	2.484	6.4	19.5
8 29	20 42.65	-7 20.5	1.540	2.483	10.5	20.1	8 29	20 40.91	-11 31.3	1.533	2.476	10.7	19.8
9 8	20 37.38	-8 16.7	1.598	2.477	14.2	20.3	9 8	20 35.04	-12 11.5	1.594	2.467	14.5	20.0
508088	2015 <i>DF</i> ₁₀₂		8 5.3 252°67	4°8/ 2.3	17		359613	2011 <i>BH</i> ₁₅₃		8 5.3 315°45	4°2/ 2.4	18	
6 30	21 30.20	-25 6.0	1.563	2.435	15.4	22.0	6 30	21 28.38	-27 58.5	2.131	2.991	12.3	20.8
7 10	21 25.67	-26 10.2	1.489	2.427	11.9	21.8	7 10	21 23.48	-28 32.3	2.057	2.987	9.5	20.6
7 20	21 18.31	-27 18.7	1.437	2.419	8.0	21.6	7 20	21 16.48	-29 5.1	2.006	2.982	6.6	20.4
7 30	21 8.79	-28 23.4	1.409	2.411	5.1	21.4	7 30	21 7.98	-29 31.7	1.980	2.978	4.4	20.2
8 9	20 58.27	-29 15.7	1.406	2.402	5.9	21.4	8 9	20 58.88	-29 47.6	1.981	2.974	4.9	20.3
8 19	20 48.10	-29 49.7	1.428	2.394	9.4	21.6	8 19	20 50.13	-29 49.7	2.009	2.970	7.5	20.4
8 29	20 39.65	-30 2.7	1.474	2.385	13.4	21.8	8 29	20 42.69	-29 37.2	2.063	2.966	10.5	20.6
9 8	20 33.92	-29 55.7	1.540	2.376	16.9	22.0	9 8	20 37.28	-29 11.2	2.139	2.962	13.2	20.8
339234	2004 <i>UF</i> ₆		8 5.3 271°10	3°0/ 3.2	18		215398	2002 <i>DH</i> ₄		8 5.3 183°24	12°8/ 29.1	17	
6 30	21 29.26	-22 29.6	1.966	2.824	13.3	21.4	6 30	21 52.49	-50 33.0	1.837	2.641	16.2	21.7
7 10	21 24.53	-23 16.0	1.867	2.799	10.2	21.1	7 10	21 43.11	-51 48.5	1.786	2.642	14.5	21.6
7 20	21 17.42	-24 8.0	1.792	2.774	6.7	20.9	7 20	21 29.60	-52 44.7	1.756	2.642	13.3	21.5
7 30	21 8.44	-25 0.1	1.742	2.748	3.5	20.6	7 30	21 13.21	-53 9.7	1.747	2.641	12.8	21.5
8 9	20 58.45	-25 46.1	1.719	2.722	4.0	20.6	8 9	20 55.95	-52 56.3	1.761	2.640	13.5	21.5
8 19	20 48.53	-26 20.8	1.724	2.695	7.5	20.8	8 19	20 40.06	-52 3.6	1.798	2.638	14.9	21.6
8 29	20 39.83	-26 41.0	1.754	2.668	11.4	21.0	8 29	20 27.38	-50 37.2	1.855	2.636	16.7	21.7
9 8	20 33.28	-26 45.8	1.806	2.641	14.8	21.1	9 8	20 18.85	-48 46.4	1.931	2.633	18.4	21.9
101864	1999 <i>LF</i> ₇		8 5.3 7°65	0°1/ 5.2	18		25393	1999 <i>UK</i> ₂₆		8 5.3 204°19	2°6/ 7.1	18	

EPHEMERIDES

8 5.3

8 5.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
244263	2002 <i>CR</i> ₂₈₂		8 5.3 301°45	2°8/ 3.7 18			312426	2008 <i>GL</i> ₉₁		8 5.4 356°98	4°8/ 9.2 18		
6 30	21 29.98	-24 35.0	2.008	2.866	13.0	20.6	6 30	21 22.13	-1 43.2	1.972	2.781	15.1	20.6
7 10	21 24.88	-24 44.2	1.918	2.849	10.0	20.3	7 10	21 18.71	-1 39.3	1.891	2.779	12.4	20.4
7 20	21 17.50	-24 54.1	1.849	2.831	6.6	20.1	7 20	21 13.44	-1 53.0	1.830	2.778	9.3	20.3
7 30	21 8.44	-25 0.1	1.807	2.813	3.5	19.9	7 30	21 6.81	-2 24.4	1.793	2.777	6.4	20.1
8 9	20 58.60	-24 58.3	1.791	2.795	3.6	19.8	8 9	20 59.58	-3 11.1	1.780	2.777	4.8	20.0
8 19	20 49.03	-24 46.0	1.803	2.778	7.0	20.0	8 19	20 52.59	-4 9.0	1.795	2.777	6.3	20.1
8 29	20 40.78	-24 22.2	1.840	2.761	10.6	20.2	8 29	20 46.66	-5 12.9	1.834	2.777	9.2	20.2
9 8	20 34.67	-23 47.8	1.901	2.744	13.9	20.4	9 8	20 42.50	-6 17.3	1.898	2.778	12.3	20.4
514198	2015 <i>MW</i> ₁₁₄		8 5.3 347°36	4°6/ 9.2 18			289248	2004 <i>XQ</i> ₈₄		8 5.4 223°84	0°9/ 4.6 18		
6 30	21 22.39	-1 32.8	1.921	2.731	15.4	21.3	6 30	21 24.33	-17 52.7	2.699	3.543	10.5	21.3
7 10	21 18.97	-1 42.4	1.839	2.728	12.6	21.2	7 10	21 19.94	-18 23.1	2.613	3.538	8.0	21.1
7 20	21 13.63	-2 11.3	1.777	2.726	9.4	20.9	7 20	21 14.02	-18 58.7	2.551	3.532	5.1	20.9
7 30	21 6.89	-2 59.0	1.738	2.725	6.3	20.8	7 30	21 7.00	-19 36.6	2.516	3.525	2.0	20.7
8 9	20 59.50	-4 2.4	1.724	2.723	4.6	20.7	8 9	20 59.48	-20 13.3	2.509	3.519	1.7	20.6
8 19	20 52.34	-5 16.6	1.737	2.722	6.2	20.8	8 19	20 52.14	-20 45.9	2.531	3.512	4.8	20.9
8 29	20 46.28	-6 35.5	1.777	2.721	9.3	20.9	8 29	20 45.65	-21 11.7	2.581	3.506	7.7	21.0
9 8	20 42.02	-7 52.9	1.839	2.720	12.6	21.1	9 8	20 40.58	-21 29.5	2.655	3.499	10.4	21.2
504883	2010 <i>VG</i> ₁₇₀		8 5.3 294°71	4°8/ 7.8 17			305849	2009 <i>EW</i> ₄		8 5.4 10°06	0°7/ 5.9 18		
6 30	21 27.05	-6 3.1	1.430	2.271	18.3	22.1	6 30	21 23.97	-12 4.2	1.849	2.698	14.4	20.2
7 10	21 23.30	-5 36.5	1.346	2.258	14.8	21.8	7 10	21 20.26	-12 38.3	1.774	2.699	11.1	20.0
7 20	21 16.85	-5 27.4	1.280	2.245	10.8	21.6	7 20	21 14.50	-13 25.2	1.721	2.700	7.3	19.8
7 30	21 8.29	-5 36.6	1.236	2.232	6.7	21.3	7 30	21 7.25	-14 21.3	1.692	2.701	3.1	19.5
8 9	20 58.67	-6 2.0	1.215	2.219	4.9	21.2	8 9	20 59.36	-15 21.6	1.690	2.702	1.5	19.4
8 19	20 49.24	-6 39.7	1.219	2.207	7.7	21.3	8 19	20 51.74	-16 20.7	1.714	2.703	5.7	19.7
8 29	20 41.34	-7 23.9	1.247	2.195	12.1	21.5	8 29	20 45.35	-17 13.7	1.765	2.705	9.7	19.9
9 8	20 36.00	-8 8.5	1.295	2.183	16.3	21.7	9 8	20 40.92	-17 57.0	1.838	2.707	13.1	20.2
205172	2000 <i>AY</i> ₂₃₂		8 5.3 266°11	2°2/ 3.7 18			129521	1995 <i>WH</i> ₄₀		8 5.4 168°31	5°5/ 31.6 18		
6 30	21 28.47	-20 48.3	2.157	3.009	12.5	20.7	6 30	21 30.04	-30 17.1	2.206	3.062	12.1	20.9
7 10	21 23.70	-21 29.5	2.056	2.985	9.6	20.5	7 10	21 24.79	-31 34.9	2.141	3.066	9.5	20.7
7 20	21 16.78	-22 16.6	1.979	2.961	6.2	20.2	7 20	21 17.37	-32 51.5	2.101	3.069	6.9	20.6
7 30	21 8.20	-23 5.1	1.928	2.936	2.9	20.0	7 30	21 8.38	-33 59.8	2.086	3.072	5.5	20.5
8 9	20 58.72	-23 49.7	1.904	2.910	3.1	19.9	8 9	20 58.71	-34 53.6	2.099	3.074	6.3	20.5
8 19	20 49.31	-24 25.8	1.908	2.884	6.6	20.1	8 19	20 49.37	-35 28.9	2.139	3.076	8.6	20.7
8 29	20 40.97	-24 50.2	1.939	2.857	10.3	20.3	8 29	20 41.35	-35 44.4	2.204	3.077	11.2	20.9
9 8	20 34.55	-25 1.7	1.993	2.830	13.6	20.4	9 8	20 35.39	-35 41.5	2.290	3.078	13.6	21.0
311559	2006 <i>BK</i> ₂₂₆		8 5.3 230°34	2°0/ 4.4 17			424393	2007 <i>YP</i> ₂₇		8 5.4 257°44	5°1/ 1.9 17		
6 30	21 31.75	-19 36.5	1.350	2.222	17.4	21.1	6 30	21 30.33	-24 56.3	1.603	2.473	15.2	21.3
7 10	21 26.99	-19 59.7	1.282	2.220	13.3	20.8	7 10	21 25.90	-26 13.6	1.521	2.458	11.7	21.1
7 20	21 19.21	-20 30.6	1.233	2.219	8.6	20.6	7 20	21 18.60	-27 37.2	1.461	2.442	8.0	20.8
7 30	21 9.19	-21 3.4	1.208	2.218	3.6	20.3	7 30	21 9.03	-28 58.3	1.425	2.425	5.3	20.6
8 9	20 58.20	-21 31.3	1.207	2.217	3.2	20.3	8 9	20 58.28	-30 7.7	1.415	2.409	6.2	20.6
8 19	20 47.74	-21 49.2	1.231	2.215	8.2	20.5	8 19	20 47.71	-30 58.0	1.430	2.392	9.8	20.8
8 29	20 39.24	-21 54.1	1.278	2.214	13.0	20.8	8 29	20 38.76	-31 25.5	1.469	2.374	13.8	21.0
9 8	20 33.69	-21 45.7	1.346	2.212	17.1	21.1	9 8	20 32.51	-31 30.6	1.528	2.356	17.4	21.2
328664	2009 <i>SJ</i> ₂₇₇		8 5.3 32°73	0°4/ 5.6 17			80790	2000 <i>CS</i> ₈₅		8 5.4 262°66	0°2/ 5.2 18		
6 30	21 25.03	-13 7.5	1.132	2.012	19.4	20.5	6 30	21 28.27	-15 2.6	1.685	2.540	15.3	20.1
7 10	21 21.92	-13 37.5	1.085	2.026	14.8	20.2	7 10	21 23.97	-15 31.4	1.596	2.525	11.8	19.8
7 20	21 15.88	-14 24.0	1.056	2.042	9.6	20.0	7 20	21 17.16	-16 11.9	1.527	2.509	7.7	19.6
7 30	21 7.81	-15 21.5	1.048	2.058	3.9	19.7	7 30	21 8.40	-17 0.2	1.483	2.493	3.0	19.2
8 9	20 59.04	-16 21.9	1.063	2.076	2.0	19.7	8 9	20 58.66	-17 50.6	1.465	2.477	1.9	19.1
8 19	20 50.99	-17 17.6	1.102	2.094	7.6	20.1	8 19	20 49.06	-18 37.6	1.473	2.460	6.8	19.4
8 29	20 44.98	-18 2.5	1.163	2.113	12.5	20.4	8 29	20 40.84	-19 16.1	1.507	2.443	11.3	19.6
9 8	20 41.82	-18 33.3	1.244	2.133	16.7	20.7	9 8	20 34.94	-19 43.5	1.562	2.426	15.3	19.8
299818	2006 <i>SP</i> ₁₅₆		8 5.4 225°62	0°7/ 5.9 18 R			430460	2001 <i>EO</i> ₁₅		8 5.4 37°22	9°9/ 31.2 16		
6 30	21 25.69	-12 57.7	2.086	2.928	13.3	21.2	6 30	21 34.32	-39 15.2	1.517	2.381	16.2	20.1
7 10	21 21.34	-13 15.2	2.005	2.926	10.2	21.0	7 10	21 28.87	-40 20.4	1.477	2.394	13.4	19.9
7 20	21 15.09	-13 42.6	1.946	2.923	6.7	20.8	7 20	21 20.25	-41 13.3	1.457	2.407	11.0	19.8
7 30	21 7.45	-14 17.2	1.913	2.921	2.9	20.5	7 30	21 9.50	-41 44.3	1.459	2.421	9.9	19.8
8 9	20 59.21	-14 55.2	1.907	2.919	1.5	20.4	8 9	20 58.16	-41 46.8	1.485	2.436	10.6	19.9
8 19	20 51.22	-15 32.7	1.928	2.916	5.3	20.7	8 19	20 47.81	-41 19.6	1.533	2.451	12.6	20.0
8 29	20 44.34	-16 6.1	1.976	2.914	9.0	20.9	8 29	20 39.83	-40 25.7	1.602	2.466	15.1	20.2
9 8	20 39.26	-16 32.8	2.048	2.911	12.2	21.1	9 8	20 34.98	-39 11.3	1.691	2.482	17.5	20.4
390447	2013 <i>YY</i> ₇₃		8 5.4 36°89	2°5/ 6.5 17			383120	2005 <i>SF</i> ₂₉₂		8 5.4 291°05	2°6/ 3.9 18		
6 30	21 30.84	-12 6.5	1.678	2.521	15.9	20.1	6 30	21 29.09	-21 7.9	1.558	2.427	15.6	21.7
7 10	21 25.53	-11 28.0	1.608	2.526	12.4	19.9	7 10	21 24.82	-21 37.0	1.474	2.412	12.0	21.5
7 20	21 17.87	-10 58.5	1.558	2.531	8.4	19.7	7 20	21 17.81	-22 12.5	1.411	2.397	7.8	21.2
7 30	21 8.56	-10 37.5	1.533	2.537	4.3	19.4	7 30	21 8.69	-22 48.6	1.372	2.381	3.6	20.9
8 9	20 58.60	-10 23.4	1.534	2.543	2.8	19.3	8 9	20 58.52	-23 19.1	1.358	2.366	3.6	20.9
8 19	20 49.13	-10 14.1	1.561	2.549	6.3	19.6	8 19	20 48.62	-23 38.7	1.370	2.351	8.0	21.1
8 29	20 41.19	-10 7.4	1.614	2.556	10.3	19.8	8 29	20 40.31	-23 44.5	1.405	2.335	12.5	21.3
9 8	20 35.57	-10 1.0	1.690	2.562	13.9	20.1	9 8	20 34.62	-23 36.0	1.462	2.321	16.4	21.5
188125	2002 <i>CL</i> ₆₅		8 5.4 152°24	4°7/ 1.5 18			187595	2006 <i>WE</i> ₁₂₈		8 5.4			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
74814	1999 <i>TD</i> ₈		8 5.4 298°05	0°7/ 4.9	18		397874	2008 <i>UH</i> ₆₅		8 5.4 323°31	0°3/ 5.5	18	
6 30	21 27.41	-16 25.9	1.391	2.262	17.0	19.3	6 30	21 25.15	-15 38.0	1.360	2.235	17.1	20.4
7 10	21 23.91	-16 47.8	1.300	2.238	13.2	19.0	7 10	21 22.15	-15 34.4	1.272	2.211	13.3	20.1
7 20	21 17.47	-17 21.8	1.229	2.215	8.6	18.7	7 20	21 16.30	-15 41.2	1.203	2.188	8.8	19.8
7 30	21 8.65	-18 3.7	1.181	2.191	3.4	18.3	7 30	21 8.19	-15 55.6	1.156	2.166	3.6	19.4
8 9	20 58.52	-18 47.2	1.156	2.168	2.4	18.2	8 9	20 58.89	-16 13.2	1.133	2.145	2.0	19.3
8 19	20 48.48	-19 25.7	1.156	2.145	7.9	18.4	8 19	20 49.75	-16 29.2	1.133	2.125	7.5	19.5
8 29	20 40.04	-19 54.1	1.180	2.122	13.2	18.7	8 29	20 42.21	-16 39.6	1.157	2.105	12.7	19.8
9 8	20 34.39	-20 9.3	1.223	2.099	17.8	18.9	9 8	20 37.40	-16 41.6	1.200	2.087	17.3	20.0
117219	2004 <i>RF</i> ₂₆₆		8 5.4 198°16	6°1/30.6	18		352537	2008 <i>CG</i> ₁₇₉		8 5.4 150°90	0°8/ 4.6	18	
6 30	21 30.89	-38 19.5	2.857	3.694	10.2	19.7	6 30	21 25.24	-16 15.4	2.553	3.394	11.1	21.5
7 10	21 25.04	-39 9.1	2.790	3.692	8.4	19.5	7 10	21 20.68	-17 5.1	2.478	3.401	8.4	21.3
7 20	21 17.34	-39 52.2	2.746	3.689	6.8	19.4	7 20	21 14.53	-18 1.8	2.427	3.408	5.3	21.1
7 30	21 8.33	-40 23.5	2.729	3.686	6.1	19.4	7 30	21 7.26	-19 2.0	2.404	3.414	2.1	20.9
8 9	20 58.81	-40 39.2	2.739	3.682	6.7	19.4	8 9	20 59.50	-20 1.2	2.409	3.420	1.7	20.9
8 19	20 49.64	-40 37.4	2.775	3.678	8.2	19.5	8 19	20 51.97	-20 55.3	2.444	3.425	4.9	21.1
8 29	20 41.63	-40 18.0	2.836	3.674	10.0	19.6	8 29	20 45.37	-21 41.4	2.506	3.430	8.0	21.3
9 8	20 35.43	-39 43.3	2.919	3.670	11.8	19.8	9 8	20 40.27	-22 17.5	2.593	3.435	10.6	21.5
132371	2002 <i>GQ</i> ₇₃		8 5.4 16°29	2°6/ 7.0	17		465206	2007 <i>OR</i> ₄		8 5.4 2°55	3°8/ 3.1	17	
6 30	21 22.69	-7 29.6	1.147	2.015	20.0	19.4	6 30	21 19.15	-18 21.8	0.884	1.797	20.5	20.1
7 10	21 20.28	-8 3.7	1.087	2.018	15.8	19.2	7 10	21 18.42	-19 43.1	0.833	1.794	15.6	19.8
7 20	21 15.00	-9 2.5	1.043	2.022	10.8	18.9	7 20	21 14.24	-21 21.8	0.798	1.793	10.0	19.5
7 30	21 7.57	-10 22.5	1.021	2.027	5.4	18.6	7 30	21 7.40	-23 6.7	0.783	1.794	4.7	19.2
8 9	20 59.23	-11 55.5	1.021	2.032	2.8	18.5	8 9	20 59.41	-24 43.6	0.788	1.796	5.5	19.3
8 19	20 51.36	-13 31.2	1.045	2.039	7.5	18.8	8 19	20 52.04	-26 0.3	0.814	1.800	10.9	19.6
8 29	20 45.36	-14 59.8	1.091	2.046	12.6	19.1	8 29	20 47.01	-26 49.4	0.859	1.806	16.3	19.9
9 8	20 42.17	-16 13.9	1.157	2.054	17.1	19.4	9 8	20 45.40	-27 9.7	0.920	1.813	20.9	20.2
174537	2003 <i>EW</i> ₄₃		8 5.4 131°76	0°9/ 6.2	18		22044	1999 <i>XS</i> ₂₀₆		8 5.4 74°99	1°3/ 4.6	18 R	
6 30	21 25.05	-11 24.9	2.490	3.318	11.8	20.6	6 30	21 31.18	-21 38.8	2.362	3.206	11.8	17.3
7 10	21 20.49	-11 52.1	2.416	3.328	9.1	20.4	7 10	21 25.22	-21 28.6	2.286	3.209	9.0	17.1
7 20	21 14.36	-12 28.7	2.365	3.338	6.0	20.3	7 20	21 17.43	-21 19.5	2.233	3.213	5.8	16.9
7 30	21 7.15	-13 12.1	2.341	3.348	2.7	20.1	7 30	21 8.40	-21 8.9	2.207	3.216	2.4	16.7
8 9	20 59.50	-13 58.9	2.345	3.357	1.3	20.0	8 9	20 58.91	-20 54.4	2.210	3.219	2.0	16.7
8 19	20 52.10	-14 45.5	2.378	3.366	4.5	20.2	8 19	20 49.82	-20 34.6	2.241	3.222	5.3	16.9
8 29	20 45.65	-15 28.5	2.439	3.374	7.6	20.4	8 29	20 41.94	-20 8.9	2.301	3.226	8.5	17.1
9 8	20 40.70	-16 5.5	2.525	3.382	10.4	20.6	9 8	20 35.86	-19 37.7	2.385	3.229	11.4	17.3
476912	2008 <i>WW</i> ₅₀		8 5.4 224°42	2°7/ 3.2	18		45432	2000 <i>AQ</i> ₁₇₂		8 5.4 290°99	4°3/ 7.9	18	
6 30	21 28.76	-22 28.5	2.200	3.053	12.2	22.5	6 30	21 25.47	-5 17.4	1.490	2.328	17.8	19.2
7 10	21 23.77	-23 15.7	2.115	3.044	9.3	22.3	7 10	21 22.06	-5 14.4	1.402	2.313	14.4	19.0
7 20	21 16.73	-24 7.0	2.054	3.035	6.1	22.0	7 20	21 16.08	-5 31.3	1.333	2.298	10.5	18.7
7 30	21 8.17	-24 57.5	2.019	3.025	3.2	21.8	7 30	21 8.07	-6 8.1	1.286	2.284	6.4	18.4
8 9	20 58.89	-25 41.9	2.012	3.014	3.6	21.9	8 9	20 59.02	-7 1.7	1.263	2.269	4.4	18.3
8 19	20 49.81	-26 15.9	2.033	3.003	6.7	22.0	8 19	20 50.10	-8 6.4	1.265	2.255	7.2	18.4
8 29	20 41.89	-26 37.0	2.080	2.992	10.0	22.2	8 29	20 42.60	-9 15.3	1.291	2.240	11.7	18.6
9 8	20 35.86	-26 44.7	2.151	2.980	13.0	22.4	9 8	20 37.52	-10 21.2	1.339	2.226	15.9	18.8
136710	1995 <i>UU</i> ₁₀		8 5.4 333°47	0°0/ 5.2	18		289064	2004 <i>TL</i> ₂₀₄		8 5.4 291°64	0°4/ 5.7	18	
6 30	21 22.23	-15 59.9	1.059	1.954	19.3	19.4	6 30	21 24.38	-14 5.9	2.294	3.136	12.2	21.1
7 10	21 20.51	-15 57.8	0.982	1.932	15.1	19.0	7 10	21 20.27	-14 20.4	2.206	3.127	9.4	20.9
7 20	21 15.54	-16 8.3	0.922	1.912	9.9	18.7	7 20	21 14.40	-14 43.0	2.141	3.119	6.1	20.7
7 30	21 7.94	-16 28.2	0.882	1.893	4.0	18.3	7 30	21 7.27	-15 11.3	2.101	3.110	2.5	20.5
8 9	20 58.98	-16 51.7	0.863	1.876	2.3	18.1	8 9	20 59.54	-15 42.1	2.089	3.102	1.3	20.3
8 19	20 50.27	-17 12.8	0.866	1.860	8.6	18.4	8 19	20 52.01	-16 12.0	2.105	3.093	5.0	20.6
8 29	20 43.53	-17 25.9	0.889	1.845	14.5	18.7	8 29	20 45.45	-16 38.1	2.148	3.085	8.4	20.8
9 8	20 40.04	-17 27.8	0.929	1.833	19.6	18.9	9 8	20 40.52	-16 58.0	2.215	3.076	11.5	21.0
278380	2007 <i>LU</i> ₂₈		8 5.4 24°68	0°5/ 5.0	17		414444	2009 <i>FC</i> ₂		8 5.4 229°25	0°3/ 5.2	17	
6 30	21 23.07	-13 29.2	1.329	2.203	17.5	20.1	6 30	21 29.73	-14 51.9	1.546	2.403	16.3	21.6
7 10	21 20.22	-14 27.8	1.272	2.211	13.3	19.8	7 10	21 25.23	-15 24.0	1.467	2.397	12.6	21.4
7 20	21 14.77	-15 42.8	1.234	2.220	8.5	19.6	7 20	21 18.05	-16 8.8	1.407	2.390	8.1	21.1
7 30	21 7.44	-17 7.6	1.219	2.230	3.3	19.3	7 30	21 8.83	-17 1.6	1.372	2.382	3.2	20.8
8 9	20 59.35	-18 33.5	1.228	2.240	2.2	19.2	8 9	20 58.64	-17 56.3	1.363	2.375	2.0	20.7
8 19	20 51.76	-19 52.1	1.263	2.252	7.3	19.6	8 19	20 48.72	-18 46.4	1.379	2.367	7.1	21.0
8 29	20 45.86	-20 56.6	1.320	2.264	12.0	19.9	8 29	20 40.38	-19 27.0	1.421	2.358	11.8	21.2
9 8	20 42.51	-21 43.7	1.399	2.276	15.9	20.2	9 8	20 34.57	-19 55.1	1.484	2.350	15.9	21.5
178803	Kristenjohnson		8 5.4 144°61	0°2/ 5.2	17		72197	2000 <i>YT</i> ₁₂₈		8 5.4 314°00	4°5/ 2.8	18	
6 30	21 31.01	-15 26.5	1.751	2.599	15.1	21.8	6 30	21 26.45	-22 45.6	1.238	2.127	17.5	19.0
7 10	21 25.68	-15 51.0	1.682	2.607	11.5	21.6	7 10	21 23.54	-23 43.8	1.161	2.109	13.5	18.7
7 20	21 18.00	-16 25.0	1.635	2.615	7.4	21.4	7 20	21 17.41	-24 50.9	1.104	2.092	9.0	18.4
7 30	21 8.67	-17 4.3	1.612	2.622	2.9	21.1	7 30	21 8.71	-25 58.2	1.068	2.075	5.0	18.2
8 9	20 58.66	-17 43.9	1.617	2.629	1.8	21.1	8 9	20 58.68	-26 55.9	1.056	2.059	5.8	18.1
8 19	20 49.10	-18 19.0	1.649	2.635	6.3	21.4	8 19	20 48.91	-27 35.7	1.066	2.043	10.3	18.4
8 29	20 41.03	-18 46.1	1.707	2.641	10.4	21.6	8 29	20 41.08	-27 52.9	1.098	2.028	15.2	18.6
9 8	20 35.24	-19 3.5	1.788	2.646	13.9	21.9	9 8	20 36.40	-27 47.7	1.149	2.014	19.5	18.8
368551	2003 <i>YZ</i> ₁₂₀		8 5.4 243°83	0°3/ 5.2	18		326255	2012 <i>DN</i> ₄₈		8 5.4 46°92	3°4/ 3.9	17	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
41747	2000 VY ₂₄		8 5.4 73°66	0°5/ 5.1 18			293812	2007 RJ ₁₆₄		8 5.4 239°21	1°6/ 6.3 17		
6 30	21 29.55	-16 5.8	1.412	2.278	17.1	19.5	6 30	21 30.04	-11 34.4	1.557	2.404	16.7	21.9
7 10	21 25.17	-16 29.2	1.344	2.279	13.1	19.3	7 10	21 25.45	-11 42.0	1.473	2.395	13.1	21.6
7 20	21 18.01	-17 3.8	1.295	2.280	8.4	19.0	7 20	21 18.21	-12 3.5	1.409	2.386	8.8	21.3
7 30	21 8.80	-17 44.7	1.270	2.281	3.3	18.7	7 30	21 8.93	-12 36.4	1.369	2.376	4.1	21.0
8 9	20 58.71	-18 25.8	1.270	2.282	2.2	18.7	8 9	20 58.64	-13 16.3	1.354	2.365	2.1	20.9
8 19	20 49.08	-19 1.1	1.295	2.283	7.3	19.0	8 19	20 48.59	-13 57.9	1.365	2.354	6.8	21.1
8 29	20 41.22	-19 26.6	1.344	2.284	12.1	19.3	8 29	20 40.06	-14 36.1	1.401	2.343	11.5	21.4
9 8	20 36.07	-19 40.1	1.413	2.285	16.2	19.5	9 8	20 34.03	-15 6.9	1.458	2.332	15.6	21.6
133184	2003 QE ₅₃		8 5.4 343°35	3°5/ 9.0 18			79187	1993 QL ₈		8 5.4 311°67	2°8/ 7.5 18		
6 30	21 20.95	- 0 16.9	1.933	2.739	15.5	19.0	6 30	21 21.98	- 6 3.6	1.635	2.475	16.4	19.8
7 10	21 18.00	- 1 28.2	1.841	2.731	12.6	18.8	7 10	21 19.38	- 6 38.2	1.528	2.443	13.2	19.5
7 20	21 13.13	- 3 4.8	1.770	2.724	9.2	18.5	7 20	21 14.40	- 7 35.3	1.440	2.410	9.3	19.2
7 30	21 6.83	- 5 4.3	1.724	2.717	5.6	18.3	7 30	21 7.48	- 8 53.9	1.376	2.378	5.1	18.9
8 9	20 59.81	- 7 20.8	1.706	2.711	3.5	18.2	8 9	20 59.42	-10 29.3	1.337	2.346	2.9	18.7
8 19	20 52.92	- 9 45.7	1.716	2.706	5.6	18.3	8 19	20 51.25	-12 14.2	1.323	2.315	6.6	18.8
8 29	20 47.06	-12 9.3	1.754	2.701	9.3	18.5	8 29	20 44.20	-13 59.7	1.335	2.284	11.3	19.0
9 8	20 42.98	-14 23.0	1.819	2.697	12.8	18.7	9 8	20 39.32	-15 37.3	1.369	2.254	15.8	19.2
175220	2005 GM ₇₇		8 5.4 216°00	2°0/ 4.0 18			160049	1999 TF ₁₈₉		8 5.4 328°91	8°1/ 1.7 18		
6 30	21 28.57	-17 50.5	1.548	2.413	15.9	20.4	6 30	21 35.14	-35 28.3	1.541	2.407	15.9	18.8
7 10	21 24.33	-18 48.6	1.475	2.411	12.1	20.2	7 10	21 29.67	-36 3.6	1.472	2.397	12.9	18.6
7 20	21 17.46	-19 57.7	1.423	2.408	7.7	19.9	7 20	21 21.01	-36 30.8	1.424	2.388	10.0	18.4
7 30	21 8.60	-21 11.6	1.396	2.405	3.3	19.7	7 30	21 10.01	-36 40.8	1.398	2.379	8.2	18.3
8 9	20 58.81	-22 22.1	1.394	2.402	3.2	19.6	8 9	20 58.10	-36 26.8	1.396	2.371	8.8	18.3
8 19	20 49.36	-23 22.2	1.418	2.399	7.7	19.9	8 19	20 46.89	-35 46.6	1.419	2.363	11.4	18.4
8 29	20 41.50	-24 7.0	1.467	2.396	12.1	20.2	8 29	20 37.85	-34 42.1	1.464	2.356	14.6	18.6
9 8	20 36.16	-24 34.8	1.536	2.392	15.9	20.4	9 8	20 31.94	-33 19.0	1.529	2.349	17.7	18.8
479056	2013 AO ₅₆		8 5.4 73°61	1°5/ 4.5 18			477897	2011 KP ₆		8 5.4 112°44	7°1/ 10.4 17		
6 30	21 29.79	-20 53.5	2.023	2.877	13.1	21.1	6 30	21 27.17	+ 2 32.8	1.874	2.656	16.8	21.3
7 10	21 24.50	-21 0.4	1.952	2.881	10.0	20.9	7 10	21 22.61	+ 3 7.4	1.801	2.664	14.1	21.1
7 20	21 17.14	-21 10.4	1.903	2.885	6.4	20.7	7 20	21 16.01	+ 3 22.1	1.747	2.672	11.2	20.9
7 30	21 8.34	-21 19.8	1.880	2.889	2.7	20.5	7 30	21 7.94	+ 3 15.4	1.716	2.680	8.5	20.8
8 9	20 59.01	-21 25.2	1.884	2.893	2.4	20.4	8 9	20 59.26	+ 2 48.2	1.709	2.687	7.1	20.7
8 19	20 50.08	-21 24.0	1.916	2.897	6.0	20.7	8 19	20 50.89	+ 2 3.6	1.728	2.695	7.9	20.8
8 29	20 42.50	-21 14.7	1.974	2.902	9.6	20.9	8 29	20 43.76	+ 1 6.9	1.771	2.702	10.3	21.0
9 8	20 36.95	-20 57.4	2.056	2.906	12.7	21.1	9 8	20 38.59	+ 0 4.4	1.839	2.709	13.1	21.2
461007	2014 WH ₃₈₂		8 5.4 15°98	6°7/ 2.7 18			444696	2007 EB ₅₆		8 5.4 342°26	1°7/ 6.9 17		
6 30	21 31.97	-29 14.8	1.129	2.019	18.7	19.5	6 30	21 21.91	- 8 39.6	2.041	2.877	13.7	20.8
7 10	21 27.73	-29 51.0	1.078	2.023	14.6	19.3	7 10	21 18.59	- 9 12.6	1.958	2.872	10.7	20.6
7 20	21 19.92	-30 24.3	1.044	2.026	10.3	19.1	7 20	21 13.43	-10 0.1	1.896	2.868	7.3	20.4
7 30	21 9.57	-30 44.9	1.032	2.031	7.0	18.9	7 30	21 6.94	-10 59.5	1.860	2.864	3.6	20.2
8 9	20 58.34	-30 45.0	1.042	2.037	7.6	19.0	8 9	20 59.82	-12 6.4	1.850	2.861	1.9	20.1
8 19	20 48.04	-30 21.3	1.074	2.044	11.3	19.2	8 19	20 52.90	-13 15.8	1.867	2.858	5.2	20.3
8 29	20 40.28	-29 35.4	1.128	2.051	15.4	19.5	8 29	20 47.02	-14 22.4	1.911	2.855	8.9	20.5
9 8	20 35.99	-28 32.0	1.200	2.059	19.2	19.7	9 8	20 42.85	-15 21.8	1.979	2.852	12.2	20.7
72005	2000 XV ₆		8 5.4 194°87	0°2/ 5.5 18			485249	2010 VK ₁₂₃		8 5.4 281°82	2°3/ 3.6 18		
6 30	21 32.23	-15 49.5	1.548	2.402	16.4	19.2	6 30	21 26.49	-22 18.6	2.275	3.131	11.8	21.7
7 10	21 26.99	-15 48.5	1.473	2.402	12.7	19.0	7 10	21 22.02	-22 49.2	2.186	3.116	9.0	21.5
7 20	21 19.08	-15 56.3	1.420	2.401	8.2	18.7	7 20	21 15.62	-23 23.2	2.120	3.102	5.9	21.3
7 30	21 9.21	-16 9.5	1.390	2.400	3.3	18.4	7 30	21 7.81	-23 56.4	2.080	3.087	2.9	21.0
8 9	20 58.49	-16 24.0	1.386	2.398	1.8	18.3	8 9	20 59.33	-24 24.7	2.067	3.072	3.1	21.0
8 19	20 48.22	-16 35.9	1.408	2.397	6.8	18.7	8 19	20 51.03	-24 44.5	2.082	3.057	6.2	21.2
8 29	20 39.62	-16 42.2	1.456	2.395	11.4	18.9	8 29	20 43.79	-24 53.6	2.124	3.042	9.5	21.4
9 8	20 33.62	-16 41.2	1.525	2.393	15.4	19.2	9 8	20 38.33	-24 51.4	2.188	3.027	12.4	21.5
309972	2009 HH ₄₉		8 5.4 272°54	1°8/ 3.8 18			175684	1995 QC ₁₆		8 5.4 210°36	2°1/ 6.4 18		
6 30	21 24.55	-18 5.0	2.087	2.944	12.7	21.1	6 30	21 32.48	-11 48.4	1.774	2.609	15.5	20.7
7 10	21 20.65	-19 9.2	2.007	2.939	9.6	20.9	7 10	21 26.90	-11 30.7	1.690	2.604	12.2	20.4
7 20	21 14.79	-20 22.2	1.950	2.933	6.1	20.7	7 20	21 18.92	-11 23.1	1.627	2.600	8.2	20.2
7 30	21 7.47	-21 38.7	1.919	2.928	2.7	20.4	7 30	21 9.16	-11 24.0	1.589	2.594	4.1	19.9
8 9	20 59.47	-22 52.6	1.916	2.923	2.8	20.4	8 9	20 58.57	-11 30.9	1.578	2.588	2.4	19.8
8 19	20 51.65	-23 58.4	1.940	2.918	6.3	20.7	8 19	20 48.29	-11 40.8	1.594	2.582	6.2	20.1
8 29	20 44.93	-24 51.9	1.991	2.913	9.8	20.9	8 29	20 39.44	-11 50.8	1.636	2.575	10.4	20.3
9 8	20 40.04	-25 30.9	2.065	2.907	12.9	21.1	9 8	20 32.86	-11 58.3	1.701	2.568	14.1	20.5
182168	2000 SL ₂₁₄		8 5.4 237°35	4°6/ 9.8 18			499771	2011 CM ₁₈		8 5.4 254°57	1°1/ 6.2 18		
6 30	21 23.37	+ 0 35.6	2.526	3.305	13.0	20.5	6 30	21 27.73	-10 44.2	1.804	2.644	15.1	22.0
7 10	21 19.36	+ 0 30.8	2.429	3.295	10.8	20.3	7 10	21 23.46	-11 17.5	1.708	2.626	11.8	21.8
7 20	21 13.77	+ 0 9.9	2.352	3.285	8.3	20.1	7 20	21 16.85	-12 6.2	1.633	2.608	7.9	21.5
7 30	21 7.03	- 0 26.9	2.299	3.274	5.9	20.0	7 30	21 8.40	-13 7.4	1.582	2.589	3.6	21.2
8 9	20 59.73	- 1 17.9	2.274	3.263	4.6	19.9	8 9	20 58.97	-14 15.9	1.558	2.570	1.8	21.0
8 19	20 52.53	- 2 20.0	2.276	3.252	5.6	19.9	8 19	20 49.59	-15 25.7	1.561	2.550	6.2	21.3
8 29	20 46.14	- 3 28.7	2.306	3.241	8.0	20.0	8 29	20 41.41	-16 30.7	1.591	2.530	10.6	21.5
9 8	20 41.15	- 4 39.2	2.361	3.229	10.6	20.2	9 8	20 35.35	-17 26.2	1.643	2.509	14.6	21.7
153225	2000 YH ₅₂		8 5.4 251°70	0°3/ 5.1 18			42557	1996 TB ₆₇		8 5.4 120°26	2°3/ 6.7 18		
6 30	21 25.69	-16 9.7	2.594										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
198121	2004 <i>TM</i> ₁₂		8 5.4 187°38	3°6/ 8.6 18			507206	2010 <i>UP</i> ₃₄		8 5.4 318°38	0°2/ 5.5 17		
6 30	21 25.99	- 2 43.0	2.376	3.169	13.3	21.0	6 30	21 27.36	-16 3.8	1.202	2.081	18.6	21.1
7 10	21 21.39	- 3 0.5	2.287	3.169	10.8	20.8	7 10	21 24.18	-15 57.3	1.122	2.063	14.5	20.8
7 20	21 15.10	- 3 33.5	2.220	3.168	7.9	20.6	7 20	21 17.81	-16 1.5	1.060	2.046	9.5	20.5
7 30	21 7.58	- 4 20.9	2.178	3.166	5.1	20.4	7 30	21 8.91	-16 13.3	1.019	2.029	3.9	20.1
8 9	20 59.49	- 5 20.1	2.164	3.164	3.6	20.3	8 9	20 58.72	-16 27.8	1.001	2.013	2.1	20.0
8 19	20 51.58	- 6 26.8	2.178	3.161	5.2	20.4	8 19	20 48.78	-16 39.8	1.006	1.998	8.1	20.3
8 29	20 44.59	- 7 36.5	2.220	3.158	8.1	20.6	8 29	20 40.74	-16 45.3	1.033	1.983	13.7	20.5
9 8	20 39.16	- 8 44.2	2.288	3.154	11.0	20.8	9 8	20 35.78	-16 41.9	1.079	1.970	18.6	20.8
518798	2010 <i>BU</i> ₉₁		8 5.4 216°37	0°6/ 5.9 18			273824	2007 <i>GL</i> ₂₁		8 5.4 196°31	2°8/ 7.4 18		
6 30	21 22.61	-12 2.4	2.887	3.715	10.3	21.8	6 30	21 27.73	- 7 6.4	2.086	2.904	14.1	21.4
7 10	21 18.59	-12 37.4	2.797	3.710	8.0	21.6	7 10	21 22.96	- 7 13.8	2.001	2.902	11.2	21.2
7 20	21 13.19	-13 20.9	2.731	3.705	5.2	21.5	7 20	21 16.23	- 7 34.9	1.936	2.899	7.9	21.0
7 30	21 6.79	-14 10.5	2.692	3.699	2.2	21.2	7 30	21 8.07	- 8 8.2	1.897	2.896	4.4	20.8
8 9	20 59.94	-15 3.2	2.682	3.694	1.1	21.1	8 9	20 59.25	- 8 50.8	1.885	2.892	2.8	20.7
8 19	20 53.22	-15 55.5	2.701	3.688	4.1	21.4	8 19	20 50.64	- 9 38.7	1.901	2.888	5.5	20.8
8 29	20 47.24	-16 44.1	2.749	3.682	6.9	21.5	8 29	20 43.13	-10 27.5	1.943	2.883	9.0	21.0
9 8	20 42.51	-17 26.8	2.822	3.676	9.5	21.7	9 8	20 37.43	-11 13.0	2.010	2.877	12.2	21.2
172210	2002 <i>QF</i> ₇₇		8 5.4 309°54	0°1/ 5.3 18			259793	2004 <i>BM</i> ₆₃		8 5.4 190°98	0°9/ 4.9 17		
6 30	21 25.82	-15 11.9	1.792	2.647	14.5	20.7	6 30	21 31.10	-17 19.6	1.815	2.665	14.6	22.1
7 10	21 21.87	-15 35.0	1.711	2.640	11.1	20.5	7 10	21 25.85	-17 44.8	1.738	2.665	11.1	21.9
7 20	21 15.70	-16 8.1	1.651	2.633	7.2	20.2	7 20	21 18.23	-18 17.9	1.682	2.663	7.1	21.7
7 30	21 7.89	-16 47.7	1.616	2.626	2.9	19.9	7 30	21 8.89	-18 54.7	1.651	2.661	2.8	21.4
8 9	20 59.31	-17 29.0	1.607	2.619	1.7	19.8	8 9	20 58.80	-19 29.9	1.648	2.659	2.1	21.4
8 19	20 50.99	-18 7.1	1.625	2.613	6.1	20.1	8 19	20 49.03	-19 59.3	1.672	2.656	6.4	21.6
8 29	20 43.97	-18 38.2	1.668	2.607	10.3	20.3	8 29	20 40.69	-20 19.6	1.722	2.653	10.5	21.9
9 8	20 39.04	-18 59.7	1.734	2.600	13.9	20.6	9 8	20 34.60	-20 29.5	1.795	2.649	14.1	22.1
180335	2003 <i>YC</i> ₃₃		8 5.4 270°34	2°6/ 7.1 18			204031	2003 <i>UP</i> ₁₀₀		8 5.4 287°07	2°8/ 3.4 18		
6 30	21 26.38	- 7 54.6	1.526	2.370	17.2	20.4	6 30	21 26.62	-21 4.8	1.812	2.677	13.9	19.8
7 10	21 22.69	- 8 13.8	1.442	2.360	13.6	20.1	7 10	21 22.58	-21 58.2	1.733	2.669	10.6	19.6
7 20	21 16.46	- 8 51.9	1.378	2.350	9.4	19.9	7 20	21 16.22	-22 58.4	1.676	2.661	6.9	19.4
7 30	21 8.26	- 9 46.9	1.336	2.340	4.9	19.6	7 30	21 8.13	-23 59.5	1.645	2.652	3.4	19.1
8 9	20 59.08	-10 54.0	1.319	2.330	2.8	19.4	8 9	20 59.22	-24 54.9	1.640	2.644	3.8	19.1
8 19	20 50.09	-12 6.5	1.328	2.319	6.7	19.6	8 19	20 50.57	-25 39.1	1.661	2.636	7.4	19.3
8 29	20 42.53	-13 17.0	1.362	2.309	11.4	19.9	8 29	20 43.25	-26 8.6	1.707	2.628	11.2	19.6
9 8	20 37.37	-14 19.8	1.417	2.299	15.5	20.1	9 8	20 38.12	-26 22.4	1.775	2.621	14.6	19.8
245603	2005 <i>WP</i> ₂		8 5.4 181°33	7°9/27.6 18			304246	2006 <i>RB</i> ₄₃		8 5.4 303°14	6°4/ 1.3 18		
6 30	21 36.04	-48 30.3	3.217	4.017	10.0	21.3	6 30	21 31.39	-33 1.8	1.924	2.785	13.4	20.8
7 10	21 29.06	-49 30.6	3.164	4.018	8.9	21.2	7 10	21 26.22	-33 47.9	1.852	2.777	10.7	20.6
7 20	21 20.00	-50 19.8	3.133	4.018	8.1	21.2	7 20	21 18.53	-34 29.6	1.803	2.769	8.1	20.5
7 30	21 9.50	-50 52.5	3.128	4.018	7.9	21.2	7 30	21 9.02	-34 59.9	1.778	2.761	6.5	20.3
8 9	20 58.45	-51 5.1	3.148	4.017	8.4	21.2	8 9	20 58.75	-35 12.8	1.778	2.754	7.1	20.4
8 19	20 47.85	-50 56.3	3.192	4.016	9.4	21.3	8 19	20 48.92	-35 5.4	1.805	2.747	9.5	20.5
8 29	20 38.61	-50 27.0	3.259	4.015	10.6	21.4	8 29	20 40.69	-34 37.6	1.855	2.740	12.4	20.7
9 8	20 31.43	-49 40.3	3.346	4.013	11.8	21.5	9 8	20 34.89	-33 52.2	1.926	2.733	15.1	20.8
260929	2005 <i>RS</i> ₄₄		8 5.4 267°95	1°8/ 6.6 18			512932	2017 <i>AW</i> ₈		8 5.4 274°71	3°5/ 3.3 18		
6 30	21 26.66	-11 18.6	2.257	3.087	12.8	21.0	6 30	21 32.15	-28 13.6	2.406	3.254	11.5	20.8
7 10	21 22.03	-11 9.4	2.165	3.077	10.0	20.8	7 10	21 26.09	-28 20.8	2.328	3.251	8.9	20.6
7 20	21 15.58	-11 8.9	2.096	3.067	6.8	20.5	7 20	21 18.09	-28 25.3	2.273	3.248	6.1	20.4
7 30	21 7.80	-11 15.9	2.053	3.057	3.4	20.3	7 30	21 8.77	-28 23.3	2.246	3.245	3.8	20.3
8 9	20 59.39	-11 28.2	2.037	3.047	2.0	20.2	8 9	20 58.95	-28 11.6	2.247	3.242	4.0	20.3
8 19	20 51.17	-11 43.3	2.048	3.036	5.1	20.4	8 19	20 49.53	-27 48.6	2.275	3.240	6.5	20.4
8 29	20 43.95	-11 58.4	2.087	3.026	8.5	20.6	8 29	20 41.37	-27 14.5	2.331	3.237	9.3	20.6
9 8	20 38.41	-12 11.1	2.150	3.015	11.6	20.8	9 8	20 35.12	-26 30.7	2.411	3.234	12.0	20.8
354120	2002 <i>AM</i> ₁₄₉		8 5.4 229°26	0°2/ 5.2 18			188715	2005 <i>TF</i> ₁₆₆		8 5.4 159°09	1°9/ 7.0 18		
6 30	21 27.54	-16 54.1	2.294	3.137	12.2	21.1	6 30	21 24.96	- 9 5.0	2.607	3.424	11.6	21.5
7 10	21 22.64	-17 0.8	2.210	3.133	9.3	20.9	7 10	21 20.43	- 9 13.2	2.525	3.429	9.1	21.3
7 20	21 15.93	-17 13.0	2.150	3.129	6.0	20.7	7 20	21 14.39	- 9 31.2	2.466	3.432	6.2	21.1
7 30	21 7.91	-17 28.2	2.116	3.125	2.4	20.5	7 30	21 7.30	- 9 57.3	2.434	3.436	3.3	20.9
8 9	20 59.34	-17 43.3	2.109	3.121	1.4	20.4	8 9	20 59.76	-10 29.2	2.430	3.439	2.0	20.8
8 19	20 51.02	-17 55.5	2.131	3.117	5.1	20.6	8 19	20 52.43	-11 3.8	2.455	3.442	4.4	21.0
8 29	20 43.77	-18 2.7	2.180	3.112	8.6	20.8	8 29	20 45.98	-11 38.2	2.507	3.445	7.3	21.2
9 8	20 38.23	-18 3.7	2.253	3.107	11.6	21.0	9 8	20 40.95	-12 9.7	2.585	3.447	10.0	21.4
285251	1998 <i>DD</i> ₂₇		8 5.4 160°70	3°1/ 3.5 17			208847	2002 <i>RD</i> ₁₉₄		8 5.4 273°84	0°0/ 5.2 18		
6 30	21 32.26	-24 17.5	1.961	2.816	13.4	21.6	6 30	21 25.86	-14 36.2	1.949	2.798	13.7	21.0
7 10	21 26.54	-24 46.2	1.891	2.820	10.3	21.4	7 10	21 21.78	-15 4.5	1.863	2.789	10.6	20.7
7 20	21 18.55	-25 16.3	1.844	2.824	6.7	21.2	7 20	21 15.61	-15 43.0	1.798	2.779	6.9	20.5
7 30	21 8.97	-25 42.7	1.822	2.827	3.6	21.0	7 30	21 7.88	-16 28.4	1.759	2.769	2.7	20.2
8 9	20 58.76	-26 0.5	1.828	2.830	3.9	21.0	8 9	20 59.41	-17 15.8	1.747	2.759	1.6	20.1
8 19	20 49.00	-26 6.6	1.861	2.832	7.1	21.2	8 19	20 51.12	-18 0.7	1.762	2.749	5.8	20.4
8 29	20 40.70	-25 59.8	1.920	2.834	10.5	21.4	8 29	20 44.01	-18 38.8	1.803	2.739	9.8	20.6
9 8	20 34.62	-25 40.8	2.001	2.836	13.6	21.7	9 8	20 38.83	-19 7.6	1.867	2.729	13.3	20.8
211860	2004 <i>GH</i> ₂₀		8 5.4 161°44	18°3/13.9 18			23592	1995 <i>UB</i> ₄₇		8 5.4 266°63			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
346501	2008 <i>UL</i> ₉₄		8 5.4 305°57	8°2/29.7	18		49026	1998 <i>QW</i> ₉₈		8 5.4 359°24	0°2/ 5.6	18	
6 30	21 27.09	-30 47.9	1.553	2.432	15.1	20.0	6 30	21 19.23	-13 51.7	0.974	1.873	20.2	18.0
7 10	21 23.94	-32 40.5	1.466	2.402	12.1	19.8	7 10	21 18.19	-14 12.7	0.916	1.868	15.6	17.7
7 20	21 17.74	-34 37.6	1.401	2.372	9.4	19.5	7 20	21 13.99	-14 52.0	0.874	1.865	10.2	17.4
7 30	21 8.97	-36 28.1	1.360	2.342	8.2	19.4	7 30	21 7.40	-15 44.8	0.852	1.863	4.1	17.1
8 9	20 58.70	-38 0.1	1.343	2.312	9.6	19.4	8 9	20 59.77	-16 43.0	0.851	1.864	2.2	17.0
8 19	20 48.39	-39 4.3	1.349	2.283	12.8	19.5	8 19	20 52.66	-17 37.6	0.871	1.866	8.3	17.3
8 29	20 39.67	-39 36.5	1.377	2.253	16.4	19.6	8 29	20 47.62	-18 21.2	0.911	1.870	13.9	17.7
9 8	20 33.87	-39 37.9	1.423	2.224	19.8	19.8	9 8	20 45.68	-18 49.2	0.969	1.876	18.7	18.0
206506	2003 <i>UJ</i> ₁₁₈		8 5.4 270°49	0°7/ 5.9	18		310657	2002 <i>EA</i> ₄		8 5.4 170°23	0°6/ 4.9	18	
6 30	21 27.79	-13 59.2	1.882	2.728	14.3	20.7	6 30	21 26.30	-17 18.7	2.705	3.543	10.7	22.2
7 10	21 23.28	-14 4.0	1.796	2.720	11.1	20.4	7 10	21 21.44	-17 41.0	2.625	3.546	8.1	22.0
7 20	21 16.59	-14 18.0	1.733	2.711	7.3	20.2	7 20	21 15.05	-18 8.4	2.570	3.549	5.2	21.8
7 30	21 8.27	-14 38.8	1.694	2.702	3.1	19.9	7 30	21 7.60	-18 38.0	2.541	3.551	2.0	21.6
8 9	20 59.21	-15 2.8	1.681	2.693	1.6	19.8	8 9	20 59.69	-19 6.8	2.542	3.553	1.5	21.6
8 19	20 50.38	-15 26.4	1.696	2.684	5.8	20.1	8 19	20 52.01	-19 31.9	2.571	3.554	4.6	21.8
8 29	20 42.80	-15 46.1	1.736	2.676	9.9	20.3	8 29	20 45.24	-19 51.2	2.629	3.555	7.5	22.0
9 8	20 37.27	-15 59.6	1.800	2.667	13.5	20.5	9 8	20 39.91	-20 3.5	2.711	3.556	10.1	22.2
131236	2001 <i>ER</i>		8 5.4 116°63	6°3/10.9	18		189545	2000 <i>RT</i> ₃₆		8 5.4 303°46	5°3/ 8.5	18	
6 30	21 24.23	+ 3 41.4	1.955	2.733	16.3	19.7	6 30	21 24.93	- 3 11.1	1.621	2.445	17.2	19.9
7 10	21 20.39	+ 3 34.5	1.875	2.737	13.7	19.5	7 10	21 21.77	- 2 59.1	1.508	2.408	14.3	19.6
7 20	21 14.62	+ 3 5.1	1.815	2.741	10.8	19.4	7 20	21 16.09	- 3 6.8	1.414	2.370	10.8	19.3
7 30	21 7.47	+ 2 12.8	1.777	2.745	8.0	19.2	7 30	21 8.29	- 3 36.0	1.342	2.333	7.2	19.0
8 9	20 59.70	+ 1 0.3	1.764	2.749	6.3	19.1	8 9	20 59.19	- 4 25.4	1.294	2.295	5.3	18.8
8 19	20 52.18	- 0 27.6	1.778	2.753	7.1	19.2	8 19	20 49.86	- 5 31.4	1.271	2.257	7.7	18.8
8 29	20 45.77	- 2 4.0	1.818	2.756	9.6	19.3	8 29	20 41.62	- 6 47.2	1.272	2.219	12.0	19.0
9 8	20 41.17	- 3 41.5	1.883	2.760	12.5	19.5	9 8	20 35.62	- 8 5.2	1.295	2.182	16.3	19.1
72272	2001 <i>AQ</i> ₄₃		8 5.4 156°03	3°4/ 3.2	18		98732	2000 <i>YR</i> ₃₀		8 5.4 295°40	0°2/ 5.6	18	
6 30	21 33.38	-23 30.9	1.846	2.702	14.1	20.2	6 30	21 26.65	-14 21.9	1.673	2.529	15.3	19.7
7 10	21 27.56	-24 20.4	1.780	2.709	10.8	20.0	7 10	21 22.87	-14 39.0	1.578	2.507	11.9	19.4
7 20	21 19.31	-25 13.1	1.736	2.716	7.1	19.8	7 20	21 16.63	-15 7.7	1.503	2.484	7.8	19.1
7 30	21 9.34	-26 2.5	1.718	2.723	3.9	19.6	7 30	21 8.42	-15 45.1	1.452	2.461	3.2	18.8
8 9	20 58.69	-26 42.4	1.728	2.729	4.3	19.6	8 9	20 59.17	-16 26.3	1.427	2.439	1.7	18.6
8 19	20 48.48	-27 8.7	1.765	2.734	7.6	19.9	8 19	20 50.00	-17 6.1	1.427	2.416	6.6	18.9
8 29	20 39.85	-27 19.3	1.827	2.738	11.2	20.1	8 29	20 42.13	-17 39.8	1.453	2.394	11.3	19.1
9 8	20 33.57	-27 15.0	1.911	2.742	14.3	20.3	9 8	20 36.54	-18 4.2	1.500	2.372	15.4	19.3
510939	2013 <i>EL</i> ₁₀₃		8 5.4 40°21	3°7/ 2.3	18		510599	2012 <i>TL</i> ₁₂		8 5.4 346°17	2°3/ 4.1	18	
6 30	21 24.75	-23 33.8	1.959	2.827	12.9	20.3	6 30	21 25.36	-19 49.9	1.413	2.292	16.3	20.8
7 10	21 20.88	-24 47.6	1.901	2.837	9.8	20.1	7 10	21 22.13	-20 24.6	1.342	2.285	12.5	20.6
7 20	21 14.97	-26 5.1	1.865	2.847	6.5	19.9	7 20	21 16.18	-21 7.5	1.292	2.279	8.0	20.3
7 30	21 7.60	-27 19.6	1.855	2.858	3.9	19.8	7 30	21 8.21	-21 52.7	1.264	2.274	3.5	20.0
8 9	20 59.65	-28 24.8	1.872	2.869	4.6	19.8	8 9	20 59.34	-22 33.4	1.261	2.270	3.5	20.0
8 19	20 52.06	-29 15.7	1.916	2.880	7.5	20.1	8 19	20 50.85	-23 3.7	1.282	2.266	8.0	20.3
8 29	20 45.76	-29 49.6	1.985	2.892	10.6	20.3	8 29	20 44.05	-23 20.0	1.326	2.263	12.5	20.5
9 8	20 41.44	-30 6.4	2.075	2.903	13.4	20.5	9 8	20 39.87	-23 21.2	1.391	2.261	16.5	20.8
87477	2000 <i>QN</i> ₁₄₀		8 5.4 357°36	6°1/ 9.5	18		106768	2000 <i>XG</i> ₁₄		8 5.4 252°72	6°4/ 7.8	18	
6 30	21 13.58	- 2 10.5	0.987	1.862	22.0	17.5	6 30	21 37.05	- 2 25.9	2.154	2.930	15.0	19.7
7 10	21 13.71	- 2 10.3	0.924	1.854	18.1	17.2	7 10	21 30.17	- 1 1.3	2.049	2.913	12.6	19.5
7 20	21 11.03	- 2 42.5	0.877	1.848	13.6	16.9	7 20	21 21.02	+ 0 14.0	1.966	2.896	9.8	19.3
7 30	21 6.21	- 3 47.7	0.847	1.844	8.9	16.7	7 30	21 10.11	+ 1 17.2	1.910	2.879	7.4	19.1
8 9	21 0.40	- 5 20.7	0.837	1.842	6.1	16.5	8 9	20 58.26	+ 2 6.1	1.881	2.861	6.5	19.0
8 19	20 54.97	- 7 11.1	0.848	1.843	8.4	16.7	8 19	20 46.47	+ 2 39.9	1.882	2.843	7.9	19.1
8 29	20 51.33	- 9 5.7	0.880	1.847	13.1	16.9	8 29	20 35.80	+ 2 59.7	1.911	2.824	10.7	19.2
9 8	20 50.51	-10 51.8	0.930	1.852	17.7	17.2	9 8	20 27.10	+ 3 8.3	1.964	2.805	13.6	19.4
103588	2000 <i>CU</i> ₇		8 5.4 237°30	1°9/ 3.7	18		267185	2000 <i>QE</i> ₁₁₈		8 5.4 27°98	2°0/ 4.8	18	
6 30	21 25.84	-17 13.6	2.069	2.922	12.9	19.9	6 30	21 34.80	-22 50.8	1.313	2.186	17.7	19.2
7 10	21 21.75	-18 33.6	1.985	2.914	9.8	19.7	7 10	21 29.20	-22 27.3	1.256	2.194	13.5	19.0
7 20	21 15.61	-20 4.3	1.924	2.907	6.3	19.4	7 20	21 20.56	-22 4.6	1.218	2.204	8.7	18.7
7 30	21 7.91	-21 40.0	1.890	2.899	2.7	19.2	7 30	21 9.86	-21 38.5	1.204	2.214	3.7	18.5
8 9	20 59.45	-23 13.6	1.884	2.891	2.9	19.2	8 9	20 58.51	-21 5.9	1.214	2.224	3.0	18.5
8 19	20 51.11	-24 38.3	1.907	2.883	6.5	19.4	8 19	20 48.03	-20 25.4	1.250	2.236	7.8	18.8
8 29	20 43.86	-25 49.3	1.956	2.875	10.2	19.6	8 29	20 39.74	-19 37.9	1.309	2.248	12.4	19.1
9 8	20 38.49	-26 43.8	2.029	2.866	13.3	19.8	9 8	20 34.48	-18 45.0	1.389	2.260	16.4	19.4
507649	2013 <i>PY</i> ₅		8 5.4 358°56	2°9/ 4.5	17		186869	2004 <i>HX</i> ₃₁		8 5.4 100°83	2°1/ 6.8	17	
6 30	21 27.42	-22 46.7	0.968	1.870	20.1	20.5	6 30	21 27.76	- 9 0.3	1.632	2.472	16.4	21.0
7 10	21 24.63	-22 39.6	0.911	1.865	15.5	20.2	7 10	21 23.38	- 9 20.9	1.565	2.481	12.8	20.8
7 20	21 18.20	-22 35.5	0.871	1.862	10.1	19.9	7 20	21 16.69	- 9 57.5	1.518	2.490	8.7	20.6
7 30	21 9.06	-22 28.5	0.850	1.860	4.5	19.6	7 30	21 8.34	-10 47.2	1.494	2.499	4.3	20.3
8 9	20 58.85	-22 12.7	0.850	1.860	4.1	19.6	8 9	20 59.30	-11 44.9	1.497	2.508	2.3	20.2
8 19	20 49.43	-21 44.8	0.872	1.862	9.5	19.9	8 19	20 50.68	-12 44.8	1.526	2.516	6.1	20.5
8 29	20 42.50	-21 4.5	0.914	1.865	15.0	20.2	8 29	20 43.51	-13 41.2	1.581	2.525	10.3	20.8
9 8	20 39.11	-20 13.6	0.974	1.870	19.7	20.5	9 8	20 38.60	-14 29.7	1.658	2.533	14.0	21.0
185782	1999 <i>UG</i> ₄₃		8 5.4 321°31	7°6/11.0	18		336683	2010 <i>AA</i> ₅₅		8 5.4 248°54			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
204117	2003 <i>WJ</i> ₁₅₇		8 5.4 157°11	0°0/ 5.2 18			442494	2011 <i>VL</i> ₁₂		8 5.4 277°20	4°7/ 1.6 18		
6 30	21 29.47	-16 5.9	2.109	2.952	13.1	20.3	6 30	21 27.08	-27 36.4	2.110	2.973	12.3	21.4
7 10	21 24.22	-16 11.1	2.033	2.955	10.0	20.1	7 10	21 22.72	-28 40.3	2.036	2.968	9.5	21.2
7 20	21 17.02	-16 22.7	1.979	2.958	6.5	19.9	7 20	21 16.24	-29 45.2	1.986	2.962	6.7	21.1
7 30	21 8.43	-16 38.1	1.952	2.961	2.6	19.7	7 30	21 8.19	-30 44.8	1.961	2.956	4.8	20.9
8 9	20 59.27	-16 53.9	1.952	2.964	1.4	19.6	8 9	20 59.44	-31 32.9	1.963	2.950	5.5	21.0
8 19	20 50.45	-17 7.3	1.980	2.966	5.4	19.9	8 19	20 50.95	-32 5.4	1.991	2.945	8.1	21.1
8 29	20 42.85	-17 15.8	2.035	2.968	9.0	20.1	8 29	20 43.70	-32 20.3	2.045	2.939	11.0	21.3
9 8	20 37.13	-17 18.2	2.114	2.970	12.1	20.3	9 8	20 38.45	-32 18.2	2.120	2.933	13.7	21.5
124192	Moletai		8 5.4 33°73	7°1/ 8.6 17			429600	2011 <i>EM</i> ₇₆		8 5.4 66°91	3°6/ 2.8 17		
6 30	21 28.28	-5 24.9	0.761	1.646	25.9	18.2	6 30	21 29.14	-20 51.7	1.560	2.429	15.6	20.3
7 10	21 24.99	-4 22.4	0.736	1.671	20.7	18.0	7 10	21 24.53	-22 20.2	1.516	2.454	11.7	20.2
7 20	21 18.10	-3 49.8	0.724	1.698	15.1	17.8	7 20	21 17.43	-23 54.8	1.494	2.479	7.5	20.0
7 30	21 8.87	-3 47.9	0.729	1.726	9.7	17.6	7 30	21 8.63	-25 26.9	1.497	2.504	4.0	19.8
8 9	20 59.13	-4 12.0	0.753	1.757	7.1	17.6	8 9	20 59.25	-26 47.9	1.527	2.529	4.6	19.9
8 19	20 50.67	-4 53.9	0.797	1.788	9.8	17.9	8 19	20 50.49	-27 51.4	1.583	2.553	8.2	20.2
8 29	20 44.92	-5 43.7	0.860	1.820	14.3	18.3	8 29	20 43.45	-28 34.5	1.663	2.578	11.9	20.5
9 8	20 42.63	-6 32.0	0.940	1.854	18.5	18.7	9 8	20 38.87	-28 57.5	1.765	2.603	15.0	20.7
362518	2010 <i>TT</i> ₉₄		8 5.4 245°90	4°4/ 1.9 18			238605	2005 <i>AF</i> ₅₅		8 5.4 193°66	2°6/ 3.4 18		
6 30	21 28.77	-29 18.7	2.443	3.296	11.2	21.4	6 30	21 27.94	-21 3.8	2.032	2.889	13.0	20.7
7 10	21 23.71	-30 1.6	2.362	3.287	8.7	21.2	7 10	21 23.33	-21 58.9	1.957	2.888	9.8	20.5
7 20	21 16.72	-30 43.3	2.306	3.278	6.2	21.1	7 20	21 16.60	-22 59.6	1.904	2.887	6.4	20.3
7 30	21 8.33	-31 18.6	2.275	3.268	4.5	20.9	7 30	21 8.34	-24 0.5	1.878	2.885	3.2	20.1
8 9	20 59.32	-31 43.1	2.272	3.258	5.0	21.0	8 9	20 59.38	-24 55.8	1.879	2.883	3.5	20.1
8 19	20 50.56	-31 53.7	2.297	3.248	7.3	21.1	8 19	20 50.69	-25 40.5	1.908	2.881	6.8	20.3
8 29	20 42.93	-31 49.4	2.347	3.237	9.9	21.2	8 29	20 43.23	-26 11.8	1.962	2.879	10.2	20.5
9 8	20 37.11	-31 31.0	2.420	3.227	12.4	21.4	9 8	20 37.76	-26 28.5	2.039	2.876	13.3	20.7
178603	Pinkine		8 5.4 350°00	0°0/ 5.2 18			97829	2000 <i>PL</i> ₁		8 5.4 36°04	4°7/ 3.2 18		
6 30	21 21.15	-16 8.2	0.998	1.898	19.8	18.9	6 30	21 28.68	-22 42.2	1.021	1.918	19.7	18.4
7 10	21 19.72	-16 6.3	0.934	1.886	15.3	18.6	7 10	21 25.27	-23 41.3	0.979	1.931	15.0	18.2
7 20	21 15.06	-16 17.2	0.886	1.877	10.0	18.3	7 20	21 18.41	-24 46.4	0.955	1.944	9.8	18.0
7 30	21 7.88	-16 37.4	0.857	1.868	4.0	17.9	7 30	21 9.12	-25 47.6	0.952	1.959	5.3	17.8
8 9	20 59.55	-17 0.6	0.850	1.862	2.3	17.8	8 9	20 59.02	-26 34.5	0.971	1.974	5.8	17.9
8 19	20 51.69	-17 20.7	0.863	1.858	8.5	18.1	8 19	20 49.84	-27 0.8	1.011	1.991	10.3	18.2
8 29	20 45.91	-17 32.5	0.897	1.855	14.1	18.4	8 29	20 43.13	-27 4.6	1.073	2.008	15.0	18.5
9 8	20 43.34	-17 33.0	0.948	1.855	19.1	18.7	9 8	20 39.77	-26 48.0	1.153	2.025	19.0	18.8
367477	2009 <i>DK</i> ₁₂₉		8 5.4 54°47	1°4/ 6.2 17			479540	2014 <i>BS</i> ₄₁		8 5.4 238°63	1°2/ 4.6 18		
6 30	21 28.72	-11 34.6	1.217	2.083	19.3	20.6	6 30	21 28.71	-18 12.1	1.970	2.822	13.5	22.2
7 10	21 24.67	-11 50.7	1.165	2.097	14.9	20.4	7 10	21 23.98	-18 40.2	1.886	2.814	10.3	22.0
7 20	21 17.75	-12 23.7	1.131	2.112	9.8	20.1	7 20	21 17.07	-19 15.3	1.823	2.805	6.6	21.7
7 30	21 8.79	-13 9.4	1.119	2.128	4.4	19.9	7 30	21 8.55	-19 53.4	1.786	2.796	2.7	21.5
8 9	20 59.11	-14 1.2	1.131	2.143	2.1	19.8	8 9	20 59.26	-20 29.6	1.777	2.787	2.2	21.4
8 19	20 50.11	-14 52.0	1.167	2.159	7.2	20.1	8 19	20 50.21	-20 59.8	1.794	2.777	6.2	21.7
8 29	20 43.09	-15 36.0	1.226	2.175	12.1	20.5	8 29	20 42.39	-21 20.7	1.838	2.767	10.1	21.9
9 8	20 38.92	-16 9.2	1.306	2.191	16.3	20.8	9 8	20 36.61	-21 31.0	1.905	2.757	13.5	22.1
320061	2007 <i>EM</i> ₂₉		8 5.4 194°47	2°5/ 3.5 18			346250	2008 <i>DP</i> ₁₅		8 5.4 248°06	2°1/ 3.8 18		
6 30	21 27.91	-24 1.5	2.436	3.288	11.2	20.8	6 30	21 27.30	-20 19.2	2.154	3.008	12.4	21.1
7 10	21 22.89	-24 25.5	2.360	3.288	8.6	20.6	7 10	21 22.79	-21 1.8	2.067	2.997	9.5	20.9
7 20	21 16.10	-24 50.8	2.307	3.287	5.6	20.5	7 20	21 16.26	-21 50.3	2.003	2.985	6.1	20.7
7 30	21 8.06	-25 13.4	2.281	3.286	3.0	20.3	7 30	21 8.21	-22 40.0	1.965	2.974	2.8	20.4
8 9	20 59.51	-25 29.8	2.283	3.285	3.2	20.3	8 9	20 59.45	-23 25.9	1.955	2.962	2.9	20.4
8 19	20 51.26	-25 37.3	2.313	3.284	5.9	20.5	8 19	20 50.86	-24 3.5	1.973	2.950	6.3	20.6
8 29	20 44.09	-25 34.6	2.369	3.283	8.8	20.7	8 29	20 43.38	-24 30.0	2.017	2.937	9.8	20.8
9 8	20 38.63	-25 21.8	2.450	3.282	11.5	20.8	9 8	20 37.76	-24 44.0	2.084	2.924	12.9	21.0
77556	2001 <i>JQ</i> ₇		8 5.4 16°34	0°6/ 5.0 18			324937	2007 <i>XV</i> ₃₄		8 5.4 260°31	5°6/ 2.1 17		
6 30	21 25.76	-15 33.2	1.786	2.643	14.5	19.2	6 30	21 31.73	-26 39.0	1.464	2.339	16.1	21.0
7 10	21 21.81	-16 11.1	1.713	2.644	11.0	19.0	7 10	21 27.19	-27 43.1	1.393	2.331	12.5	20.8
7 20	21 15.68	-16 59.3	1.662	2.645	7.1	18.7	7 20	21 19.59	-28 50.0	1.342	2.323	8.7	20.6
7 30	21 7.96	-17 53.3	1.636	2.646	2.8	18.5	7 30	21 9.66	-29 50.9	1.315	2.315	5.9	20.4
8 9	20 59.55	-18 47.7	1.636	2.647	1.9	18.4	8 9	20 58.64	-30 36.8	1.313	2.306	6.7	20.4
8 19	20 51.45	-19 37.1	1.662	2.649	6.2	18.7	8 19	20 48.02	-31 1.6	1.335	2.298	10.2	20.6
8 29	20 44.67	-20 17.3	1.715	2.650	10.2	18.9	8 29	20 39.29	-31 3.3	1.380	2.290	14.2	20.8
9 8	20 39.98	-20 45.8	1.789	2.652	13.7	19.2	9 8	20 33.51	-30 43.8	1.445	2.281	17.8	21.0
504821	2010 <i>HS</i> ₁₀₆		8 5.4 163°26	1°3/ 6.5 17			32750	1981 <i>EG</i> ₉		8 5.4 101°73	1°5/ 6.7 18 R		
6 30	21 27.86	-10 42.8	2.473	3.294	12.1	22.6	6 30	21 26.37	-10 41.9	2.396	3.222	12.3	19.5
7 10	21 22.73	-11 0.1	2.393	3.301	9.4	22.4	7 10	21 21.57	-10 50.5	2.328	3.238	9.5	19.3
7 20	21 15.95	-11 27.0	2.337	3.306	6.3	22.2	7 20	21 15.17	-11 8.4	2.283	3.253	6.4	19.1
7 30	21 8.00	-12 1.3	2.307	3.312	3.0	22.0	7 30	21 7.68	-11 33.7	2.264	3.269	3.1	19.0
8 9	20 59.56	-12 39.9	2.305	3.316	1.6	21.9	8 9	20 59.79	-12 3.4	2.273	3.284	1.7	18.9
8 19	20 51.36	-13 19.4	2.333	3.320	4.6	22.1	8 19	20 52.21	-12 34.5	2.311	3.299	4.6	19.1
8 29	20 44.13	-13 56.7	2.388	3.323	7.8	22.4	8 29	20 45.66	-13 4.0	2.376	3.313	7.7	19.3
9 8	20 38.47	-14 29.1	2.469	3.326	10.6	22.5	9 8	20 40.67	-13 29.6	2.466	3.328	10.4	19.5
144880	2004 <i>RU</i> ₅₆		8 5.4 43°37	0°8/ 4.8 18			63123						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
222437	2001 QZ ₁₉		8 5.4 319°95	1.7°/ 4.5	18		349748	2008 YD ₁₅₁		8 5.5 46°80	0°6/ 5.9	18	
6 30	21 25.90	-18 29.9	1.324	2.204	17.1	19.6	6 30	21 25.77	-12 47.4	1.824	2.673	14.6	21.1
7 10	21 22.88	-18 54.9	1.242	2.186	13.2	19.3	7 10	21 21.75	-13 14.6	1.752	2.676	11.2	20.8
7 20	21 16.93	-19 30.2	1.180	2.168	8.6	19.0	7 20	21 15.62	-13 53.7	1.700	2.679	7.3	20.6
7 30	21 8.64	-20 10.5	1.140	2.151	3.5	18.7	7 30	21 7.98	-14 41.1	1.674	2.683	3.1	20.4
8 9	20 59.18	-20 49.1	1.124	2.134	3.0	18.6	8 9	20 59.68	-15 32.1	1.674	2.686	1.5	20.3
8 19	20 49.93	-21 19.5	1.131	2.118	8.2	18.9	8 19	20 51.71	-16 21.5	1.700	2.690	5.7	20.6
8 29	20 42.41	-21 37.1	1.161	2.103	13.3	19.1	8 29	20 45.01	-17 4.9	1.753	2.693	9.7	20.8
9 8	20 37.72	-21 40.0	1.210	2.089	17.8	19.3	9 8	20 40.32	-17 39.4	1.829	2.697	13.2	21.0
59966	1999 RS ₂₃₈		8 5.4	2°08	6°5/31.8	18	435789	2008 UO ₃₄₉		8 5.5 333°04	8°1/31.2	16	
6 30	21 27.97	-32 11.5	1.857	2.725	13.5	18.8	6 30	21 30.73	-33 46.1	1.591	2.463	15.2	21.2
7 10	21 23.68	-33 12.3	1.795	2.725	10.7	18.6	7 10	21 26.31	-35 1.2	1.529	2.458	12.2	21.0
7 20	21 16.95	-34 9.7	1.756	2.725	8.0	18.5	7 20	21 18.95	-36 12.0	1.488	2.454	9.5	20.8
7 30	21 8.49	-34 56.1	1.741	2.725	6.5	18.4	7 30	21 9.39	-37 8.7	1.471	2.450	8.1	20.8
8 9	20 59.34	-35 25.5	1.751	2.726	7.3	18.4	8 9	20 58.90	-37 43.2	1.477	2.446	9.0	20.8
8 19	20 50.63	-35 34.3	1.785	2.727	9.7	18.6	8 19	20 48.92	-37 51.1	1.507	2.443	11.6	20.9
8 29	20 43.48	-35 22.0	1.844	2.729	12.5	18.8	8 29	20 40.85	-37 32.3	1.559	2.439	14.6	21.1
9 8	20 38.68	-34 50.9	1.922	2.731	15.1	18.9	9 8	20 35.65	-36 50.7	1.630	2.436	17.4	21.3
118956	2000 WA ₁₀₃		8 5.4 202°78	3°2/ 2.1	18 R		511488	2014 NS ₁₆		8 5.5 124°70	3°7/ 8.8	17	
6 30	21 26.13	-24 51.6	2.710	3.562	10.3	20.2	6 30	21 25.73	-3 4.7	2.554	3.345	12.5	22.1
7 10	21 21.52	-25 55.8	2.631	3.558	7.8	20.0	7 10	21 21.02	-3 2.5	2.479	3.359	10.1	22.0
7 20	21 15.25	-27 2.3	2.576	3.554	5.3	19.8	7 20	21 14.81	-3 13.3	2.427	3.373	7.5	21.8
7 30	21 7.77	-28 6.3	2.549	3.549	3.4	19.7	7 30	21 7.57	-3 36.4	2.400	3.385	4.9	21.7
8 9	20 59.73	-29 3.2	2.551	3.544	3.9	19.7	8 9	20 59.93	-4 9.8	2.401	3.398	3.7	21.6
8 19	20 51.84	-29 49.1	2.582	3.539	6.2	19.9	8 19	20 52.53	-4 50.5	2.430	3.410	5.0	21.7
8 29	20 44.86	-30 21.9	2.639	3.533	8.8	20.0	8 29	20 46.05	-5 35.1	2.486	3.422	7.5	21.9
9 8	20 39.39	-30 41.0	2.720	3.527	11.2	20.2	9 8	20 41.01	-6 19.9	2.568	3.433	10.0	22.1
107407	2001 DS ₆		8 5.4 94°18	0°9/ 6.0	17		497225	2005 AD ₁₆		8 5.5 173°04	1°4/ 4.1	18	
6 30	21 29.53	-12 4.2	1.526	2.377	16.8	19.9	6 30	21 27.95	-18 33.0	2.557	3.398	11.1	22.5
7 10	21 24.86	-12 29.3	1.465	2.390	13.0	19.7	7 10	21 22.87	-19 24.2	2.479	3.402	8.4	22.3
7 20	21 17.71	-13 8.3	1.424	2.403	8.5	19.5	7 20	21 16.11	-20 21.2	2.425	3.405	5.4	22.1
7 30	21 8.79	-13 57.4	1.407	2.416	3.7	19.2	7 30	21 8.13	-21 20.0	2.399	3.407	2.3	21.9
8 9	20 59.20	-14 50.6	1.416	2.428	1.8	19.1	8 9	20 59.61	-22 15.8	2.401	3.409	2.2	21.9
8 19	20 50.12	-15 42.0	1.451	2.440	6.4	19.4	8 19	20 51.31	-23 5.0	2.434	3.410	5.3	22.1
8 29	20 42.68	-16 26.6	1.510	2.452	10.8	19.7	8 29	20 43.96	-23 44.5	2.493	3.411	8.3	22.3
9 8	20 37.67	-17 1.2	1.592	2.464	14.6	20.0	9 8	20 38.19	-24 13.0	2.578	3.410	11.0	22.5
406780	2008 RV ₁₁		8 5.4 43°23	2°3/ 7.6	18		495312	2014 EV ₂₄		8 5.5 186°35	16°0/ 18.6	18	
6 30	21 22.15	-6 47.2	2.533	3.349	12.0	20.8	6 30	21 28.41	+20 35.0	1.389	2.086	25.1	21.1
7 10	21 18.42	-7 7.9	2.450	3.351	9.5	20.6	7 10	21 24.63	+21 31.9	1.315	2.086	23.1	20.9
7 20	21 13.21	-7 40.7	2.390	3.352	6.6	20.4	7 20	21 17.97	+21 49.9	1.254	2.086	20.8	20.7
7 30	21 6.94	-8 24.0	2.356	3.354	3.7	20.2	7 30	21 9.07	+21 20.9	1.207	2.085	18.5	20.6
8 9	21 0.21	-9 14.8	2.349	3.356	2.3	20.1	8 9	20 59.05	+20 0.8	1.177	2.084	16.7	20.4
8 19	20 53.67	-10 9.5	2.370	3.358	4.5	20.3	8 19	20 49.26	+17 52.1	1.167	2.082	16.0	20.4
8 29	20 47.96	-11 4.3	2.419	3.360	7.4	20.5	8 29	20 41.15	+15 4.8	1.179	2.079	16.8	20.4
9 8	20 43.64	-11 55.6	2.494	3.362	10.1	20.7	9 8	20 35.80	+11 55.0	1.211	2.076	18.7	20.6
196666	2003 SF ₄₇		8 5.5 282°09	0°8/ 5.9	18		5969	Ryuichiro		8 5.5 9°99	5°9/ 3.0	18	
6 30	21 27.73	-13 47.2	1.849	2.696	14.5	20.3	6 30	21 31.25	-27 35.2	1.145	2.035	18.5	16.4
7 10	21 23.42	-13 52.5	1.756	2.679	11.3	20.1	7 10	21 27.23	-28 9.4	1.090	2.036	14.4	16.1
7 20	21 16.84	-14 7.7	1.683	2.661	7.5	19.8	7 20	21 19.74	-28 42.7	1.053	2.038	9.9	15.9
7 30	21 8.52	-14 30.3	1.635	2.644	3.2	19.5	7 30	21 9.73	-29 6.3	1.038	2.040	6.4	15.7
8 9	20 59.32	-14 56.8	1.614	2.626	1.6	19.3	8 9	20 58.78	-29 12.1	1.045	2.044	6.9	15.8
8 19	20 50.25	-15 23.2	1.619	2.608	6.0	19.6	8 19	20 48.65	-28 56.2	1.075	2.048	10.7	16.0
8 29	20 42.41	-15 45.7	1.650	2.591	10.2	19.8	8 29	20 40.94	-28 19.2	1.126	2.054	15.1	16.3
9 8	20 36.64	-16 1.9	1.704	2.573	14.0	20.0	9 8	20 36.61	-27 25.0	1.196	2.060	19.0	16.5
266198	2006 VQ ₁₇₀		8 5.5 222°46	0°6/ 5.0	18		280878	2005 VW ₉₂		8 5.5 208°85	0°4/ 5.1	17	
6 30	21 29.09	-15 57.9	1.798	2.650	14.6	21.7	6 30	21 28.67	-15 29.7	2.050	2.894	13.4	21.9
7 10	21 24.45	-16 30.9	1.717	2.644	11.2	21.5	7 10	21 23.86	-16 4.8	1.966	2.889	10.2	21.7
7 20	21 17.48	-17 13.8	1.656	2.638	7.2	21.2	7 20	21 16.97	-16 49.0	1.904	2.884	6.6	21.5
7 30	21 8.76	-18 2.5	1.621	2.631	2.8	20.9	7 30	21 8.54	-17 38.7	1.868	2.878	2.6	21.2
8 9	20 59.21	-18 51.5	1.613	2.624	1.9	20.9	8 9	20 59.39	-18 29.0	1.860	2.871	1.7	21.2
8 19	20 49.91	-19 35.5	1.632	2.617	6.4	21.1	8 19	20 50.45	-19 15.1	1.879	2.864	5.8	21.4
8 29	20 41.95	-20 10.4	1.676	2.609	10.6	21.4	8 29	20 42.67	-19 53.3	1.926	2.856	9.6	21.6
9 8	20 36.19	-20 34.0	1.743	2.601	14.2	21.6	9 8	20 36.81	-20 21.3	1.995	2.848	12.9	21.8
165595	2001 FV ₄₀		8 5.5 109°91	4°4/ 2.6	18		41087	1999 VS ₅₆		8 5.5 254°41	0°3/ 5.8	18	
6 30	21 31.94	-27 36.5	1.942	2.801	13.4	19.8	6 30	21 25.16	-13 55.1	2.617	3.451	11.1	20.0
7 10	21 26.37	-28 16.4	1.881	2.810	10.3	19.6	7 10	21 20.79	-14 15.5	2.518	3.435	8.6	19.8
7 20	21 18.52	-28 55.3	1.842	2.819	7.1	19.4	7 20	21 14.81	-14 43.5	2.442	3.418	5.6	19.6
7 30	21 9.09	-29 27.2	1.829	2.827	4.7	19.3	7 30	21 7.64	-15 17.0	2.393	3.402	2.3	19.3
8 9	20 59.09	-29 46.9	1.843	2.836	5.1	19.3	8 9	20 59.88	-15 52.9	2.373	3.385	1.2	19.2
8 19	20 49.60	-29 51.6	1.884	2.845	7.9	19.5	8 19	20 52.22	-16 27.9	2.381	3.368	4.6	19.4
8 29	20 41.65	-29 40.5	1.949	2.853	11.0	19.7	8 29	20 45.38	-16 59.2	2.417	3.351	7.8	19.6
9 8	20 35.96	-29 15.3	2.037	2.861	13.8	19.9	9 8	20 39.97	-17 24.6	2.478	3.333	10.7	19.8
374619	2006 EG ₅₃		8 5.5 168°15	10°8/25.5	17		322232	2011 BP ₇₄		8 5.5 288°40	1°5/ 6.3	17	
6 30	21 47.46	-54 54.7	2.684	3.455	12.5								

EPHEMERIDES

8 5.5

8 5.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
51672	2001 <i>KW</i> ₆		8 5.5 326°22	2.7/ 7.2	18		315107	2007 <i>EX</i> ₂₅		8 5.5 207°12	4.2/ 1.3	18	
6 30	21 25.55	- 8 47.6	1.774	2.612	15.4	18.6	6 30	21 29.18	-31 29.5	3.022	3.866	9.5	22.4
7 10	21 21.69	- 8 44.0	1.693	2.607	12.2	18.4	7 10	21 23.71	-32 14.0	2.943	3.859	7.5	22.2
7 20	21 15.67	- 8 54.2	1.632	2.602	8.4	18.1	7 20	21 16.61	-32 56.0	2.888	3.852	5.5	22.1
7 30	21 8.04	- 9 16.9	1.595	2.597	4.6	17.9	7 30	21 8.35	-33 31.3	2.861	3.845	4.3	22.0
8 9	20 59.68	- 9 49.0	1.583	2.592	2.8	17.8	8 9	20 59.58	-33 56.0	2.862	3.837	4.8	22.0
8 19	20 51.56	-10 26.5	1.598	2.588	6.0	18.0	8 19	20 51.02	-34 7.9	2.892	3.829	6.6	22.1
8 29	20 44.70	-11 4.8	1.638	2.583	9.9	18.2	8 29	20 43.40	-34 6.2	2.948	3.820	8.7	22.3
9 8	20 39.88	-11 39.7	1.701	2.580	13.5	18.4	9 8	20 37.30	-33 51.5	3.027	3.811	10.7	22.4
326685	2002 <i>XT</i> ₃₅		8 5.5 340°79	5.8/ 2.0	17		257710	1999 <i>XD</i> ₁₁₅		8 5.5 246°00	1.1/ 4.7	18	
6 30	21 26.08	-25 9.7	1.250	2.141	17.2	19.8	6 30	21 29.75	-16 53.9	1.809	2.661	14.5	21.3
7 10	21 23.21	-26 22.3	1.185	2.133	13.3	19.6	7 10	21 25.10	-17 33.3	1.718	2.646	11.2	21.1
7 20	21 17.21	-27 40.6	1.140	2.126	9.1	19.3	7 20	21 18.03	-18 22.8	1.649	2.631	7.2	20.8
7 30	21 8.79	-28 54.6	1.117	2.119	6.0	19.1	7 30	21 9.07	-19 17.7	1.605	2.615	2.9	20.5
8 9	20 59.25	-29 54.0	1.117	2.113	6.9	19.2	8 9	20 59.14	-20 12.3	1.588	2.599	2.3	20.4
8 19	20 50.16	-30 31.2	1.139	2.108	10.8	19.4	8 19	20 49.35	-21 0.7	1.598	2.582	6.7	20.7
8 29	20 43.06	-30 43.2	1.183	2.104	15.1	19.6	8 29	20 40.84	-21 38.5	1.634	2.564	11.0	20.9
9 8	20 39.03	-30 31.2	1.246	2.101	18.9	19.9	9 8	20 34.57	-22 3.6	1.692	2.546	14.8	21.1
380280	2002 <i>AX</i> ₁₃₁		8 5.5 195°51	3.2/ 7.4	18		304377	2006 <i>SN</i> ₃₈₁		8 5.5 89°50	0.7/ 4.9	18	
6 30	21 30.63	- 7 44.3	2.094	2.908	14.2	21.2	6 30	21 26.31	-16 22.5	2.026	2.877	13.2	21.3
7 10	21 25.19	- 7 22.2	2.007	2.906	11.3	21.0	7 10	21 21.99	-16 56.1	1.955	2.882	10.1	21.1
7 20	21 17.74	- 7 11.3	1.943	2.903	8.0	20.8	7 20	21 15.70	-17 37.7	1.906	2.887	6.4	20.9
7 30	21 8.83	- 7 11.2	1.904	2.900	4.7	20.6	7 30	21 8.02	-18 23.5	1.882	2.892	2.5	20.7
8 9	20 59.26	- 7 20.1	1.892	2.897	3.3	20.5	8 9	20 59.77	-19 8.7	1.886	2.898	1.8	20.6
8 19	20 49.92	- 7 35.7	1.908	2.893	5.7	20.7	8 19	20 51.83	-19 49.0	1.918	2.903	5.7	20.9
8 29	20 41.74	- 7 54.8	1.951	2.888	9.1	20.9	8 29	20 45.09	-20 21.0	1.975	2.908	9.3	21.1
9 8	20 35.43	- 8 14.2	2.019	2.883	12.3	21.1	9 8	20 40.21	-20 43.0	2.056	2.913	12.4	21.3
176429	2001 <i>VA</i> ₈₉		8 5.5 254°68	4.8/ 8.7	18		256983	2008 <i>EJ</i> ₁₂₇		8 5.5 258°89	3.8/ 8.7	18	
6 30	21 26.68	- 3 9.2	2.153	2.954	14.3	20.4	6 30	21 23.92	- 3 28.4	2.239	3.044	13.7	21.2
7 10	21 22.14	- 2 37.6	2.067	2.950	11.7	20.2	7 10	21 20.00	- 3 29.6	2.153	3.042	11.1	21.0
7 20	21 15.76	- 2 19.7	2.001	2.947	8.8	20.1	7 20	21 14.37	- 3 45.6	2.088	3.039	8.2	20.8
7 30	21 8.04	- 2 15.9	1.961	2.943	6.1	19.9	7 30	21 7.50	- 4 15.9	2.048	3.037	5.3	20.6
8 9	20 59.69	- 2 25.3	1.946	2.940	4.8	19.8	8 9	21 0.06	- 4 58.2	2.035	3.035	3.8	20.5
8 19	20 51.55	- 2 45.9	1.958	2.936	6.2	19.9	8 19	20 52.80	- 5 48.9	2.049	3.032	5.5	20.6
8 29	20 44.45	- 3 14.1	1.997	2.933	9.0	20.0	8 29	20 46.50	- 6 43.8	2.089	3.030	8.4	20.8
9 8	20 39.05	- 3 46.0	2.060	2.929	11.9	20.2	9 8	20 41.79	- 7 38.3	2.154	3.028	11.3	21.0
196426	2003 <i>HB</i> ₂₀		8 5.5 40°31	2.5/ 4.1	17		292524	2006 <i>TZ</i> ₃₆		8 5.5 69°53	4.8/ 8.3	17	
6 30	21 29.13	-20 40.6	1.372	2.248	16.9	20.1	6 30	21 28.13	- 4 41.4	1.476	2.308	18.2	20.5
7 10	21 24.85	-21 11.0	1.320	2.261	12.8	19.9	7 10	21 23.91	- 4 25.7	1.411	2.316	14.7	20.3
7 20	21 17.82	-21 47.5	1.287	2.274	8.2	19.7	7 20	21 17.19	- 4 29.4	1.364	2.324	10.7	20.1
7 30	21 8.88	-22 23.7	1.278	2.288	3.7	19.5	7 30	21 8.68	- 4 52.1	1.339	2.333	6.7	19.9
8 9	20 59.28	-22 53.3	1.294	2.302	3.5	19.5	8 9	20 59.43	- 5 30.7	1.339	2.341	4.8	19.8
8 19	20 50.37	-23 11.5	1.334	2.317	7.9	19.8	8 19	20 50.63	- 6 20.1	1.363	2.350	7.2	20.0
8 29	20 43.36	-23 16.1	1.398	2.332	12.2	20.1	8 29	20 43.41	- 7 14.0	1.412	2.359	11.0	20.2
9 8	20 39.04	-23 7.2	1.482	2.348	15.9	20.4	9 8	20 38.60	- 8 6.4	1.483	2.368	14.8	20.5
315157	2007 <i>FQ</i> ₁₃		8 5.5 129°86	2.1/ 3.5	18		113129	2002 <i>RZ</i> ₈₃		8 5.5 356°49	2.5/ 4.0	18	
6 30	21 26.14	-21 47.3	2.539	3.389	10.9	21.4	6 30	21 27.67	-21 32.7	1.603	2.474	15.1	19.1
7 10	21 21.49	-22 29.1	2.469	3.397	8.2	21.2	7 10	21 23.60	-21 57.5	1.534	2.472	11.5	18.9
7 20	21 15.20	-23 13.9	2.424	3.404	5.3	21.0	7 20	21 17.02	-22 27.0	1.485	2.470	7.5	18.7
7 30	21 7.77	-23 57.8	2.405	3.412	2.6	20.9	7 30	21 8.62	-22 56.0	1.461	2.469	3.5	18.4
8 9	20 59.88	-24 36.8	2.415	3.419	2.8	20.9	8 9	20 59.47	-23 19.1	1.461	2.469	3.5	18.4
8 19	20 52.25	-25 7.7	2.453	3.425	5.5	21.1	8 19	20 50.74	-23 31.9	1.487	2.469	7.4	18.7
8 29	20 45.63	-25 28.4	2.518	3.432	8.4	21.3	8 29	20 43.59	-23 32.3	1.538	2.469	11.5	18.9
9 8	20 40.57	-25 38.3	2.607	3.438	10.9	21.4	9 8	20 38.86	-23 20.1	1.610	2.470	15.1	19.1
84129	2002 <i>RP</i> ₄₁		8 5.5 173°32	3.8/ 3.2	17		507825	2014 <i>DO</i> ₁₄₂		8 5.5 214°07	2.9/ 2.9	18	
6 30	21 32.82	-24 18.9	1.675	2.538	15.0	19.8	6 30	21 29.95	-23 31.5	2.510	3.356	11.1	22.7
7 10	21 27.47	-25 0.9	1.607	2.540	11.5	19.6	7 10	21 24.59	-24 23.8	2.422	3.346	8.5	22.5
7 20	21 19.48	-25 45.7	1.560	2.541	7.6	19.3	7 20	21 17.35	-25 19.2	2.358	3.336	5.6	22.3
7 30	21 9.58	-26 26.5	1.538	2.542	4.3	19.1	7 30	21 8.71	-26 13.0	2.322	3.325	3.2	22.2
8 9	20 58.88	-26 57.0	1.542	2.543	4.7	19.2	8 9	20 59.40	-27 0.3	2.315	3.314	3.6	22.2
8 19	20 48.66	-27 12.8	1.572	2.543	8.2	19.4	8 19	20 50.23	-27 37.3	2.336	3.301	6.3	22.3
8 29	20 40.12	-27 12.3	1.627	2.543	12.0	19.6	8 29	20 42.07	-28 1.4	2.385	3.288	9.3	22.5
9 8	20 34.13	-26 56.4	1.703	2.543	15.4	19.8	9 8	20 35.61	-28 12.4	2.457	3.274	11.9	22.7
371568	2006 <i>VC</i> ₉₅		8 5.5 309°98	1.1/ 6.1	18		6793	Palazzolo		8 5.5 151°03	1.1/ 4.6	18	
6 30	21 24.91	-12 20.3	1.307	2.176	18.0	21.0	6 30	21 28.32	-17 23.0	2.199	3.044	12.5	18.6
7 10	21 22.21	-12 35.7	1.218	2.153	14.1	20.7	7 10	21 23.37	-18 4.0	2.127	3.052	9.5	18.4
7 20	21 16.60	-13 8.0	1.147	2.130	9.5	20.4	7 20	21 16.53	-18 52.0	2.078	3.059	6.1	18.2
7 30	21 8.62	-13 54.5	1.098	2.108	4.2	20.0	7 30	21 8.36	-19 42.8	2.055	3.065	2.4	18.0
8 9	20 59.32	-14 49.8	1.073	2.085	2.0	19.8	8 9	20 59.62	-20 31.7	2.061	3.071	2.0	17.9
8 19	20 50.09	-15 46.6	1.071	2.064	7.6	20.1	8 19	20 51.19	-21 14.4	2.095	3.076	5.6	18.2
8 29	20 42.44	-16 37.9	1.092	2.043	13.1	20.3	8 29	20 43.89	-21 47.9	2.156	3.081	9.0	18.4
9 8	20 37.57	-17 18.2	1.133	2.023	18.0	20.5	9 8	20 38.39	-22 10.8	2.240	3.086	12.0	18.6
440506	2005 <i>TC</i> ₁₉₆		8 5.5 305°22	6.7/10.7	18		504909	2011 <i>AS</i> ₅₈		8 5.5 239°29	1.		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
501778	2014 VA ₆		8 5.5 287°06	5°5/ 2.2 17			32891	Amatrice		8 5.5 255°73	1°1/ 4.9 18		
6 30	21 29.82	-24 13.4	1.294	2.177	17.3	21.3	6 30	21 33.62	-20 4.0	1.867	2.717	14.2	18.4
7 10	21 26.31	-25 26.2	1.212	2.156	13.4	21.0	7 10	21 27.91	-20 0.3	1.778	2.704	11.0	18.2
7 20	21 19.45	-26 47.8	1.150	2.135	9.2	20.7	7 20	21 19.75	-20 0.0	1.710	2.691	7.1	17.9
7 30	21 9.84	-28 8.5	1.111	2.114	5.8	20.4	7 30	21 9.76	-19 59.7	1.668	2.678	2.9	17.7
8 9	20 58.72	-29 17.3	1.095	2.093	6.7	20.4	8 9	20 58.91	-19 55.8	1.654	2.664	2.2	17.6
8 19	20 47.72	-30 4.9	1.103	2.072	11.0	20.6	8 19	20 48.35	-19 45.5	1.666	2.650	6.5	17.8
8 29	20 38.63	-30 26.6	1.132	2.051	15.8	20.8	8 29	20 39.21	-19 27.7	1.706	2.636	10.6	18.0
9 8	20 32.78	-30 22.9	1.180	2.031	20.1	21.0	9 8	20 32.36	-19 2.2	1.768	2.622	14.3	18.2
71879	2000 VS ₅₀		8 5.5 159°42	3°5/ 7.6 18			466078	2012 AU ₆		8 5.5 161°97	0°7/ 5.9 17		
6 30	21 31.16	- 6 52.9	1.793	2.613	16.0	20.0	6 30	21 29.09	-11 55.5	1.507	2.359	16.9	21.6
7 10	21 25.86	- 6 44.4	1.717	2.619	12.7	19.8	7 10	21 24.78	-12 29.0	1.435	2.361	13.1	21.3
7 20	21 18.30	- 6 50.8	1.662	2.624	9.0	19.6	7 20	21 17.86	-13 18.1	1.384	2.363	8.6	21.1
7 30	21 9.11	- 7 10.9	1.631	2.629	5.2	19.4	7 30	21 9.02	-14 18.5	1.356	2.365	3.7	20.8
8 9	20 59.22	- 7 41.9	1.627	2.633	3.5	19.3	8 9	20 59.31	-15 24.0	1.354	2.366	1.7	20.6
8 19	20 49.67	- 8 19.8	1.650	2.637	6.2	19.5	8 19	20 49.97	-16 27.5	1.378	2.367	6.7	21.0
8 29	20 41.50	- 9 0.0	1.699	2.640	10.0	19.7	8 29	20 42.22	-17 23.0	1.426	2.368	11.4	21.2
9 8	20 35.49	- 9 38.1	1.772	2.642	13.5	19.9	9 8	20 36.96	-18 6.8	1.497	2.369	15.4	21.5
91155	1998 QW ₅₀		8 5.5 255°62	4°3/ 2.1 18			509800	2008 US ₃₀₈		8 5.5 266°01	3°1/ 7.3 18		
6 30	21 30.64	-30 29.3	2.633	3.481	10.7	19.5	6 30	21 28.05	- 8 23.8	1.875	2.704	15.0	22.0
7 10	21 25.07	-30 59.4	2.545	3.465	8.3	19.3	7 10	21 23.57	- 8 8.2	1.786	2.694	12.0	21.7
7 20	21 17.61	-31 27.1	2.481	3.450	6.0	19.1	7 20	21 16.91	- 8 5.1	1.717	2.683	8.4	21.5
7 30	21 8.80	-31 47.7	2.443	3.434	4.4	19.0	7 30	21 8.61	- 8 13.8	1.673	2.673	4.8	21.3
8 9	20 59.38	-31 57.4	2.434	3.418	4.8	19.0	8 9	20 59.52	- 8 32.1	1.655	2.662	3.2	21.1
8 19	20 50.19	-31 53.7	2.452	3.401	7.0	19.1	8 19	20 50.62	- 8 57.0	1.663	2.651	6.0	21.3
8 29	20 42.08	-31 36.0	2.497	3.385	9.5	19.3	8 29	20 42.91	- 9 24.6	1.698	2.640	9.8	21.5
9 8	20 35.72	-31 5.5	2.565	3.368	11.9	19.4	9 8	20 37.21	- 9 51.1	1.756	2.629	13.4	21.7
60762	2000 GA ₁₁₅		8 5.5 5°02	3°1/ 3.9 18			221071	2005 RR ₃₃		8 5.5 273°52	0°9/ 4.9 18		
6 30	21 23.91	-20 26.1	1.091	1.988	18.7	17.8	6 30	21 29.37	-17 27.6	1.615	2.476	15.6	20.9
7 10	21 21.62	-21 4.0	1.035	1.988	14.3	17.6	7 10	21 24.98	-17 48.5	1.534	2.467	12.0	20.6
7 20	21 16.17	-21 51.0	0.997	1.988	9.2	17.3	7 20	21 18.02	-18 18.2	1.474	2.457	7.7	20.3
7 30	21 8.37	-22 39.5	0.980	1.990	4.2	17.0	7 30	21 9.11	-18 52.4	1.438	2.448	3.1	20.0
8 9	20 59.62	-23 20.9	0.985	1.994	4.3	17.0	8 9	20 59.27	-19 25.7	1.427	2.439	2.2	20.0
8 19	20 51.49	-23 48.5	1.013	1.999	9.2	17.3	8 19	20 49.71	-19 53.1	1.443	2.429	7.0	20.2
8 29	20 45.45	-23 58.5	1.061	2.005	14.1	17.6	8 29	20 41.66	-20 10.9	1.483	2.420	11.4	20.5
9 8	20 42.50	-23 50.7	1.128	2.012	18.4	17.9	9 8	20 36.05	-20 17.7	1.545	2.410	15.4	20.7
185671	1995 SC ₂₀		8 5.5 296°07	0°6/ 5.8 18			379220	2009 SP ₁₈₄		8 5.5 22°37	2°1/ 4.6 17		
6 30	21 27.23	-13 35.0	1.439	2.302	17.0	20.7	6 30	21 30.46	-20 50.9	1.257	2.136	17.9	20.2
7 10	21 23.75	-13 49.9	1.349	2.281	13.3	20.4	7 10	21 26.19	-20 56.9	1.199	2.141	13.7	19.9
7 20	21 17.48	-14 18.8	1.278	2.260	8.8	20.1	7 20	21 18.88	-21 8.3	1.160	2.147	8.8	19.7
7 30	21 8.96	-14 58.7	1.229	2.239	3.7	19.7	7 30	21 9.42	-21 19.5	1.144	2.154	3.7	19.4
8 9	20 59.23	-15 44.2	1.205	2.218	1.9	19.6	8 9	20 59.17	-21 25.1	1.152	2.162	3.2	19.4
8 19	20 49.58	-16 29.3	1.206	2.197	7.3	19.8	8 19	20 49.62	-21 21.3	1.183	2.170	8.1	19.7
8 29	20 41.44	-17 8.1	1.231	2.176	12.4	20.1	8 29	20 42.15	-21 6.4	1.238	2.179	12.8	20.0
9 8	20 35.93	-17 36.7	1.276	2.156	17.0	20.3	9 8	20 37.63	-20 41.0	1.312	2.188	16.9	20.3
173804	2001 SM ₂₃₃		8 5.5 326°41	1°5/ 4.4 18			522875	2016 OE ₇		8 5.5 164°19	6°7/ 9.7 18		
6 30	21 25.63	-18 35.1	1.838	2.701	13.9	20.2	6 30	21 28.68	+ 0 35.4	1.912	2.699	16.3	20.7
7 10	21 21.79	-19 10.6	1.760	2.694	10.6	20.0	7 10	21 23.89	+ 1 22.4	1.832	2.701	13.6	20.6
7 20	21 15.77	-19 53.6	1.704	2.688	6.8	19.7	7 20	21 17.03	+ 1 52.2	1.772	2.702	10.7	20.4
7 30	21 8.13	-20 39.7	1.672	2.682	2.8	19.5	7 30	21 8.64	+ 2 2.9	1.735	2.703	8.1	20.2
8 9	20 59.75	-21 23.5	1.667	2.676	2.6	19.4	8 9	20 59.56	+ 1 54.9	1.723	2.704	6.7	20.1
8 19	20 51.64	-22 0.0	1.688	2.671	6.5	19.7	8 19	20 50.74	+ 1 30.3	1.737	2.705	7.8	20.2
8 29	20 44.81	-22 26.0	1.735	2.666	10.4	19.9	8 29	20 43.12	+ 0 53.3	1.776	2.706	10.3	20.4
9 8	20 40.04	-22 39.8	1.803	2.661	13.8	20.1	9 8	20 37.46	+ 0 9.2	1.838	2.706	13.2	20.6
479148	2013 BN ₇₁		8 5.5 313°76	2°0/ 4.2 18			139711	2001 QO ₂₃₃		8 5.5 309°62	0°4/ 5.8 18		
6 30	21 27.19	-20 22.8	1.787	2.651	14.1	21.1	6 30	21 26.13	-14 12.5	1.918	2.767	13.9	19.5
7 10	21 23.08	-20 50.4	1.706	2.641	10.8	20.8	7 10	21 22.05	-14 26.2	1.836	2.760	10.8	19.3
7 20	21 16.65	-21 23.8	1.648	2.632	7.0	20.6	7 20	21 15.89	-14 49.5	1.775	2.754	7.0	19.1
7 30	21 8.50	-21 58.3	1.613	2.623	3.1	20.3	7 30	21 8.20	-15 19.5	1.739	2.748	2.9	18.8
8 9	20 59.55	-22 28.7	1.605	2.614	3.0	20.3	8 9	20 59.81	-15 52.3	1.730	2.743	1.5	18.7
8 19	20 50.88	-22 50.6	1.624	2.605	6.9	20.5	8 19	20 51.66	-16 23.8	1.748	2.737	5.7	19.0
8 29	20 43.57	-23 1.2	1.667	2.597	10.9	20.8	8 29	20 44.71	-16 50.4	1.792	2.731	9.6	19.2
9 8	20 38.45	-22 59.7	1.732	2.589	14.4	21.0	9 8	20 39.71	-17 9.7	1.858	2.726	13.1	19.4
304538	2006 UK ₂₇₆		8 5.5 115°69	3°3/ 8.1 18			389076	2008 WV ₁₁₃		8 5.5 294°24	1°1/ 6.2 18		
6 30	21 25.10	- 5 34.5	2.095	2.911	14.1	21.1	6 30	21 26.72	-12 34.5	1.734	2.584	15.2	21.7
7 10	21 20.99	- 5 35.6	2.015	2.913	11.3	20.9	7 10	21 22.77	-12 44.0	1.648	2.572	11.8	21.5
7 20	21 15.06	- 5 50.8	1.956	2.914	8.1	20.7	7 20	21 16.51	-13 5.3	1.583	2.561	7.9	21.2
7 30	21 7.80	- 6 19.4	1.921	2.916	4.9	20.6	7 30	21 8.49	-13 36.0	1.541	2.549	3.5	20.9
8 9	20 59.97	- 6 58.6	1.913	2.917	3.4	20.5	8 9	20 59.63	-14 12.1	1.526	2.538	1.7	20.8
8 19	20 52.37	- 7 44.7	1.932	2.918	5.5	20.6	8 19	20 50.96	-14 48.8	1.536	2.526	6.1	21.0
8 29	20 45.83	- 8 33.4	1.978	2.920	8.7	20.8	8 29	20 43.59	-15 21.9	1.572	2.515	10.4	21.2
9 8	20 41.01	- 9 20.3	2.047	2.921	11.8	21.0	9 8	20 38.37	-15 48.0	1.631	2.504	14.2	21.5
150011	2005 UO ₂₃₁		8 5.5 13°14	1°0/ 4.8 18			330858	2009 QP ₂₃		8 5.5 313°12	2°0/ 4.4 18		
6 30	21 24.72	-17 37.6	1.675										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
334902	2003 <i>WU</i> ₁₃₁		8 5.5 10°25	4.4/ 7.9	18		337046	1996 <i>TM</i> ₁₂		8 5.5 264°17	5.1/ 8.9	18	
6 30	21 26.86	- 6 46.6	1.555	2.392	17.2	19.8	6 30	21 26.67	- 1 51.1	1.978	2.779	15.4	21.1
7 10	21 22.90	- 6 13.1	1.483	2.393	13.8	19.5	7 10	21 22.54	- 1 40.8	1.876	2.759	12.7	20.9
7 20	21 16.56	- 5 55.0	1.431	2.395	10.0	19.3	7 20	21 16.32	- 1 47.8	1.794	2.740	9.6	20.7
7 30	21 8.49	- 5 52.3	1.401	2.397	6.2	19.1	7 30	21 8.47	- 2 12.7	1.736	2.720	6.6	20.5
8 9	20 59.67	- 6 3.4	1.396	2.400	4.5	19.0	8 9	20 59.74	- 2 54.2	1.703	2.699	5.1	20.3
8 19	20 51.22	- 6 24.8	1.416	2.403	6.9	19.2	8 19	20 51.04	- 3 48.7	1.697	2.679	6.7	20.4
8 29	20 44.24	- 6 52.1	1.461	2.407	10.8	19.4	8 29	20 43.36	- 4 51.2	1.718	2.657	9.9	20.5
9 8	20 39.56	- 7 20.5	1.527	2.412	14.4	19.6	9 8	20 37.53	- 5 55.8	1.761	2.636	13.3	20.7
334531	2002 <i>RO</i> ₂₂₀		8 5.5 302°91	3.6/ 3.4	18		346765	2009 <i>BF</i> ₇₄		8 5.5 210°65	1.4/ 4.5	18	
6 30	21 27.49	-20 59.6	1.373	2.252	16.7	20.5	6 30	21 30.37	-20 6.3	2.479	3.319	11.4	22.3
7 10	21 24.38	-21 52.5	1.279	2.222	12.9	20.2	7 10	21 24.85	-20 25.6	2.390	3.312	8.7	22.1
7 20	21 18.18	-22 56.6	1.204	2.191	8.6	19.9	7 20	21 17.51	-20 48.6	2.326	3.305	5.6	21.9
7 30	21 9.38	-24 5.0	1.153	2.161	4.3	19.6	7 30	21 8.85	-21 11.9	2.288	3.297	2.4	21.7
8 9	20 59.07	-25 8.4	1.125	2.131	4.8	19.5	8 9	20 59.59	-21 32.1	2.279	3.288	2.1	21.6
8 19	20 48.70	-25 58.4	1.121	2.101	9.6	19.7	8 19	20 50.54	-21 46.2	2.300	3.279	5.3	21.8
8 29	20 39.93	-26 29.0	1.140	2.071	14.7	19.9	8 29	20 42.52	-21 52.4	2.347	3.269	8.6	22.0
9 8	20 34.10	-26 38.6	1.178	2.042	19.3	20.1	9 8	20 36.18	-21 50.1	2.420	3.259	11.4	22.2
410235	2007 <i>TL</i> ₂₄		8 5.5 310°86	0.4/ 5.9	18		379211	2009 <i>SR</i> ₁₃₀		8 5.5 294°13	3.6/ 3.4	17	
6 30	21 23.46	-14 9.0	2.616	3.454	11.0	21.2	6 30	21 29.53	-22 49.4	1.540	2.411	15.6	21.3
7 10	21 19.47	-14 20.0	2.528	3.447	8.5	21.0	7 10	21 25.32	-23 34.6	1.465	2.404	12.0	21.1
7 20	21 13.97	-14 38.0	2.463	3.440	5.5	20.8	7 20	21 18.36	-24 25.3	1.412	2.396	7.9	20.8
7 30	21 7.38	-15 0.7	2.425	3.433	2.3	20.6	7 30	21 9.32	-25 14.5	1.382	2.389	4.2	20.6
8 9	21 0.30	-15 25.6	2.414	3.427	1.1	20.5	8 9	20 59.32	-25 55.2	1.378	2.381	4.6	20.6
8 19	20 53.39	-15 50.0	2.432	3.420	4.4	20.7	8 19	20 49.67	-26 21.7	1.399	2.374	8.5	20.8
8 29	20 47.32	-16 11.3	2.477	3.414	7.5	20.9	8 29	20 41.68	-26 31.1	1.443	2.367	12.7	21.0
9 8	20 42.64	-16 27.7	2.547	3.407	10.2	21.0	9 8	20 36.33	-26 23.7	1.508	2.360	16.4	21.2
397017	2005 <i>TN</i> ₁₂₄		8 5.5 7°35	5.5/ 9.7	18		177179	2003 <i>SF</i> ₂₂₄		8 5.5 273°73	1.8/ 4.6	18	
6 30	21 23.38	- 0 36.7	1.937	2.740	15.6	20.9	6 30	21 31.61	-19 41.9	1.477	2.344	16.4	20.4
7 10	21 19.84	- 0 22.4	1.859	2.741	12.9	20.7	7 10	21 27.00	-19 59.6	1.398	2.333	12.7	20.1
7 20	21 14.41	- 0 26.4	1.800	2.741	9.9	20.5	7 20	21 19.50	-20 24.2	1.338	2.323	8.2	19.8
7 30	21 7.60	- 0 48.9	1.763	2.743	7.0	20.3	7 30	21 9.80	-20 50.8	1.303	2.312	3.5	19.5
8 9	21 0.18	- 1 28.1	1.752	2.744	5.5	20.3	8 9	20 59.05	-21 13.3	1.292	2.302	3.0	19.5
8 19	20 52.99	- 2 20.4	1.767	2.746	6.6	20.3	8 19	20 48.63	-21 27.0	1.306	2.291	7.8	19.7
8 29	20 46.90	- 3 20.6	1.807	2.748	9.4	20.5	8 29	20 39.94	-21 28.9	1.345	2.281	12.5	20.0
9 8	20 42.60	- 4 22.8	1.871	2.751	12.4	20.7	9 8	20 33.98	-21 18.5	1.405	2.270	16.6	20.2
367053	2006 <i>JA</i> ₄₃		8 5.5 30°93	6.0/ 8.9	17		254441	2005 <i>AD</i> ₅₄		8 5.5 220°18	2.9/ 4.0	18	
6 30	21 25.65	- 3 0.8	1.178	2.024	21.0	20.8	6 30	21 33.68	-22 22.5	1.515	2.380	16.2	20.5
7 10	21 22.56	- 2 43.2	1.119	2.031	17.1	20.6	7 10	21 28.44	-22 46.9	1.443	2.378	12.4	20.2
7 20	21 16.62	- 2 50.9	1.076	2.038	12.7	20.4	7 20	21 20.33	-23 15.4	1.391	2.374	8.1	20.0
7 30	21 8.57	- 3 24.3	1.054	2.046	8.3	20.1	7 30	21 10.09	-23 42.1	1.363	2.371	3.9	19.7
8 9	20 59.66	- 4 19.4	1.053	2.055	6.0	20.0	8 9	20 58.93	-24 0.7	1.361	2.368	3.9	19.7
8 19	20 51.25	- 5 29.3	1.075	2.064	8.3	20.2	8 19	20 48.24	-24 7.0	1.385	2.364	8.1	19.9
8 29	20 44.70	- 6 44.9	1.120	2.074	12.5	20.5	8 29	20 39.36	-23 59.2	1.432	2.360	12.5	20.2
9 8	20 40.94	- 7 57.5	1.185	2.084	16.6	20.8	9 8	20 33.26	-23 38.0	1.501	2.356	16.3	20.4
89314	2001 <i>VF</i> ₄₀		8 5.5 262°39	4.8/ 1.5	18		263269	2008 <i>BK</i> ₃₅		8 5.5 52°26	0.5/ 5.1	18	
6 30	21 27.79	-28 17.0	2.145	3.006	12.2	19.2	6 30	21 24.74	-14 21.6	1.986	2.836	13.5	20.7
7 10	21 23.32	-29 20.2	2.071	3.000	9.5	19.0	7 10	21 20.91	-15 13.8	1.913	2.840	10.3	20.5
7 20	21 16.72	-30 23.8	2.020	2.994	6.7	18.8	7 20	21 15.12	-16 16.9	1.862	2.843	6.6	20.3
7 30	21 8.56	-31 21.5	1.995	2.988	4.9	18.7	7 30	21 7.93	-17 26.6	1.837	2.847	2.6	20.1
8 9	20 59.69	-32 7.4	1.997	2.982	5.6	18.7	8 9	21 0.11	-18 37.1	1.839	2.851	1.7	20.0
8 19	20 51.07	-32 37.3	2.025	2.976	8.1	18.9	8 19	20 52.55	-19 42.9	1.869	2.855	5.7	20.3
8 29	20 43.69	-32 49.5	2.078	2.970	11.0	19.0	8 29	20 46.14	-20 39.4	1.925	2.859	9.4	20.5
9 8	20 38.31	-32 44.7	2.153	2.963	13.6	19.2	9 8	20 41.58	-21 23.8	2.005	2.863	12.6	20.7
135745	2002 <i>QW</i> ₅		8 5.5 328°93	2.7/ 6.2	18		286977	2002 <i>QJ</i> ₂₃		8 5.5 316°78	0.7/ 5.1	18	
6 30	21 40.81	-14 53.4	1.737	2.566	16.0	18.6	6 30	21 25.92	-16 40.4	1.248	2.128	18.0	20.9
7 10	21 33.40	-13 29.7	1.648	2.559	12.6	18.4	7 10	21 23.19	-16 55.9	1.163	2.106	14.0	20.5
7 20	21 23.29	-12 7.5	1.582	2.552	8.6	18.1	7 20	21 17.38	-17 23.7	1.097	2.084	9.1	20.2
7 30	21 11.21	-10 47.6	1.542	2.546	4.4	17.9	7 30	21 9.08	-17 59.5	1.052	2.063	3.7	19.8
8 9	20 58.29	- 9 31.4	1.531	2.540	3.1	17.8	8 9	20 59.43	-18 37.0	1.030	2.042	2.4	19.7
8 19	20 45.82	- 8 20.4	1.550	2.534	6.8	18.0	8 19	20 49.92	-19 9.5	1.032	2.023	8.2	20.0
8 29	20 35.03	- 7 16.0	1.596	2.529	11.0	18.2	8 29	20 42.15	-19 31.5	1.055	2.004	13.7	20.2
9 8	20 26.84	- 6 18.1	1.665	2.524	14.8	18.4	9 8	20 37.35	-19 40.3	1.098	1.986	18.6	20.4
447310	2005 <i>WE</i> ₁₇₄		8 5.5 296°07	3.1/ 2.9	18		513687	2012 <i>BF</i> ₅₅		8 5.5 200°86	1.3/ 6.9	18	
6 30	21 25.50	-23 3.4	2.139	3.001	12.2	21.3	6 30	21 23.32	- 8 37.3	2.723	3.540	11.2	21.8
7 10	21 21.53	-23 58.2	2.057	2.991	9.3	21.1	7 10	21 19.33	- 9 19.3	2.634	3.538	8.7	21.6
7 20	21 15.57	-24 57.4	1.999	2.980	6.2	20.9	7 20	21 13.88	-10 12.6	2.568	3.535	5.9	21.5
7 30	21 8.11	-25 55.7	1.966	2.970	3.5	20.7	7 30	21 7.39	-11 15.0	2.529	3.532	2.9	21.3
8 9	20 59.95	-26 47.4	1.960	2.960	3.9	20.7	8 9	21 0.41	-12 22.8	2.518	3.529	1.5	21.1
8 19	20 51.97	-27 28.0	1.981	2.950	6.9	20.8	8 19	20 53.56	-13 32.2	2.538	3.526	4.2	21.3
8 29	20 45.11	-27 54.7	2.028	2.941	10.2	21.0	8 29	20 47.47	-14 38.9	2.585	3.523	7.1	21.5
9 8	20 40.11	-28 6.6	2.098	2.931	13.1	21.2	9 8	20 42.70	-15 39.6	2.659	3.519	9.8	21.7
247182	2001 <i>DT</i> ₆₀		8 5.5 208°88	0.1/ 5.4	18		71990	2000 <i>WG</i> ₁₆₇					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
392417	2010 <i>MW</i> ₆₃		8 5.5 352°30	2°2/ 4.0 18			505835	2015 <i>CU</i> ₄		8 5.5 280°26	3°0/ 3.5 17		
6 30	21 23.57	-19 35.9	1.603	2.478	14.9	20.1	6 30	21 27.77	-19 22.8	1.477	2.349	16.1	21.4
7 10	21 20.55	-20 17.5	1.531	2.472	11.4	19.9	7 10	21 24.17	-20 32.2	1.399	2.338	12.3	21.1
7 20	21 15.16	-21 7.0	1.480	2.467	7.3	19.6	7 20	21 17.77	-21 53.4	1.341	2.327	8.0	20.8
7 30	21 8.01	-21 58.9	1.454	2.463	3.3	19.4	7 30	21 9.19	-23 18.9	1.307	2.315	3.8	20.6
8 9	21 0.07	-22 46.9	1.452	2.460	3.2	19.4	8 9	20 59.49	-24 39.7	1.298	2.304	4.2	20.6
8 19	20 52.46	-23 25.4	1.475	2.458	7.3	19.6	8 19	20 50.00	-25 47.3	1.314	2.292	8.6	20.8
8 29	20 46.29	-23 50.7	1.522	2.456	11.4	19.9	8 29	20 42.10	-26 36.1	1.354	2.281	13.1	21.0
9 8	20 42.39	-24 1.3	1.591	2.456	15.0	20.1	9 8	20 36.84	-27 4.5	1.415	2.270	17.1	21.2
217494	2006 <i>RK</i> ₂		8 5.5 6°08	6°6/ 1.9 18			392689	2011 <i>WG</i> ₃₇		8 5.5 130°09	3°8/ 7.7 17		
6 30	21 26.77	-26 25.8	1.101	1.999	18.5	19.7	6 30	21 30.60	-6 38.2	1.445	2.281	18.4	21.6
7 10	21 24.04	-27 37.9	1.048	1.999	14.3	19.4	7 10	21 25.96	-6 33.7	1.377	2.288	14.6	21.4
7 20	21 17.90	-28 53.1	1.014	1.999	9.9	19.2	7 20	21 18.68	-6 47.9	1.328	2.294	10.3	21.2
7 30	21 9.20	-30 0.4	1.000	2.001	6.8	19.0	7 30	21 9.46	-7 19.4	1.301	2.300	6.0	20.9
8 9	20 59.46	-30 49.1	1.008	2.004	7.7	19.1	8 9	20 59.41	-8 4.3	1.299	2.306	3.9	20.8
8 19	20 50.39	-31 12.2	1.039	2.008	11.6	19.3	8 19	20 49.79	-8 57.0	1.323	2.312	7.0	21.0
8 29	20 43.62	-31 8.3	1.089	2.013	15.9	19.6	8 29	20 41.84	-9 50.9	1.370	2.317	11.3	21.3
9 8	20 40.17	-30 40.3	1.157	2.019	19.7	19.8	9 8	20 36.45	-10 40.6	1.440	2.322	15.3	21.6
167068	2003 <i>QY</i> ₁₀₉		8 5.5 297°14	0°2/ 5.6 18			169835	2002 <i>QG</i> ₉₇		8 5.5 324°45	2°1/ 4.2 18		
6 30	21 31.00	-15 43.8	1.866	2.711	14.4	19.8	6 30	21 28.70	-20 48.8	1.788	2.650	14.2	20.5
7 10	21 26.29	-15 42.5	1.748	2.671	11.3	19.5	7 10	21 24.23	-21 15.0	1.714	2.647	10.8	20.3
7 20	21 19.05	-15 48.9	1.652	2.631	7.5	19.2	7 20	21 17.42	-21 46.2	1.661	2.644	7.0	20.0
7 30	21 9.70	-16 0.6	1.581	2.590	3.1	18.9	7 30	21 8.93	-22 17.8	1.633	2.641	3.2	19.8
8 9	20 59.09	-16 14.2	1.536	2.548	1.6	18.7	8 9	20 59.69	-22 44.4	1.631	2.639	3.0	19.8
8 19	20 48.30	-16 25.9	1.518	2.506	6.5	18.9	8 19	20 50.81	-23 2.2	1.655	2.636	6.9	20.0
8 29	20 38.60	-16 32.7	1.527	2.464	11.2	19.1	8 29	20 43.34	-23 8.6	1.705	2.634	10.7	20.2
9 8	20 31.07	-16 32.5	1.558	2.421	15.4	19.2	9 8	20 38.10	-23 3.3	1.777	2.632	14.2	20.5
188548	2004 <i>SW</i> ₃₉		8 5.5 341°90	2°0/ 7.2 18			69538	1997 <i>GH</i> ₃₆		8 5.5 165°07	6°9/ 31.3 18		
6 30	21 23.39	-8 45.6	2.092	2.924	13.6	19.8	6 30	21 33.28	-34 52.2	2.105	2.957	12.8	18.2
7 10	21 19.78	-9 1.2	2.009	2.920	10.7	19.6	7 10	21 27.61	-35 59.4	2.044	2.960	10.3	18.1
7 20	21 14.37	-9 29.9	1.948	2.917	7.3	19.4	7 20	21 19.53	-37 1.2	2.006	2.963	8.0	17.9
7 30	21 7.63	-10 9.5	1.912	2.914	3.8	19.2	7 30	21 9.75	-37 50.4	1.993	2.966	6.9	17.9
8 9	21 0.30	-10 56.8	1.902	2.912	2.2	19.1	8 9	20 59.27	-38 21.0	2.007	2.968	7.6	17.9
8 19	20 53.17	-11 47.5	1.920	2.910	5.1	19.3	8 19	20 49.24	-38 29.8	2.046	2.969	9.6	18.1
8 29	20 47.06	-12 37.3	1.964	2.907	8.6	19.5	8 29	20 40.75	-38 17.0	2.109	2.971	12.1	18.2
9 8	20 42.65	-13 22.2	2.032	2.906	11.8	19.7	9 8	20 34.58	-37 45.4	2.193	2.972	14.4	18.4
236835	2007 <i>RA</i> ₇₉		8 5.5 101°63	0°8/ 5.0 18			394716	2008 <i>ER</i> ₆₄		8 5.5 52°38	7°1/ 12.4 17		
6 30	21 28.96	-17 41.6	1.849	2.703	14.2	20.8	6 30	21 23.21	+6 27.0	2.015	2.777	16.4	21.0
7 10	21 24.26	-17 58.2	1.775	2.704	10.8	20.6	7 10	21 19.59	+6 29.9	1.948	2.792	13.9	20.9
7 20	21 17.35	-18 21.6	1.723	2.704	7.0	20.4	7 20	21 14.20	+6 9.9	1.899	2.808	11.3	20.7
7 30	21 8.86	-18 48.2	1.695	2.705	2.8	20.1	7 30	21 7.57	+5 26.5	1.871	2.824	8.8	20.6
8 9	20 59.69	-19 13.4	1.695	2.706	1.9	20.0	8 9	21 0.45	+4 21.7	1.869	2.840	7.2	20.6
8 19	20 50.86	-19 33.6	1.721	2.707	6.1	20.3	8 19	20 53.64	+3 0.2	1.892	2.857	7.5	20.6
8 29	20 43.40	-19 45.9	1.773	2.707	10.0	20.6	8 29	20 47.92	+1 28.4	1.941	2.873	9.4	20.8
9 8	20 38.06	-19 49.1	1.848	2.708	13.5	20.8	9 8	20 43.91	-0 6.7	2.014	2.890	11.8	20.9
438527	2007 <i>TB</i> ₄₂		8 5.5 334°16	3°0/ 7.6 16			444974	2008 <i>EA</i> ₆₅		8 5.5 68°65	1°9/ 4.3 17		
6 30	21 24.95	-7 11.0	1.732	2.567	15.8	21.7	6 30	21 30.24	-21 46.4	2.071	2.923	12.9	21.1
7 10	21 21.35	-7 19.4	1.652	2.563	12.6	21.5	7 10	21 24.85	-22 0.6	2.013	2.941	9.8	20.9
7 20	21 15.57	-7 44.1	1.592	2.560	8.8	21.2	7 20	21 17.50	-22 17.3	1.978	2.959	6.3	20.7
7 30	21 8.18	-8 23.7	1.556	2.557	4.9	21.0	7 30	21 8.86	-22 32.4	1.968	2.977	2.8	20.5
8 9	21 0.03	-9 14.4	1.545	2.554	3.1	20.9	8 9	20 59.80	-22 42.5	1.987	2.994	2.7	20.6
8 19	20 52.13	-10 11.2	1.561	2.551	6.0	21.1	8 19	20 51.23	-22 44.9	2.033	3.012	5.9	20.8
8 29	20 45.49	-11 8.4	1.601	2.548	10.0	21.3	8 29	20 44.01	-22 38.6	2.105	3.030	9.2	21.0
9 8	20 40.90	-12 0.9	1.665	2.546	13.6	21.5	9 8	20 38.76	-22 23.7	2.201	3.047	12.1	21.3
168983	2001 <i>CV</i> ₁₁		8 5.5 186°29	1°9/ 4.3 18			260807	2005 <i>OM</i> ₁		8 5.5 9°61	1°8/ 4.4 18		
6 30	21 32.34	-19 28.5	1.903	2.753	14.0	21.3	6 30	21 28.13	-20 37.3	1.831	2.692	14.0	19.9
7 10	21 26.87	-20 8.1	1.826	2.753	10.7	21.1	7 10	21 23.67	-20 54.7	1.760	2.693	10.6	19.7
7 20	21 19.08	-20 54.2	1.771	2.752	6.9	20.9	7 20	21 16.99	-21 16.6	1.711	2.694	6.8	19.4
7 30	21 9.57	-21 41.7	1.742	2.751	3.0	20.6	7 30	21 8.73	-21 38.6	1.687	2.696	3.0	19.2
8 9	20 59.31	-22 25.0	1.741	2.749	2.8	20.6	8 9	20 59.83	-21 56.5	1.689	2.698	2.7	19.2
8 19	20 49.35	-22 59.4	1.767	2.746	6.7	20.8	8 19	20 51.32	-22 6.6	1.717	2.700	6.5	19.4
8 29	20 40.78	-23 21.9	1.820	2.743	10.5	21.1	8 29	20 44.19	-22 7.0	1.771	2.702	10.3	19.7
9 8	20 34.41	-23 31.7	1.895	2.739	13.9	21.3	9 8	20 39.21	-21 57.3	1.848	2.705	13.6	19.9
272199	2005 <i>QA</i> ₁₆		8 5.5 307°49	3°3/ 7.7 18			7638	Gladman		8 5.5 310°79	5°0/ 2.9 18 R		
6 30	21 24.36	-6 17.6	1.472	2.316	17.7	20.3	6 30	21 29.73	-25 38.6	1.440	2.318	16.1	17.0
7 10	21 21.38	-6 35.4	1.387	2.304	14.2	20.0	7 10	21 26.15	-26 18.3	1.342	2.283	12.7	16.7
7 20	21 15.88	-7 14.5	1.321	2.291	10.0	19.8	7 20	21 19.40	-27 2.3	1.264	2.247	8.7	16.4
7 30	21 8.40	-8 13.4	1.277	2.279	5.6	19.5	7 30	21 10.00	-27 43.0	1.209	2.212	5.4	16.1
8 9	20 59.90	-9 27.5	1.258	2.267	3.4	19.3	8 9	20 59.05	-28 12.1	1.177	2.177	6.0	16.0
8 19	20 51.55	-10 49.6	1.263	2.255	6.8	19.5	8 19	20 48.07	-28 22.7	1.170	2.143	10.1	16.1
8 29	20 44.60	-12 11.7	1.292	2.243	11.4	19.7	8 29	20 38.72	-28 11.7	1.185	2.109	14.8	16.3
9 8	20 40.04	-13 26.6	1.343	2.233	15.7	19.9	9 8	20 32.35	-27 39.9	1.219	2.075	19.2	16.5
218586	2005 <i>KM</i> ₁₀		8 5.5 19°65	0°8/ 5.9 17			511101	2013 <i>UL</i> ₁₄		8 5.5 295°50	1°2/ 4.8 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
367476	2009 <i>DZ</i> ₁₂₈	8 5.5	97°37'	2.5/	7.1	17	471160	2010 <i>GK</i> ₁₇₃	8 5.5	188°42'	0.4/	5.9	18
6 30	21 29.74	- 8 3.0	1.477	2.317	17.8	21.4	6 30	21 27.67	-12 40.6	2.367	3.197	12.3	22.0
7 10	21 25.17	- 8 25.2	1.416	2.332	14.0	21.2	7 10	21 22.88	-13 16.5	2.282	3.196	9.4	21.8
7 20	21 18.08	- 9 5.7	1.375	2.346	9.5	21.0	7 20	21 16.32	-14 2.3	2.220	3.195	6.2	21.6
7 30	21 9.20	-10 1.3	1.357	2.361	4.9	20.7	7 30	21 8.48	-14 55.0	2.185	3.193	2.6	21.4
8 9	20 59.62	-11 6.2	1.364	2.374	2.7	20.6	8 9	21 0.05	-15 50.4	2.178	3.190	1.2	21.3
8 19	20 50.54	-12 13.7	1.397	2.388	6.5	20.9	8 19	20 51.79	-16 44.2	2.200	3.187	4.9	21.5
8 29	20 43.11	-13 17.1	1.455	2.401	10.9	21.2	8 29	20 44.51	-17 32.8	2.250	3.183	8.3	21.8
9 8	20 38.14	-14 11.6	1.536	2.414	14.7	21.5	9 8	20 38.85	-18 13.3	2.325	3.179	11.3	21.9
77953	2002 <i>GO</i> ₁₄₃	8 5.5	315°35'	4.5/	3.3	18	357864	2005 <i>UW</i> ₂₉₄	8 5.5	135°40'	2.0/	4.5	17
6 30	21 29.88	-24 7.5	1.258	2.142	17.6	19.2	6 30	21 34.39	-19 12.7	1.444	2.306	17.0	21.4
7 10	21 26.26	-24 46.5	1.184	2.129	13.6	18.9	7 10	21 28.97	-19 47.6	1.381	2.315	12.9	21.2
7 20	21 19.35	-25 30.4	1.130	2.116	9.1	18.6	7 20	21 20.67	-20 30.4	1.340	2.323	8.3	20.9
7 30	21 9.89	-26 11.2	1.098	2.104	5.1	18.3	7 30	21 10.30	-21 14.9	1.322	2.331	3.5	20.7
8 9	20 59.20	-26 40.4	1.089	2.093	5.5	18.3	8 9	20 59.11	-21 54.1	1.329	2.339	3.1	20.7
8 19	20 48.90	-26 51.9	1.104	2.082	9.9	18.5	8 19	20 48.51	-22 22.6	1.363	2.346	7.8	21.0
8 29	20 40.63	-26 43.2	1.140	2.071	14.6	18.8	8 29	20 39.81	-22 37.4	1.421	2.352	12.3	21.3
9 8	20 35.53	-26 15.7	1.195	2.061	18.9	19.0	9 8	20 33.92	-22 38.3	1.500	2.358	16.1	21.5
322769	2001 <i>FE</i> ₁₄₀	8 5.5	63°03'	1.3/	4.9	17	336161	2008 <i>RH</i> ₁₆	8 5.5	43°76'	2.1/	6.7	17
6 30	21 31.56	-17 55.0	1.349	2.218	17.6	20.6	6 30	21 28.55	-11 15.2	1.392	2.249	17.8	20.0
7 10	21 26.76	-18 18.1	1.297	2.233	13.3	20.4	7 10	21 24.34	-11 10.0	1.338	2.264	13.8	19.8
7 20	21 19.16	-18 49.9	1.265	2.249	8.5	20.2	7 20	21 17.56	-11 19.1	1.302	2.279	9.3	19.6
7 30	21 9.62	-19 24.9	1.255	2.266	3.4	19.9	7 30	21 9.00	-11 39.8	1.289	2.295	4.5	19.3
8 9	20 59.43	-19 56.8	1.271	2.282	2.5	19.9	8 9	20 59.82	-12 7.9	1.301	2.312	2.4	19.3
8 19	20 49.94	-20 20.5	1.312	2.299	7.4	20.2	8 19	20 51.24	-12 38.3	1.337	2.329	6.6	19.6
8 29	20 42.41	-20 33.1	1.376	2.315	12.0	20.5	8 29	20 44.40	-13 6.6	1.398	2.346	11.0	19.9
9 8	20 37.64	-20 33.8	1.462	2.332	15.8	20.8	9 8	20 40.07	-13 29.0	1.480	2.364	14.8	20.1
349991	2010 <i>FM</i> ₂₀	8 5.5	315°17'	0°/	5.4	18	63484	2001 <i>OV</i> ₄₈	8 5.5	343°47'	2.5/	3.5	18
6 30	21 25.15	-13 53.8	1.618	2.477	15.6	20.6	6 30	21 24.48	-18 45.8	1.751	2.619	14.2	18.7
7 10	21 21.80	-14 25.0	1.535	2.466	12.0	20.3	7 10	21 21.14	-19 59.2	1.678	2.615	10.8	18.5
7 20	21 16.05	-15 9.4	1.472	2.455	7.9	20.0	7 20	21 15.54	-21 22.8	1.626	2.611	6.9	18.3
7 30	21 8.46	-16 3.1	1.434	2.444	3.2	19.7	7 30	21 8.25	-22 49.8	1.599	2.608	3.2	18.0
8 9	20 59.97	-17 0.6	1.421	2.433	1.7	19.6	8 9	21 0.17	-24 12.7	1.599	2.605	3.6	18.0
8 19	20 51.68	-17 55.6	1.433	2.423	6.5	19.9	8 19	20 52.32	-25 24.5	1.626	2.603	7.3	18.3
8 29	20 44.75	-18 42.7	1.470	2.413	11.1	20.1	8 29	20 45.78	-26 20.4	1.677	2.601	11.2	18.5
9 8	20 40.07	-19 18.4	1.529	2.403	15.0	20.4	9 8	20 41.37	-26 58.3	1.750	2.599	14.6	18.7
59519	1999 <i>JK</i> ₁₈	8 5.5	91°59'	4.3/	8.4	18	103622	2000 <i>CR</i> ₂₅	8 5.5	192°69'	1.0/	6.4	18
6 30	21 29.21	- 4 25.1	1.755	2.570	16.4	19.7	6 30	21 27.19	-11 33.1	2.317	3.145	12.5	21.4
7 10	21 24.35	- 4 14.4	1.691	2.587	13.2	19.5	7 10	21 22.54	-11 53.7	2.231	3.144	9.7	21.2
7 20	21 17.35	- 4 20.5	1.648	2.604	9.6	19.3	7 20	21 16.11	-12 24.3	2.169	3.142	6.5	21.0
7 30	21 8.87	- 4 42.9	1.629	2.620	6.0	19.1	7 30	21 8.40	-13 2.5	2.133	3.139	3.0	20.7
8 9	20 59.82	- 5 18.5	1.635	2.637	4.3	19.1	8 9	21 0.11	-13 44.9	2.125	3.137	1.4	20.6
8 19	20 51.22	- 6 3.1	1.668	2.653	6.3	19.2	8 19	20 52.01	-14 27.8	2.145	3.133	4.8	20.8
8 29	20 44.01	- 6 51.6	1.726	2.669	9.7	19.5	8 29	20 44.90	-15 7.5	2.193	3.130	8.3	21.1
9 8	20 38.89	- 7 38.8	1.808	2.684	13.0	19.7	9 8	20 39.43	-15 41.3	2.265	3.126	11.3	21.2
149078	2002 <i>CB</i> ₈₅	8 5.5	284°84'	0.3/	5.3	18	395056	2009 <i>FU</i> ₁	8 5.5	204°27'	0.7/	6.2	18
6 30	21 24.39	-14 24.5	2.148	2.995	12.7	20.0	6 30	21 26.38	-11 33.6	2.436	3.263	12.0	21.8
7 10	21 20.61	-15 10.0	2.064	2.988	9.8	19.8	7 10	21 21.88	-12 7.3	2.347	3.259	9.3	21.6
7 20	21 14.97	-16 5.9	2.002	2.982	6.3	19.6	7 20	21 15.67	-12 51.4	2.281	3.254	6.2	21.4
7 30	21 7.95	-17 8.4	1.966	2.976	2.5	19.3	7 30	21 8.23	-13 43.3	2.241	3.248	2.7	21.2
8 9	21 0.28	-18 12.5	1.958	2.969	1.5	19.2	8 9	21 0.20	-14 39.0	2.231	3.243	1.3	21.1
8 19	20 52.78	-19 13.3	1.977	2.963	5.4	19.5	8 19	20 52.31	-15 34.4	2.249	3.236	4.7	21.3
8 29	20 46.29	-20 6.3	2.023	2.957	9.0	19.7	8 29	20 45.33	-16 25.8	2.294	3.229	8.0	21.5
9 8	20 41.52	-20 48.8	2.093	2.951	12.2	19.9	9 8	20 39.89	-17 10.1	2.365	3.222	11.0	21.7
177926	2005 <i>SP</i> ₂₅₈	8 5.5	17°37'	3.9/	3.2	18	155087	2005 <i>SL</i> ₁₄₉	8 5.5	255°75'	0.6/	5.0	18
6 30	21 30.30	-26 34.2	1.846	2.710	13.8	19.9	6 30	21 25.96	-16 42.1	2.408	3.251	11.6	21.5
7 10	21 25.36	-26 58.5	1.780	2.712	10.6	19.7	7 10	21 21.65	-17 11.6	2.315	3.239	8.9	21.3
7 20	21 18.09	-27 22.2	1.735	2.715	7.1	19.5	7 20	21 15.58	-17 48.1	2.246	3.226	5.7	21.1
7 30	21 9.19	-27 40.2	1.716	2.718	4.3	19.3	7 30	21 8.21	-18 28.5	2.203	3.212	2.3	20.8
8 9	20 59.67	-27 47.5	1.723	2.721	4.6	19.4	8 9	21 0.20	-19 8.9	2.188	3.199	1.6	20.7
8 19	20 50.63	-27 41.5	1.756	2.725	7.6	19.5	8 19	20 52.33	-19 45.5	2.201	3.185	5.1	21.0
8 29	20 43.11	-27 21.4	1.814	2.729	11.0	19.8	8 29	20 45.38	-20 15.5	2.242	3.172	8.5	21.1
9 8	20 37.87	-26 48.8	1.894	2.733	14.1	20.0	9 8	20 40.01	-20 36.9	2.307	3.158	11.5	21.3
427277	2014 <i>WF</i> ₁₈₆	8 5.5	198°78'	2.1/	4.3	17	209735	2005 <i>EG</i> ₁₇₅	8 5.5	66°38'	0.6/	5.9	17
6 30	21 33.67	-20 36.2	1.843	2.694	14.3	21.8	6 30	21 27.76	-13 55.1	1.871	2.718	14.3	20.8
7 10	21 28.01	-21 5.3	1.764	2.692	11.0	21.6	7 10	21 23.31	-14 5.8	1.798	2.721	11.0	20.6
7 20	21 19.90	-21 39.7	1.707	2.688	7.1	21.3	7 20	21 16.75	-14 26.1	1.746	2.724	7.2	20.4
7 30	21 9.97	-22 14.2	1.675	2.684	3.2	21.1	7 30	21 8.68	-14 53.2	1.719	2.728	3.1	20.2
8 9	20 59.24	-22 43.6	1.671	2.679	3.0	21.1	8 9	20 59.98	-15 23.0	1.719	2.731	1.5	20.1
8 19	20 48.83	-23 3.5	1.694	2.673	6.9	21.3	8 19	20 51.62	-15 51.7	1.746	2.735	5.6	20.3
8 29	20 39.88	-23 11.7	1.743	2.667	10.9	21.5	8 29	20 44.54	-16 15.8	1.798	2.738	9.5	20.6
9 8	20 33.26	-23 7.7	1.815	2.660	14.3	21.7	9 8	20 39.47	-16 33.0	1.874	2.742	13.0	20.8
304557	2006 <i>UL</i> ₃₅₂	8 5.5	275°16'	1.3/	4.6	18	434564	2005 <i>TJ</i> ₁₅₇	8 5.5	281°14'			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
507836	2014 <i>ET</i> ₄₅		8 5.6 230°95	2°2/ 3.9 18			361040	2005 <i>XU</i> ₂₈		8 5.6 237°96	5°2/ 1.1 18		
6 30	21 27.85	-19 57.5	1.991	2.847	13.2	21.3	6 30	21 29.21	-31 33.5	2.414	3.268	11.3	21.0
7 10	21 23.44	-20 45.3	1.911	2.842	10.1	21.1	7 10	21 24.25	-32 26.7	2.340	3.262	8.9	20.8
7 20	21 16.90	-21 39.7	1.854	2.837	6.5	20.9	7 20	21 17.31	-33 17.4	2.289	3.256	6.6	20.7
7 30	21 8.78	-22 35.7	1.823	2.832	3.0	20.7	7 30	21 8.94	-34 0.1	2.265	3.249	5.2	20.6
8 9	20 59.93	-23 27.5	1.820	2.826	3.0	20.7	8 9	20 59.93	-34 29.8	2.268	3.243	5.8	20.6
8 19	20 51.31	-24 10.3	1.843	2.821	6.6	20.9	8 19	20 51.20	-34 43.5	2.297	3.237	7.9	20.7
8 29	20 43.91	-24 40.7	1.892	2.815	10.2	21.1	8 29	20 43.63	-34 40.2	2.352	3.230	10.4	20.9
9 8	20 38.50	-24 57.6	1.964	2.809	13.4	21.3	9 8	20 37.94	-34 21.2	2.428	3.223	12.7	21.0
434693	2006 <i>BT</i> ₁₁₆		8 5.6 95°99	0°5/ 5.9 17			84155	2002 <i>RW</i> ₈₂		8 5.6 322°37	4°3/ 8.1 18		
6 30	21 29.00	-14 1.1	1.786	2.633	14.9	21.7	6 30	21 23.62	-5 24.1	1.316	2.166	19.0	19.2
7 10	21 24.31	-14 14.9	1.717	2.641	11.4	21.5	7 10	21 21.11	-5 27.2	1.235	2.153	15.4	19.0
7 20	21 17.42	-14 38.6	1.670	2.649	7.5	21.3	7 20	21 15.90	-5 53.2	1.172	2.140	11.1	18.7
7 30	21 8.96	-15 9.1	1.647	2.656	3.1	21.0	7 30	21 8.55	-6 41.7	1.129	2.128	6.6	18.4
8 9	20 59.88	-15 42.0	1.651	2.664	1.5	20.9	8 9	21 0.09	-7 48.5	1.109	2.117	4.3	18.2
8 19	20 51.18	-16 13.2	1.682	2.671	5.8	21.2	8 19	20 51.81	-9 6.9	1.114	2.106	7.4	18.4
8 29	20 43.88	-16 39.0	1.739	2.678	9.8	21.5	8 29	20 45.07	-10 27.9	1.141	2.096	12.2	18.6
9 8	20 38.70	-16 57.1	1.818	2.686	13.3	21.7	9 8	20 40.92	-11 43.3	1.188	2.086	16.7	18.9
422814	2002 <i>AA</i> ₁₃₈		8 5.6 215°04	3°3/ 7.4 17			350120	2011 <i>QE</i> ₅₉		8 5.6 323°31	3°9/ 8.8 18		
6 30	21 31.78	-8 5.5	1.680	2.508	16.5	21.8	6 30	21 23.70	-2 55.5	1.849	2.665	15.7	20.6
7 10	21 26.74	-7 53.3	1.595	2.502	13.2	21.6	7 10	21 20.33	-3 19.8	1.765	2.661	12.7	20.4
7 20	21 19.20	-7 55.4	1.530	2.496	9.3	21.3	7 20	21 14.93	-4 4.1	1.701	2.657	9.3	20.2
7 30	21 9.76	-8 11.2	1.489	2.488	5.2	21.1	7 30	21 8.03	-5 7.3	1.661	2.653	5.8	20.0
8 9	20 59.41	-8 37.8	1.473	2.481	3.4	20.9	8 9	21 0.40	-6 25.4	1.646	2.650	3.9	19.9
8 19	20 49.28	-9 11.4	1.485	2.473	6.6	21.1	8 19	20 52.96	-7 52.4	1.658	2.647	6.0	20.0
8 29	20 40.56	-9 47.1	1.521	2.464	10.8	21.3	8 29	20 46.65	-9 21.4	1.697	2.644	9.5	20.2
9 8	20 34.15	-10 20.7	1.581	2.454	14.6	21.6	9 8	20 42.22	-10 45.8	1.759	2.641	13.0	20.4
86573	2000 <i>EB</i> ₄₂		8 5.6 118°27	0°3/ 5.3 18			46219	2001 <i>FB</i> ₁₈₇		8 5.6 31°47	1°7/ 6.4 18		
6 30	21 31.46	-16 1.2	1.726	2.576	15.2	20.8	6 30	21 30.45	-13 28.8	1.576	2.427	16.4	18.8
7 10	21 26.24	-16 21.5	1.661	2.587	11.6	20.6	7 10	21 25.63	-13 1.4	1.510	2.434	12.7	18.6
7 20	21 18.68	-16 50.4	1.618	2.598	7.5	20.4	7 20	21 18.37	-12 43.4	1.464	2.441	8.5	18.4
7 30	21 9.47	-17 24.1	1.599	2.608	3.0	20.1	7 30	21 9.38	-12 33.1	1.443	2.449	4.0	18.1
8 9	20 59.63	-17 57.5	1.607	2.619	1.7	20.0	8 9	20 59.75	-12 28.1	1.446	2.458	2.2	18.0
8 19	20 50.25	-18 26.2	1.642	2.628	6.2	20.4	8 19	20 50.61	-12 25.7	1.476	2.466	6.3	18.3
8 29	20 42.39	-18 47.2	1.702	2.638	10.3	20.6	8 29	20 43.08	-12 23.4	1.530	2.475	10.5	18.6
9 8	20 36.81	-18 58.8	1.785	2.647	13.8	20.9	9 8	20 37.93	-12 19.0	1.607	2.485	14.2	18.8
233916	2009 <i>SV</i> ₉₅		8 5.6 333°82	0°0/ 5.3 18			148262	2000 <i>FT</i> ₃₃		8 5.6 85°39	1°9/ 4.4 17		
6 30	21 23.59	-15 30.9	1.800	2.661	14.2	20.2	6 30	21 31.09	-19 4.7	1.564	2.426	15.9	20.4
7 10	21 20.40	-15 45.5	1.713	2.645	11.0	20.0	7 10	21 26.19	-19 43.1	1.507	2.440	12.0	20.2
7 20	21 15.06	-16 9.6	1.647	2.630	7.1	19.7	7 20	21 18.75	-20 28.7	1.471	2.454	7.7	19.9
7 30	21 8.08	-16 39.9	1.606	2.615	2.9	19.4	7 30	21 9.54	-21 15.9	1.459	2.468	3.3	19.7
8 9	21 0.32	-17 12.3	1.589	2.602	1.6	19.3	8 9	20 59.68	-21 58.1	1.473	2.482	3.0	19.7
8 19	20 52.73	-17 42.5	1.599	2.589	6.0	19.6	8 19	20 50.38	-22 30.4	1.513	2.495	7.2	20.0
8 29	20 46.36	-18 6.6	1.634	2.577	10.2	19.8	8 29	20 42.77	-22 49.8	1.578	2.509	11.3	20.3
9 8	20 41.99	-18 22.1	1.692	2.565	13.8	20.0	9 8	20 37.66	-22 55.9	1.664	2.522	14.8	20.5
169814	2002 <i>QH</i> ₄₆		8 5.6 320°10	2°3/ 3.9 18			359353	2009 <i>SX</i> ₃₀₅		8 5.6 5°88	3°6/ 7.8 15		
6 30	21 24.69	-18 55.7	1.578	2.450	15.2	19.4	6 30	21 20.51	-7 42.7	1.397	2.256	17.6	20.2
7 10	21 21.65	-19 47.0	1.494	2.434	11.7	19.1	7 10	21 18.35	-7 31.9	1.333	2.257	14.0	20.0
7 20	21 16.09	-20 48.6	1.432	2.418	7.5	18.8	7 20	21 13.83	-7 38.7	1.287	2.260	9.9	19.8
7 30	21 8.57	-21 54.9	1.393	2.403	3.4	18.6	7 30	21 7.61	-8 2.1	1.264	2.265	5.7	19.5
8 9	21 0.05	-22 58.5	1.380	2.388	3.4	18.5	8 9	21 0.67	-8 38.5	1.263	2.271	3.6	19.4
8 19	20 51.71	-23 52.4	1.392	2.374	7.7	18.7	8 19	20 54.13	-9 22.6	1.286	2.279	6.6	19.6
8 29	20 44.77	-24 31.7	1.427	2.360	12.1	19.0	8 29	20 49.06	-10 8.5	1.333	2.288	10.7	19.9
9 8	20 40.22	-24 54.2	1.484	2.347	16.0	19.2	9 8	20 46.26	-10 50.6	1.401	2.299	14.6	20.2
254339	2004 <i>SA</i> ₄₅		8 5.6 206°91	2°4/ 3.4 18			119011	2000 <i>YN</i> ₈₂		8 5.6 199°52	2°3/ 7.4 18		
6 30	21 28.89	-25 8.2	3.034	3.875	9.5	21.3	6 30	21 26.18	-8 42.7	2.463	3.280	12.2	20.1
7 10	21 23.47	-25 30.0	2.948	3.870	7.3	21.1	7 10	21 21.65	-8 38.0	2.377	3.278	9.7	19.9
7 20	21 16.55	-25 51.9	2.887	3.864	4.8	20.9	7 20	21 15.51	-8 43.1	2.313	3.277	6.7	19.7
7 30	21 8.56	-26 10.9	2.854	3.857	2.7	20.8	7 30	21 8.20	-8 57.1	2.275	3.275	3.7	19.5
8 9	21 0.12	-26 23.9	2.851	3.850	2.9	20.8	8 9	21 0.38	-9 17.8	2.265	3.273	2.4	19.4
8 19	20 51.88	-26 28.9	2.876	3.843	5.2	20.9	8 19	20 52.74	-9 42.7	2.283	3.271	4.7	19.6
8 29	20 44.51	-26 24.9	2.929	3.835	7.6	21.1	8 29	20 46.02	-10 8.8	2.329	3.268	7.7	19.8
9 8	20 38.55	-26 11.8	3.008	3.827	9.9	21.2	9 8	20 40.80	-10 33.3	2.400	3.266	10.5	19.9
441408	2008 <i>GA</i>		8 5.6 358°84	14°7/ 21.2 15			254516	2005 <i>ER</i> ₈₈		8 5.6 151°06	2°3/ 6.9 17		
6 30	21 18.78	+21 51.8	1.715	2.393	21.6	20.0	6 30	21 30.50	-9 19.5	1.652	2.488	16.4	21.1
7 10	21 16.85	+22 54.2	1.641	2.389	20.0	19.9	7 10	21 25.67	-9 27.1	1.579	2.493	12.9	20.8
7 20	21 12.81	+23 23.9	1.580	2.386	18.4	19.7	7 20	21 18.44	-9 49.5	1.527	2.498	8.8	20.6
7 30	21 7.18	+23 14.9	1.534	2.385	16.7	19.6	7 30	21 9.46	-10 24.5	1.499	2.503	4.5	20.4
8 9	21 0.81	+22 24.7	1.506	2.384	15.3	19.5	8 9	20 59.72	-11 8.0	1.496	2.507	2.5	20.2
8 19	20 54.64	+20 54.6	1.496	2.385	14.7	19.5	8 19	20 50.35	-11 54.7	1.521	2.510	6.2	20.5
8 29	20 49.70	+18 50.7	1.507	2.388	15.0	19.5	8 29	20 42.45	-12 39.6	1.570	2.514	10.4	20.7
9 8	20 46.76	+16 23.7	1.538	2.391	16.1	19.6	9 8	20 36.84	-13 18.6	1.643	2.517	14.2	21.0
178669	2000 <i>QG</i> ₁₄₉		8 5.6 351°72	2°6/ 7.4 18			76224	2000 <i>EY</i> ₆₉		8 5.6 154°55	1°8/ 4.3 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
65982	1998 <i>HN</i> ₁₁₉		8 5.6 10°69	7.1/10.8	18		432002	2008 <i>UE</i> ₃₂₃		8 5.6 340°07	10°3/30.3	18	
6 30	21 21.60	+ 1 46.6	1.381	2.201	19.8	17.9	6 30	21 28.43	-35 54.3	1.298	2.183	17.1	20.0
7 10	21 19.25	+ 1 54.3	1.313	2.203	16.6	17.7	7 10	21 25.46	-37 19.9	1.236	2.170	14.1	19.7
7 20	21 14.48	+ 1 34.4	1.262	2.207	12.9	17.5	7 20	21 19.02	-38 39.3	1.194	2.158	11.5	19.6
7 30	21 7.91	+ 0 45.8	1.232	2.211	9.3	17.3	7 30	21 9.90	-39 40.3	1.174	2.148	10.3	19.5
8 9	21 0.56	- 0 28.2	1.223	2.216	7.2	17.2	8 9	20 59.57	-40 12.7	1.174	2.138	11.4	19.5
8 19	20 53.54	- 2 1.0	1.238	2.222	8.3	17.3	8 19	20 49.78	-40 11.1	1.196	2.130	14.1	19.6
8 29	20 47.99	- 3 43.1	1.277	2.229	11.5	17.5	8 29	20 42.25	-39 35.9	1.238	2.122	17.3	19.8
9 8	20 44.78	- 5 24.5	1.337	2.237	15.1	17.7	9 8	20 38.10	-38 32.6	1.297	2.116	20.4	20.0
177059	2003 <i>EJ</i> ₅₂		8 5.6 216°60	1°9/ 7.3	18		181925	1999 <i>TW</i> ₁₁₇		8 5.6 350°92	3°8/ 8.4	18	
6 30	21 24.51	- 7 57.1	2.269	3.091	13.0	20.7	6 30	21 24.99	- 4 54.5	2.158	2.970	13.9	20.0
7 10	21 20.58	- 8 26.0	2.183	3.089	10.2	20.5	7 10	21 20.99	- 4 43.1	2.075	2.969	11.2	19.8
7 20	21 14.92	- 9 8.1	2.120	3.086	7.0	20.3	7 20	21 15.22	- 4 45.4	2.014	2.968	8.2	19.7
7 30	21 8.02	-10 1.4	2.082	3.084	3.7	20.1	7 30	21 8.16	- 5 0.9	1.976	2.967	5.2	19.5
8 9	21 0.52	-11 2.1	2.071	3.081	2.0	20.0	8 9	21 0.52	- 5 27.7	1.965	2.967	3.8	19.4
8 19	20 53.20	-12 5.8	2.089	3.078	4.8	20.2	8 19	20 53.09	- 6 2.7	1.982	2.966	5.5	19.5
8 29	20 46.82	-13 7.9	2.134	3.075	8.2	20.4	8 29	20 46.67	- 6 42.1	2.024	2.966	8.5	19.7
9 8	20 42.01	-14 4.4	2.204	3.072	11.3	20.5	9 8	20 41.91	- 7 21.8	2.091	2.966	11.5	19.9
311915	2007 <i>BJ</i> ₁₇		8 5.6 245°23	0°4/ 5.9	17		38845	2000 <i>SL</i> ₅₉		8 5.6 240°21	0°0/ 5.6	18	
6 30	21 26.69	-13 54.8	2.646	3.476	11.1	22.5	6 30	21 29.72	-14 56.2	2.067	2.907	13.4	20.3
7 10	21 22.08	-14 13.5	2.545	3.460	8.6	22.3	7 10	21 24.85	-15 13.3	1.974	2.894	10.4	20.0
7 20	21 15.84	-14 39.7	2.468	3.443	5.6	22.1	7 20	21 17.87	-15 39.1	1.903	2.880	6.8	19.8
7 30	21 8.38	-15 11.3	2.417	3.425	2.4	21.9	7 30	21 9.29	-16 10.7	1.857	2.866	2.8	19.5
8 9	21 0.32	-15 45.2	2.395	3.407	1.1	21.7	8 9	20 59.91	-16 44.0	1.839	2.852	1.4	19.4
8 19	20 52.34	-16 18.4	2.402	3.389	4.5	21.9	8 19	20 50.68	-17 15.3	1.849	2.836	5.6	19.7
8 29	20 45.17	-16 47.9	2.437	3.370	7.7	22.1	8 29	20 42.56	-17 41.0	1.886	2.821	9.5	19.9
9 8	20 39.42	-17 11.7	2.497	3.351	10.6	22.3	9 8	20 36.35	-17 59.0	1.947	2.805	13.0	20.0
389417	2010 <i>BO</i> ₃₄		8 5.6 203°73	2°2/ 4.1	18		515061	2010 <i>LM</i> ₇₁		8 5.6 293°72	6°1/ 1.7	18	
6 30	21 30.39	-21 28.9	2.061	2.913	13.0	21.7	6 30	21 33.37	-33 28.8	2.074	2.927	12.9	21.1
7 10	21 25.28	-21 56.2	1.983	2.911	9.9	21.4	7 10	21 27.83	-34 3.0	1.992	2.912	10.3	20.9
7 20	21 18.06	-22 27.2	1.927	2.908	6.4	21.2	7 20	21 19.85	-34 32.2	1.933	2.897	7.8	20.7
7 30	21 9.29	-22 57.7	1.898	2.905	3.0	21.0	7 30	21 10.08	-34 50.2	1.899	2.882	6.2	20.6
8 9	20 59.87	-23 23.0	1.896	2.902	2.9	21.0	8 9	20 59.53	-34 51.6	1.891	2.867	6.7	20.6
8 19	20 50.74	-23 39.6	1.921	2.899	6.4	21.2	8 19	20 49.33	-34 33.7	1.909	2.852	9.0	20.7
8 29	20 42.87	-23 45.4	1.973	2.895	9.9	21.4	8 29	20 40.62	-33 56.7	1.952	2.838	11.8	20.8
9 8	20 37.01	-23 40.3	2.047	2.891	13.0	21.6	9 8	20 34.24	-33 3.3	2.017	2.823	14.5	21.0
11551	1993 <i>BR</i> ₃		8 5.6 182°69	1°5/ 4.3	18		483355	2016 <i>RJ</i> ₇		8 5.6 324°34	1°1/ 5.2	18	
6 30	21 27.67	-16 48.6	2.034	2.884	13.3	18.3	6 30	21 32.07	-20 32.5	1.421	2.290	16.8	20.6
7 10	21 23.26	-17 53.8	1.957	2.884	10.1	18.1	7 10	21 27.56	-20 9.6	1.337	2.273	13.0	20.3
7 20	21 16.79	-19 8.8	1.903	2.884	6.4	17.9	7 20	21 20.07	-19 49.2	1.273	2.257	8.5	20.0
7 30	21 8.81	-20 28.2	1.875	2.884	2.7	17.6	7 30	21 10.28	-19 28.1	1.231	2.241	3.5	19.6
8 9	21 0.11	-21 45.6	1.874	2.883	2.5	17.6	8 9	20 59.40	-19 2.6	1.215	2.227	2.3	19.5
8 19	20 51.63	-22 55.3	1.902	2.882	6.2	17.9	8 19	20 48.86	-18 30.7	1.224	2.212	7.5	19.8
8 29	20 44.30	-23 52.7	1.957	2.881	9.8	18.1	8 29	20 40.10	-17 51.8	1.256	2.199	12.5	20.0
9 8	20 38.88	-24 35.6	2.035	2.879	13.0	18.3	9 8	20 34.18	-17 6.6	1.309	2.186	16.8	20.3
266481	2008 <i>CB</i> ₅₄		8 5.6 234°82	2°9/ 7.4	17		299718	2006 <i>RH</i> ₁₅		8 5.6 319°34	1°8/ 6.4	18	
6 30	21 27.88	- 7 19.3	1.593	2.429	16.9	20.9	6 30	21 27.88	-13 14.5	1.640	2.492	15.8	20.3
7 10	21 23.89	- 7 35.2	1.512	2.424	13.5	20.7	7 10	21 23.96	-12 50.6	1.548	2.473	12.4	20.1
7 20	21 17.45	- 8 9.3	1.450	2.419	9.4	20.4	7 20	21 17.55	-12 35.7	1.476	2.454	8.4	19.8
7 30	21 9.14	- 8 59.9	1.412	2.414	5.1	20.2	7 30	21 9.23	-12 28.5	1.429	2.435	4.0	19.5
8 9	20 59.92	-10 2.3	1.399	2.408	3.0	20.0	8 9	20 59.94	-12 26.7	1.406	2.417	2.2	19.3
8 19	20 50.93	-11 10.5	1.412	2.403	6.4	20.2	8 19	20 50.80	-12 27.7	1.409	2.400	6.4	19.5
8 29	20 43.33	-12 17.6	1.450	2.397	10.8	20.5	8 29	20 43.02	-12 28.6	1.437	2.383	10.9	19.8
9 8	20 38.04	-13 17.9	1.511	2.391	14.8	20.7	9 8	20 37.53	-12 26.8	1.486	2.367	15.0	20.0
157071	2003 <i>TR</i> ₃		8 5.6 312°20	7°7/12.1	18		506262	2016 <i>QR</i> ₂₄		8 5.6 342°88	1°0/ 6.0	18	
6 30	21 22.21	+ 6 47.0	2.185	2.939	15.4	19.4	6 30	21 31.63	-15 22.6	1.589	2.442	16.1	20.8
7 10	21 19.00	+ 7 13.9	2.085	2.923	13.4	19.2	7 10	21 26.70	-14 55.9	1.512	2.438	12.5	20.6
7 20	21 14.03	+ 7 20.8	2.005	2.906	11.2	19.0	7 20	21 19.21	-14 36.3	1.456	2.435	8.3	20.3
7 30	21 7.71	+ 7 5.4	1.946	2.890	9.1	18.9	7 30	21 9.85	-14 22.1	1.424	2.432	3.6	20.0
8 9	21 0.69	+ 6 27.7	1.911	2.873	7.8	18.8	8 9	20 59.67	-14 10.8	1.418	2.430	1.8	19.9
8 19	20 53.73	+ 5 29.9	1.901	2.858	8.1	18.7	8 19	20 49.90	-13 59.9	1.438	2.428	6.4	20.2
8 29	20 47.65	+ 4 16.6	1.916	2.842	9.9	18.8	8 29	20 41.72	-13 47.6	1.483	2.426	10.9	20.5
9 8	20 43.16	+ 2 54.2	1.955	2.827	12.3	19.0	9 8	20 35.99	-13 32.3	1.549	2.425	14.8	20.7
65741	1993 <i>TB</i> ₁₄		8 5.6 332°08	2°2/ 4.5	17		319130	2005 <i>YZ</i> ₂		8 5.6 242°97	3°5/ 2.7	17	
6 30	21 23.56	-18 49.8	1.035	1.933	19.4	19.6	6 30	21 31.45	-28 40.1	2.839	3.681	10.1	21.5
7 10	21 21.92	-19 15.6	0.961	1.914	15.0	19.3	7 10	21 25.66	-29 4.7	2.746	3.665	7.9	21.4
7 20	21 16.89	-19 53.6	0.905	1.896	9.8	18.9	7 20	21 18.13	-29 27.7	2.677	3.649	5.5	21.2
7 30	21 9.12	-20 37.9	0.868	1.879	4.2	18.5	7 30	21 9.33	-29 45.2	2.636	3.632	3.7	21.1
8 9	20 59.92	-21 19.9	0.853	1.864	3.6	18.5	8 9	20 59.95	-29 53.7	2.624	3.614	4.0	21.1
8 19	20 50.99	-21 51.4	0.859	1.850	9.5	18.7	8 19	20 50.75	-29 50.9	2.640	3.596	6.2	21.2
8 29	20 44.13	-22 6.9	0.886	1.837	15.2	19.0	8 29	20 42.53	-29 36.2	2.684	3.578	8.7	21.3
9 8	20 40.63	-22 4.4	0.929	1.826	20.3	19.3	9 8	20 35.91	-29 10.1	2.752	3.559	11.0	21.4
224169	2005 <i>QA</i> ₁₀₄		8 5.6 264°24	3°5/ 7.8	18		489688	2007 <i>VY</i> ₉₄		8 5.6 264			

EPHEMERIDES

8 5.6

8 5.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
345456	2006 <i>FJ</i> ₁		8 5.6 36°02	2.5/ 7.2	16		446667	2015 <i>NE</i> ₂₄		8 5.6 349°00	2.2/ 4.6	15	
6 30	21 25.45	- 8 31.3	1.496	2.345	17.2	20.9	6 30	21 26.62	-21 42.1	1.490	2.367	15.7	20.4
7 10	21 21.96	- 8 46.8	1.435	2.355	13.5	20.7	7 10	21 23.17	-21 44.6	1.416	2.357	12.1	20.1
7 20	21 16.11	- 9 19.6	1.393	2.366	9.2	20.5	7 20	21 17.09	-21 50.6	1.362	2.348	7.9	19.9
7 30	21 8.57	-10 7.0	1.373	2.377	4.8	20.3	7 30	21 9.05	-21 55.8	1.331	2.340	3.5	19.6
8 9	21 0.36	-11 3.8	1.379	2.389	2.6	20.2	8 9	21 0.17	-21 55.6	1.324	2.334	3.1	19.6
8 19	20 52.58	-12 3.9	1.409	2.402	6.2	20.4	8 19	20 51.68	-21 46.7	1.342	2.328	7.4	19.8
8 29	20 46.32	-13 1.0	1.465	2.414	10.5	20.7	8 29	20 44.82	-21 27.5	1.384	2.324	11.8	20.1
9 8	20 42.34	-13 50.4	1.542	2.428	14.3	21.0	9 8	20 40.48	-20 58.1	1.447	2.321	15.7	20.3
340241	2006 <i>BK</i> ₉₃		8 5.6 77°33	1.7/ 4.6	16		480030	2015 <i>BQ</i> ₃₆		8 5.6 29°71	5.9/ 7.9	16	
6 30	21 31.27	-19 54.6	1.720	2.578	14.9	21.3	6 30	21 31.73	- 6 34.3	1.370	2.207	19.1	20.1
7 10	21 26.12	-20 17.3	1.661	2.593	11.3	21.1	7 10	21 26.89	- 5 18.8	1.309	2.217	15.4	19.9
7 20	21 18.63	-20 45.3	1.625	2.607	7.2	20.9	7 20	21 19.36	- 4 18.1	1.267	2.227	11.4	19.7
7 30	21 9.55	-21 13.7	1.613	2.622	3.1	20.6	7 30	21 9.92	- 3 34.5	1.247	2.238	7.6	19.5
8 9	20 59.90	-21 37.5	1.627	2.636	2.7	20.6	8 9	20 59.76	- 3 8.3	1.251	2.250	6.0	19.4
8 19	20 50.79	-21 53.1	1.668	2.651	6.6	20.9	8 19	20 50.16	- 2 57.9	1.280	2.262	8.2	19.6
8 29	20 43.26	-21 58.4	1.735	2.665	10.5	21.2	8 29	20 42.37	- 2 59.7	1.332	2.276	11.9	19.8
9 8	20 38.03	-21 53.1	1.824	2.680	13.8	21.4	9 8	20 37.21	- 3 8.6	1.405	2.289	15.5	20.1
134141	2005 <i>AL</i> ₃₅		8 5.6 352°32	5.4/ 7.9	18		376955	2002 <i>GR</i> ₃		8 5.6 191°81	8.8/15.9	18	
6 30	21 29.99	- 6 24.7	1.563	2.394	17.5	18.9	6 30	21 27.95	+18 32.6	3.053	3.681	13.7	22.6
7 10	21 25.46	- 5 21.2	1.486	2.390	14.2	18.7	7 10	21 22.84	+19 0.9	2.957	3.678	12.5	22.5
7 20	21 18.44	- 4 30.7	1.429	2.388	10.5	18.4	7 20	21 16.25	+19 9.7	2.877	3.675	11.1	22.4
7 30	21 9.56	- 3 55.1	1.395	2.386	7.0	18.2	7 30	21 8.59	+18 56.6	2.819	3.671	9.9	22.3
8 9	20 59.85	- 3 34.4	1.385	2.384	5.5	18.1	8 9	21 0.41	+18 20.8	2.784	3.666	9.0	22.3
8 19	20 50.47	- 3 27.3	1.400	2.383	7.6	18.3	8 19	20 52.33	+17 23.5	2.775	3.660	8.8	22.2
8 29	20 42.59	- 3 30.7	1.440	2.382	11.3	18.5	8 29	20 44.99	+16 8.2	2.791	3.653	9.5	22.3
9 8	20 37.07	- 3 40.3	1.502	2.382	14.9	18.7	9 8	20 38.94	+14 39.8	2.832	3.645	10.6	22.3
61780	2000 <i>QQ</i> ₁₇₅		8 5.6 146°44	2.4/ 7.1	18		20393	Kevinlane		8 5.6 44°00	2.9/ 8.0	18	
6 30	21 29.28	- 9 37.5	1.795	2.628	15.4	19.2	6 30	21 24.07	- 5 52.4	2.028	2.850	14.3	18.6
7 10	21 24.60	- 9 33.8	1.719	2.631	12.1	19.0	7 10	21 20.38	- 6 8.7	1.955	2.857	11.4	18.4
7 20	21 17.71	- 9 42.9	1.664	2.634	8.3	18.8	7 20	21 14.88	- 6 40.2	1.902	2.863	8.1	18.2
7 30	21 9.22	-10 3.1	1.634	2.637	4.4	18.6	7 30	21 8.07	- 7 25.4	1.873	2.870	4.7	18.1
8 9	21 0.04	-10 31.3	1.629	2.639	2.5	18.4	8 9	21 0.71	- 8 20.5	1.871	2.878	3.0	18.0
8 19	20 51.18	-11 3.5	1.652	2.641	5.8	18.7	8 19	20 53.62	- 9 21.0	1.896	2.885	5.3	18.1
8 29	20 43.64	-11 35.7	1.700	2.643	9.8	18.9	8 29	20 47.60	-10 21.9	1.948	2.893	8.6	18.3
9 8	20 38.20	-12 4.1	1.772	2.645	13.3	19.1	9 8	20 43.30	-11 18.7	2.023	2.900	11.7	18.6
476882	2008 <i>VN</i> ₄₅		8 5.6 282°94	17°1/21.9	17		211310	2002 <i>SO</i> ₃₃		8 5.6 290°20	3.1/ 3.8	18	
6 30	21 26.12	+30 2.9	2.050	2.620	20.9	21.5	6 30	21 30.50	-23 56.5	1.883	2.743	13.7	20.1
7 10	21 22.52	+31 45.5	1.966	2.606	20.1	21.3	7 10	21 25.76	-24 19.9	1.796	2.727	10.6	19.8
7 20	21 16.63	+32 59.9	1.893	2.592	19.2	21.2	7 20	21 18.62	-24 45.7	1.730	2.711	7.0	19.6
7 30	21 8.90	+33 38.9	1.833	2.578	18.3	21.1	7 30	21 9.68	-25 8.7	1.690	2.695	3.7	19.3
8 9	21 0.14	+33 37.7	1.788	2.564	17.5	21.0	8 9	20 59.86	-25 24.0	1.676	2.680	3.9	19.3
8 19	20 51.37	+32 54.1	1.760	2.550	17.2	21.0	8 19	20 50.28	-25 27.9	1.689	2.664	7.3	19.5
8 29	20 43.70	+31 30.3	1.749	2.536	17.3	20.9	8 29	20 42.06	-25 18.6	1.726	2.648	11.1	19.7
9 8	20 38.08	+29 33.3	1.755	2.522	17.9	21.0	9 8	20 36.07	-24 56.6	1.787	2.632	14.5	19.9
241380	2008 <i>SQ</i> ₁₀₈		8 5.6 230°86	3.7/ 8.4	17		444244	2005 <i>UD</i> ₁₅₄		8 5.6 24°61	4.9/ 9.4	18	
6 30	21 27.00	- 4 20.5	2.020	2.830	14.8	21.4	6 30	21 25.13	- 1 43.0	2.186	2.983	14.2	21.3
7 10	21 22.76	- 4 26.3	1.929	2.822	12.0	21.2	7 10	21 21.09	- 1 22.5	2.105	2.984	11.7	21.1
7 20	21 16.51	- 4 48.4	1.858	2.813	8.7	21.0	7 20	21 15.29	- 1 17.0	2.044	2.985	8.9	20.9
7 30	21 8.76	- 5 26.0	1.811	2.804	5.4	20.8	7 30	21 8.24	- 1 26.9	2.007	2.986	6.2	20.8
8 9	21 0.26	- 6 16.5	1.791	2.795	3.7	20.6	8 9	21 0.63	- 1 50.8	1.996	2.988	4.9	20.7
8 19	20 51.89	- 7 15.6	1.799	2.785	5.8	20.8	8 19	20 53.22	- 2 26.1	2.011	2.989	6.1	20.8
8 29	20 44.59	- 8 18.1	1.832	2.775	9.2	20.9	8 29	20 46.81	- 3 8.6	2.053	2.991	8.7	20.9
9 8	20 39.09	- 9 18.8	1.890	2.764	12.6	21.1	9 8	20 42.02	- 3 53.9	2.119	2.993	11.4	21.1
362552	2010 <i>UU</i> ₉₃		8 5.6 356°77	4.9/ 2.1	18		13142	1994 <i>YM</i> ₂		8 5.6 242°29	6.5/10.4	18	
6 30	21 29.46	-30 1.1	2.132	2.991	12.4	20.8	6 30	21 26.61	+ 2 35.2	2.177	2.948	15.0	18.5
7 10	21 24.62	-30 41.6	2.064	2.990	9.6	20.6	7 10	21 22.34	+ 3 5.5	2.083	2.938	12.7	18.3
7 20	21 17.65	-31 19.9	2.018	2.990	6.9	20.4	7 20	21 16.19	+ 3 18.4	2.008	2.929	10.2	18.1
7 30	21 9.17	-31 50.2	1.998	2.989	5.1	20.3	7 30	21 8.65	+ 3 12.5	1.957	2.919	7.8	17.9
8 9	21 0.09	-32 7.7	2.004	2.989	5.6	20.3	8 9	21 0.40	+ 2 48.2	1.931	2.908	6.5	17.8
8 19	20 51.39	-32 9.7	2.036	2.989	7.9	20.5	8 19	20 52.25	+ 2 7.7	1.932	2.898	7.3	17.9
8 29	20 44.02	-31 55.5	2.094	2.989	10.7	20.7	8 29	20 45.06	+ 1 15.1	1.958	2.887	9.6	18.0
9 8	20 38.70	-31 26.5	2.174	2.990	13.3	20.8	9 8	20 39.55	+ 0 15.9	2.008	2.876	12.2	18.1
42539	1995 <i>WQ</i> ₉		8 5.6 115°84	1.9/ 4.3	18		213918	2003 <i>UK</i> ₁₇₄		8 5.6 335°42	2.4/ 6.9	18	
6 30	21 30.23	-20 3.0	1.923	2.777	13.7	20.5	6 30	21 21.59	-10 54.3	1.255	2.128	18.3	20.7
7 10	21 25.19	-20 37.0	1.857	2.786	10.4	20.3	7 10	21 19.80	-10 46.5	1.170	2.106	14.5	20.4
7 20	21 18.01	-21 16.2	1.814	2.796	6.7	20.1	7 20	21 15.23	-10 55.1	1.104	2.085	10.0	20.1
7 30	21 9.31	-21 55.8	1.796	2.805	2.9	19.9	7 30	21 8.44	-11 18.9	1.059	2.066	5.1	19.7
8 9	21 0.02	-22 30.7	1.806	2.814	2.8	19.9	8 9	21 0.47	-11 54.1	1.036	2.047	2.7	19.5
8 19	20 51.14	-22 57.1	1.842	2.822	6.4	20.2	8 19	20 52.64	-12 35.2	1.036	2.030	7.4	19.7
8 29	20 43.63	-23 12.5	1.905	2.831	10.0	20.4	8 29	20 46.38	-13 15.6	1.057	2.015	12.6	20.0
9 8	20 38.20	-23 16.3	1.991	2.839	13.1	20.6	9 8	20 42.82	-13 49.8	1.099	2.001	17.3	20.2
209331	2004 <i>BQ</i> ₁₃₁		8 5.6 260°45	0.0/ 5.4	18		14286	2577 <i>P-L</i>		8 5.6 22°13	0.2/ 5.5	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
397450	2007 <i>ES</i> ₁₄₉		8 5.6 277°47'	4.7°/ 1.9 18			117338	2004 <i>XF</i> ₁₈		8 5.6 336°96'	2.4°/ 7.3 18		
6 30	21 29.42	-29 48.5	2.290	3.146	11.7	21.3	6 30	21 23.85	-9 13.4	1.927	2.765	14.3	19.4
7 10	21 24.57	-30 31.3	2.210	3.135	9.2	21.1	7 10	21 20.44	-9 10.6	1.841	2.755	11.3	19.2
7 20	21 17.65	-31 12.7	2.153	3.124	6.6	20.9	7 20	21 15.07	-9 20.3	1.776	2.746	7.9	19.0
7 30	21 9.23	-31 47.2	2.121	3.113	4.9	20.8	7 30	21 8.22	-9 41.2	1.735	2.738	4.2	18.8
8 9	21 0.13	-32 9.8	2.117	3.102	5.4	20.8	8 9	21 0.69	-10 10.6	1.720	2.730	2.5	18.6
8 19	20 51.28	-32 17.5	2.139	3.091	7.7	21.0	8 19	20 53.34	-10 44.8	1.732	2.722	5.5	18.8
8 29	20 43.62	-32 9.1	2.187	3.079	10.5	21.1	8 29	20 47.09	-11 19.8	1.769	2.715	9.2	19.0
9 8	20 37.90	-31 45.8	2.257	3.068	13.0	21.3	9 8	20 42.67	-11 51.7	1.829	2.709	12.6	19.2
80340	1999 <i>XR</i> ₁₀₈		8 5.6 283°35'	1°5' / 6.4 18			12181	1964 <i>VL</i> ₁		8 5.6 279°95'	3°0' / 3.5 18		
6 30	21 29.42	-12 16.3	1.520	2.372	16.8	20.3	6 30	21 29.27	-22 5.3	1.945	2.804	13.4	18.4
7 10	21 25.42	-12 16.0	1.429	2.353	13.2	20.0	7 10	21 24.92	-22 52.9	1.847	2.778	10.3	18.1
7 20	21 18.70	-12 28.8	1.357	2.334	9.0	19.7	7 20	21 18.20	-23 46.6	1.771	2.752	6.8	17.8
7 30	21 9.82	-12 52.6	1.308	2.315	4.2	19.4	7 30	21 9.59	-24 41.1	1.720	2.726	3.6	17.6
8 9	20 59.79	-13 23.4	1.284	2.296	2.1	19.2	8 9	20 59.96	-25 30.2	1.696	2.700	3.9	17.6
8 19	20 49.84	-13 56.3	1.286	2.277	6.9	19.4	8 19	20 50.37	-26 8.3	1.699	2.673	7.4	17.7
8 29	20 41.35	-14 26.5	1.312	2.258	11.8	19.7	8 29	20 41.94	-26 32.0	1.728	2.646	11.3	17.9
9 8	20 35.36	-14 50.2	1.359	2.239	16.2	19.9	9 8	20 35.64	-26 40.3	1.779	2.619	14.8	18.1
476693	2008 <i>TX</i> ₁₀₃		8 5.6 64°84'	6°0' / 1.9 16			79614	1998 <i>RB</i> ₅₇		8 5.6 180°51'	0°3' / 5.4 18		
6 30	21 32.18	-29 52.0	1.697	2.564	14.6	21.6	6 30	21 31.52	-15 48.0	1.891	2.735	14.3	19.5
7 10	21 27.20	-30 48.0	1.637	2.568	11.4	21.4	7 10	21 26.31	-16 9.1	1.814	2.736	11.0	19.3
7 20	21 19.57	-31 42.1	1.599	2.572	8.2	21.2	7 20	21 18.85	-16 38.7	1.758	2.737	7.1	19.0
7 30	21 10.04	-32 26.3	1.584	2.576	6.1	21.1	7 30	21 9.75	-17 13.3	1.728	2.737	2.9	18.8
8 9	20 59.76	-32 54.1	1.595	2.580	6.8	21.2	8 9	20 59.94	-17 48.2	1.725	2.737	1.6	18.7
8 19	20 50.01	-33 1.5	1.632	2.585	9.5	21.4	8 19	20 50.43	-18 19.1	1.749	2.736	5.9	19.0
8 29	20 42.00	-32 48.3	1.691	2.589	12.7	21.6	8 29	20 42.25	-18 42.9	1.800	2.734	9.9	19.2
9 8	20 36.57	-32 16.9	1.772	2.594	15.6	21.8	9 8	20 36.19	-18 57.5	1.875	2.732	13.4	19.4
396114	2013 <i>CD</i> ₁₆₄		8 5.6 225°56'	2°8' / 8.1 18			411638	2011 <i>UH</i> ₂₄₇		8 5.6 133°41'	1°9' / 6.7 17		
6 30	21 24.28	-5 24.9	2.267	3.080	13.3	21.3	6 30	21 30.74	-10 10.5	1.445	2.292	17.8	21.5
7 10	21 20.44	-5 45.0	2.181	3.078	10.6	21.1	7 10	21 26.23	-10 27.0	1.377	2.298	13.9	21.3
7 20	21 14.89	-6 19.8	2.117	3.076	7.6	20.9	7 20	21 19.04	-11 0.1	1.328	2.304	9.4	21.1
7 30	21 8.11	-7 7.5	2.077	3.073	4.5	20.7	7 30	21 9.88	-11 46.6	1.303	2.309	4.5	20.8
8 9	21 0.75	-8 5.2	2.065	3.071	2.8	20.6	8 9	20 59.87	-12 41.0	1.302	2.314	2.2	20.6
8 19	20 53.55	-9 8.5	2.081	3.069	5.0	20.7	8 19	20 50.28	-13 36.9	1.328	2.319	6.7	20.9
8 29	20 47.29	-10 12.7	2.124	3.067	8.1	20.9	8 29	20 42.36	-14 28.2	1.377	2.323	11.4	21.2
9 8	20 42.59	-11 13.4	2.192	3.064	11.2	21.1	9 8	20 37.02	-15 10.7	1.449	2.327	15.4	21.5
158915	2004 <i>RX</i> ₂₇		8 5.6 264°82'	0°0' / 5.4 18			6724	1991 <i>CX</i> ₅		8 5.6 183°38'	1°8' / 3.8 18		
6 30	21 25.67	-14 47.8	2.413	3.252	11.8	20.9	6 30	21 26.37	-20 22.1	2.655	3.500	10.6	17.4
7 10	21 21.50	-15 11.5	2.319	3.239	9.1	20.7	7 10	21 21.85	-21 10.8	2.575	3.501	8.0	17.2
7 20	21 15.59	-15 43.1	2.247	3.225	5.9	20.5	7 20	21 15.73	-22 4.1	2.520	3.500	5.2	17.1
7 30	21 8.40	-16 20.0	2.202	3.211	2.4	20.2	7 30	21 8.44	-22 57.9	2.493	3.500	2.4	16.9
8 9	21 0.59	-16 58.7	2.185	3.197	1.2	20.1	8 9	21 0.64	-23 48.0	2.494	3.499	2.5	16.9
8 19	20 52.88	-17 35.6	2.196	3.183	4.9	20.3	8 19	20 53.02	-24 30.9	2.524	3.498	5.3	17.1
8 29	20 46.08	-18 7.6	2.234	3.168	8.3	20.5	8 29	20 46.29	-25 4.0	2.581	3.497	8.1	17.2
9 8	20 40.82	-18 32.3	2.297	3.154	11.3	20.7	9 8	20 41.03	-25 26.1	2.663	3.495	10.7	17.4
418940	2009 <i>DA</i> ₈₉		8 5.6 170°48'	1°8' / 6.7 17			278519	2008 <i>DC</i> ₃₃		8 5.6 46°04'	4°4' / 2.7 18		
6 30	21 30.94	-10 23.2	1.565	2.407	16.9	21.9	6 30	21 30.02	-27 49.8	1.955	2.817	13.2	20.5
7 10	21 26.25	-10 37.5	1.491	2.409	13.2	21.6	7 10	21 25.12	-28 27.4	1.895	2.825	10.2	20.3
7 20	21 19.00	-11 6.9	1.437	2.411	8.9	21.4	7 20	21 18.01	-29 3.9	1.857	2.834	7.0	20.1
7 30	21 9.85	-11 48.7	1.407	2.413	4.3	21.1	7 30	21 9.39	-29 33.5	1.845	2.842	4.7	20.0
8 9	20 59.85	-12 37.9	1.402	2.414	2.1	21.0	8 9	21 0.20	-29 51.4	1.858	2.851	5.1	20.0
8 19	20 50.20	-13 29.0	1.424	2.414	6.4	21.3	8 19	20 51.49	-29 54.7	1.898	2.860	7.7	20.2
8 29	20 42.08	-14 16.3	1.471	2.415	10.9	21.5	8 29	20 44.23	-29 42.6	1.963	2.869	10.8	20.4
9 8	20 36.40	-14 55.7	1.540	2.415	14.9	21.8	9 8	20 39.12	-29 16.6	2.050	2.879	13.6	20.6
175124	2005 <i>AB</i> ₁₀		8 5.6 140°28'	7°0' / 9.2 18			115740	2003 <i>UU</i> ₁₈₈		8 5.6 150°73'	8°7' / 14.4 18		
6 30	21 37.80	+0 6.7	1.933	2.703	16.7	19.8	6 30	21 27.72	+13 50.5	2.662	3.340	14.6	20.6
7 10	21 30.84	+1 16.1	1.859	2.717	13.9	19.6	7 10	21 22.78	+14 33.7	2.582	3.350	13.0	20.4
7 20	21 21.64	+2 10.0	1.807	2.731	10.9	19.5	7 20	21 16.28	+14 57.5	2.520	3.359	11.3	20.3
7 30	21 10.83	+2 45.7	1.779	2.743	8.2	19.3	7 30	21 8.66	+14 59.4	2.480	3.367	9.8	20.2
8 9	20 59.38	+3 2.6	1.778	2.755	7.0	19.3	8 9	21 0.55	+14 39.0	2.464	3.376	8.8	20.2
8 19	20 48.32	+3 2.0	1.804	2.766	8.1	19.4	8 19	20 52.62	+13 57.9	2.473	3.383	8.8	20.2
8 29	20 38.67	+2 47.3	1.857	2.776	10.6	19.5	8 29	20 45.57	+12 59.5	2.508	3.390	9.7	20.3
9 8	20 31.19	+2 23.4	1.934	2.785	13.4	19.7	9 8	20 39.95	+11 49.3	2.566	3.396	11.1	20.4
374901	2006 <i>WZ</i> ₁₅₉		8 5.6 246°81'	0°9' / 5.0 17			490789	2010 <i>UQ</i> ₁₀₁		8 5.6 351°78'	22°5' / 22.1 17		
6 30	21 30.25	-17 5.9	1.741	2.595	14.9	21.5	6 30	21 22.45	+20 42.5	0.954	1.710	30.9	21.3
7 10	21 25.67	-17 32.1	1.656	2.585	11.5	21.3	7 10	21 21.15	+23 12.3	0.901	1.706	29.0	21.1
7 20	21 18.63	-18 7.4	1.593	2.575	7.4	21.0	7 20	21 16.50	+24 59.4	0.857	1.702	27.0	20.9
7 30	21 9.72	-18 47.3	1.555	2.564	3.0	20.7	7 30	21 9.10	+25 50.2	0.823	1.700	25.0	20.8
8 9	20 59.91	-19 26.7	1.543	2.554	2.1	20.6	8 9	21 0.25	+25 35.8	0.801	1.698	23.4	20.7
8 19	20 50.31	-20 0.4	1.557	2.543	6.6	20.9	8 19	20 51.64	+24 14.1	0.793	1.698	22.5	20.6
8 29	20 42.10	-20 24.7	1.597	2.532	10.9	21.1	8 29	20 45.09	+21 53.0	0.799	1.698	22.7	20.6
9 8	20 36.16	-20 37.8	1.660	2.520	14.7	21.3	9 8	20 41.95	+18 50.1	0.819	1.699	24.0	20.7
37547	1981 <i>EH</i> ₂₂		8 5.6 48°93'	1°3' / 6.4 18			200650	2001 <i>TQ</i> ₂		8 5.6			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
446237	2013 <i>GL</i> ₁₁₈		8 5.6 147°19	0°8/ 4.9 18			380315	2002 <i>GA</i> ₇₄		8 5.6 122°70	6°6/ 1.1 17		
6 30	21 26.62	-17 43.2	2.570	3.412	11.1	22.0	6 30	21 34.66	-33 18.7	1.974	2.827	13.4	21.1
7 10	21 22.00	-18 10.8	2.494	3.417	8.4	21.8	7 10	21 28.80	-34 20.9	1.919	2.838	10.7	21.0
7 20	21 15.80	-18 43.6	2.442	3.422	5.4	21.6	7 20	21 20.48	-35 18.1	1.887	2.849	8.1	20.8
7 30	21 8.48	-19 18.6	2.417	3.427	2.2	21.4	7 30	21 10.44	-36 2.9	1.880	2.860	6.6	20.8
8 9	21 0.70	-19 52.3	2.421	3.431	1.6	21.4	8 9	20 59.78	-36 29.5	1.900	2.870	7.3	20.8
8 19	20 53.14	-20 21.5	2.453	3.436	4.8	21.6	8 19	20 49.67	-36 34.8	1.945	2.879	9.4	21.0
8 29	20 46.53	-20 44.0	2.512	3.440	7.8	21.8	8 29	20 41.21	-36 19.3	2.014	2.889	12.0	21.2
9 8	20 41.41	-20 58.5	2.596	3.443	10.5	22.0	9 8	20 35.17	-35 45.8	2.105	2.898	14.5	21.3
290427	2005 <i>TB</i> ₉₅		8 5.6 154°94	4°1/ 8.9 18			98156	2000 <i>SO</i> ₇₁		8 5.6 178°31	7°1/ 1.5 18		
6 30	21 25.53	-2 57.5	2.359	3.155	13.3	20.7	6 30	21 35.66	-30 55.4	1.537	2.403	15.9	19.6
7 10	21 21.29	-2 47.9	2.276	3.157	10.8	20.6	7 10	21 30.30	-32 4.8	1.475	2.404	12.6	19.4
7 20	21 15.40	-2 52.0	2.214	3.159	8.1	20.4	7 20	21 21.85	-33 12.1	1.434	2.405	9.3	19.2
7 30	21 8.34	-3 9.8	2.177	3.161	5.4	20.2	7 30	21 11.11	-34 7.4	1.417	2.405	7.2	19.1
8 9	21 0.76	-3 39.3	2.166	3.163	4.1	20.1	8 9	20 59.42	-34 42.4	1.425	2.405	8.0	19.1
8 19	20 53.37	-4 17.8	2.183	3.164	5.4	20.2	8 19	20 48.28	-34 52.4	1.457	2.405	10.9	19.3
8 29	20 46.91	-5 1.5	2.227	3.166	8.1	20.4	8 29	20 39.15	-34 37.3	1.512	2.404	14.2	19.5
9 8	20 41.97	-5 46.3	2.296	3.167	10.8	20.6	9 8	20 33.02	-34 0.6	1.587	2.404	17.4	19.7
519784	2013 <i>FQ</i> ₂₉		8 5.6 170°38	4°3/ 1.9 18			216632	2003 <i>BX</i> ₂₇		8 5.6 85°82	4°7/ 9.5 18		
6 30	21 28.48	-28 51.1	2.413	3.268	11.3	21.5	6 30	21 27.04	-1 19.9	2.216	3.006	14.3	20.0
7 10	21 23.68	-29 39.5	2.343	3.268	8.7	21.3	7 10	21 22.40	-1 8.4	2.151	3.026	11.6	19.9
7 20	21 17.01	-30 26.9	2.297	3.269	6.2	21.2	7 20	21 16.07	-1 12.5	2.106	3.046	8.8	19.7
7 30	21 9.00	-31 8.1	2.277	3.269	4.5	21.1	7 30	21 8.61	-1 31.9	2.086	3.066	6.1	19.6
8 9	21 0.44	-31 38.6	2.284	3.270	5.0	21.1	8 9	21 0.71	-2 4.5	2.093	3.085	4.7	19.6
8 19	20 52.16	-31 55.4	2.319	3.270	7.2	21.2	8 19	20 53.14	-2 47.1	2.126	3.105	5.8	19.7
8 29	20 45.01	-31 57.2	2.379	3.271	9.8	21.4	8 29	20 46.64	-3 35.3	2.187	3.124	8.3	19.8
9 8	20 39.64	-31 44.8	2.462	3.271	12.1	21.6	9 8	20 41.77	-4 24.8	2.272	3.143	10.9	20.1
262955	2007 <i>DC</i> ₇₆		8 5.6 178°41	0°2/ 5.5 18			341151	2007 <i>PZ</i> ₂₉		8 5.6 304°58	6°1/ 2.5 18		
6 30	21 25.54	-15 14.0	2.557	3.395	11.2	21.5	6 30	21 33.96	-31 1.4	1.682	2.547	14.9	19.7
7 10	21 21.23	-15 42.9	2.476	3.396	8.6	21.3	7 10	21 28.89	-31 33.0	1.600	2.529	11.8	19.5
7 20	21 15.33	-16 18.9	2.418	3.396	5.5	21.1	7 20	21 20.92	-32 1.3	1.539	2.511	8.6	19.2
7 30	21 8.31	-16 59.2	2.387	3.396	2.2	20.9	7 30	21 10.76	-32 18.9	1.501	2.494	6.3	19.1
8 9	21 0.79	-17 40.2	2.385	3.397	1.2	20.8	8 9	20 59.57	-32 19.2	1.489	2.477	6.8	19.0
8 19	20 53.46	-18 18.5	2.410	3.396	4.6	21.1	8 19	20 48.75	-31 58.7	1.502	2.460	9.8	19.2
8 29	20 47.02	-18 51.4	2.464	3.396	7.7	21.3	8 29	20 39.68	-31 17.4	1.538	2.443	13.3	19.3
9 8	20 42.04	-19 16.8	2.542	3.396	10.5	21.4	9 8	20 33.35	-30 18.7	1.596	2.427	16.6	19.5
161266	2003 <i>FG</i> ₅₀		8 5.6 12°70	6°0/ 2.5 18			481228	2005 <i>WT</i> ₂₉		8 5.6 235°35	0°9/ 6.3 18		
6 30	21 22.72	-23 20.9	0.867	1.782	20.6	18.1	6 30	21 26.59	-13 5.6	2.324	3.158	12.3	21.6
7 10	21 21.55	-24 38.6	0.824	1.785	15.7	17.8	7 10	21 22.17	-13 11.4	2.241	3.157	9.5	21.4
7 20	21 16.69	-26 4.1	0.798	1.790	10.5	17.5	7 20	21 16.02	-13 25.4	2.181	3.155	6.3	21.2
7 30	21 9.09	-27 25.1	0.791	1.797	6.4	17.4	7 30	21 8.63	-13 45.4	2.146	3.153	2.8	20.9
8 9	21 0.42	-28 28.5	0.804	1.806	7.3	17.4	8 9	21 0.69	-14 8.6	2.139	3.151	1.3	20.8
8 19	20 52.56	-29 5.6	0.836	1.816	11.9	17.7	8 19	20 52.97	-14 32.1	2.160	3.149	4.7	21.1
8 29	20 47.22	-29 13.6	0.888	1.828	16.7	18.0	8 29	20 46.23	-14 53.2	2.209	3.147	8.1	21.3
9 8	20 45.40	-28 54.9	0.956	1.841	20.9	18.4	9 8	20 41.10	-15 9.5	2.281	3.145	11.1	21.5
123806	2001 <i>BY</i> ₆₃		8 5.6 110°29	2°9/ 8.2 18			337335	2001 <i>EQ</i> ₁₈		8 5.6 207°89	5°3/ 2.8 18		
6 30	21 26.03	-4 39.4	1.943	2.758	15.1	19.2	6 30	21 38.88	-31 54.4	2.081	2.925	13.2	20.4
7 10	21 22.00	-5 17.0	1.868	2.767	12.0	19.0	7 10	21 31.89	-32 13.6	2.005	2.922	10.4	20.2
7 20	21 16.02	-6 12.7	1.815	2.775	8.5	18.8	7 20	21 22.44	-32 27.8	1.951	2.918	7.6	20.0
7 30	21 8.64	-7 24.0	1.786	2.783	4.9	18.6	7 30	21 11.25	-32 30.9	1.924	2.914	5.5	19.9
8 9	21 0.64	-8 46.2	1.784	2.791	2.9	18.5	8 9	20 59.39	-32 18.5	1.924	2.909	5.8	19.9
8 19	20 52.90	-10 13.2	1.810	2.799	5.4	18.7	8 19	20 48.06	-31 48.7	1.952	2.904	8.2	20.0
8 29	20 46.32	-11 38.5	1.863	2.807	9.0	18.9	8 29	20 38.35	-31 2.4	2.006	2.899	11.2	20.2
9 8	20 41.57	-12 56.7	1.940	2.814	12.3	19.1	9 8	20 31.06	-30 2.9	2.083	2.894	14.0	20.4
360942	2005 <i>UF</i> ₁₇		8 5.6 326°30	4°1/ 8.6 18			38718	2000 <i>QW</i> ₁₂₁		8 5.6 320°17	4°5/ 8.0 18 R		
6 30	21 25.62	-4 24.5	2.131	2.941	14.1	20.4	6 30	21 25.54	-6 33.5	1.454	2.298	17.9	18.3
7 10	21 21.57	-4 4.4	2.047	2.937	11.5	20.2	7 10	21 22.47	-6 9.3	1.367	2.281	14.5	18.1
7 20	21 15.70	-4 2.1	1.983	2.935	8.5	20.0	7 20	21 16.82	-6 2.2	1.299	2.265	10.5	17.8
7 30	21 8.51	-4 11.5	1.943	2.932	5.5	19.8	7 30	21 9.13	-6 12.6	1.253	2.250	6.5	17.5
8 9	21 0.71	-4 32.9	1.930	2.929	4.1	19.7	8 9	21 0.39	-6 38.6	1.230	2.236	4.5	17.4
8 19	20 53.10	-5 3.6	1.943	2.927	5.8	19.8	8 19	20 51.78	-7 16.2	1.232	2.221	7.3	17.5
8 29	20 46.51	-5 39.8	1.983	2.924	8.7	20.0	8 29	20 44.59	-7 59.6	1.256	2.208	11.7	17.7
9 8	20 41.60	-6 17.3	2.047	2.922	11.7	20.2	9 8	20 39.82	-8 43.0	1.302	2.195	15.9	17.9
257280	2009 <i>HE</i> ₈		8 5.6 309°36	4°1/ 3.1 18			304409	2006 <i>TT</i> ₄₁		8 5.6 139°93	1°2/ 4.7 18		
6 30	21 26.34	-20 42.3	1.243	2.129	17.6	20.0	6 30	21 27.72	-18 35.0	2.212	3.060	12.4	21.2
7 10	21 23.78	-21 52.7	1.163	2.110	13.6	19.7	7 10	21 23.13	-19 4.3	2.137	3.064	9.4	21.0
7 20	21 18.06	-23 16.1	1.103	2.091	9.0	19.4	7 20	21 16.68	-19 39.3	2.086	3.067	6.0	20.8
7 30	21 9.74	-24 44.2	1.065	2.072	4.7	19.1	7 30	21 8.90	-20 16.2	2.061	3.070	2.5	20.6
8 9	21 0.02	-26 5.8	1.050	2.054	5.4	19.1	8 9	21 0.57	-20 50.8	2.063	3.073	2.0	20.6
8 19	20 50.42	-27 11.1	1.058	2.037	10.1	19.3	8 19	20 52.51	-21 19.6	2.093	3.076	5.5	20.8
8 29	20 42.63	-27 53.6	1.088	2.020	15.1	19.5	8 29	20 45.56	-21 39.9	2.150	3.078	8.9	21.0
9 8	20 37.91	-28 11.5	1.137	2.004	19.6	19.8	9 8	20 40.37	-21 50.6	2.231	3.081	11.8	21.2
479593	2014 <i>DE</i> ₄		8 5.6 246°35	6°2/ 11.5 16			302848	2003 <i>FW</i> ₁₁₈		8 5.6 178°31	2°8/ 4.0 17		
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EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
145527	2006 <i>FV</i> ₁₉		8 5.7 110°04	5°7/10.4	18		311484	2005 <i>VM</i> ₄₉		8 5.7 202°36	2°4/ 3.6	18	
6 30	21 26.99	+ 1 25.1	2.011	2.793	15.7	20.4	6 30	21 29.42	-24 19.9	2.793	3.637	10.2	21.6
7 10	21 22.62	+ 1 32.4	1.939	2.805	13.1	20.2	7 10	21 24.12	-24 44.5	2.710	3.633	7.8	21.4
7 20	21 16.37	+ 1 20.3	1.886	2.817	10.1	20.1	7 20	21 17.20	-25 10.0	2.651	3.628	5.2	21.2
7 30	21 8.79	+ 0 48.6	1.856	2.829	7.3	19.9	7 30	21 9.12	-25 32.9	2.620	3.623	2.8	21.1
8 9	21 0.65	- 0 0.3	1.853	2.840	5.8	19.9	8 9	21 0.56	-25 50.0	2.617	3.618	3.0	21.1
8 19	20 52.79	- 1 2.5	1.875	2.851	6.7	19.9	8 19	20 52.20	-25 58.8	2.643	3.613	5.4	21.2
8 29	20 46.07	- 2 12.5	1.924	2.862	9.2	20.1	8 29	20 44.78	-25 58.1	2.697	3.607	8.1	21.4
9 8	20 41.14	- 3 24.1	1.998	2.872	12.0	20.3	9 8	20 38.87	-25 47.8	2.775	3.601	10.5	21.6
380257	2001 <i>XN</i> ₁₁₅		8 5.7 235°73	4°8/ 1.6	18		243297	2008 <i>EJ</i> ₆₀		8 5.7 210°53	4°9/10.2	18	
6 30	21 31.70	-27 20.1	2.158	3.012	12.4	22.1	6 30	21 24.44	+ 0 47.5	2.347	3.126	13.8	20.8
7 10	21 26.61	-28 32.8	2.071	2.997	9.7	21.9	7 10	21 20.55	+ 0 45.8	2.258	3.124	11.5	20.6
7 20	21 19.22	-29 47.9	2.008	2.982	6.8	21.7	7 20	21 15.01	+ 0 27.2	2.190	3.122	8.9	20.5
7 30	21 10.05	-30 58.5	1.972	2.966	4.9	21.6	7 30	21 8.27	- 0 8.4	2.146	3.120	6.3	20.3
8 9	20 59.96	-31 57.9	1.963	2.949	5.6	21.6	8 9	21 0.97	- 0 59.0	2.128	3.117	4.9	20.2
8 19	20 49.98	-32 40.9	1.981	2.931	8.3	21.7	8 19	20 53.82	- 2 1.3	2.137	3.114	5.9	20.3
8 29	20 41.19	-33 5.0	2.025	2.913	11.3	21.9	8 29	20 47.55	- 3 10.5	2.174	3.111	8.3	20.4
9 8	20 34.47	-33 10.4	2.091	2.894	14.2	22.0	9 8	20 42.78	- 4 21.3	2.235	3.108	10.9	20.6
472679	2015 <i>ED</i> ₄₃		8 5.7 24°41	3°4/ 7.3	17		36562	2000 <i>QV</i> ₁₀₉		8 5.7 50°09	1°5/ 6.6	18	
6 30	21 25.85	- 9 54.0	1.082	1.956	20.6	19.8	6 30	21 27.52	-10 48.7	1.672	2.517	15.8	19.4
7 10	21 22.90	- 9 29.7	1.038	1.972	16.1	19.6	7 10	21 23.53	-11 7.4	1.598	2.519	12.4	19.2
7 20	21 17.01	- 9 23.7	1.011	1.990	11.1	19.4	7 20	21 17.23	-11 40.2	1.545	2.520	8.3	18.9
7 30	21 9.11	- 9 34.5	1.005	2.009	5.9	19.2	7 30	21 9.24	-12 24.4	1.516	2.522	3.9	18.7
8 9	21 0.54	- 9 57.5	1.020	2.030	3.5	19.1	8 9	21 0.49	-13 15.1	1.512	2.524	1.8	18.5
8 19	20 52.74	-10 27.1	1.058	2.052	7.4	19.4	8 19	20 52.06	-14 6.9	1.535	2.526	6.0	18.8
8 29	20 46.96	-10 57.2	1.118	2.076	12.1	19.8	8 29	20 44.99	-14 54.6	1.583	2.528	10.2	19.1
9 8	20 44.00	-11 22.9	1.198	2.100	16.3	20.1	9 8	20 40.10	-15 34.4	1.653	2.530	14.0	19.3
315105	2007 <i>ET</i> ₁₉		8 5.7 359°16	2°7/ 7.9	18		183829	2004 <i>BD</i> ₉₆		8 5.7 171°17	0°5/ 5.9	17	
6 30	21 23.32	- 6 1.4	2.086	2.908	14.0	20.6	6 30	21 31.65	-13 39.6	1.886	2.724	14.6	22.2
7 10	21 19.89	- 6 26.3	2.004	2.907	11.1	20.4	7 10	21 26.42	-13 57.8	1.809	2.728	11.3	22.0
7 20	21 14.66	- 7 6.8	1.944	2.907	7.8	20.2	7 20	21 18.98	-14 26.2	1.754	2.730	7.4	21.7
7 30	21 8.13	- 8 0.9	1.908	2.907	4.5	20.0	7 30	21 9.92	-15 1.5	1.724	2.733	3.1	21.5
8 9	21 1.00	- 9 4.9	1.899	2.907	2.7	19.9	8 9	21 0.16	-15 39.5	1.722	2.734	1.4	21.4
8 19	20 54.06	-10 14.1	1.917	2.907	5.1	20.1	8 19	20 50.70	-16 15.6	1.747	2.735	5.7	21.7
8 29	20 48.13	-11 22.9	1.962	2.907	8.5	20.3	8 29	20 42.56	-16 46.2	1.799	2.736	9.7	21.9
9 8	20 43.86	-12 26.8	2.031	2.908	11.7	20.5	9 8	20 36.52	-17 8.9	1.874	2.736	13.2	22.1
178189	2006 <i>UB</i> ₁₉₇		8 5.7 104°23	0°6/ 6.1	18		36829	2000 <i>SQ</i> ₉₉		8 5.7 202°02	2°5/ 7.7	18	
6 30	21 26.90	-13 18.1	2.133	2.972	13.1	21.0	6 30	21 25.99	- 7 34.4	2.396	3.211	12.6	20.0
7 10	21 22.54	-13 35.5	2.058	2.977	10.1	20.8	7 10	21 21.68	- 7 37.9	2.310	3.209	10.0	19.8
7 20	21 16.32	-14 2.0	2.005	2.981	6.6	20.6	7 20	21 15.72	- 7 52.9	2.245	3.207	7.0	19.6
7 30	21 8.79	-14 35.1	1.978	2.986	2.9	20.4	7 30	21 8.55	- 8 18.0	2.206	3.204	4.0	19.4
8 9	21 0.70	-15 10.9	1.978	2.990	1.3	20.2	8 9	21 0.85	- 8 50.9	2.195	3.202	2.5	19.3
8 19	20 52.87	-15 45.9	2.006	2.994	5.0	20.5	8 19	20 53.31	- 9 28.5	2.212	3.199	4.8	19.5
8 29	20 46.15	-16 16.5	2.060	2.999	8.6	20.7	8 29	20 46.69	-10 7.3	2.256	3.196	7.8	19.6
9 8	20 41.18	-16 40.6	2.138	3.003	11.7	21.0	9 8	20 41.58	-10 43.9	2.325	3.193	10.7	19.8
371382	2006 <i>QB</i> ₁₄₅		8 5.7 287°58	2°3/ 4.6	18		256670	2007 <i>XT</i> ₅₈		8 5.7 104°29	1°2/ 6.4	18	
6 30	21 33.30	-21 24.7	1.448	2.316	16.7	21.0	6 30	21 40.75	-11 28.5	1.469	2.300	18.3	21.6
7 10	21 28.59	-21 34.2	1.367	2.302	12.9	20.7	7 10	21 33.44	-11 50.3	1.422	2.335	14.1	21.4
7 20	21 20.87	-21 48.2	1.305	2.289	8.4	20.5	7 20	21 23.43	-12 26.1	1.396	2.369	9.3	21.2
7 30	21 10.81	-22 1.7	1.267	2.276	3.8	20.2	7 30	21 11.65	-13 11.1	1.394	2.401	4.1	21.0
8 9	20 59.63	-22 8.9	1.253	2.262	3.3	20.1	8 9	20 59.39	-13 59.4	1.419	2.431	1.9	20.9
8 19	20 48.77	-22 5.8	1.265	2.249	8.0	20.3	8 19	20 47.99	-14 45.1	1.472	2.460	6.5	21.3
8 29	20 39.69	-21 50.3	1.300	2.236	12.8	20.6	8 29	20 38.63	-15 23.8	1.551	2.488	11.0	21.6
9 8	20 33.46	-21 22.9	1.357	2.223	17.0	20.8	9 8	20 32.05	-15 53.0	1.652	2.515	14.7	21.9
487816	2015 <i>TW</i> ₂₂		8 5.7 293°34	4°2/ 9.1	18		447069	2004 <i>RB</i> ₃₂₂		8 5.7 296°98	17°5/19.8	17	
6 30	21 23.62	- 2 25.9	2.301	3.100	13.5	21.2	6 30	21 23.57	+20 16.3	1.180	1.909	27.3	21.3
7 10	21 20.08	- 2 26.5	2.197	3.080	11.1	21.0	7 10	21 21.64	+21 21.3	1.105	1.899	25.3	21.1
7 20	21 14.81	- 2 42.4	2.113	3.060	8.3	20.8	7 20	21 16.68	+21 43.7	1.040	1.889	23.0	20.9
7 30	21 8.23	- 3 13.8	2.054	3.039	5.6	20.6	7 30	21 9.25	+21 12.6	0.988	1.880	20.5	20.7
8 9	21 0.94	- 3 58.7	2.021	3.019	4.2	20.5	8 9	21 0.44	+19 41.8	0.951	1.870	18.5	20.5
8 19	20 53.70	- 4 53.9	2.016	2.999	5.6	20.6	8 19	20 51.72	+17 12.2	0.932	1.861	17.5	20.4
8 29	20 47.28	- 5 55.1	2.037	2.979	8.5	20.7	8 29	20 44.71	+13 54.7	0.933	1.852	18.3	20.4
9 8	20 42.38	- 6 57.2	2.083	2.959	11.5	20.9	9 8	20 40.66	+10 8.6	0.953	1.844	20.4	20.5
355708	2008 <i>FW</i> ₉₃		8 5.7 42°53	6°6/31.4	18		274795	2008 <i>WZ</i> ₅₁		8 5.7 43°00	11°6/14.7	18	
6 30	21 29.51	-33 41.3	2.057	2.917	12.7	20.4	6 30	21 26.94	+10 26.4	1.434	2.196	21.9	19.2
7 10	21 24.89	-34 50.2	2.001	2.923	10.2	20.3	7 10	21 23.16	+11 34.1	1.386	2.219	19.1	19.1
7 20	21 17.99	-35 54.5	1.967	2.929	7.8	20.2	7 20	21 16.98	+12 10.8	1.354	2.242	16.3	19.0
7 30	21 9.49	-36 47.3	1.959	2.935	6.7	20.1	7 30	21 9.12	+12 12.7	1.339	2.267	13.6	18.9
8 9	21 0.35	-37 22.7	1.976	2.941	7.4	20.2	8 9	21 0.65	+11 39.8	1.345	2.291	11.9	18.9
8 19	20 51.63	-37 37.5	2.018	2.948	9.4	20.3	8 19	20 52.71	+10 36.6	1.373	2.316	11.8	18.9
8 29	20 44.35	-37 31.3	2.084	2.954	11.9	20.5	8 29	20 46.38	+ 9 11.2	1.423	2.342	13.2	19.1
9 8	20 39.26	-37 6.4	2.171	2.961	14.2	20.6	9 8	20 42.41	+ 7 34.0	1.493	2.367	15.3	19.3
75000	1999 <i>TM</i> ₂₇₉		8										

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
177372	2004 <i>BE</i> ₃₆		8 5.7 357°92	3°0/ 3.8 18			284581	2007 <i>TK</i> ₁₃₂		8 5.7 331°59	1°5/ 6.6 16		
6 30	21 25.00	-18 34.7	1.195	2.083	18.1	19.6	6 30	21 23.79	-11 35.1	1.464	2.326	16.8	20.9
7 10	21 22.55	-19 40.2	1.133	2.080	13.8	19.4	7 10	21 21.16	-11 43.6	1.380	2.310	13.2	20.6
7 20	21 17.09	-20 59.0	1.089	2.078	8.9	19.1	7 20	21 16.00	-12 7.2	1.315	2.294	8.9	20.3
7 30	21 9.33	-22 22.7	1.067	2.077	4.1	18.8	7 30	21 8.88	-12 43.5	1.272	2.280	4.2	20.0
8 9	21 0.51	-23 41.2	1.069	2.077	4.2	18.8	8 9	21 0.75	-13 28.1	1.254	2.266	2.0	19.8
8 19	20 52.11	-24 45.3	1.094	2.077	9.1	19.1	8 19	20 52.80	-14 15.2	1.260	2.253	6.6	20.1
8 29	20 45.60	-25 29.2	1.140	2.079	13.9	19.4	8 29	20 46.25	-14 59.0	1.290	2.241	11.4	20.3
9 8	20 42.02	-25 51.2	1.206	2.081	18.1	19.6	9 8	20 42.09	-15 34.7	1.340	2.230	15.7	20.5
33542	1999 <i>JZ</i> ₇		8 5.7 15°47	16°8/24.4 17			476543	2008 <i>HQ</i> ₄₃		8 5.7 172°30	4°7/ 1.7 18		
6 30	21 27.52	-46 7.2	1.070	1.952	20.1	16.9	6 30	21 29.37	-29 48.8	2.421	3.274	11.3	21.8
7 10	21 25.94	-48 49.0	1.048	1.960	18.1	16.8	7 10	21 24.43	-30 42.0	2.352	3.275	8.8	21.6
7 20	21 19.93	-51 6.6	1.045	1.969	17.0	16.8	7 20	21 17.58	-31 33.7	2.307	3.276	6.3	21.5
7 30	21 10.57	-52 43.8	1.060	1.980	17.0	16.8	7 30	21 9.36	-32 18.5	2.288	3.277	4.8	21.4
8 9	20 59.96	-53 30.3	1.092	1.993	18.2	16.9	8 9	21 0.56	-32 51.6	2.296	3.278	5.3	21.4
8 19	20 50.49	-53 24.9	1.141	2.007	19.9	17.1	8 19	20 52.05	-33 9.9	2.332	3.279	7.4	21.6
8 29	20 44.19	-52 33.4	1.205	2.023	21.9	17.3	8 29	20 44.69	-33 12.3	2.393	3.279	9.9	21.7
9 8	20 42.07	-51 6.1	1.282	2.040	23.7	17.5	9 8	20 39.14	-32 59.8	2.477	3.279	12.3	21.9
447094	2004 <i>TP</i> ₁₀₀		8 5.7 245°93	2°5/ 7.5 17			240407	2003 <i>UV</i> ₂₀₃		8 5.7 159°43	6°0/10.9 18		
6 30	21 28.30	- 8 37.7	2.747	3.553	11.4	21.4	6 30	21 27.31	+ 3 27.3	2.398	3.156	14.2	20.9
7 10	21 23.29	- 8 17.5	2.645	3.540	9.1	21.3	7 10	21 22.66	+ 3 47.2	2.315	3.161	12.0	20.7
7 20	21 16.71	- 8 5.2	2.567	3.526	6.4	21.1	7 20	21 16.35	+ 3 50.2	2.253	3.167	9.5	20.6
7 30	21 8.99	- 8 0.5	2.515	3.512	3.7	20.9	7 30	21 8.85	+ 3 35.3	2.214	3.171	7.3	20.5
8 9	21 0.71	- 8 2.1	2.492	3.497	2.5	20.8	8 9	21 0.81	+ 3 3.7	2.201	3.176	6.1	20.4
8 19	20 52.53	- 8 8.3	2.497	3.482	4.5	20.9	8 19	20 52.97	+ 2 17.9	2.215	3.180	6.6	20.4
8 29	20 45.14	- 8 17.2	2.531	3.467	7.3	21.1	8 29	20 46.06	+ 1 22.0	2.257	3.183	8.6	20.6
9 8	20 39.12	- 8 26.6	2.591	3.452	10.0	21.2	9 8	20 40.68	+ 0 21.1	2.323	3.186	11.0	20.7
47929	2000 <i>GZ</i> ₁₅₆		8 5.7 182°07	1°7/ 6.9 18			102549	1999 <i>UP</i> ₁₆		8 5.7 284°46	4°8/ 8.3 18		
6 30	21 29.20	-11 4.1	2.255	3.080	13.0	19.0	6 30	21 28.06	- 5 9.5	1.514	2.346	17.9	20.0
7 10	21 24.21	-10 59.3	2.172	3.080	10.1	18.8	7 10	21 24.37	- 4 50.0	1.426	2.331	14.6	19.7
7 20	21 17.40	-11 3.5	2.111	3.080	6.9	18.6	7 20	21 18.09	- 4 48.8	1.355	2.316	10.7	19.5
7 30	21 9.28	-11 15.4	2.076	3.080	3.5	18.4	7 30	21 9.75	- 5 6.3	1.307	2.301	6.8	19.2
8 9	21 0.58	-11 32.5	2.069	3.080	1.9	18.3	8 9	21 0.32	- 5 40.5	1.283	2.286	4.8	19.0
8 19	20 52.12	-11 52.0	2.090	3.079	4.9	18.5	8 19	20 50.99	- 6 27.3	1.283	2.271	7.4	19.2
8 29	20 44.70	-12 11.0	2.139	3.078	8.3	18.7	8 29	20 43.04	- 7 20.6	1.308	2.257	11.6	19.4
9 8	20 38.99	-12 27.3	2.212	3.076	11.4	18.9	9 8	20 37.50	- 8 13.9	1.354	2.242	15.7	19.6
124206	2001 <i>OX</i> ₉₅		8 5.7 288°12	1°2/ 5.2 17			386413	2008 <i>UT</i> ₂₈₆		8 5.7 199°93	5°3/10.0 18		
6 30	21 33.75	-18 57.2	1.282	2.153	18.2	20.1	6 30	21 27.04	+ 0 47.9	2.226	3.004	14.5	21.9
7 10	21 29.17	-18 59.0	1.209	2.145	14.1	19.9	7 10	21 22.65	+ 0 56.1	2.136	3.001	12.1	21.8
7 20	21 21.37	-19 8.2	1.154	2.138	9.2	19.6	7 20	21 16.46	+ 0 47.1	2.067	2.998	9.4	21.6
7 30	21 11.09	-19 20.0	1.121	2.131	3.8	19.2	7 30	21 8.93	+ 0 20.4	2.022	2.994	6.8	21.4
8 9	20 59.66	-19 28.9	1.112	2.124	2.5	19.1	8 9	21 0.77	- 0 22.4	2.002	2.990	5.3	21.3
8 19	20 48.65	-19 30.4	1.128	2.117	8.0	19.5	8 19	20 52.75	- 1 18.1	2.010	2.986	6.3	21.4
8 29	20 39.64	-19 21.9	1.167	2.110	13.2	19.7	8 29	20 45.69	- 2 21.8	2.045	2.981	8.8	21.5
9 8	20 33.72	-19 3.0	1.226	2.103	17.8	20.0	9 8	20 40.27	- 3 28.3	2.105	2.975	11.6	21.7
371842	2007 <i>WH</i> ₅₈		8 5.7 204°51	0°8/ 6.1 17			339360	2005 <i>AF</i> ₃₇		8 5.7 301°42	2°9/ 7.1 18		
6 30	21 32.87	-14 1.7	1.713	2.555	15.6	22.3	6 30	21 28.79	-10 10.4	1.652	2.494	16.2	20.3
7 10	21 27.65	-14 3.4	1.632	2.552	12.1	22.0	7 10	21 24.87	- 9 46.6	1.551	2.467	12.9	20.1
7 20	21 19.96	-14 15.0	1.572	2.549	8.0	21.8	7 20	21 18.40	- 9 34.3	1.470	2.440	9.1	19.8
7 30	21 10.41	-14 33.7	1.537	2.545	3.5	21.5	7 30	21 9.89	- 9 33.3	1.411	2.414	5.0	19.5
8 9	21 0.01	-14 55.5	1.528	2.541	1.6	21.4	8 9	21 0.24	- 9 41.7	1.378	2.387	3.1	19.3
8 19	20 49.91	-15 16.6	1.547	2.536	6.2	21.6	8 19	20 50.57	- 9 56.5	1.371	2.361	6.7	19.5
8 29	20 41.26	-15 33.5	1.591	2.531	10.6	21.9	8 29	20 42.14	-10 14.0	1.388	2.335	11.2	19.6
9 8	20 34.95	-15 43.8	1.657	2.525	14.4	22.1	9 8	20 35.99	-10 30.4	1.427	2.309	15.4	19.8
501899	2014 <i>WM</i> ₄₃₅		8 5.7 265°60	0°9/ 5.2 17			239788	2010 <i>DW</i> ₃₈		8 5.7 260°32	5°7/10.8 18		
6 30	21 32.41	-17 23.5	1.457	2.319	16.9	22.3	6 30	21 25.26	+ 3 18.7	1.939	2.717	16.4	20.2
7 10	21 27.94	-17 40.4	1.371	2.304	13.1	22.1	7 10	21 21.67	+ 2 50.7	1.841	2.706	13.8	20.0
7 20	21 20.52	-18 7.0	1.306	2.289	8.6	21.8	7 20	21 16.03	+ 1 57.8	1.764	2.694	10.7	19.8
7 30	21 10.76	-18 38.9	1.263	2.273	3.5	21.4	7 30	21 8.83	+ 0 39.8	1.709	2.683	7.7	19.6
8 9	20 59.79	-19 10.1	1.245	2.257	2.3	21.3	8 9	21 0.81	- 1 0.3	1.680	2.671	5.8	19.4
8 19	20 49.01	-19 35.2	1.253	2.241	7.6	21.6	8 19	20 52.86	- 2 56.5	1.678	2.659	6.8	19.5
8 29	20 39.87	-19 50.1	1.285	2.224	12.6	21.8	8 29	20 45.93	- 5 0.5	1.703	2.646	9.7	19.6
9 8	20 33.48	-19 53.1	1.337	2.208	17.0	22.1	9 8	20 40.84	- 7 3.3	1.753	2.634	13.1	19.8
154228	2002 <i>JQ</i> ₉₅		8 5.7 359°43	4°1/ 8.5 18			365317	2009 <i>SE</i> ₇₃		8 5.7 335°73	1°7/ 7.0 18		
6 30	21 25.13	- 5 12.7	2.010	2.828	14.6	19.3	6 30	21 24.64	-10 6.0	2.205	3.037	13.0	21.3
7 10	21 21.32	- 4 49.0	1.930	2.826	11.8	19.1	7 10	21 20.83	-10 15.0	2.122	3.033	10.2	21.1
7 20	21 15.64	- 4 38.9	1.870	2.826	8.6	18.9	7 20	21 15.28	-10 35.0	2.060	3.030	6.9	20.9
7 30	21 8.59	- 4 42.4	1.835	2.825	5.6	18.7	7 30	21 8.45	-11 4.2	2.023	3.027	3.5	20.7
8 9	21 0.93	- 4 58.1	1.825	2.825	4.1	18.6	8 9	21 1.04	-11 39.6	2.013	3.024	1.9	20.6
8 19	20 53.51	- 5 23.0	1.841	2.826	5.9	18.7	8 19	20 53.82	-12 17.6	2.031	3.021	4.9	20.8
8 29	20 47.16	- 5 53.5	1.883	2.827	9.0	18.9	8 29	20 47.58	-12 54.5	2.076	3.019	8.3	21.0
9 8	20 42.56	- 6 25.5	1.949	2.828	12.0	19.1	9 8	20 42.96	-13 27.3	2.145	3.017	11.4	21.2
184692	2005 <i>SJ</i> ₁₀₁		8 5.7 54°05	5°6/10.3 18			92160	1999 <i>XO</i> ₁₄₄		8 5.7 155			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
449314	2013 <i>FQ</i> ₆		8 5.7 251°04	0°8/ 4.9 18			362323	2010 <i>FM</i> ₈₇		8 5.7 70°43	4°3/ 8.0 17		
6 30	21 25.50	-16 0.1	2.271	3.116	12.2	21.4	6 30	21 31.25	-6 15.3	1.203	2.050	20.6	21.2
7 10	21 21.54	-16 48.1	2.186	3.110	9.3	21.2	7 10	21 26.93	-6 7.1	1.150	2.066	16.4	21.0
7 20	21 15.78	-17 44.9	2.124	3.104	6.0	21.0	7 20	21 19.68	-6 20.6	1.114	2.082	11.6	20.7
7 30	21 8.69	-18 46.6	2.089	3.098	2.4	20.7	7 30	21 10.35	-6 54.4	1.099	2.099	6.8	20.5
8 9	21 0.95	-19 48.3	2.081	3.092	1.8	20.7	8 9	21 0.24	-7 43.6	1.108	2.115	4.3	20.4
8 19	20 53.36	-20 45.4	2.102	3.086	5.3	20.9	8 19	20 50.79	-8 41.0	1.140	2.132	7.5	20.7
8 29	20 46.75	-21 33.9	2.149	3.079	8.8	21.1	8 29	20 43.32	-9 39.3	1.196	2.148	12.1	21.0
9 8	20 41.77	-22 11.5	2.221	3.073	11.8	21.3	9 8	20 38.71	-10 32.0	1.273	2.165	16.2	21.3
291910	2006 <i>QU</i> ₁₁		8 5.7 36°57	5°1/ 4.1 18			84952	2003 <i>XD</i> ₅		8 5.7 257°95	0°5/ 6.0 18		
6 30	21 40.88	-30 44.3	1.519	2.378	16.4	19.6	6 30	21 28.29	-13 45.7	2.173	3.010	13.0	20.4
7 10	21 33.78	-30 32.2	1.466	2.392	12.8	19.4	7 10	21 23.81	-14 1.3	2.076	2.994	10.1	20.2
7 20	21 23.75	-30 13.1	1.433	2.407	8.9	19.2	7 20	21 17.35	-14 26.0	2.001	2.977	6.7	20.0
7 30	21 11.84	-29 41.5	1.424	2.423	5.7	19.0	7 30	21 9.39	-14 57.4	1.952	2.960	2.9	19.7
8 9	20 59.49	-28 53.9	1.441	2.438	5.6	19.1	8 9	21 0.67	-15 31.9	1.931	2.943	1.3	19.6
8 19	20 48.17	-27 50.7	1.485	2.455	8.7	19.3	8 19	20 52.03	-16 5.8	1.937	2.925	5.2	19.8
8 29	20 39.11	-26 35.0	1.554	2.472	12.3	19.6	8 29	20 44.40	-16 35.5	1.970	2.908	9.0	20.0
9 8	20 33.04	-25 11.4	1.644	2.489	15.6	19.8	9 8	20 38.53	-16 58.5	2.028	2.889	12.4	20.2
413801	2006 <i>JG</i> ₁₀		8 5.7 149°29	4°3/ 3.1 17			504902	2011 <i>AP</i> ₁₁		8 5.7 212°53	0°3/ 5.5 17		
6 30	21 35.19	-24 37.6	1.631	2.492	15.4	21.1	6 30	21 30.69	-14 51.5	1.929	2.771	14.2	22.7
7 10	21 29.61	-25 34.9	1.568	2.500	11.8	20.9	7 10	21 25.85	-15 26.1	1.843	2.765	10.9	22.5
7 20	21 21.28	-26 35.2	1.527	2.507	7.9	20.7	7 20	21 18.76	-16 11.1	1.779	2.758	7.1	22.3
7 30	21 10.97	-27 30.8	1.511	2.514	4.7	20.5	7 30	21 9.98	-17 2.8	1.741	2.750	2.9	22.0
8 9	20 59.85	-28 14.3	1.521	2.520	5.2	20.5	8 9	21 0.38	-17 55.8	1.730	2.742	1.6	21.9
8 19	20 49.23	-28 40.8	1.558	2.525	8.6	20.8	8 19	20 50.95	-18 45.0	1.747	2.733	5.9	22.2
8 29	20 40.39	-28 48.5	1.618	2.530	12.3	21.0	8 29	20 42.75	-19 26.2	1.790	2.724	10.0	22.4
9 8	20 34.20	-28 38.7	1.700	2.534	15.6	21.2	9 8	20 36.59	-19 56.9	1.857	2.714	13.5	22.6
379550	2011 <i>AE</i> ₂₄		8 5.7 164°80	0°5/ 5.3 17			207861	2007 <i>VW</i> ₁₁₉		8 5.7 274°64	1°0/ 6.4 18		
6 30	21 32.50	-16 45.5	1.946	2.789	14.0	21.9	6 30	21 26.75	-11 45.7	1.912	2.753	14.3	20.8
7 10	21 27.04	-17 5.0	1.872	2.794	10.7	21.7	7 10	21 22.78	-12 6.9	1.829	2.748	11.1	20.6
7 20	21 19.38	-17 31.8	1.819	2.798	6.9	21.4	7 20	21 16.73	-12 40.2	1.767	2.743	7.4	20.4
7 30	21 10.15	-18 2.2	1.792	2.801	2.8	21.2	7 30	21 9.13	-13 23.0	1.731	2.738	3.4	20.1
8 9	21 0.26	-18 31.9	1.793	2.805	1.7	21.1	8 9	21 0.81	-14 10.9	1.720	2.732	1.5	20.0
8 19	20 50.77	-18 56.9	1.821	2.807	5.8	21.4	8 19	20 52.68	-14 59.2	1.737	2.727	5.5	20.2
8 29	20 42.40	-19 14.3	1.877	2.809	9.7	21.6	8 29	20 45.71	-15 43.5	1.780	2.722	9.5	20.5
9 8	20 36.33	-19 23.0	1.955	2.810	13.0	21.9	9 8	20 40.67	-16 20.2	1.846	2.717	13.0	20.7
479293	2013 <i>GG</i> ₀₅		8 5.7 101°00	5°2/ 11.3 18			21471	Pavelchvykov		8 5.7 353°26	9°9/ 31.9 18		
6 30	21 23.75	+ 3 50.5	2.543	3.301	13.4	21.4	6 30	21 30.44	-35 52.3	1.245	2.130	17.7	17.3
7 10	21 19.86	+ 3 38.6	2.464	3.312	11.3	21.3	7 10	21 27.09	-36 51.9	1.188	2.123	14.5	17.1
7 20	21 14.51	+ 3 8.9	2.405	3.323	8.9	21.1	7 20	21 20.19	-37 42.9	1.150	2.117	11.5	16.9
7 30	21 8.12	+ 2 21.7	2.371	3.333	6.6	21.0	7 30	21 10.67	-38 14.3	1.133	2.112	9.9	16.8
8 9	21 1.29	+ 1 19.2	2.363	3.343	5.3	20.9	8 9	21 0.09	-38 17.2	1.137	2.109	10.7	16.9
8 19	20 54.67	+ 0 5.0	2.382	3.354	5.8	21.0	8 19	20 50.25	-37 48.3	1.163	2.107	13.4	17.0
8 29	20 48.88	- 1 16.0	2.430	3.364	7.7	21.1	8 29	20 42.80	-36 49.4	1.209	2.107	16.6	17.2
9 8	20 44.47	- 2 38.6	2.503	3.374	10.0	21.3	9 8	20 38.76	-35 27.0	1.272	2.107	19.8	17.4
290411	2005 <i>TJ</i> ₅₃		8 5.7 284°07	0°9/ 5.2 18			523711	2014 <i>JH</i> ₈₀		8 5.7 352°66	0°4/ 9.3 17		
6 30	21 29.92	-17 9.4	1.637	2.495	15.5	21.9	6 30	21 7.09	- 4 21.8	33.326	34.101	1.1	22.3
7 10	21 25.79	-17 29.5	1.544	2.475	12.0	21.6	7 10	21 6.23	- 4 21.2	33.231	34.099	0.9	22.3
7 20	21 19.03	-17 59.1	1.471	2.454	7.9	21.3	7 20	21 5.29	- 4 21.4	33.161	34.098	0.7	22.3
7 30	21 10.18	-18 34.2	1.423	2.433	3.2	21.0	7 30	21 4.29	- 4 22.5	33.118	34.097	0.5	22.3
8 9	21 0.21	-19 9.4	1.400	2.412	2.1	20.9	8 9	21 3.26	- 4 24.3	33.103	34.096	0.4	22.2
8 19	20 50.33	-19 39.4	1.403	2.390	7.0	21.1	8 19	21 2.25	- 4 26.7	33.117	34.094	0.4	22.3
8 29	20 41.83	-20 0.1	1.431	2.369	11.7	21.4	8 29	21 1.28	- 4 29.5	33.159	34.093	0.7	22.3
9 8	20 35.74	-20 9.5	1.481	2.348	15.8	21.6	9 8	21 0.39	- 4 32.6	33.229	34.092	0.9	22.3
476119	2007 <i>TM</i> ₂₀₄		8 5.7 293°19	1°4/ 6.7 18			395109	2009 <i>TK</i> ₂₈		8 5.7 95°72	15°1/ 19.0 16		
6 30	21 26.14	-10 54.8	1.874	2.715	14.6	21.8	6 30	21 26.32	+19 16.0	1.261	1.983	26.2	21.5
7 10	21 22.38	-11 13.5	1.788	2.706	11.4	21.5	7 10	21 23.44	+19 51.3	1.193	1.986	23.8	21.3
7 20	21 16.50	-11 45.3	1.723	2.697	7.7	21.3	7 20	21 17.66	+19 43.5	1.136	1.990	21.1	21.1
7 30	21 9.04	-12 27.7	1.683	2.689	3.6	21.0	7 30	21 9.65	+18 44.7	1.094	1.994	18.3	20.9
8 9	21 0.81	-13 16.5	1.669	2.680	1.7	20.9	8 9	21 0.56	+16 52.7	1.069	1.997	16.0	20.8
8 19	20 52.75	-14 7.0	1.681	2.672	5.6	21.1	8 19	20 51.79	+14 12.6	1.065	2.001	15.1	20.8
8 29	20 45.84	-14 54.3	1.720	2.664	9.6	21.3	8 29	20 44.75	+10 57.7	1.082	2.004	16.0	20.8
9 8	20 40.88	-15 34.6	1.782	2.656	13.2	21.5	9 8	20 40.52	+ 7 26.9	1.121	2.008	18.3	21.0
504108	2006 <i>HW</i> ₈₁		8 5.7 52°13	6°4/ 2.3 17			239197	2006 <i>MS</i> ₁		8 5.7 3°18	1°5/ 4.5 18		
6 30	21 32.66	-27 8.4	1.239	2.122	17.9	21.3	6 30	21 25.31	-15 40.2	1.673	2.535	15.0	19.8
7 10	21 28.40	-28 19.0	1.189	2.130	13.8	21.1	7 10	21 21.99	-16 50.1	1.601	2.535	11.5	19.5
7 20	21 20.83	-29 30.8	1.158	2.139	9.7	20.9	7 20	21 16.38	-18 13.0	1.551	2.535	7.3	19.3
7 30	21 10.86	-30 33.4	1.149	2.147	6.7	20.8	7 30	21 9.04	-19 42.9	1.525	2.535	3.0	19.0
8 9	20 59.97	-31 17.1	1.163	2.157	7.4	20.8	8 9	21 0.89	-21 11.8	1.526	2.536	2.6	19.0
8 19	20 49.82	-31 36.4	1.201	2.166	10.9	21.1	8 19	20 53.00	-22 32.3	1.553	2.537	6.9	19.3
8 29	20 41.92	-31 30.4	1.261	2.175	14.9	21.3	8 29	20 46.44	-23 38.6	1.605	2.538	11.0	19.5
9 8	20 37.23	-31 2.5	1.339	2.185	18.4	21.6	9 8	20 42.06	-24 27.7	1.679	2.539	14.6	19.8
106037	2000 <i>SU</i> ₃₀₄		8 5.7 329°23	5°8/ 9.7 18			483256	2015 <i>TX</i> ₁₄		8 5.7 248°74			

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8 5.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
287372	2002 <i>UE</i> ₇₇		8 5.7 277°03	1°8/ 6.9 18			19148	Alaska		8 5.7 122°54	2°3/ 7.3 18		
6 30	21 26.63	-10 11.3	1.994	2.828	14.1	21.2	6 30	21 30.61	-9 51.8	2.571	3.380	12.0	18.0
7 10	21 22.64	-10 21.0	1.905	2.818	11.1	20.9	7 10	21 25.00	-9 26.6	2.494	3.391	9.4	17.9
7 20	21 16.63	-10 42.9	1.837	2.808	7.6	20.7	7 20	21 17.79	-9 9.2	2.440	3.402	6.5	17.7
7 30	21 9.11	-11 15.2	1.793	2.798	3.8	20.5	7 30	21 9.50	-8 58.8	2.413	3.412	3.6	17.5
8 9	21 0.86	-11 54.5	1.777	2.788	2.0	20.3	8 9	21 0.79	-8 54.3	2.415	3.422	2.3	17.4
8 19	20 52.75	-12 36.7	1.787	2.778	5.4	20.5	8 19	20 52.36	-8 53.8	2.446	3.432	4.5	17.6
8 29	20 45.72	-13 17.6	1.824	2.768	9.2	20.7	8 29	20 44.90	-8 55.6	2.505	3.441	7.4	17.8
9 8	20 40.53	-13 53.5	1.885	2.758	12.7	20.9	9 8	20 38.98	-8 57.7	2.590	3.450	10.1	18.0
308662	2006 <i>BQ</i> ₁₆₄		8 5.7 219°36	0°8/ 5.3 17			182798	2002 <i>AH</i> ₆₉		8 5.7 125°35	0°2/ 5.9 18		
6 30	21 32.91	-16 40.6	1.504	2.362	16.7	22.0	6 30	21 26.75	-14 1.6	2.555	3.387	11.4	21.8
7 10	21 28.13	-17 4.5	1.427	2.357	12.9	21.8	7 10	21 22.16	-14 25.7	2.482	3.397	8.7	21.6
7 20	21 20.53	-17 38.8	1.370	2.352	8.4	21.5	7 20	21 16.01	-14 57.2	2.433	3.408	5.7	21.4
7 30	21 10.79	-18 18.7	1.336	2.346	3.4	21.2	7 30	21 8.79	-15 33.5	2.410	3.418	2.4	21.2
8 9	21 0.04	-18 58.2	1.328	2.340	2.1	21.1	8 9	21 1.13	-16 11.1	2.416	3.428	1.1	21.2
8 19	20 49.59	-19 31.6	1.346	2.333	7.2	21.4	8 19	20 53.71	-16 47.0	2.450	3.438	4.4	21.4
8 29	20 40.80	-19 54.8	1.389	2.327	12.0	21.7	8 29	20 47.22	-17 18.4	2.513	3.447	7.5	21.6
9 8	20 34.66	-20 6.0	1.452	2.319	16.1	21.9	9 8	20 42.20	-17 43.2	2.600	3.456	10.2	21.8
283367	2000 <i>DO</i> ₆₃		8 5.7 259°37	1°5/ 4.7 18			52576	1997 <i>MW</i> ₆		8 5.7 309°49	8°7/ 10.8 18		
6 30	21 31.52	-20 10.6	2.217	3.062	12.5	20.7	6 30	21 23.65	+ 2 41.7	1.414	2.224	19.9	19.6
7 10	21 26.33	-20 28.2	2.117	3.041	9.6	20.5	7 10	21 21.34	+ 3 16.3	1.314	2.196	17.1	19.3
7 20	21 19.03	-20 50.3	2.040	3.020	6.3	20.2	7 20	21 16.40	+ 3 25.6	1.231	2.168	13.9	19.0
7 30	21 10.11	-21 13.2	1.989	2.998	2.7	20.0	7 30	21 9.26	+ 3 5.3	1.168	2.140	10.7	18.8
8 9	21 0.37	-21 32.8	1.967	2.976	2.3	19.9	8 9	21 0.79	+ 2 14.2	1.126	2.112	8.8	18.6
8 19	20 50.72	-21 45.8	1.972	2.953	5.9	20.1	8 19	20 52.19	+ 0 55.5	1.107	2.085	9.8	18.6
8 29	20 42.14	-21 49.9	2.004	2.930	9.6	20.3	8 29	20 44.84	- 0 43.3	1.110	2.058	13.2	18.7
9 8	20 35.44	-21 44.4	2.061	2.906	12.9	20.4	9 8	20 39.94	- 2 31.3	1.133	2.032	17.2	18.8
292139	2006 <i>RJ</i> ₈₂		8 5.7 300°70	0°7/ 6.2 18			150650	2001 <i>DN</i> ₉₁		8 5.7 119°92	0°0/ 5.5 18		
6 30	21 26.68	-13 14.8	1.920	2.765	14.1	20.8	6 30	21 26.31	-14 46.8	2.537	3.372	11.4	21.0
7 10	21 22.76	-13 27.7	1.833	2.755	10.9	20.6	7 10	21 21.85	-15 11.7	2.464	3.381	8.7	20.8
7 20	21 16.75	-13 51.1	1.768	2.745	7.3	20.4	7 20	21 15.83	-15 43.6	2.414	3.390	5.6	20.6
7 30	21 9.18	-14 22.4	1.727	2.735	3.2	20.1	7 30	21 8.72	-16 19.9	2.390	3.399	2.3	20.4
8 9	21 0.84	-14 57.6	1.713	2.726	1.4	19.9	8 9	21 1.16	-16 57.0	2.395	3.408	1.1	20.3
8 19	20 52.68	-15 32.7	1.726	2.716	5.6	20.2	8 19	20 53.84	-17 31.8	2.429	3.416	4.5	20.6
8 29	20 45.68	-16 3.7	1.765	2.707	9.5	20.4	8 29	20 47.45	-18 1.7	2.490	3.424	7.5	20.8
9 8	20 40.60	-16 27.8	1.827	2.698	13.1	20.6	9 8	20 42.53	-18 24.6	2.577	3.432	10.3	21.0
195512	2002 <i>HH</i> ₆		8 5.7 83°79	7°0/ 10.5 17			165002	2000 <i>BM</i> ₄₉		8 5.7 215°72	0°4/ 6.0 18		
6 30	21 28.93	+ 1 39.9	1.801	2.587	17.2	19.8	6 30	21 28.80	-13 50.1	2.235	3.069	12.7	21.1
7 10	21 24.35	+ 2 18.9	1.733	2.600	14.4	19.7	7 10	21 24.07	-14 7.1	2.147	3.063	9.9	20.9
7 20	21 17.67	+ 2 38.1	1.685	2.613	11.3	19.5	7 20	21 17.45	-14 32.8	2.081	3.057	6.5	20.7
7 30	21 9.50	+ 2 36.0	1.659	2.625	8.5	19.4	7 30	21 9.45	-15 4.5	2.042	3.050	2.8	20.5
8 9	21 0.72	+ 2 13.6	1.657	2.638	7.0	19.3	8 9	21 0.79	-15 38.7	2.031	3.043	1.2	20.3
8 19	20 52.28	+ 1 34.0	1.681	2.651	7.8	19.4	8 19	20 52.30	-16 11.8	2.048	3.036	5.0	20.6
8 29	20 45.15	+ 0 42.6	1.730	2.663	10.3	19.6	8 29	20 44.84	-16 40.6	2.092	3.028	8.6	20.8
9 8	20 40.02	- 0 14.3	1.802	2.676	13.1	19.8	9 8	20 39.10	-17 2.8	2.160	3.020	11.8	21.0
34374	2000 <i>RP</i> ₄₈		8 5.7 297°68	3°8/ 3.2 18			163887	2003 <i>SL</i> ₁₈₉		8 5.7 226°78	6°0/ 10.5 18		
6 30	21 30.66	-26 43.1	2.067	2.925	12.8	18.4	6 30	21 26.96	+ 2 17.3	2.247	3.017	14.7	20.4
7 10	21 25.77	-27 8.9	1.985	2.914	9.9	18.2	7 10	21 22.66	+ 2 36.9	2.152	3.008	12.4	20.2
7 20	21 18.67	-27 34.6	1.925	2.903	6.7	17.9	7 20	21 16.56	+ 2 39.2	2.078	3.000	9.8	20.0
7 30	21 9.95	-27 55.2	1.891	2.892	4.2	17.8	7 30	21 9.09	+ 2 23.2	2.027	2.991	7.4	19.8
8 9	21 0.49	-28 6.0	1.883	2.881	4.5	17.8	8 9	21 0.95	+ 1 49.5	2.002	2.982	6.1	19.8
8 19	20 51.33	-28 3.9	1.903	2.870	7.3	17.9	8 19	20 52.91	+ 1 0.9	2.003	2.973	6.8	19.8
8 29	20 43.45	-27 47.9	1.948	2.860	10.5	18.1	8 29	20 45.79	+ 0 1.8	2.031	2.963	9.1	19.9
9 8	20 37.65	-27 19.0	2.015	2.849	13.5	18.3	9 8	20 40.29	- 1 2.5	2.083	2.952	11.8	20.1
39607	1993 <i>TF</i> ₃₀		8 5.7 326°26	9°9/ 28.5 18			439703	2014 <i>KO</i> ₇₃		8 5.7 310°30	3°6/ 2.6 18		
6 30	21 32.64	-42 58.5	1.996	2.840	13.6	18.8	6 30	21 26.81	-23 45.0	2.113	2.974	12.4	20.5
7 10	21 27.90	-44 18.3	1.935	2.831	11.8	18.6	7 10	21 22.78	-24 53.9	2.041	2.973	9.5	20.3
7 20	21 20.35	-45 27.6	1.895	2.821	10.4	18.5	7 20	21 16.72	-26 6.9	1.992	2.972	6.3	20.1
7 30	21 10.70	-46 17.5	1.878	2.812	10.0	18.5	7 30	21 9.18	-27 17.8	1.969	2.971	3.9	20.0
8 9	21 0.15	-46 41.6	1.885	2.803	10.7	18.5	8 9	21 0.94	-28 20.7	1.973	2.969	4.4	20.0
8 19	20 50.04	-46 36.6	1.915	2.795	12.4	18.6	8 19	20 52.93	-29 10.5	2.004	2.968	7.2	20.2
8 29	20 41.69	-46 3.7	1.966	2.787	14.4	18.7	8 29	20 46.07	-29 44.3	2.061	2.967	10.3	20.4
9 8	20 36.04	-45 6.9	2.035	2.779	16.4	18.8	9 8	20 41.09	-30 1.8	2.140	2.966	13.1	20.6
261686	2005 <i>YA</i> ₂₀₇		8 5.7 264°24	1°3/ 7.0 18			80391	1999 <i>XL</i> ₁₇₁		8 5.7 319°67	3°4/ 3.9 18		
6 30	21 24.67	- 8 48.8	2.641	3.458	11.5	20.8	6 30	21 25.87	-20 45.2	1.179	2.069	18.1	18.8
7 10	21 20.75	- 9 29.1	2.534	3.438	9.0	20.6	7 10	21 23.72	-21 23.5	1.094	2.042	14.1	18.4
7 20	21 15.25	-10 21.6	2.450	3.418	6.2	20.4	7 20	21 18.29	-22 12.6	1.027	2.016	9.3	18.1
7 30	21 8.54	-11 24.4	2.393	3.397	3.1	20.2	7 30	21 10.12	-23 5.7	0.981	1.990	4.5	17.7
8 9	21 1.20	-12 33.9	2.365	3.376	1.5	20.0	8 9	21 0.40	-23 53.7	0.958	1.966	4.5	17.7
8 19	20 53.86	-13 45.8	2.366	3.355	4.4	20.2	8 19	20 50.73	-24 28.5	0.957	1.942	9.7	17.9
8 29	20 47.25	-14 55.7	2.395	3.333	7.6	20.4	8 29	20 42.89	-24 44.3	0.976	1.919	15.2	18.1
9 8	20 41.98	-15 59.8	2.450	3.311	10.5	20.5	9 8	20 38.24	-24 39.7	1.014	1.898	20.1	18.3
315885	2008 <i>KL</i> ₁₇		8 5.7 181°01	1°1/ 4.7 18			274559	2008 <i>SH</i> ₂₇₂		8 5.7 276°92	4°2/ 1.6 18		</

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
176332	2001 SY ₂₇₄		8 5.7 316°20	0°8/ 6.2 18			104518	2000 GO ₄₇		8 5.7 57°56	4°6/ 8.7 18		
6 30	21 26.51	-13 8.8	1.891	2.737	14.2	20.8	6 30	21 27.85	-4 19.0	1.525	2.353	17.9	19.2
7 10	21 22.65	-13 21.7	1.807	2.730	11.0	20.6	7 10	21 23.96	-4 11.1	1.457	2.360	14.5	19.0
7 20	21 16.70	-13 45.2	1.745	2.723	7.3	20.3	7 20	21 17.67	-4 22.9	1.408	2.367	10.6	18.8
7 30	21 9.19	-14 16.6	1.708	2.716	3.2	20.1	7 30	21 9.62	-4 53.9	1.380	2.374	6.6	18.6
8 9	21 0.95	-14 52.1	1.697	2.709	1.4	19.9	8 9	21 0.81	-5 40.6	1.378	2.381	4.6	18.5
8 19	20 52.91	-15 27.5	1.712	2.703	5.6	20.2	8 19	20 52.36	-6 37.7	1.400	2.388	6.8	18.6
8 29	20 46.05	-15 58.7	1.754	2.697	9.6	20.4	8 29	20 45.39	-7 38.7	1.447	2.396	10.7	18.9
9 8	20 41.13	-16 23.0	1.818	2.691	13.1	20.6	9 8	20 40.72	-8 37.4	1.516	2.403	14.4	19.1
99475	2002 CR ₁₁₈		8 5.7 107°27	10°7/28.4 18 R			35259	1996 HN ₂₄		8 5.7 110°97	3°6/ 3.6 18 R		
6 30	21 39.89	-39 1.9	1.638	2.490	15.8	18.6	6 30	21 33.41	-21 39.6	1.449	2.316	16.6	17.9
7 10	21 33.78	-41 25.7	1.607	2.513	13.2	18.5	7 10	21 28.48	-22 40.5	1.392	2.328	12.7	17.7
7 20	21 24.31	-43 38.3	1.599	2.535	11.3	18.4	7 20	21 20.71	-23 48.0	1.355	2.339	8.3	17.5
7 30	21 12.37	-45 26.8	1.615	2.557	10.7	18.5	7 30	21 10.87	-24 54.0	1.343	2.349	4.3	17.3
8 9	20 59.44	-46 41.8	1.655	2.578	11.7	18.6	8 9	21 0.22	-25 50.1	1.356	2.360	4.6	17.3
8 19	20 47.23	-47 19.7	1.719	2.598	13.6	18.7	8 19	20 50.12	-26 30.3	1.394	2.370	8.5	17.6
8 29	20 37.30	-47 22.7	1.803	2.617	15.8	18.9	8 29	20 41.91	-26 51.7	1.457	2.380	12.6	17.8
9 8	20 30.66	-46 57.3	1.905	2.636	17.8	19.1	9 8	20 36.46	-26 54.9	1.540	2.389	16.2	18.1
308328	2005 NZ ₃₀		8 5.7 323°62	0°3/ 5.9 18			285497	2000 DN ₁₁		8 5.7 24°04	1°6/ 4.7 18		
6 30	21 25.69	-13 44.9	1.861	2.711	14.3	21.1	6 30	21 28.85	-19 30.7	1.761	2.622	14.5	20.4
7 10	21 22.08	-14 7.8	1.778	2.704	11.0	20.9	7 10	21 24.53	-19 54.2	1.692	2.624	11.0	20.2
7 20	21 16.36	-14 41.7	1.717	2.696	7.2	20.7	7 20	21 17.94	-20 23.7	1.644	2.627	7.1	20.0
7 30	21 9.07	-15 23.4	1.680	2.689	3.1	20.4	7 30	21 9.70	-20 54.7	1.621	2.630	3.0	19.8
8 9	21 1.02	-16 8.5	1.670	2.682	1.4	20.2	8 9	21 0.78	-21 22.1	1.624	2.634	2.5	19.7
8 19	20 53.18	-16 52.0	1.686	2.676	5.7	20.5	8 19	20 52.23	-21 42.1	1.654	2.638	6.5	20.0
8 29	20 46.52	-17 29.9	1.728	2.669	9.7	20.8	8 29	20 45.10	-21 51.9	1.708	2.642	10.4	20.2
9 8	20 41.81	-17 59.0	1.792	2.664	13.3	21.0	9 8	20 40.15	-21 50.8	1.785	2.646	13.8	20.5
504930	2011 CC ₁₈		8 5.7 168°19	1°0/ 5.0 17			96549	1998 SE ₆₃		8 5.7 332°58	4°3/ 9.2 18		
6 30	21 31.23	-17 5.6	1.919	2.766	14.0	22.5	6 30	21 24.08	-2 53.5	2.130	2.936	14.2	19.5
7 10	21 26.19	-17 40.8	1.845	2.769	10.7	22.3	7 10	21 20.54	-2 45.3	2.043	2.930	11.7	19.3
7 20	21 18.94	-18 24.2	1.793	2.773	6.9	22.1	7 20	21 15.21	-2 52.6	1.977	2.925	8.7	19.1
7 30	21 10.09	-19 11.4	1.766	2.775	2.8	21.8	7 30	21 8.57	-3 15.2	1.935	2.920	5.8	18.9
8 9	21 0.54	-19 56.9	1.766	2.777	2.0	21.8	8 9	21 1.31	-3 51.2	1.918	2.916	4.3	18.8
8 19	20 51.29	-20 36.3	1.795	2.779	6.1	22.1	8 19	20 54.21	-4 37.4	1.928	2.912	5.8	18.9
8 29	20 43.35	-21 6.0	1.849	2.780	9.9	22.3	8 29	20 48.08	-5 29.3	1.965	2.908	8.7	19.1
9 8	20 37.48	-21 24.5	1.927	2.781	13.3	22.5	9 8	20 43.57	-6 22.0	2.025	2.904	11.6	19.3
26769	4658 P-L		8 5.7 347°78	2°9/ 4.0 18			385475	2003 UL ₂₈₈		8 5.7 150°14	8°5/30.5 17		
6 30	21 25.98	-21 30.3	1.432	2.311	16.1	18.0	6 30	21 35.94	-39 8.7	1.993	2.840	13.6	20.4
7 10	21 22.96	-22 2.8	1.360	2.303	12.3	17.7	7 10	21 30.14	-40 19.5	1.937	2.842	11.3	20.3
7 20	21 17.25	-22 41.5	1.309	2.296	8.1	17.5	7 20	21 21.65	-41 21.5	1.903	2.845	9.4	20.2
7 30	21 9.50	-23 20.5	1.281	2.289	3.9	17.2	7 30	21 11.22	-42 6.4	1.893	2.848	8.5	20.1
8 9	21 0.83	-23 53.2	1.277	2.284	3.9	17.2	8 9	21 0.05	-42 28.1	1.909	2.850	9.2	20.2
8 19	20 52.52	-24 14.1	1.297	2.280	8.1	17.4	8 19	20 49.42	-42 23.7	1.948	2.852	11.1	20.3
8 29	20 45.85	-24 20.3	1.340	2.276	12.5	17.7	8 29	20 40.56	-41 54.4	2.010	2.854	13.3	20.5
9 8	20 41.75	-24 11.2	1.403	2.274	16.3	17.9	9 8	20 34.32	-41 4.3	2.093	2.856	15.4	20.6
468027	2013 OR ₉		8 5.7 3°26	9°9/ 9.3 17			78471	2002 RR ₄₆		8 5.7 267°41	0°7/ 5.2 18		
6 30	21 21.95	-3 50.2	0.861	1.740	24.1	19.8	6 30	21 27.42	-16 3.6	1.944	2.795	13.7	19.6
7 10	21 20.79	-4 15.9	0.809	1.737	20.2	19.5	7 10	21 23.33	-16 37.3	1.863	2.789	10.5	19.3
7 20	21 16.26	-4 31.4	0.771	1.736	15.8	19.3	7 20	21 17.15	-17 20.2	1.803	2.784	6.8	19.1
7 30	21 9.18	+ 0 27.4	0.750	1.738	11.8	19.1	7 30	21 9.40	-18 8.5	1.768	2.778	2.7	18.8
8 9	21 0.99	+ 0 53.8	0.747	1.741	9.9	19.0	8 9	21 0.91	-18 57.1	1.761	2.772	1.7	18.8
8 19	20 53.36	+ 0 49.8	0.763	1.748	11.6	19.1	8 19	20 52.63	-19 41.1	1.780	2.767	5.9	19.0
8 29	20 47.91	+ 0 22.3	0.797	1.756	15.3	19.4	8 29	20 45.52	-20 16.8	1.826	2.761	9.7	19.2
9 8	20 45.73	-0 18.3	0.848	1.767	19.4	19.7	9 8	20 40.37	-20 41.8	1.895	2.755	13.2	19.5
387936	2005 EC ₃₁		8 5.7 210°63	4°2/ 2.4 18			311562	2006 CF ₈		8 5.7 57°25	3°0/ 7.6 17		
6 30	21 32.85	-28 31.3	2.429	3.275	11.5	21.7	6 30	21 28.05	-7 0.9	1.239	2.092	19.8	20.6
7 10	21 27.17	-29 15.0	2.348	3.268	8.9	21.5	7 10	21 24.60	-7 24.0	1.179	2.101	15.7	20.3
7 20	21 19.48	-29 57.9	2.290	3.261	6.3	21.4	7 20	21 18.31	-8 9.8	1.137	2.110	10.9	20.1
7 30	21 10.30	-30 34.8	2.259	3.253	4.4	21.2	7 30	21 9.93	-9 15.4	1.116	2.120	5.8	19.8
8 9	21 0.46	-31 1.0	2.256	3.244	4.8	21.2	8 9	21 0.67	-10 33.9	1.119	2.129	3.1	19.7
8 19	20 50.85	-31 13.3	2.282	3.235	7.1	21.4	8 19	20 51.90	-11 56.5	1.146	2.139	7.1	20.0
8 29	20 42.39	-31 10.7	2.333	3.226	9.9	21.5	8 29	20 44.93	-13 14.6	1.197	2.150	12.0	20.3
9 8	20 35.81	-30 53.9	2.408	3.215	12.4	21.7	9 8	20 40.71	-14 21.6	1.268	2.160	16.3	20.6
11050	Messiaen		8 5.7 308°99	4°9/ 9.4 18			341029	2007 GT ₁₈		8 5.7 11°36	3°5/ 7.6 16		
6 30	21 24.77	-1 56.5	2.041	2.844	14.9	18.3	6 30	21 24.34	-8 39.2	1.211	2.076	19.4	19.9
7 10	21 21.16	-1 44.3	1.951	2.835	12.3	18.1	7 10	21 21.81	-8 23.4	1.151	2.079	15.4	19.6
7 20	21 15.67	-1 48.7	1.882	2.827	9.3	17.9	7 20	21 16.51	-8 26.2	1.108	2.084	10.8	19.4
7 30	21 8.78	-2 9.8	1.836	2.819	6.4	17.8	7 30	21 9.20	-8 46.4	1.087	2.090	6.0	19.2
8 9	21 1.19	-2 46.2	1.815	2.811	4.9	17.7	8 9	21 1.04	-9 20.0	1.087	2.097	3.6	19.0
8 19	20 53.74	-3 34.3	1.821	2.803	6.2	17.7	8 19	20 53.35	-10 1.3	1.111	2.105	7.2	19.3
8 29	20 47.29	-4 29.6	1.853	2.796	9.1	17.9	8 29	20 47.42	-10 43.6	1.158	2.115	11.8	19.6
9 8	20 42.55	-5 26.8	1.909	2.788	12.2	18.1	9 8	20 44.13	-11 21.4	1.224	2.125	16.0	19.8
505951	2015 FK ₁₇₄		8 5.7 122°90	7°4/31.3 17			21336	Andyblanchard		8 5.7 329°47	0°4/ 6.0 18		
6 30	21 34.84	-34 34.0	1.908	2.763	13.8	21.8	6 30	21 27.80	-13				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
346627	2008 <i>WC</i> ₁₂₄		8 5.7 314°14	3°1/ 7.4 18			369097	2008 <i>GC</i> ₁₂₄		8 5.7 196°13	0°4/ 6.0 17		
6 30	21 28.14	- 9 11.3	1.658	2.497	16.2	20.5	6 30	21 30.26	-12 24.7	1.874	2.711	14.7	21.8
7 10	21 24.19	- 8 51.8	1.574	2.488	12.9	20.2	7 10	21 25.58	-13 4.9	1.791	2.709	11.4	21.5
7 20	21 17.87	- 8 45.3	1.509	2.478	9.1	20.0	7 20	21 18.66	-13 58.2	1.731	2.707	7.5	21.3
7 30	21 9.75	- 8 51.2	1.468	2.469	5.1	19.7	7 30	21 10.06	-15 0.8	1.695	2.703	3.2	21.0
8 9	21 0.75	- 9 7.3	1.452	2.461	3.2	19.6	8 9	21 0.65	-16 7.1	1.687	2.699	1.4	20.9
8 19	20 51.95	- 9 30.1	1.462	2.452	6.3	19.8	8 19	20 51.43	-17 11.3	1.706	2.695	5.8	21.2
8 29	20 44.49	- 9 55.3	1.497	2.444	10.5	20.0	8 29	20 43.45	-18 8.2	1.752	2.690	9.9	21.4
9 8	20 39.23	-10 19.1	1.554	2.437	14.3	20.2	9 8	20 37.53	-18 54.3	1.822	2.684	13.6	21.6
232944	2005 <i>CL</i> ₃₄		8 5.7 23°41	1°9/ 4.4 18			186848	2004 <i>GF</i> ₂₂		8 5.7 78°99	0°5/ 6.0 17		
6 30	21 27.66	-21 45.8	2.221	3.075	12.1	19.9	6 30	21 30.47	-13 13.7	1.537	2.389	16.6	20.8
7 10	21 23.16	-22 1.4	2.150	3.079	9.2	19.7	7 10	21 25.91	-13 38.0	1.478	2.404	12.8	20.6
7 20	21 16.82	-22 19.6	2.103	3.084	6.0	19.5	7 20	21 18.88	-14 14.9	1.439	2.418	8.4	20.4
7 30	21 9.19	-22 37.0	2.081	3.089	2.8	19.3	7 30	21 10.11	-15 0.4	1.425	2.433	3.5	20.1
8 9	21 1.06	-22 49.9	2.087	3.094	2.6	19.3	8 9	21 0.68	-15 48.5	1.435	2.448	1.5	20.0
8 19	20 53.26	-22 55.7	2.120	3.100	5.7	19.5	8 19	20 51.75	-16 33.9	1.472	2.463	6.3	20.4
8 29	20 46.60	-22 52.8	2.179	3.105	8.9	19.8	8 29	20 44.43	-17 11.8	1.534	2.477	10.6	20.7
9 8	20 41.71	-22 41.1	2.262	3.112	11.7	20.0	9 8	20 39.51	-17 39.5	1.618	2.491	14.4	20.9
1178	<i>Irmela</i>		8 5.7 132°41	2°0/ 7.4 18			215022	2009 <i>BA</i> ₇₃		8 5.7 269°73	0°5/ 6.2 18		
6 30	21 28.43	- 8 13.1	2.202	3.019	13.5	16.7	6 30	21 25.75	-11 21.4	1.953	2.793	14.1	20.4
7 10	21 23.67	- 8 35.2	2.129	3.031	10.6	16.5	7 10	21 22.03	-12 10.9	1.872	2.791	10.9	20.2
7 20	21 17.13	- 9 10.0	2.078	3.043	7.3	16.3	7 20	21 16.30	-13 14.5	1.812	2.789	7.2	19.9
7 30	21 9.33	- 9 55.2	2.053	3.054	3.8	16.2	7 30	21 9.08	-14 28.2	1.778	2.786	3.1	19.7
8 9	21 1.00	-10 47.0	2.055	3.065	2.1	16.0	8 9	21 1.14	-15 46.5	1.771	2.784	1.3	19.5
8 19	20 52.95	-11 41.3	2.086	3.075	4.9	16.3	8 19	20 53.38	-17 3.3	1.792	2.781	5.5	19.8
8 29	20 45.97	-12 33.8	2.145	3.085	8.2	16.5	8 29	20 46.73	-18 13.0	1.839	2.779	9.4	20.1
9 8	20 40.68	-13 21.0	2.228	3.095	11.2	16.7	9 8	20 41.94	-19 11.6	1.910	2.777	12.8	20.3
34541	2000 <i>SB</i> ₂₂₈		8 5.7 55°99	1°8/ 7.1 18			16004	1999 <i>BZ</i> ₃		8 5.7 344°15	1°1/ 6.4 18		
6 30	21 26.32	- 9 55.3	2.095	2.925	13.6	19.6	6 30	21 21.07	-11 21.9	0.991	1.881	20.7	16.7
7 10	21 22.22	-10 3.2	2.018	2.928	10.7	19.4	7 10	21 20.07	-11 47.5	0.923	1.870	16.3	16.4
7 20	21 16.27	-10 22.7	1.962	2.932	7.3	19.2	7 20	21 15.87	-12 35.9	0.872	1.859	10.9	16.0
7 30	21 9.00	-10 51.7	1.932	2.935	3.7	19.0	7 30	21 9.13	-13 43.6	0.841	1.850	4.9	15.7
8 9	21 1.16	-11 27.1	1.928	2.939	2.0	18.9	8 9	21 1.10	-15 2.3	0.830	1.843	2.0	15.5
8 19	20 53.56	-12 5.1	1.952	2.942	5.0	19.1	8 19	20 53.38	-16 21.6	0.841	1.837	8.2	15.8
8 29	20 47.04	-12 42.0	2.003	2.946	8.5	19.3	8 29	20 47.63	-17 31.2	0.872	1.832	14.1	16.1
9 8	20 42.25	-13 14.5	2.077	2.950	11.7	19.5	9 8	20 45.03	-18 24.3	0.920	1.830	19.3	16.4
508047	2015 <i>BT</i> ₅₃₅		8 5.7 41°61	2°0/ 4.5 17			313143	2001 <i>DT</i> ₅		8 5.7 220°02	0°2/ 5.9 18		
6 30	21 28.16	-17 45.0	1.310	2.186	17.6	20.1	6 30	21 25.64	-11 48.3	2.986	3.805	10.2	21.5
7 10	21 24.53	-18 36.2	1.261	2.202	13.3	19.9	7 10	21 21.30	-12 46.6	2.887	3.796	7.9	21.4
7 20	21 18.14	-19 37.9	1.232	2.219	8.5	19.7	7 20	21 15.54	-13 54.7	2.813	3.786	5.2	21.2
7 30	21 9.82	-20 43.0	1.226	2.236	3.6	19.4	7 30	21 8.72	-15 9.7	2.767	3.775	2.2	20.9
8 9	21 0.80	-21 43.2	1.244	2.254	3.1	19.5	8 9	21 1.35	-16 27.6	2.752	3.764	1.0	20.8
8 19	20 52.40	-22 31.9	1.287	2.272	7.7	19.8	8 19	20 54.03	-17 44.2	2.767	3.753	4.1	21.1
8 29	20 45.86	-23 5.0	1.353	2.291	12.2	20.1	8 29	20 47.37	-18 55.7	2.811	3.741	7.0	21.2
9 8	20 41.98	-23 21.4	1.439	2.310	15.9	20.4	9 8	20 41.94	-19 59.1	2.882	3.728	9.6	21.4
163940	2003 <i>TK</i> ₂₀		8 5.7 262°05	1°0/ 5.1 18			120885	1998 <i>RY</i> ₅₃		8 5.8 308°31	0°3/ 5.5 18		
6 30	21 31.41	-18 53.8	2.004	2.851	13.5	20.9	6 30	21 28.01	-17 23.3	2.082	2.931	13.0	19.4
7 10	21 26.42	-19 3.6	1.911	2.836	10.4	20.6	7 10	21 23.74	-17 24.5	1.987	2.912	10.0	19.2
7 20	21 19.19	-19 18.6	1.841	2.821	6.8	20.4	7 20	21 17.42	-17 31.3	1.914	2.894	6.6	18.9
7 30	21 10.27	-19 35.6	1.797	2.806	2.8	20.1	7 30	21 9.56	-17 41.3	1.866	2.876	2.7	18.6
8 9	21 0.53	-19 50.4	1.779	2.790	2.0	20.0	8 9	21 0.94	-17 51.1	1.846	2.858	1.5	18.5
8 19	20 50.95	-19 59.7	1.790	2.774	6.0	20.3	8 19	20 52.45	-17 57.9	1.852	2.840	5.5	18.8
8 29	20 42.58	-20 1.3	1.826	2.758	9.9	20.5	8 29	20 45.05	-17 59.4	1.885	2.823	9.3	19.0
9 8	20 36.24	-19 54.2	1.886	2.742	13.4	20.6	9 8	20 39.50	-17 54.2	1.942	2.806	12.8	19.1
258837	2002 <i>PZ</i> ₂₅		8 5.7 328°44	0°5/ 5.9 18			130837	2000 <i>UU</i> ₄₇		8 5.8 230°78	3°5/ 8.2 18		
6 30	21 30.24	-16 34.5	1.224	2.098	18.6	19.8	6 30	21 28.81	- 5 36.8	2.101	2.910	14.3	20.2
7 10	21 26.69	-16 10.4	1.146	2.084	14.5	19.5	7 10	21 24.25	- 5 29.7	2.008	2.901	11.6	20.0
7 20	21 19.95	-15 54.4	1.087	2.071	9.6	19.2	7 20	21 17.70	- 5 36.4	1.935	2.891	8.4	19.8
7 30	21 10.73	-15 44.0	1.049	2.059	4.1	18.8	7 30	21 9.67	- 5 56.4	1.887	2.880	5.2	19.6
8 9	21 0.29	-15 35.6	1.035	2.048	1.9	18.7	8 9	21 0.89	- 6 27.6	1.866	2.870	3.6	19.5
8 19	20 50.18	-15 25.8	1.044	2.037	7.7	19.0	8 19	20 52.23	- 7 6.9	1.873	2.859	5.7	19.6
8 29	20 41.96	-15 12.1	1.075	2.027	13.1	19.3	8 29	20 44.59	- 7 49.9	1.906	2.847	9.0	19.8
9 8	20 36.78	-14 53.0	1.126	2.018	17.9	19.5	9 8	20 38.72	- 8 32.4	1.963	2.835	12.3	20.0
228594	2002 <i>AE</i> ₆₆		8 5.7 96°41	1°2/ 6.5 17			441439	2008 <i>HL</i> ₂₁		8 5.8 103°86	3°3/ 8.6 18		
6 30	21 30.50	-11 57.7	1.807	2.645	15.1	20.6	6 30	21 24.91	- 4 29.5	2.280	3.087	13.4	21.5
7 10	21 25.57	-12 10.5	1.744	2.661	11.7	20.4	7 10	21 21.02	- 4 38.3	2.199	3.090	10.8	21.3
7 20	21 18.48	-12 34.6	1.702	2.676	7.8	20.2	7 20	21 15.46	- 5 1.4	2.138	3.092	7.8	21.2
7 30	21 9.90	-13 7.2	1.685	2.691	3.5	20.0	7 30	21 8.70	- 5 37.8	2.102	3.094	4.9	21.0
8 9	21 0.76	-13 44.1	1.694	2.706	1.6	19.9	8 9	21 1.40	- 6 24.7	2.093	3.096	3.3	20.9
8 19	20 52.04	-14 20.8	1.731	2.721	5.6	20.2	8 19	20 54.28	- 7 18.5	2.112	3.099	5.0	21.0
8 29	20 44.70	-14 53.6	1.794	2.735	9.5	20.5	8 29	20 48.10	- 8 14.7	2.158	3.101	8.0	21.2
9 8	20 39.45	-15 19.6	1.880	2.749	12.9	20.7	9 8	20 43.46	- 9 9.1	2.228	3.103	10.9	21.4
2506	<i>Pirogov</i>		8 5.7 217°90	0°6/ 6.2 18			519152	2010 <i>NC</i> ₄₆		8 5.8 306°15	1°9/ 7.4 18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
120927	1998 <i>SJ</i> ₁₀₈		8 5.8 321°35	2.4/ 4.2	18		445792	2012 <i>AF</i> ₂₀		8 5.8 257°66	2.5/ 3.4	18	
6 30	21 27.84	-22 22.0	2.012	2.871	13.0	19.3	6 30	21 26.22	-21 4.4	2.321	3.174	11.7	21.2
7 10	21 23.69	-22 43.1	1.927	2.859	9.9	19.1	7 10	21 22.22	-22 5.3	2.238	3.167	8.9	21.1
7 20	21 17.41	-23 7.4	1.865	2.847	6.5	18.8	7 20	21 16.37	-23 11.8	2.179	3.160	5.8	20.9
7 30	21 9.56	-23 30.7	1.828	2.835	3.2	18.6	7 30	21 9.16	-24 19.2	2.147	3.153	3.0	20.7
8 9	21 0.99	-23 48.6	1.817	2.824	3.1	18.6	8 9	21 1.28	-25 21.9	2.142	3.146	3.2	20.7
8 19	20 52.64	-23 57.8	1.834	2.812	6.5	18.8	8 19	20 53.54	-26 15.3	2.166	3.138	6.2	20.8
8 29	20 45.48	-23 56.1	1.875	2.802	10.1	19.0	8 29	20 46.77	-26 56.1	2.216	3.131	9.3	21.0
9 8	20 40.30	-23 43.3	1.940	2.792	13.3	19.1	9 8	20 41.68	-27 23.1	2.290	3.123	12.1	21.2
256723	2008 <i>AT</i> ₇₃		8 5.8 214°34	1.0/ 6.4	17		345878	2007 <i>RN</i> ₁₀		8 5.8 308°14	0.2/ 5.9	18	
6 30	21 30.33	-11 20.8	1.773	2.611	15.4	21.6	6 30	21 30.33	-16 13.6	1.689	2.543	15.3	20.2
7 10	21 25.79	-11 51.0	1.688	2.605	12.0	21.3	7 10	21 25.95	-16 4.5	1.603	2.530	11.9	20.0
7 20	21 18.91	-12 35.5	1.624	2.599	8.0	21.1	7 20	21 19.09	-16 2.7	1.537	2.517	7.8	19.7
7 30	21 10.23	-13 30.9	1.585	2.592	3.6	20.8	7 30	21 10.35	-16 5.7	1.495	2.504	3.3	19.4
8 9	21 0.66	-14 32.1	1.572	2.585	1.6	20.6	8 9	21 0.71	-16 10.0	1.479	2.492	1.5	19.2
8 19	20 51.26	-15 33.3	1.587	2.577	6.0	20.9	8 19	20 51.28	-16 12.4	1.490	2.480	6.3	19.5
8 29	20 43.14	-16 28.8	1.628	2.568	10.3	21.2	8 29	20 43.25	-16 10.5	1.525	2.468	10.7	19.8
9 8	20 37.19	-17 14.9	1.691	2.559	14.1	21.4	9 8	20 37.51	-16 2.6	1.583	2.457	14.6	20.0
429678	2011 <i>HA</i> ₆		8 5.8 54°82	3.4/ 8.2	16		228608	2002 <i>BT</i> ₅		8 5.8 228°37	1.9/ 4.6	18	
6 30	21 27.36	- 5 36.1	1.514	2.349	17.7	21.0	6 30	21 33.27	-20 51.6	2.121	2.965	13.0	20.6
7 10	21 23.49	- 5 52.7	1.459	2.368	14.1	20.8	7 10	21 27.75	-21 12.8	2.030	2.954	10.0	20.3
7 20	21 17.30	- 6 29.0	1.422	2.387	9.9	20.6	7 20	21 20.04	-21 38.0	1.963	2.942	6.5	20.1
7 30	21 9.48	- 7 22.4	1.408	2.407	5.7	20.4	7 30	21 10.69	-22 3.3	1.922	2.930	2.9	19.9
8 9	21 1.07	- 8 27.9	1.419	2.427	3.4	20.3	8 9	21 0.55	-22 24.1	1.909	2.917	2.6	19.8
8 19	20 53.13	- 9 38.7	1.456	2.447	6.2	20.5	8 19	20 50.60	-22 37.1	1.924	2.903	6.2	20.0
8 29	20 46.72	-10 48.1	1.518	2.467	10.2	20.8	8 29	20 41.85	-22 40.2	1.966	2.889	9.8	20.2
9 8	20 42.55	-11 50.4	1.602	2.488	13.8	21.1	9 8	20 35.09	-22 32.8	2.031	2.875	13.1	20.4
324840	2007 <i>JZ</i> ₄₂		8 5.8 43°39	19°7/24.5	18		97120	1999 <i>VX</i> ₉₄		8 5.8 213°59	0.9/ 6.4	18	
6 30	21 23.72	+24 11.1	1.012	1.736	31.2	20.3	6 30	21 28.94	-12 19.9	2.144	2.976	13.3	20.5
7 10	21 22.01	+25 27.9	0.961	1.743	29.1	20.1	7 10	21 24.32	-12 35.7	2.057	2.971	10.3	20.3
7 20	21 17.06	+25 54.0	0.918	1.751	26.5	19.9	7 20	21 17.74	-13 1.6	1.992	2.965	6.9	20.1
7 30	21 9.59	+25 18.2	0.885	1.759	23.9	19.8	7 30	21 9.73	-13 35.2	1.953	2.960	3.1	19.8
8 9	21 0.97	+23 35.4	0.865	1.768	21.4	19.7	8 9	21 1.04	-14 12.9	1.941	2.953	1.4	19.7
8 19	20 52.78	+20 48.9	0.861	1.778	19.9	19.6	8 19	20 52.51	-14 50.7	1.958	2.947	5.1	19.9
8 29	20 46.68	+17 12.7	0.874	1.788	19.8	19.7	8 29	20 45.05	-15 25.2	2.001	2.940	8.8	20.1
9 8	20 43.80	+13 9.7	0.906	1.798	21.2	19.8	9 8	20 39.36	-15 53.4	2.068	2.932	12.1	20.3
44	<i>Nysa</i>		8 5.8 202°14	0°0/ 5.6	18 R		161304	2003 <i>NQ</i> ₉		8 5.8 358°08	2°9/ 7.6	18	
6 30	21 30.43	-14 13.9	1.935	2.775	14.2	11.2	6 30	21 27.46	- 9 1.8	2.038	2.864	14.1	19.5
7 10	21 25.67	-14 47.4	1.852	2.772	10.9	11.0	7 10	21 23.18	- 8 36.4	1.957	2.863	11.2	19.3
7 20	21 18.72	-15 31.7	1.790	2.768	7.1	10.8	7 20	21 16.99	- 8 21.4	1.897	2.862	7.9	19.1
7 30	21 10.13	-16 23.0	1.754	2.763	2.9	10.6	7 30	21 9.40	- 8 16.5	1.863	2.862	4.5	18.9
8 9	21 0.75	-17 16.2	1.746	2.758	1.5	10.6	8 9	21 1.21	- 8 19.9	1.855	2.861	3.0	18.8
8 19	20 51.58	-18 6.2	1.765	2.753	5.8	10.8	8 19	20 53.26	- 8 29.3	1.873	2.861	5.4	19.0
8 29	20 43.62	-18 48.9	1.811	2.747	9.8	10.9	8 29	20 46.42	- 8 41.8	1.918	2.862	8.8	19.2
9 8	20 37.67	-19 21.3	1.881	2.740	13.3	11.1	9 8	20 41.37	- 8 54.5	1.987	2.863	12.0	19.4
40679	1999 <i>RO</i> ₂₀₇		8 5.8 203°92	0°7/ 6.2	18		511290	2014 <i>DA</i> ₅₉		8 5.8 197°90	4°9/ 1.9	18	
6 30	21 28.38	-14 10.5	2.402	3.234	12.0	19.2	6 30	21 34.22	-31 4.6	2.430	3.274	11.5	22.6
7 10	21 23.60	-14 9.8	2.318	3.233	9.3	19.0	7 10	21 28.28	-31 51.3	2.354	3.271	9.1	22.4
7 20	21 17.11	-14 15.9	2.257	3.231	6.1	18.8	7 20	21 20.26	-32 35.4	2.302	3.267	6.6	22.3
7 30	21 9.39	-14 26.7	2.222	3.230	2.7	18.6	7 30	21 10.75	-33 11.3	2.276	3.263	5.1	22.2
8 9	21 1.13	-14 39.9	2.216	3.228	1.2	18.4	8 9	21 0.58	-33 34.3	2.279	3.258	5.5	22.2
8 19	20 53.09	-14 52.9	2.237	3.226	4.6	18.7	8 19	20 50.70	-33 41.4	2.308	3.252	7.7	22.3
8 29	20 46.03	-15 3.4	2.287	3.224	7.9	18.9	8 29	20 42.05	-33 32.0	2.364	3.246	10.2	22.5
9 8	20 40.56	-15 9.7	2.360	3.222	10.9	19.1	9 8	20 35.35	-33 7.6	2.443	3.239	12.6	22.6
285482	2000 <i>BG</i> ₄₉		8 5.8 184°94	0°6/ 5.2	17		475827	2007 <i>BM</i>		8 5.8 112°25	3°6/ 1.8	18	
6 30	21 28.10	-15 19.3	2.467	3.302	11.7	22.1	6 30	21 28.54	-24 41.9	2.643	3.491	10.6	21.2
7 10	21 23.42	-16 6.8	2.384	3.302	8.9	21.9	7 10	21 23.70	-26 13.4	2.584	3.509	8.1	21.1
7 20	21 17.02	-17 2.6	2.324	3.301	5.8	21.7	7 20	21 17.18	-27 47.0	2.551	3.526	5.5	20.9
7 30	21 9.37	-18 3.0	2.291	3.300	2.3	21.5	7 30	21 9.46	-29 16.9	2.547	3.543	3.7	20.8
8 9	21 1.13	-19 3.6	2.288	3.299	1.5	21.4	8 9	21 1.21	-30 37.5	2.571	3.560	4.3	20.9
8 19	20 53.05	-20 0.0	2.313	3.297	4.9	21.6	8 19	20 53.18	-31 44.5	2.625	3.576	6.5	21.1
8 29	20 45.90	-20 48.7	2.366	3.294	8.2	21.8	8 29	20 46.10	-32 35.6	2.706	3.592	8.9	21.2
9 8	20 40.30	-21 27.5	2.444	3.291	11.0	22.0	9 8	20 40.59	-33 10.3	2.811	3.607	11.1	21.4
306835	2001 <i>SE</i> ₂		8 5.8 318°80	2°4/ 7.2	16		19391	1998 <i>DR</i> ₁₅		8 5.8 264°68	3°4/ 4.0	18	
6 30	21 24.90	-10 1.0	1.644	2.492	15.9	21.1	6 30	21 33.75	-23 1.3	1.480	2.348	16.4	18.1
7 10	21 21.94	- 9 57.8	1.545	2.466	12.7	20.9	7 10	21 29.00	-23 31.5	1.405	2.340	12.6	17.8
7 20	21 16.61	-10 8.8	1.466	2.440	8.8	20.6	7 20	21 21.29	-24 6.1	1.350	2.332	8.4	17.6
7 30	21 9.37	-10 32.8	1.411	2.415	4.6	20.3	7 30	21 11.33	-24 38.6	1.318	2.325	4.3	17.3
8 9	21 1.08	-11 6.8	1.380	2.390	2.5	20.1	8 9	21 0.31	-25 2.2	1.312	2.317	4.3	17.3
8 19	20 52.81	-11 46.4	1.374	2.366	6.3	20.2	8 19	20 49.66	-25 12.0	1.330	2.309	8.4	17.5
8 29	20 45.72	-12 26.5	1.392	2.343	10.9	20.4	8 29	20 40.80	-25 5.7	1.373	2.301	12.8	17.8
9 8	20 40.81	-13 2.4	1.433	2.320	15.0	20.6	9 8	20 34.75	-24 44.3	1.436	2.293	16.8	18.0
140330	2001 <i>SY</i> ₃₄₇		8 5.8 262°54	2°4/ 7.2	18		403926	2012 <i>AY</i> ₁₆		8 5.8 147°08	1°0/ 6.6	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
342156	2008 SZ ₁₄₃		8 5.8 243°35	6°3/10.7	18		21978	1999 XW ₃		8 5.8 333°38	6°4/10.6	18	
6 30	21 26.99	+ 2 40.7	2.125	2.897	15.3	21.6	6 30	21 24.42	+ 1 47.9	2.068	2.852	15.3	19.0
7 10	21 22.91	+ 2 54.6	2.028	2.885	13.0	21.4	7 10	21 20.94	+ 2 16.7	1.981	2.846	12.9	18.8
7 20	21 16.91	+ 2 49.5	1.950	2.872	10.3	21.2	7 20	21 15.61	+ 2 27.8	1.913	2.840	10.3	18.6
7 30	21 9.44	+ 2 24.2	1.894	2.860	7.8	21.0	7 30	21 8.91	+ 2 19.8	1.868	2.834	7.8	18.5
8 9	21 1.21	+ 1 39.6	1.865	2.846	6.3	20.9	8 9	21 1.55	+ 1 53.4	1.847	2.828	6.4	18.4
8 19	20 53.03	+ 0 38.9	1.861	2.833	7.1	20.9	8 19	20 54.34	+ 1 11.1	1.852	2.823	7.1	18.4
8 29	20 45.81	- 0 32.9	1.884	2.819	9.5	21.1	8 29	20 48.10	+ 0 17.4	1.883	2.819	9.4	18.5
9 8	20 40.28	- 1 49.6	1.932	2.805	12.4	21.2	9 8	20 43.53	- 0 42.1	1.937	2.814	12.2	18.7
334405	2002 CL ₂₈₄		8 5.8 235°28	2°9/ 8.1	16		172117	2002 GH ₁₁₄		8 5.8 91°31	3°5/ 3.7	17	
6 30	21 27.15	- 5 25.1	1.992	2.807	14.8	21.8	6 30	21 32.63	- 21 36.2	1.410	2.280	16.9	19.7
7 10	21 23.15	- 5 52.7	1.899	2.798	11.9	21.5	7 10	21 28.04	- 22 32.6	1.352	2.290	12.9	19.5
7 20	21 17.11	- 6 37.6	1.828	2.788	8.4	21.3	7 20	21 20.57	- 23 35.7	1.315	2.299	8.4	19.3
7 30	21 9.53	- 7 38.4	1.781	2.779	4.8	21.1	7 30	21 11.00	- 24 37.6	1.302	2.309	4.3	19.1
8 9	21 1.16	- 8 50.9	1.761	2.769	2.9	20.9	8 9	21 0.60	- 25 30.1	1.313	2.318	4.5	19.1
8 19	20 52.89	- 10 9.7	1.769	2.758	5.5	21.1	8 19	20 50.75	- 26 7.0	1.350	2.327	8.5	19.4
8 29	20 45.66	- 11 28.7	1.803	2.748	9.2	21.3	8 29	20 42.78	- 26 25.5	1.410	2.336	12.7	19.6
9 8	20 40.25	- 12 42.4	1.862	2.737	12.7	21.5	9 8	20 37.60	- 26 26.1	1.491	2.345	16.4	19.9
121799	2000 AB ₁₅₉		8 5.8 275°39	0°9/ 6.4	18		309602	2008 BR ₂₅		8 5.8 78°36	2°1/ 4.6	17	
6 30	21 28.60	- 13 39.2	2.462	3.291	11.9	20.4	6 30	21 33.84	- 19 16.9	1.453	2.316	16.9	20.9
7 10	21 23.89	- 13 32.8	2.359	3.272	9.3	20.2	7 10	21 28.64	- 19 53.3	1.403	2.336	12.8	20.7
7 20	21 17.41	- 13 33.0	2.280	3.252	6.2	19.9	7 20	21 20.75	- 20 36.9	1.374	2.357	8.2	20.5
7 30	21 9.61	- 13 38.3	2.226	3.233	2.8	19.7	7 30	21 11.00	- 21 21.3	1.368	2.377	3.5	20.3
8 9	21 1.14	- 13 46.6	2.201	3.213	1.3	19.5	8 9	21 0.64	- 21 59.9	1.388	2.397	3.0	20.3
8 19	20 52.76	- 13 55.5	2.205	3.193	4.7	19.7	8 19	20 50.95	- 22 27.9	1.434	2.417	7.4	20.6
8 29	20 45.25	- 14 2.8	2.236	3.173	8.1	19.9	8 29	20 43.14	- 22 42.6	1.504	2.437	11.6	20.9
9 8	20 39.29	- 14 6.7	2.291	3.153	11.1	20.1	9 8	20 37.98	- 22 43.8	1.595	2.457	15.2	21.2
474021	2016 GL ₄₈		8 5.8 131°93	1°5/ 4.9	17		25960	Timheckman		8 5.8 309°31	8°9/11.8	18	
6 30	21 34.09	- 18 1.3	1.459	2.319	17.0	21.6	6 30	21 24.15	+ 5 23.3	1.692	2.472	18.3	17.6
7 10	21 29.03	- 18 31.1	1.395	2.326	13.0	21.4	7 10	21 21.30	+ 6 0.5	1.595	2.451	15.9	17.3
7 20	21 21.15	- 19 10.0	1.351	2.333	8.4	21.2	7 20	21 16.19	+ 6 14.4	1.515	2.431	13.2	17.1
7 30	21 11.22	- 19 52.2	1.330	2.340	3.5	20.9	7 30	21 9.28	+ 6 1.2	1.455	2.411	10.5	16.9
8 9	21 0.44	- 20 31.2	1.335	2.346	2.6	20.9	8 9	21 1.35	+ 5 20.2	1.418	2.391	8.9	16.8
8 19	20 50.16	- 21 1.6	1.366	2.352	7.3	21.2	8 19	20 53.43	+ 4 13.8	1.405	2.371	9.5	16.7
8 29	20 41.70	- 21 19.9	1.422	2.358	11.9	21.4	8 29	20 46.60	+ 2 48.2	1.415	2.352	11.9	16.8
9 8	20 35.94	- 21 25.1	1.498	2.363	15.8	21.7	9 8	20 41.83	+ 1 12.1	1.447	2.333	15.0	17.0
261741	2006 AP ₁₀₀		8 5.8 34°21	5°4/31.7	18		86137	1999 RN ₁₇₄		8 5.8 0°34	1°5/ 4.8	18	
6 30	21 27.30	- 29 11.8	2.164	3.026	12.1	20.1	6 30	21 25.98	- 18 43.2	1.718	2.583	14.6	19.1
7 10	21 23.28	- 30 38.3	2.100	3.028	9.4	19.9	7 10	21 22.52	- 19 10.8	1.647	2.582	11.1	18.8
7 20	21 17.18	- 32 4.8	2.060	3.031	6.9	19.8	7 20	21 16.79	- 19 45.5	1.597	2.581	7.2	18.6
7 30	21 9.55	- 33 24.4	2.047	3.034	5.5	19.7	7 30	21 9.43	- 20 23.1	1.571	2.581	3.0	18.3
8 9	21 1.23	- 34 30.5	2.060	3.037	6.2	19.8	8 9	21 1.35	- 20 58.2	1.571	2.581	2.4	18.3
8 19	20 53.15	- 35 18.5	2.100	3.040	8.5	19.9	8 19	20 53.59	- 21 26.4	1.597	2.582	6.5	18.6
8 29	20 46.27	- 35 46.4	2.164	3.043	11.1	20.1	8 29	20 47.18	- 21 44.2	1.647	2.584	10.5	18.8
9 8	20 41.33	- 35 55.0	2.249	3.046	13.5	20.3	9 8	20 42.90	- 21 50.5	1.719	2.587	14.0	19.0
249338	2008 VT ₂₃		8 5.8 312°79	3°7/ 2.2	18		357870	2005 US ₃₄₂		8 5.8 248°64	4°2/ 2.7	18	
6 30	21 25.32	- 26 13.5	2.487	3.345	10.9	20.0	6 30	21 30.62	- 28 2.0	2.244	3.099	12.0	20.8
7 10	21 21.48	- 27 10.4	2.406	3.336	8.4	19.8	7 10	21 25.64	- 28 38.5	2.170	3.096	9.3	20.7
7 20	21 15.89	- 28 9.0	2.350	3.326	5.8	19.6	7 20	21 18.62	- 29 14.3	2.119	3.093	6.5	20.5
7 30	21 9.00	- 29 4.4	2.320	3.317	3.9	19.5	7 30	21 10.13	- 29 44.1	2.093	3.090	4.4	20.3
8 9	21 1.49	- 29 51.6	2.317	3.309	4.4	19.5	8 9	21 1.03	- 30 3.5	2.095	3.087	4.8	20.4
8 19	20 54.14	- 30 27.1	2.342	3.300	6.7	19.6	8 19	20 52.22	- 30 9.4	2.124	3.084	7.2	20.5
8 29	20 47.74	- 30 48.5	2.392	3.292	9.4	19.8	8 29	20 44.64	- 30 0.8	2.178	3.080	10.1	20.7
9 8	20 42.93	- 30 55.6	2.465	3.283	11.9	20.0	9 8	20 38.98	- 29 38.7	2.256	3.077	12.7	20.9
170972	2005 CS ₂₂		8 5.8 207°26	3°5/ 3.8	17		391597	2007 UJ ₁₃		8 5.8 307°60	3°0/ 3.7	18	
6 30	21 34.40	- 22 58.4	1.647	2.507	15.3	20.7	6 30	21 28.67	- 22 16.8	1.823	2.686	13.9	20.8
7 10	21 29.21	- 23 40.9	1.572	2.503	11.8	20.5	7 10	21 24.58	- 23 1.2	1.747	2.680	10.7	20.6
7 20	21 21.29	- 24 27.9	1.519	2.499	7.8	20.3	7 20	21 18.16	- 23 50.6	1.692	2.675	7.0	20.4
7 30	21 11.32	- 25 12.9	1.490	2.495	4.2	20.0	7 30	21 10.02	- 24 39.4	1.663	2.669	3.7	20.2
8 9	21 0.39	- 25 49.2	1.487	2.490	4.3	20.0	8 9	21 1.07	- 25 21.5	1.659	2.663	3.8	20.2
8 19	20 49.82	- 26 11.5	1.510	2.485	8.1	20.2	8 19	20 52.38	- 25 52.1	1.682	2.658	7.3	20.4
8 29	20 40.88	- 26 17.7	1.558	2.479	12.1	20.5	8 29	20 45.04	- 26 8.3	1.730	2.652	11.0	20.6
9 8	20 34.52	- 26 8.1	1.628	2.473	15.7	20.7	9 8	20 39.86	- 26 9.8	1.799	2.647	14.3	20.8
345882	2007 RQ ₄₃		8 5.8 286°31	2°5/ 7.4	18		283091	2008 TK ₁₇₁		8 5.8 349°12	3°3/ 3.6	18	
6 30	21 27.50	- 8 58.5	1.864	2.696	15.0	21.3	6 30	21 28.65	- 21 41.9	1.646	2.514	15.0	20.0
7 10	21 23.56	- 8 56.3	1.773	2.683	11.9	21.1	7 10	21 24.75	- 22 36.9	1.576	2.512	11.4	19.8
7 20	21 17.47	- 9 7.4	1.703	2.671	8.3	20.9	7 20	21 18.37	- 23 38.2	1.528	2.511	7.5	19.6
7 30	21 9.72	- 9 30.5	1.657	2.658	4.5	20.6	7 30	21 10.12	- 24 39.4	1.504	2.510	3.9	19.3
8 9	21 1.14	- 10 2.7	1.637	2.646	2.6	20.5	8 9	21 1.03	- 25 33.3	1.505	2.509	4.2	19.4
8 19	20 52.69	- 10 40.2	1.643	2.634	5.7	20.6	8 19	20 52.27	- 26 14.2	1.532	2.508	7.8	19.6
8 29	20 45.39	- 11 18.4	1.676	2.621	9.7	20.8	8 29	20 45.00	- 26 38.6	1.584	2.508	11.7	19.8
9 8	20 40.04	- 11 53.5	1.731	2.609	13.3	21.0	9 8	20 40.08	- 26 46.2	1.657	2.508	15.2	20.0
189847	2003 EW ₃₄		8 5.8 58°50	0°9/ 6.3	17		137598	1999 VA ₁₆₄		8 5.8 162°85</			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
347851	2002 QK ₁₁₈	8 5.8 52°32'	2.3°/ 4.2 16				378246	2007 CD ₄₄	8 5.8 183°03'	0.1°/ 5.7 17			
6 30	21 28.88	-20 6.6	1.737	2.600	14.6	21.2	6 30	21 31.89	-15 17.1	2.009	2.847	13.8	22.4
7 10	21 24.67	-20 49.1	1.673	2.606	11.1	21.0	7 10	21 26.70	-15 38.4	1.928	2.848	10.6	22.2
7 20	21 18.16	-21 38.0	1.630	2.613	7.2	20.8	7 20	21 19.38	-16 8.3	1.871	2.848	6.9	21.9
7 30	21 9.98	-22 27.7	1.612	2.620	3.3	20.6	7 30	21 10.50	-16 43.4	1.839	2.847	2.9	21.7
8 9	21 1.13	-23 12.2	1.620	2.628	3.1	20.6	8 9	21 0.91	-17 19.4	1.834	2.846	1.4	21.6
8 19	20 52.66	-23 46.7	1.654	2.635	6.9	20.8	8 19	20 51.58	-17 52.0	1.858	2.845	5.6	21.9
8 29	20 45.63	-24 8.3	1.714	2.643	10.7	21.1	8 29	20 43.47	-18 18.2	1.908	2.843	9.4	22.1
9 8	20 40.80	-24 16.2	1.795	2.650	14.0	21.3	9 8	20 37.35	-18 35.8	1.982	2.840	12.8	22.3
167947	2005 EC ₂₀₆	8 5.8 185°36'	3.7°/ 8.8 18				238581	2004 XP ₁₆₃	8 5.8 306°33'	2.3°/ 4.5 18			
6 30	21 27.07	-3 42.6	2.211	3.012	13.9	20.6	6 30	21 29.07	-20 23.7	1.614	2.480	15.3	20.5
7 10	21 22.81	-3 47.9	2.125	3.012	11.3	20.4	7 10	21 25.27	-20 51.6	1.528	2.464	11.8	20.2
7 20	21 16.75	-4 8.3	2.061	3.011	8.3	20.2	7 20	21 18.85	-21 26.4	1.463	2.447	7.7	19.9
7 30	21 9.38	-4 43.0	2.021	3.011	5.3	20.1	7 30	21 10.40	-22 2.9	1.422	2.431	3.5	19.6
8 9	21 1.40	-5 29.6	2.008	3.010	3.7	20.0	8 9	21 0.93	-22 35.3	1.407	2.415	3.2	19.6
8 19	20 53.60	-6 24.3	2.023	3.009	5.4	20.1	8 19	20 51.63	-22 58.3	1.417	2.400	7.5	19.8
8 29	20 46.77	-7 22.3	2.065	3.007	8.4	20.2	8 29	20 43.79	-23 8.5	1.451	2.385	11.8	20.0
9 8	20 41.57	-8 19.2	2.132	3.005	11.4	20.4	9 8	20 38.37	-23 5.1	1.506	2.370	15.8	20.2
436639	2011 QS ₁₈	8 5.8 344°85'	6.0°/ 9.3 18				237323	2009 BP ₈₈	8 5.8 40°81'	0.2°/ 5.9 18			
6 30	21 22.19	-3 17.8	1.377	2.218	18.8	20.4	6 30	21 22.85	-13 53.4	2.847	3.681	10.3	19.9
7 10	21 20.12	-2 48.5	1.297	2.206	15.5	20.1	7 10	21 19.20	-14 21.4	2.771	3.687	7.9	19.7
7 20	21 15.54	-2 40.1	1.235	2.194	11.7	19.9	7 20	21 14.22	-14 56.3	2.718	3.694	5.1	19.5
7 30	21 9.03	-2 54.0	1.194	2.184	8.0	19.6	7 30	21 8.29	-15 35.9	2.692	3.700	2.2	19.3
8 9	21 1.55	-3 28.8	1.175	2.175	6.0	19.5	8 9	21 1.97	-16 17.0	2.694	3.706	0.9	19.2
8 19	20 54.25	-4 19.9	1.179	2.167	7.8	19.6	8 19	20 55.83	-16 56.7	2.725	3.713	3.9	19.5
8 29	20 48.36	-5 20.6	1.206	2.161	11.7	19.8	8 29	20 50.44	-17 32.3	2.784	3.720	6.7	19.7
9 8	20 44.85	-6 23.0	1.254	2.156	15.6	20.0	9 8	20 46.28	-18 1.9	2.868	3.727	9.2	19.9
469417	2001 XN ₂₂₇	8 5.8 309°30'	3.8°/ 3.4 18				493795	2015 UV ₈₁	8 5.8 262°36'	8.8°/ 27.6 17			
6 30	21 27.55	-21 40.7	1.407	2.286	16.4	20.7	6 30	21 39.52	-48 20.4	2.881	3.682	11.0	21.8
7 10	21 24.68	-22 35.6	1.316	2.258	12.7	20.4	7 10	21 32.67	-49 21.7	2.804	3.659	9.8	21.7
7 20	21 18.84	-23 40.6	1.244	2.230	8.5	20.1	7 20	21 23.34	-50 12.1	2.749	3.637	9.0	21.6
7 30	21 10.53	-24 48.7	1.195	2.202	4.5	19.8	7 30	21 12.16	-50 44.9	2.719	3.613	8.8	21.6
8 9	21 0.79	-25 51.0	1.170	2.175	4.9	19.7	8 9	21 0.14	-50 55.1	2.713	3.589	9.4	21.6
8 19	20 51.03	-26 39.1	1.170	2.148	9.4	19.9	8 19	20 48.43	-50 40.6	2.731	3.565	10.5	21.6
8 29	20 42.81	-27 7.5	1.191	2.122	14.2	20.1	8 29	20 38.18	-50 2.1	2.772	3.541	12.0	21.7
9 8	20 37.40	-27 14.8	1.232	2.096	18.6	20.3	9 8	20 30.25	-49 3.0	2.833	3.515	13.5	21.8
386981	2012 PK ₁₇	8 5.8 273°38'	3.3°/ 3.7 18				115856	2003 UY ₂₇₂	8 5.8 232°07'	4.5°/ 2.1 18			
6 30	21 30.77	-22 39.8	1.717	2.580	14.7	20.7	6 30	21 30.44	-26 55.8	2.179	3.034	12.3	20.3
7 10	21 26.40	-23 22.1	1.637	2.570	11.3	20.4	7 10	21 25.71	-28 0.8	2.098	3.025	9.5	20.1
7 20	21 19.48	-24 9.6	1.578	2.560	7.5	20.2	7 20	21 18.83	-29 7.6	2.041	3.016	6.7	19.9
7 30	21 10.62	-24 56.2	1.543	2.549	4.0	19.9	7 30	21 10.32	-30 10.1	2.010	3.006	4.6	19.8
8 9	21 0.81	-25 35.4	1.534	2.538	4.1	19.9	8 9	21 1.00	-31 2.1	2.007	2.996	5.2	19.8
8 19	20 51.24	-26 1.9	1.552	2.528	7.8	20.1	8 19	20 51.86	-31 38.9	2.030	2.985	7.8	20.0
8 29	20 43.13	-26 13.1	1.594	2.517	11.7	20.3	8 29	20 43.89	-31 58.4	2.079	2.974	10.8	20.1
9 8	20 37.38	-26 8.7	1.658	2.506	15.3	20.5	9 8	20 37.89	-32 0.7	2.150	2.963	13.5	20.3
104631	2000 GQ ₁₁₄	8 5.8 24°37'	5.5°/ 9.1 17				193598	2001 BF ₆₅	8 5.8 271°68'	3.4°/ 8.1 18			
6 30	21 25.11	-3 52.9	1.195	2.044	20.6	18.5	6 30	21 28.95	-5 58.2	2.070	2.881	14.4	20.9
7 10	21 22.43	-3 36.5	1.138	2.053	16.7	18.2	7 10	21 24.65	-5 57.0	1.958	2.854	11.7	20.6
7 20	21 17.01	-3 44.3	1.099	2.063	12.3	18.0	7 20	21 18.24	-6 10.2	1.868	2.826	8.5	20.4
7 30	21 9.58	-4 16.0	1.080	2.074	7.9	17.8	7 30	21 10.13	-6 37.6	1.802	2.797	5.1	20.1
8 9	21 1.34	-5 7.6	1.083	2.086	5.5	17.7	8 9	21 1.06	-7 17.1	1.763	2.768	3.4	20.0
8 19	20 53.60	-6 12.3	1.108	2.099	7.7	17.9	8 19	20 51.90	-8 5.0	1.751	2.738	5.8	20.1
8 29	20 47.62	-7 21.5	1.157	2.113	11.9	18.2	8 29	20 43.67	-8 56.8	1.766	2.708	9.5	20.2
9 8	20 44.29	-8 27.3	1.225	2.128	15.9	18.4	9 8	20 37.22	-9 47.6	1.805	2.677	13.2	20.4
72671	2001 FS ₅₂	8 5.8 175°54'	4.7°/ 2.3 18				184739	2005 SO ₂₁₀	8 5.8 179°25'	4.2°/ 9.3 18			
6 30	21 34.10	-29 43.5	2.257	3.105	12.2	20.4	6 30	21 26.09	-2 23.9	2.354	3.147	13.4	20.2
7 10	21 28.29	-30 27.4	2.186	3.107	9.5	20.2	7 10	21 21.95	-2 14.5	2.269	3.147	11.0	20.1
7 20	21 20.33	-31 9.3	2.139	3.109	6.8	20.0	7 20	21 16.14	-2 19.3	2.205	3.147	8.3	19.9
7 30	21 10.86	-31 43.6	2.119	3.110	4.9	19.9	7 30	21 9.14	-2 38.3	2.165	3.148	5.6	19.7
8 9	21 0.75	-32 5.2	2.125	3.111	5.3	19.9	8 9	21 1.58	-3 9.6	2.152	3.148	4.2	19.6
8 19	20 51.00	-32 11.3	2.160	3.111	7.6	20.1	8 19	20 54.19	-3 50.4	2.166	3.147	5.5	19.7
8 29	20 42.57	-32 1.2	2.220	3.111	10.4	20.3	8 29	20 47.71	-4 36.8	2.208	3.147	8.1	19.9
9 8	20 36.19	-31 36.4	2.302	3.110	12.9	20.4	9 8	20 42.74	-5 24.6	2.274	3.147	10.8	20.1
416810	2005 GF ₁₆₅	8 5.8 105°65'	2.5°/ 4.3 17				435200	2007 RQ ₁₃₄	8 5.8 2°19'	6.2°/ 3.5 18			
6 30	21 34.55	-20 22.1	1.608	2.465	15.8	21.8	6 30	21 34.32	-30 39.9	1.336	2.213	17.2	19.5
7 10	21 29.06	-21 6.4	1.553	2.483	12.0	21.6	7 10	21 29.65	-30 51.5	1.275	2.211	13.5	19.2
7 20	21 20.99	-21 56.7	1.519	2.501	7.7	21.3	7 20	21 21.75	-30 57.7	1.233	2.211	9.7	19.0
7 30	21 11.14	-22 46.6	1.510	2.518	3.6	21.1	7 30	21 11.54	-30 50.9	1.214	2.211	6.6	18.8
8 9	21 0.64	-23 29.5	1.527	2.534	3.4	21.2	8 9	21 0.50	-30 25.6	1.218	2.213	6.8	18.9
8 19	20 50.72	-24 0.6	1.571	2.550	7.3	21.4	8 19	20 50.21	-29 39.8	1.246	2.215	10.0	19.1
8 29	20 42.52	-24 17.4	1.640	2.566	11.3	21.7	8 29	20 42.14	-28 35.6	1.297	2.219	13.9	19.3
9 8	20 36.85	-24 20.0	1.730	2.581	14.7	22.0	9 8	20 37.17	-27 17.7	1.367	2.224	17.5	19.5
157039	2003 SQ ₃₄	8 5.8 7°72'	1.1°/ 6.7 18				26483	2000 AX ₂₀₄	8 5.8 213°16'	8.8°/ 13.2 18			
6 30	21 26.16	-12 2.3	2.344	3.176	12.3								

EPHEMERIDES

8 5.8

8 5.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
28635	2000 <i>FV</i> ₄₂		8 5.8 359°04	3°3/ 3.9	18		395074	2009 <i>HM</i> ₇		8 5.8 0°95	2°6/ 4.1	18	
6 30	21 30.30	-21 42.9	1.434	2.307	16.5	18.4	6 30	21 21.09	-18 52.4	1.302	2.191	16.8	19.5
7 10	21 26.35	-22 25.9	1.367	2.306	12.6	18.1	7 10	21 19.45	-19 46.1	1.240	2.188	12.8	19.2
7 20	21 19.57	-23 15.3	1.321	2.306	8.3	17.9	7 20	21 15.16	-20 50.6	1.197	2.186	8.3	19.0
7 30	21 10.69	-24 4.4	1.298	2.305	4.2	17.7	7 30	21 8.90	-21 59.2	1.176	2.186	3.8	18.7
8 9	21 0.88	-24 45.6	1.300	2.305	4.2	17.7	8 9	21 1.76	-23 3.5	1.179	2.188	3.7	18.7
8 19	20 51.50	-25 13.2	1.326	2.306	8.3	17.9	8 19	20 55.01	-23 55.9	1.206	2.191	8.1	19.0
8 29	20 43.87	-25 24.4	1.376	2.306	12.6	18.2	8 29	20 49.88	-24 31.5	1.254	2.196	12.6	19.2
9 8	20 38.93	-25 19.0	1.446	2.307	16.4	18.4	9 8	20 47.28	-24 48.4	1.323	2.203	16.5	19.5
70622	1999 <i>TO</i> ₂₁₅		8 5.8 253°26	0°4/ 5.5	18		211034	2002 <i>AZ</i> ₁₈₁		8 5.8 313°10	4°0/ 3.5	18	
6 30	21 28.46	-15 21.2	1.905	2.753	14.1	19.6	6 30	21 26.13	-20 0.0	1.140	2.031	18.5	19.7
7 10	21 24.29	-15 51.9	1.821	2.746	10.8	19.4	7 10	21 24.10	-21 6.9	1.061	2.010	14.4	19.4
7 20	21 17.95	-16 32.6	1.759	2.739	7.1	19.1	7 20	21 18.74	-22 28.8	1.000	1.989	9.5	19.0
7 30	21 9.97	-17 19.4	1.722	2.731	2.9	18.9	7 30	21 10.60	-23 57.3	0.960	1.968	4.8	18.7
8 9	21 1.21	-18 7.5	1.712	2.724	1.6	18.7	8 9	21 0.89	-25 20.9	0.942	1.949	5.3	18.7
8 19	20 52.64	-18 51.9	1.729	2.716	5.9	19.0	8 19	20 51.25	-26 28.6	0.947	1.930	10.4	18.9
8 29	20 45.25	-19 28.4	1.771	2.708	9.9	19.2	8 29	20 43.49	-27 13.0	0.973	1.911	15.8	19.1
9 8	20 39.86	-19 54.8	1.837	2.700	13.4	19.5	9 8	20 38.99	-27 31.8	1.016	1.894	20.5	19.3
220811	2004 <i>TZ</i> ₂₄₉		8 5.8 79°18	2°1/ 4.2	18		42218	2001 <i>DN</i> ₅₉		8 5.8 72°27	4°0/ 9.1	18	
6 30	21 27.96	-21 28.0	2.310	3.161	11.8	19.9	6 30	21 25.60	-3 14.3	2.328	3.126	13.4	19.2
7 10	21 23.42	-22 0.1	2.242	3.169	9.0	19.8	7 10	21 21.57	-3 4.8	2.247	3.130	10.9	19.0
7 20	21 17.09	-22 35.4	2.197	3.178	5.8	19.6	7 20	21 15.90	-3 9.0	2.188	3.134	8.1	18.8
7 30	21 9.52	-23 10.1	2.179	3.186	2.8	19.4	7 30	21 9.06	-3 26.8	2.153	3.138	5.4	18.7
8 9	21 1.46	-23 40.1	2.189	3.195	2.7	19.4	8 9	21 1.70	-3 56.2	2.145	3.142	4.0	18.6
8 19	20 53.69	-24 2.2	2.226	3.203	5.6	19.6	8 19	20 54.54	-4 34.4	2.164	3.146	5.3	18.7
8 29	20 47.02	-24 14.5	2.290	3.212	8.7	19.8	8 29	20 48.31	-5 17.6	2.210	3.150	8.0	18.9
9 8	20 42.04	-24 16.4	2.377	3.220	11.4	20.0	9 8	20 43.58	-6 1.7	2.280	3.155	10.7	19.1
129390	1291 <i>T</i> ₋₂		8 5.8 254°49	0°8/ 6.5	18		200494	2000 <i>YH</i> ₇₄		8 5.8 194°55	5°6/ 9.8	18	
6 30	21 27.03	-12 22.5	2.603	3.429	11.4	21.4	6 30	21 29.41	-0 7.9	2.162	2.943	14.8	20.4
7 10	21 22.66	-12 38.2	2.501	3.411	8.9	21.2	7 10	21 24.66	+0 21.3	2.075	2.941	12.4	20.3
7 20	21 16.64	-13 2.4	2.421	3.393	5.9	20.9	7 20	21 18.02	+0 34.8	2.008	2.939	9.6	20.1
7 30	21 9.39	-13 33.2	2.368	3.375	2.7	20.7	7 30	21 9.98	+0 31.5	1.965	2.937	7.0	19.9
8 9	21 1.50	-14 7.7	2.344	3.356	1.2	20.6	8 9	21 1.27	+0 12.4	1.947	2.934	5.6	19.8
8 19	20 53.66	-14 42.9	2.348	3.337	4.4	20.8	8 19	20 52.72	-0 20.1	1.957	2.931	6.6	19.9
8 29	20 46.62	-15 15.6	2.380	3.317	7.7	20.9	8 29	20 45.19	-1 2.3	1.994	2.927	9.2	20.0
9 8	20 41.00	-15 43.4	2.437	3.297	10.6	21.1	9 8	20 39.37	-1 49.1	2.054	2.923	12.0	20.2
163971	2003 <i>UQ</i> ₁₀₂		8 5.8 327°02	0°0/ 5.7	18		34237	<i>Sarhagao</i>		8 5.8 281°33	0°9/ 6.5	18	
6 30	21 26.61	-14 45.1	1.594	2.454	15.7	20.1	6 30	21 27.02	-10 56.3	1.732	2.576	15.4	18.7
7 10	21 23.26	-15 9.7	1.514	2.445	12.2	19.9	7 10	21 23.49	-11 32.2	1.640	2.560	12.1	18.4
7 20	21 17.48	-15 46.2	1.455	2.436	8.0	19.6	7 20	21 17.63	-12 24.1	1.568	2.543	8.1	18.2
7 30	21 9.83	-16 30.9	1.419	2.428	3.3	19.3	7 30	21 9.94	-13 28.8	1.520	2.527	3.7	17.9
8 9	21 1.29	-17 18.2	1.408	2.420	1.6	19.2	8 9	21 1.26	-14 41.1	1.498	2.510	1.5	17.7
8 19	20 52.96	-18 2.6	1.422	2.413	6.5	19.5	8 19	20 52.63	-15 54.2	1.502	2.494	6.1	17.9
8 29	20 46.02	-18 39.1	1.462	2.406	11.0	19.7	8 29	20 45.19	-17 1.9	1.533	2.477	10.6	18.2
9 8	20 41.35	-19 4.7	1.523	2.399	14.9	19.9	9 8	20 39.87	-17 59.2	1.586	2.460	14.6	18.4
388747	2007 <i>VQ</i> ₃₃₄		8 5.8 359°01	2°8/ 3.9	18		43892	1995 <i>SG</i> ₂₁		8 5.8 297°39	1°2/ 5.2	18	
6 30	21 27.13	-20 45.1	1.666	2.534	14.8	20.5	6 30	21 30.17	-17 36.8	1.416	2.284	17.0	18.6
7 10	21 23.56	-21 33.7	1.596	2.533	11.3	20.2	7 10	21 26.44	-17 56.7	1.334	2.269	13.1	18.4
7 20	21 17.58	-22 29.1	1.548	2.532	7.3	20.0	7 20	21 19.82	-18 26.8	1.270	2.254	8.6	18.1
7 30	21 9.84	-23 25.5	1.524	2.532	3.6	19.8	7 30	21 10.91	-19 2.3	1.230	2.240	3.6	17.7
8 9	21 1.30	-24 16.0	1.526	2.532	3.6	19.8	8 9	21 0.82	-19 37.1	1.214	2.225	2.4	17.6
8 19	20 53.09	-24 55.4	1.553	2.532	7.4	20.0	8 19	20 50.93	-20 5.3	1.223	2.211	7.6	17.9
8 29	20 46.31	-25 20.0	1.605	2.533	11.3	20.2	8 29	20 42.66	-20 22.7	1.255	2.197	12.6	18.1
9 8	20 41.78	-25 29.2	1.678	2.534	14.8	20.5	9 8	20 37.11	-20 27.4	1.308	2.184	16.9	18.4
276843	2004 <i>RY</i> ₂₂		8 5.8 325°99	1°1/ 5.1	18		509869	2009 <i>AJ</i> ₄₁		8 5.8 198°17	3°8/ 8.6	18	
6 30	21 29.34	-17 39.2	1.572	2.435	15.8	20.9	6 30	21 30.58	-4 33.0	2.451	3.242	13.0	22.2
7 10	21 25.36	-18 3.0	1.497	2.431	12.1	20.6	7 10	21 25.33	-4 9.8	2.359	3.238	10.6	22.0
7 20	21 18.83	-18 35.7	1.443	2.426	7.9	20.4	7 20	21 18.35	-3 58.1	2.289	3.235	7.8	21.8
7 30	21 10.38	-19 12.7	1.412	2.422	3.2	20.1	7 30	21 10.10	-3 57.9	2.244	3.230	5.1	21.6
8 9	21 1.05	-19 48.4	1.407	2.418	2.2	20.0	8 9	21 1.25	-4 8.2	2.227	3.225	3.8	21.5
8 19	20 52.02	-20 17.7	1.427	2.415	6.9	20.3	8 19	20 52.54	-4 26.7	2.239	3.220	5.4	21.6
8 29	20 44.51	-20 36.9	1.472	2.411	11.3	20.5	8 29	20 44.75	-4 50.8	2.279	3.214	8.1	21.8
9 8	20 39.41	-20 44.3	1.538	2.408	15.2	20.8	9 8	20 38.51	-5 17.1	2.343	3.207	10.9	22.0
126935	2002 <i>EN</i> ₁₄₆		8 5.8 28°73	0°7/ 5.3	18	R	481407	2006 <i>SS</i> ₂₉₇		8 5.8 293°66	1°6/ 6.9	17	
6 30	21 27.23	-15 29.5	1.509	2.373	16.3	19.1	6 30	21 26.60	-10 37.5	1.955	2.791	14.2	22.3
7 10	21 23.71	-16 8.7	1.445	2.378	12.5	18.9	7 10	21 22.91	-10 48.9	1.856	2.771	11.2	22.1
7 20	21 17.71	-16 59.8	1.401	2.384	8.0	18.7	7 20	21 17.12	-11 12.8	1.778	2.750	7.7	21.8
7 30	21 9.89	-17 57.6	1.381	2.391	3.3	18.4	7 30	21 9.70	-11 47.5	1.724	2.729	3.8	21.5
8 9	21 1.31	-18 55.5	1.386	2.397	2.0	18.3	8 9	21 1.40	-12 29.5	1.697	2.709	1.8	21.3
8 19	20 53.11	-19 47.3	1.416	2.405	6.7	18.7	8 19	20 53.15	-13 14.5	1.697	2.688	5.5	21.5
8 29	20 46.45	-20 28.0	1.471	2.412	11.1	18.9	8 29	20 45.92	-13 58.0	1.723	2.667	9.6	21.7
9 8	20 42.16	-20 55.3	1.547	2.420	14.9	19.2	9 8	20 40.56	-14 36.0	1.772	2.647	13.2	21.9
76644	2000 <i>HY</i> ₂₄		8 5.8 228°57	4°5/ 2.4	18		219478	2001 <i>CO</i> ₄₇		8 5.8 133°62	1°7/ 4.6	18	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
273947	2007 <i>JJ</i> ₂₈		8 5.8 30°32'	5°0'	8.7	17	350359	2012 <i>UF</i> ₁₂₇		8 5.8 262°15'	2°1'	4.4	18
6 30	21 26.51	- 5 16.7	1.194	2.046	20.4	19.8	6 30	21 30.08	-20 38.3	1.926	2.781	13.6	21.2
7 10	21 23.39	- 4 55.2	1.147	2.064	16.4	19.6	7 10	21 25.59	-21 10.1	1.843	2.772	10.5	21.0
7 20	21 17.55	- 4 55.9	1.117	2.083	11.8	19.4	7 20	21 18.84	-21 47.5	1.782	2.763	6.8	20.8
7 30	21 9.82	- 5 18.2	1.108	2.104	7.3	19.2	7 30	21 10.41	-22 25.6	1.746	2.754	3.2	20.5
8 9	21 1.43	- 5 57.8	1.121	2.126	5.0	19.1	8 9	21 1.17	-22 59.4	1.737	2.745	2.9	20.5
8 19	20 53.68	- 6 48.3	1.157	2.148	7.4	19.3	8 19	20 52.15	-23 24.5	1.755	2.736	6.6	20.7
8 29	20 47.75	- 7 42.5	1.216	2.172	11.5	19.6	8 29	20 44.38	-23 38.2	1.799	2.726	10.4	20.9
9 8	20 44.44	- 8 33.6	1.296	2.196	15.4	19.9	9 8	20 38.70	-23 39.6	1.866	2.717	13.7	21.1
33169	1998 <i>EU</i> ₁₀		8 5.8 120°64'	1°2'	6.8	18	508323	2015 <i>LR</i> ₂₄		8 5.8 93°79'	12°4'	15.2	18
6 30	21 27.55	- 9 11.3	1.832	2.666	15.1	18.5	6 30	21 34.26	+17 57.2	2.239	2.888	17.7	20.4
7 10	21 23.55	- 9 59.3	1.759	2.672	11.8	18.3	7 10	21 28.39	+19 52.3	2.173	2.902	16.2	20.3
7 20	21 17.44	-11 3.3	1.706	2.678	7.9	18.1	7 20	21 20.48	+21 25.2	2.123	2.916	14.7	20.2
7 30	21 9.78	-12 19.6	1.678	2.684	3.7	17.8	7 30	21 11.05	+22 30.6	2.095	2.930	13.4	20.1
8 9	21 1.42	-13 42.4	1.677	2.689	1.6	17.7	8 9	21 0.91	+23 5.5	2.087	2.944	12.6	20.1
8 19	20 53.31	-15 5.1	1.704	2.695	5.5	18.0	8 19	20 50.95	+23 9.7	2.103	2.958	12.5	20.1
8 29	20 46.42	-16 21.4	1.757	2.700	9.5	18.2	8 29	20 42.12	+22 46.0	2.140	2.971	13.1	20.2
9 8	20 41.51	-17 26.9	1.834	2.705	13.1	18.4	9 8	20 35.16	+22 0.8	2.198	2.985	14.1	20.3
39788	1997 <i>MQ</i> ₆		8 5.8 327°36'	8°4'	28.9	18	144231	2004 <i>CV</i> ₅₂		8 5.8 65°49'	2°5'	4.4	17
6 30	21 27.13	-35 4.7	1.872	2.739	13.4	18.1	6 30	21 32.21	-19 54.5	1.396	2.265	17.1	19.3
7 10	21 23.86	-36 53.1	1.802	2.725	11.0	17.9	7 10	21 27.65	-20 36.0	1.343	2.280	13.0	19.1
7 20	21 18.02	-38 39.0	1.755	2.711	9.1	17.8	7 20	21 20.31	-21 24.9	1.311	2.295	8.4	18.9
7 30	21 10.14	-40 12.8	1.733	2.698	8.4	17.7	7 30	21 11.00	-22 14.4	1.302	2.310	3.8	18.6
8 9	21 1.22	-41 25.8	1.736	2.685	9.4	17.8	8 9	21 0.98	-22 57.2	1.318	2.326	3.5	18.7
8 19	20 52.46	-42 12.3	1.762	2.673	11.7	17.9	8 19	20 51.58	-23 27.9	1.358	2.341	7.8	19.0
8 29	20 45.13	-42 30.6	1.810	2.661	14.2	18.0	8 29	20 44.06	-23 43.8	1.423	2.357	12.1	19.3
9 8	20 40.22	-42 22.6	1.877	2.650	16.7	18.2	9 8	20 39.23	-23 44.6	1.509	2.372	15.8	19.5
508853	2002 <i>GB</i> ₇₁		8 5.8 175°06'	10°8'	29.6	18	177333	2003 <i>YH</i> ₇₇		8 5.8 171°77'	1°0'	5.2	17
6 30	21 49.56	-49 32.3	2.206	3.004	14.1	21.9	6 30	21 32.88	-17 17.3	1.824	2.671	14.6	21.7
7 10	21 40.77	-50 33.5	2.153	3.006	12.5	21.8	7 10	21 27.72	-17 48.1	1.749	2.674	11.2	21.4
7 20	21 28.71	-51 18.5	2.122	3.008	11.3	21.7	7 20	21 20.20	-18 27.1	1.697	2.676	7.3	21.2
7 30	21 14.39	-51 38.4	2.113	3.009	10.8	21.7	7 30	21 10.97	-19 9.8	1.669	2.678	3.0	21.0
8 9	20 59.37	-51 27.4	2.129	3.010	11.3	21.7	8 9	21 0.98	-19 50.8	1.669	2.680	2.0	20.9
8 19	20 45.31	-50 44.6	2.168	3.011	12.6	21.8	8 19	20 51.30	-20 25.4	1.696	2.680	6.3	21.2
8 29	20 33.70	-49 33.7	2.229	3.010	14.2	21.9	8 29	20 43.01	-20 50.3	1.749	2.681	10.3	21.4
9 8	20 25.38	-48 1.2	2.310	3.010	15.8	22.1	9 8	20 36.93	-21 3.9	1.824	2.681	13.8	21.6
294326	2007 <i>VR</i> ₅₈		8 5.8 347°99'	0°8'	6.3	18	514432	2016 <i>UG</i> ₂₂		8 5.8 319°50'	0°0'	5.7	18
6 30	21 28.31	-13 52.9	1.741	2.591	15.1	20.5	6 30	21 26.13	-13 20.8	1.690	2.544	15.3	20.6
7 10	21 24.28	-13 55.4	1.664	2.588	11.7	20.3	7 10	21 22.80	-13 59.0	1.609	2.537	11.8	20.4
7 20	21 17.99	-14 7.9	1.608	2.586	7.8	20.0	7 20	21 17.16	-14 50.9	1.549	2.529	7.8	20.1
7 30	21 10.04	-14 27.7	1.576	2.584	3.4	19.8	7 30	21 9.77	-15 52.3	1.513	2.522	3.3	19.8
8 9	21 1.34	-14 51.2	1.570	2.582	1.5	19.6	8 9	21 1.52	-16 57.6	1.503	2.515	1.5	19.7
8 19	20 52.92	-15 14.4	1.590	2.581	5.8	19.9	8 19	20 53.45	-18 0.3	1.519	2.509	6.2	20.0
8 29	20 45.82	-15 33.7	1.635	2.580	10.0	20.2	8 29	20 46.66	-18 54.8	1.560	2.502	10.5	20.2
9 8	20 40.85	-15 46.7	1.703	2.579	13.6	20.4	9 8	20 42.00	-19 37.6	1.623	2.496	14.3	20.4
507827	2014 <i>DV</i> ₁₄₅		8 5.8 195°35'	1°3'	6.8	18	477583	2010 <i>JO</i> ₄₃		8 5.9 63°83'	3°9'	2.9	16
6 30	21 27.83	-11 1.7	2.050	2.882	13.8	22.0	6 30	21 29.18	-24 0.0	1.840	2.704	13.8	21.1
7 10	21 23.58	-11 18.5	1.968	2.881	10.8	21.8	7 10	21 24.94	-25 1.8	1.777	2.710	10.5	20.9
7 20	21 17.38	-11 46.8	1.909	2.881	7.3	21.6	7 20	21 18.41	-26 7.1	1.736	2.717	7.1	20.7
7 30	21 9.76	-12 24.3	1.874	2.880	3.5	21.4	7 30	21 10.24	-27 9.3	1.721	2.723	4.2	20.5
8 9	21 1.47	-13 7.1	1.867	2.878	1.6	21.3	8 9	21 1.37	-28 1.9	1.732	2.730	4.7	20.6
8 19	20 53.39	-13 51.1	1.887	2.877	5.1	21.5	8 19	20 52.86	-28 39.9	1.769	2.737	7.7	20.8
8 29	20 46.41	-14 32.3	1.934	2.876	8.8	21.7	8 29	20 45.74	-29 0.9	1.831	2.743	11.1	21.0
9 8	20 41.23	-15 7.3	2.004	2.874	12.2	21.9	9 8	20 40.79	-29 5.2	1.915	2.750	14.1	21.2
22896	1999 <i>TU</i> ₆		8 5.8 355°89'	3°0'	4.4	18	49762	1999 <i>VQ</i> ₂₀₇		8 5.9 200°50'	17°8'	15.9	18
6 30	21 29.21	-20 57.1	1.179	2.065	18.4	18.0	6 30	21 33.47	+17 59.9	1.361	2.069	25.1	19.3
7 10	21 26.04	-21 25.3	1.116	2.061	14.2	17.7	7 10	21 29.16	+20 9.7	1.291	2.068	23.2	19.1
7 20	21 19.65	-22 1.2	1.071	2.059	9.3	17.4	7 20	21 21.75	+21 48.3	1.235	2.066	21.1	19.0
7 30	21 10.85	-22 37.9	1.048	2.057	4.3	17.2	7 30	21 11.84	+22 45.6	1.194	2.063	19.3	18.8
8 9	21 0.97	-23 7.7	1.048	2.056	4.0	17.1	8 9	21 0.56	+22 55.0	1.170	2.059	18.0	18.7
8 19	20 51.60	-23 24.6	1.070	2.056	8.8	17.4	8 19	20 49.36	+22 15.0	1.164	2.056	17.8	18.7
8 29	20 44.27	-23 25.5	1.115	2.057	13.8	17.7	8 29	20 39.83	+20 51.0	1.177	2.051	18.7	18.8
9 8	20 40.01	-23 10.4	1.178	2.059	18.1	18.0	9 8	20 33.19	+18 55.1	1.207	2.047	20.4	18.9
184555	2005 <i>QR</i> ₅₀		8 5.8 354°64'	4°5'	3.8	17	440965	2007 <i>BZ</i> ₇₀		8 5.9 105°65'	0°0'	5.9	18
6 30	21 23.39	-23 9.4	0.992	1.898	19.4	19.2	6 30	21 29.82	-16 4.5	2.432	3.266	11.8	21.2
7 10	21 22.07	-23 43.8	0.933	1.889	14.9	18.9	7 10	21 24.69	-16 5.3	2.360	3.276	9.1	21.1
7 20	21 17.33	-24 24.4	0.891	1.882	9.9	18.6	7 20	21 17.89	-16 11.5	2.311	3.287	5.9	20.9
7 30	21 9.94	-25 2.9	0.869	1.878	5.4	18.3	7 30	21 9.93	-16 20.9	2.289	3.297	2.5	20.7
8 9	21 1.38	-25 30.3	0.868	1.875	5.5	18.3	8 9	21 1.54	-16 30.8	2.295	3.308	1.1	20.6
8 19	20 53.36	-25 39.9	0.888	1.873	10.2	18.6	8 19	20 53.44	-16 38.9	2.330	3.318	4.6	20.8
8 29	20 47.55	-25 28.8	0.927	1.874	15.3	18.8	8 29	20 46.38	-16 43.4	2.392	3.328	7.7	21.1
9 8	20 45.04	-24 58.3	0.984	1.877	19.7	19.1	9 8	20 40.92	-16 43.0	2.480	3.337	10.5	21.3
126575	2002 <i>CA</i> ₁₁₃		8 5.8 40°40'	0°0'	5.8	18	294332	2007 <i>VS</i> ₇₂		8 5.9 265°77'</			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
372888	2010 YC ₃		8 5.9 214°76	2°2/ 4.6 18			262055	2006 RC ₁₆		8 5.9 334°62	4°9/ 9.4 18		
6 30	21 33.96	-20 53.1	1.739	2.594	14.9	20.8	6 30	21 24.89	-1 53.2	1.356	2.188	19.5	19.8
7 10	21 28.75	-21 15.7	1.661	2.590	11.5	20.6	7 10	21 22.30	-2 15.1	1.278	2.183	16.0	19.6
7 20	21 21.01	-21 43.4	1.605	2.586	7.5	20.3	7 20	21 17.09	-3 4.6	1.219	2.178	11.8	19.3
7 30	21 11.36	-22 11.0	1.573	2.581	3.4	20.1	7 30	21 9.85	-4 21.0	1.180	2.173	7.5	19.1
8 9	21 0.85	-22 33.4	1.568	2.576	3.0	20.0	8 9	21 1.58	-5 59.1	1.165	2.169	4.9	18.9
8 19	20 50.67	-22 46.3	1.589	2.571	7.0	20.3	8 19	20 53.51	-7 50.4	1.174	2.166	7.2	19.1
8 29	20 41.99	-22 47.6	1.636	2.565	11.1	20.5	8 29	20 46.93	-9 43.9	1.207	2.163	11.6	19.3
9 8	20 35.70	-22 37.1	1.705	2.559	14.7	20.7	9 8	20 42.82	-11 29.9	1.262	2.160	15.9	19.5
498761	2008 UH ₃₃		8 5.9 349°47	4°6/ 8.2 17			335087	2004 TE ₁₁		8 5.9 253°51	19°3/ 14.8 17		
6 30	21 14.45	-7 50.8	0.753	1.662	23.6	20.4	6 30	21 33.01	+17 47.5	1.288	2.006	25.9	20.2
7 10	21 15.62	-7 30.4	0.694	1.647	19.1	20.1	7 10	21 29.06	+20 25.1	1.218	1.999	24.1	20.1
7 20	21 13.41	-7 37.9	0.649	1.635	13.7	19.7	7 20	21 21.87	+22 33.1	1.162	1.992	22.2	19.9
7 30	21 8.47	-8 14.3	0.619	1.625	7.9	19.4	7 30	21 11.99	+24 0.1	1.120	1.985	20.5	19.8
8 9	21 2.14	-9 14.7	0.607	1.617	4.7	19.2	8 9	21 0.55	+24 37.3	1.095	1.977	19.5	19.7
8 19	20 56.16	-10 29.6	0.612	1.613	8.9	19.4	8 19	20 49.08	+24 21.5	1.086	1.970	19.4	19.6
8 29	20 52.35	-11 46.1	0.635	1.611	14.9	19.7	8 29	20 39.29	+23 16.7	1.095	1.962	20.3	19.7
9 8	20 51.99	-12 52.9	0.674	1.611	20.4	20.0	9 8	20 32.52	+21 34.5	1.120	1.954	22.0	19.8
186749	2004 CQ ₆₇		8 5.9 188°35	1°7/ 4.7 17			481279	2005 YR ₄₅		8 5.9 321°40	1°9/ 4.1 18		
6 30	21 32.81	-18 53.7	1.915	2.763	14.0	21.7	6 30	21 25.71	-18 51.3	2.305	3.156	11.8	21.0
7 10	21 27.64	-19 33.1	1.837	2.762	10.7	21.5	7 10	21 21.89	-19 52.0	2.228	3.155	9.0	20.8
7 20	21 20.17	-20 19.5	1.781	2.761	7.0	21.3	7 20	21 16.28	-20 59.7	2.173	3.155	5.8	20.6
7 30	21 11.00	-21 8.2	1.751	2.760	3.0	21.0	7 30	21 9.37	-22 9.6	2.146	3.154	2.7	20.4
8 9	21 1.04	-21 53.4	1.749	2.758	2.6	21.0	8 9	21 1.85	-23 16.6	2.146	3.153	2.6	20.4
8 19	20 51.34	-22 30.5	1.773	2.755	6.4	21.2	8 19	20 54.49	-24 15.7	2.175	3.152	5.7	20.6
8 29	20 42.96	-22 56.1	1.825	2.751	10.3	21.5	8 29	20 48.10	-25 3.5	2.230	3.152	8.9	20.8
9 8	20 36.72	-23 9.1	1.899	2.747	13.7	21.7	9 8	20 43.33	-25 38.2	2.309	3.151	11.8	21.0
91950	1999 VN ₆₈		8 5.9 271°47	7°2/ 29.9 18			77378	2001 FE ₁₃₈		8 5.9 18°11	4°3/ 3.2 18		
6 30	21 30.33	-36 36.6	2.331	3.181	11.8	19.9	6 30	21 27.54	-21 18.3	1.221	2.107	17.9	19.0
7 10	21 25.76	-37 56.7	2.263	3.173	9.7	19.7	7 10	21 24.67	-22 35.1	1.164	2.111	13.6	18.7
7 20	21 18.96	-39 12.0	2.217	3.166	7.9	19.6	7 20	21 18.75	-24 1.3	1.127	2.114	9.0	18.5
7 30	21 10.51	-40 15.5	2.198	3.158	7.2	19.5	7 30	21 10.54	-25 27.6	1.113	2.119	4.9	18.3
8 9	21 1.26	-41 1.0	2.204	3.150	7.9	19.6	8 9	21 1.32	-26 43.2	1.121	2.125	5.4	18.3
8 19	20 52.24	-41 25.1	2.235	3.142	9.7	19.7	8 19	20 52.60	-27 39.9	1.153	2.131	9.6	18.6
8 29	20 44.47	-41 26.8	2.290	3.134	11.9	19.8	8 29	20 45.82	-28 13.2	1.207	2.137	14.1	18.9
9 8	20 38.75	-41 8.2	2.365	3.126	13.9	19.9	9 8	20 41.97	-28 23.3	1.280	2.145	18.0	19.1
164326	2005 AJ ₄₉		8 5.9 255°06	0°8/ 5.2 18			191083	2002 CR ₂₄₈		8 5.9 117°56	2°3/ 7.6 17		
6 30	21 27.37	-13 56.7	1.956	2.801	13.9	20.3	6 30	21 30.20	-8 9.7	2.025	2.843	14.4	20.8
7 10	21 23.55	-15 4.7	1.866	2.790	10.7	20.1	7 10	21 25.28	-8 21.3	1.956	2.859	11.4	20.6
7 20	21 17.59	-16 26.5	1.799	2.779	6.9	19.8	7 20	21 18.43	-8 46.0	1.909	2.873	7.9	20.5
7 30	21 9.98	-17 57.3	1.758	2.767	2.8	19.5	7 30	21 10.23	-9 21.7	1.887	2.888	4.2	20.3
8 9	21 1.50	-19 30.4	1.744	2.755	1.9	19.4	8 9	21 1.48	-10 5.0	1.892	2.902	2.4	20.2
8 19	20 53.08	-20 58.6	1.758	2.743	6.1	19.7	8 19	20 53.06	-10 51.6	1.926	2.915	5.1	20.4
8 29	20 45.74	-22 15.9	1.799	2.731	10.1	19.9	8 29	20 45.83	-11 37.1	1.986	2.928	8.6	20.6
9 8	20 40.31	-23 18.6	1.863	2.718	13.6	20.1	9 8	20 40.45	-12 18.1	2.070	2.941	11.8	20.8
236499	2006 GP ₂₁		8 5.9 194°60	1°7/ 7.1 16			254267	2004 RV ₁₈₄		8 5.9 297°04	4°5/ 9.6 18		
6 30	21 28.99	-10 2.2	1.995	2.824	14.3	22.0	6 30	21 25.12	-1 53.0	2.251	3.046	13.9	20.6
7 10	21 24.55	-10 14.9	1.913	2.823	11.2	21.8	7 10	21 21.41	-1 43.2	2.160	3.039	11.4	20.4
7 20	21 18.09	-10 39.9	1.852	2.821	7.6	21.5	7 20	21 15.96	-1 48.7	2.090	3.033	8.7	20.2
7 30	21 10.13	-11 15.2	1.816	2.820	3.8	21.3	7 30	21 9.25	-2 9.5	2.045	3.026	6.0	20.0
8 9	21 1.47	-11 57.0	1.807	2.818	1.9	21.2	8 9	21 1.91	-2 44.0	2.025	3.020	4.5	19.9
8 19	20 53.02	-12 41.3	1.825	2.815	5.3	21.4	8 19	20 54.70	-3 29.2	2.032	3.013	5.7	20.0
8 29	20 45.69	-13 23.7	1.870	2.813	9.1	21.6	8 29	20 48.39	-4 20.9	2.066	3.007	8.4	20.1
9 8	20 40.23	-14 0.7	1.939	2.810	12.4	21.8	9 8	20 43.62	-5 14.4	2.124	3.001	11.3	20.3
364074	2005 YL ₂₄		8 5.9 92°90	2°8/ 7.2 17			470842	2008 XM ₂₁		8 5.9 225°61	3°6/ 2.8 18		
6 30	21 35.26	-10 26.1	1.349	2.194	18.9	20.6	6 30	21 29.02	-22 55.0	2.020	2.878	13.0	21.4
7 10	21 29.98	-10 7.0	1.290	2.208	14.9	20.4	7 10	21 24.79	-24 8.6	1.943	2.873	9.9	21.2
7 20	21 21.85	-10 2.5	1.250	2.222	10.2	20.2	7 20	21 18.37	-25 27.8	1.889	2.868	6.6	21.0
7 30	21 11.70	-10 11.1	1.233	2.236	5.3	19.9	7 30	21 10.31	-26 46.1	1.860	2.863	3.9	20.8
8 9	21 0.78	-10 28.9	1.240	2.250	2.9	19.8	8 9	21 1.44	-27 56.7	1.860	2.858	4.4	20.8
8 19	20 50.48	-10 51.6	1.272	2.263	6.9	20.1	8 19	20 52.74	-28 53.8	1.886	2.852	7.5	21.0
8 29	20 42.07	-11 14.5	1.329	2.277	11.5	20.4	8 29	20 45.23	-29 34.1	1.938	2.847	10.8	21.2
9 8	20 36.43	-11 33.7	1.407	2.289	15.6	20.7	9 8	20 39.71	-29 56.7	2.013	2.841	13.8	21.4
114418	2002 YO ₃₁		8 5.9 164°42	3°8/ 2.8 18			388719	2007 VE ₁₄₇		8 5.9 244°37	1°7/ 4.5 18		
6 30	21 31.41	-22 52.5	1.963	2.818	13.4	19.2	6 30	21 28.14	-18 50.0	2.032	2.884	13.1	21.0
7 10	21 26.60	-24 12.7	1.893	2.822	10.3	19.0	7 10	21 23.98	-19 34.1	1.953	2.881	10.0	20.8
7 20	21 19.51	-25 38.3	1.847	2.826	6.8	18.8	7 20	21 17.76	-20 25.3	1.896	2.878	6.5	20.6
7 30	21 10.75	-27 2.2	1.827	2.830	4.1	18.6	7 30	21 10.03	-21 19.0	1.865	2.874	2.9	20.3
8 9	21 1.20	-28 17.0	1.835	2.833	4.6	18.7	8 9	21 1.58	-22 9.9	1.862	2.870	2.5	20.3
8 19	20 51.90	-29 16.9	1.871	2.835	7.6	18.9	8 19	20 53.34	-22 53.3	1.885	2.867	6.1	20.5
8 29	20 43.90	-29 58.7	1.932	2.837	11.0	19.1	8 29	20 46.25	-23 25.7	1.935	2.863	9.7	20.8
9 8	20 38.02	-30 22.1	2.015	2.838	13.9	19.3	9 8	20 41.04	-23 45.7	2.008	2.859	12.9	21.0
470634	2008 SK ₅₇		8 5.9 346°83	1°5/ 6.6 16			174507	2003 BN ₆₃		8 5.9 116°29	0°3/ 6.2 16		
6 30	21 22.13	-12 17.3	1.155	2.036									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
132619	2002 LR ₆		8 5.9 19°89	7.7/11.8	18		396223	2014 AJ ₂₇		8 5.9 185°95	1.1/ 6.9	18	
6 30	21 26.49	+ 4 56.3	1.858	2.629	17.3	19.5	6 30	21 28.44	- 9 50.5	2.286	3.107	12.9	22.1
7 10	21 22.78	+ 5 24.5	1.778	2.629	14.8	19.3	7 10	21 23.93	-10 28.3	2.200	3.107	10.1	21.9
7 20	21 17.02	+ 5 30.7	1.716	2.630	12.0	19.1	7 20	21 17.61	-11 18.4	2.137	3.106	6.8	21.7
7 30	21 9.73	+ 5 12.7	1.675	2.630	9.4	18.9	7 30	21 9.97	-12 18.2	2.100	3.105	3.2	21.5
8 9	21 1.72	+ 4 31.4	1.658	2.631	7.8	18.9	8 9	21 1.69	-13 23.4	2.092	3.103	1.4	21.4
8 19	20 53.90	+ 3 30.1	1.666	2.631	8.3	18.9	8 19	20 53.56	-14 29.2	2.112	3.101	4.8	21.6
8 29	20 47.21	+ 2 14.6	1.699	2.632	10.5	19.0	8 29	20 46.39	-15 31.1	2.160	3.098	8.3	21.8
9 8	20 42.41	+ 0 52.4	1.755	2.633	13.2	19.2	9 8	20 40.85	-16 25.5	2.233	3.095	11.4	22.0
445496	2010 VG ₁₉₉		8 5.9 230°03	3.4/ 8.9	18		263679	2008 GM ₁₂₇		8 5.9 327°42	3.2/ 8.9	18	
6 30	21 26.50	- 4 2.5	2.812	3.601	11.6	21.8	6 30	21 24.32	- 3 51.3	2.227	3.033	13.7	20.7
7 10	21 22.12	- 3 53.2	2.712	3.591	9.4	21.7	7 10	21 20.82	- 4 13.4	2.140	3.031	11.0	20.5
7 20	21 16.27	- 3 55.0	2.635	3.580	7.0	21.5	7 20	21 15.61	- 4 51.5	2.075	3.029	8.0	20.4
7 30	21 9.35	- 4 7.5	2.584	3.570	4.6	21.3	7 30	21 9.14	- 5 44.3	2.035	3.027	4.9	20.2
8 9	21 1.91	- 4 29.5	2.560	3.558	3.4	21.2	8 9	21 2.08	- 6 48.5	2.021	3.025	3.2	20.1
8 19	20 54.54	- 4 58.8	2.565	3.547	4.7	21.3	8 19	20 55.16	- 7 59.8	2.035	3.023	5.0	20.2
8 29	20 47.89	- 5 32.5	2.598	3.535	7.1	21.4	8 29	20 49.16	- 9 12.9	2.076	3.021	8.1	20.4
9 8	20 42.52	- 6 7.7	2.657	3.523	9.6	21.6	9 8	20 44.70	-10 22.8	2.142	3.020	11.2	20.5
513372	2008 EA ₁₂₁		8 5.9 144°65	2.1/ 7.9	18		110441	2001 TP ₃₅		8 5.9 147°07	6.5/ 1.4	18	
6 30	21 26.66	- 7 10.2	2.693	3.498	11.6	22.4	6 30	21 37.41	-33 45.6	2.084	2.930	13.1	19.4
7 10	21 22.20	- 7 28.2	2.614	3.507	9.2	22.2	7 10	21 31.11	-34 43.9	2.025	2.939	10.5	19.2
7 20	21 16.28	- 7 57.2	2.557	3.516	6.4	22.1	7 20	21 22.38	-35 37.2	1.990	2.948	8.0	19.1
7 30	21 9.34	- 8 35.4	2.527	3.525	3.6	21.9	7 30	21 11.94	-36 18.2	1.979	2.956	6.5	19.0
8 9	21 1.96	- 9 20.3	2.525	3.532	2.1	21.8	8 9	21 0.85	-36 41.2	1.996	2.964	7.1	19.1
8 19	20 54.76	-10 8.4	2.552	3.540	4.2	22.0	8 19	20 50.25	-36 43.6	2.038	2.971	9.2	19.2
8 29	20 48.38	-10 56.5	2.607	3.547	7.0	22.1	8 29	20 41.25	-36 25.4	2.106	2.978	11.7	19.4
9 8	20 43.35	-11 41.3	2.688	3.554	9.6	22.3	9 8	20 34.62	-35 49.8	2.195	2.984	14.1	19.6
81038	2000 EA ₅₆		8 5.9 232°87	1.4/ 4.9	18		232559	2003 SO ₂₇₁		8 5.9 341°02	10.4/29.7	18	
6 30	21 32.26	-18 16.5	1.804	2.654	14.6	20.1	6 30	21 31.39	-37 49.7	1.494	2.365	16.0	19.2
7 10	21 27.46	-18 46.9	1.718	2.645	11.3	19.9	7 10	21 27.78	-39 24.5	1.436	2.357	13.4	19.0
7 20	21 20.23	-19 25.3	1.655	2.635	7.3	19.6	7 20	21 20.90	-40 51.7	1.398	2.350	11.2	18.9
7 30	21 11.13	-20 7.0	1.616	2.625	3.1	19.4	7 30	21 11.52	-42 0.1	1.382	2.344	10.4	18.8
8 9	21 1.11	-20 46.7	1.604	2.615	2.4	19.3	8 9	21 1.01	-42 40.2	1.389	2.338	11.4	18.9
8 19	20 51.28	-21 19.3	1.620	2.604	6.6	19.5	8 19	20 50.99	-42 47.1	1.418	2.333	13.6	19.0
8 29	20 42.78	-21 41.3	1.661	2.592	10.8	19.7	8 29	20 43.03	-42 21.5	1.467	2.329	16.4	19.1
9 8	20 36.52	-21 51.3	1.724	2.581	14.4	20.0	9 8	20 38.19	-41 28.4	1.533	2.325	19.0	19.3
129988	Camerondickinson		8 5.9 271°77	8.8/30.2	18		153541	2001 SW ₁₀₆		8 5.9 286°01	3.5/ 4.1	18	
6 30	21 34.96	-37 50.1	1.878	2.730	14.0	19.6	6 30	21 33.94	-23 53.0	1.643	2.505	15.3	19.9
7 10	21 29.96	-39 10.3	1.806	2.717	11.7	19.5	7 10	21 29.22	-24 16.0	1.551	2.483	11.9	19.6
7 20	21 22.07	-40 24.4	1.756	2.703	9.7	19.3	7 20	21 21.65	-24 42.2	1.480	2.461	8.0	19.4
7 30	21 11.94	-41 23.0	1.730	2.689	8.8	19.2	7 30	21 11.84	-25 5.8	1.433	2.439	4.3	19.1
8 9	21 0.74	-41 58.2	1.728	2.675	9.7	19.3	8 9	21 0.84	-25 20.5	1.412	2.417	4.2	19.0
8 19	20 49.84	-42 5.7	1.750	2.661	11.8	19.4	8 19	20 49.98	-25 21.8	1.417	2.394	8.1	19.2
8 29	20 40.64	-41 45.3	1.795	2.646	14.3	19.5	8 29	20 40.64	-25 7.7	1.446	2.372	12.5	19.4
9 8	20 34.17	-41 0.9	1.859	2.632	16.8	19.6	9 8	20 33.91	-24 39.0	1.496	2.350	16.4	19.6
447210	2005 TN ₅₈		8 5.9 314°35	7.9/30.9	18		279713	2011 GB ₄₇		8 5.9 292°15	2.5/ 4.4	18	
6 30	21 32.03	-36 30.7	1.935	2.792	13.5	20.7	6 30	21 30.75	-20 45.3	1.667	2.529	15.1	21.1
7 10	21 27.49	-37 35.5	1.863	2.779	11.1	20.6	7 10	21 26.44	-21 20.0	1.592	2.525	11.6	20.8
7 20	21 20.32	-38 34.5	1.813	2.767	9.0	20.4	7 20	21 19.61	-22 0.8	1.538	2.521	7.5	20.6
7 30	21 11.17	-39 19.6	1.787	2.754	7.9	20.3	7 30	21 10.89	-22 42.5	1.509	2.517	3.5	20.3
8 9	21 1.11	-39 44.2	1.785	2.742	8.7	20.3	8 9	21 1.30	-23 18.8	1.505	2.513	3.3	20.3
8 19	20 51.39	-39 44.5	1.808	2.730	10.8	20.4	8 19	20 52.03	-23 44.7	1.528	2.509	7.3	20.5
8 29	20 43.23	-39 20.3	1.854	2.719	13.3	20.6	8 29	20 44.23	-23 57.5	1.575	2.505	11.4	20.8
9 8	20 37.54	-38 34.7	1.919	2.708	15.8	20.7	9 8	20 38.81	-23 56.4	1.644	2.502	15.0	21.0
206031	2002 QQ ₄		8 5.9 325°19	2.7/ 7.7	18		314539	2005 YQ ₇₃		8 5.9 203°12	4.0/ 1.8	18	
6 30	21 25.45	- 8 4.8	1.658	2.498	16.2	19.9	6 30	21 27.91	-27 12.3	2.642	3.493	10.5	20.9
7 10	21 22.33	- 8 12.0	1.573	2.488	12.9	19.6	7 10	21 23.47	-28 19.4	2.566	3.490	8.1	20.7
7 20	21 16.92	- 8 35.5	1.508	2.477	9.0	19.4	7 20	21 17.29	-29 27.5	2.514	3.487	5.7	20.6
7 30	21 9.77	- 9 14.0	1.466	2.468	5.0	19.1	7 30	21 9.84	-30 31.4	2.490	3.484	4.1	20.5
8 9	21 1.74	-10 3.7	1.449	2.459	2.8	19.0	8 9	21 1.78	-31 26.3	2.494	3.480	4.6	20.5
8 19	20 53.87	-10 59.4	1.457	2.450	6.0	19.1	8 19	20 53.88	-32 8.5	2.526	3.476	6.7	20.6
8 29	20 47.23	-11 55.2	1.491	2.441	10.3	19.4	8 29	20 46.89	-32 35.7	2.584	3.472	9.2	20.8
9 8	20 42.70	-12 45.9	1.547	2.434	14.1	19.6	9 8	20 41.48	-32 48.0	2.665	3.468	11.5	20.9
373635	2002 OO ₂₀		8 5.9 15°98	5.1/ 8.8	17		347278	2011 LS ₅		8 5.9 331°22	9.2/11.5	18	
6 30	21 17.87	- 5 34.5	0.787	1.682	24.2	20.0	6 30	21 24.29	+ 3 49.0	1.492	2.292	19.6	20.4
7 10	21 17.85	- 5 25.1	0.749	1.692	19.4	19.8	7 10	21 21.71	+ 4 42.5	1.408	2.278	16.9	20.1
7 20	21 14.53	- 5 46.6	0.725	1.705	13.9	19.6	7 20	21 16.69	+ 5 12.4	1.340	2.265	13.9	19.9
7 30	21 8.82	- 6 37.4	0.718	1.720	8.3	19.3	7 30	21 9.75	+ 5 14.8	1.292	2.253	11.0	19.7
8 9	21 2.23	- 7 49.7	0.729	1.738	5.1	19.2	8 9	21 1.80	+ 4 48.8	1.266	2.242	9.3	19.6
8 19	20 56.35	- 9 12.2	0.760	1.759	8.3	19.5	8 19	20 53.94	+ 3 56.6	1.262	2.231	9.9	19.6
8 29	20 52.66	-10 32.9	0.811	1.781	13.4	19.9	8 29	20 47.38	+ 2 44.8	1.281	2.221	12.5	19.7
9 8	20 52.02	-11 42.1	0.879	1.805	18.1	20.2	9 8	20 43.08	+ 1 22.1	1.320	2.213	15.7	19.9
313289	2002 CX ₇₀		8 5.9 145°06	0.1/ 5.8	17		60430	2000 CF ₅₅		8 5.9 319°20	0.5/ 6.2	18	
6 30	21 32.44	-13 53.8	1.619										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
221037	2005 <i>QL</i> ₆₆		8 5.9 323°91	6°7/10.3	18		108517	2001 <i>KV</i> ₇₅		8 5.9 168°13	1°4/ 4.6	18	
6 30	21 20.39	- 0 0.0	1.235	2.074	20.7	19.6	6 30	21 29.29	-17 59.4	2.418	3.258	11.7	20.6
7 10	21 19.30	+ 0 1.7	1.141	2.046	17.4	19.3	7 10	21 24.52	-18 53.5	2.341	3.262	8.9	20.4
7 20	21 15.50	- 0 27.0	1.063	2.019	13.5	18.9	7 20	21 17.98	-19 54.4	2.287	3.266	5.7	20.2
7 30	21 9.40	- 1 29.2	1.005	1.993	9.4	18.6	7 30	21 10.16	-20 57.7	2.261	3.269	2.5	20.0
8 9	21 1.94	- 3 3.2	0.968	1.968	6.8	18.4	8 9	21 1.74	-21 58.5	2.263	3.272	2.2	20.0
8 19	20 54.38	- 5 2.1	0.953	1.944	8.5	18.4	8 19	20 53.51	-22 52.5	2.294	3.274	5.3	20.2
8 29	20 48.21	- 7 13.9	0.960	1.921	13.0	18.6	8 29	20 46.26	-23 36.4	2.353	3.275	8.5	20.4
9 8	20 44.68	- 9 25.1	0.987	1.900	17.9	18.8	9 8	20 40.63	-24 8.6	2.437	3.277	11.3	20.6
444667	2007 <i>DS</i> ₁₈		8 5.9 114°58	1°7/ 4.6	18		72044	2000 <i>YH</i> ₅		8 5.9 328°44	6°3/ 2.2	18	
6 30	21 29.77	-21 12.6	2.401	3.247	11.6	21.6	6 30	21 21.77	-23 27.0	0.993	1.901	19.1	18.4
7 10	21 24.81	-21 31.1	2.329	3.253	8.8	21.4	7 10	21 21.31	-24 44.5	0.915	1.873	15.0	18.0
7 20	21 18.09	-21 52.5	2.280	3.259	5.7	21.2	7 20	21 17.33	-26 15.4	0.855	1.846	10.3	17.7
7 30	21 10.15	-22 13.3	2.258	3.265	2.6	21.0	7 30	21 10.33	-27 49.4	0.814	1.820	6.6	17.4
8 9	21 1.72	-22 30.1	2.264	3.271	2.3	21.0	8 9	21 1.57	-29 12.6	0.794	1.795	7.7	17.3
8 19	20 53.58	-22 40.3	2.298	3.277	5.3	21.2	8 19	20 52.82	-30 12.4	0.794	1.772	12.6	17.5
8 29	20 46.51	-22 42.3	2.359	3.283	8.4	21.4	8 29	20 46.12	-30 41.1	0.813	1.751	18.0	17.7
9 8	20 41.11	-22 35.6	2.444	3.289	11.1	21.6	9 8	20 43.02	-30 37.6	0.847	1.732	22.9	17.9
468066	2013 <i>SB</i> ₄₁		8 5.9 339°81	4°4/ 8.2	17		314915	2006 <i>VS</i> ₁₇₀		8 5.9 222°12	0°6/ 5.4	18	
6 30	21 23.84	- 7 8.8	1.124	1.991	20.5	20.8	6 30	21 28.86	-17 35.9	2.516	3.353	11.4	21.3
7 10	21 22.04	- 6 50.3	1.050	1.978	16.6	20.5	7 10	21 24.13	-17 51.6	2.428	3.348	8.7	21.1
7 20	21 17.24	- 6 53.4	0.993	1.967	11.9	20.2	7 20	21 17.70	-18 12.4	2.364	3.341	5.7	20.9
7 30	21 10.08	- 7 18.2	0.956	1.957	7.1	19.9	7 30	21 10.04	-18 35.7	2.326	3.335	2.3	20.7
8 9	21 1.69	- 8 1.4	0.940	1.948	4.5	19.7	8 9	21 1.81	-18 58.3	2.317	3.328	1.4	20.6
8 19	20 53.53	- 8 56.8	0.946	1.941	7.9	19.9	8 19	20 53.75	-19 17.2	2.336	3.322	4.8	20.9
8 29	20 47.11	- 9 56.1	0.973	1.934	13.0	20.1	8 29	20 46.61	-19 30.3	2.383	3.315	8.0	21.0
9 8	20 43.58	-10 51.4	1.019	1.929	17.8	20.4	9 8	20 41.01	-19 36.3	2.455	3.307	10.8	21.2
171264	2006 <i>DJ</i> ₉₂		8 5.9 347°67	3°8/ 7.8	18		445009	2008 <i>HD</i> ₁₁		8 5.9 77°37	3°6/ 9.2	18	
6 30	21 20.49	- 8 21.6	0.931	1.819	21.9	19.4	6 30	21 25.43	- 3 7.3	2.241	3.041	13.8	21.5
7 10	21 19.89	- 8 11.7	0.866	1.808	17.6	19.1	7 10	21 21.58	- 3 19.7	2.166	3.051	11.2	21.3
7 20	21 16.05	- 8 26.1	0.816	1.798	12.5	18.8	7 20	21 16.05	- 3 47.5	2.112	3.062	8.2	21.1
7 30	21 9.62	- 9 4.4	0.784	1.789	6.9	18.4	7 30	21 9.35	- 4 29.8	2.083	3.072	5.2	21.0
8 9	21 1.90	-10 1.5	0.772	1.783	3.9	18.3	8 9	21 2.14	- 5 23.4	2.080	3.082	3.6	20.9
8 19	20 54.48	-11 8.8	0.780	1.778	8.2	18.5	8 19	20 55.15	- 6 24.4	2.106	3.092	5.1	21.0
8 29	20 49.05	-12 16.2	0.808	1.775	14.0	18.8	8 29	20 49.12	- 7 28.0	2.158	3.102	8.0	21.2
9 8	20 46.81	-13 14.6	0.853	1.774	19.1	19.1	9 8	20 44.65	- 8 29.7	2.235	3.112	10.8	21.4
435824	2008 <i>WQ</i> ₆₁		8 5.9 323°79	12°0/12.5	18		66952	1999 <i>XF</i> ₁₉		8 5.9 330°76	4°8/ 3.2	18	
6 30	21 26.95	+ 8 59.7	1.611	2.370	19.9	19.7	6 30	21 25.59	-23 52.9	1.289	2.178	16.9	18.6
7 10	21 23.65	+10 31.9	1.526	2.357	17.8	19.5	7 10	21 23.42	-24 42.5	1.209	2.156	13.2	18.3
7 20	21 17.93	+11 41.5	1.458	2.345	15.4	19.3	7 20	21 18.21	-25 39.0	1.148	2.134	8.9	18.0
7 30	21 10.28	+12 22.6	1.409	2.333	13.3	19.2	7 30	21 10.53	-26 34.5	1.108	2.113	5.3	17.8
8 9	21 1.60	+12 31.7	1.381	2.322	12.1	19.1	8 9	21 1.54	-27 20.1	1.092	2.094	5.8	17.8
8 19	20 52.97	+12 8.7	1.374	2.311	12.3	19.0	8 19	20 52.72	-27 48.2	1.098	2.076	9.9	17.9
8 29	20 45.56	+11 17.8	1.389	2.301	13.9	19.1	8 29	20 45.64	-27 54.8	1.126	2.059	14.6	18.1
9 8	20 40.37	+10 7.1	1.424	2.292	16.3	19.2	9 8	20 41.48	-27 39.9	1.172	2.043	18.8	18.4
205890	2002 <i>GC</i> ₁₂		8 5.9 58°93	2°6/ 7.5	17		374911	2006 <i>XM</i> ₁₈		8 5.9 195°31	3°1/ 3.7	17	
6 30	21 28.99	- 7 45.1	1.284	2.135	19.4	20.1	6 30	21 32.16	-21 47.7	1.902	2.756	13.8	21.3
7 10	21 25.37	- 8 10.2	1.227	2.148	15.2	19.8	7 10	21 27.29	-22 45.0	1.826	2.755	10.6	21.1
7 20	21 19.01	- 8 56.5	1.189	2.162	10.5	19.6	7 20	21 20.08	-23 48.1	1.772	2.752	7.0	20.9
7 30	21 10.66	-10 0.4	1.172	2.176	5.4	19.4	7 30	21 11.12	-24 50.8	1.744	2.750	3.7	20.7
8 9	21 1.50	-11 15.1	1.179	2.190	2.7	19.2	8 9	21 1.33	-25 46.7	1.743	2.746	3.9	20.7
8 19	20 52.86	-12 32.4	1.211	2.205	6.8	19.5	8 19	20 51.77	-26 30.3	1.769	2.743	7.2	20.9
8 29	20 45.98	-13 44.4	1.267	2.219	11.5	19.8	8 29	20 43.54	-26 58.6	1.821	2.738	10.9	21.1
9 8	20 41.74	-14 45.2	1.344	2.234	15.6	20.1	9 8	20 37.48	-27 10.9	1.896	2.733	14.1	21.3
134542	1999 <i>RZ</i> ₁₀₁		8 5.9 334°09	3°9/ 7.6	18		355226	2007 <i>BX</i> ₃₄		8 5.9 52°91	2°0/ 3.9	18	
6 30	21 28.71	- 9 38.6	1.212	2.073	19.6	19.1	6 30	21 26.85	-15 27.8	1.963	2.813	13.7	20.0
7 10	21 25.61	- 9 0.8	1.137	2.063	15.7	18.8	7 10	21 23.00	-17 18.8	1.903	2.830	10.3	19.8
7 20	21 19.49	- 8 38.2	1.079	2.053	11.2	18.5	7 20	21 17.15	-19 21.4	1.866	2.848	6.5	19.6
7 30	21 10.99	- 8 31.0	1.042	2.044	6.3	18.2	7 30	21 9.85	-21 28.2	1.858	2.866	2.9	19.4
8 9	21 1.31	- 8 37.4	1.028	2.036	4.0	18.1	8 9	21 1.91	-23 30.5	1.878	2.885	2.9	19.5
8 19	20 51.89	- 8 53.4	1.036	2.029	7.7	18.3	8 19	20 54.24	-25 20.6	1.927	2.903	6.5	19.7
8 29	20 44.24	- 9 14.2	1.067	2.023	12.7	18.5	8 29	20 47.73	-26 52.8	2.003	2.922	9.9	20.0
9 8	20 39.48	- 9 34.4	1.117	2.017	17.3	18.8	9 8	20 43.10	-28 4.9	2.102	2.940	12.9	20.2
36006	1999 <i>NS</i> ₂₆		8 5.9 2°39	0°1/ 5.8	18		16258	Willhayes		8 5.9 324°49	6°8/ 1.6	18	
6 30	21 26.06	-14 17.4	1.387	2.256	17.2	18.3	6 30	21 29.50	-28 10.3	1.374	2.257	16.5	17.8
7 10	21 23.16	-14 47.4	1.319	2.254	13.3	18.0	7 10	21 26.30	-29 26.0	1.305	2.245	13.0	17.6
7 20	21 17.63	-15 31.3	1.271	2.254	8.7	17.8	7 20	21 19.98	-30 44.2	1.255	2.234	9.4	17.4
7 30	21 10.13	-16 24.7	1.245	2.254	3.6	17.5	7 30	21 11.22	-31 55.0	1.229	2.224	7.0	17.2
8 9	21 1.73	-17 20.9	1.243	2.256	1.7	17.4	8 9	21 1.26	-32 48.5	1.225	2.214	7.8	17.2
8 19	20 53.68	-18 13.1	1.266	2.258	6.9	17.7	8 19	20 51.63	-33 17.7	1.245	2.205	11.2	17.4
8 29	20 47.22	-18 55.8	1.312	2.260	11.6	18.0	8 29	20 43.85	-33 20.1	1.287	2.196	15.0	17.6
9 8	20 43.25	-19 25.6	1.380	2.264	15.7	18.2	9 8	20 39.05	-32 58.0	1.347	2.188	18.6	17.8
481764	2008 <i>MB</i> ₂		8										

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
385315	2001 YC ₆₂		8 5.9 307°87	3°2/ 7.2 18			345585	2006 SQ ₄₉		8 5.9 237°45	3°5/ 8.1 18		
6 30	21 30.09	-10 50.1	1.455	2.305	17.5	20.4	6 30	21 30.72	-6 55.9	2.245	3.051	13.6	20.6
7 10	21 26.58	-10 17.4	1.352	2.272	14.1	20.1	7 10	21 25.74	-6 25.4	2.152	3.044	11.0	20.4
7 20	21 20.19	-9 56.0	1.267	2.240	10.0	19.8	7 20	21 18.87	-6 5.4	2.081	3.036	7.9	20.2
7 30	21 11.39	-9 45.9	1.205	2.208	5.5	19.5	7 30	21 10.60	-5 55.8	2.036	3.028	5.0	20.0
8 9	21 1.13	-9 45.5	1.167	2.176	3.3	19.2	8 9	21 1.66	-5 55.7	2.018	3.020	3.5	19.9
8 19	20 50.72	-9 52.2	1.153	2.145	7.3	19.4	8 19	20 52.86	-6 3.1	2.028	3.012	5.5	20.0
8 29	20 41.64	-10 2.2	1.163	2.114	12.5	19.6	8 29	20 45.05	-6 15.6	2.065	3.003	8.6	20.1
9 8	20 35.14	-10 11.6	1.193	2.083	17.2	19.8	9 8	20 38.93	-6 30.0	2.126	2.995	11.6	20.3
126131	2001 YJ ₁₂₂		8 5.9 63°04	0°5/ 5.7 17			133908	2004 RE ₁₁₃		8 5.9 281°37	3°1/ 7.9 18		
6 30	21 35.53	-17 26.6	1.227	2.095	19.0	19.1	6 30	21 29.61	-7 42.0	2.455	3.261	12.6	20.1
7 10	21 30.53	-17 24.9	1.173	2.107	14.6	18.9	7 10	21 24.84	-7 12.6	2.346	3.239	10.1	19.9
7 20	21 22.42	-17 32.2	1.137	2.120	9.5	18.6	7 20	21 18.29	-6 52.0	2.260	3.216	7.3	19.6
7 30	21 12.09	-17 43.9	1.124	2.134	3.9	18.4	7 30	21 10.38	-6 40.4	2.200	3.194	4.5	19.4
8 9	21 0.97	-17 54.6	1.135	2.147	2.0	18.3	8 9	21 1.75	-6 36.7	2.168	3.171	3.2	19.3
8 19	20 50.59	-18 0.2	1.170	2.161	7.5	18.7	8 19	20 53.14	-6 39.5	2.164	3.149	5.1	19.4
8 29	20 42.35	-17 58.0	1.228	2.174	12.4	19.0	8 29	20 45.35	-6 46.7	2.187	3.126	8.2	19.5
9 8	20 37.15	-17 47.1	1.307	2.188	16.6	19.3	9 8	20 39.08	-6 55.6	2.236	3.103	11.2	19.7
392534	2011 QY ₉₁		8 5.9 0°54	2°1/ 7.2 18			159515	2001 DD ₃₉		8 5.9 233°48	1°5/ 7.1 18		
6 30	21 28.17	-10 32.5	1.753	2.593	15.4	20.9	6 30	21 29.12	-10 14.2	2.144	2.968	13.5	20.8
7 10	21 24.21	-10 26.8	1.676	2.592	12.2	20.7	7 10	21 24.68	-10 29.8	2.050	2.958	10.7	20.6
7 20	21 18.05	-10 33.4	1.620	2.592	8.3	20.5	7 20	21 18.28	-10 57.2	1.978	2.947	7.3	20.4
7 30	21 10.26	-10 50.6	1.588	2.592	4.3	20.3	7 30	21 10.39	-11 34.4	1.932	2.936	3.6	20.1
8 9	21 1.75	-11 15.3	1.581	2.592	2.3	20.1	8 9	21 1.75	-12 18.0	1.913	2.924	1.7	20.0
8 19	20 53.50	-11 43.6	1.601	2.592	5.7	20.3	8 19	20 53.21	-13 4.0	1.922	2.912	5.1	20.2
8 29	20 46.54	-12 11.5	1.646	2.593	9.7	20.6	8 29	20 45.66	-13 48.1	1.958	2.899	8.8	20.4
9 8	20 41.63	-12 35.5	1.714	2.595	13.3	20.8	9 8	20 39.86	-14 26.9	2.018	2.886	12.2	20.6
333929	1999 UP ₂		8 5.9 302°32	11°5/ 26.8 18			67035	1999 XO ₁₇₁		8 5.9 297°74	1°5/ 5.1 18		
6 30	21 33.88	-41 3.1	1.655	2.513	15.4	20.1	6 30	21 30.21	-19 4.8	1.729	2.588	14.8	18.7
7 10	21 30.07	-42 58.9	1.577	2.483	13.4	19.9	7 10	21 26.16	-19 22.2	1.635	2.566	11.5	18.4
7 20	21 22.78	-44 48.9	1.519	2.453	11.9	19.8	7 20	21 19.60	-19 46.6	1.562	2.544	7.5	18.1
7 30	21 12.55	-46 20.6	1.484	2.424	11.6	19.7	7 30	21 11.05	-20 13.9	1.513	2.522	3.2	17.8
8 9	21 0.64	-47 22.8	1.472	2.394	12.8	19.7	8 9	21 1.44	-20 39.1	1.489	2.500	2.4	17.7
8 19	20 48.74	-47 48.4	1.481	2.365	15.1	19.8	8 19	20 51.91	-20 57.5	1.492	2.478	6.8	17.9
8 29	20 38.74	-47 36.3	1.509	2.336	17.8	19.9	8 29	20 43.69	-21 6.0	1.520	2.457	11.2	18.2
9 8	20 32.04	-46 51.3	1.554	2.307	20.4	20.0	9 8	20 37.74	-21 3.1	1.570	2.435	15.2	18.4
75138	1999 VT ₈₀		8 5.9 298°45	4°1/ 8.4 18			242526	2005 AT ₃₀		8 5.9 152°19	1°7/ 4.4 18		
6 30	21 27.00	-5 30.5	1.440	2.278	18.3	18.9	6 30	21 30.05	-19 14.4	2.529	3.368	11.3	21.5
7 10	21 23.97	-5 31.2	1.353	2.263	14.8	18.7	7 10	21 25.01	-20 6.4	2.457	3.378	8.6	21.3
7 20	21 18.30	-5 52.8	1.284	2.249	10.8	18.4	7 20	21 18.27	-21 3.6	2.409	3.387	5.5	21.1
7 30	21 10.53	-6 35.0	1.237	2.235	6.5	18.1	7 30	21 10.31	-22 1.8	2.388	3.395	2.5	20.9
8 9	21 1.62	-7 34.2	1.213	2.220	4.1	17.9	8 9	21 1.83	-22 56.5	2.396	3.403	2.3	20.9
8 19	20 52.79	-8 44.6	1.215	2.207	7.0	18.1	8 19	20 53.56	-23 43.7	2.433	3.410	5.3	21.1
8 29	20 45.35	-9 58.3	1.240	2.193	11.6	18.3	8 29	20 46.27	-24 20.6	2.498	3.417	8.2	21.3
9 8	20 40.36	-11 7.9	1.286	2.180	16.0	18.5	9 8	20 40.55	-24 46.3	2.588	3.423	10.9	21.5
490880	2011 BU ₂₂		8 5.9 252°59	2°7/ 7.5 18			324878	2007 TU ₃₇₃		8 5.9 280°33	4°4/ 3.5 17		
6 30	21 32.78	-9 0.9	1.915	2.735	15.1	22.6	6 30	21 32.86	-23 34.1	1.423	2.295	16.7	21.2
7 10	21 27.85	-8 53.0	1.811	2.714	12.1	22.4	7 10	21 28.85	-24 24.6	1.339	2.276	13.0	20.9
7 20	21 20.57	-8 57.4	1.728	2.693	8.5	22.1	7 20	21 21.71	-25 21.9	1.275	2.258	8.8	20.6
7 30	21 11.42	-9 13.4	1.670	2.670	4.7	21.8	7 30	21 12.03	-26 18.0	1.234	2.239	5.0	20.3
8 9	21 1.23	-9 38.4	1.638	2.647	2.8	21.7	8 9	21 0.99	-27 4.4	1.218	2.220	5.3	20.3
8 19	20 51.02	-10 9.1	1.634	2.623	6.0	21.8	8 19	20 50.09	-27 33.7	1.226	2.201	9.5	20.5
8 29	20 41.90	-10 41.4	1.657	2.599	10.1	22.0	8 29	20 40.91	-27 42.6	1.258	2.183	14.1	20.7
9 8	20 34.82	-11 11.3	1.703	2.574	13.9	22.2	9 8	20 34.65	-27 31.2	1.308	2.164	18.2	20.9
522956	2016 PH ₁₁₄		8 5.9 325°58	9°0/ 30.9 18			509157	2006 DG ₃₉		8 5.9 106°48	5°4/ 2.7 17		
6 30	21 33.93	-37 24.7	1.700	2.560	14.9	21.1	6 30	21 37.86	-31 7.3	1.982	2.831	13.6	21.6
7 10	21 29.32	-38 36.0	1.636	2.552	12.4	20.9	7 10	21 31.37	-31 45.8	1.928	2.848	10.6	21.5
7 20	21 21.72	-39 40.0	1.593	2.545	10.1	20.8	7 20	21 22.52	-32 20.2	1.897	2.864	7.7	21.3
7 30	21 11.89	-40 27.2	1.573	2.538	9.0	20.7	7 30	21 12.06	-32 44.0	1.892	2.880	5.6	21.2
8 9	21 1.07	-40 49.9	1.577	2.532	9.8	20.7	8 9	21 1.09	-32 52.4	1.913	2.896	6.0	21.3
8 19	20 50.73	-40 44.4	1.604	2.525	12.0	20.9	8 19	20 50.74	-32 43.1	1.961	2.912	8.3	21.5
8 29	20 42.26	-40 11.4	1.654	2.519	14.6	21.0	8 29	20 42.05	-32 16.7	2.034	2.927	11.1	21.7
9 8	20 36.63	-39 15.1	1.722	2.514	17.2	21.2	9 8	20 35.73	-31 36.0	2.130	2.942	13.7	21.9
476627	2008 SB ₁₉₀		8 5.9 213°66	3°0/ 3.8 18			417945	2007 TL ₁₀		8 5.9 336°85	4°1/ 4.1 17		
6 30	21 32.77	-23 47.2	2.128	2.977	12.7	22.2	6 30	21 25.58	-22 7.4	0.976	1.880	19.8	20.2
7 10	21 27.54	-24 23.3	2.046	2.972	9.8	22.0	7 10	21 24.10	-22 38.8	0.908	1.863	15.4	19.9
7 20	21 20.15	-25 2.1	1.988	2.966	6.5	21.7	7 20	21 19.01	-23 18.7	0.857	1.848	10.3	19.6
7 30	21 11.15	-25 38.4	1.955	2.959	3.6	21.6	7 30	21 10.99	-23 59.2	0.825	1.834	5.2	19.2
8 9	21 1.41	-26 7.4	1.950	2.952	3.7	21.5	8 9	21 1.48	-24 30.7	0.813	1.821	5.2	19.2
8 19	20 51.91	-26 25.2	1.973	2.945	6.7	21.7	8 19	20 52.31	-24 45.4	0.823	1.810	10.4	19.4
8 29	20 43.63	-26 30.0	2.022	2.937	10.1	21.9	8 29	20 45.37	-24 39.3	0.851	1.801	15.9	19.7
9 8	20 37.34	-26 21.9	2.094	2.928	13.1	22.1	9 8	20 41.96	-24 12.7	0.896	1.793	20.9	20.0
393670	2004 RM ₁₀₅		8 5.9 354°58	11°9/ 18.9 17			458181	2010 NH ₂₆		8 5.9 246°40	7°5/ 30.9 18		
6 30	21 22.35	+19 22.0	1.993	2.66									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291605	2006 <i>GV</i> ₃₅		8 5.9 73°88	7.9/ 1.2 18			334677	2003 <i>AM</i> ₆₄		8 5.9 216°32	4.5/ 6.9 15		
6 30	21 36.72	-35 40.4	1.740	2.596	14.8	20.0	6 30	21 45.14	-11 57.9	1.242	2.080	20.6	20.4
7 10	21 31.04	-36 41.6	1.691	2.608	12.0	19.8	7 10	21 38.34	-10 34.7	1.163	2.076	16.6	20.1
7 20	21 22.57	-37 35.2	1.663	2.620	9.4	19.7	7 20	21 27.92	-9 18.2	1.103	2.071	11.7	19.8
7 30	21 12.16	-38 12.8	1.660	2.633	8.0	19.7	7 30	21 14.64	-8 10.2	1.065	2.065	6.7	19.5
8 9	21 1.08	-38 28.1	1.681	2.645	8.6	19.7	8 9	20 59.97	-7 12.0	1.053	2.059	4.7	19.4
8 19	20 50.69	-38 18.6	1.727	2.657	10.7	19.9	8 19	20 45.74	-6 24.4	1.066	2.053	8.7	19.6
8 29	20 42.23	-37 45.6	1.796	2.669	13.3	20.1	8 29	20 33.72	-5 47.1	1.104	2.046	13.9	19.9
9 8	20 36.51	-36 53.3	1.885	2.682	15.8	20.3	9 8	20 25.15	-5 17.7	1.162	2.038	18.6	20.1
166281	2002 <i>GQ</i> ₁₁₈		8 5.9 189°12	2.2/ 4.5 18			19324	1996 <i>XA</i> ₁₈		8 5.9 132°95	3.2/ 3.7 18		
6 30	21 32.48	-18 31.3	1.595	2.453	15.8	20.5	6 30	21 32.29	-22 57.8	1.965	2.819	13.5	19.4
7 10	21 27.92	-19 23.1	1.522	2.453	12.1	20.3	7 10	21 27.22	-23 47.1	1.900	2.828	10.3	19.2
7 20	21 20.71	-20 24.7	1.470	2.452	7.9	20.0	7 20	21 19.94	-24 39.9	1.857	2.836	6.8	19.0
7 30	21 11.49	-21 29.8	1.442	2.451	3.5	19.8	7 30	21 11.09	-25 30.4	1.840	2.845	3.7	18.8
8 9	21 1.33	-22 31.0	1.441	2.450	3.1	19.8	8 9	21 1.59	-26 13.0	1.850	2.852	3.9	18.9
8 19	20 51.46	-23 21.8	1.466	2.448	7.4	20.0	8 19	20 52.44	-26 43.3	1.888	2.860	7.0	19.1
8 29	20 43.14	-23 57.8	1.515	2.446	11.7	20.3	8 29	20 44.65	-26 59.3	1.951	2.867	10.3	19.3
9 8	20 37.30	-24 17.7	1.587	2.443	15.5	20.5	9 8	20 38.96	-27 1.0	2.037	2.874	13.3	19.5
428343	2007 <i>LA</i> ₂		8 5.9 46°25	0.4/ 6.2 16			439206	2012 <i>RE</i> ₂₃		8 5.9 295°61	2.6/ 4.2 18		
6 30	21 28.24	-12 3.9	1.380	2.240	17.8	20.7	6 30	21 29.39	-20 43.3	1.726	2.589	14.6	21.4
7 10	21 24.60	-12 45.4	1.331	2.260	13.6	20.5	7 10	21 25.44	-21 27.1	1.647	2.580	11.2	21.1
7 20	21 18.41	-13 42.5	1.301	2.281	8.9	20.3	7 20	21 19.06	-22 17.9	1.589	2.572	7.3	20.9
7 30	21 10.45	-14 49.8	1.294	2.303	3.8	20.0	7 30	21 10.82	-23 10.0	1.556	2.564	3.6	20.6
8 9	21 1.84	-16 0.0	1.312	2.324	1.5	19.9	8 9	21 1.68	-23 57.0	1.549	2.555	3.5	20.6
8 19	20 53.79	-17 5.8	1.355	2.347	6.5	20.3	8 19	20 52.76	-24 33.4	1.568	2.547	7.3	20.8
8 29	20 47.42	-18 1.3	1.422	2.369	10.9	20.6	8 29	20 45.21	-24 55.8	1.611	2.539	11.3	21.1
9 8	20 43.50	-18 43.3	1.511	2.392	14.8	20.9	9 8	20 39.93	-25 3.3	1.676	2.531	14.9	21.3
220904	2005 <i>AJ</i> ₂₂		8 5.9 301°70	0°1/ 5.8 17			517824	2015 <i>RL</i> ₄₆		8 5.9 242°44	4.1/ 9.9 18		
6 30	21 29.25	-16 48.5	2.172	3.015	12.8	20.3	6 30	21 25.16	-0 44.2	2.673	3.451	12.4	22.1
7 10	21 24.89	-16 47.8	2.068	2.989	9.9	20.1	7 10	21 21.27	-0 46.2	2.573	3.441	10.2	21.9
7 20	21 18.50	-16 52.9	1.986	2.964	6.5	19.8	7 20	21 15.88	-1 2.3	2.495	3.430	7.8	21.7
7 30	21 10.54	-17 1.4	1.930	2.938	2.7	19.6	7 30	21 9.39	-1 32.5	2.442	3.419	5.5	21.6
8 9	21 1.75	-17 10.4	1.900	2.913	1.3	19.4	8 9	21 2.33	-2 15.2	2.416	3.408	4.1	21.5
8 19	20 53.01	-17 17.0	1.899	2.887	5.3	19.6	8 19	20 55.35	-3 7.6	2.417	3.397	5.1	21.5
8 29	20 45.25	-17 18.9	1.924	2.862	9.1	19.8	8 29	20 49.09	-4 5.9	2.447	3.385	7.4	21.6
9 8	20 39.26	-17 14.7	1.973	2.837	12.6	20.0	9 8	20 44.13	-5 5.8	2.502	3.374	10.0	21.8
195581	2002 <i>JX</i> ₁₀₃		8 5.9 43°95	5.7/10.1 17			514288	2015 <i>SB</i> ₂₄		8 5.9 102°46	2°8/ 8.5 18		
6 30	21 26.68	-0 51.9	1.529	2.344	18.5	19.7	6 30	21 25.26	-5 14.9	2.366	3.173	13.0	21.2
7 10	21 23.22	-0 44.3	1.468	2.358	15.2	19.5	7 10	21 21.45	-5 32.0	2.284	3.176	10.4	21.1
7 20	21 17.46	-0 59.5	1.425	2.373	11.4	19.3	7 20	21 16.03	-6 2.8	2.224	3.180	7.4	20.9
7 30	21 10.07	-1 37.2	1.404	2.388	7.8	19.2	7 30	21 9.45	-6 46.0	2.189	3.183	4.4	20.7
8 9	21 2.01	-2 33.9	1.406	2.403	5.8	19.1	8 9	21 2.34	-7 38.5	2.181	3.186	2.8	20.6
8 19	20 54.34	-3 44.0	1.434	2.419	7.1	19.2	8 19	20 55.40	-8 36.6	2.201	3.190	4.7	20.7
8 29	20 48.10	-5 0.0	1.486	2.435	10.4	19.5	8 29	20 49.34	-9 35.8	2.249	3.193	7.7	20.9
9 8	20 44.05	-6 14.7	1.561	2.452	13.8	19.7	9 8	20 44.76	-10 32.1	2.322	3.196	10.5	21.1
247432	2002 <i>CL</i> ₃₀₇		8 5.9 294°02	3°4/ 7.5 18			107409	2001 <i>DS</i> ₇		8 5.9 136°49	1°2/ 6.8 18		
6 30	21 30.22	-9 19.5	1.335	2.185	18.8	19.9	6 30	21 30.42	-10 21.3	1.603	2.444	16.6	20.0
7 10	21 26.76	-8 58.6	1.246	2.167	15.1	19.6	7 10	21 26.17	-10 55.0	1.532	2.449	13.0	19.7
7 20	21 20.34	-8 53.4	1.176	2.148	10.7	19.3	7 20	21 19.48	-11 44.7	1.481	2.455	8.7	19.5
7 30	21 11.49	-9 3.8	1.127	2.129	5.9	19.0	7 30	21 10.98	-12 46.9	1.454	2.460	4.1	19.2
8 9	21 1.30	-9 27.1	1.101	2.110	3.5	18.8	8 9	21 1.66	-13 55.6	1.453	2.465	1.6	19.1
8 19	20 51.14	-9 58.8	1.099	2.092	7.5	18.9	8 19	20 52.65	-15 3.9	1.478	2.470	6.1	19.4
8 29	20 42.54	-10 33.3	1.121	2.074	12.6	19.2	8 29	20 45.08	-16 5.9	1.529	2.474	10.5	19.7
9 8	20 36.69	-11 5.2	1.163	2.056	17.3	19.4	9 8	20 39.81	-16 57.3	1.602	2.478	14.4	19.9
263463	2008 <i>EP</i> ₃₄		8 5.9 57°21	6.4/30.8 18			515110	2010 <i>XR</i> ₁₄		8 5.9 348°28	4.3/ 8.2 18		
6 30	21 29.00	-29 59.2	1.976	2.839	13.0	19.6	6 30	21 28.25	-7 1.3	1.802	2.628	15.7	20.4
7 10	21 24.92	-31 54.2	1.927	2.854	10.2	19.5	7 10	21 24.27	-6 18.3	1.720	2.622	12.7	20.2
7 20	21 18.57	-33 48.3	1.902	2.869	7.7	19.3	7 20	21 18.14	-5 47.5	1.658	2.617	9.2	20.0
7 30	21 10.55	-35 32.5	1.903	2.884	6.4	19.3	7 30	21 10.40	-5 29.6	1.620	2.613	5.9	19.8
8 9	21 1.80	-36 58.9	1.931	2.899	7.3	19.4	8 9	21 1.92	-5 23.6	1.607	2.609	4.3	19.7
8 19	20 53.36	-38 2.3	1.985	2.914	9.6	19.5	8 19	20 53.65	-5 27.7	1.620	2.606	6.3	19.8
8 29	20 46.28	-38 41.2	2.063	2.930	12.1	19.7	8 29	20 46.60	-5 38.6	1.658	2.603	9.8	20.0
9 8	20 41.34	-38 56.9	2.162	2.945	14.4	19.9	9 8	20 41.53	-5 52.7	1.719	2.601	13.2	20.2
162870	2001 <i>EY</i> ₂₃		8 5.9 123°02	2.5/ 8.1 18			94086	2000 <i>YG</i> ₅₅		8 5.9 180°54	0°7/ 5.3 18 R		
6 30	21 28.19	-6 25.3	2.072	2.886	14.3	20.5	6 30	21 27.60	-17 8.0	2.667	3.503	10.9	20.5
7 10	21 23.86	-6 49.2	1.998	2.896	11.3	20.3	7 10	21 23.10	-17 36.3	2.585	3.503	8.3	20.4
7 20	21 17.66	-7 28.2	1.945	2.906	8.0	20.1	7 20	21 17.04	-18 10.3	2.526	3.504	5.4	20.2
7 30	21 10.12	-8 19.9	1.917	2.916	4.4	19.9	7 30	21 9.86	-18 47.0	2.495	3.504	2.2	20.0
8 9	21 2.00	-9 20.6	1.917	2.925	2.6	19.8	8 9	21 2.18	-19 23.0	2.492	3.504	1.4	19.9
8 19	20 54.13	-10 25.3	1.944	2.934	5.1	20.0	8 19	20 54.67	-19 55.2	2.519	3.503	4.5	20.1
8 29	20 47.34	-11 29.0	1.999	2.943	8.5	20.2	8 29	20 48.01	-20 21.0	2.573	3.502	7.5	20.3
9 8	20 42.30	-12 27.4	2.078	2.951	11.6	20.4	9 8	20 42.78	-20 39.1	2.651	3.501	10.2	20.5
387241	2012 <i>UQ</i> ₅₆		8 5.9 329°18	1.2/ 5.2 18			119300	2001 <i>SO</i> ₂₄		8 5.9 7°45	0°0/ 5.7 18		
6													

EPHEMERIDES

8 5.9

8 5.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
512748	2016 <i>UM</i> ₃₃		8 5.9 161°52	4.5/ 9.6	18		224133	2005 <i>QN</i> ₃₃		8 5.9 347°11	0.5/ 6.2	18	
6 30	21 26.88	- 1 47.4	2.337	3.126	13.6	21.3	6 30	21 23.31	-13 5.1	1.130	2.013	19.2	20.0
7 10	21 22.71	- 1 33.5	2.253	3.127	11.2	21.1	7 10	21 21.70	-13 27.1	1.060	2.003	15.0	19.7
7 20	21 16.87	- 1 34.0	2.189	3.128	8.5	21.0	7 20	21 17.12	-14 7.2	1.008	1.994	10.0	19.4
7 30	21 9.81	- 1 49.1	2.150	3.130	5.9	20.8	7 30	21 10.19	-15 1.4	0.977	1.986	4.3	19.0
8 9	21 2.20	- 2 17.1	2.137	3.131	4.5	20.7	8 9	21 2.10	-16 2.5	0.967	1.980	1.7	18.8
8 19	20 54.76	- 2 55.5	2.152	3.132	5.6	20.8	8 19	20 54.30	-17 2.0	0.980	1.975	7.6	19.2
8 29	20 48.22	- 3 40.2	2.194	3.133	8.1	21.0	8 29	20 48.28	-17 52.4	1.015	1.972	13.1	19.5
9 8	20 43.21	- 4 27.1	2.260	3.133	10.8	21.1	9 8	20 45.13	-18 28.7	1.068	1.970	17.8	19.7
47540	2000 <i>AK</i> ₁₁₅		8 5.9 156°61	2.1/ 7.4	18		162122	1998 <i>SH</i> ₆₃		8 5.9 258°83	3.2/ 3.9	18	
6 30	21 30.63	- 8 48.3	1.775	2.604	15.7	19.1	6 30	21 32.72	-24 21.5	2.050	2.902	13.1	20.0
7 10	21 26.11	- 9 5.9	1.700	2.609	12.4	18.9	7 10	21 27.70	-24 50.7	1.962	2.888	10.1	19.8
7 20	21 19.33	- 9 38.5	1.645	2.613	8.5	18.7	7 20	21 20.42	-25 22.0	1.897	2.875	6.8	19.6
7 30	21 10.90	-10 23.8	1.614	2.617	4.4	18.4	7 30	21 11.42	-25 50.5	1.857	2.861	3.8	19.4
8 9	21 1.72	-11 17.4	1.609	2.620	2.2	18.3	8 9	21 1.58	-26 11.2	1.845	2.847	3.9	19.4
8 19	20 52.81	-12 13.9	1.632	2.623	5.7	18.5	8 19	20 51.94	-26 20.4	1.859	2.832	7.0	19.5
8 29	20 45.19	-13 8.1	1.681	2.626	9.7	18.8	8 29	20 43.53	-26 16.3	1.900	2.817	10.5	19.7
9 8	20 39.67	-13 55.7	1.753	2.628	13.4	19.0	9 8	20 37.20	-25 59.2	1.963	2.803	13.6	19.9
362602	2010 <i>WX</i> ₅₅		8 5.9 344°97	6.2/ 1.4	18		182395	2001 <i>QL</i> ₂₈₀		8 5.9 8°28	7.9/ 2.2	18	
6 30	21 28.19	-30 32.5	1.801	2.671	13.8	19.8	6 30	21 29.08	-29 59.8	1.079	1.976	18.9	18.6
7 10	21 24.58	-31 34.6	1.732	2.664	10.9	19.6	7 10	21 26.46	-30 59.3	1.030	1.977	14.9	18.4
7 20	21 18.50	-32 35.3	1.685	2.657	8.1	19.4	7 20	21 20.28	-31 56.4	0.999	1.980	10.9	18.2
7 30	21 10.60	-33 27.3	1.662	2.651	6.3	19.3	7 30	21 11.46	-32 40.0	0.988	1.984	8.1	18.0
8 9	21 1.86	-34 3.6	1.664	2.645	7.0	19.3	8 9	21 1.62	-33 0.6	0.999	1.989	8.8	18.1
8 19	20 53.43	-34 20.1	1.691	2.640	9.5	19.5	8 19	20 52.53	-32 53.4	1.030	1.996	12.1	18.3
8 29	20 46.47	-34 15.2	1.741	2.636	12.5	19.7	8 29	20 45.84	-32 19.0	1.082	2.004	16.1	18.6
9 8	20 41.81	-33 50.8	1.811	2.633	15.4	19.8	9 8	20 42.52	-31 22.1	1.151	2.013	19.7	18.8
476034	2007 <i>RE</i> ₂₆₀		8 5.9 218°92	1°0/ 5.2	18		402461	2006 <i>BO</i> ₁₁₀		8 5.9 219°22	1°0/ 5.1	18	
6 30	21 29.33	-17 11.7	2.236	3.078	12.5	22.2	6 30	21 27.77	-18 29.1	2.740	3.578	10.6	22.1
7 10	21 24.80	-17 47.5	2.150	3.072	9.6	22.0	7 10	21 23.26	-18 54.3	2.652	3.572	8.1	21.9
7 20	21 18.35	-18 30.7	2.086	3.065	6.2	21.8	7 20	21 17.18	-19 24.2	2.587	3.565	5.2	21.8
7 30	21 10.48	-19 17.6	2.049	3.058	2.6	21.6	7 30	21 9.98	-19 56.0	2.550	3.558	2.2	21.5
8 9	21 1.91	-20 3.6	2.040	3.051	1.8	21.5	8 9	21 2.25	-20 26.3	2.541	3.551	1.6	21.5
8 19	20 53.49	-20 44.6	2.059	3.043	5.4	21.7	8 19	20 54.65	-20 52.3	2.561	3.544	4.6	21.7
8 29	20 46.09	-21 17.3	2.105	3.035	8.9	21.9	8 29	20 47.88	-21 11.6	2.609	3.537	7.5	21.9
9 8	20 40.42	-21 39.7	2.175	3.027	12.0	22.1	9 8	20 42.50	-21 23.1	2.682	3.529	10.2	22.0
187431	2005 <i>WV</i> ₂₇		8 5.9 34°71	0°7/ 5.4	18		362988	2013 <i>CO</i> ₉₀		8 5.9 140°72	4°4/ 1.9	18	
6 30	21 27.76	-17 10.3	2.064	2.913	13.1	20.5	6 30	21 32.57	-31 36.3	2.904	3.743	10.0	21.9
7 10	21 23.62	-17 32.1	1.992	2.917	10.0	20.3	7 10	21 26.81	-32 21.2	2.843	3.756	7.8	21.8
7 20	21 17.56	-18 0.8	1.942	2.922	6.5	20.1	7 20	21 19.41	-33 3.0	2.806	3.768	5.8	21.7
7 30	21 10.12	-18 32.8	1.917	2.926	2.7	19.8	7 30	21 10.87	-33 37.2	2.796	3.780	4.5	21.6
8 9	21 2.10	-19 4.1	1.920	2.931	1.6	19.8	8 9	21 1.90	-34 0.3	2.815	3.791	4.8	21.7
8 19	20 54.35	-19 30.9	1.950	2.937	5.4	20.0	8 19	20 53.23	-34 10.0	2.862	3.801	6.6	21.8
8 29	20 47.75	-19 50.6	2.006	2.942	8.9	20.3	8 29	20 45.59	-34 5.8	2.936	3.811	8.6	21.9
9 8	20 42.95	-20 1.4	2.086	2.948	12.1	20.5	9 8	20 39.54	-33 48.9	3.033	3.821	10.6	22.1
441434	2008 <i>HE</i> ₄		8 5.9 110°19	6°3/30.9	18		144520	2004 <i>EO</i> ₇₈		8 5.9 220°69	0°1/ 6.1	18	
6 30	21 31.84	-35 0.0	2.469	3.315	11.3	21.4	6 30	21 31.89	-13 50.5	1.973	2.808	14.1	21.6
7 10	21 26.68	-36 19.9	2.419	3.330	9.1	21.2	7 10	21 27.06	-14 19.6	1.882	2.799	11.0	21.4
7 20	21 19.51	-37 34.9	2.393	3.345	7.2	21.1	7 20	21 20.02	-14 59.6	1.814	2.789	7.3	21.2
7 30	21 10.93	-38 38.4	2.393	3.359	6.3	21.1	7 30	21 11.28	-15 47.1	1.771	2.779	3.1	20.9
8 9	21 1.76	-39 25.3	2.421	3.373	7.0	21.2	8 9	21 1.67	-16 37.4	1.755	2.768	1.3	20.7
8 19	20 52.93	-39 52.8	2.474	3.387	8.7	21.3	8 19	20 52.18	-17 25.5	1.767	2.756	5.7	21.0
8 29	20 45.33	-40 0.2	2.552	3.400	10.7	21.5	8 29	20 43.83	-18 7.1	1.806	2.743	9.7	21.2
9 8	20 39.63	-39 49.5	2.651	3.413	12.6	21.6	9 8	20 37.46	-18 39.4	1.869	2.730	13.3	21.4
472023	2013 <i>XU</i> ₁₉		8 5.9 118°17	6°6/ 9.9	17		94186	2001 <i>AH</i> ₄₅		8 5.9 106°87	1°5/ 7.5	18 R	
6 30	21 31.86	- 0 13.9	1.851	2.639	16.7	21.0	6 30	21 25.78	- 8 0.5	2.420	3.236	12.4	19.5
7 10	21 26.90	+ 0 36.1	1.777	2.646	14.0	20.9	7 10	21 21.83	- 8 44.0	2.344	3.246	9.7	19.3
7 20	21 19.78	+ 1 9.1	1.722	2.653	10.9	20.7	7 20	21 16.29	- 9 40.3	2.290	3.255	6.7	19.2
7 30	21 11.09	+ 1 23.4	1.690	2.660	8.1	20.5	7 30	21 9.61	-10 46.7	2.262	3.264	3.4	19.0
8 9	21 1.70	+ 1 19.1	1.683	2.667	6.6	20.5	8 9	21 2.43	-11 59.0	2.263	3.274	1.6	18.9
8 19	20 52.59	+ 0 58.4	1.702	2.673	7.6	20.5	8 19	20 55.44	-13 12.5	2.292	3.283	4.3	19.1
8 29	20 44.74	+ 0 25.7	1.746	2.680	10.2	20.7	8 29	20 49.34	-14 22.8	2.350	3.291	7.5	19.3
9 8	20 38.91	- 0 13.7	1.814	2.686	13.1	20.9	9 8	20 44.69	-15 25.9	2.433	3.300	10.4	19.5
91089	1998 <i>FW</i> ₁₂₆		8 5.9 134°72	2°0/ 7.7	18		76885	2000 <i>YB</i> ₆₃		8 5.9 101°45	0°7/ 5.5	18	
6 30	21 28.97	- 6 42.3	2.047	2.861	14.4	19.9	6 30	21 31.50	-14 16.9	1.546	2.399	16.5	19.6
7 10	21 24.53	- 7 27.3	1.972	2.872	11.4	19.7	7 10	21 27.05	-15 13.9	1.486	2.413	12.7	19.4
7 20	21 18.16	- 8 28.4	1.919	2.882	7.9	19.5	7 20	21 20.08	-16 24.2	1.446	2.427	8.2	19.2
7 30	21 10.40	- 9 42.6	1.891	2.892	4.1	19.3	7 30	21 11.28	-17 41.9	1.431	2.440	3.3	18.9
8 9	21 2.01	-11 4.8	1.891	2.902	2.1	19.1	8 9	21 1.72	-18 59.3	1.442	2.453	1.9	18.9
8 19	20 53.87	-12 29.0	1.920	2.910	5.0	19.4	8 19	20 52.59	-20 9.2	1.479	2.466	6.7	19.2
8 29	20 46.82	-13 49.5	1.976	2.919	8.7	19.6	8 29	20 45.04	-21 6.1	1.541	2.479	11.0	19.5
9 8	20 41.56	-15 1.5	2.057	2.927	11.9	19.8	9 8	20 39.90	-21 47.5	1.626	2.491	14.7	19.8
380833	2006 <i>AN</i> ₂₁		8 5.9 218°68	3°1/ 3.6	18		91821	1999 <i>TN</i> ₂₇₇		8 5.9 277°69</			

EPHEMERIDES

8 5.9

8 6.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
444722	2007 <i>FQ</i> ₆		8 5.9 256°64	9°0/30.1	18		144410	2004 <i>EF</i> ₉		8 5.9 123°35	2°4/ 8.0	17	
6 30	21 42.27	-46 2.9	2.493	3.303	12.3	21.6	6 30	21 27.90	-7 6.7	2.330	3.140	13.0	20.7
7 10	21 35.00	-46 50.0	2.422	3.292	10.7	21.5	7 10	21 23.48	-7 20.5	2.255	3.151	10.3	20.5
7 20	21 25.11	-47 25.1	2.374	3.280	9.5	21.4	7 20	21 17.39	-7 46.7	2.202	3.162	7.2	20.3
7 30	21 13.35	-47 41.0	2.350	3.269	9.0	21.3	7 30	21 10.11	-8 23.7	2.174	3.172	4.1	20.2
8 9	21 0.86	-47 32.7	2.351	3.257	9.5	21.3	8 9	21 2.34	-9 8.2	2.174	3.182	2.4	20.1
8 19	20 48.93	-46 58.7	2.377	3.245	10.8	21.4	8 19	20 54.79	-9 56.7	2.202	3.191	4.6	20.2
8 29	20 38.73	-46 0.5	2.427	3.233	12.5	21.5	8 29	20 48.20	-10 45.3	2.258	3.201	7.7	20.4
9 8	20 31.09	-44 42.8	2.497	3.220	14.2	21.6	9 8	20 43.17	-11 30.2	2.339	3.210	10.6	20.6
35514	1998 <i>FZ</i> ₅₆		8 5.9 172°75	3°7/ 3.2	18		298695	2004 <i>EV</i> ₁₃		8 5.9 82°35	3°6/ 3.3	18	
6 30	21 31.47	-26 30.1	2.262	3.114	12.0	19.5	6 30	21 30.09	-24 26.2	1.994	2.852	13.1	20.3
7 10	21 26.43	-27 5.7	2.189	3.114	9.3	19.3	7 10	21 25.63	-25 17.4	1.928	2.857	10.0	20.2
7 20	21 19.41	-27 41.6	2.140	3.115	6.3	19.1	7 20	21 19.02	-26 11.1	1.884	2.863	6.7	20.0
7 30	21 10.95	-28 12.7	2.116	3.116	4.0	19.0	7 30	21 10.86	-27 1.6	1.866	2.868	4.0	19.8
8 9	21 1.89	-28 34.7	2.120	3.116	4.2	19.0	8 9	21 2.04	-27 43.2	1.874	2.873	4.3	19.8
8 19	20 53.13	-28 44.4	2.152	3.117	6.8	19.1	8 19	20 53.54	-28 11.8	1.909	2.878	7.2	20.0
8 29	20 45.56	-28 40.8	2.209	3.117	9.7	19.3	8 29	20 46.34	-28 25.3	1.970	2.883	10.4	20.2
9 8	20 39.85	-28 24.3	2.290	3.117	12.4	19.5	9 8	20 41.15	-28 23.9	2.053	2.888	13.3	20.4
342085	2008 <i>SC</i> ₄₄		8 5.9 237°78	5°2/10.0	18		210529	1999 <i>AF</i> ₁₅		8 5.9 304°76	0°7/ 5.5	18	
6 30	21 28.17	-0 3.0	2.134	2.917	14.9	21.8	6 30	21 26.75	-14 52.1	1.871	2.722	14.2	20.0
7 10	21 24.02	+0 3.9	2.036	2.906	12.4	21.6	7 10	21 23.24	-15 40.2	1.788	2.715	10.9	19.8
7 20	21 17.95	-0 6.8	1.959	2.894	9.6	21.4	7 20	21 17.60	-16 40.1	1.727	2.707	7.1	19.6
7 30	21 10.41	-0 35.6	1.906	2.882	6.8	21.2	7 30	21 10.33	-17 47.5	1.691	2.700	2.9	19.3
8 9	21 2.10	-1 20.9	1.878	2.870	5.2	21.1	8 9	21 2.26	-18 56.3	1.682	2.693	1.7	19.2
8 19	20 53.85	-2 19.5	1.878	2.857	6.3	21.1	8 19	20 54.33	-20 0.6	1.699	2.687	5.9	19.5
8 29	20 46.53	-3 26.2	1.904	2.843	9.1	21.3	8 29	20 47.55	-20 55.4	1.743	2.680	10.0	19.7
9 8	20 40.90	-4 35.4	1.954	2.830	12.2	21.4	9 8	20 42.72	-21 37.5	1.809	2.674	13.5	19.9
478072	2011 <i>UT</i> ₁₀		8 5.9 246°41	6°6/11.4	18		260366	2004 <i>US</i> ₃		8 5.9 254°86	6°0/31.9	18	
6 30	21 26.65	+4 0.2	2.184	2.946	15.2	21.8	6 30	21 34.63	-36 29.9	2.679	3.515	10.8	20.5
7 10	21 22.80	+4 17.3	2.090	2.938	13.0	21.6	7 10	21 28.83	-37 11.1	2.596	3.501	8.8	20.4
7 20	21 17.11	+4 15.3	2.015	2.929	10.5	21.4	7 20	21 21.00	-37 46.7	2.537	3.485	7.0	20.3
7 30	21 10.04	+3 52.8	1.963	2.920	8.1	21.3	7 30	21 11.68	-38 11.4	2.503	3.470	6.0	20.2
8 9	21 2.27	+3 10.8	1.935	2.911	6.6	21.2	8 9	21 1.69	-38 20.8	2.497	3.454	6.5	20.2
8 19	20 54.58	+2 11.9	1.934	2.902	7.2	21.2	8 19	20 51.95	-38 12.5	2.518	3.439	8.2	20.3
8 29	20 47.80	+1 1.1	1.960	2.893	9.3	21.3	8 29	20 43.36	-37 46.3	2.564	3.422	10.3	20.4
9 8	20 42.63	-0 15.4	2.009	2.883	12.0	21.4	9 8	20 36.64	-37 4.4	2.632	3.406	12.4	20.5
133525	2003 <i>SZ</i> ₃₁₄		8 5.9 147°37	2°3/ 3.9	18		431418	2007 <i>HZ</i> ₉₇		8 5.9 35°66	7°2/31.5	17	
6 30	21 28.34	-17 36.1	1.911	2.764	13.8	19.2	6 30	21 28.49	-27 8.9	1.369	2.252	16.5	20.0
7 10	21 24.41	-19 3.6	1.837	2.766	10.5	19.0	7 10	21 25.38	-29 11.7	1.323	2.264	12.8	19.8
7 20	21 18.31	-20 41.8	1.787	2.768	6.8	18.8	7 20	21 19.34	-31 16.9	1.298	2.276	9.2	19.7
7 30	21 10.57	-22 24.3	1.763	2.770	3.2	18.6	7 30	21 11.11	-33 12.5	1.297	2.289	7.2	19.6
8 9	21 2.04	-24 3.0	1.766	2.772	3.2	18.6	8 9	21 1.95	-34 46.9	1.321	2.302	8.3	19.7
8 19	20 53.69	-25 30.6	1.798	2.774	6.8	18.8	8 19	20 53.28	-35 52.7	1.368	2.317	11.4	19.9
8 29	20 46.53	-26 42.1	1.855	2.776	10.5	19.0	8 29	20 46.49	-36 27.9	1.437	2.331	14.7	20.1
9 8	20 41.36	-27 35.1	1.936	2.777	13.7	19.2	9 8	20 42.50	-36 34.8	1.524	2.346	17.7	20.4
453229	2008 <i>KZ</i> ₁₀		8 5.9 334°53	6°8/30.8	18		300764	2007 <i>VV</i> ₂₄₂		8 5.9 14°33	2°6/ 4.1	18	
6 30	21 29.16	-33 9.4	2.089	2.949	12.5	20.7	6 30	21 28.87	-20 39.0	1.774	2.636	14.3	21.1
7 10	21 25.13	-34 34.8	2.023	2.945	10.1	20.5	7 10	21 24.94	-21 27.0	1.704	2.637	10.9	20.8
7 20	21 18.82	-35 57.6	1.981	2.942	7.9	20.4	7 20	21 18.71	-22 21.4	1.656	2.638	7.1	20.6
7 30	21 10.80	-37 10.3	1.964	2.939	6.8	20.3	7 30	21 10.78	-23 16.6	1.632	2.639	3.5	20.4
8 9	21 1.98	-38 5.9	1.973	2.936	7.6	20.4	8 9	21 2.09	-24 6.4	1.634	2.641	3.4	20.4
8 19	20 53.39	-38 40.2	2.007	2.933	9.7	20.5	8 19	20 53.70	-24 45.5	1.663	2.642	7.0	20.6
8 29	20 46.11	-38 51.8	2.065	2.931	12.1	20.6	8 29	20 46.66	-25 10.7	1.717	2.644	10.8	20.9
9 8	20 40.94	-38 42.3	2.143	2.928	14.5	20.8	9 8	20 41.77	-25 21.1	1.793	2.646	14.1	21.1
440478	2005 <i>ST</i> ₂₈₈		8 5.9 42°75	1°2/ 7.0	18		425670	2010 <i>XP</i> ₆₇		8 5.9 154°86	0°0/ 5.8	17	
6 30	21 25.44	-9 26.8	2.067	2.898	13.7	20.8	6 30	21 31.97	-14 9.1	1.791	2.633	15.1	22.1
7 10	21 21.90	-10 10.0	1.991	2.903	10.7	20.6	7 10	21 27.19	-14 42.1	1.718	2.639	11.6	21.9
7 20	21 16.51	-11 7.2	1.936	2.907	7.2	20.4	7 20	21 20.12	-15 26.3	1.667	2.644	7.6	21.7
7 30	21 9.78	-12 15.2	1.907	2.912	3.5	20.2	7 30	21 11.36	-16 17.6	1.640	2.649	3.2	21.4
8 9	21 2.44	-13 29.1	1.905	2.917	1.4	20.0	8 9	21 1.85	-17 10.5	1.641	2.653	1.4	21.3
8 19	20 55.31	-14 43.3	1.930	2.922	4.9	20.3	8 19	20 52.63	-17 59.7	1.668	2.657	5.9	21.6
8 29	20 49.19	-15 52.8	1.983	2.927	8.6	20.5	8 29	20 44.76	-18 40.9	1.722	2.660	10.0	21.9
9 8	20 44.77	-16 53.2	2.060	2.932	11.8	20.7	9 8	20 39.04	-19 11.4	1.799	2.663	13.6	22.1
230932	2004 <i>VQ</i> ₇₈		8 5.9 47°80	5°5/ 9.4	18		112318	2002 <i>LD</i> ₆₀		8 6.0 50°69	2°7/ 7.8	18	
6 30	21 29.29	-2 49.0	1.672	2.484	17.3	19.9	6 30	21 28.03	-6 49.0	1.315	2.162	19.2	19.7
7 10	21 25.20	-2 18.3	1.599	2.488	14.2	19.7	7 10	21 24.78	-7 19.4	1.253	2.171	15.2	19.5
7 20	21 18.83	-2 5.4	1.545	2.493	10.7	19.5	7 20	21 18.82	-8 12.3	1.209	2.181	10.5	19.3
7 30	21 10.80	-2 11.2	1.513	2.498	7.3	19.3	7 30	21 10.88	-9 24.3	1.188	2.191	5.6	19.0
8 9	21 2.02	-2 34.1	1.506	2.503	5.5	19.2	8 9	21 2.07	-10 48.6	1.190	2.201	2.8	18.9
8 19	20 53.52	-3 10.5	1.525	2.508	7.1	19.3	8 19	20 53.67	-12 16.5	1.217	2.211	6.7	19.2
8 29	20 46.35	-3 55.3	1.568	2.513	10.3	19.5	8 29	20 46.93	-13 39.4	1.268	2.221	11.4	19.4
9 8	20 41.31	-4 42.6	1.634	2.518	13.7	19.8	9 8	20 42.75	-14 50.7	1.340	2.232	15.6	19.7
183388	2002 <i>XL</i> ₆₀		8 5.9 317°11	1°7/ 5.0	18		508030	2015 <i>BR</i> ₄₃₇		8 6.0 23°68	1°4/ 5.1	17	