

EPHEMERIDES

8 16.9

8 17.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
507080	2009 <i>BE</i> ₁₃		8 16.9 180°09	4°6/21.1	18		143645	2003 <i>OP</i> ₄		8 17.0 85°82	6°8/22.9	18	
7 10	22 12.69	+ 1 49.8	2.488	3.247	13.7	21.9	7 10	22 15.01	+ 7 16.9	2.439	3.162	14.8	19.4
7 20	22 7.75	+ 2 18.2	2.397	3.249	11.4	21.8	7 20	22 9.43	+ 8 19.4	2.368	3.184	12.7	19.2
7 30	22 1.09	+ 2 32.6	2.326	3.249	8.8	21.6	7 30	22 2.13	+ 9 5.6	2.317	3.205	10.4	19.1
8 9	21 53.15	+ 2 32.7	2.281	3.250	6.3	21.4	8 9	21 53.59	+ 9 34.0	2.289	3.225	8.2	19.0
8 19	21 44.54	+ 2 19.2	2.262	3.249	4.7	21.3	8 19	21 44.48	+ 9 44.0	2.288	3.246	6.9	19.0
8 29	21 36.02	+ 1 54.4	2.272	3.249	5.4	21.4	8 29	21 35.58	+ 9 37.0	2.315	3.266	7.1	19.0
9 8	21 28.32	+ 1 22.0	2.309	3.247	7.7	21.5	9 8	21 27.65	+ 9 16.6	2.368	3.286	8.5	19.1
9 18	21 22.08	+ 0 45.8	2.372	3.245	10.3	21.7	9 18	21 21.27	+ 8 47.0	2.446	3.306	10.5	19.3
516023	2015 <i>SJ</i> ₁₃		8 16.9 324°84	4°9/21.5	18		455038	2015 <i>UY</i> ₅		8 17.0 283°64	2°0/15.2	18	
7 10	22 7.21	+ 2 20.3	2.141	2.920	15.0	20.8	7 10	22 9.84	-17 37.0	2.296	3.139	12.2	21.3
7 20	22 3.84	+ 2 33.1	2.052	2.916	12.5	20.6	7 20	22 5.85	-18 6.6	2.205	3.126	9.4	21.1
7 30	21 58.65	+ 2 28.3	1.982	2.912	9.7	20.4	7 30	21 59.99	-18 41.8	2.137	3.113	6.2	20.9
8 9	21 52.09	+ 2 5.9	1.935	2.908	6.9	20.3	8 9	21 52.71	-19 18.7	2.095	3.100	3.1	20.7
8 19	21 44.80	+ 1 27.4	1.913	2.905	5.0	20.1	8 19	21 44.68	-19 52.9	2.080	3.087	2.4	20.6
8 29	21 37.58	+ 0 36.2	1.919	2.901	5.7	20.2	8 29	21 36.72	-20 20.1	2.094	3.074	5.5	20.8
9 8	21 31.25	- 0 22.4	1.950	2.898	8.3	20.3	9 8	21 29.66	-20 37.3	2.133	3.061	8.8	21.0
9 18	21 26.46	- 1 22.9	2.007	2.895	11.2	20.5	9 18	21 24.19	-20 42.9	2.197	3.048	11.9	21.1
444709	2007 <i>EJ</i> ₁₄₀		8 16.9 153°20	2°2/19.4	18		265379	2004 <i>RV</i> ₂₄₈		8 17.0 328°11	5°6/17.9	16	
7 10	22 7.07	- 3 15.0	2.411	3.209	13.0	21.8	7 10	22 26.88	-10 38.8	0.980	1.833	23.8	20.0
7 20	22 3.48	- 3 36.8	2.325	3.211	10.4	21.6	7 20	22 21.42	- 8 35.3	0.907	1.826	19.4	19.7
7 30	21 58.26	- 4 12.7	2.261	3.213	7.5	21.4	7 30	22 11.67	- 6 35.1	0.851	1.820	14.1	19.3
8 9	21 51.87	- 5 0.8	2.221	3.215	4.4	21.3	8 9	21 58.42	- 4 41.7	0.816	1.813	8.5	19.0
8 19	21 44.87	- 5 58.1	2.210	3.216	2.2	21.1	8 19	21 43.22	- 3 0.3	0.803	1.808	5.6	18.9
8 29	21 37.97	- 7 0.0	2.226	3.218	4.1	21.2	8 29	21 28.34	- 1 35.0	0.813	1.803	9.6	19.1
9 8	21 31.87	- 8 1.7	2.271	3.219	7.2	21.4	9 8	21 15.97	- 0 26.8	0.846	1.798	15.3	19.4
9 18	21 27.15	- 8 59.1	2.341	3.220	10.2	21.6	9 18	21 7.57	+ 0 26.5	0.898	1.795	20.5	19.7
62189	2000 <i>SQ</i> ₄₁		8 16.9 92°27	5°0/12.5	18		156001	2001 <i>RC</i> ₃₀		8 17.0 305°39	1°5/17.9	18	
7 10	22 12.30	-26 7.6	2.130	2.983	12.6	19.2	7 10	22 8.93	- 8 3.5	1.461	2.308	17.7	20.2
7 20	22 7.86	-27 1.2	2.063	2.985	9.9	19.0	7 20	22 6.27	- 8 12.2	1.367	2.286	14.1	19.9
7 30	22 1.33	-27 55.0	2.018	2.987	7.1	18.8	7 30	22 0.92	- 8 38.3	1.292	2.264	9.9	19.6
8 9	21 53.29	-28 42.6	2.000	2.989	5.2	18.7	8 9	21 53.38	- 9 19.6	1.239	2.242	5.0	19.2
8 19	21 44.52	-29 18.3	2.007	2.991	5.6	18.7	8 19	21 44.49	-10 11.7	1.210	2.221	1.6	19.0
8 29	21 36.00	-29 37.9	2.042	2.993	7.9	18.9	8 29	21 35.51	-11 7.6	1.206	2.200	6.2	19.2
9 8	21 28.65	-29 39.7	2.102	2.995	10.6	19.1	9 8	21 27.77	-12 0.1	1.226	2.180	11.4	19.4
9 18	21 23.17	-29 24.4	2.184	2.997	13.2	19.3	9 18	21 22.36	-12 43.1	1.267	2.160	16.0	19.7
121251	1999 <i>RO</i> ₇₁		8 16.9 333°23	0°6/16.5	18		514685	2005 <i>XF</i> ₆₁		8 17.0 200°41	0°2/16.8	18	
7 10	22 7.86	-12 33.8	1.994	2.836	13.8	19.8	7 10	22 9.22	-12 4.9	2.627	3.450	11.4	22.8
7 20	22 4.51	-13 5.4	1.912	2.831	10.7	19.5	7 20	22 5.03	-12 28.2	2.539	3.447	8.8	22.6
7 30	21 59.17	-13 47.4	1.851	2.826	7.1	19.3	7 30	21 59.26	-12 59.4	2.475	3.445	5.9	22.4
8 9	21 52.34	-14 36.0	1.816	2.822	3.2	19.1	8 9	21 52.33	-13 35.6	2.437	3.442	2.6	22.2
8 19	21 44.75	-15 26.3	1.807	2.818	1.2	18.9	8 19	21 44.81	-14 13.4	2.427	3.438	0.8	22.0
8 29	21 37.27	-16 13.0	1.825	2.814	5.2	19.2	8 29	21 37.38	-14 49.2	2.446	3.435	4.1	22.3
9 8	21 30.80	-16 51.5	1.869	2.810	9.0	19.4	9 8	21 30.73	-15 19.7	2.494	3.431	7.2	22.5
9 18	21 26.05	-17 19.0	1.938	2.807	12.4	19.6	9 18	21 25.42	-15 42.9	2.566	3.427	10.0	22.7
510889	2013 <i>CP</i> ₁₅₈		8 16.9 51°40	1°4/15.9	18		186707	2004 <i>BR</i> ₇₂		8 17.0 216°63	1°6/18.3	17	
7 10	22 12.37	-16 35.2	2.021	2.863	13.6	21.0	7 10	22 11.28	- 5 59.5	1.748	2.571	16.2	21.4
7 20	22 7.78	-16 46.5	1.955	2.874	10.5	20.8	7 20	22 7.47	- 6 26.8	1.663	2.566	12.9	21.2
7 30	22 1.18	-17 3.3	1.910	2.886	6.9	20.6	7 30	22 1.34	- 7 11.7	1.597	2.561	9.0	21.0
8 9	21 53.18	-17 21.8	1.891	2.897	3.1	20.4	8 9	21 53.42	- 8 11.3	1.555	2.556	4.7	20.7
8 19	21 44.56	-17 38.1	1.899	2.908	1.9	20.3	8 19	21 44.52	- 9 20.6	1.540	2.550	1.6	20.5
8 29	21 36.25	-17 48.4	1.935	2.920	5.4	20.6	8 29	21 35.69	-10 32.9	1.551	2.544	5.3	20.7
9 8	21 29.11	-17 50.6	1.997	2.932	8.9	20.8	9 8	21 28.02	-11 41.3	1.589	2.537	9.7	21.0
9 18	21 23.81	-17 43.4	2.083	2.944	12.0	21.1	9 18	21 22.35	-12 40.1	1.650	2.531	13.6	21.2
92003	1999 <i>VG</i> ₁₄₉		8 17.0 315°26	5°0/21.8	18		270260	2001 <i>UD</i> ₁₁₆		8 17.0 301°82	5°0/13.5	18	
7 10	22 6.91	+ 3 10.8	2.223	2.995	14.7	19.5	7 10	22 12.81	-22 26.5	1.538	2.404	15.9	20.6
7 20	22 3.56	+ 3 24.1	2.132	2.990	12.4	19.4	7 20	22 9.17	-23 20.7	1.462	2.394	12.4	20.4
7 30	21 58.44	+ 3 19.9	2.060	2.985	9.7	19.2	7 30	22 2.73	-24 20.0	1.407	2.384	8.6	20.1
8 9	21 52.00	+ 2 58.0	2.011	2.980	6.9	19.0	8 9	21 54.12	-25 16.6	1.375	2.374	5.5	19.9
8 19	21 44.85	+ 2 19.8	1.987	2.975	5.1	18.9	8 19	21 44.35	-26 2.3	1.368	2.364	5.7	19.9
8 29	21 37.76	+ 1 28.6	1.990	2.971	5.7	18.9	8 29	21 34.75	-26 30.0	1.386	2.354	9.1	20.1
9 8	21 31.50	+ 0 29.3	2.020	2.966	8.1	19.1	9 8	21 26.65	-26 36.5	1.427	2.345	13.0	20.3
9 18	21 26.73	- 0 32.5	2.075	2.962	10.9	19.2	9 18	21 21.05	-26 21.9	1.489	2.336	16.7	20.5
266405	2007 <i>EB</i> ₂₂₃		8 17.0 197°00	1°3/15.6	18		77589	2001 <i>KC</i> ₁₇		8 17.0 346°41	5°1/12.7	18	
7 10	22 8.49	-15 9.0	2.546	3.381	11.4	20.5	7 10	22 6.22	-20 35.4	1.477	2.355	15.8	18.3
7 20	22 4.54	-15 51.0	2.463	3.379	8.7	20.3	7 20	22 4.08	-22 0.0	1.408	2.347	12.2	18.0
7 30	21 58.97	-16 39.9	2.403	3.378	5.7	20.1	7 30	21 59.34	-23 33.4	1.359	2.340	8.4	17.8
8 9	21 52.20	-17 32.0	2.370	3.376	2.6	19.9	8 9	21 52.58	-25 6.8	1.334	2.334	5.4	17.6
8 19	21 44.82	-18 23.0	2.365	3.374	1.8	19.8	8 19	21 44.74	-26 30.1	1.334	2.329	6.0	17.6
8 29	21 37.53	-19 8.5	2.389	3.371	4.8	20.0	8 29	21 37.06	-27 34.4	1.358	2.325	9.4	17.8
9 8	21 31.06	-19 45.3	2.441	3.369	7.8	20.2	9 8	21 30.79	-28 14.7	1.405	2.321	13.3	18.0
9 18	21 25.98	-20 11.4	2.517	3.366	10.6	20.4	9 18	21 26.86	-28 29.9	1.471	2.319	16.8	18.3
289012	2004 <i>TM</i> ₁₀₃		8 17.0 230°50	5°4/23.3	18		450921	2008 <i>DH</i> ₈₉		8 17.0			

EPHEMERIDES

8 17.0

8 17.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
87651	2000 <i>RT</i> ₈₂		8 17.0 181°79	4.2/20.1	18		238673	2005 <i>EN</i> ₁₈₅		8 17.0 308°51	1.3/16.1	18	
7 10	22 14.40	- 1 45.5	2.027	2.815	15.4	18.4	7 10	22 9.46	-14 1.1	1.607	2.463	15.9	20.6
7 20	22 9.47	- 1 16.0	1.941	2.816	12.7	18.2	7 20	22 6.42	-14 30.6	1.518	2.445	12.4	20.3
7 30	22 2.45	- 1 0.8	1.875	2.816	9.5	18.0	7 30	22 0.87	-15 12.1	1.449	2.427	8.3	20.0
8 9	21 53.86	- 1 0.1	1.833	2.816	6.2	17.8	8 9	21 53.31	-16 1.0	1.403	2.409	3.7	19.7
8 19	21 44.44	- 1 12.5	1.817	2.816	4.2	17.7	8 19	21 44.59	-16 51.1	1.382	2.392	2.0	19.5
8 29	21 35.13	- 1 35.3	1.830	2.815	5.6	17.8	8 29	21 35.89	-17 35.8	1.387	2.375	6.6	19.8
9 8	21 26.89	- 2 4.2	1.869	2.813	8.8	18.0	9 8	21 28.40	-18 9.4	1.416	2.359	11.2	20.0
9 18	21 20.46	- 2 34.7	1.933	2.812	12.0	18.2	9 18	21 23.11	-18 28.6	1.468	2.343	15.3	20.2
379646	2011 <i>EL</i> ₁₈		8 17.0 181°68	1.7/15.6	17		358457	2007 <i>EA</i> ₁₅₂		8 17.0 35°13	0.3/16.7	18	
7 10	22 13.96	-15 24.0	1.945	2.784	14.2	22.4	7 10	22 7.05	-11 3.1	2.012	2.851	13.8	20.5
7 20	22 9.29	-16 4.8	1.866	2.785	11.0	22.2	7 20	22 3.77	-11 42.3	1.942	2.859	10.7	20.3
7 30	22 2.39	-16 54.3	1.810	2.785	7.2	21.9	7 30	21 58.61	-12 32.8	1.894	2.867	7.1	20.1
8 9	21 53.84	-17 47.5	1.780	2.785	3.3	21.7	8 9	21 52.10	-13 30.6	1.871	2.876	3.2	19.9
8 19	21 44.45	-18 38.6	1.776	2.784	2.3	21.6	8 19	21 44.94	-14 30.5	1.874	2.886	1.0	19.7
8 29	21 35.23	-19 22.1	1.801	2.783	6.0	21.9	8 29	21 37.97	-15 27.1	1.905	2.895	4.9	20.0
9 8	21 27.18	-19 53.9	1.852	2.782	9.8	22.1	9 8	21 32.03	-16 15.5	1.963	2.905	8.6	20.3
9 18	21 21.07	-20 12.0	1.926	2.779	13.2	22.3	9 18	21 27.75	-16 52.8	2.045	2.915	11.8	20.5
126850	2002 <i>EE</i> ₇₃		8 17.0 109°88	1.7/18.4	18		439604	2014 <i>EF</i> ₂₃		8 17.0 319°56	1.5/18.2	18	
7 10	22 11.75	- 6 47.7	1.881	2.701	15.3	20.2	7 10	22 7.87	- 6 43.6	1.707	2.540	16.1	21.1
7 20	22 7.48	- 6 59.7	1.809	2.711	12.1	20.0	7 20	22 4.89	- 7 5.7	1.622	2.532	12.8	20.8
7 30	22 1.12	- 7 25.7	1.757	2.720	8.4	19.8	7 30	21 59.66	- 7 44.8	1.558	2.525	8.9	20.6
8 9	21 53.23	- 8 3.3	1.730	2.730	4.4	19.6	8 9	21 52.69	- 8 38.0	1.516	2.518	4.6	20.3
8 19	21 44.61	- 8 48.3	1.729	2.739	1.7	19.4	8 19	21 44.77	- 9 40.5	1.500	2.511	1.5	20.1
8 29	21 36.23	- 9 35.8	1.755	2.748	4.9	19.6	8 29	21 36.94	-10 45.9	1.511	2.505	5.3	20.3
9 8	21 29.00	-10 20.4	1.809	2.757	8.8	19.9	9 8	21 30.23	-11 47.6	1.547	2.499	9.7	20.6
9 18	21 23.65	-10 58.3	1.886	2.765	12.2	20.1	9 18	21 25.48	-12 40.0	1.606	2.493	13.6	20.8
473585	2015 <i>XT</i> ₂₃₇		8 17.0 272°16	5.5/22.8	18		487739	2015 <i>RW</i> ₁₀₇		8 17.0 326°46	1.6/15.9	17	
7 10	22 7.48	+ 6 5.8	2.715	3.454	13.1	21.1	7 10	22 7.29	-15 18.4	1.665	2.525	15.2	21.2
7 20	22 3.70	+ 6 35.5	2.616	3.447	11.2	21.0	7 20	22 4.70	-15 42.3	1.569	2.499	11.9	20.9
7 30	21 58.40	+ 6 50.3	2.537	3.439	9.1	20.8	7 30	21 59.71	-16 16.2	1.494	2.474	7.9	20.6
8 9	21 51.97	+ 6 49.4	2.482	3.431	7.0	20.7	8 9	21 52.79	-16 56.0	1.443	2.449	3.6	20.3
8 19	21 44.92	+ 6 33.1	2.453	3.424	5.7	20.6	8 19	21 44.73	-17 36.0	1.416	2.426	2.2	20.1
8 29	21 37.90	+ 6 3.1	2.451	3.416	5.9	20.6	8 29	21 36.64	-18 10.1	1.415	2.403	6.6	20.4
9 8	21 31.55	+ 5 22.8	2.475	3.408	7.5	20.7	9 8	21 29.67	-18 33.2	1.439	2.381	11.0	20.6
9 18	21 26.42	+ 4 36.4	2.525	3.401	9.7	20.8	9 18	21 24.78	-18 42.6	1.483	2.360	15.1	20.8
149693	2004 <i>HP</i> ₆		8 17.0 30°92	1.2/16.2	17		253530	2003 <i>SJ</i> ₁₉₃		8 17.0 324°18	4.7/19.6	18	
7 10	22 8.09	-11 43.6	1.229	2.099	18.9	19.6	7 10	22 10.07	- 3 52.3	1.253	2.094	20.3	20.4
7 20	22 5.64	-12 36.0	1.175	2.109	14.6	19.4	7 20	22 7.44	- 3 16.4	1.172	2.082	16.7	20.1
7 30	22 0.36	-13 45.5	1.139	2.120	9.6	19.1	7 30	22 1.84	- 3 0.0	1.109	2.071	12.3	19.8
8 9	21 53.00	-15 4.9	1.125	2.132	4.2	18.9	8 9	21 53.85	- 3 3.7	1.066	2.060	7.7	19.6
8 19	21 44.68	-16 25.0	1.134	2.145	2.0	18.8	8 19	21 44.47	- 3 26.0	1.045	2.049	4.7	19.4
8 29	21 36.77	-17 36.2	1.168	2.159	7.2	19.1	8 29	21 35.14	- 4 1.8	1.047	2.040	7.2	19.5
9 8	21 30.55	-18 31.3	1.225	2.173	12.0	19.5	9 8	21 27.34	- 4 44.1	1.072	2.031	12.0	19.7
9 18	21 26.88	-19 6.8	1.303	2.188	16.2	19.7	9 18	21 22.19	- 5 25.5	1.117	2.023	16.6	20.0
87359	2000 <i>QQ</i> ₃₉		8 17.0 323°76	0.8/17.6	18		256411	2007 <i>AC</i> ₂₈		8 17.0 184°24	0.3/17.3	18	
7 10	22 4.72	- 7 2.7	1.382	2.236	18.1	19.1	7 10	22 8.78	-10 7.7	2.324	3.148	12.6	21.5
7 20	22 3.05	- 7 45.4	1.295	2.218	14.4	18.8	7 20	22 4.90	-10 31.1	2.241	3.148	9.9	21.3
7 30	21 58.78	- 8 51.0	1.227	2.201	9.9	18.5	7 30	21 59.28	-11 4.6	2.179	3.148	6.7	21.1
8 9	21 52.41	-10 15.9	1.180	2.185	4.8	18.2	8 9	21 52.40	-11 45.4	2.144	3.148	3.1	20.9
8 19	21 44.79	-11 53.0	1.158	2.170	1.1	17.9	8 19	21 44.87	-12 29.6	2.136	3.148	0.7	20.7
8 29	21 37.15	-13 32.2	1.160	2.155	6.4	18.2	8 29	21 37.46	-13 13.1	2.157	3.147	4.3	20.9
9 8	21 30.78	-15 3.2	1.187	2.141	11.6	18.4	9 8	21 30.93	-13 51.7	2.205	3.147	7.8	21.2
9 18	21 26.74	-16 18.2	1.234	2.128	16.3	18.7	9 18	21 25.88	-14 22.8	2.277	3.146	10.8	21.4
396514	2014 <i>GU</i> ₁₂		8 17.0 264°89	4.3/20.9	18		312421	2008 <i>GF</i> ₂₇		8 17.0 119°74	1.6/15.8	18	
7 10	22 8.12	+ 1 40.4	2.019	2.804	15.6	20.9	7 10	22 13.03	-17 14.5	2.214	3.051	12.7	20.8
7 20	22 4.80	+ 1 27.7	1.918	2.789	13.0	20.7	7 20	22 8.22	-17 29.3	2.138	3.055	9.8	20.6
7 30	21 59.48	+ 0 54.6	1.836	2.773	9.9	20.5	7 30	22 1.49	-17 48.8	2.085	3.059	6.5	20.4
8 9	21 52.58	+ 0 1.5	1.777	2.758	6.6	20.3	8 9	21 53.39	-18 9.4	2.058	3.063	3.0	20.2
8 19	21 44.77	- 1 9.2	1.744	2.742	4.3	20.1	8 19	21 44.64	-18 27.3	2.058	3.067	2.0	20.1
8 29	21 36.90	- 2 32.3	1.738	2.726	5.5	20.1	8 29	21 36.11	-18 39.0	2.087	3.070	5.2	20.4
9 8	21 29.92	- 4 0.9	1.759	2.710	8.8	20.3	9 8	21 28.65	-18 42.1	2.143	3.074	8.6	20.6
9 18	21 24.60	- 5 28.0	1.805	2.693	12.2	20.5	9 18	21 22.89	-18 35.7	2.223	3.077	11.6	20.8
263983	2009 <i>KD</i> ₂₂		8 17.0 82°54	1.1/16.2	17		48558	1993 <i>TL</i> ₃₈		8 17.0 277°42	3.4/14.1	18	
7 10	22 13.17	-12 39.3	1.405	2.260	17.8	20.9	7 10	22 10.96	-19 41.5	1.970	2.822	13.5	18.7
7 20	22 9.29	-13 20.1	1.344	2.270	13.8	20.7	7 20	22 7.16	-20 32.9	1.881	2.806	10.5	18.5
7 30	22 2.67	-14 14.9	1.302	2.280	9.1	20.5	7 30	22 1.12	-21 30.9	1.814	2.790	7.1	18.2
8 9	21 54.03	-15 17.5	1.284	2.290	4.0	20.2	8 9	21 53.36	-22 29.7	1.773	2.775	4.0	18.0
8 19	21 44.44	-16 20.3	1.290	2.300	1.9	20.1	8 19	21 44.62	-23 22.9	1.758	2.759	3.9	18.0
8 29	21 35.22	-17 15.6	1.322	2.310	6.7	20.4	8 29	21 35.92	-24 4.5	1.770	2.743	7.1	18.2
9 8	21 27.62	-17 57.4	1.378	2.321	11.4	20.7	9 8	21 28.29	-24 30.7	1.808	2.727	10.7	18.3
9 18	21 22.51	-18 23.1	1.456	2.330	15.4	21.0	9 18	21 22.56	-24 40.0	1.868	2.710	14.0	18.5
94580	2001 <i>VN</i> ₄₆		8 17.0 270°56	1.8/15.9	18		382430	1999 <i>RG</i> ₄₁		8 17.0 356°22</			

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8 17.0

8 17.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
374751	2006 SQ ₂₀₄		8 17.0 310°41	4°5/14.5	17		308393	2005 SP ₃₈		8 17.0 106°41	0°6/16.5	18	
7 10	22 13.02	-20 49.0	1.302	2.176	17.7	20.6	7 10	22 10.02	-13 17.0	2.181	3.015	13.0	21.0
7 20	22 9.92	-21 24.7	1.221	2.158	13.9	20.3	7 20	22 5.97	-13 41.0	2.102	3.018	10.1	20.8
7 30	22 3.60	-22 7.5	1.158	2.139	9.5	20.0	7 30	22 0.04	-14 13.3	2.047	3.020	6.7	20.6
8 9	21 54.69	-22 49.7	1.118	2.121	5.4	19.7	8 9	21 52.76	-14 50.5	2.016	3.022	3.0	20.3
8 19	21 44.27	-23 22.7	1.101	2.104	5.2	19.7	8 19	21 44.81	-15 28.4	2.013	3.024	1.2	20.2
8 29	21 33.93	-23 38.8	1.108	2.087	9.4	19.8	8 29	21 37.03	-16 2.7	2.038	3.026	4.8	20.5
9 8	21 25.28	-23 34.1	1.137	2.070	14.2	20.1	9 8	21 30.22	-16 29.7	2.090	3.028	8.4	20.7
9 18	21 19.51	-23 8.4	1.185	2.055	18.6	20.3	9 18	21 25.05	-16 47.4	2.166	3.030	11.5	20.9
349481	2008 DO ₇₃		8 17.0 37°93	0°2/17.2	18		246596	2008 UQ ₂₆₁		8 17.0 217°57	6°9/22.4	18	
7 10	22 12.02	-12 19.9	1.990	2.824	14.1	20.3	7 10	22 12.39	+ 5 49.6	2.106	2.856	16.1	20.9
7 20	22 7.63	-12 19.1	1.914	2.828	11.0	20.1	7 20	22 7.96	+ 6 36.5	2.013	2.851	13.8	20.7
7 30	22 1.19	-12 26.9	1.860	2.832	7.4	19.8	7 30	22 1.51	+ 7 5.7	1.940	2.846	11.2	20.5
8 9	21 53.28	-12 40.2	1.831	2.836	3.4	19.6	8 9	21 53.50	+ 7 15.3	1.889	2.841	8.6	20.3
8 19	21 44.67	-12 55.9	1.829	2.841	0.8	19.4	8 19	21 44.62	+ 7 5.0	1.864	2.836	7.0	20.2
8 29	21 36.28	-13 10.3	1.855	2.845	4.9	19.7	8 29	21 35.77	+ 6 36.6	1.864	2.830	7.3	20.2
9 8	21 29.01	-13 20.2	1.906	2.850	8.7	20.0	9 8	21 27.86	+ 5 54.5	1.891	2.824	9.4	20.4
9 18	21 23.56	-13 23.5	1.983	2.855	12.0	20.2	9 18	21 21.64	+ 5 4.2	1.942	2.818	12.1	20.5
205036	1998 QG ₉₇		8 17.0 0°03	7°1/19.8	18		127490	2002 TU ₁₈		8 17.0 20°04	0°4/16.8	17	
7 10	22 14.66	- 3 20.7	1.303	2.132	20.4	18.6	7 10	22 9.16	-12 55.9	0.999	1.883	21.1	18.6
7 20	22 10.74	- 1 36.0	1.231	2.129	16.9	18.4	7 20	22 6.97	-12 58.7	0.950	1.892	16.4	18.4
7 30	22 3.86	- 0 4.7	1.176	2.126	13.0	18.2	7 30	22 1.48	-13 16.6	0.918	1.902	10.9	18.1
8 9	21 54.68	+ 1 9.5	1.143	2.126	9.2	17.9	8 9	21 53.59	-13 44.3	0.906	1.914	4.9	17.8
8 19	21 44.30	+ 2 3.6	1.133	2.127	7.1	17.8	8 19	21 44.63	-14 14.8	0.915	1.927	1.4	17.6
8 29	21 34.15	+ 2 37.5	1.147	2.129	8.6	17.9	8 29	21 36.26	-14 40.5	0.947	1.941	7.4	18.1
9 8	21 25.65	+ 2 54.3	1.183	2.132	12.2	18.1	9 8	21 29.96	-14 55.8	0.999	1.957	12.8	18.4
9 18	21 19.81	+ 2 59.1	1.241	2.137	16.1	18.4	9 18	21 26.63	-14 58.0	1.071	1.974	17.4	18.7
219328	2000 JR ₂₂		8 17.0 113°74	1°6/15.8	18		288977	2004 TM ₄₅		8 17.0 269°78	0°4/17.3	18	
7 10	22 14.89	-15 5.8	1.776	2.618	15.2	20.7	7 10	22 11.64	-10 21.6	1.889	2.720	14.8	21.6
7 20	22 10.04	-15 42.9	1.713	2.633	11.7	20.5	7 20	22 7.74	-10 39.1	1.790	2.702	11.7	21.3
7 30	22 2.87	-16 28.9	1.671	2.647	7.7	20.3	7 30	22 1.57	-11 9.1	1.712	2.683	8.0	21.1
8 9	21 54.06	-17 18.2	1.654	2.660	3.5	20.1	8 9	21 53.61	-11 48.6	1.659	2.664	3.8	20.8
8 19	21 44.49	-18 5.1	1.664	2.673	2.2	20.0	8 19	21 44.58	-12 33.3	1.633	2.644	0.9	20.5
8 29	21 35.27	-18 43.9	1.702	2.686	6.1	20.3	8 29	21 35.52	-13 17.8	1.633	2.624	5.4	20.8
9 8	21 27.42	-19 10.8	1.765	2.698	10.0	20.5	9 8	21 27.47	-13 56.9	1.660	2.604	9.7	21.0
9 18	21 21.67	-19 24.3	1.852	2.710	13.4	20.8	9 18	21 21.32	-14 26.9	1.710	2.584	13.6	21.2
286765	2002 HP ₁₅		8 17.0 26°13	6°9/13.2	17		149097	2002 CO ₁₅₉		8 17.0 58°03	1°6/18.7	18	
7 10	22 14.68	-25 4.2	1.168	2.050	18.8	19.9	7 10	22 7.13	- 4 17.6	2.042	2.855	14.5	19.1
7 20	22 11.19	-26 3.0	1.116	2.055	14.7	19.6	7 20	22 3.73	- 5 3.3	1.976	2.874	11.5	19.0
7 30	22 4.28	-27 3.5	1.083	2.061	10.5	19.4	7 30	21 58.53	- 6 5.2	1.932	2.893	8.0	18.8
8 9	21 54.85	-27 55.1	1.072	2.068	7.3	19.3	8 9	21 52.06	- 7 19.7	1.913	2.912	4.2	18.6
8 19	21 44.30	-28 27.8	1.083	2.075	7.6	19.3	8 19	21 45.02	- 8 41.6	1.921	2.931	1.6	18.5
8 29	21 34.34	-28 35.1	1.117	2.083	11.1	19.5	8 29	21 38.20	-10 4.8	1.957	2.950	4.4	18.7
9 8	21 26.54	-28 16.0	1.172	2.091	15.1	19.8	9 8	21 32.39	-11 22.9	2.021	2.970	7.9	19.0
9 18	21 21.85	-27 33.7	1.245	2.100	18.8	20.0	9 18	21 28.18	-12 31.4	2.109	2.989	11.1	19.2
34679	2001 BH ₁₇		8 17.0 336°27	0°6/16.5	18		511286	2014 DH ₄₃		8 17.0 132°70	1°1/18.0	18	
7 10	22 3.33	- 9 8.2	1.339	2.204	17.9	17.7	7 10	22 9.65	- 7 32.4	1.993	2.815	14.5	21.6
7 20	22 2.02	-10 11.9	1.258	2.190	14.1	17.4	7 20	22 5.85	- 7 56.0	1.913	2.818	11.4	21.4
7 30	21 58.11	-11 38.3	1.197	2.177	9.4	17.1	7 30	22 0.07	- 8 33.3	1.855	2.821	7.9	21.2
8 9	21 52.12	-13 21.9	1.158	2.165	4.2	16.8	8 9	21 52.83	- 9 21.3	1.822	2.823	3.9	20.9
8 19	21 44.93	-15 13.5	1.142	2.153	1.5	16.6	8 19	21 44.84	-10 15.9	1.815	2.826	1.2	20.7
8 29	21 37.78	-17 1.5	1.152	2.143	7.0	16.9	8 29	21 37.00	-11 11.5	1.836	2.828	4.7	21.0
9 8	21 31.96	-18 35.4	1.184	2.134	12.1	17.1	9 8	21 30.19	-12 3.1	1.883	2.830	8.5	21.2
9 18	21 28.49	-19 48.1	1.238	2.126	16.7	17.4	9 18	21 25.11	-12 46.6	1.955	2.833	12.0	21.4
117273	2004 TX ₁₀₉		8 17.0 309°76	2°1/19.3	18		220205	2002 VH ₃₀		8 17.0 263°63	3°9/19.8	18	
7 10	22 5.58	- 2 51.5	2.239	3.044	13.7	19.9	7 10	22 11.13	- 2 18.8	1.657	2.469	17.4	20.7
7 20	22 2.56	- 3 29.5	2.147	3.038	11.0	19.7	7 20	22 7.54	- 2 9.8	1.569	2.460	14.2	20.4
7 30	21 57.81	- 4 24.2	2.077	3.032	7.9	19.5	7 30	22 1.53	- 2 19.4	1.499	2.452	10.5	20.2
8 9	21 51.78	- 5 33.4	2.031	3.026	4.5	19.2	8 9	21 53.62	- 2 47.4	1.452	2.443	6.6	19.9
8 19	21 45.04	- 6 53.1	2.012	3.020	2.1	19.1	8 19	21 44.64	- 3 31.0	1.430	2.434	4.0	19.8
8 29	21 38.36	- 8 17.7	2.022	3.015	4.3	19.2	8 29	21 35.69	- 4 25.3	1.434	2.425	6.0	19.9
9 8	21 32.49	- 9 41.0	2.059	3.009	7.7	19.4	9 8	21 27.92	- 5 23.5	1.463	2.416	10.0	20.1
9 18	21 28.06	-10 57.6	2.122	3.004	10.9	19.6	9 18	21 22.24	- 6 19.2	1.515	2.406	14.0	20.3
403480	2009 UP ₂₁		8 17.0 251°53	1°2/15.7	18		380830	2005 YE ₂₈₈		8 17.0 214°44	5°6/12.8	18	
7 10	22 7.78	-14 48.6	2.635	3.469	11.1	21.5	7 10	22 19.65	-28 17.4	2.078	2.919	13.3	20.9
7 20	22 4.02	-15 29.1	2.543	3.458	8.5	21.3	7 20	22 13.76	-28 58.8	1.999	2.913	10.6	20.7
7 30	21 58.67	-16 16.7	2.474	3.448	5.6	21.1	7 30	22 5.43	-29 38.3	1.944	2.906	7.8	20.5
8 9	21 52.14	-17 8.1	2.432	3.437	2.6	20.9	8 9	21 55.29	-30 9.2	1.914	2.899	5.8	20.4
8 19	21 44.96	-17 59.0	2.418	3.427	1.7	20.8	8 19	21 44.26	-30 25.6	1.911	2.891	6.1	20.4
8 29	21 37.83	-18 45.4	2.433	3.416	4.6	21.0	8 29	21 33.48	-30 23.6	1.935	2.883	8.5	20.5
9 8	21 31.43	-19 23.6	2.476	3.405	7.7	21.2	9 8	21 24.05	-30 2.4	1.985	2.874	11.4	20.7
9 18	21 26.35	-19 51.6	2.544	3.394	10.5	21.3	9 18	21 16.79	-29 23.6	2.058	2.865	14.2	20.9
182884	2002 CE ₂₆₃		8 17.0 250°76	5°5/11.1	18		360714	2004 TO ₁₀₃		8 17.0 36°78	3°7/20.7	18	
7 10	22 12.76	-29 18.1											

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8 17.0

8 17.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
315441	2007 <i>WD</i> ₁₁		8 17.0 13°73	1.6/18.2	17		479849	2014 <i>GD</i> ₂₁		8 17.0 190°71	2.2/15.2	18	
7 10	22 1.79	- 5 51.4	0.898	1.783	22.8	19.1	7 10	22 14.18	-18 33.5	2.265	3.102	12.5	21.7
7 20	22 1.54	- 6 24.5	0.847	1.787	18.1	18.8	7 20	22 9.17	-18 59.5	2.184	3.101	9.7	21.5
7 30	21 58.07	- 7 27.0	0.813	1.793	12.5	18.6	7 30	22 2.20	-19 30.0	2.126	3.099	6.4	21.3
8 9	21 52.15	- 8 53.4	0.796	1.801	6.3	18.3	8 9	21 53.79	-20 0.7	2.094	3.097	3.2	21.1
8 19	21 45.02	-10 33.3	0.800	1.811	1.7	18.0	8 19	21 44.67	-20 27.2	2.090	3.095	2.6	21.0
8 29	21 38.33	-12 13.1	0.824	1.822	7.2	18.4	8 29	21 35.71	-20 45.6	2.114	3.093	5.6	21.2
9 8	21 33.57	-13 40.1	0.870	1.836	13.0	18.8	9 8	21 27.80	-20 53.6	2.166	3.090	8.9	21.4
9 18	21 31.72	-14 46.2	0.934	1.850	18.0	19.1	9 18	21 21.60	-20 50.2	2.242	3.087	11.9	21.6
185257	2006 <i>UW</i> ₈₈		8 17.0 202°35	0.7/16.4	18		472966	2015 <i>GG</i> ₃₉		8 17.0 1°29	5.1/13.4	18	
7 10	22 10.58	-13 40.2	2.299	3.131	12.5	21.0	7 10	22 6.07	-19 50.1	1.225	2.113	17.7	19.4
7 20	22 6.35	-14 5.7	2.215	3.129	9.7	20.8	7 20	22 4.39	-21 4.9	1.165	2.110	13.7	19.1
7 30	22 0.30	-14 39.1	2.154	3.127	6.4	20.6	7 30	21 59.76	-22 29.3	1.125	2.109	9.3	18.9
8 9	21 52.91	-15 17.0	2.119	3.125	2.9	20.4	8 9	21 52.90	-23 53.7	1.107	2.109	5.6	18.7
8 19	21 44.84	-15 55.2	2.112	3.122	1.2	20.3	8 19	21 44.90	-25 7.2	1.111	2.110	6.0	18.7
8 29	21 36.89	-16 29.7	2.133	3.119	4.8	20.5	8 29	21 37.20	-26 0.5	1.139	2.113	9.8	18.9
9 8	21 29.87	-16 56.9	2.181	3.117	8.2	20.7	9 8	21 31.20	-26 28.7	1.188	2.117	14.1	19.2
9 18	21 24.41	-17 14.8	2.254	3.113	11.3	20.9	9 18	21 27.85	-26 31.3	1.256	2.122	18.0	19.5
517425	2014 <i>MZ</i> ₅₆		8 17.0 232°44	3.9/12.3	18		183530	2003 <i>FV</i> ₁₃₀		8 17.1 164°79	0.4/17.5	18	
7 10	22 8.15	-22 20.4	2.564	3.412	10.9	21.5	7 10	22 7.87	- 8 22.8	2.314	3.134	12.8	20.5
7 20	22 4.45	-23 41.2	2.485	3.407	8.4	21.3	7 20	22 4.25	- 9 4.3	2.231	3.136	10.0	20.3
7 30	21 59.05	-25 6.1	2.430	3.402	5.9	21.2	7 30	21 58.91	- 9 58.2	2.170	3.137	6.8	20.1
8 9	21 52.36	-26 29.4	2.403	3.397	4.0	21.0	8 9	21 52.31	-11 1.1	2.135	3.138	3.2	19.9
8 19	21 44.97	-27 45.2	2.404	3.391	4.5	21.0	8 19	21 45.07	-12 8.6	2.128	3.139	0.7	19.6
8 29	21 37.64	-28 48.2	2.433	3.385	6.7	21.2	8 29	21 37.92	-13 15.5	2.149	3.140	4.3	19.9
9 8	21 31.11	-29 35.4	2.489	3.380	9.3	21.3	9 8	21 31.62	-14 16.8	2.198	3.141	7.8	20.1
9 18	21 26.01	-30 5.5	2.568	3.374	11.7	21.5	9 18	21 26.79	-15 8.9	2.273	3.142	10.8	20.3
258785	2002 <i>JS</i> ₁₃₂		8 17.0 101°69	2.2/19.2	18		395593	2011 <i>UW</i> ₃₁₅		8 17.1 5°91	6.9/11.3	18	
7 10	22 9.00	- 4 34.8	2.433	3.232	12.9	21.0	7 10	22 13.89	-30 28.8	1.928	2.784	13.6	21.1
7 20	22 4.91	- 4 41.4	2.356	3.243	10.3	20.9	7 20	22 9.48	-31 30.9	1.865	2.784	10.9	21.0
7 30	21 59.21	- 5 0.2	2.301	3.254	7.3	20.7	7 30	22 2.66	-32 29.8	1.825	2.784	8.4	20.8
8 9	21 52.38	- 5 29.4	2.271	3.265	4.2	20.5	8 9	21 54.07	-33 18.0	1.808	2.785	7.0	20.7
8 19	21 45.00	- 6 6.4	2.269	3.276	2.2	20.4	8 19	21 44.65	-33 49.0	1.818	2.786	7.5	20.8
8 29	21 37.79	- 6 47.6	2.296	3.287	4.1	20.6	8 29	21 35.53	-33 58.2	1.852	2.786	9.7	20.9
9 8	21 31.43	- 7 28.9	2.350	3.297	7.1	20.8	9 8	21 27.82	-33 45.1	1.910	2.787	12.3	21.1
9 18	21 26.48	- 8 6.9	2.429	3.307	9.9	21.0	9 18	21 22.27	-33 11.5	1.989	2.788	14.9	21.2
371451	2006 <i>SV</i> ₃₁₆		8 17.0 265°79	0.3/16.8	18		91571	1999 <i>RZ</i> ₂₅₂		8 17.1 259°74	4.8/21.8	18	
7 10	22 11.94	-11 2.9	1.641	2.483	16.2	22.0	7 10	22 7.74	+ 2 56.3	2.306	3.075	14.3	19.3
7 20	22 8.35	-11 35.3	1.548	2.466	12.8	21.8	7 20	22 4.16	+ 3 6.6	2.217	3.074	12.0	19.1
7 30	22 2.19	-12 22.7	1.476	2.450	8.6	21.5	7 30	21 58.86	+ 3 0.0	2.147	3.073	9.3	18.9
8 9	21 53.99	-13 21.0	1.427	2.433	3.9	21.2	8 9	21 52.30	+ 2 36.6	2.101	3.072	6.6	18.8
8 19	21 44.57	-14 24.2	1.404	2.416	1.2	20.9	8 19	21 45.07	+ 1 57.9	2.081	3.070	4.9	18.6
8 29	21 35.11	-15 25.0	1.408	2.398	6.2	21.2	8 29	21 37.91	+ 1 7.1	2.088	3.069	5.5	18.7
9 8	21 26.84	-16 16.8	1.437	2.381	10.9	21.5	9 8	21 31.57	+ 0 9.0	2.122	3.068	7.8	18.8
9 18	21 20.77	-16 55.2	1.488	2.363	15.2	21.7	9 18	21 26.69	- 0 51.0	2.182	3.067	10.6	19.0
123739	2001 <i>AC</i> ₁₈		8 17.0 171°39	0.4/17.6	18		76651	2000 <i>HV</i> ₃₃		8 17.1 270°95	5.6/12.1	18	
7 10	22 7.64	- 8 10.9	3.356	4.156	9.6	20.8	7 10	22 13.25	-26 31.4	2.060	2.913	13.0	18.7
7 20	22 3.48	- 8 54.4	3.266	4.160	7.5	20.6	7 20	22 8.98	-27 34.0	1.974	2.895	10.3	18.4
7 30	21 58.10	- 9 46.5	3.201	4.164	5.1	20.4	7 30	22 2.40	-28 38.1	1.910	2.878	7.5	18.2
8 9	21 51.84	-10 44.8	3.165	4.167	2.4	20.3	8 9	21 54.02	-29 36.7	1.872	2.860	5.7	18.1
8 19	21 45.14	-11 46.3	3.157	4.169	0.6	20.1	8 19	21 44.63	-30 22.9	1.861	2.842	6.2	18.1
8 29	21 38.50	-12 47.4	3.181	4.171	3.2	20.3	8 29	21 35.30	-30 51.3	1.876	2.823	8.7	18.2
9 8	21 32.43	-13 44.9	3.235	4.172	5.8	20.5	9 8	21 27.09	-30 59.3	1.915	2.805	11.7	18.4
9 18	21 27.37	-14 36.0	3.316	4.173	8.1	20.7	9 18	21 20.86	-30 47.1	1.977	2.786	14.6	18.5
424486	2008 <i>DT</i> ₁₆		8 17.0 88°29	1.9/15.8	17		184908	2005 <i>UL</i> ₃₄₉		8 17.1 322°09	3.6/20.2	18	
7 10	22 15.41	-15 26.0	1.533	2.384	16.7	21.4	7 10	22 5.16	- 1 11.6	1.849	2.660	15.9	19.7
7 20	22 10.77	-16 1.2	1.475	2.400	12.9	21.2	7 20	22 2.72	- 1 20.6	1.752	2.643	13.1	19.5
7 30	22 3.53	-16 45.9	1.438	2.415	8.5	21.0	7 30	21 58.23	- 1 49.2	1.674	2.626	9.7	19.3
8 9	21 54.43	-17 34.1	1.424	2.430	3.9	20.8	8 9	21 52.13	- 2 36.5	1.619	2.609	6.1	19.0
8 19	21 44.52	-18 19.0	1.437	2.446	2.5	20.7	8 19	21 45.09	- 3 39.7	1.589	2.593	3.6	18.8
8 29	21 35.04	-18 54.6	1.475	2.460	6.7	21.0	8 29	21 38.04	- 4 53.5	1.586	2.578	5.3	18.9
9 8	21 27.17	-19 16.8	1.539	2.475	10.9	21.3	9 8	21 31.91	- 6 10.7	1.607	2.563	9.0	19.1
9 18	21 21.67	-19 24.5	1.624	2.489	14.6	21.6	9 18	21 27.53	- 7 24.7	1.653	2.548	12.8	19.3
18572	Rocher		8 17.0 319°47	0.5/17.3	18		373728	2002 <i>SF</i> ₄₃		8 17.1 328°60	1.1/16.5	18	
7 10	22 9.65	-11 18.8	1.180	2.049	19.6	18.1	7 10	22 8.49	-14 18.7	1.162	2.040	19.2	20.2
7 20	22 7.44	-11 17.6	1.098	2.030	15.6	17.8	7 20	22 6.60	-14 26.2	1.081	2.020	15.1	19.9
7 30	22 2.06	-11 32.1	1.033	2.012	10.7	17.5	7 30	22 1.53	-14 46.7	1.018	2.001	10.2	19.6
8 9	21 54.08	-11 59.0	0.989	1.995	5.1	17.1	8 9	21 53.87	-15 15.8	0.976	1.984	4.6	19.2
8 19	21 44.54	-12 33.1	0.966	1.978	1.2	16.8	8 19	21 44.66	-15 46.8	0.956	1.967	1.9	19.0
8 29	21 34.99	-13 7.0	0.967	1.962	7.2	17.1	8 29	21 35.47	-16 12.4	0.958	1.951	7.7	19.3
9 8	21 27.05	-13 33.8	0.990	1.947	13.0	17.4	9 8	21 27.95	-16 26.2	0.982	1.936	13.4	19.6
9 18	21 21.97	-13 48.8	1.032	1.933	18.1	17.6	9 18	21 23.30	-16 25.2	1.025	1.923	18.4	19.8
300481	2007 <i>TA</i> ₁₂₆		8 17.0 352°79	2.9/19.5	18		407611	2011 <i>BH</i> ₁₁₅		8 17.1 269°61	0		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
130567	2000 <i>RV</i> ₃₉		8 17.1	9°34	6°7/14.5	18	260531	2005 <i>EV</i> ₁₃₉		8 17.1	185°46	2°0/15.5	17
7 10	22 12.63	-25 20.5	0.879	1.782	21.5	18.0	7 10	22 15.45	-15 43.9	1.795	2.636	15.1	21.3
7 20	22 10.40	-25 37.3	0.833	1.784	16.9	17.8	7 20	22 10.71	-16 26.6	1.717	2.637	11.7	21.1
7 30	22 4.15	-25 53.0	0.803	1.787	11.9	17.5	7 30	22 3.54	-17 18.7	1.661	2.636	7.7	20.9
8 9	21 54.95	-25 57.7	0.791	1.792	7.6	17.3	8 9	21 54.55	-18 14.6	1.630	2.635	3.6	20.6
8 19	21 44.47	-25 43.0	0.799	1.799	7.3	17.3	8 19	21 44.60	-19 7.8	1.626	2.634	2.6	20.5
8 29	21 34.83	-25 4.3	0.827	1.808	11.3	17.6	8 29	21 34.84	-19 52.2	1.650	2.632	6.5	20.8
9 8	21 27.79	-24 3.0	0.875	1.819	16.1	17.9	9 8	21 26.36	-20 23.4	1.699	2.629	10.5	21.0
9 18	21 24.35	-22 44.0	0.940	1.831	20.4	18.2	9 18	21 20.02	-20 39.6	1.772	2.626	14.1	21.2
511123	2013 <i>WB</i> ₅₉		8 17.1	315°91	0°7/16.6	18	490965	2011 <i>DC</i> ₃₈		8 17.1	258°08	0°6/17.5	18
7 10	22 8.17	-12 5.4	1.316	2.182	18.1	21.0	7 10	22 13.57	-9 51.7	1.789	2.618	15.6	21.9
7 20	22 6.02	-12 32.4	1.229	2.161	14.3	20.7	7 20	22 9.43	-10 5.6	1.690	2.601	12.4	21.7
7 30	22 0.99	-13 15.8	1.161	2.141	9.6	20.4	7 30	22 2.85	-10 32.7	1.613	2.582	8.5	21.4
8 9	21 53.58	-14 11.4	1.115	2.122	4.4	20.1	8 9	21 54.32	-11 10.2	1.560	2.564	4.1	21.1
8 19	21 44.75	-15 12.1	1.091	2.103	1.6	19.8	8 19	21 44.64	-11 53.8	1.533	2.544	1.0	20.8
8 29	21 35.87	-16 9.4	1.092	2.084	7.2	20.1	8 29	21 34.89	-12 37.8	1.533	2.525	5.6	21.1
9 8	21 28.40	-16 55.5	1.116	2.067	12.6	20.4	9 8	21 26.24	-13 16.8	1.559	2.505	10.1	21.3
9 18	21 23.50	-17 25.5	1.159	2.050	17.4	20.6	9 18	21 19.63	-13 46.8	1.609	2.484	14.2	21.5
91661	1999 <i>TG</i> ₁₀₆		8 17.1	274°77	6°4/21.4	18	205162	2000 <i>AV</i> ₄₄		8 17.1	328°23	3°2/14.4	18
7 10	22 12.79	+ 3 5.9	2.013	2.781	16.2	19.4	7 10	22 9.59	-17 49.5	1.739	2.598	14.7	20.1
7 20	22 8.60	+ 3 51.2	1.903	2.757	13.8	19.2	7 20	22 6.29	-18 49.9	1.664	2.594	11.4	19.9
7 30	22 2.20	+ 4 20.5	1.812	2.733	11.0	19.0	7 30	22 0.66	-19 59.1	1.611	2.590	7.6	19.6
8 9	21 54.00	+ 4 31.8	1.744	2.708	8.2	18.7	8 9	21 53.25	-21 10.7	1.582	2.586	4.0	19.4
8 19	21 44.66	+ 4 24.2	1.700	2.683	6.5	18.6	8 19	21 44.92	-22 17.2	1.580	2.583	3.8	19.4
8 29	21 35.14	+ 3 59.4	1.683	2.658	7.2	18.6	8 29	21 36.73	-23 11.6	1.603	2.580	7.3	19.6
9 8	21 26.48	+ 3 21.4	1.693	2.632	9.9	18.7	9 8	21 29.77	-23 49.4	1.652	2.577	11.1	19.8
9 18	21 19.56	+ 2 35.8	1.726	2.606	13.1	18.8	9 18	21 24.85	-24 8.8	1.722	2.574	14.5	20.1
251877	1999 <i>VE</i> ₅₂		8 17.1	263°62	4°7/21.6	18	326234	2012 <i>DK</i> ₁₇		8 17.1	219°78	0°2/17.3	18
7 10	22 8.29	+ 2 52.1	2.494	3.257	13.5	20.8	7 10	22 7.82	-9 26.1	3.003	3.813	10.4	21.8
7 20	22 4.54	+ 3 8.9	2.391	3.244	11.4	20.7	7 20	22 3.87	-10 6.3	2.903	3.803	8.1	21.6
7 30	21 59.12	+ 3 10.6	2.309	3.231	8.9	20.5	7 30	21 58.53	-10 55.8	2.828	3.793	5.5	21.4
8 9	21 52.45	+ 2 56.8	2.250	3.218	6.4	20.3	8 9	21 52.15	-11 52.1	2.779	3.783	2.6	21.2
8 19	21 45.06	+ 2 28.4	2.218	3.205	4.8	20.2	8 19	21 45.19	-12 51.6	2.760	3.772	0.6	21.0
8 29	21 37.66	+ 1 47.9	2.213	3.191	5.4	20.2	8 29	21 38.25	-13 50.6	2.771	3.760	3.6	21.2
9 8	21 30.98	+ 0 59.3	2.235	3.178	7.6	20.3	9 8	21 31.92	-14 45.4	2.811	3.749	6.5	21.4
9 18	21 25.64	+ 0 7.3	2.283	3.164	10.3	20.5	9 18	21 26.72	-15 33.0	2.878	3.736	9.1	21.6
128871	2004 <i>SG</i> ₃₆		8 17.1	273°78	3°9/13.2	18	15697	1986 <i>QO</i> ₁		8 17.1	10°20	1°5/15.9	18
7 10	22 10.93	-23 44.0	2.401	3.248	11.5	20.2	7 10	22 7.73	-13 57.5	1.602	2.460	15.8	17.3
7 20	22 6.77	-24 31.5	2.311	3.233	9.0	20.0	7 20	22 4.90	-14 39.0	1.533	2.462	12.2	17.1
7 30	22 0.70	-25 21.3	2.246	3.217	6.3	19.8	7 30	21 59.73	-15 32.0	1.486	2.465	8.0	16.9
8 9	21 53.19	-26 8.3	2.206	3.200	4.2	19.6	8 9	21 52.82	-16 31.3	1.461	2.468	3.6	16.6
8 19	21 44.89	-26 47.2	2.193	3.184	4.5	19.6	8 19	21 45.04	-17 30.1	1.462	2.472	2.1	16.5
8 29	21 36.65	-27 13.8	2.208	3.168	6.8	19.7	8 29	21 37.50	-18 21.6	1.489	2.476	6.3	16.8
9 8	21 29.31	-27 25.5	2.250	3.151	9.7	19.9	9 8	21 31.24	-19 0.6	1.540	2.481	10.5	17.1
9 18	21 23.58	-27 21.8	2.314	3.135	12.4	20.0	9 18	21 27.07	-19 24.4	1.614	2.487	14.2	17.3
401235	2012 <i>AH</i> ₂₄		8 17.1	104°72	3°6/20.7	18	313002	1999 <i>UD</i> ₃₃		8 17.1	301°83	0°6/16.5	18
7 10	22 7.87	-0 2.1	2.424	3.205	13.4	20.8	7 10	22 9.03	-13 17.8	2.120	2.958	13.2	21.6
7 20	22 4.13	-0 0.2	2.340	3.209	11.0	20.7	7 20	22 5.43	-13 40.7	2.029	2.946	10.3	21.3
7 30	21 58.77	-0 13.0	2.276	3.214	8.3	20.5	7 30	21 59.88	-14 12.6	1.961	2.935	6.9	21.1
8 9	21 52.25	-0 39.7	2.237	3.218	5.5	20.3	8 9	21 52.86	-14 50.0	1.917	2.923	3.1	20.9
8 19	21 45.14	-1 18.3	2.225	3.223	3.6	20.2	8 19	21 45.03	-15 28.9	1.900	2.911	1.2	20.7
8 29	21 38.13	-2 5.3	2.240	3.227	4.6	20.3	8 29	21 37.26	-16 4.5	1.911	2.900	5.0	20.9
9 8	21 31.94	-2 56.3	2.283	3.231	7.2	20.5	9 8	21 30.43	-16 32.9	1.949	2.889	8.8	21.1
9 18	21 27.12	-3 47.1	2.352	3.235	10.0	20.7	9 18	21 25.24	-16 51.5	2.010	2.878	12.1	21.3
95414	2002 <i>CR</i> ₂₂₀		8 17.1	357°83	1°1/16.1	18	441009	2007 <i>DP</i> ₁₁₆		8 17.1	135°26	5°5/11.6	18
7 10	22 7.90	-13 59.4	1.831	2.681	14.4	19.0	7 10	22 15.89	-31 47.5	2.662	3.498	10.9	21.6
7 20	22 4.76	-14 30.1	1.755	2.679	11.2	18.8	7 20	22 10.26	-32 31.7	2.601	3.507	8.7	21.5
7 30	21 59.50	-15 10.6	1.701	2.678	7.4	18.5	7 30	22 2.79	-33 11.6	2.564	3.516	6.8	21.4
8 9	21 52.67	-15 56.6	1.671	2.677	3.3	18.3	8 9	21 54.05	-33 42.0	2.554	3.525	5.6	21.3
8 19	21 45.03	-16 42.8	1.666	2.677	1.7	18.2	8 19	21 44.77	-33 58.7	2.571	3.533	6.0	21.4
8 29	21 37.57	-17 23.7	1.689	2.677	5.7	18.4	8 29	21 35.80	-33 59.1	2.615	3.541	7.6	21.5
9 8	21 31.23	-17 54.9	1.737	2.678	9.6	18.7	9 8	21 27.92	-33 42.8	2.686	3.549	9.6	21.6
9 18	21 26.75	-18 13.8	1.808	2.679	13.1	18.9	9 18	21 21.72	-33 11.4	2.779	3.556	11.6	21.8
479267	2013 <i>EE</i> ₁₂₂		8 17.1	167°61	0°4/16.7	18	168047	2006 <i>BV</i> ₅		8 17.1	211°54	9°6/13.9	15
7 10	22 10.08	-12 38.6	2.566	3.390	11.6	22.3	7 10	22 35.70	-32 57.6	1.183	2.035	20.6	20.4
7 20	22 5.75	-13 5.0	2.484	3.393	9.0	22.1	7 20	22 28.15	-33 25.8	1.117	2.032	16.9	20.2
7 30	21 59.82	-13 39.0	2.425	3.395	6.0	21.9	7 30	22 16.02	-33 44.6	1.070	2.029	13.0	19.9
8 9	21 52.72	-14 17.5	2.393	3.398	2.7	21.7	8 9	22 0.41	-33 40.8	1.043	2.025	10.1	19.8
8 19	21 45.03	-14 57.0	2.389	3.400	0.9	21.6	8 19	21 43.25	-33 4.3	1.041	2.020	10.1	19.8
8 29	21 37.48	-15 33.7	2.414	3.401	4.2	21.9	8 29	21 27.02	-31 51.8	1.062	2.015	13.1	19.9
9 8	21 30.74	-16 4.5	2.467	3.403	7.4	22.1	9 8	21 13.88	-30 8.8	1.106	2.010	17.2	20.1
9 18	21 25.40	-16 27.0	2.545	3.404	10.2	22.2	9 18	21 5.03	-28 5.6	1.170	2.004	21.1	20.4
364886	2008 <i>EL</i> ₄₉		8 17.1	14°79	2°7/14.9	18	91029	1998 <i>EY</i>		8 17.1	233°52		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
66607	1999 <i>RG</i> ₁₉₅		8 17.1 12°84'	9°5'/24.9	18		513848	2013 <i>GP</i> ₇₆		8 17.1 55°48'	10°1'/6.7	18	
7 10	22 4.31	+ 8 51.4	1.310	2.101	22.2	18.5	7 10	22 17.05	-43 32.9	2.221	3.049	13.0	20.7
7 20	22 2.67	+ 9 33.0	1.245	2.105	19.2	18.3	7 20	22 11.97	-44 56.3	2.180	3.056	11.5	20.6
7 30	21 58.47	+ 9 43.2	1.194	2.110	15.8	18.1	7 30	22 4.33	-46 7.3	2.162	3.064	10.4	20.6
8 9	21 52.32	+ 9 19.0	1.161	2.117	12.4	17.9	8 9	21 54.87	-46 58.1	2.166	3.072	10.1	20.6
8 19	21 45.16	+ 8 21.1	1.149	2.124	9.9	17.8	8 19	21 44.62	-47 23.2	2.193	3.080	10.8	20.6
8 29	21 38.22	+ 6 54.9	1.159	2.133	9.7	17.8	8 29	21 34.82	-47 19.8	2.244	3.088	12.1	20.7
9 8	21 32.70	+ 5 10.9	1.191	2.143	11.8	18.0	9 8	21 26.60	-46 49.5	2.315	3.096	13.6	20.9
9 18	21 29.48	+ 3 20.9	1.245	2.154	15.0	18.2	9 18	21 20.74	-45 56.0	2.404	3.105	15.2	21.0
349250	2007 <i>TT</i> ₁₂₂		8 17.1 21°49'	5°2'/13.3	18		512904	2016 <i>WN</i> ₄₉		8 17.1 203°38'	5°0'/11.9	18	
7 10	22 12.48	-23 56.5	1.594	2.461	15.4	20.4	7 10	22 11.48	-26 47.9	2.409	3.258	11.5	21.2
7 20	22 8.68	-24 48.6	1.534	2.465	12.0	20.2	7 20	22 7.17	-27 52.4	2.337	3.256	9.0	21.0
7 30	22 2.28	-25 42.8	1.494	2.469	8.4	20.0	7 30	22 0.95	-28 57.2	2.288	3.254	6.6	20.9
8 9	21 53.98	-26 31.6	1.478	2.474	5.6	19.9	8 9	21 53.32	-29 56.3	2.266	3.251	5.1	20.8
8 19	21 44.78	-27 7.5	1.487	2.479	5.9	19.9	8 19	21 44.98	-30 44.0	2.271	3.248	5.5	20.8
8 29	21 35.95	-27 25.3	1.520	2.485	8.8	20.1	8 29	21 36.79	-31 16.1	2.303	3.245	7.6	20.9
9 8	21 28.65	-27 22.8	1.578	2.491	12.3	20.3	9 8	21 29.58	-31 30.7	2.361	3.242	10.1	21.1
9 18	21 23.71	-27 1.1	1.656	2.498	15.5	20.5	9 18	21 24.02	-31 27.8	2.441	3.239	12.5	21.2
95628	2002 <i>GA</i> ₃₅		8 17.1 330°92'	10°7'/8.2	18		220484	2004 <i>CH</i> ₅₅		8 17.1 46°01'	0°5'/17.4	17	
7 10	22 15.68	-39 45.1	1.775	2.625	14.9	18.4	7 10	22 12.78	-10 35.0	1.315	2.169	18.8	20.2
7 20	22 11.58	-40 56.2	1.708	2.608	12.8	18.2	7 20	22 9.12	-10 45.2	1.257	2.181	14.7	20.0
7 30	22 4.47	-41 57.5	1.661	2.591	11.2	18.1	7 30	22 2.67	-11 10.5	1.219	2.194	9.9	19.8
8 9	21 55.06	-42 39.1	1.636	2.575	10.7	18.0	8 9	21 54.19	-11 46.4	1.202	2.208	4.6	19.5
8 19	21 44.51	-42 53.1	1.634	2.560	11.5	18.0	8 19	21 44.79	-12 27.1	1.210	2.222	1.0	19.3
8 29	21 34.28	-42 35.2	1.654	2.545	13.3	18.1	8 29	21 35.84	-13 5.8	1.242	2.236	6.2	19.7
9 8	21 25.79	-41 46.2	1.695	2.532	15.6	18.2	9 8	21 28.59	-13 36.7	1.299	2.251	11.1	20.0
9 18	21 20.01	-40 30.3	1.755	2.519	17.9	18.4	9 18	21 23.88	-13 56.5	1.376	2.265	15.2	20.3
148569	2001 <i>QR</i> ₂₅₄		8 17.1 356°72'	4°0'/13.8	17		222235	2000 <i>GT</i> ₁₅₁		8 17.1 73°41'	10°0'/10.9	17	
7 10	22 2.49	-14 36.5	1.111	2.001	18.9	18.7	7 10	22 22.47	-36 6.7	1.531	2.384	16.6	20.3
7 20	22 1.86	-16 17.5	1.048	1.996	14.6	18.4	7 20	22 16.74	-37 15.5	1.486	2.395	13.8	20.1
7 30	21 58.26	-18 18.6	1.005	1.992	9.6	18.1	7 30	22 7.74	-38 14.2	1.462	2.407	11.3	20.0
8 9	21 52.34	-20 29.1	0.983	1.990	5.0	17.9	8 9	21 56.45	-38 52.4	1.459	2.418	10.1	20.0
8 19	21 45.15	-22 34.9	0.984	1.989	5.1	17.9	8 19	21 44.27	-39 2.2	1.481	2.430	10.6	20.1
8 29	21 38.17	-24 21.8	1.008	1.989	9.8	18.1	8 29	21 32.87	-38 40.5	1.525	2.441	12.7	20.2
9 8	21 32.87	-25 40.3	1.053	1.991	14.7	18.4	9 8	21 23.65	-37 49.8	1.592	2.453	15.2	20.4
9 18	21 30.28	-26 27.1	1.117	1.994	19.0	18.7	9 18	21 17.48	-36 35.7	1.678	2.464	17.7	20.6
323294	2003 <i>TN</i> ₄₁		8 17.1 249°81'	0°3'/17.2	18		161119	Bronner		8 17.1 32°54'	0°4'/16.8	18	
7 10	22 14.69	-11 22.2	1.535	2.378	17.1	21.1	7 10	22 9.69	-11 10.7	1.094	1.967	20.4	17.4
7 20	22 10.54	-11 29.3	1.453	2.371	13.5	20.9	7 20	22 7.17	-11 40.3	1.045	1.981	15.9	17.1
7 30	22 3.68	-11 49.1	1.391	2.364	9.2	20.6	7 30	22 1.56	-12 27.6	1.015	1.996	10.5	16.9
8 9	21 54.71	-12 18.2	1.352	2.358	4.3	20.3	8 9	21 53.73	-13 26.2	1.004	2.011	4.7	16.6
8 19	21 44.59	-12 51.6	1.339	2.350	1.0	20.0	8 19	21 44.92	-14 27.6	1.017	2.028	1.4	16.5
8 29	21 34.61	-13 23.5	1.351	2.343	6.1	20.4	8 29	21 36.65	-15 22.6	1.052	2.046	7.1	16.9
9 8	21 26.03	-13 48.8	1.389	2.336	10.9	20.6	9 8	21 30.29	-16 4.4	1.110	2.064	12.3	17.2
9 18	21 19.83	-14 4.1	1.448	2.328	15.2	20.9	9 18	21 26.72	-16 29.5	1.188	2.084	16.7	17.6
453683	2010 <i>VU</i> ₁₅₂		8 17.1 284°79'	4°7'/12.4	18		153477	2001 <i>RC</i> ₆₆		8 17.1 244°33'	2°8'/19.0	18	
7 10	22 10.34	-25 21.1	2.280	3.133	11.9	21.1	7 10	22 12.67	- 5 14.2	1.776	2.591	16.3	20.2
7 20	22 6.37	-26 21.8	2.207	3.129	9.3	20.9	7 20	22 8.60	- 5 6.8	1.687	2.584	13.1	20.0
7 30	22 0.45	-27 23.6	2.157	3.126	6.7	20.7	7 30	22 2.21	- 5 14.6	1.619	2.577	9.4	19.7
8 9	21 53.09	-28 20.7	2.133	3.123	4.9	20.6	8 9	21 54.01	- 5 36.5	1.573	2.569	5.4	19.5
8 19	21 45.01	-29 7.4	2.136	3.120	5.3	20.7	8 19	21 44.82	- 6 9.5	1.554	2.562	2.8	19.3
8 29	21 37.07	-29 39.2	2.166	3.116	7.5	20.8	8 29	21 35.69	- 6 49.0	1.562	2.554	5.4	19.4
9 8	21 30.14	-29 53.8	2.221	3.113	10.2	21.0	9 8	21 27.70	- 7 29.7	1.595	2.545	9.5	19.7
9 18	21 24.91	-29 51.1	2.299	3.110	12.7	21.1	9 18	21 21.70	- 8 6.7	1.652	2.537	13.3	19.9
382886	2004 <i>PT</i> ₂₆		8 17.1 19°39'	0°2'/17.2	17		456098	2006 <i>BS</i> ₁₉₄		8 17.1 125°36'	1°5'/18.1	17	
7 10	22 6.58	+ 1 7.4	1.000	1.847	23.9	20.0	7 10	22 15.27	- 7 36.6	1.479	2.312	18.2	22.0
7 20	22 5.34	- 1 31.1	0.929	1.848	19.1	19.6	7 20	22 10.86	- 7 50.8	1.412	2.321	14.4	21.8
7 30	22 0.83	- 5 3.2	0.876	1.849	13.1	19.3	7 30	22 3.79	- 8 21.9	1.363	2.330	9.9	21.6
8 9	21 53.63	- 9 19.1	0.846	1.851	6.1	18.9	8 9	21 54.72	- 9 6.6	1.337	2.339	5.0	21.3
8 19	21 44.85	-13 56.5	0.841	1.852	1.3	18.6	8 19	21 44.67	- 9 59.4	1.336	2.347	1.5	21.1
8 29	21 36.15	-18 25.4	0.863	1.855	8.6	19.1	8 29	21 34.94	-10 53.4	1.362	2.355	5.9	21.4
9 8	21 29.28	-22 18.9	0.910	1.857	15.1	19.5	9 8	21 26.73	-11 42.1	1.413	2.363	10.5	21.7
9 18	21 25.48	-25 22.7	0.978	1.860	20.5	19.8	9 18	21 20.94	-12 20.9	1.486	2.370	14.6	22.0
46062	2001 <i>DT</i> ₉₁		8 17.1 34°57'	7°9'/23.4	18		344189	2001 <i>HJ</i> ₆₁		8 17.1 79°22'	5°1'/13.1	16	
7 10	22 8.69	+ 6 18.0	1.522	2.305	19.9	17.8	7 10	22 15.14	-24 54.1	1.841	2.696	14.2	20.7
7 20	22 5.64	+ 6 58.8	1.458	2.317	17.0	17.6	7 20	22 10.28	-25 50.8	1.789	2.713	11.0	20.5
7 30	22 0.22	+ 7 14.1	1.410	2.329	13.7	17.5	7 30	22 3.10	-26 47.7	1.760	2.730	7.8	20.4
8 9	21 53.05	+ 7 2.1	1.383	2.342	10.4	17.3	8 9	21 54.29	-27 37.9	1.755	2.748	5.4	20.3
8 19	21 45.03	+ 6 23.7	1.377	2.356	8.2	17.2	8 19	21 44.80	-28 15.0	1.777	2.765	5.7	20.3
8 29	21 37.27	+ 5 23.8	1.396	2.371	8.3	17.3	8 29	21 35.74	-28 34.6	1.825	2.782	8.2	20.5
9 8	21 30.86	+ 4 10.1	1.438	2.386	10.6	17.4	9 8	21 28.13	-28 35.3	1.897	2.799	11.2	20.7
9 18	21 26.56	+ 2 51.3	1.503	2.401	13.7	17.7	9 18	21 22.67	-28 18.4	1.992	2.816	14.0	20.9
256628	2007 <i>VB</i> ₂₃₂		8 17.1 248°42'	1°1'/17.8	17		523101	2016 <i>RW</i> ₄₈					

EPHEMERIDES

8 17.1

8 17.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
288702	2004 <i>QH</i> ₂₇	8 17.1 351°69 7°0/24.1 18						229144	2004 <i>RF</i> ₃₁₈	8 17.1 349°72 1°6/17.9 18				
7 10	22 2.00	+ 8 11.5	1.692	2.467	18.5	19.7	7 10	22 11.72	-11 18.8	1.265	2.126	19.0	19.2	
7 20	22 0.42	+ 8 7.6	1.605	2.459	15.9	19.4	7 20	22 8.70	-10 43.9	1.191	2.118	15.1	18.9	
7 30	21 56.77	+ 7 35.4	1.536	2.453	12.9	19.2	7 30	22 2.69	-10 20.2	1.135	2.111	10.4	18.7	
8 9	21 51.54	+ 6 34.0	1.487	2.447	9.7	19.0	8 9	21 54.37	-10 6.0	1.101	2.105	5.2	18.4	
8 19	21 45.42	+ 5 5.3	1.460	2.443	7.4	18.9	8 19	21 44.82	- 9 58.7	1.089	2.100	1.7	18.1	
8 29	21 39.38	+ 3 15.2	1.459	2.439	7.3	18.9	8 29	21 35.50	- 9 54.3	1.102	2.097	6.5	18.4	
9 8	21 34.36	+ 1 13.3	1.482	2.437	9.7	19.0	9 8	21 27.82	- 9 48.8	1.137	2.095	11.6	18.7	
9 18	21 31.15	- 0 50.3	1.530	2.436	12.9	19.2	9 18	21 22.82	- 9 39.3	1.193	2.094	16.2	19.0	
344023	2012 <i>GZ</i> ₁₄	8 17.1 233°65 0°2/17.3 18						22652	1998 <i>QV</i> ₁	8 17.1 345°57 0°3/16.8 18				
7 10	22 8.71	-10 55.1	2.805	3.622	10.9	21.8	7 10	22 6.01	-10 54.2	1.837	2.683	14.6	18.0	
7 20	22 4.67	-11 15.4	2.709	3.612	8.5	21.6	7 20	22 3.37	-11 32.4	1.756	2.676	11.4	17.8	
7 30	21 59.12	-11 43.7	2.635	3.603	5.7	21.4	7 30	21 58.66	-12 23.9	1.695	2.670	7.6	17.5	
8 9	21 52.47	-12 17.6	2.589	3.592	2.7	21.2	8 9	21 52.40	-13 24.6	1.659	2.665	3.4	17.3	
8 19	21 45.22	-12 54.2	2.570	3.582	0.6	21.0	8 19	21 45.30	-14 28.9	1.648	2.660	1.0	17.1	
8 29	21 38.01	-13 30.0	2.581	3.571	3.8	21.3	8 29	21 38.30	-15 30.6	1.665	2.656	5.3	17.4	
9 8	21 31.48	-14 2.0	2.621	3.560	6.8	21.5	9 8	21 32.34	-16 23.9	1.707	2.652	9.4	17.6	
9 18	21 26.18	-14 27.7	2.686	3.549	9.6	21.6	9 18	21 28.16	-17 4.9	1.772	2.649	13.0	17.8	
77358	2001 <i>FT</i> ₁₂₆	8 17.1 183°53 0°1/17.1 18						511503	2014 <i>OW</i> ₁₅₇	8 17.1 69°95 2°2/18.6 18				
7 10	22 13.08	- 9 48.6	1.839	2.667	15.3	20.3	7 10	22 18.48	- 8 14.4	2.224	3.024	13.9	21.4	
7 20	22 8.80	-10 30.3	1.758	2.668	12.0	20.1	7 20	22 12.22	- 7 36.1	2.158	3.047	11.0	21.3	
7 30	22 2.27	-11 26.2	1.698	2.668	8.1	19.8	7 30	22 4.09	- 7 6.5	2.115	3.071	7.7	21.1	
8 9	21 54.02	-12 32.1	1.663	2.668	3.7	19.6	8 9	21 54.69	- 6 44.7	2.098	3.094	4.3	20.9	
8 19	21 44.85	-13 42.2	1.655	2.667	0.9	19.4	8 19	21 44.79	- 6 29.4	2.110	3.117	2.2	20.8	
8 29	21 35.81	-14 49.6	1.675	2.665	5.4	19.7	8 29	21 35.26	- 6 18.7	2.151	3.141	4.5	21.0	
9 8	21 27.92	-15 48.4	1.722	2.663	9.6	19.9	9 8	21 26.90	- 6 10.4	2.221	3.164	7.7	21.3	
9 18	21 22.02	-16 34.7	1.792	2.660	13.3	20.2	9 18	21 20.31	- 6 2.4	2.316	3.187	10.6	21.5	
514733	2007 <i>AY</i> ₃₀	8 17.1 155°06 1°4/18.4 18						248298	2005 <i>LX</i> ₁₉	8 17.1 359°44 30°8/ 4.6 18				
7 10	22 11.01	- 7 57.0	2.477	3.285	12.4	21.9	7 10	22 54.08	+ 4 23.9	0.742	1.535	34.7	17.9	
7 20	22 6.53	- 7 56.5	2.393	3.289	9.8	21.7	7 20	22 45.92	+13 45.2	0.682	1.523	32.5	17.7	
7 30	22 0.38	- 8 5.5	2.331	3.292	6.8	21.5	7 30	22 30.89	+23 30.5	0.649	1.514	31.0	17.5	
8 9	21 53.04	- 8 22.3	2.296	3.295	3.6	21.3	8 9	22 8.81	+32 33.9	0.645	1.511	30.9	17.5	
8 19	21 45.10	- 8 44.4	2.288	3.298	1.4	21.2	8 19	21 41.13	+39 47.9	0.667	1.512	32.1	17.6	
8 29	21 37.29	- 9 8.8	2.309	3.300	4.0	21.4	8 29	21 11.81	+44 38.7	0.709	1.519	33.8	17.8	
9 8	21 30.34	- 9 32.1	2.358	3.303	7.2	21.6	9 8	20 45.93	+47 18.0	0.765	1.529	35.3	18.0	
9 18	21 24.81	- 9 51.8	2.432	3.305	10.1	21.8	9 18	20 27.18	+48 21.4	0.830	1.544	36.3	18.2	
223401	2003 <i>SF</i> ₁₂₅	8 17.1 274°69 8°9/26.6 18						469630	2004 <i>RV</i> ₃₀₅	8 17.1 358°62 5°6/13.9 18				
7 10	22 8.18	+16 9.4	2.586	3.256	15.1	20.0	7 10	21 58.64	-20 37.5	0.857	1.776	20.3	19.2	
7 20	22 4.50	+17 2.4	2.488	3.249	13.6	19.8	7 20	21 59.56	-21 22.1	0.805	1.767	15.8	18.9	
7 30	21 59.16	+17 36.2	2.408	3.241	11.9	19.7	7 30	21 57.06	-22 15.3	0.770	1.761	10.8	18.6	
8 9	21 52.54	+17 48.1	2.348	3.233	10.3	19.6	8 9	21 51.92	-23 7.0	0.752	1.758	6.4	18.4	
8 19	21 45.20	+17 36.9	2.311	3.225	9.2	19.5	8 19	21 45.43	-23 46.3	0.754	1.758	6.4	18.4	
8 29	21 37.84	+17 3.1	2.299	3.217	8.9	19.4	8 29	21 39.36	-24 3.7	0.775	1.760	10.8	18.7	
9 8	21 31.20	+16 10.3	2.311	3.209	9.6	19.5	9 8	21 35.33	-23 55.1	0.814	1.766	15.8	18.9	
9 18	21 25.89	+15 3.5	2.347	3.201	11.1	19.6	9 18	21 34.35	-23 21.0	0.870	1.775	20.3	19.3	
316369	2010 <i>SU</i> ₂₇	8 17.1 229°23 2°5/14.5 18						285567	2000 <i>OM</i>	8 17.1 44°72 7°6/14.1 17				
7 10	22 11.54	-20 20.4	2.643	3.481	10.9	21.9	7 10	23 33.61	- 3 32.5	0.386	1.232	48.2	18.8	
7 20	22 6.99	-20 54.0	2.555	3.472	8.4	21.7	7 20	23 6.31	-11 23.2	0.412	1.336	33.2	18.7	
7 30	22 0.73	-21 30.8	2.490	3.462	5.7	21.5	7 30	22 36.29	-18 16.9	0.458	1.435	19.5	18.7	
8 9	21 53.22	-22 6.9	2.452	3.453	3.1	21.4	8 9	22 7.15	-23 30.0	0.527	1.530	9.4	18.8	
8 19	21 45.06	-22 38.2	2.442	3.443	2.9	21.3	8 19	21 42.48	-26 52.1	0.621	1.621	8.9	19.2	
8 29	21 36.98	-23 1.1	2.461	3.433	5.4	21.5	8 29	21 24.44	-28 41.7	0.737	1.707	14.4	19.9	
9 8	21 29.72	-23 13.4	2.508	3.423	8.3	21.6	9 8	21 13.26	-29 26.5	0.872	1.789	19.2	20.5	
9 18	21 23.89	-23 14.0	2.579	3.412	10.9	21.8	9 18	21 8.04	-29 29.7	1.023	1.867	22.7	21.1	
262370	2006 <i>TX</i> ₉₄	8 17.1 267°58 1°5/15.9 18						364116	2006 <i>AB</i> ₅₂	8 17.1 281°72 1°3/18.3 18				
7 10	22 12.55	-13 53.1	1.634	2.483	16.0	21.6	7 10	22 9.30	- 8 7.1	2.307	3.124	13.0	21.2	
7 20	22 8.90	-14 32.7	1.544	2.467	12.5	21.3	7 20	22 5.47	- 8 11.6	2.213	3.114	10.3	21.1	
7 30	22 2.66	-15 25.1	1.474	2.451	8.4	21.1	7 30	21 59.85	- 8 26.8	2.141	3.105	7.1	20.8	
8 9	21 54.33	-16 25.4	1.428	2.434	3.8	20.8	8 9	21 52.89	- 8 50.8	2.095	3.095	3.7	20.6	
8 19	21 44.78	-17 26.7	1.407	2.417	2.1	20.6	8 19	21 45.21	- 9 20.7	2.075	3.086	1.3	20.4	
8 29	21 35.21	-18 21.6	1.413	2.400	6.7	20.9	8 29	21 37.59	- 9 52.9	2.084	3.076	4.3	20.6	
9 8	21 26.86	-19 4.2	1.444	2.383	11.3	21.1	9 8	21 30.80	-10 23.6	2.120	3.067	7.7	20.8	
9 18	21 20.75	-19 30.9	1.497	2.365	15.5	21.3	9 18	21 25.49	-10 49.7	2.180	3.057	10.9	21.0	
81487	2000 <i>GV</i> ₁₅₄	8 17.1 331°09 3°1/19.5 18						340515	2006 <i>JA</i> ₂₀	8 17.1 215°59 1°6/15.6 18				
7 10	22 9.23	- 4 8.6	1.779	2.597	16.1	18.6	7 10	22 11.03	-14 20.5	2.120	2.957	13.2	21.5	
7 20	22 5.90	- 3 59.7	1.694	2.591	13.1	18.4	7 20	22 7.02	-15 13.7	2.034	2.951	10.2	21.2	
7 30	22 0.38	- 4 6.9	1.629	2.585	9.5	18.1	7 30	22 1.00	-16 16.8	1.971	2.945	6.8	21.0	
8 9	21 53.18	- 4 29.0	1.586	2.580	5.7	17.9	8 9	21 53.46	-17 25.1	1.934	2.939	3.1	20.8	
8 19	21 45.08	- 5 3.5	1.569	2.575	3.1	17.7	8 19	21 45.09	-18 32.8	1.924	2.932	2.1	20.7	
8 29	21 37.07	- 5 45.6	1.578	2.570	5.3	17.9	8 29	21 36.78	-19 33.8	1.943	2.925	5.6	20.9	
9 8	21 30.16	- 6 30.1	1.613	2.566	9.2	18.1	9 8	21 29.44	-20 23.5	1.989	2.918	9.3	21.1	
9 18	21 25.14	- 7 11.6	1.671	2.562	12.9	18.3	9 18	21 23.80	-20 59.2	2.058	2.910	12.5	21.3	
70832	1999 <i>VM</i> ₉₀	8 17.1 0°95 9°2/24.9 18						84965	2003 <i>YV</i> ₁₆	8 17.1 311°21 1°9/15.8 18				
7 10	22 5.70	+ 9 52.5	1.519	2.288	20.6	19.0	7 10	22 13.24	-17 19.3	1.777	2.626	14.8	18.8	
7 20	22 3.53	+10 29.6	1.442	2.287	17.9	18.8	7 20	22 9						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
137241	1999 <i>RV</i> ₃₆		8 17.1 331°78	5°4/14.2	18		142901	2002 <i>VG</i> ₄₉		8 17.1 311°78	1°5/15.9	18	
7 10	22 13.08	-22 25.0	1.189	2.071	18.6	19.4	7 10	22 8.95	-14 6.0	1.805	2.655	14.7	19.8
7 20	22 10.22	-23 1.4	1.118	2.059	14.6	19.1	7 20	22 5.77	-14 47.8	1.721	2.645	11.4	19.6
7 30	22 3.98	-23 42.9	1.067	2.048	10.1	18.8	7 30	22 0.37	-15 40.7	1.659	2.636	7.6	19.3
8 9	21 55.07	-24 20.8	1.036	2.037	6.2	18.6	8 9	21 53.25	-16 40.0	1.620	2.626	3.4	19.1
8 19	21 44.71	-24 46.0	1.027	2.028	6.0	18.6	8 19	21 45.19	-17 39.5	1.608	2.617	2.0	19.0
8 29	21 34.62	-24 51.2	1.042	2.019	10.0	18.8	8 29	21 37.21	-18 32.8	1.622	2.608	6.1	19.2
9 8	21 26.44	-24 33.4	1.078	2.012	14.7	19.0	9 8	21 30.33	-19 14.7	1.662	2.600	10.2	19.4
9 18	21 21.32	-23 54.1	1.133	2.005	19.0	19.2	9 18	21 25.37	-19 42.3	1.725	2.592	13.8	19.6
80785	2000 <i>CD</i> ₈₁		8 17.1 263°27	0°3/16.9	18		285220	1997 <i>JQ</i> ₃		8 17.1 175°55	3°9/21.4	18	
7 10	22 11.14	-10 16.2	1.659	2.499	16.2	19.9	7 10	22 8.08	+ 2 5.1	2.595	3.359	13.0	21.5
7 20	22 7.74	-10 56.6	1.569	2.486	12.7	19.6	7 20	22 4.27	+ 1 59.6	2.504	3.361	10.8	21.3
7 30	22 1.85	-11 53.2	1.499	2.472	8.6	19.3	7 30	21 58.93	+ 1 38.7	2.434	3.362	8.3	21.1
8 9	21 53.99	-13 1.6	1.453	2.458	3.9	19.0	8 9	21 52.45	+ 1 3.0	2.388	3.363	5.7	21.0
8 19	21 44.97	-14 15.5	1.432	2.444	1.1	18.8	8 19	21 45.39	+ 0 14.5	2.370	3.363	3.9	20.9
8 29	21 35.94	-15 27.3	1.439	2.429	6.0	19.1	8 29	21 38.40	- 0 43.3	2.380	3.363	4.6	20.9
9 8	21 28.07	-16 29.7	1.471	2.415	10.7	19.3	9 8	21 32.14	- 1 45.9	2.417	3.363	7.0	21.1
9 18	21 22.33	-17 18.1	1.525	2.400	14.8	19.5	9 18	21 27.17	- 2 48.8	2.481	3.363	9.6	21.2
283859	2003 <i>WS</i> ₂₈		8 17.1 319°82	4°0/19.6	18		510450	2011 <i>WT</i> ₁₁		8 17.1 141°67	0°8/16.4	18	
7 10	22 11.94	- 4 15.1	1.680	2.497	17.0	20.4	7 10	22 10.16	-13 17.6	2.174	3.009	13.0	22.0
7 20	22 8.21	- 3 38.8	1.591	2.487	13.9	20.2	7 20	22 6.19	-13 48.4	2.095	3.011	10.1	21.9
7 30	22 2.07	- 3 16.9	1.523	2.477	10.2	19.9	7 30	22 0.35	-14 28.0	2.039	3.012	6.7	21.6
8 9	21 54.05	- 3 9.6	1.476	2.467	6.4	19.7	8 9	21 53.14	-15 12.7	2.008	3.014	3.0	21.4
8 19	21 44.97	- 3 15.6	1.455	2.458	4.0	19.5	8 19	21 45.24	-15 57.9	2.005	3.016	1.3	21.3
8 29	21 35.95	- 3 31.8	1.459	2.450	6.0	19.6	8 29	21 37.48	-16 39.0	2.030	3.017	4.9	21.6
9 8	21 28.11	- 3 53.8	1.489	2.441	9.9	19.8	9 8	21 30.70	-17 12.0	2.081	3.019	8.5	21.8
9 18	21 22.33	- 4 16.7	1.542	2.433	13.7	20.1	9 18	21 25.53	-17 34.8	2.157	3.020	11.6	22.0
391596	2007 <i>UQ</i> ₇		8 17.1 354°14	22°0/31.8	17		225202	2008 <i>KE</i> ₂₅		8 17.1 8°88	1°0/18.0	18	
7 10	22 12.59	+22 22.0	1.077	1.798	29.8	19.9	7 10	22 7.00	- 7 55.8	1.925	2.756	14.6	20.2
7 20	22 10.27	+25 26.8	1.019	1.796	28.0	19.8	7 20	22 3.97	- 8 20.1	1.847	2.757	11.5	20.0
7 30	22 4.39	+27 56.5	0.972	1.794	26.1	19.6	7 30	21 58.99	- 8 58.4	1.791	2.759	7.9	19.8
8 9	21 55.46	+29 38.1	0.937	1.793	24.2	19.5	8 9	21 52.55	- 9 47.5	1.758	2.761	3.9	19.6
8 19	21 44.60	+30 20.9	0.915	1.792	22.7	19.4	8 19	21 45.37	-10 43.0	1.752	2.763	1.1	19.4
8 29	21 33.62	+30 0.2	0.907	1.792	22.0	19.3	8 29	21 38.34	-11 39.4	1.773	2.766	4.7	19.7
9 8	21 24.47	+38 41.6	0.914	1.793	22.2	19.3	9 8	21 32.33	-12 31.3	1.820	2.769	8.6	19.9
9 18	21 18.67	+26 38.1	0.936	1.794	23.3	19.4	9 18	21 28.02	-13 14.5	1.891	2.773	12.0	20.1
513154	2003 <i>SQ</i> ₆₀		8 17.1 335°41	5°1/14.8	18		66517	1999 <i>RM</i> ₀₈		8 17.1 261°89	1°0/17.9	18	
7 10	22 18.12	-25 17.5	1.423	2.288	17.0	20.2	7 10	22 10.58	- 8 8.3	1.960	2.784	14.7	19.6
7 20	22 13.62	-25 21.8	1.346	2.276	13.5	19.9	7 20	22 6.88	- 8 29.9	1.864	2.770	11.6	19.4
7 30	22 5.95	-25 24.4	1.289	2.264	9.5	19.7	7 30	22 1.05	- 9 5.5	1.790	2.756	8.0	19.1
8 9	21 55.87	-25 18.7	1.254	2.253	5.9	19.4	8 9	21 53.56	- 9 52.4	1.739	2.741	4.0	18.9
8 19	21 44.57	-24 58.5	1.244	2.243	5.6	19.4	8 19	21 45.12	-10 46.5	1.715	2.727	1.1	18.6
8 29	21 33.60	-24 20.2	1.259	2.234	9.0	19.6	8 29	21 36.67	-11 42.3	1.719	2.712	5.0	18.9
9 8	21 24.46	-23 23.9	1.297	2.226	13.2	19.8	9 8	21 29.18	-12 34.2	1.750	2.696	9.1	19.1
9 18	21 18.15	-22 12.5	1.356	2.218	17.1	20.0	9 18	21 23.47	-13 17.8	1.804	2.681	12.8	19.3
347529	1999 <i>VJ</i> ₃₆		8 17.1 296°88	8°3/22.8	18		347292	2011 <i>NB</i> ₃		8 17.1 328°78	3°0/19.3	18	
7 10	22 9.88	+ 6 55.2	1.827	2.587	17.8	20.2	7 10	22 10.46	- 4 42.0	1.723	2.543	16.5	20.9
7 20	22 6.70	+ 7 46.1	1.715	2.558	15.6	20.0	7 20	22 6.94	- 4 31.7	1.640	2.539	13.3	20.7
7 30	22 1.19	+ 8 17.1	1.622	2.529	12.9	19.7	7 30	22 1.14	- 4 37.3	1.576	2.534	9.6	20.4
8 9	21 53.74	+ 8 24.9	1.549	2.500	10.2	19.5	8 9	21 53.60	- 4 57.6	1.536	2.530	5.7	20.2
8 19	21 45.03	+ 8 7.6	1.499	2.470	8.5	19.3	8 19	21 45.12	- 5 29.9	1.520	2.527	3.0	20.0
8 29	21 36.04	+ 7 26.2	1.474	2.441	8.8	19.3	8 29	21 36.75	- 6 9.6	1.531	2.523	5.4	20.2
9 8	21 27.92	+ 6 25.6	1.472	2.412	11.1	19.3	9 8	21 29.54	- 6 51.2	1.567	2.520	9.4	20.4
9 18	21 21.66	+ 5 13.0	1.494	2.382	14.3	19.5	9 18	21 24.30	- 7 29.4	1.626	2.517	13.2	20.6
193396	2000 <i>WH</i> ₈		8 17.1 294°46	3°1/14.9	18		202332	2005 <i>ER</i> ₉₁		8 17.1 283°27	2°2/18.8	18	
7 10	22 12.88	-18 43.9	1.669	2.526	15.3	19.8	7 10	22 11.27	- 6 28.4	1.891	2.710	15.3	20.4
7 20	22 9.24	-19 19.5	1.575	2.502	12.0	19.5	7 20	22 7.38	- 6 23.5	1.805	2.705	12.3	20.2
7 30	22 2.96	-20 3.1	1.501	2.479	8.1	19.2	7 30	22 1.33	- 6 32.2	1.738	2.699	8.7	19.9
8 9	21 54.55	-20 48.7	1.451	2.455	4.3	18.9	8 9	21 53.66	- 6 52.8	1.696	2.694	4.8	19.7
8 19	21 44.85	-21 29.8	1.427	2.432	3.7	18.9	8 19	21 45.11	- 7 22.4	1.679	2.688	2.2	19.5
8 29	21 35.11	-21 59.6	1.429	2.408	7.6	19.0	8 29	21 36.65	- 7 56.7	1.690	2.683	5.0	19.7
9 8	21 26.59	-22 13.7	1.455	2.385	11.9	19.2	9 8	21 29.25	- 8 31.1	1.727	2.677	8.9	19.9
9 18	21 20.32	-22 10.7	1.503	2.362	15.9	19.4	9 18	21 23.70	- 9 1.3	1.788	2.672	12.5	20.1
365646	2010 <i>UV</i> ₁₀₁		8 17.1 200°64	4°1/12.9	18		43466	2001 <i>AV</i> ₁₄		8 17.1 259°77	1°2/18.1	18	
7 10	22 12.25	-25 15.6	2.567	3.410	11.0	21.3	7 10	22 10.85	- 7 36.8	1.981	2.802	14.6	19.6
7 20	22 7.62	-26 1.1	2.491	3.408	8.6	21.1	7 20	22 7.08	- 7 56.4	1.883	2.786	11.7	19.4
7 30	22 1.20	-26 47.0	2.438	3.405	6.1	21.0	7 30	22 1.19	- 8 30.2	1.806	2.771	8.1	19.2
8 9	21 53.49	-27 28.4	2.412	3.403	4.3	20.9	8 9	21 53.63	- 9 15.8	1.754	2.755	4.1	18.9
8 19	21 45.14	-28 0.7	2.413	3.400	4.5	20.9	8 19	21 45.11	-10 9.1	1.728	2.739	1.2	18.7
8 29	21 36.94	-28 20.4	2.443	3.397	6.6	21.0	8 29	21 36.56	-11 4.8	1.730	2.722	4.9	18.9
9 8	21 29.66	-28 25.7	2.499	3.393	9.1	21.2	9 8	21 28.95	-11 57.4	1.758	2.705	9.0	19.1
9 18	21 23.94	-28 16.6	2.578	3.390	11.5	21.3	9 18	21 23.11	-12 42.4	1.811	2.688	12.7	19.3
358422	2007 <i>CX</i> ₅₈		8 17.1 69°79	6°9/11.7	18		444077	2004 <i>RX</i> ₃₀₅					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
168809	2000 SZ ₁₆₈		8 17.1 345°56	5°9/20.7	18		508613	2017 SW ₃₄		8 17.1 267°22	5°2/13.2	17	
7 10	22 6.95	- 1 3.2	1.121	1.966	21.9	19.6	7 10	22 13.17	-20 26.9	1.463	2.329	16.6	20.9
7 20	22 5.31	- 0 29.3	1.049	1.958	18.2	19.3	7 20	22 9.84	-21 48.2	1.383	2.316	12.9	20.7
7 30	22 0.66	- 0 20.8	0.992	1.951	13.8	19.0	7 30	22 3.57	-23 20.0	1.324	2.302	8.9	20.4
8 9	21 53.58	- 0 38.8	0.955	1.945	9.2	18.8	8 9	21 54.92	-24 53.1	1.288	2.288	5.6	20.2
8 19	21 45.13	- 1 21.7	0.938	1.940	6.0	18.6	8 19	21 44.87	-26 16.7	1.277	2.274	6.0	20.2
8 29	21 36.79	- 2 22.9	0.943	1.936	7.8	18.7	8 29	21 34.84	-27 21.1	1.292	2.259	9.8	20.4
9 8	21 30.08	- 3 32.5	0.970	1.934	12.3	18.9	9 8	21 26.29	-28 0.6	1.329	2.244	14.0	20.6
9 18	21 26.11	- 4 40.8	1.016	1.932	17.0	19.2	9 18	21 20.33	-28 14.0	1.386	2.230	17.9	20.8
440589	2005 UM ₅₁₉		8 17.1 297°27	2°3/19.3	17		370692	2004 HW ₃₂		8 17.1 130°83	3°9/14.4	17	
7 10	22 7.08	- 3 46.2	2.072	2.882	14.4	21.6	7 10	22 16.70	-20 57.3	1.676	2.529	15.4	20.9
7 20	22 4.11	- 4 7.2	1.966	2.860	11.7	21.4	7 20	22 11.86	-21 40.9	1.611	2.536	12.0	20.7
7 30	21 59.19	- 4 45.0	1.881	2.837	8.4	21.1	7 30	22 4.43	-22 29.0	1.567	2.542	8.1	20.5
8 9	21 52.73	- 5 38.2	1.820	2.815	4.9	20.9	8 9	21 55.10	-23 14.7	1.547	2.548	4.7	20.3
8 19	21 45.35	- 6 43.4	1.785	2.793	2.3	20.6	8 19	21 44.88	-23 51.3	1.553	2.553	4.4	20.3
8 29	21 37.88	- 7 55.3	1.777	2.771	4.7	20.8	8 29	21 35.00	-24 13.3	1.586	2.559	7.7	20.5
9 8	21 31.23	- 9 7.8	1.797	2.748	8.5	21.0	9 8	21 26.62	-24 18.2	1.644	2.564	11.5	20.7
9 18	21 26.17	-10 15.0	1.841	2.726	12.2	21.1	9 18	21 20.59	-24 6.2	1.723	2.569	14.8	21.0
254308	2004 RV ₃₁₁		8 17.1 354°66	6°5/22.8	18		126766	2002 DJ ₁₂		8 17.1 195°53	3°4/13.5	18	
7 10	22 7.58	+ 5 21.2	2.004	2.770	16.3	20.0	7 10	22 9.01	-20 3.2	2.240	3.090	12.2	19.6
7 20	22 4.40	+ 5 54.7	1.918	2.768	13.9	19.8	7 20	22 5.38	-21 12.4	2.166	3.090	9.4	19.4
7 30	21 59.29	+ 6 8.9	1.851	2.766	11.2	19.6	7 30	21 59.88	-22 27.1	2.115	3.090	6.3	19.3
8 9	21 52.72	+ 6 2.5	1.806	2.765	8.5	19.5	8 9	21 52.98	-23 41.4	2.090	3.090	3.8	19.1
8 19	21 45.37	+ 5 36.0	1.785	2.764	6.7	19.4	8 19	21 45.36	-24 49.4	2.093	3.089	4.0	19.1
8 29	21 38.10	+ 4 52.2	1.790	2.763	6.9	19.4	8 29	21 37.85	-25 45.4	2.123	3.089	6.6	19.3
9 8	21 31.76	+ 3 56.4	1.820	2.763	9.1	19.5	9 8	21 31.30	-26 26.0	2.180	3.089	9.6	19.5
9 18	21 27.07	+ 2 54.7	1.874	2.763	11.8	19.7	9 18	21 26.35	-26 49.9	2.260	3.089	12.3	19.7
50836	2000 FG ₄₁		8 17.1 188°80	0°1/17.0	18		199918	2007 GO ₂₆		8 17.1 36°01	0°9/17.8	16	
7 10	22 9.64	-10 34.9	2.001	2.834	14.1	19.4	7 10	22 8.55	- 7 32.2	1.354	2.204	18.6	20.7
7 20	22 5.99	-11 10.1	1.921	2.834	11.0	19.2	7 20	22 5.85	- 8 7.4	1.296	2.217	14.6	20.5
7 30	22 0.33	-11 57.4	1.862	2.834	7.4	18.9	7 30	22 0.55	- 9 2.0	1.257	2.230	9.9	20.3
8 9	21 53.19	-12 53.0	1.828	2.833	3.4	18.7	8 9	21 53.36	-10 11.1	1.240	2.244	4.8	20.0
8 19	21 45.27	-13 51.8	1.822	2.833	0.8	18.5	8 19	21 45.28	-11 27.4	1.247	2.258	1.1	19.8
8 29	21 37.48	-14 48.4	1.843	2.833	5.0	18.8	8 29	21 37.56	-12 42.3	1.279	2.274	5.9	20.2
9 8	21 30.70	-15 37.5	1.890	2.833	8.8	19.0	9 8	21 31.35	-13 47.8	1.335	2.289	10.6	20.5
9 18	21 25.65	-16 15.9	1.962	2.832	12.2	19.3	9 18	21 27.47	-14 39.1	1.414	2.305	14.7	20.8
34594	2000 TP ₂₄		8 17.1 189°15	1°5/15.6	18		518196	2016 PW ₉₆		8 17.1 325°10	10°9/7.9	18	
7 10	22 10.19	-15 44.4	2.375	3.211	12.0	19.7	7 10	22 13.77	-35 57.2	1.536	2.402	15.9	20.6
7 20	22 6.10	-16 23.5	2.294	3.211	9.3	19.6	7 20	22 10.50	-37 41.0	1.476	2.392	13.5	20.4
7 30	22 0.25	-17 9.4	2.236	3.210	6.1	19.4	7 30	22 4.05	-39 18.6	1.437	2.381	11.5	20.3
8 9	21 53.11	-17 58.2	2.204	3.209	2.9	19.1	8 9	21 55.11	-40 38.0	1.419	2.372	10.9	20.2
8 19	21 45.31	-18 45.3	2.200	3.208	2.0	19.1	8 19	21 44.86	-41 29.0	1.424	2.362	11.9	20.3
8 29	21 37.62	-19 26.3	2.225	3.207	5.1	19.3	8 29	21 34.87	-41 45.3	1.451	2.353	14.1	20.4
9 8	21 30.82	-19 57.7	2.277	3.205	8.3	19.5	9 8	21 26.69	-41 26.5	1.498	2.345	16.7	20.5
9 18	21 25.53	-20 17.8	2.353	3.204	11.2	19.7	9 18	21 21.39	-40 37.0	1.563	2.338	19.3	20.7
553	Kundry		8 17.1 265°57	4°0/14.3	18 R		369464	2010 RC ₁₁₅		8 17.1 279°54	1°4/16.3	17	
7 10	22 14.10	-18 53.9	1.448	2.312	16.9	15.7	7 10	22 16.16	-15 32.1	1.463	2.316	17.3	21.7
7 20	22 10.51	-19 52.4	1.369	2.300	13.2	15.5	7 20	22 12.07	-15 41.5	1.375	2.300	13.6	21.4
7 30	22 3.96	-21 1.0	1.309	2.288	8.9	15.2	7 30	22 5.01	-16 0.3	1.307	2.284	9.2	21.1
8 9	21 55.07	-22 11.9	1.273	2.276	4.9	14.9	8 9	21 55.57	-16 23.9	1.262	2.268	4.2	20.8
8 19	21 44.83	-23 16.0	1.262	2.264	4.8	14.9	8 19	21 44.74	-16 46.7	1.242	2.252	2.0	20.6
8 29	21 34.66	-24 4.6	1.275	2.252	8.8	15.1	8 29	21 33.94	-17 2.5	1.247	2.236	7.0	20.8
9 8	21 26.01	-24 32.4	1.312	2.239	13.3	15.3	9 8	21 24.62	-17 7.2	1.276	2.219	12.1	21.1
9 18	21 19.96	-24 38.3	1.370	2.226	17.3	15.5	9 18	21 17.89	-16 58.9	1.327	2.203	16.5	21.3
507877	2014 MG ₂₆		8 17.1 61°23	2°5/18.8	18		171459	2007 TN ₁₇₆		8 17.1 29°50	6°1/11.8	18	
7 10	22 16.55	- 7 26.0	2.159	2.962	14.2	20.3	7 10	22 10.12	-24 5.3	1.597	2.468	15.2	19.1
7 20	22 10.92	- 6 46.5	2.088	2.978	11.3	20.2	7 20	22 7.00	-25 38.2	1.540	2.474	11.8	18.9
7 30	22 3.37	- 6 16.2	2.039	2.994	8.0	20.0	7 30	22 1.32	-27 14.7	1.505	2.480	8.5	18.7
8 9	21 54.49	- 5 54.6	2.016	3.010	4.6	19.8	8 9	21 53.74	-28 45.4	1.494	2.486	6.3	18.6
8 19	21 45.01	- 5 40.4	2.020	3.027	2.5	19.7	8 19	21 45.22	-30 0.9	1.508	2.493	7.0	18.7
8 29	21 35.84	- 5 31.7	2.054	3.043	4.6	19.9	8 29	21 36.98	-30 54.2	1.548	2.500	9.8	18.9
9 8	21 27.80	- 5 26.1	2.115	3.060	7.9	20.1	9 8	21 30.19	-31 22.1	1.610	2.508	13.0	19.1
9 18	21 21.50	- 5 21.1	2.201	3.076	10.9	20.3	9 18	21 25.69	-31 25.3	1.692	2.516	16.0	19.3
479406	2013 YM ₄₂		8 17.1 175°95	1°1/15.9	18		150634	2001 BY ₂₅		8 17.1 158°97	2°0/19.1	18 R	
7 10	22 10.49	-12 10.7	2.166	2.997	13.2	21.5	7 10	22 11.85	- 5 52.4	2.720	3.513	11.8	20.3
7 20	22 6.52	-13 14.8	2.085	2.999	10.2	21.3	7 20	22 7.06	- 5 41.3	2.633	3.517	9.5	20.2
7 30	22 0.64	-14 30.4	2.027	3.000	6.7	21.1	7 30	22 0.73	- 5 39.5	2.570	3.521	6.7	20.0
8 9	21 53.33	-15 52.7	1.996	3.001	3.0	20.9	8 9	21 53.31	- 5 46.0	2.532	3.525	3.9	19.8
8 19	21 45.26	-17 15.7	1.992	3.002	1.7	20.8	8 19	21 45.33	- 5 59.0	2.522	3.529	2.0	19.7
8 29	21 37.29	-18 32.8	2.018	3.002	5.3	21.0	8 29	21 37.48	- 6 16.1	2.542	3.532	3.8	19.8
9 8	21 30.26	-19 39.0	2.070	3.002	8.8	21.3	9 8	21 30.40	- 6 34.4	2.590	3.535	6.6	20.0
9 18	21 24.86	-20 30.8	2.148	3.001	12.0	21.5	9 18	21 24.62	- 6 51.4	2.665	3.537	9.3	20.2
157872	1999 GJ ₆		8 17.1 62°18	8°3/12.2	17		158459	2002 CP ₁₆₁		8 17.1 32°44	3°4/15.3	18	
7 10	22 21.13	-32 12.1	1.525										

EPHEMERIDES

8 17.1

8 17.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
389188	2009 <i>BO</i> ₁₇₈		8 17.1 83°38'	6°3/10.8	18		44296	1998 <i>QM</i> ₉₀		8 17.2 252°60'	8°2/22.5	18	
7 10	22 11.88	-27 21.8	1.967	2.825	13.3	20.2	7 10	22 13.86	+ 5 28.2	1.658	2.428	19.1	18.1
7 20	22 7.93	-28 56.9	1.912	2.835	10.5	20.0	7 20	22 9.78	+ 6 32.1	1.575	2.425	16.4	17.9
7 30	22 1.72	-30 31.9	1.880	2.845	7.9	19.9	7 30	22 3.21	+ 7 15.5	1.508	2.422	13.3	17.7
8 9	21 53.86	-31 58.6	1.874	2.855	6.4	19.8	8 9	21 54.68	+ 7 35.1	1.463	2.419	10.3	17.5
8 19	21 45.20	-33 9.2	1.895	2.865	7.1	19.9	8 19	21 45.05	+ 7 29.8	1.441	2.415	8.4	17.4
8 29	21 36.80	-33 58.1	1.941	2.875	9.3	20.1	8 29	21 35.46	+ 7 1.5	1.443	2.412	8.8	17.4
9 8	21 29.65	-34 23.5	2.011	2.885	12.0	20.2	9 8	21 27.09	+ 6 15.8	1.470	2.409	11.2	17.5
9 18	21 24.51	-34 26.2	2.103	2.895	14.4	20.4	9 18	21 20.86	+ 5 19.8	1.519	2.405	14.3	17.7
388594	2007 <i>RQ</i> ₁₆₉		8 17.1 165°97'	6°3/12.8	18		328153	2008 <i>CT</i> ₈₆		8 17.2 115°92'	2°0/15.7	17	
7 10	22 19.83	-29 56.7	1.917	2.763	14.1	20.5	7 10	22 15.44	-15 21.8	1.675	2.520	15.8	21.6
7 20	22 14.12	-30 33.9	1.849	2.763	11.3	20.3	7 20	22 10.78	-16 6.5	1.612	2.534	12.2	21.4
7 30	22 5.85	-31 7.3	1.804	2.764	8.4	20.2	7 30	22 3.67	-17 0.8	1.570	2.546	8.0	21.2
8 9	21 55.74	-31 29.8	1.783	2.765	6.5	20.1	8 9	21 54.78	-17 58.5	1.553	2.559	3.7	20.9
8 19	21 44.80	-31 35.6	1.788	2.765	6.8	20.1	8 19	21 45.06	-18 53.0	1.562	2.570	2.5	20.9
8 29	21 34.26	-31 21.2	1.820	2.765	9.1	20.2	8 29	21 35.68	-19 38.0	1.598	2.582	6.5	21.2
9 8	21 25.25	-30 46.6	1.876	2.766	11.9	20.4	9 8	21 27.74	-20 9.2	1.660	2.593	10.5	21.4
9 18	21 18.57	-29 54.5	1.955	2.766	14.7	20.6	9 18	21 22.00	-20 25.2	1.745	2.604	14.1	21.7
220882	2004 <i>XW</i> ₆₅		8 17.1 205°30'	2°1/19.2	18		131568	2001 <i>VK</i> ₆₁		8 17.2 189°12'	4°1/19.6	17	
7 10	22 9.13	- 5 1.8	2.587	3.385	12.2	20.7	7 10	22 15.82	- 3 54.7	1.465	2.284	18.9	20.0
7 20	22 5.11	- 5 1.5	2.497	3.383	9.8	20.6	7 20	22 11.53	- 3 27.5	1.387	2.284	15.4	19.8
7 30	21 59.53	- 5 12.3	2.429	3.381	7.0	20.4	7 30	22 4.48	- 3 18.2	1.328	2.284	11.3	19.5
8 9	21 52.80	- 5 32.7	2.386	3.379	4.1	20.2	8 9	21 55.28	- 3 26.2	1.291	2.283	6.9	19.3
8 19	21 45.47	- 6 0.6	2.371	3.377	2.1	20.1	8 19	21 44.93	- 3 49.5	1.278	2.283	4.1	19.1
8 29	21 38.22	- 6 33.0	2.384	3.375	3.9	20.2	8 29	21 34.75	- 4 23.3	1.290	2.282	6.5	19.2
9 8	21 31.73	- 7 6.3	2.426	3.373	6.9	20.4	9 8	21 26.03	- 5 1.4	1.328	2.280	10.8	19.5
9 18	21 26.54	- 7 37.4	2.493	3.370	9.7	20.6	9 18	21 19.76	- 5 37.9	1.387	2.279	15.0	19.7
151370	2002 <i>EF</i> ₅		8 17.1 256°04'	0°2/17.3	18		73874	1997 <i>BX</i> ₁		8 17.2 200°04'	1°9/15.7	17	
7 10	22 9.02	-10 25.5	2.323	3.147	12.6	20.9	7 10	22 15.72	-15 43.5	1.945	2.781	14.3	21.2
7 20	22 5.29	-10 51.6	2.231	3.139	9.9	20.7	7 20	22 10.87	-16 23.4	1.862	2.778	11.1	21.0
7 30	21 59.79	-11 28.0	2.162	3.131	6.7	20.5	7 30	22 3.74	-17 12.0	1.800	2.774	7.4	20.7
8 9	21 52.97	-12 11.8	2.119	3.123	3.1	20.2	8 9	21 54.86	-18 4.3	1.764	2.769	3.5	20.5
8 19	21 45.43	-12 59.3	2.103	3.115	0.7	20.0	8 19	21 45.04	-18 54.4	1.755	2.763	2.4	20.4
8 29	21 37.94	-13 45.8	2.116	3.107	4.4	20.3	8 29	21 35.34	-19 36.7	1.775	2.757	6.1	20.6
9 8	21 31.29	-14 27.3	2.156	3.098	7.9	20.5	9 8	21 26.79	-20 6.9	1.821	2.750	10.0	20.8
9 18	21 26.11	-15 0.6	2.221	3.090	11.1	20.7	9 18	21 20.22	-20 23.3	1.891	2.743	13.4	21.1
319299	2006 <i>BE</i> ₁₁₀		8 17.1 354°34'	1°7/15.4	18		305486	2008 <i>DC</i> ₈₉		8 17.2 190°95'	1°4/15.8	18	
7 10	22 7.33	-14 45.8	2.221	3.064	12.5	20.2	7 10	22 11.51	-15 58.3	2.415	3.248	11.9	21.6
7 20	22 4.07	-15 42.8	2.142	3.063	9.6	20.0	7 20	22 7.11	-16 26.9	2.333	3.247	9.2	21.4
7 30	21 59.00	-16 48.9	2.086	3.062	6.3	19.8	7 30	22 0.94	-17 1.6	2.273	3.246	6.1	21.2
8 9	21 52.61	-17 59.1	2.056	3.062	3.0	19.6	8 9	21 53.48	-17 38.6	2.240	3.245	2.8	21.0
8 19	21 45.52	-19 8.2	2.054	3.061	2.2	19.5	8 19	21 45.37	-18 14.0	2.235	3.243	1.8	20.9
8 29	21 38.53	-20 10.3	2.079	3.061	5.4	19.8	8 29	21 37.38	-18 43.9	2.258	3.241	4.9	21.1
9 8	21 32.44	-21 1.3	2.132	3.061	8.7	20.0	9 8	21 30.29	-19 5.1	2.309	3.239	8.1	21.3
9 18	21 27.88	-21 38.4	2.208	3.061	11.7	20.2	9 18	21 24.70	-19 16.3	2.385	3.237	11.0	21.5
265278	2004 <i>FP</i> ₆₉		8 17.1 235°87'	1°8/15.8	18		437136	2012 <i>UJ</i> ₁₆₈		8 17.2 317°47'	5°2/12.6	18	
7 10	22 14.64	-15 26.4	1.840	2.681	14.8	21.7	7 10	22 7.94	-20 14.1	1.507	2.380	15.8	20.3
7 20	22 10.25	-16 3.4	1.751	2.670	11.5	21.5	7 20	22 5.67	-21 45.4	1.428	2.365	12.3	20.1
7 30	22 3.45	-16 50.1	1.683	2.658	7.7	21.2	7 30	22 0.72	-23 27.8	1.370	2.350	8.5	19.8
8 9	21 54.76	-17 41.5	1.641	2.646	3.6	20.9	8 9	21 53.64	-25 12.1	1.336	2.335	5.5	19.6
8 19	21 45.01	-18 31.5	1.625	2.633	2.3	20.8	8 19	21 45.30	-26 47.7	1.326	2.321	6.1	19.6
8 29	21 35.30	-19 14.1	1.636	2.620	6.3	21.0	8 29	21 36.98	-28 4.5	1.342	2.307	9.7	19.8
9 8	21 26.75	-19 44.6	1.674	2.606	10.5	21.3	9 8	21 29.99	-28 56.4	1.380	2.294	13.7	20.0
9 18	21 20.25	-20 0.9	1.734	2.592	14.2	21.5	9 18	21 25.35	-29 21.6	1.439	2.282	17.4	20.2
479582	2014 <i>CS</i> ₁₈		8 17.1 17°57'	0°1/17.1	18		2837	Griboedov		8 17.2 266°91'	1°5/15.8	18	
7 10	22 8.85	- 9 57.3	1.811	2.649	15.1	20.8	7 10	22 10.66	-15 24.6	2.099	2.940	13.2	16.6
7 20	22 5.60	-10 39.9	1.734	2.650	11.8	20.6	7 20	22 6.77	-15 58.0	2.015	2.934	10.2	16.4
7 30	22 0.21	-11 36.8	1.679	2.651	7.9	20.4	7 30	22 0.89	-16 39.3	1.954	2.929	6.8	16.2
8 9	21 53.21	-12 43.6	1.647	2.652	3.6	20.1	8 9	21 53.52	-17 24.3	1.918	2.923	3.1	16.0
8 19	21 45.39	-13 54.3	1.642	2.654	0.9	19.9	8 19	21 45.36	-18 8.1	1.909	2.917	2.0	15.9
8 29	21 37.70	-15 2.4	1.664	2.655	5.3	20.3	8 29	21 37.31	-18 45.8	1.927	2.912	5.5	16.1
9 8	21 31.13	-16 1.7	1.712	2.657	9.4	20.5	9 8	21 30.25	-19 13.7	1.973	2.906	9.1	16.3
9 18	21 26.42	-16 48.3	1.784	2.659	13.0	20.7	9 18	21 24.89	-19 29.6	2.041	2.900	12.3	16.5
117931	4776 <i>P-L</i>		8 17.1 239°67'	0°3/16.8	18		443040	2013 <i>EA</i> ₉₀		8 17.2 91°38'	4°8/13.7	18	
7 10	22 9.18	-12 12.6	2.612	3.435	11.4	20.5	7 10	22 20.24	-28 44.2	2.316	3.150	12.3	20.5
7 20	22 5.23	-12 40.8	2.517	3.425	8.9	20.3	7 20	22 13.81	-29 1.0	2.252	3.161	9.7	20.3
7 30	21 59.66	-13 17.3	2.445	3.415	5.9	20.1	7 30	22 5.31	-29 14.1	2.211	3.172	7.1	20.2
8 9	21 52.89	-13 59.1	2.400	3.405	2.7	19.8	8 9	21 55.42	-29 18.5	2.196	3.182	5.1	20.0
8 19	21 45.46	-14 42.7	2.383	3.394	0.8	19.7	8 19	21 44.97	-29 10.3	2.209	3.192	5.2	20.1
8 29	21 38.07	-15 24.2	2.395	3.383	4.2	19.9	8 29	21 34.95	-28 47.3	2.251	3.203	7.2	20.2
9 8	21 31.42	-16 0.0	2.434	3.372	7.4	20.1	9 8	21 26.25	-28 9.9	2.319	3.213	9.8	20.4
9 18	21 26.09	-16 27.7	2.500	3.360	10.3	20.3	9 18	21 19.50	-27 19.8	2.411	3.223	12.2	20.6
150629	2001 <i>AU</i> ₄₀		8 17.2 125°59'	1°3/18.3	18		314013	2004 <i>VA</i> ₈₁		8 17.2 266°04'	0°5/17.5		

EPHEMERIDES

8 17.2

8 17.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
236654	2006 <i>KV</i> ₉₉		8 17.2 35°97	5°4/21.5	16		438926	2010 <i>CW</i> ₁₀₃		8 17.2 236°97	2°3/19.4	18	
7 10	22 8.70	+ 1 40.8	1.596	2.398	18.4	20.3	7 10	22 8.61	- 2 23.0	1.912	2.718	15.6	21.1
7 20	22 5.64	+ 1 54.6	1.528	2.408	15.2	20.1	7 20	22 5.37	- 3 3.1	1.823	2.714	12.6	20.9
7 30	22 0.30	+ 1 46.1	1.478	2.418	11.6	19.9	7 30	22 0.08	- 4 3.3	1.755	2.710	9.0	20.7
8 9	21 53.28	+ 1 15.4	1.449	2.429	8.0	19.7	8 9	21 53.21	- 5 20.9	1.711	2.706	5.2	20.5
8 19	21 45.43	+ 0 25.3	1.445	2.441	5.5	19.6	8 19	21 45.48	- 6 51.3	1.693	2.702	2.3	20.3
8 29	21 37.82	- 0 38.7	1.465	2.452	6.4	19.7	8 29	21 37.80	- 8 27.3	1.704	2.697	4.8	20.4
9 8	21 31.47	- 1 49.1	1.510	2.465	9.6	19.9	9 8	21 31.11	-10 1.1	1.741	2.693	8.8	20.7
9 18	21 27.13	- 2 58.6	1.579	2.477	13.1	20.1	9 18	21 26.15	-11 26.4	1.803	2.688	12.4	20.9
446862	2001 <i>VB</i> ₇₆		8 17.2 171°52	4°1/19.1	16		404088	2012 <i>EZ</i> ₁₀		8 17.2 249°69	0°7/16.5	18	
7 10	22 32.05	- 2 47.6	1.131	1.940	24.0	23.1	7 10	22 9.61	-13 37.5	2.584	3.411	11.4	21.6
7 20	22 25.13	- 2 45.8	1.059	1.950	19.6	22.9	7 20	22 5.61	-14 3.9	2.489	3.400	8.9	21.4
7 30	22 14.17	- 3 10.3	1.004	1.959	14.2	22.6	7 30	21 59.97	-14 37.7	2.417	3.388	5.9	21.2
8 9	21 59.94	- 3 59.9	0.969	1.964	8.2	22.3	8 9	21 53.08	-15 15.9	2.371	3.377	2.7	21.0
8 19	21 43.89	- 5 9.1	0.959	1.967	4.1	22.1	8 19	21 45.53	-15 54.8	2.354	3.365	1.1	20.9
8 29	21 28.14	- 6 28.2	0.975	1.967	8.0	22.3	8 29	21 38.02	-16 30.5	2.366	3.353	4.4	21.1
9 8	21 14.71	- 7 45.8	1.016	1.964	13.9	22.6	9 8	21 31.25	-16 59.9	2.405	3.340	7.6	21.3
9 18	21 5.01	- 8 53.3	1.078	1.959	19.2	22.9	9 18	21 25.84	-17 20.7	2.469	3.328	10.5	21.4
28772	2000 <i>HE</i> ₃₄		8 17.2 12°16	1°1/16.4	18		31842	2000 <i>CF</i> ₇₇		8 17.2 69°03	1°0/16.5	18	
7 10	22 12.65	-14 57.3	1.913	2.754	14.3	18.6	7 10	22 14.89	-13 30.3	1.472	2.322	17.3	18.7
7 20	22 8.42	-15 13.5	1.835	2.754	11.1	18.4	7 20	22 10.58	-13 55.2	1.415	2.338	13.4	18.5
7 30	22 2.03	-15 37.4	1.780	2.755	7.4	18.2	7 30	22 3.64	-14 31.3	1.378	2.354	8.9	18.3
8 9	21 54.05	-16 5.1	1.749	2.755	3.3	17.9	8 9	21 54.83	-15 13.5	1.364	2.370	4.0	18.0
8 19	21 45.26	-16 32.2	1.745	2.756	1.6	17.8	8 19	21 45.18	-15 55.3	1.375	2.386	1.6	17.9
8 29	21 36.67	-16 54.1	1.769	2.756	5.5	18.1	8 29	21 35.97	-16 30.7	1.412	2.402	6.3	18.2
9 8	21 29.24	-17 7.6	1.818	2.757	9.4	18.3	9 8	21 28.36	-16 55.1	1.475	2.418	10.7	18.5
9 18	21 23.71	-17 10.8	1.891	2.758	12.8	18.5	9 18	21 23.15	-17 6.5	1.559	2.434	14.5	18.8
294408	2007 <i>VQ</i> ₁₉₅		8 17.2 272°36	1°8/15.7	18		92275	2000 <i>CS</i> ₈₉		8 17.2 62°58	2°9/15.4	18	
7 10	22 11.39	-15 49.4	1.956	2.801	13.9	21.3	7 10	22 14.31	-15 7.0	1.155	2.026	19.7	18.6
7 20	22 7.53	-16 23.7	1.872	2.793	10.8	21.1	7 20	22 10.80	-16 7.6	1.107	2.042	15.2	18.4
7 30	22 1.50	-17 6.2	1.809	2.785	7.2	20.8	7 30	22 4.11	-17 21.8	1.077	2.059	10.0	18.2
8 9	21 53.84	-17 52.5	1.771	2.777	3.4	20.6	8 9	21 55.12	-18 40.6	1.069	2.076	4.7	17.9
8 19	21 45.30	-18 37.2	1.760	2.769	2.3	20.5	8 19	21 45.12	-19 53.6	1.085	2.093	3.6	17.9
8 29	21 36.86	-19 15.0	1.777	2.761	5.9	20.7	8 29	21 35.69	-20 51.4	1.125	2.110	8.3	18.3
9 8	21 29.48	-19 41.7	1.819	2.753	9.7	20.9	9 8	21 28.24	-21 28.5	1.187	2.127	13.1	18.6
9 18	21 23.95	-19 55.5	1.885	2.745	13.1	21.1	9 18	21 23.68	-21 43.9	1.269	2.144	17.2	18.9
487	Venetia		8 17.2 294°99	3°0/14.4	18		511853	2015 <i>FV</i> ₃₄₀		8 17.2 162°58	5°1/13.5	18	
7 10	22 9.37	-16 43.9	1.761	2.617	14.7	12.3	7 10	22 19.40	-26 16.8	1.953	2.798	13.9	21.0
7 20	22 6.27	-17 54.2	1.680	2.608	11.3	12.0	7 20	22 13.70	-26 55.3	1.884	2.802	10.9	20.8
7 30	22 0.83	-19 15.6	1.621	2.599	7.6	11.8	7 30	22 5.58	-27 33.0	1.838	2.805	7.8	20.6
8 9	21 53.60	-20 41.2	1.586	2.591	3.9	11.6	8 9	21 55.69	-28 3.4	1.817	2.808	5.4	20.5
8 19	21 45.35	-22 3.2	1.578	2.582	3.7	11.5	8 19	21 44.99	-28 20.6	1.822	2.810	5.6	20.5
8 29	21 37.17	-23 13.8	1.597	2.573	7.3	11.7	8 29	21 34.63	-28 20.8	1.855	2.812	8.1	20.7
9 8	21 30.13	-24 7.3	1.640	2.565	11.2	12.0	9 8	21 25.69	-28 3.0	1.914	2.814	11.2	20.8
9 18	21 25.09	-24 41.0	1.706	2.556	14.7	12.2	9 18	21 18.95	-27 28.9	1.994	2.816	14.0	21.0
376886	2001 <i>XR</i> ₄₆		8 17.2 190°21	5°7/11.5	18		32489	2000 <i>UG</i> ₁₇		8 17.2 301°16	5°1/12.4	18	
7 10	22 16.03	-27 54.8	2.257	3.100	12.3	20.8	7 10	22 11.93	-25 56.9	2.116	2.970	12.6	18.6
7 20	22 10.96	-29 9.5	2.185	3.099	9.8	20.6	7 20	22 7.86	-26 57.1	2.045	2.967	9.9	18.5
7 30	22 3.72	-30 24.1	2.137	3.098	7.3	20.4	7 30	22 1.67	-27 58.2	1.997	2.965	7.2	18.3
8 9	21 54.84	-31 31.4	2.115	3.095	5.8	20.3	8 9	21 53.92	-28 53.7	1.974	2.963	5.3	18.2
8 19	21 45.11	-32 25.0	2.120	3.092	6.3	20.4	8 19	21 45.38	-29 37.4	1.978	2.961	5.7	18.2
8 29	21 35.53	-32 59.9	2.153	3.088	8.5	20.5	8 29	21 37.02	-30 4.6	2.008	2.958	8.0	18.3
9 8	21 27.08	-33 14.3	2.211	3.084	11.1	20.7	9 8	21 29.78	-30 13.2	2.063	2.956	10.8	18.5
9 18	21 20.52	-33 8.9	2.291	3.079	13.5	20.8	9 18	21 24.38	-30 3.6	2.140	2.954	13.5	18.7
423994	2006 <i>VA</i> ₁₀₉		8 17.2 189°54	2°5/15.1	17		168759	2000 <i>QM</i> ₂₀₆		8 17.2 334°38	0°5/16.9	18	
7 10	22 16.36	-18 0.2	2.064	2.900	13.6	22.5	7 10	22 6.37	-12 5.2	1.040	1.924	20.5	19.3
7 20	22 11.23	-18 40.9	1.983	2.899	10.5	22.3	7 20	22 5.30	-12 20.2	0.966	1.908	16.2	19.0
7 30	22 3.90	-19 27.8	1.925	2.898	7.0	22.1	7 30	22 0.96	-12 53.4	0.909	1.893	11.0	18.7
8 9	21 54.93	-20 15.8	1.892	2.896	3.6	21.8	8 9	21 53.94	-13 40.3	0.871	1.879	5.0	18.3
8 19	21 45.10	-20 59.3	1.888	2.893	3.0	21.8	8 19	21 45.34	-14 33.3	0.854	1.866	1.5	18.0
8 29	21 35.42	-21 33.2	1.912	2.889	6.2	22.0	8 29	21 36.79	-15 22.9	0.859	1.855	7.8	18.4
9 8	21 26.87	-21 54.2	1.962	2.885	9.8	22.2	9 8	21 30.00	-16 0.6	0.885	1.844	13.8	18.7
9 18	21 20.23	-22 1.2	2.036	2.879	13.0	22.4	9 18	21 26.20	-16 21.1	0.928	1.836	19.0	18.9
226409	2003 <i>QM</i> ₈₅		8 17.2 326°81	0°5/17.7	18		169661	2002 <i>JF</i> ₆₇		8 17.2 166°90	3°6/14.5	18	
7 10	22 6.68	- 8 55.6	2.077	2.907	13.7	20.0	7 10	22 16.95	-19 27.1	1.733	2.581	15.2	20.5
7 20	22 3.73	- 9 24.2	1.987	2.898	10.8	19.8	7 20	22 12.08	-20 22.6	1.663	2.586	11.8	20.3
7 30	21 58.90	-10 5.7	1.919	2.889	7.4	19.6	7 30	22 4.67	-21 24.7	1.614	2.589	7.9	20.1
8 9	21 52.64	-10 57.1	1.876	2.880	3.6	19.3	8 9	21 55.35	-22 26.5	1.591	2.592	4.4	19.9
8 19	21 45.61	-11 54.1	1.860	2.871	0.8	19.1	8 19	21 45.07	-23 20.5	1.594	2.595	4.2	19.9
8 29	21 38.63	-12 51.4	1.870	2.863	4.6	19.3	8 29	21 35.03	-24 0.5	1.624	2.597	7.5	20.1
9 8	21 32.54	-13 43.8	1.908	2.855	8.4	19.6	9 8	21 26.41	-24 22.9	1.679	2.598	11.3	20.3
9 18	21 28.03	-14 27.5	1.969	2.848	11.8	19.8	9 18	21 20.05	-24 27.2	1.756	2.599	14.7	20.5
348103	2003 <i>YN</i> ₃₂		8 17.2 291°66	3°1/14.5	18		242548	2005 <i>EP</i> ₃₅		8 17.2 112°58	2°		

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8 17.2

8 17.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
193678	2001 <i>DA</i> ₁₀₅		8 17.2 226°60	0°9/17.8	18		155482	1998 <i>TF</i> ₃₈		8 17.2 285°94	7°8/25.7	18	
7 10	22 15.42	-10 20.8	2.129	2.946	13.9	20.7	7 10	22 6.95	+13 5.0	2.464	3.165	15.2	19.9
7 20	22 10.44	-10 14.6	2.036	2.938	11.0	20.5	7 20	22 3.74	+13 34.5	2.360	3.151	13.4	19.7
7 30	22 3.37	-10 17.4	1.965	2.929	7.6	20.2	7 30	21 58.84	+13 44.0	2.274	3.137	11.5	19.6
8 9	21 54.72	-10 27.2	1.918	2.920	3.7	20.0	8 9	21 52.64	+13 31.3	2.208	3.123	9.6	19.4
8 19	21 45.20	-10 41.2	1.900	2.911	1.0	19.8	8 19	21 45.70	+12 55.8	2.166	3.109	8.1	19.3
8 29	21 35.76	-10 56.0	1.910	2.902	4.7	20.0	8 29	21 38.71	+11 59.3	2.150	3.095	7.9	19.3
9 8	21 27.32	-11 8.4	1.948	2.892	8.5	20.2	9 8	21 32.42	+10 46.2	2.159	3.081	9.0	19.3
9 18	21 20.63	-11 15.9	2.010	2.881	12.0	20.4	9 18	21 27.49	+9 22.2	2.192	3.067	11.0	19.4
348113	2003 <i>YB</i> ₁₃₁		8 17.2 283°94	3°5/19.4	18		476840	2008 <i>UB</i> ₃₀₁		8 17.2 219°95	7°3/23.0	18	
7 10	22 14.30	-4 53.0	1.947	2.751	15.4	21.1	7 10	22 11.78	+6 39.6	1.983	2.734	16.9	21.8
7 20	22 9.92	-4 19.1	1.842	2.730	12.6	20.9	7 20	22 7.78	+7 23.6	1.894	2.732	14.5	21.6
7 30	22 3.25	-3 56.9	1.757	2.709	9.3	20.6	7 30	22 1.69	+7 48.0	1.824	2.729	11.8	21.4
8 9	21 54.76	-3 46.5	1.697	2.688	5.7	20.4	8 9	21 53.99	+7 50.8	1.776	2.726	9.2	21.2
8 19	21 45.18	-3 47.1	1.663	2.667	3.5	20.2	8 19	21 45.40	+7 31.8	1.752	2.723	7.5	21.1
8 29	21 35.49	-3 56.1	1.656	2.645	5.6	20.3	8 29	21 36.85	+6 53.1	1.753	2.720	7.7	21.1
9 8	21 26.76	-4 10.1	1.675	2.623	9.3	20.4	9 8	21 29.28	+6 0.0	1.780	2.717	9.7	21.3
9 18	21 19.88	-4 25.1	1.719	2.602	13.0	20.6	9 18	21 23.47	+4 58.8	1.831	2.713	12.4	21.4
304678	2006 <i>WJ</i> ₁₀₄		8 17.2 147°09	0°3/16.9	18		221885	2008 <i>HA</i> ₅₅		8 17.2 25°61	0°8/16.5	18	
7 10	22 10.74	-12 12.4	2.687	3.506	11.3	22.2	7 10	22 8.64	-13 10.5	1.827	2.713	14.4	20.3
7 20	22 6.28	-12 39.5	2.608	3.514	8.7	22.0	7 20	22 5.33	-13 40.6	1.799	2.720	11.1	20.1
7 30	22 0.28	-13 14.0	2.554	3.522	5.8	21.8	7 30	21 59.98	-14 20.5	1.753	2.728	7.4	19.9
8 9	21 53.19	-13 53.1	2.526	3.530	2.6	21.6	8 9	21 53.15	-15 6.2	1.730	2.736	3.3	19.7
8 19	21 45.57	-14 33.2	2.526	3.538	0.8	21.5	8 19	21 45.60	-15 52.4	1.734	2.745	1.4	19.6
8 29	21 38.09	-15 10.8	2.556	3.544	4.0	21.8	8 29	21 38.29	-16 33.8	1.766	2.755	5.3	19.9
9 8	21 31.40	-15 42.7	2.615	3.551	7.0	22.0	9 8	21 32.10	-17 6.3	1.822	2.764	9.1	20.1
9 18	21 26.04	-16 6.9	2.699	3.557	9.7	22.1	9 18	21 27.71	-17 27.4	1.902	2.775	12.5	20.4
389030	2008 <i>UH</i> ₃₂₂		8 17.2 246°46	2°5/15.3	18		116648	2004 <i>CA</i> ₁₄		8 17.2 33°25	0°9/16.6	17	
7 10	22 15.33	-18 41.6	2.024	2.865	13.6	21.9	7 10	22 9.53	-11 35.0	1.145	2.016	19.8	19.0
7 20	22 10.60	-19 9.7	1.934	2.852	10.6	21.7	7 20	22 7.06	-12 16.8	1.096	2.030	15.4	18.8
7 30	22 3.61	-19 43.3	1.865	2.839	7.1	21.4	7 30	22 1.61	-13 15.8	1.064	2.045	10.2	18.5
8 9	21 54.87	-20 17.7	1.822	2.826	3.6	21.2	8 9	21 54.00	-14 25.1	1.054	2.061	4.5	18.3
8 19	21 45.18	-20 47.6	1.807	2.812	3.0	21.1	8 19	21 45.42	-15 35.6	1.067	2.078	1.7	18.1
8 29	21 35.56	-21 8.2	1.819	2.798	6.3	21.3	8 29	21 37.34	-16 37.9	1.103	2.095	7.1	18.5
9 8	21 27.02	-21 16.6	1.857	2.783	10.0	21.5	9 8	21 31.07	-17 25.1	1.162	2.114	12.1	18.9
9 18	21 20.41	-21 11.8	1.919	2.768	13.4	21.7	9 18	21 27.47	-17 53.9	1.242	2.133	16.4	19.2
256548	2007 <i>HG</i> ₇₀		8 17.2 182°18	3°9/22.2	18		142113	2002 <i>RS</i> ₃		8 17.2 8°63	1°4/18.1	17	
7 10	22 7.47	+4 6.2	2.960	3.705	12.0	21.5	7 10	22 4.37	-8 14.3	0.970	1.852	21.7	19.3
7 20	22 3.68	+3 54.9	2.864	3.706	10.0	21.4	7 20	22 3.58	-8 22.4	0.915	1.853	17.2	19.1
7 30	21 58.54	+3 28.9	2.790	3.706	7.8	21.2	7 30	21 59.60	-8 53.2	0.876	1.856	11.9	18.8
8 9	21 52.40	+2 48.4	2.740	3.706	5.6	21.1	8 9	21 53.20	-9 42.6	0.856	1.861	5.9	18.5
8 19	21 45.75	+1 55.5	2.718	3.705	4.0	21.0	8 19	21 45.59	-10 43.3	0.856	1.868	1.6	18.2
8 29	21 39.15	+0 53.0	2.724	3.704	4.4	21.0	8 29	21 38.34	-11 45.3	0.878	1.876	7.0	18.6
9 8	21 33.17	+0 14.8	2.759	3.703	6.3	21.1	9 8	21 32.97	-12 38.9	0.921	1.886	12.6	18.9
9 18	21 28.31	-1 23.6	2.822	3.701	8.6	21.3	9 18	21 30.45	-13 17.8	0.983	1.897	17.5	19.3
171045	2005 <i>ES</i> ₉₆		8 17.2 106°82	4°1/21.2	17		474406	2002 <i>VH</i> ₈		8 17.2 254°94	7°2/10.9	18	
7 10	22 10.90	+1 19.7	2.136	2.913	15.1	20.8	7 10	22 18.66	-33 37.4	2.216	3.055	12.7	21.1
7 20	22 6.73	+1 14.4	2.063	2.929	12.4	20.6	7 20	22 13.23	-34 33.1	2.136	3.040	10.4	20.9
7 30	22 0.74	+0 51.3	2.010	2.945	9.4	20.5	7 30	22 5.38	-35 24.2	2.079	3.025	8.4	20.8
8 9	21 53.45	+0 11.5	1.981	2.960	6.2	20.3	8 9	21 55.69	-36 3.4	2.046	3.010	7.3	20.7
8 19	21 45.53	-0 42.2	1.979	2.975	4.1	20.2	8 19	21 45.03	-36 24.4	2.040	2.994	7.8	20.7
8 29	21 37.81	-1 45.2	2.004	2.990	5.1	20.3	8 29	21 34.55	-36 23.3	2.060	2.979	9.7	20.8
9 8	21 31.07	-2 51.9	2.056	3.004	7.8	20.5	9 8	21 25.35	-35 59.3	2.104	2.962	12.1	20.9
9 18	21 25.94	-3 56.8	2.134	3.019	10.8	20.7	9 18	21 18.26	-35 14.8	2.170	2.946	14.5	21.0
479670	2014 <i>DW</i> ₇₈		8 17.2 284°44	0°1/17.1	18		438314	2006 <i>HD</i> ₁₁₇		8 17.2 359°13	10°3/9.9	16	
7 10	22 10.02	-9 33.7	1.818	2.652	15.2	21.4	7 10	22 1.33	-29 10.5	1.006	1.917	18.8	19.6
7 20	22 6.85	-10 17.1	1.712	2.626	12.0	21.1	7 20	22 1.60	-30 48.4	0.958	1.909	15.2	19.4
7 30	22 1.36	-11 17.2	1.628	2.599	8.2	20.8	7 30	21 58.47	-32 24.7	0.928	1.905	11.9	19.2
8 9	21 53.96	-12 30.3	1.568	2.572	3.8	20.5	8 9	21 52.74	-33 45.6	0.917	1.902	10.4	19.1
8 19	21 45.37	-13 50.8	1.534	2.545	0.9	20.2	8 19	21 45.70	-34 38.4	0.926	1.903	11.5	19.1
8 29	21 36.59	-15 11.1	1.527	2.518	5.7	20.5	8 29	21 39.09	-34 54.8	0.954	1.905	14.5	19.3
9 8	21 28.75	-16 23.9	1.546	2.490	10.3	20.7	9 8	21 34.51	-34 33.7	1.001	1.911	18.0	19.5
9 18	21 22.81	-17 23.7	1.589	2.462	14.4	20.9	9 18	21 32.93	-33 39.4	1.063	1.918	21.3	19.8
127019	2002 <i>GJ</i> ₁₆		8 17.2 102°36	2°5/14.8	18		482418	2012 <i>BN</i> ₁₂₁		8 17.2 248°63	2°3/19.2	18	
7 10	22 11.42	-19 15.1	2.320	3.162	12.1	19.9	7 10	22 10.77	-5 31.5	2.418	3.218	12.9	21.3
7 20	22 7.10	-19 52.8	2.250	3.170	9.3	19.7	7 20	22 6.58	-5 22.7	2.323	3.211	10.4	21.1
7 30	22 0.96	-20 34.6	2.203	3.178	6.2	19.5	7 30	22 0.66	-5 24.8	2.251	3.204	7.4	20.9
8 9	21 53.54	-21 16.0	2.183	3.185	3.3	19.3	8 9	21 53.45	-5 36.7	2.203	3.197	4.3	20.7
8 19	21 45.51	-21 52.4	2.190	3.193	2.9	19.3	8 19	21 45.55	-5 56.5	2.183	3.190	2.3	20.6
8 29	21 37.68	-22 20.0	2.225	3.200	5.6	19.5	8 29	21 37.70	-6 21.3	2.191	3.182	4.2	20.7
9 8	21 30.84	-22 36.1	2.287	3.207	8.7	19.7	9 8	21 30.65	-6 47.5	2.227	3.175	7.4	20.9
9 18	21 25.59	-22 39.9	2.373	3.215	11.4	19.9	9 18	21 25.03	-7 11.9	2.289	3.167	10.4	21.1
164111	2003 <i>XQ</i> ₁₇		8 17.2 13°29	0°6/16.7	18		445907	2012 <i>WQ</i> ₂₇		8 17.2 307°18	12°0/27.4</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
36639	2000 <i>QC</i> ₁₈₃		8 17.2 282°91	0°3/17.0	18		468992	2015 <i>AT</i> ₁₆₅		8 17.2 17°79	3°3/14.6	18	
7 10	22 12.31	-12 0.4	1.691	2.533	15.8	19.8	7 10	22 7.20	-14 2.4	1.201	2.079	18.7	20.4
7 20	22 8.58	-12 18.8	1.608	2.526	12.4	19.6	7 20	22 5.38	-15 33.0	1.142	2.082	14.4	20.2
7 30	22 2.41	-12 49.2	1.545	2.519	8.4	19.3	7 30	22 0.64	-17 21.4	1.103	2.086	9.5	19.9
8 9	21 54.38	-13 27.7	1.506	2.511	3.8	19.0	8 9	21 53.67	-19 17.9	1.085	2.092	4.6	19.7
8 19	21 45.33	-14 9.3	1.493	2.504	1.0	18.8	8 19	21 45.55	-21 10.0	1.091	2.098	4.1	19.7
8 29	21 36.39	-14 48.3	1.506	2.497	5.7	19.1	8 29	21 37.70	-22 45.7	1.122	2.104	8.7	20.0
9 8	21 28.66	-15 19.4	1.544	2.490	10.2	19.4	9 8	21 31.52	-23 56.7	1.175	2.112	13.5	20.3
9 18	21 23.03	-15 39.6	1.606	2.483	14.1	19.6	9 18	21 27.96	-24 40.1	1.247	2.120	17.6	20.5
39510	1982 <i>DU</i>		8 17.2 200°55	2°5/14.9	18		43792	1990 <i>VY</i> ₁		8 17.2 318°47	8°0/23.1	18	
7 10	22 15.64	-21 25.8	2.776	3.605	10.7	18.5	7 10	22 5.63	+ 5 58.1	1.553	2.342	19.4	18.0
7 20	22 10.10	-21 44.5	2.689	3.601	8.3	18.3	7 20	22 3.77	+ 6 32.1	1.452	2.316	16.8	17.7
7 30	22 2.87	-22 4.8	2.627	3.596	5.6	18.1	7 30	21 59.49	+ 6 41.6	1.367	2.291	13.7	17.5
8 9	21 54.41	-22 22.9	2.591	3.591	3.1	18.0	8 9	21 53.19	+ 6 23.0	1.302	2.266	10.5	17.2
8 19	21 45.35	-22 35.5	2.585	3.586	2.8	17.9	8 19	21 45.62	+ 5 35.6	1.259	2.242	8.2	17.0
8 29	21 36.43	-22 39.8	2.608	3.580	5.2	18.1	8 29	21 37.85	+ 4 22.4	1.239	2.218	8.5	17.0
9 8	21 28.38	-22 34.4	2.660	3.574	7.9	18.2	9 8	21 31.11	+ 2 50.9	1.242	2.195	11.3	17.1
9 18	21 21.78	-22 18.8	2.737	3.567	10.4	18.4	9 18	21 26.44	+ 1 11.1	1.267	2.173	15.1	17.2
457864	2009 <i>SM</i> ₂₁₅		8 17.2 354°50	3°2/20.0	18		280328	2003 <i>SO</i> ₅₈		8 17.2 11°46	10°3/26.2	16	
7 10	22 5.15	- 2 26.1	1.779	2.598	16.1	20.4	7 10	22 4.69	+11 34.5	1.385	2.155	22.2	20.0
7 20	22 2.82	- 2 33.1	1.697	2.593	13.1	20.2	7 20	22 3.02	+12 18.0	1.316	2.157	19.5	19.8
7 30	21 58.44	- 2 58.6	1.634	2.589	9.6	20.0	7 30	21 58.87	+12 29.5	1.262	2.161	16.4	19.7
8 9	21 52.52	- 3 41.3	1.594	2.586	5.9	19.7	8 9	21 52.81	+12 5.4	1.225	2.166	13.3	19.5
8 19	21 45.77	- 4 37.9	1.578	2.584	3.3	19.6	8 19	21 45.74	+11 5.5	1.209	2.173	10.9	19.4
8 29	21 39.11	- 5 42.7	1.589	2.583	5.1	19.7	8 29	21 38.84	+ 9 34.6	1.214	2.180	10.4	19.4
9 8	21 33.48	- 6 49.2	1.625	2.582	8.8	19.9	9 8	21 33.27	+ 7 42.8	1.242	2.188	12.0	19.5
9 18	21 29.62	- 7 51.2	1.685	2.582	12.4	20.1	9 18	21 29.91	+ 5 41.9	1.291	2.198	14.8	19.7
339247	2004 <i>VH</i> ₂₄		8 17.2 293°44	2°4/18.9	18		94224	2001 <i>BA</i> ₅₇		8 17.2 309°26	6°6/21.6	18	
7 10	22 10.26	- 5 36.8	1.720	2.545	16.4	20.5	7 10	22 8.06	+ 2 18.7	1.571	2.372	18.7	18.5
7 20	22 7.14	- 5 41.4	1.616	2.519	13.3	20.2	7 20	22 5.69	+ 2 50.8	1.466	2.344	15.9	18.2
7 30	22 1.62	- 6 2.8	1.531	2.493	9.5	19.9	7 30	22 0.81	+ 3 1.6	1.378	2.315	12.6	18.0
8 9	21 54.12	- 6 39.9	1.469	2.467	5.3	19.6	8 9	21 53.83	+ 2 48.6	1.311	2.287	9.1	17.7
8 19	21 45.39	- 7 29.5	1.432	2.442	2.4	19.4	8 19	21 45.48	+ 2 11.6	1.267	2.260	6.7	17.5
8 29	21 36.48	- 8 26.0	1.422	2.416	5.6	19.5	8 29	21 36.88	+ 1 13.7	1.247	2.232	7.6	17.5
9 8	21 28.56	- 9 22.9	1.437	2.390	10.1	19.7	9 8	21 29.29	+ 0 1.8	1.251	2.205	11.1	17.6
9 18	21 22.64	-10 14.3	1.474	2.364	14.4	19.9	9 18	21 23.79	- 1 15.6	1.276	2.179	15.2	17.8
213982	2004 <i>AB</i> ₅		8 17.2 294°29	1°9/15.5	18		488386	2016 <i>WF</i> ₄₇		8 17.2 175°45	5°3/11.5	18	
7 10	22 10.51	-14 21.8	1.864	2.709	14.4	20.5	7 10	22 11.80	-27 42.3	2.423	3.271	11.4	21.5
7 20	22 7.29	-15 14.9	1.754	2.676	11.3	20.3	7 20	22 7.54	-28 51.6	2.355	3.272	9.0	21.3
7 30	22 1.72	-16 21.3	1.666	2.642	7.6	20.0	7 30	22 1.37	-30 0.5	2.310	3.273	6.7	21.2
8 9	21 54.18	-17 36.4	1.603	2.608	3.6	19.6	8 9	21 53.80	-31 2.8	2.292	3.273	5.3	21.1
8 19	21 45.37	-18 53.5	1.566	2.574	2.5	19.5	8 19	21 45.54	-31 53.0	2.301	3.274	5.8	21.1
8 29	21 36.31	-20 5.0	1.556	2.539	6.6	19.7	8 29	21 37.42	-32 26.8	2.337	3.274	7.8	21.3
9 8	21 28.15	-21 4.0	1.572	2.504	11.0	19.9	9 8	21 30.29	-32 42.3	2.398	3.274	10.2	21.4
9 18	21 21.89	-21 46.5	1.611	2.470	15.0	20.0	9 18	21 24.81	-32 39.8	2.482	3.274	12.5	21.6
509340	2006 <i>YO</i> ₁₂		8 17.2 251°82	3°2/14.5	18		78624	2002 <i>TL</i> ₁₄		8 17.2 322°68	4°1/14.1	18	
7 10	22 13.09	-17 20.3	1.807	2.656	14.7	22.2	7 10	22 12.82	-21 52.5	1.776	2.634	14.5	19.1
7 20	22 9.25	-18 26.2	1.716	2.640	11.4	22.0	7 20	22 8.93	-22 34.9	1.701	2.628	11.3	18.8
7 30	22 2.95	-19 42.9	1.648	2.624	7.7	21.7	7 30	22 2.61	-23 21.3	1.647	2.623	7.8	18.6
8 9	21 54.69	-21 3.7	1.604	2.608	4.1	21.5	8 9	21 54.47	-24 5.4	1.618	2.618	4.7	18.4
8 19	21 45.28	-22 30.8	1.588	2.591	3.8	21.4	8 19	21 45.38	-24 40.7	1.615	2.613	4.6	18.4
8 29	21 35.82	-23 26.6	1.598	2.573	7.4	21.6	8 29	21 36.49	-25 1.8	1.637	2.608	7.7	18.6
9 8	21 27.48	-24 15.2	1.634	2.555	11.4	21.8	9 8	21 28.89	-25 5.9	1.684	2.604	11.3	18.8
9 18	21 21.21	-24 44.4	1.692	2.537	15.1	22.0	9 18	21 23.42	-24 53.0	1.753	2.599	14.6	19.0
270182	2001 <i>SY</i> ₂₇₃		8 17.2 316°99	2°5/19.1	17		127370	2002 <i>JJ</i> ₁₄₄		8 17.2 333°83	4°2/12.8	18	
7 10	22 8.01	- 4 40.0	1.438	2.276	18.3	21.3	7 10	22 4.82	-18 20.6	1.742	2.610	14.3	18.5
7 20	22 5.66	- 4 53.8	1.353	2.263	14.8	21.1	7 20	22 2.88	-19 59.1	1.659	2.594	11.0	18.3
7 30	22 0.72	- 5 29.0	1.286	2.251	10.6	20.8	7 30	21 58.70	-21 49.6	1.598	2.578	7.5	18.0
8 9	21 53.71	- 6 23.7	1.241	2.240	5.9	20.5	8 9	21 52.75	-23 44.2	1.562	2.563	4.6	17.8
8 19	21 45.50	- 7 33.2	1.219	2.228	2.5	20.2	8 19	21 45.75	-25 33.2	1.553	2.549	5.1	17.8
8 29	21 37.29	- 8 49.9	1.222	2.218	5.9	20.4	8 29	21 38.75	-27 7.5	1.569	2.536	8.4	18.0
9 8	21 30.35	-10 5.0	1.250	2.208	10.8	20.7	9 8	21 32.80	-28 20.2	1.610	2.523	12.1	18.2
9 18	21 25.68	-11 11.2	1.299	2.198	15.3	20.9	9 18	21 28.79	-29 8.5	1.672	2.512	15.5	18.4
505745	2015 <i>BJ</i> ₇₁		8 17.2 209°62	3°4/19.5	18		494333	2016 <i>TT</i> ₂₉		8 17.2 342°38	10°3/22.9	16	
7 10	22 14.39	- 3 50.4	1.715	2.524	17.0	21.2	7 10	22 8.74	+ 5 43.1	1.381	2.176	21.1	20.0
7 20	22 10.11	- 3 36.9	1.630	2.521	13.8	21.0	7 20	22 6.37	+ 7 18.5	1.299	2.163	18.4	19.8
7 30	22 3.41	- 3 39.8	1.564	2.518	10.1	20.7	7 30	22 1.30	+ 8 32.9	1.233	2.151	15.3	19.6
8 9	21 54.85	- 3 58.3	1.522	2.514	6.1	20.5	8 9	21 54.04	+ 9 20.9	1.186	2.140	12.4	19.4
8 19	21 45.27	- 4 29.9	1.505	2.510	3.4	20.3	8 19	21 45.46	+ 9 39.1	1.160	2.130	10.5	19.2
8 29	21 35.77	- 5 10.0	1.515	2.506	5.7	20.5	8 29	21 36.84	+ 9 27.6	1.156	2.122	10.8	19.2
9 8	21 27.48	- 5 52.9	1.550	2.501	9.7	20.7	9 8	21 29.52	+ 8 51.7	1.173	2.115	13.0	19.3
9 18	21 21.27	- 6 33.4	1.609	2.496	13.5	20.9	9 18	21 24.57	+ 7 59.3	1.210	2.109	16.2	19.5
162377	2000 <i>AL</i> ₁₉₆		8 17.2 259°97	2°5/19.4	18		475426	2006 <i>PH</i>		8			

EPHEMERIDES

8 17.2

8 17.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
482784	2013 <i>JD</i> ₆₃		8 17.2 160°29'	4.9/11.8	18		457550	2008 <i>YN</i> ₅₃		8 17.2 76°52'	3.2/15.2	17	
7 10	22 13.10	-29 4.3	2.738	3.578	10.5	22.0	7 10	22 17.42	-17 11.4	1.301	2.163	18.5	21.2
7 20	22 8.27	-29 58.3	2.671	3.582	8.3	21.9	7 20	22 12.88	-18 4.9	1.254	2.184	14.2	21.0
7 30	22 1.71	-30 50.4	2.628	3.587	6.3	21.8	7 30	22 5.35	-19 7.7	1.226	2.205	9.4	20.8
8 9	21 53.92	-31 35.5	2.612	3.590	5.0	21.7	8 9	21 55.71	-20 11.5	1.221	2.226	4.7	20.6
8 19	21 45.54	-32 9.0	2.624	3.594	5.4	21.7	8 19	21 45.20	-21 7.2	1.241	2.247	3.9	20.6
8 29	21 37.35	-32 27.8	2.663	3.597	7.1	21.8	8 29	21 35.30	-21 47.8	1.286	2.268	8.0	20.9
9 8	21 30.08	-32 30.7	2.728	3.600	9.2	22.0	9 8	21 27.32	-22 9.5	1.355	2.288	12.4	21.2
9 18	21 24.32	-32 18.2	2.816	3.602	11.3	22.1	9 18	21 22.07	-22 12.2	1.444	2.308	16.2	21.5
470853	2008 <i>YX</i> ₄₉		8 17.2 328°99'	2.1/18.2	18		473221	2015 <i>KF</i> ₁₄₀		8 17.2 253°38'	2.4/15.3	18	
7 10	22 14.91	-10 49.1	1.464	2.307	17.8	20.3	7 10	22 12.60	-16 45.4	1.818	2.667	14.6	21.5
7 20	22 11.07	-10 1.5	1.374	2.290	14.2	20.0	7 20	22 8.71	-17 28.8	1.736	2.660	11.3	21.3
7 30	22 4.39	-9 22.2	1.305	2.274	10.0	19.7	7 30	22 2.47	-18 21.1	1.676	2.652	7.6	21.1
8 9	21 55.44	-8 50.7	1.257	2.259	5.3	19.4	8 9	21 54.45	-19 16.6	1.640	2.645	3.7	20.8
8 19	21 45.18	-8 25.5	1.234	2.244	2.2	19.2	8 19	21 45.45	-20 9.0	1.631	2.638	2.9	20.8
8 29	21 34.96	-8 4.5	1.237	2.231	6.2	19.4	8 29	21 36.55	-20 52.2	1.649	2.630	6.6	21.0
9 8	21 26.15	-7 44.9	1.264	2.218	11.1	19.6	9 8	21 28.83	-21 21.8	1.692	2.622	10.5	21.2
9 18	21 19.80	-7 24.5	1.312	2.206	15.5	19.9	9 18	21 23.12	-21 35.8	1.758	2.615	14.1	21.4
299666	2006 <i>PY</i> ₁₁		8 17.2 341°18'	1.4/18.2	18		160037	1998 <i>YG</i> ₆		8 17.2 287°15'	4.3/22.3	18	
7 10	22 10.58	-8 33.2	1.757	2.590	15.7	20.6	7 10	22 6.67	+ 5 12.5	2.496	3.248	13.8	19.8
7 20	22 7.08	-8 33.2	1.676	2.585	12.5	20.4	7 20	22 3.55	+ 4 41.2	2.377	3.223	11.7	19.6
7 30	22 1.34	-8 46.3	1.614	2.582	8.7	20.2	7 30	21 58.77	+ 3 49.3	2.279	3.199	9.1	19.4
8 9	21 53.90	-9 10.2	1.576	2.578	4.4	19.9	8 9	21 52.70	+ 2 36.9	2.204	3.174	6.4	19.2
8 19	21 45.55	-9 41.2	1.564	2.575	1.5	19.7	8 19	21 45.83	+ 1 6.3	2.157	3.148	4.5	19.1
8 29	21 37.33	-10 14.7	1.578	2.572	5.1	20.0	8 29	21 38.86	- 0 37.9	2.138	3.123	5.0	19.0
9 8	21 30.26	-10 45.7	1.618	2.570	9.3	20.2	9 8	21 32.52	- 2 29.2	2.148	3.097	7.5	19.2
9 18	21 25.13	-11 10.4	1.681	2.568	13.1	20.4	9 18	21 27.46	- 4 20.8	2.186	3.072	10.5	19.3
131718	2001 <i>YB</i> ₇₂		8 17.2 121°86'	0.3/17.4	17		346763	2009 <i>BZ</i> ₇₃		8 17.2 300°37'	4.9/13.8	18	
7 10	22 17.71	-11 24.8	1.485	2.325	17.8	19.9	7 10	22 15.95	-22 31.5	1.711	2.566	15.1	21.0
7 20	22 12.90	-11 29.6	1.417	2.333	13.9	19.7	7 20	22 12.05	-23 19.0	1.599	2.525	12.0	20.8
7 30	22 5.35	-11 47.0	1.369	2.341	9.4	19.5	7 30	22 5.26	-24 13.2	1.509	2.483	8.5	20.5
8 9	21 55.75	-12 13.1	1.344	2.349	4.4	19.2	8 9	21 55.99	-25 7.0	1.443	2.441	5.4	20.2
8 19	21 45.16	-12 42.8	1.344	2.356	0.9	18.9	8 19	21 45.06	-25 52.1	1.402	2.398	5.5	20.1
8 29	21 34.91	-13 10.5	1.371	2.363	6.0	19.3	8 29	21 33.75	-26 20.9	1.387	2.355	9.1	20.2
9 8	21 26.25	-13 31.5	1.422	2.370	10.7	19.6	9 8	21 23.53	-26 28.4	1.396	2.312	13.4	20.3
9 18	21 20.08	-13 43.0	1.497	2.376	14.8	19.9	9 18	21 15.66	-26 13.7	1.426	2.268	17.5	20.5
93000	2000 <i>RJ</i> ₈₃		8 17.2 244°07'	2.1/18.6	18		90071	2002 <i>VJ</i> ₈₁		8 17.2 182°26'	3.3/14.4	18	
7 10	22 16.18	-7 54.5	1.927	2.740	15.3	19.9	7 10	22 14.42	-18 39.9	1.864	2.711	14.4	20.2
7 20	22 11.30	-7 32.9	1.833	2.730	12.2	19.6	7 20	22 10.03	-19 40.5	1.789	2.712	11.1	20.0
7 30	22 4.13	-7 22.2	1.760	2.720	8.7	19.4	7 30	22 3.30	-20 48.5	1.737	2.712	7.5	19.8
8 9	21 55.19	-7 21.0	1.712	2.710	4.8	19.1	8 9	21 54.80	-21 57.3	1.710	2.712	4.1	19.6
8 19	21 45.27	-7 27.4	1.690	2.699	2.1	18.9	8 19	21 45.38	-23 0.0	1.709	2.711	3.9	19.6
8 29	21 35.38	-7 38.1	1.697	2.688	5.1	19.1	8 29	21 36.12	-23 50.0	1.737	2.710	7.1	19.8
9 8	21 26.58	-7 49.7	1.730	2.677	9.1	19.3	9 8	21 28.09	-24 23.4	1.790	2.708	10.8	20.0
9 18	21 19.71	-7 58.9	1.787	2.666	12.8	19.5	9 18	21 22.10	-24 39.0	1.865	2.706	14.0	20.2
400943	2010 <i>VA</i> ₄₇		8 17.2 97°69'	6.6/24.2	14	C	119840	2002 <i>CE</i> ₂₃		8 17.2 121°54'	5.0/20.9	18	
7 10	22 9.25	+ 9 4.2	2.507	3.230	14.4	21.6	7 10	22 15.79	+ 0 14.6	1.976	2.754	16.1	19.9
7 20	22 5.32	+ 9 37.4	2.424	3.238	12.5	21.4	7 20	22 10.73	+ 0 53.3	1.899	2.764	13.4	19.7
7 30	21 59.78	+ 9 53.1	2.360	3.245	10.3	21.3	7 30	22 3.56	+ 1 16.2	1.842	2.775	10.2	19.5
8 9	21 53.07	+ 9 49.9	2.319	3.253	8.2	21.2	8 9	21 54.86	+ 1 22.8	1.809	2.785	7.1	19.3
8 19	21 45.75	+ 9 28.1	2.302	3.261	6.8	21.1	8 19	21 45.38	+ 1 13.9	1.802	2.795	5.1	19.2
8 29	21 38.54	+ 8 49.9	2.312	3.269	6.7	21.1	8 29	21 36.10	+ 0 52.4	1.823	2.804	6.0	19.3
9 8	21 32.11	+ 7 59.4	2.348	3.276	8.1	21.2	9 8	21 27.95	+ 0 22.7	1.869	2.813	8.8	19.5
9 18	21 27.04	+ 7 1.6	2.409	3.284	10.1	21.3	9 18	21 21.65	- 0 10.5	1.941	2.822	11.9	19.7
278862	2008 <i>TG</i> ₃₃		8 17.2 342°05'	2.4/18.8	18		121878	2000 <i>CG</i> ₁₂₂		8 17.2 275°16'	1.1/16.1	18	
7 10	22 5.26	- 5 56.9	1.281	2.136	19.2	20.1	7 10	22 9.57	-14 42.9	2.416	3.249	11.9	20.2
7 20	22 3.78	- 6 3.1	1.202	2.123	15.4	19.8	7 20	22 5.78	-15 12.8	2.320	3.235	9.3	20.0
7 30	21 59.59	- 6 30.7	1.141	2.112	11.0	19.5	7 30	22 0.22	-15 50.1	2.248	3.221	6.2	19.8
8 9	21 53.25	- 7 17.5	1.100	2.102	6.0	19.2	8 9	21 53.34	-16 31.5	2.201	3.207	2.8	19.5
8 19	21 45.69	- 8 18.7	1.083	2.093	2.4	18.9	8 19	21 45.71	-17 12.9	2.183	3.192	1.5	19.4
8 29	21 38.18	- 9 26.4	1.088	2.085	6.2	19.2	8 29	21 38.11	-17 50.0	2.192	3.178	4.8	19.6
9 8	21 32.07	-10 31.7	1.117	2.078	11.3	19.4	9 8	21 31.30	-18 19.2	2.229	3.163	8.2	19.8
9 18	21 28.38	-11 27.1	1.166	2.073	16.0	19.7	9 18	21 25.94	-18 38.5	2.291	3.149	11.2	20.0
12987	1981 <i>EF</i> ₂		8 17.2 56°72'	2.1/18.5	18		474456	2003 <i>SH</i> ₅₅		8 17.2 319°89'	3.4/19.2	18	
7 10	22 14.94	- 8 6.5	1.549	2.381	17.5	17.4	7 10	22 7.73	- 5 22.7	1.423	2.265	18.3	20.7
7 20	22 10.70	- 7 51.5	1.475	2.384	14.0	17.1	7 20	22 5.76	- 5 4.2	1.318	2.230	15.0	20.4
7 30	22 3.86	- 7 50.4	1.421	2.386	9.8	16.9	7 30	22 1.07	- 5 3.1	1.231	2.196	11.0	20.0
8 9	21 55.08	- 8 1.3	1.389	2.389	5.2	16.6	8 9	21 54.06	- 5 19.7	1.165	2.163	6.5	19.7
8 19	21 45.31	- 8 20.9	1.382	2.392	2.1	16.4	8 19	21 45.51	- 5 52.1	1.122	2.130	3.4	19.4
8 29	21 35.77	- 8 44.5	1.402	2.395	5.7	16.7	8 29	21 36.65	- 6 35.6	1.103	2.098	6.5	19.5
9 8	21 27.65	- 9 7.3	1.446	2.398	10.1	17.0	9 8	21 28.89	- 7 23.1	1.107	2.067	11.6	19.7
9 18	21 21.82	- 9 25.1	1.513	2.402	14.2	17.2	9 18	21 23.44	- 8 7.7	1.132	2.037	16.5	19.9
429462	2010 <i>WA</i> ₃₁		8 17.2 164°69'	1.4/16.2	17		470856	2008 <i>YX</i> ₅₃		8 17.2 308°2			

EPHEMERIDES

8 17.2

8 17.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
427668	2004 BA ₇₉		8 17.2 241°30	0°6/16.8	17		358380	2006 XZ ₇₂		8 17.2 78°04	2°6/19.5	18	
7 10	22 15.08	-12 44.8	1.771	2.606	15.5	22.2	7 10	22 12.44	-4 46.8	2.214	3.014	14.0	21.2
7 20	22 10.75	-13 8.4	1.679	2.594	12.2	21.9	7 20	22 7.87	-4 32.6	2.143	3.029	11.2	21.1
7 30	22 3.95	-13 43.4	1.609	2.582	8.2	21.7	7 30	22 1.51	-4 30.6	2.093	3.045	8.0	20.9
8 9	21 55.19	-14 25.9	1.563	2.569	3.7	21.4	8 9	21 53.89	-4 39.5	2.068	3.060	4.8	20.7
8 19	21 45.32	-15 10.5	1.544	2.555	1.2	21.2	8 19	21 45.69	-4 57.1	2.070	3.076	2.7	20.6
8 29	21 35.45	-15 51.4	1.552	2.541	5.9	21.4	8 29	21 37.71	-5 20.4	2.101	3.091	4.4	20.8
9 8	21 26.76	-16 23.5	1.585	2.526	10.3	21.7	9 8	21 30.73	-5 45.5	2.158	3.106	7.5	21.0
9 18	21 20.16	-16 43.8	1.642	2.511	14.3	21.9	9 18	21 25.34	-6 9.2	2.241	3.122	10.5	21.2
175343	2005 NU ₈₇		8 17.2 310°47	0°5/17.7	18		379636	2011 DO ₂₅		8 17.2 216°08	1°9/15.8	18	
7 10	22 10.41	-9 55.5	2.034	2.862	14.0	20.9	7 10	22 15.90	-16 17.6	1.966	2.803	14.1	22.1
7 20	22 6.64	-10 12.0	1.951	2.860	11.0	20.7	7 20	22 11.11	-16 49.7	1.879	2.796	11.0	21.9
7 30	22 0.89	-10 39.8	1.890	2.859	7.5	20.5	7 30	22 4.02	-17 29.6	1.815	2.788	7.3	21.7
8 9	21 53.67	-11 16.0	1.854	2.857	3.6	20.3	8 9	21 55.18	-18 12.5	1.775	2.780	3.5	21.4
8 19	21 45.67	-11 56.7	1.844	2.856	0.8	20.0	8 19	21 45.39	-18 53.1	1.763	2.771	2.3	21.3
8 29	21 37.79	-12 37.1	1.862	2.854	4.7	20.3	8 29	21 35.68	-19 26.1	1.779	2.762	6.0	21.5
9 8	21 30.91	-13 12.8	1.906	2.853	8.5	20.6	9 8	21 27.11	-19 47.6	1.821	2.752	9.9	21.7
9 18	21 25.73	-13 40.7	1.975	2.851	11.9	20.8	9 18	21 20.48	-19 56.2	1.887	2.741	13.4	21.9
241515	2009 DU ₈₉		8 17.2 329°72	0°2/17.0	18		400937	2010 VH ₂₅		8 17.2 9°26	6°6/23.6	18	
7 10	22 9.02	-10 18.9	1.786	2.626	15.2	20.4	7 10	22 8.78	+7 31.1	2.311	3.050	15.1	20.6
7 20	22 5.89	-11 0.6	1.706	2.623	11.9	20.2	7 20	22 5.17	+8 5.0	2.223	3.051	13.0	20.4
7 30	22 0.56	-11 56.5	1.647	2.620	8.0	19.9	7 30	21 59.82	+8 20.8	2.154	3.051	10.6	20.3
8 9	21 53.58	-13 2.4	1.612	2.617	3.7	19.7	8 9	21 53.18	+8 17.2	2.107	3.052	8.3	20.1
8 19	21 45.70	-14 12.4	1.603	2.614	0.9	19.5	8 19	21 45.84	+7 54.6	2.085	3.052	6.8	20.0
8 29	21 37.92	-15 19.7	1.621	2.612	5.4	19.8	8 29	21 38.56	+7 15.0	2.089	3.053	6.8	20.0
9 8	21 31.25	-16 18.1	1.664	2.609	9.6	20.0	9 8	21 32.10	+6 22.9	2.119	3.054	8.5	20.1
9 18	21 26.46	-17 3.5	1.731	2.607	13.3	20.2	9 18	21 27.09	+5 23.7	2.174	3.055	10.8	20.3
463105	2011 UV ₈₈		8 17.2 351°10	0°4/17.5	17		131140	2001 BV ₅₂		8 17.2 137°38	6°0/22.7	18	
7 10	22 13.97	-10 21.5	1.283	2.136	19.2	21.3	7 10	22 12.05	+5 15.7	2.110	2.863	16.0	19.7
7 20	22 10.54	-10 35.7	1.212	2.135	15.2	21.0	7 20	22 7.80	+5 42.1	2.028	2.871	13.5	19.5
7 30	22 4.10	-11 6.4	1.160	2.135	10.3	20.7	7 30	22 1.62	+5 49.7	1.966	2.878	10.8	19.3
8 9	21 55.33	-11 49.6	1.129	2.135	4.9	20.4	8 9	21 54.01	+5 37.5	1.926	2.884	8.0	19.2
8 19	21 45.32	-12 38.8	1.123	2.134	1.0	20.1	8 19	21 45.67	+5 6.6	1.911	2.891	6.2	19.1
8 29	21 35.54	-13 26.4	1.140	2.134	6.6	20.5	8 29	21 37.44	+4 20.0	1.923	2.897	6.5	19.1
9 8	21 27.42	-14 5.5	1.182	2.134	11.9	20.8	9 8	21 30.18	+3 23.0	1.962	2.902	8.7	19.3
9 18	21 21.99	-14 31.9	1.244	2.134	16.4	21.1	9 18	21 24.58	+2 21.4	2.025	2.908	11.4	19.5
407193	2009 UH ₁₁₈		8 17.2 350°17	2°3/15.3	18		145198	2005 JP ₃₂		8 17.2 68°91	4°2/20.2	18	
7 10	22 9.89	-17 59.2	2.064	2.913	13.1	21.0	7 10	22 12.76	-1 40.1	1.430	2.248	19.4	19.8
7 20	22 6.26	-18 29.7	1.986	2.910	10.1	20.8	7 20	22 9.09	-1 33.9	1.366	2.261	15.8	19.6
7 30	22 0.64	-19 5.9	1.931	2.907	6.7	20.6	7 30	22 2.82	-1 49.6	1.321	2.274	11.6	19.4
8 9	21 53.55	-19 43.4	1.900	2.905	3.4	20.3	8 9	21 54.64	-2 25.9	1.297	2.288	7.2	19.2
8 19	21 45.72	-20 17.3	1.897	2.903	2.7	20.3	8 19	21 45.54	-3 18.9	1.297	2.301	4.2	19.1
8 29	21 38.05	-20 43.1	1.920	2.901	5.8	20.5	8 29	21 36.77	-4 21.9	1.322	2.315	6.2	19.2
9 8	21 31.40	-20 57.7	1.970	2.900	9.3	20.7	9 8	21 29.48	-5 27.0	1.372	2.328	10.2	19.5
9 18	21 26.48	-20 59.9	2.043	2.899	12.4	20.9	9 18	21 24.52	-6 27.2	1.445	2.342	14.1	19.8
332476	2008 EY ₇₃		8 17.2 138°61	1°6/15.9	15		173889	2001 UW ₈₂		8 17.2 316°29	1°7/15.8	18	
7 10	22 15.37	-14 26.5	1.803	2.641	15.1	22.2	7 10	22 10.61	-15 44.9	1.926	2.773	14.0	19.9
7 20	22 10.69	-15 10.6	1.734	2.652	11.7	22.0	7 20	22 7.00	-16 17.9	1.845	2.767	10.8	19.7
7 30	22 3.67	-16 4.7	1.687	2.661	7.7	21.8	7 30	22 1.26	-16 59.2	1.785	2.761	7.2	19.5
8 9	21 54.96	-17 3.2	1.665	2.670	3.5	21.6	8 9	21 53.90	-17 44.3	1.750	2.756	3.4	19.2
8 19	21 45.42	-17 59.9	1.670	2.679	2.1	21.5	8 19	21 45.69	-18 27.8	1.742	2.750	2.2	19.2
8 29	21 36.14	-18 48.7	1.702	2.687	6.0	21.8	8 29	21 37.60	-19 4.4	1.760	2.745	5.8	19.4
9 8	21 28.14	-19 25.2	1.761	2.694	10.0	22.0	9 8	21 30.58	-19 30.3	1.804	2.740	9.7	19.6
9 18	21 22.22	-19 47.3	1.843	2.701	13.4	22.3	9 18	21 25.40	-19 43.2	1.872	2.735	13.1	19.8
336685	2010 AK ₅₉		8 17.2 229°11	1°5/16.2	18		50607	2000 EE ₅₆		8 17.2 6°88	0°2/17.3	18	
7 10	22 17.71	-16 49.1	1.968	2.802	14.2	21.3	7 10	22 11.89	-13 38.6	1.321	2.184	18.2	16.8
7 20	22 12.47	-16 57.3	1.879	2.794	11.1	21.1	7 20	22 8.72	-13 16.2	1.256	2.185	14.3	16.6
7 30	22 4.90	-17 11.2	1.813	2.786	7.4	20.9	7 30	22 2.72	-13 3.4	1.210	2.188	9.6	16.3
8 9	21 55.57	-17 26.7	1.772	2.777	3.5	20.6	8 9	21 54.64	-12 57.2	1.185	2.191	4.5	16.1
8 19	21 45.29	-17 39.7	1.759	2.768	1.9	20.5	8 19	21 45.55	-12 53.9	1.185	2.196	0.9	15.8
8 29	21 35.13	-17 46.2	1.773	2.759	5.7	20.7	8 29	21 36.81	-12 49.4	1.208	2.203	6.2	16.2
9 8	21 26.16	-17 43.6	1.815	2.749	9.7	20.9	9 8	21 29.71	-12 40.4	1.255	2.210	11.1	16.5
9 18	21 19.19	-17 31.0	1.880	2.739	13.2	21.1	9 18	21 25.13	-12 24.7	1.324	2.219	15.3	16.8
401586	2013 GM ₄		8 17.2 86°61	0°4/16.9	18		45093	1999 XF ₅₂		8 17.2 350°87	2°3/18.5	18	
7 10	22 10.00	-12 2.4	2.310	3.138	12.6	21.0	7 10	22 7.13	-8 22.7	1.064	1.936	21.0	18.7
7 20	22 5.98	-12 32.2	2.239	3.150	9.7	20.9	7 20	22 5.72	-8 5.6	0.996	1.928	16.8	18.4
7 30	22 0.26	-13 10.8	2.191	3.162	6.5	20.7	7 30	22 1.15	-8 7.3	0.944	1.921	11.8	18.1
8 9	21 53.31	-13 54.6	2.170	3.175	2.9	20.5	8 9	21 54.09	-8 26.2	0.911	1.915	6.3	17.8
8 19	21 45.80	-14 39.6	2.175	3.187	0.9	20.3	8 19	21 45.64	-8 57.7	0.900	1.911	2.3	17.5
8 29	21 38.47	-15 21.5	2.210	3.199	4.4	20.6	8 29	21 37.38	-9 34.8	0.911	1.908	6.9	17.8
9 8	21 32.07	-15 56.7	2.271	3.211	7.7	20.9	9 8	21 30.86	-10 9.5	0.942	1.907	12.5	18.1
9 18	21 27.17	-16 22.8	2.358	3.223	10.6	21.1	9 18	21 27.20	-10 35.9	0.993	1.907	17.5	18.4
350394	2012 VQ ₁₈		8 17.2 189°47	4°6/12.9	18		142353	2002 RC ₂₁₇		8 17.2 345°95	1°1/17.9	17	
7 10	22 13.28	-23 45.9	2.135	2.984	12.7	21.4</							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
254975	2005 <i>SQ</i> ₂₄₇		8 17.2 163°11	1°0/18.2	18		166124	2002 <i>CW</i> ₂₂₆		8 17.2 50°85	2°8/18.9	17	
7 10	22 10.04	- 8 16.4	2.410	3.223	12.6	21.3	7 10	22 14.95	- 6 44.1	1.228	2.072	20.4	19.6
7 20	22 6.02	- 8 32.8	2.326	3.226	9.9	21.1	7 20	22 11.18	- 6 25.8	1.169	2.084	16.3	19.4
7 30	22 0.31	- 8 59.7	2.265	3.228	6.8	20.9	7 30	22 4.42	- 6 26.0	1.128	2.095	11.5	19.2
8 9	21 53.38	- 9 34.8	2.228	3.229	3.4	20.7	8 9	21 55.44	- 6 42.7	1.108	2.107	6.3	18.9
8 19	21 45.83	-10 14.9	2.220	3.231	1.0	20.5	8 19	21 45.42	- 7 11.7	1.110	2.120	2.8	18.8
8 29	21 38.37	-10 56.1	2.240	3.232	4.0	20.8	8 29	21 35.82	- 7 46.8	1.137	2.132	6.4	19.0
9 8	21 31.76	-11 34.5	2.288	3.234	7.3	21.0	9 8	21 28.02	- 8 21.3	1.188	2.145	11.3	19.3
9 18	21 26.57	-12 6.9	2.361	3.235	10.3	21.2	9 18	21 22.93	- 8 49.7	1.259	2.158	15.7	19.6
174083	2002 <i>GF</i> ₆₃		8 17.2 329°58	2°5/18.9	18		333485	2004 <i>VG</i> ₂₅		8 17.2 312°90	3°0/19.1	18	
7 10	22 5.25	- 5 17.9	1.140	2.001	20.6	18.8	7 10	22 9.76	- 5 52.4	1.495	2.331	17.8	20.3
7 20	22 4.19	- 5 30.2	1.060	1.985	16.7	18.5	7 20	22 7.12	- 5 37.0	1.398	2.307	14.5	20.1
7 30	22 0.15	- 6 7.7	0.997	1.969	11.9	18.2	7 30	22 1.85	- 5 38.0	1.320	2.284	10.5	19.8
8 9	21 53.68	- 7 8.7	0.953	1.955	6.5	17.8	8 9	21 54.40	- 5 55.1	1.263	2.261	6.1	19.5
8 19	21 45.72	- 8 27.7	0.931	1.942	2.5	17.6	8 19	21 45.60	- 6 25.8	1.230	2.238	3.0	19.2
8 29	21 37.74	- 9 54.8	0.932	1.929	6.8	17.8	8 29	21 36.66	- 7 5.1	1.222	2.216	6.1	19.3
9 8	21 31.27	-11 18.6	0.954	1.918	12.4	18.1	9 8	21 28.88	- 7 46.6	1.237	2.195	10.9	19.6
9 18	21 27.50	-12 29.8	0.996	1.908	17.6	18.3	9 18	21 23.34	- 8 24.4	1.274	2.174	15.5	19.8
288470	2004 <i>FJ</i> ₁		8 17.2 218°41	9°4/25.2	17		317189	2001 <i>YG</i> ₂		8 17.2 295°30	1°3/16.3	18	
7 10	22 11.35	+12 36.0	1.269	2.031	24.2	21.4	7 10	22 10.95	-11 3.5	1.334	2.192	18.4	20.8
7 20	22 8.75	+12 26.6	1.184	2.026	21.2	21.1	7 20	22 8.72	-11 56.2	1.228	2.156	14.7	20.4
7 30	22 3.13	+11 35.8	1.113	2.020	17.5	20.9	7 30	22 3.42	-13 11.9	1.141	2.119	10.0	20.1
8 9	21 55.03	+ 9 58.8	1.060	2.014	13.5	20.6	8 9	21 55.36	-14 46.2	1.076	2.082	4.6	19.7
8 19	21 45.43	+ 7 36.4	1.027	2.007	10.2	20.4	8 19	21 45.36	-16 30.9	1.034	2.045	2.1	19.4
8 29	21 35.76	+ 4 37.9	1.019	2.000	9.7	20.4	8 29	21 34.80	-18 14.2	1.017	2.007	8.0	19.6
9 8	21 27.57	+ 1 20.4	1.035	1.992	12.7	20.5	9 8	21 25.38	-19 44.1	1.024	1.969	14.1	19.8
9 18	21 22.06	- 1 56.8	1.075	1.983	16.9	20.7	9 18	21 18.59	-20 52.6	1.050	1.931	19.5	20.0
374734	2006 <i>SF</i> ₉₀		8 17.2 327°13	0°3/17.4	13 C		249580	1995 <i>SU</i> ₃₄		8 17.2 44°16	1°1/16.4	18	
7 10	22 7.73	-11 9.2	1.148	2.021	19.7	21.9	7 10	22 11.76	-14 26.7	1.797	2.642	14.9	20.3
7 20	22 6.22	-11 13.5	1.066	2.001	15.7	21.6	7 20	22 7.83	-14 48.4	1.734	2.655	11.5	20.1
7 30	22 1.59	-11 34.7	1.001	1.981	10.8	21.3	7 30	22 1.73	-15 18.8	1.692	2.667	7.6	19.9
8 9	21 54.37	-12 9.7	0.956	1.962	5.1	20.9	8 9	21 54.09	-15 53.4	1.674	2.680	3.4	19.7
8 19	21 45.57	-12 52.5	0.933	1.944	1.0	20.6	8 19	21 45.74	-16 27.3	1.683	2.693	1.6	19.6
8 29	21 36.72	-13 35.2	0.932	1.928	7.2	20.9	8 29	21 37.69	-16 55.7	1.719	2.707	5.5	19.9
9 8	21 29.43	-14 9.9	0.953	1.913	13.0	21.2	9 8	21 30.89	-17 14.9	1.780	2.721	9.4	20.1
9 18	21 24.97	-14 31.2	0.993	1.899	18.2	21.4	9 18	21 26.03	-17 23.2	1.864	2.735	12.8	20.4
448601	2010 <i>TM</i> ₁₅₆		8 17.2 219°20	4°3/21.9	15		154573	2003 <i>HF</i> ₄₁		8 17.2 105°29	3°9/14.4	18	
7 10	22 8.42	+ 3 16.1	2.651	3.407	13.0	21.8	7 10	22 17.33	-21 44.0	1.820	2.668	14.6	19.8
7 20	22 4.68	+ 3 18.8	2.553	3.401	10.9	21.7	7 20	22 12.17	-22 28.1	1.762	2.683	11.3	19.6
7 30	21 59.40	+ 3 6.0	2.475	3.395	8.5	21.5	7 30	22 4.64	-23 15.1	1.725	2.698	7.7	19.4
8 9	21 52.98	+ 2 38.1	2.421	3.389	6.0	21.3	8 9	21 55.42	-23 58.6	1.713	2.712	4.6	19.2
8 19	21 45.92	+ 1 56.3	2.394	3.382	4.4	21.2	8 19	21 45.46	-24 32.6	1.728	2.726	4.4	19.3
8 29	21 38.89	+ 1 3.7	2.395	3.376	4.9	21.3	8 29	21 35.89	-24 52.2	1.770	2.740	7.3	19.5
9 8	21 32.54	+ 0 4.6	2.424	3.369	7.0	21.4	9 8	21 27.76	-24 55.7	1.837	2.753	10.7	19.7
9 18	21 27.43	- 0 56.6	2.479	3.361	9.6	21.5	9 18	21 21.80	-24 43.4	1.928	2.766	13.8	19.9
319858	2006 <i>WM</i> ₄₈		8 17.2 4°75	6°2/13.7	17		99711	2002 <i>JK</i> ₄₀		8 17.2 14°47	5°6/20.6	18	
7 10	22 10.51	-22 47.8	1.093	1.984	19.1	19.7	7 10	22 10.43	- 1 47.0	1.163	2.003	21.7	18.4
7 20	22 8.40	-23 43.7	1.038	1.983	15.0	19.4	7 20	22 7.93	- 1 8.6	1.099	2.005	17.8	18.1
7 30	22 2.91	-24 44.8	1.001	1.983	10.4	19.2	7 30	22 2.43	- 0 53.5	1.051	2.008	13.4	17.9
8 9	21 54.85	-25 40.8	0.985	1.985	6.8	19.0	8 9	21 54.62	- 1 2.6	1.023	2.012	8.8	17.7
8 19	21 45.53	-26 21.4	0.990	1.988	6.9	19.0	8 19	21 45.61	- 1 33.7	1.016	2.018	5.7	17.5
8 29	21 36.65	-26 38.7	1.017	1.992	10.7	19.2	8 29	21 36.87	- 2 20.8	1.031	2.024	7.5	17.6
9 8	21 29.81	-26 30.0	1.065	1.997	15.1	19.5	9 8	21 29.81	- 3 15.3	1.069	2.030	11.8	17.9
9 18	21 25.99	-25 57.2	1.132	2.004	19.1	19.7	9 18	21 25.46	- 4 8.8	1.127	2.038	16.1	18.2
49144	1998 <i>SB</i> ₄₆		8 17.2 282°82	3°6/14.9	18		367942	2012 <i>DP</i> ₁₃		8 17.2 212°55	1°3/18.7	18	
7 10	22 15.98	-19 37.8	1.641	2.494	15.7	19.7	7 10	22 8.39	- 6 21.4	2.795	3.596	11.3	21.7
7 20	22 11.95	-20 14.0	1.543	2.469	12.3	19.4	7 20	22 4.57	- 6 40.4	2.700	3.591	9.0	21.5
7 30	22 5.08	-20 57.6	1.466	2.442	8.4	19.2	7 30	21 59.28	- 7 10.0	2.629	3.586	6.3	21.4
8 9	21 55.89	-21 42.5	1.413	2.416	4.6	18.9	8 9	21 52.92	- 7 48.1	2.583	3.581	3.4	21.2
8 19	21 45.26	-22 21.5	1.385	2.389	4.1	18.8	8 19	21 45.99	- 8 32.2	2.565	3.575	1.3	21.0
8 29	21 34.50	-22 47.6	1.384	2.362	8.0	18.9	8 29	21 39.09	- 9 18.7	2.577	3.569	3.6	21.2
9 8	21 25.00	-22 56.5	1.407	2.335	12.4	19.1	9 8	21 32.87	-10 4.0	2.617	3.563	6.5	21.3
9 18	21 17.88	-22 47.0	1.451	2.307	16.5	19.3	9 18	21 27.83	-10 45.0	2.684	3.557	9.2	21.5
198462	2004 <i>XU</i> ₁₇		8 17.2 268°71	1°1/18.3	18		157755	2006 <i>DC</i> ₁₀₀		8 17.2 334°78	0°5/16.8	18	
7 10	22 10.56	- 6 2.3	2.051	2.864	14.5	20.9	7 10	22 7.33	-12 15.4	1.887	2.732	14.3	20.2
7 20	22 7.03	- 6 44.0	1.940	2.839	11.6	20.6	7 20	22 4.54	-12 42.3	1.800	2.720	11.2	19.9
7 30	22 1.40	- 7 43.2	1.851	2.814	8.1	20.4	7 30	21 59.68	-13 20.5	1.734	2.709	7.5	19.7
8 9	21 54.07	- 8 57.3	1.787	2.788	4.2	20.1	8 9	21 53.23	-14 6.3	1.692	2.698	3.4	19.4
8 19	21 45.67	-10 21.6	1.750	2.761	1.1	19.8	8 19	21 45.91	-14 54.9	1.677	2.688	1.1	19.2
8 29	21 37.10	-11 49.6	1.742	2.734	4.9	20.0	8 29	21 38.65	-15 40.7	1.688	2.678	5.3	19.5
9 8	21 29.33	-13 14.2	1.761	2.707	9.1	20.2	9 8	21 32.38	-16 18.7	1.724	2.670	9.3	19.7
9 18	21 23.23	-14 29.3	1.804	2.679	12.9	20.4	9 18	21 27.88	-16 45.8	1.784	2.661	12.9	19.9
245577	2005 <i>UQ</i> ₂₈₃		8 17.2 39°19	2°9/14.7	18		444356	2005 <i>XT</i> ₁₅					

EPHEMERIDES

8 17.2

8 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
334656	2002 <i>XT</i> ₄₆		8 17.2 140°76	1°8/18.6	18		13620	Moynahan		8 17.3 116°96	1°8/15.5	18	
7 10	22 16.70	- 7 25.4	1.934	2.744	15.3	20.7	7 10	22 10.43	-17 3.8	2.435	3.272	11.7	19.0
7 20	22 11.52	- 7 20.4	1.858	2.754	12.2	20.5	7 20	22 6.34	-17 37.4	2.359	3.276	9.0	18.8
7 30	22 4.16	- 7 27.7	1.804	2.764	8.5	20.3	7 30	22 0.55	-18 16.4	2.306	3.280	6.0	18.7
8 9	21 55.22	- 7 45.3	1.774	2.772	4.5	20.1	8 9	21 53.54	-18 56.8	2.279	3.284	2.9	18.5
8 19	21 45.51	- 8 10.1	1.771	2.781	1.8	19.9	8 19	21 45.91	-19 34.6	2.281	3.287	2.2	18.4
8 29	21 36.02	- 8 37.9	1.797	2.789	4.8	20.1	8 29	21 38.43	-20 5.8	2.310	3.291	5.0	18.6
9 8	21 27.73	- 9 4.7	1.849	2.796	8.7	20.4	9 8	21 31.84	-20 27.6	2.367	3.294	8.1	18.8
9 18	21 21.35	- 9 26.9	1.926	2.803	12.1	20.6	9 18	21 26.71	-20 38.5	2.448	3.298	10.8	19.0
315089	2007 <i>DC</i> ₈₆		8 17.2 222°25	1°2/16.2	18		476149	2007 <i>TK</i> ₃₂₄		8 17.3 259°95	4°8/13.7	18	
7 10	22 12.50	-16 0.4	2.421	3.252	12.0	20.8	7 10	22 16.50	-25 9.9	1.929	2.778	13.8	20.6
7 20	22 7.96	-16 14.7	2.336	3.249	9.3	20.6	7 20	22 11.64	-25 46.2	1.855	2.776	10.9	20.4
7 30	22 1.65	-16 34.3	2.274	3.246	6.2	20.4	7 30	22 4.39	-26 22.9	1.804	2.774	7.7	20.2
8 9	21 54.04	-16 56.1	2.238	3.243	2.8	20.2	8 9	21 55.39	-26 53.7	1.778	2.772	5.2	20.1
8 19	21 45.77	-17 16.5	2.230	3.239	1.5	20.1	8 19	21 45.53	-27 12.9	1.778	2.769	5.3	20.1
8 29	21 37.62	-17 32.3	2.251	3.236	4.7	20.3	8 29	21 35.92	-27 16.3	1.805	2.767	7.9	20.3
9 8	21 30.36	-17 40.8	2.299	3.232	8.0	20.5	9 8	21 27.64	-27 2.4	1.857	2.765	11.1	20.4
9 18	21 24.62	-17 40.7	2.372	3.229	10.9	20.7	9 18	21 21.47	-26 32.2	1.932	2.763	14.1	20.6
67909	2000 <i>WJ</i> ₉₈		8 17.2 0°41	5°4/19.9	18		95442	2002 <i>CS</i> ₂₄₇		8 17.3 108°30	0°9/16.4	18	
7 10	22 11.31	- 3 58.1	1.128	1.976	21.6	17.3	7 10	22 10.97	-14 5.0	2.380	3.210	12.2	19.8
7 20	22 8.78	- 3 4.7	1.061	1.974	17.8	17.0	7 20	22 6.75	-14 33.4	2.307	3.220	9.4	19.7
7 30	22 3.11	- 2 31.1	1.010	1.972	13.2	16.8	7 30	22 0.81	-15 8.9	2.257	3.229	6.2	19.5
8 9	21 54.98	- 2 18.6	0.979	1.972	8.4	16.5	8 9	21 53.66	-15 48.0	2.233	3.238	2.8	19.3
8 19	21 45.55	- 2 26.0	0.969	1.972	5.4	16.3	8 19	21 45.92	-16 26.7	2.237	3.248	1.3	19.2
8 29	21 36.33	- 2 49.0	0.981	1.974	7.6	16.5	8 29	21 38.35	-17 1.0	2.270	3.256	4.5	19.4
9 8	21 28.87	- 3 20.4	1.015	1.977	12.2	16.7	9 8	21 31.70	-17 27.9	2.330	3.265	7.8	19.7
9 18	21 24.22	- 3 52.9	1.070	1.981	16.7	17.0	9 18	21 26.55	-17 45.4	2.415	3.274	10.6	19.9
37763	1997 <i>GB</i> ₃		8 17.2 9°94	3°1/20.2	18		74243	1998 <i>SR</i> ₅₅		8 17.3 355°70	1°6/16.1	18	
7 10	22 7.17	- 1 38.9	2.014	2.816	15.1	19.0	7 10	22 11.29	-15 14.3	1.604	2.459	15.9	18.9
7 20	22 4.16	- 1 53.9	1.931	2.817	12.2	18.8	7 20	22 7.93	-15 40.9	1.530	2.457	12.4	18.7
7 30	21 59.28	- 2 26.6	1.869	2.818	9.0	18.6	7 30	22 2.10	-16 17.2	1.477	2.455	8.2	18.5
8 9	21 53.00	- 3 15.2	1.830	2.820	5.5	18.4	8 9	21 54.40	-16 58.3	1.448	2.454	3.8	18.2
8 19	21 45.98	- 4 16.3	1.817	2.822	3.1	18.3	8 19	21 45.75	-17 38.2	1.444	2.453	2.2	18.1
8 29	21 39.07	- 5 24.9	1.831	2.824	4.7	18.4	8 29	21 37.29	-18 10.9	1.466	2.453	6.4	18.4
9 8	21 33.09	- 6 34.7	1.872	2.826	8.1	18.6	9 8	21 30.16	-18 32.0	1.512	2.453	10.7	18.6
9 18	21 28.72	- 7 40.3	1.938	2.829	11.4	18.8	9 18	21 25.21	-18 39.5	1.580	2.454	14.5	18.9
92156	1999 <i>XS</i> ₁₃₉		8 17.3 336°88	0°1/17.2	18		14670	1999 <i>JG</i> ₅₃		8 17.3 71°59	1°6/18.5	18	
7 10	22 7.97	-11 40.0	1.797	2.643	14.9	20.1	7 10	22 11.86	- 6 9.8	1.615	2.443	17.1	17.5
7 20	22 5.13	-11 57.8	1.711	2.631	11.7	19.9	7 20	22 8.12	- 6 35.5	1.553	2.459	13.5	17.3
7 30	22 0.13	-12 27.2	1.646	2.621	7.9	19.6	7 30	22 2.06	- 7 18.7	1.510	2.475	9.4	17.1
8 9	21 53.46	-13 4.8	1.605	2.611	3.7	19.4	8 9	21 54.31	- 8 15.6	1.490	2.491	4.9	16.9
8 19	21 45.88	-13 46.1	1.590	2.601	0.8	19.1	8 19	21 45.79	- 9 20.7	1.496	2.507	1.6	16.7
8 29	21 38.38	-14 25.7	1.600	2.592	5.3	19.4	8 29	21 37.56	-10 27.1	1.529	2.523	5.2	17.0
9 8	21 31.93	-14 58.7	1.636	2.584	9.5	19.7	9 8	21 30.67	-11 28.1	1.587	2.539	9.4	17.3
9 18	21 27.34	-15 21.6	1.695	2.577	13.2	19.9	9 18	21 25.85	-12 19.0	1.669	2.555	13.2	17.5
507170	2010 <i>CV</i> ₁₈₄		8 17.3 141°23	2°5/19.4	17		107585	2001 <i>DM</i> ₀₉		8 17.3 274°04	3°9/19.7	18	
7 10	22 14.38	- 4 26.9	2.319	3.110	13.7	21.9	7 10	22 13.36	- 3 39.9	1.533	2.353	18.2	19.1
7 20	22 9.36	- 4 23.4	2.241	3.122	11.0	21.7	7 20	22 9.76	- 3 20.0	1.445	2.342	14.9	18.9
7 30	22 2.54	- 4 32.2	2.184	3.133	7.9	21.5	7 30	22 3.51	- 3 17.8	1.376	2.332	11.0	18.6
8 9	21 54.44	- 4 51.9	2.152	3.144	4.6	21.4	8 9	21 55.16	- 3 33.3	1.329	2.321	6.7	18.4
8 19	21 45.70	- 5 20.1	2.148	3.154	2.5	21.2	8 19	21 45.58	- 4 4.1	1.305	2.311	3.9	18.2
8 29	21 37.14	- 5 53.3	2.173	3.163	4.3	21.4	8 29	21 35.99	- 4 45.6	1.308	2.300	6.2	18.3
9 8	21 29.53	- 6 27.6	2.226	3.172	7.5	21.6	9 8	21 27.67	- 5 31.3	1.335	2.289	10.6	18.5
9 18	21 23.48	- 6 59.5	2.305	3.180	10.4	21.8	9 18	21 21.61	- 6 15.0	1.384	2.279	14.8	18.7
288372	2004 <i>CV</i> ₂₂		8 17.3 215°79	1°7/15.6	18		103891	2000 <i>DJ</i> ₅₃		8 17.3 108°76	1°2/18.1	18	
7 10	22 11.34	-15 28.6	2.229	3.065	12.7	21.4	7 10	22 14.67	- 8 4.5	1.706	2.531	16.4	20.3
7 20	22 7.31	-16 15.3	2.143	3.060	9.8	21.2	7 20	22 10.22	- 8 20.4	1.638	2.544	13.0	20.1
7 30	22 1.36	-17 10.2	2.081	3.055	6.5	21.0	7 30	22 3.43	- 8 50.9	1.591	2.556	8.9	19.8
8 9	21 53.96	-18 8.7	2.045	3.050	3.1	20.8	8 9	21 54.95	- 9 32.5	1.567	2.569	4.5	19.6
8 19	21 45.79	-19 5.8	2.036	3.044	2.2	20.7	8 19	21 45.66	-10 20.5	1.570	2.581	1.2	19.4
8 29	21 37.69	-19 56.1	2.056	3.037	5.4	20.9	8 29	21 36.65	-11 9.1	1.600	2.593	5.2	19.7
9 8	21 30.51	-20 35.7	2.102	3.031	8.9	21.1	9 8	21 28.96	-11 52.7	1.656	2.604	9.4	20.0
9 18	21 24.95	-21 2.2	2.173	3.024	12.0	21.3	9 18	21 23.35	-12 27.7	1.736	2.616	13.1	20.2
3388	Tsanghinchi		8 17.3 213°40	8°8/ 7.6	18		131060	2000 <i>YB</i> ₆₂		8 17.3 124°23	3°4/19.8	18	
7 10	22 17.24	-32 29.9	1.957	2.806	13.7	17.5	7 10	22 15.42	- 3 29.7	2.069	2.861	15.0	20.0
7 20	22 12.75	-34 45.6	1.890	2.799	11.3	17.3	7 20	22 10.39	- 3 7.0	1.992	2.872	12.2	19.8
7 30	22 5.52	-37 0.5	1.846	2.791	9.4	17.2	7 30	22 3.36	- 2 57.8	1.936	2.883	8.9	19.6
8 9	21 56.08	-39 3.3	1.829	2.782	8.8	17.1	8 9	21 54.88	- 3 1.3	1.905	2.893	5.5	19.5
8 19	21 45.32	-40 43.9	1.839	2.773	9.9	17.2	8 19	21 45.68	- 3 15.7	1.900	2.903	3.4	19.3
8 29	21 34.52	-41 54.7	1.873	2.763	12.0	17.3	8 29	21 36.69	- 3 37.8	1.923	2.912	5.0	19.5
9 8	21 25.00	-42 33.4	1.930	2.752	14.5	17.4	9 8	21 28.77	- 4 3.7	1.974	2.921	8.2	19.7
9 18	21 17.83	-42 42.1	2.006	2.741	16.8	17.6	9 18	21 22.62	- 4 29.4	2.050	2.930	11.4	19.9
143508	2003 <i>DJ</i> ₂₂		8 17.3 302°88	1°1/18.1	18		392074	2009 <i>DT</i> ₁₁		8 17.3 177°88	0°3/17.6	18	

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8 17.3

8 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
127233	2002 <i>JT</i> ₁₆		8 17.3 118°45'	4°3'/21.5	18		217346	2004 <i>RV</i> ₁₉₇		8 17.3 228°71'	3°7'/21.2	18	
7 10	22 10.00	+ 2 32.8	1.972	2.750	16.2	20.2	7 10	22 8.06	+ 0 51.4	2.466	3.241	13.4	20.7
7 20	22 6.37	+ 2 14.9	1.893	2.758	13.4	20.1	7 20	22 4.55	+ 0 46.6	2.373	3.238	11.0	20.5
7 30	22 0.77	+ 1 36.0	1.833	2.767	10.1	19.9	7 30	21 59.42	+ 0 26.4	2.301	3.235	8.4	20.3
8 9	21 53.72	+ 0 37.1	1.797	2.775	6.8	19.7	8 9	21 53.10	- 0 8.6	2.252	3.231	5.6	20.2
8 19	21 45.93	- 0 38.2	1.786	2.783	4.4	19.6	8 19	21 46.13	- 0 56.3	2.231	3.228	3.7	20.0
8 29	21 38.28	- 2 4.4	1.803	2.791	5.3	19.6	8 29	21 39.20	- 1 53.2	2.237	3.224	4.6	20.1
9 8	21 31.64	- 3 34.0	1.847	2.799	8.3	19.8	9 8	21 33.01	- 2 54.4	2.271	3.220	7.2	20.2
9 18	21 26.70	- 5 0.3	1.917	2.806	11.6	20.1	9 18	21 28.15	- 3 55.3	2.331	3.216	10.0	20.4
112541	2002 <i>PL</i> ₄₀		8 17.3 77°49'	1°0'/16.9	18		204034	2003 <i>UG</i> ₁₃₁		8 17.3 241°60'	5°9'/22.3	18	
7 10	22 32.61	-18 8.4	1.453	2.282	18.6	19.0	7 10	22 11.74	+ 4 21.8	2.164	2.922	15.5	20.4
7 20	22 24.09	-17 31.0	1.400	2.310	14.4	18.8	7 20	22 7.72	+ 4 51.9	2.066	2.912	13.2	20.2
7 30	22 12.54	-16 56.5	1.369	2.339	9.6	18.6	7 30	22 1.75	+ 5 4.6	1.987	2.902	10.5	20.0
8 9	21 59.01	-16 21.5	1.363	2.367	4.4	18.3	8 9	21 54.25	+ 4 58.8	1.931	2.892	7.8	19.8
8 19	21 44.87	-15 43.3	1.384	2.395	1.5	18.2	8 19	21 45.88	+ 4 34.7	1.900	2.881	6.1	19.7
8 29	21 31.70	-15 0.6	1.434	2.422	6.4	18.6	8 29	21 37.47	+ 3 54.8	1.895	2.870	6.5	19.7
9 8	21 20.78	-14 13.6	1.511	2.449	10.9	18.9	9 8	21 29.92	+ 3 3.7	1.917	2.859	8.8	19.8
9 18	21 12.87	-13 23.5	1.611	2.476	14.7	19.2	9 18	21 23.96	+ 2 7.1	1.964	2.847	11.6	19.9
372837	2010 <i>VQ</i> ₂₂		8 17.3 46°84'	8°5'/23.3	18		257364	2009 <i>OH</i>		8 17.3 32°02'	0°9'/17.8	18	
7 10	22 12.01	+ 5 37.4	1.297	2.092	22.2	20.0	7 10	22 14.99	-11 42.1	1.510	2.354	17.3	19.2
7 20	22 8.80	+ 6 29.0	1.237	2.105	18.9	19.8	7 20	22 10.51	-11 19.5	1.460	2.378	13.5	19.0
7 30	22 2.83	+ 6 52.6	1.194	2.119	15.1	19.7	7 30	22 3.58	-11 7.3	1.431	2.402	9.1	18.8
8 9	21 54.79	+ 6 45.8	1.169	2.133	11.4	19.5	8 9	21 54.99	-11 3.1	1.424	2.428	4.4	18.6
8 19	21 45.73	+ 6 9.3	1.165	2.147	8.8	19.4	8 19	21 45.76	-11 3.4	1.443	2.455	1.1	18.4
8 29	21 36.99	+ 5 8.3	1.185	2.162	9.1	19.5	8 29	21 37.08	-11 4.7	1.488	2.482	5.4	18.8
9 8	21 29.85	+ 3 52.1	1.227	2.178	11.7	19.6	9 8	21 29.96	-11 3.5	1.558	2.510	9.6	19.1
9 18	21 25.20	+ 2 30.7	1.291	2.193	15.1	19.9	9 18	21 25.11	-10 57.8	1.651	2.538	13.2	19.4
483821	2005 <i>WZ</i> ₁₆₆		8 17.3 313°77'	1°9'/15.7	17		408635	2014 <i>LQ</i> ₁₇		8 17.3 351°04'	1°7'/15.6	18	
7 10	22 8.94	-15 35.7	1.879	2.729	14.1	21.4	7 10	22 6.64	-12 33.3	1.834	2.683	14.5	19.9
7 20	22 5.95	-16 12.8	1.784	2.709	11.0	21.1	7 20	22 4.09	-13 47.8	1.756	2.680	11.2	19.7
7 30	22 0.76	-16 59.6	1.711	2.689	7.4	20.8	7 30	21 59.45	-15 16.3	1.700	2.677	7.4	19.4
8 9	21 53.84	-17 51.7	1.663	2.669	3.5	20.6	8 9	21 53.22	-16 52.9	1.668	2.675	3.4	19.2
8 19	21 45.91	-18 43.1	1.640	2.649	2.4	20.5	8 19	21 46.12	-18 30.0	1.664	2.673	2.3	19.1
8 29	21 37.94	-19 28.0	1.645	2.630	6.2	20.7	8 29	21 39.10	-19 59.5	1.687	2.671	6.1	19.3
9 8	21 30.98	-20 1.5	1.674	2.611	10.2	20.9	9 8	21 33.12	-21 14.9	1.735	2.670	10.0	19.6
9 18	21 25.87	-20 20.8	1.726	2.592	13.8	21.0	9 18	21 28.92	-22 12.3	1.807	2.669	13.5	19.8
509185	2006 <i>KO</i> ₄₆		8 17.3 250°72'	3°7'/13.9	18		253738	2003 <i>WE</i> ₃₆		8 17.3 297°54'	4°0'/19.6	18	
7 10	22 12.79	-20 26.3	1.982	2.831	13.5	21.5	7 10	22 12.27	- 4 19.8	1.406	2.237	19.0	20.4
7 20	22 8.82	-21 24.9	1.897	2.821	10.5	21.3	7 20	22 9.27	- 3 54.8	1.314	2.218	15.6	20.1
7 30	22 2.61	-22 29.7	1.836	2.810	7.2	21.1	7 30	22 3.44	- 3 47.9	1.240	2.200	11.5	19.8
8 9	21 54.66	-23 34.4	1.799	2.799	4.3	20.9	8 9	21 55.28	- 3 59.2	1.188	2.182	7.0	19.5
8 19	21 45.75	-24 32.4	1.790	2.788	4.3	20.9	8 19	21 45.67	- 4 26.8	1.158	2.164	4.0	19.3
8 29	21 36.90	-25 17.5	1.808	2.777	7.3	21.0	8 29	21 35.94	- 5 6.0	1.153	2.146	6.6	19.4
9 8	21 29.13	-25 45.9	1.851	2.765	10.7	21.2	9 8	21 27.50	- 5 50.1	1.171	2.129	11.4	19.6
9 18	21 23.25	-25 56.4	1.917	2.753	13.9	21.4	9 18	21 21.49	- 6 32.3	1.211	2.112	16.0	19.8
356389	2010 <i>PW</i> ₃₃		8 17.3 89°92'	5°7'/12.3	18		315078	2007 <i>DQ</i> ₅₉		8 17.3 148°24'	1°9'/15.5	18	
7 10	22 16.44	-30 21.0	2.339	3.181	12.0	20.7	7 10	22 13.23	-18 33.4	2.493	3.326	11.6	20.5
7 20	22 11.11	-31 4.2	2.282	3.193	9.6	20.5	7 20	22 8.47	-18 54.8	2.415	3.330	9.0	20.3
7 30	22 3.77	-31 43.7	2.248	3.205	7.2	20.4	7 30	22 1.99	-19 19.9	2.362	3.334	6.0	20.2
8 9	21 55.04	-32 13.7	2.240	3.217	5.8	20.3	8 9	21 54.26	-19 45.0	2.334	3.338	3.0	20.0
8 19	21 45.72	-32 29.6	2.258	3.229	6.1	20.4	8 19	21 45.94	-20 6.5	2.335	3.341	2.3	19.9
8 29	21 36.76	-32 28.5	2.304	3.241	7.9	20.5	8 29	21 37.79	-20 21.1	2.365	3.345	5.0	20.1
9 8	21 29.00	-32 10.1	2.375	3.252	10.2	20.7	9 8	21 30.56	-20 26.7	2.422	3.348	8.0	20.3
9 18	21 23.09	-31 36.0	2.468	3.264	12.4	20.9	9 18	21 24.84	-20 22.4	2.504	3.351	10.7	20.5
418246	2008 <i>DO</i> ₆₁		8 17.3 175°87'	1°0'/16.5	17		375245	2008 <i>GX</i> ₄₄		8 17.3 324°05'	8°6'/24.0	18	
7 10	22 15.14	-13 6.1	1.802	2.637	15.3	22.0	7 10	22 9.69	+ 8 8.1	1.550	2.320	20.2	20.6
7 20	22 10.66	-13 43.6	1.724	2.639	11.9	21.8	7 20	22 6.85	+ 8 46.6	1.468	2.316	17.5	20.4
7 30	22 3.83	-14 32.2	1.668	2.641	7.9	21.6	7 30	22 1.53	+ 8 58.8	1.402	2.312	14.4	20.2
8 9	21 55.21	-15 27.3	1.636	2.642	3.6	21.3	8 9	21 54.27	+ 8 41.6	1.356	2.309	11.2	20.0
8 19	21 45.68	-16 22.9	1.632	2.642	1.6	21.2	8 19	21 45.91	+ 7 54.8	1.331	2.306	9.0	19.8
8 29	21 36.30	-17 12.8	1.655	2.642	5.8	21.5	8 29	21 37.57	+ 6 42.3	1.330	2.303	9.0	19.8
9 8	21 28.15	-17 52.0	1.704	2.642	10.0	21.7	9 8	21 30.45	+ 5 12.2	1.353	2.300	11.2	20.0
9 18	21 22.04	-18 18.0	1.777	2.641	13.6	21.9	9 18	21 25.47	+ 3 34.3	1.399	2.297	14.4	20.1
265607	2005 <i>SW</i> ₂₇		8 17.3 108°81'	1°3'/18.2	17		402420	2005 <i>YK</i> ₂₀₈		8 17.3 216°22'	1°4'/18.4	17	
7 10	22 15.92	- 8 33.9	1.767	2.589	16.1	20.9	7 10	22 16.82	- 9 22.3	2.739	3.534	11.7	21.5
7 20	22 11.10	- 8 38.6	1.699	2.603	12.7	20.7	7 20	22 11.09	- 8 57.1	2.641	3.529	9.3	21.4
7 30	22 3.99	- 8 56.3	1.652	2.616	8.7	20.5	7 30	22 3.69	- 8 38.4	2.566	3.523	6.5	21.2
8 9	21 55.23	- 9 24.1	1.629	2.630	4.4	20.2	8 9	21 55.06	- 8 24.9	2.518	3.516	3.5	21.0
8 19	21 45.69	- 9 58.0	1.632	2.643	1.3	20.1	8 19	21 45.77	- 8 15.4	2.500	3.510	1.4	20.8
8 29	21 36.45	-10 32.9	1.663	2.656	5.0	20.3	8 29	21 36.56	- 8 8.2	2.512	3.503	3.8	21.0
9 8	21 28.53	-11 4.3	1.720	2.668	9.1	20.6	9 8	21 28.15	- 8 1.3	2.554	3.496	6.9	21.2
9 18	21 22.65	-11 28.8	1.802	2.680	12.7	20.9	9 18	21 21.13	- 7 53.2	2.623	3.488	9.7	21.3
215596	2003 <i>QT</i> ₄₁		8 17.3 353°12'	2°3'/18.8	18		200295	2000 <i>AT</i> ₂₁₃					

EPHEMERIDES

8 17.3

8 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
306467	1999 <i>RL</i> ₉₇		8 17.3 329°63	4.2/15.4	18		514690	2006 <i>BT</i> ₂₆		8 17.3 197°15	2.1/14.9	18	
7 10	22 12.28	-20 58.1	1.072	1.960	19.7	19.5	7 10	22 8.93	-16 47.0	2.489	3.328	11.5	21.8
7 20	22 10.27	-21 5.7	0.993	1.937	15.6	19.2	7 20	22 5.27	-17 43.4	2.409	3.327	8.8	21.6
7 30	22 4.65	-21 18.2	0.931	1.915	10.8	18.8	7 30	21 59.94	-18 46.5	2.352	3.326	5.8	21.4
8 9	21 56.00	-21 28.7	0.889	1.894	5.8	18.5	8 9	21 53.38	-19 51.8	2.321	3.325	2.9	21.2
8 19	21 45.55	-21 28.9	0.868	1.875	4.8	18.4	8 19	21 46.17	-20 54.4	2.319	3.324	2.5	21.2
8 29	21 35.12	-21 12.2	0.869	1.857	9.6	18.6	8 29	21 39.04	-21 49.4	2.346	3.322	5.3	21.4
9 8	21 26.61	-20 35.7	0.891	1.840	15.1	18.8	9 8	21 32.71	-22 33.2	2.399	3.321	8.3	21.6
9 18	21 21.38	-19 40.5	0.930	1.825	20.2	19.1	9 18	21 27.78	-23 3.9	2.477	3.320	11.0	21.8
497993	2007 <i>DA</i> ₇₅		8 17.3 245°88	0.1/17.4	17		93448	2000 <i>SA</i> ₃₄₅		8 17.3 302°68	11.2/6.7	18	
7 10	22 13.28	-10 28.6	1.845	2.675	15.2	22.2	7 10	22 14.28	-35 55.6	1.560	2.425	15.8	18.7
7 20	22 9.32	-10 54.9	1.752	2.663	12.0	22.0	7 20	22 11.27	-37 55.5	1.491	2.405	13.5	18.5
7 30	22 3.04	-11 34.5	1.681	2.650	8.2	21.7	7 30	22 5.02	-39 51.7	1.443	2.385	11.7	18.3
8 9	21 54.95	-12 23.7	1.633	2.637	3.8	21.4	8 9	21 56.08	-41 31.3	1.417	2.365	11.2	18.2
8 19	21 45.80	-13 17.7	1.612	2.624	0.8	21.2	8 19	21 45.57	-42 42.8	1.414	2.345	12.5	18.2
8 29	21 36.63	-14 10.5	1.619	2.610	5.4	21.5	8 29	21 35.08	-43 18.0	1.432	2.326	14.8	18.3
9 8	21 28.54	-14 56.4	1.652	2.596	9.7	21.7	9 8	21 26.27	-43 15.5	1.471	2.307	17.5	18.5
9 18	21 22.38	-15 31.6	1.708	2.581	13.6	21.9	9 18	21 20.36	-42 38.6	1.525	2.289	20.1	18.6
415555	2014 <i>QG</i> ₂₁₂		8 17.3 329°72	1.3/16.2	18		349692	2008 <i>WX</i> ₁₃₉		8 17.3 26°54	3.1/14.7	18	
7 10	22 11.76	-16 46.0	2.300	3.137	12.3	20.7	7 10	22 9.75	-17 0.3	1.625	2.486	15.5	19.9
7 20	22 7.55	-16 55.3	2.215	3.132	9.6	20.5	7 20	22 6.73	-18 6.7	1.560	2.491	11.9	19.7
7 30	22 1.50	-17 9.5	2.153	3.126	6.4	20.3	7 30	22 1.31	-19 22.9	1.517	2.496	7.9	19.4
8 9	21 54.09	-17 25.4	2.116	3.121	3.0	20.1	8 9	21 54.12	-20 41.7	1.497	2.501	4.1	19.2
8 19	21 46.00	-17 39.4	2.107	3.116	1.7	20.0	8 19	21 46.02	-21 55.1	1.503	2.507	3.7	19.2
8 29	21 38.03	-17 48.3	2.126	3.112	4.9	20.2	8 29	21 38.15	-22 55.7	1.535	2.513	7.3	19.5
9 8	21 30.99	-17 49.8	2.172	3.107	8.3	20.4	9 8	21 31.58	-23 38.6	1.592	2.520	11.2	19.7
9 18	21 25.52	-17 42.5	2.243	3.103	11.3	20.6	9 18	21 27.12	-24 2.0	1.670	2.527	14.7	19.9
254332	2004 <i>SW</i> ₃₁		8 17.3 256°72	2.2/15.2	18		186342	2002 <i>EA</i> ₇₉		8 17.3 61°77	5.1/22.6	18	
7 10	22 12.01	-18 47.8	2.550	3.385	11.3	21.0	7 10	22 8.89	+ 4 16.6	2.129	2.894	15.5	19.6
7 20	22 7.68	-19 17.1	2.455	3.371	8.8	20.8	7 20	22 5.31	+ 4 19.9	2.059	2.912	13.0	19.5
7 30	22 1.57	-19 50.8	2.384	3.356	5.9	20.6	7 30	21 59.97	+ 4 4.0	2.009	2.931	10.1	19.3
8 9	21 54.14	-20 25.0	2.339	3.341	3.1	20.4	8 9	21 53.38	+ 3 29.2	1.982	2.949	7.2	19.2
8 19	21 45.98	-20 55.8	2.322	3.326	2.5	20.3	8 19	21 46.19	+ 2 37.9	1.981	2.968	5.2	19.1
8 29	21 37.85	-21 19.3	2.333	3.311	5.2	20.5	8 29	21 39.21	+ 1 34.5	2.006	2.987	5.6	19.1
9 8	21 30.53	-21 33.0	2.372	3.295	8.3	20.6	9 8	21 33.18	+ 0 24.6	2.058	3.006	7.9	19.3
9 18	21 24.65	-21 35.5	2.436	3.279	11.1	20.8	9 18	21 28.69	- 0 45.9	2.135	3.025	10.6	19.5
195565	2002 <i>JB</i> ₇₈		8 17.3 128°01	2.9/14.9	17		187465	2005 <i>YZ</i> ₁₃₉		8 17.3 8°53	9.0/7.1	18	
7 10	22 16.31	-19 36.5	2.119	2.957	13.2	21.2	7 10	22 9.15	-32 32.7	1.826	2.692	13.8	19.2
7 20	22 11.12	-20 17.7	2.054	2.971	10.2	21.0	7 20	22 6.46	-34 49.0	1.775	2.694	11.4	19.1
7 30	22 3.87	-21 3.0	2.012	2.984	6.8	20.8	7 30	22 1.28	-37 2.2	1.746	2.696	9.5	19.0
8 9	21 55.16	-21 47.1	1.996	2.997	3.7	20.6	8 9	21 54.16	-39 1.6	1.743	2.698	9.0	19.0
8 19	21 45.79	-22 25.0	2.007	3.010	3.3	20.6	8 19	21 46.01	-40 37.5	1.765	2.701	10.1	19.0
8 29	21 36.70	-22 52.1	2.047	3.022	6.1	20.8	8 29	21 37.99	-41 43.5	1.811	2.705	12.2	19.2
9 8	21 28.78	-23 6.1	2.114	3.033	9.4	21.1	9 8	21 31.28	-42 17.8	1.878	2.709	14.5	19.3
9 18	21 22.72	-23 6.4	2.205	3.044	12.2	21.3	9 18	21 26.77	-42 22.4	1.963	2.714	16.6	19.5
279349	2010 <i>AS</i> ₃		8 17.3 199°72	1.7/15.9	18		208283	2001 <i>BS</i> ₁₃		8 17.3 259°42	4.2/19.3	18	
7 10	22 13.56	-15 14.4	1.875	2.717	14.5	21.1	7 10	22 24.57	- 4 47.8	2.113	2.890	15.3	19.9
7 20	22 9.39	-15 50.6	1.796	2.715	11.3	20.8	7 20	22 17.87	- 3 39.9	2.001	2.871	12.6	19.6
7 30	22 2.97	-16 35.9	1.739	2.714	7.5	20.6	7 30	22 8.73	- 2 39.6	1.912	2.852	9.4	19.4
8 9	21 54.85	-17 25.3	1.707	2.712	3.5	20.4	8 9	21 57.61	- 1 47.9	1.849	2.833	6.1	19.2
8 19	21 45.84	-18 13.2	1.701	2.710	2.1	20.3	8 19	21 45.30	- 1 5.9	1.815	2.813	4.2	19.0
8 29	21 36.96	-18 53.9	1.723	2.708	5.9	20.5	8 29	21 32.85	- 0 33.4	1.811	2.793	6.0	19.1
9 8	21 29.25	-19 23.3	1.771	2.705	9.9	20.7	9 8	21 21.41	- 0 9.0	1.836	2.772	9.4	19.3
9 18	21 23.48	-19 39.3	1.842	2.703	13.3	21.0	9 18	21 11.90	+ 0 9.5	1.887	2.751	12.9	19.4
208024	1999 <i>AF</i> ₁₈		8 17.3 45°78	1.3/17.9	17		10435	Tjeerd		8 17.3 230°91	3.6/20.9	18	
7 10	22 16.08	-10 5.9	1.138	1.996	20.9	20.1	7 10	22 9.98	+ 0 35.2	2.424	3.197	13.6	18.8
7 20	22 12.29	-9 52.7	1.085	2.009	16.4	19.9	7 20	22 6.16	+ 0 26.2	2.322	3.186	11.3	18.6
7 30	22 5.31	-9 55.6	1.048	2.023	11.3	19.6	7 30	22 0.61	+ 0 1.0	2.240	3.175	8.5	18.4
8 9	21 55.99	-10 11.1	1.033	2.037	5.6	19.4	8 9	21 53.74	- 0 39.5	2.183	3.164	5.6	18.2
8 19	21 45.63	-10 34.2	1.040	2.051	1.5	19.1	8 19	21 46.12	- 1 33.3	2.153	3.152	3.6	18.1
8 29	21 35.80	-10 58.4	1.071	2.066	6.6	19.5	8 29	21 38.48	- 2 36.5	2.152	3.140	4.6	18.2
9 8	21 27.95	-11 18.0	1.125	2.082	11.8	19.9	9 8	21 31.57	- 3 44.0	2.178	3.127	7.5	18.3
9 18	21 23.00	-11 29.2	1.199	2.098	16.3	20.2	9 18	21 26.05	- 4 50.7	2.231	3.113	10.5	18.5
176930	2002 <i>VL</i> ₁₂₉		8 17.3 303°71	2.9/19.7	18		416721	2005 <i>CW</i> ₆₂		8 17.3 188°89	2.2/15.6	17	
7 10	22 11.09	- 4 1.2	1.979	2.785	15.2	20.2	7 10	22 16.94	-16 16.2	1.806	2.646	15.1	22.1
7 20	22 7.30	- 3 56.0	1.894	2.784	12.3	20.0	7 20	22 12.15	-16 59.8	1.727	2.645	11.7	21.9
7 30	22 1.48	- 4 5.5	1.831	2.784	8.9	19.8	7 30	22 4.91	-17 52.3	1.670	2.644	7.8	21.7
8 9	21 54.14	- 4 28.6	1.790	2.783	5.3	19.6	8 9	21 55.80	-18 48.1	1.638	2.643	3.8	21.4
8 19	21 46.00	- 5 2.6	1.776	2.782	2.9	19.5	8 19	21 45.70	-19 40.7	1.633	2.640	2.7	21.4
8 29	21 37.95	- 5 43.4	1.789	2.781	4.9	19.6	8 29	21 35.75	-20 23.9	1.655	2.637	6.5	21.6
9 8	21 30.91	- 6 26.0	1.829	2.781	8.4	19.8	9 8	21 27.06	-20 53.5	1.704	2.633	10.5	21.8
9 18	21 25.59	- 7 5.9	1.893	2.780	11.8	20.0	9 18	21 20.50	-21 7.6	1.775	2.629	14.1	22.0
141451	2002 <i>CQ</i> ₈₀		8 17.3 110°88	0.7/16.6	18		377043	2002 <i>TD</i> ₃₃		8 17.3 347°94			

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8 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
512854	2016 <i>VJ</i> ₁₁		8 17.3 182°00	4.3/12.4	18		360974	2005 <i>UE</i> ₂₄₉		8 17.3 164°05	0.7/16.6	18	
7 10	22 14.04	-28 2.7	2.982	3.817	9.9	21.9	7 10	22 10.48	-13 24.4	2.581	3.405	11.5	21.9
7 20	22 8.96	-28 48.7	2.908	3.817	7.8	21.8	7 20	22 6.35	-13 55.9	2.499	3.409	8.9	21.8
7 30	22 2.27	-29 33.3	2.858	3.817	5.8	21.6	7 30	22 0.61	-14 34.8	2.441	3.411	5.9	21.6
8 9	21 54.42	-30 12.1	2.835	3.817	4.4	21.6	8 9	21 53.71	-15 17.9	2.409	3.414	2.7	21.4
8 19	21 46.00	-30 41.1	2.841	3.816	4.7	21.6	8 19	21 46.21	-16 1.2	2.406	3.416	1.1	21.2
8 29	21 37.73	-30 57.2	2.875	3.815	6.4	21.7	8 29	21 38.83	-16 41.0	2.431	3.418	4.3	21.5
9 8	21 30.28	-30 59.3	2.936	3.813	8.5	21.8	9 8	21 32.23	-17 13.9	2.485	3.420	7.4	21.7
9 18	21 24.22	-30 47.6	3.021	3.811	10.5	22.0	9 18	21 27.00	-17 37.8	2.563	3.421	10.1	21.9
468795	2012 <i>FM</i> ₃₈		8 17.3 112°34	3.5/19.8	17		12969	3482 <i>T</i> ₋₃		8 17.3 289°85	0.1/17.3	18	
7 10	22 13.75	- 2 52.1	1.535	2.350	18.4	21.2	7 10	22 9.90	-11 28.3	2.229	3.058	13.0	19.8
7 20	22 9.88	- 2 50.7	1.463	2.357	14.9	21.0	7 20	22 6.31	-11 47.5	2.131	3.042	10.2	19.6
7 30	22 3.47	- 3 9.4	1.409	2.364	10.9	20.8	7 30	22 0.83	-12 16.6	2.056	3.025	6.9	19.4
8 9	21 55.15	- 3 46.6	1.378	2.370	6.5	20.6	8 9	21 53.91	-12 52.6	2.005	3.009	3.2	19.1
8 19	21 45.84	- 4 38.4	1.371	2.377	3.6	20.4	8 19	21 46.16	-13 31.8	1.982	2.993	0.7	18.9
8 29	21 36.75	- 5 38.7	1.390	2.383	5.8	20.6	8 29	21 38.41	-14 9.9	1.986	2.977	4.6	19.2
9 8	21 29.03	- 6 40.1	1.435	2.390	10.0	20.8	9 8	21 31.49	-14 42.8	2.018	2.961	8.3	19.4
9 18	21 23.55	- 7 36.3	1.503	2.395	14.0	21.1	9 18	21 26.10	-15 7.5	2.074	2.945	11.6	19.5
445461	2010 <i>VJ</i> ₄₀		8 17.3 10°17	0.9/16.6	18		112209	2002 <i>JX</i> ₁₃₃		8 17.3 50°24	3.7/15.4	17	
7 10	22 12.02	-14 41.7	2.206	3.039	12.9	21.4	7 10	22 18.09	-19 43.0	1.209	2.078	19.1	19.7
7 20	22 7.80	-14 56.6	2.125	3.040	10.0	21.2	7 20	22 13.80	-20 10.0	1.159	2.093	14.8	19.5
7 30	22 1.70	-15 18.4	2.067	3.040	6.7	21.0	7 30	22 6.29	-20 43.0	1.128	2.108	9.9	19.2
8 9	21 54.22	-15 43.6	2.035	3.040	3.0	20.8	8 9	21 56.47	-21 14.4	1.119	2.123	5.2	19.0
8 19	21 46.04	-16 8.6	2.030	3.040	1.3	20.6	8 19	21 45.68	-21 36.5	1.133	2.138	4.3	19.0
8 29	21 38.01	-16 29.5	2.053	3.041	4.8	20.9	8 29	21 35.53	-21 43.7	1.172	2.154	8.4	19.3
9 8	21 30.95	-16 43.3	2.103	3.041	8.3	21.1	9 8	21 27.44	-21 33.6	1.233	2.171	12.9	19.6
9 18	21 25.52	-16 48.3	2.177	3.041	11.4	21.3	9 18	21 22.29	-21 7.4	1.315	2.187	16.9	19.9
285822	2001 <i>CS</i> ₄₇		8 17.3 316°43	2°0/16.4	18		71496	2000 <i>CB</i> ₁₈		8 17.3 301°96	0°8/17.9	18	
7 10	22 16.98	-18 37.4	1.441	2.299	17.2	19.2	7 10	22 9.22	- 8 16.2	1.714	2.550	15.9	19.2
7 20	22 13.11	-18 24.7	1.345	2.273	13.6	18.9	7 20	22 6.47	- 8 40.6	1.613	2.525	12.7	18.9
7 30	22 6.13	-18 16.0	1.269	2.246	9.3	18.6	7 30	22 1.36	- 9 21.5	1.531	2.500	8.8	18.6
8 9	21 56.60	-18 6.7	1.215	2.220	4.5	18.2	8 9	21 54.33	-10 16.4	1.473	2.476	4.4	18.3
8 19	21 45.51	-17 52.1	1.185	2.195	2.5	18.1	8 19	21 46.09	-11 20.5	1.440	2.451	1.0	18.0
8 29	21 34.34	-17 28.0	1.181	2.170	7.3	18.3	8 29	21 37.71	-12 27.2	1.433	2.427	5.5	18.3
9 8	21 24.62	-16 52.3	1.201	2.146	12.5	18.5	9 8	21 30.32	-13 29.3	1.451	2.403	10.2	18.5
9 18	21 17.58	-16 5.2	1.242	2.123	17.1	18.7	9 18	21 24.89	-14 21.2	1.493	2.379	14.5	18.7
403995	2012 <i>BQ</i> ₁₃₀		8 17.3 352°51	4°8/12.6	18		361597	2007 <i>RH</i> ₂₉₃		8 17.3 53°56	5°7/14.5	17	
7 10	22 9.50	-23 38.0	2.022	2.881	13.0	20.2	7 10	22 20.07	-23 12.5	1.121	1.997	19.9	19.9
7 20	22 6.21	-24 48.3	1.952	2.879	10.1	20.0	7 20	22 15.55	-23 54.6	1.079	2.015	15.4	19.7
7 30	22 0.83	-26 1.9	1.904	2.877	7.1	19.8	7 30	22 7.53	-24 39.2	1.055	2.033	10.7	19.5
8 9	21 53.88	-27 12.0	1.882	2.875	5.0	19.7	8 9	21 57.05	-25 16.3	1.052	2.052	6.6	19.4
8 19	21 46.12	-28 11.8	1.886	2.874	5.4	19.7	8 19	21 45.62	-25 37.2	1.072	2.071	6.3	19.4
8 29	21 38.50	-28 55.7	1.916	2.873	7.9	19.9	8 29	21 35.02	-25 36.4	1.116	2.091	9.9	19.7
9 8	21 31.95	-29 20.8	1.971	2.872	10.9	20.0	9 8	21 26.75	-25 13.5	1.181	2.110	14.2	20.0
9 18	21 27.22	-29 26.6	2.049	2.872	13.6	20.2	9 18	21 21.67	-24 31.6	1.266	2.130	18.0	20.3
149113	Stewartbushman		8 17.3 357°14	0°2/17.4	18		62367	2000 <i>SF</i> ₁₅₀		8 17.3 347°51	0°4/17.7	18	
7 10	22 8.89	-10 29.3	1.885	2.722	14.6	20.0	7 10	22 10.20	-10 26.2	1.955	2.787	14.4	19.3
7 20	22 5.72	-10 53.2	1.806	2.721	11.5	19.8	7 20	22 6.69	-10 40.5	1.873	2.785	11.3	19.1
7 30	22 0.49	-11 29.1	1.748	2.719	7.8	19.5	7 30	22 1.14	-11 6.0	1.813	2.783	7.7	18.9
8 9	21 53.72	-12 13.8	1.714	2.719	3.6	19.3	8 9	21 54.07	-11 39.8	1.777	2.781	3.7	18.6
8 19	21 46.15	-13 2.6	1.706	2.718	0.7	19.1	8 19	21 46.21	-12 17.8	1.767	2.779	0.7	18.4
8 29	21 38.71	-13 50.0	1.726	2.718	5.0	19.4	8 29	21 38.46	-12 55.3	1.785	2.778	4.8	18.7
9 8	21 32.31	-14 31.0	1.771	2.719	8.9	19.6	9 8	21 31.73	-13 27.8	1.829	2.777	8.7	18.9
9 18	21 27.68	-15 2.3	1.840	2.719	12.5	19.8	9 18	21 26.74	-13 52.2	1.897	2.776	12.2	19.1
47001	1998 <i>TA</i> ₃₅		8 17.3 274°88	2°4/15.4	18		154842	2004 <i>RA</i> ₄₂		8 17.3 216°48	0°8/18.2	18	
7 10	22 12.51	-17 26.7	1.914	2.761	14.1	19.2	7 10	22 9.53	- 8 30.6	2.523	3.335	12.1	21.2
7 20	22 8.63	-18 4.2	1.830	2.752	10.9	19.0	7 20	22 5.69	- 8 48.5	2.433	3.332	9.5	21.0
7 30	22 2.52	-18 49.2	1.768	2.744	7.3	18.8	7 30	22 0.24	- 9 16.6	2.366	3.329	6.6	20.8
8 9	21 54.71	-19 36.5	1.731	2.736	3.7	18.5	8 9	21 53.59	- 9 52.6	2.324	3.325	3.3	20.6
8 19	21 45.96	-20 20.5	1.721	2.727	2.9	18.5	8 19	21 46.31	-10 33.3	2.311	3.322	0.9	20.4
8 29	21 37.31	-20 55.5	1.738	2.719	6.3	18.7	8 29	21 39.10	-11 15.1	2.326	3.318	3.9	20.6
9 8	21 29.76	-21 17.8	1.780	2.710	10.1	18.9	9 8	21 32.64	-11 54.0	2.369	3.314	7.1	20.8
9 18	21 24.12	-21 25.7	1.845	2.702	13.5	19.1	9 18	21 27.52	-12 27.1	2.437	3.310	10.0	21.0
395938	2013 <i>AG</i> ₁₁₀		8 17.3 275°17	2°6/15.2	18		2602	Moore		8 17.3 86°88	0°9/18.0	18	
7 10	22 12.72	-18 16.0	1.958	2.805	13.8	21.1	7 10	22 12.83	- 7 25.0	1.528	2.362	17.6	16.4
7 20	22 8.73	-18 52.1	1.877	2.799	10.7	20.9	7 20	22 9.15	- 8 0.1	1.463	2.374	13.9	16.2
7 30	22 2.54	-19 34.5	1.817	2.793	7.2	20.7	7 30	22 2.98	- 8 53.0	1.418	2.386	9.5	16.0
8 9	21 54.69	-20 18.3	1.783	2.786	3.7	20.4	8 9	21 54.96	- 9 59.4	1.395	2.398	4.7	15.7
8 19	21 45.97	-20 57.8	1.775	2.780	3.0	20.4	8 19	21 46.05	-11 12.8	1.399	2.410	1.0	15.5
8 29	21 37.36	-21 28.0	1.794	2.774	6.3	20.6	8 29	21 37.41	-12 25.3	1.428	2.422	5.5	15.8
9 8	21 29.86	-21 45.3	1.839	2.768	10.0	20.8	9 8	21 30.17	-13 29.9	1.483	2.433	10.1	16.1
9 18	21 24.24	-21 48.5	1.908	2.761	13.3	21.0	9 18	21 25.15	-14 21.6	1.561	2.445	14.0	16.4
171133	2005 <i>GP</i> ₃₈		8 17.3 268°11	4°6/21.3	18		414751	2010 <i>FV</i> ₉₇		8 17.3 19°56	6°6/14.9		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
142095	2002 <i>QR</i> ₅₈		8 17.3 223°33	2°2/15.5	18		148756	2001 <i>TD</i> ₁₉₄		8 17.3 44°88	0°3/17.2	17	
7 10	22 12.95	-14 26.7	1.625	2.474	16.0	20.6	7 10	22 14.21	-12 13.2	1.337	2.191	18.5	19.9
7 20	22 9.39	-15 28.2	1.547	2.471	12.4	20.4	7 20	22 10.50	-12 25.5	1.280	2.205	14.4	19.7
7 30	22 3.28	-16 43.0	1.490	2.466	8.3	20.1	7 30	22 4.00	-12 50.9	1.242	2.218	9.7	19.4
8 9	21 55.19	-18 4.4	1.457	2.462	3.9	19.8	8 9	21 55.48	-13 24.8	1.227	2.233	4.4	19.2
8 19	21 46.00	-19 24.6	1.450	2.458	2.8	19.8	8 19	21 46.04	-14 1.1	1.236	2.247	1.0	19.0
8 29	21 36.91	-20 35.1	1.469	2.453	7.0	20.0	8 29	21 37.03	-14 33.3	1.269	2.262	6.2	19.4
9 8	21 29.09	-21 29.8	1.514	2.448	11.3	20.2	9 8	21 29.70	-14 56.5	1.327	2.278	11.0	19.7
9 18	21 23.48	-22 5.5	1.581	2.442	15.1	20.5	9 18	21 24.87	-15 7.9	1.406	2.294	15.1	20.0
338538	2003 <i>SW</i> ₇		8 17.3 10°16	6°4/23.2	16		91967	1999 <i>VZ</i> ₉₁		8 17.4 196°02	7°0/12.0	18	
7 10	22 6.75	+ 5 54.2	1.583	2.368	19.2	20.1	7 10	22 19.81	-31 18.4	1.950	2.795	13.9	19.2
7 20	22 4.46	+ 5 52.5	1.504	2.369	16.3	19.9	7 20	22 14.41	-32 11.7	1.882	2.794	11.3	19.0
7 30	21 59.89	+ 5 23.2	1.444	2.370	12.9	19.7	7 30	22 6.44	-33 0.9	1.837	2.793	8.7	18.8
8 9	21 53.58	+ 4 25.9	1.403	2.372	9.3	19.5	8 9	21 56.59	-33 38.5	1.817	2.791	7.1	18.7
8 19	21 46.33	+ 3 3.3	1.386	2.375	6.7	19.4	8 19	21 45.83	-33 57.9	1.822	2.790	7.6	18.8
8 29	21 39.18	+ 1 21.9	1.393	2.378	7.0	19.4	8 29	21 35.38	-33 55.1	1.853	2.788	9.7	18.9
9 8	21 33.20	- 0 28.6	1.426	2.382	9.9	19.6	9 8	21 26.41	-33 29.8	1.909	2.786	12.3	19.1
9 18	21 29.21	- 2 18.2	1.482	2.386	13.4	19.8	9 18	21 19.75	-32 44.6	1.986	2.784	14.9	19.2
162192	1999 <i>RY</i> ₂₈		8 17.3 30°32	8°0/25.5	17		337987	2002 <i>CL</i> ₂₂₀		8 17.4 210°58	0°1/17.4	17	
7 10	22 0.76	+17 27.7	0.833	1.633	31.2	18.8	7 10	22 13.14	-10 33.1	2.075	2.899	14.0	21.7
7 20	22 1.32	+15 42.1	0.774	1.643	27.0	18.5	7 20	22 8.93	-11 1.7	1.987	2.894	11.0	21.5
7 30	21 58.55	+12 42.9	0.726	1.654	21.7	18.3	7 30	22 2.67	-11 41.9	1.920	2.888	7.4	21.3
8 9	21 53.17	+ 8 27.8	0.694	1.666	15.5	18.0	8 9	21 54.85	-12 30.2	1.879	2.882	3.5	21.0
8 19	21 46.41	+ 3 10.3	0.683	1.679	9.6	17.7	8 19	21 46.17	-13 22.2	1.864	2.876	0.7	20.8
8 29	21 39.98	- 2 37.1	0.697	1.694	8.4	17.7	8 29	21 37.54	-14 12.6	1.879	2.869	4.8	21.1
9 8	21 35.52	- 8 12.1	0.735	1.709	13.2	18.1	9 8	21 29.89	-14 56.6	1.920	2.862	8.7	21.3
9 18	21 34.13	-13 1.5	0.797	1.726	18.8	18.5	9 18	21 23.95	-15 30.9	1.986	2.855	12.2	21.5
350240	2012 <i>TF</i> ₆₉		8 17.3 225°55	1°9/19.0	18		514029	2014 <i>KF</i> ₆₈		8 17.4 110°08	4°0/13.4	18	
7 10	22 11.62	- 5 32.9	2.139	2.946	14.2	21.4	7 10	22 11.48	-21 56.2	2.151	3.001	12.6	21.4
7 20	22 7.67	- 5 47.2	2.046	2.939	11.4	21.2	7 20	22 7.59	-23 0.6	2.081	3.004	9.8	21.2
7 30	22 1.78	- 6 15.5	1.974	2.931	8.1	21.0	7 30	22 1.71	-24 8.8	2.035	3.008	6.7	21.0
8 9	21 54.40	- 6 55.9	1.927	2.924	4.5	20.7	8 9	21 54.37	-25 14.8	2.014	3.011	4.3	20.9
8 19	21 46.20	- 7 45.1	1.906	2.915	1.9	20.6	8 19	21 46.28	-26 12.3	2.021	3.014	4.5	20.9
8 29	21 38.01	- 8 38.4	1.914	2.907	4.5	20.7	8 29	21 38.34	-26 56.3	2.055	3.018	7.0	21.1
9 8	21 30.71	- 9 30.7	1.949	2.898	8.2	20.9	9 8	21 31.45	-27 23.7	2.115	3.021	10.0	21.3
9 18	21 25.02	-10 17.7	2.009	2.889	11.6	21.1	9 18	21 26.27	-27 34.0	2.197	3.024	12.7	21.5
378280	2007 <i>EL</i> ₈₉		8 17.3 258°37	0°2/17.5	18		130382	2000 <i>HW</i> ₆₀		8 17.4 119°29	2°3/14.9	18	
7 10	22 13.54	-10 24.2	1.757	2.589	15.7	22.2	7 10	22 10.81	-19 34.2	2.655	3.492	10.9	20.2
7 20	22 9.72	-10 44.5	1.664	2.576	12.4	22.0	7 20	22 6.60	-20 10.3	2.582	3.498	8.4	20.1
7 30	22 3.47	-11 18.3	1.592	2.562	8.5	21.7	7 30	22 0.80	-20 49.7	2.532	3.505	5.6	19.9
8 9	21 55.30	-12 2.2	1.543	2.548	4.1	21.4	8 9	21 53.88	-21 28.6	2.509	3.511	3.0	19.7
8 19	21 46.01	-12 51.4	1.521	2.533	0.8	21.2	8 19	21 46.40	-22 3.1	2.514	3.516	2.7	19.7
8 29	21 36.69	-13 39.8	1.526	2.518	5.5	21.5	8 29	21 39.07	-22 29.8	2.548	3.522	5.1	19.9
9 8	21 28.49	-14 21.9	1.557	2.503	10.0	21.7	9 8	21 32.56	-22 46.2	2.609	3.528	7.8	20.1
9 18	21 22.31	-14 53.6	1.610	2.488	14.1	21.9	9 18	21 27.43	-22 51.5	2.695	3.534	10.3	20.3
516119	2015 <i>UC</i> ₅₅		8 17.3 266°12	3°2/20.7	18		165181	2000 <i>QV</i> ₁₇₀		8 17.4 247°63	2°9/19.2	18	
7 10	22 8.04	- 0 48.3	2.446	3.230	13.2	21.7	7 10	22 14.67	- 5 10.2	1.546	2.367	18.0	20.2
7 20	22 4.64	- 0 55.5	2.350	3.223	10.8	21.5	7 20	22 10.86	- 5 2.8	1.459	2.359	14.6	19.9
7 30	21 59.61	- 1 17.6	2.276	3.217	8.1	21.3	7 30	22 4.39	- 5 12.8	1.390	2.350	10.5	19.6
8 9	21 53.35	- 1 53.5	2.226	3.210	5.2	21.1	8 9	21 55.80	- 5 39.2	1.345	2.341	6.1	19.4
8 19	21 46.42	- 2 41.0	2.202	3.203	3.2	21.0	8 19	21 45.98	- 6 18.7	1.323	2.332	2.9	19.1
8 29	21 39.52	- 3 36.5	2.207	3.197	4.4	21.0	8 29	21 36.17	- 7 5.7	1.328	2.322	5.9	19.3
9 8	21 33.35	- 4 35.1	2.240	3.190	7.2	21.2	9 8	21 27.64	- 7 53.6	1.358	2.312	10.5	19.6
9 18	21 28.51	- 5 32.5	2.298	3.183	10.1	21.4	9 18	21 21.39	- 8 36.7	1.410	2.302	14.8	19.8
402386	2005 <i>YX</i> ₇₀		8 17.3 204°18	3°2/20.2	18		181651	2007 <i>UT</i> ₅₉		8 17.4 15°45	2°0/18.9	18	
7 10	22 12.58	- 2 39.8	2.656	3.434	12.4	20.7	7 10	22 10.81	- 6 23.8	1.782	2.606	15.9	20.4
7 20	22 7.95	- 2 16.4	2.561	3.431	10.2	20.6	7 20	22 7.35	- 6 28.5	1.704	2.607	12.7	20.2
7 30	22 1.71	- 2 3.8	2.489	3.428	7.6	20.4	7 30	22 1.71	- 6 48.2	1.646	2.608	9.0	20.0
8 9	21 54.29	- 2 1.6	2.442	3.425	4.9	20.2	8 9	21 54.43	- 7 20.7	1.611	2.610	4.9	19.7
8 19	21 46.24	- 2 8.8	2.422	3.422	3.2	20.1	8 19	21 46.30	- 8 2.3	1.602	2.612	2.0	19.5
8 29	21 38.24	- 2 23.1	2.432	3.418	4.3	20.2	8 29	21 38.30	- 8 47.9	1.620	2.614	4.9	19.8
9 8	21 30.98	- 2 41.8	2.470	3.415	6.9	20.3	9 8	21 31.43	- 9 32.0	1.663	2.617	9.0	20.0
9 18	21 25.04	- 3 1.9	2.534	3.411	9.6	20.5	9 18	21 26.44	-10 10.2	1.731	2.619	12.7	20.2
438687	2008 <i>JE</i> ₃₇		8 17.3 283°30	1°4/15.9	18		262089	2006 <i>RG</i> ₇₈		8 17.4 173°87	3°6/14.9	18	
7 10	22 8.40	-13 36.4	2.255	3.092	12.6	20.8	7 10	22 18.02	-20 3.1	1.651	2.502	15.8	21.0
7 20	22 5.15	-14 32.4	2.164	3.081	9.7	20.6	7 20	22 13.26	-20 42.1	1.580	2.503	12.3	20.8
7 30	22 0.08	-15 38.7	2.097	3.071	6.5	20.3	7 30	22 5.82	-21 26.6	1.529	2.504	8.3	20.6
8 9	21 53.62	-16 51.1	2.055	3.061	3.0	20.1	8 9	21 56.38	-22 10.2	1.503	2.505	4.6	20.4
8 19	21 46.37	-18 3.9	2.042	3.051	1.8	20.0	8 19	21 45.92	-22 45.9	1.503	2.506	4.1	20.4
8 29	21 39.14	-19 11.4	2.056	3.040	5.2	20.2	8 29	21 35.71	-23 8.0	1.529	2.506	7.5	20.6
9 8	21 32.73	-20 8.7	2.098	3.030	8.7	20.4	9 8	21 26.99	-23 13.6	1.581	2.506	11.5	20.8
9 18	21 27.82	-20 52.8	2.164	3.020	11.8	20.6	9 18	21 20.63	-23 2.5	1.654	2.505	15.1	21.0
429395	2010 <i>RK</i> ₄₉		8 17.3 303°55	1°4/16.7	18		123193	2000 <i>UD</i> ₁₅		8			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
66900	1999 VO ₁₂₆		8 17.4 300°51	1.4/18.5	18		59503	1999 JU ₉		8 17.4 233°64	2.5/19.6	18	
7 10	22 10.33	- 7 18.7	1.718	2.548	16.1	19.8	7 10	22 10.77	- 3 13.2	1.846	2.655	16.0	18.9
7 20	22 7.22	- 7 33.0	1.629	2.537	12.9	19.5	7 20	22 7.35	- 3 36.8	1.757	2.649	13.0	18.7
7 30	22 1.79	- 8 3.2	1.559	2.525	9.0	19.3	7 30	22 1.77	- 4 19.2	1.689	2.644	9.3	18.5
8 9	21 54.55	- 8 46.8	1.513	2.515	4.7	19.0	8 9	21 54.51	- 5 18.5	1.644	2.638	5.4	18.2
8 19	21 46.27	- 9 39.5	1.493	2.504	1.5	18.8	8 19	21 46.32	- 6 30.2	1.624	2.632	2.5	18.0
8 29	21 38.00	-10 35.4	1.499	2.493	5.2	19.0	8 29	21 38.15	- 7 48.3	1.633	2.626	5.0	18.2
9 8	21 30.81	-11 28.2	1.530	2.483	9.6	19.2	9 8	21 31.00	- 9 5.5	1.667	2.620	9.0	18.4
9 18	21 25.59	-12 12.8	1.584	2.472	13.6	19.5	9 18	21 25.67	-10 15.7	1.726	2.614	12.7	18.6
58527	1997 BF ₄		8 17.4 166°05	0°2/17.2	18		513560	2010 RT ₁₄₇		8 17.4 315°33	6°5/11.9	18	
7 10	22 11.33	-11 42.5	2.562	3.380	11.8	20.8	7 10	22 16.84	-31 41.1	2.193	3.036	12.6	20.8
7 20	22 7.06	-12 6.8	2.479	3.384	9.2	20.6	7 20	22 11.83	-32 28.4	2.125	3.035	10.2	20.6
7 30	22 1.15	-12 39.3	2.419	3.387	6.1	20.4	7 30	22 4.59	-33 11.6	2.080	3.034	7.9	20.5
8 9	21 54.07	-13 17.1	2.385	3.389	2.8	20.2	8 9	21 55.73	-33 44.2	2.060	3.032	6.6	20.4
8 19	21 46.39	-13 56.6	2.380	3.392	0.6	20.1	8 19	21 46.10	-34 0.6	2.066	3.031	7.0	20.4
8 29	21 38.81	-14 34.2	2.404	3.394	4.0	20.3	8 29	21 36.74	-33 57.6	2.098	3.030	8.9	20.5
9 8	21 32.03	-15 6.4	2.456	3.395	7.2	20.5	9 8	21 28.64	-33 34.6	2.155	3.029	11.3	20.7
9 18	21 26.62	-15 30.9	2.533	3.397	10.1	20.7	9 18	21 22.53	-32 53.5	2.234	3.028	13.6	20.8
331134	2010 VQ ₉₁		8 17.4 314°61	2°9/19.1	18		121897	2000 DZ ₃₄		8 17.4 81°42	0°6/16.9	17	
7 10	22 12.31	- 6 8.0	1.367	2.206	19.0	20.9	7 10	22 14.82	-11 41.5	1.545	2.387	17.0	20.1
7 20	22 9.32	- 5 55.1	1.286	2.197	15.4	20.6	7 20	22 10.65	-12 16.5	1.486	2.404	13.2	19.9
7 30	22 3.51	- 6 0.2	1.223	2.188	11.0	20.3	7 30	22 3.97	-13 4.8	1.447	2.421	8.8	19.7
8 9	21 55.45	- 6 22.1	1.181	2.180	6.2	20.0	8 9	21 55.48	-14 0.9	1.432	2.437	4.0	19.5
8 19	21 46.10	- 6 57.3	1.163	2.172	2.9	19.8	8 19	21 46.15	-14 58.3	1.442	2.454	1.2	19.3
8 29	21 36.79	- 7 40.0	1.169	2.164	6.2	20.0	8 29	21 37.20	-15 50.1	1.479	2.470	5.9	19.7
9 8	21 28.90	- 8 23.2	1.199	2.157	11.1	20.3	9 8	21 29.71	-16 31.1	1.542	2.486	10.3	20.0
9 18	21 23.47	- 9 0.8	1.250	2.150	15.7	20.5	9 18	21 24.49	-16 58.4	1.626	2.502	14.0	20.2
296579	2009 RC ₆		8 17.4 3°22	3°4/15.4	17		418011	2007 TC ₄₅₂		8 17.4 310°46	7°9/21.8	18	
7 10	22 4.09	-16 20.7	0.930	1.832	20.7	19.4	7 10	22 8.84	+ 2 6.0	1.249	2.069	21.5	20.5
7 20	22 3.82	-17 2.7	0.877	1.829	16.1	19.1	7 20	22 7.11	+ 2 58.5	1.154	2.043	18.4	20.2
7 30	22 0.18	-17 59.2	0.840	1.829	10.7	18.8	7 30	22 2.41	+ 3 27.6	1.075	2.018	14.7	19.9
8 9	21 53.96	-19 1.5	0.823	1.830	5.3	18.5	8 9	21 55.14	+ 3 29.4	1.014	1.992	10.8	19.6
8 19	21 46.41	-19 59.0	0.825	1.834	4.1	18.5	8 19	21 46.15	+ 3 2.0	0.975	1.968	8.1	19.4
8 29	21 39.24	-20 41.4	0.849	1.839	9.1	18.8	8 29	21 36.83	+ 2 8.1	0.957	1.943	9.1	19.4
9 8	21 34.03	-21 2.4	0.892	1.847	14.4	19.1	9 8	21 28.75	+ 0 55.7	0.960	1.920	13.0	19.5
9 18	21 31.82	-21 0.1	0.953	1.856	19.1	19.4	9 18	21 23.27	- 0 24.7	0.984	1.897	17.6	19.7
215128	1999 RO ₁₃₈		8 17.4 348°69	9°5/22.9	18		353834	2012 UX ₁₃₄		8 17.4 250°55	4°3/20.9	18	
7 10	22 9.17	+ 4 33.6	1.343	2.145	21.2	19.3	7 10	22 12.26	+ 0 11.9	2.164	2.942	14.9	21.2
7 20	22 6.89	+ 5 59.8	1.265	2.136	18.3	19.1	7 20	22 8.25	+ 0 28.5	2.062	2.928	12.4	21.0
7 30	22 1.89	+ 7 4.0	1.203	2.128	15.0	18.9	7 30	22 2.26	+ 0 29.5	1.980	2.914	9.5	20.8
8 9	21 54.71	+ 7 41.8	1.160	2.121	11.8	18.7	8 9	21 54.73	+ 0 14.7	1.921	2.900	6.4	20.6
8 19	21 46.25	+ 7 50.5	1.138	2.116	9.7	18.5	8 19	21 46.28	- 0 14.7	1.889	2.885	4.4	20.5
8 29	21 37.80	+ 7 31.3	1.139	2.111	10.0	18.6	8 29	21 37.78	- 0 55.7	1.884	2.870	5.4	20.5
9 8	21 30.70	+ 6 50.1	1.161	2.108	12.5	18.7	9 8	21 30.11	- 1 43.5	1.906	2.854	8.4	20.7
9 18	21 25.99	+ 5 55.5	1.203	2.107	15.9	18.9	9 18	21 24.02	- 2 33.1	1.953	2.838	11.6	20.8
268917	2007 CD ₂₇		8 17.4 200°81	0°3/17.2	18		68439	2001 RB ₁₀₄		8 17.4 210°16	2°1/15.4	18	
7 10	22 15.29	-11 52.1	1.970	2.796	14.5	21.8	7 10	22 11.44	-16 29.1	2.072	2.915	13.3	19.0
7 20	22 10.71	-12 14.5	1.884	2.793	11.4	21.6	7 20	22 7.63	-17 15.3	1.994	2.914	10.3	18.8
7 30	22 3.93	-12 47.6	1.820	2.789	7.7	21.4	7 30	22 1.81	-18 9.2	1.938	2.913	6.8	18.6
8 9	21 55.48	-13 27.6	1.781	2.785	3.6	21.1	8 9	21 54.47	-19 5.9	1.908	2.912	3.4	18.4
8 19	21 46.12	-14 10.1	1.769	2.781	0.8	20.9	8 19	21 46.35	-19 59.8	1.904	2.911	2.6	18.3
8 29	21 36.85	-14 49.9	1.785	2.775	5.1	21.2	8 29	21 38.35	-20 45.7	1.929	2.910	5.8	18.5
9 8	21 28.67	-15 22.5	1.828	2.770	9.2	21.4	9 8	21 31.36	-21 19.4	1.979	2.908	9.3	18.7
9 18	21 22.34	-15 45.2	1.896	2.763	12.7	21.6	9 18	21 26.09	-21 39.3	2.053	2.907	12.5	18.9
235741	2004 TH ₂₈₆		8 17.4 226°82	1°4/18.5	18		373740	2002 TY ₆₀		8 17.4 271°95	1°0/16.7	17	
7 10	22 12.28	- 7 11.8	1.914	2.733	15.1	21.3	7 10	22 14.72	-13 34.7	1.665	2.508	16.0	21.5
7 20	22 8.43	- 7 25.7	1.827	2.728	12.1	21.1	7 20	22 10.90	-13 58.9	1.570	2.489	12.6	21.2
7 30	22 2.43	- 7 53.8	1.761	2.724	8.4	20.9	7 30	22 4.47	-14 34.8	1.495	2.469	8.5	20.9
8 9	21 54.79	- 8 33.7	1.719	2.719	4.4	20.6	8 9	21 55.90	-15 18.2	1.444	2.449	4.0	20.6
8 19	21 46.26	- 9 21.4	1.704	2.714	1.4	20.4	8 19	21 46.06	-16 3.5	1.419	2.429	1.6	20.4
8 29	21 37.79	-10 11.8	1.716	2.709	4.8	20.6	8 29	21 36.12	-16 44.1	1.420	2.409	6.3	20.7
9 8	21 30.35	-10 59.4	1.754	2.704	8.9	20.9	9 8	21 27.35	-17 14.7	1.446	2.389	11.0	20.9
9 18	21 24.72	-11 39.9	1.817	2.698	12.5	21.1	9 18	21 20.79	-17 32.0	1.495	2.368	15.2	21.1
110342	2001 SN ₂₉₂		8 17.4 329°36	5°9/21.4	16		293080	2006 WR ₁₈₁		8 17.4 353°39	0°7/17.8	16	
7 10	22 8.11	+ 0 53.0	1.376	2.195	20.0	19.3	7 10	22 5.61	-10 20.9	1.016	1.898	20.9	20.1
7 20	22 6.02	+ 1 17.4	1.292	2.183	16.7	19.0	7 20	22 4.80	-10 23.3	0.950	1.890	16.6	19.8
7 30	22 1.29	+ 1 18.0	1.225	2.172	12.9	18.8	7 30	22 0.81	-10 44.7	0.902	1.883	11.4	19.5
8 9	21 54.43	+ 0 53.4	1.178	2.162	8.9	18.5	8 9	21 54.29	-11 21.5	0.872	1.878	5.5	19.1
8 19	21 46.31	+ 0 5.0	1.154	2.152	6.1	18.3	8 19	21 46.38	-12 7.2	0.863	1.875	1.0	18.8
8 29	21 38.17	- 1 1.6	1.153	2.143	7.2	18.4	8 29	21 38.67	-12 53.0	0.876	1.873	7.1	19.2
9 8	21 31.32	- 2 18.0	1.175	2.135	11.1	18.6	9 8	21 32.73	-13 30.6	0.909	1.873	12.8	19.5
9 18	21 26.78	- 3 34.8	1.218	2.127	15.3	18.8	9 18	21 29.66	-13 54.4	0.961	1.875	17.9	19.8
19168	1991 EO ₅		8 17.4 307°12	2°0/19.4	18		291176	2006 AY ₃₉		8 17.4 307°84	0°2/17.2	17	
7 10	22 7.47	- 3 59.8											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
130958	2000 <i>WD</i> ₉₆		8 17.4 253°51	2°6/15.2	18		471707	2012 <i>TS</i> ₂₉₀		8 17.4 302°12	2°4/18.7	18	
7 10	22 13.94	-17 45.4	1.935	2.779	14.0	20.3	7 10	22 17.20	-8 53.9	1.684	2.508	16.7	20.6
7 20	22 9.86	-18 27.9	1.846	2.767	10.9	20.0	7 20	22 12.64	-8 14.8	1.593	2.496	13.4	20.4
7 30	22 3.49	-19 18.0	1.779	2.754	7.3	19.8	7 30	22 5.50	-7 45.7	1.523	2.485	9.5	20.1
8 9	21 55.34	-20 10.5	1.738	2.741	3.8	19.5	8 9	21 56.34	-7 25.7	1.476	2.474	5.3	19.8
8 19	21 46.18	-20 59.4	1.723	2.728	3.1	19.5	8 19	21 46.03	-7 13.5	1.455	2.464	2.4	19.6
8 29	21 37.05	-21 38.7	1.735	2.715	6.5	19.7	8 29	21 35.77	-7 6.3	1.460	2.453	5.6	19.8
9 8	21 29.00	-22 4.5	1.774	2.701	10.3	19.9	9 8	21 26.75	-7 1.2	1.492	2.443	10.0	20.1
9 18	21 22.87	-22 14.9	1.835	2.687	13.8	20.1	9 18	21 19.92	-6 55.3	1.546	2.433	14.0	20.3
220257	2002 <i>XR</i> ₁₁₉		8 17.4 353°68	2°6/15.8	18		523037	2016 <i>PN</i> ₁₂₆		8 17.4 15°20	2°2/18.9	16	
7 10	22 7.03	-15 37.7	1.064	1.953	19.7	19.5	7 10	22 11.12	-6 13.3	1.588	2.418	17.2	21.3
7 20	22 5.86	-16 11.5	1.000	1.945	15.4	19.2	7 20	22 7.87	-6 15.0	1.513	2.419	13.8	21.1
7 30	22 1.48	-16 59.5	0.954	1.939	10.3	18.9	7 30	22 2.22	-6 33.3	1.458	2.421	9.7	20.9
8 9	21 54.59	-17 54.6	0.928	1.935	4.9	18.6	8 9	21 54.76	-7 6.1	1.425	2.424	5.4	20.6
8 19	21 46.33	-18 47.7	0.923	1.932	3.3	18.5	8 19	21 46.35	-7 49.3	1.417	2.426	2.2	20.4
8 29	21 38.32	-19 29.2	0.940	1.931	8.4	18.8	8 29	21 38.11	-8 37.1	1.435	2.430	5.3	20.7
9 8	21 32.10	-19 52.8	0.979	1.931	13.7	19.1	9 8	21 31.12	-9 23.4	1.478	2.433	9.7	20.9
9 18	21 28.76	-19 55.8	1.035	1.933	18.4	19.4	9 18	21 26.23	-10 3.1	1.543	2.437	13.6	21.2
129418	2617 <i>T</i> ₋₃		8 17.4 346°44	0°1/17.3	18		336133	2008 <i>PT</i> ₁₈		8 17.4 310°02	6°5/12.0	18	
7 10	22 10.51	-12 40.1	1.795	2.638	15.0	19.8	7 10	22 9.89	-22 38.6	1.447	2.322	16.2	19.6
7 20	22 7.19	-12 43.8	1.713	2.631	11.8	19.6	7 20	22 7.80	-24 9.6	1.357	2.294	12.8	19.3
7 30	22 1.66	-12 57.1	1.652	2.625	7.9	19.3	7 30	22 2.79	-25 51.4	1.288	2.265	9.2	19.0
8 9	21 54.46	-13 16.9	1.615	2.620	3.7	19.1	8 9	21 55.29	-27 34.4	1.241	2.237	6.7	18.8
8 19	21 46.37	-13 39.3	1.604	2.615	0.8	18.8	8 19	21 46.21	-29 6.9	1.219	2.209	7.4	18.8
8 29	21 38.41	-13 59.8	1.619	2.611	5.2	19.2	8 29	21 36.92	-30 17.9	1.221	2.181	11.0	18.9
9 8	21 31.56	-14 14.5	1.659	2.608	9.4	19.4	9 8	21 28.93	-31 0.6	1.245	2.154	15.2	19.1
9 18	21 26.62	-14 20.8	1.723	2.605	13.0	19.6	9 18	21 23.50	-31 13.3	1.287	2.128	19.2	19.3
357197	2002 <i>FD</i> ₃₅		8 17.4 130°06	4°1/13.4	18		362301	2009 <i>SU</i> ₃₀₄		8 17.4 290°08	2°2/15.4	18	
7 10	22 15.37	-26 5.2	2.621	3.458	11.0	20.9	7 10	22 12.49	-18 54.5	2.358	3.196	12.0	20.8
7 20	22 10.16	-26 43.4	2.556	3.468	8.6	20.7	7 20	22 8.17	-19 18.5	2.278	3.195	9.3	20.6
7 30	22 3.20	-27 20.8	2.514	3.479	6.2	20.6	7 30	22 2.03	-19 46.5	2.221	3.194	6.2	20.4
8 9	21 55.02	-27 52.8	2.500	3.489	4.3	20.5	8 9	21 54.56	-20 14.5	2.190	3.193	3.2	20.2
8 19	21 46.29	-28 15.1	2.513	3.498	4.5	20.5	8 19	21 46.42	-20 38.6	2.186	3.192	2.5	20.2
8 29	21 37.79	-28 24.8	2.555	3.508	6.4	20.7	8 29	21 38.42	-20 55.1	2.211	3.190	5.3	20.4
9 8	21 30.29	-28 20.8	2.623	3.517	8.8	20.8	9 8	21 31.35	-21 1.7	2.263	3.189	8.4	20.6
9 18	21 24.34	-28 3.4	2.715	3.526	11.0	21.0	9 18	21 25.85	-20 57.4	2.339	3.188	11.3	20.8
130547	2000 <i>QX</i> ₂₂₉		8 17.4 39°48	0°1/17.4	18		344990	2005 <i>AY</i> ₁₇		8 17.4 194°79	3°9/13.5	18	
7 10	22 11.19	-8 57.2	1.266	2.121	19.3	19.4	7 10	22 12.22	-19 54.8	2.019	2.868	13.4	20.6
7 20	22 8.50	-9 42.2	1.201	2.126	15.2	19.2	7 20	22 8.41	-21 16.0	1.943	2.867	10.3	20.4
7 30	22 2.93	-10 47.7	1.155	2.130	10.3	18.9	7 30	22 2.45	-22 44.2	1.891	2.865	7.0	20.2
8 9	21 55.16	-12 8.0	1.130	2.136	4.8	18.6	8 9	21 54.84	-24 12.5	1.865	2.864	4.3	20.0
8 19	21 46.24	-13 34.6	1.129	2.141	0.9	18.4	8 19	21 46.35	-25 33.4	1.866	2.862	4.5	20.0
8 29	21 37.56	-14 57.3	1.153	2.147	6.6	18.8	8 29	21 37.94	-26 40.2	1.895	2.859	7.4	20.2
9 8	21 30.48	-16 7.3	1.201	2.153	11.7	19.1	9 8	21 30.59	-27 28.5	1.949	2.857	10.6	20.4
9 18	21 25.96	-16 59.3	1.269	2.159	16.2	19.4	9 18	21 25.06	-27 57.0	2.027	2.854	13.6	20.6
482409	2012 <i>BO</i> ₇₃		8 17.4 153°63	0°2/17.1	18		308216	2005 <i>EV</i> ₁₄₀		8 17.4 352°85	0°4/17.2	18	
7 10	22 8.34	-9 40.4	2.434	3.255	12.2	20.9	7 10	22 17.54	-16 0.7	1.415	2.269	17.7	19.3
7 20	22 4.89	-10 37.3	2.351	3.257	9.5	20.7	7 20	22 13.25	-15 27.6	1.339	2.264	13.9	19.0
7 30	21 59.81	-11 45.9	2.290	3.259	6.4	20.6	7 30	22 6.04	-14 59.8	1.284	2.259	9.4	18.7
8 9	21 53.51	-13 2.5	2.256	3.260	2.9	20.3	8 9	21 56.60	-14 34.5	1.250	2.256	4.4	18.4
8 19	21 46.57	-14 21.9	2.251	3.262	0.7	20.2	8 19	21 46.02	-14 8.6	1.242	2.253	1.0	18.2
8 29	21 39.69	-15 38.9	2.274	3.264	4.3	20.4	8 29	21 35.72	-13 39.5	1.259	2.252	6.3	18.5
9 8	21 33.59	-16 48.3	2.326	3.265	7.6	20.6	9 8	21 27.06	-13 5.6	1.300	2.251	11.2	18.8
9 18	21 28.85	-17 46.7	2.403	3.266	10.5	20.8	9 18	21 21.00	-12 26.5	1.364	2.251	15.4	19.1
335453	2005 <i>UC</i> ₅₀₈		8 17.4 21°56	5°1/23.3	17		128626	2004 <i>RF</i> ₇		8 17.4 78°10	5°1/12.6	18	
7 10	22 5.14	+ 5 26.9	2.388	3.146	14.2	20.5	7 10	22 13.12	-26 39.0	2.227	3.076	12.3	19.8
7 20	22 2.38	+ 5 30.6	2.310	3.156	12.0	20.3	7 20	22 8.87	-27 35.2	2.160	3.079	9.7	19.6
7 30	21 58.09	+ 5 16.3	2.252	3.166	9.5	20.2	7 30	22 2.59	-28 31.3	2.116	3.082	7.0	19.5
8 9	21 52.69	+ 4 44.2	2.216	3.177	7.0	20.1	8 9	21 54.84	-29 21.2	2.098	3.084	5.2	19.4
8 19	21 46.74	+ 3 56.0	2.206	3.188	5.3	20.0	8 19	21 46.37	-29 59.2	2.106	3.087	5.6	19.4
8 29	21 40.90	+ 2 55.3	2.222	3.200	5.4	20.0	8 29	21 38.11	-30 21.3	2.142	3.090	7.7	19.6
9 8	21 35.84	+ 1 47.2	2.265	3.212	7.3	20.1	9 8	21 30.92	-30 25.7	2.202	3.093	10.3	19.7
9 18	21 32.08	+ 0 37.0	2.334	3.225	9.7	20.3	9 18	21 25.51	-30 12.9	2.285	3.096	12.8	19.9
95572	2002 <i>EJ</i> ₁₃₀		8 17.4 45°51	7°3/25.2	18		237032	2008 <i>SZ</i> ₇₂		8 17.4 317°85	5°2/21.1	18	
7 10	22 7.83	+10 15.4	1.989	2.726	17.3	18.9	7 10	22 7.51	+ 0 11.4	1.500	2.316	18.7	19.4
7 20	22 4.77	+10 29.1	1.918	2.741	14.9	18.7	7 20	22 5.47	+ 0 27.3	1.405	2.295	15.7	19.1
7 30	21 59.83	+10 18.9	1.864	2.756	12.3	18.6	7 30	22 0.92	+ 0 21.0	1.327	2.275	12.0	18.8
8 9	21 53.54	+ 9 43.7	1.832	2.772	9.6	18.5	8 9	21 54.32	- 0 8.8	1.270	2.255	8.1	18.6
8 19	21 46.58	+ 8 45.2	1.823	2.789	7.7	18.4	8 19	21 46.45	- 1 0.4	1.236	2.236	5.4	18.3
8 29	21 39.80	+ 7 27.5	1.839	2.805	7.4	18.4	8 29	21 38.44	- 2 8.9	1.226	2.217	6.7	18.4
9 8	21 34.00	+ 5 57.5	1.881	2.822	9.0	18.5	9 8	21 31.53	- 3 26.1	1.239	2.199	10.7	18.6
9 18	21 29.84	+ 4 22.9	1.948	2.839	11.3	18.7	9 18	21 26.76	- 4 43.4	1.275	2.182	14.9	18.8
335514	2005 <i>YW</i> ₁₆₉		8 17.4 28°57	6°0/21.3	18		133649	2003 <i>UF</i> ₁₅₅		8 17.4 46°24			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
141383	2002 AY ₇₁		8 17.4 323°46	1°6/16.1	18		252002	2000 EU ₁₇₀		8 17.4 142°17	3°9/12.7	18	
7 10	22 10.60	-15 17.3	1.872	2.719	14.3	19.8	7 10	22 12.77	-26 50.9	3.043	3.879	9.7	20.2
7 20	22 7.25	-15 49.0	1.789	2.711	11.1	19.6	7 20	22 7.99	-27 38.2	2.977	3.889	7.6	20.1
7 30	22 1.72	-16 29.6	1.727	2.703	7.4	19.4	7 30	22 1.71	-28 24.7	2.936	3.898	5.5	19.9
8 9	21 54.53	-17 14.8	1.690	2.695	3.5	19.1	8 9	21 54.37	-29 6.1	2.922	3.907	4.1	19.9
8 19	21 46.44	-17 59.1	1.679	2.688	2.1	19.0	8 19	21 46.54	-29 38.5	2.937	3.916	4.3	19.9
8 29	21 38.43	-18 36.9	1.695	2.681	5.8	19.2	8 29	21 38.86	-29 59.1	2.980	3.924	6.0	20.0
9 8	21 31.49	-19 4.2	1.736	2.675	9.8	19.5	9 8	21 31.99	-30 6.6	3.049	3.932	8.0	20.2
9 18	21 26.42	-19 18.4	1.801	2.668	13.3	19.7	9 18	21 26.43	-30 1.0	3.143	3.940	10.0	20.3
195413	2002 GC ₄₀		8 17.4 50°38	3°4/15.3	17		144936	2005 EQ ₁₃		8 17.4 43°19	2°7/15.9	17	
7 10	22 17.29	-19 59.1	1.468	2.327	16.9	19.8	7 10	22 15.15	-16 17.5	1.121	1.995	20.0	19.8
7 20	22 12.67	-20 25.6	1.418	2.346	13.1	19.6	7 20	22 11.70	-16 52.6	1.077	2.013	15.4	19.6
7 30	22 5.34	-20 56.6	1.389	2.366	8.7	19.4	7 30	22 5.04	-17 38.6	1.051	2.032	10.2	19.4
8 9	21 56.13	-21 25.7	1.383	2.386	4.6	19.2	8 9	21 56.10	-18 27.6	1.046	2.052	4.9	19.2
8 19	21 46.17	-21 46.5	1.402	2.407	3.8	19.2	8 19	21 46.22	-19 11.0	1.064	2.073	3.2	19.1
8 29	21 36.76	-21 54.4	1.447	2.428	7.4	19.5	8 29	21 36.99	-19 41.5	1.106	2.094	7.9	19.5
9 8	21 29.07	-21 47.5	1.516	2.449	11.3	19.7	9 8	21 29.79	-19 54.9	1.170	2.116	12.7	19.8
9 18	21 23.86	-21 26.3	1.607	2.470	14.8	20.0	9 18	21 25.48	-19 50.8	1.254	2.138	16.8	20.1
362880	2012 BW ₁₀₂		8 17.4 93°27	2°3/15.1	18		374026	2004 EA ₈₂		8 17.4 133°17	2°2/15.7	17	
7 10	22 10.63	-17 54.1	2.333	3.174	12.1	21.0	7 10	22 16.70	-16 17.5	1.832	2.671	14.9	21.4
7 20	22 6.74	-18 40.2	2.261	3.180	9.3	20.8	7 20	22 11.89	-17 2.0	1.765	2.682	11.5	21.2
7 30	22 1.07	-19 31.8	2.213	3.187	6.2	20.6	7 30	22 4.75	-17 54.6	1.719	2.693	7.6	21.0
8 9	21 54.13	-20 24.3	2.190	3.193	3.2	20.4	8 9	21 55.93	-18 49.7	1.699	2.704	3.7	20.8
8 19	21 46.54	-21 12.9	2.195	3.199	2.7	20.4	8 19	21 46.28	-19 40.9	1.706	2.714	2.7	20.7
8 29	21 39.11	-21 53.2	2.228	3.206	5.5	20.6	8 29	21 36.90	-20 22.5	1.741	2.723	6.2	21.0
9 8	21 32.60	-22 21.9	2.288	3.212	8.5	20.8	9 8	21 28.82	-20 50.9	1.802	2.732	10.0	21.2
9 18	21 27.61	-22 37.8	2.372	3.218	11.3	21.0	9 18	21 22.79	-21 4.4	1.886	2.740	13.4	21.4
64212	2001 TM ₁₀₅		8 17.4 135°01	3°7/15.1	18		491712	2012 UJ ₁₃₇		8 17.4 307°87	2°9/19.4	18	
7 10	22 19.04	-19 18.3	1.447	2.303	17.3	18.9	7 10	22 9.82	-5 3.8	1.578	2.407	17.4	21.0
7 20	22 14.38	-19 59.2	1.382	2.308	13.4	18.7	7 20	22 7.25	-4 59.1	1.476	2.381	14.2	20.7
7 30	22 6.76	-20 47.1	1.337	2.314	9.1	18.5	7 30	22 2.15	-5 12.1	1.394	2.355	10.3	20.4
8 9	21 56.92	-21 34.7	1.316	2.319	4.9	18.2	8 9	21 54.95	-5 42.2	1.333	2.329	6.0	20.1
8 19	21 46.00	-22 14.1	1.320	2.324	4.2	18.2	8 19	21 46.42	-6 26.7	1.296	2.304	2.9	19.9
8 29	21 35.43	-22 38.8	1.349	2.328	8.0	18.4	8 29	21 37.69	-7 20.1	1.284	2.279	5.8	20.0
9 8	21 26.57	-22 45.7	1.402	2.332	13.2	18.7	9 8	21 30.01	-8 15.5	1.297	2.254	10.5	20.2
9 18	21 20.35	-22 34.7	1.477	2.336	16.1	19.0	9 18	21 24.44	-9 6.4	1.332	2.230	15.0	20.4
382989	2005 EE ₅₀		8 17.4 139°10	0°9/18.3	16		307210	2002 GT ₇		8 17.4 161°53	6°2/11.9	18	
7 10	22 10.96	-6 37.6	2.171	2.982	13.8	21.4	7 10	22 17.87	-29 5.2	2.101	2.946	13.1	20.7
7 20	22 7.08	-7 17.9	2.092	2.989	10.9	21.3	7 20	22 12.75	-30 12.7	2.037	2.950	10.4	20.6
7 30	22 1.36	-8 12.4	2.035	2.997	7.5	21.1	7 30	22 5.32	-31 18.5	1.996	2.955	7.9	20.4
8 9	21 54.28	-9 17.7	2.003	3.004	3.8	20.9	8 9	21 56.19	-32 15.1	1.981	2.959	6.3	20.3
8 19	21 46.51	-10 29.1	1.999	3.010	1.0	20.6	8 19	21 46.23	-32 56.3	1.992	2.962	6.8	20.4
8 29	21 38.86	-11 41.0	2.024	3.017	4.3	20.9	8 29	21 36.52	-33 17.3	2.029	2.965	8.9	20.5
9 8	21 32.13	-12 48.0	2.076	3.023	7.9	21.1	9 8	21 28.09	-33 17.2	2.092	2.968	11.5	20.7
9 18	21 26.98	-13 45.7	2.154	3.028	11.1	21.4	9 18	21 21.70	-32 57.2	2.176	2.970	13.9	20.8
303179	2004 FJ ₃₇		8 17.4 207°25	1°5/16.2	18		430942	2005 UD ₂₃₄		8 17.4 356°61	0°6/16.9	15	
7 10	22 12.26	-15 12.1	2.053	2.892	13.5	20.7	7 10	22 4.81	-11 9.9	1.084	1.966	20.0	19.9
7 20	22 8.28	-15 43.7	1.974	2.891	10.5	20.4	7 20	22 4.02	-11 41.3	1.020	1.960	15.7	19.7
7 30	22 2.26	-16 23.3	1.917	2.891	7.0	20.2	7 30	22 0.22	-12 32.3	0.973	1.955	10.6	19.4
8 9	21 54.74	-17 6.7	1.885	2.890	3.3	20.0	8 9	21 54.06	-13 37.3	0.945	1.952	4.9	19.0
8 19	21 46.43	-17 48.8	1.880	2.889	1.9	19.9	8 19	21 46.62	-14 47.8	0.939	1.951	1.4	18.8
8 29	21 38.25	-18 24.9	1.903	2.888	5.4	20.1	8 29	21 39.37	-15 53.5	0.956	1.951	7.2	19.2
9 8	21 31.10	-18 51.3	1.952	2.888	9.0	20.4	9 8	21 33.79	-16 45.6	0.994	1.953	12.7	19.5
9 18	21 25.69	-19 5.9	2.025	2.887	12.3	20.6	9 18	21 30.90	-17 18.9	1.051	1.957	17.5	19.8
46627	1994 PG ₂₄		8 17.4 252°52	0°1/17.3	18		341983	2008 QV ₄₀		8 17.4 87°15	4°5/21.9	17	
7 10	22 13.73	-10 47.9	1.763	2.596	15.7	19.2	7 10	22 12.96	+3 22.1	1.878	2.650	17.1	20.4
7 20	22 9.92	-11 15.6	1.670	2.583	12.4	18.9	7 20	22 8.74	+3 2.6	1.816	2.676	14.1	20.2
7 30	22 3.69	-11 56.9	1.599	2.569	8.4	18.6	7 30	22 2.49	+2 21.1	1.772	2.703	10.7	20.1
8 9	21 55.54	-12 48.3	1.551	2.555	4.0	18.4	8 9	21 54.83	+1 19.3	1.752	2.728	7.2	19.9
8 19	21 46.27	-13 44.3	1.529	2.541	0.8	18.1	8 19	21 46.52	+0 1.1	1.758	2.753	4.7	19.8
8 29	21 36.96	-14 38.6	1.535	2.527	5.6	18.4	8 29	21 38.50	-1 27.2	1.791	2.778	5.5	19.9
9 8	21 28.75	-15 25.3	1.567	2.512	10.1	18.6	9 8	21 31.64	-2 57.9	1.851	2.802	8.4	20.2
9 18	21 22.56	-16 0.4	1.621	2.496	14.1	18.8	9 18	21 26.59	-4 24.2	1.937	2.826	11.5	20.4
513061	2017 WR ₁₇		8 17.4 253°46	1°2/18.2	18		509673	2008 JC ₂₃		8 17.4 54°34	3°4/13.9	18	
7 10	22 14.89	-8 20.9	1.772	2.594	16.0	22.2	7 10	22 10.33	-20 8.5	2.186	3.035	12.5	21.3
7 20	22 10.85	-8 32.2	1.673	2.578	12.8	21.9	7 20	22 6.73	-21 11.1	2.115	3.038	9.6	21.1
7 30	22 4.35	-8 57.9	1.596	2.561	8.9	21.7	7 30	22 1.21	-22 18.8	2.066	3.040	6.5	20.9
8 9	21 55.88	-9 35.7	1.542	2.543	4.6	21.4	8 9	21 54.27	-23 26.0	2.043	3.043	3.9	20.7
8 19	21 46.20	-10 21.5	1.514	2.525	1.2	21.1	8 19	21 46.61	-24 26.6	2.048	3.046	3.9	20.7
8 29	21 36.43	-11 9.7	1.513	2.506	5.4	21.3	8 29	21 39.09	-25 15.5	2.080	3.048	6.5	20.9
9 8	21 27.73	-11 54.4	1.538	2.487	9.9	21.6	9 8	21 32.53	-25 49.3	2.138	3.051	9.6	21.1
9 18	21 21.05	-12 31.1	1.587	2.467	14.1	21.8	9 18	21 27.61	-26 6.8	2.219	3.054	12.3	21.3
354121	2002 AA ₁₆₃		8 17.4 87°65	0°3/17.8	17		339365	2005 AF ₄₄		8 17.4 284°27	0°4/17.1	18	
7 10	22 10.28	-7 48.4	2.374	3.185									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
213869	2003 SG ₁₇₀	8 17.4 177°09' 12.4"/1.5 18						68228	2001 DD ₂₂	8 17.4 321°41' 11.7"/9.2 18				
7 10	22 24.08	+29 57.3	2.446	2.969	18.6	23.0	7 10	22 19.58	-38 40.5	1.506	2.361	16.7	17.7	
7 20	22 17.43	+30 33.5	2.349	2.975	17.4	22.8	7 20	22 15.60	-39 55.8	1.437	2.343	14.4	17.5	
7 30	22 8.47	+30 41.7	2.265	2.979	16.0	22.7	7 30	22 8.09	-41 1.6	1.387	2.325	12.5	17.4	
8 9	21 57.72	+30 16.6	2.198	2.981	14.5	22.6	8 9	21 57.78	-41 46.1	1.359	2.307	11.7	17.3	
8 19	21 45.97	+29 15.1	2.152	2.981	13.1	22.5	8 19	21 45.99	-41 59.4	1.353	2.290	12.5	17.3	
8 29	21 34.26	+27 37.7	2.129	2.979	12.4	22.5	8 29	21 34.51	-41 35.8	1.368	2.274	14.6	17.4	
9 8	21 23.64	+25 29.7	2.132	2.975	12.6	22.5	9 8	21 25.05	-40 36.4	1.404	2.258	17.3	17.5	
9 18	21 14.95	+23 0.0	2.161	2.969	13.5	22.5	9 18	21 18.76	-39 6.8	1.458	2.244	19.9	17.7	
445347	2010 MQ ₇₆	8 17.4 312°59' 0°8/18.1 18						235256	2003 SS ₃₅₃	8 17.4 343°04' 0°6/17.9 18				
7 10	22 12.30	-10 12.3	2.071	2.895	14.0	21.4	7 10	22 6.99	-7 50.8	1.472	2.320	17.4	19.9	
7 20	22 8.31	-10 10.5	1.984	2.890	11.0	21.2	7 20	22 5.00	-8 30.6	1.393	2.313	13.8	19.6	
7 30	22 2.32	-10 18.5	1.918	2.884	7.6	21.0	7 30	22 0.54	-9 30.1	1.333	2.306	9.5	19.4	
8 9	21 54.82	-10 34.1	1.877	2.879	3.8	20.7	8 9	21 54.15	-10 45.2	1.295	2.300	4.6	19.1	
8 19	21 46.52	-10 54.2	1.863	2.874	0.9	20.5	8 19	21 46.67	-12 9.2	1.282	2.294	0.8	18.8	
8 29	21 38.31	-11 15.2	1.876	2.869	4.5	20.8	8 29	21 39.25	-13 33.3	1.295	2.289	5.8	19.1	
9 8	21 31.07	-11 33.5	1.916	2.865	8.3	21.0	9 8	21 33.07	-14 49.0	1.331	2.285	10.6	19.4	
9 18	21 25.52	-11 46.2	1.981	2.860	11.7	21.2	9 18	21 29.04	-15 50.1	1.390	2.282	14.9	19.6	
507233	2011 AM ₄₀	8 17.4 252°57' 0°4/17.1 18						245537	2005 TW ₂₆	8 17.4 359°31' 0°1/17.5 18				
7 10	22 12.28	-9 17.1	1.770	2.601	15.7	21.9	7 10	22 8.40	-11 10.8	1.610	2.460	16.1	20.0	
7 20	22 8.86	-10 14.3	1.674	2.586	12.4	21.6	7 20	22 5.81	-11 27.5	1.535	2.457	12.6	19.7	
7 30	22 3.06	-11 29.3	1.599	2.570	8.4	21.4	7 30	22 0.90	-11 57.1	1.481	2.455	8.6	19.5	
8 9	21 55.32	-12 57.9	1.548	2.553	3.9	21.0	8 9	21 54.24	-12 35.9	1.449	2.455	4.0	19.2	
8 19	21 46.41	-14 33.1	1.524	2.536	1.0	20.8	8 19	21 46.66	-13 18.9	1.443	2.455	0.7	19.0	
8 29	21 37.39	-16 6.4	1.528	2.518	5.8	21.1	8 29	21 39.24	-14 0.2	1.462	2.456	5.5	19.3	
9 8	21 29.38	-17 29.9	1.558	2.500	10.4	21.3	9 8	21 33.03	-14 34.3	1.506	2.458	9.9	19.6	
9 18	21 23.35	-18 37.8	1.611	2.482	14.4	21.5	9 18	21 28.83	-14 57.8	1.572	2.460	13.7	19.8	
1903	Adzhimushkaj	8 17.4 192°92' 0°8/16.6 18						3409	Abramov	8 17.4 310°59' 0°8/18.0 18 R				
7 10	22 9.58	-12 3.6	2.314	3.143	12.5	15.7	7 10	22 10.59	-9 11.8	1.911	2.740	14.8	16.4	
7 20	22 6.01	-12 54.5	2.230	3.142	9.7	15.5	7 20	22 7.20	-9 26.6	1.825	2.733	11.7	16.2	
7 30	22 0.68	-13 55.7	2.170	3.141	6.5	15.3	7 30	22 1.70	-9 54.1	1.759	2.726	8.0	16.0	
8 9	21 54.03	-15 3.3	2.135	3.140	2.9	15.0	8 9	21 54.59	-10 31.5	1.717	2.719	4.0	15.7	
8 19	21 46.69	-16 12.2	2.129	3.139	1.2	14.9	8 19	21 46.60	-11 14.8	1.701	2.712	0.9	15.5	
8 29	21 39.41	-17 17.0	2.151	3.138	4.7	15.2	8 29	21 38.66	-11 59.0	1.712	2.706	4.8	15.7	
9 8	21 32.96	-18 13.1	2.200	3.137	8.1	15.4	9 8	21 31.73	-12 38.9	1.750	2.699	8.9	16.0	
9 18	21 27.99	-18 57.4	2.275	3.135	11.1	15.6	9 18	21 26.57	-13 10.8	1.811	2.693	12.5	16.2	
475725	2006 WD ₃₈	8 17.4 256°56' 5°6/11.8 18						218446	2004 RH ₂₁₅	8 17.4 338°42' 3°2/19.0 17				
7 10	22 12.79	-26 57.5	2.164	3.015	12.5	21.2	7 10	22 14.11	-8 11.2	1.659	2.487	16.7	18.9	
7 20	22 8.85	-28 11.0	2.089	3.008	9.9	21.0	7 20	22 10.32	-7 15.2	1.567	2.471	13.5	18.6	
7 30	22 2.78	-29 25.5	2.037	3.001	7.4	20.9	7 30	22 4.03	-6 28.3	1.494	2.456	9.8	18.4	
8 9	21 55.07	-30 34.1	2.011	2.994	5.7	20.8	8 9	21 55.77	-5 50.7	1.445	2.441	5.7	18.1	
8 19	21 46.49	-31 30.0	2.011	2.987	6.3	20.8	8 19	21 46.37	-5 21.9	1.421	2.428	3.2	17.9	
8 29	21 38.00	-32 8.1	2.038	2.980	8.5	20.9	8 29	21 36.97	-5 0.5	1.423	2.416	5.8	18.0	
9 8	21 30.56	-32 25.8	2.090	2.972	11.2	21.1	9 8	21 28.76	-4 44.0	1.451	2.404	10.0	18.3	
9 18	21 24.94	-32 23.4	2.163	2.965	13.7	21.2	9 18	21 22.67	-4 29.7	1.501	2.394	13.9	18.5	
445426	2010 UJ ₁₀	8 17.4 341°74' 9°8/27.3 15						392634	2011 UN ₉₂	8 17.4 52°08' 8°4/11.2 18				
7 10	22 6.71	+14 49.6	1.964	2.674	18.3	20.4	7 10	22 19.15	-34 38.1	1.839	2.687	14.5	20.8	
7 20	22 4.21	+15 32.5	1.875	2.668	16.3	20.3	7 20	22 14.06	-35 39.0	1.788	2.696	11.9	20.6	
7 30	21 59.71	+15 50.4	1.801	2.661	14.1	20.1	7 30	22 6.32	-36 32.5	1.759	2.705	9.7	20.5	
8 9	21 53.68	+15 40.0	1.746	2.656	12.0	20.0	8 9	21 56.68	-37 10.4	1.753	2.715	8.4	20.5	
8 19	21 46.75	+15 0.1	1.713	2.651	10.3	19.8	8 19	21 46.24	-37 26.2	1.772	2.724	8.9	20.5	
8 29	21 39.83	+13 52.6	1.703	2.646	9.8	19.8	8 29	21 36.28	-37 16.6	1.815	2.734	10.8	20.7	
9 8	21 33.81	+12 23.5	1.717	2.642	10.8	19.9	9 8	21 27.97	-36 42.3	1.882	2.744	13.2	20.8	
9 18	21 29.46	+10 40.8	1.754	2.638	12.8	20.0	9 18	21 22.09	-35 47.0	1.969	2.754	15.5	21.0	
358877	2008 FB ₁₂₇	8 17.4 72°04' 3°5/20.8 18						251891	1999 VZ ₁₀₁	8 17.4 311°32' 5°6/12.1 18				
7 10	22 9.92	-0 45.3	2.223	3.010	14.3	21.1	7 10	22 12.28	-27 13.7	2.121	2.974	12.6	20.2	
7 20	22 6.21	-0 42.9	2.146	3.020	11.7	21.0	7 20	22 8.48	-28 16.1	2.046	2.967	10.0	20.1	
7 30	22 0.76	-0 55.9	2.090	3.030	8.7	20.8	7 30	22 2.53	-29 18.7	1.994	2.959	7.4	19.9	
8 9	21 54.04	-1 23.4	2.057	3.040	5.7	20.6	8 9	21 54.96	-30 15.0	1.968	2.952	5.7	19.8	
8 19	21 46.70	-2 2.9	2.051	3.051	3.6	20.5	8 19	21 46.54	-30 58.6	1.967	2.945	6.2	19.8	
8 29	21 39.50	-2 50.6	2.072	3.061	4.7	20.6	8 29	21 38.25	-31 24.8	1.993	2.939	8.4	19.9	
9 8	21 33.19	-3 41.7	2.121	3.072	7.5	20.8	9 8	21 31.04	-31 31.3	2.043	2.932	11.1	20.1	
9 18	21 28.38	-4 31.7	2.194	3.082	10.4	21.0	9 18	21 25.67	-31 18.7	2.115	2.925	13.7	20.2	
261374	2005 UA ₃₅₄	8 17.4 204°42' 8°8/5.1 18						265365	2004 RW ₁₅₁	8 17.4 271°15' 10°7/31.2 18				
7 10	22 20.56	-46 54.7	3.033	3.829	10.7	21.5	7 10	22 24.95	-52 40.2	2.859	3.632	11.8	20.4	
7 20	22 14.68	-48 12.9	2.978	3.823	9.6	21.4	7 20	22 18.95	-54 15.4	2.792	3.603	11.1	20.3	
7 30	22 6.57	-49 20.6	2.946	3.818	8.9	21.4	7 30	22 9.99	-55 38.3	2.745	3.574	10.7	20.2	
8 9	21 56.79	-50 11.4	2.939	3.811	8.8	21.3	8 9	21 58.64	-56 40.9	2.722	3.544	10.9	20.2	
8 19	21 46.18	-50 40.6	2.955	3.805	9.4	21.4	8 19	21 45.88	-57 17.1	2.720	3.514	11.7	20.2	
8 29	21 35.75	-50 45.8	2.995	3.798	10.4	21.4	8 29	21 33.11	-57 23.4	2.739	3.483	12.7	20.2	
9 8	21 26.51	-50 27.3	3.057	3.790	11.6	21.5	9 8	21 21.75	-57 0.2	2.777	3.451	13.9	20.3	
9 18	21 19.21	-49 47.8	3.137	3.782	12.8	21.6	9 18	21 12.91	-56 10.8	2.831	3.419	15.0	20.4	
442477	2011 UG ₃₁₄	8 17.4 294°17' 2°1/15.6 18						519436	2011 UU ₄₁₇	8 17.4 156°39' 5°0/22.8 18				
7 10	22 11.21	-16 16.1	1.982	2.827	13.7	21.4	7 10	22 11.25	+5 9.9	2.696	3.434	13.2	21.8	
7 20	22 7.65	-16 56.8	1.898	2.819	10.6	21.2	7 20	22 6.98	+5 31.5	2.607				

EPHEMERIDES

8 17.4

8 17.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
120915	1998 SX ₈₁		8 17.4 277°03	1.4°/18.3	18	R	362888	2012 BU ₁₁₂		8 17.4 51°35	0.3°/17.7	18	
7 10	22 13.80	- 8 3.9	1.349	2.193	19.0	20.2	7 10	22 7.89	- 8 15.2	2.349	3.168	12.7	20.6
7 20	22 10.71	- 8 12.6	1.265	2.180	15.2	19.9	7 20	22 4.67	- 9 5.5	2.266	3.170	9.9	20.4
7 30	22 4.67	- 8 39.8	1.198	2.168	10.7	19.6	7 30	21 59.78	-10 8.5	2.205	3.171	6.8	20.2
8 9	21 56.22	- 9 22.9	1.153	2.155	5.5	19.3	8 9	21 53.65	-11 20.8	2.170	3.173	3.2	20.0
8 19	21 46.33	-10 16.7	1.131	2.143	1.5	19.0	8 19	21 46.87	-12 37.6	2.164	3.175	0.5	19.8
8 29	21 36.40	-11 13.6	1.135	2.130	6.3	19.3	8 29	21 40.17	-13 53.3	2.186	3.177	4.1	20.1
9 8	21 27.88	-12 5.8	1.162	2.118	11.7	19.6	9 8	21 34.25	-15 2.8	2.235	3.179	7.6	20.3
9 18	21 21.93	-12 47.3	1.210	2.105	16.5	19.8	9 18	21 29.73	-16 2.2	2.311	3.182	10.6	20.5
38476	1999 TA ₉₁		8 17.4 26°74	10°7/11.1	17		441206	2007 UU ₁₀₃		8 17.4 83°84	2°3/15.5	18	
7 10	22 19.98	-36 11.6	1.390	2.252	17.5	18.0	7 10	22 12.27	-16 44.4	1.947	2.792	13.9	20.8
7 20	22 15.54	-37 20.3	1.346	2.261	14.6	17.8	7 20	22 8.42	-17 29.9	1.876	2.797	10.8	20.6
7 30	22 7.70	-38 18.6	1.322	2.270	12.1	17.7	7 30	22 2.46	-18 23.0	1.826	2.801	7.2	20.4
8 9	21 57.43	-38 55.3	1.319	2.279	10.7	17.7	8 9	21 54.94	-19 18.6	1.801	2.805	3.5	20.2
8 19	21 46.16	-39 2.3	1.338	2.290	11.3	17.7	8 19	21 46.64	-20 10.6	1.803	2.810	2.7	20.1
8 29	21 35.63	-38 36.1	1.380	2.301	13.3	17.9	8 29	21 38.50	-20 53.7	1.833	2.814	6.0	20.3
9 8	21 27.29	-37 39.4	1.442	2.312	16.0	18.1	9 8	21 31.48	-21 24.1	1.888	2.819	9.6	20.6
9 18	21 22.04	-36 18.1	1.523	2.325	18.5	18.3	9 18	21 26.29	-21 39.9	1.967	2.823	12.8	20.8
522906	2016 PP ₁₀₆		8 17.4 72°72	7°5/23.6	17		56607	2000 JL ₅₈		8 17.4 17°30	3°0/15.6	18	
7 10	22 12.93	+ 6 34.1	1.694	2.457	18.9	21.1	7 10	22 7.76	-14 29.9	0.936	1.829	21.4	17.3
7 20	22 9.11	+ 7 12.2	1.625	2.471	16.2	20.9	7 20	22 6.68	-15 26.5	0.887	1.834	16.6	17.0
7 30	22 3.00	+ 7 26.7	1.574	2.485	13.0	20.7	7 30	22 2.17	-16 40.7	0.855	1.841	11.0	16.8
8 9	21 55.20	+ 7 16.2	1.543	2.499	9.9	20.6	8 9	21 55.04	-18 3.0	0.841	1.849	5.2	16.5
8 19	21 46.56	+ 6 41.5	1.536	2.513	7.7	20.5	8 19	21 46.62	-19 21.4	0.849	1.858	3.7	16.4
8 29	21 38.13	+ 5 46.5	1.554	2.527	7.9	20.5	8 29	21 38.66	-20 24.3	0.879	1.869	8.9	16.8
9 8	21 30.93	+ 4 38.2	1.597	2.541	10.0	20.7	9 8	21 32.73	-21 4.3	0.929	1.881	14.3	17.1
9 18	21 25.73	+ 3 24.3	1.663	2.555	12.9	20.9	9 18	21 29.87	-21 19.3	0.996	1.894	18.9	17.4
401667	2013 GX ₁₁₈		8 17.4 47°89	0°5/17.9	18		440292	2004 RY ₂₂₄		8 17.4 319°84	2°5/15.6	18	
7 10	22 10.25	- 9 48.8	2.207	3.030	13.3	21.1	7 10	22 12.76	-18 57.2	1.950	2.798	13.8	20.7
7 20	22 6.55	-10 6.4	2.128	3.033	10.4	20.9	7 20	22 8.95	-19 16.3	1.862	2.785	10.7	20.5
7 30	22 1.04	-10 34.4	2.070	3.037	7.1	20.7	7 30	22 2.93	-19 40.3	1.796	2.771	7.3	20.2
8 9	21 54.23	-11 10.2	2.038	3.041	3.4	20.5	8 9	21 55.22	-20 4.9	1.755	2.759	3.7	20.0
8 19	21 46.74	-11 49.9	2.033	3.045	0.7	20.3	8 19	21 46.58	-20 25.1	1.740	2.746	2.9	19.9
8 29	21 39.38	-12 29.3	2.056	3.049	4.3	20.6	8 29	21 38.02	-20 36.7	1.752	2.734	6.2	20.1
9 8	21 32.93	-13 4.5	2.106	3.053	7.8	20.8	9 8	21 30.54	-20 36.7	1.790	2.723	9.9	20.3
9 18	21 28.01	-13 32.4	2.181	3.057	10.9	21.0	9 18	21 24.93	-20 24.2	1.851	2.711	13.3	20.5
187318	2005 UJ ₄₁		8 17.4 130°04	5°4/23.3	18		28572	Salebreton		8 17.4 63°28	1°8/16.1	18	
7 10	22 9.67	+ 6 11.3	2.482	3.223	14.1	20.7	7 10	22 13.58	-13 21.2	1.418	2.272	17.6	18.3
7 20	22 5.91	+ 6 25.3	2.396	3.229	12.0	20.6	7 20	22 10.00	-14 16.1	1.363	2.289	13.6	18.1
7 30	22 0.53	+ 6 22.1	2.330	3.235	9.6	20.4	7 30	22 3.76	-15 24.2	1.329	2.306	9.0	17.8
8 9	21 53.97	+ 6 1.2	2.287	3.240	7.3	20.3	8 9	21 55.59	-16 38.7	1.318	2.324	4.1	17.6
8 19	21 46.79	+ 5 23.8	2.269	3.246	5.6	20.2	8 19	21 46.53	-17 51.1	1.332	2.341	2.3	17.5
8 29	21 39.69	+ 4 32.7	2.278	3.251	5.7	20.2	8 29	21 37.87	-18 53.4	1.371	2.359	6.7	17.9
9 8	21 33.36	+ 3 32.5	2.315	3.256	7.5	20.3	9 8	21 30.76	-19 39.8	1.435	2.376	11.2	18.2
9 18	21 28.37	+ 2 28.3	2.378	3.261	9.9	20.5	9 18	21 26.04	-20 8.2	1.521	2.394	15.0	18.4
241707	2000 SS ₃₄₈		8 17.4 349°72	5°0/12.9	18		550	Senta		8 17.4 5°69	8°5/22.0	18	R
7 10	22 10.67	-23 9.1	1.876	2.736	13.7	19.6	7 10	22 9.89	+ 1 10.1	1.183	2.011	22.1	12.3
7 20	22 7.43	-24 21.8	1.806	2.734	10.7	19.4	7 20	22 7.69	+ 2 38.1	1.119	2.010	18.7	12.1
7 30	22 1.94	-25 38.7	1.758	2.731	7.6	19.3	7 30	22 2.57	+ 3 44.0	1.070	2.012	14.9	11.9
8 9	21 54.75	-26 52.4	1.735	2.730	5.2	19.1	8 9	21 55.19	+ 4 23.9	1.040	2.015	11.1	11.7
8 19	21 46.65	-27 55.5	1.739	2.728	5.6	19.1	8 19	21 46.59	+ 4 36.2	1.031	2.020	8.7	11.6
8 29	21 38.70	-28 41.8	1.768	2.727	8.3	19.3	8 29	21 38.19	+ 4 23.1	1.044	2.026	9.3	11.6
9 8	21 31.91	-29 7.9	1.821	2.726	11.4	19.5	9 8	21 31.38	+ 3 51.5	1.078	2.034	12.4	11.8
9 18	21 27.06	-29 13.5	1.897	2.725	14.4	19.7	9 18	21 27.18	+ 3 9.6	1.132	2.043	16.1	12.1
236600	2006 JF ₁₆		8 17.4 260°13	1°3/16.4	18		273956	2007 JH ₄₅		8 17.4 95°32	0°8/16.8	17	
7 10	22 13.23	-14 24.4	1.872	2.713	14.6	20.8	7 10	22 14.71	-12 9.7	1.807	2.640	15.3	21.2
7 20	22 9.35	-14 53.6	1.788	2.706	11.4	20.6	7 20	22 10.29	-12 50.1	1.745	2.659	11.9	21.1
7 30	22 3.21	-15 32.4	1.725	2.699	7.6	20.4	7 30	22 3.67	-13 41.7	1.705	2.677	7.9	20.9
8 9	21 55.35	-16 16.5	1.687	2.692	3.5	20.1	8 9	21 55.48	-14 39.6	1.690	2.695	3.6	20.6
8 19	21 46.54	-17 0.5	1.675	2.685	1.7	20.0	8 19	21 46.56	-15 37.7	1.702	2.713	1.2	20.5
8 29	21 37.82	-17 38.8	1.691	2.678	5.7	20.2	8 29	21 37.94	-16 30.3	1.741	2.730	5.4	20.8
9 8	21 30.19	-18 7.3	1.732	2.671	9.7	20.5	9 8	21 30.58	-17 12.5	1.807	2.747	9.3	21.1
9 18	21 24.48	-18 23.4	1.797	2.664	13.3	20.7	9 18	21 25.19	-17 41.9	1.896	2.764	12.7	21.3
237550	2000 UG ₁₁₃		8 17.4 338°04	5°5/20.9	18		164747	1998 TP ₂₀		8 17.4 93°89	3°7/14.4	17	
7 10	22 10.62	- 1 11.6	1.439	2.259	19.2	19.7	7 10	22 16.62	-21 54.8	2.014	2.858	13.6	19.8
7 20	22 7.92	- 0 31.4	1.357	2.250	16.0	19.5	7 20	22 11.59	-22 41.0	1.958	2.877	10.5	19.6
7 30	22 2.59	- 0 10.6	1.293	2.242	12.2	19.2	7 30	22 4.44	-23 29.7	1.925	2.897	7.2	19.5
8 9	21 55.17	- 0 10.3	1.249	2.234	8.2	19.0	8 9	21 55.79	-24 14.9	1.917	2.915	4.3	19.3
8 19	21 46.57	- 0 29.8	1.229	2.228	5.6	18.8	8 19	21 46.51	-24 51.0	1.937	2.934	4.2	19.3
8 29	21 37.99	- 1 5.1	1.232	2.222	7.0	18.9	8 29	21 37.57	-25 13.9	1.984	2.952	6.8	19.5
9 8	21 30.70	- 1 49.7	1.259	2.216	10.8	19.1	9 8	21 29.91	-25 21.6	2.057	2.970	9.9	19.8
9 18	21 25.68	- 2 36.6	1.307	2.212	14.8	19.3	9 18	21 24.17	-25 14.3	2.153	2.988	12.7	20.0
472491	2015 CK ₁₀		8 17.4 109°54	2°3/19.2	17		2998	Berendeya		8 17.4 332°92	0°7/17.9	18	R
7 10	22 15.66	- 5 45.4	1.746	2.559									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
300690	2007 <i>VV</i> ₄₇		8 17.4 110°78	3°6/20.5	18		71593	2000 <i>DP</i> ₇₇		8 17.5 272°37	0°8/16.7	18	
7 10	22 12.90	- 1 44.9	2.085	2.874	15.0	20.7	7 10	22 10.60	-13 58.1	2.493	3.321	11.8	19.9
7 20	22 8.68	- 1 31.3	2.006	2.882	12.3	20.5	7 20	22 6.78	-14 23.1	2.396	3.307	9.2	19.7
7 30	22 2.52	- 1 32.8	1.948	2.890	9.1	20.4	7 30	22 1.24	-14 55.5	2.321	3.292	6.1	19.5
8 9	21 54.95	- 1 48.6	1.913	2.898	5.9	20.2	8 9	21 54.40	-15 32.4	2.273	3.278	2.8	19.3
8 19	21 46.66	- 2 16.8	1.905	2.906	3.7	20.1	8 19	21 46.82	-16 9.8	2.252	3.263	1.2	19.1
8 29	21 38.52	- 2 53.6	1.924	2.913	5.0	20.2	8 29	21 39.24	-16 44.0	2.260	3.248	4.5	19.3
9 8	21 31.36	- 3 34.5	1.970	2.920	8.0	20.4	9 8	21 32.42	-17 11.5	2.296	3.233	7.8	19.5
9 18	21 25.85	- 4 15.0	2.042	2.928	11.1	20.6	9 18	21 26.98	-17 30.0	2.356	3.218	10.8	19.7
362278	2009 <i>QG</i> ₅₄		8 17.4 335°19	5°3/12.6	18		137723	1999 <i>XR</i> ₁₀₇		8 17.5 275°31	5°5/13.7	18	
7 10	22 11.59	-25 56.8	2.038	2.894	13.0	20.0	7 10	22 17.39	-23 20.4	1.589	2.447	15.9	19.6
7 20	22 8.01	-26 55.7	1.965	2.889	10.2	19.8	7 20	22 13.41	-24 16.2	1.501	2.427	12.6	19.4
7 30	22 2.26	-27 55.8	1.914	2.883	7.4	19.6	7 30	22 6.46	-25 17.4	1.433	2.406	9.0	19.1
8 9	21 54.89	-28 50.4	1.889	2.877	5.5	19.5	8 9	21 57.11	-26 16.0	1.388	2.384	5.9	18.9
8 19	21 46.67	-29 33.1	1.889	2.872	5.9	19.5	8 19	21 46.30	-27 3.1	1.369	2.363	6.1	18.8
8 29	21 38.59	-29 59.2	1.915	2.868	8.2	19.7	8 29	21 35.43	-27 31.2	1.375	2.341	9.4	19.0
9 8	21 31.62	-30 6.2	1.966	2.863	11.1	19.8	9 8	21 25.95	-27 36.3	1.405	2.319	13.5	19.1
9 18	21 26.51	-29 54.4	2.039	2.859	13.8	20.0	9 18	21 18.99	-27 18.7	1.455	2.297	17.3	19.3
491784	2012 <i>WK</i> ₃₅		8 17.4 266°92	2°4/19.5	18		496899	2001 <i>FH</i> ₉₁		8 17.5 119°99	10°9/11.4	17	
7 10	22 11.99	- 4 11.2	2.146	2.946	14.3	22.5	7 10	22 36.41	-42 0.6	1.778	2.592	16.3	21.1
7 20	22 8.23	- 4 21.5	2.036	2.923	11.7	22.3	7 20	22 27.66	-42 57.6	1.734	2.609	14.0	21.0
7 30	22 2.45	- 4 47.0	1.947	2.900	8.5	22.0	7 30	22 15.47	-43 39.7	1.711	2.624	12.0	20.9
8 9	21 55.04	- 5 26.4	1.882	2.876	4.9	21.8	8 9	22 0.95	-43 56.6	1.710	2.639	11.0	20.9
8 19	21 46.63	- 6 16.9	1.844	2.851	2.4	21.6	8 19	21 45.69	-43 41.5	1.735	2.654	11.3	20.9
8 29	21 38.08	- 7 14.2	1.833	2.826	4.7	21.7	8 29	21 31.47	-42 53.0	1.783	2.668	12.8	21.0
9 8	21 30.31	- 8 12.7	1.851	2.801	8.4	21.9	9 8	21 19.77	-41 35.4	1.855	2.681	14.9	21.2
9 18	21 24.11	- 9 7.3	1.893	2.775	12.0	22.0	9 18	21 11.42	-39 56.3	1.948	2.694	16.9	21.4
180420	2004 <i>BZ</i> ₇₂		8 17.4 102°71	3°6/19.9	18		46685	1997 <i>AG</i> ₁₃		8 17.5 184°69	3°9/14.4	18	R
7 10	22 18.95	- 3 27.9	1.739	2.537	17.2	20.0	7 10	22 16.93	-20 1.2	1.786	2.633	14.9	18.9
7 20	22 13.59	- 3 5.3	1.674	2.557	14.0	19.9	7 20	22 12.39	-21 0.3	1.712	2.633	11.6	18.7
7 30	22 5.90	- 2 58.7	1.629	2.577	10.2	19.7	7 30	22 5.35	-22 5.9	1.660	2.633	7.9	18.5
8 9	21 56.53	- 3 7.0	1.607	2.596	6.2	19.5	8 9	21 56.41	-23 11.0	1.633	2.633	4.6	18.3
8 19	21 46.40	- 3 27.9	1.612	2.615	3.7	19.4	8 19	21 46.46	-24 8.3	1.632	2.632	4.4	18.3
8 29	21 36.60	- 3 57.2	1.643	2.634	5.5	19.5	8 29	21 36.68	-24 51.1	1.659	2.630	7.6	18.4
9 8	21 28.17	- 4 29.8	1.702	2.651	9.1	19.8	9 8	21 28.19	-25 15.9	1.710	2.628	11.3	18.7
9 18	21 21.85	- 5 1.1	1.784	2.668	12.6	20.0	9 18	21 21.88	-25 22.0	1.784	2.625	14.6	18.9
16213	2000 <i>CG</i> ₈₅		8 17.5 296°02	1°8/16.0	18		503960	2004 <i>QF</i> ₁		8 17.5 165°71	9°2/17.5	18	
7 10	22 15.53	-18 55.4	2.332	3.165	12.3	18.0	7 10	23 49.31	-29 41.5	0.464	1.308	42.7	18.9
7 20	22 10.63	-18 58.6	2.244	3.158	9.6	17.8	7 20	23 33.19	-29 30.4	0.417	1.327	35.3	18.5
7 30	22 3.81	-19 4.8	2.179	3.150	6.4	17.6	7 30	23 5.12	-29 6.2	0.377	1.341	25.9	18.0
8 9	21 55.56	-19 10.6	2.140	3.143	3.2	17.4	8 9	22 25.73	-27 48.2	0.353	1.351	14.9	17.5
8 19	21 46.57	-19 12.7	2.128	3.136	2.1	17.3	8 19	21 41.23	-25 4.5	0.350	1.356	9.4	17.3
8 29	21 37.72	-19 8.1	2.146	3.129	5.1	17.5	8 29	21 1.68	-21 12.0	0.371	1.356	17.9	17.7
9 8	21 29.83	-18 55.2	2.191	3.122	8.4	17.7	9 8	20 33.60	-17 5.6	0.411	1.352	28.0	18.3
9 18	21 23.59	-18 33.4	2.260	3.115	11.4	17.8	9 18	20 17.46	-13 24.6	0.466	1.343	36.1	18.8
112342	2002 <i>NB</i> ₇		8 17.5 32°75	4°6/20.3	18		190522	2000 <i>QM</i> ₄₄		8 17.5 328°66	0°2/17.6	18	
7 10	22 11.52	- 2 50.7	1.120	1.965	22.0	19.0	7 10	22 8.10	- 8 47.6	1.433	2.284	17.7	19.7
7 20	22 8.93	- 2 27.5	1.067	1.977	17.9	18.8	7 20	22 6.03	- 9 28.5	1.351	2.273	14.0	19.4
7 30	22 3.32	- 2 28.6	1.030	1.991	13.1	18.5	7 30	22 1.38	-10 29.1	1.289	2.263	9.6	19.2
8 9	21 55.49	- 2 53.1	1.013	2.006	8.1	18.3	8 9	21 54.67	-11 45.0	1.249	2.254	4.6	18.8
8 19	21 46.59	- 3 36.7	1.017	2.022	4.7	18.2	8 19	21 46.77	-13 9.1	1.233	2.245	0.8	18.5
8 29	21 38.12	- 4 32.0	1.044	2.039	6.8	18.4	8 29	21 38.89	-14 32.3	1.242	2.236	6.1	18.9
9 8	21 31.44	- 5 30.0	1.094	2.056	11.4	18.7	9 8	21 32.28	-15 45.9	1.275	2.228	11.1	19.2
9 18	21 27.45	- 6 22.7	1.164	2.075	15.7	19.0	9 18	21 27.91	-16 43.8	1.330	2.221	15.5	19.4
31091	1997 <i>BE</i> ₉		8 17.5 259°99	2°5/18.1	17	R	501922	2014 <i>WA</i> ₄₈₂		8 17.5 117°13	14°0/30.8	17	
7 10	22 29.12	-12 30.5	1.203	2.041	21.2	18.7	7 10	22 18.15	+22 40.2	1.818	2.455	21.6	21.2
7 20	22 23.23	-11 18.8	1.119	2.031	17.1	18.4	7 20	22 13.35	+24 20.1	1.751	2.471	19.9	21.1
7 30	22 13.46	-10 12.2	1.052	2.020	12.1	18.1	7 30	22 6.03	+25 31.4	1.699	2.486	18.0	21.0
8 9	22 0.49	- 9 10.1	1.008	2.009	6.4	17.7	8 9	21 56.75	+26 8.1	1.663	2.501	16.1	20.9
8 19	21 45.65	- 8 12.4	0.988	1.998	2.5	17.5	8 19	21 46.41	+26 6.3	1.646	2.515	14.6	20.8
8 29	21 30.88	- 7 18.9	0.994	1.987	7.5	17.7	8 29	21 36.18	+25 26.4	1.649	2.528	14.0	20.8
9 8	21 18.14	- 6 28.9	1.024	1.975	13.4	18.0	9 8	21 27.22	+24 13.9	1.674	2.541	14.3	20.9
9 18	21 8.83	- 5 41.9	1.075	1.964	18.6	18.3	9 18	21 20.46	+22 37.7	1.720	2.554	15.4	21.0
142224	2002 <i>RF</i> ₇₅		8 17.5 51°28	0°5/17.8	17		472840	2015 <i>FE</i> ₂₃₉		8 17.5 14°04	5°2/14.0	16	
7 10	22 15.15	- 9 59.6	1.225	2.079	19.9	19.8	7 10	22 9.06	-20 33.6	1.163	2.051	18.5	19.3
7 20	22 11.46	-10 14.0	1.176	2.098	15.6	19.6	7 20	22 7.21	-21 37.4	1.112	2.056	14.3	19.1
7 30	22 4.85	-10 45.1	1.145	2.119	10.5	19.4	7 30	22 2.29	-22 48.7	1.079	2.062	9.8	18.9
8 9	21 56.13	-11 27.8	1.135	2.139	5.0	19.1	8 9	21 55.06	-23 57.9	1.068	2.070	5.9	18.7
8 19	21 46.51	-12 15.5	1.149	2.160	0.9	18.9	8 19	21 46.73	-24 54.9	1.079	2.079	5.9	18.7
8 29	21 37.43	-13 0.6	1.187	2.182	6.2	19.3	8 29	21 38.81	-25 31.3	1.112	2.089	9.6	19.0
9 8	21 30.15	-13 37.0	1.249	2.203	11.2	19.7	9 8	21 32.70	-25 43.5	1.167	2.101	13.9	19.2
9 18	21 25.52	-14 1.0	1.332	2.225	15.4	20.0	9 18	21 29.30	-25 32.0	1.242	2.114	17.7	19.5
84697	2002 <i>VL</i> ₁₁₀		8 17.5 328°28	3°4/18.9	18		140424	2001 <i>TO</i> <					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
114750	2003 <i>HP</i> ₄₀		8 17.5 15°08	6°0/13.9	18		445247	2009 <i>QD</i>		8 17.5 332°66	0°1/17.4	17	
7 10	22 12.33	-21 30.0	1.041	1.931	19.9	18.1	7 10	22 16.46	-14 36.7	1.942	2.775	14.5	20.4
7 20	22 10.18	-22 33.8	0.989	1.934	15.6	17.9	7 20	22 11.76	-14 13.6	1.854	2.765	11.4	20.1
7 30	22 4.52	-23 45.1	0.955	1.938	10.8	17.6	7 30	22 4.81	-13 55.7	1.786	2.757	7.7	19.9
8 9	21 56.18	-24 52.9	0.942	1.943	6.7	17.4	8 9	21 56.16	-13 40.9	1.744	2.748	3.6	19.6
8 19	21 46.53	-25 45.7	0.949	1.949	6.8	17.4	8 19	21 46.60	-13 26.7	1.728	2.740	0.7	19.4
8 29	21 37.34	-26 14.7	0.979	1.956	10.7	17.7	8 29	21 37.16	-13 10.4	1.741	2.733	5.0	19.7
9 8	21 30.26	-26 16.6	1.029	1.963	15.3	18.0	9 8	21 28.85	-12 50.3	1.780	2.726	9.0	19.9
9 18	21 26.31	-25 52.9	1.098	1.972	19.4	18.3	9 18	21 22.46	-12 25.2	1.843	2.719	12.6	20.1
418969	2009 <i>HX</i> ₅₀		8 17.5 313°46	6°6/13.0	18		49248	1998 <i>TX</i> ₇		8 17.5 161°37	0°3/17.7	18	
7 10	22 12.74	-22 45.1	1.249	2.129	18.0	20.5	7 10	22 15.24	-9 47.7	1.867	2.690	15.3	20.1
7 20	22 10.34	-24 1.9	1.177	2.116	14.2	20.2	7 20	22 10.82	-10 13.2	1.789	2.695	12.0	19.9
7 30	22 4.67	-25 27.1	1.124	2.103	10.1	19.9	7 30	22 4.18	-10 51.5	1.732	2.699	8.2	19.7
8 9	21 56.34	-26 50.1	1.093	2.090	6.9	19.7	8 9	21 55.86	-11 39.2	1.700	2.703	3.9	19.5
8 19	21 46.48	-27 59.1	1.085	2.078	7.4	19.7	8 19	21 46.66	-12 31.1	1.694	2.706	0.7	19.2
8 29	21 36.69	-28 44.2	1.100	2.067	11.1	19.9	8 29	21 37.62	-13 21.6	1.717	2.709	5.0	19.6
9 8	21 28.62	-29 0.5	1.136	2.056	15.4	20.1	9 8	21 29.72	-14 5.6	1.766	2.711	9.1	19.8
9 18	21 23.47	-28 48.3	1.190	2.045	19.5	20.3	9 18	21 23.74	-14 39.6	1.839	2.713	12.7	20.0
294857	2008 <i>CC</i> ₁₉₃		8 17.5 223°21	2°1/15.9	17		208157	2000 <i>GF</i> ₁₈₆		8 17.5 148°99	0°9/18.3	18	
7 10	22 17.43	-16 10.2	1.865	2.702	14.8	22.4	7 10	22 12.29	-8 9.4	2.259	3.070	13.4	21.3
7 20	22 12.75	-16 46.6	1.777	2.692	11.6	22.2	7 20	22 8.12	-8 30.4	2.178	3.076	10.5	21.1
7 30	22 5.62	-17 31.9	1.709	2.682	7.8	22.0	7 30	22 2.14	-9 2.9	2.119	3.081	7.3	20.9
8 9	21 56.58	-18 21.0	1.667	2.672	3.8	21.7	8 9	21 54.84	-9 44.3	2.086	3.087	3.7	20.7
8 19	21 46.46	-19 7.8	1.652	2.660	2.5	21.6	8 19	21 46.85	-10 30.9	2.080	3.092	0.9	20.5
8 29	21 36.36	-19 46.3	1.665	2.648	6.3	21.8	8 29	21 38.98	-11 18.1	2.103	3.096	4.1	20.7
9 8	21 27.41	-20 12.4	1.704	2.635	10.4	22.0	9 8	21 32.02	-12 1.8	2.154	3.100	7.7	21.0
9 18	21 20.52	-20 24.0	1.766	2.622	14.0	22.2	9 18	21 26.59	-12 38.4	2.230	3.104	10.8	21.2
523154	2016 <i>TT</i> ₄₇		8 17.5 312°54	0°3/17.8	18		238126	2003 <i>QW</i>		8 17.5 50°97	1°8/18.7	18	
7 10	22 9.19	-9 10.5	1.767	2.604	15.5	21.1	7 10	22 14.05	-7 53.6	1.585	2.416	17.2	20.0
7 20	22 6.40	-9 41.5	1.678	2.591	12.2	20.8	7 20	22 10.14	-7 48.7	1.519	2.427	13.7	19.8
7 30	22 1.38	-10 27.8	1.609	2.579	8.4	20.6	7 30	22 3.80	-7 58.3	1.473	2.438	9.5	19.6
8 9	21 54.61	-11 26.0	1.563	2.567	4.1	20.3	8 9	21 55.68	-8 19.9	1.449	2.450	5.0	19.4
8 19	21 46.84	-12 30.7	1.544	2.556	0.7	20.0	8 19	21 46.70	-8 49.6	1.451	2.462	1.8	19.2
8 29	21 39.06	-13 35.4	1.551	2.545	5.2	20.3	8 29	21 38.01	-9 22.3	1.479	2.474	5.2	19.4
9 8	21 32.31	-14 33.7	1.584	2.534	9.6	20.5	9 8	21 30.69	-9 52.7	1.532	2.486	9.5	19.7
9 18	21 27.44	-15 20.7	1.640	2.523	13.5	20.8	9 18	21 25.51	-10 17.0	1.608	2.498	13.4	20.0
50482	2000 <i>DF</i> ₇₅		8 17.5 334°25	1°0/18.2	18		151019	2001 <i>UF</i> ₁₁₉		8 17.5 9°38	3°4/19.9	17	
7 10	22 11.45	-9 17.0	1.740	2.573	15.8	18.8	7 10	22 9.88	-3 29.0	1.382	2.215	19.2	18.9
7 20	22 8.10	-9 22.5	1.657	2.568	12.5	18.6	7 20	22 7.36	-3 26.6	1.311	2.216	15.6	18.7
7 30	22 2.47	-9 41.0	1.595	2.563	8.7	18.3	7 30	22 2.21	-3 45.6	1.257	2.217	11.3	18.4
8 9	21 55.09	-10 10.0	1.556	2.558	4.4	18.1	8 9	21 55.05	-4 24.5	1.224	2.219	6.8	18.2
8 19	21 46.76	-10 45.3	1.542	2.554	1.1	17.8	8 19	21 46.81	-5 19.1	1.215	2.222	3.5	18.0
8 29	21 38.51	-11 22.0	1.555	2.550	5.1	18.1	8 29	21 38.73	-6 22.6	1.230	2.226	5.9	18.2
9 8	21 31.40	-11 54.9	1.594	2.546	9.4	18.4	9 8	21 32.04	-7 26.8	1.269	2.230	10.4	18.4
9 18	21 26.24	-12 20.3	1.656	2.543	13.2	18.6	9 18	21 27.64	-8 24.6	1.331	2.234	14.6	18.7
287289	2002 <i>TJ</i> ₁₉₄		8 17.5 7°25	5°2/21.7	18		300705	2007 <i>VP</i> ₉₉		8 17.5 347°98	3°4/15.1	18	
7 10	22 3.95	+ 1 11.8	1.294	2.123	20.4	19.7	7 10	22 13.91	-20 6.3	1.667	2.524	15.3	20.3
7 20	22 2.84	+ 1 11.6	1.226	2.124	16.9	19.5	7 20	22 10.18	-20 36.1	1.593	2.520	11.9	20.0
7 30	21 59.19	+ 0 43.8	1.176	2.127	12.9	19.2	7 30	22 3.94	-21 11.0	1.541	2.517	8.1	19.8
8 9	21 53.62	+ 0 11.2	1.145	2.132	8.5	19.0	8 9	21 55.80	-21 45.2	1.512	2.514	4.4	19.6
8 19	21 47.03	+ 1 29.0	1.136	2.137	5.4	18.9	8 19	21 46.69	-22 12.5	1.508	2.512	3.8	19.5
8 29	21 40.61	+ 3 1.5	1.150	2.144	6.5	19.0	8 29	21 37.78	-22 27.8	1.531	2.510	7.2	19.8
9 8	21 35.54	+ 4 38.2	1.188	2.153	10.4	19.2	9 8	21 30.21	-22 28.0	1.578	2.509	11.1	20.0
9 18	21 32.68	+ 6 9.0	1.248	2.163	14.5	19.5	9 18	21 24.84	-22 12.8	1.647	2.508	14.7	20.2
288614	2004 <i>NB</i> ₈		8 17.5 74°20	3°3/20.1	18		20120	Ryugatake		8 17.5 343°55	9°9/23.9	18	
7 10	22 14.98	-3 43.3	2.138	2.930	14.6	20.6	7 10	22 10.08	+ 7 31.8	1.496	2.271	20.6	17.8
7 20	22 10.16	-3 15.3	2.067	2.946	11.9	20.4	7 20	22 7.50	+ 8 51.0	1.414	2.263	18.0	17.6
7 30	22 3.45	-2 59.9	2.017	2.962	8.7	20.3	7 30	22 2.36	+ 9 47.3	1.348	2.255	15.0	17.3
8 9	21 55.41	-2 56.6	1.991	2.979	5.4	20.1	8 9	21 55.18	+10 16.3	1.302	2.248	12.2	17.2
8 19	21 46.73	-3 3.7	1.993	2.995	3.3	20.0	8 19	21 46.79	+10 15.5	1.276	2.242	10.2	17.0
8 29	21 38.29	-3 18.4	2.022	3.011	4.8	20.1	8 29	21 38.37	+ 9 46.0	1.273	2.237	10.2	17.0
9 8	21 30.88	-3 37.1	2.078	3.027	7.8	20.3	9 8	21 31.16	+ 8 53.8	1.292	2.233	12.2	17.1
9 18	21 25.13	-3 56.4	2.160	3.043	10.7	20.6	9 18	21 26.13	+ 7 47.2	1.333	2.230	15.1	17.3
310678	2002 <i>GV</i> ₄		8 17.5 123°07	5°8/10.6	18		275083	2009 <i>UA</i> ₁₅₂		8 17.5 295°89	0°7/16.9	18	
7 10	22 13.78	-30 38.9	2.620	3.460	10.9	21.2	7 10	22 9.07	-9 3.8	1.541	2.386	16.9	20.4
7 20	22 9.22	-31 58.7	2.565	3.473	8.7	21.0	7 20	22 6.74	-10 11.4	1.451	2.371	13.4	20.2
7 30	22 2.83	-33 15.8	2.534	3.486	6.8	20.9	7 30	22 1.89	-11 40.2	1.381	2.355	9.1	19.9
8 9	21 55.13	-34 24.1	2.530	3.498	5.8	20.9	8 9	21 54.98	-13 25.3	1.334	2.340	4.2	19.5
8 19	21 46.79	-35 18.3	2.554	3.510	6.4	21.0	8 19	21 46.82	-15 18.1	1.313	2.325	1.3	19.3
8 29	21 38.63	-35 54.6	2.605	3.522	8.0	21.1	8 29	21 38.56	-17 8.0	1.319	2.309	6.4	19.6
9 8	21 31.43	-36 11.8	2.680	3.533	10.0	21.2	9 8	21 31.44	-18 45.3	1.349	2.295	11.3	19.9
9 18	21 25.82	-36 10.6	2.778	3.544	11.9	21.4	9 18	21 26.47	-20 3.2	1.402	2.280	15.7	20.1
36454	2000 <i>QN</i> ₅		8 17.5 357°97	1°7/16.5	18		329240	2012 <i>FZ</i> ₃₆		8 17.5 95°86	4°5/20.6	17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
440357	2004 <i>VO</i> ₂		8 17.5 269°61	3°4/20.9	18		161858	2007 <i>BD</i> ₄₂		8 17.5 74°37	0°9/18.3	18	
7 10	22 9.44	- 0 32.0	2.499	3.277	13.1	21.5	7 10	22 13.72	- 9 31.6	2.239	3.053	13.4	20.1
7 20	22 5.89	- 0 29.4	2.394	3.262	10.8	21.3	7 20	22 9.11	- 9 32.4	2.173	3.072	10.5	19.9
7 30	22 0.69	- 0 40.9	2.310	3.247	8.2	21.1	7 30	22 2.72	- 9 42.7	2.129	3.091	7.2	19.7
8 9	21 54.21	- 1 6.0	2.251	3.232	5.4	21.0	8 9	21 55.10	-10 0.1	2.110	3.111	3.6	19.5
8 19	21 47.00	- 1 43.2	2.218	3.217	3.5	20.8	8 19	21 46.92	-10 21.6	2.118	3.130	1.0	19.4
8 29	21 39.75	- 2 29.2	2.214	3.202	4.5	20.8	8 29	21 38.99	-10 43.7	2.156	3.149	4.1	19.6
9 8	21 33.18	- 3 19.9	2.237	3.187	7.2	21.0	9 8	21 32.05	-11 3.4	2.220	3.167	7.4	19.9
9 18	21 27.91	- 4 10.8	2.286	3.171	10.1	21.2	9 18	21 26.70	-11 18.0	2.310	3.186	10.4	20.1
77168	2001 <i>EK</i> ₂₂		8 17.5 11°87	1°1/16.9	17		150613	2000 <i>YF</i> ₃₉		8 17.5 215°01	0°3/17.1	18	
7 10	22 15.53	-15 19.8	1.179	2.047	19.6	18.5	7 10	22 10.44	-11 42.9	2.739	3.556	11.1	20.8
7 20	22 12.22	-15 14.5	1.117	2.049	15.4	18.2	7 20	22 6.48	-12 16.8	2.645	3.549	8.7	20.7
7 30	22 5.70	-15 19.3	1.072	2.051	10.3	18.0	7 30	22 0.98	-12 59.1	2.575	3.543	5.8	20.5
8 9	21 56.73	-15 29.3	1.049	2.055	4.8	17.7	8 9	21 54.33	-13 46.8	2.531	3.535	2.7	20.2
8 19	21 46.56	-15 38.9	1.048	2.059	1.6	17.5	8 19	21 47.04	-14 36.5	2.516	3.528	0.7	20.1
8 29	21 36.76	-15 42.5	1.071	2.064	7.1	17.8	8 29	21 39.78	-15 24.2	2.531	3.520	3.9	20.3
9 8	21 28.84	-15 36.5	1.117	2.070	12.3	18.2	9 8	21 33.20	-16 6.2	2.573	3.512	7.0	20.5
9 18	21 23.79	-15 19.3	1.183	2.077	16.8	18.4	9 18	21 27.86	-16 40.1	2.642	3.503	9.8	20.7
112511	2002 <i>PP</i> ₂₄		8 17.5 318°48	0°1/17.5	18		509404	2007 <i>DB</i> ₅₉		8 17.5 103°90	0°7/16.9	18	
7 10	22 10.69	- 9 41.0	1.858	2.690	15.0	20.4	7 10	22 16.00	-15 11.1	2.506	3.326	12.0	21.3
7 20	22 7.37	-10 19.2	1.778	2.689	11.8	20.2	7 20	22 10.70	-15 13.8	2.435	3.341	9.3	21.2
7 30	22 1.92	-11 11.5	1.718	2.688	8.0	20.0	7 30	22 3.71	-15 21.4	2.387	3.355	6.2	21.0
8 9	21 54.85	-12 13.8	1.683	2.687	3.8	19.7	8 9	21 55.55	-15 31.2	2.365	3.370	2.8	20.8
8 19	21 46.91	-13 20.8	1.674	2.686	0.7	19.5	8 19	21 46.85	-15 40.2	2.373	3.384	1.0	20.7
8 29	21 39.05	-14 26.0	1.693	2.685	5.1	19.8	8 29	21 38.39	-15 45.8	2.410	3.398	4.2	20.9
9 8	21 32.25	-15 23.4	1.737	2.684	9.2	20.1	9 8	21 30.88	-15 46.0	2.475	3.411	7.3	21.2
9 18	21 27.25	-16 9.1	1.806	2.683	12.8	20.3	9 18	21 24.88	-15 39.7	2.565	3.425	10.1	21.4
234852	2002 <i>RD</i> ₂₁₆		8 17.5 35°48	2°3/15.5	18		22744	<i>Esterantonucci</i>		8 17.5 84°45	0°7/18.2	18	
7 10	22 9.84	-14 9.7	1.609	2.464	15.9	19.4	7 10	22 9.82	- 8 32.2	2.372	3.187	12.7	18.2
7 20	22 6.99	-15 18.0	1.545	2.472	12.2	19.1	7 20	22 6.12	- 8 58.4	2.296	3.197	10.0	18.1
7 30	22 1.77	-16 38.9	1.502	2.480	8.1	18.9	7 30	22 0.76	- 9 35.4	2.243	3.207	6.8	17.9
8 9	21 54.79	-18 5.6	1.483	2.488	3.9	18.7	8 9	21 54.22	-10 20.4	2.215	3.217	3.4	17.7
8 19	21 46.93	-19 29.9	1.490	2.497	2.8	18.6	8 19	21 47.08	-11 9.7	2.215	3.226	0.7	17.5
8 29	21 39.27	-20 43.6	1.523	2.507	6.7	18.9	8 29	21 40.08	-11 59.1	2.243	3.236	3.9	17.8
9 8	21 32.89	-21 40.9	1.581	2.517	10.7	19.2	9 8	21 33.91	-12 44.3	2.299	3.246	7.2	18.0
9 18	21 28.56	-22 19.0	1.661	2.527	14.3	19.4	9 18	21 29.16	-13 22.3	2.380	3.255	10.2	18.2
438983	2010 <i>PT</i> ₅₂		8 17.5 317°01	7°5/21.0	17		364490	2007 <i>DM</i> ₁₁₄		8 17.5 164°75	2°0/15.5	18	
7 10	22 15.85	+ 1 50.6	1.851	2.626	17.2	20.3	7 10	22 12.24	-18 11.7	2.672	3.503	11.0	21.9
7 20	22 11.74	+ 3 18.5	1.740	2.597	14.7	20.1	7 20	22 7.87	-18 44.3	2.592	3.506	8.5	21.8
7 30	22 5.17	+ 4 34.8	1.649	2.569	11.9	19.9	7 30	22 1.88	-19 21.1	2.537	3.509	5.7	21.6
8 9	21 56.55	+ 5 35.8	1.580	2.541	9.2	19.6	8 9	21 54.73	-19 58.5	2.508	3.511	2.9	21.4
8 19	21 46.58	+ 6 18.9	1.536	2.514	7.6	19.5	8 19	21 46.99	-20 32.6	2.508	3.513	2.3	21.4
8 29	21 36.30	+ 6 42.9	1.518	2.487	8.4	19.5	8 29	21 39.37	-20 59.8	2.537	3.515	4.8	21.6
9 8	21 26.89	+ 6 49.8	1.525	2.461	11.0	19.6	9 8	21 32.55	-21 17.9	2.593	3.517	7.6	21.7
9 18	21 19.38	+ 6 43.6	1.554	2.435	14.3	19.7	9 18	21 27.10	-21 25.4	2.674	3.518	10.2	21.9
445209	2009 <i>DL</i> ₁₁₀		8 17.5 148°01	9°3/26.1	17		319205	2005 <i>YU</i> ₁₉₄		8 17.5 193°24	2°8/20.6	18	
7 10	22 12.98	+14 37.3	1.260	2.008	25.0	21.2	7 10	22 10.81	- 1 45.6	2.953	3.724	11.5	21.6
7 20	22 10.18	+14 8.9	1.184	2.015	21.9	20.9	7 20	22 6.59	- 1 41.5	2.856	3.722	9.4	21.5
7 30	22 4.38	+12 55.7	1.121	2.020	18.0	20.7	7 30	22 0.96	- 1 48.5	2.782	3.719	7.0	21.3
8 9	21 56.19	+10 53.9	1.076	2.026	13.8	20.5	8 9	21 54.30	- 2 5.9	2.734	3.717	4.5	21.1
8 19	21 46.66	+ 8 6.5	1.053	2.030	10.3	20.3	8 19	21 47.07	- 2 32.2	2.714	3.714	2.8	21.0
8 29	21 37.25	+ 4 45.2	1.054	2.034	9.5	20.3	8 29	21 39.87	- 3 4.8	2.722	3.710	3.8	21.1
9 8	21 29.41	+ 1 9.4	1.081	2.038	12.2	20.4	9 8	21 33.31	- 3 40.5	2.760	3.706	6.2	21.2
9 18	21 24.23	- 2 20.9	1.132	2.041	16.2	20.7	9 18	21 27.88	- 4 16.3	2.824	3.702	8.7	21.4
31063	1996 <i>TK</i> ₁₁		8 17.5 325°26	2°0/16.0	18		433876	2015 <i>BQ</i> ₃₂₄		8 17.5 137°22	3°2/15.4	17	
7 10	22 10.68	-16 14.3	1.664	2.520	15.4	19.0	7 10	22 18.25	-19 11.6	1.628	2.477	16.0	21.1
7 20	22 7.80	-16 40.9	1.576	2.503	12.0	18.7	7 20	22 13.57	-19 44.6	1.559	2.482	12.4	20.9
7 30	22 2.47	-17 16.7	1.509	2.487	8.1	18.4	7 30	22 6.23	-20 23.7	1.511	2.486	8.4	20.7
8 9	21 55.21	-17 56.9	1.466	2.472	3.9	18.2	8 9	21 56.91	-21 2.5	1.487	2.489	4.4	20.4
8 19	21 46.85	-18 35.6	1.448	2.457	2.5	18.0	8 19	21 46.61	-21 34.6	1.488	2.493	3.6	20.4
8 29	21 38.50	-19 6.8	1.456	2.442	6.5	18.2	8 29	21 36.58	-21 54.5	1.517	2.497	7.2	20.6
9 8	21 31.33	-19 25.9	1.488	2.429	10.8	18.5	9 8	21 28.03	-21 59.1	1.570	2.500	11.2	20.9
9 18	21 26.23	-19 30.6	1.542	2.416	14.7	18.7	9 18	21 21.84	-21 48.3	1.645	2.503	14.8	21.1
57476	2001 <i>SB</i> ₁₃₄		8 17.5 222°48	0°4/17.7	18		315140	2007 <i>EO</i> ₁₂₉		8 17.5 156°69	0°0/17.5	18	
7 10	22 14.90	-10 41.7	1.693	2.526	16.2	19.9	7 10	22 11.17	-11 21.9	2.608	3.425	11.6	22.1
7 20	22 10.87	-10 52.7	1.612	2.524	12.8	19.7	7 20	22 7.05	-11 44.4	2.525	3.429	9.1	21.9
7 30	22 4.40	-11 16.1	1.553	2.522	8.7	19.5	7 30	22 1.34	-12 15.0	2.466	3.432	6.1	21.7
8 9	21 56.06	-11 48.7	1.516	2.520	4.2	19.2	8 9	21 54.49	-12 51.0	2.432	3.436	2.9	21.5
8 19	21 46.71	-12 25.8	1.506	2.518	0.7	18.9	8 19	21 47.05	-13 29.0	2.427	3.439	0.5	21.3
8 29	21 37.49	-13 1.9	1.522	2.515	5.4	19.3	8 29	21 39.71	-14 5.5	2.451	3.442	3.9	21.6
9 8	21 29.51	-13 32.2	1.564	2.513	9.8	19.5	9 8	21 33.14	-14 37.1	2.503	3.445	7.0	21.8
9 18	21 23.63	-13 53.1	1.630	2.510	13.7	19.7	9 18	21 27.90	-15 1.6	2.581	3.447	9.8	22.0
382296	2012 <i>VD</i> ₃₉		8 17.5 1°62	7°5/22.3	18		420425	2012 <i>DD</i> ₂₄		8 17.5 179°5			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
289886	2005 <i>MZ</i> ₂₈		8 17.5 85°06	5°1/21.8	18		403751	2011 <i>AF</i> ₇₄		8 17.5 243°46	3°9/12.9	18	
7 10	22 13.85	+ 1 48.8	2.107	2.876	15.5	20.7	7 10	22 10.87	-23 51.3	2.664	3.507	10.7	21.5
7 20	22 9.41	+ 2 21.8	2.032	2.889	12.9	20.5	7 20	22 7.02	-24 54.9	2.580	3.497	8.3	21.4
7 30	22 3.06	+ 2 38.5	1.978	2.903	10.0	20.3	7 30	22 1.46	-26 1.0	2.520	3.488	5.9	21.2
8 9	21 55.33	+ 2 38.5	1.947	2.917	7.1	20.2	8 9	21 54.62	-27 4.6	2.487	3.479	4.1	21.1
8 19	21 46.92	+ 2 22.9	1.941	2.930	5.2	20.1	8 19	21 47.07	-28 0.5	2.482	3.469	4.4	21.1
8 29	21 38.67	+ 1 54.5	1.963	2.943	5.8	20.2	8 29	21 39.55	-28 44.3	2.505	3.459	6.5	21.2
9 8	21 31.42	+ 1 17.8	2.012	2.957	8.2	20.3	9 8	21 32.79	-29 13.3	2.555	3.449	9.0	21.3
9 18	21 25.83	+ 0 37.6	2.085	2.970	11.0	20.5	9 18	21 27.42	-29 26.6	2.628	3.438	11.3	21.5
223346	2003 <i>QX</i> ₁₁₂		8 17.5 274°53	7°2/24.0	18		441984	2010 <i>NX</i> ₄₃		8 17.5 265°76	6°8/12.4	18	
7 10	22 11.69	+ 9 39.3	2.604	3.314	14.2	20.7	7 10	22 22.05	-33 46.6	2.249	3.081	12.7	20.8
7 20	22 7.68	+ 10 30.3	2.494	3.296	12.5	20.5	7 20	22 15.98	-34 19.5	2.177	3.077	10.4	20.6
7 30	22 1.95	+ 11 5.6	2.403	3.278	10.5	20.4	7 30	22 7.57	-34 46.1	2.127	3.074	8.2	20.5
8 9	21 54.88	+ 11 23.1	2.334	3.259	8.6	20.2	8 9	21 57.47	-35 0.2	2.103	3.070	6.9	20.4
8 19	21 46.98	+ 11 21.8	2.291	3.240	7.4	20.1	8 19	21 46.59	-34 56.7	2.105	3.066	7.2	20.4
8 29	21 38.96	+ 11 2.2	2.273	3.221	7.4	20.1	8 29	21 36.05	-34 32.8	2.134	3.062	8.9	20.5
9 8	21 31.58	+ 10 27.4	2.282	3.202	8.7	20.1	9 8	21 26.86	-33 48.9	2.188	3.058	11.3	20.6
9 18	21 25.49	+ 9 41.6	2.315	3.183	10.7	20.2	9 18	21 19.79	-32 47.8	2.265	3.054	13.6	20.8
516512	2006 <i>BJ</i> ₂₄₉		8 17.5 229°40	0°7/16.8	18		365756	ISON		8 17.5 236°35	2°6/24.9	13 C	
7 10	22 11.91	-14 12.9	2.718	3.539	11.1	22.5	7 10	22 1.06	+ 9 52.0	7.469	8.143	5.6	23.7
7 20	22 7.64	-14 31.9	2.624	3.531	8.6	22.3	7 20	21 58.32	+ 9 53.3	7.349	8.127	4.8	23.6
7 30	22 1.77	-14 57.1	2.554	3.523	5.8	22.1	7 30	21 55.07	+ 9 47.9	7.251	8.111	4.0	23.5
8 9	21 54.72	-15 25.7	2.510	3.514	2.7	21.9	8 9	21 51.46	+ 9 35.9	7.178	8.095	3.2	23.4
8 19	21 47.03	-15 54.6	2.495	3.505	1.0	21.8	8 19	21 47.65	+ 9 17.6	7.132	8.079	2.7	23.4
8 29	21 39.38	-16 20.3	2.509	3.496	4.1	22.0	8 29	21 43.84	+ 8 53.8	7.115	8.062	2.6	23.4
9 8	21 32.45	-16 40.2	2.551	3.487	7.2	22.2	9 8	21 40.23	+ 8 25.5	7.126	8.045	3.1	23.4
9 18	21 26.82	-16 52.3	2.618	3.477	9.9	22.3	9 18	21 36.99	+ 7 54.1	7.165	8.028	3.9	23.5
181968	1999 <i>UW</i> ₅₈		8 17.5 348°60	9°1/12.2	18		329186	2012 <i>DV</i> ₂₈		8 17.5 155°26	1°9/16.2	17	
7 10	22 19.83	-35 23.9	1.628	2.482	15.8	18.7	7 10	22 17.18	-15 14.8	1.647	2.489	16.1	21.5
7 20	22 15.19	-36 0.2	1.562	2.473	13.1	18.5	7 20	22 12.72	-15 52.5	1.575	2.494	12.6	21.3
7 30	22 7.50	-36 27.6	1.516	2.466	10.7	18.3	7 30	22 5.68	-16 40.2	1.524	2.498	8.4	21.1
8 9	21 57.54	-36 37.4	1.492	2.459	9.2	18.2	8 9	21 56.70	-17 32.3	1.497	2.502	4.0	20.8
8 19	21 46.54	-36 22.8	1.492	2.453	9.5	18.2	8 19	21 46.72	-18 22.1	1.497	2.506	2.4	20.7
8 29	21 36.00	-35 40.4	1.515	2.448	11.6	18.4	8 29	21 36.96	-19 3.3	1.523	2.509	6.4	21.0
9 8	21 27.29	-34 31.8	1.562	2.444	14.3	18.5	9 8	21 28.59	-19 31.4	1.575	2.511	10.7	21.3
9 18	21 21.31	-33 1.9	1.629	2.441	17.1	18.7	9 18	21 22.46	-19 44.5	1.649	2.514	14.4	21.5
437153	2012 <i>VX</i> ₃₄		8 17.5 338°65	10°3/ 8.9	18		298191	2002 <i>TL</i> ₂₃₀		8 17.5 300°48	6°3/11.5	18	
7 10	22 10.46	-31 43.0	1.360	2.241	16.7	19.5	7 10	22 11.26	-24 49.5	1.779	2.642	14.2	20.2
7 20	22 8.56	-33 33.8	1.298	2.228	13.8	19.3	7 20	22 8.40	-26 22.9	1.693	2.621	11.3	19.9
7 30	22 3.49	-35 23.3	1.257	2.217	11.3	19.1	7 30	22 3.01	-28 2.3	1.630	2.600	8.3	19.7
8 9	21 55.86	-36 58.7	1.237	2.206	10.3	19.0	8 9	21 55.58	-29 39.2	1.591	2.579	6.4	19.6
8 19	21 46.82	-38 8.1	1.239	2.196	11.4	19.1	8 19	21 46.90	-31 3.8	1.578	2.558	7.2	19.6
8 29	21 37.94	-38 43.1	1.263	2.188	14.0	19.2	8 29	21 38.12	-32 7.8	1.590	2.537	10.0	19.7
9 8	21 30.77	-38 41.7	1.306	2.180	17.1	19.4	9 8	21 30.47	-32 46.6	1.625	2.517	13.3	19.8
9 18	21 26.45	-38 7.1	1.367	2.173	20.0	19.6	9 18	21 24.95	-32 59.4	1.681	2.497	16.5	20.0
316719	1997 <i>YY</i> ₁₃		8 17.5 161°39	1°2/18.5	18		395894	2013 <i>AM</i> ₄₆		8 17.5 87°92	0°9/16.7	18	
7 10	22 15.68	- 8 10.8	2.144	2.952	14.1	20.4	7 10	22 14.76	-14 42.0	2.159	2.989	13.3	21.3
7 20	22 10.88	- 8 18.3	2.063	2.958	11.2	20.2	7 20	22 10.06	-14 59.5	2.093	3.005	10.3	21.2
7 30	22 4.10	- 8 37.2	2.003	2.963	7.8	20.0	7 30	22 3.45	-15 23.8	2.050	3.021	6.8	21.0
8 9	21 55.85	- 9 5.1	1.968	2.967	4.0	19.8	8 9	21 55.51	-15 51.2	2.032	3.036	3.1	20.8
8 19	21 46.85	- 9 38.6	1.961	2.971	1.2	19.6	8 19	21 46.96	-16 17.7	2.041	3.052	1.3	20.7
8 29	21 37.98	-10 13.8	1.982	2.975	4.4	19.8	8 29	21 38.66	-16 39.7	2.079	3.067	4.8	20.9
9 8	21 30.12	-10 46.3	2.031	2.978	8.0	20.1	9 8	21 31.44	-16 54.1	2.144	3.082	8.2	21.2
9 18	21 23.94	-11 13.2	2.105	2.980	11.3	20.3	9 18	21 25.90	-16 59.5	2.234	3.098	11.2	21.4
220976	2005 <i>ND</i> ₂		8 17.5 24°88	0°4/17.3	17		110549	2001 <i>TC</i> ₁₀₁		8 17.5 200°82	6°0/11.8	18	
7 10	22 10.17	-10 50.6	1.156	2.024	19.9	20.0	7 10	22 16.08	-29 59.6	2.269	3.113	12.3	19.6
7 20	22 7.99	-11 21.0	1.101	2.033	15.6	19.8	7 20	22 11.36	-30 57.9	2.200	3.111	9.8	19.4
7 30	22 2.82	-12 9.4	1.063	2.042	10.5	19.5	7 30	22 4.51	-31 54.0	2.153	3.110	7.5	19.3
8 9	21 55.42	-13 9.8	1.046	2.052	4.9	19.3	8 9	21 56.07	-32 41.2	2.132	3.108	6.1	19.2
8 19	21 46.93	-14 14.2	1.052	2.064	1.1	19.0	8 19	21 46.85	-33 14.0	2.138	3.106	6.6	19.2
8 29	21 38.81	-15 13.4	1.082	2.076	6.7	19.5	8 29	21 37.81	-33 28.3	2.170	3.104	8.5	19.3
9 8	21 32.41	-16 0.1	1.133	2.089	11.9	19.8	9 8	21 29.90	-33 22.9	2.227	3.101	10.9	19.5
9 18	21 28.65	-16 30.0	1.206	2.103	16.3	20.1	9 18	21 23.85	-32 59.0	2.306	3.099	13.3	19.6
348385	2005 <i>GJ</i> ₅₅		8 17.5 229°47	2°5/19.9	18		357827	2005 <i>UA</i> ₆₄		8 17.5 55°56	2°5/19.8	18	
7 10	22 11.34	- 3 6.7	2.236	3.029	14.0	21.5	7 10	22 10.29	- 4 1.5	2.082	2.887	14.6	21.1
7 20	22 7.57	- 3 21.5	2.139	3.021	11.4	21.3	7 20	22 6.72	- 4 7.8	2.007	2.896	11.7	20.9
7 30	22 1.94	- 3 51.5	2.063	3.012	8.3	21.0	7 30	22 1.31	- 4 28.8	1.953	2.906	8.4	20.8
8 9	21 54.89	- 4 35.3	2.011	3.003	4.9	20.8	8 9	21 54.56	- 5 2.5	1.923	2.916	4.9	20.6
8 19	21 47.02	- 5 29.8	1.987	2.993	2.5	20.6	8 19	21 47.13	- 5 45.8	1.919	2.926	2.5	20.4
8 29	21 39.13	- 6 30.7	1.991	2.984	4.4	20.8	8 29	21 39.85	- 6 34.4	1.942	2.936	4.4	20.6
9 8	21 32.06	- 7 32.5	2.023	2.973	7.8	20.9	9 8	21 33.53	- 7 23.2	1.993	2.946	7.7	20.8
9 18	21 26.49	- 8 30.4	2.080	2.963	11.1	21.1	9 18	21 28.78	- 8 8.0	2.068	2.956	10.9	21.0
398398	2011 <i>ST</i> ₁₉₇		8 17.5 285°39	1°1/18.5	18		39584	1993 <i>FO</i> ₂₃		8			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
488930	2005 <i>UM</i> ₇₆	8 17.5 339°29		12°0/11.2 15			514663	2005 <i>UN</i> ₃₅	8 17.5 282°39		3°4/14.4 18		
7 10	22 19.59	-38 46.2	1.345	2.208	17.9	20.4	7 10	22 12.54	-21 3.8	2.191	3.037	12.6	21.8
7 20	22 16.11	-39 29.9	1.269	2.181	15.5	20.2	7 20	22 8.66	-21 47.4	2.105	3.026	9.8	21.6
7 30	22 8.80	-40 1.3	1.212	2.156	13.2	20.0	7 30	22 2.77	-22 35.2	2.042	3.014	6.7	21.4
8 9	21 58.44	-40 8.7	1.174	2.132	12.0	19.8	8 9	21 55.33	-23 22.2	2.004	3.003	4.0	21.2
8 19	21 46.45	-39 41.9	1.157	2.110	12.6	19.8	8 19	21 47.05	-24 2.9	1.993	2.992	3.8	21.1
8 29	21 34.82	-38 35.8	1.162	2.089	14.7	19.9	8 29	21 38.82	-24 32.6	2.010	2.981	6.5	21.3
9 8	21 25.39	-36 52.9	1.187	2.071	17.8	20.0	9 8	21 31.54	-24 48.2	2.052	2.970	9.7	21.5
9 18	21 19.40	-34 40.9	1.231	2.054	20.9	20.1	9 18	21 25.95	-24 48.8	2.118	2.958	12.6	21.6
457264	2008 <i>RT</i> ₃₃	8 17.5 336°81		1°3/16.5 18			382536	2001 <i>TR</i> ₁₅₈	8 17.5 323°45		0°1/17.6 18		
7 10	22 11.96	-16 21.6	2.140	2.980	13.0	20.5	7 10	22 8.91	-10 33.0	1.302	2.164	18.5	20.6
7 20	22 8.13	-16 31.2	2.055	2.972	10.2	20.3	7 20	22 7.11	-10 51.2	1.216	2.144	14.7	20.3
7 30	22 2.34	-16 46.5	1.992	2.965	6.8	20.1	7 30	22 2.45	-11 26.9	1.149	2.126	10.1	20.0
8 9	21 55.08	-17 4.1	1.953	2.958	3.2	19.8	8 9	21 55.45	-12 16.6	1.102	2.108	4.9	19.6
8 19	21 47.06	-17 20.3	1.942	2.952	1.7	19.7	8 19	21 47.01	-13 14.0	1.079	2.091	0.8	19.3
8 29	21 39.13	-17 31.4	1.958	2.946	5.1	19.9	8 29	21 38.48	-14 10.9	1.079	2.074	6.6	19.6
9 8	21 32.17	-17 34.7	2.001	2.940	8.6	20.1	9 8	21 31.30	-14 59.5	1.102	2.059	12.0	19.9
9 18	21 26.86	-17 28.8	2.068	2.935	11.8	20.3	9 18	21 26.63	-15 33.9	1.146	2.045	16.9	20.1
32998	1997 <i>CK</i> ₅	8 17.5 79°74		0°7/18.1 18			427886	2005 <i>SC</i> ₂₃₆	8 17.5 6°92		0°3/17.4 16		
7 10	22 13.82	-10 39.2	2.174	2.994	13.5	19.3	7 10	22 10.71	-12 57.2	1.118	1.993	20.0	20.4
7 20	22 9.44	-10 36.4	2.092	2.995	10.7	19.2	7 20	22 8.62	-12 56.5	1.058	1.993	15.7	20.2
7 30	22 3.15	-10 42.6	2.032	2.997	7.3	19.0	7 30	22 3.40	-13 9.7	1.014	1.995	10.6	19.9
8 9	21 55.44	-10 55.4	1.996	2.998	3.6	18.7	8 9	21 55.79	-13 32.3	0.991	1.998	5.0	19.6
8 19	21 47.01	-11 11.9	1.988	3.000	0.8	18.5	8 19	21 46.97	-13 58.3	0.990	2.002	1.0	19.3
8 29	21 38.71	-11 28.9	2.009	3.002	4.3	18.8	8 29	21 38.48	-14 20.9	1.012	2.008	6.8	19.8
9 8	21 31.38	-11 42.9	2.056	3.003	7.9	19.0	9 8	21 31.76	-14 34.5	1.056	2.015	12.2	20.1
9 18	21 25.68	-11 51.7	2.129	3.005	11.2	19.2	9 18	21 27.82	-14 36.0	1.120	2.023	16.8	20.4
227325	2005 <i>TB</i> ₁₅₁	8 17.5 37°93		1°4/18.6 17			107607	2001 <i>ES</i> ₃	8 17.5 268°88		1°1/18.4 18		
7 10	22 10.67	-6 35.8	1.273	2.121	19.6	20.2	7 10	22 11.76	-6 0.2	1.605	2.433	17.2	20.1
7 20	22 8.07	-7 3.0	1.216	2.134	15.5	20.0	7 20	22 8.83	-6 42.3	1.509	2.415	13.8	19.8
7 30	22 2.73	-7 51.1	1.177	2.148	10.8	19.8	7 30	22 3.36	-7 45.9	1.432	2.397	9.7	19.5
8 9	21 55.37	-8 55.8	1.160	2.162	5.5	19.5	8 9	21 55.80	-9 7.9	1.378	2.379	5.0	19.2
8 19	21 47.03	-10 9.9	1.166	2.177	1.4	19.3	8 19	21 46.95	-10 42.4	1.349	2.361	1.1	18.9
8 29	21 39.03	-11 24.4	1.197	2.193	5.9	19.7	8 29	21 37.93	-12 20.5	1.347	2.342	5.7	19.1
9 8	21 32.60	-12 30.9	1.251	2.209	10.8	20.0	9 8	21 30.00	-13 52.9	1.371	2.323	10.6	19.4
9 18	21 28.61	-13 23.7	1.328	2.226	15.0	20.3	9 18	21 24.17	-15 12.2	1.418	2.304	15.1	19.6
490278	2008 <i>YB</i> ₅₆	8 17.5 328°11		9°7/23.8 16			50359	2000 <i>CO</i> ₇₂	8 17.5 211°61		1°6/18.8 18		
7 10	22 8.88	+6 58.0	1.471	2.253	20.5	21.3	7 10	22 12.71	-5 46.1	1.681	2.502	16.8	18.8
7 20	22 6.74	+8 9.1	1.381	2.236	18.0	21.1	7 20	22 9.24	-6 14.8	1.598	2.500	13.4	18.6
7 30	22 2.03	+8 57.5	1.307	2.220	15.0	20.8	7 30	22 3.40	-7 2.0	1.535	2.497	9.4	18.3
8 9	21 55.19	+9 18.5	1.252	2.204	12.0	20.6	8 9	21 55.71	-8 4.7	1.495	2.494	5.0	18.1
8 19	21 47.02	+9 9.5	1.218	2.189	10.0	20.5	8 19	21 46.99	-9 17.6	1.481	2.491	1.6	17.8
8 29	21 38.71	+8 31.6	1.206	2.175	10.0	20.4	8 29	21 38.32	-10 33.6	1.493	2.488	5.2	18.1
9 8	21 31.53	+7 30.9	1.216	2.162	12.3	20.5	9 8	21 30.81	-11 45.2	1.532	2.485	9.7	18.3
9 18	21 26.55	+6 16.2	1.248	2.150	15.5	20.7	9 18	21 25.32	-12 46.7	1.594	2.481	13.7	18.6
269192	2008 <i>GF</i> ₉₈	8 17.5 28°88		1°1/18.4 17			387888	2004 <i>TK</i> ₈₃	8 17.5 250°64		1°6/16.2 18		
7 10	22 10.17	-6 52.5	1.358	2.204	18.8	20.5	7 10	22 16.04	-15 51.7	2.071	2.903	13.7	22.1
7 20	22 7.65	-7 26.5	1.292	2.209	14.9	20.3	7 20	22 11.55	-16 18.8	1.973	2.886	10.7	21.9
7 30	22 2.48	-8 21.2	1.244	2.215	10.3	20.1	7 30	22 4.83	-16 53.8	1.897	2.868	7.2	21.6
8 9	21 55.28	-9 32.3	1.218	2.221	5.2	19.8	8 9	21 56.37	-17 32.4	1.846	2.850	3.5	21.3
8 19	21 47.04	-10 52.7	1.217	2.228	1.1	19.5	8 19	21 46.88	-18 9.8	1.823	2.832	2.0	21.2
8 29	21 39.00	-12 13.3	1.240	2.235	5.8	19.9	8 29	21 37.34	-18 41.0	1.828	2.813	5.6	21.4
9 8	21 32.41	-13 25.6	1.287	2.243	10.7	20.2	9 8	21 28.77	-19 2.0	1.860	2.793	9.5	21.6
9 18	21 28.15	-14 23.7	1.356	2.251	15.0	20.5	9 18	21 22.00	-19 11.0	1.916	2.773	13.0	21.8
480032	2015 <i>BG</i> ₉₁	8 17.5 57°29		0°2/17.3 16			510002	2009 <i>VP</i> ₉₂	8 17.5 330°18		4°5/20.1 17		
7 10	22 11.34	-3 57.7	1.458	2.286	18.6	20.7	7 10	22 11.61	-4 0.5	1.338	2.172	19.6	20.5
7 20	22 8.24	-6 3.9	1.402	2.311	14.5	20.5	7 20	22 9.04	-3 23.2	1.255	2.160	16.1	20.2
7 30	22 2.67	-8 36.1	1.367	2.336	9.7	20.3	7 30	22 3.64	-3 4.0	1.190	2.148	12.0	20.0
8 9	21 55.29	-11 24.8	1.357	2.362	4.5	20.0	8 9	21 55.97	-3 3.4	1.145	2.137	7.6	19.7
8 19	21 47.05	-14 17.1	1.376	2.387	0.9	19.8	8 19	21 46.94	-3 20.0	1.123	2.127	4.6	19.5
8 29	21 39.11	-16 58.9	1.422	2.413	6.1	20.3	8 29	21 37.90	-3 49.6	1.124	2.118	6.7	19.6
9 8	21 32.59	-19 19.0	1.496	2.439	10.7	20.6	9 8	21 30.23	-4 25.7	1.149	2.110	11.2	19.8
9 18	21 28.26	-21 11.3	1.593	2.464	14.5	20.9	9 18	21 25.01	-5 1.7	1.195	2.102	15.7	20.1
363259	2002 <i>CX</i> ₂₇₁	8 17.5 250°36		1°2/18.5 18			40528	1999 <i>RT</i> ₉₈	8 17.5 205°27		2°2/20.2 18		
7 10	22 13.76	-9 12.4	2.284	3.096	13.2	21.3	7 10	22 9.15	-1 58.9	2.804	3.583	11.8	19.2
7 20	22 9.37	-9 5.6	2.192	3.090	10.5	21.1	7 20	22 5.47	-2 27.3	2.706	3.579	9.6	19.1
7 30	22 3.11	-9 8.1	2.122	3.083	7.3	20.9	7 30	22 0.34	-3 9.1	2.630	3.574	7.0	18.9
8 9	21 55.45	-9 18.1	2.077	3.077	3.8	20.7	8 9	21 54.12	-4 2.8	2.580	3.569	4.2	18.7
8 19	21 47.03	-9 33.2	2.060	3.071	1.2	20.5	8 19	21 47.30	-5 5.6	2.558	3.564	2.2	18.6
8 29	21 38.65	-9 50.1	2.071	3.064	4.2	20.7	8 29	21 40.49	-6 13.6	2.566	3.558	3.6	18.6
9 8	21 31.15	-10 5.7	2.110	3.057	7.7	20.9	9 8	21 34.31	-7 22.2	2.602	3.552	6.4	18.8
9 18	21 25.20	-10 17.4	2.174	3.051	10.9	21.1	9 18	21 29.29	-8 27.3	2.666	3.545	9.1	19.0
263773	2008 <i>KW</i> ₃₆	8 17.5 225°34		1°8/19.5 18			319506	2006 <i>QN</i> ₁₂₃	8 17.5 335°04		23°9/28.4 18		
7 10	22 9.08	-4 22.9	2.427	3.226	12.9	21							

EPHEMERIDES

8 17.5

8 17.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
305738	2009 <i>CC</i> ₄₈		8 17.5 350°76	0°4/17.2	18		169450	2002 <i>BU</i> ₁₆		8 17.5 180°59	1°0/18.2	17	
7 10	22 10.11	-11 1.4	1.765	2.605	15.3	20.8	7 10	22 15.46	-8 12.0	1.567	2.397	17.4	20.3
7 20	22 7.10	-11 39.0	1.686	2.603	12.0	20.5	7 20	22 11.55	-8 33.1	1.489	2.398	13.8	20.1
7 30	22 1.88	-12 30.1	1.628	2.601	8.1	20.3	7 30	22 5.04	-9 10.7	1.431	2.398	9.6	19.8
8 9	21 54.97	-13 30.4	1.595	2.600	3.8	20.0	8 9	21 56.53	-10 1.5	1.396	2.398	4.8	19.5
8 19	21 47.16	-14 34.1	1.587	2.599	0.9	19.8	8 19	21 46.93	-10 59.9	1.386	2.398	1.0	19.3
8 29	21 39.44	-15 34.6	1.606	2.598	5.4	20.1	8 29	21 37.44	-11 58.9	1.403	2.397	5.6	19.6
9 8	21 32.83	-16 26.1	1.651	2.597	9.6	20.4	9 8	21 29.28	-12 51.9	1.445	2.396	10.3	19.9
9 18	21 28.10	-17 4.8	1.718	2.597	13.3	20.6	9 18	21 23.36	-13 34.0	1.511	2.395	14.4	20.1
202881	2008 <i>UV</i> ₂₈₁		8 17.5 260°93	4°9/13.4	18		320443	2007 <i>VQ</i> ₁₈₈		8 17.6 259°76	2°4/19.0	17	
7 10	22 15.16	-23 28.5	1.927	2.778	13.8	21.2	7 10	22 15.98	-6 44.2	1.537	2.362	17.9	21.0
7 20	22 11.11	-24 28.5	1.843	2.765	10.9	21.0	7 20	22 12.17	-6 34.7	1.447	2.350	14.5	20.8
7 30	22 4.66	-25 32.6	1.781	2.751	7.7	20.8	7 30	22 5.64	-6 41.0	1.376	2.339	10.4	20.5
8 9	21 56.32	-26 33.8	1.744	2.738	5.2	20.6	8 9	21 56.90	-7 2.0	1.328	2.326	5.8	20.2
8 19	21 46.92	-27 25.0	1.733	2.724	5.4	20.6	8 19	21 46.86	-7 34.1	1.305	2.314	2.4	20.0
8 29	21 37.55	-28 0.1	1.749	2.710	8.2	20.7	8 29	21 36.77	-8 12.3	1.307	2.302	5.8	20.2
9 8	21 29.32	-28 15.8	1.789	2.695	11.5	20.9	9 8	21 27.94	-8 50.3	1.334	2.289	10.6	20.4
9 18	21 23.10	-28 11.8	1.852	2.681	14.6	21.1	9 18	21 21.41	-9 23.1	1.384	2.276	15.0	20.6
289749	2005 <i>JQ</i> ₅₈		8 17.5 241°57	2°1/15.8	18		269241	2008 <i>QY</i> ₁₀		8 17.6 29°43	1°7/18.8	17	
7 10	22 13.36	-16 29.5	1.995	2.836	13.8	20.9	7 10	22 10.00	-6 34.0	1.275	2.125	19.5	20.0
7 20	22 9.42	-17 7.1	1.913	2.832	10.7	20.6	7 20	22 7.58	-6 51.0	1.218	2.136	15.5	19.8
7 30	22 3.33	-17 52.4	1.853	2.827	7.2	20.4	7 30	22 2.45	-7 28.4	1.178	2.148	10.8	19.6
8 9	21 55.63	-18 40.7	1.819	2.823	3.5	20.2	8 9	21 55.30	-8 22.5	1.160	2.162	5.7	19.4
8 19	21 47.06	-19 26.5	1.811	2.818	2.5	20.1	8 19	21 47.18	-9 26.7	1.165	2.176	1.7	19.1
8 29	21 38.58	-20 4.5	1.831	2.814	5.8	20.3	8 29	21 39.39	-10 32.9	1.194	2.191	5.8	19.4
9 8	21 31.15	-20 30.9	1.877	2.809	9.5	20.5	9 8	21 33.14	-11 32.8	1.247	2.206	10.6	19.8
9 18	21 25.52	-20 43.8	1.946	2.804	12.8	20.7	9 18	21 29.28	-12 20.9	1.321	2.223	14.9	20.1
137430	1999 <i>TA</i> ₂₁₃		8 17.5 155°65	2°0/16.1	17		234209	2000 <i>SJ</i> ₁₈		8 17.6 287°57	7°6/23.3	18	
7 10	22 19.22	-16 27.6	1.842	2.676	15.0	20.1	7 10	22 11.17	+ 6 46.6	1.828	2.587	17.9	20.6
7 20	22 14.02	-16 57.3	1.769	2.684	11.7	19.9	7 20	22 8.16	+ 7 19.1	1.717	2.560	15.5	20.4
7 30	22 6.44	-17 34.4	1.718	2.690	7.8	19.7	7 30	22 2.85	+ 7 29.9	1.624	2.533	12.8	20.1
8 9	21 57.07	-18 13.9	1.692	2.696	3.8	19.4	8 9	21 55.61	+ 7 15.9	1.551	2.506	9.9	19.9
8 19	21 46.83	-18 50.1	1.693	2.701	2.3	19.4	8 19	21 47.09	+ 6 36.3	1.501	2.478	7.8	19.7
8 29	21 36.81	-19 17.8	1.722	2.706	6.0	19.6	8 29	21 38.30	+ 5 33.3	1.476	2.450	8.0	19.7
9 8	21 28.10	-19 33.8	1.777	2.710	9.9	19.9	9 8	21 30.35	+ 4 12.9	1.476	2.422	10.5	19.7
9 18	21 21.49	-19 36.8	1.856	2.713	13.4	20.1	9 18	21 24.21	+ 2 43.3	1.500	2.394	13.9	19.9
29214	<i>Apitzsch</i>		8 17.5 9°70	1°6/18.7	18		256497	2007 <i>ER</i> ₅₇		8 17.6 88°79	0°5/17.1	18	
7 10	22 10.87	- 8 14.5	1.623	2.459	16.6	17.9	7 10	22 11.22	-12 24.0	2.373	3.198	12.4	20.9
7 20	22 7.80	- 8 11.9	1.550	2.461	13.2	17.7	7 20	22 7.24	-12 55.2	2.302	3.211	9.6	20.8
7 30	22 2.38	- 8 23.5	1.496	2.463	9.2	17.4	7 30	22 1.58	-13 34.7	2.254	3.224	6.4	20.6
8 9	21 55.21	- 8 46.8	1.465	2.466	4.9	17.2	8 9	21 54.73	-14 19.1	2.232	3.237	2.9	20.4
8 19	21 47.14	- 9 18.1	1.459	2.470	1.6	17.0	8 19	21 47.29	-15 4.4	2.238	3.250	0.9	20.2
8 29	21 39.24	- 9 52.2	1.479	2.474	5.1	17.2	8 29	21 40.02	-15 46.3	2.273	3.262	4.3	20.5
9 8	21 32.57	-10 24.0	1.524	2.479	9.4	17.5	9 8	21 33.63	-16 21.3	2.335	3.275	7.5	20.8
9 18	21 27.91	-10 49.3	1.592	2.485	13.3	17.8	9 18	21 28.69	-16 47.1	2.422	3.287	10.4	21.0
369473	2010 <i>TE</i> ₃₄		8 17.5 35°86	3°4/19.9	17		16885	1998 <i>BX</i> ₂₅		8 17.6 240°06	3°3/20.1	18	
7 10	22 10.75	- 2 50.3	1.209	2.049	21.0	20.6	7 10	22 14.06	- 3 29.3	2.239	3.029	14.1	18.1
7 20	22 8.36	- 2 59.7	1.148	2.057	17.0	20.4	7 20	22 9.68	- 3 5.8	2.145	3.023	11.5	17.9
7 30	22 3.09	- 3 34.4	1.103	2.066	12.3	20.1	7 30	22 3.39	- 2 54.4	2.072	3.017	8.5	17.7
8 9	21 55.64	- 4 32.1	1.079	2.075	7.2	19.9	8 9	21 55.66	- 2 54.9	2.024	3.011	5.4	17.5
8 19	21 47.07	- 5 46.9	1.077	2.085	3.5	19.7	8 19	21 47.12	- 3 5.9	2.003	3.005	3.3	17.3
8 29	21 38.78	- 7 9.6	1.099	2.096	6.2	19.9	8 29	21 38.61	- 3 24.7	2.009	2.999	4.7	17.4
9 8	21 32.10	- 8 30.1	1.145	2.107	11.0	20.2	9 8	21 30.96	- 3 47.8	2.043	2.992	7.8	17.6
9 18	21 27.96	- 9 40.3	1.212	2.119	15.5	20.5	9 18	21 24.87	- 4 11.4	2.102	2.986	11.0	17.8
174655	2003 <i>SZ</i> ₁₉₄		8 17.5 275°84	4°4/14.8	18		260397	2004 <i>XJ</i> ₁		8 17.6 274°49	5°0/21.9	17	
7 10	22 18.08	-21 19.6	1.477	2.336	16.8	19.7	7 10	22 12.42	+ 2 15.5	2.448	3.206	13.9	20.2
7 20	22 14.04	-21 58.1	1.398	2.325	13.2	19.4	7 20	22 8.28	+ 2 54.1	2.349	3.197	11.7	20.0
7 30	22 6.97	-22 42.3	1.339	2.314	9.2	19.2	7 30	22 2.40	+ 3 19.2	2.270	3.189	9.2	19.8
8 9	21 57.52	-23 24.8	1.303	2.303	5.4	18.9	8 9	21 55.18	+ 3 29.8	2.215	3.180	6.7	19.6
8 19	21 46.74	-23 57.8	1.291	2.293	5.0	18.9	8 19	21 47.20	+ 3 26.1	2.187	3.171	5.1	19.5
8 29	21 36.06	-24 14.3	1.305	2.282	8.6	19.1	8 29	21 39.20	+ 3 9.9	2.186	3.162	5.6	19.6
9 8	21 26.93	-24 11.3	1.343	2.271	12.9	19.3	9 8	21 31.95	+ 2 44.3	2.212	3.153	7.8	19.7
9 18	21 20.44	-23 48.9	1.402	2.260	16.9	19.5	9 18	21 26.07	+ 2 13.3	2.264	3.145	10.4	19.8
380224	2001 <i>RY</i> ₁₁₇		8 17.5 327°97	0°6/17.2	18		258875	2002 <i>QP</i> ₂		8 17.6 338°83	0°6/17.9	18	
7 10	22 9.87	-12 47.9	1.253	2.121	18.7	20.6	7 10	22 5.63	- 8 44.9	1.106	1.979	20.3	20.0
7 20	22 7.99	-12 59.4	1.170	2.103	14.8	20.3	7 20	22 4.89	- 9 6.6	1.030	1.964	16.2	19.7
7 30	22 3.12	-13 25.5	1.106	2.085	10.1	20.0	7 30	22 1.15	- 9 50.7	0.972	1.951	11.2	19.4
8 9	21 55.81	-14 2.0	1.062	2.068	4.8	19.6	8 9	21 54.93	-10 53.6	0.933	1.938	5.5	19.0
8 19	21 47.02	-14 42.8	1.040	2.052	1.2	19.3	8 19	21 47.23	-12 8.1	0.915	1.927	0.9	18.7
8 29	21 38.18	-15 20.4	1.043	2.037	6.9	19.7	8 29	21 39.54	-13 23.9	0.920	1.918	6.9	19.0
9 8	21 30.81	-15 47.8	1.067	2.023	12.4	19.9	9 8	21 33.39	-14 30.6	0.947	1.909	12.7	19.3
9 18	21 26.05	-16 1.0	1.111	2.010	17.3	20.2	9 18	21 29.95	-15 20.7	0.992	1.903	17.8	19.6
18224	6726 <i>P-L</i>		8 17.5 356°04	0°8/16.9	18		483246	2015 <i>SK</i> ₁		8 17.6 243°38	2°7/19		

EPHEMERIDES

8 17.6

8 17.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
400695	2009 <i>QO</i> ₅₉		8 17.6 16°24	9°7/26.8	15		28067	1998 <i>QA</i> ₁₄		8 17.6 176°29	1°3/18.9	18	R
7 10	22 6.92	+12 10.5	1.679	2.422	19.8	20.1	7 10	22 11.42	- 5 3.9	2.194	2.998	14.0	18.6
7 20	22 4.68	+13 2.9	1.610	2.430	17.5	20.0	7 20	22 7.66	- 5 46.3	2.108	2.999	11.1	18.4
7 30	22 0.28	+13 28.4	1.557	2.439	14.8	19.8	7 30	22 2.05	- 6 44.3	2.043	3.000	7.8	18.2
8 9	21 54.26	+13 24.1	1.522	2.449	12.2	19.7	8 9	21 55.05	- 7 55.0	2.003	3.001	4.2	18.0
8 19	21 47.38	+12 49.6	1.508	2.460	10.3	19.6	8 19	21 47.29	- 9 13.7	1.991	3.002	1.3	17.8
8 29	21 40.64	+11 47.9	1.517	2.472	9.8	19.6	8 29	21 39.59	-10 34.6	2.008	3.002	4.2	18.0
9 8	21 35.01	+10 26.1	1.549	2.484	11.0	19.7	9 8	21 32.74	-11 51.6	2.053	3.001	7.8	18.2
9 18	21 31.24	+ 8 53.2	1.604	2.498	13.2	19.9	9 18	21 27.44	-12 59.9	2.123	3.001	11.1	18.4
358961	2008 <i>LQ</i> ₁₄		8 17.6 19°93	2°8/20.4	18		348093	2003 <i>WT</i> ₁₅₉		8 17.6 226°37	12°1/31.5	18	
7 10	22 8.09	- 1 44.7	2.093	2.892	14.7	20.5	7 10	22 12.52	+25 28.7	2.414	3.004	17.7	21.4
7 20	22 5.13	- 2 4.6	2.011	2.894	11.9	20.3	7 20	22 8.69	+26 37.8	2.318	2.997	16.5	21.3
7 30	22 0.35	- 2 41.6	1.949	2.897	8.7	20.2	7 30	22 2.89	+27 23.5	2.237	2.989	15.2	21.2
8 9	21 54.23	- 3 34.0	1.911	2.900	5.3	20.0	8 9	21 55.52	+27 41.0	2.172	2.980	13.8	21.0
8 19	21 47.39	- 4 38.2	1.899	2.904	2.9	19.8	8 19	21 47.21	+27 27.4	2.126	2.971	12.7	21.0
8 29	21 40.63	- 5 49.2	1.914	2.907	4.4	19.9	8 29	21 38.79	+26 42.0	2.102	2.962	12.2	20.9
9 8	21 34.76	- 7 0.9	1.956	2.911	7.7	20.1	9 8	21 31.16	+25 28.2	2.100	2.953	12.4	20.9
9 18	21 30.40	- 8 7.8	2.024	2.915	11.0	20.3	9 18	21 25.09	+23 52.0	2.120	2.943	13.3	20.9
103892	2000 <i>DM</i> ₅₄		8 17.6 280°07	0°6/17.2	18		224177	2005 <i>QV</i> ₁₄₀		8 17.6 298°89	1°6/16.6	18	
7 10	22 14.38	-13 29.5	1.914	2.749	14.6	19.9	7 10	22 15.27	-15 16.8	1.508	2.360	16.9	20.6
7 20	22 10.29	-13 40.6	1.829	2.743	11.4	19.7	7 20	22 12.01	-15 33.1	1.406	2.330	13.4	20.3
7 30	22 3.99	-14 0.5	1.765	2.737	7.7	19.5	7 30	22 5.83	-16 0.2	1.324	2.300	9.2	19.9
8 9	21 56.00	-14 25.9	1.726	2.731	3.6	19.2	8 9	21 57.18	-16 33.7	1.264	2.269	4.4	19.6
8 19	21 47.10	-14 52.4	1.714	2.725	1.0	19.0	8 19	21 46.92	-17 7.6	1.229	2.239	2.1	19.3
8 29	21 38.28	-15 15.7	1.728	2.719	5.2	19.3	8 29	21 36.37	-17 35.1	1.219	2.209	7.0	19.6
9 8	21 30.55	-15 32.0	1.769	2.713	9.2	19.5	9 8	21 27.02	-17 50.8	1.233	2.179	12.2	19.8
9 18	21 24.69	-15 39.0	1.834	2.707	12.8	19.7	9 18	21 20.08	-17 51.7	1.269	2.149	16.9	20.0
308864	2006 <i>SD</i> ₁₃		8 17.6 305°89	4°3/21.0	18		426630	2013 <i>SU</i> ₆₃		8 17.6 336°70	0°7/17.2	17	
7 10	22 8.96	- 0 18.8	1.820	2.620	16.5	20.3	7 10	22 15.86	-14 0.1	1.348	2.204	18.3	20.8
7 20	22 6.35	- 0 14.5	1.715	2.596	13.7	20.0	7 20	22 12.35	-13 59.8	1.274	2.199	14.4	20.6
7 30	22 1.55	- 0 29.7	1.628	2.573	10.4	19.8	7 30	22 5.86	-14 10.3	1.218	2.194	9.8	20.3
8 9	21 54.96	- 1 4.6	1.564	2.549	6.9	19.5	8 9	21 57.05	-14 27.5	1.184	2.190	4.6	20.0
8 19	21 47.26	- 1 57.3	1.525	2.526	4.4	19.3	8 19	21 46.97	-14 46.2	1.174	2.186	1.2	19.7
8 29	21 39.38	- 3 3.3	1.511	2.502	5.7	19.3	8 29	21 37.07	-15 0.5	1.189	2.182	6.5	20.1
9 8	21 32.39	- 4 15.9	1.523	2.480	9.3	19.5	9 8	21 28.75	-15 6.1	1.228	2.179	11.6	20.3
9 18	21 27.16	- 5 28.0	1.559	2.457	13.2	19.7	9 18	21 23.03	-15 0.8	1.287	2.177	16.1	20.6
405852	2006 <i>CS</i> ₁₂		8 17.6 225°68	0°4/17.9	17		183806	2004 <i>BT</i> ₄₈		8 17.6 130°50	1°6/18.7	17	
7 10	22 12.11	-10 35.7	2.646	3.457	11.6	22.2	7 10	22 17.26	- 7 45.9	1.718	2.536	16.6	20.6
7 20	22 7.87	-10 43.4	2.552	3.451	9.2	22.0	7 20	22 12.62	- 7 47.1	1.645	2.545	13.2	20.4
7 30	22 2.02	-10 59.1	2.481	3.445	6.3	21.8	7 30	22 5.58	- 8 2.3	1.592	2.554	9.2	20.2
8 9	21 54.97	-11 20.5	2.437	3.439	3.1	21.6	8 9	21 56.76	- 8 29.0	1.562	2.562	4.9	19.9
8 19	21 47.28	-11 45.1	2.420	3.432	0.6	21.4	8 19	21 47.04	- 9 3.2	1.559	2.570	1.6	19.7
8 29	21 39.63	-12 9.7	2.433	3.425	3.7	21.7	8 29	21 37.54	- 9 39.8	1.583	2.577	5.1	20.0
9 8	21 32.72	-12 31.3	2.474	3.418	6.9	21.9	9 8	21 29.32	-10 13.9	1.634	2.584	9.3	20.2
9 18	21 27.11	-12 47.7	2.540	3.410	9.8	22.0	9 18	21 23.20	-10 41.4	1.708	2.591	13.1	20.5
428160	2006 <i>SM</i> ₃₀₆		8 17.6 339°97	1°2/16.9	16		61344	2000 <i>PT</i> ₅		8 17.6 237°70	2°2/16.2	18	
7 10	22 6.31	-12 30.5	1.066	1.949	20.1	20.9	7 10	22 10.97	-13 15.0	1.095	1.971	20.2	19.0
7 20	22 5.58	-12 57.4	0.993	1.934	15.9	20.6	7 20	22 8.95	-14 9.2	1.038	1.976	15.7	18.7
7 30	22 1.69	-13 42.8	0.937	1.921	10.8	20.3	7 30	22 3.74	-15 21.3	1.000	1.982	10.5	18.5
8 9	21 55.22	-14 41.6	0.901	1.908	5.0	19.9	8 9	21 56.09	-16 42.9	0.981	1.988	4.9	18.2
8 19	21 47.21	-15 45.2	0.886	1.897	1.8	19.6	8 19	21 47.17	-18 3.6	0.986	1.996	2.8	18.1
8 29	21 39.24	-16 43.4	0.893	1.888	7.7	20.0	8 29	21 38.59	-19 12.5	1.013	2.004	8.0	18.4
9 8	21 32.92	-17 27.3	0.921	1.880	13.5	20.3	9 8	21 31.84	-20 1.8	1.063	2.013	13.2	18.7
9 18	21 29.45	-17 51.9	0.967	1.873	18.5	20.5	9 18	21 27.92	-20 28.7	1.132	2.022	17.7	19.0
274129	2008 <i>EF</i> ₈₉		8 17.6 45°22	8°1/11.2	18		206601	2003 <i>WE</i> ₅₄		8 17.6 339°52	0°5/17.2	18	
7 10	22 17.09	-33 28.6	1.827	2.680	14.4	19.4	7 10	22 13.88	-13 23.8	1.671	2.514	15.9	20.6
7 20	22 12.53	-34 37.6	1.786	2.698	11.7	19.2	7 20	22 10.22	-13 31.5	1.592	2.510	12.5	20.4
7 30	22 5.45	-35 39.9	1.767	2.716	9.4	19.1	7 30	22 4.11	-13 49.2	1.533	2.506	8.4	20.1
8 9	21 56.60	-36 27.2	1.771	2.735	8.1	19.1	8 9	21 56.14	-14 13.1	1.498	2.503	3.9	19.8
8 19	21 47.04	-36 53.3	1.800	2.754	8.6	19.2	8 19	21 47.17	-14 38.6	1.488	2.499	1.0	19.6
8 29	21 37.97	-36 54.7	1.853	2.774	10.5	19.3	8 29	21 38.33	-15 0.8	1.504	2.496	5.6	19.9
9 8	21 30.47	-36 32.0	1.929	2.794	12.8	19.5	9 8	21 30.74	-15 15.5	1.546	2.494	10.0	20.2
9 18	21 25.26	-35 48.3	2.026	2.814	15.0	19.7	9 18	21 25.24	-15 20.3	1.611	2.492	13.9	20.4
169866	2002 <i>RG</i> ₇₆		8 17.6 37°21	1°8/16.3	18		165155	2000 <i>QG</i> ₄₀		8 17.6 37°24	0°2/17.5	17	
7 10	22 14.75	-16 20.5	1.839	2.681	14.7	20.0	7 10	22 11.84	- 9 54.6	1.029	1.900	21.6	19.4
7 20	22 10.61	-16 42.6	1.764	2.683	11.4	19.8	7 20	22 9.58	-10 28.8	0.981	1.914	16.9	19.2
7 30	22 4.19	-17 12.0	1.711	2.685	7.7	19.6	7 30	22 4.08	-11 23.7	0.951	1.930	11.4	18.9
8 9	21 56.08	-17 44.1	1.682	2.687	3.7	19.3	8 9	21 56.18	-12 32.6	0.940	1.946	5.3	18.6
8 19	21 47.11	-18 13.9	1.679	2.688	2.1	19.2	8 19	21 47.18	-13 45.9	0.951	1.963	1.0	18.4
8 29	21 38.32	-18 36.6	1.704	2.690	5.8	19.5	8 29	21 38.67	-14 53.3	0.985	1.981	7.0	18.9
9 8	21 30.74	-18 48.7	1.755	2.693	9.7	19.7	9 8	21 32.12	-15 46.4	1.041	1.999	12.4	19.2
9 18	21 25.12	-18 49.0	1.828	2.695	13.2	19.9	9 18	21 28.44	-16 21.0	1.117	2.018	17.0	19.6
388720	2007 <i>VD</i> ₁₅₈		8 17.6 340°70	4°0/14.2	18		298210	2002 <i>TW</i> ₃₃					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
358799	2008 <i>EZ</i> ₅₄		8 17.6 123°33	0°5/18.1	18		25932	2001 <i>DB</i> ₇₂		8 17.6 175°42	1°8/19.8	18	
7 10	22 11.02	- 8 51.6	2.389	3.203	12.7	21.5	7 10	22 9.58	- 3 42.3	2.918	3.702	11.3	20.4
7 20	22 7.14	- 9 19.7	2.310	3.210	9.9	21.3	7 20	22 5.75	- 4 6.1	2.827	3.704	9.1	20.2
7 30	22 1.59	- 9 58.6	2.254	3.218	6.8	21.1	7 30	22 0.54	- 4 41.4	2.758	3.706	6.5	20.0
8 9	21 54.81	-10 45.4	2.224	3.225	3.3	20.9	8 9	21 54.31	- 5 26.7	2.715	3.707	3.8	19.9
8 19	21 47.41	-11 36.2	2.221	3.233	0.6	20.7	8 19	21 47.54	- 6 19.1	2.701	3.708	1.8	19.7
8 29	21 40.13	-12 26.7	2.247	3.240	3.9	21.0	8 29	21 40.81	- 7 15.3	2.716	3.708	3.4	19.8
9 8	21 33.68	-13 12.8	2.301	3.247	7.3	21.2	9 8	21 34.71	- 8 11.3	2.760	3.708	6.1	20.0
9 18	21 28.64	-13 51.2	2.380	3.253	10.3	21.4	9 18	21 29.73	- 9 3.7	2.830	3.708	8.7	20.2
448726	2011 <i>BW</i> ₅₅		8 17.6 282°47	1°1/16.4	17		387267	2012 <i>UT</i> ₁₀₆		8 17.6 248°24	0°6/17.1	18	
7 10	22 9.05	-12 3.8	2.409	3.237	12.1	21.0	7 10	22 14.13	-12 57.3	1.873	2.708	14.8	20.9
7 20	22 5.87	-13 5.7	2.305	3.216	9.5	20.8	7 20	22 10.16	-13 17.2	1.791	2.705	11.6	20.6
7 30	22 0.92	-14 19.6	2.224	3.195	6.4	20.5	7 30	22 3.95	-13 47.0	1.730	2.702	7.8	20.4
8 9	21 54.60	-15 41.4	2.169	3.174	2.9	20.3	8 9	21 56.05	-14 23.2	1.694	2.699	3.6	20.1
8 19	21 47.43	-17 5.9	2.143	3.153	1.5	20.1	8 19	21 47.24	-15 0.9	1.684	2.696	1.0	19.9
8 29	21 40.17	-18 26.9	2.145	3.131	4.9	20.3	8 29	21 38.53	-15 35.0	1.702	2.692	5.3	20.2
9 8	21 33.58	-19 39.2	2.176	3.110	8.3	20.5	9 8	21 30.92	-16 1.3	1.745	2.689	9.3	20.5
9 18	21 28.37	-20 38.7	2.231	3.088	11.5	20.7	9 18	21 25.21	-16 17.2	1.813	2.686	12.9	20.7
314516	2005 <i>XW</i> ₈₂		8 17.6 273°09	1°1/18.5	18		120404	2005 <i>RH</i> ₃₃		8 17.6 269°38	1°3/18.5	18	
7 10	22 14.41	- 9 37.7	2.301	3.113	13.1	20.8	7 10	22 13.71	- 7 50.6	1.736	2.561	16.2	20.8
7 20	22 10.00	- 9 27.2	2.201	3.099	10.5	20.6	7 20	22 10.17	- 8 2.8	1.639	2.544	13.0	20.6
7 30	22 3.67	- 9 25.3	2.123	3.084	7.3	20.4	7 30	22 4.21	- 8 30.2	1.563	2.528	9.1	20.3
8 9	21 55.87	- 9 30.4	2.070	3.070	3.8	20.2	8 9	21 56.29	- 9 10.7	1.510	2.511	4.8	20.0
8 19	21 47.23	- 9 40.3	2.044	3.055	1.2	19.9	8 19	21 47.19	-10 0.0	1.483	2.494	1.3	19.7
8 29	21 38.58	- 9 52.0	2.048	3.041	4.2	20.1	8 29	21 37.98	-10 52.4	1.482	2.476	5.3	20.0
9 8	21 30.76	-10 2.6	2.078	3.026	7.8	20.3	9 8	21 29.83	-11 41.6	1.507	2.459	9.8	20.2
9 18	21 24.48	-10 9.4	2.134	3.011	11.1	20.5	9 18	21 23.67	-12 22.7	1.555	2.441	14.0	20.4
18674	1998 <i>FG</i> ₆₉		8 17.6 358°36	4°6/21.9	18		440617	2005 <i>WQ</i> ₂		8 17.6 243°60	7°2/ 9.4	17	
7 10	22 7.91	+ 1 44.8	1.860	2.651	16.5	17.1	7 10	22 21.40	-39 7.9	2.921	3.735	10.6	22.0
7 20	22 5.29	+ 1 44.6	1.777	2.650	13.8	16.9	7 20	22 15.34	-40 1.9	2.839	3.717	9.0	21.8
7 30	22 0.64	+ 1 23.7	1.712	2.649	10.5	16.7	7 30	22 7.21	-40 49.1	2.781	3.699	7.7	21.7
8 9	21 54.47	+ 0 42.7	1.669	2.648	7.2	16.5	8 9	21 57.52	-41 23.4	2.749	3.681	7.2	21.7
8 19	21 47.46	- 0 15.9	1.651	2.648	4.8	16.3	8 19	21 47.01	-41 40.2	2.743	3.662	7.7	21.7
8 29	21 40.51	- 1 27.2	1.659	2.648	5.6	16.4	8 29	21 36.62	-41 36.3	2.763	3.642	9.0	21.7
9 8	21 34.52	- 2 44.2	1.693	2.649	8.6	16.5	9 8	21 27.25	-41 11.4	2.808	3.622	10.7	21.8
9 18	21 30.23	- 4 0.2	1.751	2.650	12.0	16.8	9 18	21 19.65	-40 27.6	2.876	3.601	12.4	21.9
270427	2002 <i>CR</i> ₇₁		8 17.6 186°56	1°0/16.8	18		38103	1999 <i>JM</i> ₁₉		8 17.6 354°63	1°2/16.9	18	
7 10	22 14.22	-15 12.3	2.309	3.137	12.6	20.6	7 10	22 15.02	-14 16.8	1.212	2.077	19.4	17.8
7 20	22 9.74	-15 25.6	2.226	3.137	9.8	20.5	7 20	22 11.98	-14 27.0	1.144	2.074	15.2	17.5
7 30	22 3.40	-15 45.0	2.166	3.136	6.6	20.3	7 30	22 5.76	-14 49.6	1.094	2.072	10.3	17.2
8 9	21 55.70	-16 7.4	2.132	3.136	3.1	20.0	8 9	21 57.08	-15 19.6	1.065	2.071	4.8	16.9
8 19	21 47.29	-16 29.1	2.125	3.136	1.3	19.9	8 19	21 47.07	-15 50.2	1.059	2.070	1.7	16.7
8 29	21 39.00	-16 46.4	2.147	3.135	4.6	20.1	8 29	21 37.30	-16 14.5	1.077	2.070	7.1	17.1
9 8	21 31.65	-16 56.8	2.197	3.134	8.0	20.4	9 8	21 29.27	-16 27.2	1.118	2.071	12.4	17.4
9 18	21 25.86	-16 58.6	2.271	3.134	11.1	20.6	9 18	21 24.05	-16 26.1	1.179	2.071	17.0	17.6
155157	2005 <i>UF</i> ₈₀		8 17.6 232°10	1°1/18.7	18		128556	2004 <i>PG</i> ₈₃		8 17.6 20°86	1°8/16.2	18	
7 10	22 10.46	- 7 11.5	2.635	3.438	11.9	21.1	7 10	22 9.06	-14 32.0	1.498	2.360	16.5	19.0
7 20	22 6.67	- 7 32.9	2.537	3.429	9.5	20.9	7 20	22 6.55	-15 11.6	1.442	2.372	12.7	18.8
7 30	22 1.28	- 8 5.3	2.461	3.419	6.6	20.7	7 30	22 1.62	-16 2.3	1.406	2.384	8.4	18.6
8 9	21 54.70	- 8 46.5	2.411	3.409	3.5	20.5	8 9	21 54.95	-16 58.0	1.392	2.398	3.9	18.4
8 19	21 47.45	- 9 33.6	2.389	3.399	1.1	20.3	8 19	21 47.45	-17 52.0	1.404	2.413	2.2	18.3
8 29	21 40.19	-10 22.7	2.396	3.389	3.7	20.5	8 29	21 40.25	-18 37.5	1.440	2.429	6.3	18.6
9 8	21 33.61	-11 9.8	2.431	3.378	6.9	20.7	9 8	21 34.41	-19 9.7	1.501	2.446	10.5	18.9
9 18	21 28.29	-11 51.6	2.492	3.367	9.8	20.9	9 18	21 30.68	-19 26.5	1.584	2.464	14.1	19.2
199952	2007 <i>HZ</i> ₂₅		8 17.6 71°21	4°0/20.9	17		365478	2010 <i>PU</i> ₃₂		8 17.6 149°37	8°5/30.6	18	
7 10	22 12.28	- 0 44.9	1.677	2.479	17.6	20.8	7 10	22 10.57	+22 47.2	3.189	3.779	13.7	21.8
7 20	22 8.80	- 0 45.1	1.605	2.489	14.4	20.6	7 20	22 6.50	+23 22.0	3.100	3.788	12.5	21.7
7 30	22 3.05	- 1 5.5	1.553	2.499	10.7	20.4	7 30	22 1.04	+23 37.7	3.028	3.796	11.2	21.6
8 9	21 55.61	- 1 45.1	1.522	2.509	6.8	20.2	8 9	21 54.55	+23 32.3	2.976	3.804	10.0	21.5
8 19	21 47.30	- 2 40.4	1.516	2.518	4.1	20.1	8 19	21 47.51	+23 4.9	2.945	3.812	9.0	21.5
8 29	21 39.17	- 3 45.6	1.536	2.528	5.5	20.2	8 29	21 40.52	+22 16.5	2.939	3.819	8.5	21.4
9 8	21 32.23	- 4 53.5	1.582	2.538	9.1	20.4	9 8	21 34.16	+21 10.3	2.958	3.825	8.7	21.5
9 18	21 27.26	- 5 57.8	1.652	2.548	12.7	20.7	9 18	21 28.93	+19 50.9	3.001	3.832	9.6	21.5
90779	1994 <i>CD</i> ₁₄		8 17.6 114°60	1°7/16.1	18		431348	2007 <i>BQ</i> ₇₇		8 17.6 177°27	0°6/18.0	17	
7 10	22 15.48	-14 52.5	1.952	2.786	14.3	19.6	7 10	22 17.34	-10 13.2	1.946	2.763	15.0	22.6
7 20	22 10.96	-15 40.1	1.887	2.802	11.0	19.4	7 20	22 12.52	-10 20.5	1.863	2.765	11.8	22.4
7 30	22 4.31	-16 36.4	1.844	2.817	7.3	19.2	7 30	22 5.47	-10 38.7	1.802	2.767	8.1	22.2
8 9	21 56.14	-17 36.3	1.827	2.831	3.5	19.0	8 9	21 56.75	-11 5.0	1.765	2.767	4.0	21.9
8 19	21 47.23	-18 33.7	1.837	2.845	2.1	18.9	8 19	21 47.15	-11 35.6	1.756	2.768	0.7	21.7
8 29	21 38.56	-19 23.0	1.875	2.859	5.6	19.2	8 29	21 37.66	-12 6.0	1.775	2.767	4.8	22.0
9 8	21 31.05	-20 0.3	1.940	2.872	9.2	19.4	9 8	21 29.30	-12 32.0	1.821	2.767	8.8	22.2
9 18	21 25.41	-20 23.6	2.028	2.885	12.4	19.7	9 18	21 22.82	-12 50.7	1.891	2.765	12.4	22.4
278267	2007 <i>FY</i> ₃₀		8 17.6 17°86	1°3/16.8	16		236631	2006 <i>KY</i> ₂₀		8 17.6 66°12			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
508472	2016 <i>NB</i> ₆₆	8 17.6 244°58		7°5/10.7 18			303992	2006 <i>BX</i> ₁₅₅	8 17.6 133°70		0°8/17.0 17		
7 10	22 17.64	-30 36.5	1.935	2.785	13.8	21.0	7 10	22 16.46	-11 31.5	1.460	2.303	17.8	21.1
7 20	22 13.27	-32 0.6	1.860	2.773	11.2	20.9	7 20	22 12.52	-12 12.0	1.392	2.310	14.0	20.8
7 30	22 6.28	-33 23.7	1.807	2.762	8.9	20.7	7 30	22 5.82	-13 7.8	1.343	2.316	9.4	20.6
8 9	21 57.25	-34 37.2	1.779	2.750	7.6	20.6	8 9	21 57.03	-14 13.3	1.317	2.322	4.3	20.3
8 19	21 47.06	-35 32.6	1.776	2.737	8.2	20.6	8 19	21 47.15	-15 21.0	1.317	2.328	1.3	20.1
8 29	21 36.93	-36 3.9	1.799	2.724	10.5	20.7	8 29	21 37.49	-16 22.8	1.342	2.333	6.3	20.5
9 8	21 28.08	-36 9.1	1.845	2.711	13.2	20.9	9 8	21 29.32	-17 12.2	1.393	2.338	11.1	20.8
9 18	21 21.46	-35 49.8	1.911	2.698	15.8	21.0	9 18	21 23.57	-17 45.9	1.465	2.343	15.2	21.0
308319	2005 <i>MN</i> ₂₂	8 17.6 351°08		0°6/17.1 18			452222	2015 <i>RL</i> ₂₃₄	8 17.6 300°44		1°1/18.7 17		
7 10	22 10.43	-11 59.9	1.821	2.662	14.9	21.0	7 10	22 8.29	-6 25.5	2.198	3.013	13.6	21.1
7 20	22 7.34	-12 30.7	1.742	2.659	11.7	20.7	7 20	22 5.43	-6 58.5	2.093	2.992	10.9	20.9
7 30	22 2.08	-13 13.3	1.684	2.657	7.9	20.5	7 30	22 0.72	-7 46.4	2.011	2.972	7.6	20.6
8 9	21 55.19	-14 3.7	1.650	2.655	3.6	20.3	8 9	21 54.57	-8 47.0	1.952	2.952	4.0	20.4
8 19	21 47.42	-14 56.6	1.642	2.654	1.0	20.1	8 19	21 47.54	-9 56.0	1.921	2.932	1.1	20.1
8 29	21 39.75	-15 46.1	1.661	2.653	5.3	20.4	8 29	21 40.44	-11 8.3	1.918	2.912	4.3	20.3
9 8	21 33.14	-16 27.0	1.706	2.652	9.3	20.6	9 8	21 34.07	-12 17.8	1.942	2.893	8.1	20.5
9 18	21 28.38	-16 56.1	1.774	2.652	13.0	20.8	9 18	21 29.16	-13 19.8	1.991	2.873	11.6	20.7
151166	2001 <i>XD</i> ₁₄₈	8 17.6 232°35		0°9/16.8 18			311114	2004 <i>LR</i> ₂₅	8 17.6 355°57		8°9/23.5 18		
7 10	22 11.46	-13 7.0	2.279	3.108	12.7	20.7	7 10	22 14.46	+7 16.4	1.866	2.614	17.9	19.8
7 20	22 7.71	-13 43.3	2.192	3.103	9.9	20.5	7 20	22 10.49	+8 46.5	1.781	2.611	15.6	19.6
7 30	22 2.13	-14 28.9	2.127	3.098	6.6	20.3	7 30	22 4.26	+9 58.8	1.715	2.609	13.1	19.4
8 9	21 55.16	-15 19.9	2.088	3.093	3.1	20.1	8 9	21 56.27	+10 49.7	1.670	2.607	10.7	19.3
8 19	21 47.43	-16 11.9	2.077	3.088	1.2	19.9	8 19	21 47.28	+11 16.5	1.649	2.606	9.1	19.2
8 29	21 39.74	-17 0.0	2.094	3.082	4.7	20.2	8 29	21 38.27	+11 19.5	1.652	2.605	9.2	19.2
9 8	21 32.91	-17 40.1	2.138	3.076	8.2	20.4	9 8	21 30.29	+11 2.3	1.679	2.605	10.9	19.3
9 18	21 27.59	-18 9.5	2.207	3.070	11.3	20.6	9 18	21 24.18	+10 30.3	1.729	2.606	13.3	19.4
513104	2017 <i>WO</i> ₂₄	8 17.6 326°57		2°6/18.9 17			436580	2011 <i>HF</i> ₉₈	8 17.6 161°16		7°0/24.2 17		
7 10	22 9.09	-7 26.8	1.111	1.975	20.9	20.7	7 10	22 12.68	+8 30.7	2.038	2.774	17.0	22.1
7 20	22 7.75	-7 11.1	1.030	1.956	16.9	20.4	7 20	22 8.84	+8 51.7	1.952	2.778	14.6	21.9
7 30	22 3.24	-7 14.9	0.965	1.938	12.1	20.1	7 30	22 2.99	+8 50.7	1.885	2.781	11.9	21.7
8 9	21 56.08	-7 37.5	0.919	1.921	6.7	19.7	8 9	21 55.61	+8 26.3	1.838	2.784	9.2	21.6
8 19	21 47.25	-8 15.0	0.894	1.905	2.6	19.4	8 19	21 47.40	+7 39.3	1.816	2.787	7.3	21.5
8 29	21 38.30	-9 0.4	0.892	1.890	6.8	19.6	8 29	21 39.23	+6 33.0	1.821	2.789	7.3	21.5
9 8	21 30.88	-9 45.2	0.910	1.876	12.7	19.9	9 8	21 32.02	+5 13.8	1.851	2.791	9.1	21.6
9 18	21 26.30	-10 22.0	0.948	1.863	18.0	20.2	9 18	21 26.48	+3 48.7	1.906	2.793	11.8	21.7
175842	1999 <i>TA</i> ₂₀₀	8 17.6 156°12		3°7/20.3 18			205193	2000 <i>DO</i> ₆₈	8 17.6 245°13		2°8/15.5 18		
7 10	22 14.89	-2 12.9	1.671	2.475	17.6	20.6	7 10	22 18.54	-20 37.4	2.141	2.975	13.2	20.7
7 20	22 10.95	-2 8.4	1.592	2.478	14.4	20.4	7 20	22 13.42	-20 55.4	2.051	2.965	10.3	20.5
7 30	22 4.61	-2 22.7	1.532	2.481	10.6	20.2	7 30	22 6.10	-21 16.5	1.983	2.953	7.1	20.3
8 9	21 56.41	-2 55.0	1.494	2.484	6.6	19.9	8 9	21 57.09	-21 36.0	1.941	2.942	3.9	20.0
8 19	21 47.23	-3 42.1	1.482	2.486	3.7	19.8	8 19	21 47.16	-21 49.5	1.927	2.930	3.2	20.0
8 29	21 38.15	-4 38.7	1.496	2.488	5.6	19.9	8 29	21 37.32	-21 53.1	1.941	2.918	6.1	20.1
9 8	21 30.28	-5 37.8	1.536	2.490	9.5	20.1	9 8	21 28.54	-21 44.7	1.981	2.906	9.6	20.3
9 18	21 24.48	-6 33.5	1.599	2.492	13.3	20.4	9 18	21 21.63	-21 24.0	2.046	2.893	12.8	20.5
389046	2008 <i>VW</i> ₆	8 17.6 287°25		2°5/19.6 18			259402	2003 <i>QU</i> ₂₂	8 17.6 295°44		1°3/18.8 18		
7 10	22 11.18	-4 13.9	1.781	2.596	16.3	21.3	7 10	22 10.71	-7 49.9	2.300	3.112	13.1	20.2
7 20	22 8.02	-4 25.2	1.692	2.588	13.2	21.1	7 20	22 7.15	-7 53.8	2.202	3.099	10.5	20.0
7 30	22 2.63	-4 54.0	1.623	2.580	9.5	20.8	7 30	22 1.78	-8 8.6	2.125	3.086	7.4	19.8
8 9	21 55.50	-5 38.8	1.577	2.573	5.5	20.6	8 9	21 55.03	-8 32.6	2.073	3.072	3.9	19.6
8 19	21 47.38	-6 35.7	1.557	2.565	2.5	20.4	8 19	21 47.50	-9 3.0	2.048	3.059	1.3	19.4
8 29	21 39.26	-7 39.2	1.563	2.558	5.0	20.5	8 29	21 39.95	-9 36.2	2.052	3.046	4.1	19.6
9 8	21 32.16	-8 42.5	1.595	2.550	9.1	20.8	9 8	21 33.18	-10 8.2	2.082	3.033	7.6	19.7
9 18	21 26.93	-9 39.9	1.651	2.543	13.0	21.0	9 18	21 27.86	-10 35.8	2.138	3.020	10.9	19.9
215413	2002 <i>GP</i> ₅₁	8 17.6 54°11		3°4/15.2 18			83595	2001 <i>SX</i> ₂₅₆	8 17.6 36°18		0°5/17.2 18		
7 10	22 15.47	-19 26.8	1.667	2.521	15.5	20.1	7 10	22 11.47	-11 54.9	1.979	2.813	14.2	19.6
7 20	22 11.44	-20 6.4	1.601	2.526	12.0	19.9	7 20	22 7.94	-12 26.6	1.902	2.815	11.1	19.4
7 30	22 4.90	-20 51.8	1.556	2.532	8.1	19.6	7 30	22 2.38	-13 9.2	1.846	2.817	7.4	19.2
8 9	21 56.52	-21 36.9	1.535	2.538	4.4	19.4	8 9	21 55.32	-13 58.8	1.814	2.819	3.5	19.0
8 19	21 47.23	-22 15.1	1.540	2.543	3.8	19.4	8 19	21 47.46	-14 50.4	1.810	2.821	0.9	18.8
8 29	21 38.19	-22 40.7	1.571	2.550	7.1	19.6	8 29	21 39.72	-15 38.7	1.833	2.824	4.9	19.1
9 8	21 30.54	-22 50.8	1.626	2.556	11.0	19.9	9 8	21 32.99	-16 19.0	1.882	2.826	8.8	19.3
9 18	21 25.09	-22 44.7	1.704	2.562	14.4	20.1	9 18	21 27.98	-16 48.3	1.955	2.829	12.1	19.5
25879	2000 <i>QA</i> ₁₀₅	8 17.6 51°41		5°8/12.5 18 R			399865	2005 <i>UV</i> ₄₁₃	8 17.6 30°78		4°7/13.5 18		
7 10	22 14.69	-27 30.1	2.009	2.861	13.3	17.7	7 10	22 13.24	-24 5.9	2.016	2.868	13.2	20.6
7 20	22 10.54	-28 31.9	1.946	2.865	10.5	17.5	7 20	22 9.38	-25 0.7	1.949	2.871	10.3	20.4
7 30	22 4.16	-29 33.1	1.906	2.870	7.8	17.3	7 30	22 3.36	-25 57.5	1.905	2.875	7.3	20.2
8 9	21 56.13	-30 26.6	1.891	2.875	6.0	17.2	8 9	21 55.77	-26 49.9	1.885	2.878	5.0	20.1
8 19	21 47.30	-31 6.1	1.902	2.880	6.4	17.3	8 19	21 47.39	-27 31.8	1.892	2.882	5.2	20.1
8 29	21 38.70	-31 27.1	1.939	2.885	8.6	17.4	8 29	21 39.21	-27 58.5	1.926	2.886	7.6	20.3
9 8	21 31.32	-31 28.0	2.000	2.890	11.3	17.6	9 8	21 32.16	-28 7.6	1.984	2.890	10.6	20.5
9 18	21 25.91	-31 9.7	2.083	2.896	13.8	17.8	9 18	21 26.98	-27 59.3	2.065	2.895	13.3	20.7
260417	2004 <i>XE</i> ₅₆	8 17.6 277°26		2°9/14.6 18			517107	2013 <i>EF</i> ₁₁₇	8 17.6 278°07		1°1/18.6 18		
7 10	22 11.46	-20 3.6	2.427	3.268									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
244368	2002 <i>NN</i> ₅₅	8 17.6 330°81		2°5/19.5 18			370539	2003 <i>SK</i> ₄₂₂	8 17.6 65°82		2°2/16.0 17		
7 10	22 3.26	-4 7.6	1.320	2.170	19.0	19.7	7 10	22 13.85	-13 21.8	1.330	2.189	18.4	21.1
7 20	22 2.74	-4 26.4	1.222	2.139	15.5	19.3	7 20	22 10.68	-14 25.9	1.272	2.200	14.2	20.8
7 30	21 59.63	-5 10.5	1.142	2.110	11.3	19.0	7 30	22 4.67	-15 45.2	1.233	2.211	9.5	20.6
8 9	21 54.33	-6 19.2	1.082	2.082	6.5	18.7	8 9	21 56.52	-17 12.0	1.217	2.223	4.4	20.4
8 19	21 47.60	-7 47.9	1.045	2.055	2.6	18.3	8 19	21 47.32	-18 36.6	1.225	2.234	2.7	20.3
8 29	21 40.63	-9 28.1	1.031	2.030	6.1	18.5	8 29	21 38.42	-19 49.6	1.259	2.246	7.3	20.6
9 8	21 34.79	-11 8.3	1.041	2.006	11.5	18.7	9 8	21 31.14	-20 44.3	1.316	2.258	11.9	20.9
9 18	21 31.24	-12 38.1	1.070	1.983	16.6	18.9	9 18	21 26.36	-21 17.9	1.395	2.270	16.0	21.2
145528	2006 <i>FB</i> ₂₉	8 17.6 87°22		3°3/14.6 18			372937	2011 <i>BO</i> ₅₃	8 17.6 263°41		0°8/16.9 18		
7 10	22 15.80	-23 55.7	2.544	3.380	11.3	19.8	7 10	22 13.86	-11 56.5	1.642	2.483	16.3	21.5
7 20	22 10.79	-24 16.3	2.472	3.385	8.8	19.6	7 20	22 10.45	-12 33.5	1.553	2.471	12.8	21.3
7 30	22 4.02	-24 37.2	2.423	3.391	6.1	19.5	7 30	22 4.49	-13 25.0	1.485	2.458	8.7	21.0
8 9	21 55.99	-24 54.1	2.401	3.396	3.8	19.3	8 9	21 56.50	-14 26.2	1.440	2.446	4.1	20.7
8 19	21 47.38	-25 3.4	2.406	3.402	3.7	19.3	8 19	21 47.31	-15 31.0	1.422	2.433	1.3	20.5
8 29	21 38.98	-25 2.3	2.440	3.407	5.8	19.5	8 29	21 38.07	-16 31.7	1.429	2.420	6.1	20.8
9 8	21 31.55	-24 49.6	2.501	3.413	8.4	19.6	9 8	21 30.00	-17 22.0	1.462	2.407	10.7	21.0
9 18	21 25.68	-24 25.7	2.587	3.418	10.9	19.8	9 18	21 24.07	-17 57.7	1.517	2.393	14.8	21.2
167832	2005 <i>CJ</i> ₄₃	8 17.6 125°12		0°5/17.9 18			322665	1999 <i>SD</i> ₂₁	8 17.6 269°08		0°5/18.1 18		
7 10	22 15.29	-10 33.2	2.010	2.831	14.4	20.6	7 10	22 11.68	-9 49.3	2.419	3.234	12.5	22.0
7 20	22 10.80	-10 41.0	1.934	2.838	11.4	20.4	7 20	22 7.85	-10 2.5	2.317	3.218	9.9	21.8
7 30	22 4.25	-10 59.0	1.879	2.845	7.8	20.2	7 30	22 2.24	-10 25.5	2.237	3.201	6.8	21.6
8 9	21 56.18	-11 24.5	1.849	2.851	3.8	20.0	8 9	21 55.28	-10 56.1	2.183	3.185	3.4	21.3
8 19	21 47.34	-11 53.7	1.846	2.857	0.6	19.7	8 19	21 47.52	-11 31.0	2.157	3.168	0.6	21.1
8 29	21 38.68	-12 22.3	1.871	2.863	4.6	20.0	8 29	21 39.72	-12 6.6	2.159	3.152	4.1	21.3
9 8	21 31.09	-12 46.5	1.923	2.869	8.4	20.3	9 8	21 32.66	-12 39.0	2.188	3.135	7.6	21.5
9 18	21 25.28	-13 3.6	1.999	2.875	11.8	20.5	9 18	21 27.01	-13 5.2	2.243	3.118	10.8	21.7
119021	2001 <i>AL</i> ₄₃	8 17.6 249°60		4°1/13.9 18			260227	2004 <i>RA</i> ₂₃₉	8 17.6 353°19		0°6/18.1 16		
7 10	22 14.86	-24 31.7	2.375	3.217	11.9	20.3	7 10	22 9.21	-9 48.7	1.737	2.576	15.6	20.7
7 20	22 10.36	-25 10.8	2.294	3.210	9.3	20.2	7 20	22 6.50	-10 0.7	1.657	2.572	12.3	20.5
7 30	22 3.92	-25 51.0	2.235	3.203	6.6	20.0	7 30	22 1.60	-10 25.6	1.597	2.568	8.5	20.2
8 9	21 56.02	-26 27.2	2.203	3.196	4.4	19.8	8 9	21 55.03	-11 0.6	1.561	2.564	4.2	20.0
8 19	21 47.37	-26 54.6	2.197	3.188	4.5	19.8	8 19	21 47.56	-11 41.4	1.550	2.562	0.7	19.7
8 29	21 38.81	-27 9.2	2.220	3.181	6.7	19.9	8 29	21 40.18	-12 22.4	1.565	2.560	5.0	20.0
9 8	21 31.22	-27 9.1	2.269	3.173	9.5	20.1	9 8	21 33.89	-12 58.6	1.606	2.559	9.2	20.3
9 18	21 25.27	-26 54.4	2.341	3.166	12.1	20.3	9 18	21 29.46	-13 26.1	1.669	2.559	13.0	20.5
318917	2005 <i>UQ</i> ₅₈	8 17.6 213°70		2°0/15.6 18			180321	2003 <i>XG</i> ₃₈	8 17.6 184°88		1°1/16.8 18		
7 10	22 12.88	-17 47.2	2.505	3.338	11.6	21.7	7 10	22 18.08	-13 48.4	1.975	2.801	14.5	21.3
7 20	22 8.66	-18 20.4	2.420	3.333	9.0	21.5	7 20	22 13.15	-14 17.7	1.892	2.802	11.3	21.1
7 30	22 2.68	-18 58.6	2.358	3.329	6.0	21.3	7 30	22 5.96	-14 56.5	1.832	2.801	7.6	20.9
8 9	21 55.42	-19 38.1	2.322	3.325	3.1	21.1	8 9	21 57.06	-15 40.4	1.796	2.800	3.5	20.6
8 19	21 47.47	-20 14.6	2.314	3.320	2.3	21.1	8 19	21 47.25	-16 24.2	1.788	2.799	1.4	20.5
8 29	21 39.59	-20 44.1	2.335	3.315	5.0	21.3	8 29	21 37.53	-17 2.8	1.809	2.796	5.4	20.8
9 8	21 32.53	-21 4.0	2.383	3.310	8.1	21.5	9 8	21 28.93	-17 32.0	1.856	2.793	9.3	21.0
9 18	21 26.91	-21 12.8	2.456	3.304	10.9	21.6	9 18	21 22.24	-17 49.6	1.928	2.789	12.8	21.2
508160	2015 <i>FY</i> ₁₆₇	8 17.6 125°11		6°7/12.6 17			182131	2000 <i>SD</i> ₁₇	8 17.6 310°76		0°3/17.4 18		
7 10	22 20.91	-29 21.2	1.856	2.702	14.5	21.6	7 10	22 14.75	-13 53.3	1.955	2.789	14.3	20.0
7 20	22 15.55	-30 19.6	1.797	2.711	11.6	21.4	7 20	22 10.63	-13 50.2	1.865	2.778	11.3	19.8
7 30	22 7.60	-31 15.3	1.761	2.720	8.7	21.3	7 30	22 4.31	-13 54.5	1.796	2.767	7.7	19.5
8 9	21 57.78	-32 0.4	1.749	2.729	6.8	21.2	8 9	21 56.31	-14 3.4	1.752	2.756	3.6	19.3
8 19	21 47.10	-32 28.1	1.763	2.737	7.2	21.2	8 19	21 47.37	-14 13.4	1.734	2.746	0.8	19.0
8 29	21 36.79	-32 34.1	1.803	2.745	9.4	21.4	8 29	21 38.47	-14 20.8	1.744	2.735	5.0	19.3
9 8	21 28.00	-32 17.9	1.867	2.753	12.2	21.6	9 8	21 30.63	-14 22.7	1.780	2.726	9.0	19.5
9 18	21 21.54	-31 41.9	1.953	2.760	14.8	21.8	9 18	21 24.62	-14 17.1	1.840	2.716	12.6	19.7
412760	2014 <i>OX</i> ₃₈₀	8 17.6 283°88		2°0/19.6 17			470987	2009 <i>SV</i> ₈₂	8 17.6 7°95		4°4/20.4 16		
7 10	22 9.15	-4 34.1	2.407	3.207	13.0	21.4	7 10	22 4.67	-3 16.4	0.981	1.848	22.8	20.7
7 20	22 5.88	-4 49.6	2.304	3.192	10.5	21.2	7 20	22 4.23	-2 57.7	0.924	1.849	18.6	20.4
7 30	22 0.91	-5 18.5	2.223	3.176	7.5	21.0	7 30	22 0.70	-3 5.9	0.883	1.852	13.7	20.2
8 9	21 54.63	-5 59.3	2.166	3.160	4.3	20.8	8 9	21 54.78	-3 40.3	0.860	1.857	8.4	19.9
8 19	21 47.59	-6 49.3	2.137	3.145	2.0	20.6	8 19	21 47.61	-4 36.0	0.856	1.863	4.5	19.7
8 29	21 40.50	-7 44.2	2.135	3.129	4.0	20.7	8 29	21 40.70	-5 44.2	0.874	1.872	6.9	19.9
9 8	21 34.11	-8 39.5	2.161	3.113	7.3	20.9	9 8	21 35.53	-6 53.8	0.913	1.883	11.9	20.2
9 18	21 29.06	-9 30.8	2.213	3.097	10.5	21.0	9 18	21 33.09	-7 55.5	0.971	1.895	16.7	20.5
523102	2016 <i>RY</i> ₄₈	8 17.6 289°20		3°4/15.1 18			172899	2005 <i>GU</i> ₄₇	8 17.6 7°80		11°0/ 8.9 18		
7 10	22 15.37	-20 6.0	1.794	2.644	14.7	21.7	7 10	22 10.80	-33 39.8	1.308	2.189	17.2	18.6
7 20	22 11.35	-20 43.0	1.716	2.639	11.5	21.5	7 20	22 8.90	-35 29.1	1.263	2.191	14.3	18.4
7 30	22 4.90	-21 25.4	1.659	2.633	7.8	21.3	7 30	22 3.76	-37 11.8	1.238	2.194	11.9	18.3
8 9	21 56.59	-22 7.4	1.627	2.628	4.4	21.0	8 9	21 56.18	-38 35.4	1.235	2.198	11.0	18.3
8 19	21 47.30	-22 42.6	1.620	2.623	3.9	21.0	8 19	21 47.39	-39 29.2	1.252	2.204	11.9	18.3
8 29	21 38.13	-23 5.8	1.641	2.618	7.1	21.2	8 29	21 39.02	-39 47.1	1.291	2.211	14.2	18.5
9 8	21 30.20	-23 13.7	1.686	2.613	10.8	21.4	9 8	21 32.53	-39 29.3	1.350	2.219	16.9	18.7
9 18	21 24.35	-23 5.7	1.754	2.608	14.2	21.6	9 18	21 28.88	-38 40.3	1.425	2.228	19.5	18.9
376778	2000 <i>JY</i> ₈	8 17.6 153°99		2°7/13.9 14 C			195113	2002 <i>CF</i> ₁₃₉	8 17.6 187°38		1°4/18.9 18		
7 10	22 14.98	-22 1.7	3										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
42067	2000 <i>YU</i> ₁₃₁		8 17.6 138°14	0°5/17.1	18		53725	2000 <i>EG</i> ₃₂		8 17.6 11°38	3°5/15.6	18	
7 10	22 11.98	-13 1.8	2.505	3.328	11.9	20.0	7 10	22 9.33	-17 0.6	1.060	1.948	19.9	17.6
7 20	22 7.86	-13 26.3	2.426	3.333	9.2	19.9	7 20	22 7.83	-17 43.2	1.007	1.951	15.4	17.3
7 30	22 2.10	-13 58.3	2.369	3.338	6.2	19.7	7 30	22 3.09	-18 37.9	0.971	1.955	10.3	17.1
8 9	21 55.14	-14 34.7	2.339	3.343	2.9	19.5	8 9	21 55.90	-19 36.3	0.955	1.961	5.2	16.8
8 19	21 47.57	-15 11.9	2.336	3.347	0.9	19.3	8 19	21 47.49	-20 28.8	0.961	1.969	4.0	16.8
8 29	21 40.11	-15 46.0	2.363	3.352	4.1	19.6	8 29	21 39.46	-21 6.5	0.989	1.977	8.6	17.0
9 8	21 33.47	-16 13.9	2.417	3.356	7.3	19.8	9 8	21 33.29	-21 24.0	1.039	1.987	13.5	17.4
9 18	21 28.22	-16 33.5	2.496	3.360	10.2	20.0	9 18	21 29.97	-21 20.4	1.107	1.999	17.9	17.7
220700	2004 <i>RH</i> ₃₂₃		8 17.6 353°69	2°6/19.7	18		184720	2005 <i>SH</i> ₁₆₂		8 17.6 121°07	1°8/19.4	18	
7 10	22 11.71	- 5 11.2	2.057	2.864	14.6	20.5	7 10	22 11.07	- 5 26.9	2.275	3.079	13.5	21.4
7 20	22 8.05	- 4 56.6	1.972	2.863	11.8	20.3	7 20	22 7.34	- 5 40.4	2.193	3.083	10.8	21.2
7 30	22 2.44	- 4 54.9	1.908	2.861	8.5	20.1	7 30	22 1.86	- 6 7.0	2.132	3.087	7.7	21.0
8 9	21 55.38	- 5 4.8	1.867	2.860	5.1	19.9	8 9	21 55.08	- 6 44.5	2.095	3.091	4.3	20.8
8 19	21 47.53	- 5 24.3	1.853	2.859	2.7	19.7	8 19	21 47.63	- 7 29.7	2.086	3.095	1.8	20.7
8 29	21 39.75	- 5 50.1	1.866	2.858	4.6	19.8	8 29	21 40.26	- 8 18.5	2.105	3.099	4.0	20.8
9 8	21 32.92	- 6 17.9	1.905	2.858	8.0	20.0	9 8	21 33.75	- 9 6.3	2.152	3.103	7.4	21.1
9 18	21 27.71	- 6 43.9	1.969	2.858	11.3	20.3	9 18	21 28.70	- 9 49.2	2.223	3.106	10.5	21.3
433492	2013 <i>WX</i> ₂₅		8 17.6 110°63	5°7/23.0	17		516076	2015 <i>TQ</i> ₂₉₆		8 17.6 80°79	3°4/21.2	18	
7 10	22 15.35	+ 5 16.7	2.122	2.868	16.1	20.7	7 10	22 9.61	- 0 8.5	2.353	3.132	13.8	21.3
7 20	22 10.65	+ 5 35.4	2.050	2.889	13.6	20.5	7 20	22 6.15	- 0 12.9	2.268	3.136	11.3	21.2
7 30	22 4.05	+ 5 34.8	1.998	2.909	10.7	20.4	7 30	22 1.04	- 0 32.7	2.203	3.141	8.5	21.0
8 9	21 56.07	+ 5 14.7	1.969	2.928	7.9	20.3	8 9	21 54.69	- 1 6.9	2.163	3.145	5.6	20.8
8 19	21 47.43	+ 4 36.5	1.966	2.947	5.9	20.2	8 19	21 47.70	- 1 53.3	2.149	3.149	3.5	20.7
8 29	21 38.98	+ 3 44.0	1.990	2.965	6.2	20.2	8 29	21 40.78	- 2 48.0	2.163	3.153	4.4	20.8
9 8	21 31.55	+ 2 42.7	2.041	2.983	8.3	20.4	9 8	21 34.65	- 3 46.2	2.205	3.157	7.2	20.9
9 18	21 25.78	+ 1 38.4	2.117	3.000	10.9	20.6	9 18	21 29.90	- 4 43.2	2.272	3.161	10.0	21.1
482869	2014 <i>DT</i> ₁₃₅		8 17.6 352°01	3°3/15.2	18		35429	1998 <i>BW</i> ₄		8 17.6 75°39	2°2/19.3	18	
7 10	22 14.34	-19 31.6	1.725	2.578	15.1	21.1	7 10	22 16.25	- 5 41.6	1.681	2.495	17.1	18.5
7 20	22 10.58	-20 6.8	1.652	2.577	11.7	20.9	7 20	22 11.75	- 5 46.2	1.623	2.519	13.6	18.3
7 30	22 4.39	-20 47.8	1.600	2.575	7.9	20.6	7 30	22 4.96	- 6 6.7	1.585	2.543	9.6	18.2
8 9	21 56.36	-21 28.7	1.572	2.574	4.3	20.4	8 9	21 56.55	- 6 40.5	1.570	2.567	5.3	18.0
8 19	21 47.38	-22 3.4	1.569	2.573	3.7	20.4	8 19	21 47.43	- 7 23.2	1.581	2.590	2.2	17.8
8 29	21 38.57	-22 26.4	1.593	2.572	7.0	20.6	8 29	21 38.65	- 8 9.5	1.619	2.613	4.9	18.0
9 8	21 31.05	-22 34.5	1.642	2.572	10.8	20.8	9 8	21 31.23	- 8 53.6	1.683	2.636	8.9	18.3
9 18	21 25.63	-22 27.0	1.713	2.572	14.3	21.0	9 18	21 25.86	- 9 31.4	1.772	2.659	12.5	18.6
114512	2003 <i>AX</i> ₈₉		8 17.6 329°11	2°2/18.7	18		48393	1981 <i>EB</i> ₅		8 17.6 185°01	1°2/18.6	18	
7 10	22 9.22	- 9 12.9	1.145	2.011	20.2	19.1	7 10	22 15.01	- 8 51.4	2.224	3.033	13.6	19.6
7 20	22 7.88	- 8 45.5	1.058	1.986	16.4	18.8	7 20	22 10.47	- 8 49.9	2.137	3.033	10.8	19.4
7 30	22 3.39	- 8 33.4	0.988	1.962	11.7	18.5	7 30	22 4.01	- 8 58.5	2.073	3.033	7.5	19.2
8 9	21 56.23	- 8 35.8	0.937	1.940	6.3	18.1	8 9	21 56.13	- 9 15.1	2.033	3.033	3.9	19.0
8 19	21 47.36	- 8 49.8	0.907	1.918	2.2	17.8	8 19	21 47.48	- 9 37.0	2.021	3.032	1.2	18.8
8 29	21 38.29	- 9 10.0	0.900	1.898	6.8	18.0	8 29	21 38.93	- 10 0.7	2.037	3.031	4.2	19.0
9 8	21 30.68	- 9 30.1	0.914	1.879	12.6	18.2	9 8	21 31.30	- 10 22.5	2.082	3.029	7.8	19.3
9 18	21 25.86	- 9 44.1	0.947	1.862	18.0	18.5	9 18	21 25.27	- 10 39.8	2.151	3.028	11.0	19.5
258734	2002 <i>GS</i> ₁₂₃		8 17.6 65°00	4°7/13.3	18		511868	2015 <i>GN</i> ₂₃		8 17.6 79°19	0°5/18.1	17	
7 10	22 14.23	-25 32.2	2.227	3.073	12.4	20.4	7 10	22 11.36	- 6 39.7	1.748	2.573	16.1	21.1
7 20	22 9.96	-26 21.0	2.158	3.076	9.7	20.2	7 20	22 8.07	- 7 39.2	1.680	2.585	12.7	20.9
7 30	22 3.68	-27 10.2	2.113	3.079	7.0	20.1	7 30	22 2.59	- 8 56.7	1.632	2.598	8.7	20.7
8 9	21 55.93	-27 54.1	2.093	3.083	4.9	20.0	8 9	21 55.50	- 10 27.3	1.608	2.610	4.2	20.5
8 19	21 47.46	-28 27.4	2.099	3.086	5.1	20.0	8 19	21 47.59	- 12 4.0	1.611	2.623	0.6	20.2
8 29	21 39.18	-28 46.0	2.133	3.089	7.3	20.1	8 29	21 39.85	- 13 38.7	1.642	2.635	5.0	20.6
9 8	21 31.96	-28 48.2	2.192	3.092	10.0	20.3	9 8	21 33.26	- 15 3.8	1.699	2.648	9.2	20.9
9 18	21 26.47	-28 34.3	2.275	3.095	12.5	20.5	9 18	21 28.54	- 16 14.3	1.780	2.660	12.8	21.1
338449	2003 <i>EY</i> ₅₀		8 17.6 37°79	19°4/11.5	16		237616	2001 <i>RN</i> ₄		8 17.6 352°74	4°1/19.9	18	
7 10	22 42.40	-49 32.2	0.987	1.828	24.6	20.1	7 10	21 59.92	- 5 22.8	0.790	1.685	24.1	19.2
7 20	22 35.66	-50 55.6	0.956	1.834	22.3	20.0	7 20	22 1.22	- 4 54.1	0.730	1.673	19.7	18.9
7 30	22 22.61	-51 50.3	0.938	1.840	20.4	19.9	7 30	21 59.12	- 4 52.5	0.685	1.664	14.4	18.6
8 9	22 5.04	-51 57.1	0.936	1.847	19.5	19.9	8 9	21 54.26	- 5 18.6	0.655	1.657	8.6	18.3
8 19	21 46.10	-51 3.7	0.951	1.854	19.8	19.9	8 19	21 47.77	- 6 8.0	0.643	1.652	4.2	18.0
8 29	21 29.39	-49 10.5	0.983	1.862	21.2	20.1	8 29	21 41.41	- 7 11.2	0.649	1.650	7.5	18.2
9 8	21 17.42	-46 30.2	1.033	1.870	23.2	20.2	9 8	21 36.94	- 8 15.8	0.674	1.650	13.5	18.5
9 18	21 10.97	-43 19.9	1.098	1.879	25.4	20.4	9 18	21 35.60	- 9 10.9	0.715	1.653	19.0	18.8
43252	2000 <i>CB</i> ₁₀		8 17.6 352°56	0°2/17.4	18		258743	2002 <i>GF</i> ₁₆₁		8 17.6 84°36	1°8/16.3	17	
7 10	22 8.94	-11 28.7	1.851	2.692	14.7	18.4	7 10	22 15.02	-12 42.0	1.409	2.260	17.9	20.8
7 20	22 6.18	-11 52.2	1.771	2.688	11.5	18.2	7 20	22 11.45	-13 42.4	1.349	2.273	13.9	20.6
7 30	22 1.33	-12 27.5	1.711	2.684	7.8	18.0	7 30	22 5.14	-14 57.7	1.310	2.286	9.3	20.4
8 9	21 54.90	-13 10.8	1.676	2.681	3.7	17.7	8 9	21 56.78	-16 20.8	1.293	2.299	4.3	20.1
8 19	21 47.63	-13 57.4	1.666	2.678	0.7	17.5	8 19	21 47.42	-17 42.8	1.302	2.312	2.3	20.0
8 29	21 40.45	-14 41.9	1.683	2.676	5.0	17.8	8 29	21 38.36	-18 54.7	1.337	2.325	6.8	20.4
9 8	21 34.28	-15 19.3	1.726	2.675	9.0	18.0	9 8	21 30.84	-19 50.1	1.396	2.337	11.4	20.7
9 18	21 29.88	-15 46.4	1.792	2.675	12.6	18.3	9 18	21 25.75	-20 26.1	1.476	2.350	15.3	20.9
77648	2001 <i>KV</i> ₆₉		8 17.6 293°50	16°8/29.9	18		79899	1999 <i>BF</i> ₆					

EPHEMERIDES

8 17.6

8 17.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
474669	2005 AY ₇₇		8 17.6 275°49	0°2/17.8	18		514944	2008 WS ₂₃		8 17.7 285°32	4°1/14.5	18	
7 10	22 19.57	-13 25.3	1.883	2.708	15.1	21.1	7 10	22 16.11	-20 51.2	1.843	2.691	14.5	22.0
7 20	22 14.57	-13 6.9	1.786	2.693	12.0	20.8	7 20	22 12.26	-21 40.4	1.740	2.662	11.4	21.7
7 30	22 7.12	-12 55.2	1.711	2.678	8.2	20.6	7 30	22 5.84	-22 36.6	1.659	2.632	8.0	21.5
8 9	21 57.74	-12 47.8	1.660	2.663	4.0	20.3	8 9	21 57.28	-23 33.5	1.603	2.602	4.8	21.2
8 19	21 47.25	-12 41.9	1.636	2.648	0.6	20.0	8 19	21 47.38	-24 24.1	1.573	2.572	4.6	21.1
8 29	21 36.76	-12 34.6	1.640	2.632	5.2	20.3	8 29	21 37.27	-25 1.3	1.569	2.542	7.9	21.3
9 8	21 27.39	-12 23.1	1.671	2.617	9.5	20.5	9 8	21 28.19	-25 20.5	1.591	2.511	11.8	21.4
9 18	21 20.04	-12 6.1	1.726	2.601	13.4	20.7	9 18	21 21.19	-25 20.4	1.634	2.479	15.5	21.6
136430	2005 EV ₁₃		8 17.6 131°85	0°6/17.2	17		46171	2001 FV ₉₀		8 17.7 171°72	3°8/21.7	18	
7 10	22 14.14	-10 28.7	1.520	2.361	17.3	20.8	7 10	22 11.33	+ 1 55.1	2.211	2.981	14.9	19.6
7 20	22 10.68	-11 17.7	1.448	2.365	13.6	20.6	7 20	22 7.66	+ 1 36.8	2.122	2.983	12.3	19.4
7 30	22 4.62	-12 23.3	1.396	2.369	9.2	20.3	7 30	22 2.18	+ 0 59.6	2.053	2.985	9.3	19.3
8 9	21 56.57	-13 39.9	1.368	2.373	4.3	20.0	8 9	21 55.32	+ 0 4.7	2.009	2.987	6.2	19.1
8 19	21 47.45	-15 0.1	1.365	2.376	1.1	19.8	8 19	21 47.72	- 1 5.0	1.990	2.988	4.0	18.9
8 29	21 38.47	-16 15.2	1.388	2.379	6.1	20.2	8 29	21 40.16	- 2 24.7	2.000	2.989	4.8	19.0
9 8	21 30.85	-17 18.2	1.436	2.382	10.7	20.4	9 8	21 33.44	- 3 48.1	2.037	2.989	7.7	19.2
9 18	21 25.48	-18 4.7	1.507	2.385	14.8	20.7	9 18	21 28.22	- 5 9.1	2.101	2.989	10.7	19.4
7654	1991 VV ₃		8 17.6 306°63	2°9/15.8	18		261747	2006 BM ₁₀		8 17.7 105°79	0°2/17.5	18	
7 10	22 13.04	-16 39.4	1.371	2.236	17.6	17.8	7 10	22 11.54	-11 54.4	2.474	3.294	12.1	21.2
7 20	22 10.52	-17 15.2	1.281	2.212	13.9	17.5	7 20	22 7.58	-12 15.5	2.395	3.301	9.4	21.0
7 30	22 5.01	-18 3.2	1.209	2.188	9.4	17.1	7 30	22 1.96	-12 44.8	2.339	3.307	6.3	20.8
8 9	21 56.97	-18 57.4	1.160	2.165	4.8	16.8	8 9	21 55.16	-13 19.3	2.310	3.313	3.0	20.6
8 19	21 47.36	-19 49.8	1.134	2.142	3.4	16.7	8 19	21 47.76	-13 55.5	2.308	3.319	0.6	20.4
8 29	21 37.57	-20 31.8	1.133	2.119	8.0	16.9	8 29	21 40.47	-14 29.7	2.335	3.326	4.0	20.7
9 8	21 29.13	-20 57.1	1.154	2.097	13.1	17.1	9 8	21 34.00	-14 58.6	2.389	3.332	7.2	20.9
9 18	21 23.27	-21 2.9	1.196	2.075	17.7	17.3	9 18	21 28.92	-15 19.9	2.469	3.338	10.1	21.1
371413	2006 SW ₄₈		8 17.6 313°63	0°5/17.9	17		53079	1998 XD ₈₁		8 17.7 176°45	3°5/20.6	18	
7 10	22 9.77	- 9 40.2	1.257	2.117	19.1	21.1	7 10	22 15.29	- 1 31.8	2.061	2.845	15.4	20.2
7 20	22 8.13	- 9 55.9	1.165	2.091	15.4	20.8	7 20	22 10.88	- 1 29.9	1.974	2.847	12.6	20.0
7 30	22 3.50	-10 31.0	1.090	2.066	10.7	20.4	7 30	22 4.42	- 1 44.2	1.907	2.849	9.3	19.8
8 9	21 56.32	-11 22.4	1.037	2.042	5.3	20.1	8 9	21 56.42	- 2 13.9	1.864	2.850	5.9	19.6
8 19	21 47.47	-12 24.4	1.006	2.017	0.8	19.7	8 19	21 47.57	- 2 56.3	1.848	2.850	3.5	19.4
8 29	21 38.37	-13 28.3	0.998	1.994	6.7	20.0	8 29	21 38.78	- 3 47.4	1.860	2.850	4.9	19.5
9 8	21 30.58	-14 25.0	1.013	1.971	12.6	20.2	9 8	21 30.95	- 4 41.6	1.899	2.850	8.2	19.7
9 18	21 25.40	-15 7.7	1.047	1.950	17.8	20.5	9 18	21 24.83	- 5 34.0	1.963	2.848	11.5	19.9
485205	2010 UO ₅₅		8 17.7 268°03	3°6/21.1	17		283305	2011 KK ₂₃		8 17.7 39°30	2°5/19.7	16	
7 10	22 10.81	- 0 12.0	2.510	3.283	13.2	22.2	7 10	22 10.26	- 3 32.3	1.414	2.245	18.9	20.4
7 20	22 7.15	- 0 5.6	2.401	3.265	11.0	22.1	7 20	22 7.63	- 3 57.1	1.355	2.260	15.2	20.2
7 30	22 1.80	- 0 13.2	2.313	3.247	8.3	21.9	7 30	22 2.50	- 4 44.1	1.315	2.276	10.8	20.0
8 9	21 55.14	- 0 34.6	2.249	3.228	5.6	21.7	8 9	21 55.55	- 5 49.8	1.296	2.293	6.1	19.7
8 19	21 47.70	- 1 8.3	2.212	3.209	3.7	21.5	8 19	21 47.72	- 7 8.0	1.301	2.310	2.6	19.6
8 29	21 40.17	- 1 51.5	2.203	3.190	4.6	21.5	8 29	21 40.18	- 8 30.4	1.332	2.328	5.4	19.8
9 8	21 33.30	- 2 40.0	2.221	3.171	7.3	21.7	9 8	21 34.02	- 9 48.4	1.387	2.346	9.8	20.1
9 18	21 27.73	- 3 29.6	2.266	3.151	10.2	21.8	9 18	21 30.04	-10 55.5	1.465	2.365	13.8	20.4
82711	2001 PC ₄₅		8 17.7 314°48	2°1/19.6	18		235826	2004 XU ₁₃₀		8 17.7 219°43	10°9/9.3	18	
7 10	22 7.80	- 3 7.1	1.815	2.630	16.0	18.9	7 10	22 27.70	-42 41.6	1.945	2.766	14.9	19.9
7 20	22 5.45	- 3 45.8	1.720	2.617	13.0	18.6	7 20	22 21.33	-43 49.4	1.888	2.763	13.0	19.7
7 30	22 1.00	- 4 45.4	1.646	2.603	9.3	18.4	7 30	22 11.81	-44 44.8	1.852	2.761	11.5	19.6
8 9	21 54.87	- 6 3.7	1.594	2.590	5.3	18.1	8 9	21 59.95	-45 18.2	1.838	2.758	10.9	19.6
8 19	21 47.75	- 7 35.7	1.568	2.578	2.1	17.9	8 19	21 47.05	-45 22.3	1.848	2.755	11.4	19.6
8 29	21 40.57	- 9 14.0	1.569	2.565	4.8	18.0	8 29	21 34.67	-44 54.1	1.881	2.751	12.9	19.7
9 8	21 34.31	-10 50.5	1.597	2.553	9.0	18.3	9 8	21 24.23	-43 55.7	1.936	2.748	14.8	19.9
9 18	21 29.80	-12 17.7	1.649	2.541	12.9	18.5	9 18	21 16.67	-42 32.4	2.010	2.745	16.8	20.0
125287	2001 VG ₂₃		8 17.7 143°94	2°4/19.2	18		40992	1999 UL ₁		8 17.7 286°37	0°9/16.9	18	
7 10	22 16.78	- 5 45.3	1.491	2.314	18.5	19.3	7 10	22 12.05	-13 47.0	2.273	3.103	12.7	19.2
7 20	22 12.76	- 5 47.7	1.417	2.318	14.9	19.1	7 20	22 8.39	-14 12.2	2.169	3.081	10.0	19.0
7 30	22 6.04	- 6 8.2	1.362	2.323	10.6	18.9	7 30	22 2.80	-14 45.9	2.088	3.059	6.7	18.7
8 9	21 57.27	- 6 44.6	1.329	2.327	5.9	18.6	8 9	21 55.70	-15 25.1	2.032	3.037	3.2	18.5
8 19	21 47.39	- 7 32.4	1.321	2.331	2.4	18.4	8 19	21 47.70	-16 5.5	2.004	3.014	1.2	18.3
8 29	21 37.67	- 8 25.3	1.339	2.334	5.6	18.6	8 29	21 39.62	-16 42.6	2.003	2.992	4.8	18.5
9 8	21 29.37	- 9 16.4	1.383	2.338	10.2	18.9	9 8	21 32.32	-17 12.4	2.030	2.969	8.5	18.7
9 18	21 23.40	-10 0.2	1.449	2.340	14.4	19.2	9 18	21 26.54	-17 32.3	2.081	2.947	11.8	18.9
221656	2007 CH ₄		8 17.7 297°59	4°8/14.4	18		169966	2002 TE ₁₃₂		8 17.7 269°72	2°2/19.5	18	
7 10	22 15.27	-21 0.8	1.471	2.335	16.6	20.5	7 10	22 12.36	- 5 20.1	1.990	2.799	15.0	20.1
7 20	22 12.19	-21 51.6	1.380	2.310	13.2	20.2	7 20	22 8.74	- 5 22.1	1.900	2.793	12.1	19.9
7 30	22 6.11	-22 50.7	1.308	2.285	9.2	19.9	7 30	22 3.06	- 5 38.4	1.831	2.787	8.7	19.6
8 9	21 57.51	-23 50.5	1.259	2.260	5.6	19.6	8 9	21 55.82	- 6 7.4	1.786	2.781	5.0	19.4
8 19	21 47.33	-24 42.2	1.235	2.235	5.4	19.5	8 19	21 47.69	- 6 46.1	1.767	2.776	2.3	19.2
8 29	21 36.99	-25 17.2	1.235	2.210	9.2	19.7	8 29	21 39.58	- 7 30.1	1.776	2.770	4.6	19.4
9 8	21 27.98	-25 30.3	1.258	2.185	13.7	19.9	9 8	21 32.42	- 8 14.4	1.811	2.764	8.4	19.6
9 18	21 21.54	-25 20.6	1.302	2.161	17.9	20.1	9 18	21 26.95	- 8 54.5	1.870	2.758	11.9	19.8
134729	2000 AP ₉₂		8 17.7 237°04	4°0/15.4	18		333537	2005 SC ₁₈₀		8 17.7 1°60	0°7/18.3	18	
7 10	22 28.00	-23 58.9</											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
514263	2015 <i>QA</i> ₁₁		8 17.7 45°47'	0°5/18.0	18		22796	1999 <i>NH</i> ₁₈		8 17.7 42°70'	0°3/17.9	18	
7 10	22 15.80	-11 39.2	2.112	2.932	13.9	21.4	7 10	22 15.35	-12 8.9	2.005	2.830	14.3	17.5
7 20	22 11.19	-11 30.8	2.029	2.933	10.9	21.2	7 20	22 10.93	-12 3.4	1.928	2.835	11.2	17.3
7 30	22 4.58	-11 30.5	1.968	2.934	7.5	20.9	7 30	22 4.44	-12 6.3	1.872	2.840	7.7	17.1
8 9	21 56.47	-11 36.0	1.932	2.934	3.7	20.7	8 9	21 56.44	-12 15.0	1.842	2.845	3.7	16.8
8 19	21 47.60	-11 44.5	1.924	2.935	0.6	20.5	8 19	21 47.68	-12 26.2	1.838	2.850	0.5	16.6
8 29	21 38.86	-11 52.9	1.943	2.936	4.4	20.8	8 29	21 39.10	-12 36.6	1.862	2.855	4.6	16.9
9 8	21 31.14	-11 58.2	1.990	2.937	8.1	21.0	9 8	21 31.59	-12 43.2	1.913	2.861	8.4	17.2
9 18	21 25.12	-11 58.4	2.062	2.938	11.5	21.2	9 18	21 25.87	-12 43.8	1.988	2.866	11.8	17.4
371934	2008 <i>ET</i> ₇₅		8 17.7 234°95'	1°4/16.6	17		299202	2005 <i>HR</i> ₁		8 17.7 74°03'	0°6/18.3	16	
7 10	22 15.98	-13 32.0	1.774	2.611	15.4	22.0	7 10	22 11.33	- 6 33.2	1.881	2.700	15.3	20.9
7 20	22 11.98	-14 12.5	1.685	2.600	12.1	21.7	7 20	22 7.89	- 7 29.5	1.815	2.718	12.1	20.7
7 30	22 5.51	-15 5.3	1.617	2.589	8.2	21.5	7 30	22 2.42	- 8 42.1	1.770	2.735	8.3	20.5
8 9	21 57.08	-16 5.3	1.573	2.577	3.9	21.2	8 9	21 55.49	-10 6.6	1.750	2.752	4.1	20.3
8 19	21 47.50	-17 6.4	1.555	2.565	1.8	21.0	8 19	21 47.83	-11 36.6	1.757	2.769	0.7	20.1
8 29	21 37.90	-18 1.5	1.565	2.553	6.0	21.3	8 29	21 40.36	-13 4.9	1.793	2.786	4.6	20.4
9 8	21 29.41	-18 45.2	1.601	2.540	10.4	21.5	9 8	21 33.97	-14 24.8	1.855	2.803	8.5	20.7
9 18	21 22.97	-19 14.2	1.660	2.526	14.3	21.7	9 18	21 29.33	-15 31.6	1.942	2.820	12.0	20.9
244648	2003 <i>FZ</i> ₁₁₈		8 17.7 65°80'	2°8/20.4	18		498077	2007 <i>RO</i> ₁₈₉		8 17.7 258°86'	0°7/18.2	17	
7 10	22 10.26	- 1 55.3	2.073	2.868	14.9	20.2	7 10	22 14.52	- 8 17.0	1.528	2.362	17.6	22.4
7 20	22 6.86	- 2 15.0	2.000	2.882	12.1	20.0	7 20	22 11.24	- 8 43.9	1.437	2.348	14.1	22.1
7 30	22 1.62	- 2 51.6	1.948	2.896	8.8	19.9	7 30	22 5.27	- 9 29.1	1.366	2.334	9.8	21.9
8 9	21 55.07	- 3 42.9	1.920	2.909	5.3	19.7	8 9	21 57.08	-10 29.3	1.318	2.320	4.9	21.5
8 19	21 47.84	- 4 45.2	1.918	2.923	2.8	19.5	8 19	21 47.55	-11 38.7	1.294	2.306	0.8	21.2
8 29	21 40.77	- 5 53.3	1.944	2.937	4.4	19.7	8 29	21 37.92	-12 49.5	1.296	2.291	5.8	21.5
9 8	21 34.65	- 7 1.4	1.997	2.951	7.6	19.9	9 8	21 29.49	-13 53.7	1.324	2.276	10.9	21.8
9 18	21 30.08	- 8 4.4	2.075	2.965	10.8	20.1	9 18	21 23.32	-14 45.5	1.374	2.261	15.4	22.0
244781	2003 <i>SX</i> ₁₇₃		8 17.7 281°00'	0°9/16.9	18		22193	2712 <i>P-L</i>		8 17.7 69°88'	1°0/16.9	18	
7 10	22 12.52	-12 12.7	1.891	2.726	14.7	20.8	7 10	22 13.33	-12 50.7	1.761	2.600	15.4	19.0
7 20	22 9.21	-12 50.6	1.790	2.704	11.6	20.5	7 20	22 9.71	-13 26.7	1.688	2.605	12.0	18.7
7 30	22 3.62	-13 41.4	1.711	2.683	7.9	20.3	7 30	22 3.81	-14 14.3	1.637	2.610	8.0	18.5
8 9	21 56.20	-14 41.3	1.656	2.661	3.7	20.0	8 9	21 56.20	-15 8.5	1.609	2.614	3.7	18.3
8 19	21 47.65	-15 44.6	1.628	2.639	1.3	19.7	8 19	21 47.71	-16 3.7	1.608	2.619	1.4	18.1
8 29	21 38.96	-16 44.7	1.627	2.617	5.6	20.0	8 29	21 39.38	-16 53.5	1.634	2.624	5.5	18.4
9 8	21 31.20	-17 35.9	1.652	2.594	9.9	20.2	9 8	21 32.23	-17 33.0	1.685	2.629	9.7	18.7
9 18	21 25.27	-18 14.0	1.700	2.572	13.7	20.4	9 18	21 27.03	-17 59.4	1.760	2.633	13.3	18.9
35488	1998 <i>FJ</i> ₂₁		8 17.7 144°31'	1°8/16.3	18		521702	2015 <i>RV</i> ₂₆₃		8 17.7 351°10'	6°6/11.2	18	
7 10	22 16.79	-16 8.2	1.926	2.762	14.4	19.1	7 10	22 8.64	-25 38.9	1.715	2.585	14.3	20.0
7 20	22 12.19	-16 37.5	1.853	2.768	11.2	18.9	7 20	22 6.44	-27 16.5	1.648	2.579	11.3	19.8
7 30	22 5.36	-17 14.3	1.801	2.773	7.5	18.7	7 30	22 1.83	-28 57.6	1.603	2.573	8.4	19.7
8 9	21 56.88	-17 53.7	1.774	2.778	3.6	18.5	8 9	21 55.35	-30 33.2	1.583	2.569	6.7	19.5
8 19	21 47.57	-18 30.6	1.775	2.783	2.1	18.4	8 19	21 47.84	-31 53.9	1.587	2.565	7.4	19.6
8 29	21 38.45	-19 0.0	1.803	2.788	5.7	18.7	8 29	21 40.42	-32 52.5	1.617	2.562	10.0	19.7
9 8	21 30.50	-19 18.5	1.857	2.792	9.5	18.9	9 8	21 34.21	-33 25.3	1.669	2.560	13.1	19.9
9 18	21 24.47	-19 24.7	1.935	2.796	12.8	19.1	9 18	21 30.07	-33 32.2	1.741	2.558	15.9	20.1
254247	2004 <i>RO</i> ₁₅₄		8 17.7 312°98'	0°9/18.4	18		236344	2006 <i>BM</i> ₁₃₂		8 17.7 108°16'	0°7/18.2	16	
7 10	22 13.87	-10 22.5	2.105	2.926	13.9	19.8	7 10	22 14.64	- 9 40.7	1.790	2.617	15.7	21.4
7 20	22 9.81	-10 12.2	2.014	2.917	11.0	19.6	7 20	22 10.69	- 9 50.3	1.712	2.619	12.4	21.2
7 30	22 3.74	-10 10.9	1.944	2.908	7.7	19.4	7 30	22 4.46	-10 12.4	1.655	2.622	8.5	21.0
8 9	21 56.13	-10 16.6	1.899	2.900	3.9	19.2	8 9	21 56.52	-10 44.1	1.621	2.624	4.3	20.7
8 19	21 47.69	-10 26.8	1.881	2.892	1.0	18.9	8 19	21 47.67	-11 21.0	1.614	2.626	0.8	20.5
8 29	21 39.29	-10 38.3	1.890	2.884	4.4	19.2	8 29	21 38.96	-11 58.2	1.634	2.628	4.9	20.8
9 8	21 31.82	-10 47.9	1.927	2.876	8.2	19.4	9 8	21 31.39	-12 30.7	1.679	2.630	9.1	21.0
9 18	21 26.01	-10 53.0	1.988	2.869	11.6	19.6	9 18	21 25.77	-12 55.2	1.749	2.632	12.8	21.3
238002	2002 <i>TT</i> ₁₁₁		8 17.7 348°32'	3°5/15.3	18		506618	2006 <i>DC</i> ₁₄₀		8 17.7 108°46'	1°1/16.7	17	
7 10	22 9.49	-18 19.3	1.350	2.224	17.2	19.4	7 10	22 14.55	-12 52.9	1.965	2.795	14.4	21.8
7 20	22 7.55	-18 59.7	1.278	2.215	13.4	19.1	7 20	22 10.33	-13 41.3	1.898	2.811	11.1	21.6
7 30	22 2.81	-19 49.4	1.225	2.206	9.1	18.9	7 30	22 4.04	-14 40.2	1.854	2.825	7.4	21.4
8 9	21 55.88	-20 41.8	1.195	2.199	4.9	18.6	8 9	21 56.25	-15 44.5	1.835	2.840	3.4	21.2
8 19	21 47.74	-21 28.6	1.188	2.193	4.1	18.5	8 19	21 47.73	-16 48.4	1.844	2.854	1.5	21.1
8 29	21 39.73	-22 2.5	1.204	2.188	8.0	18.8	8 29	21 39.41	-17 45.9	1.881	2.868	5.2	21.4
9 8	21 33.18	-22 18.4	1.243	2.185	12.5	19.0	9 8	21 32.21	-18 32.6	1.944	2.882	8.9	21.6
9 18	21 29.06	-22 14.9	1.303	2.182	16.6	19.3	9 18	21 26.80	-19 5.8	2.032	2.895	12.2	21.9
186449	2002 <i>SA</i> ₄₃		8 17.7 344°10'	0°1/17.8	17 R		449294	2013 <i>EK</i> ₉₄		8 17.7 336°13'	6°0/11.7	18	
7 10	22 7.59	-12 9.5	1.028	1.911	20.7	19.3	7 10	22 13.91	-28 25.2	2.148	2.998	12.6	20.5
7 20	22 6.80	-12 3.1	0.956	1.896	16.5	19.0	7 20	22 9.99	-29 36.4	2.080	2.997	10.1	20.3
7 30	22 2.74	-12 12.3	0.901	1.883	11.4	18.6	7 30	22 3.92	-30 47.0	2.036	2.997	7.6	20.2
8 9	21 56.01	-12 33.8	0.864	1.871	5.5	18.3	8 9	21 56.24	-31 50.0	2.017	2.996	6.1	20.1
8 19	21 47.71	-13 1.9	0.849	1.861	0.8	17.9	8 19	21 47.72	-32 38.9	2.024	2.995	6.6	20.1
8 29	21 39.47	-13 28.8	0.855	1.853	7.1	18.3	8 29	21 39.34	-33 9.1	2.057	2.995	8.7	20.2
9 8	21 32.93	-13 47.6	0.881	1.846	13.1	18.6	9 8	21 32.07	-33 18.4	2.115	2.994	11.2	20.4
9 18	21 29.32	-13 53.8	0.926	1.842	18.3	18.9	9 18	21 26.62	-33 7.8	2.194	2.994	13.6	20.6
207725	2007 <i>RR</i> ₁₅₀		8 17.7 258°52'	0°6/18.1	18		26103	1990 <i>SC</i> ₃		8 17.7			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
171181	2005 <i>HJ</i> ₁		8 17.7 185°47'	1°1/18.7	18		257709	1999 <i>XE</i> ₁₁₂		8 17.7 325°28'	8°4/11.9	18	
7 10	22 12.52	- 7 34.4	2.055	2.870	14.4	21.0	7 10	22 9.49	-25 1.6	1.118	2.011	18.7	19.2
7 20	22 8.77	- 7 52.4	1.971	2.870	11.4	20.8	7 20	22 8.58	-26 27.9	1.042	1.986	15.0	18.9
7 30	22 3.05	- 8 23.6	1.908	2.870	8.0	20.6	7 30	22 4.20	-28 2.6	0.984	1.962	11.2	18.6
8 9	21 55.83	- 9 5.4	1.870	2.870	4.1	20.3	8 9	21 56.86	-29 33.7	0.946	1.940	8.6	18.4
8 19	21 47.81	- 9 53.8	1.858	2.869	1.1	20.1	8 19	21 47.66	-30 47.5	0.930	1.918	9.4	18.4
8 29	21 39.86	-10 43.9	1.875	2.869	4.4	20.3	8 29	21 38.34	-31 31.6	0.934	1.897	13.1	18.5
9 8	21 32.86	-11 30.8	1.918	2.868	8.2	20.6	9 8	21 30.77	-31 40.2	0.958	1.878	17.6	18.7
9 18	21 27.50	-12 10.6	1.986	2.867	11.6	20.8	9 18	21 26.35	-31 14.1	0.999	1.861	21.8	18.9
481487	2007 <i>CD</i> ₄₃		8 17.7 250°68'	0°1/17.8	18		47533	2000 <i>AY</i> ₉₇		8 17.7 202°57'	2°8/15.4	18	
7 10	22 12.52	-10 55.7	2.485	3.300	12.2	22.7	7 10	22 17.02	-20 9.4	2.188	3.024	12.9	18.7
7 20	22 8.53	-11 16.2	2.383	3.285	9.6	22.5	7 20	22 12.22	-20 39.0	2.106	3.021	10.1	18.5
7 30	22 2.79	-11 46.0	2.305	3.270	6.6	22.3	7 30	22 5.35	-21 12.3	2.048	3.018	6.9	18.3
8 9	21 55.70	-12 22.5	2.252	3.255	3.2	22.0	8 9	21 56.93	-21 44.8	2.014	3.015	3.8	18.1
8 19	21 47.83	-13 2.2	2.227	3.239	0.5	21.8	8 19	21 47.69	-22 11.6	2.009	3.012	3.2	18.0
8 29	21 39.93	-13 41.2	2.232	3.223	4.1	22.1	8 29	21 38.58	-22 28.6	2.031	3.008	6.0	18.2
9 8	21 32.75	-14 15.8	2.263	3.207	7.5	22.2	9 8	21 30.50	-22 33.3	2.081	3.004	9.3	18.4
9 18	21 26.95	-14 43.0	2.321	3.190	10.6	22.4	9 18	21 24.18	-22 25.1	2.154	2.999	12.3	18.6
110589	2001 <i>TG</i> ₁₂₄		8 17.7 241°03'	2°8/19.9	18		453436	2009 <i>QF</i> ₁₅		8 17.7 330°04'	0°1/17.6	17	
7 10	22 14.22	- 4 16.9	2.341	3.131	13.6	20.2	7 10	22 10.73	-12 4.6	1.917	2.754	14.4	20.8
7 20	22 9.90	- 4 1.9	2.242	3.121	11.1	20.0	7 20	22 7.65	-12 14.8	1.826	2.741	11.4	20.6
7 30	22 3.74	- 3 58.6	2.165	3.111	8.1	19.8	7 30	22 2.46	-12 35.2	1.757	2.728	7.7	20.4
8 9	21 56.16	- 4 6.3	2.112	3.101	5.0	19.6	8 9	21 55.64	-13 2.7	1.712	2.716	3.7	20.1
8 19	21 47.77	- 4 23.4	2.086	3.091	2.8	19.4	8 19	21 47.89	-13 33.4	1.693	2.705	0.6	19.8
8 29	21 39.36	- 4 47.1	2.089	3.080	4.4	19.5	8 29	21 40.16	-14 2.7	1.700	2.694	4.9	20.1
9 8	21 31.74	- 5 13.7	2.120	3.070	7.6	19.7	9 8	21 33.39	-14 26.4	1.734	2.683	9.0	20.3
9 18	21 25.60	- 5 39.7	2.176	3.058	10.7	19.9	9 18	21 28.37	-14 41.4	1.791	2.673	12.6	20.5
358847	2008 <i>FS</i> ₆₂		8 17.7 122°09'	0°8/16.9	18		469207	2016 <i>GD</i> ₂₃₃		8 17.7 146°24'	1°8/16.3	17	
7 10	22 12.28	-13 4.6	2.291	3.118	12.7	22.0	7 10	22 16.54	-13 18.8	1.601	2.442	16.6	21.8
7 20	22 8.34	-13 39.9	2.215	3.125	9.9	21.8	7 20	22 12.49	-14 18.1	1.531	2.449	12.9	21.6
7 30	22 2.61	-14 23.9	2.162	3.132	6.6	21.7	7 30	22 5.87	-15 30.9	1.482	2.456	8.6	21.4
8 9	21 55.57	-15 12.8	2.134	3.138	3.1	21.4	8 9	21 57.28	-16 50.7	1.457	2.462	4.1	21.1
8 19	21 47.86	-16 2.1	2.134	3.145	1.1	21.3	8 19	21 47.65	-18 9.7	1.458	2.467	2.3	21.0
8 29	21 40.28	-16 47.3	2.162	3.151	4.5	21.6	8 29	21 38.20	-19 19.4	1.486	2.473	6.5	21.3
9 8	21 33.59	-17 24.5	2.218	3.157	7.9	21.8	9 8	21 30.11	-20 14.0	1.540	2.477	10.9	21.6
9 18	21 28.40	-17 51.3	2.299	3.163	10.9	22.0	9 18	21 24.25	-20 50.5	1.616	2.481	14.7	21.8
474390	2002 <i>TS</i> ₁₄₁		8 17.7 15°97'	19°5/10.9	16		420584	2012 <i>HW</i> ₂₈		8 17.7 101°94'	3°2/15.4	17	
7 10	22 51.92	-60 8.1	1.396	2.166	22.0	19.7	7 10	22 19.08	-18 11.4	1.626	2.473	16.2	21.5
7 20	22 42.40	-61 7.3	1.371	2.173	20.8	19.6	7 20	22 14.29	-19 0.0	1.569	2.490	12.5	21.3
7 30	22 26.55	-61 34.2	1.360	2.181	19.9	19.6	7 30	22 6.93	-19 55.6	1.532	2.506	8.4	21.1
8 9	22 6.69	-61 13.9	1.364	2.191	19.5	19.6	8 9	21 57.70	-20 51.4	1.520	2.523	4.4	20.9
8 19	21 46.32	-59 58.5	1.385	2.202	19.7	19.6	8 19	21 47.61	-21 40.3	1.534	2.539	3.6	20.9
8 29	21 28.93	-57 50.0	1.424	2.213	20.4	19.7	8 29	21 37.89	-22 16.2	1.575	2.554	7.0	21.1
9 8	21 16.62	-54 59.8	1.480	2.226	21.5	19.8	9 8	21 29.67	-22 35.8	1.641	2.570	10.9	21.4
9 18	21 9.79	-51 42.0	1.553	2.241	22.6	20.0	9 18	21 23.76	-22 38.6	1.729	2.584	14.3	21.7
503973	2004 <i>RM</i> ₂₇₅		8 17.7 343°84'	2°9/19.4	17		465292	2007 <i>TD</i> ₃₂₉		8 17.7 107°59'	3°7/15.4	17	
7 10	22 4.67	- 6 6.5	0.934	1.813	22.7	21.3	7 10	22 21.80	-20 3.5	1.503	2.352	17.1	21.1
7 20	22 4.70	- 5 58.5	0.865	1.799	18.4	21.0	7 20	22 16.65	-20 40.6	1.444	2.366	13.3	20.9
7 30	22 1.44	- 6 16.0	0.811	1.788	13.2	20.7	7 30	22 8.64	-21 23.0	1.406	2.379	9.0	20.7
8 9	21 55.46	- 6 57.9	0.775	1.777	7.4	20.3	8 9	21 58.54	-22 3.5	1.391	2.392	5.0	20.5
8 19	21 47.85	- 7 59.1	0.758	1.769	2.9	20.0	8 19	21 47.48	-22 35.1	1.402	2.405	4.2	20.5
8 29	21 40.25	- 9 9.6	0.762	1.762	7.1	20.3	8 29	21 36.85	-22 52.1	1.439	2.417	7.7	20.8
9 8	21 34.38	-10 17.8	0.785	1.757	13.1	20.6	9 8	21 27.93	-22 52.0	1.500	2.429	11.7	21.0
9 18	21 31.51	-11 14.1	0.827	1.753	18.6	20.9	9 18	21 21.59	-22 35.5	1.584	2.440	15.3	21.3
385555	2004 <i>TO</i> ₇₁		8 17.7 222°33'	3°8/21.1	17		191021	2002 <i>AV</i> ₁₀₄		8 17.7 203°47'	0°4/17.9	18	
7 10	22 12.85	- 0 1.8	2.057	2.839	15.4	21.8	7 10	22 15.27	-10 30.1	1.811	2.639	15.5	20.7
7 20	22 9.11	- 0 3.9	1.962	2.833	12.8	21.6	7 20	22 11.23	-10 42.9	1.730	2.638	12.3	20.5
7 30	22 3.35	- 0 23.8	1.888	2.826	9.6	21.4	7 30	22 4.88	-11 7.8	1.669	2.636	8.4	20.3
8 9	21 56.02	- 1 0.8	1.836	2.819	6.3	21.2	8 9	21 56.78	-11 41.4	1.632	2.635	4.1	20.0
8 19	21 47.80	- 1 52.8	1.811	2.811	3.9	21.0	8 19	21 47.74	-12 19.5	1.621	2.633	0.6	19.8
8 29	21 39.55	- 2 55.1	1.813	2.803	5.1	21.1	8 29	21 38.78	-12 56.7	1.638	2.631	5.0	20.1
9 8	21 32.19	- 4 1.9	1.843	2.795	8.3	21.2	9 8	21 30.96	-13 28.5	1.681	2.629	9.3	20.3
9 18	21 26.46	- 5 7.5	1.897	2.786	11.7	21.4	9 18	21 25.08	-13 51.4	1.747	2.627	13.0	20.6
276462	2003 <i>GO</i> ₃₄		8 17.7 108°25'	1°7/16.3	17		467324	2001 <i>SO</i> ₃₀₆		8 17.7 10°52'	1°6/18.7	16	
7 10	22 14.68	-13 55.9	1.767	2.607	15.3	21.0	7 10	22 7.63	- 8 7.1	1.055	1.927	21.2	20.2
7 20	22 10.73	-14 48.8	1.700	2.618	11.9	20.8	7 20	22 6.48	- 8 9.5	0.998	1.929	16.9	19.9
7 30	22 4.49	-15 52.7	1.655	2.628	7.9	20.6	7 30	22 2.26	- 8 32.8	0.957	1.934	11.7	19.7
8 9	21 56.54	-17 1.9	1.634	2.638	3.7	20.3	8 9	21 55.69	- 9 13.7	0.936	1.940	6.1	19.4
8 19	21 47.74	-18 9.6	1.639	2.648	2.1	20.2	8 19	21 47.91	-10 5.7	0.936	1.947	1.6	19.1
8 29	21 39.14	-19 9.0	1.672	2.658	5.9	20.5	8 29	21 40.42	-11 0.0	0.958	1.957	6.4	19.5
9 8	21 31.76	-19 55.2	1.731	2.668	9.9	20.8	9 8	21 34.65	-11 48.1	1.002	1.967	11.8	19.8
9 18	21 26.37	-20 25.8	1.813	2.677	13.4	21.0	9 18	21 31.58	-12 23.9	1.066	1.980	16.5	20.1
109457	2001 <i>QZ</i> ₂₁₀		8 17.7 203°16'	1°0/18.4	18		200193	1999 <i>RP</i> ₁₃₅					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
262317	2006 <i>TE</i> ₁₉		8 17.7 316°27	5°4/14.5	17		339157	2004 <i>TG</i> ₅₂		8 17.7 267°37	2°1/19.3	18	
7 10	22 16.80	-22 44.0	1.336	2.205	17.7	20.1	7 10	22 13.72	-5 45.8	1.943	2.752	15.3	21.7
7 20	22 13.53	-23 25.7	1.262	2.194	14.0	19.8	7 20	22 10.06	-5 51.5	1.840	2.733	12.4	21.4
7 30	22 7.05	-24 12.4	1.206	2.183	9.8	19.5	7 30	22 4.18	-6 12.1	1.757	2.714	8.9	21.2
8 9	21 58.01	-24 55.7	1.173	2.172	6.2	19.3	8 9	21 56.54	-6 46.1	1.699	2.695	5.0	20.9
8 19	21 47.55	-25 26.7	1.163	2.162	5.9	19.3	8 19	21 47.80	-7 30.4	1.666	2.675	2.1	20.7
8 29	21 37.21	-25 38.4	1.177	2.152	9.5	19.4	8 29	21 38.93	-8 20.3	1.661	2.655	4.8	20.8
9 8	21 28.55	-25 27.5	1.213	2.142	13.9	19.7	9 8	21 30.95	-9 10.1	1.683	2.635	8.9	21.0
9 18	21 22.69	-24 55.0	1.270	2.134	17.9	19.9	9 18	21 24.73	-9 55.0	1.728	2.615	12.8	21.2
430539	2002 <i>EF</i> ₁₂₄		8 17.7 78°62	2°6/19.9	17		190551	2000 <i>SK</i> ₄₈		8 17.7 283°67	3°2/19.9	18	
7 10	22 13.55	-3 33.0	1.748	2.557	16.8	21.0	7 10	22 13.99	-4 19.8	1.758	2.568	16.6	20.4
7 20	22 9.75	-3 48.3	1.682	2.573	13.5	20.9	7 20	22 10.53	-4 6.2	1.657	2.548	13.6	20.1
7 30	22 3.77	-4 21.5	1.636	2.590	9.7	20.7	7 30	22 4.65	-4 8.3	1.575	2.528	10.0	19.8
8 9	21 56.19	-5 10.1	1.613	2.607	5.6	20.5	8 9	21 56.82	-4 25.7	1.515	2.508	6.1	19.6
8 19	21 47.84	-6 9.7	1.616	2.624	2.6	20.3	8 19	21 47.76	-4 56.2	1.481	2.487	3.2	19.4
8 29	21 39.73	-7 14.3	1.646	2.640	4.8	20.5	8 29	21 38.53	-5 35.7	1.473	2.467	5.5	19.4
9 8	21 32.80	-8 17.3	1.702	2.657	8.7	20.8	9 8	21 30.28	-6 18.7	1.491	2.446	9.6	19.6
9 18	21 27.78	-9 13.4	1.782	2.673	12.2	21.0	9 18	21 23.97	-6 59.6	1.532	2.426	13.7	19.8
523135	2016 <i>SL</i> ₅₄		8 17.7 316°62	1°2/16.7	18		263218	2008 <i>AT</i> ₃₆		8 17.7 174°54	2°6/19.7	17	
7 10	22 11.24	-12 39.7	1.883	2.723	14.6	21.2	7 10	22 16.65	-4 18.6	1.856	2.657	16.2	21.9
7 20	22 8.05	-13 27.2	1.803	2.719	11.4	21.0	7 20	22 12.23	-4 23.5	1.772	2.659	13.1	21.7
7 30	22 2.73	-14 26.7	1.743	2.716	7.6	20.7	7 30	22 5.53	-4 44.6	1.709	2.661	9.4	21.5
8 9	21 55.76	-15 33.7	1.708	2.713	3.5	20.5	8 9	21 57.10	-5 20.2	1.669	2.663	5.5	21.3
8 19	21 47.90	-16 41.9	1.700	2.710	1.6	20.3	8 19	21 47.73	-6 6.9	1.656	2.664	2.6	21.1
8 29	21 40.10	-17 44.8	1.719	2.708	5.5	20.6	8 29	21 38.44	-6 59.4	1.671	2.664	4.9	21.3
9 8	21 33.31	-18 37.0	1.764	2.705	9.5	20.8	9 8	21 30.24	-7 52.0	1.712	2.664	8.9	21.5
9 18	21 28.32	-19 15.2	1.833	2.703	13.0	21.0	9 18	21 23.95	-8 39.7	1.778	2.663	12.5	21.7
190554	2000 <i>SU</i> ₆₅		8 17.7 331°20	1°1/18.4	18		117747	2005 <i>GW</i> ₄₃		8 17.7 115°58	1°1/18.5	18	
7 10	22 6.14	-8 34.7	1.223	2.087	19.3	19.6	7 10	22 17.91	-8 34.1	1.614	2.438	17.3	20.5
7 20	22 5.30	-8 45.3	1.134	2.063	15.5	19.3	7 20	22 13.41	-8 42.4	1.545	2.450	13.7	20.3
7 30	22 1.61	-9 16.0	1.064	2.040	10.9	19.0	7 30	22 6.39	-9 5.2	1.496	2.461	9.5	20.1
8 9	21 55.52	-10 4.6	1.013	2.017	5.6	18.6	8 9	21 57.50	-9 39.3	1.470	2.471	4.8	19.8
8 19	21 47.92	-11 5.6	0.985	1.996	1.1	18.2	8 19	21 47.69	-10 20.0	1.470	2.482	1.2	19.6
8 29	21 40.14	-12 10.7	0.979	1.977	6.4	18.5	8 29	21 38.11	-11 1.5	1.497	2.492	5.2	19.9
9 8	21 33.68	-13 10.4	0.995	1.959	12.1	18.8	9 8	21 29.92	-11 38.5	1.550	2.501	9.7	20.2
9 18	21 29.74	-13 57.5	1.032	1.942	17.2	19.0	9 18	21 23.92	-12 7.0	1.626	2.511	13.6	20.4
516214	2016 <i>TB</i> ₆₁		8 17.7 320°48	1°8/18.9	18		268886	2007 <i>BV</i> ₁₃		8 17.7 182°49	1°1/16.8	17	
7 10	22 9.11	-7 1.4	1.470	2.312	17.8	20.8	7 10	22 16.15	-13 20.9	1.943	2.772	14.6	21.8
7 20	22 7.14	-7 8.5	1.375	2.290	14.4	20.5	7 20	22 11.79	-13 58.2	1.862	2.773	11.4	21.6
7 30	22 2.59	-7 33.9	1.300	2.268	10.2	20.2	7 30	22 5.21	-14 46.0	1.803	2.773	7.6	21.3
8 9	21 55.90	-8 15.8	1.245	2.246	5.5	19.9	8 9	21 56.94	-15 39.7	1.769	2.773	3.6	21.1
8 19	21 47.87	-9 10.1	1.215	2.226	1.8	19.6	8 19	21 47.76	-16 33.8	1.762	2.772	1.5	20.9
8 29	21 39.69	-10 10.1	1.209	2.206	5.7	19.8	8 29	21 38.68	-17 22.5	1.783	2.771	5.4	21.2
9 8	21 32.62	-11 8.0	1.227	2.187	10.7	20.0	9 8	21 30.67	-18 1.1	1.831	2.769	9.3	21.4
9 18	21 27.75	-11 57.3	1.267	2.168	15.4	20.2	9 18	21 24.54	-18 27.1	1.903	2.767	12.8	21.7
374942	2007 <i>BN</i> ₄₁		8 17.7 278°55	0°4/17.9	18		267360	2001 <i>XQ</i> ₃₇		8 17.7 346°72	4°1/15.7	18	
7 10	22 14.51	-10 3.9	1.628	2.463	16.7	22.2	7 10	22 15.09	-21 0.9	1.216	2.092	18.6	19.2
7 20	22 11.14	-10 20.0	1.532	2.444	13.3	21.9	7 20	22 12.31	-21 13.1	1.147	2.083	14.7	18.9
7 30	22 5.18	-10 50.7	1.456	2.425	9.2	21.7	7 30	22 6.26	-21 30.0	1.095	2.075	10.1	18.6
8 9	21 57.09	-11 33.0	1.403	2.406	4.5	21.3	8 9	21 57.65	-21 44.6	1.064	2.068	5.6	18.4
8 19	21 47.70	-12 22.1	1.375	2.387	0.7	21.0	8 19	21 47.65	-21 49.8	1.057	2.062	4.5	18.3
8 29	21 38.17	-13 11.4	1.374	2.368	5.7	21.3	8 29	21 37.90	-21 40.0	1.072	2.057	8.6	18.5
9 8	21 29.75	-13 54.7	1.398	2.349	10.5	21.5	9 8	21 29.93	-21 12.9	1.110	2.054	13.4	18.8
9 18	21 23.47	-14 27.5	1.444	2.329	14.9	21.8	9 18	21 24.84	-20 29.2	1.167	2.052	17.7	19.0
328519	2009 <i>QZ</i> ₂₃		8 17.7 33°76	1°9/19.1	17		440891	2006 <i>UM</i> ₁₁₃		8 17.7 306°25	0°4/17.4	18	
7 10	22 11.42	-5 55.1	1.229	2.077	20.2	20.4	7 10	22 12.66	-12 21.2	1.938	2.772	14.4	22.0
7 20	22 9.01	-6 12.8	1.170	2.087	16.2	20.2	7 20	22 9.11	-12 39.9	1.852	2.764	11.3	21.7
7 30	22 3.74	-6 52.4	1.128	2.097	11.3	20.0	7 30	22 3.43	-13 8.9	1.787	2.757	7.7	21.5
8 9	21 56.33	-7 50.4	1.107	2.108	6.1	19.7	8 9	21 56.11	-13 44.8	1.746	2.751	3.6	21.3
8 19	21 47.84	-9 0.1	1.109	2.120	1.9	19.5	8 19	21 47.89	-14 23.1	1.732	2.744	0.8	21.0
8 29	21 39.64	-10 12.5	1.135	2.132	5.9	19.8	8 29	21 39.72	-14 58.8	1.745	2.737	5.0	21.3
9 8	21 33.03	-11 18.9	1.185	2.145	10.9	20.1	9 8	21 32.55	-15 27.7	1.785	2.731	9.0	21.5
9 18	21 28.92	-12 12.8	1.255	2.159	15.4	20.4	9 18	21 27.15	-15 46.8	1.848	2.725	12.6	21.8
425883	2011 <i>FZ</i> ₃₂		8 17.7 73°30	1°1/16.8	17		235702	2004 <i>TB</i> ₄₄		8 17.7 241°39	1°9/16.1	18	
7 10	22 13.94	-12 39.7	1.652	2.494	16.1	21.1	7 10	22 16.87	-16 34.6	2.213	3.042	13.0	21.8
7 20	22 10.30	-13 22.6	1.587	2.505	12.5	20.9	7 20	22 12.25	-17 5.7	2.115	3.026	10.2	21.6
7 30	22 4.27	-14 17.9	1.543	2.516	8.4	20.7	7 30	22 5.51	-17 43.8	2.039	3.009	6.9	21.4
8 9	21 56.48	-15 20.1	1.522	2.527	3.9	20.5	8 9	21 57.11	-18 24.8	1.988	2.992	3.4	21.1
8 19	21 47.82	-16 22.6	1.528	2.539	1.5	20.3	8 19	21 47.74	-19 3.8	1.966	2.974	2.2	21.0
8 29	21 39.40	-17 18.6	1.560	2.550	5.8	20.7	8 29	21 38.32	-19 36.1	1.972	2.955	5.5	21.2
9 8	21 32.26	-18 2.8	1.618	2.561	10.0	20.9	9 8	21 29.80	-19 58.1	2.006	2.936	9.1	21.4
9 18	21 27.19	-18 32.4	1.699	2.572	13.6	21.2	9 18	21 22.96	-20 7.8	2.064	2.917	12.4	21.5
509264	2006 <i>UM</i> ₁₅₉		8 17.7 320°14	4°6/14.9	18		91563	1999 <i>RJ</i> ₂₃₅		8 17.7 322°33	0°1/17.7	18	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
204845	2007 <i>RG</i> ₃₈		8 17.7	1°41'	3°3'/15.6	18	231267	2006 <i>AM</i> ₁₆		8 17.7	90°98'	0°9'/18.3	18
7 10	22 10.84	-17 49.7	1.342	2.214	17.5	19.5	7 10	22 19.37	-10 54.3	1.811	2.631	15.8	20.2
7 20	22 8.56	-18 28.0	1.276	2.212	13.6	19.2	7 20	22 14.23	-10 40.8	1.741	2.644	12.5	20.0
7 30	22 3.47	-19 15.7	1.230	2.211	9.2	19.0	7 30	22 6.79	-10 37.0	1.692	2.656	8.6	19.8
8 9	21 56.24	-20 5.9	1.206	2.211	4.8	18.7	8 9	21 57.67	-10 40.5	1.667	2.668	4.3	19.5
8 19	21 47.88	-20 50.7	1.206	2.212	3.7	18.7	8 19	21 47.75	-10 48.2	1.669	2.680	0.9	19.3
8 29	21 39.75	-21 23.1	1.229	2.214	7.7	18.9	8 29	21 38.11	-10 56.5	1.699	2.692	4.8	19.6
9 8	21 33.13	-21 38.3	1.276	2.218	12.2	19.2	9 8	21 29.76	-11 2.3	1.755	2.704	8.9	19.9
9 18	21 28.95	-21 35.2	1.342	2.222	16.2	19.4	9 18	21 23.45	-11 3.0	1.836	2.716	12.5	20.1
250009	2002 <i>AV</i> ₃₈		8 17.7	286°81'	1°0'/16.7	18	328257	2008 <i>FB</i> ₁₂₈		8 17.7	353°91'	5°2'/14.2	17
7 10	22 10.16	-12 13.5	2.111	2.944	13.4	20.2	7 10	22 13.83	-21 7.7	1.326	2.199	17.6	20.2
7 20	22 7.03	-13 5.8	2.021	2.935	10.5	20.0	7 20	22 11.08	-22 10.2	1.261	2.196	13.8	20.0
7 30	22 1.97	-14 9.9	1.954	2.926	7.0	19.8	7 30	22 5.31	-23 20.2	1.216	2.194	9.5	19.8
8 9	21 55.42	-15 21.7	1.912	2.917	3.3	19.6	8 9	21 57.19	-24 28.7	1.193	2.192	5.9	19.6
8 19	21 48.01	-16 35.4	1.898	2.908	1.4	19.4	8 19	21 47.82	-25 26.0	1.193	2.191	5.8	19.5
8 29	21 40.59	-17 44.8	1.911	2.899	5.1	19.6	8 29	21 38.66	-26 3.9	1.217	2.191	9.4	19.8
9 8	21 34.03	-18 44.6	1.951	2.890	8.8	19.9	9 8	21 31.13	-26 18.3	1.264	2.191	13.6	20.0
9 18	21 29.05	-19 31.3	2.016	2.881	12.1	20.1	9 18	21 26.25	-26 9.2	1.330	2.192	17.4	20.2
322129	2010 <i>VZ</i> ₁₈₁		8 17.7	265°14'	4°5'/22.1	18	217469	2005 <i>WQ</i> ₂₁		8 17.7	27°50'	4°3'/21.4	18
7 10	22 10.65	+ 2 7.7	2.430	3.193	13.8	20.7	7 10	22 11.57	- 0 15.5	2.021	2.808	15.5	20.1
7 20	22 7.08	+ 2 23.0	2.333	3.187	11.6	20.6	7 20	22 8.05	+ 0 6.0	1.941	2.813	12.8	19.9
7 30	22 1.83	+ 2 23.1	2.257	3.180	9.0	20.4	7 30	22 2.60	+ 0 11.4	1.880	2.817	9.7	19.8
8 9	21 55.29	+ 2 7.8	2.204	3.174	6.4	20.2	8 9	21 55.71	+ 0 0.9	1.843	2.822	6.6	19.6
8 19	21 48.04	+ 1 38.4	2.177	3.167	4.6	20.1	8 19	21 48.05	- 0 24.0	1.831	2.827	4.4	19.5
8 29	21 40.77	+ 0 57.5	2.178	3.160	5.1	20.1	8 29	21 40.48	- 0 59.9	1.845	2.833	5.3	19.5
9 8	21 34.22	+ 0 9.3	2.205	3.153	7.4	20.2	9 8	21 33.86	- 1 42.0	1.886	2.839	11.1	19.7
9 18	21 29.02	- 0 41.6	2.259	3.147	10.1	20.4	9 18	21 28.87	- 2 25.3	1.952	2.845	8.2	19.9
105423	2000 <i>QA</i> ₁₆₈		8 17.7	269°02'	0°9'/18.4	18	47557	2000 <i>AP</i> ₁₃₇		8 17.7	47°55'	2°8'/15.3	18
7 10	22 15.52	-10 24.5	2.152	2.967	13.8	19.5	7 10	22 13.41	-17 49.3	1.873	2.720	14.3	18.2
7 20	22 11.05	-10 14.5	2.063	2.963	10.9	19.3	7 20	22 9.76	-18 38.4	1.800	2.722	11.1	18.0
7 30	22 4.59	-10 13.3	1.996	2.959	7.6	19.1	7 30	22 3.89	-19 34.9	1.750	2.725	7.5	17.8
8 9	21 56.62	-10 19.0	1.955	2.955	3.9	18.9	8 9	21 56.36	-20 33.1	1.724	2.727	3.9	17.6
8 19	21 47.85	-10 28.8	1.940	2.951	0.9	18.6	8 19	21 47.96	-21 26.6	1.725	2.729	3.2	17.6
8 29	21 39.16	-10 39.7	1.954	2.947	4.3	18.9	8 29	21 39.70	-22 9.7	1.752	2.732	6.4	17.8
9 8	21 31.41	-10 48.7	1.995	2.943	8.0	19.1	9 8	21 32.57	-22 38.3	1.806	2.735	10.1	18.0
9 18	21 25.32	-10 53.2	2.061	2.939	11.4	19.3	9 18	21 27.34	-22 51.1	1.882	2.737	13.3	18.2
509311	2006 <i>WK</i> ₁₄		8 17.7	297°85'	1°6'/16.6	18	399943	2006 <i>AP</i> ₁₂		8 17.7	73°09'	2°8'/20.3	18
7 10	22 12.81	-13 24.3	1.436	2.291	17.4	21.9	7 10	22 12.50	- 3 39.3	2.329	3.120	13.6	21.0
7 20	22 10.28	-14 2.2	1.341	2.267	13.8	21.6	7 20	22 8.49	- 3 26.5	2.247	3.126	11.0	20.8
7 30	22 4.89	-14 55.7	1.266	2.243	9.4	21.3	7 30	22 2.75	- 3 26.0	2.185	3.131	8.1	20.6
8 9	21 57.10	-16 0.0	1.212	2.218	4.5	20.9	8 9	21 55.73	- 3 37.0	2.148	3.136	5.0	20.5
8 19	21 47.76	-17 7.7	1.183	2.194	2.1	20.7	8 19	21 48.06	- 3 57.5	2.138	3.142	2.9	20.3
8 29	21 38.18	-18 9.8	1.179	2.170	7.1	21.0	8 29	21 40.47	- 4 24.5	2.156	3.147	4.3	20.4
9 8	21 29.82	-18 58.7	1.199	2.146	12.3	21.2	9 8	21 33.73	- 4 54.3	2.201	3.153	7.2	20.6
9 18	21 23.86	-19 29.7	1.239	2.122	17.0	21.4	9 18	21 28.44	- 5 23.4	2.272	3.158	10.2	20.8
259987	2004 <i>FY</i> ₆₅		8 17.7	169°82'	1°2'/16.8	18	418232	2008 <i>CA</i> ₂₀₉		8 17.7	197°70'	2°0'/19.4	17
7 10	22 17.10	-13 44.7	1.863	2.695	15.0	21.3	7 10	22 15.67	- 4 54.6	1.846	2.652	16.1	22.2
7 20	22 12.60	-14 18.3	1.786	2.698	11.7	21.1	7 20	22 11.57	- 5 12.8	1.758	2.649	13.0	22.0
7 30	22 5.80	-15 2.0	1.730	2.701	7.9	20.9	7 30	22 5.18	- 5 47.9	1.690	2.646	9.3	21.8
8 9	21 57.25	-15 51.2	1.698	2.703	3.7	20.7	8 9	21 57.02	- 6 37.8	1.647	2.643	5.2	21.5
8 19	21 47.78	-16 40.4	1.694	2.705	1.6	20.5	8 19	21 47.86	- 7 38.3	1.629	2.639	2.0	21.3
8 29	21 38.44	-17 23.7	1.718	2.706	5.5	20.8	8 29	21 38.70	- 8 43.5	1.639	2.634	4.9	21.5
9 8	21 30.26	-17 56.7	1.767	2.706	9.6	21.0	9 8	21 30.60	- 9 46.9	1.676	2.628	9.0	21.7
9 18	21 24.05	-18 17.1	1.841	2.707	13.1	21.3	9 18	21 24.39	-10 43.2	1.738	2.622	12.8	21.9
322429	2011 <i>SW</i> ₁₉₇		8 17.7	340°53'	0°1'/17.7	18	173095	2007 <i>TV</i> ₇₃		8 17.7	320°51'	6°1'/21.3	18
7 10	22 13.40	-11 50.4	1.789	2.625	15.3	21.2	7 10	22 9.00	- 0 49.9	1.158	1.996	21.8	19.7
7 20	22 9.82	-12 2.1	1.709	2.622	12.1	21.0	7 20	22 7.72	- 0 14.3	1.072	1.977	18.3	19.4
7 30	22 3.98	-12 24.8	1.649	2.619	8.2	20.7	7 30	22 3.39	- 0 2.8	1.003	1.958	14.1	19.1
8 9	21 56.40	-12 55.0	1.613	2.617	3.9	20.5	8 9	21 56.48	- 0 18.0	0.951	1.940	9.5	18.8
8 19	21 47.90	-13 28.3	1.602	2.614	0.6	20.2	8 19	21 47.91	- 0 59.2	0.921	1.922	6.2	18.5
8 29	21 39.49	-13 59.8	1.619	2.612	5.1	20.6	8 29	21 39.11	- 2 1.2	0.912	1.906	7.7	18.6
9 8	21 32.21	-14 25.0	1.661	2.610	9.3	20.8	9 8	21 31.70	- 3 14.4	0.924	1.891	12.4	18.8
9 18	21 26.84	-14 40.9	1.727	2.609	13.0	21.0	9 18	21 26.97	- 4 28.3	0.957	1.876	17.4	19.0
322068	2010 <i>VK</i> ₉₈		8 17.7	292°80'	0°8'/19.1	17	262129	2006 <i>SJ</i> ₃₄		8 17.7	272°36'	0°4'/17.5	18
7 10	22 4.72	- 7 21.8	4.344	5.136	7.7	20.7	7 10	22 18.26	-13 25.6	1.533	2.375	17.2	20.4
7 20	22 1.70	- 7 34.0	4.246	5.131	6.1	20.6	7 20	22 14.16	-13 26.8	1.448	2.365	13.6	20.2
7 30	21 57.80	- 7 52.3	4.172	5.126	4.3	20.4	7 30	22 7.25	-13 38.4	1.383	2.355	9.3	19.9
8 9	21 53.26	- 8 15.5	4.125	5.121	2.3	20.3	8 9	21 58.11	-13 56.6	1.340	2.345	4.4	19.6
8 19	21 48.39	- 8 42.1	4.107	5.117	0.8	20.2	8 19	21 47.69	-14 16.8	1.323	2.335	0.9	19.3
8 29	21 43.53	- 9 10.2	4.118	5.112	2.3	20.3	8 29	21 37.30	-14 33.7	1.332	2.324	6.0	19.6
9 8	21 39.05	- 9 37.9	4.159	5.107	4.2	20.4	9 8	21 28.27	-14 42.9	1.365	2.314	10.9	19.9
9 18	21 35.26	-10 3.4	4.227	5.102	6.1	20.5	9 18	21 21.63	-14 42.0	1.421	2.304	15.2	20.1
428281	2007 <i>ER</i> ₈₄		8 17.7	64°22'	0°3'/17.5	17	231359	2006 <i>GB</i> ₃₇		8			

EPHEMERIDES

8 17.7

8 17.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
246348	2007 <i>TJ</i> ₃₀₉		8 17.7 350°65	1°5/16.5	18		301342	2009 <i>BK</i> ₁₈₈		8 17.7 17°05	0°3/17.5	18	
7 10	22 13.09	-14 28.4	1.834	2.676	14.8	20.7	7 10	22 11.04	-10 35.3	1.690	2.530	15.9	20.4
7 20	22 9.56	-15 5.2	1.757	2.675	11.5	20.5	7 20	22 8.10	-11 11.2	1.616	2.532	12.5	20.2
7 30	22 3.79	-15 52.0	1.701	2.675	7.7	20.2	7 30	22 2.88	-12 1.3	1.563	2.535	8.5	20.0
8 9	21 56.33	-16 44.0	1.669	2.674	3.7	20.0	8 9	21 55.94	-13 1.1	1.533	2.538	4.0	19.7
8 19	21 47.97	-17 35.4	1.664	2.674	1.9	19.9	8 19	21 48.09	-14 4.6	1.529	2.541	0.8	19.5
8 29	21 39.72	-18 20.4	1.686	2.674	5.7	20.1	8 29	21 40.36	-15 5.1	1.552	2.545	5.3	19.8
9 8	21 32.57	-18 54.3	1.734	2.673	9.7	20.4	9 8	21 33.79	-15 56.6	1.600	2.549	9.6	20.1
9 18	21 27.32	-19 14.8	1.804	2.673	13.2	20.6	9 18	21 29.15	-16 35.2	1.671	2.553	13.4	20.3
288543	2004 <i>GV</i> ₃₁		8 17.7 102°57	0°3/17.5	17		217632	1993 <i>TA</i> ₂₅		8 17.7 309°16	1°0/18.7	18	
7 10	22 17.32	-11 40.8	1.682	2.514	16.3	21.3	7 10	22 9.48	-7 31.2	2.100	2.920	14.0	20.3
7 20	22 12.85	-12 5.6	1.617	2.529	12.8	21.1	7 20	22 6.54	-7 53.9	2.004	2.906	11.1	20.1
7 30	22 5.97	-12 42.2	1.573	2.543	8.6	20.9	7 30	22 1.69	-8 30.2	1.929	2.892	7.8	19.9
8 9	21 57.33	-13 26.4	1.553	2.557	4.0	20.7	8 9	21 55.36	-9 17.8	1.878	2.879	4.1	19.6
8 19	21 47.84	-14 12.6	1.558	2.570	0.8	20.4	8 19	21 48.17	-10 12.8	1.854	2.866	1.0	19.4
8 29	21 38.63	-14 54.8	1.591	2.583	5.4	20.8	8 29	21 40.94	-11 10.1	1.858	2.853	4.3	19.6
9 8	21 30.75	-15 28.4	1.650	2.596	9.6	21.1	9 8	21 34.52	-12 4.4	1.888	2.840	8.2	19.8
9 18	21 25.00	-15 50.5	1.733	2.609	13.3	21.3	9 18	21 29.65	-12 51.3	1.943	2.827	11.7	20.0
439695	2014 <i>KV</i> ₉		8 17.7 350°47	2°2/16.1	18		402424	2006 <i>AR</i> ₁₁		8 17.7 85°32	2°2/15.3	18	
7 10	22 8.38	-15 49.5	1.521	2.385	16.1	20.3	7 10	22 10.32	-16 4.0	2.337	3.174	12.2	21.1
7 20	22 6.38	-16 24.4	1.445	2.376	12.6	20.0	7 20	22 6.93	-17 10.1	2.262	3.179	9.4	20.9
7 30	22 1.92	-17 9.8	1.389	2.368	8.5	19.8	7 30	22 1.77	-18 24.2	2.210	3.184	6.2	20.7
8 9	21 55.53	-18 0.5	1.356	2.362	4.1	19.5	8 9	21 55.32	-19 41.1	2.185	3.188	3.2	20.5
8 19	21 48.09	-18 49.5	1.347	2.356	2.7	19.4	8 19	21 48.19	-20 55.2	2.188	3.193	2.6	20.5
8 29	21 40.74	-19 30.2	1.363	2.352	6.7	19.6	8 29	21 41.12	-22 0.9	2.219	3.198	5.4	20.7
9 8	21 34.63	-19 57.3	1.403	2.348	11.0	19.9	9 8	21 34.90	-22 54.1	2.278	3.202	8.5	20.9
9 18	21 30.65	-20 8.3	1.465	2.346	14.9	20.1	9 18	21 30.13	-23 32.6	2.360	3.207	11.3	21.1
434195	2003 <i>GV</i> ₂₄		8 17.7 113°13	1°9/16.2	17		381142	2007 <i>EL</i> ₁₉₅		8 17.7 276°74	1°4/18.8	18	
7 10	22 15.58	-14 41.7	1.808	2.647	15.1	21.8	7 10	22 13.04	-6 45.7	1.696	2.520	16.6	21.4
7 20	22 11.43	-15 31.2	1.742	2.658	11.7	21.6	7 20	22 9.92	-7 5.8	1.597	2.501	13.4	21.2
7 30	22 4.99	-16 30.6	1.696	2.669	7.8	21.4	7 30	22 4.34	-7 43.4	1.519	2.482	9.4	20.9
8 9	21 56.87	-17 34.4	1.676	2.680	3.7	21.2	8 9	21 56.77	-8 36.4	1.463	2.463	5.0	20.6
8 19	21 47.92	-18 35.9	1.682	2.691	2.2	21.1	8 19	21 47.96	-9 40.1	1.433	2.444	1.4	20.3
8 29	21 39.18	-19 28.9	1.716	2.702	5.9	21.4	8 29	21 38.98	-10 47.9	1.429	2.424	5.3	20.5
9 8	21 31.66	-20 8.8	1.776	2.712	9.8	21.7	9 8	21 31.02	-11 52.8	1.451	2.404	10.0	20.8
9 18	21 26.11	-20 33.6	1.859	2.721	13.2	21.9	9 18	21 25.04	-12 48.5	1.496	2.385	14.3	21.0
307147	2002 <i>CG</i> ₂₄₇		8 17.7 133°46	1°2/19.1	18		224941	2007 <i>DB</i> ₇₄		8 17.7 283°61	0°2/17.9	18	
7 10	22 12.51	-6 56.6	2.829	3.622	11.4	21.8	7 10	22 13.69	-10 4.5	1.629	2.465	16.6	21.4
7 20	22 8.14	-7 12.2	2.750	3.636	9.0	21.6	7 20	22 10.55	-10 26.9	1.533	2.446	13.2	21.1
7 30	22 2.33	-7 37.3	2.694	3.648	6.3	21.4	7 30	22 4.84	-11 4.5	1.456	2.426	9.1	20.9
8 9	21 55.49	-8 10.0	2.664	3.661	3.4	21.3	8 9	21 57.03	-11 54.3	1.403	2.407	4.5	20.5
8 19	21 48.14	-8 47.5	2.663	3.673	1.2	21.1	8 19	21 47.92	-12 50.8	1.375	2.387	0.6	20.2
8 29	21 40.91	-9 26.7	2.691	3.684	3.3	21.3	8 29	21 38.65	-13 47.3	1.373	2.367	5.7	20.5
9 8	21 34.38	-10 4.2	2.748	3.695	6.2	21.5	9 8	21 30.47	-14 37.0	1.396	2.347	10.6	20.7
9 18	21 29.07	-10 37.3	2.832	3.706	8.8	21.7	9 18	21 24.40	-15 15.1	1.442	2.327	14.9	21.0
95807	2003 <i>FX</i> ₅₁		8 17.7 67°22	4°4/14.6	17		512391	2016 <i>OF</i> ₃		8 17.8 303°63	7°1/21.8	18	
7 10	22 17.10	-20 42.7	1.527	2.385	16.4	19.4	7 10	22 16.41	+ 1 48.8	1.688	2.470	18.3	20.8
7 20	22 12.98	-21 41.6	1.475	2.401	12.7	19.2	7 20	22 12.48	+ 2 58.1	1.596	2.459	15.6	20.6
7 30	22 6.19	-22 45.6	1.443	2.418	8.7	19.0	7 30	22 6.03	+ 3 51.1	1.523	2.448	12.4	20.4
8 9	21 57.46	-23 46.9	1.436	2.435	5.2	18.8	8 9	21 57.55	+ 4 25.1	1.471	2.438	9.2	20.2
8 19	21 47.87	-24 37.6	1.453	2.452	4.9	18.9	8 19	21 47.85	+ 4 38.6	1.443	2.428	7.2	20.0
8 29	21 38.67	-25 11.4	1.497	2.470	8.1	19.1	8 29	21 38.05	+ 4 32.7	1.440	2.417	7.9	20.1
9 8	21 31.05	-25 25.5	1.564	2.487	11.8	19.4	9 8	21 29.35	+ 4 11.5	1.462	2.408	10.7	20.2
9 18	21 25.80	-25 20.3	1.653	2.504	15.1	19.6	9 18	21 22.70	+ 3 40.8	1.507	2.398	14.0	20.4
61739	2000 <i>QT</i> ₁₅₂		8 17.7 53°37	2°2/19.2	18		481287	2005 <i>YB</i> ₈₆		8 17.8 303°47	3°9/13.7	18	
7 10	22 14.12	-5 29.8	1.187	2.031	21.0	18.8	7 10	22 10.84	-20 54.1	2.168	3.017	12.5	21.0
7 20	22 11.20	-5 45.6	1.131	2.045	16.8	18.6	7 20	22 7.62	-22 4.4	2.087	3.009	9.8	20.8
7 30	22 5.28	-6 24.3	1.092	2.060	11.8	18.4	7 30	22 2.43	-23 20.5	2.029	3.002	6.8	20.6
8 9	21 57.14	-7 22.1	1.074	2.074	6.4	18.1	8 9	21 55.71	-24 36.4	1.997	2.994	4.3	20.5
8 19	21 47.91	-8 32.1	1.079	2.089	2.2	17.9	8 19	21 48.14	-25 45.5	1.992	2.986	4.4	20.5
8 29	21 39.03	-9 45.1	1.108	2.105	6.1	18.2	8 29	21 40.60	-26 41.9	2.014	2.979	7.0	20.6
9 8	21 31.87	-10 52.0	1.160	2.120	11.1	18.5	9 8	21 33.95	-27 21.7	2.062	2.972	10.0	20.8
9 18	21 27.36	-11 46.4	1.234	2.136	15.6	18.9	9 18	21 28.94	-27 43.5	2.133	2.965	12.9	21.0
28099	1998 <i>RZ</i> ₆₆		8 17.7 101°86	1°5/19.2	18		71246	2000 <i>AB</i> ₁₁		8 17.8 263°85	2°2/19.5	18	
7 10	22 12.47	-7 3.3	2.401	3.205	12.9	18.9	7 10	22 15.74	-5 53.0	2.205	3.003	14.1	20.2
7 20	22 8.42	-7 4.4	2.319	3.210	10.3	18.7	7 20	22 11.44	-5 47.2	2.093	2.979	11.4	20.0
7 30	22 2.69	-7 16.0	2.259	3.216	7.2	18.5	7 30	22 5.07	-5 53.5	2.002	2.955	8.3	19.7
8 9	21 55.73	-7 36.5	2.224	3.221	4.0	18.3	8 9	21 57.03	-6 10.9	1.936	2.930	4.8	19.5
8 19	21 48.13	-8 3.3	2.217	3.226	1.5	18.2	8 19	21 47.95	-6 37.2	1.896	2.904	2.2	19.3
8 29	21 40.63	-8 32.9	2.238	3.231	3.8	18.4	8 29	21 38.69	-7 9.1	1.885	2.878	4.5	19.4
9 8	21 33.95	-9 1.8	2.286	3.237	7.1	18.6	9 8	21 30.20	-7 42.2	1.902	2.852	8.3	19.5
9 18	21 28.68	-9 27.0	2.361	3.242	10.0	18.8	9 18	21 23.27	-8 12.7	1.944	2.825	11.8	19.7
35558	1998 <i>FT</i> ₁₂₂		8 17.7 292°39	8°3/11.7	18		22230	1022 <i>T</i> ₋₃		8 17.8 310°33	1°2/16.9	18	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
387546	2001 <i>BZ</i> ₃		8 17.8 178°79	0°9/16.9	18		512686	2016 <i>UU</i>		8 17.8 317°33	1°4/16.7	18	
7 10	22 18.70	-15 8.0	2.408	3.224	12.5	21.8	7 10	22 13.43	-14 41.1	1.709	2.555	15.5	21.3
7 20	22 13.31	-15 20.6	2.322	3.226	9.7	21.6	7 20	22 10.09	-15 6.7	1.627	2.547	12.1	21.0
7 30	22 6.02	-15 39.0	2.260	3.227	6.6	21.4	7 30	22 4.34	-15 42.3	1.565	2.539	8.2	20.8
8 9	21 57.34	-16 0.1	2.224	3.228	3.1	21.2	8 9	21 56.71	-16 23.5	1.527	2.532	3.9	20.5
8 19	21 47.93	-16 20.2	2.217	3.228	1.2	21.0	8 19	21 48.05	-17 4.5	1.514	2.524	1.8	20.3
8 29	21 38.64	-16 36.0	2.240	3.227	4.5	21.3	8 29	21 39.44	-17 39.7	1.528	2.517	5.9	20.6
9 8	21 30.28	-16 44.9	2.290	3.226	7.9	21.5	9 8	21 31.99	-18 4.3	1.567	2.511	10.2	20.8
9 18	21 23.51	-16 45.5	2.367	3.224	10.9	21.7	9 18	21 26.57	-18 15.8	1.629	2.504	14.0	21.1
422714	2000 <i>UB</i> ₁₃		8 17.8 309°26	2°9/19.1	18		470590	2008 <i>KC</i> ₈		8 17.8 83°51	0°7/18.3	17	
7 10	22 14.32	-7 54.9	1.250	2.098	20.0	20.5	7 10	22 15.85	-8 26.0	1.577	2.407	17.4	21.8
7 20	22 11.86	-7 23.7	1.157	2.074	16.3	20.2	7 20	22 11.85	-8 52.7	1.516	2.424	13.7	21.6
7 30	22 6.25	-7 7.6	1.082	2.050	11.8	19.8	7 30	22 5.39	-9 35.1	1.474	2.441	9.4	21.4
8 9	21 57.92	-7 6.4	1.027	2.027	6.7	19.5	8 9	21 57.13	-10 29.1	1.455	2.458	4.6	21.2
8 19	21 47.82	-7 17.7	0.994	2.004	2.9	19.2	8 19	21 48.02	-11 28.8	1.462	2.474	0.8	20.9
8 29	21 37.42	-7 37.1	0.985	1.981	6.7	19.4	8 29	21 39.20	-12 27.2	1.496	2.491	5.2	21.3
9 8	21 28.38	-7 58.4	0.998	1.960	12.3	19.6	9 8	21 31.75	-13 18.3	1.556	2.507	9.6	21.6
9 18	21 22.05	-8 16.0	1.031	1.939	17.5	19.8	9 18	21 26.47	-13 58.0	1.638	2.523	13.4	21.9
261673	2005 <i>YG</i> ₁₆₈		8 17.8 315°59	1°2/16.9	17		523721	2014 <i>LR</i> ₂₈		8 17.8 151°17	0°0/17.8	17	
7 10	22 12.31	-14 49.4	1.869	2.712	14.5	20.6	7 10	21 51.68	-12 55.0	45.396	46.204	0.8	22.0
7 20	22 9.13	-15 4.9	1.771	2.690	11.4	20.4	7 20	21 51.11	-12 58.0	45.305	46.204	0.6	22.0
7 30	22 3.67	-15 29.2	1.695	2.668	7.8	20.1	7 30	21 50.47	-13 1.4	45.240	46.205	0.4	22.0
8 9	21 56.41	-15 58.6	1.642	2.647	3.7	19.8	8 9	21 49.78	-13 5.0	45.203	46.205	0.2	22.0
8 19	21 48.06	-16 28.6	1.615	2.626	1.5	19.6	8 19	21 49.07	-13 8.8	45.194	46.206	0.0	21.9
8 29	21 39.64	-16 54.0	1.615	2.605	5.6	19.9	8 29	21 48.37	-13 12.5	45.215	46.207	0.2	22.0
9 8	21 32.18	-17 10.8	1.640	2.585	9.8	20.1	9 8	21 47.69	-13 16.0	45.264	46.207	0.4	22.0
9 18	21 26.58	-17 16.5	1.689	2.565	13.6	20.3	9 18	21 47.07	-13 19.3	45.341	46.208	0.6	22.0
197501	2004 <i>BS</i> ₉₁		8 17.8 229°73	2°5/21.0	18		89466	2001 <i>XL</i> ₁₇		8 17.8 228°25	2°9/15.9	18	
7 10	22 8.31	-0 33.0	2.998	3.767	11.3	20.6	7 10	22 19.36	-17 31.7	1.533	2.382	16.9	19.1
7 20	22 4.97	-0 57.4	2.896	3.760	9.3	20.4	7 20	22 15.09	-18 7.2	1.454	2.375	13.2	18.9
7 30	22 0.28	-1 35.0	2.817	3.753	6.9	20.2	7 30	22 7.95	-18 51.9	1.394	2.369	9.0	18.6
8 9	21 54.59	-2 24.6	2.763	3.746	4.4	20.1	8 9	21 58.52	-19 39.3	1.358	2.362	4.6	18.3
8 19	21 48.34	-3 23.8	2.737	3.739	2.6	19.9	8 19	21 47.82	-20 22.1	1.348	2.354	3.3	18.2
8 29	21 42.08	-4 29.2	2.740	3.731	3.5	20.0	8 29	21 37.19	-20 53.6	1.363	2.347	7.3	18.5
9 8	21 36.37	-5 36.6	2.772	3.723	5.9	20.1	9 8	21 28.00	-21 9.3	1.403	2.339	11.8	18.7
9 18	21 31.71	-6 41.9	2.831	3.715	8.5	20.3	9 18	21 21.29	-21 7.9	1.465	2.330	15.9	18.9
350111	2011 <i>QC</i> ₇		8 17.8 43°34	2°5/19.7	18		72008	2000 <i>XV</i> ₇		8 17.8 165°59	9°6/24.2	18	
7 10	22 12.48	-4 48.9	1.703	2.521	16.8	20.9	7 10	22 22.08	+9 59.6	1.906	2.619	18.7	19.0
7 20	22 9.13	-4 51.9	1.631	2.528	13.5	20.7	7 20	22 16.58	+11 27.2	1.822	2.624	16.4	18.9
7 30	22 3.53	-5 11.6	1.578	2.535	9.7	20.4	7 30	22 8.64	+12 35.3	1.755	2.628	13.9	18.7
8 9	21 56.25	-5 46.2	1.548	2.543	5.6	20.2	8 9	21 58.77	+13 19.6	1.711	2.632	11.5	18.6
8 19	21 48.10	-6 31.8	1.543	2.551	2.5	20.1	8 19	21 47.79	+13 37.3	1.690	2.635	9.9	18.5
8 29	21 40.11	-7 22.9	1.564	2.559	4.9	20.2	8 29	21 36.79	+13 28.7	1.694	2.637	9.8	18.5
9 8	21 33.28	-8 13.5	1.611	2.568	8.9	20.5	9 8	21 26.90	+12 58.0	1.723	2.638	11.4	18.6
9 18	21 28.38	-8 58.5	1.682	2.576	12.6	20.7	9 18	21 19.03	+12 11.7	1.776	2.639	13.7	18.7
251345	2007 <i>RH</i> ₃₀₂		8 17.8 22°85	2°6/19.5	17		444344	2005 <i>WY</i> ₁₃₀		8 17.8 75°41	2°0/19.7	18	
7 10	22 10.63	-5 2.3	1.102	1.956	21.6	20.5	7 10	22 11.94	-5 18.3	2.234	3.036	13.8	21.3
7 20	22 8.78	-5 11.0	1.042	1.962	17.4	20.3	7 20	22 8.16	-5 22.2	2.155	3.043	11.1	21.2
7 30	22 3.86	-5 44.4	0.999	1.968	12.4	20.0	7 30	22 2.60	-5 38.9	2.097	3.051	7.9	21.0
8 9	21 56.58	-6 39.6	0.976	1.976	6.9	19.7	8 9	21 55.75	-6 6.5	2.065	3.059	4.5	20.8
8 19	21 48.06	-7 49.9	0.974	1.984	2.6	19.5	8 19	21 48.23	-6 42.2	2.059	3.067	2.1	20.6
8 29	21 39.81	-9 5.7	0.995	1.993	6.3	19.8	8 29	21 40.83	-7 22.0	2.080	3.074	4.1	20.8
9 8	21 33.25	-10 16.8	1.039	2.003	11.6	20.1	9 8	21 34.30	-8 1.8	2.130	3.082	7.4	21.0
9 18	21 29.40	-11 15.6	1.102	2.014	16.3	20.4	9 18	21 29.26	-8 37.9	2.204	3.090	10.4	21.2
467339	2002 <i>QZ</i> ₁₀₇		8 17.8 20°46	0°3/17.9	16		188784	2005 <i>VW</i> ₃₃		8 17.8 273°74	2°7/20.4	18	
7 10	22 8.98	-9 27.7	1.013	1.889	21.5	21.1	7 10	22 10.60	-2 52.6	2.290	3.082	13.8	21.0
7 20	22 7.65	-9 51.8	0.962	1.897	16.9	20.8	7 20	22 7.21	-2 58.6	2.194	3.075	11.2	20.8
7 30	22 3.14	-10 37.3	0.928	1.907	11.6	20.5	7 30	22 2.05	-3 19.0	2.120	3.067	8.2	20.6
8 9	21 56.22	-11 38.3	0.913	1.918	5.6	20.3	8 9	21 55.54	-3 52.6	2.070	3.059	5.0	20.4
8 19	21 48.12	-12 46.2	0.919	1.931	0.7	20.0	8 19	21 48.26	-4 36.9	2.046	3.051	2.7	20.3
8 29	21 40.40	-13 50.8	0.948	1.945	6.7	20.4	8 29	21 40.98	-5 28.0	2.051	3.044	4.2	20.4
9 8	21 34.51	-14 43.4	0.998	1.960	12.2	20.8	9 8	21 34.46	-6 21.1	2.083	3.036	7.4	20.5
9 18	21 31.41	-15 18.7	1.068	1.977	17.0	21.1	9 18	21 29.36	-7 11.7	2.140	3.028	10.6	20.7
341992	2008 <i>RE</i> ₉		8 17.8 7°72	12°1/13.9	16		65807	1996 <i>JT</i> ₉		8 17.8 304°89	0°7/18.4	18	
7 10	22 22.39	-37 19.7	1.012	1.892	21.2	20.0	7 10	22 11.96	-8 49.5	1.865	2.692	15.2	19.8
7 20	22 18.82	-37 46.5	0.968	1.893	17.9	19.8	7 20	22 8.70	-9 9.4	1.779	2.686	12.1	19.6
7 30	22 10.90	-37 57.4	0.940	1.897	14.6	19.7	7 30	22 3.28	-9 43.0	1.713	2.679	8.3	19.4
8 9	21 59.86	-37 40.0	0.931	1.903	12.4	19.6	8 9	21 56.19	-10 27.4	1.671	2.673	4.2	19.1
8 19	21 47.64	-36 46.4	0.941	1.910	12.5	19.6	8 19	21 48.17	-11 18.1	1.656	2.667	0.8	18.9
8 29	21 36.48	-35 15.5	0.972	1.920	14.6	19.8	8 29	21 40.17	-12 9.7	1.667	2.662	4.8	19.1
9 8	21 28.19	-33 14.0	1.022	1.932	17.8	20.0	9 8	21 33.18	-12 56.5	1.705	2.656	8.9	19.4
9 18	21 23.68	-30 52.2	1.091	1.945	20.9	20.3	9 18	21 27.97	-13 34.5	1.766	2.651	12.6	19.6
103478	2000 <i>AD</i> ₂₁₉		8 17.8 323°50	0°9/18.4	18		387544	2000 <i>YV</i>		8 17.8 288°08	1°7/18.5	18	

EPHEMERIDES

8 17.8

8 17.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
371542	2006 <i>UK</i> ₂₉₁	8 17.8 248°83		0°9/16.9 18			282762	2006 <i>HV</i> ₄₉	8 17.8 25°85		3°2/16.0 17		
7 10	22 15.42	-11 51.7	1.876	2.705	15.0	21.3	7 10	22 13.54	-16 47.5	0.988	1.874	21.1	20.1
7 20	22 11.59	-12 37.0	1.777	2.688	11.8	21.0	7 20	22 11.39	-17 22.0	0.941	1.883	16.4	19.8
7 30	22 5.40	-13 36.2	1.700	2.670	8.1	20.7	7 30	22 5.75	-18 8.6	0.910	1.894	11.0	19.6
8 9	21 57.29	-14 45.0	1.647	2.651	3.8	20.5	8 9	21 57.50	-18 58.9	0.900	1.906	5.5	19.3
8 19	21 48.01	-15 57.2	1.621	2.632	1.3	20.2	8 19	21 48.03	-19 43.1	0.910	1.919	3.7	19.3
8 29	21 38.57	-17 5.7	1.623	2.612	5.7	20.5	8 29	21 39.08	-20 12.8	0.943	1.933	8.5	19.6
9 8	21 30.10	-18 4.3	1.652	2.592	10.0	20.7	9 8	21 32.22	-20 23.1	0.997	1.948	13.7	19.9
9 18	21 23.52	-18 48.8	1.704	2.571	13.9	20.9	9 18	21 28.44	-20 13.7	1.069	1.964	18.2	20.3
479596	2014 <i>DH</i> ₅	8 17.8 98°48		2°8/19.8 18			260616	2005 <i>GK</i> ₄₀	8 17.8 141°59		1°8/16.4 17		
7 10	22 16.02	- 5 12.1	1.923	2.726	15.6	21.1	7 10	22 19.22	-15 13.3	1.782	2.616	15.5	21.8
7 20	22 11.64	- 4 53.4	1.844	2.732	12.6	20.9	7 20	22 14.34	-15 51.9	1.713	2.627	12.0	21.6
7 30	22 5.12	- 4 48.0	1.786	2.738	9.1	20.7	7 30	22 7.04	-16 39.7	1.665	2.636	8.1	21.4
8 9	21 57.01	- 4 54.9	1.752	2.744	5.4	20.5	8 9	21 57.95	-17 31.2	1.642	2.646	3.9	21.1
8 19	21 48.07	- 5 11.9	1.744	2.750	2.8	20.3	8 19	21 47.96	-18 20.3	1.645	2.654	2.2	21.1
8 29	21 39.27	- 5 35.3	1.763	2.756	4.8	20.4	8 29	21 38.20	-19 1.0	1.677	2.662	6.0	21.3
9 8	21 31.55	- 6 1.1	1.809	2.761	8.4	20.7	9 8	21 29.73	-19 29.4	1.734	2.670	10.0	21.6
9 18	21 25.64	- 6 25.1	1.879	2.767	11.9	20.9	9 18	21 23.38	-19 43.6	1.815	2.677	13.5	21.8
316260	2010 <i>OQ</i> ₁₀₇	8 17.8 348°61		5°0/21.6 18			315749	2008 <i>FD</i> ₁₅	8 17.8 14°59		1°2/18.9 18		
7 10	22 10.26	+ 0 4.4	1.792	2.589	16.8	20.3	7 10	22 9.10	- 5 54.1	2.011	2.828	14.6	20.9
7 20	22 7.43	+ 0 34.4	1.706	2.583	14.0	20.1	7 20	22 6.24	- 6 30.2	1.930	2.830	11.6	20.7
7 30	22 2.45	+ 0 46.9	1.640	2.578	10.8	19.9	7 30	22 1.48	- 7 22.1	1.870	2.832	8.1	20.5
8 9	21 55.81	+ 0 41.1	1.595	2.574	7.5	19.7	8 9	21 55.29	- 8 26.6	1.835	2.834	4.3	20.3
8 19	21 48.23	+ 0 18.3	1.574	2.570	5.1	19.6	8 19	21 48.33	- 9 39.1	1.825	2.836	1.2	20.0
8 29	21 40.67	- 0 18.2	1.579	2.567	6.0	19.6	8 29	21 41.44	-10 53.6	1.844	2.839	4.3	20.3
9 8	21 34.11	- 1 2.9	1.609	2.564	9.0	19.8	9 8	21 35.46	-12 3.8	1.889	2.842	8.1	20.5
9 18	21 29.34	- 1 50.1	1.662	2.562	12.4	20.0	9 18	21 31.06	-13 5.0	1.960	2.846	11.5	20.7
121322	1999 <i>SQ</i> ₁	8 17.8 340°97		1°8/16.7 18			506847	2007 <i>US</i> ₉	8 17.8 329°52		8°4/12.6 17		
7 10	22 9.65	-15 25.5	1.249	2.123	18.4	19.3	7 10	22 7.53	-23 59.8	0.957	1.861	20.1	20.9
7 20	22 8.02	-15 40.3	1.171	2.107	14.5	19.0	7 20	22 7.57	-25 14.8	0.883	1.835	16.1	20.5
7 30	22 3.45	-16 6.6	1.111	2.092	9.8	18.7	7 30	22 3.90	-26 39.8	0.826	1.810	11.8	20.2
8 9	21 56.48	-16 39.6	1.072	2.079	4.7	18.3	8 9	21 57.01	-28 2.5	0.788	1.786	8.7	19.9
8 19	21 48.13	-17 12.4	1.056	2.067	2.3	18.2	8 19	21 48.05	-29 8.4	0.770	1.764	9.3	19.9
8 29	21 39.80	-17 37.9	1.064	2.056	7.2	18.4	8 29	21 38.94	-29 44.0	0.771	1.744	13.4	20.0
9 8	21 32.95	-17 50.5	1.093	2.047	12.4	18.7	9 8	21 31.75	-29 42.7	0.790	1.725	18.4	20.2
9 18	21 28.69	-17 47.4	1.142	2.039	17.0	18.9	9 18	21 28.00	-29 5.3	0.824	1.709	23.2	20.4
440753	2006 <i>DF</i> ₈₃	8 17.8 300°27		4°1/21.9 17			438922	2010 <i>CQ</i> ₈₁	8 17.8 137°23		0°9/18.6 16		
7 10	22 10.54	+ 2 49.3	2.273	3.037	14.6	21.1	7 10	22 13.45	- 7 51.7	1.904	2.723	15.2	22.0
7 20	22 7.50	+ 2 27.2	2.138	2.995	12.4	20.9	7 20	22 9.73	- 8 15.4	1.824	2.726	12.1	21.8
7 30	22 2.53	+ 1 44.3	2.024	2.953	9.6	20.6	7 30	22 3.89	- 8 53.3	1.766	2.730	8.4	21.6
8 9	21 55.92	+ 0 39.9	1.933	2.910	6.6	20.3	8 9	21 56.46	- 9 42.2	1.732	2.733	4.3	21.4
8 19	21 48.20	- 0 44.2	1.869	2.866	4.3	20.1	8 19	21 48.18	-10 37.7	1.724	2.736	0.9	21.1
8 29	21 40.14	- 0 23.7	1.833	2.822	5.1	20.1	8 29	21 40.00	-11 34.0	1.744	2.739	4.6	21.4
9 8	21 32.61	- 4 11.7	1.825	2.778	8.3	20.2	9 8	21 32.85	-12 25.6	1.791	2.741	8.6	21.6
9 18	21 26.45	- 6 0.6	1.843	2.733	11.9	20.3	9 18	21 27.49	-13 8.5	1.861	2.744	12.2	21.9
393530	2002 <i>TP</i> ₂₂₄	8 17.8 304°28		5°7/13.5 18			290844	2005 <i>WR</i> ₂₉	8 17.8 339°60		1°5/19.0 18		
7 10	22 15.83	-25 18.5	1.758	2.614	14.7	20.8	7 10	22 12.12	- 7 42.4	2.051	2.867	14.4	20.6
7 20	22 12.23	-26 8.5	1.669	2.593	11.7	20.6	7 20	22 8.57	- 7 41.3	1.965	2.864	11.5	20.4
7 30	22 5.98	-27 1.1	1.602	2.571	8.5	20.4	7 30	22 3.06	- 7 52.0	1.900	2.861	8.1	20.1
8 9	21 57.60	-27 49.0	1.558	2.550	6.0	20.2	8 9	21 56.05	- 8 12.8	1.859	2.858	4.4	19.9
8 19	21 47.98	-28 24.7	1.540	2.529	6.2	20.1	8 19	21 48.24	- 8 40.6	1.845	2.855	1.5	19.7
8 29	21 38.31	-28 41.9	1.547	2.509	9.0	20.3	8 29	21 40.48	- 9 11.5	1.857	2.852	4.3	19.9
9 8	21 29.88	-28 37.6	1.578	2.488	12.5	20.4	9 8	21 33.65	- 9 41.3	1.897	2.850	8.1	20.1
9 18	21 23.66	-28 12.3	1.630	2.468	15.9	20.6	9 18	21 28.45	-10 6.5	1.961	2.848	11.5	20.3
163036	2001 <i>XZ</i> ₁₇₉	8 17.8 316°66		3°4/19.8 18			376212	2011 <i>DU</i> ₂₈	8 17.8 236°72		0°4/18.1 18		
7 10	22 12.65	- 5 7.3	1.232	2.075	20.5	19.5	7 10	22 15.83	- 9 49.1	1.812	2.636	15.6	22.1
7 20	22 10.38	- 4 51.6	1.152	2.064	16.7	19.2	7 20	22 11.87	-10 9.8	1.721	2.627	12.4	21.8
7 30	22 5.09	- 4 56.6	1.088	2.052	12.2	18.9	7 30	22 5.55	-10 44.1	1.650	2.617	8.6	21.6
8 9	21 57.30	- 5 21.6	1.044	2.041	7.2	18.6	8 9	21 57.35	-11 28.8	1.603	2.606	4.2	21.3
8 19	21 48.01	- 6 3.4	1.023	2.031	3.4	18.3	8 19	21 48.05	-12 19.0	1.583	2.595	0.6	21.0
8 29	21 38.66	- 6 55.4	1.025	2.021	6.5	18.5	8 29	21 38.71	-13 9.0	1.590	2.584	5.1	21.3
9 8	21 30.76	- 7 49.1	1.049	2.012	11.7	18.7	9 8	21 30.44	-13 53.0	1.623	2.572	9.5	21.5
9 18	21 25.49	- 8 37.2	1.094	2.003	16.6	19.0	9 18	21 24.11	-14 27.2	1.680	2.560	13.5	21.7
319300	2006 <i>BC</i> ₁₁₁	8 17.8 283°07		0°8/17.0 18			277089	2005 <i>EN</i> ₂₁₅	8 17.8 36°74		4°3/21.3 16		
7 10	22 13.46	-14 36.0	2.323	3.151	12.5	21.0	7 10	22 10.98	- 0 27.9	1.481	2.294	19.0	19.8
7 20	22 9.45	-14 49.5	2.230	3.140	9.8	20.8	7 20	22 8.15	- 0 25.8	1.424	2.313	15.6	19.6
7 30	22 3.57	-15 9.7	2.159	3.129	6.6	20.5	7 30	22 2.94	- 0 46.2	1.384	2.333	11.6	19.5
8 9	21 56.27	-15 33.6	2.114	3.118	3.1	20.3	8 9	21 56.01	- 1 27.6	1.366	2.353	7.4	19.3
8 19	21 48.19	-15 57.7	2.096	3.107	1.1	20.1	8 19	21 48.26	- 2 25.7	1.372	2.374	4.4	19.2
8 29	21 40.13	-16 18.2	2.107	3.096	4.6	20.4	8 29	21 40.80	- 3 33.9	1.403	2.396	5.7	19.3
9 8	21 32.90	-16 32.1	2.145	3.085	8.0	20.6	9 8	21 34.67	- 4 44.3	1.458	2.418	9.3	19.6
9 18	21 27.18	-16 37.5	2.207	3.074	11.2	20.8	9 18	21 30.62	- 5 49.9	1.537	2.441	13.0	19.8
521441	2015 <i>NG</i> ₂₈	8 17.8 41°51		2°6/19.9 18			488860	2005 <i>ST</i> ₆₇	8 17.8 321°73		1°6/18.7 18		
7 10	22 12.												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
396418	2014 <i>EQ</i> ₂₅		8 17.8 232°56	4.7/14.5	18		173571	2001 <i>BU</i> ₂₉		8 17.8 217°02	1.1/16.9	18	
7 10	22 21.16	-25 18.4	2.017	2.856	13.7	21.4	7 10	22 15.59	-12 5.5	1.677	2.513	16.2	20.7
7 20	22 15.82	-25 47.9	1.936	2.849	10.9	21.2	7 20	22 11.87	-12 52.5	1.594	2.508	12.7	20.5
7 30	22 8.06	-26 17.6	1.877	2.842	7.8	21.0	7 30	22 5.65	-13 53.8	1.531	2.503	8.6	20.2
8 9	21 58.46	-26 41.5	1.842	2.835	5.2	20.8	8 9	21 57.45	-15 4.4	1.493	2.498	4.0	19.9
8 19	21 47.91	-26 54.0	1.835	2.827	5.0	20.8	8 19	21 48.11	-16 17.2	1.481	2.492	1.5	19.7
8 29	21 37.52	-26 51.0	1.856	2.820	7.5	20.9	8 29	21 38.79	-17 24.5	1.496	2.485	6.0	20.0
9 8	21 28.38	-26 31.3	1.902	2.812	10.7	21.1	9 8	21 30.65	-18 20.0	1.536	2.478	10.5	20.3
9 18	21 21.31	-25 55.9	1.971	2.803	13.8	21.3	9 18	21 24.62	-18 59.8	1.600	2.471	14.4	20.5
432675	2011 <i>BE</i> ₉		8 17.8 260°68	0.1/17.8	17		136034	2002 <i>VU</i> ₁₁₇		8 17.8 303°98	3.5/16.2	18	
7 10	22 17.30	-11 51.0	1.656	2.490	16.5	21.7	7 10	22 26.88	-23 50.5	1.812	2.645	15.3	19.0
7 20	22 13.30	-11 59.3	1.565	2.477	13.1	21.4	7 20	22 20.63	-23 34.7	1.718	2.629	12.2	18.8
7 30	22 6.67	-12 19.5	1.494	2.464	9.0	21.1	7 30	22 11.54	-23 16.9	1.645	2.612	8.5	18.6
8 9	21 57.95	-12 48.2	1.447	2.451	4.4	20.8	8 9	22 0.24	-22 52.1	1.597	2.596	4.9	18.3
8 19	21 47.98	-13 20.7	1.425	2.437	0.6	20.5	8 19	21 47.74	-22 16.1	1.576	2.580	3.7	18.2
8 29	21 37.96	-13 51.5	1.430	2.423	5.6	20.9	8 29	21 35.38	-21 26.6	1.584	2.564	7.0	18.4
9 8	21 29.13	-14 15.6	1.460	2.409	10.4	21.1	9 8	21 24.48	-20 23.8	1.619	2.548	11.0	18.6
9 18	21 22.48	-14 29.7	1.514	2.395	14.6	21.3	9 18	21 16.01	-19 10.4	1.678	2.533	14.7	18.8
189589	2000 <i>WO</i> ₁₆		8 17.8 336°85	2.9/19.5	18		243259	2007 <i>XM</i> ₂₉		8 17.8 24°74	3.6/15.1	18	
7 10	22 8.67	-6 42.9	1.250	2.104	19.6	18.6	7 10	22 13.76	-19 24.9	1.651	2.508	15.5	20.7
7 20	22 7.22	-6 21.4	1.166	2.086	16.0	18.3	7 20	22 10.37	-20 12.1	1.586	2.513	12.0	20.5
7 30	22 2.93	-6 17.7	1.100	2.069	11.6	18.0	7 30	22 4.52	-21 5.8	1.541	2.517	8.1	20.3
8 9	21 56.29	-6 31.4	1.054	2.053	6.6	17.7	8 9	21 56.83	-21 59.5	1.521	2.522	4.6	20.1
8 19	21 48.21	-6 59.4	1.029	2.039	3.0	17.4	8 19	21 48.22	-22 46.2	1.525	2.528	4.0	20.1
8 29	21 40.05	-7 36.2	1.028	2.025	6.2	17.6	8 29	21 39.82	-23 19.7	1.556	2.534	7.3	20.3
9 8	21 33.24	-8 14.6	1.049	2.014	11.4	17.8	9 8	21 32.73	-23 36.7	1.611	2.540	11.0	20.5
9 18	21 28.92	-8 48.0	1.090	2.004	16.3	18.1	9 18	21 27.78	-23 36.3	1.688	2.547	14.4	20.8
15176	6299 <i>P-L</i>		8 17.8 215°77	4.5/22.6	18		291933	2006 <i>QE</i> ₃₀		8 17.8 324°92	3.1/15.9	18	
7 10	22 11.59	+ 3 50.7	2.429	3.181	14.1	19.8	7 10	22 9.36	-15 59.1	1.121	2.004	19.4	19.9
7 20	22 7.90	+ 3 46.4	2.330	3.175	11.9	19.7	7 20	22 8.31	-16 38.7	1.040	1.981	15.3	19.6
7 30	22 2.50	+ 3 24.6	2.250	3.168	9.3	19.5	7 30	22 4.01	-17 33.8	0.976	1.960	10.5	19.3
8 9	21 55.78	+ 2 45.2	2.194	3.161	6.6	19.3	8 9	21 56.96	-18 37.8	0.933	1.939	5.3	18.9
8 19	21 48.31	+ 1 50.1	2.164	3.153	4.7	19.2	8 19	21 48.16	-19 41.2	0.911	1.919	3.7	18.8
8 29	21 40.80	+ 0 42.8	2.162	3.145	5.1	19.2	8 29	21 39.21	-20 33.2	0.911	1.901	8.8	19.0
9 8	21 34.02	- 0 31.4	2.188	3.137	7.4	19.3	9 8	21 31.82	-21 5.8	0.932	1.883	14.4	19.2
9 18	21 28.58	- 1 46.9	2.241	3.128	10.2	19.5	9 18	21 27.33	-21 15.1	0.971	1.868	19.4	19.5
446159	2013 <i>EA</i> ₁₁₇		8 17.8 179°36	0.9/16.9	18		472285	2014 <i>WW</i> ₆₂		8 17.8 228°95	3.0/19.8	17	
7 10	22 12.95	-13 31.7	2.338	3.164	12.5	22.1	7 10	22 16.70	- 4 21.8	1.544	2.359	18.3	22.0
7 20	22 8.97	-14 2.6	2.255	3.164	9.8	21.9	7 20	22 12.95	- 4 17.8	1.458	2.353	14.9	21.7
7 30	22 3.20	-14 41.7	2.195	3.165	6.5	21.7	7 30	22 6.50	- 4 32.5	1.390	2.346	10.9	21.4
8 9	21 56.09	-15 25.5	2.161	3.165	3.1	21.5	8 9	21 57.91	- 5 4.6	1.344	2.339	6.4	21.2
8 19	21 48.27	-16 9.7	2.154	3.165	1.2	21.3	8 19	21 48.05	- 5 50.8	1.323	2.331	3.1	21.0
8 29	21 40.52	-16 50.0	2.176	3.165	4.5	21.6	8 29	21 38.16	- 6 45.3	1.328	2.323	5.7	21.1
9 8	21 33.63	-17 22.6	2.225	3.164	7.9	21.8	9 8	21 29.51	- 7 40.8	1.359	2.315	10.3	21.3
9 18	21 28.23	-17 45.4	2.300	3.164	10.9	22.0	9 18	21 23.12	- 8 31.2	1.412	2.306	14.6	21.6
199601	2006 <i>FU</i> ₂₄		8 17.8 194°10	1.2/18.9	18		192490	1998 <i>HU</i> ₂₃		8 17.8 129°49	0.3/17.9	18	
7 10	22 14.22	- 7 1.7	2.200	3.005	13.9	21.6	7 10	22 16.48	-10 46.1	1.921	2.743	15.0	21.0
7 20	22 10.10	- 7 22.9	2.110	3.003	11.1	21.4	7 20	22 12.03	-10 59.4	1.846	2.751	11.8	20.8
7 30	22 4.05	- 7 57.1	2.043	3.001	7.7	21.2	7 30	22 5.42	-11 23.7	1.792	2.758	8.0	20.6
8 9	21 56.54	- 8 41.8	2.000	2.998	4.1	21.0	8 9	21 57.21	-11 55.7	1.763	2.765	3.9	20.4
8 19	21 48.23	- 9 33.3	1.984	2.995	1.2	20.7	8 19	21 48.17	-12 31.0	1.760	2.772	0.5	20.1
8 29	21 39.94	-10 26.8	1.998	2.991	4.2	21.0	8 29	21 39.30	-13 5.1	1.786	2.779	4.7	20.5
9 8	21 32.52	-11 17.4	2.038	2.987	7.9	21.2	9 8	21 31.55	-13 33.7	1.838	2.785	8.7	20.7
9 18	21 26.67	-12 1.3	2.105	2.983	11.2	21.4	9 18	21 25.65	-13 53.9	1.914	2.791	12.2	21.0
511062	2013 <i>SD</i> ₈₅		8 17.8 285°23	0.6/17.4	18		202485	2006 <i>BQ</i> ₄₀		8 17.8 64°72	0.1/17.9	18	
7 10	22 13.74	-11 14.5	1.576	2.418	16.8	21.6	7 10	22 13.60	-10 7.1	1.700	2.534	16.1	20.6
7 20	22 10.80	-11 48.1	1.478	2.395	13.4	21.3	7 20	22 10.09	-10 35.0	1.628	2.540	12.7	20.4
7 30	22 5.19	-12 37.8	1.399	2.372	9.2	21.0	7 30	22 4.26	-11 16.6	1.577	2.547	8.6	20.2
8 9	21 57.35	-13 39.5	1.344	2.349	4.4	20.7	8 9	21 56.70	-12 8.0	1.550	2.553	4.2	20.0
8 19	21 48.09	-14 47.1	1.314	2.325	1.1	20.4	8 19	21 48.24	-13 3.6	1.548	2.560	0.5	19.7
8 29	21 38.61	-15 52.7	1.309	2.302	6.2	20.7	8 29	21 39.94	-13 57.1	1.573	2.567	5.2	20.1
9 8	21 30.22	-16 48.7	1.330	2.278	11.2	20.9	9 8	21 32.84	-14 42.8	1.624	2.574	9.4	20.3
9 18	21 24.02	-17 30.1	1.373	2.255	15.7	21.1	9 18	21 27.72	-15 17.2	1.698	2.580	13.2	20.6
88113	2000 <i>WT</i> ₁₀₇		8 17.8 34°56	1.2/16.8	18		504815	2010 <i>EU</i> ₁₂₇		8 17.8 178°17	4.7/12.9	18	
7 10	22 14.43	-15 28.8	2.071	2.905	13.6	19.4	7 10	22 16.93	-24 43.5	2.357	3.195	12.0	22.1
7 20	22 10.33	-15 44.7	1.994	2.908	10.6	19.2	7 20	22 12.23	-25 56.9	2.284	3.197	9.5	21.9
7 30	22 4.21	-16 7.3	1.939	2.911	7.1	19.0	7 30	22 5.50	-27 12.5	2.234	3.198	6.8	21.8
8 9	21 56.60	-16 33.0	1.909	2.914	3.4	18.8	8 9	21 57.24	-28 23.9	2.211	3.199	4.9	21.7
8 19	21 48.24	-16 57.7	1.906	2.917	1.5	18.6	8 19	21 48.18	-29 24.7	2.217	3.199	5.2	21.7
8 29	21 40.02	-17 17.2	1.931	2.920	5.0	18.9	8 29	21 39.19	-30 10.0	2.250	3.199	7.4	21.8
9 8	21 32.83	-17 28.6	1.983	2.923	8.6	19.1	9 8	21 31.17	-30 37.2	2.309	3.198	10.0	22.0
9 18	21 27.35	-17 30.3	2.059	2.927	11.8	19.3	9 18	21 24.84	-30 46.0	2.392	3.196	12.5	22.2
91428	<i>Cortesi</i>		8 17.8 250°78	1.2/18.6	18		10559	<i>Yukihisa</i>		8 17.8 5°37	3.1		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
240959	2006 <i>HH</i> ₆₅		8 17.8 155°75	2°8/20.3	17		79162	1993 <i>FU</i> ₂₀		8 17.8 194°12	0°4/18.2	18	
7 10	22 13.17	- 3 3.2	1.984	2.782	15.4	21.4	7 10	22 15.69	- 8 34.4	1.977	2.791	14.9	20.3
7 20	22 9.45	- 3 10.3	1.900	2.784	12.5	21.2	7 20	22 11.52	- 9 10.0	1.889	2.789	11.8	20.1
7 30	22 3.70	- 3 33.7	1.837	2.786	9.1	21.0	7 30	22 5.18	- 9 59.8	1.823	2.787	8.1	19.9
8 9	21 56.42	- 4 11.8	1.798	2.789	5.5	20.7	8 9	21 57.18	-11 0.3	1.782	2.784	4.0	19.6
8 19	21 48.30	- 5 1.5	1.784	2.790	2.8	20.6	8 19	21 48.23	-12 6.5	1.768	2.780	0.5	19.4
8 29	21 40.25	- 5 57.9	1.799	2.792	4.6	20.7	8 29	21 39.31	-13 12.3	1.783	2.776	4.7	19.7
9 8	21 33.17	- 6 55.4	1.840	2.794	8.2	20.9	9 8	21 31.37	-14 11.7	1.825	2.771	8.8	19.9
9 18	21 27.77	- 7 48.8	1.906	2.795	11.6	21.1	9 18	21 25.21	-15 0.7	1.891	2.765	12.4	20.1
430916	2005 <i>SN</i> ₂₉₀		8 17.8 281°69	3°6/20.5	18		507217	2010 <i>VJ</i> ₁₇₀		8 17.8 194°88	3°2/20.3	17	
7 10	22 12.58	- 2 9.7	1.659	2.467	17.5	21.5	7 10	22 16.45	- 2 57.5	1.837	2.633	16.5	22.4
7 20	22 9.59	- 2 8.5	1.565	2.454	14.4	21.2	7 20	22 12.26	- 2 54.4	1.749	2.632	13.5	22.2
7 30	22 4.18	- 2 27.1	1.490	2.440	10.7	21.0	7 30	22 5.76	- 3 8.2	1.682	2.630	9.9	22.0
8 9	21 56.80	- 3 5.0	1.436	2.426	6.7	20.7	8 9	21 57.48	- 3 38.0	1.637	2.627	6.1	21.7
8 19	21 48.24	- 3 59.2	1.408	2.413	3.7	20.5	8 19	21 48.20	- 4 20.8	1.619	2.624	3.3	21.6
8 29	21 39.57	- 5 4.4	1.405	2.399	5.6	20.6	8 29	21 38.93	- 5 11.9	1.628	2.620	5.1	21.7
9 8	21 31.93	- 6 13.2	1.427	2.385	9.7	20.8	9 8	21 30.73	- 6 5.3	1.663	2.616	9.0	21.9
9 18	21 26.30	- 7 18.6	1.473	2.371	13.8	21.0	9 18	21 24.43	- 6 55.7	1.723	2.612	12.7	22.1
504293	2007 <i>BA</i> ₅₆		8 17.8 223°21	0°6/17.4	18		86169	1999 <i>RW</i> ₂₀₉		8 17.8 350°72	0°5/17.5	18	
7 10	22 18.04	-12 59.0	1.979	2.803	14.5	22.4	7 10	22 15.54	-14 38.9	1.868	2.705	14.8	19.2
7 20	22 13.42	-13 18.2	1.887	2.794	11.5	22.2	7 20	22 11.47	-14 31.2	1.787	2.701	11.6	19.0
7 30	22 6.51	-13 47.2	1.816	2.784	7.8	22.0	7 30	22 5.15	-14 30.4	1.727	2.698	7.9	18.8
8 9	21 57.82	-14 22.3	1.770	2.774	3.7	21.7	8 9	21 57.15	-14 33.4	1.691	2.695	3.7	18.5
8 19	21 48.11	-14 59.0	1.752	2.763	0.9	21.5	8 19	21 48.26	-14 36.9	1.681	2.692	0.9	18.3
8 29	21 38.39	-15 32.2	1.761	2.752	5.1	21.8	8 29	21 39.50	-14 37.3	1.698	2.691	5.0	18.6
9 8	21 29.69	-15 57.9	1.798	2.740	9.2	22.0	9 8	21 31.87	-14 32.0	1.742	2.689	9.1	18.9
9 18	21 22.86	-16 13.4	1.859	2.727	12.9	22.2	9 18	21 26.14	-14 19.5	1.809	2.689	12.7	19.1
215201	2000 <i>SX</i> ₁₃₉		8 17.8 349°26	5°5/22.6	18		231360	2006 <i>GV</i> ₄₀		8 17.8 51°45	3°7/14.9	17	
7 10	22 9.75	+ 3 0.0	1.877	2.657	16.8	19.3	7 10	22 14.66	-18 28.4	1.522	2.381	16.4	19.5
7 20	22 6.97	+ 3 19.9	1.790	2.653	14.1	19.1	7 20	22 11.12	-19 31.1	1.472	2.400	12.7	19.3
7 30	22 2.13	+ 3 19.9	1.723	2.650	11.1	18.9	7 30	22 5.02	-20 41.3	1.442	2.418	8.5	19.1
8 9	21 55.71	+ 2 59.4	1.677	2.647	8.0	18.7	8 9	21 57.07	-21 51.3	1.435	2.438	4.7	18.9
8 19	21 48.40	+ 2 19.8	1.655	2.645	5.7	18.6	8 19	21 48.28	-22 52.9	1.454	2.457	4.2	18.9
8 29	21 41.11	+ 1 24.8	1.659	2.643	6.2	18.6	8 29	21 39.86	-23 39.4	1.499	2.477	7.5	19.2
9 8	21 34.76	+ 0 20.6	1.688	2.641	8.8	18.7	9 8	21 32.92	-24 7.1	1.568	2.497	11.3	19.5
9 18	21 30.11	- 0 46.3	1.741	2.641	12.0	18.9	9 18	21 28.24	-24 15.5	1.658	2.517	14.7	19.7
340403	2006 <i>EQ</i> ₅₄		8 17.8 165°29	0°7/18.4	15		233614	2007 <i>TS</i> ₁₅₃		8 17.8 31°28	4°9/15.0	17	
7 10	22 14.25	- 8 42.9	1.926	2.745	15.0	22.0	7 10	22 18.72	-23 48.9	1.462	2.324	16.9	19.6
7 20	22 10.38	- 9 6.5	1.845	2.747	11.9	21.7	7 20	22 14.47	-24 14.9	1.407	2.334	13.2	19.4
7 30	22 4.37	- 9 43.6	1.785	2.749	8.2	21.5	7 30	22 7.36	-24 42.0	1.372	2.345	9.2	19.2
8 9	21 56.75	-10 30.8	1.749	2.751	4.1	21.3	8 9	21 58.20	-25 3.1	1.360	2.357	5.7	19.0
8 19	21 48.27	-11 23.7	1.740	2.752	0.7	21.0	8 19	21 48.14	-25 11.9	1.372	2.370	5.3	19.0
8 29	21 39.86	-12 16.7	1.759	2.753	4.7	21.3	8 29	21 38.54	-25 3.9	1.409	2.383	8.3	19.2
9 8	21 32.49	-13 4.5	1.805	2.754	8.7	21.6	9 8	21 30.66	-24 38.4	1.470	2.397	12.1	19.5
9 18	21 26.91	-13 43.3	1.875	2.755	12.2	21.8	9 18	21 25.31	-23 57.0	1.552	2.411	15.5	19.7
384501	2010 <i>CJ</i> ₁₀₈		8 17.8 195°25	0°2/17.9	18		199361	2006 <i>BV</i> ₁₈₆		8 17.8 196°48	0°1/17.9	18	
7 10	22 16.70	-11 33.8	1.897	2.722	15.0	21.3	7 10	22 17.45	-11 37.6	2.126	2.942	13.9	21.1
7 20	22 12.34	-11 40.5	1.815	2.721	11.9	21.1	7 20	22 12.70	-11 46.4	2.038	2.940	11.0	20.9
7 30	22 5.72	-11 57.3	1.753	2.721	8.1	20.9	7 30	22 5.87	-12 4.5	1.972	2.937	7.5	20.7
8 9	21 57.41	-12 21.3	1.716	2.719	3.9	20.6	8 9	21 57.48	-12 28.8	1.932	2.934	3.6	20.4
8 19	21 48.18	-12 48.4	1.706	2.718	0.5	20.3	8 19	21 48.23	-12 55.8	1.919	2.931	0.5	20.1
8 29	21 39.04	-13 14.2	1.723	2.716	4.9	20.7	8 29	21 39.04	-13 21.5	1.935	2.927	4.5	20.5
9 8	21 31.01	-13 34.7	1.767	2.715	9.0	20.9	9 8	21 30.83	-13 42.2	1.978	2.922	8.3	20.7
9 18	21 24.87	-13 47.3	1.835	2.713	12.6	21.1	9 18	21 24.35	-13 55.5	2.046	2.917	11.7	20.9
479057	2013 <i>AS</i> ₅₆		8 17.8 302°66	0°9/17.1	18		267157	2000 <i>GB</i> ₁₃₀		8 17.8 233°88	1°1/17.0	17	
7 10	22 13.77	-13 50.6	1.812	2.652	15.0	20.9	7 10	22 16.81	-13 25.7	1.848	2.680	15.1	22.0
7 20	22 10.31	-14 8.4	1.722	2.639	11.8	20.7	7 20	22 12.65	-13 55.2	1.758	2.670	11.9	21.8
7 30	22 4.52	-14 35.9	1.653	2.626	8.0	20.5	7 30	22 6.11	-14 35.6	1.689	2.660	8.1	21.5
8 9	21 56.91	-15 9.6	1.608	2.613	3.8	20.2	8 9	21 57.70	-15 22.6	1.645	2.649	3.8	21.3
8 19	21 48.24	-15 44.5	1.589	2.600	1.3	20.0	8 19	21 48.19	-16 10.8	1.627	2.638	1.4	21.1
8 29	21 39.56	-16 15.3	1.597	2.588	5.5	20.2	8 29	21 38.66	-16 54.2	1.637	2.627	5.6	21.3
9 8	21 31.94	-16 37.7	1.630	2.575	9.7	20.5	9 8	21 30.20	-17 28.0	1.673	2.614	9.8	21.5
9 18	21 26.25	-16 48.9	1.686	2.563	13.5	20.7	9 18	21 23.71	-17 49.3	1.733	2.602	13.6	21.8
61233	2000 <i>ON</i> ₁₅		8 17.8 330°50	1°1/17.0	18		255194	2005 <i>UH</i> ₃₀₈		8 17.8 148°68	1°7/16.0	18	
7 10	22 10.60	-12 24.3	1.381	2.240	17.8	18.5	7 10	22 13.55	-16 58.6	2.601	3.429	11.4	21.4
7 20	22 8.50	-12 57.6	1.301	2.228	14.0	18.2	7 20	22 9.25	-17 32.2	2.524	3.434	8.8	21.2
7 30	22 3.66	-13 46.7	1.240	2.217	9.5	17.9	7 30	22 3.30	-18 10.9	2.470	3.440	5.9	21.0
8 9	21 56.61	-14 46.4	1.201	2.207	4.5	17.6	8 9	21 56.16	-18 51.0	2.442	3.445	2.9	20.8
8 19	21 48.28	-15 49.7	1.186	2.197	1.5	17.4	8 19	21 48.41	-19 28.6	2.443	3.450	2.0	20.8
8 29	21 39.94	-16 48.1	1.195	2.188	6.6	17.7	8 29	21 40.77	-20 0.0	2.473	3.455	4.6	21.0
9 8	21 32.93	-17 34.5	1.227	2.179	11.6	17.9	9 8	21 33.94	-20 22.4	2.531	3.459	7.6	21.2
9 18	21 28.28	-18 4.4	1.281	2.172	16.1	18.2	9 18	21 28.48	-20 34.5	2.613	3.464	10.2	21.3
247157	2000 <i>YY</i> ₃₂		8 17.8 319°50	6°5/12.9	18		19293	Dedekind		8 17.8			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
148498	2001 <i>MU</i> ₁₀		8 17.8	9°12	2°6/16.3	18	19136	Strassmann		8 17.8	196°81	0°3/17.5	18 R
7 10	22 10.45	-16 7.0	1.058	1.942	20.1	18.9	7 10	22 14.23	-10 56.8	2.041	2.865	14.2	19.3
7 20	22 8.92	-16 33.9	1.002	1.944	15.7	18.6	7 20	22 10.32	-11 33.8	1.956	2.863	11.1	19.1
7 30	22 4.14	-17 13.3	0.964	1.947	10.6	18.3	7 30	22 4.33	-12 22.7	1.893	2.861	7.6	18.9
8 9	21 56.86	-17 57.9	0.945	1.952	5.2	18.1	8 9	21 56.78	-13 19.8	1.855	2.858	3.6	18.7
8 19	21 48.32	-18 39.3	0.948	1.958	3.1	18.0	8 19	21 48.35	-14 19.9	1.844	2.855	0.7	18.4
8 29	21 40.12	-19 9.1	0.974	1.965	8.0	18.3	8 29	21 39.96	-15 17.3	1.861	2.852	4.8	18.7
9 8	21 33.76	-19 22.1	1.021	1.974	13.1	18.6	9 8	21 32.52	-16 7.0	1.905	2.849	8.7	19.0
9 18	21 30.25	-19 16.5	1.086	1.985	17.6	18.9	9 18	21 26.79	-16 45.5	1.974	2.845	12.1	19.2
337558	2001 <i>SG</i> ₂₆₂		8 17.8	286°75	2°3/16.5	13 C	232198	2002 <i>GX</i> ₅₉		8 17.8	227°47	10°2/29.8	18
7 10	22 28.54	-14 54.7	1.613	2.435	17.4	23.2	7 10	22 13.55	+21 59.4	2.496	3.111	16.7	21.0
7 20	22 23.43	-15 33.5	1.475	2.381	14.1	22.8	7 20	22 9.64	+22 32.1	2.388	3.099	15.3	20.9
7 30	22 14.72	-16 28.0	1.357	2.325	9.9	22.4	7 30	22 3.85	+22 41.1	2.295	3.085	13.8	20.7
8 9	22 2.52	-17 33.7	1.263	2.266	5.0	22.0	8 9	21 56.57	+22 22.8	2.220	3.071	12.1	20.6
8 19	21 47.46	-18 42.7	1.196	2.205	2.8	21.7	8 19	21 48.37	+21 35.0	2.167	3.056	10.8	20.5
8 29	21 30.96	-19 44.9	1.158	2.142	8.3	21.8	8 29	21 40.06	+20 18.5	2.138	3.041	10.2	20.4
9 8	21 14.95	-20 31.1	1.146	2.076	14.4	22.0	9 8	21 32.46	+18 37.7	2.134	3.025	10.6	20.4
9 18	21 1.34	-20 56.1	1.156	2.007	20.2	22.1	9 18	21 26.31	+16 39.5	2.155	3.008	12.0	20.5
123827	2001 <i>CJ</i> ₆		8 17.8	173°44	0°8/17.1	18	89821	2002 <i>BM</i> ₃		8 17.8	106°85	4°8/13.3	18
7 10	22 16.75	-15 39.4	2.509	3.328	12.0	19.6	7 10	22 15.42	-25 41.8	2.262	3.105	12.3	19.4
7 20	22 11.77	-15 41.2	2.424	3.329	9.3	19.5	7 20	22 11.05	-26 37.3	2.197	3.113	9.7	19.2
7 30	22 5.02	-15 47.7	2.363	3.330	6.3	19.3	7 30	22 4.69	-27 33.2	2.156	3.120	7.0	19.1
8 9	21 56.99	-15 56.2	2.327	3.331	3.0	19.1	8 9	21 56.88	-28 23.6	2.140	3.128	5.0	18.9
8 19	21 48.31	-16 3.8	2.321	3.331	1.1	18.9	8 19	21 48.36	-29 3.0	2.151	3.135	5.2	19.0
8 29	21 39.75	-16 7.7	2.343	3.332	4.2	19.1	8 29	21 40.02	-29 27.3	2.189	3.142	7.3	19.1
9 8	21 32.06	-16 5.9	2.394	3.332	7.5	19.3	9 8	21 32.74	-29 34.6	2.253	3.149	9.9	19.3
9 18	21 25.86	-15 57.2	2.470	3.332	10.3	19.5	9 18	21 27.17	-29 25.3	2.340	3.156	12.4	19.5
70781	Donnelly		8 17.8	256°98	1°4/16.7	18	479757	2014 <i>EH</i> ₂₂		8 17.8	283°48	1°1/18.8	18
7 10	22 15.49	-14 48.9	1.963	2.797	14.3	19.9	7 10	22 12.38	- 6 33.1	1.800	2.620	15.9	21.8
7 20	22 11.48	-15 15.2	1.872	2.785	11.2	19.7	7 20	22 9.42	- 7 5.0	1.692	2.594	12.8	21.6
7 30	22 5.24	-15 50.4	1.802	2.773	7.6	19.4	7 30	22 4.11	- 7 55.3	1.605	2.568	9.1	21.3
8 9	21 57.25	-16 30.4	1.757	2.761	3.6	19.2	8 9	21 56.86	- 9 1.6	1.541	2.542	4.8	21.0
8 19	21 48.26	-17 10.3	1.739	2.749	1.7	19.0	8 19	21 48.34	-10 19.2	1.504	2.515	1.1	20.7
8 29	21 39.26	-17 44.7	1.748	2.736	5.5	19.2	8 29	21 39.58	-11 41.1	1.493	2.488	5.1	20.9
9 8	21 31.25	-18 9.6	1.784	2.723	9.5	19.5	9 8	21 31.68	-12 59.6	1.509	2.461	9.8	21.1
9 18	21 25.08	-18 22.5	1.843	2.710	13.0	19.7	9 18	21 25.63	-14 8.2	1.548	2.434	14.0	21.3
468999	2015 <i>AL</i> ₁₇₉		8 17.8	254°56	3°6/15.0	17	479689	2014 <i>DW</i> ₉₃		8 17.8	260°58	1°5/16.7	18
7 10	22 15.43	-17 28.1	1.534	2.389	16.5	21.7	7 10	22 15.99	-15 31.2	1.873	2.710	14.7	21.3
7 20	22 12.11	-18 33.3	1.456	2.382	12.9	21.5	7 20	22 11.88	-15 51.6	1.793	2.708	11.5	21.0
7 30	22 6.03	-19 50.0	1.398	2.374	8.8	21.2	7 30	22 5.48	-16 19.9	1.734	2.706	7.7	20.8
8 9	21 57.75	-21 10.8	1.363	2.366	4.8	21.0	8 9	21 57.35	-16 51.8	1.699	2.704	3.7	20.6
8 19	21 48.19	-22 26.6	1.354	2.358	4.2	20.9	8 19	21 48.30	-17 22.5	1.692	2.702	1.8	20.4
8 29	21 38.65	-23 28.7	1.371	2.350	8.0	21.1	8 29	21 39.36	-17 47.1	1.711	2.699	5.6	20.7
9 8	21 30.44	-24 11.2	1.412	2.341	12.3	21.3	9 8	21 31.55	-18 2.0	1.757	2.697	9.5	20.9
9 18	21 24.58	-24 32.0	1.474	2.333	16.2	21.6	9 18	21 25.66	-18 5.4	1.826	2.695	13.1	21.1
241384	2008 <i>SG</i> ₁₆₆		8 17.8	317°64	3°1/15.5	18	287764	2003 <i>SL</i> ₆₅		8 17.8	300°41	5°6/20.8	18
7 10	22 14.96	-18 14.8	1.637	2.490	15.7	20.3	7 10	22 14.94	- 2 10.1	1.369	2.188	20.0	21.1
7 20	22 11.47	-18 56.4	1.561	2.485	12.3	20.1	7 20	22 12.10	- 1 22.3	1.276	2.169	16.7	20.8
7 30	22 5.41	-19 46.1	1.505	2.481	8.3	19.8	7 30	22 6.32	- 0 52.3	1.199	2.149	12.8	20.5
8 9	21 57.37	-20 37.6	1.474	2.477	4.4	19.6	8 9	21 58.05	- 0 42.2	1.144	2.130	8.6	20.2
8 19	21 48.25	-21 24.1	1.467	2.472	3.6	19.5	8 19	21 48.18	- 0 52.0	1.110	2.111	5.7	20.0
8 29	21 39.24	-21 59.0	1.487	2.468	7.1	19.7	8 29	21 38.06	- 1 18.6	1.101	2.092	7.3	20.0
9 8	21 31.51	-22 18.2	1.531	2.464	11.2	20.0	9 8	21 29.16	- 1 56.1	1.115	2.073	11.7	20.2
9 18	21 25.97	-22 20.3	1.597	2.461	14.9	20.2	9 18	21 22.73	- 2 37.2	1.149	2.055	16.3	20.4
49415	1998 <i>XE</i> ₆₈		8 17.8	338°55	7°4/12.2	18	511223	2014 <i>AW</i> ₅₆		8 17.8	269°58	0°2/17.9	18
7 10	22 12.14	-26 40.2	1.459	2.333	16.2	18.1	7 10	22 15.93	-11 8.6	1.879	2.705	15.1	21.3
7 20	22 9.81	-27 55.5	1.389	2.321	12.9	17.9	7 20	22 11.98	-11 17.2	1.781	2.688	12.0	21.0
7 30	22 4.59	-29 13.3	1.339	2.310	9.7	17.7	7 30	22 5.70	-11 37.0	1.703	2.670	8.3	20.8
8 9	21 57.07	-30 23.8	1.312	2.299	7.5	17.5	8 9	21 57.55	-12 5.1	1.650	2.653	4.1	20.5
8 19	21 48.29	-31 17.5	1.308	2.290	8.1	17.5	8 19	21 48.27	-12 37.6	1.623	2.635	0.5	20.2
8 29	21 39.60	-31 46.1	1.327	2.282	10.9	17.7	8 29	21 38.89	-13 9.6	1.623	2.617	5.1	20.5
9 8	21 32.41	-31 48.1	1.369	2.274	14.4	17.9	9 8	21 30.51	-13 36.4	1.650	2.598	9.4	20.7
9 18	21 27.72	-31 23.2	1.430	2.267	17.7	18.1	9 18	21 24.00	-13 54.7	1.701	2.580	13.3	20.9
63496	2001 <i>ON</i> ₆₄		8 17.8	39°55	4°1/20.3	18	111004	2001 <i>VX</i>		8 17.8	329°90	6°4/11.5	18
7 10	22 16.52	- 4 10.5	1.436	2.256	19.2	19.2	7 10	22 9.36	-23 13.3	1.623	2.493	15.0	18.7
7 20	22 12.77	- 3 36.2	1.366	2.262	15.7	19.0	7 20	22 7.37	-25 2.9	1.547	2.480	11.8	18.4
7 30	22 6.32	- 3 19.3	1.314	2.268	11.5	18.8	7 30	22 2.83	-27 0.7	1.494	2.467	8.6	18.2
8 9	21 57.80	- 3 19.6	1.284	2.275	7.1	18.6	8 9	21 56.25	-28 56.9	1.465	2.455	6.5	18.1
8 19	21 48.20	- 3 35.0	1.277	2.282	4.1	18.4	8 19	21 48.45	-30 40.6	1.461	2.444	7.3	18.1
8 29	21 38.80	- 4 1.0	1.296	2.289	6.1	18.5	8 29	21 40.61	-32 2.1	1.482	2.433	10.3	18.2
9 8	21 30.84	- 4 31.9	1.339	2.297	10.2	18.8	9 8	21 33.95	-32 56.1	1.526	2.423	13.7	18.4
9 18	21 25.23	- 5 2.0	1.405	2.305	14.3	19.1	9 18	21 29.46	-33 21.3	1.590	2.413	16.9	18.6
24523	Sanaraaof		8 17.8	225°31	2°8/15.9	18	207271	2005 <i>ER</i> ₃₀₇		8 17.8	223°67	1°2/18.9	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
325037	2008 <i>CN</i> ₉₆	8 17.8 338°04		4.3/14.9 17			448074	2008 <i>GQ</i> ₉₃	8 17.8 68°89		0.8/17.2 18		
7 10	22 13.26	-18 16.3	1.247	2.120	18.4	20.6	7 10	22 13.51	-13 5.1	2.062	2.892	13.8	21.5
7 20	22 10.94	-19 15.5	1.178	2.114	14.4	20.3	7 20	22 9.58	-13 33.6	1.995	2.906	10.7	21.3
7 30	22 5.51	-20 26.4	1.128	2.109	9.8	20.0	7 30	22 3.71	-14 11.1	1.950	2.920	7.2	21.1
8 9	21 57.60	-21 40.5	1.100	2.104	5.5	19.8	8 9	21 56.45	-14 53.5	1.930	2.934	3.4	20.9
8 19	21 48.29	-22 47.6	1.095	2.099	4.8	19.7	8 19	21 48.52	-15 36.4	1.937	2.948	1.1	20.7
8 29	21 39.11	-23 38.1	1.114	2.095	8.9	19.9	8 29	21 40.78	-16 14.9	1.972	2.963	4.7	21.0
9 8	21 31.55	-24 6.3	1.155	2.092	13.6	20.2	9 8	21 34.07	-16 45.4	2.034	2.977	8.3	21.3
9 18	21 26.71	-24 10.6	1.215	2.089	17.9	20.5	9 18	21 29.03	-17 5.5	2.120	2.991	11.4	21.5
36695	2000 <i>RB</i> ₁₆	8 17.8 350°15		5.7/21.1 18			23137	2000 <i>AV</i> ₁₄₈	8 17.8 308°61		1.4/16.5 18		
7 10	22 7.91	-1 59.0	1.029	1.883	22.9	17.8	7 10	22 9.72	-13 16.6	2.029	2.868	13.7	18.0
7 20	22 7.08	-1 20.9	0.960	1.875	19.0	17.5	7 20	22 7.01	-14 6.4	1.931	2.848	10.7	17.8
7 30	22 3.08	-1 8.2	0.906	1.868	14.4	17.3	7 30	22 2.26	-15 8.2	1.855	2.828	7.2	17.5
8 9	21 56.51	-1 22.5	0.870	1.862	9.5	17.0	8 9	21 55.90	-16 17.7	1.804	2.809	3.4	17.3
8 19	21 48.43	-2 1.9	0.854	1.858	5.9	16.8	8 19	21 48.58	-17 29.2	1.780	2.789	1.8	17.1
8 29	21 40.38	-2 59.8	0.859	1.855	7.6	16.9	8 29	21 41.15	-18 36.1	1.783	2.770	5.5	17.3
9 8	21 33.97	-4 5.9	0.885	1.854	12.3	17.1	9 8	21 34.56	-19 32.8	1.812	2.752	9.3	17.5
9 18	21 30.37	-5 10.1	0.930	1.854	17.2	17.4	9 18	21 29.59	-20 15.5	1.865	2.733	12.9	17.7
86562	2000 <i>EP</i> ₂₅	8 17.8 236°94		0.9/17.2 18			446226	2013 <i>GP</i> ₇₇	8 17.8 180°78		2.6/20.9 18		
7 10	22 17.12	-13 7.9	1.847	2.678	15.2	20.4	7 10	22 10.68	-1 7.7	2.688	3.462	12.4	22.0
7 20	22 12.93	-13 34.1	1.756	2.667	11.9	20.2	7 20	22 7.01	-1 24.5	2.596	3.463	10.1	21.8
7 30	22 6.35	-14 11.2	1.686	2.656	8.1	19.9	7 30	22 1.84	-1 55.1	2.525	3.463	7.5	21.6
8 9	21 57.86	-14 55.3	1.640	2.644	3.9	19.6	8 9	21 55.54	-2 38.1	2.479	3.463	4.7	21.5
8 19	21 48.27	-15 40.9	1.620	2.632	1.2	19.4	8 19	21 48.64	-3 31.1	2.460	3.463	2.7	21.3
8 29	21 38.64	-16 22.4	1.629	2.619	5.5	19.7	8 29	21 41.76	-4 30.4	2.471	3.462	3.8	21.4
9 8	21 30.08	-16 54.9	1.663	2.606	9.8	19.9	9 8	21 35.54	-5 31.7	2.510	3.461	6.4	21.6
9 18	21 23.49	-17 15.4	1.721	2.592	13.6	20.1	9 18	21 30.52	-6 30.6	2.576	3.460	9.2	21.8
3425	Hurukawa	8 17.8 265°73		2.7/20.1 18 R			477042	2009 <i>AJ</i> ₃₂	8 17.8 337°81		2.3/19.3 18		
7 10	22 13.87	-4 31.9	2.271	3.065	13.8	16.0	7 10	22 15.38	-7 53.4	1.668	2.493	16.8	20.9
7 20	22 9.83	-4 15.9	2.175	3.057	11.3	15.8	7 20	22 11.68	-7 28.8	1.584	2.487	13.5	20.7
7 30	22 3.93	-4 11.9	2.101	3.049	8.2	15.6	7 30	22 5.53	-7 16.5	1.521	2.482	9.6	20.4
8 9	21 56.60	-4 19.0	2.051	3.041	5.0	15.4	8 9	21 57.49	-7 15.4	1.479	2.477	5.4	20.2
8 19	21 48.46	-4 35.5	2.028	3.033	2.8	15.2	8 19	21 48.39	-7 23.3	1.464	2.473	2.3	20.0
8 29	21 40.32	-4 58.5	2.033	3.025	4.4	15.3	8 29	21 39.34	-7 36.4	1.474	2.469	5.2	20.1
9 8	21 32.98	-5 24.3	2.065	3.016	7.6	15.5	9 8	21 31.48	-7 50.6	1.509	2.465	9.5	20.4
9 18	21 27.14	-5 49.5	2.122	3.008	10.8	15.7	9 18	21 25.67	-8 2.0	1.568	2.462	13.4	20.6
21128	Chapuis	8 17.8 87°54		0.4/18.3 18			46963	1998 <i>SJ</i> ₁₃₂	8 17.8 232°23		0.4/18.2 18		
7 10	22 10.46	-10 33.3	3.168	3.974	10.0	18.2	7 10	22 15.25	-10 40.7	2.010	2.832	14.4	19.2
7 20	22 6.51	-10 39.9	3.088	3.983	7.9	18.1	7 20	22 11.15	-10 48.4	1.924	2.828	11.4	19.0
7 30	22 1.31	-10 52.9	3.030	3.992	5.4	18.0	7 30	22 4.94	-11 6.5	1.859	2.825	7.8	18.8
8 9	21 55.21	-11 10.5	3.000	4.001	2.7	17.8	8 9	21 57.13	-11 32.3	1.819	2.821	3.9	18.5
8 19	21 48.66	-11 30.6	2.998	4.010	0.4	17.6	8 19	21 48.44	-12 2.1	1.805	2.817	0.5	18.2
8 29	21 42.20	-11 50.7	3.025	4.018	3.0	17.8	8 29	21 39.81	-12 31.6	1.819	2.813	4.6	18.5
9 8	21 36.36	-12 8.4	3.082	4.027	5.7	18.0	9 8	21 32.17	-12 56.7	1.860	2.809	8.5	18.8
9 18	21 31.56	-12 22.1	3.164	4.036	8.0	18.2	9 18	21 26.27	-13 14.5	1.926	2.805	12.0	19.0
317797	2003 <i>SN</i> ₁₈₃	8 17.8 315°12		0.8/17.3 17 R			109606	2001 <i>QB</i> ₂₈₅	8 17.8 282°06		1.5/16.8 18		
7 10	22 11.49	-11 2.7	1.269	2.130	19.0	20.4	7 10	22 15.12	-14 7.3	1.634	2.478	16.2	20.2
7 20	22 9.52	-11 39.0	1.189	2.116	15.1	20.1	7 20	22 11.80	-14 39.1	1.540	2.460	12.8	19.9
7 30	22 4.58	-12 34.2	1.127	2.104	10.3	19.8	7 30	22 5.85	-15 23.2	1.467	2.441	8.7	19.7
8 9	21 57.22	-13 43.5	1.086	2.091	4.9	19.5	8 9	21 57.76	-16 14.9	1.417	2.422	4.2	19.4
8 19	21 48.37	-14 59.0	1.068	2.079	1.2	19.2	8 19	21 48.35	-17 7.8	1.393	2.403	1.9	19.2
8 29	21 39.47	-16 11.0	1.074	2.068	6.9	19.5	8 29	21 38.80	-17 54.9	1.394	2.384	6.4	19.4
9 8	21 31.97	-17 10.5	1.103	2.057	12.3	19.8	9 8	21 30.39	-18 30.4	1.421	2.365	11.1	19.6
9 18	21 27.05	-17 52.0	1.152	2.047	17.1	20.1	9 18	21 24.15	-18 51.0	1.470	2.345	15.3	19.8
78872	2003 <i>QP</i> ₁₀₂	8 17.8 303°08		2.7/20.4 18			477023	2008 <i>YD</i> ₁₆₉	8 17.9 120°96		2.0/15.9 18		
7 10	22 9.64	-1 13.3	1.743	2.550	16.9	19.9	7 10	22 13.36	-14 40.9	2.078	2.913	13.6	20.9
7 20	22 7.15	-1 52.2	1.652	2.541	13.8	19.7	7 20	22 9.57	-15 43.6	2.006	2.921	10.5	20.7
7 30	22 2.46	-2 54.2	1.581	2.533	10.1	19.5	7 30	22 3.80	-16 55.9	1.958	2.930	7.0	20.5
8 9	21 56.02	-4 17.3	1.532	2.524	6.0	19.2	8 9	21 56.55	-18 12.3	1.934	2.938	3.4	20.3
8 19	21 48.55	-5 56.4	1.509	2.516	2.8	19.0	8 19	21 48.54	-19 26.6	1.939	2.946	2.3	20.2
8 29	21 41.03	-7 43.8	1.512	2.508	4.9	19.1	8 29	21 40.64	-20 32.6	1.972	2.954	5.5	20.5
9 8	21 34.48	-9 30.2	1.543	2.501	9.1	19.3	9 8	21 33.73	-21 25.7	2.031	2.962	9.0	20.7
9 18	21 29.76	-11 7.5	1.597	2.493	13.1	19.6	9 18	21 28.49	-22 3.5	2.115	2.969	12.1	20.9
510145	2010 <i>VW</i> ₉₁	8 17.8 287°73		1.1/18.6 18			47828	2000 <i>EV</i> ₁₀₉	8 17.9 342°93		5.8/24.9 18		
7 10	22 15.29	-8 54.1	1.487	2.323	17.9	22.2	7 10	22 7.51	+ 9 1.5	2.333	3.065	15.2	18.2
7 20	22 12.24	-8 57.9	1.388	2.300	14.4	21.9	7 20	22 4.87	+ 8 51.9	2.237	3.061	13.1	18.0
7 30	22 6.35	-9 17.6	1.308	2.276	10.2	21.6	7 30	22 0.57	+ 8 20.7	2.161	3.057	10.6	17.9
8 9	21 58.08	-9 51.2	1.250	2.252	5.3	21.3	8 9	21 55.01	+ 7 27.5	2.106	3.054	8.1	17.7
8 19	21 48.27	-10 34.3	1.216	2.228	1.2	20.9	8 19	21 48.74	+ 6 13.7	2.077	3.051	6.2	17.6
8 29	21 38.17	-11 20.7	1.208	2.204	5.9	21.2	8 29	21 42.48	+ 4 43.5	2.074	3.048	6.0	17.6
9 8	21 29.23	-12 3.3	1.224	2.179	11.2	21.4	9 8	21 36.95	+ 3 3.0	2.098	3.046	7.7	17.7
9 18	21 22.61	-12 36.9	1.262	2.155	16.0	21.6	9 18	21 32.74	+ 1 19.2	2.149	3.044	10.2	17.8
371434	2006 <i>SZ</i> ₁₉₉	8 17.8 229°26		2.5/16.1 17			21254	Jonan	8 17.9 229°61		1.1/17.2 18		
7 10	22 19.00	-17 24.5	1.760	2.599	15.4	22.0	7 10	22 24.11	-17 1				

EPHEMERIDES

8 17.9

8 17.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
430917	2005 <i>TP</i> ₁₄		8 17.9 320°17	6°0/13.9	18		66781	1999 <i>TY</i> ₂₂₃		8 17.9 293°52	1°8/19.5	18	
7 10	22 12.67	-22 18.8	1.280	2.158	17.8	20.2	7 10	22 10.13	-3 55.3	1.769	2.585	16.3	19.2
7 20	22 10.73	-23 18.4	1.198	2.136	14.1	19.9	7 20	22 7.66	-4 35.7	1.667	2.564	13.2	18.9
7 30	22 5.59	-24 26.2	1.136	2.114	10.0	19.7	7 30	22 2.93	-5 37.6	1.584	2.543	9.5	18.7
8 9	21 57.80	-25 33.4	1.095	2.093	6.6	19.4	8 9	21 56.35	-6 58.9	1.524	2.522	5.3	18.4
8 19	21 48.36	-26 29.2	1.076	2.073	6.7	19.3	8 19	21 48.60	-8 34.6	1.491	2.501	1.8	18.1
8 29	21 38.81	-27 4.2	1.081	2.054	10.4	19.5	8 29	21 40.67	-10 16.9	1.484	2.480	5.0	18.2
9 8	21 30.80	-27 13.0	1.106	2.036	14.9	19.7	9 8	21 33.63	-11 56.8	1.503	2.459	9.5	18.5
9 18	21 25.57	-26 55.1	1.151	2.018	19.2	19.9	9 18	21 28.40	-13 26.7	1.547	2.438	13.7	18.7
226738	2004 <i>RY</i> ₁		8 17.9 228°17	5°9/21.6	18		66990	1999 <i>XA</i> ₁₀₃		8 17.9 209°06	0°5/17.4	18	
7 10	22 22.34	+ 2 6.8	2.284	3.027	15.2	20.2	7 10	22 12.35	-12 47.3	2.735	3.551	11.2	19.6
7 20	22 16.55	+ 3 9.8	2.178	3.015	12.9	20.0	7 20	22 8.33	-13 11.6	2.644	3.547	8.7	19.5
7 30	22 8.60	+ 4 0.5	2.092	3.003	10.3	19.8	7 30	22 2.76	-13 43.2	2.576	3.543	5.9	19.3
8 9	21 58.94	+ 4 37.0	2.031	2.991	7.6	19.7	8 9	21 56.03	-14 19.3	2.535	3.538	2.8	19.1
8 19	21 48.23	+ 4 58.0	1.998	2.978	6.0	19.5	8 19	21 48.67	-14 56.6	2.522	3.534	0.7	18.9
8 29	21 37.38	+ 5 4.2	1.993	2.964	6.6	19.6	8 29	21 41.34	-15 31.5	2.538	3.528	3.8	19.1
9 8	21 27.36	+ 4 58.1	2.016	2.949	8.9	19.7	9 8	21 34.70	-16 0.9	2.583	3.523	6.9	19.3
9 18	21 18.98	+ 4 43.4	2.065	2.934	11.7	19.8	9 18	21 29.30	-16 22.7	2.653	3.517	9.6	19.5
513241	2006 <i>AE</i> ₃₇		8 17.9 161°61	0°0/17.9	18		424035	2006 <i>YA</i> ₄₈		8 17.9 188°03	0°8/17.3	17	
7 10	22 12.91	-11 37.4	2.861	3.670	10.9	22.7	7 10	22 17.49	-13 1.7	1.946	2.772	14.7	21.9
7 20	22 8.61	-11 53.5	2.776	3.675	8.5	22.5	7 20	22 12.99	-13 27.1	1.863	2.772	11.5	21.7
7 30	22 2.84	-12 16.7	2.715	3.679	5.8	22.4	7 30	22 6.25	-14 2.5	1.802	2.771	7.8	21.4
8 9	21 56.01	-12 44.4	2.680	3.682	2.8	22.2	8 9	21 57.81	-14 43.9	1.766	2.770	3.7	21.2
8 19	21 48.63	-13 14.0	2.674	3.686	0.4	21.9	8 19	21 48.44	-15 26.4	1.757	2.768	1.1	21.0
8 29	21 41.32	-13 42.4	2.697	3.689	3.5	22.2	8 29	21 39.15	-16 4.7	1.775	2.766	5.1	21.3
9 8	21 34.70	-14 6.7	2.749	3.691	6.4	22.4	9 8	21 30.93	-16 34.6	1.821	2.763	9.1	21.5
9 18	21 29.29	-14 25.0	2.827	3.694	9.0	22.6	9 18	21 24.59	-16 53.6	1.891	2.760	12.7	21.7
523727	2014 <i>NW</i> ₆₅		8 17.9 302°75	0°9/25.1	18		450744	2007 <i>HB</i> ₃₉		8 17.9 199°65	5°2/24.1	18	
7 10	21 54.33	+ 7 41.8	21.923	22.608	1.9	20.3	7 10	22 9.82	+ 7 19.3	2.669	3.397	13.5	21.7
7 20	21 53.26	+ 7 40.9	21.801	22.589	1.7	20.3	7 20	22 6.42	+ 7 23.6	2.573	3.395	11.6	21.5
7 30	21 52.03	+ 7 37.9	21.702	22.570	1.4	20.2	7 30	22 1.50	+ 7 10.7	2.497	3.394	9.4	21.4
8 9	21 50.71	+ 7 32.9	21.627	22.551	1.1	20.2	8 9	21 55.44	+ 6 40.2	2.443	3.392	7.1	21.2
8 19	21 49.33	+ 7 26.1	21.580	22.532	0.9	20.2	8 19	21 48.75	+ 5 53.1	2.416	3.390	5.5	21.1
8 29	21 47.96	+ 7 17.6	21.560	22.513	0.9	20.2	8 29	21 42.06	+ 4 52.5	2.415	3.388	5.5	21.1
9 8	21 46.64	+ 7 7.8	21.568	22.494	1.0	20.2	9 8	21 36.03	+ 3 42.6	2.443	3.385	7.1	21.2
9 18	21 45.43	+ 6 57.0	21.604	22.475	1.3	20.2	9 18	21 31.19	+ 2 28.7	2.497	3.383	9.3	21.4
55228	2001 <i>RR</i> ₇₂		8 17.9 31°22	0°7/18.4	18		391803	2008 <i>RF</i> ₁₁₅		8 17.9 295°12	4°5/21.3	18	
7 10	22 13.00	- 9 18.2	2.026	2.847	14.3	19.0	7 10	22 11.69	- 0 22.5	1.731	2.530	17.3	20.9
7 20	22 9.35	- 9 33.5	1.944	2.848	11.4	18.8	7 20	22 8.91	- 0 12.6	1.630	2.511	14.4	20.7
7 30	22 3.69	-10 0.6	1.884	2.848	7.8	18.6	7 30	22 3.79	- 0 22.5	1.548	2.491	11.0	20.4
8 9	21 56.53	-10 36.6	1.848	2.849	3.9	18.4	8 9	21 56.77	- 0 52.3	1.488	2.472	7.3	20.2
8 19	21 48.57	-11 17.7	1.838	2.850	0.7	18.1	8 19	21 48.56	- 1 40.5	1.452	2.453	4.6	20.0
8 29	21 40.68	-11 59.2	1.857	2.851	4.4	18.4	8 29	21 40.17	- 2 42.5	1.442	2.434	5.8	20.0
9 8	21 33.75	-12 36.5	1.901	2.852	8.2	18.6	9 8	21 32.72	- 3 51.4	1.457	2.415	9.6	20.2
9 18	21 28.49	-13 6.1	1.971	2.853	11.7	18.9	9 18	21 27.14	- 5 0.0	1.496	2.396	13.5	20.4
470690	2008 <i>TW</i> ₁₈		8 17.9 303°00	0°6/17.4	18		408023	2012 <i>FQ</i> ₉		8 17.9 286°72	2°3/16.1	18	
7 10	22 13.79	-12 36.7	1.635	2.478	16.2	21.6	7 10	22 18.39	-20 18.2	2.343	3.172	12.4	21.2
7 20	22 10.67	-12 55.1	1.545	2.463	12.8	21.4	7 20	22 13.31	-20 22.2	2.255	3.166	9.7	21.0
7 30	22 5.01	-13 25.8	1.475	2.448	8.8	21.1	7 30	22 6.25	-20 28.4	2.191	3.160	6.6	20.8
8 9	21 57.33	-14 4.8	1.429	2.433	4.2	20.8	8 9	21 57.74	-20 32.9	2.153	3.154	3.5	20.6
8 19	21 48.45	-14 46.9	1.408	2.419	1.0	20.5	8 19	21 48.47	-20 32.6	2.142	3.148	2.5	20.5
8 29	21 39.51	-15 26.0	1.412	2.405	5.8	20.8	8 29	21 39.31	-20 24.4	2.161	3.142	5.3	20.7
9 8	21 31.71	-15 56.6	1.442	2.391	10.4	21.1	9 8	21 31.14	-20 6.8	2.207	3.136	8.5	20.9
9 18	21 26.02	-16 15.2	1.494	2.378	14.6	21.3	9 18	21 24.62	-19 39.8	2.278	3.130	11.4	21.1
55990	1998 <i>SQ</i> ₇₁		8 17.9 305°25	3°7/15.7	18		348008	2003 <i>SE</i> ₂₆₆		8 17.9 309°35	3°4/15.6	18	
7 10	22 17.71	-18 8.9	1.267	2.132	18.7	19.4	7 10	22 15.47	-19 30.9	1.623	2.478	15.8	20.5
7 20	22 14.42	-18 49.7	1.196	2.127	14.7	19.2	7 20	22 12.11	-20 0.3	1.535	2.461	12.4	20.2
7 30	22 7.89	-19 40.7	1.145	2.123	10.0	18.9	7 30	22 6.07	-20 36.3	1.468	2.443	8.5	20.0
8 9	21 58.79	-20 34.4	1.115	2.119	5.3	18.6	8 9	21 57.88	-21 13.2	1.424	2.426	4.7	19.7
8 19	21 48.27	-21 21.7	1.109	2.115	4.1	18.5	8 19	21 48.43	-21 44.2	1.405	2.410	3.8	19.6
8 29	21 37.90	-21 54.4	1.127	2.111	8.4	18.8	8 29	21 38.96	-22 3.5	1.412	2.394	7.4	19.8
9 8	21 29.23	-22 7.7	1.167	2.107	13.3	19.0	9 8	21 30.72	-22 6.9	1.443	2.378	11.6	20.0
9 18	21 23.39	-22 0.7	1.228	2.104	17.6	19.3	9 18	21 24.74	-21 53.7	1.495	2.362	15.5	20.2
488114	2015 <i>VD</i> ₈₄		8 17.9 307°56	2°7/20.4	18		342996	2009 <i>BN</i> ₆₈		8 17.9 210°94	0°8/17.1	18	
7 10	22 8.78	- 2 22.9	2.107	2.907	14.6	21.0	7 10	22 14.45	-12 48.1	2.255	3.078	13.0	21.8
7 20	22 6.16	- 2 41.5	2.001	2.886	11.9	20.7	7 20	22 10.36	-13 22.5	2.166	3.073	10.2	21.6
7 30	22 1.65	- 3 17.5	1.916	2.866	8.8	20.5	7 30	22 4.34	-14 6.3	2.099	3.067	6.9	21.4
8 9	21 55.63	- 4 9.6	1.855	2.845	5.4	20.3	8 9	21 56.87	-14 56.0	2.057	3.061	3.2	21.1
8 19	21 48.69	- 5 15.0	1.819	2.825	2.7	20.0	8 19	21 48.58	-15 46.9	2.044	3.055	1.1	20.9
8 29	21 41.63	- 6 28.5	1.811	2.805	4.4	20.1	8 29	21 40.30	-16 34.3	2.059	3.048	4.7	21.2
9 8	21 35.31	- 7 43.9	1.829	2.786	8.0	20.3	9 8	21 32.87	-17 13.7	2.102	3.041	8.2	21.4
9 18	21 30.49	- 8 55.3	1.873	2.767	11.6	20.5	9 18	21 27.01	-17 42.7	2.169	3.034	11.5	21.6
488482	1999 <i>TZ</i> ₁₈₈		8 17.9 329°80	10°9/24.0	17		205467	2001 <i>QF</i> ₁₁₂					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
150238	1998 YG ₉	8 17.9 275°29		1°6/16.7 18			209282	2003 YS ₂₈	8 17.9 232°00		4°0/21.3 18		
7 10	22 15.49	-14 12.4	1.660	2.503	16.0	20.7	7 10	22 13.85	-0 27.7	2.114	2.894	15.1	20.7
7 20	22 12.05	-14 46.4	1.567	2.486	12.6	20.4	7 20	22 10.01	-0 13.8	2.020	2.888	12.6	20.5
7 30	22 6.02	-15 32.5	1.495	2.468	8.6	20.1	7 30	22 4.20	-0 15.7	1.947	2.883	9.5	20.3
8 9	21 57.88	-16 26.0	1.446	2.451	4.1	19.8	8 9	21 56.86	-0 33.2	1.896	2.876	6.4	20.1
8 19	21 48.45	-17 20.4	1.423	2.433	2.0	19.6	8 19	21 48.65	-1 4.6	1.872	2.870	4.1	19.9
8 29	21 38.90	-18 8.8	1.426	2.415	6.3	19.9	8 29	21 40.42	-1 46.7	1.875	2.864	5.1	20.0
9 8	21 30.48	-18 45.4	1.455	2.397	10.9	20.1	9 8	21 33.04	-2 34.5	1.905	2.857	8.1	20.1
9 18	21 24.21	-19 6.9	1.506	2.379	15.1	20.3	9 18	21 27.25	-3 23.0	1.960	2.850	11.3	20.3
332515	2008 GS ₁₄₅	8 17.9 26°91		7°1/12.9 17			319075	2005 WE ₈₇	8 17.9 222°97		2°9/20.6 18		
7 10	22 10.17	-21 32.5	1.029	1.923	19.8	19.2	7 10	22 12.86	-3 2.3	2.425	3.210	13.3	20.9
7 20	22 8.82	-23 19.1	0.992	1.938	15.4	19.0	7 20	22 8.92	-2 50.4	2.334	3.208	10.9	20.8
7 30	22 4.11	-25 12.7	0.973	1.955	10.8	18.8	7 30	22 3.27	-2 50.8	2.263	3.206	8.0	20.6
8 9	21 56.93	-26 59.5	0.975	1.972	7.4	18.7	8 9	21 56.35	-3 2.8	2.218	3.204	5.1	20.4
8 19	21 48.61	-28 26.2	0.998	1.992	7.9	18.8	8 19	21 48.72	-3 24.6	2.199	3.202	3.0	20.2
8 29	21 40.81	-29 23.1	1.044	2.012	11.4	19.0	8 29	21 41.13	-3 53.4	2.209	3.200	4.2	20.3
9 8	21 34.99	-29 47.1	1.110	2.034	15.4	19.3	9 8	21 34.29	-4 25.5	2.246	3.198	7.1	20.5
9 18	21 32.06	-29 40.5	1.194	2.056	18.9	19.6	9 18	21 28.83	-4 57.2	2.309	3.196	10.0	20.7
52499	1996 CL ₁	8 17.9 99°81		1°4/16.6 18			316918	2000 WZ ₁₇	8 17.9 230°12		2°9/15.7 18		
7 10	22 15.54	-11 6.1	1.719	2.551	16.0	19.2	7 10	22 18.74	-17 23.5	1.737	2.578	15.5	21.2
7 20	22 11.59	-12 23.1	1.658	2.570	12.4	19.0	7 20	22 14.47	-18 10.5	1.650	2.568	12.2	21.0
7 30	22 5.33	-13 54.6	1.618	2.589	8.3	18.8	7 30	22 7.59	-19 6.8	1.584	2.557	8.3	20.7
8 9	21 57.37	-15 34.0	1.603	2.607	3.8	18.6	8 9	21 58.62	-20 6.4	1.543	2.546	4.3	20.5
8 19	21 48.56	-17 13.0	1.615	2.625	1.8	18.5	8 19	21 48.43	-21 2.2	1.528	2.534	3.3	20.4
8 29	21 39.98	-18 43.0	1.656	2.643	5.8	18.8	8 29	21 38.21	-21 47.1	1.541	2.522	7.0	20.6
9 8	21 32.64	-19 57.8	1.722	2.660	9.9	19.0	9 8	21 29.18	-22 16.3	1.578	2.509	11.2	20.8
9 18	21 27.31	-20 53.9	1.813	2.677	13.4	19.3	9 18	21 22.33	-22 28.1	1.639	2.495	14.9	21.0
235111	2003 OS ₂₇	8 17.9 333°27		2°2/15.9 18			118888	2000 UX ₃₅	8 17.9 311°74		2°2/16.4 18		
7 10	22 6.99	-11 30.7	1.408	2.270	17.4	19.1	7 10	22 15.01	-16 12.5	1.608	2.458	16.1	19.1
7 20	22 5.73	-12 56.5	1.326	2.256	13.6	18.9	7 20	22 11.64	-16 42.4	1.527	2.450	12.6	18.8
7 30	22 1.89	-14 43.8	1.264	2.243	9.1	18.6	7 30	22 5.68	-17 21.7	1.467	2.443	8.5	18.6
8 9	21 55.94	-16 45.4	1.225	2.231	4.3	18.3	8 9	21 57.68	-18 5.4	1.431	2.435	4.2	18.3
8 19	21 48.72	-18 50.7	1.211	2.220	2.8	18.1	8 19	21 48.55	-18 46.9	1.419	2.428	2.5	18.2
8 29	21 41.42	-20 47.5	1.222	2.209	7.4	18.4	8 29	21 39.48	-19 20.0	1.434	2.421	6.5	18.4
9 8	21 35.32	-22 25.4	1.257	2.200	12.3	18.6	9 8	21 31.66	-19 40.1	1.473	2.414	10.9	18.6
9 18	21 31.44	-23 38.2	1.313	2.191	16.6	18.9	9 18	21 26.04	-19 45.1	1.534	2.408	14.8	18.9
168850	2000 UN ₆₃	8 17.9 248°39		1°3/18.7 17			105421	2000 QL ₁₆₇	8 17.9 292°51		1°4/16.9 18		
7 10	22 17.14	-8 15.7	1.609	2.434	17.3	20.9	7 10	22 19.07	-17 24.6	2.067	2.897	13.8	19.2
7 20	22 13.33	-8 21.4	1.519	2.423	13.9	20.6	7 20	22 14.15	-17 20.1	1.978	2.888	10.8	19.0
7 30	22 6.88	-8 42.3	1.448	2.412	9.8	20.4	7 30	22 7.02	-17 19.7	1.910	2.880	7.3	18.7
8 9	21 58.29	-9 16.2	1.399	2.400	5.1	20.1	8 9	21 58.21	-17 20.2	1.868	2.871	3.6	18.5
8 19	21 48.42	-9 58.7	1.377	2.388	1.3	19.8	8 19	21 48.50	-17 18.0	1.853	2.863	1.7	18.3
8 29	21 38.48	-10 43.9	1.380	2.375	5.4	20.0	8 29	21 38.87	-17 10.1	1.866	2.855	5.2	18.6
9 8	21 29.71	-11 25.8	1.409	2.363	10.2	20.3	9 8	21 30.31	-16 54.5	1.907	2.846	9.0	18.8
9 18	21 23.14	-11 59.5	1.461	2.349	14.6	20.5	9 18	21 23.59	-16 30.5	1.972	2.838	12.4	19.0
443554	2014 KD ₁₈	8 17.9 271°75		5°4/23.1 18			79968	1999 CO ₁₂₅	8 17.9 181°15		6°1/12.4 18		
7 10	22 11.00	+ 4 37.5	2.165	2.922	15.5	21.3	7 10	22 18.83	-29 50.9	2.225	3.065	12.6	19.5
7 20	22 7.74	+ 4 49.2	2.072	2.918	13.1	21.1	7 20	22 13.94	-30 47.4	2.156	3.065	10.1	19.4
7 30	22 2.62	+ 4 42.1	1.999	2.915	10.4	20.9	7 30	22 6.83	-31 41.6	2.110	3.065	7.7	19.2
8 9	21 56.08	+ 4 15.5	1.948	2.911	7.6	20.7	8 9	21 58.09	-32 27.0	2.089	3.065	6.2	19.1
8 19	21 48.73	+ 3 30.7	1.922	2.907	5.6	20.6	8 19	21 48.52	-32 57.7	2.095	3.065	6.6	19.1
8 29	21 41.37	+ 2 31.2	1.923	2.903	5.9	20.6	8 29	21 39.13	-33 9.6	2.128	3.065	8.5	19.3
9 8	21 34.82	+ 1 22.5	1.950	2.900	8.1	20.7	9 8	21 30.90	-33 1.7	2.185	3.064	10.9	19.4
9 18	21 29.76	+ 0 10.6	2.003	2.896	11.0	20.9	9 18	21 24.56	-32 35.2	2.265	3.063	13.3	19.6
245699	2006 BO ₂₁₉	8 17.9 252°11		2°6/15.7 18			72305	2001 BB ₃₄	8 17.9 97°12		0°1/17.9 18		
7 10	22 15.43	-17 2.3	1.872	2.714	14.5	20.6	7 10	22 12.91	-10 50.4	2.476	3.291	12.2	19.4
7 20	22 11.65	-17 49.1	1.785	2.704	11.4	20.4	7 20	22 8.82	-11 12.3	2.404	3.305	9.6	19.2
7 30	22 5.53	-18 44.7	1.720	2.693	7.7	20.2	7 30	22 3.11	-11 42.9	2.354	3.319	6.5	19.1
8 9	21 57.56	-19 43.8	1.679	2.682	4.0	19.9	8 9	21 56.22	-12 19.4	2.330	3.332	3.1	18.9
8 19	21 48.54	-20 39.9	1.665	2.671	3.0	19.8	8 19	21 48.77	-12 58.1	2.334	3.346	0.4	18.6
8 29	21 39.49	-21 26.6	1.678	2.660	6.5	20.0	8 29	21 41.46	-13 35.3	2.367	3.359	3.8	19.0
9 8	21 31.51	-21 59.2	1.717	2.648	10.4	20.2	9 8	21 34.98	-14 7.7	2.427	3.372	7.0	19.2
9 18	21 25.46	-22 15.8	1.779	2.636	13.9	20.4	9 18	21 29.87	-14 32.7	2.514	3.385	9.8	19.4
439661	2014 HK ₇₇	8 17.9 330°98		1°7/19.4 16			348194	2004 QG ₁₀	8 17.9 326°18		3°0/15.0 18		
7 10	22 10.73	-5 50.3	1.846	2.666	15.6	21.4	7 10	22 9.04	-16 31.1	1.832	2.686	14.3	20.1
7 20	22 7.86	-6 8.4	1.760	2.660	12.5	21.2	7 20	22 6.74	-17 39.4	1.745	2.671	11.1	19.8
7 30	22 2.87	-6 42.6	1.694	2.655	8.9	21.0	7 30	22 2.26	-18 59.0	1.679	2.656	7.5	19.6
8 9	21 56.25	-7 30.7	1.652	2.650	4.9	20.7	8 9	21 56.03	-20 23.8	1.638	2.642	4.0	19.3
8 19	21 48.71	-8 28.6	1.635	2.645	1.7	20.5	8 19	21 48.78	-21 46.3	1.624	2.628	3.5	19.3
8 29	21 41.18	-9 30.4	1.645	2.641	4.6	20.7	8 29	21 41.47	-22 58.8	1.636	2.615	6.8	19.5
9 8	21 34.62	-10 30.0	1.681	2.637	8.7	20.9	9 8	21 35.13	-23 55.4	1.672	2.602	10.7	19.7
9 18	21 29.81	-11 22.3	1.741	2.633	12.4	21.1	9 18	21 30.60	-24 32.9	1.732	2.590	14.2	19.9
488015	2015 US ₆	8 17.9 291°41		1°1/16.8 17			318589	2005 GU ₂₂₇	8 17.9 75°24		3°2/20.2 17		
7 10	22 11.37	-13 40.6	2.251	3.082	12.8	21.8	7 10	22 18.21	-3 30.0	1.436			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
188425	2004 <i>FC</i> ₈₂		8 17.9 289°89	4.8/14.3	18		220249	2002 <i>XD</i> ₇₅		8 17.9 262°84	2°0/16.5	18	
7 10	22 15.56	-20 35.7	1.494	2.355	16.5	20.1	7 10	22 16.92	-15 25.4	1.724	2.565	15.6	20.9
7 20	22 12.42	-21 40.0	1.417	2.345	13.0	19.9	7 20	22 13.12	-15 58.9	1.632	2.550	12.3	20.6
7 30	22 6.42	-22 52.8	1.360	2.336	9.0	19.6	7 30	22 6.74	-16 42.9	1.561	2.534	8.4	20.4
8 9	21 58.13	-24 6.0	1.327	2.326	5.6	19.4	8 9	21 58.29	-17 32.4	1.513	2.518	4.1	20.1
8 19	21 48.52	-25 10.1	1.318	2.316	5.4	19.4	8 19	21 48.59	-18 21.1	1.492	2.501	2.3	19.9
8 29	21 38.93	-25 57.0	1.334	2.307	8.9	19.5	8 29	21 38.81	-19 2.4	1.497	2.484	6.4	20.1
9 8	21 30.74	-26 21.7	1.374	2.298	13.0	19.8	9 8	21 30.14	-19 31.4	1.528	2.467	10.8	20.4
9 18	21 25.00	-26 23.4	1.434	2.288	16.8	20.0	9 18	21 23.59	-19 45.3	1.581	2.450	14.8	20.6
115049	2003 <i>RY</i> ₄		8 17.9 5°21	0°4/17.7	18		59488	1999 <i>JE</i> ₂		8 17.9 6°95	8°5/25.9	18	
7 10	22 12.83	-13 39.6	1.237	2.103	19.0	18.8	7 10	22 1.77	+ 9 42.7	1.143	1.948	24.1	17.7
7 20	22 10.42	-13 31.0	1.172	2.102	15.0	18.6	7 20	22 1.92	+ 9 41.9	1.078	1.948	20.8	17.4
7 30	22 5.05	-13 33.7	1.126	2.103	10.2	18.3	7 30	21 59.40	+ 9 1.2	1.025	1.951	17.0	17.2
8 9	21 57.42	-13 44.0	1.100	2.106	4.9	18.0	8 9	21 54.80	+ 7 38.1	0.990	1.955	12.8	17.0
8 19	21 48.62	-13 56.8	1.098	2.110	0.8	17.8	8 19	21 49.04	+ 5 35.9	0.975	1.961	9.4	16.8
8 29	21 40.08	-14 6.7	1.119	2.115	6.3	18.2	8 29	21 43.39	+ 3 4.7	0.981	1.969	8.7	16.8
9 8	21 33.15	-14 9.2	1.163	2.121	11.4	18.5	9 8	21 39.12	+ 0 20.7	1.011	1.979	11.3	17.0
9 18	21 28.79	-14 1.8	1.228	2.129	15.8	18.7	9 18	21 37.18	- 2 19.5	1.062	1.990	15.2	17.3
383119	2005 <i>SR</i> ₂₇₉		8 17.9 276°27	2°3/16.2	18		1853	McElroy		8 17.9 301°34	4°1/20.9	18	
7 10	22 16.09	-15 58.3	1.701	2.545	15.6	21.7	7 10	22 15.90	- 1 59.7	2.229	3.008	14.5	15.7
7 20	22 12.53	-16 35.3	1.606	2.526	12.3	21.5	7 20	22 11.49	- 1 19.4	2.136	3.004	12.0	15.6
7 30	22 6.37	-17 22.8	1.532	2.506	8.4	21.2	7 30	22 5.17	- 0 51.2	2.064	3.000	9.1	15.4
8 9	21 58.10	-18 15.8	1.482	2.486	4.2	20.9	8 9	21 57.37	- 0 35.6	2.016	2.996	6.1	15.2
8 19	21 48.52	-19 7.6	1.458	2.466	2.6	20.8	8 19	21 48.75	- 0 31.8	1.995	2.992	4.1	15.1
8 29	21 38.81	-19 51.3	1.460	2.446	6.7	21.0	8 29	21 40.13	- 0 38.2	2.002	2.988	5.1	15.1
9 8	21 30.21	-20 21.5	1.487	2.425	11.1	21.2	9 8	21 32.37	- 0 51.5	2.035	2.984	7.9	15.3
9 18	21 23.73	-20 35.7	1.537	2.405	15.1	21.4	9 18	21 26.15	- 1 8.1	2.094	2.980	10.9	15.5
94066	2000 <i>YT</i> ₂₉		8 17.9 244°44	0°7/17.2	18		41213	Mimoun		8 17.9 331°69	7°1/22.2	18	
7 10	22 12.89	-13 9.1	2.591	3.410	11.6	20.3	7 10	22 10.23	+ 1 25.2	1.428	2.237	19.8	17.6
7 20	22 8.95	-13 36.6	2.493	3.398	9.1	20.2	7 20	22 8.27	+ 2 20.5	1.338	2.219	16.9	17.4
7 30	22 3.32	-14 12.1	2.417	3.385	6.2	19.9	7 30	22 3.68	+ 2 55.7	1.264	2.202	13.4	17.1
8 9	21 56.41	-14 52.4	2.368	3.372	2.9	19.7	8 9	21 56.91	+ 3 8.0	1.211	2.186	9.8	16.9
8 19	21 48.76	-15 33.9	2.347	3.359	0.9	19.5	8 19	21 48.79	+ 2 56.6	1.179	2.170	7.3	16.7
8 29	21 41.09	-16 12.7	2.356	3.345	4.1	19.8	8 29	21 40.50	+ 2 23.8	1.170	2.156	7.9	16.7
9 8	21 34.11	-16 45.3	2.392	3.331	7.4	19.9	9 8	21 33.35	+ 1 35.8	1.185	2.143	11.2	16.8
9 18	21 28.44	-17 9.2	2.453	3.317	10.3	20.1	9 18	21 28.40	+ 0 40.5	1.220	2.131	15.1	17.0
14714	2000 <i>CQ</i> ₆₅		8 17.9 27°33	0°6/17.5	18 R		228658	2002 <i>GP</i> ₂		8 17.9 41°95	2°6/15.6	18	
7 10	22 14.40	-12 48.1	1.177	2.042	19.9	17.2	7 10	22 12.41	-14 45.3	1.646	2.496	15.8	19.6
7 20	22 11.66	-12 58.6	1.122	2.052	15.6	17.0	7 20	22 9.48	-15 58.2	1.576	2.500	12.3	19.4
7 30	22 5.86	-13 23.1	1.085	2.063	10.5	16.7	7 30	22 4.14	-17 23.7	1.528	2.504	8.2	19.2
8 9	21 57.79	-13 56.6	1.069	2.075	5.0	16.4	8 9	21 56.97	-18 54.8	1.504	2.509	4.1	19.0
8 19	21 48.62	-14 32.3	1.076	2.087	1.0	16.2	8 19	21 48.80	-20 23.2	1.507	2.513	3.1	18.9
8 29	21 39.83	-15 3.1	1.106	2.101	6.5	16.6	8 29	21 40.76	-21 40.5	1.535	2.518	6.8	19.1
9 8	21 32.79	-15 23.5	1.159	2.116	11.6	17.0	9 8	21 33.91	-22 40.5	1.589	2.523	10.8	19.4
9 18	21 28.44	-15 30.8	1.233	2.131	16.0	17.3	9 18	21 29.12	-23 20.4	1.665	2.528	14.4	19.6
134518	1999 <i>NA</i> ₁₈		8 17.9 35°41	9°6/10.9	17		139190	2001 <i>FM</i> ₁₅₁		8 17.9 148°34	6°4/12.5	18	
7 10	22 12.27	-25 7.9	0.996	1.891	20.2	18.7	7 10	22 20.34	-26 14.9	1.811	2.658	14.7	19.0
7 20	22 10.74	-27 31.9	0.964	1.908	15.9	18.5	7 20	22 15.59	-27 40.5	1.750	2.667	11.7	18.9
7 30	22 5.59	-29 58.1	0.951	1.926	11.9	18.3	7 30	22 8.23	-29 7.5	1.712	2.675	8.6	18.7
8 9	21 57.74	-32 9.4	0.958	1.945	9.7	18.3	8 9	21 58.90	-30 27.1	1.698	2.682	6.5	18.6
8 19	21 48.64	-33 50.4	0.987	1.966	10.7	18.4	8 19	21 48.57	-31 30.6	1.711	2.689	7.0	18.6
8 29	21 40.12	-34 51.7	1.037	1.987	13.8	18.7	8 29	21 38.45	-32 12.1	1.750	2.696	9.4	18.8
9 8	21 33.79	-35 12.3	1.107	2.008	17.3	18.9	9 8	21 29.73	-32 29.1	1.814	2.701	12.4	19.0
9 18	21 30.59	-34 56.9	1.193	2.031	20.5	19.2	9 18	21 23.27	-32 23.1	1.898	2.706	15.1	19.2
74191	1998 <i>RK</i> ₄₅		8 17.9 0°56	3°2/20.5	18		294624	2008 <i>AR</i> ₃₆		8 17.9 267°14	0°7/17.4	17	
7 10	22 10.16	- 2 18.8	1.624	2.439	17.6	19.1	7 10	22 16.92	-12 14.8	1.584	2.423	16.9	22.2
7 20	22 7.68	- 2 30.8	1.544	2.438	14.3	18.9	7 20	22 13.37	-12 39.3	1.490	2.405	13.4	21.9
7 30	22 2.90	- 3 3.4	1.484	2.437	10.5	18.7	7 30	22 7.09	-13 17.6	1.416	2.387	9.2	21.7
8 9	21 56.35	- 3 55.2	1.445	2.437	6.4	18.4	8 9	21 58.54	-14 5.6	1.364	2.368	4.4	21.3
8 19	21 48.81	- 5 2.0	1.431	2.438	3.2	18.2	8 19	21 48.60	-14 57.5	1.338	2.350	1.1	21.0
8 29	21 41.32	- 6 17.2	1.443	2.438	5.2	18.4	8 29	21 38.48	-15 46.1	1.338	2.331	6.1	21.3
9 8	21 34.94	- 7 33.0	1.480	2.440	9.2	18.6	9 8	21 29.53	-16 25.2	1.363	2.311	11.1	21.6
9 18	21 30.49	- 8 42.5	1.540	2.442	13.2	18.8	9 18	21 22.84	-16 50.9	1.411	2.292	15.5	21.8
25287	1998 <i>WR</i> ₉		8 17.9 357°52	0°9/18.6	18		267636	2002 <i>ST</i> ₁₇		8 17.9 271°80	1°3/18.8	17	
7 10	22 12.15	- 8 55.6	1.619	2.455	16.7	18.3	7 10	22 14.87	- 7 37.6	1.647	2.472	16.9	21.5
7 20	22 9.26	- 9 6.4	1.542	2.454	13.3	18.1	7 20	22 11.59	- 7 51.6	1.551	2.456	13.6	21.3
7 30	22 3.98	- 9 31.7	1.484	2.452	9.2	17.8	7 30	22 5.77	- 8 22.1	1.475	2.439	9.6	21.0
8 9	21 56.88	-10 8.8	1.449	2.451	4.7	17.6	8 9	21 57.87	- 9 6.8	1.421	2.422	5.1	20.7
8 19	21 48.77	-10 52.8	1.439	2.451	0.9	17.3	8 19	21 48.68	-10 1.2	1.393	2.404	1.3	20.4
8 29	21 40.75	-11 38.1	1.455	2.451	5.1	17.6	8 29	21 39.34	-10 59.1	1.391	2.387	5.3	20.6
9 8	21 33.90	-12 18.7	1.496	2.452	9.6	17.9	9 8	21 31.06	-11 53.5	1.415	2.369	10.1	20.9
9 18	21 29.07	-12 50.3	1.560	2.453	13.5	18.1	9 18	21 24.86	-12 39.1	1.462	2.351	14.5	21.1
317957	2003 <i>WW</i> ₁₉₄		8 17.9 206°83	4°3/22.3	18		324465	2006 <i>UB</i> ₃₃		8 17.9 25°85	2°2/16.6</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
448536	2010 <i>PP</i> ₅₁	8 17.9 262°22' 6°2/12.1 18											
7 10	22 17.67	-30 57.7	2.336	3.175	12.1	21.1	358901	2008 <i>GZ</i> ₆₂	8 17.9 133°85' 1°8/19.9 18				
7 20	22 13.03	-31 49.4	2.261	3.169	9.8	20.9	7 10	22 12.96	-4 48.9	2.586	3.375	12.5	21.8
7 30	22 6.27	-32 38.3	2.209	3.162	7.6	20.8	7 20	22 8.86	-5 0.8	2.504	3.385	10.0	21.7
8 9	21 57.91	-33 18.2	2.183	3.155	6.3	20.7	7 30	22 3.18	-5 24.4	2.445	3.394	7.2	21.5
8 19	21 48.72	-33 43.6	2.183	3.149	6.6	20.7	8 9	21 56.36	-5 57.8	2.411	3.404	4.1	21.3
8 29	21 39.66	-33 50.6	2.209	3.142	8.4	20.8	8 19	21 48.96	-6 38.5	2.405	3.413	1.9	21.2
9 8	21 31.67	-33 38.2	2.261	3.135	10.8	20.9	8 29	21 41.64	-7 22.7	2.428	3.421	3.6	21.3
9 18	21 25.48	-33 7.5	2.334	3.128	13.1	21.1	9 8	21 35.07	-8 6.6	2.479	3.430	6.6	21.5
							9 18	21 29.80	-8 46.8	2.557	3.438	9.3	21.7
306174	2010 <i>OD</i> ₇₇	8 17.9 229°24' 10°2/ 3.4 18											
7 10	22 22.59	-48 35.4	2.721	3.515	11.8	20.9	270221	2001 <i>TN</i> ₁₆₉	8 17.9 256°54' 5°1/14.9 18				
7 20	22 17.32	-50 10.7	2.668	3.506	10.8	20.8	7 10	22 23.10	-25 2.2	1.705	2.550	15.6	20.2
7 30	22 9.45	-51 34.2	2.637	3.496	10.2	20.8	7 20	22 17.94	-25 28.2	1.627	2.544	12.4	20.0
8 9	21 59.54	-52 38.7	2.630	3.487	10.3	20.8	7 30	22 9.96	-25 54.6	1.570	2.538	8.8	19.8
8 19	21 48.52	-53 18.2	2.645	3.477	10.9	20.8	8 9	21 59.81	-26 14.5	1.538	2.532	5.8	19.6
8 29	21 37.59	-53 29.7	2.682	3.466	12.0	20.9	8 19	21 48.54	-26 21.6	1.531	2.526	5.4	19.6
9 8	21 27.96	-53 13.7	2.739	3.456	13.2	21.0	8 29	21 37.46	-26 11.4	1.551	2.520	8.3	19.7
9 18	21 20.54	-52 33.1	2.813	3.445	14.4	21.0	9 8	21 27.88	-25 42.6	1.595	2.514	11.9	19.9
							9 18	21 20.75	-24 57.0	1.663	2.507	15.3	20.1
178122	2006 <i>TS</i> ₂₅	8 17.9 264°69' 0°2/18.1 18											
7 10	22 13.45	-10 31.6	2.128	2.949	13.7	21.5	418846	2008 <i>WJ</i> ₆₀	8 17.9 291°49' 27°8/13.7 16				
7 20	22 9.75	-10 48.8	2.038	2.942	10.9	21.3	7 10	22 18.48	+16 51.5	0.909	1.676	31.3	23.6
7 30	22 4.08	-11 16.7	1.968	2.934	7.5	21.0	7 20	22 17.53	+21 2.4	0.819	1.638	30.1	23.2
8 9	21 56.90	-11 52.5	1.924	2.926	3.7	20.8	7 30	22 12.28	+25 8.6	0.740	1.599	28.8	22.9
8 19	21 48.86	-12 32.4	1.907	2.919	0.4	20.5	8 9	22 2.38	+28 54.4	0.675	1.559	28.0	22.7
8 29	21 40.82	-13 11.7	1.917	2.911	4.4	20.8	8 19	21 48.04	+31 58.8	0.622	1.518	28.0	22.4
9 8	21 33.67	-13 46.1	1.955	2.903	8.2	21.0	8 29	21 30.71	+33 59.7	0.582	1.477	29.3	22.3
9 18	21 28.10	-14 12.6	2.017	2.895	11.6	21.2	9 8	21 13.17	+34 44.5	0.554	1.436	31.7	22.2
							9 18	20 58.60	+34 13.6	0.534	1.394	35.0	22.1
266795	2009 <i>SL</i> ₃₀₇	8 17.9 246°79' 1°5/16.3 18											
7 10	22 12.26	-16 1.2	2.671	3.497	11.1	21.2	127984	2003 <i>HA</i> ₄₃	8 17.9 104°56' 1°0/18.8 18				
7 20	22 8.44	-16 35.5	2.577	3.487	8.7	21.1	7 10	22 14.85	-7 9.7	1.812	2.629	15.9	19.9
7 30	22 2.99	-17 16.1	2.507	3.477	5.8	20.9	7 20	22 11.01	-7 40.1	1.741	2.641	12.6	19.7
8 9	21 56.30	-17 59.4	2.463	3.466	2.9	20.7	7 30	22 4.98	-8 25.9	1.691	2.653	8.8	19.5
8 19	21 48.94	-18 41.5	2.448	3.456	1.8	20.6	8 9	21 57.33	-9 23.7	1.664	2.664	4.5	19.2
8 29	21 41.56	-19 18.5	2.461	3.445	4.5	20.7	8 19	21 48.85	-10 28.1	1.664	2.676	1.0	19.0
9 8	21 34.88	-19 47.3	2.502	3.434	7.5	20.9	8 29	21 40.53	-11 32.9	1.692	2.687	4.7	19.3
9 18	21 29.48	-20 6.0	2.568	3.423	10.2	21.1	9 8	21 33.34	-12 32.1	1.746	2.698	8.7	19.6
							9 18	21 28.01	-13 21.2	1.825	2.709	12.3	19.8
232256	2002 <i>PA</i> ₁₃₁	8 17.9 23°82' 2°9/15.9 18											
7 10	22 11.17	-15 57.0	1.270	2.141	18.3	19.3	35866	1999 <i>JM</i> ₆₈	8 17.9 90°65' 5°8/14.0 18				
7 20	22 8.98	-16 47.4	1.219	2.153	14.1	19.1	7 10	22 19.20	-22 31.7	1.386	2.249	17.5	18.6
7 30	22 3.99	-17 49.2	1.186	2.167	9.4	18.9	7 20	22 15.32	-23 41.8	1.328	2.256	13.7	18.4
8 9	21 56.92	-18 54.9	1.176	2.181	4.7	18.7	7 30	22 8.37	-24 57.3	1.290	2.264	9.7	18.2
8 19	21 48.87	-19 55.8	1.189	2.197	3.3	18.6	8 9	21 59.10	-26 8.5	1.275	2.271	6.3	18.0
8 29	21 41.16	-20 43.9	1.226	2.213	7.4	18.9	8 19	21 48.66	-27 5.6	1.284	2.279	6.3	18.0
9 8	21 35.05	-21 14.0	1.286	2.231	11.9	19.2	8 29	21 38.53	-27 41.0	1.318	2.286	9.5	18.2
9 18	21 31.36	-21 24.7	1.367	2.249	15.8	19.5	9 8	21 30.13	-27 51.8	1.375	2.293	13.4	18.5
							9 18	21 24.42	-27 39.2	1.452	2.301	17.0	18.7
68033	2000 <i>YQ</i> ₃₂	8 17.9 333°62' 0°3/17.7 18											
7 10	22 6.03	-9 46.1	1.058	1.936	20.6	18.2	234303	2001 <i>AA</i> ₁	8 17.9 229°11' 1°1/17.1 18				
7 20	22 5.80	-10 18.6	0.980	1.918	16.5	17.9	7 10	22 15.67	-13 52.4	1.879	2.713	14.8	21.0
7 30	22 2.46	-11 14.7	0.919	1.900	11.4	17.5	7 20	22 11.75	-14 17.8	1.797	2.711	11.6	20.7
8 9	21 56.49	-12 30.1	0.878	1.884	5.5	17.1	7 30	22 5.57	-14 53.0	1.737	2.708	7.8	20.5
8 19	21 48.89	-13 56.4	0.857	1.869	0.9	16.8	8 9	21 57.67	-15 33.6	1.701	2.705	3.7	20.3
8 29	21 41.15	-15 21.9	0.859	1.856	7.3	17.1	8 19	21 48.83	-16 14.7	1.692	2.702	1.4	20.1
9 8	21 34.94	-16 34.8	0.881	1.844	13.3	17.4	8 29	21 40.06	-16 51.0	1.710	2.700	5.3	20.4
9 18	21 31.52	-17 27.3	0.921	1.834	18.7	17.7	9 8	21 32.37	-17 18.0	1.754	2.697	9.4	20.6
							9 18	21 26.56	-17 33.5	1.821	2.693	12.9	20.8
380777	2005 <i>UZ</i> ₃₄₉	8 17.9 301°63' 5°8/13.2 18											
7 10	22 13.10	-21 24.8	1.484	2.351	16.3	20.5	321712	2010 <i>GN</i> ₁₂₄	8 17.9 280°82' 0°1/17.9 18				
7 20	22 10.76	-22 48.7	1.396	2.328	12.9	20.2	7 10	22 12.34	-9 27.7	1.876	2.704	15.1	20.7
7 30	22 5.54	-24 23.5	1.329	2.305	9.2	19.9	7 20	22 9.16	-10 5.9	1.792	2.700	11.9	20.4
8 9	21 57.90	-26 0.2	1.285	2.282	6.2	19.7	7 30	22 3.84	-10 58.5	1.728	2.696	8.2	20.2
8 19	21 48.72	-27 28.0	1.265	2.259	6.5	19.7	8 9	21 56.85	-12 1.6	1.689	2.692	4.0	20.0
8 29	21 39.33	-28 36.3	1.270	2.236	10.0	19.8	8 19	21 48.93	-13 10.0	1.676	2.688	0.5	19.7
9 8	21 31.19	-29 18.7	1.298	2.214	14.2	20.0	8 29	21 41.02	-14 17.0	1.690	2.684	4.9	20.0
9 18	21 25.49	-29 33.4	1.345	2.192	18.1	20.2	9 8	21 34.10	-15 16.6	1.731	2.680	9.0	20.2
							9 18	21 28.95	-16 4.5	1.796	2.676	12.7	20.5
513702	2012 <i>CL</i> ₄₂	8 17.9 358°58' 1°7/16.6 18											
7 10	22 18.16	-18 30.9	2.320	3.148	12.6	21.1	273928	2007 <i>JN</i> ₃	8 17.9 40°85' 6°3/23.6 18				
7 20	22 13.15	-18 32.3	2.238	3.147	9.8	20.9	7 10	22 10.51	+5 39.1	1.527	2.310	19.9	20.0
7 30	22 6.20	-18 36.8	2.178	3.147	6.6	20.7	7 20	22 8.04	+5 39.8	1.458	2.320	16.8	19.8
8 9	21 57.84	-18 41.3	2.145	3.147	3.3	20.5	7 30	22 3.19	+5 12.9	1.405	2.331	13.2	19.6
8 19	21 48.76	-18 42.3	2.139	3.147	1.9	20.4	8 9	21 56.56	+4 18.1	1.373	2.342	9.5	19.5
8 29	21 39.83	-18 37.2	2.162	3.147	4.9	20.6	8 19	21 48.98	+2 58.5	1.364	2.354	6.7	19.3
9 8	21 31.88	-18 24.2	2.213	3.147	8.2	20.8	8 29	21 41.54	+1 21.1	1.380	2.366	6.9	19.4
9 18	21 25.58	-18 2.7	2.289	3.147	11.2	21.0	9 8	21 35.33	-0 24.4	1.420	2.379	9.7	19.6
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
208574	2002 <i>CR</i> ₃₂		8 17.9 229°82	3°9/15.4	17		19898	1177 <i>T</i> ₋₃		8 17.9 142°14	2°1/20.1	18	R
7 10	22 20.79	-19 54.1	1.569	2.417	16.5	20.5	7 10	22 13.64	-4 29.3	2.756	3.537	11.9	18.6
7 20	22 16.40	-20 34.9	1.489	2.410	13.0	20.2	7 20	22 9.30	-4 28.9	2.671	3.546	9.6	18.4
7 30	22 9.11	-21 22.8	1.430	2.403	9.0	20.0	7 30	22 3.45	-4 39.0	2.609	3.555	7.0	18.3
8 9	21 59.51	-22 10.6	1.394	2.395	5.1	19.7	8 9	21 56.52	-4 58.4	2.573	3.563	4.1	18.1
8 19	21 48.62	-22 50.9	1.384	2.387	4.3	19.7	8 19	21 49.03	-5 25.1	2.564	3.570	2.1	18.0
8 29	21 37.79	-23 16.8	1.400	2.378	7.9	19.9	8 29	21 41.62	-5 56.1	2.585	3.578	3.5	18.1
9 8	21 28.40	-23 24.6	1.440	2.369	12.1	20.1	9 8	21 34.91	-6 28.2	2.635	3.585	6.3	18.3
9 18	21 21.48	-23 13.9	1.502	2.360	16.0	20.3	9 18	21 29.43	-6 58.4	2.711	3.591	8.9	18.4
350438	2012 <i>WM</i>		8 17.9 314°40	6°2/12.7	18		63002	2000 <i>WH</i> ₂₂		8 17.9 236°79	3°9/22.1	18	
7 10	22 16.90	-26 54.8	1.844	2.697	14.3	20.1	7 10	22 11.21	+1 44.0	2.504	3.266	13.5	19.3
7 20	22 12.93	-28 2.1	1.776	2.696	11.3	19.9	7 20	22 7.72	+1 41.6	2.404	3.258	11.3	19.2
7 30	22 6.48	-29 10.1	1.730	2.694	8.4	19.7	7 30	22 2.59	+1 23.5	2.324	3.250	8.7	19.0
8 9	21 58.14	-30 11.0	1.708	2.693	6.4	19.6	8 9	21 56.20	+0 50.0	2.268	3.242	6.0	18.8
8 19	21 48.80	-30 57.3	1.712	2.693	6.7	19.6	8 19	21 49.08	+0 2.9	2.239	3.233	4.0	18.7
8 29	21 39.62	-31 23.3	1.742	2.692	9.1	19.8	8 29	21 41.92	-0 54.4	2.238	3.224	4.6	18.7
9 8	21 31.72	-31 27.1	1.796	2.691	12.1	19.9	9 8	21 35.44	-1 57.2	2.264	3.215	7.1	18.8
9 18	21 25.95	-31 9.5	1.871	2.690	14.9	20.1	9 18	21 30.24	-3 0.7	2.317	3.206	9.8	19.0
121824	2000 <i>BU</i> ₉		8 17.9 89°03	0°4/17.5	18		211880	2004 <i>HO</i> ₅₆		8 17.9 2°84	11°2/28.5	17	
7 10	22 12.23	-11 34.1	2.570	3.386	11.8	20.3	7 10	22 7.44	+17 20.5	1.022	1.788	28.6	20.3
7 20	22 8.27	-12 10.8	2.503	3.406	9.2	20.2	7 20	22 6.90	+17 5.8	0.953	1.790	25.5	20.0
7 30	22 2.77	-12 55.9	2.459	3.425	6.2	20.0	7 30	22 3.17	+15 57.5	0.895	1.793	21.5	19.8
8 9	21 56.17	-13 45.9	2.441	3.444	2.9	19.8	8 9	21 56.85	+13 48.9	0.851	1.796	17.1	19.5
8 19	21 49.05	-14 37.0	2.451	3.463	0.6	19.7	8 19	21 48.99	+10 40.5	0.826	1.800	12.9	19.3
8 29	21 42.07	-15 25.0	2.491	3.481	3.8	19.9	8 29	21 41.18	+6 45.1	0.823	1.804	11.2	19.3
9 8	21 35.89	-16 6.5	2.558	3.500	6.9	20.2	9 8	21 35.04	+2 27.3	0.842	1.809	13.2	19.4
9 18	21 31.02	-16 39.2	2.652	3.518	9.6	20.4	9 18	21 31.76	-1 45.5	0.885	1.814	17.4	19.6
320004	2007 <i>DY</i> ₃₃		8 17.9 354°24	2°8/20.9	18		194980	2002 <i>AS</i> ₂₀₃		8 17.9 338°24	0°7/17.5	18	
7 10	22 8.09	-0 16.7	2.010	2.805	15.3	20.3	7 10	22 15.86	-13 44.5	1.526	2.373	17.0	20.4
7 20	22 5.67	-0 54.9	1.922	2.802	12.6	20.1	7 20	22 12.44	-13 51.4	1.448	2.368	13.4	20.2
7 30	22 1.38	-1 53.6	1.854	2.800	9.3	19.9	7 30	22 6.34	-14 8.8	1.390	2.363	9.1	19.9
8 9	21 55.65	-3 10.8	1.810	2.799	5.7	19.7	8 9	21 58.17	-14 32.8	1.355	2.359	4.4	19.6
8 19	21 49.12	-4 42.0	1.792	2.798	2.9	19.5	8 19	21 48.85	-14 58.3	1.344	2.355	1.1	19.4
8 29	21 42.59	-6 20.9	1.802	2.797	4.4	19.6	8 29	21 39.63	-15 19.7	1.359	2.352	5.9	19.7
9 8	21 36.91	-7 59.8	1.839	2.796	7.9	19.8	9 8	21 31.74	-15 32.7	1.398	2.349	10.6	20.0
9 18	21 32.77	-9 31.9	1.901	2.797	11.3	20.0	9 18	21 26.12	-15 34.7	1.460	2.347	14.7	20.2
296078	2009 <i>BF</i> ₉		8 17.9 201°39	1°4/19.1	18		421077	2013 <i>QT</i> ₃₅		8 17.9 121°69	4°2/20.7	17	
7 10	22 15.37	-7 38.3	2.119	2.926	14.3	21.3	7 10	22 17.94	-2 31.3	1.578	2.382	18.5	21.5
7 20	22 11.22	-7 41.3	2.031	2.924	11.4	21.1	7 20	22 13.84	-2 8.0	1.502	2.387	15.2	21.3
7 30	22 5.07	-7 56.2	1.964	2.922	8.0	20.9	7 30	22 7.17	-2 3.0	1.446	2.393	11.3	21.1
8 9	21 57.41	-8 20.9	1.922	2.920	4.3	20.6	8 9	21 58.53	-2 15.8	1.411	2.398	7.2	20.9
8 19	21 48.91	-8 52.3	1.907	2.917	1.4	20.4	8 19	21 48.82	-2 44.2	1.400	2.403	4.2	20.7
8 29	21 40.45	-9 26.4	1.920	2.914	4.2	20.6	8 29	21 39.24	-3 23.6	1.416	2.408	5.8	20.8
9 8	21 32.90	-9 59.0	1.960	2.911	8.0	20.8	9 8	21 30.95	-4 7.7	1.457	2.413	9.7	21.1
9 18	21 26.99	-10 26.6	2.025	2.908	11.4	21.1	9 18	21 24.85	-4 50.6	1.522	2.418	13.6	21.3
102843	1999 <i>VZ</i> ₁₉₇		8 17.9 278°59	2°8/15.1	18		395731	2012 <i>UA</i> ₄₈		8 17.9 196°35	3°9/14.1	18	
7 10	22 12.06	-18 23.9	2.269	3.109	12.4	20.1	7 10	22 17.53	-23 20.5	2.432	3.266	11.9	22.2
7 20	22 8.66	-19 19.0	2.182	3.100	9.6	19.9	7 20	22 12.78	-24 12.9	2.351	3.263	9.3	22.0
7 30	22 3.35	-20 20.9	2.119	3.091	6.5	19.7	7 30	22 6.07	-25 7.8	2.294	3.259	6.6	21.9
8 9	21 56.59	-21 24.5	2.081	3.082	3.6	19.5	8 9	21 57.88	-25 59.7	2.263	3.255	4.3	21.7
8 19	21 49.00	-22 24.4	2.070	3.073	3.2	19.4	8 19	21 48.91	-26 43.4	2.260	3.251	4.3	21.7
8 29	21 41.41	-23 15.0	2.088	3.063	5.9	19.6	8 29	21 39.99	-27 14.4	2.285	3.246	6.5	21.8
9 8	21 34.65	-23 52.5	2.132	3.054	9.1	19.8	9 8	21 31.98	-27 30.3	2.337	3.240	9.3	22.0
9 18	21 29.42	-24 15.1	2.199	3.045	12.0	20.0	9 18	21 25.58	-27 30.6	2.413	3.234	11.9	22.2
316009	2009 <i>FE</i> ₃		8 17.9 170°93	0°6/17.5	17		375246	2008 <i>GH</i> ₅₁		8 17.9 233°89	2°2/16.3	17	
7 10	22 17.58	-11 12.9	1.584	2.418	17.1	21.6	7 10	22 18.42	-15 59.1	1.803	2.639	15.2	22.0
7 20	22 13.64	-11 50.1	1.508	2.420	13.4	21.4	7 20	22 14.19	-16 37.2	1.713	2.628	12.0	21.8
7 30	22 7.08	-12 41.9	1.452	2.422	9.1	21.1	7 30	22 7.45	-17 25.0	1.645	2.617	8.1	21.5
8 9	21 58.49	-13 43.6	1.420	2.424	4.3	20.9	8 9	21 58.71	-18 17.3	1.602	2.605	4.0	21.3
8 19	21 48.78	-14 48.4	1.413	2.425	1.0	20.6	8 19	21 48.81	-19 7.7	1.585	2.593	2.5	21.1
8 29	21 39.17	-15 48.8	1.433	2.425	5.8	21.0	8 29	21 38.86	-19 49.8	1.595	2.580	6.3	21.4
9 8	21 30.87	-16 38.6	1.479	2.426	10.4	21.2	9 8	21 30.03	-20 19.0	1.632	2.567	10.5	21.6
9 18	21 24.79	-17 13.9	1.548	2.426	14.5	21.5	9 18	21 23.26	-20 32.9	1.691	2.553	14.3	21.8
467394	2005 <i>EH</i> ₈₉		8 17.9 49°62	2°9/19.9	16		513008	2017 <i>UO</i> ₄₆		8 17.9 86°93	4°8/14.4	17	
7 10	22 15.03	-4 31.3	1.229	2.066	20.9	21.4	7 10	22 17.12	-20 22.3	1.500	2.358	16.7	20.8
7 20	22 11.98	-4 35.1	1.175	2.083	16.8	21.1	7 20	22 13.46	-21 34.6	1.439	2.366	13.0	20.6
7 30	22 6.03	-5 1.2	1.138	2.101	12.0	20.9	7 30	22 7.02	-22 54.3	1.400	2.374	8.9	20.4
8 9	21 57.95	-5 46.9	1.122	2.119	6.8	20.7	8 9	21 58.47	-24 12.5	1.383	2.382	5.5	20.2
8 19	21 48.86	-6 46.2	1.129	2.138	2.9	20.5	8 19	21 48.85	-25 20.1	1.392	2.390	5.3	20.2
8 29	21 40.13	-7 51.0	1.161	2.158	5.8	20.8	8 29	21 39.47	-26 9.5	1.427	2.398	8.6	20.5
9 8	21 33.07	-8 52.7	1.215	2.177	10.6	21.1	9 8	21 31.60	-26 36.6	1.485	2.406	12.4	20.7
9 18	21 28.54	-9 45.0	1.292	2.197	14.9	21.4	9 18	21 26.15	-26 41.4	1.564	2.414	15.9	20.9
368881	2006 <i>SL</i>		8 17.9 348°39	4°0/19.6	17		322131	2010 <i>VL</i> ₁₈₂		8 17.9 285°45	2°9/14.9	18	
7 10													

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
42111	2001 <i>AZ</i> ₄₆		8 17.9 301°37	19°1/28.5	18		515655	2014 <i>OP</i> ₈₄		8 17.9 193°91	2°9/14.8	18	
7 10	22 32.09	-53 59.9	1.383	2.195	20.2	18.1	7 10	22 12.37	-19 10.4	2.444	3.281	11.7	21.6
7 20	22 28.54	-56 18.8	1.331	2.170	19.4	18.0	7 20	22 8.72	-20 7.8	2.365	3.281	9.1	21.5
7 30	22 19.35	-58 17.0	1.295	2.146	19.2	17.9	7 30	22 3.31	-21 10.7	2.309	3.280	6.2	21.3
8 9	22 5.17	-59 37.3	1.276	2.121	19.6	17.9	8 9	21 56.58	-22 14.0	2.279	3.279	3.5	21.1
8 19	21 48.05	-60 5.4	1.274	2.096	20.8	17.9	8 19	21 49.14	-23 12.7	2.278	3.278	3.2	21.1
8 29	21 31.30	-59 34.8	1.286	2.072	22.4	17.9	8 29	21 41.74	-24 1.9	2.305	3.277	5.7	21.2
9 8	21 18.10	-58 9.0	1.312	2.048	24.2	18.0	9 8	21 35.15	-24 38.2	2.358	3.276	8.6	21.4
9 18	21 10.22	-55 58.4	1.350	2.025	26.0	18.1	9 18	21 29.99	-25 0.1	2.436	3.275	11.2	21.6
519740	2013 <i>CK</i> ₂₂₆		8 17.9 53°68	2°1/19.9	18		339384	2005 <i>BZ</i> ₁		8 17.9 315°57	1°1/18.6	18	
7 10	22 11.86	- 4 53.0	2.099	2.904	14.5	21.3	7 10	22 13.69	-10 18.0	1.457	2.302	17.8	20.3
7 20	22 8.43	- 5 3.0	2.022	2.912	11.6	21.2	7 20	22 11.26	-10 6.0	1.352	2.269	14.4	19.9
7 30	22 3.14	- 5 27.2	1.966	2.920	8.3	21.0	7 30	22 6.00	-10 6.9	1.265	2.235	10.2	19.6
8 9	21 56.48	- 6 3.4	1.935	2.929	4.8	20.8	8 9	21 58.29	-10 19.1	1.200	2.202	5.3	19.2
8 19	21 49.11	- 6 48.5	1.929	2.937	2.1	20.6	8 19	21 48.92	-10 39.2	1.158	2.170	1.1	18.9
8 29	21 41.85	- 7 37.9	1.951	2.946	4.1	20.8	8 29	21 39.15	-11 2.2	1.141	2.138	6.0	19.1
9 8	21 35.50	- 8 26.6	2.000	2.955	7.6	21.0	9 8	21 30.44	-11 22.3	1.148	2.107	11.4	19.3
9 18	21 30.70	- 9 10.6	2.075	2.964	10.8	21.2	9 18	21 24.05	-11 35.1	1.176	2.076	16.4	19.5
17189	1999 <i>WU</i> ₃		8 17.9 140°33	4°0/21.1	18		353447	2011 <i>QB</i> ₉₃		8 17.9 290°48	0°8/18.5	16	
7 10	22 15.40	- 0 39.3	1.700	2.495	17.7	18.0	7 10	22 15.89	-10 22.4	1.930	2.752	14.9	21.4
7 20	22 11.70	- 0 39.5	1.621	2.500	14.6	17.8	7 20	22 12.07	-10 17.4	1.828	2.731	11.9	21.1
7 30	22 5.65	- 0 59.9	1.561	2.505	10.9	17.5	7 30	22 5.96	-10 22.7	1.746	2.711	8.4	20.9
8 9	21 57.80	- 1 39.7	1.524	2.509	7.0	17.3	8 9	21 58.02	-10 36.2	1.689	2.690	4.3	20.6
8 19	21 48.96	- 2 35.7	1.511	2.514	4.1	17.2	8 19	21 48.97	-10 55.0	1.658	2.670	0.8	20.3
8 29	21 40.19	- 3 42.3	1.525	2.518	5.5	17.3	8 29	21 39.79	-11 15.0	1.654	2.649	4.8	20.5
9 8	21 32.58	- 4 52.1	1.565	2.522	9.1	17.5	9 8	21 31.52	-11 32.2	1.677	2.629	9.0	20.7
9 18	21 26.94	- 5 58.5	1.629	2.525	12.9	17.7	9 18	21 25.06	-11 43.4	1.724	2.608	12.9	20.9
476070	2007 <i>SP</i> ₂₂		8 17.9 238°39	9°1/10.6	18		513319	2007 <i>EF</i> ₂		8 17.9 271°85	2°2/20.4	18	
7 10	22 23.80	-37 20.8	1.992	2.826	14.1	21.2	7 10	22 10.42	- 2 57.1	2.325	3.118	13.6	21.6
7 20	22 18.41	-38 25.0	1.929	2.822	11.9	21.0	7 20	22 7.22	- 3 19.3	2.235	3.116	11.0	21.4
7 30	22 10.23	-39 21.4	1.886	2.818	10.0	20.9	7 30	22 2.31	- 3 56.5	2.166	3.114	8.0	21.2
8 9	21 59.98	-40 1.3	1.868	2.814	9.1	20.8	8 9	21 56.12	- 4 47.0	2.122	3.113	4.8	21.0
8 19	21 48.71	-40 17.9	1.874	2.810	9.6	20.8	8 19	21 49.21	- 5 47.5	2.104	3.111	2.3	20.8
8 29	21 37.73	-40 7.1	1.904	2.806	11.3	20.9	8 29	21 42.31	- 6 53.5	2.115	3.110	3.9	21.0
9 8	21 28.30	-39 29.6	1.958	2.802	13.5	21.1	9 8	21 36.17	- 7 59.6	2.154	3.108	7.1	21.2
9 18	21 21.30	-38 28.9	2.032	2.798	15.7	21.2	9 18	21 31.40	- 9 1.1	2.218	3.106	10.3	21.3
82203	2001 <i>HH</i> ₃₈		8 17.9 25°07	1°2/17.1	18		330632	2008 <i>EV</i> ₈₃		8 17.9 153°25	0°7/17.5	17	
7 10	22 12.30	-12 14.8	1.188	2.054	19.6	18.4	7 10	22 19.16	-12 39.4	1.830	2.656	15.5	21.9
7 20	22 10.14	-12 52.6	1.131	2.061	15.3	18.2	7 20	22 14.48	-13 5.0	1.755	2.663	12.1	21.7
7 30	22 4.99	-13 47.1	1.091	2.070	10.3	17.9	7 30	22 7.46	-13 41.3	1.701	2.669	8.2	21.5
8 9	21 57.57	-14 51.7	1.073	2.079	4.9	17.7	8 9	21 58.66	-14 24.0	1.671	2.675	3.9	21.2
8 19	21 48.99	-15 57.9	1.078	2.089	1.6	17.5	8 19	21 48.94	-15 7.8	1.669	2.680	1.0	21.0
8 29	21 40.70	-16 56.4	1.107	2.100	6.8	17.8	8 29	21 39.37	-15 47.3	1.694	2.685	5.2	21.3
9 8	21 34.07	-17 40.3	1.158	2.112	11.9	18.2	9 8	21 30.99	-16 17.9	1.746	2.689	9.4	21.6
9 18	21 30.04	-18 6.1	1.230	2.125	16.3	18.5	9 18	21 24.62	-16 37.2	1.821	2.693	13.0	21.8
94131	2000 <i>YH</i> ₁₁₅		8 17.9 218°23	3°2/14.4	18		443518	2014 <i>JY</i> ₅₈		8 17.9 32°11	5°8/12.2	18	
7 10	22 12.01	-19 16.4	2.378	3.217	11.9	19.6	7 10	22 10.91	-22 23.8	1.692	2.557	14.8	20.1
7 20	22 8.52	-20 24.9	2.298	3.215	9.2	19.5	7 20	22 8.36	-24 17.0	1.640	2.569	11.5	19.9
7 30	22 3.22	-21 39.5	2.242	3.213	6.3	19.3	7 30	22 3.44	-26 15.5	1.610	2.582	8.2	19.8
8 9	21 56.54	-22 54.8	2.212	3.211	3.7	19.1	8 9	21 56.76	-28 9.5	1.605	2.596	6.0	19.7
8 19	21 49.11	-24 5.0	2.210	3.208	3.6	19.1	8 19	21 49.16	-29 49.3	1.626	2.610	6.5	19.7
8 29	21 41.70	-25 4.7	2.236	3.206	6.0	19.3	8 29	21 41.73	-31 7.1	1.673	2.625	9.2	19.9
9 8	21 35.10	-25 50.0	2.289	3.203	9.0	19.4	9 8	21 35.55	-31 59.0	1.743	2.641	12.3	20.2
9 18	21 29.96	-26 19.4	2.366	3.201	11.7	19.6	9 18	21 31.38	-32 25.0	1.835	2.656	15.1	20.4
511315	2014 <i>DY</i> ₁₁₇		8 17.9 222°27	2°7/15.7	18		220426	2003 <i>SD</i> ₃₂₉		8 17.9 154°82	5°1/24.6	18	
7 10	22 16.27	-18 13.7	1.991	2.830	13.9	21.9	7 10	22 9.76	+ 8 19.9	2.674	3.395	13.7	20.8
7 20	22 12.17	-18 53.0	1.910	2.826	10.8	21.7	7 20	22 6.46	+ 8 7.0	2.580	3.398	11.7	20.6
7 30	22 5.87	-19 39.0	1.851	2.823	7.4	21.5	7 30	22 1.68	+ 7 35.3	2.506	3.400	9.4	20.5
8 9	21 57.87	-20 26.3	1.816	2.818	3.9	21.3	8 9	21 55.78	+ 6 45.0	2.455	3.403	7.1	20.3
8 19	21 48.96	-21 9.3	1.809	2.814	3.0	21.2	8 19	21 49.27	+ 5 37.7	2.430	3.405	5.4	20.2
8 29	21 40.10	-21 42.8	1.829	2.810	6.1	21.4	8 29	21 42.79	+ 4 16.9	2.432	3.407	5.3	20.2
9 8	21 32.31	-22 3.1	1.876	2.805	9.7	21.6	9 8	21 36.96	+ 2 47.9	2.463	3.409	6.9	20.3
9 18	21 26.35	-22 9.0	1.945	2.800	13.0	21.8	9 18	21 32.32	+ 1 16.3	2.522	3.410	9.2	20.5
403702	2010 <i>VR</i> ₁₅₀		8 17.9 242°91	3°9/13.9	18		308653	2006 <i>BY</i> ₆₀		8 17.9 179°93	0°6/18.4	18	
7 10	22 13.35	-22 44.3	2.409	3.250	11.7	21.3	7 10	22 20.68	-11 12.9	2.047	2.858	14.6	20.4
7 20	22 9.56	-23 41.4	2.329	3.246	9.1	21.1	7 20	22 15.44	-11 6.3	1.962	2.859	11.6	20.2
7 30	22 3.92	-24 41.7	2.273	3.241	6.4	20.9	7 30	22 8.00	-11 8.4	1.898	2.860	8.0	19.9
8 9	21 56.88	-25 39.9	2.243	3.237	4.2	20.8	8 9	21 58.91	-11 16.8	1.859	2.860	4.0	19.7
8 19	21 49.08	-26 30.6	2.240	3.232	4.3	20.8	8 19	21 48.93	-11 28.7	1.848	2.860	0.6	19.4
8 29	21 41.33	-27 9.0	2.265	3.227	6.5	20.9	8 29	21 39.04	-11 40.4	1.866	2.859	4.5	19.7
9 8	21 34.42	-27 32.6	2.317	3.223	9.2	21.1	9 8	21 30.23	-11 48.8	1.911	2.858	8.4	20.0
9 18	21 29.03	-27 40.3	2.391	3.218	11.8	21.2	9 18	21 23.25	-11 51.7	1.981	2.856	11.9	20.2
285142	1995 <i>UG</i> ₁		8 17.9 329°17	5°6/14.7	18		494215	2016 <i>JX</i> ₆					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
94247	2001 CA ₁₈		8 17.9 213°02	0°3/18.3	18		181987	1999 VQ ₁₀₈		8 17.9 194°50	2°3/16.2	17	
7 10	22 12.40	- 9 42.8	2.646	3.454	11.7	20.8	7 10	22 18.26	-16 8.7	1.812	2.649	15.1	21.4
7 20	22 8.56	-10 6.8	2.552	3.449	9.3	20.6	7 20	22 13.97	-16 53.6	1.732	2.648	11.8	21.2
7 30	22 3.12	-10 40.3	2.482	3.444	6.4	20.4	7 30	22 7.25	-17 47.9	1.674	2.646	8.0	21.0
8 9	21 56.50	-11 20.7	2.437	3.438	3.2	20.2	8 9	21 58.65	-18 45.9	1.640	2.643	4.0	20.8
8 19	21 49.21	-12 4.8	2.421	3.433	0.4	20.0	8 19	21 49.00	-19 41.2	1.633	2.640	2.7	20.7
8 29	21 41.92	-12 48.7	2.434	3.427	3.6	20.3	8 29	21 39.41	-20 27.3	1.653	2.637	6.3	20.9
9 8	21 35.31	-13 28.8	2.475	3.421	6.8	20.4	9 8	21 30.99	-20 59.8	1.699	2.633	10.3	21.1
9 18	21 29.96	-14 2.3	2.542	3.414	9.7	20.6	9 18	21 24.61	-21 16.5	1.769	2.628	13.9	21.3
7000	Curie		8 17.9 331°79	10°2/10.6	18		400973	2010 XK ₁₉		8 17.9 275°14	8°1/24.3	17	
7 10	22 9.92	-28 50.3	1.130	2.022	18.5	15.5	7 10	22 17.46	+10 35.5	2.546	3.239	14.9	20.6
7 20	22 9.29	-30 24.2	1.057	1.997	15.2	15.3	7 20	22 12.75	+11 53.7	2.439	3.225	13.2	20.4
7 30	22 5.15	-32 1.9	1.002	1.973	12.0	15.0	7 30	22 6.16	+12 57.2	2.352	3.211	11.3	20.3
8 9	21 58.01	-33 30.2	0.967	1.951	10.2	14.8	8 9	21 58.08	+13 43.1	2.288	3.198	9.5	20.1
8 19	21 49.00	-34 34.9	0.953	1.929	11.2	14.8	8 19	21 49.07	+14 9.2	2.249	3.184	8.3	20.1
8 29	21 39.89	-35 4.6	0.959	1.910	14.5	14.9	8 29	21 39.88	+14 15.0	2.235	3.170	8.2	20.0
9 8	21 32.56	-34 55.2	0.983	1.891	18.4	15.1	9 8	21 31.34	+14 2.8	2.248	3.156	9.4	20.1
9 18	21 28.41	-34 8.9	1.024	1.875	22.2	15.3	9 18	21 24.16	+13 36.5	2.286	3.142	11.3	20.2
32008	Adriángalád		8 17.9 331°05	7°3/22.2	18		362876	2012 BJ ₉₂		8 17.9 54°00	0°4/17.6	18	
7 10	22 7.57	+ 0 37.4	1.056	1.899	23.2	17.1	7 10	22 12.13	-12 0.1	2.269	3.094	12.9	21.2
7 20	22 7.05	+ 1 26.3	0.976	1.881	19.7	16.8	7 20	22 8.56	-12 27.4	2.191	3.099	10.1	21.0
7 30	22 3.42	+ 1 48.9	0.911	1.864	15.5	16.5	7 30	22 3.23	-13 3.8	2.136	3.104	6.8	20.8
8 9	21 57.13	+ 1 41.5	0.863	1.848	11.0	16.2	8 9	21 56.58	-13 46.1	2.105	3.109	3.2	20.6
8 19	21 49.11	+ 1 3.6	0.834	1.833	7.6	16.0	8 19	21 49.25	-14 30.1	2.102	3.114	0.7	20.4
8 29	21 40.87	- 0 0.1	0.826	1.820	8.5	16.0	8 29	21 42.01	-15 11.6	2.128	3.119	4.2	20.7
9 8	21 34.09	- 1 19.3	0.839	1.808	12.8	16.2	9 8	21 35.63	-15 46.5	2.180	3.125	7.7	20.9
9 18	21 30.09	- 2 42.1	0.870	1.797	17.8	16.4	9 18	21 30.72	-16 12.3	2.257	3.130	10.7	21.1
38571	1999 VH ₂₁₁		8 17.9 56°91	0°9/17.3	18		381145	2007 FX ₅		8 17.9 205°84	0°8/17.3	17	
7 10	22 14.62	-14 8.1	2.095	2.925	13.6	18.8	7 10	22 16.55	-12 17.8	1.999	2.823	14.4	22.5
7 20	22 10.59	-14 25.1	2.024	2.935	10.6	18.6	7 20	22 12.40	-12 55.2	1.912	2.819	11.3	22.3
7 30	22 4.61	-14 49.8	1.976	2.946	7.1	18.4	7 30	22 6.07	-13 44.0	1.846	2.814	7.7	22.0
8 9	21 57.23	-15 18.5	1.952	2.956	3.4	18.2	8 9	21 58.05	-14 39.9	1.806	2.809	3.7	21.8
8 19	21 49.14	-15 47.1	1.956	2.967	1.1	18.1	8 19	21 49.08	-15 37.8	1.792	2.803	1.1	21.6
8 29	21 41.24	-16 11.7	1.987	2.978	4.6	18.4	8 29	21 40.10	-16 31.6	1.807	2.797	5.1	21.8
9 8	21 34.34	-16 29.0	2.045	2.989	8.2	18.6	9 8	21 32.10	-17 16.4	1.849	2.790	9.1	22.1
9 18	21 29.11	-16 37.1	2.128	3.000	11.3	18.8	9 18	21 25.88	-17 49.1	1.915	2.783	12.6	22.3
473325	2015 SR ₁₉		8 17.9 303°67	4°2/13.6	18		221906	2008 LN ₉		8 17.9 350°49	6°7/12.2	18	
7 10	22 12.09	-22 34.7	2.263	3.110	12.2	21.1	7 10	22 9.53	-25 34.8	1.570	2.443	15.3	19.0
7 20	22 8.77	-23 40.1	2.182	3.102	9.5	20.9	7 20	22 7.68	-26 55.0	1.501	2.434	12.1	18.7
7 30	22 3.51	-24 49.6	2.125	3.094	6.7	20.7	7 30	22 3.24	-28 18.6	1.454	2.426	9.0	18.5
8 9	21 56.77	-25 57.4	2.093	3.087	4.5	20.5	8 9	21 56.79	-29 36.5	1.430	2.419	6.9	18.4
8 19	21 49.20	-26 57.3	2.088	3.079	4.6	20.5	8 19	21 49.21	-30 39.8	1.430	2.413	7.4	18.4
8 29	21 41.64	-27 44.1	2.111	3.072	7.0	20.7	8 29	21 41.73	-31 20.9	1.454	2.409	10.1	18.6
9 8	21 34.95	-28 14.5	2.159	3.065	9.8	20.8	9 8	21 35.54	-31 36.5	1.500	2.405	13.4	18.8
9 18	21 29.84	-28 27.4	2.230	3.058	12.5	21.0	9 18	21 31.55	-31 26.8	1.566	2.403	16.5	19.0
297112	2010 PS ₇₄		8 17.9 30°71	0°2/17.9	17		5625	Jamesferguson		8 17.9 311°46	4°0/21.5	18	R
7 10	22 17.37	-12 55.8	1.040	1.909	21.6	20.0	7 10	22 8.98	+ 0 26.4	1.656	2.460	17.7	17.0
7 20	22 14.42	-12 47.4	0.988	1.920	17.0	19.8	7 20	22 7.02	+ 0 10.6	1.556	2.440	14.8	16.7
7 30	22 8.04	-12 53.0	0.953	1.931	11.6	19.5	7 30	22 2.75	- 0 29.3	1.475	2.421	11.2	16.5
8 9	21 59.10	-13 8.3	0.938	1.943	5.6	19.3	8 9	21 56.59	- 1 33.0	1.415	2.401	7.3	16.2
8 19	21 48.94	-13 27.0	0.945	1.957	0.7	19.0	8 19	21 49.24	- 2 57.4	1.379	2.382	4.2	16.0
8 29	21 39.26	-13 42.5	0.975	1.971	6.8	19.4	8 29	21 41.71	- 4 36.0	1.369	2.364	5.5	16.0
9 8	21 31.61	-13 49.8	1.026	1.986	12.3	19.8	9 8	21 35.11	- 6 19.4	1.384	2.346	9.6	16.2
9 18	21 26.98	-13 46.2	1.097	2.002	17.0	20.1	9 18	21 30.39	- 7 58.6	1.423	2.328	13.8	16.4
306517	1999 WY		8 17.9 340°17	26°1/5.6	18		300636	2007 UT ₅₅		8 17.9 339°89	3°7/15.1	18	
7 10	22 17.49	+14 26.9	1.061	1.823	28.0	17.2	7 10	22 15.01	-20 7.4	1.740	2.592	15.0	20.7
7 20	22 16.11	+19 49.4	0.969	1.779	27.0	16.9	7 20	22 11.55	-20 52.3	1.665	2.589	11.7	20.5
7 30	22 10.84	+25 17.6	0.896	1.737	26.3	16.7	7 30	22 5.65	-21 43.2	1.612	2.586	8.0	20.3
8 9	22 1.53	+30 32.6	0.841	1.698	26.2	16.5	8 9	21 57.88	-22 33.9	1.582	2.583	4.6	20.1
8 19	21 48.53	+35 10.6	0.804	1.662	26.9	16.3	8 19	21 49.11	-23 17.5	1.579	2.580	4.1	20.0
8 29	21 33.28	+38 49.5	0.784	1.628	28.4	16.3	8 29	21 40.45	-23 48.2	1.601	2.578	7.2	20.2
9 8	21 18.24	+41 18.1	0.776	1.599	30.3	16.3	9 8	21 32.99	-24 2.5	1.648	2.576	10.9	20.4
9 18	21 6.12	+42 37.8	0.779	1.573	32.3	16.3	9 18	21 27.60	-23 59.5	1.717	2.574	14.3	20.6
363378	2002 TX ₃₆₈		8 17.9 356°35	4°7/22.2	16		212976	2009 BK ₁₆₇		8 17.9 222°43	2°3/19.7	17	
7 10	21 53.78	+ 1 34.8	0.971	1.837	23.0	19.5	7 10	22 15.66	- 4 17.8	1.548	2.365	18.2	21.1
7 20	21 56.07	+ 1 12.3	0.903	1.824	19.2	19.3	7 20	22 12.32	- 4 37.3	1.463	2.360	14.8	20.8
7 30	21 55.74	+ 0 11.1	0.849	1.814	14.6	19.0	7 30	22 6.37	- 5 17.5	1.397	2.355	10.6	20.6
8 9	21 53.29	- 1 28.7	0.814	1.808	9.5	18.7	8 9	21 58.33	- 6 16.4	1.353	2.349	6.0	20.3
8 19	21 49.59	- 3 40.3	0.797	1.804	5.1	18.4	8 19	21 49.05	- 7 29.1	1.334	2.343	2.3	20.0
8 29	21 45.95	- 6 10.0	0.802	1.803	6.4	18.5	8 29	21 39.73	- 8 47.9	1.341	2.337	5.4	20.2
9 8	21 43.70	- 8 39.6	0.828	1.806	11.4	18.8	9 8	21 31.60	-10 4.6	1.373	2.330	10.1	20.5
9 18	21 43.85	-10 53.1	0.874	1.811	16.5	19.1	9 18	21 25.66	-11 12.1	1.429	2.323	14.4	20.7
427436	2001 DK ₅₅		8 17.9 266°27	0°4/17.7	18		18736	1998 NU		8 17.9 141°16	0°6/18.6	18	
7 10	22 17.13	-11 31.6	1.632	2.466	1								