

EPHEMERIDES

7 10.9

7 11.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
483250	2015 <i>SP</i> ₇		7 10.9 325°06	2°0/10.9 17			71125	1999 <i>XY</i> ₁₇₃		7 11.0 219°76	2°5/10.3 18		
6 10	19 47.97	-20 56.9	1.673	2.566	13.4	20.3	6 10	19 48.25	-29 4.9	2.213	3.099	10.9	19.4
6 20	19 41.63	-19 45.4	1.581	2.539	9.7	20.1	6 20	19 41.39	-29 20.2	2.138	3.092	7.8	19.2
6 30	19 32.95	-18 31.0	1.513	2.512	5.6	19.8	6 30	19 32.64	-29 32.1	2.088	3.084	4.6	18.9
7 10	19 22.79	-17 14.8	1.471	2.485	2.1	19.5	7 10	19 22.80	-29 37.4	2.066	3.077	2.5	18.8
7 20	19 12.29	-15 59.1	1.456	2.460	4.9	19.6	7 20	19 12.79	-29 34.2	2.071	3.068	4.5	18.9
7 30	19 2.68	-14 46.9	1.468	2.435	9.4	19.8	7 30	19 3.62	-29 21.8	2.104	3.060	7.8	19.1
8 9	18 55.08	-13 40.9	1.503	2.410	13.7	20.0	8 9	18 56.16	-29 1.5	2.163	3.051	10.9	19.3
8 19	18 50.20	-12 42.9	1.559	2.387	17.3	20.2	8 19	18 50.98	-28 35.3	2.243	3.041	13.7	19.5
285937	2001 <i>QU</i> ₃₁₇		7 10.9 329°31	0°9/10.7 18			358409	2007 <i>CE</i> ₂		7 11.0 161°65	3°0/10.1 18		
6 10	19 44.80	-23 35.5	1.799	2.697	12.4	20.2	6 10	19 47.22	-32 6.6	2.478	3.360	10.0	20.8
6 20	19 39.18	-23 52.5	1.730	2.692	8.8	19.9	6 20	19 40.43	-32 15.2	2.413	3.362	7.3	20.7
6 30	19 31.53	-24 11.3	1.686	2.687	4.7	19.7	6 30	19 32.02	-32 18.3	2.373	3.364	4.6	20.5
7 10	19 22.67	-24 28.6	1.666	2.682	1.0	19.4	7 10	19 22.74	-32 13.3	2.360	3.366	3.0	20.4
7 20	19 13.61	-24 41.9	1.674	2.678	4.2	19.6	7 20	19 13.43	-31 58.8	2.376	3.368	4.5	20.5
7 30	19 5.47	-24 49.7	1.707	2.674	8.3	19.9	7 30	19 4.98	-31 35.0	2.420	3.370	7.2	20.7
8 9	18 59.18	-24 51.6	1.764	2.670	12.0	20.1	8 9	18 58.12	-31 3.4	2.490	3.371	9.9	20.9
8 19	18 55.36	-24 48.4	1.842	2.667	15.2	20.3	8 19	18 53.32	-30 26.3	2.581	3.372	12.3	21.0
11821	Coleman		7 10.9 175°52	4°4/ 9.3 18			102002	1999 <i>RR</i> ₈₀		7 11.0 241°84	3°9/12.1 18		
6 10	19 46.86	-34 40.9	2.327	3.210	10.5	18.4	6 10	19 46.90	-12 30.3	1.604	2.485	14.5	19.9
6 20	19 40.38	-35 18.1	2.265	3.211	7.9	18.3	6 20	19 40.83	-12 17.2	1.531	2.477	10.9	19.7
6 30	19 32.07	-35 48.7	2.227	3.211	5.4	18.1	6 30	19 32.52	-12 15.6	1.479	2.469	7.0	19.4
7 10	19 22.71	-36 8.8	2.215	3.211	4.4	18.0	7 10	19 22.81	-12 25.0	1.452	2.460	4.1	19.2
7 20	19 13.24	-36 15.9	2.231	3.212	5.7	18.1	7 20	19 12.80	-12 44.0	1.451	2.451	5.5	19.3
7 30	19 4.65	-36 9.4	2.274	3.212	8.3	18.3	7 30	19 3.70	-13 10.2	1.476	2.442	9.4	19.5
8 9	18 57.76	-35 50.9	2.341	3.212	10.9	18.5	8 9	18 56.57	-13 40.8	1.524	2.433	13.4	19.7
8 19	18 53.13	-35 23.1	2.430	3.212	13.2	18.6	8 19	18 52.09	-14 13.3	1.592	2.423	16.9	19.9
481115	2005 <i>TL</i> ₁₂₉		7 10.9 245°45	0°2/10.9 18			472418	2015 <i>BV</i> ₂₆₂		7 11.0 68°11	5°4/10.1 16		
6 10	19 43.84	-21 48.2	2.560	3.443	9.7	22.7	6 10	19 52.50	-35 18.4	1.566	2.457	14.2	21.2
6 20	19 38.08	-22 4.3	2.476	3.430	6.9	22.5	6 20	19 44.77	-35 35.7	1.520	2.471	10.6	21.0
6 30	19 30.80	-22 22.7	2.417	3.417	3.7	22.2	6 30	19 34.51	-35 42.0	1.497	2.485	7.2	20.9
7 10	19 22.61	-22 41.4	2.387	3.403	0.4	21.9	7 10	19 22.98	-35 32.4	1.498	2.499	5.4	20.8
7 20	19 14.21	-22 58.3	2.385	3.389	3.1	22.2	7 20	19 11.62	-35 5.2	1.525	2.512	7.1	20.9
7 30	19 6.37	-23 12.2	2.411	3.375	6.4	22.3	7 30	19 1.88	-34 22.2	1.577	2.526	10.3	21.2
8 9	18 59.81	-23 22.4	2.463	3.360	9.4	22.5	8 9	18 54.78	-33 27.7	1.652	2.540	13.7	21.4
8 19	18 55.03	-23 28.9	2.538	3.345	12.0	22.7	8 19	18 50.83	-32 26.7	1.747	2.554	16.6	21.6
446427	2014 <i>JC</i> ₃₂		7 10.9 61°01	1°0/10.6 15			205734	2002 <i>AM</i> ₁₆₃		7 11.0 81°07	0°3/10.9 17		
6 10	19 44.30	-23 23.0	2.019	2.913	11.4	21.4	6 10	19 50.52	-22 6.5	1.331	2.233	15.6	20.3
6 20	19 38.56	-23 54.4	1.964	2.924	8.0	21.3	6 20	19 43.44	-22 17.8	1.288	2.250	11.0	20.1
6 30	19 31.08	-24 27.6	1.934	2.935	4.3	21.1	6 30	19 33.84	-22 32.2	1.266	2.267	5.9	19.9
7 10	19 22.63	-24 59.1	1.930	2.946	1.0	20.8	7 10	19 22.92	-22 45.9	1.268	2.285	0.6	19.5
7 20	19 14.13	-25 26.2	1.954	2.957	3.8	21.1	7 20	19 12.10	-22 55.9	1.296	2.302	4.8	19.9
7 30	19 6.51	-25 47.2	2.004	2.969	7.5	21.3	7 30	19 2.82	-23 0.9	1.349	2.319	9.7	20.2
8 9	19 0.56	-26 1.4	2.079	2.980	10.7	21.5	8 9	18 56.12	-23 1.0	1.423	2.336	13.9	20.5
8 19	18 56.79	-26 9.4	2.176	2.992	13.5	21.7	8 19	18 52.54	-22 57.0	1.518	2.352	17.4	20.8
11443	1977 <i>CP</i>		7 11.0 119°88	0°7/10.8 18			226032	2002 <i>FN</i> ₁₆		7 11.0 130°92	4°9/ 8.9 18		
6 10	19 50.34	-22 40.3	1.580	2.474	14.0	18.3	6 10	19 50.21	-34 2.6	2.092	2.974	11.5	20.4
6 20	19 43.13	-23 3.4	1.528	2.487	9.9	18.0	6 20	19 42.90	-35 8.3	2.041	2.987	8.6	20.2
6 30	19 33.63	-23 28.9	1.499	2.500	5.3	17.8	6 30	19 33.50	-36 7.4	2.016	2.999	6.0	20.1
7 10	19 22.87	-23 52.7	1.496	2.513	0.8	17.5	7 10	19 22.90	-36 54.4	2.017	3.011	4.9	20.0
7 20	19 12.10	-24 11.7	1.520	2.525	4.5	17.8	7 20	19 12.19	-37 25.4	2.046	3.023	6.4	20.1
7 30	19 2.59	-24 24.2	1.570	2.536	8.9	18.1	7 30	19 2.51	-37 39.5	2.101	3.034	9.1	20.3
8 9	18 55.36	-24 30.2	1.643	2.547	12.9	18.4	8 9	18 54.81	-37 38.3	2.180	3.044	11.8	20.5
8 19	18 50.96	-24 30.7	1.737	2.558	16.1	18.6	8 19	18 49.68	-37 25.0	2.280	3.054	14.2	20.7
2564	Kayala		7 11.0 204°44	1°0/11.3 18			25862	2000 <i>FC</i> ₁₆		7 11.0 277°98	1°3/11.6 18		
6 10	19 48.94	-18 37.7	1.583	2.474	14.1	17.1	6 10	19 44.09	-16 16.2	1.944	2.829	12.2	18.0
6 20	19 42.31	-18 53.3	1.514	2.471	10.2	16.8	6 20	19 38.67	-16 48.2	1.861	2.814	8.8	17.8
6 30	19 33.31	-19 15.8	1.468	2.467	5.6	16.5	6 30	19 31.31	-17 29.5	1.801	2.798	5.1	17.5
7 10	19 22.86	-19 42.2	1.447	2.463	1.2	16.2	7 10	19 22.71	-18 17.2	1.768	2.783	1.5	17.3
7 20	19 12.13	-20 9.3	1.453	2.459	4.4	16.5	7 20	19 13.75	-19 8.2	1.762	2.767	3.9	17.4
7 30	19 2.44	-20 34.5	1.485	2.454	9.1	16.7	7 30	19 5.44	-19 59.0	1.783	2.751	7.9	17.6
8 9	18 54.88	-20 56.3	1.540	2.448	13.3	17.0	8 9	18 58.71	-20 46.7	1.829	2.736	11.6	17.8
8 19	18 50.15	-21 14.1	1.616	2.442	16.9	17.2	8 19	18 54.23	-21 29.6	1.896	2.720	14.9	18.0
86138	1999 <i>RL</i> ₁₇₅		7 11.0 230°18	0°1/11.0 18			512298	2016 <i>GS</i> ₂₄₆		7 11.0 87°54	4°2/ 9.9 17		
6 10	19 43.57	-21 3.6	2.662	3.544	9.4	19.7	6 10	19 51.40	-30 8.9	1.395	2.296	15.0	21.5
6 20	19 37.81	-21 14.5	2.581	3.535	6.7	19.5	6 20	19 44.25	-30 47.6	1.348	2.308	10.9	21.2
6 30	19 30.63	-21 27.8	2.526	3.525	3.6	19.3	6 30	19 34.37	-31 21.2	1.323	2.319	6.6	21.0
7 10	19 22.61	-21 41.7	2.498	3.515	0.4	19.0	7 10	19 22.98	-31 43.3	1.322	2.331	4.2	20.9
7 20	19 14.41	-21 54.6	2.500	3.504	3.0	19.2	7 20	19 11.61	-31 50.4	1.346	2.342	6.6	21.1
7 30	19 6.78	-22 5.3	2.530	3.494	6.1	19.4	7 30	19 1.80	-31 41.9	1.395	2.353	10.6	21.4
8 9	19 0.38	-22 13.3	2.586	3.483	9.0	19.6	8 9	18 54.70	-31 20.7	1.466	2.364	14.5	21.6
8 19	18 55.68	-22 18.5	2.665	3.471	11.5	19.7	8 19	18 50.91	-30 50.6	1.555	2.375	17.8	21.9
102763	1999 <i>VO</i> ₁₃₅		7 11.0 301°44	3°8/ 9.9 17			359576	2010 <i>TR</i> ₁₆₃		7 11.0 325°47			

EPHEMERIDES

7 11.0

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
398215	2010 <i>NX</i> ₁₀₇		7 11.0 296°62	11°5/14.2	18		93186	2000 <i>SR</i> ₁₀₈		7 11.0 272°63	1°3/10.6	18	
6 10	19 41.73	+10 21.7	2.198	2.962	15.1	20.9	6 10	19 47.16	-24 12.3	1.788	2.683	12.6	19.6
6 20	19 36.78	+11 32.4	2.117	2.944	13.6	20.8	6 20	19 41.08	-24 35.7	1.706	2.665	9.0	19.3
6 30	19 30.21	+12 21.9	2.056	2.926	12.3	20.6	6 30	19 32.73	-25 0.8	1.647	2.647	4.9	19.0
7 10	19 22.61	+12 46.4	2.017	2.908	11.6	20.6	7 10	19 22.92	-25 24.1	1.614	2.629	1.3	18.7
7 20	19 14.72	+12 43.7	1.999	2.891	11.6	20.5	7 20	19 12.70	-25 42.3	1.608	2.611	4.5	18.9
7 30	19 7.35	+12 14.5	2.004	2.873	12.6	20.5	7 30	19 3.31	-25 53.2	1.628	2.593	8.8	19.1
8 9	19 1.29	+11 22.2	2.030	2.856	14.0	20.6	8 9	18 55.84	-25 56.8	1.672	2.574	12.8	19.3
8 19	18 57.11	+10 12.0	2.075	2.839	15.7	20.7	8 19	18 51.00	-25 53.8	1.736	2.556	16.2	19.5
89797	2002 <i>AW</i> ₁₃₃		7 11.0 204°95	0°7/11.3	18		371441	2006 <i>SM</i> ₂₅₈		7 11.0 190°78	3°0/11.9	17	
6 10	19 46.10	-18 48.4	1.769	2.660	12.9	19.7	6 10	19 47.13	-14 13.0	1.668	2.550	14.0	21.6
6 20	19 40.11	-19 10.1	1.701	2.658	9.2	19.5	6 20	19 40.88	-14 9.3	1.600	2.550	10.3	21.4
6 30	19 32.07	-19 38.2	1.657	2.657	5.1	19.2	6 30	19 32.52	-14 15.4	1.556	2.549	6.3	21.2
7 10	19 22.79	-20 9.7	1.639	2.655	0.9	18.9	7 10	19 22.89	-14 30.1	1.537	2.548	3.1	21.0
7 20	19 13.31	-20 41.6	1.648	2.653	4.0	19.2	7 20	19 13.06	-14 51.4	1.544	2.547	4.8	21.1
7 30	19 4.73	-21 11.3	1.683	2.651	8.2	19.4	7 30	19 4.20	-15 17.0	1.577	2.545	8.8	21.3
8 9	18 58.00	-21 37.1	1.742	2.649	12.1	19.6	8 9	18 57.26	-15 44.5	1.634	2.543	12.7	21.5
8 19	18 53.75	-21 58.2	1.822	2.647	15.3	19.9	8 19	18 52.88	-16 11.9	1.712	2.541	16.0	21.8
387469	2013 <i>XB</i> ₂₃		7 11.0 180°79	3°2/ 9.6	18		510017	2009 <i>YB</i> ₂₁		7 11.0 252°82	1°5/10.5	18	
6 10	19 47.27	-28 20.2	1.934	2.826	11.9	20.2	6 10	19 48.50	-25 25.1	1.970	2.860	11.8	22.3
6 20	19 40.56	-29 18.6	1.870	2.827	8.5	20.0	6 20	19 41.88	-25 45.3	1.885	2.842	8.5	22.0
6 30	19 32.55	-30 15.9	1.831	2.827	5.1	19.8	6 30	19 33.11	-26 5.6	1.824	2.824	4.7	21.8
7 10	19 22.86	-31 6.7	1.818	2.827	3.2	19.7	7 10	19 22.96	-26 22.5	1.790	2.805	1.6	21.5
7 20	19 12.93	-31 46.9	1.833	2.827	5.3	19.8	7 20	19 12.44	-26 33.3	1.783	2.785	4.4	21.7
7 30	19 3.90	-32 14.0	1.874	2.827	8.8	20.0	7 30	19 2.70	-26 36.4	1.804	2.765	8.4	21.9
8 9	18 56.76	-32 28.4	1.940	2.826	12.1	20.2	8 9	18 54.75	-26 32.0	1.849	2.745	12.1	22.1
8 19	18 52.14	-32 31.6	2.026	2.825	14.9	20.4	8 19	18 49.30	-26 21.6	1.915	2.724	15.3	22.2
174741	2003 <i>UR</i> ₂₃₀		7 11.0 261°62	1°5/10.6	18		330651	2008 <i>FA</i> ₈₅		7 11.0 152°63	1°0/11.4	17	
6 10	19 49.13	-24 35.9	1.567	2.465	13.8	20.8	6 10	19 48.42	-18 12.0	1.850	2.734	12.8	22.5
6 20	19 42.70	-24 58.4	1.490	2.451	9.9	20.6	6 20	19 41.61	-18 30.1	1.789	2.742	9.1	22.3
6 30	19 33.68	-25 22.2	1.435	2.436	5.5	20.3	6 30	19 32.83	-18 54.3	1.751	2.749	5.1	22.0
7 10	19 22.98	-25 43.3	1.405	2.420	1.5	20.0	7 10	19 22.92	-19 21.8	1.740	2.756	1.2	21.8
7 20	19 11.85	-25 57.9	1.401	2.405	5.0	20.2	7 20	19 12.90	-19 49.8	1.757	2.762	3.9	22.0
7 30	19 1.73	-26 4.0	1.423	2.389	9.7	20.4	7 30	19 3.84	-20 16.1	1.801	2.768	8.0	22.2
8 9	18 53.83	-26 1.8	1.468	2.373	14.1	20.6	8 9	18 56.64	-20 39.3	1.869	2.772	11.6	22.5
8 19	18 48.96	-25 53.0	1.532	2.356	17.8	20.8	8 19	18 51.86	-20 58.8	1.959	2.777	14.7	22.7
390023	2012 <i>US</i> ₃₀		7 11.0 199°55	1°7/10.3	16		508816	2000 <i>XT</i> ₂₃		7 11.0 241°18	2°0/10.3	18	
6 10	19 46.29	-25 26.4	2.088	2.979	11.2	21.7	6 10	19 48.57	-27 4.7	2.343	3.226	10.5	22.9
6 20	19 40.09	-26 2.7	2.019	2.977	8.0	21.5	6 20	19 41.69	-27 31.5	2.254	3.207	7.5	22.6
6 30	19 32.01	-26 39.6	1.975	2.975	4.4	21.2	6 30	19 32.92	-27 57.2	2.190	3.187	4.3	22.4
7 10	19 22.81	-27 13.2	1.958	2.972	1.7	21.0	7 10	19 22.94	-28 18.6	2.155	3.167	2.0	22.2
7 20	19 13.42	-27 40.5	1.969	2.970	4.2	21.2	7 20	19 12.63	-28 32.9	2.148	3.146	4.2	22.3
7 30	19 4.83	-27 59.6	2.007	2.967	7.8	21.4	7 30	19 2.97	-28 38.8	2.169	3.124	7.6	22.5
8 9	18 57.93	-28 10.4	2.070	2.964	11.1	21.6	8 9	18 54.84	-28 36.4	2.216	3.102	10.8	22.7
8 19	18 53.28	-28 13.6	2.154	2.960	13.9	21.8	8 19	18 48.90	-28 27.1	2.285	3.078	13.6	22.8
338061	2002 <i>OD</i> ₂₇		7 11.0 8°70	2°9/11.6	18		239136	2006 <i>JR</i> ₂₈		7 11.0 161°52	6°7/13.4	18	
6 10	19 45.56	-15 46.5	1.736	2.623	13.3	20.3	6 10	19 44.42	- 2 58.3	2.099	2.937	13.3	20.8
6 20	19 39.65	-15 18.4	1.671	2.623	9.8	20.0	6 20	19 38.57	- 2 27.2	2.033	2.940	10.8	20.7
6 30	19 31.78	-14 57.2	1.629	2.624	5.9	19.8	6 30	19 31.12	- 2 11.4	1.989	2.943	8.3	20.5
7 10	19 22.80	-14 42.5	1.613	2.624	2.9	19.6	7 10	19 22.76	- 2 12.2	1.971	2.946	6.8	20.4
7 20	19 13.70	-14 33.9	1.623	2.625	4.7	19.8	7 20	19 14.28	- 2 29.0	1.978	2.949	7.1	20.5
7 30	19 5.56	-14 30.6	1.659	2.626	8.5	20.0	7 30	19 6.52	- 3 0.0	2.011	2.951	9.0	20.6
8 9	18 59.27	-14 31.5	1.719	2.627	12.1	20.2	8 9	19 0.22	- 3 41.9	2.069	2.953	11.5	20.7
8 19	18 55.37	-14 35.2	1.799	2.629	15.3	20.4	8 19	18 55.89	- 4 30.7	2.148	2.955	13.9	20.9
238252	2003 <i>UH</i> ₃₀₉		7 11.0 210°90	4°7/12.7	17		378309	2007 <i>FK</i> ₂₁		7 11.0 251°09	2°2/11.7	17	
6 10	19 44.14	- 8 28.0	2.105	2.964	12.4	20.6	6 10	19 46.59	-15 23.1	1.834	2.716	13.0	22.1
6 20	19 38.42	- 8 12.9	2.031	2.961	9.6	20.4	6 20	19 40.54	-15 32.2	1.751	2.701	9.5	21.9
6 30	19 31.06	- 8 9.5	1.981	2.958	6.7	20.2	6 30	19 32.39	-15 50.3	1.691	2.685	5.6	21.6
7 10	19 22.74	- 8 18.1	1.957	2.954	4.8	20.1	7 10	19 22.90	-16 15.5	1.656	2.669	2.3	21.4
7 20	19 14.23	- 8 37.7	1.959	2.949	5.5	20.2	7 20	19 13.03	-16 45.5	1.649	2.653	4.3	21.5
7 30	19 6.41	- 9 6.4	1.989	2.945	8.1	20.3	7 30	19 3.88	-17 17.8	1.668	2.636	8.4	21.7
8 9	19 0.05	- 9 41.5	2.043	2.940	11.0	20.5	8 9	18 56.47	-17 50.0	1.712	2.618	12.3	21.9
8 19	18 55.67	-10 20.1	2.119	2.936	13.8	20.7	8 19	18 51.48	-18 20.6	1.777	2.601	15.7	22.1
146976	2002 <i>NC</i> ₂₇		7 11.0 321°75	1°4/10.8	18		254337	2004 <i>SV</i> ₄₂		7 11.0 235°16	1°5/10.5	18	R
6 10	19 45.23	-25 0.7	1.138	2.056	16.3	18.8	6 10	19 44.63	-26 41.7	2.583	3.469	9.5	20.7
6 20	19 40.70	-24 59.2	1.058	2.029	11.8	18.5	6 20	19 38.65	-26 55.9	2.506	3.461	6.8	20.5
6 30	19 32.93	-24 57.6	0.998	2.002	6.6	18.1	6 30	19 31.16	-27 8.8	2.455	3.453	3.8	20.3
7 10	19 22.94	-24 52.0	0.960	1.976	1.5	17.7	7 10	19 22.77	-27 18.1	2.431	3.445	1.5	20.1
7 20	19 12.25	-24 39.2	0.944	1.951	5.9	17.9	7 20	19 14.24	-27 22.1	2.436	3.436	3.5	20.3
7 30	19 2.71	-24 18.3	0.951	1.927	11.8	18.1	7 30	19 6.35	-27 20.1	2.469	3.428	6.6	20.4
8 9	18 55.95	-23 50.5	0.976	1.904	17.2	18.4	8 9	18 59.82	-27 12.2	2.528	3.419	9.4	20.6
8 19	18 52.97	-23 18.4	1.019	1.883	21.9	18.6	8 19	18 55.13	-26 59.4	2.609	3.410	11.9	20.8
222695	2002 <i>AT</i> ₁₃		7 11.0 217°56	1°9/10.3	18		338						

EPHEMERIDES

7 11.0

7 11.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
509399	2007 <i>DW</i> ₂₅		7 11.0 184°04	5°0/13.9	18		123488	2000 <i>WD</i> ₁₇₀		7 11.0 270°59	6°1/ 9.4	18	
6 10	19 41.52	- 2 21.6	2.855	3.679	10.5	21.8	6 10	19 51.71	-37 12.3	1.801	2.684	13.1	19.9
6 20	19 36.24	- 2 26.1	2.780	3.679	8.5	21.6	6 20	19 44.49	-37 45.6	1.726	2.669	10.1	19.7
6 30	19 29.79	- 2 43.6	2.728	3.679	6.5	21.5	6 30	19 34.63	-38 8.6	1.674	2.655	7.3	19.5
7 10	19 22.65	- 3 13.9	2.702	3.678	5.2	21.4	7 10	19 23.15	-38 15.6	1.648	2.640	6.1	19.4
7 20	19 15.39	- 3 55.9	2.704	3.677	5.3	21.4	7 20	19 11.38	-38 2.8	1.647	2.625	7.6	19.4
7 30	19 8.61	- 4 47.3	2.735	3.676	6.9	21.5	7 30	19 0.78	-37 30.3	1.672	2.610	10.7	19.6
8 9	19 2.86	- 5 45.3	2.791	3.674	8.9	21.7	8 9	18 52.56	-36 41.6	1.719	2.595	13.9	19.7
8 19	18 58.55	- 6 46.9	2.871	3.672	10.9	21.8	8 19	18 47.44	-35 41.9	1.787	2.579	16.9	19.9
8856	Celastrus		7 11.0 1°56	0°1/11.0	18		192867	1999 <i>WS</i> ₁₈		7 11.0 322°42	3°2/ 9.9	18	
6 10	19 45.46	-20 36.9	1.209	2.121	16.0	17.4	6 10	19 46.53	-28 7.6	1.687	2.587	12.9	20.4
6 20	19 40.35	-21 3.4	1.152	2.120	11.4	17.1	6 20	19 40.69	-28 53.4	1.622	2.582	9.3	20.1
6 30	19 32.46	-21 37.1	1.116	2.119	6.2	16.8	6 30	19 32.53	-29 38.0	1.580	2.578	5.5	19.9
7 10	19 22.91	-22 13.5	1.103	2.119	0.6	16.5	7 10	19 22.95	-30 16.1	1.564	2.575	3.2	19.7
7 20	19 13.11	-22 47.9	1.113	2.120	5.1	16.8	7 20	19 13.12	-30 43.6	1.574	2.571	5.6	19.9
7 30	19 4.63	-23 16.8	1.146	2.121	10.4	17.1	7 30	19 4.31	-30 58.3	1.609	2.567	9.4	20.1
8 9	18 58.72	-23 38.4	1.201	2.123	15.1	17.4	8 9	18 57.60	-31 0.8	1.667	2.564	13.1	20.3
8 19	18 56.10	-23 52.8	1.273	2.126	19.1	17.6	8 19	18 53.66	-30 53.0	1.745	2.561	16.3	20.5
55903	1998 <i>DN</i>		7 11.0 214°99	2°8/12.6	18		383250	2006 <i>BA</i> ₂₆₈		7 11.0 178°41	0°2/11.1	18	
6 10	19 43.34	-10 34.6	2.374	3.237	11.1	19.8	6 10	19 46.29	-18 54.2	2.015	2.900	11.8	20.9
6 20	19 37.79	-11 8.0	2.296	3.232	8.3	19.6	6 20	19 40.12	-19 39.8	1.947	2.901	8.4	20.6
6 30	19 30.73	-11 52.8	2.242	3.227	5.3	19.4	6 30	19 32.08	-20 31.9	1.903	2.902	4.6	20.4
7 10	19 22.74	-12 47.0	2.215	3.222	3.0	19.3	7 10	19 22.91	-21 26.7	1.886	2.903	0.5	20.1
7 20	19 14.54	-13 47.9	2.217	3.217	3.9	19.3	7 20	19 13.51	-22 20.5	1.898	2.903	3.7	20.4
7 30	19 6.90	-14 52.3	2.247	3.211	6.8	19.5	7 30	19 4.89	-23 9.9	1.937	2.902	7.6	20.6
8 9	19 0.53	-15 56.8	2.304	3.205	9.8	19.7	8 9	18 57.91	-23 53.0	2.001	2.902	11.1	20.8
8 19	18 55.95	-16 58.9	2.384	3.199	12.5	19.9	8 19	18 53.17	-24 28.9	2.087	2.901	14.1	21.0
509853	2008 <i>YE</i> ₁₁₁		7 11.0 203°01	1°8/10.3	17		48526	1993 <i>HL</i> ₃		7 11.0 234°02	0°6/11.2	18	
6 10	19 46.64	-25 35.8	2.071	2.962	11.3	22.6	6 10	19 47.67	-19 14.4	1.784	2.672	12.9	19.5
6 20	19 40.38	-26 13.5	2.002	2.959	8.0	22.4	6 20	19 41.36	-19 36.5	1.706	2.662	9.3	19.2
6 30	19 32.21	-26 51.7	1.957	2.956	4.5	22.2	6 30	19 32.86	-20 4.8	1.653	2.652	5.1	18.9
7 10	19 22.89	-27 26.5	1.939	2.953	1.8	22.0	7 10	19 22.99	-20 36.2	1.625	2.641	0.8	18.6
7 20	19 13.36	-27 54.7	1.950	2.950	4.3	22.2	7 20	19 12.78	-21 7.6	1.624	2.630	4.1	18.8
7 30	19 4.64	-28 14.4	1.987	2.946	7.9	22.4	7 30	19 3.40	-21 36.4	1.650	2.618	8.5	19.1
8 9	18 57.62	-28 25.4	2.049	2.942	11.2	22.6	8 9	18 55.88	-22 0.9	1.701	2.606	12.5	19.3
8 19	18 52.89	-28 28.7	2.132	2.938	14.1	22.8	8 19	18 50.92	-22 20.7	1.772	2.593	15.9	19.5
124072	2001 <i>FG</i> ₁₉₄		7 11.0 116°13	2°2/ 9.8	18		475599	2006 <i>UR</i> ₈₆		7 11.0 284°24	9°0/ 6.2	16	
6 10	19 44.83	-27 8.2	2.639	3.524	9.4	19.9	6 10	19 50.99	-45 44.9	2.098	2.956	12.5	21.5
6 20	19 38.74	-28 6.3	2.583	3.537	6.6	19.7	6 20	19 44.08	-47 17.1	2.043	2.952	10.6	21.4
6 30	19 31.19	-29 3.6	2.554	3.550	3.9	19.5	6 30	19 34.48	-48 35.5	2.011	2.948	9.3	21.3
7 10	19 22.79	-29 56.5	2.553	3.563	2.2	19.4	7 10	19 23.15	-49 32.7	2.004	2.944	9.1	21.3
7 20	19 14.27	-30 41.8	2.581	3.575	4.0	19.6	7 20	19 11.41	-50 3.9	2.021	2.940	10.2	21.3
7 30	19 6.41	-31 17.7	2.637	3.587	6.7	19.8	7 30	19 0.76	-50 8.5	2.061	2.936	12.0	21.4
8 9	18 59.90	-31 43.9	2.719	3.599	9.2	20.0	8 9	18 52.47	-49 49.5	2.123	2.932	14.1	21.6
8 19	18 55.22	-32 1.0	2.824	3.611	11.5	20.1	8 19	18 47.32	-49 12.3	2.202	2.928	16.0	21.7
514512	2016 <i>WC</i> ₃₇		7 11.0 179°58	4°0/ 9.0	18		442946	2013 <i>CM</i> ₀₀		7 11.0 112°30	2°1/12.2	17	
6 10	19 45.21	-33 13.3	2.468	3.353	9.9	21.1	6 10	19 43.12	-12 43.4	2.616	3.481	10.1	21.3
6 20	19 39.24	-34 7.6	2.405	3.353	7.4	21.0	6 20	19 37.41	-13 9.9	2.557	3.497	7.4	21.2
6 30	19 31.55	-34 57.4	2.367	3.353	5.0	20.8	6 30	19 30.43	-13 44.3	2.524	3.513	4.5	21.0
7 10	19 22.84	-35 38.4	2.356	3.353	4.0	20.8	7 10	19 22.75	-14 24.9	2.519	3.529	2.3	20.9
7 20	19 13.94	-36 7.6	2.373	3.353	5.4	20.8	7 20	19 15.03	-15 9.3	2.543	3.545	3.3	21.0
7 30	19 5.78	-36 23.6	2.416	3.353	7.9	21.0	7 30	19 7.92	-15 55.3	2.596	3.560	6.0	21.2
8 9	18 59.13	-36 27.2	2.485	3.353	10.4	21.2	8 9	19 2.03	-16 40.7	2.675	3.575	8.7	21.4
8 19	18 54.57	-36 20.1	2.574	3.353	12.6	21.3	8 19	18 57.77	-17 23.7	2.778	3.589	11.0	21.6
59002	1998 <i>SZ</i> ₃₆		7 11.0 77°57	0°8/10.8	18		490187	2008 <i>UW</i> ₃₀₂		7 11.0 324°88	1°7/11.3	16	
6 10	19 48.44	-22 50.8	1.472	2.372	14.4	18.8	6 10	19 43.18	-19 33.3	1.217	2.130	15.8	21.4
6 20	19 41.98	-23 13.8	1.421	2.383	10.2	18.6	6 20	19 39.13	-19 14.0	1.125	2.092	11.7	21.1
6 30	19 33.14	-23 39.4	1.393	2.394	5.5	18.4	6 30	19 32.12	-18 59.7	1.054	2.056	6.7	20.7
7 10	19 22.99	-24 3.6	1.389	2.405	0.9	18.1	7 10	19 22.97	-18 49.2	1.004	2.020	1.8	20.3
7 20	19 12.81	-24 22.9	1.412	2.417	4.6	18.4	7 20	19 12.96	-18 41.1	0.977	1.985	5.5	20.4
7 30	19 3.91	-24 35.5	1.459	2.428	9.2	18.7	7 30	19 3.78	-18 34.6	0.973	1.951	11.4	20.6
8 9	18 57.35	-24 41.3	1.529	2.439	13.3	18.9	8 9	18 57.01	-18 28.8	0.988	1.918	16.9	20.8
8 19	18 53.69	-24 41.2	1.619	2.450	16.7	19.2	8 19	18 53.71	-18 23.6	1.021	1.887	21.7	21.0
442161	2010 <i>VB</i> ₂₀₄		7 11.0 289°14	3°2/10.1	18		147394	2003 <i>EB</i> ₆₂		7 11.0 254°66	3°9/12.8	18	
6 10	19 46.49	-31 18.4	2.194	3.082	10.8	20.9	6 10	19 42.55	- 8 56.2	2.264	3.125	11.6	20.2
6 20	19 40.24	-31 33.0	2.119	3.072	7.9	20.7	6 20	19 37.31	- 9 2.0	2.184	3.116	8.9	20.0
6 30	19 32.12	-31 42.8	2.068	3.062	4.9	20.5	6 30	19 30.51	- 9 19.6	2.128	3.107	6.1	19.8
7 10	19 22.90	-31 44.4	2.044	3.052	3.2	20.4	7 10	19 22.78	- 9 48.3	2.097	3.098	4.1	19.6
7 20	19 13.52	-31 35.9	2.048	3.042	4.9	20.5	7 20	19 14.83	-10 26.5	2.094	3.088	4.8	19.7
7 30	19 4.98	-31 17.0	2.078	3.032	8.0	20.7	7 30	19 7.45	-11 11.7	2.119	3.079	7.4	19.8
8 9	18 58.14	-30 49.1	2.133	3.022	11.1	20.8	8 9	19 1.39	-12 1.0	2.168	3.069	10.3	20.0
8 19	18 53.58	-30 14.6	2.210	3.012	13.8	21.0	8 19	18 57.15	-12 51.6	2.241	3.060	13.0	20.1
357558	2004 <i>TE</i> ₃₂		7 11.0 325°89	3°2/12.1	18		183743	2003 <i>YJ</i> ₁₂₀					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
214734	2006 <i>TA</i> ₃₃		7 11.0	95°76	1°1/10.6	16	34261	Musharahman		7 11.1	7°42	0°3/10.9	18
6 10	19 45.35	-24 21.7	2.108	2.999	11.1	20.8	6 10	19 46.39	-23 10.2	1.027	1.948	17.4	17.3
6 20	19 39.33	-24 44.2	2.049	3.007	7.8	20.6	6 20	19 41.29	-23 1.0	0.976	1.948	12.4	17.0
6 30	19 31.58	-25 7.2	2.014	3.014	4.3	20.4	6 30	19 33.08	-22 54.0	0.945	1.949	6.7	16.7
7 10	19 22.88	-25 27.9	2.006	3.022	1.2	20.2	7 10	19 23.09	-22 46.0	0.935	1.951	0.7	16.3
7 20	19 14.10	-25 44.0	2.026	3.029	3.8	20.4	7 20	19 12.97	-22 34.9	0.947	1.954	5.5	16.7
7 30	19 6.18	-25 54.1	2.073	3.036	7.3	20.6	7 30	19 4.50	-22 20.1	0.981	1.959	11.3	17.0
8 9	18 59.90	-25 58.1	2.145	3.043	10.5	20.8	8 9	18 59.01	-22 2.3	1.034	1.964	16.3	17.3
8 19	18 55.77	-25 56.7	2.238	3.051	13.3	21.0	8 19	18 57.13	-21 42.8	1.105	1.970	20.5	17.6
355715	2008 <i>FJ</i> ₁₂₈		7 11.0	59°66	0°3/11.2	17	239852	1999 <i>VR</i> ₁₉₀		7 11.1	257°47	5°9/12.5	18
6 10	19 43.68	-20 6.4	2.096	2.985	11.2	21.1	6 10	19 45.38	-6 4.5	2.156	3.003	12.6	20.5
6 20	19 38.10	-20 24.1	2.039	2.996	8.0	20.9	6 20	19 39.44	-5 24.6	2.067	2.984	10.1	20.3
6 30	19 30.91	-20 45.7	2.007	3.006	4.3	20.7	6 30	19 31.76	-4 56.4	2.000	2.965	7.6	20.1
7 10	19 22.83	-21 8.9	2.001	3.017	0.5	20.4	7 10	19 22.97	-4 41.4	1.960	2.945	6.0	20.0
7 20	19 14.69	-21 31.3	2.022	3.028	3.4	20.7	7 20	19 13.87	-4 40.1	1.946	2.925	6.6	20.0
7 30	19 7.36	-21 51.2	2.071	3.039	7.0	20.9	7 30	19 5.34	-4 51.8	1.959	2.904	8.9	20.1
8 9	19 1.60	-22 7.7	2.145	3.050	10.2	21.1	8 9	18 58.20	-5 14.2	1.996	2.882	11.8	20.2
8 19	18 57.87	-22 20.4	2.241	3.061	13.0	21.3	8 19	18 53.05	-5 44.6	2.055	2.861	14.5	20.4
442021	2010 <i>OC</i> ₁₀₄		7 11.0	266°24	4°0/9.6	18	326141	2012 <i>BG</i> ₂₈		7 11.1	265°85	0°1/11.1	17
6 10	19 46.94	-34 6.6	2.410	3.292	10.3	21.1	6 10	19 49.28	-21 6.9	1.472	2.370	14.6	21.3
6 20	19 40.53	-34 32.1	2.332	3.279	7.7	20.9	6 20	19 43.00	-21 18.2	1.392	2.352	10.5	21.0
6 30	19 32.30	-34 51.5	2.279	3.265	5.2	20.7	6 30	19 34.00	-21 34.4	1.333	2.334	5.8	20.7
7 10	19 22.97	-35 1.3	2.252	3.252	4.0	20.6	7 10	19 23.20	-21 52.2	1.300	2.316	0.6	20.3
7 20	19 13.44	-34 59.1	2.254	3.238	5.4	20.7	7 20	19 11.89	-22 8.1	1.292	2.298	4.8	20.6
7 30	19 4.68	-34 44.4	2.282	3.224	8.0	20.8	7 30	19 1.55	-22 20.0	1.309	2.279	9.9	20.8
8 9	18 57.54	-34 18.8	2.335	3.210	10.7	21.0	8 9	18 53.49	-22 27.1	1.348	2.260	14.6	21.0
8 19	18 52.59	-33 44.6	2.410	3.196	13.2	21.1	8 19	18 48.55	-22 29.8	1.407	2.240	18.6	21.2
245590	2005 <i>UD</i> ₄₈₅		7 11.0	281°83	2°8/12.2	18	163270	2002 <i>GE</i> ₈₆		7 11.1	355°94	12°3/15.2	16
6 10	19 42.57	-12 40.8	2.200	3.074	11.4	20.7	6 10	19 36.80	+ 1 19.5	1.108	1.979	20.3	18.9
6 20	19 37.40	-12 47.9	2.117	3.060	8.5	20.4	6 20	19 34.22	+ 2 16.9	1.051	1.970	17.3	18.7
6 30	19 30.61	-13 4.5	2.057	3.046	5.4	20.2	6 30	19 29.22	+ 2 43.5	1.011	1.963	14.5	18.5
7 10	19 22.81	-13 29.4	2.023	3.032	3.0	20.0	7 10	19 22.73	+ 2 34.5	0.989	1.959	12.6	18.4
7 20	19 14.75	-14 1.0	2.017	3.018	4.1	20.1	7 20	19 15.95	+ 1 49.3	0.986	1.956	12.6	18.4
7 30	19 7.28	-14 37.0	2.039	3.004	7.3	20.3	7 30	19 10.24	+ 0 32.3	1.003	1.955	14.4	18.5
8 9	19 1.16	-15 15.0	2.085	2.990	10.5	20.4	8 9	19 6.75	- 1 7.3	1.039	1.957	17.3	18.7
8 19	18 56.95	-15 53.0	2.153	2.976	13.4	20.6	8 19	19 6.20	- 2 58.8	1.091	1.960	20.4	18.9
436914	2012 <i>TA</i> ₉₀		7 11.0	265°40	0°5/11.2	18	187983	2001 <i>RM</i> ₄		7 11.1	279°42	4°4/12.3	18
6 10	19 45.53	-19 24.5	1.873	2.763	12.3	21.4	6 10	19 45.40	-11 20.4	1.612	2.492	14.5	20.3
6 20	19 39.78	-19 47.6	1.794	2.751	8.8	21.2	6 20	19 39.88	-11 8.8	1.534	2.478	11.0	20.1
6 30	19 32.01	-20 16.6	1.739	2.739	4.9	20.9	6 30	19 32.16	-11 9.9	1.478	2.465	7.3	19.8
7 10	19 22.96	-20 48.8	1.710	2.726	0.7	20.6	7 10	19 23.03	-11 23.6	1.446	2.452	4.5	19.6
7 20	19 13.58	-21 21.0	1.708	2.714	3.9	20.8	7 20	19 13.53	-11 48.4	1.440	2.439	5.7	19.7
7 30	19 4.96	-21 50.8	1.733	2.701	8.1	21.0	7 30	19 4.85	-12 21.8	1.459	2.425	9.5	19.9
8 9	18 58.06	-22 16.4	1.782	2.688	11.9	21.2	8 9	18 58.05	-13 0.6	1.501	2.412	13.4	20.1
8 19	18 53.54	-22 37.3	1.852	2.675	15.2	21.4	8 19	18 53.85	-13 41.4	1.563	2.399	17.0	20.3
442085	2010 <i>SE</i> ₃₇		7 11.0	273°77	7°2/8.1	18	309097	2006 <i>VE</i> ₁₇₀		7 11.1	310°94	1°2/11.4	18
6 10	19 50.93	-43 54.6	2.416	3.273	11.1	21.2	6 10	19 43.86	-18 29.4	1.911	2.801	12.1	21.2
6 20	19 43.65	-44 39.7	2.338	3.253	9.2	21.0	6 20	19 38.51	-18 30.0	1.835	2.791	8.7	20.9
6 30	19 34.10	-45 12.8	2.283	3.233	7.6	20.9	6 30	19 31.29	-18 36.0	1.782	2.781	4.9	20.7
7 10	19 23.16	-45 28.6	2.253	3.213	7.2	20.8	7 10	19 22.94	-18 45.6	1.756	2.771	1.4	20.4
7 20	19 11.91	-45 24.0	2.250	3.192	8.2	20.9	7 20	19 14.34	-18 57.1	1.756	2.762	3.8	20.6
7 30	19 1.60	-44 58.5	2.272	3.171	10.1	20.9	7 30	19 6.52	-19 9.0	1.783	2.752	7.8	20.8
8 9	18 53.27	-44 15.2	2.317	3.150	12.3	21.1	8 9	19 0.35	-19 20.1	1.834	2.743	11.5	21.0
8 19	18 47.60	-43 18.2	2.383	3.128	14.4	21.2	8 19	18 56.41	-19 29.6	1.906	2.734	14.6	21.2
145828	1998 <i>VS</i> ₂₅		7 11.1	251°81	1°0/10.7	18	38025	1998 <i>QF</i>		7 11.1	45°79	3°2/10.1	18
6 10	19 48.26	-23 8.0	1.781	2.674	12.7	20.4	6 10	19 46.43	-31 1.0	2.064	2.955	11.3	18.1
6 20	19 41.90	-23 34.6	1.700	2.659	9.1	20.2	6 20	19 40.18	-31 18.5	2.008	2.962	8.2	17.9
6 30	19 33.24	-24 4.2	1.643	2.644	5.0	19.9	6 30	19 32.09	-31 31.0	1.976	2.970	5.0	17.8
7 10	19 23.10	-24 32.8	1.612	2.628	1.0	19.6	7 10	19 23.00	-31 35.4	1.970	2.977	3.2	17.7
7 20	19 12.56	-24 57.2	1.608	2.612	4.4	19.8	7 20	19 13.90	-31 29.6	1.991	2.985	4.9	17.8
7 30	19 2.85	-25 14.9	1.630	2.595	8.8	20.0	7 30	19 5.80	-31 13.6	2.039	2.993	8.0	18.0
8 9	18 55.07	-25 25.4	1.676	2.578	12.8	20.2	8 9	18 59.50	-30 48.9	2.111	3.002	11.0	18.2
8 19	18 49.95	-25 29.4	1.743	2.561	16.2	20.4	8 19	18 55.52	-30 17.9	2.205	3.010	13.7	18.4
266705	2009 <i>QZ</i> ₂₁		7 11.1	335°01	0°1/11.0	17	218986	2008 <i>GN</i> ₁₁₂		7 11.1	51°45	2°4/12.3	18
6 10	19 43.08	-20 5.0	1.169	2.085	16.1	19.8	6 10	19 42.66	-12 51.0	2.135	3.010	11.7	20.1
6 20	19 38.91	-20 37.4	1.102	2.071	11.6	19.5	6 20	19 37.43	-13 19.4	2.068	3.013	8.6	19.9
6 30	19 31.88	-21 19.2	1.055	2.058	6.3	19.2	6 30	19 30.62	-13 58.0	2.025	3.016	5.3	19.7
7 10	19 22.98	-22 6.1	1.030	2.046	0.6	18.7	7 10	19 22.87	-14 44.7	2.009	3.019	2.5	19.5
7 20	19 13.60	-22 52.4	1.028	2.035	5.3	19.0	7 20	19 14.97	-15 36.6	2.020	3.023	3.8	19.6
7 30	19 5.37	-23 33.5	1.049	2.025	10.9	19.3	7 30	19 7.75	-16 30.6	2.059	3.026	7.1	19.8
8 9	18 59.69	-24 6.6	1.090	2.017	15.9	19.6	8 9	19 1.95	-17 23.7	2.123	3.030	10.3	20.0
8 19	18 57.41	-24 30.7	1.148	2.009	20.2	19.8	8 19	18 58.10	-18 13.7	2.209	3.033	13.0	20.2
155304	2005 <i>YE</i> ₅₇		7 11.1	265°45	1°5/10.6	18	228228	1998 <i>HM</i> ₈₀		7 1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
308517	2005 <i>UA</i> ₄₃		7 11.1 246°83	3°7/ 9.4	18		438821	2009 <i>AB</i> ₁₂		7 11.1 96°25	0°3/10.9	16	
6 10	19 45.89	-32 5.6	2.379	3.265	10.2	20.6	6 10	19 45.72	-21 59.7	1.897	2.789	12.1	21.6
6 20	19 39.83	-32 51.3	2.306	3.257	7.5	20.4	6 20	19 39.81	-22 17.5	1.832	2.791	8.6	21.4
6 30	19 31.97	-33 33.1	2.259	3.249	4.9	20.2	6 30	19 31.99	-22 38.2	1.791	2.792	4.6	21.2
7 10	19 23.01	-34 7.0	2.239	3.240	3.7	20.2	7 10	19 23.06	-22 58.9	1.777	2.793	0.5	20.9
7 20	19 13.81	-34 29.9	2.246	3.232	5.3	20.2	7 20	19 13.98	-23 17.0	1.789	2.794	3.8	21.2
7 30	19 5.33	-34 40.4	2.281	3.223	8.0	20.4	7 30	19 5.79	-23 30.9	1.828	2.796	7.8	21.4
8 9	18 58.41	-34 39.1	2.340	3.215	10.7	20.6	8 9	18 59.36	-23 39.9	1.892	2.797	11.4	21.6
8 19	18 53.64	-34 27.8	2.420	3.206	13.1	20.7	8 19	18 55.27	-23 44.3	1.976	2.798	14.4	21.8
500061	2011 <i>UV</i> ₂₅₇		7 11.1 266°42	2°1/10.5	17		37264	2000 <i>XS</i> ₁₆		7 11.1 284°96	4°2/ 9.6	18	
6 10	19 49.57	-24 56.7	1.301	2.207	15.5	21.4	6 10	19 47.02	-33 25.1	2.160	3.046	11.1	18.9
6 20	19 43.35	-25 32.1	1.238	2.202	11.1	21.2	6 20	19 40.81	-33 56.1	2.082	3.032	8.3	18.7
6 30	19 34.21	-26 9.4	1.196	2.198	6.2	20.9	6 30	19 32.59	-34 21.5	2.029	3.018	5.5	18.5
7 10	19 23.24	-26 43.0	1.178	2.193	2.2	20.6	7 10	19 23.13	-34 36.9	2.002	3.003	4.2	18.4
7 20	19 11.93	-27 7.9	1.185	2.188	5.7	20.8	7 20	19 13.42	-34 39.7	2.003	2.989	5.7	18.4
7 30	19 1.92	-27 21.4	1.215	2.183	10.8	21.1	7 30	19 4.53	-34 29.0	2.029	2.974	8.6	18.6
8 9	18 54.59	-27 23.9	1.267	2.178	15.4	21.4	8 9	18 57.41	-34 6.2	2.080	2.960	11.6	18.8
8 19	18 50.68	-27 17.5	1.338	2.174	19.3	21.6	8 19	18 52.69	-33 34.1	2.152	2.946	14.3	18.9
398548	2011 <i>UQ</i> ₃₄₂		7 11.1 184°01	4°5/12.8	18		181567	2006 <i>VA</i> ₉		7 11.1 161°74	3°8/12.4	18	
6 10	19 42.96	- 8 17.1	2.251	3.109	11.8	21.2	6 10	19 43.88	-10 19.3	2.425	3.284	11.0	20.9
6 20	19 37.55	- 8 2.0	2.181	3.109	9.1	21.1	6 20	19 38.09	- 9 58.7	2.356	3.288	8.4	20.7
6 30	19 30.65	- 7 58.1	2.134	3.109	6.4	20.9	6 30	19 30.92	- 9 46.9	2.311	3.291	5.7	20.6
7 10	19 22.88	- 8 5.5	2.113	3.108	4.6	20.8	7 10	19 22.96	- 9 43.9	2.294	3.294	3.9	20.4
7 20	19 14.99	- 8 23.4	2.119	3.108	5.2	20.8	7 20	19 14.91	- 9 49.2	2.304	3.296	4.6	20.5
7 30	19 7.74	- 8 49.9	2.152	3.108	7.6	21.0	7 30	19 7.50	-10 1.6	2.342	3.298	7.0	20.7
8 9	19 1.84	- 9 22.5	2.210	3.107	10.3	21.1	8 9	19 1.37	-10 19.2	2.405	3.300	9.7	20.8
8 19	18 57.77	- 9 58.7	2.291	3.107	12.9	21.3	8 19	18 56.99	-10 40.3	2.491	3.302	12.1	21.0
342266	2008 <i>SS</i> ₃₀₉		7 11.1 297°82	0°7/11.3	18 R		469660	2004 <i>TN</i> ₂₃₃		7 11.1 294°92	6°3/11.8	18	
6 10	19 45.93	-19 57.6	1.634	2.530	13.5	20.4	6 10	19 46.42	- 9 18.1	1.659	2.530	14.6	20.0
6 20	19 40.42	-20 0.4	1.546	2.506	9.8	20.1	6 20	19 40.57	- 8 12.5	1.578	2.512	11.5	19.8
6 30	19 32.54	-20 8.3	1.482	2.482	5.4	19.8	6 30	19 32.54	- 7 17.1	1.518	2.495	8.3	19.6
7 10	19 23.09	-20 19.0	1.442	2.458	0.9	19.4	7 10	19 23.14	- 6 34.7	1.484	2.478	6.4	19.4
7 20	19 13.15	-20 30.2	1.428	2.435	4.4	19.6	7 20	19 13.37	- 6 7.0	1.475	2.461	7.4	19.4
7 30	19 4.00	-20 40.1	1.440	2.411	9.1	19.8	7 30	19 4.42	- 5 54.4	1.491	2.444	10.5	19.6
8 9	18 56.80	-20 47.6	1.475	2.388	13.5	20.0	8 9	18 57.29	- 5 55.3	1.529	2.427	14.0	19.7
8 19	18 52.32	-20 52.4	1.530	2.364	17.3	20.2	8 19	18 52.70	- 6 6.8	1.587	2.411	17.3	19.9
511147	2013 <i>YJ</i> ₂₀		7 11.1 216°02	2°0/11.7	18		240527	2004 <i>FH</i> ₁₃₄		7 11.1 26°86	8°4/13.4	18	
6 10	19 46.72	-15 39.7	2.282	3.154	11.1	22.4	6 10	19 43.06	- 2 38.3	1.644	2.496	15.6	19.4
6 20	19 40.29	-15 39.3	2.200	3.145	8.1	22.2	6 20	19 37.93	- 1 38.4	1.592	2.505	12.8	19.3
6 30	19 32.18	-15 45.1	2.143	3.136	4.8	21.9	6 30	19 30.95	- 0 57.3	1.560	2.515	10.2	19.1
7 10	19 23.05	-15 56.0	2.113	3.125	2.1	21.7	7 10	19 22.97	- 0 37.4	1.552	2.525	8.5	19.1
7 20	19 13.69	-16 10.4	2.112	3.114	3.7	21.8	7 20	19 14.92	- 0 39.1	1.567	2.536	8.9	19.1
7 30	19 4.98	-16 27.0	2.139	3.103	7.1	22.0	7 30	19 7.82	- 1 0.3	1.607	2.547	10.8	19.2
8 9	18 57.69	-16 44.4	2.192	3.090	10.3	22.2	8 9	19 2.49	- 1 36.9	1.668	2.559	13.4	19.4
8 19	18 52.39	-17 1.4	2.267	3.077	13.2	22.4	8 19	18 59.45	- 2 23.8	1.749	2.572	16.0	19.6
301300	2009 <i>BC</i> ₁₂₉		7 11.1 285°69	1°9/11.8	18		18696	1998 <i>HB</i> ₃₄		7 11.1 269°35	5°3/12.9	18	
6 10	19 44.15	-15 48.6	1.885	2.771	12.5	21.0	6 10	19 42.71	- 6 18.4	2.218	3.070	12.2	18.6
6 20	19 38.75	-16 1.1	1.809	2.762	9.1	20.8	6 20	19 37.48	- 5 57.8	2.138	3.059	9.6	18.4
6 30	19 31.46	-16 22.1	1.757	2.753	5.3	20.6	6 30	19 30.70	- 5 49.7	2.081	3.049	7.1	18.2
7 10	19 22.99	-16 49.7	1.730	2.744	2.1	20.3	7 10	19 22.96	- 5 54.7	2.049	3.038	5.4	18.1
7 20	19 14.25	-17 21.5	1.730	2.735	4.0	20.4	7 20	19 15.01	- 6 12.4	2.044	3.027	5.9	18.1
7 30	19 6.26	-17 54.8	1.757	2.726	7.9	20.7	7 30	19 7.64	- 6 41.1	2.065	3.017	8.1	18.2
8 9	18 59.91	-18 27.4	1.808	2.718	11.6	20.9	8 9	19 1.60	- 7 18.0	2.111	3.006	10.9	18.4
8 19	18 55.82	-18 57.7	1.880	2.709	14.8	21.1	8 19	18 57.41	- 8 0.3	2.179	2.995	13.5	18.6
162857	2001 <i>DP</i> ₇₀		7 11.1 87°73	2°5/12.1	18		386816	2010 <i>GP</i> ₂₃		7 11.1 100°10	2°0/11.9	17	
6 10	19 45.11	-13 55.4	1.833	2.714	13.0	20.0	6 10	19 45.48	-14 35.1	1.995	2.873	12.2	21.2
6 20	19 39.29	-14 10.3	1.776	2.724	9.5	19.9	6 20	19 39.44	-15 1.1	1.940	2.888	8.9	21.0
6 30	19 31.65	-14 35.1	1.742	2.735	5.7	19.6	6 30	19 31.72	-15 35.9	1.909	2.903	5.2	20.8
7 10	19 23.00	-15 7.8	1.734	2.745	2.7	19.5	7 10	19 23.06	-16 17.0	1.905	2.918	2.1	20.7
7 20	19 14.26	-15 45.6	1.753	2.756	4.2	19.6	7 20	19 14.35	-17 1.4	1.928	2.932	3.8	20.8
7 30	19 6.42	-16 25.7	1.798	2.766	7.8	19.8	7 30	19 6.49	-17 46.2	1.979	2.947	7.3	21.1
8 9	19 0.31	-17 5.2	1.868	2.777	11.3	20.1	8 9	19 0.25	-18 28.9	2.055	2.961	10.6	21.3
8 19	18 56.46	-17 42.4	1.959	2.787	14.3	20.3	8 19	18 56.13	-19 8.0	2.153	2.974	13.4	21.5
320111	2007 <i>EL</i> ₁₅₃		7 11.1 303°44	2°8/12.4	18		178380	1997 <i>KM</i> ₄		7 11.1 104°27	5°4/14.0	16	
6 10	19 41.88	-12 11.8	2.225	3.097	11.3	20.6	6 10	19 42.22	- 3 12.9	2.409	3.243	11.9	20.5
6 20	19 36.89	-12 26.0	2.148	3.090	8.5	20.4	6 20	19 36.92	- 3 16.6	2.346	3.254	9.5	20.3
6 30	19 30.35	-12 50.1	2.095	3.084	5.3	20.2	6 30	19 30.29	- 3 34.7	2.307	3.265	7.1	20.2
7 10	19 22.88	-13 22.9	2.068	3.077	2.9	20.0	7 10	19 22.93	- 4 7.1	2.294	3.275	5.6	20.1
7 20	19 15.20	-14 2.3	2.069	3.070	4.0	20.1	7 20	19 15.48	- 4 52.0	2.307	3.285	5.7	20.2
7 30	19 8.12	-14 45.7	2.097	3.063	7.1	20.3	7 30	19 8.66	- 5 46.7	2.348	3.296	7.5	20.3
8 9	19 2.38	-15 30.5	2.151	3.057	10.2	20.4	8 9	19 3.09	- 6 47.8	2.415	3.306	9.8	20.5
8 19	18 58.49	-16 14.4	2.227	3.051	12.9	20.6	8 19	18 59.19	- 7 51.6	2.504	3.315	12.1	20.6
332289	2006 <i>TJ</i> ₂₄		7 11.1 233°59	1°5/11.5	17		490160	2008 <i></i>					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
28271	1999 <i>CK</i> ₁₆		7 11.1 209°90	0°7/11.3	18		350370	2012 <i>UG</i> ₁₅₂		7 11.1 297°04	2°7/10.0	18	
6 10	19 44.96	-19 20.8	2.079	2.965	11.4	19.2	6 10	19 46.28	-27 1.4	1.839	2.736	12.2	20.4
6 20	19 39.15	-19 30.1	2.009	2.964	8.2	18.9	6 20	19 40.44	-27 49.2	1.773	2.732	8.7	20.2
6 30	19 31.62	-19 43.8	1.964	2.962	4.5	18.7	6 30	19 32.46	-28 37.0	1.730	2.729	5.1	20.0
7 10	19 23.07	-19 59.9	1.945	2.961	0.9	18.4	7 10	19 23.18	-29 19.8	1.714	2.725	2.7	19.8
7 20	19 14.36	-20 16.4	1.954	2.959	3.5	18.6	7 20	19 13.64	-29 53.7	1.724	2.722	5.0	20.0
7 30	19 6.42	-20 31.7	1.990	2.957	7.3	18.9	7 30	19 5.00	-30 16.3	1.760	2.719	8.8	20.2
8 9	19 0.05	-20 44.7	2.051	2.955	10.7	19.1	8 9	18 58.27	-30 27.6	1.820	2.716	12.3	20.4
8 19	18 55.79	-20 55.1	2.133	2.954	13.6	19.3	8 19	18 54.08	-30 29.0	1.901	2.713	15.3	20.6
8234	Nobeoka		7 11.1 89°87	0°9/11.4	18 R		478954	2012 <i>XP</i> ₅₆		7 11.1 225°31	2°2/10.2	18	
6 10	19 44.78	-18 46.1	1.982	2.870	11.9	17.5	6 10	19 47.73	-28 31.9	2.526	3.408	9.8	22.2
6 20	19 39.08	-18 55.9	1.915	2.870	8.5	17.3	6 20	19 41.02	-28 55.0	2.444	3.396	7.1	22.0
6 30	19 31.59	-19 10.8	1.873	2.871	4.7	17.1	6 30	19 32.62	-29 15.8	2.388	3.384	4.2	21.8
7 10	19 23.06	-19 28.8	1.856	2.872	1.1	16.8	7 10	19 23.19	-29 31.4	2.360	3.371	2.2	21.7
7 20	19 14.40	-19 47.7	1.867	2.873	3.6	17.0	7 20	19 13.54	-29 39.4	2.361	3.357	4.1	21.8
7 30	19 6.54	-20 5.8	1.905	2.873	7.5	17.2	7 30	19 4.54	-29 39.0	2.389	3.343	7.1	21.9
8 9	19 0.32	-20 21.9	1.967	2.874	10.9	17.4	8 9	18 57.01	-29 30.7	2.444	3.328	10.0	22.1
8 19	18 56.27	-20 35.2	2.051	2.875	13.9	17.6	8 19	18 51.48	-29 15.8	2.522	3.313	12.5	22.3
45449	2000 <i>AQ</i> ₁₈₈		7 11.1 237°02	3°8/12.6	18		166529	2002 <i>RB</i> ₈		7 11.1 296°80	4°8/9.7	18	
6 10	19 47.09	-10 17.8	1.921	2.786	13.2	19.1	6 10	19 48.58	-33 35.9	1.789	2.681	12.7	19.5
6 20	19 40.90	-10 32.2	1.834	2.771	10.0	18.9	6 20	19 42.31	-34 8.0	1.712	2.664	9.5	19.2
6 30	19 32.70	-10 59.9	1.771	2.756	6.6	18.6	6 30	19 33.58	-34 33.5	1.658	2.647	6.4	19.0
7 10	19 23.19	-11 39.8	1.734	2.740	3.9	18.4	7 10	19 23.30	-34 47.2	1.629	2.631	4.8	18.9
7 20	19 13.27	-12 29.5	1.725	2.723	5.0	18.5	7 20	19 12.68	-34 45.4	1.626	2.614	6.6	18.9
7 30	19 4.00	-13 25.5	1.742	2.706	8.5	18.6	7 30	19 3.06	-34 27.4	1.648	2.597	10.0	19.1
8 9	18 56.34	-14 24.1	1.785	2.688	12.1	18.8	8 9	18 55.61	-33 55.4	1.694	2.581	13.5	19.3
8 19	18 50.97	-15 22.2	1.849	2.669	15.4	19.0	8 19	18 51.03	-33 13.0	1.759	2.565	16.6	19.5
33217	Bonnybasu		7 11.1 35°48	4°8/12.7	18		200233	1999 <i>VV</i> ₂		7 11.1 293°78	1°0/11.3	18	
6 10	19 43.11	-8 52.6	1.951	2.818	13.0	18.7	6 10	19 46.37	-19 38.4	1.730	2.623	13.0	20.1
6 20	19 37.82	-8 31.4	1.888	2.822	10.0	18.5	6 20	19 40.68	-19 34.1	1.640	2.597	9.5	19.9
6 30	19 30.88	-8 22.5	1.848	2.826	7.0	18.3	6 30	19 32.70	-19 34.2	1.573	2.572	5.3	19.6
7 10	19 23.00	-8 25.9	1.833	2.831	4.9	18.2	7 10	19 23.23	-19 36.9	1.531	2.546	1.2	19.2
7 20	19 15.01	-8 40.9	1.845	2.836	5.6	18.2	7 20	19 13.27	-19 40.6	1.515	2.521	4.2	19.4
7 30	19 7.81	-9 5.4	1.882	2.841	8.3	18.4	7 30	19 4.06	-19 43.8	1.525	2.495	8.8	19.6
8 9	19 2.15	-9 36.7	1.944	2.846	11.3	18.6	8 9	18 56.68	-19 45.7	1.559	2.470	13.1	19.8
8 19	18 58.54	-10 11.9	2.026	2.852	14.0	18.8	8 19	18 51.91	-19 46.2	1.614	2.444	16.7	20.0
299745	2006 <i>RJ</i> ₈₄		7 11.1 165°18	4°0/12.7	16		262693	2006 <i>WZ</i> ₁₉₁		7 11.1 10°86	1°9/11.6	18	
6 10	19 43.45	-9 17.7	2.227	3.087	11.8	21.7	6 10	19 43.79	-17 8.1	1.760	2.652	12.9	20.4
6 20	19 37.93	-9 11.3	2.157	3.089	9.0	21.5	6 20	19 38.50	-16 58.6	1.698	2.654	9.3	20.2
6 30	19 30.91	-9 15.9	2.112	3.091	6.2	21.4	6 30	19 31.32	-16 55.6	1.659	2.656	5.4	20.0
7 10	19 23.00	-9 31.1	2.092	3.092	4.2	21.2	7 10	19 23.07	-16 57.9	1.644	2.658	2.1	19.7
7 20	19 14.97	-9 55.6	2.100	3.093	4.9	21.3	7 20	19 14.70	-17 4.2	1.656	2.661	4.1	19.9
7 30	19 7.60	-10 27.4	2.135	3.094	7.4	21.4	7 30	19 7.25	-17 12.8	1.694	2.665	8.0	20.1
8 9	19 1.61	-11 3.9	2.196	3.095	10.3	21.6	8 9	19 1.56	-17 22.5	1.756	2.669	11.7	20.4
8 19	18 57.47	-11 42.7	2.278	3.096	12.9	21.8	8 19	18 58.19	-17 32.1	1.838	2.673	14.8	20.6
428003	2006 <i>BK</i> ₆₇		7 11.1 156°48	0°9/11.5	17		518794	2010 <i>BF</i> ₇₆		7 11.1 131°97	3°7/9.8	17	
6 10	19 46.54	-17 34.7	2.071	2.952	11.7	21.7	6 10	19 49.20	-32 9.8	2.141	3.026	11.2	21.5
6 20	19 40.26	-18 7.3	2.006	2.957	8.4	21.5	6 20	19 42.18	-32 43.3	2.085	3.035	8.2	21.3
6 30	19 32.21	-18 46.4	1.965	2.963	4.7	21.3	6 30	19 33.24	-33 11.2	2.054	3.044	5.3	21.1
7 10	19 23.14	-19 29.3	1.952	2.968	1.0	21.1	7 10	19 23.26	-33 29.6	2.050	3.053	3.7	21.0
7 20	19 13.91	-20 12.7	1.967	2.972	3.5	21.3	7 20	19 13.23	-33 35.9	2.073	3.062	5.4	21.2
7 30	19 5.46	-20 53.8	2.010	2.977	7.3	21.5	7 30	19 4.20	-33 29.8	2.124	3.070	8.2	21.3
8 9	18 58.62	-21 30.9	2.078	2.980	10.7	21.7	8 9	18 57.02	-33 12.7	2.198	3.078	11.1	21.5
8 19	18 53.92	-22 2.9	2.169	2.983	13.6	21.9	8 19	18 52.23	-32 47.4	2.295	3.086	13.6	21.7
59599	1999 <i>JM</i> ₆₂		7 11.1 157°60	7°5/13.2	18		307017	2001 <i>XB</i> ₇₅		7 11.1 243°10	1°5/11.7	18	
6 10	19 45.73	-3 18.2	1.849	2.693	14.5	18.6	6 10	19 46.29	-16 17.9	1.849	2.733	12.8	20.5
6 20	19 39.75	-2 30.5	1.785	2.695	11.8	18.4	6 20	19 40.39	-16 42.3	1.771	2.723	9.3	20.2
6 30	19 31.96	-1 59.1	1.742	2.698	9.2	18.3	6 30	19 32.44	-17 15.5	1.716	2.712	5.3	20.0
7 10	19 23.11	-1 45.9	1.724	2.700	7.6	18.2	7 10	19 23.20	-17 55.2	1.687	2.701	1.7	19.7
7 20	19 14.13	-1 51.3	1.731	2.702	8.0	18.2	7 20	19 13.61	-18 38.0	1.685	2.690	4.0	19.8
7 30	19 5.97	-2 13.5	1.763	2.703	10.1	18.3	7 30	19 4.77	-19 20.7	1.710	2.678	8.2	20.1
8 9	18 59.47	-2 48.9	1.819	2.705	12.7	18.5	8 9	18 57.65	-20 1.0	1.760	2.667	12.0	20.3
8 19	18 55.19	-3 33.4	1.895	2.706	15.4	18.7	8 19	18 52.92	-20 37.2	1.830	2.654	15.3	20.5
491595	2012 <i>SV</i> ₅₈		7 11.1 319°75	13°1/13.4	18		510459	2011 <i>WA</i> ₅₀		7 11.1 134°44	2°0/10.0	18	
6 10	19 41.63	+ 4 26.2	1.431	2.263	18.6	20.9	6 10	19 44.85	-27 26.4	2.864	3.746	8.8	22.5
6 20	19 37.53	+ 5 47.3	1.349	2.236	16.4	20.7	6 20	19 38.74	-28 9.8	2.806	3.758	6.3	22.3
6 30	19 31.09	+ 6 44.0	1.286	2.211	14.4	20.5	6 30	19 31.29	-28 52.0	2.774	3.770	3.6	22.1
7 10	19 23.06	+ 7 9.8	1.242	2.186	13.2	20.3	7 10	19 23.07	-29 30.1	2.771	3.781	2.0	22.0
7 20	19 14.45	+ 7 1.1	1.219	2.161	13.5	20.3	7 20	19 14.76	-30 1.5	2.797	3.792	3.6	22.2
7 30	19 6.54	+ 6 17.9	1.216	2.138	15.2	20.3	7 30	19 7.08	-30 25.0	2.852	3.803	6.2	22.4
8 9	19 0.51	+ 5 5.6	1.232	2.115	17.8	20.4	8 9	19 0.64	-30 40.5	2.932	3.813	8.6	22.5
8 19	18 57.21	+ 3 32.2	1.266	2.093	20.6	20.5	8 19	18 55.89	-30 48.7	3.036	3.823	10.7	22.7
415033	2011 <i>WT</i> ₇₇		7 11.1 211°10	3°9/12.1	17		175154	2005 <i>EH</i> ₄₇		7 11.1 48°34	1°2/10.8</		

EPHEMERIDES

7 11.1

7 11.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
316973	2001 <i>FV</i> ₁₄₀		7 11.1	19°26'	5°9'/9.5	17	242494	2004 <i>XH</i> ₄		7 11.1	78°55'	4°0'/11.2	17
6 10	19 48.73	-32 30.0	1.234	2.144	15.9	20.3	6 10	19 57.52	-17 25.7	1.352	2.236	16.5	19.2
6 20	19 42.92	-33 26.4	1.185	2.147	11.8	20.0	6 20	19 48.15	-15 52.0	1.310	2.260	12.0	19.0
6 30	19 34.04	-34 15.7	1.157	2.151	7.8	19.8	6 30	19 36.40	-14 23.0	1.291	2.284	7.3	18.8
7 10	19 23.37	-34 50.1	1.152	2.155	5.9	19.7	7 10	19 23.60	-13 1.9	1.299	2.308	4.1	18.7
7 20	19 12.54	-35 4.2	1.170	2.161	8.2	19.9	7 20	19 11.20	-11 51.9	1.333	2.331	6.2	18.8
7 30	19 3.32	-34 57.3	1.210	2.166	12.1	20.1	7 30	19 0.57	-10 55.1	1.393	2.355	10.4	19.1
8 9	18 57.04	-34 32.6	1.271	2.173	16.0	20.4	8 9	18 52.67	-10 12.0	1.477	2.377	14.3	19.4
8 19	18 54.36	-33 55.2	1.350	2.180	19.4	20.6	8 19	18 47.91	-9 41.0	1.580	2.400	17.5	19.7
289230	2004 <i>XY</i> ₆₃		7 11.1	218°27'	4°3'/9.1	18	212874	2007 <i>VC</i> ₁₈₅		7 11.1	228°53'	3°6'/9.8	18
6 10	19 48.94	-32 14.1	2.120	3.006	11.3	20.9	6 10	19 47.48	-30 51.6	2.038	2.928	11.5	20.6
6 20	19 42.27	-33 15.9	2.050	2.999	8.4	20.7	6 20	19 41.16	-31 28.2	1.972	2.926	8.4	20.4
6 30	19 33.46	-34 13.8	2.004	2.992	5.6	20.5	6 30	19 32.82	-32 0.9	1.930	2.923	5.3	20.2
7 10	19 23.32	-35 2.5	1.985	2.985	4.3	20.4	7 10	19 23.29	-32 25.4	1.914	2.920	3.6	20.1
7 20	19 12.84	-35 37.7	1.994	2.977	6.0	20.5	7 20	19 13.57	-32 38.6	1.925	2.917	5.4	20.2
7 30	19 3.19	-35 57.4	2.029	2.968	9.0	20.7	7 30	19 4.76	-32 39.3	1.963	2.914	8.5	20.4
8 9	18 55.35	-36 2.5	2.088	2.960	12.0	20.9	8 9	18 57.78	-32 28.8	2.025	2.911	11.7	20.6
8 19	18 50.00	-35 55.4	2.168	2.951	14.6	21.0	8 19	18 53.23	-32 9.3	2.107	2.907	14.4	20.7
3032	Evans		7 11.1	295°16'	0°6'/10.9	18	251900	1999 <i>VV</i> ₁₂₀		7 11.1	205°29'	3°7'/12.5	18
6 10	19 44.76	-22 24.6	1.942	2.836	11.8	15.9	6 10	19 42.83	-9 43.7	2.654	3.510	10.3	20.9
6 20	19 39.24	-22 50.8	1.868	2.827	8.4	15.7	6 20	19 37.36	-9 26.4	2.577	3.506	7.9	20.7
6 30	19 31.78	-23 20.2	1.818	2.819	4.5	15.4	6 30	19 30.60	-9 17.7	2.526	3.503	5.4	20.6
7 10	19 23.15	-23 49.7	1.795	2.811	0.7	15.1	7 10	19 23.08	-9 17.4	2.501	3.499	3.8	20.5
7 20	19 14.25	-24 16.1	1.798	2.803	3.9	15.4	7 20	19 15.44	-9 25.1	2.504	3.495	4.4	20.5
7 30	19 6.14	-24 37.5	1.828	2.795	7.9	15.6	7 30	19 8.34	-9 39.6	2.535	3.491	6.6	20.6
8 9	18 59.71	-24 52.8	1.882	2.787	11.5	15.8	8 9	19 2.37	-9 59.3	2.593	3.486	9.1	20.8
8 19	18 55.58	-25 2.2	1.958	2.779	14.6	16.0	8 19	18 57.99	-10 22.4	2.673	3.481	11.4	20.9
23337	2613 <i>P-L</i>		7 11.1	251°50'	2°0'/11.9	18	388187	2006 <i>DN</i> ₁₁		7 11.1	100°96'	1°3'/11.7	18
6 10	19 42.99	-15 8.3	2.484	3.358	10.3	19.8	6 10	19 46.03	-15 58.3	1.827	2.711	12.9	20.6
6 20	19 37.60	-15 10.8	2.402	3.348	7.5	19.6	6 20	19 40.07	-16 39.0	1.769	2.721	9.3	20.4
6 30	19 30.76	-15 19.6	2.345	3.337	4.5	19.4	6 30	19 32.21	-17 28.9	1.735	2.732	5.2	20.2
7 10	19 23.04	-15 33.8	2.314	3.326	2.1	19.2	7 10	19 23.25	-18 24.4	1.727	2.742	1.5	20.0
7 20	19 15.13	-15 51.9	2.312	3.315	3.4	19.3	7 20	19 14.16	-19 21.5	1.746	2.752	3.8	20.2
7 30	19 7.76	-16 12.4	2.338	3.304	6.5	19.4	7 30	19 5.96	-20 16.5	1.793	2.761	7.8	20.4
8 9	19 1.63	-16 33.9	2.390	3.292	9.5	19.6	8 9	18 59.53	-21 6.7	1.864	2.771	11.4	20.7
8 19	18 57.22	-16 55.1	2.465	3.280	12.1	19.8	8 19	18 55.42	-21 50.6	1.957	2.781	14.5	20.9
326656	2002 <i>TM</i> ₂₀₀		7 11.1	280°45'	3°6'/11.9	18	363642	2004 <i>RX</i> ₂₀₉		7 11.1	292°63'	8°2'/13.4	18
6 10	19 46.67	-13 51.5	1.537	2.424	14.7	20.9	6 10	19 42.36	+ 1 21.0	2.242	3.058	13.2	21.0
6 20	19 40.98	-13 35.3	1.457	2.408	11.0	20.6	6 20	19 37.34	+ 2 10.2	2.153	3.036	11.3	20.8
6 30	19 32.90	-13 29.4	1.399	2.391	6.9	20.3	6 30	19 30.74	+ 2 43.5	2.085	3.015	9.4	20.6
7 10	19 23.28	-13 33.5	1.365	2.375	3.7	20.1	7 10	19 23.11	+ 2 58.4	2.042	2.993	8.3	20.5
7 20	19 13.22	-13 46.3	1.356	2.358	5.5	20.2	7 20	19 15.17	+ 2 53.6	2.023	2.971	8.6	20.5
7 30	19 4.02	-14 5.9	1.372	2.341	9.7	20.4	7 30	19 7.74	+ 2 30.0	2.029	2.949	10.1	20.5
8 9	18 56.83	-14 29.7	1.411	2.324	14.0	20.6	8 9	19 1.55	+ 1 50.5	2.059	2.928	12.2	20.6
8 19	18 52.41	-14 55.6	1.470	2.308	17.7	20.8	8 19	18 57.19	+ 0 58.9	2.109	2.906	14.5	20.8
196966	2003 <i>UC</i> ₅₇		7 11.1	263°02'	2°2'/10.2	18	235767	2004 <i>VK</i> ₁₇		7 11.1	238°05'	0°8'/11.4	18
6 10	19 46.78	-26 12.5	2.009	2.900	11.5	20.1	6 10	19 46.88	-18 55.0	2.168	3.049	11.3	22.0
6 20	19 40.76	-26 53.4	1.928	2.885	8.3	19.9	6 20	19 40.61	-19 4.7	2.083	3.035	8.1	21.8
6 30	19 32.67	-27 35.0	1.871	2.870	4.7	19.7	6 30	19 32.52	-19 19.1	2.023	3.021	4.5	21.5
7 10	19 23.25	-28 13.1	1.842	2.854	2.2	19.5	7 10	19 23.29	-19 36.2	1.990	3.005	1.0	21.2
7 20	19 13.47	-28 44.1	1.839	2.839	4.6	19.6	7 20	19 13.76	-19 54.0	1.985	2.990	3.5	21.4
7 30	19 4.42	-29 5.7	1.864	2.823	8.3	19.8	7 30	19 4.89	-20 10.7	2.007	2.973	7.3	21.6
8 9	18 57.08	-29 17.4	1.912	2.806	11.8	20.0	8 9	18 57.52	-20 25.4	2.056	2.957	10.8	21.8
8 19	18 52.15	-29 20.4	1.982	2.790	14.9	20.1	8 19	18 52.27	-20 37.5	2.126	2.939	13.8	22.0
43681	2002 <i>JG</i> ₂		7 11.1	321°05'	5°8'/9.4	18	518202	2016 <i>PP</i> ₉₇		7 11.1	347°45'	1°9'/11.7	17
6 10	19 46.13	-30 51.5	1.131	2.048	16.4	18.0	6 10	19 44.58	-17 6.5	1.484	2.383	14.5	21.1
6 20	19 41.66	-31 52.0	1.059	2.026	12.2	17.7	6 20	19 39.44	-17 8.2	1.419	2.378	10.5	20.8
6 30	19 33.73	-32 50.6	1.006	2.004	8.0	17.4	6 30	19 32.03	-17 18.4	1.376	2.375	6.1	20.5
7 10	19 23.39	-33 38.3	0.976	1.982	5.9	17.2	7 10	19 23.24	-17 35.1	1.357	2.372	2.1	20.3
7 20	19 12.28	-34 7.0	0.967	1.962	8.6	17.3	7 20	19 14.22	-17 55.9	1.363	2.369	4.6	20.4
7 30	19 2.44	-34 12.9	0.980	1.943	13.4	17.5	7 30	19 6.22	-18 18.2	1.394	2.367	9.1	20.7
8 9	18 55.64	-33 57.8	1.012	1.924	18.2	17.7	8 9	19 0.28	-18 39.9	1.447	2.365	13.3	20.9
8 19	18 52.90	-33 26.1	1.059	1.907	22.4	17.9	8 19	18 57.07	-18 59.7	1.520	2.364	16.9	21.2
361437	2007 <i>AQ</i> ₂₀		7 11.1	63°29'	3°6'/10.0	18	251973	2000 <i>AQ</i> ₁₇₀		7 11.1	189°62'	3°6'/12.7	18
6 10	19 46.97	-32 13.5	2.154	3.042	11.0	21.0	6 10	19 42.24	-7 59.2	3.154	3.997	9.1	21.1
6 20	19 40.58	-32 35.1	2.098	3.050	8.1	20.8	6 20	19 36.77	-7 41.6	3.076	3.996	7.1	21.0
6 30	19 32.38	-32 50.9	2.067	3.058	5.1	20.6	6 30	19 30.22	-7 32.1	3.024	3.994	5.1	20.8
7 10	19 23.21	-32 57.8	2.062	3.066	3.6	20.5	7 10	19 23.06	-7 30.7	3.000	3.991	3.7	20.7
7 20	19 14.01	-32 53.6	2.084	3.075	5.1	20.7	7 20	19 15.79	-7 37.0	3.004	3.989	4.2	20.8
7 30	19 5.79	-32 38.3	2.133	3.083	8.0	20.9	7 30	19 8.97	-7 50.1	3.037	3.986	6.0	20.9
8 9	18 59.35	-32 13.6	2.206	3.092	10.9	21.1	8 9	19 3.11	-8 8.5	3.096	3.982	8.1	21.0
8 19	18 55.18	-31 41.9	2.301	3.100	13.4	21.2	8 19	18 58.58	-8 30.7	3.179	3.978	10.0	21.2
115419	2003 <i>SG</i> ₃₀₅		7 11.1	45°15'	9°3'/10.0	17	230108	2001 <i>AB</i> ₂₅		7 11.1	30°4		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
311972	2007 EU ₄₄		7 11.1 251°43	0°7/10.8	18		398265	2010 TT ₄₅		7 11.1 29°76	6°2/13.4	15	
6 10	19 45.32	-23 45.3	2.710	3.591	9.3	22.6	6 10	19 42.25	-4 37.3	2.007	2.858	13.3	21.4
6 20	19 39.29	-24 3.1	2.618	3.571	6.6	22.4	6 20	19 37.22	-4 9.0	1.945	2.863	10.6	21.2
6 30	19 31.74	-24 21.7	2.551	3.550	3.6	22.1	6 30	19 30.63	-3 55.6	1.906	2.868	8.0	21.1
7 10	19 23.23	-24 39.2	2.513	3.529	0.8	21.9	7 10	19 23.15	-3 58.1	1.891	2.874	6.4	21.0
7 20	19 14.46	-24 53.5	2.504	3.507	3.1	22.0	7 20	19 15.57	-4 15.7	1.902	2.881	6.7	21.0
7 30	19 6.19	-25 3.4	2.524	3.485	6.3	22.2	7 30	19 8.72	-4 46.5	1.939	2.887	8.8	21.1
8 9	18 59.14	-25 8.5	2.570	3.462	9.3	22.4	8 9	19 3.34	-5 27.0	1.999	2.894	11.4	21.3
8 19	18 53.84	-25 9.1	2.639	3.439	11.8	22.5	8 19	18 59.90	-6 13.5	2.080	2.901	13.8	21.5
20665	1999 UQ ₈		7 11.1 317°24	3°1/12.1	18 R		99038	2001 EJ ₃		7 11.1 149°29	5°2/9.7	18	
6 10	19 43.16	-13 11.6	2.152	3.027	11.6	18.2	6 10	19 52.32	-37 31.4	2.199	3.072	11.4	20.2
6 20	19 37.86	-12 54.4	2.079	3.022	8.6	18.0	6 20	19 44.46	-37 58.5	2.141	3.079	8.8	20.0
6 30	19 30.97	-12 45.2	2.029	3.018	5.5	17.8	6 30	19 34.56	-38 15.6	2.109	3.086	6.3	19.9
7 10	19 23.15	-12 43.5	2.006	3.013	3.2	17.6	7 10	19 23.56	-38 18.6	2.103	3.092	5.2	19.8
7 20	19 15.17	-12 48.7	2.010	3.009	4.3	17.7	7 20	19 12.56	-38 5.5	2.124	3.098	6.4	19.9
7 30	19 7.88	-12 59.6	2.040	3.005	7.4	17.9	7 30	19 2.70	-37 36.7	2.172	3.104	8.9	20.0
8 9	19 2.00	-13 14.4	2.096	3.001	10.5	18.1	8 9	18 54.87	-36 55.3	2.244	3.109	11.5	20.2
8 19	18 58.05	-13 31.6	2.173	2.997	13.2	18.2	8 19	18 49.59	-36 5.2	2.338	3.114	13.8	20.4
519734	2013 CZ ₂₂₅		7 11.1 155°34	4°4/9.6	18		84252	2002 SL ₄₁		7 11.1 258°49	8°0/7.3	18	
6 10	19 48.12	-35 31.2	2.435	3.313	10.3	21.9	6 10	19 52.15	-43 49.3	2.171	3.031	12.1	19.7
6 20	19 41.35	-36 0.7	2.374	3.317	7.8	21.7	6 20	19 44.94	-45 0.4	2.100	3.016	10.0	19.6
6 30	19 32.83	-36 23.0	2.338	3.320	5.4	21.6	6 30	19 35.13	-45 59.5	2.052	3.001	8.5	19.4
7 10	19 23.34	-36 34.4	2.329	3.323	4.4	21.5	7 10	19 23.64	-46 39.9	2.030	2.985	8.1	19.4
7 20	19 13.77	-36 32.9	2.347	3.326	5.6	21.6	7 20	19 11.72	-46 57.0	2.033	2.969	9.2	19.4
7 30	19 5.09	-36 18.4	2.392	3.328	8.0	21.8	7 30	19 0.77	-46 49.8	2.060	2.953	11.3	19.5
8 9	18 58.08	-35 52.5	2.462	3.331	10.5	21.9	8 9	18 52.04	-46 21.4	2.110	2.936	13.5	19.6
8 19	18 53.26	-35 18.0	2.554	3.333	12.7	22.1	8 19	18 46.30	-45 36.4	2.178	2.920	15.7	19.8
236205	2005 WJ ₁₀₆		7 11.1 339°26	0°5/11.2	17		200743	2001 VP ₁₁₀		7 11.1 119°68	0°5/11.3	17	
6 10	19 44.36	-19 47.6	0.963	1.886	18.1	20.5	6 10	19 50.95	-20 36.6	1.427	2.323	15.1	20.3
6 20	19 40.27	-20 4.7	0.904	1.876	13.0	20.2	6 20	19 43.94	-20 37.4	1.373	2.332	10.8	20.1
6 30	19 32.89	-20 31.7	0.863	1.867	7.2	19.9	6 30	19 34.44	-20 42.4	1.340	2.341	5.9	19.8
7 10	19 23.38	-21 4.6	0.842	1.859	1.0	19.4	7 10	19 23.55	-20 48.8	1.333	2.349	0.9	19.5
7 20	19 13.39	-21 38.0	0.843	1.852	5.7	19.7	7 20	19 12.61	-20 54.3	1.351	2.357	4.6	19.8
7 30	19 4.84	-22 7.8	0.865	1.846	11.9	20.0	7 30	19 3.00	-20 57.5	1.394	2.365	9.4	20.1
8 9	18 59.29	-22 31.2	0.905	1.841	17.4	20.3	8 9	18 55.81	-20 58.0	1.461	2.372	13.7	20.4
8 19	18 57.59	-22 47.5	0.962	1.837	22.0	20.6	8 19	18 51.64	-20 56.3	1.547	2.379	17.2	20.6
128071	2003 OS ₉		7 11.1 203°91	0°6/11.3	18		470837	2008 WF ₁₃₆		7 11.1 276°17	3°3/11.7	18	
6 10	19 44.79	-20 39.5	2.470	3.352	10.0	19.6	6 10	19 47.14	-14 48.0	1.896	2.774	12.8	21.2
6 20	19 38.84	-20 27.5	2.398	3.351	7.1	19.5	6 20	19 41.01	-14 13.6	1.808	2.754	9.5	20.9
6 30	19 31.43	-20 17.4	2.351	3.350	3.9	19.2	6 30	19 32.85	-13 45.1	1.743	2.734	6.0	20.7
7 10	19 23.21	-20 8.0	2.332	3.348	0.7	19.0	7 10	19 23.41	-13 23.1	1.704	2.713	3.3	20.5
7 20	19 14.89	-19 58.6	2.342	3.347	3.1	19.2	7 20	19 13.61	-13 7.4	1.693	2.692	4.9	20.5
7 30	19 7.26	-19 48.9	2.379	3.345	6.4	19.4	7 30	19 4.53	-12 57.8	1.708	2.671	8.6	20.7
8 9	19 0.98	-19 38.6	2.443	3.343	9.3	19.6	8 9	18 57.11	-12 53.7	1.747	2.650	12.3	20.9
8 19	18 56.50	-19 27.9	2.529	3.342	11.9	19.8	8 19	18 52.02	-12 53.9	1.807	2.629	15.6	21.0
138206	2000 EJ ₁₄₉		7 11.1 172°49	1°5/10.6	17		31203	Hersman		7 11.1 287°20	1°3/10.7	18	
6 10	19 49.78	-24 51.9	1.929	2.817	12.1	21.4	6 10	19 45.38	-24 34.6	2.003	2.897	11.5	19.1
6 20	19 42.77	-25 21.3	1.864	2.820	8.6	21.2	6 20	19 39.70	-24 59.4	1.929	2.888	8.2	18.9
6 30	19 33.71	-25 51.2	1.824	2.823	4.7	21.0	6 30	19 32.10	-25 25.3	1.879	2.879	4.5	18.7
7 10	19 23.45	-26 17.8	1.810	2.825	1.5	20.7	7 10	19 23.33	-25 49.1	1.856	2.871	1.3	18.4
7 20	19 13.01	-26 37.9	1.825	2.827	4.3	20.9	7 20	19 14.32	-26 7.9	1.859	2.863	4.0	18.6
7 30	19 3.53	-26 50.1	1.866	2.827	8.1	21.2	7 30	19 6.09	-26 20.1	1.890	2.854	7.8	18.8
8 9	18 55.95	-26 54.4	1.932	2.828	11.7	21.4	8 9	18 59.54	-26 25.4	1.945	2.846	11.3	19.0
8 19	18 50.85	-26 52.1	2.020	2.827	14.7	21.6	8 19	18 55.27	-26 24.6	2.021	2.838	14.3	19.2
220681	2004 RX ₂₂₀		7 11.1 274°02	5°5/9.9	18		338754	2003 UH ₁₈₄		7 11.1 351°05	8°2/13.9	18	
6 10	19 52.89	-36 25.0	1.827	2.709	13.0	20.0	6 10	19 42.83	-2 10.6	1.623	2.474	15.9	19.7
6 20	19 45.42	-36 43.7	1.746	2.691	9.9	19.8	6 20	19 38.01	-1 37.5	1.557	2.471	13.0	19.5
6 30	19 35.33	-36 52.2	1.689	2.672	7.0	19.6	6 30	19 31.22	-1 24.6	1.512	2.469	10.2	19.3
7 10	19 23.62	-36 44.9	1.657	2.654	5.5	19.5	7 10	19 23.24	-1 33.8	1.490	2.467	8.4	19.2
7 20	19 11.61	-36 19.1	1.652	2.635	7.1	19.5	7 20	19 15.05	-2 4.6	1.491	2.465	8.6	19.2
7 30	19 0.75	-35 35.0	1.672	2.616	10.3	19.7	7 30	19 7.70	-2 54.0	1.516	2.464	10.8	19.3
8 9	18 52.22	-34 36.5	1.716	2.597	13.7	19.8	8 9	19 2.10	-3 56.9	1.563	2.463	13.7	19.5
8 19	18 46.76	-33 28.7	1.781	2.578	16.7	20.0	8 19	18 58.88	-5 7.6	1.631	2.463	16.5	19.7
436321	2010 FB ₈₈		7 11.1 43°31	2°3/10.2	17		274093	2008 CO ₇₃		7 11.1 105°13	3°4/10.1	17	
6 10	19 46.09	-24 49.8	1.544	2.448	13.7	20.2	6 10	19 51.89	-28 44.8	1.622	2.516	13.7	20.8
6 20	19 40.43	-25 50.8	1.499	2.462	9.7	20.0	6 20	19 44.46	-29 28.0	1.576	2.533	9.8	20.6
6 30	19 32.51	-26 53.3	1.477	2.477	5.4	19.8	6 30	19 34.67	-30 7.9	1.553	2.550	5.8	20.5
7 10	19 23.32	-27 51.5	1.479	2.493	2.3	19.6	7 10	19 23.59	-30 38.7	1.557	2.566	3.4	20.3
7 20	19 14.06	-28 40.3	1.508	2.509	5.2	19.8	7 20	19 12.53	-30 57.1	1.586	2.582	5.7	20.5
7 30	19 5.97	-29 16.7	1.562	2.525	9.2	20.1	7 30	19 2.81	-31 1.8	1.642	2.598	9.4	20.8
8 9	19 0.06	-29 40.5	1.638	2.542	12.9	20.4	8 9	18 55.46	-30 54.8	1.720	2.613	13.0	21.0
8 19	18 56.89	-29 53.0	1.735	2.559	16.0	20.6	8 19	18 51.03	-30 38.8	1.819	2.628	16.0	21.3
186378	2002 GW ₁₇₀		7 11.1 294°11	10°4/14.9	18		426052	2012 BB ₁₀		7 11.1 207°44	1°5/11.6	15	
6 10	19 41.70	+ 8 55.0											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
31225	1998 BH ₃₅	7 11.1	98°02	4.2/12.3	18		475523	2006 ST ₃₉₄	7 11.1	250°87	0.6/11.3	18	
6 10	19 47.91	-11 37.4	1.745	2.617	14.0	18.6	6 10	19 45.04	-19 46.0	2.104	2.990	11.3	22.0
6 20	19 41.32	-11 10.5	1.692	2.633	10.5	18.4	6 20	19 39.32	-19 55.4	2.030	2.985	8.1	21.8
6 30	19 32.86	-10 54.5	1.663	2.648	6.9	18.2	6 30	19 31.86	-20 8.9	1.980	2.979	4.5	21.5
7 10	19 23.41	-10 49.4	1.659	2.663	4.4	18.1	7 10	19 23.36	-20 24.6	1.957	2.974	0.8	21.3
7 20	19 13.97	-10 54.1	1.682	2.678	5.4	18.2	7 20	19 14.66	-20 40.3	1.962	2.968	3.5	21.5
7 30	19 5.56	-11 7.0	1.731	2.693	8.6	18.4	7 30	19 6.69	-20 54.5	1.994	2.962	7.2	21.7
8 9	18 59.03	-11 25.7	1.804	2.707	12.0	18.7	8 9	19 0.27	-21 6.3	2.051	2.956	10.6	21.9
8 19	18 54.86	-11 47.9	1.898	2.721	14.9	18.9	8 19	18 55.93	-21 15.3	2.130	2.950	13.6	22.1
44458	1998 VJ ₈	7 11.1	250°77	0°8/11.4	18		21539	Josefhlavka	7 11.1	303°50	1.4/10.8	18	
6 10	19 45.84	-18 51.0	2.206	3.088	11.1	19.8	6 10	19 46.82	-27 3.1	2.258	3.145	10.6	18.5
6 20	19 39.90	-19 4.6	2.120	3.072	8.0	19.5	6 20	19 40.45	-26 55.3	2.188	3.143	7.6	18.3
6 30	19 32.19	-19 23.1	2.058	3.056	4.5	19.3	6 30	19 32.40	-26 44.8	2.142	3.141	4.2	18.1
7 10	19 23.36	-19 44.6	2.023	3.039	0.9	19.0	7 10	19 23.41	-26 29.9	2.124	3.138	1.4	17.9
7 20	19 14.22	-20 6.9	2.017	3.022	3.4	19.2	7 20	19 14.35	-26 9.5	2.134	3.136	3.7	18.1
7 30	19 5.69	-20 28.1	2.038	3.005	7.2	19.4	7 30	19 6.11	-25 43.7	2.171	3.134	7.1	18.3
8 9	18 58.62	-20 46.9	2.085	2.987	10.6	19.5	8 9	18 59.48	-25 13.7	2.234	3.132	10.2	18.5
8 19	18 53.59	-21 2.8	2.153	2.968	13.6	19.7	8 19	18 54.94	-24 41.1	2.319	3.130	12.9	18.7
297588	2001 SF ₈₁	7 11.1	229°99	2°6/11.8	17		236214	2005 WZ ₁₅₇	7 11.1	198°86	8°0/6.2	18	
6 10	19 49.76	-15 36.0	1.584	2.468	14.5	21.1	6 10	19 55.41	-43 42.4	2.320	3.173	11.6	21.4
6 20	19 43.16	-15 33.1	1.507	2.458	10.7	20.8	6 20	19 47.30	-45 29.0	2.259	3.169	9.7	21.3
6 30	19 34.14	-15 39.2	1.453	2.447	6.4	20.5	6 30	19 36.50	-47 4.4	2.224	3.165	8.3	21.2
7 10	19 23.57	-15 52.9	1.423	2.436	2.7	20.3	7 10	19 23.88	-48 20.8	2.215	3.160	8.1	21.2
7 20	19 12.61	-16 11.9	1.420	2.424	4.9	20.4	7 20	19 10.65	-49 12.7	2.233	3.154	9.3	21.3
7 30	19 2.58	-16 34.0	1.443	2.412	9.4	20.6	7 30	18 58.26	-49 38.6	2.276	3.147	11.2	21.4
8 9	18 54.62	-16 57.2	1.490	2.399	13.6	20.9	8 9	18 48.02	-49 41.0	2.342	3.140	13.2	21.5
8 19	18 49.48	-17 19.7	1.556	2.385	17.3	21.1	8 19	18 40.78	-49 24.7	2.426	3.132	15.1	21.6
382434	1999 TD ₇₂	7 11.1	198°55	1°6/11.7	18		250401	2003 US ₁₈₈	7 11.1	336°85	5°5/10.1	18	
6 10	19 45.99	-17 2.6	1.981	2.863	12.1	21.9	6 10	19 46.57	-31 39.7	1.047	1.968	17.2	19.3
6 20	19 40.02	-17 7.7	1.910	2.862	8.8	21.7	6 20	19 42.01	-32 7.0	0.985	1.953	12.8	19.0
6 30	19 32.23	-17 19.1	1.864	2.860	5.0	21.5	6 30	19 33.93	-32 27.1	0.941	1.939	8.2	18.7
7 10	19 23.36	-17 35.3	1.844	2.858	1.7	21.2	7 10	19 23.61	-32 32.7	0.918	1.927	5.5	18.5
7 20	19 14.31	-17 54.1	1.852	2.856	3.8	21.4	7 20	19 12.84	-32 18.8	0.917	1.916	8.1	18.6
7 30	19 6.06	-18 13.8	1.886	2.854	7.6	21.6	7 30	19 3.66	-31 45.0	0.937	1.906	13.0	18.8
8 9	18 59.44	-18 32.8	1.945	2.851	11.1	21.8	8 9	18 57.70	-30 55.5	0.975	1.897	17.8	19.1
8 19	18 55.01	-18 50.2	2.026	2.849	14.1	22.0	8 19	18 55.77	-29 56.0	1.030	1.890	22.0	19.3
359591	2010 UT ₁₀₇	7 11.1	310°98	4°4/9.1	18		232861	2004 TE ₂₇₃	7 11.1	252°42	0°9/11.4	17	
6 10	19 45.56	-32 45.7	2.107	2.997	11.1	20.4	6 10	19 46.96	-19 24.6	1.907	2.794	12.3	20.6
6 20	19 39.33	-33 40.7	2.036	2.988	8.3	20.2	6 20	19 40.89	-19 27.0	1.828	2.783	8.9	20.3
6 30	19 32.28	-34 31.6	1.990	2.978	5.6	20.0	6 30	19 32.80	-19 34.0	1.773	2.771	4.9	20.1
7 10	19 23.37	-35 13.4	1.969	2.969	4.4	19.9	7 10	19 23.48	-19 43.6	1.743	2.759	1.1	19.8
7 20	19 14.16	-35 42.2	1.976	2.959	6.0	20.0	7 20	19 13.88	-19 53.7	1.741	2.747	3.8	20.0
7 30	19 5.75	-35 56.3	2.008	2.950	8.9	20.2	7 30	19 5.05	-20 3.1	1.766	2.735	8.0	20.2
8 9	18 59.07	-35 56.4	2.064	2.942	11.8	20.3	8 9	18 57.94	-20 10.6	1.816	2.722	11.7	20.4
8 19	18 54.78	-35 44.7	2.141	2.933	14.4	20.5	8 19	18 53.19	-20 16.2	1.887	2.709	15.0	20.6
481301	2005 YM ₂₁₈	7 11.1	250°60	1°4/10.6	16		253571	2003 SY ₂₉₀	7 11.1	335°45	2°7/11.7	18	
6 10	19 45.78	-26 47.7	2.648	3.531	9.4	22.3	6 10	19 42.71	-16 55.3	1.042	1.959	17.5	19.4
6 20	19 39.63	-26 55.9	2.563	3.516	6.7	22.1	6 20	19 38.96	-16 46.1	0.975	1.943	12.9	19.0
6 30	19 31.94	-27 2.6	2.503	3.501	3.8	21.9	6 30	19 32.19	-16 48.2	0.927	1.928	7.6	18.7
7 10	19 23.33	-27 5.5	2.472	3.486	1.5	21.7	7 10	19 23.44	-17 0.4	0.900	1.914	2.9	18.4
7 20	19 14.52	-27 3.2	2.469	3.470	3.4	21.8	7 20	19 14.16	-17 20.0	0.894	1.902	5.8	18.5
7 30	19 6.32	-26 55.0	2.494	3.454	6.5	22.0	7 30	19 6.10	-17 43.8	0.910	1.890	11.5	18.8
8 9	18 59.43	-26 41.3	2.546	3.437	9.4	22.1	8 9	19 0.73	-18 8.6	0.944	1.880	16.8	19.0
8 19	18 54.38	-26 23.2	2.621	3.420	11.9	22.3	8 19	18 58.93	-18 32.0	0.996	1.872	21.4	19.3
338828	2003 WV ₉₅	7 11.1	212°42	6°8/12.9	16		490636	2010 DP	7 11.1	195°99	18°9/21.1	18	
6 10	19 45.18	-3 46.6	2.080	2.919	13.3	20.7	6 10	19 55.58	+28 53.3	1.856	2.465	21.9	23.0
6 20	19 39.33	-2 57.7	2.008	2.917	10.8	20.5	6 20	19 47.21	+29 59.1	1.789	2.462	20.9	22.8
6 30	19 31.82	-2 22.7	1.959	2.913	8.4	20.4	6 30	19 36.33	+30 27.1	1.735	2.458	19.9	22.7
7 10	19 23.34	-2 3.5	1.935	2.910	6.9	20.3	7 10	19 23.87	+30 10.3	1.695	2.451	19.2	22.7
7 20	19 14.68	-2 0.7	1.937	2.907	7.3	20.3	7 20	19 11.00	+29 5.1	1.672	2.443	18.9	22.6
7 30	19 6.71	-2 13.1	1.965	2.903	9.3	20.4	7 30	18 59.07	+27 13.1	1.668	2.433	19.1	22.6
8 9	19 0.21	-2 38.1	2.017	2.899	11.9	20.6	8 9	18 49.26	+24 42.0	1.683	2.420	19.8	22.6
8 19	18 55.71	-3 12.2	2.090	2.895	14.3	20.7	8 19	18 42.30	+21 42.8	1.715	2.406	21.0	22.7
514256	2015 PS ₂₅₄	7 11.1	324°43	1°3/11.5	18		211168	2002 HY ₉	7 11.1	15°57	6°0/12.8	17	
6 10	19 44.21	-18 47.6	2.165	3.050	11.1	20.7	6 10	19 46.09	-9 12.0	1.306	2.191	17.0	19.9
6 20	19 38.64	-18 30.6	2.091	3.044	8.0	20.5	6 20	19 40.68	-8 48.3	1.248	2.192	13.1	19.6
6 30	19 31.44	-18 17.1	2.041	3.039	4.6	20.3	6 30	19 32.82	-8 41.8	1.209	2.193	9.0	19.4
7 10	19 23.30	-18 6.2	2.019	3.033	1.5	20.0	7 10	19 23.49	-8 53.1	1.193	2.194	6.2	19.3
7 20	19 15.02	-17 57.4	2.024	3.028	3.5	20.2	7 20	19 13.95	-9 20.6	1.200	2.196	7.1	19.3
7 30	19 7.46	-17 49.9	2.056	3.024	7.0	20.4	7 30	19 5.55	-10 0.7	1.231	2.198	10.8	19.5
8 9	19 1.38	-17 43.4	2.113	3.019	10.3	20.6	8 9	18 59.41	-10 48.8	1.283	2.201	14.8	19.8
8 19	18 57.30	-17 37.5	2.192	3.015	13.2	20.8	8 19	18 56.20	-11 40.0	1.355	2.203	18.4	20.0
62596	2000 SL ₃₀₉	7 11.1	337°18	9°8/12.8	18		96652	1999 HA	7 11.1	81°80	5°4/9.9	17	
6 10	19 44.02	-2 30.3	1.45										

EPHEMERIDES

7 11.1

7 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
264490	2001 <i>PV</i> ₃₂		7 11.1 323°99	19°6/ 8.6	17		159351	Leonpascal		7 11.2 115°42	0°7/10.9	17	
6 10	20 10.08	-57 48.2	1.026	1.873	23.3	19.8	6 10	19 48.56	-22 25.4	1.806	2.697	12.7	21.1
6 20	20 0.97	-59 17.1	0.984	1.866	21.4	19.7	6 20	19 41.95	-22 54.3	1.751	2.709	9.0	20.9
6 30	19 44.93	-60 6.9	0.956	1.860	20.0	19.6	6 30	19 33.32	-23 25.8	1.720	2.721	4.8	20.7
7 10	19 24.76	-59 59.9	0.944	1.855	19.6	19.5	7 10	19 23.57	-23 56.2	1.716	2.732	0.8	20.4
7 20	19 4.83	-58 48.5	0.948	1.850	20.4	19.5	7 20	19 13.75	-24 22.5	1.739	2.743	4.0	20.7
7 30	18 49.41	-56 39.1	0.969	1.845	22.1	19.6	7 30	19 4.95	-24 42.5	1.788	2.754	8.1	20.9
8 9	18 40.66	-53 49.6	1.005	1.841	24.4	19.8	8 9	18 58.10	-24 56.0	1.862	2.765	11.7	21.2
8 19	18 38.61	-50 38.3	1.056	1.837	26.7	19.9	8 19	18 53.72	-25 3.3	1.957	2.775	14.7	21.4
184185	2004 <i>PX</i>		7 11.2 255°67	3°7/12.8	18		444213	2005 <i>TC</i> ₇₈		7 11.2 309°76	0°2/11.1	15	
6 10	19 42.52	-9 24.5	2.372	3.232	11.2	20.2	6 10	19 44.28	-21 34.2	1.859	2.755	12.1	22.1
6 20	19 37.37	-9 27.0	2.292	3.224	8.6	20.0	6 20	19 39.14	-21 49.5	1.775	2.734	8.7	21.8
6 30	19 30.77	-9 40.3	2.237	3.216	5.8	19.8	6 30	19 31.95	-22 8.6	1.713	2.714	4.8	21.5
7 10	19 23.28	-10 3.8	2.208	3.208	3.9	19.7	7 10	19 23.44	-22 28.9	1.678	2.694	0.5	21.2
7 20	19 15.59	-10 36.0	2.206	3.200	4.5	19.7	7 20	19 14.56	-22 47.8	1.668	2.674	3.9	21.4
7 30	19 8.45	-11 14.9	2.232	3.192	7.1	19.9	7 30	19 6.39	-23 3.2	1.685	2.655	8.2	21.6
8 9	19 2.56	-11 57.7	2.283	3.184	9.9	20.1	8 9	18 59.92	-23 14.1	1.726	2.636	12.0	21.8
8 19	18 58.40	-12 42.0	2.357	3.176	12.5	20.2	8 19	18 55.82	-23 20.5	1.788	2.617	15.4	22.0
348105	2003 <i>YK</i> ₄₀		7 11.2 227°24	0°1/11.1	17		519107	2010 <i>MU</i> ₃		7 11.2 351°36	1°2/11.7	18	
6 10	19 45.72	-21 13.0	2.030	2.919	11.6	21.5	6 10	19 43.30	-16 8.9	1.762	2.653	13.0	20.8
6 20	19 39.88	-21 33.3	1.959	2.916	8.2	21.3	6 20	19 38.38	-16 54.2	1.694	2.650	9.4	20.6
6 30	19 32.21	-21 57.0	1.913	2.912	4.5	21.0	6 30	19 31.49	-17 50.0	1.649	2.647	5.3	20.3
7 10	19 23.43	-22 21.6	1.892	2.909	0.5	20.7	7 10	19 23.39	-18 52.5	1.629	2.645	1.4	20.1
7 20	19 14.46	-22 44.5	1.900	2.905	3.6	21.0	7 20	19 15.02	-19 57.5	1.637	2.643	3.9	20.2
7 30	19 6.26	-23 3.7	1.934	2.902	7.5	21.2	7 30	19 7.44	-21 0.5	1.670	2.642	8.0	20.5
8 9	18 59.69	-23 18.3	1.994	2.898	11.0	21.4	8 9	19 1.58	-21 58.3	1.728	2.641	11.9	20.7
8 19	18 55.32	-23 28.4	2.075	2.894	13.9	21.6	8 19	18 58.07	-22 48.9	1.807	2.641	15.1	20.9
58365	Robmedrano		7 11.2 352°82	4°8/12.7	18		432423	2010 <i>AO</i> ₇₉		7 11.2 180°91	1°3/11.8	18	
6 10	19 43.47	-10 26.1	1.415	2.302	15.7	18.5	6 10	19 45.97	-15 12.1	1.824	2.706	13.0	20.5
6 20	19 38.75	-10 22.0	1.351	2.298	12.0	18.3	6 20	19 40.22	-16 5.8	1.755	2.707	9.4	20.3
6 30	19 31.76	-10 33.9	1.308	2.295	8.0	18.0	6 30	19 32.48	-17 10.7	1.710	2.707	5.4	20.1
7 10	19 23.40	-11 1.2	1.288	2.293	5.0	17.9	7 10	19 23.50	-18 22.9	1.692	2.707	1.5	19.8
7 20	19 14.77	-11 41.4	1.292	2.292	6.0	17.9	7 20	19 14.24	-19 37.5	1.701	2.707	3.9	20.0
7 30	19 7.13	-12 30.6	1.320	2.291	9.8	18.1	7 30	19 5.76	-20 49.9	1.737	2.707	8.0	20.2
8 9	19 1.53	-13 24.3	1.370	2.290	13.8	18.4	8 9	18 59.02	-21 56.4	1.799	2.706	11.8	20.5
8 19	18 58.65	-14 18.3	1.440	2.291	17.4	18.6	8 19	18 54.63	-22 54.9	1.882	2.706	15.0	20.7
122822	2000 <i>SC</i> ₁₀₇		7 11.2 229°16	1°9/11.8	18		274185	2008 <i>GG</i> ₁₁₅		7 11.2 304°31	0°5/10.9	18	
6 10	19 46.85	-15 59.9	2.178	3.053	11.5	20.4	6 10	19 43.72	-21 37.3	2.107	2.998	11.1	20.6
6 20	19 40.61	-16 2.5	2.094	3.041	8.4	20.2	6 20	19 38.49	-22 11.2	2.031	2.989	7.9	20.4
6 30	19 32.60	-16 11.6	2.035	3.029	5.0	20.0	6 30	19 31.49	-22 49.0	1.980	2.980	4.3	20.1
7 10	19 23.49	-16 25.9	2.003	3.016	2.0	19.7	7 10	19 23.39	-23 27.8	1.955	2.971	0.6	19.8
7 20	19 14.11	-16 43.7	1.999	3.003	3.7	19.8	7 20	19 15.03	-24 4.4	1.958	2.963	3.6	20.1
7 30	19 5.37	-17 3.3	2.023	2.989	7.3	20.0	7 30	19 7.35	-24 36.3	1.987	2.954	7.3	20.3
8 9	18 58.11	-17 23.3	2.073	2.974	10.7	20.2	8 9	19 1.17	-25 2.2	2.042	2.946	10.8	20.5
8 19	18 52.91	-17 42.4	2.145	2.959	13.7	20.4	8 19	18 57.10	-25 21.8	2.118	2.937	13.7	20.7
434005	2000 <i>TD</i> ₃₃		7 11.2 324°51	7°5/10.9	18		472949	2015 <i>GV</i> ₃₀		7 11.2 28°97	1°9/11.7	17	
6 10	19 46.39	-9 23.8	1.590	2.463	15.0	18.9	6 10	19 45.03	-16 52.9	1.452	2.350	14.7	20.8
6 20	19 40.85	-7 39.4	1.498	2.433	12.0	18.6	6 20	19 39.74	-16 57.8	1.398	2.357	10.6	20.6
6 30	19 32.98	-6 1.0	1.429	2.403	9.1	18.4	6 30	19 32.23	-17 11.5	1.367	2.365	6.1	20.3
7 10	19 23.55	-4 33.4	1.385	2.373	7.5	18.2	7 10	19 23.46	-17 31.8	1.359	2.374	2.1	20.1
7 20	19 13.60	-3 21.4	1.365	2.344	8.7	18.2	7 20	19 14.61	-17 55.9	1.377	2.383	4.5	20.3
7 30	19 4.36	-2 28.1	1.370	2.317	11.8	18.3	7 30	19 6.88	-18 21.1	1.419	2.392	9.0	20.6
8 9	18 56.97	-1 53.8	1.397	2.290	15.5	18.5	8 9	19 1.26	-18 45.2	1.484	2.402	13.0	20.8
8 19	18 52.23	-1 36.5	1.443	2.264	18.9	18.6	8 19	18 58.34	-19 6.7	1.568	2.413	16.5	21.1
282030	1994 <i>XK</i> ₂		7 11.2 315°09	6°7/12.9	18		107831	2001 <i>FB</i> ₇₀		7 11.2 53°72	3°1/12.2	18	
6 10	19 42.91	-7 7.1	1.542	2.415	15.4	20.5	6 10	19 47.17	-13 26.4	1.240	2.136	16.9	18.8
6 20	19 38.41	-6 37.5	1.455	2.390	12.3	20.2	6 20	19 41.36	-13 47.2	1.199	2.155	12.3	18.6
6 30	19 31.67	-6 24.0	1.390	2.365	9.0	20.0	6 30	19 33.11	-14 22.5	1.179	2.175	7.4	18.4
7 10	19 23.41	-6 28.6	1.347	2.341	6.8	19.8	7 10	19 23.55	-15 9.0	1.183	2.195	3.3	18.2
7 20	19 14.64	-6 51.2	1.328	2.317	7.5	19.8	7 20	19 14.03	-16 1.8	1.210	2.216	5.2	18.4
7 30	19 6.57	-7 29.9	1.332	2.294	10.7	19.9	7 30	19 5.91	-16 56.0	1.262	2.236	9.7	18.7
8 9	19 0.29	-8 20.4	1.359	2.271	14.5	20.1	8 9	19 0.23	-17 47.6	1.336	2.257	14.0	19.0
8 19	18 56.63	-9 18.0	1.405	2.249	18.1	20.2	8 19	18 57.52	-18 33.8	1.429	2.278	17.5	19.3
72253	2001 <i>AT</i> ₃₁		7 11.2 262°59	2°2/10.6	18		163020	2001 <i>VT</i> ₄₇		7 11.2 248°22	0°4/11.2	18	
6 10	19 50.70	-26 9.2	1.573	2.469	13.9	19.7	6 10	19 50.03	-20 57.8	1.441	2.338	14.9	20.1
6 20	19 44.10	-26 32.1	1.492	2.452	10.0	19.5	6 20	19 43.59	-21 0.7	1.370	2.330	10.7	19.8
6 30	19 34.81	-26 54.9	1.435	2.434	5.7	19.2	6 30	19 34.49	-21 7.8	1.320	2.321	5.9	19.5
7 10	19 23.74	-27 13.0	1.402	2.416	2.2	18.9	7 10	19 23.72	-21 16.3	1.296	2.312	0.7	19.1
7 20	19 12.19	-27 22.4	1.395	2.397	5.2	19.1	7 20	19 12.60	-21 23.5	1.296	2.303	4.7	19.4
7 30	19 1.61	-27 21.6	1.414	2.378	9.9	19.3	7 30	19 2.59	-21 27.7	1.322	2.293	9.8	19.6
8 9	18 53.31	-27 11.3	1.456	2.359	14.3	19.5	8 9	18 54.93	-21 28.5	1.370	2.283	14.3	19.9
8 19	18 48.11	-26 53.6	1.517	2.339	18.0	19.7	8 19	18 50.36	-21 26.3	1.438	2.273	18.2	20.1
239712	2009 <i>AZ</i> ₄₀		7 11.2 316°24	1°2/11.6	18		166649	2002 <i>TB</i> ₁₁		7 11.2 348°73	0°9/10.9		

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7 11.2

7 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
70764	1999 <i>VH</i> ₃₃		7 11.2 327°37	7°3/12.1	17		95686	2002 <i>JZ</i> ₂₁		7 11.2 300°53	1°5/12.0	18	
6 10	19 44.27	- 8 25.2	1.442	2.321	16.0	18.8	6 10	19 43.29	-14 9.5	2.223	3.099	11.2	19.2
6 20	19 39.39	- 7 13.7	1.367	2.304	12.7	18.5	6 20	19 38.12	-15 3.7	2.143	3.090	8.2	19.0
6 30	19 32.18	- 6 14.8	1.312	2.288	9.4	18.3	6 30	19 31.29	-16 8.4	2.088	3.082	4.8	18.8
7 10	19 23.49	- 5 32.1	1.280	2.273	7.4	18.2	7 10	19 23.42	-17 20.8	2.060	3.074	1.7	18.5
7 20	19 14.42	- 5 7.6	1.272	2.258	8.3	18.2	7 20	19 15.25	-18 36.8	2.060	3.066	3.4	18.6
7 30	19 6.23	- 5 1.6	1.287	2.244	11.5	18.3	7 30	19 7.63	-19 52.4	2.089	3.057	6.9	18.8
8 9	19 0.04	- 5 11.7	1.324	2.231	15.1	18.5	8 9	19 1.36	-21 4.1	2.144	3.050	10.2	19.0
8 19	18 56.57	- 5 33.9	1.378	2.219	18.6	18.7	8 19	18 57.00	-22 9.4	2.222	3.042	13.1	19.2
467942	2012 <i>DL</i> ₂₃		7 11.2 129°86	1°0/10.9	17		49113	1998 <i>SK</i> ₇		7 11.2 26°98	2°7/11.9	18	
6 10	19 50.57	-23 28.3	1.636	2.529	13.6	22.0	6 10	19 45.39	-15 31.6	1.186	2.091	16.8	18.9
6 20	19 43.55	-23 51.5	1.581	2.539	9.7	21.8	6 20	19 40.33	-15 34.2	1.137	2.098	12.3	18.6
6 30	19 34.26	-24 16.3	1.548	2.549	5.2	21.5	6 30	19 32.68	-15 49.1	1.108	2.106	7.2	18.4
7 10	19 23.69	-24 38.8	1.542	2.558	1.1	21.2	7 10	19 23.56	-16 13.9	1.102	2.115	3.0	18.1
7 20	19 13.04	-24 55.9	1.562	2.567	4.4	21.5	7 20	19 14.33	-16 45.2	1.119	2.125	5.3	18.3
7 30	19 3.57	-25 6.0	1.609	2.575	8.8	21.8	7 30	19 6.45	-17 19.2	1.159	2.135	10.1	18.6
8 9	18 56.29	-25 9.2	1.679	2.583	12.7	22.0	8 9	19 1.05	-17 52.6	1.220	2.146	14.6	18.9
8 19	18 51.78	-25 6.7	1.770	2.590	15.9	22.3	8 19	18 58.74	-18 23.1	1.300	2.158	18.4	19.2
282303	2002 <i>RN</i> ₂₅₅		7 11.2 210°75	2°5/11.8	18		256080	2006 <i>UL</i> ₂₀₂		7 11.2 176°35	2°1/10.4	17	
6 10	19 46.74	-15 15.5	2.323	3.194	11.0	20.8	6 10	19 49.20	-24 36.3	1.627	2.523	13.5	20.5
6 20	19 40.36	-14 51.0	2.245	3.189	8.1	20.6	6 20	19 42.80	-25 29.9	1.564	2.524	9.6	20.3
6 30	19 32.39	-14 31.8	2.192	3.183	5.0	20.4	6 30	19 33.99	-26 25.9	1.525	2.525	5.4	20.1
7 10	19 23.50	-14 17.7	2.167	3.177	2.6	20.3	7 10	19 23.71	-27 18.9	1.511	2.525	2.1	19.9
7 20	19 14.45	-14 8.1	2.170	3.170	3.9	20.3	7 20	19 13.14	-28 3.6	1.524	2.526	5.0	20.1
7 30	19 6.08	-14 2.7	2.201	3.163	7.0	20.5	7 30	19 3.62	-28 37.0	1.563	2.526	9.3	20.3
8 9	18 59.11	-14 0.6	2.258	3.156	10.1	20.7	8 9	18 56.26	-28 58.7	1.625	2.525	13.2	20.5
8 19	18 54.07	-14 1.0	2.337	3.148	12.8	20.9	8 19	18 51.74	-29 9.8	1.707	2.525	16.5	20.8
126715	2002 <i>CS</i> ₂₄₅		7 11.2 289°90	2°8/10.1	18		251921	1999 <i>VR</i> ₁₇₉		7 11.2 197°17	7°6/15.6	18	
6 10	19 48.46	-26 39.3	1.688	2.585	13.1	19.7	6 10	19 41.58	+10 2.8	3.426	4.162	10.6	21.2
6 20	19 42.59	-27 27.9	1.595	2.555	9.5	19.4	6 20	19 36.36	+10 35.4	3.348	4.159	9.4	21.1
6 30	19 34.08	-28 18.8	1.526	2.524	5.6	19.1	6 30	19 30.12	+10 52.8	3.293	4.154	8.4	21.1
7 10	19 23.72	-29 6.4	1.481	2.493	2.8	18.8	7 10	19 23.29	+10 53.7	3.261	4.149	7.7	21.0
7 20	19 12.62	-29 45.3	1.463	2.462	5.6	18.9	7 20	19 16.33	+10 37.8	3.254	4.144	7.7	21.0
7 30	19 2.21	-30 11.9	1.471	2.431	10.0	19.1	7 30	19 9.75	+10 6.1	3.273	4.138	8.3	21.0
8 9	18 53.82	-30 25.5	1.501	2.399	14.2	19.3	8 9	19 4.03	+ 9 21.0	3.315	4.132	9.3	21.1
8 19	18 48.37	-30 27.5	1.551	2.368	18.0	19.5	8 19	18 59.53	+ 8 25.4	3.380	4.125	10.5	21.2
362881	2012 <i>BR</i> ₁₀₅		7 11.2 263°36	4°6/13.2	18		20898	Fountainhills		7 11.2 63°11	1°5/10.9	18	
6 10	19 42.12	- 6 56.7	2.365	3.217	11.5	21.2	6 10	19 52.02	-30 10.5	3.258	4.123	8.3	17.5
6 20	19 37.09	- 6 52.9	2.289	3.213	9.0	21.0	6 20	19 43.37	-29 44.7	3.219	4.163	5.9	17.4
6 30	19 30.63	- 7 1.2	2.237	3.208	6.4	20.9	6 30	19 33.70	-29 14.2	3.209	4.202	3.4	17.3
7 10	19 23.33	- 7 21.6	2.211	3.204	4.7	20.8	7 10	19 23.67	-28 38.4	3.230	4.241	1.6	17.2
7 20	19 15.85	- 7 52.7	2.212	3.200	5.1	20.8	7 20	19 13.91	-27 57.4	3.282	4.280	2.9	17.3
7 30	19 8.94	- 8 32.5	2.240	3.195	7.3	20.9	7 30	19 5.06	-27 12.3	3.366	4.319	5.3	17.5
8 9	19 3.26	- 9 18.2	2.293	3.191	10.0	21.1	8 9	18 57.61	-26 24.8	3.478	4.357	7.4	17.7
8 19	18 59.30	-10 6.7	2.369	3.187	12.5	21.2	8 19	18 51.86	-25 36.6	3.616	4.395	9.3	17.9
271718	2004 <i>RA</i> ₂₁₇		7 11.2 350°28	5°6/10.7	17		49134	1998 <i>SF</i> ₂₇		7 11.2 219°72	0°7/11.4	18	
6 10	19 48.50	-34 29.4	1.165	2.076	16.5	18.9	6 10	19 48.43	-19 5.5	1.858	2.743	12.6	19.4
6 20	19 43.03	-34 25.2	1.105	2.067	12.4	18.6	6 20	19 42.00	-19 19.8	1.782	2.736	9.1	19.1
6 30	19 34.32	-34 8.1	1.065	2.059	8.2	18.4	6 30	19 33.48	-19 39.6	1.730	2.728	5.1	18.9
7 10	19 23.72	-33 32.7	1.046	2.053	5.6	18.2	7 10	19 23.68	-20 2.4	1.704	2.720	1.0	18.6
7 20	19 12.99	-32 37.3	1.051	2.048	7.7	18.3	7 20	19 13.58	-20 25.5	1.706	2.711	3.9	18.8
7 30	19 3.97	-31 24.8	1.077	2.044	12.0	18.5	7 30	19 4.31	-20 46.8	1.734	2.702	8.1	19.0
8 9	18 58.01	-30 1.4	1.124	2.042	16.4	18.8	8 9	18 56.83	-21 5.0	1.787	2.692	12.0	19.2
8 19	18 55.76	-28 33.8	1.190	2.041	20.2	19.0	8 19	18 51.80	-21 19.6	1.862	2.682	15.2	19.4
95539	2002 <i>EH</i> ₈₄		7 11.2 268°28	4°0/12.6	18		501595	2014 <i>QO</i> ₂₂₆		7 11.2 341°45	0°1/11.2	17	
6 10	19 45.11	-10 52.9	1.788	2.662	13.6	20.1	6 10	19 43.00	-21 36.8	0.872	1.803	18.6	21.4
6 20	19 39.66	-10 54.4	1.710	2.651	10.3	19.8	6 20	19 39.62	-21 40.5	0.814	1.790	13.5	21.1
6 30	19 32.21	-11 8.6	1.655	2.641	6.8	19.6	6 30	19 32.75	-21 50.8	0.773	1.778	7.4	20.7
7 10	19 23.51	-11 35.0	1.625	2.630	4.1	19.4	7 10	19 23.62	-22 4.0	0.751	1.767	0.8	20.2
7 20	19 14.48	-12 11.4	1.620	2.619	5.2	19.5	7 20	19 13.97	-22 15.9	0.749	1.758	6.0	20.6
7 30	19 6.20	-12 55.0	1.643	2.609	8.6	19.7	7 30	19 5.85	-22 23.5	0.768	1.751	12.4	20.9
8 9	18 59.60	-13 42.2	1.689	2.598	12.3	19.8	8 9	19 0.91	-22 25.8	0.803	1.745	18.2	21.2
8 19	18 55.33	-14 30.1	1.756	2.587	15.6	20.0	8 19	19 0.04	-22 22.7	0.854	1.741	23.0	21.5
389919	2012 <i>TO</i> ₉₇		7 11.2 260°95	1°8/11.7	18		440991	2007 <i>DH</i> ₁₂		7 11.2 185°15	0°3/11.1	18	
6 10	19 45.97	-16 53.4	1.918	2.802	12.4	21.2	6 10	19 46.53	-23 36.2	2.750	3.629	9.2	21.2
6 20	19 40.17	-16 51.7	1.840	2.791	9.0	21.0	6 20	19 40.02	-23 25.6	2.677	3.629	6.6	21.0
6 30	19 32.44	-16 56.6	1.785	2.781	5.3	20.7	6 30	19 32.15	-23 14.6	2.630	3.628	3.6	20.8
7 10	19 23.53	-17 6.6	1.756	2.770	1.9	20.5	7 10	19 23.53	-23 2.1	2.611	3.627	0.4	20.6
7 20	19 14.34	-17 19.9	1.754	2.759	4.0	20.6	7 20	19 14.83	-22 47.2	2.622	3.626	2.9	20.8
7 30	19 5.91	-17 35.0	1.779	2.748	7.9	20.8	7 30	19 6.80	-22 29.9	2.661	3.624	5.9	21.0
8 9	18 59.13	-17 50.4	1.829	2.737	11.6	21.0	8 9	19 0.05	-22 10.6	2.728	3.623	8.7	21.2
8 19	18 54.62	-18 5.0	1.900	2.725	14.8	21.2	8 19	18 55.02	-21 49.9	2.818	3.620	11.1	21.3
236710	2007 <i>EC</i> ₂₁₃		7 11.2 260°43	6°6/12.5	18		133026	2002 <i>WW</i> ₁₁		7 11.			

EPHEMERIDES

7 11.2

7 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
186974	2004 <i>RK</i> ₁₈₈		7 11.2 330°33	5°5/12.7	18		513719	2012 <i>SJ</i> ₆₈		7 11.2 84°51	5°5/9.2	18	
6 10	19 42.44	- 7 50.4	1.928	2.792	13.2	18.9	6 10	19 48.93	-36 55.6	2.090	2.971	11.6	20.6
6 20	19 37.60	- 7 15.9	1.852	2.782	10.3	18.7	6 20	19 42.34	-37 40.3	2.031	2.973	8.9	20.4
6 30	19 31.04	- 6 53.8	1.799	2.773	7.5	18.5	6 30	19 33.64	-38 16.3	1.997	2.975	6.5	20.3
7 10	19 23.42	- 6 45.1	1.770	2.763	5.7	18.4	7 10	19 23.73	-38 38.8	1.989	2.978	5.6	20.2
7 20	19 15.57	- 6 50.0	1.767	2.754	6.3	18.4	7 20	19 13.70	-38 44.7	2.007	2.980	6.8	20.3
7 30	19 8.41	- 7 6.9	1.790	2.746	8.8	18.6	7 30	19 4.68	-38 33.8	2.050	2.982	9.3	20.5
8 9	19 2.75	- 7 33.4	1.836	2.738	11.8	18.7	8 9	18 57.64	-38 8.3	2.118	2.985	12.0	20.6
8 19	18 59.15	- 8 6.3	1.903	2.730	14.7	18.9	8 19	18 53.15	-37 31.7	2.205	2.987	14.4	20.8
122869	2000 <i>SB</i> ₁₃₇		7 11.2 231°04	4°9/12.3	18		440932	2006 <i>XE</i> ₅₁		7 11.2 315°67	1°2/11.4	18	
6 10	19 47.05	- 9 41.8	2.009	2.870	12.9	19.9	6 10	19 47.09	-20 22.2	2.059	2.944	11.6	20.4
6 20	19 40.82	- 9 3.4	1.930	2.861	9.9	19.7	6 20	19 40.78	-19 48.8	1.986	2.940	8.3	20.2
6 30	19 32.77	- 8 34.9	1.875	2.852	7.0	19.5	6 30	19 32.71	-19 16.9	1.938	2.936	4.7	20.0
7 10	19 23.61	- 8 17.4	1.846	2.843	5.0	19.3	7 10	19 23.63	-18 46.0	1.916	2.932	1.3	19.7
7 20	19 14.22	- 8 11.0	1.843	2.833	5.8	19.4	7 20	19 14.45	-18 16.2	1.923	2.928	3.7	19.9
7 30	19 5.54	- 8 15.0	1.868	2.823	8.6	19.5	7 30	19 6.10	-17 47.8	1.956	2.924	7.4	20.1
8 9	18 58.42	- 8 27.4	1.917	2.812	11.8	19.7	8 9	18 59.40	-17 21.3	2.015	2.920	10.8	20.3
8 19	18 53.44	- 8 46.0	1.987	2.801	14.6	19.8	8 19	18 54.86	-16 57.1	2.096	2.916	13.8	20.5
77994	2002 <i>JY</i> ₃₉		7 11.2 354°94	3°6/12.4	18		35035	1981 <i>ER</i> ₂₉		7 11.2 140°02	6°9/13.9	18	R
6 10	19 43.41	-12 54.3	1.121	2.026	17.5	18.7	6 10	19 45.59	- 2 4.9	2.050	2.882	13.7	19.0
6 20	19 39.21	-13 13.5	1.062	2.022	13.0	18.4	6 20	19 39.64	- 1 42.7	1.988	2.891	11.2	18.9
6 30	19 32.25	-13 50.8	1.023	2.019	8.0	18.1	6 30	19 32.07	- 1 37.3	1.948	2.899	8.7	18.8
7 10	19 23.57	-14 43.6	1.005	2.017	3.8	17.9	7 10	19 23.58	- 1 49.5	1.933	2.907	7.0	18.7
7 20	19 14.54	-15 46.9	1.009	2.016	5.7	18.0	7 20	19 14.98	- 2 18.4	1.943	2.914	7.2	18.7
7 30	19 6.72	-16 54.6	1.037	2.015	10.7	18.3	7 30	19 7.14	- 3 1.4	1.980	2.921	9.1	18.8
8 9	19 1.40	-18 0.6	1.085	2.016	15.6	18.6	8 9	19 0.80	- 3 54.8	2.041	2.928	11.6	19.0
8 19	18 59.34	-19 0.7	1.150	2.017	19.7	18.8	8 19	18 56.46	- 4 54.1	2.124	2.934	14.0	19.2
73217	2002 <i>JX</i> ₂₃		7 11.2 0°37	0°1/11.2	18		283661	2002 <i>PM</i> ₁₃		7 11.2 350°11	1°0/11.0	17	
6 10	19 46.08	-20 16.8	1.184	2.095	16.3	19.2	6 10	19 47.24	-25 36.6	1.430	2.335	14.4	19.5
6 20	19 41.07	-20 45.3	1.127	2.094	11.7	18.9	6 20	19 41.55	-25 16.9	1.365	2.329	10.3	19.3
6 30	19 33.24	-21 21.7	1.090	2.093	6.4	18.6	6 30	19 33.37	-24 55.0	1.322	2.324	5.7	19.0
7 10	19 23.68	-22 1.5	1.076	2.093	0.7	18.2	7 10	19 23.73	-24 28.7	1.304	2.320	1.2	18.7
7 20	19 13.83	-22 39.7	1.086	2.093	5.1	18.5	7 20	19 13.94	-23 57.1	1.310	2.317	4.7	18.9
7 30	19 5.29	-23 12.2	1.118	2.094	10.5	18.8	7 30	19 5.39	-23 21.1	1.341	2.314	9.5	19.2
8 9	18 59.35	-23 37.3	1.172	2.096	15.3	19.1	8 9	18 59.17	-22 42.4	1.395	2.312	13.8	19.4
8 19	18 56.74	-23 54.6	1.243	2.098	19.3	19.4	8 19	18 55.93	-22 3.1	1.468	2.311	17.5	19.7
58095	Oranienstein		7 11.2 356°03	0°7/10.9	18		325805	2010 <i>RG</i> ₁₀₁		7 11.2 158°79	1°4/11.6	17	
6 10	19 41.58	-23 54.9	2.659	3.548	9.2	18.9	6 10	19 49.33	-18 24.3	1.561	2.451	14.3	21.0
6 20	19 36.65	-24 6.9	2.590	3.546	6.5	18.7	6 20	19 42.80	-18 23.4	1.498	2.454	10.3	20.8
6 30	19 30.39	-24 19.6	2.545	3.545	3.5	18.5	6 30	19 33.97	-18 28.8	1.458	2.457	5.8	20.5
7 10	19 23.37	-24 31.1	2.528	3.544	0.8	18.3	7 10	19 23.80	-18 38.3	1.444	2.459	1.6	20.3
7 20	19 16.24	-24 39.9	2.539	3.543	3.0	18.5	7 20	19 13.46	-18 49.7	1.455	2.461	4.4	20.5
7 30	19 9.70	-24 45.1	2.578	3.543	6.0	18.7	7 30	19 4.22	-19 1.1	1.492	2.463	8.9	20.7
8 9	19 4.37	-24 46.2	2.642	3.542	8.7	18.9	8 9	18 57.12	-19 11.5	1.553	2.464	13.0	21.0
8 19	19 0.68	-24 43.6	2.729	3.542	11.1	19.0	8 19	18 52.78	-19 20.2	1.633	2.465	16.5	21.2
413339	2003 <i>WY</i> ₁₆₀		7 11.2 198°77	1°3/10.7	17		121485	1999 <i>TF</i> ₂₄₄		7 11.2 339°87	3°2/12.3	18	
6 10	19 49.90	-23 36.3	1.776	2.667	12.9	21.9	6 10	19 42.26	-13 25.3	1.745	2.631	13.3	19.2
6 20	19 43.16	-24 10.5	1.707	2.664	9.2	21.7	6 20	19 37.67	-13 21.2	1.671	2.621	9.9	19.0
6 30	19 34.16	-24 47.2	1.661	2.661	5.0	21.4	6 30	19 31.17	-13 27.7	1.621	2.612	6.2	18.7
7 10	19 23.78	-25 22.0	1.642	2.658	1.3	21.2	7 10	19 23.50	-13 43.7	1.595	2.604	3.4	18.5
7 20	19 13.13	-25 51.2	1.650	2.653	4.4	21.4	7 20	19 15.57	-14 7.7	1.594	2.596	4.7	18.6
7 30	19 3.41	-26 12.4	1.685	2.649	8.6	21.6	7 30	19 8.41	-14 37.2	1.619	2.589	8.3	18.8
8 9	18 55.70	-26 25.3	1.744	2.644	12.5	21.9	8 9	19 2.93	-15 9.5	1.667	2.583	12.0	19.0
8 19	18 50.64	-26 30.8	1.823	2.638	15.7	22.1	8 19	18 59.73	-15 42.2	1.736	2.577	15.3	19.2
138890	2000 <i>YD</i> ₆₁		7 11.2 40°09	1°0/11.1	18		129483	1994 <i>GO</i> ₈		7 11.2 326°71	9°6/9.1	18	
6 10	19 51.99	-27 41.2	1.893	2.779	12.4	17.8	6 10	19 51.78	-42 21.5	1.385	2.272	16.0	18.6
6 20	19 44.12	-26 51.5	1.838	2.793	8.8	17.6	6 20	19 45.56	-43 7.4	1.318	2.255	13.1	18.3
6 30	19 34.38	-25 56.8	1.808	2.807	4.8	17.4	6 30	19 35.88	-43 36.6	1.271	2.239	10.6	18.1
7 10	19 23.78	-24 56.4	1.806	2.822	1.1	17.2	7 10	19 24.02	-43 40.0	1.246	2.223	9.6	18.0
7 20	19 13.38	-23 51.8	1.832	2.837	3.9	17.4	7 20	19 11.79	-43 12.7	1.243	2.208	11.0	18.1
7 30	19 4.26	-22 45.2	1.887	2.852	7.7	17.7	7 30	19 1.19	-42 15.3	1.262	2.194	13.9	18.2
8 9	18 57.18	-21 39.6	1.967	2.868	11.2	18.0	8 9	18 53.78	-40 54.4	1.302	2.181	17.3	18.4
8 19	18 52.60	-20 37.3	2.069	2.884	14.1	18.2	8 19	18 50.32	-39 18.2	1.359	2.168	20.4	18.6
141816	2002 <i>NY</i> ₄₅		7 11.2 6°86	2°1/11.7	17		359479	2010 <i>OH</i> ₂₀		7 11.2 206°24	5°3/9.3	18	
6 10	19 41.79	-17 26.4	0.944	1.868	18.2	19.1	6 10	19 49.59	-39 32.8	2.558	3.425	10.2	21.1
6 20	19 38.29	-17 27.5	0.897	1.868	13.2	18.8	6 20	19 42.53	-40 0.2	2.492	3.422	8.0	20.9
6 30	19 31.79	-17 40.8	0.867	1.870	7.6	18.5	6 30	19 33.66	-40 18.0	2.451	3.420	6.1	20.8
7 10	19 23.53	-18 3.6	0.858	1.874	2.4	18.2	7 10	19 23.76	-40 22.4	2.436	3.417	5.3	20.7
7 20	19 15.08	-18 31.8	0.870	1.879	5.6	18.4	7 20	19 13.79	-40 11.6	2.449	3.414	6.3	20.8
7 30	19 8.13	-19 1.4	0.903	1.886	11.2	18.8	7 30	19 4.71	-39 45.6	2.488	3.411	8.4	20.9
8 9	19 4.00	-19 29.0	0.955	1.894	16.3	19.1	8 9	18 57.35	-39 6.7	2.552	3.407	10.6	21.1
8 19	19 3.36	-19 52.3	1.023	1.904	20.6	19.4	8 19	18 52.24	-38 18.4	2.638	3.404	12.7	21.2
42400	6587 <i>P-L</i>		7 11.2 314°45	1°0/10.8	18		318393	2004 <i>XU</i> ₆₁					

EPHEMERIDES

7 11.2

7 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
130743	2000 SQ ₂₅₆		7 11.2 96°89	2°2/10.4	17		16629	1993 LK ₁		7 11.2 16°92	6°8/12.8	18	
6 10	19 52.03	-24 40.0	1.480	2.376	14.6	19.1	6 10	19 42.15	-10 41.0	0.863	1.780	20.3	16.5
6 20	19 44.76	-25 36.2	1.437	2.397	10.3	18.8	6 20	19 38.53	-9 59.4	0.824	1.786	15.6	16.3
6 30	19 35.01	-26 33.5	1.417	2.417	5.7	18.6	6 30	19 31.92	-9 39.2	0.802	1.794	10.6	16.1
7 10	19 23.92	-27 25.6	1.423	2.437	2.2	18.5	7 10	19 23.64	-9 41.6	0.799	1.804	7.1	15.9
7 20	19 12.82	-28 7.4	1.455	2.456	5.2	18.7	7 20	19 15.29	-10 4.7	0.815	1.816	8.2	16.0
7 30	19 3.11	-28 36.6	1.512	2.475	9.5	19.0	7 30	19 8.57	-10 43.6	0.851	1.830	12.5	16.3
8 9	18 55.86	-28 53.4	1.593	2.493	13.4	19.3	8 9	19 4.71	-11 31.6	0.906	1.844	17.0	16.6
8 19	18 51.63	-28 59.9	1.693	2.511	16.6	19.5	8 19	19 4.30	-12 22.3	0.976	1.861	21.0	16.9
400711	2009 RV ₇₂		7 11.2 324°32	12°8/11.1	16		33042	1997 TU ₁₈		7 11.2 221°81	3°4/12.3	18	
6 10	19 43.82	+ 6 58.3	1.859	2.653	16.4	19.9	6 10	19 49.21	-12 42.4	1.742	2.616	13.9	18.8
6 20	19 38.84	+ 8 59.0	1.775	2.626	14.8	19.8	6 20	19 42.70	-12 43.6	1.663	2.607	10.4	18.5
6 30	19 31.89	+10 41.5	1.711	2.600	13.4	19.6	6 30	19 33.99	-12 56.1	1.607	2.597	6.6	18.3
7 10	19 23.62	+11 59.1	1.670	2.574	12.8	19.5	7 10	19 23.88	-13 18.7	1.577	2.586	3.5	18.1
7 20	19 14.87	+12 47.4	1.650	2.549	13.3	19.5	7 20	19 13.40	-13 49.3	1.573	2.574	5.0	18.2
7 30	19 6.66	+13 4.4	1.652	2.525	14.6	19.5	7 30	19 3.72	-14 25.2	1.596	2.562	8.9	18.4
8 9	18 59.95	+12 52.6	1.673	2.501	16.4	19.6	8 9	18 55.88	-15 3.5	1.644	2.549	12.8	18.6
8 19	18 55.46	+12 16.9	1.711	2.478	18.5	19.7	8 19	18 50.58	-15 41.6	1.712	2.536	16.2	18.8
335522	2005 YA ₂₆₈		7 11.2 226°17	0°7/11.1	18		44399	1998 SZ ₈₄		7 11.2 281°15	0°1/11.2	18	
6 10	19 50.09	-24 47.6	1.804	2.694	12.7	20.8	6 10	19 45.81	-20 43.0	1.849	2.741	12.4	19.3
6 20	19 43.18	-24 34.8	1.734	2.691	9.1	20.6	6 20	19 40.25	-21 9.4	1.773	2.731	8.8	19.0
6 30	19 34.13	-24 20.6	1.687	2.687	5.0	20.3	6 30	19 32.65	-21 40.9	1.720	2.720	4.8	18.8
7 10	19 23.84	-24 3.1	1.667	2.683	0.9	20.0	7 10	19 23.75	-22 14.3	1.693	2.710	0.5	18.4
7 20	19 13.42	-23 41.0	1.675	2.680	4.1	20.2	7 20	19 14.54	-22 46.3	1.694	2.699	3.9	18.7
7 30	19 4.03	-23 14.7	1.709	2.676	8.3	20.5	7 30	19 6.11	-23 14.4	1.720	2.689	8.1	18.9
8 9	18 56.64	-22 45.4	1.767	2.672	12.1	20.7	8 9	18 59.41	-23 37.1	1.771	2.678	11.9	19.1
8 19	18 51.84	-22 14.7	1.847	2.667	15.3	20.9	8 19	18 55.11	-23 54.2	1.843	2.668	15.2	19.3
85436	1997 EU ₁₆		7 11.2 316°24	0°5/11.0	18		119033	2001 EU ₁₂		7 11.2 152°51	8°2/ 6.4	18	
6 10	19 44.18	-22 26.0	1.820	2.717	12.3	19.5	6 10	19 54.87	-52 40.4	3.045	3.854	10.3	20.0
6 20	19 39.19	-22 40.7	1.733	2.694	8.8	19.2	6 20	19 46.52	-53 47.3	3.001	3.862	9.1	19.9
6 30	19 32.10	-22 58.7	1.670	2.671	4.8	19.0	6 30	19 35.97	-54 39.2	2.980	3.870	8.3	19.9
7 10	19 23.64	-23 17.0	1.633	2.649	0.7	18.6	7 10	19 24.11	-55 11.3	2.984	3.877	8.2	19.9
7 20	19 14.78	-23 33.1	1.621	2.627	4.0	18.8	7 20	19 12.07	-55 21.5	3.013	3.884	8.8	19.9
7 30	19 6.62	-23 44.9	1.636	2.606	8.3	19.0	7 30	19 1.05	-55 9.8	3.066	3.890	9.9	20.0
8 9	19 0.20	-23 51.7	1.674	2.585	12.3	19.2	8 9	18 52.04	-54 39.2	3.141	3.896	11.1	20.1
8 19	18 56.22	-23 53.5	1.733	2.564	15.7	19.4	8 19	18 45.67	-53 54.2	3.235	3.901	12.3	20.2
299380	2005 UT ₅₀₈		7 11.2 334°13	1°0/11.4	17		187203	2005 SB ₈₅		7 11.2 223°97	0°4/11.4	18 R	
6 10	19 47.88	-20 29.8	1.063	1.977	17.5	20.6	6 10	19 44.51	-19 55.9	2.632	3.511	9.6	21.5
6 20	19 42.65	-20 18.1	1.002	1.970	12.7	20.3	6 20	19 38.79	-20 7.2	2.551	3.502	6.9	21.3
6 30	19 34.25	-20 11.9	0.961	1.963	7.1	20.0	6 30	19 31.65	-20 21.6	2.496	3.494	3.8	21.1
7 10	19 23.88	-20 9.0	0.941	1.957	1.3	19.6	7 10	19 23.65	-20 37.5	2.469	3.485	0.6	20.8
7 20	19 13.15	-20 6.8	0.944	1.952	5.5	19.9	7 20	19 15.46	-20 53.2	2.471	3.476	2.9	21.0
7 30	19 3.86	-20 4.1	0.969	1.947	11.3	20.2	7 30	19 7.83	-21 7.5	2.501	3.467	6.1	21.2
8 9	18 57.47	-20 0.2	1.013	1.943	16.6	20.5	8 9	19 1.41	-21 19.4	2.558	3.457	9.0	21.3
8 19	18 54.75	-19 55.1	1.075	1.939	21.0	20.7	8 19	18 56.70	-21 28.7	2.637	3.447	11.6	21.5
442030	2010 PR ₆		7 11.2 264°75	1°6/10.6	17		449696	2014 LD ₂₃		7 11.2 15°95	7°1/ 7.5	18	
6 10	19 46.38	-27 8.6	2.538	3.421	9.7	21.7	6 10	19 46.70	-36 24.2	1.721	2.615	13.1	19.7
6 20	19 40.24	-27 17.7	2.449	3.402	7.0	21.5	6 20	19 41.28	-38 8.4	1.673	2.619	10.1	19.6
6 30	19 32.46	-27 25.1	2.386	3.383	4.0	21.3	6 30	19 33.34	-39 44.9	1.649	2.625	7.8	19.4
7 10	19 23.67	-27 28.4	2.350	3.364	1.6	21.1	7 10	19 23.84	-41 5.2	1.649	2.632	7.2	19.4
7 20	19 14.65	-27 26.0	2.343	3.344	3.6	21.2	7 20	19 14.02	-42 3.5	1.675	2.639	8.8	19.5
7 30	19 6.23	-27 17.0	2.365	3.324	6.8	21.4	7 30	19 5.27	-42 37.5	1.724	2.646	11.4	19.7
8 9	18 59.18	-27 2.1	2.412	3.304	9.8	21.5	8 9	18 58.78	-42 48.8	1.795	2.655	14.1	19.9
8 19	18 54.05	-26 42.3	2.482	3.283	12.4	21.7	8 19	18 55.25	-42 41.6	1.885	2.664	16.6	20.1
216294	2007 KM ₄		7 11.2 1°24	0°6/11.1	18		471613	2012 SQ ₅₈		7 11.2 310°13	4°1/10.8	18	
6 10	19 44.56	-22 50.6	1.252	2.165	15.5	19.7	6 10	19 52.26	-32 54.7	1.534	2.428	14.3	20.1
6 20	19 39.88	-22 59.2	1.195	2.163	11.0	19.5	6 20	19 45.35	-32 42.9	1.453	2.409	10.6	19.8
6 30	19 32.56	-23 11.0	1.159	2.162	6.0	19.2	6 30	19 35.60	-32 20.8	1.395	2.389	6.7	19.5
7 10	19 23.69	-23 22.4	1.146	2.162	0.8	18.8	7 10	19 24.11	-31 44.3	1.362	2.370	4.1	19.3
7 20	19 14.62	-23 30.5	1.156	2.163	4.9	19.1	7 20	19 12.29	-30 51.6	1.354	2.351	6.2	19.4
7 30	19 6.83	-23 33.4	1.190	2.165	10.0	19.4	7 30	19 1.74	-29 44.6	1.371	2.333	10.4	19.6
8 9	19 1.49	-23 31.0	1.244	2.169	14.6	19.7	8 9	18 53.74	-28 28.1	1.411	2.315	14.6	19.8
8 19	18 59.27	-23 23.8	1.318	2.173	18.4	19.9	8 19	18 49.04	-27 7.5	1.471	2.298	18.3	20.0
380303	2002 CO ₂₈₈		7 11.2 275°54	1°5/11.8	18		422655	1997 YW ₁₂		7 11.2 275°59	0°1/11.2	17	
6 10	19 46.01	-16 26.6	1.723	2.611	13.3	20.9	6 10	19 49.97	-21 7.1	1.520	2.415	14.4	22.0
6 20	19 40.50	-16 50.8	1.643	2.597	9.7	20.7	6 20	19 43.81	-21 23.4	1.431	2.390	10.4	21.7
6 30	19 32.82	-17 24.6	1.587	2.584	5.6	20.4	6 30	19 34.89	-21 45.0	1.363	2.364	5.8	21.4
7 10	19 23.73	-18 5.4	1.555	2.570	1.7	20.1	7 10	19 24.06	-22 8.6	1.321	2.337	0.6	21.0
7 20	19 14.23	-18 49.8	1.550	2.556	4.2	20.3	7 20	19 12.53	-22 30.4	1.304	2.310	4.7	21.2
7 30	19 5.49	-19 34.2	1.571	2.542	8.5	20.5	7 30	19 1.79	-22 47.8	1.313	2.283	9.9	21.4
8 9	18 58.56	-20 16.0	1.617	2.528	12.6	20.7	8 9	18 53.22	-22 59.7	1.344	2.255	14.7	21.6
8 19	18 54.14	-20 53.3	1.683	2.514	16.1	20.9	8 19	18 47.74	-23 6.2	1.395	2.227	18.8	21.8
370689	2004 GB ₄₆		7 11.2 99°26	1°0/10.9	17		376939	2002 CA ₂₅₃		7 11.2 197°67	1°4/11.7	18	
6 10	19												

EPHEMERIDES

7 11.2

7 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
57784	2001 <i>VW</i> ₈₅		7 11.2 81°91	3°8/12.3	18	R	206485	2003 <i>UP</i> ₆₆		7 11.2 276°27	2°8/12.5	18	
6 10	19 48.17	-12 43.2	1.629	2.508	14.5	18.8	6 10	19 45.05	-12 11.8	1.902	2.777	12.9	20.4
6 20	19 41.72	-12 25.6	1.580	2.525	10.7	18.6	6 20	19 39.71	-12 42.0	1.816	2.760	9.6	20.1
6 30	19 33.31	-12 18.9	1.555	2.543	6.8	18.4	6 30	19 32.40	-13 25.1	1.754	2.744	6.0	19.9
7 10	19 23.85	-12 22.5	1.554	2.561	3.9	18.3	7 10	19 23.81	-14 19.3	1.717	2.727	3.0	19.7
7 20	19 14.42	-12 34.9	1.579	2.578	5.2	18.4	7 20	19 14.80	-15 21.3	1.707	2.711	4.3	19.7
7 30	19 6.10	-12 53.7	1.630	2.596	8.7	18.6	7 30	19 6.40	-16 26.9	1.725	2.694	8.1	19.9
8 9	18 59.75	-13 16.7	1.704	2.613	12.2	18.9	8 9	18 59.56	-17 32.3	1.767	2.677	11.8	20.1
8 19	18 55.88	-13 41.3	1.800	2.630	15.3	19.1	8 19	18 54.97	-18 34.4	1.831	2.660	15.1	20.3
50500	2000 <i>DU</i> ₉₆		7 11.2 137°00	1°0/10.9	18		13077	Edschneider		7 11.2 48°51	3°3/12.2	18	
6 10	19 50.12	-23 22.9	1.775	2.665	12.9	20.0	6 10	19 47.00	-14 10.9	1.345	2.238	16.0	18.2
6 20	19 43.21	-23 47.7	1.717	2.674	9.2	19.8	6 20	19 41.34	-14 7.1	1.293	2.247	11.8	17.9
6 30	19 34.18	-24 14.1	1.683	2.683	5.0	19.6	6 30	19 33.29	-14 15.4	1.262	2.256	7.2	17.7
7 10	19 23.96	-24 38.5	1.676	2.692	1.1	19.3	7 10	19 23.90	-14 34.2	1.254	2.266	3.5	17.5
7 20	19 13.63	-24 57.9	1.696	2.700	4.2	19.6	7 20	19 14.40	-15 0.8	1.271	2.275	5.3	17.6
7 30	19 4.37	-25 10.5	1.742	2.707	8.3	19.8	7 30	19 6.13	-15 32.0	1.313	2.285	9.6	17.9
8 9	18 57.12	-25 16.3	1.813	2.715	12.0	20.1	8 9	19 0.13	-16 4.7	1.376	2.296	13.8	18.2
8 19	18 52.46	-25 16.4	1.904	2.721	15.1	20.3	8 19	18 57.00	-16 36.3	1.459	2.306	17.4	18.4
361013	2005 <i>VQ</i> ₁₀₂		7 11.2 299°22	5°7/ 9.3	18		129942	1999 <i>TX</i> ₁₇₁		7 11.2 256°67	3°3/10.1	18	
6 10	19 49.01	-37 2.1	2.031	2.913	11.9	20.4	6 10	19 48.40	-29 19.4	1.854	2.747	12.3	20.5
6 20	19 42.71	-37 39.5	1.949	2.891	9.2	20.2	6 20	19 42.19	-29 58.5	1.785	2.741	8.9	20.3
6 30	19 34.08	-38 8.6	1.891	2.870	6.7	20.0	6 30	19 33.76	-30 35.1	1.739	2.735	5.4	20.0
7 10	19 23.96	-38 24.1	1.858	2.848	5.7	19.9	7 10	19 23.96	-31 4.5	1.720	2.729	3.3	19.9
7 20	19 13.47	-38 22.4	1.851	2.827	7.1	19.9	7 20	19 13.90	-31 23.0	1.727	2.723	5.4	20.0
7 30	19 3.88	-38 2.8	1.870	2.805	9.9	20.0	7 30	19 4.77	-31 29.0	1.760	2.716	9.0	20.2
8 9	18 56.26	-37 27.4	1.911	2.784	12.8	20.2	8 9	18 57.60	-31 23.3	1.817	2.710	12.4	20.4
8 19	18 51.35	-36 40.2	1.974	2.763	15.6	20.3	8 19	18 53.06	-31 8.2	1.895	2.704	15.4	20.6
263283	2008 <i>BH</i> ₃₆		7 11.2 206°50	1°0/10.9	17		201600	2003 <i>SR</i> ₁₇₄		7 11.2 245°76	3°1/10.3	17	
6 10	19 50.61	-23 49.7	1.836	2.724	12.6	22.3	6 10	19 48.74	-29 15.3	1.870	2.762	12.2	20.6
6 20	19 43.66	-24 7.8	1.763	2.719	9.0	22.1	6 20	19 42.36	-29 42.9	1.803	2.758	8.9	20.4
6 30	19 34.51	-24 27.1	1.715	2.714	4.9	21.9	6 30	19 33.81	-30 7.3	1.758	2.754	5.3	20.2
7 10	19 24.02	-24 44.2	1.693	2.708	1.1	21.6	7 10	19 23.97	-30 24.5	1.740	2.750	3.1	20.0
7 20	19 13.27	-24 56.3	1.698	2.702	4.2	21.8	7 20	19 13.92	-30 31.3	1.749	2.746	5.1	20.1
7 30	19 3.45	-25 1.9	1.730	2.695	8.4	22.0	7 30	19 4.83	-30 26.9	1.784	2.742	8.7	20.3
8 9	18 55.57	-25 1.2	1.787	2.687	12.2	22.2	8 9	18 57.71	-30 12.3	1.843	2.737	12.2	20.5
8 19	18 50.30	-24 55.1	1.865	2.679	15.4	22.4	8 19	18 53.18	-29 49.9	1.922	2.733	15.2	20.7
201520	2003 <i>PD</i> ₄		7 11.2 350°49	4°0/12.4	16		97278	1999 <i>XM</i> ₁₄₄		7 11.2 93°35	4°8/ 8.9	18	
6 10	19 39.23	-13 12.6	1.101	2.014	17.2	19.3	6 10	19 50.43	-32 44.3	2.011	2.896	11.8	18.2
6 20	19 32.35	-13 13.7	1.038	2.001	12.9	19.0	6 20	19 43.42	-34 2.8	1.969	2.917	8.8	18.1
6 30	19 30.83	-13 31.7	0.994	1.991	8.1	18.7	6 30	19 34.32	-35 15.6	1.951	2.937	6.0	18.0
7 10	19 23.63	-14 5.5	0.970	1.982	4.2	18.5	7 10	19 24.03	-36 16.6	1.961	2.957	4.8	17.9
7 20	19 16.02	-14 51.7	0.969	1.975	5.9	18.6	7 20	19 13.63	-37 1.3	1.998	2.977	6.4	18.1
7 30	19 9.52	-15 45.3	0.989	1.969	10.8	18.8	7 30	19 4.29	-37 28.5	2.061	2.996	9.1	18.3
8 9	19 5.41	-16 40.8	1.028	1.966	15.6	19.1	8 9	18 56.92	-37 39.4	2.148	3.015	11.8	18.5
8 19	19 4.46	-17 33.5	1.086	1.965	19.8	19.3	8 19	18 52.12	-37 37.0	2.256	3.034	14.2	18.7
349491	2008 <i>GB</i> ₂₉		7 11.2 92°94	4°8/ 8.4	18		470616	2008 <i>RT</i> ₁₁₅		7 11.2 354°03	10°3/ 9.0	16	
6 10	19 49.79	-34 15.4	2.438	3.314	10.3	20.4	6 10	19 53.57	-44 23.2	1.407	2.287	16.2	21.0
6 20	19 42.76	-35 45.1	2.396	3.337	7.8	20.3	6 20	19 46.75	-45 15.8	1.354	2.284	13.4	20.8
6 30	19 33.89	-37 8.7	2.381	3.360	5.5	20.2	6 30	19 36.51	-45 49.1	1.322	2.281	11.1	20.7
7 10	19 23.95	-38 20.7	2.394	3.383	4.8	20.2	7 10	19 24.28	-45 54.5	1.311	2.279	10.3	20.6
7 20	19 13.84	-39 16.9	2.436	3.405	6.1	20.3	7 20	19 11.94	-45 27.8	1.323	2.278	11.5	20.7
7 30	19 4.57	-39 56.0	2.505	3.427	8.3	20.4	7 30	19 1.46	-44 31.0	1.357	2.277	14.0	20.8
8 9	18 56.96	-40 18.7	2.599	3.448	10.6	20.6	8 9	18 54.27	-43 10.9	1.410	2.277	16.9	21.0
8 19	18 51.58	-40 27.6	2.714	3.469	12.6	20.8	8 19	18 51.00	-41 36.3	1.482	2.278	19.6	21.2
121330	1999 <i>SW</i> ₁₆		7 11.2 292°12	3°1/12.1	18		270467	2002 <i>CZ</i> ₂₈₉		7 11.2 32°25	4°2/ 9.2	17	
6 10	19 44.10	-13 24.2	2.172	3.046	11.6	20.2	6 10	19 46.74	-25 40.2	1.244	2.156	15.6	18.9
6 20	19 38.82	-13 8.3	2.081	3.024	8.7	20.0	6 20	19 41.56	-27 35.8	1.204	2.171	11.1	18.7
6 30	19 31.82	-13 0.0	2.013	3.002	5.6	19.8	6 30	19 33.59	-29 33.7	1.187	2.187	6.6	18.5
7 10	19 23.74	-12 59.1	1.972	2.979	3.2	19.6	7 10	19 23.96	-31 23.1	1.194	2.204	4.3	18.4
7 20	19 15.33	-13 4.9	1.958	2.957	4.3	19.6	7 20	19 14.13	-32 54.9	1.226	2.222	7.1	18.6
7 30	19 7.48	-13 16.3	1.970	2.935	7.5	19.8	7 30	19 5.70	-34 3.9	1.282	2.240	11.3	18.9
8 9	19 0.99	-13 31.7	2.008	2.913	10.8	19.9	8 9	18 59.90	-34 49.9	1.359	2.260	15.2	19.2
8 19	18 56.46	-13 49.5	2.068	2.891	13.8	20.1	8 19	18 57.42	-35 15.6	1.454	2.280	18.5	19.5
398509	2011 <i>UV</i> ₂₄₃		7 11.2 288°84	0°3/11.3	18		152539	3194 <i>T</i> ₋₁		7 11.2 73°76	2°8/12.0	17	
6 10	19 45.03	-20 28.4	2.041	2.929	11.5	21.6	6 10	19 48.21	-15 4.2	1.545	2.432	14.7	20.0
6 20	19 39.53	-20 38.1	1.963	2.919	8.3	21.4	6 20	19 41.88	-14 58.2	1.498	2.449	10.7	19.8
6 30	19 32.21	-20 51.6	1.909	2.909	4.5	21.1	6 30	19 33.46	-15 1.8	1.473	2.467	6.4	19.6
7 10	19 23.78	-21 6.8	1.882	2.898	0.6	20.8	7 10	19 23.93	-15 13.4	1.472	2.484	2.9	19.4
7 20	19 15.09	-21 21.6	1.882	2.888	3.5	21.0	7 20	19 14.42	-15 30.7	1.498	2.502	4.7	19.6
7 30	19 7.11	-21 34.4	1.909	2.878	7.4	21.2	7 30	19 6.08	-15 51.4	1.549	2.519	8.7	19.8
8 9	19 0.71	-21 44.2	1.960	2.867	11.0	21.4	8 9	18 59.83	-16 13.5	1.623	2.536	12.5	20.1
8 19	18 56.46	-21 50.8	2.034	2.857	14.0	21.6	8 19	18 56.17	-16 35.0	1.718	2.553	15.7	20.4
266632	2008 <i>RE</i> ₇₃		7 11.2 94°02	2°0/11.9	17		338821	2003 <i>WM</i> ₇₄					

EPHEMERIDES

7 11.2

7 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
22244	4235 T_{-3}		7 11.2 199°15	2°4/10.4	18		35802	1999 JF_{39}		7 11.2 163°13	0°7/11.4	18	
6 10	19 49.55	-25 33.1	1.533	2.432	14.0	17.9	6 10	19 50.89	-20 15.4	1.554	2.445	14.3	19.4
6 20	19 43.27	-26 19.0	1.471	2.432	10.0	17.6	6 20	19 44.01	-20 15.4	1.492	2.448	10.3	19.2
6 30	19 34.45	-27 6.3	1.431	2.431	5.7	17.4	6 30	19 34.76	-20 19.7	1.452	2.451	5.7	18.9
7 10	19 24.07	-27 49.3	1.416	2.430	2.4	17.2	7 10	19 24.12	-20 25.7	1.438	2.454	1.0	18.6
7 20	19 13.40	-28 23.3	1.427	2.429	5.3	17.3	7 20	19 13.32	-20 31.3	1.450	2.456	4.3	18.8
7 30	19 3.85	-28 45.6	1.464	2.428	9.7	17.6	7 30	19 3.68	-20 35.1	1.488	2.458	9.0	19.1
8 9	18 56.58	-28 56.1	1.523	2.426	13.7	17.8	8 9	18 56.25	-20 36.5	1.549	2.459	13.2	19.4
8 19	18 52.32	-28 56.7	1.602	2.425	17.2	18.1	8 19	18 51.67	-20 35.9	1.631	2.460	16.7	19.6
401390	2013 CT_{37}		7 11.2 110°45	5°7/13.7	18		420921	2013 NR_9		7 11.2 34°53	2°4/11.7	17	
6 10	19 43.70	-3 15.2	2.494	3.325	11.6	21.4	6 10	19 48.86	-17 42.0	1.277	2.177	16.2	20.9
6 20	19 38.12	-2 49.0	2.435	3.338	9.4	21.3	6 20	19 42.82	-17 17.4	1.221	2.181	11.8	20.6
6 30	19 31.26	-2 35.9	2.400	3.352	7.2	21.2	6 30	19 34.18	-17 0.1	1.187	2.185	6.9	20.4
7 10	19 23.70	-2 36.4	2.390	3.365	5.8	21.1	7 10	19 24.05	-16 49.1	1.176	2.190	2.6	20.1
7 20	19 16.09	-2 50.1	2.407	3.378	6.1	21.1	7 20	19 13.81	-16 43.3	1.189	2.195	5.2	20.3
7 30	19 9.11	-3 15.3	2.451	3.390	7.7	21.2	7 30	19 4.91	-16 41.4	1.227	2.200	10.0	20.6
8 9	19 3.35	-3 49.3	2.520	3.402	9.8	21.4	8 9	18 58.47	-16 42.4	1.286	2.206	14.5	20.9
8 19	18 59.23	-4 29.2	2.612	3.414	11.9	21.6	8 19	18 55.15	-16 45.0	1.363	2.212	18.3	21.1
516382	2018 CK_8		7 11.2 199°18	2°5/10.3	18		251063	2006 ST_{22}		7 11.2 353°56	7°1/ 8.9	17	
6 10	19 46.57	-29 45.0	2.455	3.339	10.0	20.9	6 10	19 48.16	-33 24.1	1.162	2.075	16.5	19.3
6 20	19 40.39	-30 2.5	2.386	3.338	7.2	20.7	6 20	19 43.09	-34 42.8	1.109	2.071	12.4	19.0
6 30	19 32.58	-30 16.6	2.342	3.337	4.3	20.5	6 30	19 34.67	-35 55.0	1.077	2.068	8.7	18.8
7 10	19 23.85	-30 24.6	2.326	3.335	2.5	20.4	7 10	19 24.13	-36 50.8	1.066	2.065	7.2	18.7
7 20	19 15.00	-30 24.6	2.338	3.334	4.2	20.5	7 20	19 13.20	-37 22.8	1.077	2.064	9.4	18.9
7 30	19 6.90	-30 16.1	2.377	3.332	7.0	20.7	7 30	19 3.82	-37 28.6	1.111	2.063	13.3	19.1
8 9	19 0.29	-29 59.9	2.442	3.330	9.8	20.9	8 9	18 57.53	-37 11.5	1.163	2.063	17.3	19.3
8 19	18 55.68	-29 37.7	2.529	3.328	12.3	21.1	8 19	18 55.11	-36 37.0	1.232	2.064	20.8	19.6
511244	2014 BS_{33}		7 11.2 277°63	0°3/11.1	18		316650	1987 UL		7 11.2 320°32	4°8/ 9.3	18	
6 10	19 47.64	-20 54.1	1.810	2.700	12.7	21.5	6 10	19 46.39	-27 50.0	1.288	2.200	15.2	19.0
6 20	19 41.81	-21 24.8	1.718	2.675	9.1	21.2	6 20	19 42.17	-29 6.4	1.186	2.152	11.3	18.6
6 30	19 33.69	-22 1.3	1.650	2.650	5.0	20.9	6 30	19 34.55	-30 30.3	1.105	2.104	7.1	18.3
7 10	19 24.01	-22 40.2	1.609	2.625	0.6	20.5	7 10	19 24.18	-31 53.5	1.047	2.056	4.8	18.0
7 20	19 13.76	-23 17.7	1.594	2.599	4.1	20.8	7 20	19 12.34	-33 6.3	1.012	2.008	8.1	18.0
7 30	19 4.17	-23 50.7	1.605	2.573	8.6	21.0	7 30	19 0.92	-34 0.7	1.000	1.961	13.4	18.1
8 9	18 56.34	-24 17.5	1.641	2.547	12.8	21.2	8 9	18 51.92	-34 33.7	1.007	1.915	18.7	18.3
8 19	18 51.08	-24 37.6	1.697	2.520	16.4	21.3	8 19	18 46.83	-34 46.4	1.031	1.870	23.5	18.4
19893	4524 T_{-2}		7 11.2 153°07	0°1/11.2	18		523117	2016 SO_{52}		7 11.2 192°06	5°1/14.1	18	
6 10	19 45.03	-21 27.0	2.545	3.427	9.8	19.6	6 10	19 42.81	-2 52.1	2.730	3.556	10.9	22.4
6 20	19 39.17	-21 46.2	2.479	3.432	6.9	19.5	6 20	19 37.52	-2 53.5	2.653	3.554	8.8	22.3
6 30	19 31.88	-22 7.9	2.438	3.437	3.8	19.3	6 30	19 30.98	-3 8.0	2.599	3.553	6.7	22.1
7 10	19 23.78	-22 29.7	2.425	3.442	0.4	19.0	7 10	19 23.70	-3 35.6	2.572	3.550	5.3	22.0
7 20	19 15.57	-22 49.8	2.441	3.446	3.0	19.2	7 20	19 16.27	-4 15.2	2.573	3.548	5.4	22.0
7 30	19 8.00	-23 6.7	2.486	3.451	6.2	19.4	7 30	19 9.32	-5 4.7	2.601	3.545	7.1	22.1
8 9	19 1.74	-23 19.9	2.556	3.454	9.1	19.6	8 9	19 3.45	-6 0.9	2.655	3.541	9.2	22.3
8 19	18 57.25	-23 29.1	2.649	3.458	11.5	19.8	8 19	18 59.07	-7 0.9	2.733	3.538	11.3	22.4
442524	2011 WV_{97}		7 11.2 17°72	2°8/ 9.9	18		131225	2001 DD_{93}		7 11.2 154°83	5°0/13.4	18	
6 10	19 45.45	-27 13.2	1.936	2.831	11.7	20.4	6 10	19 45.40	-6 26.1	2.160	3.009	12.6	20.1
6 20	19 39.97	-28 11.5	1.875	2.833	8.4	20.2	6 20	19 39.56	-6 19.0	2.093	3.014	9.8	19.9
6 30	19 32.51	-29 9.8	1.838	2.835	4.9	20.0	6 30	19 32.15	-6 25.4	2.050	3.019	7.1	19.8
7 10	19 23.86	-30 3.1	1.828	2.838	2.8	19.9	7 10	19 23.83	-6 45.0	2.032	3.024	5.2	19.7
7 20	19 14.98	-30 47.1	1.844	2.841	5.0	20.0	7 20	19 15.38	-7 16.5	2.042	3.029	5.6	19.7
7 30	19 6.95	-31 19.3	1.887	2.844	8.4	20.2	7 30	19 7.63	-7 57.4	2.078	3.033	7.9	19.9
8 9	19 0.69	-31 39.5	1.954	2.847	11.7	20.4	8 9	19 1.29	-8 44.6	2.140	3.036	10.7	20.0
8 19	18 56.80	-31 48.8	2.041	2.851	14.5	20.6	8 19	18 56.88	-9 34.7	2.224	3.039	13.2	20.2
230910	2004 TE_{194}		7 11.2 175°29	1°6/10.7	18		504163	2006 SX_{316}		7 11.2 280°17	0°2/11.3	17	
6 10	19 48.96	-25 59.3	2.227	3.110	10.9	21.7	6 10	19 48.27	-20 10.7	1.530	2.426	14.2	21.8
6 20	19 42.17	-26 20.7	2.159	3.113	7.8	21.5	6 20	19 42.52	-20 31.4	1.446	2.406	10.3	21.5
6 30	19 33.59	-26 41.3	2.117	3.115	4.3	21.3	6 30	19 34.19	-20 58.7	1.384	2.385	5.7	21.2
7 10	19 23.98	-26 58.1	2.102	3.116	1.6	21.1	7 10	19 24.10	-21 29.4	1.348	2.364	0.7	20.7
7 20	19 14.23	-27 8.8	2.116	3.117	3.9	21.3	7 20	19 13.43	-21 59.6	1.336	2.343	4.5	21.0
7 30	19 5.30	-27 12.2	2.157	3.117	7.3	21.5	7 30	19 3.59	-22 26.3	1.350	2.322	9.6	21.2
8 9	18 58.00	-27 8.8	2.224	3.117	10.5	21.7	8 9	18 55.84	-22 47.7	1.387	2.300	14.2	21.4
8 19	18 52.88	-26 59.7	2.313	3.116	13.2	21.9	8 19	18 51.06	-23 3.5	1.443	2.279	18.1	21.6
262913	2007 CF_{53}		7 11.2 217°82	3°3/ 9.9	18		416575	2004 EZ_{82}		7 11.2 76°64	5°8/ 9.4	17	
6 10	19 48.05	-33 28.5	2.799	3.674	9.2	21.4	6 10	19 51.72	-33 24.0	1.495	2.391	14.5	20.6
6 20	19 41.35	-33 48.3	2.723	3.666	6.8	21.2	6 20	19 44.87	-34 31.0	1.450	2.404	10.8	20.4
6 30	19 33.09	-34 2.6	2.672	3.658	4.5	21.0	6 30	19 35.31	-35 30.3	1.428	2.416	7.4	20.2
7 10	19 23.93	-34 8.7	2.649	3.649	3.3	21.0	7 10	19 24.19	-36 14.7	1.431	2.429	5.8	20.2
7 20	19 14.61	-34 4.8	2.654	3.640	4.6	21.0	7 20	19 12.99	-36 39.3	1.458	2.442	7.7	20.3
7 30	19 5.97	-33 50.6	2.688	3.630	6.9	21.2	7 30	19 3.24	-36 43.1	1.510	2.455	11.0	20.5
8 9	18 58.73	-33 27.1	2.748	3.620	9.4	21.3	8 9	18 56.12	-36 29.2	1.583	2.468	14.4	20.8
8 19	18 53.39	-32 56.5	2.830	3.610	11.6	21.5	8 19	18 52.23	-36 2.1	1.676	2.481	17.3	21.0
383959	2008 TP_{32}		7 11.2 208°94	0°5/11.4	17		78399	2002 QW_4		7 11.2 291°73	2°1/10.4	18	
6 10	19 46.93	-19 25.6											

EPHEMERIDES

7 11.2

7 11.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
439497	2014 AD ₁₈		7 11.2 101°75	0°4/11.4	18		88871	2001 SG ₂₆₀		7 11.3 253°51	0°9/11.6	18	
6 10	19 46.47	-17 43.9	1.886	2.771	12.5	21.5	6 10	19 45.22	-18 32.6	2.100	2.985	11.4	20.0
6 20	19 40.61	-18 39.4	1.825	2.779	8.9	21.3	6 20	19 39.62	-18 41.9	2.027	2.980	8.2	19.8
6 30	19 32.83	-19 43.0	1.788	2.787	4.9	21.1	6 30	19 32.28	-18 56.3	1.977	2.975	4.6	19.5
7 10	19 23.92	-20 50.3	1.778	2.794	0.7	20.8	7 10	19 23.91	-19 14.0	1.954	2.970	1.1	19.3
7 20	19 14.81	-21 56.9	1.796	2.802	3.7	21.1	7 20	19 15.33	-19 32.8	1.959	2.965	3.4	19.5
7 30	19 6.53	-22 58.7	1.842	2.810	7.7	21.3	7 30	19 7.46	-19 51.1	1.991	2.959	7.2	19.7
8 9	18 59.96	-23 53.1	1.912	2.817	11.3	21.6	8 9	19 1.10	-20 7.7	2.047	2.954	10.6	19.9
8 19	18 55.69	-24 39.0	2.004	2.825	14.3	21.8	8 19	18 56.82	-20 21.7	2.126	2.949	13.5	20.1
383195	2005 YS ₂₇		7 11.2 277°34	1°3/10.9	18		152320	Lichtenknecker		7 11.3 289°52	1°3/11.7	18	
6 10	19 48.80	-24 23.9	1.742	2.636	12.9	21.3	6 10	19 44.11	-17 35.7	2.151	3.035	11.2	20.6
6 20	19 42.69	-24 43.5	1.655	2.614	9.3	21.0	6 20	19 38.84	-17 43.5	2.072	3.024	8.1	20.4
6 30	19 34.19	-25 4.8	1.592	2.592	5.2	20.7	6 30	19 31.87	-17 57.0	2.016	3.013	4.7	20.1
7 10	19 24.10	-25 23.8	1.554	2.570	1.4	20.4	7 10	19 23.87	-18 14.7	1.988	3.002	1.4	19.9
7 20	19 13.51	-25 37.5	1.543	2.547	4.5	20.6	7 20	19 15.62	-18 34.6	1.986	2.992	3.5	20.0
7 30	19 3.72	-25 43.8	1.558	2.524	9.0	20.8	7 30	19 8.01	-18 55.1	2.012	2.981	7.1	20.2
8 9	18 55.87	-25 42.7	1.597	2.501	13.1	21.0	8 9	19 1.83	-19 14.6	2.063	2.971	10.5	20.4
8 19	18 50.75	-25 35.2	1.655	2.478	16.7	21.2	8 19	18 57.65	-19 32.1	2.136	2.960	13.4	20.6
99210	2001 HK ₃₂		7 11.2 150°06	3°8/12.7	18		129146	Stevenglenn		7 11.3 261°54	3°8/13.4	18	
6 10	19 46.05	-10 10.2	2.297	3.155	11.6	20.5	6 10	19 42.81	-7 21.6	2.568	3.416	10.8	20.0
6 20	19 39.93	-9 58.0	2.232	3.163	8.8	20.3	6 20	19 37.70	-7 45.3	2.479	3.402	8.4	19.8
6 30	19 32.32	-9 55.4	2.191	3.170	5.9	20.2	6 30	19 31.19	-8 21.4	2.414	3.389	5.8	19.6
7 10	19 23.87	-10 2.3	2.177	3.177	3.9	20.1	7 10	19 23.79	-9 9.0	2.377	3.375	3.9	19.5
7 20	19 15.32	-10 17.5	2.190	3.184	4.6	20.1	7 20	19 16.13	-10 6.0	2.368	3.361	4.4	19.5
7 30	19 7.48	-10 39.4	2.232	3.190	7.2	20.3	7 30	19 8.93	-11 9.8	2.386	3.346	6.7	19.6
8 9	19 1.02	-11 5.9	2.298	3.196	10.0	20.5	8 9	19 2.82	-12 16.8	2.432	3.332	9.4	19.8
8 19	18 56.40	-11 34.9	2.388	3.201	12.5	20.7	8 19	18 58.34	-13 24.1	2.501	3.317	11.9	19.9
98656	2000 WY ₁₄₈		7 11.2 1°84	3°4/12.9	18		110768	2001 UH ₂₆		7 11.3 138°51	1°8/11.7	17	
6 10	19 44.86	-10 28.0	1.575	2.454	14.8	18.9	6 10	19 49.99	-17 23.1	2.031	2.906	12.1	19.6
6 20	19 39.75	-11 9.7	1.508	2.454	11.1	18.6	6 20	19 42.84	-17 6.0	1.971	2.918	8.8	19.4
6 30	19 32.49	-12 8.4	1.464	2.453	7.1	18.4	6 30	19 33.94	-16 53.6	1.936	2.930	5.1	19.2
7 10	19 23.91	-13 21.2	1.444	2.453	3.7	18.2	7 10	19 24.09	-16 45.0	1.927	2.941	2.0	19.0
7 20	19 15.03	-14 43.4	1.450	2.454	4.9	18.3	7 20	19 14.22	-16 39.4	1.948	2.951	3.8	19.2
7 30	19 7.01	-16 8.9	1.483	2.455	8.8	18.5	7 30	19 5.28	-16 35.9	1.995	2.961	7.4	19.4
8 9	19 0.88	-17 32.3	1.539	2.456	12.8	18.7	8 9	18 58.06	-16 34.0	2.069	2.970	10.8	19.6
8 19	18 57.30	-18 49.5	1.616	2.457	16.2	19.0	8 19	18 53.05	-16 33.2	2.164	2.978	13.6	19.8
507780	2014 AE ₈		7 11.3 160°49	1°9/10.3	18		65055	2002 AX ₁₆₉		7 11.3 208°63	0°1/11.3	18	
6 10	19 48.13	-25 31.2	2.290	3.173	10.6	22.3	6 10	19 45.12	-20 57.5	2.464	3.346	10.1	21.2
6 20	19 41.61	-26 23.7	2.226	3.179	7.6	22.1	6 20	19 39.35	-21 12.2	2.389	3.342	7.2	21.0
6 30	19 33.33	-27 16.9	2.187	3.185	4.3	21.9	6 30	19 32.07	-21 29.7	2.340	3.338	3.9	20.8
7 10	19 24.01	-28 6.5	2.177	3.190	1.9	21.7	7 10	19 23.89	-21 48.0	2.318	3.334	0.5	20.5
7 20	19 14.49	-28 49.2	2.195	3.194	4.0	21.9	7 20	19 15.53	-22 5.2	2.324	3.330	3.0	20.8
7 30	19 5.71	-29 22.7	2.242	3.198	7.3	22.1	7 30	19 7.80	-22 19.8	2.359	3.325	6.4	21.0
8 9	18 58.48	-29 46.4	2.314	3.201	10.3	22.3	8 9	19 1.39	-22 31.2	2.419	3.320	9.4	21.1
8 19	18 53.36	-30 1.3	2.408	3.204	12.9	22.5	8 19	18 56.81	-22 39.2	2.503	3.315	12.0	21.3
462785	2010 JU ₂₉		7 11.3 352°33	1°6/11.7	17		315289	2007 TH ₁₃₃		7 11.3 160°59	2°0/11.9	17	
6 10	19 41.65	-17 38.6	0.894	1.821	18.7	20.3	6 10	19 49.83	-16 8.3	1.695	2.577	13.8	21.9
6 20	19 38.58	-17 55.9	0.840	1.813	13.6	20.0	6 20	19 43.11	-16 14.6	1.632	2.582	10.1	21.7
6 30	19 32.28	-18 27.3	0.803	1.807	7.7	19.7	6 30	19 34.25	-16 29.1	1.592	2.587	5.9	21.4
7 10	19 23.92	-19 9.1	0.786	1.801	1.9	19.3	7 10	19 24.14	-16 49.7	1.578	2.591	2.2	21.2
7 20	19 15.13	-19 55.6	0.789	1.798	5.7	19.5	7 20	19 13.86	-17 14.0	1.590	2.595	4.3	21.4
7 30	19 7.78	-20 41.1	0.812	1.796	11.8	19.8	7 30	19 4.58	-17 39.4	1.629	2.598	8.5	21.6
8 9	19 3.40	-21 21.2	0.854	1.796	17.3	20.1	8 9	18 57.26	-18 4.1	1.693	2.601	12.3	21.9
8 19	19 2.79	-21 53.4	0.911	1.798	22.0	20.4	8 19	18 52.53	-18 26.8	1.777	2.602	15.6	22.1
42099	2001 AN ₃₀		7 11.3 189°29	2°0/10.5	18		302427	2002 CB ₂₉₆		7 11.3 128°45	0°3/11.1	18	
6 10	19 48.76	-26 42.3	2.219	3.104	10.9	20.0	6 10	19 45.34	-22 16.0	2.463	3.346	10.0	21.5
6 20	19 42.11	-27 14.2	2.149	3.103	7.8	19.8	6 20	19 39.44	-22 31.6	2.400	3.354	7.1	21.4
6 30	19 33.63	-27 45.3	2.104	3.102	4.4	19.6	6 30	19 32.07	-22 49.0	2.363	3.362	3.8	21.2
7 10	19 24.05	-28 12.0	2.087	3.100	2.0	19.4	7 10	19 23.89	-23 5.9	2.353	3.370	0.5	20.9
7 20	19 14.28	-28 31.6	2.098	3.097	4.1	19.5	7 20	19 15.63	-23 20.6	2.372	3.377	3.1	21.1
7 30	19 5.28	-28 42.6	2.136	3.094	7.5	19.7	7 30	19 8.06	-23 31.8	2.420	3.385	6.3	21.4
8 9	18 57.92	-28 45.2	2.200	3.091	10.7	19.9	8 9	19 1.86	-23 39.1	2.493	3.392	9.2	21.6
8 19	18 52.76	-28 40.7	2.286	3.087	13.4	20.1	8 19	18 57.49	-23 42.6	2.588	3.399	11.7	21.7
326888	2003 WX ₁₃		7 11.3 265°84	1°5/11.6	17		464861	2005 GV ₉₈		7 11.3 11°80	4°4/12.2	16	
6 10	19 48.80	-18 22.4	1.514	2.407	14.5	21.2	6 10	19 43.21	-14 32.6	0.987	1.902	18.4	20.5
6 20	19 42.78	-18 21.0	1.438	2.395	10.6	21.0	6 20	19 39.23	-14 2.0	0.941	1.905	13.7	20.3
6 30	19 34.26	-18 26.2	1.384	2.383	6.0	20.7	6 30	19 32.41	-13 45.5	0.913	1.910	8.6	20.0
7 10	19 24.14	-18 36.0	1.355	2.370	1.7	20.3	7 10	19 23.96	-13 43.1	0.905	1.917	4.6	19.8
7 20	19 13.62	-18 48.3	1.352	2.358	4.6	20.5	7 20	19 15.38	-13 53.0	0.919	1.924	6.4	19.9
7 30	19 4.05	-19 0.9	1.373	2.345	9.4	20.8	7 30	19 8.28	-14 12.3	0.954	1.934	11.3	20.2
8 9	18 56.62	-19 12.5	1.418	2.332	13.8	21.0	8 9	19 3.87	-14 37.1	1.009	1.945	16.0	20.5
8 19	18 52.09	-19 22.4	1.482	2.319	17.6	21.2	8 19	19 2.79	-15 3.6	1.080	1.957	20.0	20.8
129436	5039 T-3		7 11.3 356°78	5°6/13.9	18		159753	2003 FC ₇₀		7 11.3 313°00	2°4/12.1	18	
6 10	19 41.96	-5 10.7	1.875	2.									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
360979	2005 <i>UM</i> ₂₇₇		7 11.3 259°78	3°7/12.6	18		147684	2004 <i>PU</i> ₃₉		7 11.3 307°15	2°6/10.6	18	
6 10	19 43.75	-10 34.6	2.324	3.186	11.3	21.1	6 10	19 47.07	-29 20.0	2.065	2.956	11.3	19.5
6 20	19 38.42	-10 18.5	2.244	3.178	8.6	21.0	6 20	19 41.10	-29 28.3	1.988	2.943	8.2	19.3
6 30	19 31.60	-10 11.5	2.189	3.170	5.8	20.8	6 30	19 33.17	-29 33.0	1.935	2.931	4.9	19.1
7 10	19 23.87	-10 13.8	2.161	3.162	3.9	20.6	7 10	19 24.08	-29 31.0	1.908	2.919	2.6	18.9
7 20	19 15.94	-10 24.5	2.159	3.154	4.6	20.7	7 20	19 14.77	-29 20.3	1.909	2.908	4.5	19.0
7 30	19 8.60	-10 42.3	2.185	3.145	7.2	20.8	7 30	19 6.30	-29 0.7	1.936	2.896	8.0	19.2
8 9	19 2.54	-11 5.3	2.236	3.137	10.1	21.0	8 9	18 59.56	-28 33.3	1.987	2.885	11.3	19.4
8 19	18 58.27	-11 31.4	2.310	3.128	12.7	21.1	8 19	18 55.14	-28 0.3	2.061	2.874	14.2	19.6
148340	2000 <i>QN</i> ₂₀₂		7 11.3 15°22	11°2/10.2	17		428212	2006 <i>VS</i> ₁₈		7 11.3 186°26	3°5/10.2	17	
6 10	19 47.66	-42 17.6	0.930	1.843	19.5	17.9	6 10	19 50.99	-29 10.0	1.674	2.568	13.4	21.8
6 20	19 43.08	-43 2.4	0.900	1.852	15.8	17.7	6 20	19 44.23	-29 51.5	1.611	2.568	9.7	21.6
6 30	19 34.63	-43 23.1	0.887	1.864	12.6	17.5	6 30	19 35.01	-30 30.2	1.572	2.568	5.9	21.4
7 10	19 24.19	-43 11.0	0.892	1.877	11.2	17.5	7 10	19 24.31	-31 0.8	1.558	2.567	3.5	21.2
7 20	19 14.03	-42 23.8	0.918	1.893	12.4	17.6	7 20	19 13.37	-31 19.0	1.570	2.566	5.7	21.4
7 30	19 6.27	-41 6.4	0.962	1.911	15.3	17.9	7 30	19 3.54	-31 23.5	1.608	2.565	9.6	21.6
8 9	19 2.25	-39 28.6	1.025	1.930	18.7	18.1	8 9	18 55.95	-31 15.5	1.669	2.564	13.2	21.8
8 19	19 2.30	-37 40.3	1.104	1.951	21.7	18.4	8 19	18 51.27	-30 57.8	1.750	2.562	16.4	22.0
22852	Kinney		7 11.3 275°61	2°0/11.9	18		350571	2000 <i>YX</i> ₄₉		7 11.3 242°47	0°7/10.9	18	
6 10	19 47.78	-16 3.3	1.516	2.406	14.7	18.7	6 10	19 47.95	-22 26.5	2.146	3.031	11.2	21.6
6 20	19 42.16	-16 17.9	1.433	2.388	10.8	18.5	6 20	19 41.72	-22 58.5	2.061	3.016	8.0	21.3
6 30	19 34.01	-16 43.2	1.373	2.370	6.4	18.1	6 30	19 33.56	-23 33.7	2.001	3.000	4.4	21.1
7 10	19 24.17	-17 16.9	1.337	2.351	2.2	17.8	7 10	19 24.15	-24 9.0	1.967	2.983	0.8	20.8
7 20	19 13.78	-17 55.8	1.326	2.332	4.7	18.0	7 20	19 14.38	-24 41.1	1.962	2.966	3.7	21.0
7 30	19 4.20	-18 36.3	1.341	2.313	9.5	18.2	7 30	19 5.23	-25 7.6	1.985	2.949	7.5	21.2
8 9	18 56.66	-19 15.2	1.379	2.294	14.1	18.4	8 9	18 57.64	-25 27.7	2.033	2.931	11.1	21.4
8 19	18 52.00	-19 50.7	1.436	2.275	18.0	18.6	8 19	18 52.24	-25 41.4	2.103	2.913	14.1	21.5
476388	2008 <i>CL</i> ₁₀₈		7 11.3 132°87	0°5/11.5	18		14440	1992 <i>RF</i> ₅		7 11.3 327°73	1°1/11.7	18	
6 10	19 45.91	-19 57.4	2.619	3.496	9.7	21.9	6 10	19 45.38	-18 17.7	1.833	2.722	12.6	18.2
6 20	19 39.72	-20 1.6	2.558	3.508	6.9	21.8	6 20	19 39.94	-18 27.2	1.764	2.719	9.1	18.0
6 30	19 32.19	-20 8.4	2.523	3.520	3.8	21.6	6 30	19 32.57	-18 42.8	1.718	2.716	5.1	17.8
7 10	19 23.93	-20 16.4	2.516	3.532	0.7	21.4	7 10	19 24.03	-19 2.5	1.697	2.713	1.3	17.5
7 20	19 15.64	-20 24.1	2.538	3.543	2.8	21.6	7 20	19 15.29	-19 23.9	1.704	2.710	3.8	17.7
7 30	19 8.02	-20 30.8	2.588	3.554	5.9	21.8	7 30	19 7.36	-19 44.9	1.737	2.707	7.8	17.9
8 9	19 1.69	-20 35.7	2.665	3.564	8.7	22.0	8 9	19 1.15	-20 3.9	1.793	2.705	11.6	18.1
8 19	18 57.07	-20 38.7	2.765	3.574	11.1	22.2	8 19	18 57.25	-20 20.2	1.871	2.703	14.8	18.3
12304	1991 <i>SR</i> ₁		7 11.3 302°55	8°8/13.3	18		423853	2006 <i>QB</i> ₁₁₈		7 11.3 282°88	3°8/10.2	18	
6 10	19 44.46	- 2 4.1	1.639	2.487	15.9	17.1	6 10	19 51.22	-29 16.1	1.526	2.423	14.2	20.8
6 20	19 39.50	- 1 11.1	1.559	2.470	13.2	16.9	6 20	19 44.93	-29 52.6	1.440	2.398	10.4	20.6
6 30	19 32.43	- 0 36.3	1.499	2.452	10.6	16.7	6 30	19 35.69	-30 27.1	1.376	2.373	6.4	20.3
7 10	19 23.99	- 0 23.1	1.462	2.435	9.0	16.6	7 10	19 24.43	-30 53.7	1.337	2.347	3.8	20.0
7 20	19 15.13	- 0 32.8	1.448	2.418	9.3	16.5	7 20	19 12.47	-31 7.1	1.324	2.321	6.4	20.1
7 30	19 6.98	- 1 4.1	1.458	2.401	11.6	16.6	7 30	19 1.45	-31 5.1	1.335	2.295	10.8	20.3
8 9	19 0.55	- 1 52.7	1.490	2.385	14.5	16.8	8 9	18 52.80	-30 48.9	1.368	2.268	15.2	20.5
8 19	18 56.57	- 2 53.2	1.541	2.368	17.6	16.9	8 19	18 47.47	-30 21.8	1.420	2.242	19.1	20.7
64187	2001 <i>TN</i> ₆₈		7 11.3 137°00	2°5/10.5	18		504788	2010 <i>AM</i> ₃₂		7 11.3 179°03	2°5/12.4	17	
6 10	19 52.41	-26 5.7	1.487	2.383	14.5	19.4	6 10	19 46.45	-12 48.0	2.216	3.083	11.6	22.5
6 20	19 45.30	-26 46.5	1.432	2.392	10.4	19.1	6 20	19 40.40	-13 10.3	2.144	3.084	8.6	22.3
6 30	19 35.58	-27 27.1	1.400	2.399	5.9	18.9	6 30	19 32.72	-13 42.2	2.096	3.085	5.3	22.1
7 10	19 24.34	-28 2.0	1.393	2.407	2.5	18.7	7 10	19 24.06	-14 21.9	2.076	3.086	2.6	21.9
7 20	19 12.94	-28 26.6	1.412	2.413	5.4	18.9	7 20	19 15.19	-15 6.8	2.083	3.085	3.8	22.0
7 30	19 2.85	-28 39.1	1.456	2.420	9.8	19.2	7 30	19 6.99	-15 54.2	2.119	3.085	7.0	22.2
8 9	18 55.23	-28 40.4	1.524	2.426	13.8	19.4	8 9	19 0.21	-16 41.3	2.181	3.084	10.2	22.4
8 19	18 50.72	-28 32.7	1.610	2.431	17.2	19.7	8 19	18 55.39	-17 26.2	2.266	3.082	13.0	22.6
445257	2009 <i>RY</i> ₂₆		7 11.3 359°56	12°5/17.5	18		163406	2002 <i>RN</i> ₂		7 11.3 258°55	3°4/12.6	18	
6 10	19 40.45	+11 2.5	1.824	2.600	17.3	20.3	6 10	19 45.22	-11 9.6	2.222	3.086	11.7	20.1
6 20	19 36.38	+11 50.8	1.761	2.598	15.5	20.2	6 20	19 39.65	-11 11.2	2.132	3.068	8.9	19.9
6 30	19 30.59	+12 11.5	1.717	2.596	13.9	20.0	6 30	19 32.39	-11 22.9	2.065	3.049	5.8	19.7
7 10	19 23.77	+12 1.3	1.692	2.596	12.7	20.0	7 10	19 24.04	-11 44.2	2.025	3.030	3.5	19.5
7 20	19 16.75	+11 19.5	1.688	2.596	12.5	20.0	7 20	19 15.35	-12 13.7	2.013	3.011	4.4	19.5
7 30	19 10.45	+10 8.9	1.705	2.597	13.2	20.0	7 30	19 7.19	-12 49.2	2.028	2.991	7.5	19.7
8 9	19 5.67	+ 8 35.3	1.743	2.599	14.7	20.1	8 9	19 0.36	-13 28.2	2.069	2.971	10.7	19.8
8 19	19 2.97	+ 6 46.5	1.801	2.601	16.5	20.2	8 19	18 55.47	-14 8.3	2.132	2.951	13.6	20.0
245265	2005 <i>AT</i> ₄₅		7 11.3 278°98	0°4/11.4	18		32324	2000 <i>QB</i> ₆₁		7 11.3 294°82	3°6/ 9.6	18	
6 10	19 48.63	-18 53.8	1.431	2.328	15.0	20.7	6 10	19 46.45	-29 32.6	2.010	2.902	11.5	18.5
6 20	19 43.00	-19 27.1	1.347	2.307	10.9	20.4	6 20	19 40.85	-30 32.2	1.936	2.891	8.4	18.3
6 30	19 34.59	-20 10.3	1.285	2.285	6.1	20.1	6 30	19 33.16	-31 30.6	1.886	2.880	5.3	18.1
7 10	19 24.26	-20 59.5	1.247	2.263	0.9	19.7	7 10	19 24.13	-32 22.6	1.863	2.869	3.6	18.0
7 20	19 13.23	-21 49.8	1.234	2.241	4.8	19.9	7 20	19 14.73	-33 3.8	1.867	2.858	5.5	18.1
7 30	19 3.01	-22 36.5	1.246	2.219	10.1	20.2	7 30	19 6.08	-33 31.7	1.897	2.847	8.8	18.3
8 9	18 54.99	-23 16.8	1.281	2.196	15.0	20.4	8 9	18 59.16	-33 46.1	1.950	2.837	12.0	18.4
8 19	18 50.12	-23 49.5	1.335	2.173	19.1	20.6	8 19	18 54.68	-33 48.6	2.025	2.826	14.9	18.6
70740	1999 <i>VG</i> ₁₈		7 11.3 302°68	0°0/11.3	18	R	1405	Sibelius		7 11.3 2			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
329768	2004 GZ ₈₀		7 11.3 48°28'	0°7/11.1	17		423702	2006 AD ₆₄		7 11.3 128°37'	0°8/11.1	17	
6 10	19 48.70	-22 36.6	1.323	2.228	15.4	20.9	6 10	19 49.15	-23 51.0	1.750	2.643	12.9	21.4
6 20	19 42.71	-22 54.3	1.276	2.239	10.9	20.7	6 20	19 42.69	-23 56.0	1.688	2.646	9.2	21.2
6 30	19 34.17	-23 15.1	1.250	2.252	5.9	20.4	6 30	19 34.09	-24 1.6	1.648	2.648	5.0	20.9
7 10	19 24.24	-23 35.0	1.248	2.265	0.9	20.1	7 10	19 24.28	-24 5.1	1.635	2.651	0.9	20.6
7 20	19 14.27	-23 50.7	1.271	2.278	4.7	20.4	7 20	19 14.34	-24 4.5	1.648	2.654	4.1	20.9
7 30	19 5.69	-24 0.1	1.318	2.291	9.6	20.7	7 30	19 5.44	-23 58.8	1.688	2.656	8.3	21.1
8 9	18 59.58	-24 3.3	1.388	2.305	13.9	21.0	8 9	18 58.53	-23 48.6	1.752	2.659	12.1	21.4
8 19	18 56.52	-24 1.0	1.476	2.319	17.4	21.3	8 19	18 54.20	-23 34.9	1.837	2.661	15.3	21.6
260151	2004 RP ₁₉		7 11.3 239°12'	4°4/13.5	18		229517	2005 WS ₁₇₀		7 11.3 0°45'	1°2/10.9	17	
6 10	19 42.75	-6 27.1	2.540	3.386	11.0	21.2	6 10	19 46.35	-22 48.1	1.392	2.298	14.7	19.9
6 20	19 37.66	-6 29.2	2.459	3.378	8.6	21.0	6 20	19 41.18	-23 25.1	1.332	2.296	10.5	19.7
6 30	19 31.20	-6 43.2	2.401	3.370	6.2	20.8	6 30	19 33.47	-24 6.5	1.294	2.296	5.7	19.4
7 10	19 23.91	-7 8.9	2.370	3.362	4.5	20.7	7 10	19 24.22	-24 47.5	1.280	2.296	1.3	19.1
7 20	19 16.42	-7 45.1	2.366	3.354	4.9	20.7	7 20	19 14.69	-25 23.4	1.290	2.296	4.9	19.4
7 30	19 9.42	-8 29.5	2.390	3.345	7.0	20.8	7 30	19 6.30	-25 50.9	1.325	2.297	9.7	19.7
8 9	19 3.56	-9 19.4	2.440	3.337	9.5	21.0	8 9	19 0.21	-26 9.0	1.382	2.298	14.0	19.9
8 19	18 59.31	-10 11.9	2.513	3.328	11.9	21.1	8 19	18 57.11	-26 18.4	1.458	2.300	17.6	20.2
510267	2011 HF ₆₇		7 11.3 3°37'	1°9/10.4	18		315354	2007 UP ₄₅		7 11.3 186°34'	1°4/10.8	17	
6 10	19 44.73	-21 19.1	1.341	2.250	15.0	19.9	6 10	19 51.00	-23 38.0	1.639	2.532	13.7	21.8
6 20	19 40.16	-22 50.2	1.283	2.249	10.7	19.7	6 20	19 44.23	-24 13.6	1.574	2.532	9.7	21.5
6 30	19 32.97	-24 30.7	1.246	2.249	5.8	19.4	6 30	19 35.06	-24 51.9	1.531	2.531	5.4	21.3
7 10	19 24.13	-26 12.6	1.234	2.249	1.9	19.1	7 10	19 24.41	-25 28.0	1.515	2.530	1.4	21.0
7 20	19 14.88	-27 47.3	1.248	2.251	5.5	19.4	7 20	19 13.48	-25 57.9	1.525	2.529	4.6	21.2
7 30	19 6.70	-29 8.2	1.285	2.254	10.3	19.7	7 30	19 3.59	-26 19.3	1.562	2.527	9.1	21.5
8 9	19 0.82	-30 12.0	1.345	2.257	14.6	19.9	8 9	18 55.87	-26 31.6	1.622	2.525	13.1	21.7
8 19	18 58.02	-30 58.6	1.424	2.262	18.2	20.2	8 19	18 50.98	-26 36.1	1.702	2.522	16.5	21.9
519154	2010 NO ₅₀		7 11.3 262°89'	4°6/13.8	18		179219	2001 TB ₂₃₈		7 11.3 350°80'	14°7/5.2	17	
6 10	19 43.02	-5 22.6	2.367	3.211	11.8	21.5	6 10	19 44.51	-45 2.4	0.985	1.893	19.2	18.1
6 20	19 37.95	-5 41.7	2.285	3.202	9.3	21.3	6 20	19 41.64	-47 12.1	0.939	1.880	16.6	17.9
6 30	19 31.41	-6 15.2	2.226	3.193	6.7	21.2	6 30	19 34.47	-49 1.1	0.911	1.870	14.9	17.8
7 10	19 23.94	-7 2.5	2.193	3.185	4.8	21.0	7 10	19 24.38	-50 14.4	0.901	1.861	14.9	17.8
7 20	19 16.23	-8 1.5	2.187	3.176	5.1	21.0	7 20	19 13.62	-50 41.9	0.909	1.854	16.5	17.8
7 30	19 9.04	-9 9.1	2.209	3.167	7.3	21.2	7 30	19 4.87	-50 22.6	0.934	1.850	19.2	18.0
8 9	19 3.06	-10 21.5	2.258	3.158	10.0	21.3	8 9	19 0.19	-49 23.5	0.974	1.847	22.2	18.1
8 19	18 58.80	-11 35.0	2.329	3.148	12.6	21.5	8 19	19 0.39	-47 55.3	1.028	1.847	24.9	18.3
41555	2000 RT ₅₃		7 11.3 264°56'	3°8/12.2	18		219072	1997 YW ₉		7 11.3 210°80'	3°3/12.3	18	
6 10	19 48.42	-13 38.4	1.481	2.366	15.3	18.8	6 10	19 47.90	-12 9.2	2.248	3.110	11.7	20.5
6 20	19 42.52	-13 18.1	1.407	2.356	11.4	18.5	6 20	19 41.46	-11 53.6	2.167	3.103	8.8	20.3
6 30	19 34.17	-13 8.5	1.355	2.346	7.3	18.2	6 30	19 33.35	-11 46.3	2.111	3.095	5.7	20.1
7 10	19 24.28	-13 9.3	1.327	2.336	4.0	18.0	7 10	19 24.21	-11 46.8	2.081	3.086	3.5	20.0
7 20	19 14.01	-13 19.4	1.324	2.326	5.6	18.1	7 20	19 14.84	-11 54.6	2.080	3.077	4.4	20.0
7 30	19 4.70	-13 36.8	1.346	2.316	9.8	18.3	7 30	19 6.12	-12 8.1	2.106	3.067	7.4	20.2
8 9	18 57.49	-13 59.0	1.391	2.305	14.1	18.5	8 9	18 58.81	-12 25.9	2.158	3.056	10.5	20.4
8 19	18 53.11	-14 23.7	1.455	2.295	17.8	18.7	8 19	18 53.47	-12 46.3	2.233	3.045	13.3	20.5
501821	2014 WB ₇₈		7 11.3 202°75'	1°9/11.9	17		144989	2005 EV ₁₇₁		7 11.3 24°62'	3°9/11.9	18	
6 10	19 49.90	-16 33.0	1.693	2.576	13.8	22.5	6 10	19 48.45	-15 13.9	1.264	2.161	16.5	19.4
6 20	19 43.31	-16 37.0	1.622	2.572	10.1	22.3	6 20	19 42.61	-14 34.8	1.209	2.164	12.3	19.1
6 30	19 34.50	-16 48.9	1.573	2.569	5.9	22.0	6 30	19 34.20	-14 5.4	1.174	2.168	7.6	18.9
7 10	19 24.32	-17 6.7	1.550	2.564	2.1	21.7	7 10	19 24.31	-13 45.9	1.162	2.172	4.0	18.7
7 20	19 13.86	-17 28.1	1.554	2.559	4.3	21.9	7 20	19 14.28	-13 35.9	1.174	2.177	5.9	18.8
7 30	19 4.32	-17 50.7	1.585	2.554	8.6	22.1	7 30	19 5.56	-13 34.4	1.209	2.181	10.3	19.1
8 9	18 56.73	-18 12.7	1.639	2.548	12.6	22.4	8 9	18 59.26	-13 39.4	1.266	2.187	14.7	19.3
8 19	18 51.76	-18 33.1	1.715	2.541	16.1	22.6	8 19	18 56.03	-13 48.7	1.342	2.192	18.4	19.6
21721	Feiniqu		7 11.3 331°53'	4°6/12.8	18		512870	2016 WR ₅		7 11.3 265°14'	4°9/8.7	18	
6 10	19 44.17	-11 7.5	1.190	2.087	17.3	18.1	6 10	19 47.26	-34 44.7	2.294	3.177	10.7	20.7
6 20	19 39.90	-11 15.1	1.123	2.077	13.2	17.8	6 20	19 41.28	-35 52.3	2.231	3.175	8.1	20.5
6 30	19 32.91	-11 41.7	1.074	2.066	8.6	17.5	6 30	19 33.35	-36 54.5	2.192	3.173	5.8	20.4
7 10	19 24.15	-12 26.2	1.048	2.057	4.9	17.3	7 10	19 24.22	-37 46.3	2.180	3.171	4.9	20.3
7 20	19 14.92	-13 24.9	1.044	2.048	6.2	17.3	7 20	19 14.81	-38 23.7	2.195	3.169	6.3	20.4
7 30	19 6.72	-14 32.2	1.064	2.040	10.8	17.6	7 30	19 6.16	-38 45.1	2.237	3.167	8.8	20.5
8 9	19 0.88	-15 42.0	1.104	2.033	15.5	17.8	8 9	18 59.17	-38 51.2	2.302	3.165	11.3	20.7
8 19	18 58.24	-16 49.0	1.162	2.027	19.7	18.1	8 19	18 54.47	-38 44.3	2.388	3.163	13.6	20.9
106667	2000 WN ₁₄₆		7 11.3 209°56'	4°9/14.1	18		203250	2001 QF ₈₉		7 11.3 311°08'	3°5/10.4	18	
6 10	19 42.66	-1 47.4	3.193	4.007	9.7	21.2	6 10	19 48.40	-26 59.0	1.128	2.043	16.6	19.7
6 20	19 37.36	-1 43.5	3.108	3.999	7.9	21.0	6 20	19 43.46	-27 38.7	1.057	2.025	12.1	19.4
6 30	19 30.97	-1 51.2	3.047	3.991	6.2	20.9	6 30	19 35.12	-28 19.7	1.006	2.007	7.1	19.0
7 10	19 23.91	-2 10.7	3.012	3.982	5.0	20.8	7 10	19 24.47	-28 54.9	0.976	1.990	3.5	18.8
7 20	19 16.70	-2 41.4	3.005	3.973	5.2	20.8	7 20	19 13.11	-29 17.8	0.970	1.973	6.8	18.9
7 30	19 9.87	-3 21.7	3.027	3.963	6.5	20.9	7 30	19 3.02	-29 25.0	0.985	1.956	12.3	19.2
8 9	19 3.94	-4 9.2	3.075	3.953	8.4	21.0	8 9	18 55.85	-29 17.4	1.020	1.941	17.4	19.4
8 19	18 59.30	-5 1.5	3.148	3.942	10.2	21.1	8 19	18 52.60	-28 58.1	1.072	1.926	21.8	19.6
89406	2001 WB ₁₀		7 11.3 331°25'	0°1/11.2	18		247477	2002 JX ₁₂₉		7 11.3 345°81'	1°4/10.7	18	
6 10	19 42.50	-18 42.8	0.970										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
410779	2009 <i>FD</i> ₂₃		7 11.3 122°04'	3°5'/12.9 16			155505	1999 <i>NR</i> ₃₂		7 11.3 335°19'	1°2'/11.9 18		
6 10	19 44.46	-10 17.3	2.093	2.959	12.3	21.3	6 10	19 43.63	-14 56.3	1.354	2.254	15.5	18.5
6 20	19 39.07	-10 29.7	2.026	2.962	9.3	21.1	6 20	19 39.43	-16 2.7	1.281	2.241	11.3	18.2
6 30	19 32.06	-10 53.9	1.982	2.966	6.1	20.9	6 30	19 32.68	-17 26.5	1.230	2.229	6.5	17.9
7 10	19 24.10	-11 28.5	1.964	2.969	3.7	20.8	7 10	19 24.23	-19 2.6	1.203	2.218	1.6	17.5
7 20	19 15.97	-12 11.4	1.974	2.972	4.5	20.8	7 20	19 15.24	-20 43.7	1.200	2.208	4.6	17.7
7 30	19 8.53	-12 59.6	2.010	2.976	7.4	21.0	7 30	19 7.11	-22 21.9	1.222	2.198	9.8	18.0
8 9	19 2.53	-13 49.9	2.072	2.979	10.5	21.2	8 9	19 1.12	-23 51.1	1.267	2.190	14.5	18.2
8 19	18 58.50	-14 39.7	2.156	2.982	13.3	21.4	8 19	18 58.11	-25 7.5	1.331	2.182	18.5	18.5
136490	2005 <i>GD</i> ₁₃₄		7 11.3 199°67'	2°3'/12.0 17			353809	2012 <i>TF</i> ₂₁₄		7 11.3 328°60'	9°1'/12.8 18		
6 10	19 48.39	-15 31.5	1.549	2.436	14.6	20.6	6 10	19 42.95	-4 51.9	1.348	2.221	17.2	20.2
6 20	19 42.38	-15 39.8	1.482	2.435	10.7	20.4	6 20	19 38.84	-3 44.7	1.271	2.200	14.1	19.9
6 30	19 34.07	-15 58.2	1.439	2.434	6.3	20.1	6 30	19 32.32	-2 55.0	1.213	2.180	11.1	19.7
7 10	19 24.36	-16 24.4	1.419	2.433	2.5	19.9	7 10	19 24.19	-2 27.3	1.177	2.161	9.2	19.5
7 20	19 14.37	-16 55.6	1.426	2.431	4.6	20.0	7 20	19 15.56	-2 23.6	1.162	2.142	9.8	19.5
7 30	19 5.38	-17 28.8	1.458	2.430	9.0	20.3	7 30	19 7.75	-2 43.5	1.170	2.125	12.6	19.6
8 9	18 58.43	-18 1.3	1.514	2.428	13.1	20.5	8 9	19 1.96	-3 22.7	1.198	2.109	16.1	19.8
8 19	18 54.21	-18 31.4	1.589	2.426	16.7	20.7	8 19	18 58.99	-4 15.4	1.244	2.094	19.6	20.0
491675	2012 <i>UA</i> ₃₁		7 11.3 271°25'	6°2'/12.9 18			371462	2006 <i>SW</i> ₃₆₇		7 11.3 304°29'	18°4'/16.6 18		
6 10	19 45.68	-5 54.2	1.962	2.813	13.5	21.9	6 10	19 43.89	+17 47.7	1.488	2.232	21.9	20.5
6 20	19 40.16	-5 18.5	1.876	2.796	10.8	21.7	6 20	19 39.58	+19 7.4	1.404	2.203	20.6	20.3
6 30	19 32.78	-4 56.1	1.812	2.778	8.1	21.5	6 30	19 32.80	+19 52.6	1.334	2.174	19.4	20.1
7 10	19 24.21	-4 48.7	1.774	2.760	6.4	21.3	7 10	19 24.26	+19 54.6	1.280	2.145	18.6	19.9
7 20	19 15.28	-4 56.5	1.761	2.742	6.9	21.3	7 20	19 14.98	+19 7.7	1.243	2.116	18.4	19.8
7 30	19 6.96	-5 18.3	1.774	2.724	9.3	21.4	7 30	19 6.29	+17 31.5	1.224	2.088	19.2	19.8
8 9	19 0.12	-5 51.2	1.810	2.705	12.4	21.6	8 9	18 59.45	+15 12.2	1.221	2.060	20.7	19.8
8 19	18 55.42	-6 31.8	1.868	2.687	15.3	21.7	8 19	18 55.43	+12 20.5	1.236	2.033	22.7	19.9
303661	2005 <i>LF</i> ₄₉		7 11.3 339°25'	6°8'/12.6 17			58542	1997 <i>EQ</i> ₂₂		7 11.3 351°18'	0°3'/11.4 18		
6 10	19 43.81	-7 59.0	1.573	2.446	15.2	20.2	6 10	19 44.20	-20 19.4	1.836	2.730	12.3	18.7
6 20	19 39.07	-7 1.2	1.501	2.435	12.0	19.9	6 20	19 39.17	-20 31.1	1.768	2.726	8.8	18.5
6 30	19 32.25	-6 16.8	1.451	2.425	8.9	19.7	6 30	19 32.23	-20 47.2	1.723	2.723	4.9	18.3
7 10	19 24.15	-5 48.2	1.423	2.416	6.9	19.6	7 10	19 24.16	-21 5.4	1.704	2.720	0.7	18.0
7 20	19 15.75	-5 36.7	1.421	2.407	7.6	19.6	7 20	19 15.89	-21 23.4	1.712	2.718	3.7	18.2
7 30	19 8.20	-5 41.4	1.442	2.399	10.4	19.8	7 30	19 8.43	-21 39.3	1.745	2.717	7.8	18.4
8 9	19 2.46	-5 59.7	1.485	2.392	13.8	19.9	8 9	19 2.68	-21 51.9	1.802	2.715	11.4	18.7
8 19	18 59.18	-6 27.6	1.547	2.386	17.0	20.1	8 19	18 59.21	-22 0.9	1.881	2.715	14.6	18.9
192807	1999 <i>VX</i> ₅₆		7 11.3 247°62'	1°8'/10.7 18			92831	2000 <i>QZ</i> ₁₈₂		7 11.3 210°27'	2°5'/10.6 18		
6 10	19 47.87	-25 23.8	1.909	2.801	12.1	20.3	6 10	19 51.11	-29 2.0	2.191	3.072	11.1	20.4
6 20	19 41.84	-25 56.1	1.837	2.794	8.6	20.0	6 20	19 43.92	-29 17.4	2.115	3.066	8.1	20.2
6 30	19 33.72	-26 29.3	1.788	2.787	4.8	19.8	6 30	19 34.78	-29 29.3	2.064	3.059	4.8	20.0
7 10	19 24.32	-26 59.4	1.766	2.780	1.8	19.6	7 10	19 24.46	-29 34.5	2.041	3.052	2.5	19.8
7 20	19 14.62	-27 22.9	1.770	2.773	4.4	19.7	7 20	19 13.94	-29 30.8	2.046	3.043	4.4	20.0
7 30	19 5.76	-27 38.1	1.802	2.765	8.2	20.0	7 30	19 4.27	-29 17.7	2.078	3.035	7.8	20.2
8 9	18 58.70	-27 44.6	1.857	2.757	11.8	20.2	8 9	18 56.34	-28 56.4	2.136	3.025	11.0	20.3
8 19	18 54.09	-27 43.6	1.934	2.750	14.9	20.4	8 19	18 50.74	-28 29.2	2.216	3.016	13.8	20.5
338578	2003 <i>SU</i> ₁₁₁		7 11.3 257°35'	3°6'/10.1 16			119014	2000 <i>YA</i> ₁₂₄		7 11.3 248°31'	3°3'/12.2 18		
6 10	19 49.15	-30 19.4	1.849	2.740	12.4	21.7	6 10	19 46.01	-11 47.6	2.767	3.622	9.9	19.9
6 20	19 42.84	-30 54.9	1.781	2.736	9.0	21.4	6 20	19 39.93	-11 11.7	2.674	3.604	7.6	19.8
6 30	19 34.29	-31 26.7	1.736	2.730	5.6	21.2	6 30	19 32.48	-10 41.5	2.607	3.587	5.1	19.6
7 10	19 24.38	-31 50.2	1.718	2.725	3.6	21.1	7 10	19 24.19	-10 17.7	2.569	3.569	3.4	19.4
7 20	19 14.22	-32 1.9	1.726	2.720	5.6	21.2	7 20	19 15.69	-10 0.3	2.559	3.551	4.2	19.5
7 30	19 5.03	-32 0.6	1.760	2.715	9.0	21.4	7 30	19 7.67	-9 49.2	2.578	3.532	6.6	19.6
8 9	18 57.84	-31 47.6	1.818	2.710	12.5	21.6	8 9	19 0.75	-9 43.7	2.623	3.513	9.2	19.7
8 19	18 53.30	-31 25.3	1.896	2.704	15.4	21.8	8 19	18 55.43	-9 42.9	2.692	3.493	11.6	19.9
137782	1999 <i>XF</i> ₂₂₆		7 11.3 231°02'	0°3'/11.2 18			94339	2001 <i>QY</i> ₆₀		7 11.3 146°71'	15°2'/9.8 18		
6 10	19 50.10	-22 6.8	1.757	2.646	13.1	20.1	6 10	20 12.01	-52 54.6	1.206	2.054	20.5	19.5
6 20	19 43.53	-22 17.1	1.681	2.637	9.4	19.9	6 20	20 1.10	-54 3.1	1.164	2.058	18.0	19.3
6 30	19 34.69	-22 30.0	1.629	2.628	5.1	19.6	6 30	19 44.83	-54 39.0	1.140	2.063	16.0	19.2
7 10	19 24.44	-22 42.8	1.602	2.619	0.6	19.2	7 10	19 25.63	-54 28.7	1.134	2.066	15.2	19.2
7 20	19 13.87	-22 52.8	1.603	2.608	4.1	19.5	7 20	19 6.83	-53 27.2	1.149	2.070	16.0	19.3
7 30	19 4.20	-22 58.4	1.630	2.598	8.5	19.7	7 30	18 51.61	-51 41.0	1.184	2.073	18.0	19.4
8 9	18 56.48	-22 59.4	1.681	2.587	12.5	19.9	8 9	18 41.75	-49 24.6	1.238	2.076	20.5	19.6
8 19	18 51.41	-22 56.3	1.753	2.576	16.0	20.1	8 19	18 37.52	-46 53.2	1.308	2.078	23.0	19.8
435544	2008 <i>OV</i> ₂₃		7 11.3 347°64'	8°3'/14.9 17			106351	2000 <i>VH</i> ₂		7 11.3 122°17'	2°8'/9.9 17		
6 10	19 41.22	-2 21.2	1.246	2.117	18.5	20.3	6 10	19 53.52	-24 15.0	1.781	2.666	13.1	19.0
6 20	19 37.65	-2 29.1	1.179	2.108	15.0	20.0	6 20	19 45.93	-25 59.2	1.730	2.685	9.3	18.9
6 30	19 31.65	-3 5.7	1.130	2.099	11.4	19.8	6 30	19 35.98	-27 46.2	1.705	2.702	5.3	18.7
7 10	19 24.09	-4 11.8	1.102	2.092	8.7	19.6	7 10	19 24.61	-29 28.0	1.708	2.719	2.8	18.5
7 20	19 16.12	-5 44.2	1.097	2.087	8.7	19.6	7 20	19 12.99	-30 57.3	1.739	2.735	5.3	18.7
7 30	19 9.08	-7 35.6	1.114	2.082	11.5	19.7	7 30	19 2.38	-32 9.9	1.799	2.750	9.1	19.0
8 9	19 4.16	-9 36.2	1.152	2.079	15.3	19.9	8 9	18 53.88	-33 4.7	1.883	2.765	12.6	19.2
8 19	19 2.13	-11 36.8	1.210	2.076	19.0	20.2	8 19	18 48.16	-33 43.5	1.988	2.779	15.4	19.5
137282	1999 <i>RJ</i> ₁₈₂		7 11.3 343°54'	6°1'/10.1 18			213543	2002 <i>JC</i> ₈₁					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
322191	2010 <i>XM</i> ₇₀		7 11.3 303°17	1°1/11.6 18			304479	2006 <i>UL</i> ₈₉		7 11.3 221°63	1°3/10.8 18		
6 10	19 46.12	-20 1.2	2.120	3.005	11.3	20.4	6 10	19 46.44	-24 58.2	2.236	3.124	10.7	21.2
6 20	19 40.36	-19 37.6	2.037	2.990	8.2	20.2	6 20	19 40.55	-25 19.6	2.165	3.121	7.6	21.0
6 30	19 32.84	-19 16.1	1.978	2.975	4.6	19.9	6 30	19 32.93	-25 41.3	2.119	3.117	4.2	20.8
7 10	19 24.24	-18 55.9	1.945	2.961	1.3	19.7	7 10	19 24.29	-26 0.6	2.099	3.114	1.3	20.6
7 20	19 15.42	-18 36.6	1.941	2.946	3.5	19.8	7 20	19 15.46	-26 15.0	2.107	3.110	3.7	20.7
7 30	19 7.29	-18 18.0	1.964	2.932	7.3	20.0	7 30	19 7.36	-26 23.3	2.143	3.107	7.1	20.9
8 9	19 0.69	-18 0.3	2.011	2.918	10.7	20.2	8 9	19 0.78	-26 25.3	2.204	3.103	10.3	21.1
8 19	18 56.17	-17 43.6	2.081	2.904	13.8	20.4	8 19	18 56.26	-26 21.8	2.287	3.099	13.0	21.3
344921	2004 <i>TU</i> ₈		7 11.3 192°99	15°9/ 4.8 18			22206	6735 <i>P-L</i>		7 11.3 267°77	2°3/10.4 18		
6 10	20 7.89	-52 46.4	1.325	2.170	19.1	20.5	6 10	19 46.34	-28 21.3	2.381	3.267	10.2	19.6
6 20	19 58.85	-55 8.6	1.284	2.169	17.2	20.3	6 20	19 40.51	-28 47.8	2.300	3.254	7.4	19.4
6 30	19 44.21	-57 4.1	1.262	2.168	16.0	20.3	6 30	19 32.94	-29 12.6	2.244	3.240	4.4	19.2
7 10	19 25.65	-58 16.7	1.260	2.166	16.0	20.2	7 10	19 24.30	-29 32.5	2.215	3.226	2.3	19.0
7 20	19 6.19	-58 37.4	1.277	2.163	17.2	20.3	7 20	19 15.40	-29 45.1	2.214	3.212	4.2	19.1
7 30	18 49.41	-58 7.7	1.314	2.160	19.2	20.4	7 30	19 7.14	-29 49.1	2.241	3.197	7.3	19.3
8 9	18 37.85	-56 58.7	1.366	2.156	21.3	20.6	8 9	19 0.34	-29 44.7	2.292	3.183	10.3	19.5
8 19	18 32.41	-55 24.0	1.432	2.151	23.4	20.7	8 19	18 55.57	-29 33.2	2.366	3.169	12.9	19.6
92718	2000 <i>QG</i> ₉₂		7 11.3 312°21	0°6/11.4 18			34518	2000 <i>SD</i> ₁₈₅		7 11.3 230°23	2°4/12.5 18		
6 10	19 46.61	-20 45.0	1.403	2.306	14.8	19.5	6 10	19 44.07	-12 45.7	2.325	3.194	11.1	18.8
6 20	19 41.67	-20 42.1	1.314	2.277	10.8	19.2	6 20	19 38.78	-13 10.0	2.248	3.189	8.2	18.7
6 30	19 34.00	-20 43.8	1.247	2.248	6.1	18.8	6 30	19 31.95	-13 44.0	2.196	3.185	5.1	18.4
7 10	19 24.42	-20 47.8	1.203	2.219	1.0	18.4	7 10	19 24.19	-14 25.8	2.170	3.180	2.5	18.3
7 20	19 14.15	-20 51.8	1.183	2.191	4.7	18.6	7 20	19 16.21	-15 12.9	2.173	3.175	3.6	18.3
7 30	19 4.70	-20 53.9	1.188	2.163	10.1	18.8	7 30	19 8.79	-16 2.7	2.203	3.171	6.7	18.5
8 9	18 57.44	-20 53.4	1.214	2.135	15.1	19.0	8 9	19 2.66	-16 52.4	2.260	3.165	9.8	18.7
8 19	18 53.31	-20 50.3	1.259	2.109	19.4	19.2	8 19	18 58.35	-17 39.9	2.339	3.160	12.5	18.9
212662	2006 <i>UV</i> ₂₁₈		7 11.3 246°55	4°1/12.9 18			512045	2015 <i>MO</i> ₈₁		7 11.3 239°36	1°4/11.7 18		
6 10	19 44.28	- 9 8.2	2.201	3.061	12.0	20.7	6 10	19 46.09	-18 10.0	2.182	3.063	11.2	21.4
6 20	19 38.96	- 9 5.3	2.122	3.053	9.2	20.5	6 20	19 40.25	-17 57.4	2.109	3.060	8.1	21.2
6 30	19 32.05	- 9 13.9	2.067	3.045	6.3	20.3	6 30	19 32.75	-17 49.0	2.061	3.057	4.7	21.0
7 10	19 24.15	- 9 33.6	2.038	3.038	4.2	20.1	7 10	19 24.29	-17 43.6	2.039	3.054	1.6	20.8
7 20	19 16.03	-10 3.1	2.035	3.029	4.9	20.2	7 20	19 15.68	-17 40.5	2.046	3.050	3.5	20.9
7 30	19 8.50	-10 40.3	2.060	3.021	7.5	20.3	7 30	19 7.79	-17 38.8	2.079	3.047	7.0	21.1
8 9	19 2.31	-11 22.2	2.110	3.013	10.5	20.5	8 9	19 1.38	-17 37.9	2.138	3.044	10.2	21.3
8 19	18 58.00	-12 6.3	2.183	3.005	13.2	20.7	8 19	18 56.96	-17 37.2	2.219	3.040	13.1	21.5
121710	1999 <i>XB</i> ₁₁₂		7 11.3 253°82	3°2/ 9.6 18			34264	<i>Sadhuka</i>		7 11.3 178°32	1°7/10.8 18		
6 10	19 46.46	-30 56.6	2.625	3.507	9.5	20.1	6 10	19 47.84	-27 19.1	2.213	3.099	10.8	19.3
6 20	19 40.55	-31 45.6	2.542	3.491	7.0	20.0	6 20	19 41.51	-27 23.7	2.145	3.100	7.8	19.1
6 30	19 32.95	-32 32.4	2.486	3.476	4.5	19.8	6 30	19 33.43	-27 26.0	2.102	3.100	4.4	18.9
7 10	19 24.27	-33 13.0	2.457	3.460	3.2	19.7	7 10	19 24.37	-27 23.5	2.086	3.100	1.8	18.7
7 20	19 15.27	-33 44.3	2.456	3.444	4.7	19.7	7 20	19 15.21	-27 14.9	2.098	3.100	3.8	18.8
7 30	19 6.83	-34 4.6	2.483	3.427	7.3	19.9	7 30	19 6.88	-26 59.6	2.138	3.100	7.2	19.0
8 9	18 59.72	-34 13.8	2.536	3.411	10.0	20.0	8 9	19 0.17	-26 38.7	2.202	3.100	10.4	19.2
8 19	18 54.54	-34 13.3	2.610	3.394	12.4	20.2	8 19	18 55.60	-26 13.6	2.289	3.100	13.1	19.4
17841	1998 <i>HZ</i> ₉₆		7 11.3 4°79	8°8/ 7.7 18			328266	2008 <i>GQ</i> ₂₅		7 11.3 0°25	3°1/12.3 17		
6 10	19 51.68	-40 40.5	1.628	2.510	14.3	17.6	6 10	19 42.25	-14 27.6	1.076	1.988	17.5	20.5
6 20	19 45.27	-42 11.7	1.576	2.510	11.5	17.4	6 20	19 38.65	-14 39.5	1.021	1.985	13.0	20.2
6 30	19 35.89	-43 30.5	1.546	2.510	9.4	17.3	6 30	19 32.30	-15 7.4	0.984	1.983	7.8	19.9
7 10	19 24.63	-44 28.2	1.540	2.510	8.8	17.2	7 10	19 24.26	-15 48.7	0.969	1.982	3.4	19.6
7 20	19 13.00	-44 58.9	1.558	2.511	10.2	17.3	7 20	19 15.90	-16 39.0	0.976	1.983	5.5	19.8
7 30	19 2.69	-45 1.7	1.599	2.512	12.7	17.5	7 30	19 8.78	-17 32.8	1.004	1.985	10.6	20.1
8 9	18 55.07	-44 40.1	1.661	2.513	15.5	17.7	8 9	19 4.18	-18 25.0	1.053	1.989	15.5	20.4
8 19	18 50.90	-44 0.2	1.741	2.514	17.9	17.8	8 19	19 2.82	-19 12.0	1.120	1.994	19.6	20.6
371553	2006 <i>VP</i> ₂₅		7 11.3 169°33	0°6/11.2 17			281531	2008 <i>TF</i> ₁₃₈		7 11.3 248°69	2°0/10.7 18		
6 10	19 50.25	-22 37.8	1.825	2.713	12.7	21.9	6 10	19 48.85	-26 21.7	1.865	2.757	12.3	20.9
6 20	19 43.47	-22 54.9	1.761	2.716	9.1	21.7	6 20	19 42.60	-26 43.8	1.793	2.750	8.8	20.7
6 30	19 34.58	-23 14.2	1.720	2.719	4.9	21.5	6 30	19 34.20	-27 5.2	1.744	2.743	5.0	20.4
7 10	19 24.47	-23 32.4	1.705	2.721	0.8	21.2	7 10	19 24.48	-27 22.4	1.721	2.735	2.0	20.2
7 20	19 14.18	-23 47.0	1.718	2.723	3.9	21.4	7 20	19 14.50	-27 32.3	1.726	2.727	4.5	20.4
7 30	19 4.86	-23 56.3	1.757	2.724	8.1	21.7	7 30	19 5.41	-27 33.6	1.756	2.720	8.4	20.6
8 9	18 57.47	-24 0.2	1.822	2.725	11.9	21.9	8 9	18 58.21	-27 26.8	1.811	2.712	12.1	20.8
8 19	18 52.60	-23 59.3	1.907	2.725	15.0	22.1	8 19	18 53.53	-27 13.5	1.887	2.704	15.2	21.0
287548	2003 <i>EB</i> ₄₅		7 11.3 139°48	3°4/10.4 18			324921	2007 <i>VW</i> ₃₂₀		7 11.3 224°71	2°3/10.7 17		
6 10	19 49.83	-32 45.7	2.329	3.209	10.6	20.9	6 10	19 52.36	-26 54.6	1.659	2.551	13.6	21.4
6 20	19 42.85	-32 57.7	2.268	3.215	7.8	20.8	6 20	19 45.35	-27 17.6	1.587	2.543	9.8	21.2
6 30	19 34.11	-33 3.4	2.231	3.220	5.0	20.6	6 30	19 35.81	-27 39.3	1.537	2.535	5.6	20.9
7 10	19 24.42	-33 0.1	2.221	3.225	3.4	20.5	7 10	19 24.69	-27 55.2	1.513	2.526	2.4	20.7
7 20	19 14.69	-32 46.1	2.240	3.230	4.8	20.6	7 20	19 13.23	-28 1.9	1.516	2.517	5.1	20.8
7 30	19 5.89	-32 21.5	2.285	3.235	7.6	20.8	7 30	19 2.81	-27 58.1	1.544	2.507	9.4	21.1
8 9	18 58.80	-31 48.3	2.357	3.240	10.3	21.0	8 9	18 54.62	-27 44.9	1.597	2.497	13.4	21.3
8 19	18 53.91	-31 8.9	2.450	3.244	12.8	21.2	8 19	18 49.37	-27 24.7	1.669	2.486	16.8	21.5
152404	2005 <i>UE</i> ₃₁₃		7 11.3 164°56	1°3/11.7 18			516977	2012 <i>HZ</i> ₈₄					

EPHEMERIDES

7 11.3

7 11.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
413154	2002 <i>EA</i> ₁₂₈		7 11.3	63°28'	2°6'/10.8	17	355722	2008 <i>GN</i> ₂₃		7 11.3	15°13'	2°0'/12.2	18
6 10	19 52.57	-26 47.8	1.221	2.127	16.3	20.6	6 10	19 43.65	-15 17.7	1.907	2.792	12.4	20.7
6 20	19 45.65	-27 10.5	1.182	2.145	11.6	20.3	6 20	19 38.71	-15 32.5	1.843	2.794	9.1	20.5
6 30	19 35.91	-27 31.1	1.163	2.164	6.6	20.1	6 30	19 32.01	-15 56.0	1.802	2.797	5.4	20.3
7 10	19 24.69	-27 44.4	1.168	2.182	2.7	19.9	7 10	19 24.28	-16 26.3	1.787	2.800	2.2	20.0
7 20	19 13.59	-27 46.8	1.197	2.201	5.7	20.2	7 20	19 16.38	-17 0.8	1.799	2.804	3.8	20.2
7 30	19 4.20	-27 38.2	1.250	2.220	10.4	20.5	7 30	19 9.26	-17 36.9	1.837	2.808	7.5	20.4
8 9	18 57.66	-27 20.5	1.325	2.238	14.7	20.8	8 9	19 3.71	-18 12.1	1.899	2.813	10.9	20.6
8 19	18 54.49	-26 56.7	1.418	2.257	18.2	21.1	8 19	19 0.29	-18 44.7	1.983	2.817	13.9	20.8
278353	2007 <i>JL</i> ₂₄		7 11.3	41°35'	9°0'/15.3	18	33525	1999 <i>GG</i> ₅₃		7 11.4	133°71'	1°5'/11.0	18
6 10	19 44.57	+ 1 10.6	1.636	2.470	16.6	20.0	6 10	19 53.06	-25 20.4	1.496	2.390	14.6	18.2
6 20	19 39.49	+ 1 30.7	1.576	2.474	13.8	19.8	6 20	19 45.80	-25 29.4	1.439	2.398	10.4	18.0
6 30	19 32.47	+ 1 27.1	1.536	2.479	11.1	19.7	6 30	19 36.00	-25 37.6	1.405	2.404	5.8	17.7
7 10	19 24.30	+ 0 58.2	1.518	2.484	9.3	19.6	7 10	19 24.76	-25 41.3	1.396	2.411	1.6	17.4
7 20	19 15.94	+ 0 5.4	1.523	2.490	9.2	19.6	7 20	19 13.44	-25 37.9	1.413	2.417	4.8	17.7
7 30	19 8.45	- 1 7.3	1.553	2.495	11.0	19.7	7 30	19 3.44	-25 26.8	1.455	2.423	9.4	18.0
8 9	19 2.72	- 2 33.3	1.605	2.501	13.6	19.9	8 9	18 55.88	-25 9.4	1.521	2.429	13.5	18.2
8 19	18 59.34	- 4 5.9	1.678	2.507	16.3	20.1	8 19	18 51.37	-24 47.8	1.607	2.434	17.0	18.5
167695	2004 <i>RH</i> ₁₃₇		7 11.3	300°56'	20°9'/21.7	17	241812	2001 <i>RH</i> ₁₀₂		7 11.4	280°55'	7°0'/9.1	18
6 10	19 45.48	+19 2.0	1.127	1.891	26.4	19.8	6 10	19 52.61	-36 55.6	1.627	2.514	14.0	20.0
6 20	19 41.07	+20 13.4	1.067	1.882	24.7	19.7	6 20	19 46.00	-37 53.2	1.552	2.497	10.9	19.7
6 30	19 33.75	+20 38.1	1.018	1.873	23.0	19.5	6 30	19 36.41	-38 42.1	1.499	2.479	8.1	19.5
7 10	19 24.48	+20 6.1	0.983	1.864	21.6	19.4	7 10	19 24.84	-39 14.6	1.471	2.461	7.0	19.4
7 20	19 14.63	+18 32.8	0.963	1.856	20.9	19.3	7 20	19 12.73	-39 25.1	1.467	2.443	8.6	19.5
7 30	19 5.81	+16 1.6	0.959	1.848	21.3	19.3	7 30	19 1.74	-39 12.2	1.488	2.424	11.8	19.6
8 9	18 59.47	+12 44.8	0.972	1.840	22.6	19.3	8 9	18 53.29	-38 38.8	1.530	2.406	15.3	19.8
8 19	18 56.55	+ 8 59.9	1.002	1.832	24.7	19.5	8 19	18 48.24	-37 50.4	1.590	2.388	18.4	19.9
38148	1999 <i>JU</i> ₆₂		7 11.3	40°84'	2°8'/12.2	18	509904	2009 <i>DB</i> ₃₀		7 11.4	270°54'	1°2'/11.8	18
6 10	19 47.63	-14 50.4	1.233	2.132	16.8	18.7	6 10	19 45.71	-17 49.4	1.987	2.872	12.0	21.9
6 20	19 42.18	-14 59.7	1.180	2.138	12.3	18.4	6 20	19 40.21	-18 1.9	1.912	2.865	8.7	21.7
6 30	19 34.11	-15 22.1	1.148	2.144	7.3	18.2	6 30	19 32.86	-18 20.7	1.861	2.858	4.9	21.4
7 10	19 24.50	-15 55.1	1.138	2.151	3.1	18.0	7 10	19 24.40	-18 43.7	1.836	2.852	1.4	21.2
7 20	19 14.71	-16 34.7	1.152	2.158	5.2	18.1	7 20	19 15.68	-19 8.6	1.839	2.845	3.6	21.3
7 30	19 6.20	-17 16.7	1.190	2.166	10.0	18.4	7 30	19 7.67	-19 33.4	1.868	2.838	7.5	21.6
8 9	19 0.13	-17 57.5	1.250	2.174	14.5	18.7	8 9	19 1.25	-19 56.2	1.922	2.831	11.0	21.8
8 19	18 57.16	-18 34.7	1.328	2.182	18.4	19.0	8 19	18 56.99	-20 16.3	1.998	2.824	14.1	22.0
123391	2000 <i>WX</i> ₇₁		7 11.3	191°99'	2°2'/11.9	18	143895	2003 <i>YY</i> ₅₀		7 11.4	258°45'	1°2'/10.9	18
6 10	19 48.49	-16 6.5	2.143	3.016	11.7	20.1	6 10	19 49.57	-22 46.3	1.600	2.495	13.8	19.9
6 20	19 41.96	-15 49.1	2.070	3.015	8.6	19.9	6 20	19 43.52	-23 25.4	1.522	2.481	9.9	19.6
6 30	19 33.71	-15 37.0	2.021	3.013	5.2	19.7	6 30	19 34.93	-24 9.3	1.467	2.468	5.5	19.3
7 10	19 24.45	-15 29.8	1.999	3.011	2.3	19.5	7 10	19 24.67	-24 53.2	1.438	2.454	1.3	19.0
7 20	19 15.03	-15 26.6	2.006	3.008	3.9	19.6	7 20	19 13.91	-25 32.4	1.435	2.439	4.7	19.2
7 30	19 6.35	-15 26.5	2.040	3.005	7.3	19.8	7 30	19 4.02	-26 3.5	1.457	2.425	9.4	19.5
8 9	18 59.22	-15 28.7	2.099	3.001	10.6	20.0	8 9	18 56.23	-26 25.3	1.503	2.410	13.7	19.7
8 19	18 54.17	-15 32.3	2.181	2.997	13.5	20.2	8 19	18 51.34	-26 38.3	1.568	2.395	17.3	19.9
134017	2004 <i>VZ</i> ₅₃		7 11.3	139°74'	5°7'/13.1	18	237095	2008 <i>TF</i> ₂₆		7 11.4	270°73'	6°5'/13.7	18
6 10	19 47.22	- 6 5.4	2.128	2.973	12.9	20.3	6 10	19 45.71	- 3 37.3	2.013	2.853	13.7	20.3
6 20	19 40.96	- 5 26.7	2.066	2.982	10.2	20.1	6 20	19 40.28	- 3 24.3	1.918	2.830	11.1	20.1
6 30	19 33.11	- 5 0.6	2.026	2.990	7.5	20.0	6 30	19 32.98	- 3 27.8	1.847	2.806	8.5	19.9
7 10	19 24.38	- 4 48.1	2.013	2.998	5.9	19.9	7 10	19 24.43	- 3 48.9	1.799	2.782	6.7	19.7
7 20	19 15.55	- 4 49.2	2.026	3.006	6.3	19.9	7 20	19 15.43	- 4 27.0	1.778	2.758	7.0	19.7
7 30	19 7.48	- 5 2.4	2.066	3.013	8.4	20.1	7 30	19 6.94	- 5 19.8	1.783	2.733	9.3	19.8
8 9	19 0.89	- 5 25.3	2.131	3.019	11.0	20.2	8 9	18 59.86	- 6 23.3	1.812	2.708	12.3	19.9
8 19	18 56.26	- 5 54.8	2.217	3.026	13.5	20.4	8 19	18 54.86	- 7 33.0	1.863	2.682	15.3	20.0
409807	2006 <i>HM</i> ₇₈		7 11.3	193°71'	3°3'/10.4	17	342264	2008 <i>SP</i> ₃₀₇		7 11.4	234°72'	5°1'/13.3	16
6 10	19 52.76	-28 4.9	1.520	2.416	14.3	21.5	6 10	19 46.04	- 6 40.1	2.149	2.998	12.6	21.8
6 20	19 45.79	-28 44.0	1.457	2.415	10.4	21.3	6 20	19 40.33	- 6 28.1	2.066	2.986	9.9	21.6
6 30	19 36.11	-29 21.3	1.416	2.414	6.1	21.0	6 30	19 32.91	- 6 29.2	2.005	2.974	7.2	21.4
7 10	19 24.76	-29 50.9	1.401	2.412	3.3	20.9	7 10	19 24.42	- 6 43.7	1.970	2.962	5.3	21.3
7 20	19 13.12	-30 8.4	1.411	2.410	5.8	21.0	7 20	19 15.64	- 7 10.8	1.963	2.949	5.8	21.3
7 30	19 2.70	-30 12.1	1.446	2.407	10.1	21.3	7 30	19 7.45	- 7 48.4	1.982	2.936	8.2	21.4
8 9	18 54.73	-30 3.5	1.504	2.404	14.1	21.5	8 9	19 0.63	- 8 33.4	2.026	2.923	11.1	21.6
8 19	18 49.93	-29 45.4	1.582	2.401	17.6	21.7	8 19	18 55.78	- 9 22.6	2.092	2.909	13.9	21.7
164004	2003 <i>UR</i> ₁₇₄		7 11.3	323°56'	2°6'/12.0	18	389183	2009 <i>BS</i> ₁₆₈		7 11.4	286°95'	3°2'/12.4	18
6 10	19 45.51	-16 0.4	1.581	2.472	14.1	20.0	6 10	19 45.42	-13 3.1	1.918	2.793	12.7	21.1
6 20	19 40.40	-15 47.9	1.507	2.462	10.4	19.7	6 20	19 40.00	-12 53.9	1.844	2.788	9.5	20.9
6 30	19 33.09	-15 43.7	1.456	2.451	6.3	19.4	6 30	19 32.75	-12 54.1	1.794	2.783	6.1	20.7
7 10	19 24.40	-15 46.9	1.429	2.441	2.8	19.2	7 10	19 24.40	-13 3.2	1.770	2.778	3.4	20.5
7 20	19 15.39	-15 56.0	1.427	2.432	4.7	19.3	7 20	19 15.82	-13 19.7	1.772	2.773	4.5	20.6
7 30	19 7.26	-16 9.1	1.450	2.423	8.9	19.5	7 30	19 7.98	-13 41.8	1.800	2.768	7.9	20.7
8 9	19 1.04	-16 24.5	1.496	2.414	13.0	19.8	8 9	19 1.72	-14 7.3	1.853	2.763	11.4	20.9
8 19	18 57.41	-16 40.4	1.563	2.406	16.6	20.0	8 19	18 57.63	-14 34.1	1.927	2.758	14.4	21.1
131868	2002 <i>AW</i> ₁₅₄		7 11.3	185°14'	0°9'/11.0	18	349201						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
10452	Zuev		7 11.4 326°48	6°1/12.6 18			500146	2012 <i>DH</i> ₃₂		7 11.4 134°10	3°5/10.5 17		
6 10	19 43.32	-11 19.0	1.062	1.967	18.3	16.1	6 10	19 53.82	-29 54.4	1.679	2.569	13.6	22.0
6 20	19 39.71	-10 44.8	0.989	1.946	14.2	15.8	6 20	19 46.22	-30 23.8	1.625	2.579	9.8	21.8
6 30	19 33.12	-10 27.0	0.934	1.925	9.7	15.5	6 30	19 36.20	-30 48.6	1.595	2.589	5.9	21.5
7 10	19 24.48	-10 27.7	0.899	1.906	6.3	15.3	7 10	19 24.84	-31 3.8	1.590	2.599	3.5	21.4
7 20	19 15.17	-10 46.6	0.886	1.887	7.6	15.3	7 20	19 13.42	-31 6.3	1.612	2.608	5.6	21.6
7 30	19 6.88	-11 21.0	0.893	1.870	12.3	15.4	7 30	19 3.28	-30 55.8	1.659	2.616	9.3	21.8
8 9	19 1.11	-12 5.9	0.920	1.854	17.3	15.7	8 9	18 55.48	-30 34.5	1.731	2.625	12.9	22.0
8 19	18 58.83	-12 56.0	0.962	1.840	21.9	15.9	8 19	18 50.61	-30 5.6	1.823	2.632	16.0	22.3
255189	2005 <i>UV</i> ₂₈₄		7 11.4 177°88	4°1/13.2 18			143613	2003 <i>FD</i> ₁₂₁		7 11.4 88°66	0°3/11.3 18		
6 10	19 43.65	- 8 8.2	2.453	3.305	11.1	20.9	6 10	19 45.79	-21 36.1	2.135	3.022	11.2	20.0
6 20	19 38.38	- 8 0.0	2.380	3.305	8.6	20.8	6 20	19 40.11	-21 58.2	2.072	3.028	7.9	19.8
6 30	19 31.73	- 8 2.6	2.332	3.306	6.1	20.6	6 30	19 32.75	-22 23.3	2.034	3.033	4.3	19.6
7 10	19 24.28	- 8 15.6	2.310	3.306	4.3	20.5	7 10	19 24.42	-22 48.7	2.023	3.039	0.6	19.4
7 20	19 16.68	- 8 38.1	2.316	3.306	4.8	20.5	7 20	19 15.97	-23 12.0	2.039	3.045	3.4	19.6
7 30	19 9.65	- 9 8.4	2.349	3.306	7.0	20.7	7 30	19 8.28	-23 31.3	2.083	3.051	7.0	19.8
8 9	19 3.83	- 9 44.0	2.408	3.306	9.6	20.8	8 9	19 2.13	-23 45.8	2.152	3.057	10.2	20.0
8 19	18 59.68	-10 22.4	2.489	3.305	12.0	21.0	8 19	18 58.03	-23 55.7	2.243	3.062	13.0	20.2
188164	2002 <i>GP</i> ₁₂₂		7 11.4 348°51	4°9/ 9.4 18			198557	2004 <i>XB</i> ₁₄₆		7 11.4 335°16	6°9/12.1 18		
6 10	19 47.25	-34 27.5	2.043	2.931	11.6	19.6	6 10	19 46.96	- 9 34.1	1.464	2.341	15.9	19.0
6 20	19 41.46	-35 15.0	1.980	2.928	8.7	19.4	6 20	19 41.49	- 8 16.5	1.395	2.333	12.5	18.8
6 30	19 34.60	-35 56.2	1.941	2.926	6.1	19.2	6 30	19 33.73	- 7 10.3	1.347	2.324	9.1	18.6
7 10	19 23.51	-36 26.3	1.928	2.924	4.9	19.2	7 10	19 24.56	- 6 18.8	1.323	2.317	7.0	18.4
7 20	19 15.20	-36 41.9	1.941	2.922	6.4	19.3	7 20	19 15.10	- 5 44.4	1.323	2.310	7.9	18.5
7 30	19 6.80	-36 41.9	1.980	2.921	9.1	19.4	7 30	19 6.61	- 5 27.4	1.347	2.303	11.0	18.6
8 9	19 0.25	-36 27.9	2.042	2.920	11.9	19.6	8 9	19 0.16	- 5 26.0	1.392	2.298	14.6	18.8
8 19	18 56.16	-36 2.6	2.125	2.919	14.5	19.8	8 19	18 56.40	- 5 36.7	1.457	2.293	18.0	19.1
130955	2000 <i>WT</i> ₉₀		7 11.4 198°54	1°0/10.9 18			252732	2002 <i>CO</i> ₂₇₅		7 11.4 281°36	2°1/10.7 18		
6 10	19 48.36	-23 24.7	1.937	2.826	12.0	20.1	6 10	19 47.43	-27 53.9	2.154	3.042	11.0	20.6
6 20	19 42.16	-23 51.9	1.868	2.825	8.6	19.9	6 20	19 41.41	-28 5.6	2.077	3.032	7.9	20.4
6 30	19 33.96	-24 21.2	1.823	2.823	4.7	19.7	6 30	19 33.53	-28 15.0	2.025	3.022	4.6	20.1
7 10	19 24.56	-24 49.1	1.805	2.821	1.1	19.4	7 10	19 24.53	-28 19.3	1.999	3.011	2.1	19.9
7 20	19 14.92	-25 12.5	1.814	2.818	3.9	19.6	7 20	19 15.30	-28 16.3	2.001	3.001	4.2	20.1
7 30	19 6.13	-25 29.7	1.850	2.816	7.9	19.8	7 30	19 6.85	-28 5.4	2.029	2.991	7.6	20.3
8 9	18 59.09	-25 39.9	1.910	2.813	11.4	20.1	8 9	19 0.02	-27 47.5	2.083	2.980	10.9	20.4
8 19	18 54.43	-25 44.0	1.992	2.810	14.5	20.3	8 19	18 55.42	-27 24.0	2.158	2.970	13.7	20.6
273885	2007 <i>HV</i> ₁₅		7 11.4 23°01	3°1/10.3 17			218271	2003 <i>ED</i> ₄		7 11.4 270°34	10°0/15.1 18		
6 10	19 46.87	-26 7.2	1.339	2.248	15.0	19.4	6 10	19 47.76	+ 6 24.6	2.074	2.857	15.3	20.4
6 20	19 41.70	-27 4.2	1.289	2.254	10.7	19.2	6 20	19 41.84	+ 6 46.7	1.969	2.825	13.3	20.2
6 30	19 33.90	-28 2.3	1.261	2.261	6.2	19.0	6 30	19 33.92	+ 6 46.1	1.884	2.791	11.5	20.0
7 10	19 24.55	-28 54.7	1.256	2.269	3.1	18.8	7 10	19 24.60	+ 6 19.4	1.821	2.757	10.2	19.9
7 20	19 15.01	-29 36.0	1.276	2.277	5.9	19.0	7 20	19 14.67	+ 5 25.5	1.783	2.722	10.2	19.8
7 30	19 6.73	-30 3.1	1.320	2.286	10.3	19.3	7 30	19 5.12	+ 4 6.4	1.771	2.686	11.6	19.8
8 9	19 0.91	-30 16.1	1.385	2.296	14.3	19.5	8 9	18 56.90	+ 2 27.2	1.783	2.649	13.9	19.9
8 19	18 58.19	-30 17.0	1.469	2.306	17.8	19.8	8 19	18 50.78	+ 0 34.5	1.816	2.611	16.5	20.0
59879	1999 <i>RM</i> ₁₁₉		7 11.4 311°95	0°7/11.2 18			349237	2007 <i>TH</i> ₆₉		7 11.4 291°27	2°1/10.6 18		
6 10	19 46.97	-24 31.0	1.971	2.862	11.8	18.4	6 10	19 47.21	-25 56.2	1.840	2.735	12.3	21.1
6 20	19 41.16	-24 23.5	1.893	2.850	8.4	18.1	6 20	19 41.55	-26 30.6	1.766	2.724	8.8	20.9
6 30	19 33.41	-24 15.4	1.839	2.839	4.6	17.9	6 30	19 33.74	-27 5.6	1.715	2.714	5.0	20.7
7 10	19 24.49	-24 4.9	1.812	2.828	0.9	17.6	7 10	19 24.56	-27 37.2	1.689	2.703	2.1	20.4
7 20	19 15.35	-23 50.6	1.811	2.817	3.7	17.8	7 20	19 15.05	-28 1.8	1.691	2.692	4.6	20.6
7 30	19 7.03	-23 32.1	1.838	2.806	7.7	18.0	7 30	19 6.36	-28 17.2	1.718	2.682	8.5	20.8
8 9	19 0.41	-23 10.2	1.889	2.796	11.3	18.2	8 9	18 59.50	-28 23.2	1.770	2.672	12.2	21.0
8 19	18 56.09	-22 45.9	1.961	2.786	14.4	18.4	8 19	18 55.17	-28 20.9	1.842	2.662	15.4	21.2
17842	Jorgegarcia		7 11.4 150°45	2°7/10.4 18			357774	2005 <i>SJ</i> ₁₈₃		7 11.4 207°12	5°0/ 9.2 18		
6 10	19 50.16	-28 30.8	2.068	2.953	11.5	18.8	6 10	19 49.29	-37 50.9	2.610	3.480	10.0	21.1
6 20	19 43.33	-29 7.1	2.008	2.961	8.3	18.6	6 20	19 42.61	-38 32.2	2.542	3.476	7.7	21.0
6 30	19 34.54	-29 41.0	1.972	2.967	4.9	18.5	6 30	19 34.14	-39 5.7	2.499	3.471	5.8	20.9
7 10	19 24.63	-30 8.4	1.963	2.973	2.7	18.3	7 10	19 24.60	-39 27.6	2.483	3.467	5.0	20.8
7 20	19 14.58	-30 26.3	1.982	2.979	4.7	18.5	7 20	19 14.87	-39 35.1	2.495	3.462	6.1	20.9
7 30	19 5.45	-30 33.5	2.029	2.984	8.0	18.7	7 30	19 5.91	-39 27.9	2.533	3.457	8.1	21.0
8 9	18 58.13	-30 30.8	2.100	2.989	11.1	18.9	8 9	18 58.54	-39 7.3	2.596	3.452	10.4	21.1
8 19	18 53.18	-30 20.0	2.192	2.994	13.9	19.1	8 19	18 53.32	-38 36.3	2.680	3.446	12.5	21.3
161765	2006 <i>TH</i> ₅₅		7 11.4 202°71	1°3/10.7 18			515973	2015 <i>RE</i> ₁₁₉		7 11.4 314°37	5°6/13.4 18		
6 10	19 46.24	-24 4.7	2.360	3.245	10.3	20.6	6 10	19 43.11	- 5 50.5	2.161	3.012	12.5	21.0
6 20	19 40.42	-24 46.5	2.288	3.243	7.3	20.4	6 20	19 38.19	- 5 26.7	2.086	3.005	9.9	20.8
6 30	19 32.94	-25 30.0	2.242	3.240	4.1	20.2	6 30	19 31.72	- 5 16.0	2.033	2.998	7.4	20.7
7 10	19 24.45	-26 12.0	2.223	3.237	1.3	20.0	7 10	19 24.31	- 5 19.1	2.005	2.992	5.7	20.5
7 20	19 15.72	-26 49.3	2.232	3.234	3.6	20.1	7 20	19 16.69	- 5 35.5	2.003	2.985	6.1	20.6
7 30	19 7.63	-27 19.8	2.269	3.231	6.9	20.3	7 30	19 9.67	- 6 3.8	2.027	2.979	8.2	20.7
8 9	19 0.95	-27 42.6	2.332	3.227	10.0	20.5	8 9	19 3.97	- 6 40.8	2.076	2.973	10.9	20.8
8 19	18 56.24	-27 58.0	2.417	3.223	12.6	20.7	8 19	19 0.13	- 7 23.5	2.146	2.968	13.5	21.0
427705	2004 <i>FT</i> ₆₆		7 11.4 89°95	4°5/10.0 17			217181	2002 <i>RX</i> ₁₀₁		7 11.4			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
420499	2012 <i>FW</i> ₁₅		7 11.4 127°60	1.4/11.8	17		40816	1999 <i>TX</i> ₇₈		7 11.4 273°23	0.2/11.5	18	
6 10	19 49.80	-17 21.6	1.608	2.495	14.2	21.7	6 10	19 45.00	-20 30.5	2.280	3.165	10.7	19.8
6 20	19 43.32	-17 39.2	1.550	2.504	10.2	21.5	6 20	19 39.59	-20 45.5	2.200	3.154	7.6	19.6
6 30	19 34.64	-18 4.7	1.515	2.512	5.8	21.3	6 30	19 32.53	-21 4.1	2.145	3.144	4.2	19.3
7 10	19 24.67	-18 35.2	1.505	2.521	1.6	21.0	7 10	19 24.45	-21 24.2	2.117	3.133	0.6	19.0
7 20	19 14.56	-19 7.4	1.522	2.528	4.1	21.2	7 20	19 16.14	-21 43.7	2.116	3.122	3.2	19.2
7 30	19 5.51	-19 38.5	1.565	2.536	8.5	21.5	7 30	19 8.44	-22 1.0	2.144	3.112	6.8	19.4
8 9	18 58.52	-20 6.5	1.632	2.543	12.5	21.7	8 9	19 2.12	-22 15.1	2.196	3.101	10.0	19.6
8 19	18 54.19	-20 30.5	1.719	2.550	15.9	22.0	8 19	18 57.73	-22 25.6	2.271	3.090	12.9	19.8
438978	2010 <i>OE</i> ₅₃		7 11.4 281°76	0.9/11.6	18		380801	2005 <i>WA</i> ₁₆₄		7 11.4 241°45	0.7/11.6	18	
6 10	19 46.04	-19 40.5	2.271	3.152	10.8	20.8	6 10	19 49.25	-19 55.0	1.991	2.873	12.1	21.9
6 20	19 40.33	-19 29.2	2.183	3.135	7.8	20.5	6 20	19 42.84	-19 57.1	1.906	2.859	8.7	21.7
6 30	19 32.93	-19 20.7	2.120	3.117	4.4	20.3	6 30	19 34.40	-20 3.0	1.847	2.844	4.9	21.4
7 10	19 24.47	-19 13.9	2.084	3.099	1.1	20.0	7 10	19 24.70	-20 10.7	1.813	2.829	0.9	21.1
7 20	19 15.76	-19 7.8	2.076	3.081	3.3	20.2	7 20	19 14.65	-20 18.4	1.808	2.814	3.7	21.3
7 30	19 7.65	-19 1.8	2.095	3.063	6.9	20.4	7 30	19 5.32	-20 24.6	1.830	2.798	7.8	21.5
8 9	19 0.94	-18 55.5	2.140	3.046	10.3	20.5	8 9	18 57.65	-20 28.8	1.877	2.781	11.5	21.7
8 19	18 56.19	-18 48.9	2.208	3.028	13.2	20.7	8 19	18 52.31	-20 30.8	1.945	2.764	14.7	21.9
521601	2015 <i>PW</i> ₃₁₇		7 11.4 32°97	4.9/13.5	18		130179	2000 <i>AC</i> ₄₅		7 11.4 271°79	0.9/11.0	18	
6 10	19 43.23	-6 47.7	2.135	2.989	12.5	21.4	6 10	19 47.48	-22 42.4	1.958	2.847	11.9	20.3
6 20	19 38.24	-6 42.2	2.068	2.992	9.8	21.2	6 20	19 41.71	-23 13.5	1.872	2.829	8.6	20.0
6 30	19 31.73	-6 50.1	2.024	2.995	7.0	21.0	6 30	19 33.86	-23 48.3	1.811	2.810	4.7	19.7
7 10	19 24.32	-7 11.3	2.005	2.998	5.1	20.9	7 10	19 24.64	-24 23.1	1.775	2.791	1.0	19.4
7 20	19 16.77	-7 44.2	2.012	3.001	5.5	20.9	7 20	19 14.99	-24 54.6	1.767	2.772	3.9	19.6
7 30	19 9.87	-8 26.5	2.047	3.005	7.8	21.1	7 30	19 6.01	-25 20.3	1.786	2.753	8.0	19.8
8 9	19 4.33	-9 14.9	2.105	3.008	10.5	21.3	8 9	18 58.69	-25 38.9	1.830	2.733	11.8	20.0
8 19	19 0.65	-10 6.1	2.187	3.012	13.1	21.5	8 19	18 53.73	-25 50.7	1.895	2.714	15.1	20.2
515823	2015 <i>MM</i> ₁₁₄		7 11.4 259°38	5.3/13.1	18		217134	2002 <i>GS</i> ₆₂		7 11.4 171°13	0.4/11.5	17	
6 10	19 44.34	-6 21.3	2.264	3.112	12.1	21.0	6 10	19 51.27	-19 42.4	1.794	2.677	13.1	21.5
6 20	19 39.02	-5 52.2	2.185	3.103	9.6	20.8	6 20	19 44.29	-20 0.8	1.728	2.681	9.4	21.3
6 30	19 32.17	-5 34.9	2.129	3.095	7.1	20.6	6 30	19 35.18	-20 24.3	1.686	2.684	5.2	21.0
7 10	19 24.38	-5 30.3	2.099	3.086	5.5	20.5	7 10	19 24.79	-20 49.7	1.671	2.687	0.8	20.7
7 20	19 16.38	-5 38.3	2.095	3.077	5.9	20.5	7 20	19 14.20	-21 14.2	1.683	2.689	3.9	20.9
7 30	19 8.96	-5 57.5	2.118	3.069	8.0	20.6	7 30	19 4.56	-21 35.5	1.722	2.690	8.1	21.2
8 9	19 2.82	-6 25.5	2.166	3.060	10.7	20.8	8 9	18 56.86	-21 52.6	1.786	2.690	12.0	21.4
8 19	18 58.50	-6 59.7	2.236	3.051	13.2	20.9	8 19	18 51.70	-22 5.4	1.871	2.690	15.2	21.6
46830	1998 <i>PU</i>		7 11.4 306°13	3.7/10.6	18		85299	Neander		7 11.4 295°46	1.4/10.9	18	
6 10	19 50.11	-29 21.7	1.348	2.253	15.2	17.9	6 10	19 48.50	-23 41.0	1.475	2.376	14.4	19.5
6 20	19 44.45	-29 40.5	1.268	2.230	11.2	17.6	6 20	19 43.04	-24 8.2	1.391	2.353	10.4	19.2
6 30	19 35.70	-29 55.5	1.209	2.207	6.8	17.2	6 30	19 34.85	-24 39.2	1.330	2.331	5.8	18.9
7 10	19 24.85	-30 1.2	1.172	2.184	3.7	17.0	7 10	19 24.79	-25 9.5	1.292	2.308	1.5	18.6
7 20	19 13.38	-29 53.3	1.161	2.161	6.4	17.1	7 20	19 14.09	-25 34.6	1.280	2.286	5.0	18.8
7 30	19 3.01	-29 30.6	1.172	2.139	11.2	17.3	7 30	19 4.26	-25 51.6	1.293	2.263	10.0	19.0
8 9	18 55.25	-28 55.4	1.205	2.118	15.9	17.5	8 9	18 56.63	-25 59.7	1.327	2.241	14.7	19.2
8 19	18 51.02	-28 11.7	1.256	2.097	20.0	17.7	8 19	18 52.12	-25 59.8	1.381	2.219	18.7	19.4
258852	2002 <i>PF</i> ₁₀₃		7 11.4 269°46	2.4/11.9	18		368285	2002 <i>NM</i> ₃₁		7 11.4 1°98	1.7/11.9	17	
6 10	19 49.00	-16 25.9	1.593	2.480	14.3	20.5	6 10	19 41.65	-17 33.4	0.936	1.861	18.3	19.7
6 20	19 43.03	-16 13.7	1.512	2.464	10.6	20.2	6 20	19 38.57	-17 46.1	0.885	1.857	13.3	19.5
6 30	19 34.66	-16 9.1	1.452	2.447	6.3	19.9	6 30	19 32.46	-18 11.8	0.853	1.856	7.6	19.1
7 10	19 24.72	-16 10.9	1.418	2.431	2.6	19.7	7 10	19 24.48	-18 47.2	0.841	1.856	2.1	18.8
7 20	19 14.33	-16 17.9	1.409	2.414	4.7	19.8	7 20	19 16.20	-19 27.2	0.849	1.859	5.4	19.0
7 30	19 4.78	-16 28.2	1.426	2.397	9.2	20.0	7 30	19 9.35	-20 6.8	0.879	1.863	11.2	19.4
8 9	18 57.21	-16 40.3	1.466	2.379	13.5	20.2	8 9	19 5.30	-20 42.1	0.927	1.868	16.4	19.7
8 19	18 52.38	-16 53.1	1.526	2.362	17.3	20.4	8 19	19 4.77	-21 10.7	0.991	1.876	20.8	20.0
253531	2003 <i>SQ</i> ₁₉₈		7 11.4 340°14	5.4/12.2	17 R		318316	2004 <i>TP</i> ₁₄₅		7 11.4 303°94	0.8/11.2	18	
6 10	19 45.98	-13 21.4	1.120	2.023	17.7	19.2	6 10	19 47.52	-23 1.7	1.548	2.447	13.9	21.0
6 20	19 41.35	-12 28.9	1.056	2.013	13.5	18.9	6 20	19 42.12	-23 17.2	1.469	2.431	10.0	20.7
6 30	19 33.88	-11 48.2	1.012	2.004	8.9	18.6	6 30	19 34.22	-23 35.7	1.413	2.414	5.5	20.4
7 10	19 24.63	-11 21.3	0.989	1.997	5.6	18.4	7 10	19 24.71	-23 53.8	1.382	2.398	1.0	20.1
7 20	19 14.99	-11 8.8	0.989	1.990	7.1	18.5	7 20	19 14.74	-24 8.2	1.375	2.382	4.5	20.3
7 30	19 6.57	-11 9.8	1.010	1.984	11.6	18.7	7 30	19 5.67	-24 16.7	1.394	2.366	9.3	20.5
8 9	19 0.68	-11 21.7	1.051	1.979	16.3	19.0	8 9	18 58.70	-24 18.9	1.436	2.350	13.7	20.7
8 19	18 58.10	-11 40.8	1.110	1.975	20.4	19.2	8 19	18 54.60	-24 15.5	1.497	2.335	17.5	20.9
471706	2012 <i>TU</i> ₂₈₈		7 11.4 174°53	0.9/11.1	18		6694	1986 <i>PF</i>		7 11.4 337°02	2.6/12.0	18	
6 10	19 49.18	-24 40.3	2.170	3.054	11.1	21.4	6 10	19 46.96	-16 0.3	1.629	2.517	14.0	16.8
6 20	19 42.51	-24 42.5	2.102	3.056	7.9	21.2	6 20	19 41.36	-15 42.7	1.562	2.514	10.3	16.5
6 30	19 34.08	-24 44.3	2.059	3.057	4.4	21.0	6 30	19 33.63	-15 32.7	1.517	2.511	6.2	16.3
7 10	19 24.63	-24 43.4	2.042	3.058	1.0	20.7	7 10	19 24.62	-15 29.7	1.496	2.509	2.8	16.1
7 20	19 15.07	-24 38.3	2.055	3.059	3.5	20.9	7 20	19 15.39	-15 32.4	1.502	2.506	4.6	16.2
7 30	19 6.34	-24 28.4	2.094	3.059	7.2	21.2	7 30	19 7.10	-15 39.3	1.533	2.504	8.7	16.4
8 9	18 59.26	-24 14.3	2.160	3.059	10.4	21.4	8 9	19 0.72	-15 49.0	1.587	2.502	12.6	16.6
8 19	18 54.35	-23 57.0	2.247	3.059	13.2	21.6	8 19	18 56.87	-16 0.1	1.662	2.500	16.0	16.9
197278	2003 <i>WB</i> ₁₀₁		7 11.4 282°35	2.6/10.1	18		165369	2000 <i>WJ</i> ₁₀₆		7 11.4 169°25			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
413270	2003 <i>UR</i> ₃	7 11.4 215°14		0°6/11.6 17			475755	2006 <i>WX</i> ₁₅₂	7 11.4 281°23		2°8/ 9.9 18		
6 10	19 50.97	-19 58.2	1.864	2.746	12.8	21.8	6 10	19 47.25	-26 39.4	2.109	2.998	11.2	21.1
6 20	19 44.14	-20 4.8	1.786	2.738	9.2	21.6	6 20	19 41.60	-27 48.8	2.023	2.978	8.1	20.9
6 30	19 35.15	-20 15.6	1.732	2.730	5.1	21.3	6 30	19 33.88	-29 0.6	1.962	2.958	4.8	20.6
7 10	19 24.82	-20 28.1	1.705	2.721	0.9	21.0	7 10	19 24.74	-30 9.7	1.928	2.938	2.8	20.5
7 20	19 14.18	-20 40.2	1.705	2.711	3.8	21.2	7 20	19 15.09	-31 10.9	1.922	2.918	4.9	20.6
7 30	19 4.37	-20 50.2	1.733	2.701	8.1	21.4	7 30	19 6.00	-32 0.6	1.944	2.897	8.4	20.7
8 9	18 56.40	-20 57.3	1.786	2.690	12.0	21.6	8 9	18 58.47	-32 37.4	1.990	2.877	11.8	20.9
8 19	18 50.92	-21 1.7	1.859	2.678	15.3	21.8	8 19	18 53.25	-33 2.0	2.057	2.856	14.7	21.1
359552	2010 <i>SF</i> ₂₈	7 11.4		5°56 5°0/13.2 18			282258	2002 <i>JQ</i> ₉₀	7 11.4 33°65		1°6/11.1 17		
6 10	19 43.60	-7 53.2	2.023	2.883	12.8	20.8	6 10	19 48.97	-24 19.9	1.072	1.988	17.3	20.1
6 20	19 38.61	-7 32.5	1.955	2.884	10.0	20.6	6 20	19 43.47	-24 37.4	1.031	2.000	12.3	19.8
6 30	19 32.00	-7 24.4	1.910	2.884	7.1	20.4	6 30	19 34.98	-24 56.4	1.010	2.012	6.7	19.5
7 10	19 24.44	-7 29.3	1.890	2.885	5.2	20.3	7 10	19 24.86	-25 12.1	1.010	2.026	1.7	19.3
7 20	19 16.72	-7 46.3	1.896	2.886	5.7	20.3	7 20	19 14.75	-25 20.6	1.034	2.040	5.5	19.6
7 30	19 9.69	-8 13.5	1.928	2.887	8.1	20.5	7 30	19 6.31	-25 20.4	1.080	2.056	10.8	19.9
8 9	19 4.11	-8 48.0	1.985	2.888	11.0	20.7	8 9	19 0.77	-25 12.5	1.146	2.071	15.4	20.2
8 19	19 0.48	-9 26.9	2.063	2.890	13.7	20.9	8 19	18 58.70	-24 58.6	1.230	2.088	19.3	20.5
362551	2010 <i>UX</i> ₇₁	7 11.4 223°23		4°6/ 9.5 18			439207	2012 <i>RK</i> ₂₃	7 11.4 282°85		3°9/ 9.9 18		
6 10	19 48.46	-35 58.8	2.441	3.318	10.3	21.3	6 10	19 49.00	-29 55.4	1.795	2.688	12.6	21.2
6 20	19 42.10	-36 35.7	2.374	3.315	7.9	21.1	6 20	19 43.09	-30 44.6	1.717	2.672	9.3	20.9
6 30	19 33.93	-37 5.6	2.332	3.312	5.6	21.0	6 30	19 34.77	-31 32.0	1.662	2.656	5.8	20.7
7 10	19 24.68	-37 24.6	2.317	3.309	4.6	20.9	7 10	19 24.88	-32 12.0	1.633	2.640	3.9	20.5
7 20	19 15.27	-37 30.2	2.329	3.305	5.8	21.0	7 20	19 14.51	-32 39.9	1.630	2.624	5.9	20.6
7 30	19 6.65	-37 21.9	2.367	3.302	8.1	21.1	7 30	19 4.99	-32 53.4	1.653	2.608	9.6	20.8
8 9	18 59.66	-37 1.0	2.430	3.298	10.6	21.3	8 9	18 57.46	-32 52.9	1.700	2.592	13.2	21.0
8 19	18 54.85	-36 30.4	2.515	3.294	12.9	21.4	8 19	18 52.69	-32 40.8	1.766	2.576	16.4	21.2
510741	2012 <i>WM</i> ₁₄	7 11.4 230°49		1°8/12.0 18			249795	2000 <i>YS</i> ₄₄	7 11.4 198°29		0°9/11.7 17		
6 10	19 46.49	-16 3.2	2.200	3.075	11.4	22.5	6 10	19 50.82	-18 56.8	1.819	2.701	13.0	21.3
6 20	19 40.67	-16 6.5	2.120	3.066	8.3	22.2	6 20	19 44.04	-19 4.4	1.746	2.698	9.4	21.1
6 30	19 33.15	-16 16.4	2.064	3.058	4.9	22.0	6 30	19 35.13	-19 17.3	1.697	2.694	5.3	20.8
7 10	19 24.60	-16 31.4	2.036	3.049	2.0	21.8	7 10	19 24.91	-19 33.1	1.675	2.690	1.2	20.5
7 20	19 15.79	-16 50.0	2.035	3.039	3.6	21.9	7 20	19 14.42	-19 49.5	1.680	2.686	3.9	20.7
7 30	19 7.62	-17 10.3	2.062	3.029	7.0	22.1	7 30	19 4.82	-20 4.6	1.712	2.680	8.1	21.0
8 9	19 0.87	-17 30.8	2.114	3.019	10.4	22.3	8 9	18 57.08	-20 17.2	1.768	2.674	12.0	21.2
8 19	18 56.11	-17 50.4	2.189	3.009	13.3	22.5	8 19	18 51.84	-20 27.2	1.846	2.668	15.3	21.4
164760	1998 <i>WX</i> ₂	7 11.4 280°71		4°7/ 9.4 18			317368	2002 <i>NO</i> ₆₀	7 11.4 5°07		1°1/10.9 17		
6 10	19 48.99	-32 3.6	1.912	2.802	12.1	19.5	6 10	19 46.88	-20 54.0	1.218	2.127	16.1	19.6
6 20	19 43.04	-33 5.3	1.833	2.785	9.1	19.2	6 20	19 42.00	-21 54.1	1.161	2.127	11.5	19.4
6 30	19 34.71	-34 4.0	1.779	2.768	6.1	19.0	6 30	19 34.30	-23 3.2	1.125	2.127	6.3	19.1
7 10	19 24.82	-34 53.7	1.750	2.751	4.7	18.9	7 10	19 24.83	-24 14.6	1.112	2.128	1.2	18.7
7 20	19 14.43	-35 29.5	1.748	2.733	6.5	19.0	7 20	19 14.98	-25 21.1	1.123	2.130	5.2	19.0
7 30	19 4.82	-35 48.7	1.771	2.716	9.7	19.1	7 30	19 6.35	-26 17.2	1.158	2.132	10.5	19.3
8 9	18 57.13	-35 52.0	1.818	2.698	13.0	19.3	8 9	19 0.26	-27 0.3	1.214	2.134	15.2	19.6
8 19	18 52.13	-35 41.9	1.884	2.681	16.0	19.5	8 19	18 57.47	-27 30.4	1.288	2.138	19.1	19.9
437082	2012 <i>UU</i> ₇₁	7 11.4 311°77		5°4/12.9 16			476194	2007 <i>UH</i> ₄₁	7 11.4 274°39		1°9/12.0 18		
6 10	19 45.12	-9 31.0	1.608	2.483	14.8	21.2	6 10	19 46.30	-16 27.5	1.933	2.816	12.4	21.7
6 20	19 40.17	-9 5.6	1.531	2.470	11.5	21.0	6 20	19 40.73	-16 25.1	1.858	2.808	9.1	21.5
6 30	19 33.08	-8 53.9	1.475	2.457	8.0	20.8	6 30	19 33.28	-16 29.5	1.805	2.800	5.4	21.3
7 10	19 24.62	-8 56.6	1.443	2.444	5.5	20.6	7 10	19 24.69	-16 39.5	1.779	2.792	2.1	21.0
7 20	19 15.79	-9 13.2	1.436	2.431	6.3	20.6	7 20	19 15.83	-16 53.3	1.779	2.784	3.9	21.1
7 30	19 7.73	-9 41.7	1.454	2.419	9.6	20.8	7 30	19 7.72	-17 9.2	1.806	2.776	7.7	21.4
8 9	19 1.47	-10 18.5	1.494	2.407	13.3	21.0	8 9	19 1.21	-17 25.8	1.858	2.768	11.3	21.6
8 19	18 57.70	-11 0.0	1.554	2.395	16.8	21.1	8 19	18 56.90	-17 41.8	1.931	2.760	14.4	21.7
480793	2016 <i>PV</i> ₄₅	7 11.4 298°51		0°7/11.7 18			249734	2000 <i>SP</i> ₈₈	7 11.4 323°23		4°9/12.8 17		
6 10	19 46.35	-16 49.3	1.618	2.509	13.9	20.4	6 10	19 44.45	-11 20.2	1.135	2.035	17.8	20.1
6 20	19 41.32	-17 45.3	1.530	2.486	10.1	20.2	6 20	19 40.44	-11 17.3	1.063	2.018	13.6	19.8
6 30	19 33.88	-18 54.4	1.465	2.463	5.7	19.8	6 30	19 33.57	-11 33.1	1.010	2.002	9.0	19.5
7 10	19 24.75	-20 12.6	1.425	2.441	1.1	19.5	7 10	19 24.76	-12 7.5	0.978	1.987	5.2	19.3
7 20	19 14.96	-21 34.0	1.411	2.418	4.2	19.6	7 20	19 15.32	-12 57.7	0.968	1.972	6.6	19.3
7 30	19 5.80	-22 52.9	1.424	2.396	9.1	19.9	7 30	19 6.88	-13 58.5	0.981	1.959	11.3	19.5
8 9	18 58.48	-24 4.7	1.460	2.374	13.6	20.1	8 9	19 0.87	-15 3.8	1.014	1.946	16.3	19.8
8 19	18 53.87	-25 6.7	1.517	2.352	17.4	20.3	8 19	18 58.21	-16 8.3	1.064	1.934	20.7	20.0
416358	2003 <i>SM</i> ₃₄₄	7 11.4 244°63		0°2/11.4 17			179328	2001 <i>WU</i> ₅₈	7 11.4 257°75		0°5/11.6 18		
6 10	19 51.28	-21 0.2	1.769	2.655	13.2	21.9	6 10	19 46.03	-19 48.1	2.173	3.057	11.1	21.2
6 20	19 44.59	-21 9.8	1.684	2.638	9.5	21.7	6 20	19 40.41	-19 57.8	2.095	3.048	8.0	21.0
6 30	19 35.54	-21 23.2	1.623	2.621	5.3	21.4	6 30	19 33.06	-20 11.5	2.042	3.040	4.5	20.8
7 10	19 24.95	-21 37.6	1.587	2.604	0.7	21.0	7 10	19 24.66	-20 27.2	2.015	3.031	0.8	20.5
7 20	19 13.89	-21 50.4	1.579	2.585	4.1	21.2	7 20	19 16.02	-20 43.1	2.016	3.022	3.3	20.6
7 30	19 3.62	-21 59.7	1.598	2.566	8.6	21.5	7 30	19 8.04	-20 57.5	2.044	3.013	7.0	20.9
8 9	18 55.27	-22 5.0	1.640	2.546	12.8	21.7	8 9	19 1.52	-21 9.4	2.097	3.003	10.4	21.1
8 19	18 49.59	-22 6.6	1.704	2.526	16.4	21.9	8 19	18 57.03	-21 18.4	2.173	2.994	13.3	21.2
394680	2008 <i>CJ</i> ₁₀₉	7 11.4 132°57		2°0/12.2 17			166237	2002 <i>FN</i> ₃₃	7 11.4 169°78		1°3/10.9 18		
6 10	19 45.33												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
138085	2000 <i>DZ</i> ₆₂		7 11.4 242°42'	1.4°/11.8	18		376386	2012 <i>DS</i> ₅₂		7 11.4 13°65'	1.8°/10.9	17	
6 10	19 49.40	-17 33.7	1.855	2.736	12.9	20.6	6 10	19 47.80	-24 39.1	1.171	2.084	16.3	20.5
6 20	19 43.12	-17 42.7	1.771	2.721	9.4	20.3	6 20	19 42.66	-24 59.5	1.119	2.086	11.7	20.3
6 30	19 34.70	-17 58.5	1.710	2.706	5.4	20.1	6 30	19 34.63	-25 21.6	1.087	2.090	6.5	20.0
7 10	19 24.89	-18 19.2	1.676	2.691	1.6	19.8	7 10	19 24.90	-25 40.4	1.078	2.094	1.8	19.7
7 20	19 14.67	-18 42.1	1.669	2.675	3.9	19.9	7 20	19 14.99	-25 51.9	1.093	2.099	5.4	19.9
7 30	19 5.17	-19 5.1	1.689	2.658	8.2	20.1	7 30	19 6.51	-25 54.3	1.130	2.105	10.6	20.2
8 9	18 57.40	-19 26.6	1.734	2.641	12.1	20.3	8 9	19 0.74	-25 48.2	1.188	2.111	15.2	20.5
8 19	18 52.08	-19 45.6	1.800	2.623	15.6	20.5	8 19	18 58.32	-25 35.1	1.264	2.118	19.1	20.8
118995	2000 <i>YH</i> ₃₄		7 11.4 131°90'	4.1°/13.9	18	R	468082	2013 <i>TL</i> ₅₁		7 11.4 349°31'	2°3°/11.9	17	
6 10	19 43.63	- 5 48.0	2.707	3.545	10.6	20.3	6 10	19 41.26	-18 0.2	0.955	1.880	18.0	20.2
6 20	19 38.31	- 6 4.1	2.640	3.554	8.3	20.1	6 20	19 38.42	-17 47.6	0.895	1.867	13.2	19.9
6 30	19 31.76	- 6 32.1	2.597	3.564	5.9	20.0	6 30	19 32.52	-17 45.3	0.854	1.856	7.7	19.6
7 10	19 24.51	- 7 11.2	2.582	3.573	4.3	19.9	7 10	19 24.66	-17 52.0	0.832	1.847	2.6	19.2
7 20	19 17.15	- 7 59.4	2.594	3.582	4.5	19.9	7 20	19 16.36	-18 5.2	0.831	1.840	5.6	19.4
7 30	19 10.31	- 8 54.4	2.635	3.590	6.4	20.1	7 30	19 9.36	-18 21.7	0.851	1.835	11.4	19.7
8 9	19 4.58	- 9 53.0	2.702	3.598	8.7	20.2	8 9	19 5.13	-18 38.7	0.889	1.832	16.7	20.0
8 19	19 0.36	-10 52.5	2.794	3.606	10.9	20.4	8 19	19 4.46	-18 54.0	0.943	1.831	21.3	20.2
342466	2008 <i>UC</i> ₁₂₃		7 11.4 260°34'	2°3°/11.9	18		503556	2016 <i>FE</i> ₄₈		7 11.4 4°80'	0°6°/11.2	17	
6 10	19 48.28	-16 29.6	1.964	2.842	12.4	20.9	6 10	19 44.83	-20 53.2	1.029	1.949	17.4	20.9
6 20	19 42.18	-16 10.8	1.879	2.827	9.1	20.6	6 20	19 40.81	-21 30.8	0.977	1.948	12.5	20.6
6 30	19 34.12	-15 57.6	1.817	2.811	5.5	20.4	6 30	19 33.75	-22 17.1	0.945	1.948	6.9	20.3
7 10	19 24.82	-15 49.4	1.782	2.795	2.4	20.2	7 10	19 24.82	-23 6.4	0.934	1.950	1.0	20.0
7 20	19 15.19	-15 45.2	1.775	2.778	4.1	20.2	7 20	19 15.57	-23 52.4	0.944	1.953	5.4	20.3
7 30	19 6.26	-15 44.3	1.794	2.762	7.9	20.4	7 30	19 7.73	-24 30.4	0.977	1.957	11.1	20.6
8 9	18 58.94	-15 45.9	1.838	2.745	11.6	20.6	8 9	19 2.69	-24 58.1	1.030	1.962	16.1	20.9
8 19	18 53.88	-15 49.0	1.904	2.727	14.8	20.8	8 19	19 1.18	-25 15.3	1.099	1.968	20.3	21.2
449676	2014 <i>KW</i> ₉₃		7 11.4 37°14'	2°8°/ 9.9	18		116142	2003 <i>WA</i> ₁₅₀		7 11.4 323°01'	1°7°/10.8	18	
6 10	19 46.29	-28 0.7	2.202	3.091	10.8	20.5	6 10	19 46.40	-21 58.7	1.202	2.114	16.1	19.1
6 20	19 40.67	-28 57.8	2.138	3.093	7.8	20.4	6 20	19 41.93	-23 0.2	1.133	2.100	11.6	18.8
6 30	19 33.24	-29 54.2	2.098	3.094	4.7	20.2	6 30	19 34.46	-24 11.2	1.085	2.087	6.4	18.5
7 10	19 24.70	-30 45.5	2.086	3.095	2.8	20.0	7 10	19 24.94	-25 24.9	1.059	2.075	1.8	18.1
7 20	19 15.93	-31 27.9	2.101	3.096	4.7	20.2	7 20	19 14.78	-26 33.4	1.057	2.063	5.7	18.3
7 30	19 7.88	-31 59.3	2.144	3.097	7.7	20.4	7 30	19 5.68	-27 30.7	1.078	2.051	11.1	18.6
8 9	19 1.39	-32 19.1	2.211	3.099	10.7	20.6	8 9	18 59.14	-28 13.8	1.120	2.041	16.1	18.9
8 19	18 57.05	-32 28.6	2.299	3.100	13.3	20.7	8 19	18 56.10	-28 42.6	1.179	2.031	20.3	19.1
10023	Vladifedorov		7 11.4 278°08'	0°4°/11.5	18		106947	2000 <i>YL</i> ₇₆		7 11.4 190°70'	0°3°/11.3	18	
6 10	19 48.57	-19 54.3	1.617	2.509	13.8	18.0	6 10	19 51.15	-21 20.7	1.821	2.706	12.9	20.5
6 20	19 42.86	-20 13.0	1.533	2.490	10.0	17.8	6 20	19 44.35	-21 48.8	1.751	2.705	9.2	20.3
6 30	19 34.71	-20 38.0	1.472	2.471	5.6	17.5	6 30	19 35.36	-22 21.0	1.705	2.704	5.1	20.0
7 10	19 24.92	-21 6.5	1.436	2.452	0.8	17.1	7 10	19 25.03	-22 53.7	1.685	2.702	0.7	19.7
7 20	19 14.59	-21 34.8	1.426	2.432	4.2	17.3	7 20	19 14.42	-23 23.5	1.693	2.699	3.9	20.0
7 30	19 5.06	-22 0.3	1.441	2.413	9.1	17.5	7 30	19 4.69	-23 47.8	1.728	2.695	8.2	20.2
8 9	18 57.49	-22 21.1	1.480	2.393	13.5	17.7	8 9	18 56.87	-24 5.9	1.788	2.691	12.1	20.4
8 19	18 52.69	-22 36.9	1.539	2.373	17.2	17.9	8 19	18 51.60	-24 17.9	1.868	2.686	15.3	20.6
397666	2008 <i>AS</i> ₃₃		7 11.4 166°67'	8°1°/15.0	17		168823	2000 <i>SN</i> ₂₇₁		7 11.4 248°76'	5°0°/ 9.6	18	
6 10	19 50.47	- 1 26.4	1.279	2.132	19.2	21.2	6 10	19 52.30	-30 46.5	1.532	2.427	14.3	20.1
6 20	19 44.34	- 1 49.0	1.216	2.135	15.5	20.9	6 20	19 45.85	-31 56.4	1.462	2.417	10.6	19.8
6 30	19 35.52	- 2 41.5	1.172	2.137	11.6	20.7	6 30	19 36.49	-33 4.2	1.415	2.407	6.9	19.6
7 10	19 25.01	- 4 3.4	1.150	2.139	8.6	20.5	7 10	19 25.19	-34 1.9	1.392	2.396	5.0	19.4
7 20	19 14.11	- 5 49.9	1.152	2.141	8.6	20.5	7 20	19 13.35	-34 43.1	1.395	2.385	7.2	19.5
7 30	19 4.30	- 7 52.4	1.179	2.142	11.6	20.7	7 30	19 2.56	-35 4.7	1.423	2.374	11.1	19.7
8 9	18 56.84	-10 0.5	1.229	2.143	15.5	21.0	8 9	18 54.22	-35 7.6	1.473	2.363	15.0	19.9
8 19	18 52.51	-12 5.5	1.298	2.143	19.2	21.2	8 19	18 49.20	-34 55.6	1.542	2.351	18.4	20.1
244068	2001 <i>TM</i> ₁₃₄		7 11.4 257°63'	3°1°/10.7	18		193675	2001 <i>DA</i> ₁₀₀		7 11.4 105°75'	6°9°/14.1	18	
6 10	19 52.99	-29 59.9	1.842	2.728	12.7	20.5	6 10	19 46.11	- 2 41.8	1.962	2.798	14.1	19.8
6 20	19 45.84	-30 10.7	1.758	2.711	9.3	20.2	6 20	19 40.40	- 2 14.3	1.903	2.809	11.4	19.6
6 30	19 36.25	-30 16.8	1.698	2.693	5.6	20.0	6 30	19 33.03	- 2 3.7	1.866	2.819	8.8	19.5
7 10	19 25.11	-30 14.1	1.664	2.674	3.1	19.8	7 10	19 24.72	- 2 10.8	1.853	2.830	7.1	19.4
7 20	19 13.58	-29 59.8	1.657	2.655	5.2	19.8	7 20	19 16.31	- 2 35.0	1.866	2.840	7.3	19.5
7 30	19 2.98	-29 33.7	1.677	2.636	9.1	20.0	7 30	19 8.68	- 3 13.7	1.905	2.849	9.2	19.6
8 9	18 54.46	-28 57.8	1.721	2.616	12.9	20.2	8 9	19 2.58	- 4 3.0	1.968	2.859	11.7	19.8
8 19	18 48.74	-28 15.3	1.786	2.596	16.2	20.4	8 19	18 58.53	- 4 58.6	2.052	2.868	14.2	20.0
511946	2015 <i>HH</i> ₁₈₅		7 11.4 34°44'	1°9°/12.1	17		107206	2001 <i>BX</i> ₃₄		7 11.4 221°95'	0°1°/11.5	18	
6 10	19 45.98	-15 41.9	1.758	2.643	13.2	21.3	6 10	19 51.23	-21 1.1	1.815	2.700	12.9	20.8
6 20	19 40.58	-15 57.1	1.694	2.646	9.7	21.1	6 20	19 44.46	-21 11.8	1.737	2.691	9.3	20.6
6 30	19 33.23	-16 21.4	1.653	2.648	5.7	20.9	6 30	19 35.46	-21 26.2	1.683	2.681	5.2	20.3
7 10	19 24.72	-16 52.5	1.638	2.651	2.1	20.6	7 10	19 25.05	-21 41.5	1.655	2.671	0.7	19.9
7 20	19 16.01	-17 27.6	1.649	2.654	4.0	20.8	7 20	19 14.29	-21 55.0	1.654	2.660	3.9	20.2
7 30	19 8.15	-18 3.8	1.686	2.658	8.0	21.0	7 30	19 4.38	-22 5.1	1.680	2.648	8.3	20.4
8 9	19 2.05	-18 38.6	1.747	2.661	11.7	21.2	8 9	18 56.35	-22 11.1	1.731	2.636	12.3	20.6
8 19	18 58.29	-19 10.4	1.829	2.664	14.9	21.5	8 19	18 50.90	-22 13.4	1.803	2.623	15.7	20.8
508317	2015 <i>KM</i> ₁₄₀		7 11.4 81°12'	2°1°/10.6	17		438999 </						

EPHEMERIDES

7 11.4

7 11.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
358902	2008 <i>GR</i> ₈₀		7 11.4 175°03	3°4/13.1	18		513822	2013 <i>ES</i> ₂₀		7 11.4 150°41	5°6/14.7	18	
6 10	19 44.15	- 9 46.3	2.464	3.320	10.9	21.6	6 10	19 43.74	- 0 0.1	2.972	3.777	10.6	22.3
6 20	19 38.84	- 9 54.3	2.391	3.321	8.3	21.5	6 20	19 38.32	+ 0 8.9	2.905	3.787	8.7	22.2
6 30	19 32.15	-10 12.6	2.342	3.322	5.6	21.3	6 30	19 31.78	+ 0 4.7	2.861	3.796	6.9	22.1
7 10	19 24.62	-10 40.2	2.321	3.323	3.6	21.2	7 10	19 24.62	- 0 12.9	2.843	3.804	5.8	22.0
7 20	19 16.94	-11 15.6	2.327	3.323	4.1	21.2	7 20	19 17.36	- 0 43.3	2.852	3.812	5.8	22.0
7 30	19 9.81	-11 56.4	2.361	3.323	6.6	21.4	7 30	19 10.59	- 1 24.5	2.889	3.819	7.0	22.1
8 9	19 3.89	-12 40.2	2.421	3.323	9.4	21.5	8 9	19 4.81	- 2 14.0	2.952	3.826	8.8	22.3
8 19	18 59.64	-13 24.5	2.504	3.323	11.8	21.7	8 19	19 0.42	- 3 8.7	3.039	3.833	10.6	22.4
337192	1999 <i>VB</i> ₁₉₁		7 11.4 236°89	5°8/ 8.9	18		438529	2007 <i>TE</i> ₆₄		7 11.4 304°67	2°6/10.5	18	
6 10	19 51.87	-36 59.2	2.140	3.015	11.6	21.0	6 10	19 47.43	-26 56.4	1.763	2.659	12.6	20.5
6 20	19 44.99	-37 59.3	2.066	3.004	9.0	20.8	6 20	19 41.93	-27 35.7	1.688	2.647	9.1	20.3
6 30	19 35.79	-38 52.0	2.017	2.992	6.7	20.6	6 30	19 34.16	-28 15.2	1.638	2.636	5.3	20.0
7 10	19 25.10	-39 31.6	1.994	2.980	5.8	20.5	7 10	19 24.95	-28 50.3	1.612	2.624	2.6	19.8
7 20	19 14.02	-39 53.7	1.998	2.968	7.2	20.6	7 20	19 15.36	-29 16.9	1.613	2.613	5.0	19.9
7 30	19 3.78	-39 57.0	2.028	2.955	9.7	20.7	7 30	19 6.62	-29 32.6	1.640	2.602	8.9	20.2
8 9	18 55.48	-39 43.1	2.082	2.941	12.5	20.9	8 9	18 59.80	-29 37.5	1.690	2.592	12.7	20.4
8 19	18 49.83	-39 15.6	2.156	2.928	15.0	21.0	8 19	18 55.62	-29 33.0	1.760	2.581	15.9	20.6
12395	Richnelson		7 11.4 40°68	8°5/14.1	18		332847	2010 <i>FA</i> ₃₀		7 11.4 224°33	0°4/11.6	18	R
6 10	19 44.29	+ 2 43.8	2.301	3.105	13.3	17.2	6 10	19 47.30	-19 46.5	2.031	2.915	11.8	20.9
6 20	19 38.97	+ 3 48.4	2.237	3.108	11.4	17.1	6 20	19 41.45	-20 5.4	1.957	2.911	8.5	20.7
6 30	19 32.22	+ 4 36.3	2.195	3.111	9.7	17.0	6 30	19 33.74	-20 29.1	1.907	2.906	4.7	20.4
7 10	19 24.64	+ 5 5.2	2.177	3.115	8.6	16.9	7 10	19 24.89	-20 55.0	1.884	2.900	0.7	20.1
7 20	19 16.91	+ 5 13.9	2.183	3.118	8.7	17.0	7 20	19 15.79	-21 20.5	1.888	2.895	3.5	20.3
7 30	19 9.80	+ 5 3.4	2.214	3.122	9.9	17.0	7 30	19 7.41	-21 43.6	1.920	2.889	7.4	20.6
8 9	19 3.97	+ 4 36.7	2.269	3.126	11.7	17.2	8 9	19 0.62	-22 3.0	1.977	2.883	10.9	20.8
8 19	18 59.88	+ 3 57.5	2.344	3.129	13.5	17.3	8 19	18 56.02	-22 18.2	2.055	2.877	14.0	21.0
300728	2007 <i>VV</i> ₁₃₇		7 11.4 197°07	1°4/11.0	18		494957	2009 <i>SK</i> ₂₃		7 11.4 192°50	8°0/10.7	16	
6 10	19 49.39	-26 40.2	2.382	3.262	10.4	20.9	6 10	20 4.70	-39 54.2	1.341	2.219	17.0	20.9
6 20	19 42.66	-26 42.0	2.308	3.260	7.4	20.7	6 20	19 54.95	-40 13.3	1.281	2.218	13.4	20.6
6 30	19 34.26	-26 41.9	2.260	3.257	4.2	20.5	6 30	19 41.48	-40 14.3	1.241	2.217	9.8	20.4
7 10	19 24.89	-26 37.7	2.240	3.254	1.5	20.3	7 10	19 25.88	-39 48.8	1.225	2.215	8.0	20.3
7 20	19 15.40	-26 27.8	2.248	3.251	3.5	20.5	7 20	19 10.26	-38 53.7	1.233	2.212	9.4	20.4
7 30	19 6.66	-26 12.0	2.285	3.247	6.8	20.7	7 30	18 56.77	-37 32.5	1.266	2.209	12.9	20.6
8 9	18 59.45	-25 51.2	2.348	3.243	9.9	20.9	8 9	18 46.93	-35 54.3	1.321	2.205	16.7	20.8
8 19	18 54.28	-25 26.7	2.433	3.238	12.5	21.0	8 19	18 41.36	-34 8.9	1.395	2.200	20.1	21.0
6236	Mallard		7 11.4 270°55	0°3/11.3	18	R	429178	2009 <i>VO</i> ₈₉		7 11.4 122°55	4°5/10.1	17	
6 10	19 45.38	-21 52.1	2.412	3.295	10.2	18.5	6 10	19 51.78	-32 15.7	1.720	2.610	13.2	21.4
6 20	19 39.92	-22 10.9	2.326	3.279	7.3	18.2	6 20	19 44.99	-32 55.1	1.662	2.614	9.8	21.2
6 30	19 32.84	-22 32.4	2.265	3.263	4.0	18.0	6 30	19 35.77	-33 28.6	1.628	2.618	6.4	21.0
7 10	19 24.73	-22 54.4	2.231	3.247	0.6	17.7	7 10	19 25.15	-33 50.7	1.619	2.622	4.5	20.9
7 20	19 16.34	-23 14.7	2.225	3.231	3.1	17.9	7 20	19 14.37	-33 57.9	1.636	2.626	6.3	21.1
7 30	19 8.50	-23 31.6	2.247	3.214	6.6	18.1	7 30	19 4.77	-33 49.5	1.678	2.630	9.7	21.3
8 9	19 1.96	-23 44.3	2.295	3.197	9.8	18.3	8 9	18 57.41	-33 27.8	1.744	2.634	13.0	21.5
8 19	18 57.29	-23 52.7	2.366	3.180	12.6	18.4	8 19	18 52.94	-32 56.2	1.830	2.637	16.0	21.7
208130	2000 <i>DH</i> ₆₆		7 11.4 232°43	2°8/10.4	18		504298	2007 <i>EM</i> ₄₉		7 11.4 186°97	0°4/11.6	17	
6 10	19 49.92	-29 47.5	2.331	3.212	10.6	21.4	6 10	19 49.74	-20 9.6	2.003	2.884	12.0	23.2
6 20	19 43.25	-30 12.3	2.251	3.200	7.7	21.2	6 20	19 43.16	-20 21.4	1.932	2.884	8.6	23.0
6 30	19 34.69	-30 34.0	2.195	3.188	4.7	21.0	6 30	19 34.67	-20 37.2	1.886	2.883	4.8	22.8
7 10	19 24.97	-30 49.0	2.166	3.175	2.8	20.9	7 10	19 25.02	-20 54.4	1.866	2.882	0.8	22.5
7 20	19 14.97	-30 55.0	2.166	3.161	4.5	21.0	7 20	19 15.16	-21 10.8	1.874	2.880	3.5	22.7
7 30	19 5.69	-30 50.8	2.194	3.147	7.6	21.1	7 30	19 6.11	-21 24.7	1.910	2.878	7.5	22.9
8 9	18 57.99	-30 37.3	2.247	3.133	10.6	21.3	8 9	18 58.75	-21 35.4	1.971	2.875	11.1	23.2
8 19	18 52.48	-30 16.4	2.322	3.118	13.3	21.5	8 19	18 53.68	-21 42.8	2.054	2.871	14.1	23.4
10230	1997 <i>WU</i> ₃₅		7 11.4 57°19	0°8/11.2	18		65115	2002 <i>CK</i> ₅₀		7 11.4 350°33	0°8/11.7	18	
6 10	19 47.17	-23 26.8	1.980	2.870	11.8	18.3	6 10	19 44.93	-19 17.0	1.301	2.208	15.5	18.5
6 20	19 41.35	-23 44.4	1.914	2.871	8.4	18.1	6 20	19 40.49	-19 29.9	1.237	2.201	11.2	18.3
6 30	19 33.65	-24 3.5	1.872	2.871	4.6	17.9	6 30	19 33.48	-19 50.7	1.195	2.196	6.3	18.0
7 10	19 24.85	-24 21.3	1.856	2.872	0.9	17.6	7 10	19 24.88	-20 16.3	1.175	2.192	1.2	17.6
7 20	19 15.88	-24 35.4	1.868	2.873	3.7	17.8	7 20	19 15.95	-20 43.1	1.180	2.188	4.6	17.9
7 30	19 7.74	-24 44.3	1.906	2.874	7.5	18.0	7 30	19 8.11	-21 8.1	1.208	2.185	9.7	18.1
8 9	19 1.29	-24 47.6	1.969	2.875	11.0	18.3	8 9	19 2.55	-21 29.2	1.257	2.184	14.3	18.4
8 19	18 57.09	-24 46.0	2.054	2.876	14.0	18.5	8 19	18 59.99	-21 45.3	1.326	2.183	18.2	18.6
75837	Johnbriol		7 11.4 199°96	1°1/11.0	18		455451	2003 <i>SX</i> ₂₆₁		7 11.4 351°24	4°3/12.0	17	
6 10	19 50.35	-22 49.7	1.903	2.789	12.4	19.6	6 10	19 44.37	-16 0.9	0.982	1.899	18.4	19.0
6 20	19 43.78	-23 29.5	1.831	2.786	8.8	19.3	6 20	19 40.55	-15 13.8	0.925	1.891	13.7	18.7
6 30	19 35.08	-24 12.6	1.784	2.783	4.9	19.1	6 30	19 33.69	-14 36.9	0.885	1.884	8.5	18.4
7 10	19 25.05	-24 54.8	1.763	2.778	1.2	18.8	7 10	19 24.93	-14 11.3	0.866	1.878	4.4	18.1
7 20	19 14.69	-25 32.4	1.769	2.773	4.0	19.0	7 20	19 15.82	-13 57.2	0.868	1.874	6.5	18.3
7 30	19 5.16	-26 2.5	1.803	2.768	8.1	19.3	7 30	19 8.07	-13 53.7	0.891	1.872	11.7	18.5
8 9	18 57.44	-26 24.4	1.862	2.762	11.8	19.5	8 9	19 3.07	-13 58.4	0.933	1.871	16.8	18.8
8 19	18 52.19	-26 38.5	1.942	2.756	15.0	19.7	8 19	19 1.59	-14 8.5	0.991	1.871	21.1	19.1
42642	1998 <i>FQ</i> ₆₆		7 11.4 292°10	6°5/ 9.5	18		218242	2002 <i>XD</i> ₅₉		7 11.4 250°76	1°5/		

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7 11.4

7 11.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
441807	2009 <i>HE</i> ₃₄		7 11.4 352°94	7.7/ 7.4	18		511218	2014 <i>AP</i> ₄₈		7 11.5 278°62	0.7/11.7	17	
6 10	19 43.67	-33 59.2	1.340	2.251	14.8	19.2	6 10	19 46.83	-18 10.5	1.799	2.687	12.9	21.0
6 20	19 40.03	-35 57.2	1.283	2.241	11.4	19.0	6 20	19 41.32	-18 44.0	1.730	2.685	9.3	20.8
6 30	19 33.46	-37 51.6	1.247	2.233	8.6	18.8	6 30	19 33.78	-19 25.1	1.684	2.683	5.2	20.5
7 10	19 24.92	-39 31.6	1.235	2.226	7.8	18.8	7 10	19 24.99	-20 10.7	1.664	2.680	1.0	20.2
7 20	19 15.80	-40 48.0	1.246	2.221	9.9	18.9	7 20	19 15.91	-20 56.9	1.671	2.678	3.7	20.4
7 30	19 7.78	-41 36.1	1.279	2.217	13.2	19.0	7 30	19 7.63	-21 40.4	1.705	2.676	7.9	20.7
8 9	19 2.33	-41 56.7	1.332	2.215	16.7	19.2	8 9	19 1.09	-22 19.0	1.763	2.674	11.8	20.9
8 19	19 0.34	-41 53.8	1.401	2.214	19.7	19.4	8 19	18 56.94	-22 51.5	1.842	2.672	15.0	21.1
185023	2006 <i>QV</i> ₅₆		7 11.4 307°18	1°3/11.2	18		114308	2002 <i>XY</i> ₅₀		7 11.5 232°76	1°9/11.9	18	
6 10	19 48.93	-24 19.9	1.287	2.194	15.6	19.5	6 10	19 49.31	-17 13.4	1.715	2.599	13.6	19.9
6 20	19 43.78	-24 29.3	1.204	2.168	11.4	19.2	6 20	19 43.15	-17 7.5	1.641	2.593	9.9	19.7
6 30	19 35.56	-24 40.5	1.141	2.142	6.4	18.8	6 30	19 34.81	-17 8.2	1.591	2.586	5.8	19.4
7 10	19 25.21	-24 49.5	1.101	2.117	1.5	18.4	7 10	19 25.12	-17 14.1	1.566	2.580	2.1	19.2
7 20	19 14.10	-24 52.3	1.085	2.091	5.3	18.6	7 20	19 15.14	-17 23.4	1.567	2.573	4.2	19.3
7 30	19 3.95	-24 47.1	1.092	2.066	10.9	18.8	7 30	19 6.03	-17 34.4	1.595	2.565	8.4	19.5
8 9	18 56.30	-24 34.1	1.120	2.042	16.1	19.1	8 9	18 58.81	-17 45.9	1.647	2.558	12.4	19.8
8 19	18 52.15	-24 15.2	1.166	2.018	20.5	19.3	8 19	18 54.13	-17 56.8	1.719	2.550	15.9	20.0
431378	2007 <i>EP</i> ₁₁₀		7 11.5 24°35	5°5/ 9.7	17		58469	1996 <i>RC</i>		7 11.5 98°29	1°9/12.0	17	
6 10	19 49.49	-32 14.1	1.393	2.296	14.9	20.5	6 10	19 49.68	-16 31.7	1.413	2.305	15.4	19.2
6 20	19 43.79	-33 14.6	1.343	2.301	11.1	20.2	6 20	19 43.62	-16 42.6	1.356	2.311	11.2	19.0
6 30	19 35.29	-34 9.3	1.315	2.307	7.4	20.0	6 30	19 35.12	-17 3.4	1.320	2.317	6.5	18.7
7 10	19 25.14	-34 50.7	1.310	2.313	5.6	20.0	7 10	19 25.17	-17 31.2	1.308	2.322	2.2	18.5
7 20	19 14.78	-35 13.7	1.330	2.320	7.5	20.1	7 20	19 15.01	-18 2.7	1.321	2.328	4.6	18.6
7 30	19 5.80	-35 17.0	1.373	2.327	11.2	20.3	7 30	19 6.00	-18 34.6	1.360	2.333	9.3	18.9
8 9	18 59.41	-35 2.9	1.438	2.335	14.8	20.6	8 9	18 59.25	-19 4.5	1.421	2.339	13.6	19.2
8 19	18 56.28	-34 35.5	1.520	2.343	18.0	20.8	8 19	18 55.39	-19 30.9	1.502	2.344	17.2	19.4
432484	2010 <i>EK</i> ₃₃		7 11.5 153°96	8°4/15.3	18		509267	2006 <i>UD</i> ₁₉₅		7 11.5 304°74	0°8/11.7	18	
6 10	19 45.12	+ 2 7.4	1.961	2.776	14.9	21.1	6 10	19 45.96	-19 15.0	1.926	2.814	12.1	21.7
6 20	19 39.83	+ 2 26.1	1.893	2.778	12.5	20.9	6 20	19 40.61	-19 22.5	1.851	2.805	8.8	21.5
6 30	19 32.83	+ 2 23.9	1.846	2.779	10.2	20.8	6 30	19 33.36	-19 35.1	1.799	2.797	4.9	21.2
7 10	19 24.82	+ 1 59.3	1.822	2.781	8.6	20.7	7 10	19 24.94	-19 50.6	1.773	2.789	1.1	20.9
7 20	19 16.60	+ 1 13.4	1.823	2.782	8.6	20.7	7 20	19 16.26	-20 7.1	1.774	2.781	3.6	21.1
7 30	19 9.08	+ 0 9.1	1.849	2.783	10.1	20.8	7 30	19 8.31	-20 22.6	1.802	2.773	7.6	21.3
8 9	19 3.04	- 1 8.3	1.899	2.784	12.3	21.0	8 9	19 1.99	-20 35.9	1.854	2.765	11.3	21.5
8 19	18 59.04	- 2 33.2	1.971	2.785	14.7	21.1	8 19	18 57.90	-20 46.6	1.927	2.758	14.4	21.7
512535	2016 <i>RA</i> ₄₅		7 11.5 261°93	2°0/12.4	18		439225	2012 <i>TK</i> ₆₄		7 11.5 295°13	3°1/10.6	18	
6 10	19 45.26	-14 8.7	2.382	3.252	10.8	21.8	6 10	19 49.64	-28 35.6	1.681	2.577	13.2	20.8
6 20	19 39.87	-14 30.6	2.291	3.234	8.0	21.6	6 20	19 43.77	-29 1.7	1.596	2.553	9.7	20.5
6 30	19 32.87	-15 1.1	2.224	3.215	4.9	21.4	6 30	19 35.35	-29 25.9	1.533	2.530	5.8	20.2
7 10	19 24.83	-15 38.6	2.185	3.196	2.2	21.2	7 10	19 25.22	-29 43.4	1.495	2.507	3.1	20.0
7 20	19 16.45	-16 20.8	2.173	3.177	3.4	21.2	7 20	19 14.55	-29 50.3	1.484	2.483	5.5	20.1
7 30	19 8.54	-17 5.3	2.190	3.158	6.7	21.4	7 30	19 4.73	-29 45.1	1.497	2.460	9.6	20.3
8 9	19 1.87	-17 49.5	2.233	3.138	9.9	21.6	8 9	18 56.98	-29 28.5	1.534	2.437	13.7	20.5
8 19	18 57.00	-18 31.6	2.299	3.118	12.7	21.7	8 19	18 52.14	-29 3.1	1.590	2.414	17.3	20.6
501967	2014 <i>YP</i> ₂₁		7 11.5 224°86	0°8/11.1	17		88023	2000 <i>UR</i> ₇₂		7 11.5 226°47	0°3/11.5	18	
6 10	19 50.78	-21 52.6	1.839	2.725	12.7	22.0	6 10	19 47.23	-21 38.5	2.316	3.197	10.6	19.4
6 20	19 44.24	-22 33.4	1.760	2.715	9.1	21.7	6 20	19 41.19	-21 28.1	2.242	3.194	7.6	19.2
6 30	19 35.45	-23 19.0	1.705	2.704	5.0	21.4	6 30	19 33.54	-21 19.0	2.193	3.191	4.2	19.0
7 10	19 25.17	-24 5.2	1.677	2.693	1.0	21.1	7 10	19 24.96	-21 9.9	2.172	3.188	0.6	18.7
7 20	19 14.47	-24 47.6	1.676	2.681	4.1	21.3	7 20	19 16.24	-21 0.0	2.179	3.185	3.1	18.9
7 30	19 4.53	-25 23.3	1.703	2.669	8.4	21.6	7 30	19 8.23	-20 48.8	2.213	3.181	6.6	19.1
8 9	18 56.43	-25 50.8	1.754	2.655	12.3	21.8	8 9	19 1.66	-20 36.2	2.274	3.178	9.8	19.3
8 19	18 50.90	-26 10.2	1.826	2.641	15.7	22.0	8 19	18 57.03	-20 22.7	2.357	3.174	12.5	19.5
442087	2010 <i>SF</i> ₃₉		7 11.5 261°90	0°0/11.5	18		313141	2001 <i>CK</i> ₃₁		7 11.5 241°45	3°0/13.2	18	
6 10	19 46.82	-22 13.0	2.423	3.304	10.2	21.3	6 10	19 44.27	- 9 33.0	2.852	3.701	9.8	21.6
6 20	19 40.92	-22 9.4	2.338	3.290	7.3	21.1	6 20	19 38.93	- 9 50.5	2.759	3.685	7.5	21.4
6 30	19 33.40	-22 7.0	2.277	3.275	4.1	20.8	6 30	19 32.29	-10 17.7	2.691	3.669	5.0	21.2
7 10	19 24.90	-22 4.3	2.244	3.261	0.5	20.5	7 10	19 24.81	-10 53.6	2.650	3.652	3.2	21.0
7 20	19 16.16	-21 59.9	2.240	3.246	3.1	20.7	7 20	19 17.07	-11 36.7	2.639	3.635	3.7	21.1
7 30	19 8.03	-21 53.2	2.263	3.231	6.5	20.9	7 30	19 9.73	-12 24.8	2.656	3.618	6.0	21.2
8 9	19 1.25	-21 44.1	2.313	3.215	9.7	21.1	8 9	19 3.38	-13 15.5	2.701	3.599	8.6	21.3
8 19	18 56.35	-21 33.0	2.385	3.200	12.5	21.3	8 19	18 58.50	-14 6.5	2.770	3.581	11.0	21.5
253535	2003 <i>SA</i> ₂₁₀		7 11.5 320°46	3°6/11.9	18		430332	2013 <i>YZ</i> ₃₈		7 11.5 340°80	1°2/11.8	17	
6 10	19 46.09	-16 24.1	1.128	2.036	17.2	19.4	6 10	19 47.04	-18 50.6	1.443	2.342	14.8	20.5
6 20	19 41.81	-15 50.2	1.050	2.013	12.9	19.1	6 20	19 41.82	-18 53.8	1.377	2.337	10.7	20.2
6 30	19 34.50	-15 24.8	0.992	1.990	7.9	18.7	6 30	19 34.19	-19 3.9	1.333	2.332	6.1	19.9
7 10	19 25.09	-15 8.4	0.956	1.968	3.8	18.4	7 10	19 25.07	-19 18.6	1.313	2.328	1.5	19.6
7 20	19 14.99	-15 0.6	0.941	1.947	6.1	18.5	7 20	19 15.65	-19 35.2	1.317	2.325	4.4	19.8
7 30	19 5.89	-15 0.4	0.949	1.927	11.5	18.7	7 30	19 7.25	-19 51.4	1.347	2.322	9.2	20.1
8 9	18 59.34	-15 6.1	0.976	1.908	16.8	18.9	8 9	19 1.00	-20 5.6	1.398	2.319	13.5	20.3
8 19	18 56.28	-15 15.6	1.020	1.891	21.4	19.2	8 19	18 57.58	-20 17.0	1.469	2.317	17.3	20.6
390554	2000 <i>SM</i> ₂₀₄		7 11.5 273°65	8°0/13.8	18		520113	2014 <i>AP</i> ₅₈					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
499935	2011 HA ₄₂		7 11.5 117°30	15°0/20.7 17			185032	2006 QX ₉₃		7 11.5 321°06	2°2/12.1 18		
6 10	19 47.30	+22 31.0	2.130	2.793	18.1	21.4	6 10	19 46.29	-16 30.5	1.801	2.687	13.0	20.1
6 20	19 41.33	+23 50.0	2.084	2.806	17.0	21.3	6 20	19 40.91	-16 19.1	1.729	2.680	9.5	19.9
6 30	19 33.65	+24 38.8	2.053	2.819	16.0	21.3	6 30	19 33.56	-16 14.6	1.679	2.674	5.7	19.6
7 10	19 24.99	+24 53.7	2.040	2.831	15.3	21.3	7 10	19 25.03	-16 15.9	1.655	2.668	2.4	19.4
7 20	19 16.19	+24 33.2	2.045	2.843	15.0	21.3	7 20	19 16.25	-16 21.7	1.657	2.662	4.1	19.5
7 30	19 8.17	+23 39.2	2.069	2.855	15.2	21.3	7 30	19 8.27	-16 30.6	1.686	2.657	8.0	19.7
8 9	19 1.69	+22 17.2	2.111	2.866	15.8	21.4	8 9	19 2.00	-16 41.1	1.738	2.652	11.7	19.9
8 19	18 57.29	+20 34.1	2.171	2.877	16.7	21.5	8 19	18 58.05	-16 52.1	1.811	2.647	15.0	20.1
136909	1998 HJ ₉₃		7 11.5 13°27	4°1/12.3 18			182978	2002 NX ₃₉		7 11.5 15°22	1°3/11.3 17		
6 10	19 47.86	-14 27.4	1.216	2.114	17.0	19.1	6 10	19 46.87	-24 42.6	0.973	1.896	17.9	19.3
6 20	19 42.56	-13 53.5	1.160	2.116	12.7	18.8	6 20	19 42.33	-24 38.4	0.929	1.901	12.8	19.0
6 30	19 34.63	-13 30.8	1.124	2.118	8.0	18.5	6 30	19 34.63	-24 34.7	0.904	1.908	7.1	18.7
7 10	19 25.14	-13 19.7	1.111	2.121	4.3	18.3	7 10	19 25.17	-24 27.8	0.900	1.916	1.5	18.4
7 20	19 15.46	-13 19.3	1.121	2.124	6.0	18.5	7 20	19 15.63	-24 15.4	0.917	1.925	5.5	18.7
7 30	19 7.04	-13 27.7	1.154	2.128	10.4	18.7	7 30	19 7.80	-23 56.9	0.956	1.936	11.1	19.0
8 9	19 1.05	-13 42.4	1.208	2.133	14.9	19.0	8 9	19 2.97	-23 33.8	1.014	1.949	16.1	19.4
8 19	18 58.16	-14 0.5	1.281	2.138	18.7	19.2	8 19	19 1.72	-23 7.8	1.090	1.962	20.2	19.7
476253	2007 VJ ₉₄		7 11.5 283°27	1°9/12.0 18			240245	2002 UH ₁₄		7 11.5 329°89	7°6/14.0 18		
6 10	19 46.96	-17 4.6	1.912	2.795	12.5	21.5	6 10	19 41.88	-4 43.1	1.422	2.293	16.6	19.3
6 20	19 41.36	-16 54.1	1.832	2.782	9.1	21.2	6 20	19 38.28	-4 24.6	1.339	2.269	13.5	19.0
6 30	19 33.81	-16 49.5	1.774	2.769	5.4	21.0	6 30	19 32.37	-4 27.2	1.275	2.246	10.2	18.7
7 10	19 25.05	-16 49.8	1.743	2.757	2.1	20.8	7 10	19 24.90	-4 53.2	1.233	2.224	7.9	18.5
7 20	19 15.98	-16 53.6	1.739	2.744	3.9	20.9	7 20	19 16.88	-5 41.9	1.213	2.202	8.2	18.5
7 30	19 7.63	-16 59.8	1.761	2.731	7.8	21.1	7 30	19 9.55	-6 49.9	1.217	2.182	11.1	18.6
8 9	19 0.90	-17 7.2	1.807	2.718	11.5	21.3	8 9	19 4.07	-8 10.9	1.242	2.163	14.9	18.8
8 19	18 56.43	-17 14.9	1.875	2.705	14.8	21.5	8 19	19 1.27	-9 38.2	1.286	2.145	18.5	19.0
42317	2001 WW ₃₉		7 11.5 312°55	2°3/12.1 18			519185	2010 OK ₁₁₄		7 11.5 46°62	2°7/10.7 18		
6 10	19 46.50	-16 0.7	1.149	2.055	17.1	19.0	6 10	19 48.04	-29 55.2	2.226	3.112	10.8	21.2
6 20	19 42.10	-16 14.8	1.075	2.037	12.7	18.7	6 20	19 41.88	-30 7.2	2.162	3.114	7.8	21.0
6 30	19 34.69	-16 42.9	1.021	2.020	7.5	18.3	6 30	19 33.97	-30 15.3	2.123	3.117	4.7	20.8
7 10	19 25.20	-17 22.6	0.988	2.002	2.6	18.0	7 10	19 25.08	-30 16.6	2.110	3.120	2.7	20.7
7 20	19 15.01	-18 9.6	0.978	1.986	5.3	18.1	7 20	19 16.09	-30 9.5	2.125	3.123	4.3	20.8
7 30	19 5.82	-18 58.8	0.991	1.970	11.0	18.3	7 30	19 7.95	-29 53.6	2.167	3.126	7.4	21.0
8 9	18 59.14	-19 46.0	1.024	1.955	16.3	18.6	8 9	19 1.45	-29 30.1	2.235	3.129	10.4	21.2
8 19	18 55.96	-20 28.0	1.074	1.940	20.9	18.8	8 19	18 57.10	-29 1.0	2.324	3.132	13.0	21.4
10190	1996 NC		7 11.5 266°15	0°2/11.4 18			154894	2004 RK ₂₁₇		7 11.5 286°15	0°7/11.7 18		
6 10	19 46.70	-21 13.2	1.990	2.878	11.8	18.1	6 10	19 46.46	-20 25.6	2.268	3.150	10.8	19.5
6 20	19 41.11	-21 37.4	1.918	2.874	8.4	17.9	6 20	19 40.75	-20 12.5	2.186	3.138	7.8	19.3
6 30	19 33.64	-22 5.4	1.871	2.870	4.6	17.7	6 30	19 33.39	-20 1.6	2.128	3.125	4.4	19.1
7 10	19 25.02	-22 34.5	1.850	2.866	0.6	17.3	7 10	19 25.02	-19 51.8	2.097	3.113	1.0	18.8
7 20	19 16.16	-23 1.7	1.856	2.863	3.5	17.6	7 20	19 16.42	-19 42.2	2.094	3.100	3.2	19.0
7 30	19 8.05	-23 24.9	1.890	2.859	7.5	17.8	7 30	19 8.47	-19 32.3	2.119	3.087	6.8	19.2
8 9	19 1.55	-23 43.0	1.948	2.855	11.0	18.0	8 9	19 1.93	-19 21.9	2.169	3.075	10.1	19.4
8 19	18 57.28	-23 55.9	2.027	2.851	14.0	18.2	8 19	18 57.35	-19 11.1	2.241	3.062	13.0	19.5
145184	2005 JK ₂₁		7 11.5 52°25	0°2/11.4 17			172856	2005 ES ₄₆		7 11.5 149°14	3°8/12.7 17		
6 10	19 50.07	-21 34.9	1.268	2.172	16.0	19.8	6 10	19 49.52	-12 1.1	1.577	2.453	15.0	20.5
6 20	19 44.03	-21 48.4	1.222	2.185	11.4	19.5	6 20	19 43.33	-11 59.5	1.515	2.458	11.2	20.3
6 30	19 35.37	-22 6.3	1.197	2.198	6.2	19.3	6 30	19 34.94	-12 10.7	1.474	2.462	7.2	20.0
7 10	19 25.24	-22 24.8	1.195	2.212	0.8	18.9	7 10	19 25.22	-12 33.5	1.459	2.466	4.0	19.8
7 20	19 15.08	-22 40.3	1.218	2.225	4.6	19.3	7 20	19 15.30	-13 5.4	1.469	2.470	5.2	19.9
7 30	19 6.34	-22 51.0	1.265	2.240	9.7	19.6	7 30	19 6.35	-13 43.4	1.504	2.473	9.0	20.2
8 9	19 0.14	-22 56.4	1.334	2.254	14.1	19.9	8 9	18 59.40	-14 24.1	1.564	2.476	12.9	20.4
8 19	18 57.07	-22 56.9	1.422	2.269	17.7	20.2	8 19	18 55.08	-15 4.6	1.644	2.479	16.3	20.6
513813	2013 DV ₁₅		7 11.5 205°79	5°6/14.0 18			14199	1998 XV ₇₇		7 11.5 294°35	3°0/10.1 18		
6 10	19 44.20	-3 43.1	2.404	3.238	11.9	22.1	6 10	19 48.95	-24 21.9	1.485	2.385	14.3	16.9
6 20	19 38.99	-3 31.4	2.329	3.236	9.6	21.9	6 20	19 43.68	-25 46.3	1.401	2.362	10.4	16.6
6 30	19 32.35	-3 33.3	2.277	3.233	7.3	21.8	6 30	19 35.56	-27 18.9	1.339	2.339	6.0	16.3
7 10	19 24.86	-3 49.5	2.250	3.230	5.7	21.7	7 10	19 25.36	-28 52.1	1.302	2.315	3.0	16.0
7 20	19 17.18	-4 18.8	2.250	3.227	5.9	21.7	7 20	19 14.30	-30 17.5	1.292	2.291	6.1	16.1
7 30	19 10.04	-4 59.5	2.276	3.223	7.7	21.8	7 30	19 3.93	-31 28.5	1.306	2.268	10.8	16.3
8 9	19 4.11	-5 48.3	2.328	3.220	10.1	21.9	8 9	18 55.74	-32 22.0	1.343	2.245	15.3	16.5
8 19	18 59.87	-6 42.0	2.403	3.216	12.4	22.1	8 19	18 50.76	-32 58.6	1.398	2.222	19.2	16.7
389746	2011 SL ₁₃₇		7 11.5 107°21	5°4/ 9.7 16			476145	2007 TQ ₂₉₇		7 11.5 331°02	5°3/10.3 17		
6 10	19 51.38	-37 7.5	2.132	3.008	11.6	20.7	6 10	19 50.02	-33 54.9	1.511	2.408	14.3	21.1
6 20	19 44.43	-37 44.0	2.077	3.016	8.9	20.6	6 20	19 44.20	-34 20.3	1.443	2.397	10.8	20.9
6 30	19 35.41	-38 11.4	2.046	3.023	6.5	20.5	6 30	19 35.61	-34 37.4	1.397	2.387	7.2	20.6
7 10	19 25.25	-38 25.2	2.041	3.030	5.4	20.4	7 10	19 25.33	-34 40.7	1.374	2.377	5.3	20.5
7 20	19 15.01	-38 22.9	2.063	3.038	6.6	20.5	7 20	19 14.74	-34 26.5	1.376	2.367	7.1	20.6
7 30	19 5.82	-38 4.4	2.111	3.045	9.0	20.6	7 30	19 5.37	-33 54.8	1.402	2.359	10.8	20.8
8 9	18 58.60	-37 32.4	2.182	3.052	11.6	20.8	8 9	18 58.47	-33 8.8	1.450	2.351	14.5	21.0
8 19	18 53.89	-36 50.3	2.275	3.058	14.0	21.0	8 19	18 54.77	-32 13.2	1.518	2.343	17.9	21.2
497731	2006 SV ₁₈₀		7 11.5 219°56	0°8/11.7 17			137907	2000 AT ₂₃₁		7 11.5 223°92	0°6/11.3 18		
6 10	19 50.18												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
270416	2002 <i>CC</i> ₂₀		7 11.5 68°84'	2°0/10.8	17		23327	Luchernandez		7 11.5 183°10'	2°2/12.3	17	R
6 10	19 49.46	-24 45.4	1.605	2.502	13.7	20.3	6 10	19 49.78	-14 56.4	1.716	2.595	13.8	19.4
6 20	19 43.32	-25 29.8	1.556	2.516	9.7	20.1	6 20	19 43.51	-15 13.5	1.648	2.595	10.2	19.2
6 30	19 34.92	-26 15.5	1.530	2.530	5.4	19.9	6 30	19 35.08	-15 40.7	1.602	2.596	6.1	19.0
7 10	19 25.24	-26 57.3	1.530	2.544	2.0	19.7	7 10	19 25.33	-16 15.6	1.582	2.595	2.4	18.7
7 20	19 15.47	-27 31.1	1.555	2.558	4.7	19.9	7 20	19 15.31	-16 55.2	1.589	2.595	4.2	18.9
7 30	19 6.83	-27 54.7	1.607	2.573	8.8	20.2	7 30	19 6.16	-17 36.1	1.623	2.593	8.3	19.1
8 9	19 0.33	-28 7.9	1.681	2.587	12.5	20.4	8 9	18 58.88	-18 15.6	1.681	2.592	12.3	19.3
8 19	18 56.54	-28 12.1	1.776	2.601	15.7	20.7	8 19	18 54.12	-18 51.9	1.760	2.589	15.6	19.5
155820	2000 <i>WA</i> ₉₅		7 11.5 319°12'	6°2/8.3	18		433131	2012 <i>TK</i> ₁₈₈		7 11.5 317°70'	3°4/12.6	16	
6 10	19 48.20	-31 0.7	1.446	2.349	14.4	18.7	6 10	19 45.71	-13 8.2	1.589	2.474	14.4	21.2
6 20	19 43.29	-32 51.9	1.374	2.333	10.8	18.4	6 20	19 40.78	-13 8.2	1.515	2.464	10.8	20.9
6 30	19 35.40	-34 44.3	1.326	2.317	7.5	18.2	6 30	19 33.66	-13 20.1	1.463	2.454	6.8	20.7
7 10	19 25.38	-36 27.8	1.302	2.301	6.3	18.1	7 10	19 25.15	-13 43.1	1.435	2.445	3.6	20.5
7 20	19 14.56	-37 52.8	1.303	2.286	8.6	18.2	7 20	19 16.28	-14 14.8	1.432	2.435	4.9	20.5
7 30	19 4.63	-38 53.4	1.328	2.271	12.4	18.3	7 30	19 8.22	-14 52.3	1.454	2.426	8.9	20.7
8 9	18 57.12	-39 29.0	1.373	2.257	16.2	18.5	8 9	19 2.01	-15 32.2	1.499	2.418	12.9	21.0
8 19	18 53.05	-39 42.5	1.437	2.244	19.6	18.7	8 19	18 58.34	-16 11.7	1.565	2.410	16.5	21.2
276494	2003 <i>QG</i> ₁₇		7 11.5 336°13'	9°8/15.2	16		12576	Oresme		7 11.5 250°22'	2°1/10.8	18	
6 10	19 42.47	+ 0 16.5	1.413	2.263	17.8	19.8	6 10	19 49.66	-26 43.2	1.837	2.728	12.5	18.3
6 20	19 38.62	+ 0 42.3	1.340	2.250	15.0	19.5	6 20	19 43.46	-27 6.8	1.766	2.722	9.0	18.1
6 30	19 32.53	+ 0 42.2	1.286	2.237	12.1	19.3	6 30	19 35.07	-27 29.5	1.718	2.716	5.2	17.9
7 10	19 24.98	+ 0 13.3	1.252	2.226	10.1	19.2	7 10	19 25.33	-27 47.5	1.696	2.710	2.2	17.7
7 20	19 17.00	- 0 43.9	1.241	2.215	10.0	19.1	7 20	19 15.32	-27 57.8	1.701	2.703	4.5	17.8
7 30	19 9.80	- 2 5.4	1.252	2.205	12.1	19.2	7 30	19 6.21	-27 59.0	1.733	2.697	8.5	18.0
8 9	19 4.49	- 3 43.7	1.285	2.196	15.2	19.4	8 9	18 59.01	-27 51.6	1.788	2.690	12.1	18.2
8 19	19 1.81	- 5 30.4	1.337	2.189	18.4	19.6	8 19	18 54.37	-27 37.3	1.864	2.683	15.3	18.4
140757	2001 <i>UX</i> ₁₁₈		7 11.5 255°30'	0°3/11.4	18		509568	2008 <i>CM</i> ₄₈		7 11.5 107°91'	4°3/14.0	18	
6 10	19 46.60	-21 30.2	2.302	3.185	10.6	20.8	6 10	19 45.15	- 5 34.3	2.535	3.372	11.3	22.0
6 20	19 40.94	-21 53.3	2.218	3.171	7.6	20.6	6 20	19 39.53	- 5 49.0	2.477	3.390	8.8	21.8
6 30	19 33.57	-22 19.8	2.159	3.157	4.2	20.3	6 30	19 32.62	- 6 16.3	2.443	3.408	6.3	21.7
7 10	19 25.11	-22 47.1	2.126	3.143	0.6	20.0	7 10	19 25.00	- 6 55.2	2.435	3.426	4.5	21.6
7 20	19 16.34	-23 12.6	2.122	3.128	3.2	20.2	7 20	19 17.31	- 7 43.7	2.456	3.443	4.7	21.6
7 30	19 8.15	-23 34.6	2.146	3.113	6.9	20.4	7 30	19 10.24	- 8 39.1	2.505	3.460	6.7	21.8
8 9	19 1.34	-23 51.9	2.196	3.098	10.2	20.6	8 9	19 4.36	- 9 38.1	2.580	3.477	9.1	22.0
8 19	18 56.50	-24 4.3	2.268	3.083	13.0	20.8	8 19	19 0.11	-10 37.9	2.679	3.493	11.3	22.2
27916	1996 <i>VX</i> ₁		7 11.5 322°14'	4°3/12.3	18		445799	2012 <i>BY</i> ₂₉		7 11.5 206°18'	1°4/12.2	18	
6 10	19 46.40	-12 33.8	1.781	2.657	13.5	17.6	6 10	19 44.66	-16 4.4	2.699	3.569	9.7	22.3
6 20	19 41.02	-11 50.7	1.705	2.647	10.3	17.3	6 20	19 39.28	-16 19.7	2.621	3.566	7.0	22.1
6 30	19 33.67	-11 16.0	1.652	2.638	6.9	17.1	6 30	19 32.54	-16 40.7	2.568	3.561	4.1	21.9
7 10	19 25.12	-10 50.8	1.624	2.628	4.4	16.9	7 10	19 25.00	-17 6.0	2.544	3.557	1.5	21.7
7 20	19 16.31	-10 35.6	1.623	2.620	5.5	17.0	7 20	19 17.27	-17 33.8	2.547	3.552	2.9	21.8
7 30	19 8.28	-10 29.7	1.646	2.611	8.8	17.2	7 30	19 10.05	-18 2.3	2.580	3.547	5.8	22.0
8 9	19 1.93	-10 31.8	1.694	2.603	12.3	17.4	8 9	19 3.95	-18 30.1	2.639	3.542	8.6	22.1
8 19	18 57.88	-10 39.9	1.762	2.595	15.4	17.5	8 19	18 59.44	-18 56.0	2.721	3.536	11.1	22.3
377731	2005 <i>XR</i> ₃		7 11.5 215°04'	1°5/10.9	18		515916	2015 <i>PZ</i> ₃₀₂		7 11.5 276°62'	3°2/13.2	18	
6 10	19 50.08	-24 34.7	2.196	3.078	11.1	22.1	6 10	19 44.14	- 9 49.8	2.408	3.265	11.1	21.2
6 20	19 43.51	-25 10.6	2.117	3.069	8.0	21.9	6 20	19 39.12	-10 14.2	2.317	3.249	8.5	21.0
6 30	19 35.02	-25 47.9	2.063	3.061	4.5	21.7	6 30	19 32.57	-10 50.3	2.250	3.232	5.6	20.8
7 10	19 25.31	-26 23.0	2.036	3.051	1.5	21.5	7 10	19 25.03	-11 36.9	2.211	3.215	3.4	20.6
7 20	19 15.28	-26 52.6	2.038	3.041	3.9	21.6	7 20	19 17.17	-12 31.8	2.199	3.198	4.0	20.6
7 30	19 5.92	-27 14.7	2.068	3.030	7.5	21.8	7 30	19 9.76	-13 32.1	2.215	3.181	6.8	20.7
8 9	18 58.14	-27 28.8	2.124	3.018	10.8	22.0	8 9	19 3.52	-14 34.4	2.258	3.164	9.8	20.9
8 19	18 52.57	-27 35.4	2.202	3.006	13.7	22.2	8 19	18 59.00	-15 35.8	2.324	3.146	12.5	21.1
254141	2004 <i>PT</i> ₆₀		7 11.5 293°75'	7°0/14.6	18		236450	2006 <i>EH</i> ₆		7 11.5 299°88'	3°6/12.8	16	
6 10	19 43.51	- 0 22.2	2.235	3.058	13.1	20.3	6 10	19 45.95	-11 50.7	1.652	2.531	14.3	20.1
6 20	19 38.76	- 0 12.6	2.140	3.035	10.9	20.1	6 20	19 40.93	-11 59.0	1.575	2.520	10.8	19.9
6 30	19 32.39	- 0 20.3	2.068	3.012	8.7	20.0	6 30	19 33.76	-12 20.8	1.519	2.508	7.0	19.6
7 10	19 24.97	- 0 46.6	2.020	2.989	7.2	19.8	7 10	19 25.20	-12 54.9	1.488	2.496	3.9	19.4
7 20	19 17.18	- 1 31.0	1.997	2.966	7.2	19.8	7 20	19 16.25	-13 38.7	1.483	2.485	5.0	19.5
7 30	19 9.83	- 2 31.3	2.001	2.943	9.0	19.9	7 30	19 8.03	-14 28.7	1.503	2.474	8.8	19.6
8 9	19 3.70	- 3 43.4	2.029	2.919	11.4	20.0	8 9	19 1.59	-15 21.0	1.546	2.463	12.7	19.9
8 19	18 59.36	- 5 2.8	2.079	2.896	14.0	20.1	8 19	18 57.63	-16 12.3	1.610	2.452	16.3	20.1
470746	2008 <i>UH</i> ₁₂₇		7 11.5 295°46'	2°8/10.5	18		218005	2001 <i>XN</i> ₁₀₄		7 11.5 341°90'	9°1/10.8	17	
6 10	19 48.45	-26 44.8	1.673	2.570	13.2	21.1	6 10	19 54.97	-13 11.5	0.944	1.844	20.5	18.8
6 20	19 42.96	-27 28.5	1.592	2.551	9.6	20.9	6 20	19 48.26	-10 35.9	0.886	1.839	16.0	18.5
6 30	19 34.98	-28 13.6	1.533	2.532	5.6	20.6	6 30	19 38.08	- 8 5.3	0.848	1.834	11.5	18.3
7 10	19 25.33	-28 54.6	1.500	2.512	2.8	20.4	7 10	19 25.79	- 5 49.6	0.832	1.830	9.1	18.1
7 20	19 15.14	-29 26.9	1.493	2.493	5.3	20.5	7 20	19 13.20	- 3 58.6	0.838	1.826	10.9	18.2
7 30	19 5.75	-29 47.5	1.511	2.474	9.5	20.7	7 30	19 2.29	- 2 38.4	0.865	1.824	15.3	18.4
8 9	18 58.37	-29 56.0	1.552	2.455	13.5	20.9	8 9	18 54.57	- 1 49.0	0.910	1.822	19.8	18.7
8 19	18 53.82	-29 53.9	1.612	2.436	17.1	21.1	8 19	18 50.80	- 1 25.8	0.970	1.820	23.9	19.0
347476	2012 <i>UV</i> ₂₉		7 11.5 312°51'	1°9/12.0	18		122414	2000 <i>QO</i> ₉₃					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
158400	2001 YZ ₁₀₆		7 11.5 138°14	1°6/12.2	18		176417	2001 VQ ₉		7 11.5 158°87	3°1/10.1	18	
6 10	19 48.83	-16 6.1	2.063	2.937	12.0	20.4	6 10	19 48.00	-29 27.6	2.238	3.124	10.8	20.4
6 20	19 42.46	-16 21.6	2.002	2.948	8.7	20.3	6 20	19 42.02	-30 18.3	2.174	3.126	7.8	20.2
6 30	19 34.36	-16 44.3	1.965	2.959	5.1	20.0	6 30	19 34.20	-31 6.9	2.135	3.128	4.8	20.0
7 10	19 25.27	-17 11.9	1.955	2.969	1.8	19.8	7 10	19 25.28	-31 49.1	2.123	3.129	3.1	19.9
7 20	19 16.05	-17 42.1	1.973	2.978	3.5	20.0	7 20	19 16.13	-32 21.5	2.138	3.131	4.8	20.0
7 30	19 7.64	-18 12.5	2.019	2.987	7.1	20.2	7 30	19 7.73	-32 42.3	2.181	3.132	7.8	20.2
8 9	19 0.81	-18 41.4	2.090	2.996	10.4	20.4	8 9	19 0.92	-32 51.7	2.248	3.134	10.7	20.4
8 19	18 56.10	-19 7.5	2.183	3.003	13.3	20.7	8 19	18 56.28	-32 51.1	2.337	3.135	13.2	20.6
123018	2000 SG ₂₆₇		7 11.5 62°44	0°0/11.5	18		145481	2005 UA ₇₂		7 11.5 222°76	0°7/11.7	18	
6 10	19 49.14	-21 26.5	1.599	2.493	13.8	19.6	6 10	19 46.81	-20 10.7	2.340	3.220	10.6	20.0
6 20	19 43.11	-21 34.8	1.541	2.500	9.9	19.4	6 20	19 40.95	-20 2.4	2.266	3.217	7.6	19.8
6 30	19 34.86	-21 46.8	1.507	2.506	5.4	19.1	6 30	19 33.52	-19 56.7	2.217	3.214	4.3	19.5
7 10	19 25.34	-21 59.4	1.497	2.514	0.7	18.8	7 10	19 25.18	-19 52.3	2.196	3.211	0.9	19.3
7 20	19 15.69	-22 10.2	1.514	2.521	4.0	19.1	7 20	19 16.69	-19 48.2	2.202	3.208	3.1	19.5
7 30	19 7.13	-22 17.5	1.556	2.528	8.5	19.4	7 30	19 8.87	-19 43.6	2.236	3.205	6.5	19.7
8 9	19 0.63	-22 20.8	1.622	2.536	12.4	19.6	8 9	19 2.44	-19 38.3	2.297	3.202	9.7	19.9
8 19	18 56.78	-22 20.5	1.708	2.543	15.8	19.8	8 19	18 57.90	-19 32.2	2.380	3.198	12.4	20.0
451319	2010 UN ₉₈		7 11.5 347°91	3°7/12.7	18		505134	2012 HH ₄₈		7 11.5 59°15	4°5/ 9.4	17	
6 10	19 44.87	-11 28.4	2.210	3.076	11.7	20.8	6 10	19 50.70	-27 46.8	1.477	2.377	14.4	20.6
6 20	19 39.59	-11 2.4	2.139	3.075	8.9	20.6	6 20	19 44.74	-29 28.6	1.421	2.380	10.5	20.4
6 30	19 32.78	-10 45.0	2.091	3.073	6.0	20.4	6 30	19 36.03	-31 11.6	1.389	2.384	6.5	20.2
7 10	19 25.06	-10 36.5	2.070	3.072	3.9	20.3	7 10	19 25.54	-32 46.7	1.382	2.388	4.5	20.1
7 20	19 17.19	-10 36.4	2.076	3.071	4.6	20.3	7 20	19 14.62	-34 5.8	1.401	2.393	6.9	20.2
7 30	19 9.97	-10 43.7	2.108	3.071	7.3	20.5	7 30	19 4.80	-35 4.2	1.445	2.397	10.9	20.5
8 9	19 4.11	-10 56.5	2.166	3.070	10.2	20.7	8 9	18 57.37	-35 41.7	1.511	2.401	14.6	20.7
8 19	19 0.09	-11 13.2	2.246	3.070	12.9	20.8	8 19	18 53.13	-36 0.9	1.596	2.406	17.8	20.9
164226	2004 RD ₁₉₉		7 11.5 311°43	5°2/10.7	17		445362	2010 OV ₃₃		7 11.5 265°23	3°0/10.4	18	
6 10	19 52.35	-32 0.8	1.158	2.066	16.8	19.4	6 10	19 48.59	-31 12.6	2.517	3.396	9.9	22.1
6 20	19 46.64	-32 18.4	1.086	2.048	12.6	19.1	6 20	19 42.37	-31 35.0	2.429	3.377	7.3	21.9
6 30	19 37.37	-32 28.1	1.034	2.030	8.1	18.8	6 30	19 34.39	-31 53.6	2.367	3.358	4.6	21.7
7 10	19 25.73	-32 22.8	1.004	2.012	5.2	18.6	7 10	19 25.31	-32 5.2	2.333	3.339	3.0	21.6
7 20	19 13.47	-31 58.0	0.997	1.995	7.6	18.6	7 20	19 15.94	-32 7.5	2.326	3.319	4.5	21.6
7 30	19 2.66	-31 13.6	1.012	1.979	12.5	18.9	7 30	19 7.18	-31 59.6	2.347	3.299	7.3	21.8
8 9	18 54.97	-30 14.5	1.047	1.963	17.4	19.1	8 9	18 59.86	-31 42.3	2.394	3.278	10.2	21.9
8 19	18 51.30	-29 6.7	1.099	1.948	21.7	19.3	8 19	18 54.57	-31 17.4	2.463	3.258	12.7	22.1
437103	2012 UJ ₁₀₉		7 11.5 30°27	5°6/13.2	17		522449	2016 CU ₃₁₉		7 11.5 11°12	0°1/11.5	17	
6 10	19 46.05	- 8 46.8	1.599	2.471	15.0	21.1	6 10	19 46.36	-16 55.3	1.172	2.078	16.8	20.2
6 20	19 40.82	- 8 18.0	1.541	2.477	11.7	20.9	6 20	19 41.85	-18 17.9	1.116	2.080	12.1	20.0
6 30	19 33.58	- 8 3.8	1.504	2.482	8.2	20.7	6 30	19 34.50	-19 56.4	1.081	2.082	6.7	19.7
7 10	19 25.18	- 8 4.8	1.491	2.489	5.8	20.6	7 10	19 25.35	-21 43.1	1.069	2.085	0.9	19.3
7 20	19 16.63	- 8 19.9	1.502	2.495	6.4	20.7	7 20	19 15.77	-23 28.6	1.081	2.089	4.9	19.6
7 30	19 9.02	- 8 47.0	1.539	2.502	9.3	20.8	7 30	19 7.35	-25 4.3	1.117	2.093	10.4	19.9
8 9	19 3.24	- 9 22.2	1.598	2.510	12.7	21.1	8 9	19 1.46	-26 24.9	1.175	2.099	15.3	20.2
8 19	18 59.87	-10 2.0	1.678	2.517	15.8	21.3	8 19	18 58.87	-27 28.6	1.251	2.105	19.3	20.5
26236	1998 QC ₂₅		7 11.5 238°98	1°7/12.0	18		12020	1996 XW ₁₉		7 11.5 186°63	2°2/12.1	18	
6 10	19 50.87	-16 42.3	1.457	2.346	15.3	18.4	6 10	19 51.28	-16 30.3	1.823	2.699	13.3	18.5
6 20	19 44.75	-16 59.5	1.383	2.337	11.2	18.1	6 20	19 44.46	-16 16.7	1.752	2.699	9.7	18.3
6 30	19 36.00	-17 27.1	1.330	2.327	6.5	17.8	6 30	19 35.58	-16 9.5	1.706	2.699	5.8	18.1
7 10	19 25.54	-18 2.1	1.302	2.317	2.0	17.5	7 10	19 25.47	-16 7.5	1.685	2.698	2.4	17.9
7 20	19 14.58	-18 40.7	1.299	2.306	4.6	17.7	7 20	19 15.15	-16 9.5	1.692	2.696	4.2	18.0
7 30	19 4.56	-19 19.3	1.322	2.295	9.5	17.9	7 30	19 5.71	-16 14.3	1.726	2.694	8.1	18.2
8 9	18 56.73	-19 55.2	1.368	2.284	14.1	18.2	8 9	18 58.11	-16 20.7	1.784	2.691	11.9	18.4
8 19	18 51.90	-20 26.6	1.433	2.272	18.1	18.4	8 19	18 52.96	-16 28.0	1.864	2.687	15.1	18.6
120408	2005 SX ₃₇		7 11.5 1°72	0°9/11.8	18		479068	2013 AB ₈₃		7 11.5 243°55	0°6/11.8	18	
6 10	19 44.14	-18 50.9	1.539	2.439	13.9	19.1	6 10	19 46.14	-17 58.4	2.118	3.000	11.5	21.1
6 20	19 39.66	-19 2.0	1.477	2.437	10.1	18.8	6 20	19 40.70	-18 36.2	2.043	2.995	8.3	20.9
6 30	19 33.04	-19 20.0	1.437	2.437	5.7	18.6	6 30	19 33.50	-19 21.1	1.993	2.990	4.7	20.7
7 10	19 25.12	-19 42.5	1.421	2.437	1.3	18.3	7 10	19 25.20	-20 10.0	1.969	2.985	0.9	20.4
7 20	19 16.98	-20 6.6	1.431	2.438	4.0	18.5	7 20	19 16.61	-20 59.6	1.974	2.980	3.3	20.6
7 30	19 9.79	-20 29.7	1.465	2.441	8.5	18.8	7 30	19 8.66	-21 46.9	2.006	2.975	7.1	20.8
8 9	19 4.53	-20 49.9	1.522	2.444	12.5	19.0	8 9	19 2.17	-22 29.4	2.063	2.970	10.5	21.0
8 19	19 1.81	-21 6.3	1.599	2.448	16.0	19.2	8 19	18 57.73	-23 6.2	2.143	2.965	13.4	21.2
405776	2006 AP		7 11.5 144°43	1°2/12.1	17		383587	2007 GF ₁₆		7 11.5 167°06	8°9/ 8.1	18	
6 10	19 53.72	-14 13.3	1.829	2.696	13.7	20.9	6 10	19 55.51	-43 8.5	1.799	2.666	13.8	20.4
6 20	19 46.22	-15 29.7	1.767	2.710	9.9	20.7	6 20	19 48.15	-44 25.5	1.746	2.668	11.4	20.2
6 30	19 36.56	-16 58.1	1.730	2.723	5.7	20.5	6 30	19 37.87	-45 28.4	1.715	2.669	9.5	20.1
7 10	19 25.60	-18 33.3	1.720	2.735	1.5	20.3	7 10	19 25.79	-46 9.2	1.709	2.670	8.9	20.1
7 20	19 14.36	-20 8.9	1.741	2.747	3.8	20.5	7 20	19 13.40	-46 23.1	1.726	2.670	10.0	20.2
7 30	19 4.01	-21 39.1	1.790	2.757	8.0	20.7	7 30	19 2.35	-46 9.9	1.768	2.671	12.2	20.3
8 9	18 55.55	-23 0.0	1.866	2.767	11.8	21.0	8 9	18 53.95	-45 33.8	1.831	2.672	14.7	20.5
8 19	18 49.61	-24 9.8	1.965	2.775	14.9	21.2	8 19	18 48.93	-44 41.0	1.912	2.672	17.0	20.6
306855	2001 SQ ₁₄₇		7 11.5 288°28	6°3/12.7	18		157681	2005 YX ₁₇₁		7 11.5 233°01	7°6/ 9.1	18	
6 10	19 48.71	- 9 5											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
287773	2003 <i>SD</i> ₈₃		7 11.5 333°57	2°2/10.8 16			324425	2006 <i>SZ</i> ₃₅₀		7 11.5 341°13	3°8/10.4 17		
6 10	19 48.09	-26 6.4	1.594	2.494	13.6	20.8	6 10	19 47.14	-27 2.8	1.132	2.048	16.5	19.9
6 20	19 42.60	-26 35.3	1.527	2.488	9.8	20.5	6 20	19 42.72	-27 54.0	1.071	2.039	12.0	19.6
6 30	19 34.73	-27 4.5	1.483	2.483	5.6	20.3	6 30	19 35.13	-28 46.5	1.030	2.030	7.1	19.3
7 10	19 25.38	-27 29.5	1.464	2.478	2.3	20.1	7 10	19 25.47	-29 33.0	1.010	2.023	3.8	19.1
7 20	19 15.72	-27 46.6	1.470	2.473	4.9	20.2	7 20	19 15.30	-30 6.7	1.014	2.016	6.8	19.3
7 30	19 7.07	-27 54.0	1.501	2.469	9.2	20.5	7 30	19 6.45	-30 24.0	1.039	2.010	11.8	19.5
8 9	19 0.52	-27 51.9	1.555	2.465	13.1	20.7	8 9	19 0.41	-30 25.3	1.085	2.006	16.5	19.8
8 19	18 56.75	-27 41.7	1.629	2.461	16.5	20.9	8 19	18 58.03	-30 13.3	1.147	2.002	20.6	20.0
314094	2005 <i>EW</i> ₁₅		7 11.5 45°86	1°3/11.9 17			503498	2016 <i>EO</i> ₁₉₆		7 11.5 80°30	2°7/10.6 17		
6 10	19 48.98	-17 54.7	1.185	2.090	16.9	20.5	6 10	19 51.72	-24 52.6	1.328	2.230	15.6	21.0
6 20	19 43.41	-18 10.7	1.141	2.103	12.2	20.2	6 20	19 45.41	-25 53.8	1.280	2.241	11.1	20.8
6 30	19 35.16	-18 36.3	1.118	2.117	6.9	20.0	6 30	19 36.33	-26 57.3	1.253	2.253	6.3	20.5
7 10	19 25.42	-19 7.8	1.117	2.132	1.7	19.7	7 10	19 25.62	-27 55.9	1.250	2.264	2.7	20.3
7 20	19 15.62	-19 40.9	1.139	2.147	4.7	19.9	7 20	19 14.71	-28 43.5	1.273	2.275	5.6	20.6
7 30	19 7.24	-20 12.2	1.186	2.163	9.9	20.3	7 30	19 5.16	-29 16.8	1.320	2.286	10.3	20.9
8 9	19 1.43	-20 39.2	1.254	2.179	14.4	20.6	8 9	18 58.19	-29 35.9	1.389	2.297	14.5	21.1
8 19	18 58.76	-21 0.9	1.340	2.195	18.2	20.9	8 19	18 54.48	-29 42.6	1.477	2.308	18.0	21.4
276044	2002 <i>BD</i> ₅		7 11.5 164°03	3°8/ 9.6 18			25196	1998 <i>SH</i> ₁₃₄		7 11.5 205°93	0°3/11.6 18		
6 10	19 51.25	-29 33.8	2.021	2.906	11.8	21.0	6 10	19 45.08	-20 18.8	2.709	3.586	9.4	19.4
6 20	19 44.57	-30 48.8	1.959	2.910	8.6	20.8	6 20	19 39.61	-20 31.9	2.633	3.583	6.7	19.2
6 30	19 35.71	-32 2.2	1.922	2.914	5.5	20.6	6 30	19 32.78	-20 47.9	2.583	3.580	3.7	19.0
7 10	19 25.51	-33 7.9	1.913	2.917	3.8	20.5	7 10	19 25.13	-21 5.1	2.560	3.576	0.6	18.7
7 20	19 14.99	-34 0.9	1.931	2.920	5.6	20.6	7 20	19 17.32	-21 21.9	2.566	3.572	2.7	18.9
7 30	19 5.30	-34 38.6	1.976	2.922	8.8	20.8	7 30	19 10.05	-21 36.9	2.601	3.568	5.8	19.1
8 9	18 57.45	-35 1.0	2.046	2.924	11.9	21.0	8 9	19 3.94	-21 49.4	2.662	3.564	8.6	19.3
8 19	18 52.11	-35 10.2	2.136	2.926	14.6	21.2	8 19	18 59.46	-21 58.9	2.747	3.560	11.1	19.4
91050	1998 <i>FU</i> ₃₂		7 11.5 251°69	2°5/12.4 18			466201	2012 <i>LQ</i> ₂₆		7 11.5 340°21	4°2/13.6 18		
6 10	19 47.51	-14 44.9	1.796	2.676	13.3	19.2	6 10	19 44.29	- 8 40.2	1.242	2.130	17.4	20.1
6 20	19 41.88	-14 48.7	1.722	2.670	9.8	19.0	6 20	19 40.30	- 9 37.2	1.172	2.120	13.3	19.8
6 30	19 34.23	-15 1.8	1.671	2.664	6.0	18.7	6 30	19 33.68	-10 59.9	1.121	2.111	8.7	19.6
7 10	19 25.32	-15 22.8	1.645	2.657	2.7	18.5	7 10	19 25.29	-12 45.0	1.094	2.103	4.7	19.3
7 20	19 16.10	-15 49.4	1.646	2.650	4.2	18.6	7 20	19 16.35	-14 45.2	1.090	2.095	5.6	19.3
7 30	19 7.66	-16 19.1	1.673	2.644	8.1	18.8	7 30	19 8.30	-16 50.9	1.110	2.089	10.2	19.6
8 9	19 0.94	-16 49.7	1.725	2.637	11.9	19.0	8 9	19 2.46	-18 52.5	1.153	2.084	14.9	19.8
8 19	18 56.56	-17 19.1	1.797	2.630	15.2	19.2	8 19	18 59.70	-20 43.1	1.216	2.079	19.1	20.1
311129	2004 <i>RX</i> ₆		7 11.5 338°98	1°0/12.0 18			479982	2014 <i>JZ</i> ₆₃		7 11.5 80°00	4°1/12.9 16		
6 10	19 44.49	-16 34.4	1.999	2.883	11.9	20.1	6 10	19 45.29	-10 6.7	2.157	3.019	12.1	21.7
6 20	19 39.60	-17 14.0	1.926	2.878	8.7	19.9	6 20	19 39.93	- 9 48.8	2.089	3.021	9.2	21.5
6 30	19 32.93	-18 2.3	1.877	2.874	5.0	19.7	6 30	19 33.01	- 9 41.1	2.044	3.023	6.3	21.3
7 10	19 25.14	-18 56.3	1.855	2.870	1.3	19.4	7 10	19 25.17	- 9 43.6	2.024	3.025	4.2	21.2
7 20	19 17.07	-19 52.5	1.859	2.866	3.4	19.6	7 20	19 17.18	- 9 55.6	2.032	3.026	4.8	21.3
7 30	19 9.66	-20 47.4	1.891	2.863	7.2	19.8	7 30	19 9.86	-10 15.3	2.067	3.028	7.5	21.4
8 9	19 3.75	-21 38.0	1.948	2.860	10.8	20.0	8 9	19 3.93	-10 40.6	2.126	3.030	10.4	21.6
8 19	18 59.92	-22 22.7	2.027	2.857	13.8	20.2	8 19	18 59.88	-11 9.1	2.208	3.032	13.0	21.8
169554	2002 <i>EB</i> ₁₁₅		7 11.5 77°66	1°8/10.9 17			417524	2006 <i>TQ</i> ₁₇		7 11.5 214°29	1°2/11.9 17		
6 10	19 51.75	-23 1.6	1.333	2.233	15.6	19.1	6 10	19 50.21	-17 47.3	1.945	2.823	12.5	22.1
6 20	19 45.30	-23 58.5	1.288	2.250	11.1	18.9	6 20	19 43.75	-18 0.3	1.867	2.816	9.1	21.9
6 30	19 36.20	-24 59.2	1.266	2.266	6.1	18.7	6 30	19 35.26	-18 19.6	1.812	2.808	5.2	21.7
7 10	19 25.57	-25 57.1	1.267	2.282	1.8	18.4	7 10	19 25.50	-18 43.0	1.784	2.799	1.4	21.4
7 20	19 14.84	-26 46.3	1.294	2.299	5.1	18.7	7 20	19 15.40	-19 8.0	1.784	2.790	3.7	21.5
7 30	19 5.50	-27 23.5	1.346	2.315	9.8	19.0	7 30	19 6.05	-19 32.5	1.812	2.780	7.7	21.8
8 9	18 58.70	-27 48.1	1.420	2.331	14.0	19.3	8 9	18 58.38	-19 54.7	1.864	2.770	11.5	22.0
8 19	18 55.05	-28 1.6	1.514	2.347	17.5	19.6	8 19	18 53.04	-20 14.0	1.938	2.759	14.7	22.2
158435	2002 <i>CH</i> ₂₇		7 11.5 122°37	1°8/10.9 18			184837	2005 <i>UD</i> ₂₆		7 11.5 321°91	0°7/11.8 18		
6 10	19 50.43	-25 17.3	1.898	2.786	12.3	20.1	6 10	19 45.55	-19 16.9	2.014	2.901	11.7	20.4
6 20	19 43.83	-25 54.3	1.842	2.798	8.8	19.9	6 20	19 40.33	-19 25.0	1.941	2.895	8.5	20.2
6 30	19 35.21	-26 31.6	1.810	2.808	4.9	19.6	6 30	19 33.32	-19 37.9	1.891	2.889	4.8	20.0
7 10	19 25.44	-27 5.1	1.805	2.819	1.9	19.5	7 10	19 25.23	-19 53.7	1.867	2.883	1.0	19.7
7 20	19 15.53	-27 31.5	1.827	2.829	4.2	19.6	7 20	19 16.90	-20 10.2	1.871	2.878	3.4	19.9
7 30	19 6.60	-27 48.8	1.876	2.839	8.0	19.9	7 30	19 9.28	-20 25.9	1.901	2.872	7.2	20.1
8 9	18 59.53	-27 57.3	1.950	2.849	11.4	20.1	8 9	19 3.20	-20 39.4	1.956	2.867	10.8	20.3
8 19	18 54.91	-27 58.1	2.044	2.858	14.3	20.3	8 19	18 59.23	-20 50.2	2.032	2.862	13.8	20.5
134824	2000 <i>GT</i> ₁₄₈		7 11.5 17°09	1°6/12.1 16			190638	2000 <i>WD</i> ₁₆₄		7 11.5 328°90	6°3/11.9 18		
6 10	19 46.38	-16 49.8	1.820	2.706	12.9	19.9	6 10	19 46.83	-12 17.6	1.311	2.202	16.5	18.5
6 20	19 41.00	-16 59.7	1.755	2.707	9.3	19.7	6 20	19 42.01	-10 56.8	1.233	2.182	12.8	18.2
6 30	19 33.69	-17 17.2	1.712	2.708	5.4	19.5	6 30	19 34.57	- 9 44.0	1.177	2.163	8.9	17.9
7 10	19 25.24	-17 40.2	1.695	2.709	1.8	19.2	7 10	19 25.42	- 8 42.8	1.143	2.144	6.4	17.7
7 20	19 16.59	-18 6.2	1.704	2.710	3.8	19.4	7 20	19 15.78	- 7 56.6	1.133	2.127	7.7	17.8
7 30	19 8.76	-18 33.0	1.740	2.712	7.7	19.6	7 30	19 7.08	- 7 26.7	1.145	2.111	11.6	17.9
8 9	19 2.62	-18 58.4	1.800	2.714	11.4	19.8	8 9	19 0.56	- 7 12.4	1.178	2.096	15.8	18.1
8 19	18 58.77	-19 21.4	1.882	2.716	14.6	20.1	8 19	18 57.05	- 7 11.0	1.230	2.082	19.7	18.3
247081	2000 <i>SS</i> ₇₂		7 11.5 263°62	1°4/11.9 18			445360	2010 <i>OB</i>					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
294544	2007 YH ₇		7 11.5 327°04	0°4/11.7	18		119759	2001 YX ₁₁₂		7 11.5 97°26	1°6/10.8	18	
6 10	19 44.86	-19 3.7	1.101	2.016	17.0	19.6	6 10	19 47.16	-25 20.1	2.251	3.137	10.7	19.5
6 20	19 41.14	-19 34.1	1.029	1.996	12.4	19.3	6 20	19 41.31	-25 55.6	2.193	3.147	7.6	19.3
6 30	19 34.34	-20 16.5	0.976	1.978	7.0	18.9	6 30	19 33.79	-26 31.4	2.160	3.157	4.3	19.2
7 10	19 25.41	-21 6.8	0.944	1.961	1.1	18.5	7 10	19 25.32	-27 4.1	2.153	3.167	1.6	19.0
7 20	19 15.77	-21 59.0	0.935	1.944	5.2	18.7	7 20	19 16.73	-27 31.0	2.175	3.177	3.7	19.1
7 30	19 7.16	-22 47.7	0.948	1.929	11.2	19.0	7 30	19 8.90	-27 50.4	2.225	3.187	7.0	19.4
8 9	19 1.15	-23 28.8	0.981	1.915	16.6	19.3	8 9	19 2.58	-28 2.2	2.299	3.197	10.0	19.6
8 19	18 58.73	-24 0.7	1.031	1.902	21.2	19.5	8 19	18 58.29	-28 6.8	2.396	3.206	12.6	19.8
323291	2003 TJ ₂₀		7 11.5 218°89	2°1/11.9	17		503507	2016 FK ₁		7 11.5 14°07	6°3/12.9	17	
6 10	19 51.71	-17 56.4	1.585	2.471	14.4	20.9	6 10	19 43.13	-11 50.0	0.881	1.798	20.0	20.1
6 20	19 45.07	-17 33.0	1.515	2.467	10.6	20.6	6 20	19 39.73	-11 5.1	0.840	1.803	15.2	19.8
6 30	19 36.06	-17 14.9	1.467	2.463	6.2	20.4	6 30	19 33.36	-10 39.3	0.817	1.810	10.2	19.6
7 10	19 25.62	-17 1.2	1.444	2.458	2.3	20.1	7 10	19 25.28	-10 33.9	0.812	1.819	6.6	19.4
7 20	19 14.90	-16 51.0	1.448	2.453	4.5	20.2	7 20	19 17.07	-10 47.7	0.827	1.830	7.7	19.5
7 30	19 5.20	-16 43.5	1.477	2.448	9.0	20.5	7 30	19 10.40	-11 16.5	0.862	1.842	12.1	19.8
8 9	18 57.59	-16 38.3	1.530	2.442	13.1	20.7	8 9	19 6.52	-11 54.6	0.916	1.857	16.7	20.1
8 19	18 52.74	-16 34.9	1.603	2.436	16.7	21.0	8 19	19 6.04	-12 36.1	0.986	1.873	20.7	20.5
283723	2002 TU ₁₈₉		7 11.5 271°05	2°4/10.8	18		135062	2001 PR ₇		7 11.5 238°04	2°7/10.3	18	
6 10	19 50.07	-28 28.3	2.063	2.949	11.5	20.5	6 10	19 48.62	-28 42.2	2.469	3.350	10.1	19.9
6 20	19 43.73	-28 42.7	1.977	2.930	8.4	20.3	6 20	19 42.47	-29 26.4	2.386	3.337	7.3	19.7
6 30	19 35.29	-28 54.6	1.916	2.912	5.0	20.1	6 30	19 34.53	-30 9.6	2.329	3.323	4.5	19.5
7 10	19 25.52	-29 0.4	1.881	2.893	2.5	19.8	7 10	19 25.45	-30 47.8	2.300	3.308	2.7	19.4
7 20	19 15.39	-28 57.6	1.873	2.873	4.5	19.9	7 20	19 16.03	-31 17.9	2.299	3.294	4.3	19.5
7 30	19 6.00	-28 45.5	1.893	2.854	8.1	20.1	7 30	19 7.19	-31 38.0	2.326	3.278	7.3	19.6
8 9	18 58.35	-28 24.9	1.937	2.834	11.6	20.3	8 9	18 59.75	-31 47.9	2.379	3.263	10.2	19.8
8 19	18 53.09	-27 57.9	2.003	2.814	14.6	20.5	8 19	18 54.33	-31 48.8	2.453	3.247	12.8	20.0
513317	2007 DJ ₁₁₃		7 11.5 267°15	11°7/ 7.5	18		228625	2002 CB ₁₂₆		7 11.5 226°18	0°8/11.8	18	
6 10	20 6.93	-60 43.1	2.458	3.226	13.5	21.3	6 10	19 49.64	-18 58.1	2.264	3.138	11.1	21.6
6 20	19 56.39	-61 33.6	2.407	3.222	12.5	21.2	6 20	19 43.17	-19 3.6	2.178	3.126	8.1	21.4
6 30	19 42.37	-62 1.2	2.376	3.219	11.8	21.1	6 30	19 34.90	-19 13.1	2.117	3.113	4.6	21.2
7 10	19 26.44	-61 59.3	2.367	3.215	11.7	21.1	7 10	19 25.51	-19 25.1	2.084	3.099	1.1	20.9
7 20	19 10.64	-61 24.9	2.380	3.211	12.1	21.1	7 20	19 15.81	-19 37.6	2.079	3.085	3.3	21.1
7 30	18 56.95	-60 20.2	2.413	3.208	13.1	21.2	7 30	19 6.73	-19 49.3	2.102	3.069	7.0	21.3
8 9	18 46.77	-58 51.0	2.467	3.204	14.2	21.3	8 9	18 59.08	-19 59.2	2.152	3.054	10.4	21.4
8 19	18 40.64	-57 5.1	2.540	3.200	15.5	21.4	8 19	18 53.48	-20 7.0	2.224	3.037	13.3	21.6
205994	2002 OO ₂₅		7 11.5 330°42	3°0/12.6	18		123181	2000 UW ₂		7 11.5 296°35	0°9/11.3	18	
6 10	19 45.32	-13 38.9	1.640	2.525	14.0	20.1	6 10	19 48.32	-22 52.8	1.638	2.533	13.5	19.3
6 20	19 40.48	-13 43.4	1.568	2.517	10.5	19.8	6 20	19 42.79	-23 16.0	1.563	2.523	9.7	19.0
6 30	19 33.54	-13 59.3	1.517	2.510	6.5	19.6	6 30	19 34.90	-23 42.5	1.512	2.512	5.4	18.7
7 10	19 25.29	-14 25.3	1.492	2.502	3.2	19.4	7 10	19 25.52	-24 8.7	1.485	2.501	1.1	18.4
7 20	19 16.71	-14 59.0	1.491	2.496	4.6	19.5	7 20	19 15.75	-24 31.0	1.485	2.491	4.3	18.6
7 30	19 8.93	-15 37.3	1.517	2.490	8.6	19.7	7 30	19 6.86	-24 47.2	1.510	2.480	8.8	18.9
8 9	19 2.93	-16 17.1	1.565	2.484	12.5	19.9	8 9	18 59.95	-24 56.5	1.558	2.470	12.9	19.1
8 19	18 59.39	-16 55.7	1.634	2.478	15.9	20.1	8 19	18 55.76	-24 59.4	1.626	2.460	16.5	19.3
380310	2002 ET ₁₀₆		7 11.5 76°52	4°7/13.7	17		186390	2002 JM ₁₁₇		7 11.5 75°21	5°6/ 8.2	18	
6 10	19 47.10	- 7 36.8	1.704	2.567	14.7	20.3	6 10	19 49.56	-35 26.9	2.236	3.115	11.0	19.7
6 20	19 41.48	- 7 56.1	1.650	2.581	11.3	20.1	6 20	19 43.37	-37 0.6	2.182	3.122	8.5	19.6
6 30	19 33.95	- 8 32.2	1.617	2.596	7.7	20.0	6 30	19 35.11	-38 28.5	2.154	3.130	6.3	19.4
7 10	19 25.33	- 9 23.2	1.610	2.610	5.0	19.8	7 10	19 25.54	-39 44.2	2.153	3.137	5.6	19.4
7 20	19 16.59	-10 25.7	1.628	2.625	5.5	19.9	7 20	19 15.64	-40 42.9	2.179	3.145	7.0	19.5
7 30	19 8.76	-11 35.2	1.673	2.639	8.5	20.1	7 30	19 6.51	-41 22.5	2.232	3.152	9.3	19.7
8 9	19 2.70	-12 46.6	1.742	2.654	11.8	20.3	8 9	18 59.11	-41 43.7	2.308	3.159	11.7	19.8
8 19	18 58.95	-13 56.0	1.832	2.668	14.8	20.6	8 19	18 54.11	-41 49.3	2.404	3.167	13.9	20.0
441427	2008 GT ₉₉		7 11.5 348°11	5°3/ 9.2	18		1907	Rudneva		7 11.5 72°33	1°5/12.0	18	
6 10	19 48.06	-34 49.7	2.046	2.932	11.6	20.7	6 10	19 48.28	-17 12.6	1.616	2.505	14.0	15.8
6 20	19 42.36	-35 50.8	1.984	2.930	8.8	20.5	6 20	19 42.55	-17 26.9	1.555	2.509	10.2	15.6
6 30	19 34.54	-36 46.0	1.945	2.928	6.3	20.4	6 30	19 34.66	-17 49.3	1.517	2.514	5.9	15.4
7 10	19 25.42	-37 29.7	1.933	2.926	5.3	20.3	7 10	19 25.48	-18 17.2	1.504	2.518	1.8	15.1
7 20	19 16.01	-37 58.0	1.947	2.924	6.7	20.4	7 20	19 16.09	-18 47.7	1.516	2.523	4.0	15.3
7 30	19 7.47	-38 9.4	1.986	2.923	9.3	20.5	7 30	19 7.68	-19 17.9	1.555	2.528	8.4	15.6
8 9	19 0.76	-38 4.9	2.049	2.922	12.1	20.7	8 9	19 1.22	-19 45.6	1.617	2.532	12.4	15.8
8 19	18 56.54	-37 47.5	2.131	2.921	14.6	20.9	8 19	18 57.32	-20 9.8	1.699	2.537	15.7	16.0
225831	2001 XN ₆₄		7 11.5 171°60	0°6/11.7	18		4160	Sabrina-John		7 11.5 66°88	3°6/12.7	18	
6 10	19 49.75	-19 41.2	2.107	2.985	11.7	20.4	6 10	19 48.51	-12 53.2	1.473	2.357	15.4	16.5
6 20	19 43.20	-19 48.0	2.038	2.988	8.4	20.2	6 20	19 42.75	-12 49.6	1.418	2.366	11.5	16.2
6 30	19 34.85	-19 58.6	1.994	2.991	4.7	20.0	6 30	19 34.76	-12 58.7	1.385	2.376	7.3	16.0
7 10	19 25.46	-20 10.9	1.977	2.993	0.9	19.7	7 10	19 25.49	-13 18.9	1.376	2.385	3.9	15.8
7 20	19 15.90	-20 23.1	1.989	2.995	3.3	19.9	7 20	19 16.07	-13 47.9	1.392	2.395	5.1	15.9
7 30	19 7.12	-20 33.7	2.028	2.996	7.1	20.1	7 30	19 7.74	-14 22.4	1.433	2.405	9.1	16.2
8 9	18 59.95	-20 42.0	2.092	2.996	10.5	20.4	8 9	19 1.48	-14 59.2	1.497	2.415	13.0	16.5
8 19	18 54.93	-20 47.7	2.179	2.996	13.4	20.6	8 19	18 57.90	-15 35.3	1.581	2.425	16.4	16.7
237942	2002 QB ₁₁₆		7 11.5 76°72	3°5/12.8	16		385070	2012 UH ₆₉		7 11.5 344°20	4°4/10.1	16	
6 10	19 46.43	-11											

EPHEMERIDES

7 11.5

7 11.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
149516	2003 <i>FS</i> ₇₃		7 11.5 130°34	5°5/14.6	18		174981	2004 <i>DO</i> ₆₀		7 11.6 22°35	2°2/12.2	17	
6 10	19 44.74	-2 10.3	2.592	3.414	11.5	20.5	6 10	19 46.35	-16 9.2	1.169	2.074	16.9	19.2
6 20	19 39.31	-2 7.2	2.528	3.425	9.3	20.4	6 20	19 41.69	-16 21.9	1.119	2.081	12.4	19.0
6 30	19 32.61	-2 18.0	2.487	3.436	7.2	20.3	6 30	19 34.37	-16 46.8	1.090	2.088	7.2	18.7
7 10	19 25.19	-2 42.8	2.472	3.447	5.7	20.2	7 10	19 25.49	-17 20.9	1.082	2.097	2.5	18.5
7 20	19 17.68	-3 20.3	2.485	3.457	5.8	20.2	7 20	19 16.44	-18 0.0	1.098	2.106	4.9	18.6
7 30	19 10.72	-4 8.2	2.524	3.467	7.3	20.3	7 30	19 8.67	-18 39.8	1.137	2.116	9.9	19.0
8 9	19 4.91	-5 3.3	2.590	3.477	9.4	20.5	8 9	19 3.37	-19 17.0	1.198	2.127	14.5	19.2
8 19	19 0.67	-6 2.3	2.678	3.486	11.5	20.7	8 19	19 1.17	-19 49.3	1.276	2.139	18.4	19.5
387318	2012 <i>VH</i> ₆₉		7 11.5 43°42	1°9/10.8	17		504488	2008 <i>FK</i> ₁₂₆		7 11.6 63°28	2°7/10.6	17	
6 10	19 47.91	-24 41.7	1.745	2.640	12.8	20.6	6 10	19 50.34	-25 50.5	1.468	2.367	14.5	21.1
6 20	19 42.27	-25 24.5	1.686	2.645	9.2	20.4	6 20	19 44.35	-26 41.8	1.413	2.373	10.4	20.9
6 30	19 34.50	-26 9.1	1.651	2.650	5.1	20.1	6 30	19 35.80	-27 34.2	1.381	2.380	6.0	20.7
7 10	19 25.46	-26 50.8	1.641	2.655	1.9	19.9	7 10	19 25.71	-28 21.6	1.373	2.386	2.7	20.5
7 20	19 16.21	-27 25.6	1.658	2.661	4.4	20.1	7 20	19 15.38	-28 58.9	1.391	2.392	5.4	20.7
7 30	19 7.91	-27 51.2	1.700	2.666	8.4	20.4	7 30	19 6.23	-29 23.4	1.433	2.399	9.7	20.9
8 9	19 1.52	-28 6.9	1.767	2.672	12.1	20.6	8 9	18 59.41	-29 35.1	1.499	2.405	13.7	21.2
8 19	18 57.65	-28 13.8	1.854	2.678	15.1	20.8	8 19	18 55.61	-29 36.0	1.583	2.412	17.1	21.4
504389	2007 <i>VT</i> ₂₀₂		7 11.6 315°53	3°7/12.0	17		512384	2016 <i>NR</i> ₆₅		7 11.6 8°66	2°4/10.8	17	
6 10	19 47.45	-16 33.3	1.115	2.023	17.5	20.8	6 10	19 49.03	-27 18.6	1.839	2.731	12.4	20.9
6 20	19 43.02	-15 52.5	1.035	1.997	13.1	20.4	6 20	19 43.05	-27 46.5	1.775	2.731	8.9	20.7
6 30	19 35.45	-15 19.1	0.974	1.971	8.1	20.1	6 30	19 34.95	-28 13.1	1.734	2.732	5.2	20.5
7 10	19 25.65	-14 53.8	0.934	1.947	3.9	19.8	7 10	19 25.59	-28 34.4	1.719	2.732	2.4	20.3
7 20	19 15.05	-14 36.9	0.917	1.922	6.3	19.8	7 20	19 16.02	-28 47.3	1.731	2.732	4.6	20.5
7 30	19 5.42	-14 28.1	0.921	1.899	11.8	20.0	7 30	19 7.38	-28 50.6	1.769	2.732	8.4	20.7
8 9	18 58.36	-14 26.3	0.945	1.877	17.2	20.3	8 9	19 0.64	-28 44.7	1.831	2.733	11.9	20.9
8 19	18 54.90	-14 29.9	0.985	1.856	22.0	20.5	8 19	18 56.41	-28 31.4	1.914	2.733	14.9	21.1
373831	2002 <i>XQ</i> ₇₂		7 11.6 258°59	3°8/10.2	18		324110	2005 <i>XX</i> ₇₃		7 11.6 293°64	3°4/ 9.8	18	
6 10	19 52.20	-29 45.7	1.755	2.644	13.0	21.2	6 10	19 46.97	-29 40.4	2.233	3.120	10.7	20.4
6 20	19 45.70	-30 31.4	1.674	2.627	9.6	20.9	6 20	19 41.46	-30 40.1	2.161	3.113	7.8	20.2
6 30	19 36.61	-31 15.1	1.616	2.610	6.0	20.7	6 30	19 34.07	-31 38.5	2.114	3.106	5.0	20.0
7 10	19 25.79	-31 51.1	1.584	2.591	3.8	20.5	7 10	19 25.49	-32 30.9	2.094	3.099	3.4	19.9
7 20	19 14.43	-32 14.6	1.578	2.573	5.9	20.6	7 20	19 16.57	-33 13.3	2.102	3.093	5.1	20.0
7 30	19 3.92	-32 23.2	1.599	2.554	9.7	20.8	7 30	19 8.32	-33 43.4	2.136	3.086	8.0	20.2
8 9	18 55.50	-32 17.8	1.642	2.535	13.5	21.0	8 9	19 1.61	-34 0.9	2.195	3.079	11.0	20.3
8 19	18 49.98	-32 1.1	1.706	2.515	16.9	21.2	8 19	18 57.06	-34 7.1	2.276	3.073	13.5	20.5
41001	1999 <i>UG</i> ₉		7 11.6 178°92	3°5/12.9	18		374416	2005 <i>WN</i> ₆₂		7 11.6 206°46	0°9/11.9	18	
6 10	19 44.88	-10 51.6	2.439	3.299	10.9	19.3	6 10	19 49.35	-18 24.1	2.065	2.942	11.9	21.7
6 20	19 39.54	-10 36.4	2.367	3.299	8.3	19.1	6 20	19 43.08	-18 38.3	1.988	2.938	8.6	21.5
6 30	19 32.80	-10 29.8	2.319	3.299	5.6	19.0	6 30	19 34.93	-18 58.0	1.936	2.932	4.9	21.3
7 10	19 25.24	-10 31.7	2.298	3.299	3.6	18.8	7 10	19 25.62	-19 21.1	1.911	2.927	1.2	21.0
7 20	19 17.53	-10 41.3	2.304	3.299	4.3	18.9	7 20	19 16.03	-19 45.0	1.914	2.920	3.4	21.2
7 30	19 10.40	-10 57.4	2.338	3.299	6.7	19.0	7 30	19 7.16	-20 7.8	1.945	2.913	7.3	21.4
8 9	19 4.50	-11 18.0	2.397	3.299	9.4	19.2	8 9	18 59.86	-20 28.1	2.001	2.906	10.8	21.6
8 19	19 0.29	-11 41.4	2.480	3.299	11.9	19.4	8 19	18 54.74	-20 45.3	2.079	2.898	13.9	21.8
331870	2003 <i>YR</i> ₁₆₈		7 11.6 222°16	1°0/11.3	18		273969	2007 <i>LK</i> ₄		7 11.6 343°23	1°0/11.9	18	
6 10	19 52.71	-24 10.5	1.837	2.722	12.8	21.7	6 10	19 39.23	-17 25.4	1.040	1.963	17.1	19.1
6 20	19 45.71	-24 19.1	1.759	2.713	9.2	21.5	6 20	19 37.16	-17 59.8	0.969	1.940	12.5	18.7
6 30	19 36.45	-24 28.3	1.705	2.704	5.1	21.2	6 30	19 32.21	-18 49.8	0.916	1.919	7.2	18.4
7 10	19 25.77	-24 34.8	1.678	2.694	1.1	20.9	7 10	19 25.28	-19 51.7	0.884	1.900	1.6	17.9
7 20	19 14.75	-24 36.3	1.678	2.683	4.1	21.1	7 20	19 17.68	-20 59.6	0.874	1.883	5.1	18.1
7 30	19 4.62	-24 31.6	1.705	2.672	8.3	21.4	7 30	19 11.07	-22 6.3	0.884	1.869	11.0	18.4
8 9	18 56.43	-24 21.2	1.757	2.660	12.2	21.6	8 9	19 6.97	-23 6.0	0.914	1.856	16.4	18.6
8 19	18 50.85	-24 6.5	1.829	2.647	15.6	21.8	8 19	19 6.35	-23 55.0	0.960	1.847	21.1	18.9
4179	Toutatis		7 11.6 320°99	0°1/11.6	18 A		437380	2013 <i>WY</i> ₂₁		7 11.6 156°77	11°6/15.3	17	
6 10	19 55.45	-20 29.7	1.427	2.316	15.5	18.8	6 10	19 47.58	+ 7 54.1	1.913	2.693	16.5	21.3
6 20	19 49.44	-20 46.3	1.286	2.241	11.7	18.4	6 20	19 41.79	+ 9 9.8	1.852	2.696	14.5	21.2
6 30	19 39.65	-21 11.6	1.167	2.165	6.9	17.9	6 30	19 34.20	+10 2.5	1.810	2.699	12.8	21.1
7 10	19 26.37	-21 42.7	1.071	2.088	1.0	17.2	7 10	19 25.52	+10 28.0	1.789	2.701	11.8	21.0
7 20	19 10.55	-22 14.6	1.002	2.008	5.6	17.3	7 20	19 16.62	+10 24.9	1.792	2.703	11.7	21.0
7 30	18 53.95	-22 42.2	0.957	1.927	12.7	17.4	7 30	19 8.45	+ 9 54.6	1.817	2.705	12.7	21.1
8 9	18 38.79	-23 2.4	0.935	1.845	19.6	17.5	8 9	19 1.85	+ 9 1.7	1.863	2.707	14.4	21.2
8 19	18 27.02	-23 15.2	0.930	1.761	26.1	17.6	8 19	18 57.40	+ 7 52.4	1.929	2.708	16.2	21.4
2990	Trimberger		7 11.6 152°24	1°5/12.1	18		19782	2000 <i>QT</i> ₆₈		7 11.6 246°19	0°1/11.5	18	
6 10	19 50.10	-17 5.4	1.812	2.692	13.2	18.0	6 10	19 46.79	-21 29.7	2.345	3.226	10.5	18.6
6 20	19 43.67	-17 16.7	1.749	2.699	9.6	17.8	6 20	19 41.12	-21 42.7	2.264	3.217	7.5	18.4
6 30	19 35.23	-17 35.2	1.709	2.704	5.5	17.6	6 30	19 33.80	-21 58.3	2.209	3.207	4.2	18.1
7 10	19 25.60	-17 58.5	1.695	2.710	1.7	17.3	7 10	19 25.46	-22 14.5	2.181	3.197	0.6	17.8
7 20	19 15.79	-18 24.0	1.708	2.714	3.8	17.5	7 20	19 16.89	-22 29.2	2.181	3.187	3.1	18.0
7 30	19 6.89	-18 49.5	1.749	2.719	7.9	17.7	7 30	19 8.91	-22 41.1	2.209	3.177	6.6	18.2
8 9	18 59.79	-19 13.2	1.813	2.723	11.6	18.0	8 9	19 2.30	-22 49.4	2.262	3.166	9.8	18.4
8 19	18 55.11	-19 34.0	1.900	2.726	14.8	18.2	8 19	18 57.61	-22 54.0	2.339	3.156	12.6	18.6
20657	Alvarez-Candal		7 11.6 290°70	2°0/12.6	18		198319	2004 <i>TW</i> ₃₄₂		7 11.6 188°46	2°6/12.6		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
478759	2012 <i>UJ</i> ₁₀₆		7 11.6 263°79	1°7/12.1	18		252162	2001 <i>CN</i> ₂₃		7 11.6 168°00	0°6/11.4	17	
6 10	19 47.83	-16 56.0	1.957	2.837	12.3	22.0	6 10	19 52.64	-22 37.0	1.866	2.749	12.7	21.8
6 20	19 42.13	-16 55.5	1.874	2.823	9.1	21.7	6 20	19 45.54	-22 55.0	1.801	2.753	9.1	21.6
6 30	19 34.47	-17 1.5	1.814	2.809	5.3	21.5	6 30	19 36.34	-23 15.1	1.759	2.758	5.0	21.4
7 10	19 25.58	-17 12.6	1.781	2.795	1.9	21.2	7 10	19 25.88	-23 34.2	1.745	2.761	0.9	21.1
7 20	19 16.34	-17 27.0	1.775	2.781	3.8	21.3	7 20	19 15.23	-23 49.3	1.758	2.764	3.8	21.3
7 30	19 7.77	-17 42.9	1.796	2.766	7.7	21.5	7 30	19 5.53	-23 59.0	1.799	2.766	7.9	21.5
8 9	19 0.79	-17 59.0	1.841	2.751	11.4	21.7	8 9	18 57.74	-24 3.1	1.864	2.767	11.7	21.8
8 19	18 56.03	-18 14.1	1.908	2.737	14.6	21.9	8 19	18 52.46	-24 2.3	1.951	2.768	14.8	22.0
480181	2015 <i>FN</i> ₃₂₃		7 11.6 56°31	5°7/14.1	18		193547	2000 <i>YY</i> ₁₂₀		7 11.6 185°29	4°1/9.5	18	
6 10	19 46.20	-5 44.7	1.688	2.545	15.1	21.1	6 10	19 51.30	-31 1.9	2.129	3.011	11.4	20.6
6 20	19 40.99	-5 54.6	1.625	2.551	11.8	20.9	6 20	19 44.67	-32 13.2	2.063	3.011	8.4	20.4
6 30	19 33.82	-6 23.1	1.583	2.556	8.5	20.7	6 30	19 35.93	-33 22.0	2.023	3.011	5.5	20.3
7 10	19 25.48	-7 9.2	1.566	2.561	6.0	20.6	7 10	19 25.85	-34 22.3	2.009	3.010	4.1	20.2
7 20	19 16.92	-8 10.3	1.574	2.566	6.3	20.6	7 20	19 15.42	-35 9.6	2.023	3.009	5.8	20.3
7 30	19 9.19	-9 21.8	1.608	2.572	9.0	20.8	7 30	19 5.75	-35 41.5	2.065	3.007	8.7	20.5
8 9	19 3.19	-10 38.2	1.666	2.578	12.3	21.0	8 9	18 57.85	-35 58.3	2.131	3.005	11.6	20.6
8 19	18 59.51	-11 54.7	1.745	2.583	15.4	21.2	8 19	18 52.37	-36 2.1	2.218	3.002	14.2	20.8
337106	1999 <i>RF</i> ₅₁		7 11.6 313°84	2°0/12.1	18		435754	2008 <i>UP</i> ₁₈₀		7 11.6 156°68	0°2/11.6	17	
6 10	19 46.18	-16 46.2	1.443	2.339	14.9	20.2	6 10	19 49.03	-21 7.0	1.931	2.816	12.2	21.5
6 20	19 41.73	-16 52.9	1.349	2.306	11.1	19.9	6 20	19 42.90	-21 13.0	1.865	2.818	8.8	21.3
6 30	19 34.64	-17 9.9	1.275	2.273	6.6	19.5	6 30	19 34.86	-21 22.1	1.822	2.820	4.9	21.1
7 10	19 25.65	-17 35.5	1.226	2.240	2.3	19.2	7 10	19 25.69	-21 32.0	1.806	2.822	0.7	20.8
7 20	19 15.87	-18 7.1	1.200	2.208	4.7	19.2	7 20	19 16.35	-21 40.6	1.817	2.824	3.5	21.0
7 30	19 6.70	-18 41.3	1.199	2.176	9.9	19.4	7 30	19 7.85	-21 46.7	1.856	2.826	7.5	21.2
8 9	18 59.51	-19 15.0	1.220	2.144	14.8	19.6	8 9	19 1.09	-21 49.6	1.919	2.827	11.1	21.5
8 19	18 55.28	-19 46.2	1.259	2.113	19.2	19.8	8 19	18 56.61	-21 49.6	2.003	2.828	14.1	21.7
234277	2000 <i>WC</i> ₁₀₉		7 11.6 189°11	5°4/9.0	18		399824	2005 <i>TR</i> ₇		7 11.6 205°64	1°0/12.0	18	
6 10	19 53.14	-36 51.6	2.330	3.200	11.0	21.3	6 10	19 45.84	-17 51.4	2.377	3.254	10.6	22.1
6 20	19 45.90	-37 53.5	2.265	3.199	8.5	21.2	6 20	19 40.37	-18 1.8	2.304	3.252	7.6	21.9
6 30	19 36.55	-38 48.2	2.224	3.198	6.3	21.0	6 30	19 33.38	-18 17.3	2.255	3.250	4.4	21.7
7 10	19 25.88	-39 30.2	2.211	3.196	5.4	21.0	7 10	19 25.48	-18 36.1	2.233	3.248	1.3	21.5
7 20	19 14.91	-39 55.7	2.225	3.193	6.7	21.1	7 20	19 17.40	-18 56.5	2.240	3.246	3.0	21.6
7 30	19 4.76	-40 3.7	2.266	3.190	9.0	21.2	7 30	19 9.92	-19 16.8	2.274	3.243	6.4	21.8
8 9	18 56.41	-39 55.6	2.331	3.186	11.5	21.4	8 9	19 3.74	-19 35.7	2.334	3.241	9.5	22.0
8 19	18 50.51	-39 34.7	2.417	3.181	13.7	21.5	8 19	18 59.38	-19 52.4	2.417	3.238	12.1	22.2
177317	2003 <i>YW</i> ₃₅		7 11.6 19°53	2°8/10.5	18		206708	2004 <i>BS</i> ₃₅		7 11.6 197°02	1°1/11.2	17	
6 10	19 48.84	-27 45.2	1.865	2.757	12.3	19.9	6 10	19 48.27	-24 3.4	2.022	2.910	11.7	21.0
6 20	19 42.97	-28 28.5	1.801	2.757	8.9	19.7	6 20	19 42.37	-24 25.0	1.954	2.910	8.3	20.8
6 30	19 34.96	-29 10.9	1.761	2.758	5.3	19.5	6 30	19 34.58	-24 47.9	1.910	2.909	4.6	20.5
7 10	19 25.67	-29 47.6	1.747	2.758	2.9	19.3	7 10	19 25.65	-25 8.9	1.893	2.908	1.2	20.3
7 20	19 16.12	-30 14.9	1.760	2.758	4.9	19.4	7 20	19 16.52	-25 25.5	1.903	2.907	3.7	20.5
7 30	19 7.47	-30 30.9	1.799	2.759	8.5	19.7	7 30	19 8.18	-25 36.0	1.940	2.907	7.5	20.7
8 9	19 0.69	-30 35.7	1.862	2.759	11.9	19.9	8 9	19 1.51	-25 40.3	2.001	2.906	10.9	20.9
8 19	18 56.41	-30 31.0	1.945	2.760	14.9	20.1	8 19	18 57.07	-25 38.9	2.085	2.905	13.9	21.1
481760	2008 <i>KG</i> ₂₄		7 11.6 265°75	3°3/13.4	18		471578	2012 <i>RW</i> ₂		7 11.6 259°16	10°3/16.2	18	
6 10	19 44.29	-9 19.7	2.396	3.252	11.2	21.0	6 10	19 46.75	+9 14.0	2.236	2.997	14.9	21.8
6 20	19 39.29	-9 45.0	2.315	3.245	8.6	20.8	6 20	19 41.24	+9 39.6	2.141	2.975	13.2	21.6
6 30	19 32.80	-10 22.3	2.258	3.238	5.7	20.6	6 30	19 34.00	+9 42.7	2.066	2.952	11.6	21.4
7 10	19 25.38	-11 10.1	2.227	3.230	3.5	20.4	7 10	19 25.59	+9 20.1	2.014	2.928	10.5	21.3
7 20	19 17.71	-12 6.2	2.224	3.223	4.0	20.4	7 20	19 16.76	+8 31.0	1.985	2.904	10.4	21.3
7 30	19 10.54	-13 7.4	2.250	3.215	6.7	20.6	7 30	19 8.37	+7 17.3	1.981	2.880	11.3	21.3
8 9	19 4.56	-14 10.4	2.301	3.208	9.6	20.8	8 9	19 1.24	+5 43.6	2.001	2.854	13.1	21.4
8 19	19 0.29	-15 12.4	2.376	3.200	12.2	20.9	8 19	18 55.99	+3 56.2	2.042	2.829	15.2	21.4
206406	2003 <i>SH</i> ₈₉		7 11.6 218°62	2°4/12.4	18		164633	1994 <i>SW</i> ₄		7 11.6 333°64	1°6/11.1	17	
6 10	19 48.37	-14 32.3	2.418	3.282	10.9	21.6	6 10	19 48.06	-24 41.5	1.606	2.504	13.5	20.2
6 20	19 42.16	-14 19.0	2.334	3.273	8.1	21.4	6 20	19 42.65	-25 5.6	1.538	2.499	9.7	20.0
6 30	19 34.36	-14 11.7	2.275	3.263	5.0	21.2	6 30	19 34.91	-25 31.1	1.493	2.493	5.5	19.7
7 10	19 25.60	-14 9.9	2.244	3.253	2.6	21.0	7 10	19 25.72	-25 54.1	1.473	2.488	1.7	19.4
7 20	19 16.60	-14 12.8	2.241	3.242	3.7	21.1	7 20	19 16.22	-26 11.1	1.478	2.483	4.5	19.6
7 30	19 8.17	-14 19.4	2.266	3.230	6.7	21.2	7 30	19 7.68	-26 20.3	1.509	2.479	8.9	19.9
8 9	19 1.05	-14 28.6	2.318	3.218	9.8	21.4	8 9	19 1.19	-26 21.4	1.563	2.475	12.9	20.1
8 19	18 55.75	-14 39.3	2.392	3.206	12.5	21.6	8 19	18 57.42	-26 15.5	1.637	2.471	16.4	20.3
81309	2000 <i>GD</i> ₁₀		7 11.6 156°84	0°4/11.7	18		210693	2000 <i>SV</i> ₆₀		7 11.6 260°03	3°6/12.7	18	
6 10	19 50.62	-19 34.7	1.836	2.719	12.9	20.1	6 10	19 49.29	-12 38.6	1.492	2.373	15.4	20.2
6 20	19 44.10	-19 53.9	1.772	2.724	9.3	19.9	6 20	19 43.66	-12 41.9	1.415	2.362	11.6	19.9
6 30	19 35.53	-20 18.1	1.732	2.729	5.2	19.7	6 30	19 35.56	-12 58.7	1.360	2.350	7.4	19.7
7 10	19 25.76	-20 44.6	1.718	2.734	0.9	19.4	7 10	19 25.83	-13 27.9	1.329	2.339	3.9	19.4
7 20	19 15.80	-21 10.3	1.732	2.738	3.7	19.6	7 20	19 15.61	-14 6.8	1.323	2.326	5.2	19.5
7 30	19 6.73	-21 33.2	1.772	2.742	7.8	19.9	7 30	19 6.24	-14 51.8	1.342	2.314	9.5	19.7
8 9	18 59.50	-21 52.0	1.838	2.745	11.5	20.1	8 9	18 58.88	-15 39.1	1.384	2.302	13.9	19.9
8 19	18 54.70	-22 6.3	1.924	2.748	14.7	20.3	8 19	18 54.35	-16 25.4	1.446	2.289	17.7	20.1
491457	2012 <i>GS</i> ₁		7 11.6 346°60	23°2/1.6	17		351035	2003 <i>SP</i> ₁₄₈					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
245153	2004 <i>SJ</i> ₁₃		7 11.6 285°14	2°9/12.5	17		297613	2001 <i>ST</i> ₃₄₇		7 11.6 348°95	1°3/11.3	18	
6 10	19 49.08	-14 10.3	1.342	2.233	16.2	21.1	6 10	19 48.82	-25 32.8	1.898	2.788	12.2	19.9
6 20	19 43.90	-14 26.0	1.258	2.211	12.1	20.8	6 20	19 42.86	-25 35.1	1.830	2.787	8.7	19.7
6 30	19 35.91	-14 56.4	1.195	2.190	7.5	20.4	6 30	19 34.90	-25 36.6	1.787	2.785	4.9	19.5
7 10	19 25.92	-15 39.6	1.155	2.168	3.2	20.1	7 10	19 25.79	-25 34.6	1.769	2.784	1.4	19.3
7 20	19 15.17	-16 31.9	1.140	2.146	5.2	20.2	7 20	19 16.50	-25 27.5	1.778	2.783	3.9	19.4
7 30	19 5.19	-17 28.5	1.149	2.124	10.3	20.4	7 30	19 8.11	-25 14.6	1.814	2.783	7.8	19.7
8 9	18 57.41	-18 24.8	1.179	2.102	15.3	20.6	8 9	19 1.53	-24 56.6	1.875	2.782	11.4	19.9
8 19	18 52.80	-19 17.3	1.229	2.080	19.7	20.8	8 19	18 57.32	-24 34.9	1.956	2.782	14.4	20.1
168200	2006 <i>JZ</i> ₁₉		7 11.6 323°32	6°1/13.8	17		67110	2000 <i>AF</i> ₁₀₁		7 11.6 234°31	1°8/12.3	18	
6 10	19 44.93	-6 25.4	1.651	2.515	15.0	19.8	6 10	19 48.11	-15 31.1	2.390	3.258	10.8	20.5
6 20	19 40.27	-6 13.4	1.577	2.505	11.9	19.6	6 20	19 42.11	-15 38.4	2.301	3.243	8.0	20.3
6 30	19 33.57	-6 18.6	1.523	2.496	8.7	19.4	6 30	19 34.45	-15 52.3	2.236	3.228	4.8	20.1
7 10	19 25.57	-6 41.7	1.493	2.487	6.3	19.2	7 10	19 25.74	-16 11.5	2.199	3.212	2.0	19.9
7 20	19 17.22	-7 21.2	1.488	2.479	6.7	19.2	7 20	19 16.70	-16 34.3	2.191	3.195	3.4	20.0
7 30	19 9.59	-8 14.1	1.507	2.471	9.5	19.4	7 30	19 8.19	-16 58.8	2.211	3.178	6.7	20.1
8 9	19 3.67	-9 15.4	1.550	2.463	12.9	19.6	8 9	19 0.96	-17 23.5	2.257	3.160	9.9	20.3
8 19	19 0.12	-10 20.5	1.613	2.456	16.2	19.8	8 19	18 55.58	-17 47.2	2.326	3.142	12.7	20.5
42295	Terasateng		7 11.6 302°26	0°9/11.3	18		295271	2008 <i>GK</i> ₇₃		7 11.6 50°07	2°3/12.5	17	
6 10	19 48.38	-20 23.4	1.220	2.127	16.3	18.0	6 10	19 45.54	-14 37.9	2.043	2.919	12.0	21.0
6 20	19 43.74	-21 17.9	1.140	2.105	11.9	17.7	6 20	19 40.29	-14 41.2	1.981	2.927	8.9	20.8
6 30	19 35.98	-22 24.4	1.081	2.082	6.6	17.4	6 30	19 33.40	-14 52.6	1.944	2.935	5.4	20.6
7 10	19 25.97	-23 37.2	1.044	2.061	1.2	16.9	7 10	19 25.58	-15 10.8	1.932	2.944	2.5	20.4
7 20	19 15.05	-24 48.8	1.032	2.039	5.3	17.2	7 20	19 17.62	-15 33.9	1.948	2.952	3.7	20.5
7 30	19 4.99	-25 52.3	1.043	2.018	11.2	17.4	7 30	19 10.41	-15 59.7	1.990	2.961	7.0	20.8
8 9	18 57.42	-26 43.8	1.074	1.997	16.5	17.6	8 9	19 4.69	-16 26.3	2.058	2.969	10.3	21.0
8 19	18 53.42	-27 22.1	1.123	1.977	21.0	17.9	8 19	19 0.96	-16 52.1	2.147	2.978	13.1	21.2
254255	2004 <i>RL</i> ₁₆₈		7 11.6 271°99	10°5/17.5	18		312403	2008 <i>FY</i> ₅₁		7 11.6 75°97	4°2/13.5	17	
6 10	19 43.89	+13 7.3	2.494	3.225	14.3	20.6	6 10	19 44.99	-8 35.9	2.185	3.042	12.1	21.1
6 20	19 39.02	+13 34.5	2.409	3.210	12.9	20.5	6 20	19 39.80	-8 33.0	2.122	3.050	9.3	21.0
6 30	19 32.70	+13 39.3	2.343	3.195	11.6	20.4	6 30	19 33.10	-8 41.9	2.082	3.058	6.5	20.8
7 10	19 25.46	+13 19.1	2.298	3.180	10.7	20.3	7 10	19 25.54	-9 2.1	2.068	3.066	4.4	20.7
7 20	19 17.94	+12 33.3	2.276	3.165	10.5	20.3	7 20	19 17.84	-9 32.1	2.081	3.075	4.8	20.7
7 30	19 10.87	+11 23.5	2.277	3.149	11.1	20.3	7 30	19 10.81	-10 9.6	2.121	3.083	7.3	20.9
8 9	19 4.93	+9 54.0	2.302	3.134	12.4	20.3	8 9	19 5.13	-10 51.6	2.186	3.091	10.1	21.1
8 19	19 0.65	+8 10.2	2.348	3.119	13.9	20.4	8 19	19 1.29	-11 35.4	2.274	3.099	12.6	21.3
315028	2007 <i>BK</i> ₇₄		7 11.6 301°10	2°9/10.7	18		56811	2000 <i>PG</i> ₁₉		7 11.6 166°94	4°5/9.9	18	
6 10	19 48.74	-30 3.4	2.105	2.992	11.3	20.8	6 10	19 50.64	-34 44.9	2.246	3.124	11.0	18.5
6 20	19 42.77	-30 18.4	2.030	2.983	8.3	20.6	6 20	19 44.06	-35 19.2	2.182	3.125	8.3	18.3
6 30	19 34.86	-30 29.5	1.980	2.974	5.0	20.4	6 30	19 35.54	-35 46.8	2.144	3.127	5.8	18.2
7 10	19 25.77	-30 33.6	1.956	2.965	2.9	20.2	7 10	19 25.89	-36 3.5	2.131	3.128	4.5	18.1
7 20	19 16.45	-30 28.3	1.959	2.956	4.6	20.3	7 20	19 16.09	-36 6.8	2.146	3.129	5.8	18.2
7 30	19 7.94	-30 13.1	1.988	2.947	7.9	20.5	7 30	19 7.16	-35 56.0	2.188	3.130	8.3	18.4
8 9	19 1.13	-29 49.1	2.043	2.939	11.1	20.7	8 9	18 59.99	-35 33.0	2.254	3.130	11.0	18.5
8 19	18 56.61	-29 18.6	2.119	2.930	13.9	20.9	8 19	18 55.14	-35 0.6	2.342	3.131	13.4	18.7
206015	2002 <i>PZ</i> ₁₄₆		7 11.6 319°00	0°8/11.4	18		511967	2015 <i>KC</i> ₂₄		7 11.6 216°58	1°6/12.1	18	
6 10	19 48.35	-23 42.5	1.695	2.590	13.1	20.8	6 10	19 48.31	-17 38.9	1.969	2.849	12.3	21.0
6 20	19 42.78	-23 49.2	1.623	2.582	9.4	20.5	6 20	19 42.41	-17 32.1	1.898	2.847	8.9	20.8
6 30	19 34.98	-23 57.3	1.574	2.574	5.3	20.3	6 30	19 34.65	-17 30.7	1.850	2.845	5.2	20.5
7 10	19 25.80	-24 3.8	1.550	2.566	1.0	20.0	7 10	19 25.78	-17 33.4	1.828	2.842	1.8	20.3
7 20	19 16.33	-24 6.4	1.553	2.559	4.1	20.2	7 20	19 16.70	-17 38.8	1.834	2.840	3.6	20.4
7 30	19 7.77	-24 3.9	1.581	2.552	8.4	20.4	7 30	19 8.39	-17 45.6	1.867	2.837	7.4	20.7
8 9	19 1.14	-23 56.3	1.632	2.545	12.4	20.6	8 9	19 1.70	-17 52.6	1.924	2.834	11.0	20.9
8 19	18 57.10	-23 44.5	1.704	2.539	15.8	20.8	8 19	18 57.21	-17 59.3	2.004	2.831	14.0	21.1
444104	2004 <i>TZ</i> ₅₆		7 11.6 299°83	3°0/12.6	17		182829	2002 <i>BF</i> ₄		7 11.6 162°56	5°7/9.1	18	
6 10	19 45.41	-13 21.6	2.138	3.010	11.8	21.6	6 10	19 52.29	-41 22.4	2.767	3.623	9.9	21.0
6 20	19 40.39	-13 12.4	2.041	2.983	8.9	21.3	6 20	19 45.05	-42 5.7	2.709	3.628	7.9	20.9
6 30	19 33.59	-13 11.5	1.968	2.956	5.7	21.1	6 30	19 36.03	-42 39.3	2.676	3.633	6.3	20.8
7 10	19 25.62	-13 18.4	1.921	2.929	3.2	20.9	7 10	19 25.98	-42 59.1	2.669	3.637	5.7	20.8
7 20	19 17.23	-13 32.3	1.901	2.902	4.2	20.9	7 20	19 15.80	-43 2.9	2.690	3.641	6.5	20.9
7 30	19 9.32	-13 51.7	1.908	2.876	7.5	21.0	7 30	19 6.45	-42 50.4	2.737	3.645	8.3	21.0
8 9	19 2.75	-14 14.5	1.939	2.849	10.9	21.2	8 9	18 58.73	-42 23.8	2.809	3.648	10.2	21.1
8 19	18 58.15	-14 39.1	1.993	2.822	14.1	21.4	8 19	18 53.18	-41 46.1	2.902	3.650	12.0	21.3
289991	2005 <i>PS</i> ₁		7 11.6 346°33	5°8/10.1	18		90769	1993 <i>TO</i> ₂₀		7 11.6 309°77	1°8/12.3	18	
6 10	19 51.91	-37 35.5	1.929	2.808	12.5	20.0	6 10	19 44.92	-15 53.8	2.069	2.949	11.8	19.6
6 20	19 45.24	-38 1.9	1.866	2.806	9.7	19.8	6 20	19 40.02	-16 1.5	1.987	2.936	8.6	19.4
6 30	19 36.27	-38 18.0	1.826	2.804	7.0	19.7	6 30	19 33.37	-16 16.7	1.930	2.924	5.2	19.2
7 10	19 25.97	-38 19.1	1.812	2.803	5.8	19.6	7 10	19 25.62	-16 38.1	1.898	2.911	2.1	19.0
7 20	19 15.53	-38 2.6	1.823	2.801	7.0	19.7	7 20	19 17.58	-17 3.6	1.894	2.899	3.6	19.0
7 30	19 6.21	-37 28.9	1.860	2.800	9.7	19.8	7 30	19 10.13	-17 31.0	1.916	2.888	7.2	19.2
8 9	18 59.03	-36 41.1	1.920	2.799	12.5	20.0	8 9	19 4.11	-17 58.5	1.963	2.876	10.6	19.4
8 19	18 54.58	-35 43.6	2.001	2.798	15.2	20.2	8 19	19 0.11	-18 24.4	2.032	2.865	13.7	19.6
273313	2006 <i>SX</i> ₂₇₄		7 11.6 271°08	2°1/10.9	18		191745	2004 <i>SM</i> ₂₀		7 11.6 2			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
16491	1990 SA ₃		7 11.6	19°41'	4°0'/13.1	18	90894	1997 BF ₂		7 11.6	256°17'	1°4'/11.4	18
6 10	19 45.69	-11 53.6	1.018	1.924	18.9	16.9	6 10	19 53.06	-26 38.4	1.929	2.812	12.3	19.5
6 20	19 41.57	-12 15.5	0.970	1.929	14.1	16.7	6 20	19 46.01	-26 26.0	1.846	2.799	8.9	19.3
6 30	19 34.57	-12 58.0	0.940	1.935	8.9	16.4	6 30	19 36.77	-26 10.6	1.787	2.784	5.1	19.0
7 10	19 25.82	-13 57.9	0.931	1.942	4.4	16.2	7 10	19 26.17	-25 49.6	1.755	2.770	1.5	18.7
7 20	19 16.80	-15 9.2	0.944	1.950	5.8	16.3	7 20	19 15.27	-25 22.0	1.750	2.755	4.0	18.9
7 30	19 9.12	-16 24.6	0.978	1.960	10.8	16.6	7 30	19 5.26	-24 47.9	1.773	2.740	8.1	19.1
8 9	19 4.09	-17 37.3	1.033	1.970	15.7	16.9	8 9	18 57.13	-24 9.1	1.821	2.724	11.9	19.3
8 19	19 2.41	-18 42.6	1.106	1.981	19.8	17.2	8 19	18 51.55	-23 27.9	1.891	2.708	15.2	19.5
324087	2005 WS ₁₁₄		7 11.6	241°07'	0°2'/11.6	16	273738	2007 EP ₁₁₂		7 11.6	107°83'	4°4'/13.2	18
6 10	19 47.07	-22 20.2	2.844	3.719	9.1	22.7	6 10	19 48.23	-10 1.0	1.742	2.610	14.2	21.1
6 20	19 41.18	-22 26.5	2.754	3.703	6.5	22.5	6 20	19 42.45	-9 53.9	1.681	2.617	10.8	20.9
6 30	19 33.89	-22 34.0	2.690	3.687	3.6	22.3	6 30	19 34.73	-10 0.1	1.643	2.624	7.3	20.7
7 10	19 25.71	-22 41.2	2.654	3.670	0.5	22.0	7 10	19 25.88	-10 18.9	1.629	2.632	4.6	20.6
7 20	19 17.30	-22 46.6	2.647	3.653	2.7	22.2	7 20	19 16.85	-10 48.4	1.641	2.639	5.3	20.6
7 30	19 9.37	-22 49.3	2.670	3.636	5.8	22.4	7 30	19 8.70	-11 25.9	1.679	2.646	8.5	20.8
8 9	19 2.56	-22 49.0	2.719	3.617	8.6	22.6	8 9	19 2.29	-12 7.8	1.742	2.652	11.9	21.0
8 19	18 57.37	-22 45.8	2.792	3.599	11.1	22.7	8 19	18 58.21	-12 51.0	1.825	2.659	15.0	21.3
355692	2008 FU ₂₇		7 11.6	15°40'	6°6'/14.7	18	437947	2002 RT ₂₃₅		7 11.6	297°73'	2°2'/12.3	18
6 10	19 43.84	-1 50.8	2.138	2.970	13.3	20.2	6 10	19 47.04	-16 1.4	1.832	2.715	12.9	21.5
6 20	19 39.07	-1 34.4	2.070	2.971	10.8	20.0	6 20	19 41.70	-15 57.9	1.756	2.706	9.5	21.3
6 30	19 32.77	-1 34.5	2.023	2.973	8.5	19.9	6 30	19 34.38	-16 2.1	1.704	2.697	5.7	21.1
7 10	19 25.56	-1 51.9	2.001	2.975	6.9	19.8	7 10	19 25.84	-16 12.6	1.676	2.689	2.4	20.8
7 20	19 18.17	-2 25.7	2.004	2.977	6.9	19.8	7 20	19 16.99	-16 27.8	1.675	2.681	4.0	20.9
7 30	19 11.39	-3 13.5	2.033	2.979	8.6	19.9	7 30	19 8.89	-16 45.8	1.701	2.672	7.9	21.1
8 9	19 5.94	-4 11.3	2.087	2.981	11.0	20.1	8 9	19 2.44	-17 4.7	1.750	2.664	11.6	21.4
8 19	19 2.31	-5 14.9	2.162	2.984	13.4	20.2	8 19	18 58.29	-17 23.2	1.821	2.656	14.9	21.6
54438	2000 MB ₂		7 11.6	30°60'	1°1'/11.4	18	384290	2009 RL ₁₄		7 11.6	260°99'	5°0'/13.2	18
6 10	19 49.59	-24 24.5	1.201	2.110	16.3	17.4	6 10	19 48.19	-9 6.1	1.748	2.613	14.3	21.4
6 20	19 44.00	-24 23.1	1.158	2.123	11.6	17.2	6 20	19 42.65	-8 54.3	1.666	2.599	11.1	21.2
6 30	19 35.72	-24 22.4	1.136	2.137	6.4	16.9	6 30	19 34.99	-8 56.3	1.605	2.584	7.7	20.9
7 10	19 25.98	-24 18.9	1.137	2.153	1.3	16.6	7 10	19 25.95	-9 12.5	1.569	2.570	5.2	20.8
7 20	19 16.26	-24 10.5	1.161	2.168	4.8	16.9	7 20	19 16.48	-9 41.5	1.559	2.555	5.9	20.8
7 30	19 8.06	-23 56.7	1.209	2.185	9.8	17.2	7 30	19 7.69	-10 20.9	1.575	2.540	9.1	20.9
8 9	19 2.48	-23 38.6	1.278	2.203	14.2	17.6	8 9	19 0.57	-11 6.9	1.615	2.524	12.7	21.1
8 19	19 0.06	-23 17.4	1.366	2.221	17.9	17.8	8 19	18 55.84	-11 56.1	1.675	2.509	16.1	21.3
83999	2002 NV ₂₆		7 11.6	302°86'	1°5'/11.3	18	228603	2002 AB ₁₇₇		7 11.6	175°79'	0°8'/11.4	18
6 10	19 50.50	-24 59.7	1.356	2.259	15.2	19.1	6 10	19 51.18	-23 48.8	2.212	3.091	11.2	21.5
6 20	19 45.04	-25 6.3	1.274	2.236	11.1	18.8	6 20	19 44.34	-24 0.4	2.142	3.093	8.0	21.3
6 30	19 36.62	-25 13.5	1.213	2.213	6.3	18.4	6 30	19 35.71	-24 12.6	2.098	3.095	4.4	21.1
7 10	19 26.17	-25 17.2	1.175	2.191	1.7	18.1	7 10	19 26.03	-24 22.8	2.081	3.097	0.9	20.8
7 20	19 15.06	-25 14.0	1.162	2.168	5.1	18.2	7 20	19 16.19	-24 29.0	2.092	3.097	3.4	21.0
7 30	19 4.91	-25 2.5	1.173	2.146	10.4	18.5	7 30	19 7.13	-24 30.2	2.132	3.098	7.0	21.2
8 9	18 57.19	-24 43.5	1.205	2.125	15.3	18.7	8 9	18 59.67	-24 26.4	2.198	3.097	10.3	21.4
8 19	18 52.82	-24 19.1	1.256	2.104	19.6	18.9	8 19	18 54.36	-24 18.6	2.286	3.096	13.1	21.6
319017	2005 UU ₅₁₁		7 11.6	196°45'	2°2'/12.4	18	362324	2010 GO ₁₀₈		7 11.6	6°67'	8°2'/9.1	17
6 10	19 45.91	-14 51.9	2.559	3.426	10.2	21.2	6 10	19 49.42	-33 36.5	0.970	1.890	18.3	19.9
6 20	19 40.36	-14 41.7	2.484	3.425	7.6	21.0	6 20	19 45.01	-35 7.7	0.925	1.890	13.9	19.6
6 30	19 33.42	-14 37.3	2.434	3.423	4.7	20.8	6 30	19 36.82	-36 31.5	0.899	1.891	9.9	19.4
7 10	19 25.67	-14 38.1	2.411	3.421	2.3	20.6	7 10	19 26.23	-37 35.8	0.893	1.892	8.2	19.3
7 20	19 17.76	-14 43.1	2.416	3.419	3.3	20.7	7 20	19 15.21	-38 11.7	0.908	1.896	10.5	19.4
7 30	19 10.41	-14 51.4	2.450	3.416	6.2	20.9	7 30	19 5.99	-38 16.8	0.943	1.900	14.6	19.7
8 9	19 4.26	-15 1.6	2.510	3.414	9.0	21.1	8 9	19 0.24	-37 55.2	0.996	1.905	18.7	19.9
8 19	18 59.78	-15 12.9	2.593	3.411	11.5	21.2	8 19	18 58.75	-37 14.0	1.064	1.911	22.4	20.2
299225	2005 JL ₉₇		7 11.6	283°67'	4°8'/9.3	18	347852	2002 QQ ₁₃₄		7 11.6	339°52'	1°0'/12.0	17
6 10	19 49.50	-32 8.2	1.940	2.829	12.0	20.5	6 10	19 45.30	-17 33.2	1.503	2.401	14.4	20.3
6 20	19 43.71	-33 22.0	1.869	2.819	9.0	20.3	6 20	19 40.85	-18 2.8	1.433	2.392	10.5	20.0
6 30	19 35.61	-34 33.1	1.822	2.810	6.1	20.1	6 30	19 34.08	-18 42.4	1.384	2.383	6.0	19.8
7 10	19 26.01	-35 35.0	1.801	2.800	4.9	20.0	7 10	19 25.83	-19 28.7	1.360	2.375	1.4	19.4
7 20	19 15.94	-36 22.6	1.807	2.790	6.5	20.1	7 20	19 17.18	-20 17.6	1.360	2.368	4.1	19.6
7 30	19 6.64	-36 52.9	1.839	2.781	9.6	20.3	7 30	19 9.38	-21 4.9	1.385	2.362	8.8	19.9
8 9	18 59.21	-37 6.3	1.894	2.772	12.7	20.5	8 9	19 3.54	-21 47.6	1.434	2.356	13.1	20.1
8 19	18 54.40	-37 5.1	1.969	2.762	15.5	20.6	8 19	19 0.38	-22 23.7	1.502	2.351	16.8	20.3
147746	2005 NT ₇₅		7 11.6	268°22'	0°7'/11.9	18	161970	2007 JW ₃₄		7 11.6	113°30'	1°7'/12.2	17
6 10	19 49.72	-18 55.7	1.669	2.557	13.7	21.1	6 10	19 49.85	-16 56.8	1.836	2.716	13.0	20.7
6 20	19 43.94	-19 13.4	1.586	2.540	10.0	20.9	6 20	19 43.53	-16 57.4	1.778	2.727	9.5	20.5
6 30	19 35.79	-19 38.3	1.525	2.523	5.7	20.6	6 30	19 35.30	-17 4.7	1.744	2.739	5.5	20.2
7 10	19 26.04	-20 7.5	1.489	2.505	1.2	20.2	7 10	19 25.99	-17 16.8	1.736	2.749	2.0	20.0
7 20	19 15.77	-20 37.8	1.480	2.487	4.0	20.4	7 20	19 16.57	-17 31.8	1.754	2.760	3.8	20.2
7 30	19 6.24	-21 6.2	1.496	2.469	8.7	20.6	7 30	19 8.08	-17 48.0	1.800	2.770	7.6	20.4
8 9	18 58.60	-21 30.8	1.537	2.450	13.0	20.8	8 9	19 1.38	-18 3.7	1.870	2.780	11.2	20.7
8 19	18 53.63	-21 50.8	1.598	2.431	16.7	21.0	8 19	18 56.99	-18 18.2	1.962	2.790	14.3	20.9
478340	2011 WE ₁₃₀		7 11.6	242°39'	0°1'/11.7	18	25142	Hopf		7 11.7	344°72'	2°8'/10.7	18
6 10	19 46.67	-18 31.8	2.283	3.16									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
388577	2007 <i>RC</i> ₇₁		7 11.7 226°24	0°3/11.5	16		431045	2006 <i>BH</i> ₄₀		7 11.7 258°79	9°4/10.0	18	
6 10	19 48.31	-21 28.4	1.933	2.820	12.1	21.7	6 10	20 2.20	-47 7.1	1.843	2.690	14.4	20.6
6 20	19 42.56	-21 52.4	1.863	2.818	8.7	21.5	6 20	19 53.08	-47 35.0	1.777	2.683	12.1	20.4
6 30	19 34.86	-22 20.2	1.817	2.816	4.8	21.3	6 30	19 40.85	-47 43.5	1.733	2.675	10.2	20.3
7 10	19 25.96	-22 48.8	1.797	2.813	0.7	20.9	7 10	19 26.86	-47 25.5	1.713	2.668	9.4	20.2
7 20	19 16.80	-23 15.1	1.804	2.811	3.6	21.2	7 20	19 12.81	-46 38.0	1.717	2.660	10.2	20.3
7 30	19 8.41	-23 37.1	1.838	2.808	7.6	21.4	7 30	19 0.48	-45 23.0	1.746	2.652	12.2	20.4
8 9	19 1.71	-23 53.6	1.897	2.805	11.2	21.6	8 9	18 51.15	-43 47.5	1.798	2.644	14.7	20.5
8 19	18 57.30	-24 4.7	1.978	2.803	14.3	21.8	8 19	18 45.45	-41 59.5	1.870	2.636	17.1	20.7
188533	2004 <i>RC</i> ₂₄₂		7 11.7 60°41	0°4/11.8	16 R		87518	2000 <i>QM</i> ₁₉₁		7 11.7 278°58	1°4/12.3	18	
6 10	19 46.72	-19 51.6	2.074	2.958	11.6	20.7	6 10	19 45.94	-15 49.0	2.109	2.987	11.7	19.5
6 20	19 41.16	-20 4.3	2.018	2.971	8.3	20.6	6 20	19 40.77	-16 19.4	2.032	2.980	8.5	19.3
6 30	19 33.95	-20 21.1	1.987	2.985	4.6	20.4	6 30	19 33.87	-16 58.3	1.979	2.973	5.0	19.1
7 10	19 25.82	-20 39.7	1.982	2.998	0.8	20.1	7 10	19 25.86	-17 43.4	1.952	2.966	1.7	18.8
7 20	19 17.61	-20 58.0	2.005	3.012	3.2	20.3	7 20	19 17.56	-18 31.6	1.953	2.959	3.3	18.9
7 30	19 10.21	-21 14.4	2.055	3.026	6.8	20.6	7 30	19 9.86	-19 19.9	1.981	2.952	7.0	19.2
8 9	19 4.34	-21 27.8	2.130	3.039	10.1	20.8	8 9	19 3.58	-20 5.6	2.035	2.946	10.4	19.4
8 19	19 0.51	-21 38.0	2.227	3.053	12.9	21.0	8 19	18 59.30	-20 47.1	2.111	2.939	13.4	19.5
40200	1998 <i>SW</i> ₉		7 11.7 334°03	0°3/11.7	18		515100	2010 <i>VD</i> ₁₅₃		7 11.7 268°77	2°3/12.4	18	
6 10	19 44.69	-20 22.6	1.766	2.662	12.7	18.2	6 10	19 46.38	-15 23.5	2.330	3.201	10.9	21.7
6 20	19 40.15	-20 36.8	1.688	2.647	9.2	18.0	6 20	19 40.85	-15 4.0	2.254	3.197	8.1	21.6
6 30	19 33.69	-20 56.1	1.633	2.633	5.1	17.7	6 30	19 33.80	-14 50.1	2.204	3.194	5.0	21.4
7 10	19 25.81	-21 18.2	1.603	2.619	0.8	17.4	7 10	19 25.85	-14 41.5	2.180	3.190	2.5	21.2
7 20	19 17.61	-21 40.2	1.599	2.606	3.7	17.5	7 20	19 17.73	-14 37.4	2.184	3.187	3.6	21.3
7 30	19 10.13	-21 59.9	1.620	2.594	8.0	17.8	7 30	19 10.22	-14 37.1	2.216	3.183	6.7	21.4
8 9	19 4.35	-22 15.9	1.665	2.583	11.9	18.0	8 9	19 4.04	-14 39.6	2.273	3.180	9.7	21.6
8 19	19 0.94	-22 27.6	1.731	2.572	15.3	18.2	8 19	18 59.68	-14 44.1	2.353	3.176	12.4	21.8
432978	2012 <i>OX</i>		7 11.7 345°43	6°9/12.9	16		270430	2002 <i>CD</i> ₇₅		7 11.7 6°55	4°2/13.6	18	
6 10	19 42.27	-10 39.9	1.073	1.977	18.2	19.0	6 10	19 43.95	-9 15.9	1.251	2.141	17.2	19.3
6 20	19 39.22	-9 45.1	1.007	1.962	14.3	18.7	6 20	19 40.08	-10 2.3	1.192	2.141	13.1	19.1
6 30	19 33.40	-9 6.0	0.960	1.948	10.1	18.4	6 30	19 33.75	-11 11.3	1.153	2.143	8.5	18.8
7 10	19 25.80	-8 45.5	0.933	1.936	7.1	18.2	7 10	19 25.87	-12 39.4	1.137	2.146	4.6	18.6
7 20	19 17.70	-8 44.8	0.927	1.925	8.1	18.2	7 20	19 17.63	-14 20.1	1.144	2.149	5.4	18.7
7 30	19 10.66	-9 2.2	0.941	1.917	12.0	18.4	7 30	19 10.40	-16 5.1	1.176	2.154	9.7	19.0
8 9	19 6.01	-9 33.4	0.975	1.910	16.5	18.6	8 9	19 5.33	-17 46.6	1.229	2.161	14.1	19.2
8 19	19 4.57	-10 13.0	1.025	1.905	20.6	18.9	8 19	19 3.16	-19 18.7	1.303	2.168	18.0	19.5
471623	2012 <i>TF</i> ₂₁		7 11.7 317°73	6°9/9.5	18		441985	2010 <i>NP</i> ₅₃		7 11.7 323°83	6°3/9.9	18	
6 10	19 51.18	-36 21.5	1.534	2.427	14.4	20.7	6 10	19 50.31	-36 48.0	1.682	2.571	13.5	20.6
6 20	19 45.48	-37 16.2	1.464	2.412	11.2	20.4	6 20	19 44.70	-37 17.7	1.601	2.547	10.5	20.3
6 30	19 36.84	-38 2.4	1.417	2.399	8.2	20.2	6 30	19 36.36	-37 37.9	1.541	2.523	7.7	20.1
7 10	19 26.30	-38 32.4	1.393	2.385	6.9	20.1	7 10	19 26.26	-37 42.5	1.506	2.500	6.3	20.0
7 20	19 15.26	-38 41.1	1.392	2.372	8.5	20.2	7 20	19 15.67	-37 27.5	1.495	2.478	7.7	20.0
7 30	19 5.37	-38 26.9	1.416	2.360	11.8	20.3	7 30	19 6.09	-36 52.4	1.509	2.456	10.9	20.1
8 9	18 58.00	-37 52.9	1.461	2.348	15.2	20.5	8 9	18 58.80	-36 0.1	1.544	2.435	14.4	20.3
8 19	18 53.99	-37 4.1	1.524	2.336	18.4	20.7	8 19	18 54.61	-34 55.7	1.599	2.414	17.6	20.5
19888	2048 <i>T</i> ₂		7 11.7 264°18	4°7/13.5	18		161712	2006 <i>KF</i> ₉₁		7 11.7 299°04	3°6/12.9	17	
6 10	19 45.11	-7 28.7	2.259	3.110	12.0	18.8	6 10	19 46.70	-11 56.3	1.818	2.692	13.4	20.2
6 20	19 40.01	-7 13.8	2.180	3.103	9.4	18.6	6 20	19 41.46	-11 54.1	1.746	2.687	10.2	20.0
6 30	19 33.36	-7 10.7	2.125	3.096	6.8	18.4	6 30	19 34.30	-12 3.4	1.696	2.683	6.6	19.8
7 10	19 25.77	-7 19.7	2.096	3.089	4.9	18.3	7 10	19 25.94	-12 23.3	1.671	2.678	3.8	19.6
7 20	19 17.95	-7 39.9	2.093	3.082	5.3	18.3	7 20	19 17.30	-12 51.9	1.673	2.674	4.7	19.7
7 30	19 10.68	-8 9.6	2.117	3.075	7.6	18.4	7 30	19 9.40	-13 26.7	1.700	2.669	8.1	19.9
8 9	19 4.69	-8 46.2	2.166	3.068	10.3	18.6	8 9	19 3.13	-14 4.7	1.752	2.665	11.7	20.1
8 19	19 0.49	-9 26.8	2.238	3.061	12.9	18.7	8 19	18 59.10	-14 43.3	1.825	2.661	14.9	20.3
303325	2004 <i>TH</i> ₁₀₅		7 11.7 55°42	3°5/10.9	17		436959	2012 <i>TE</i> ₁₅₈		7 11.7 300°09	3°8/12.9	16	
6 10	19 53.56	-28 8.4	1.162	2.070	16.9	20.7	6 10	19 46.75	-12 6.3	1.684	2.562	14.1	21.1
6 20	19 47.15	-28 38.5	1.118	2.081	12.2	20.5	6 20	19 41.69	-12 0.9	1.606	2.550	10.7	20.8
6 30	19 37.64	-29 5.5	1.094	2.093	7.2	20.2	6 30	19 34.52	-12 7.6	1.550	2.538	7.0	20.6
7 10	19 26.39	-29 23.1	1.093	2.105	3.6	20.1	7 10	19 25.99	-12 25.7	1.518	2.526	4.0	20.4
7 20	19 15.09	-29 27.1	1.115	2.117	6.2	20.2	7 20	19 17.06	-12 53.5	1.512	2.514	5.0	20.4
7 30	19 5.46	-29 17.1	1.161	2.130	11.0	20.6	7 30	19 8.86	-13 28.4	1.531	2.502	8.7	20.6
8 9	18 58.80	-28 55.4	1.227	2.143	15.4	20.8	8 9	19 2.39	-14 7.2	1.574	2.491	12.6	20.8
8 19	18 55.71	-28 25.8	1.312	2.156	19.1	21.1	8 19	18 58.35	-14 46.9	1.638	2.480	16.0	21.0
233966	2010 <i>BS</i> ₂		7 11.7 201°09	1°1/11.3	18		202538	2006 <i>DM</i> ₆₁		7 11.7 50°03	2°5/12.5	17	
6 10	19 50.92	-24 37.0	2.125	3.007	11.4	21.1	6 10	19 47.75	-15 0.0	1.673	2.557	13.9	20.0
6 20	19 44.31	-24 50.4	2.051	3.003	8.2	20.9	6 20	19 42.24	-15 0.1	1.613	2.563	10.2	19.7
6 30	19 35.80	-25 4.0	2.002	3.000	4.6	20.7	6 30	19 34.71	-15 9.6	1.576	2.569	6.2	19.5
7 10	19 26.13	-25 15.0	1.980	2.995	1.2	20.4	7 10	19 26.00	-15 26.9	1.563	2.575	2.8	19.3
7 20	19 16.24	-25 21.2	1.986	2.991	3.6	20.6	7 20	19 17.11	-15 49.9	1.576	2.582	4.3	19.4
7 30	19 7.13	-25 21.5	2.020	2.985	7.3	20.8	7 30	19 9.13	-16 15.9	1.616	2.588	8.2	19.7
8 9	18 59.66	-25 16.1	2.079	2.980	10.7	21.0	8 9	19 2.99	-16 42.7	1.679	2.595	11.9	19.9
8 19	18 54.42	-25 6.0	2.161	2.973	13.7	21.2	8 19	18 59.27	-17 8.5	1.763	2.602	15.2	20.1
23473	<i>Voss</i>		7 11.7 242°06	0°9/11.9	18		71383	2000 <i>AH</i> ₁₅₁		7 11.7 245°58	1°		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
499567	2010 <i>SR</i> ₂₀	7 11.7 296°26		5°1/10.3 17			486007	2012 <i>PH</i> ₂₂	7 11.7 341°19		1°6/11.9 16		
6 10	19 52.63	-31 26.7	1.335	2.236	15.5	22.1	6 10	19 41.75	-20 6.5	1.003	1.927	17.4	20.4
6 20	19 46.79	-32 7.7	1.261	2.219	11.6	21.8	6 20	19 39.24	-19 41.5	0.931	1.903	12.8	20.1
6 30	19 37.73	-32 44.2	1.208	2.201	7.5	21.6	6 30	19 33.65	-19 21.7	0.877	1.880	7.4	19.7
7 10	19 26.49	-33 9.0	1.178	2.184	5.1	21.4	7 10	19 25.97	-19 6.3	0.844	1.859	2.0	19.3
7 20	19 14.60	-33 16.2	1.172	2.167	7.4	21.5	7 20	19 17.63	-18 54.1	0.831	1.841	5.3	19.5
7 30	19 3.89	-33 4.0	1.190	2.151	11.7	21.7	7 30	19 10.38	-18 44.1	0.839	1.824	11.3	19.7
8 9	18 55.90	-32 34.9	1.228	2.134	16.2	21.9	8 9	19 5.80	-18 35.5	0.865	1.810	16.9	20.0
8 19	18 51.56	-31 53.4	1.284	2.118	20.0	22.1	8 19	19 4.80	-18 27.4	0.907	1.798	21.7	20.2
294183	2007 <i>TV</i> ₃₉₈	7 11.7 245°53		1°6/12.2 18			478100	2011 <i>UZ</i> ₆₁	7 11.7 200°18		4°1/ 9.5 18		
6 10	19 48.10	-17 31.0	2.021	2.900	12.0	20.5	6 10	19 49.31	-33 19.1	2.515	3.392	10.0	22.0
6 20	19 42.32	-17 24.1	1.946	2.895	8.8	20.3	6 20	19 43.16	-34 17.9	2.446	3.389	7.5	21.8
6 30	19 34.72	-17 22.6	1.895	2.890	5.2	20.0	6 30	19 35.22	-35 12.6	2.403	3.387	5.2	21.7
7 10	19 26.02	-17 25.2	1.870	2.884	1.8	19.8	7 10	19 26.16	-35 58.6	2.388	3.384	4.1	21.6
7 20	19 17.07	-17 30.7	1.873	2.878	3.6	19.9	7 20	19 16.80	-36 32.7	2.400	3.380	5.4	21.7
7 30	19 8.85	-17 37.6	1.902	2.873	7.3	20.1	7 30	19 8.10	-36 53.1	2.440	3.377	7.8	21.8
8 9	19 2.18	-17 44.9	1.957	2.867	10.8	20.3	8 9	19 0.86	-37 0.3	2.505	3.373	10.3	22.0
8 19	18 57.65	-17 52.0	2.034	2.861	13.9	20.5	8 19	18 55.69	-36 56.1	2.591	3.369	12.6	22.2
400453	2008 <i>EH</i> ₁₆₂	7 11.7 130°82		1°3/11.2 18			165060	2000 <i>EW</i> ₁₁₄	7 11.7 242°91		2°2/12.5 18		
6 10	19 47.59	-24 47.2	2.224	3.109	10.8	21.7	6 10	19 47.38	-15 4.1	2.014	2.889	12.2	20.3
6 20	19 41.85	-25 10.0	2.157	3.111	7.7	21.5	6 20	19 41.85	-15 7.1	1.939	2.884	9.0	20.0
6 30	19 34.41	-25 33.3	2.115	3.113	4.3	21.3	6 30	19 34.53	-15 18.0	1.888	2.879	5.5	19.8
7 10	19 25.97	-25 54.3	2.100	3.115	1.3	21.1	7 10	19 26.09	-15 35.6	1.862	2.874	2.4	19.6
7 20	19 17.34	-26 10.5	2.112	3.116	3.5	21.2	7 20	19 17.39	-15 58.0	1.864	2.869	3.8	19.7
7 30	19 9.45	-26 20.7	2.153	3.118	6.9	21.4	7 30	19 9.36	-16 23.1	1.893	2.863	7.4	19.9
8 9	19 3.06	-26 24.6	2.218	3.120	10.1	21.7	8 9	19 2.86	-16 49.0	1.947	2.857	10.8	20.1
8 19	18 58.70	-26 22.8	2.305	3.121	12.8	21.8	8 19	18 58.45	-17 14.0	2.022	2.852	13.9	20.3
178718	2000 <i>SQ</i> ₂₆₀	7 11.7 240°45		4°1/13.2 18			131532	2001 <i>UK</i> ₉₅	7 11.7 208°65		5°1/10.3 17		
6 10	19 45.59	- 9 14.1	2.327	3.181	11.6	20.5	6 10	19 55.74	-32 3.7	1.513	2.404	14.7	20.7
6 20	19 40.32	- 9 1.2	2.248	3.175	8.9	20.3	6 20	19 48.63	-32 51.0	1.448	2.400	10.9	20.5
6 30	19 33.55	- 8 58.6	2.193	3.169	6.2	20.1	6 30	19 38.59	-33 32.8	1.406	2.397	7.2	20.3
7 10	19 25.85	- 9 6.3	2.164	3.163	4.2	20.0	7 10	19 26.70	-34 2.2	1.389	2.393	5.1	20.1
7 20	19 17.92	- 9 23.4	2.163	3.156	4.7	20.0	7 20	19 14.43	-34 14.1	1.397	2.388	7.0	20.2
7 30	19 10.55	- 9 48.4	2.189	3.149	7.2	20.1	7 30	19 3.40	-34 7.2	1.430	2.383	10.8	20.4
8 9	19 4.44	-10 18.9	2.240	3.143	10.0	20.3	8 9	18 54.96	-33 44.2	1.485	2.378	14.7	20.7
8 19	19 0.09	-10 52.5	2.314	3.136	12.6	20.5	8 19	18 49.88	-33 9.5	1.559	2.372	18.0	20.9
50909	1998 <i>VZ</i> ₄₁	7 11.7 29°73		0°1/11.7 18			398859	2013 <i>CY</i> ₅₁	7 11.7 189°68		0°3/11.6 18		
6 10	19 49.08	-19 14.1	1.122	2.031	17.2	18.5	6 10	19 47.59	-22 7.1	2.573	3.450	9.8	22.6
6 20	19 44.02	-19 55.5	1.071	2.036	12.4	18.2	6 20	19 41.71	-22 25.4	2.499	3.449	7.0	22.4
6 30	19 36.02	-20 47.2	1.040	2.042	6.9	18.0	6 30	19 34.33	-22 45.8	2.451	3.448	3.9	22.2
7 10	19 26.22	-21 43.4	1.032	2.048	1.0	17.6	7 10	19 26.05	-23 6.1	2.430	3.446	0.6	21.9
7 20	19 16.14	-22 37.9	1.047	2.055	4.9	17.9	7 20	19 17.59	-23 24.2	2.438	3.444	2.9	22.1
7 30	19 7.41	-23 25.4	1.085	2.063	10.4	18.2	7 30	19 9.72	-23 38.7	2.475	3.441	6.1	22.3
8 9	19 1.37	-24 3.3	1.143	2.071	15.3	18.5	8 9	19 3.12	-23 49.1	2.538	3.439	9.0	22.5
8 19	18 58.72	-24 31.1	1.220	2.079	19.3	18.8	8 19	18 58.28	-23 55.4	2.624	3.435	11.6	22.7
252759	2002 <i>EJ</i> ₅₀	7 11.7 83°69		6°1/14.8 16			249106	2007 <i>VE</i> ₂₉₃	7 11.7 270°67		4°9/13.2 18		
6 10	19 44.60	- 2 3.8	2.275	3.104	12.7	20.5	6 10	19 49.06	- 9 55.4	1.470	2.345	15.9	20.5
6 20	19 39.56	- 1 59.5	2.211	3.112	10.3	20.3	6 20	19 43.68	- 9 51.4	1.391	2.331	12.3	20.2
6 30	19 33.09	- 2 11.1	2.169	3.120	7.9	20.2	6 30	19 35.83	-10 3.6	1.333	2.318	8.3	19.9
7 10	19 25.78	- 2 38.8	2.152	3.128	6.3	20.1	7 10	19 26.31	-10 31.8	1.299	2.303	5.2	19.7
7 20	19 18.34	- 3 21.0	2.161	3.136	6.3	20.1	7 20	19 16.25	-11 13.9	1.289	2.289	6.1	19.7
7 30	19 11.50	- 4 15.2	2.197	3.144	8.0	20.3	7 30	19 6.98	-12 6.2	1.305	2.275	9.9	19.9
8 9	19 5.93	- 5 17.4	2.257	3.152	10.3	20.4	8 9	18 59.69	-13 4.0	1.342	2.260	14.2	20.1
8 19	19 2.09	- 6 23.7	2.341	3.160	12.6	20.6	8 19	18 55.22	-14 2.9	1.400	2.246	18.0	20.3
93951	2000 <i>WT</i> ₁₇₉	7 11.7 222°42		4°0/12.8 18			217751	2000 <i>GN</i> ₂₄	7 11.7 81°96		4°1/12.9 17		
6 10	19 49.36	-10 38.6	2.317	3.170	11.7	19.7	6 10	19 49.48	-11 58.0	1.549	2.426	15.2	20.6
6 20	19 43.03	-10 6.2	2.233	3.160	9.0	19.5	6 20	19 43.58	-11 45.0	1.493	2.436	11.4	20.4
6 30	19 35.06	- 9 42.1	2.172	3.150	6.2	19.4	6 30	19 35.53	-11 44.5	1.459	2.445	7.4	20.2
7 10	19 26.08	- 9 26.6	2.139	3.138	4.2	19.2	7 10	19 26.24	-11 55.8	1.448	2.455	4.3	20.0
7 20	19 16.83	- 9 19.7	2.134	3.126	4.9	19.2	7 20	19 16.80	-12 17.1	1.464	2.465	5.3	20.1
7 30	19 8.17	- 9 20.9	2.157	3.114	7.5	19.4	7 30	19 8.39	-12 45.6	1.504	2.474	8.9	20.4
8 9	19 0.83	- 9 28.7	2.205	3.101	10.4	19.5	8 9	19 1.95	-13 18.2	1.568	2.483	12.7	20.6
8 19	18 55.39	- 9 41.5	2.277	3.088	13.1	19.7	8 19	18 58.09	-13 52.0	1.653	2.493	16.0	20.8
472350	2015 <i>BR</i> ₆	7 11.7 221°29		5°5/14.6 17			285213	1997 <i>EM</i> ₃	7 11.7 213°67		4°4/10.4 17		
6 10	19 50.08	- 3 46.6	1.941	2.777	14.3	21.8	6 10	19 54.47	-31 49.0	1.754	2.640	13.2	21.4
6 20	19 43.90	- 4 20.0	1.855	2.767	11.4	21.6	6 20	19 47.41	-32 27.3	1.685	2.635	9.8	21.2
6 30	19 35.71	- 5 13.6	1.792	2.757	8.3	21.3	6 30	19 37.79	-33 0.5	1.640	2.630	6.4	21.0
7 10	19 26.20	- 6 26.2	1.754	2.746	5.8	21.2	7 10	19 26.59	-33 23.0	1.619	2.624	4.4	20.8
7 20	19 16.25	- 7 54.6	1.744	2.735	6.0	21.2	7 20	19 15.05	-33 30.9	1.626	2.618	6.1	20.9
7 30	19 6.87	- 9 33.7	1.762	2.723	8.6	21.3	7 30	19 4.56	-33 23.0	1.658	2.611	9.7	21.1
8 9	18 59.02	-11 17.2	1.807	2.710	12.0	21.5	8 9	18 56.29	-33 1.3	1.714	2.604	13.2	21.3
8 19	18 53.38	-12 59.6	1.874	2.696	15.1	21.7	8 19	18 50.95	-32 29.5	1.790	2.596	16.3	21.5
128480	2004 <i>PK</i> ₄	7 11.7 290°87		6°1/13.0 16									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
473061	2015 <i>HO</i> ₉₁		7 11.7 184°75	4.7/ 9.7	17		362477	2010 <i>SL</i> ₁₉		7 11.7 166°40	4.1/ 9.9	18	
6 10	19 52.44	-33 21.1	2.058	2.938	11.8	21.0	6 10	19 48.95	-33 25.6	2.397	3.276	10.4	20.8
6 20	19 45.69	-34 17.8	1.993	2.938	8.9	20.8	6 20	19 42.92	-34 8.9	2.332	3.277	7.8	20.7
6 30	19 36.74	-35 9.4	1.953	2.938	6.1	20.7	6 30	19 35.10	-34 47.3	2.293	3.278	5.3	20.5
7 10	19 26.43	-35 50.2	1.940	2.937	4.7	20.6	7 10	19 26.21	-35 16.7	2.281	3.279	4.1	20.4
7 20	19 15.83	-36 16.3	1.954	2.936	6.2	20.7	7 20	19 17.12	-35 34.2	2.295	3.279	5.3	20.5
7 30	19 6.10	-36 26.3	1.994	2.935	9.0	20.8	7 30	19 8.77	-35 38.8	2.337	3.280	7.8	20.7
8 9	18 58.27	-36 21.3	2.058	2.933	12.0	21.0	8 9	19 1.97	-35 31.4	2.404	3.280	10.4	20.8
8 19	18 52.99	-36 4.2	2.143	2.931	14.6	21.2	8 19	18 57.29	-35 14.0	2.492	3.281	12.7	21.0
371589	2006 <i>WN</i> ₄₂		7 11.7 161°99	1.3/12.2	17		85576	1998 <i>DH</i> ₁		7 11.7 78°78	0.7/11.5	18	
6 10	19 50.48	-17 4.0	1.834	2.712	13.1	21.4	6 10	19 48.59	-23 11.4	2.044	2.930	11.6	20.0
6 20	19 44.18	-17 25.9	1.768	2.717	9.5	21.2	6 20	19 42.62	-23 25.8	1.988	2.942	8.3	19.8
6 30	19 35.85	-17 55.5	1.726	2.721	5.5	21.0	6 30	19 34.89	-23 41.7	1.956	2.954	4.6	19.6
7 10	19 26.30	-18 30.1	1.710	2.724	1.6	20.7	7 10	19 26.17	-23 56.3	1.951	2.967	0.9	19.4
7 20	19 16.51	-19 6.4	1.721	2.728	3.7	20.9	7 20	19 17.38	-24 7.6	1.973	2.979	3.4	19.6
7 30	19 7.57	-19 41.6	1.759	2.730	7.8	21.2	7 30	19 9.44	-24 14.2	2.023	2.991	7.1	19.8
8 9	19 0.39	-20 13.8	1.823	2.732	11.5	21.4	8 9	19 3.15	-24 16.0	2.097	3.003	10.4	20.1
8 19	18 55.61	-20 41.8	1.907	2.734	14.7	21.6	8 19	18 59.01	-24 13.5	2.193	3.016	13.2	20.3
166547	2002 <i>RL</i> ₅₇		7 11.7 331°98	3.2/12.5	18		517705	2015 <i>FP</i> ₄₀₃		7 11.7 174°04	2.4/12.7	17	
6 10	19 45.71	-14 49.7	1.508	2.400	14.7	19.2	6 10	19 47.83	-13 39.4	1.915	2.788	12.9	21.7
6 20	19 41.18	-14 34.8	1.433	2.386	11.0	19.0	6 20	19 42.25	-14 2.3	1.845	2.789	9.5	21.5
6 30	19 34.37	-14 29.7	1.380	2.373	6.9	18.7	6 30	19 34.78	-14 35.8	1.799	2.790	5.8	21.3
7 10	19 26.10	-14 34.0	1.350	2.361	3.4	18.4	7 10	19 26.17	-15 17.7	1.779	2.790	2.6	21.1
7 20	19 17.42	-14 46.1	1.345	2.350	4.9	18.5	7 20	19 17.30	-16 5.0	1.786	2.791	3.9	21.1
7 30	19 9.58	-15 4.1	1.364	2.339	9.1	18.7	7 30	19 9.16	-16 54.3	1.820	2.791	7.5	21.4
8 9	19 3.64	-15 25.6	1.406	2.329	13.3	18.9	8 9	19 2.60	-17 42.6	1.879	2.791	11.1	21.6
8 19	19 0.34	-15 48.2	1.467	2.320	17.0	19.2	8 19	18 58.24	-18 27.6	1.960	2.791	14.2	21.8
170678	2003 <i>YQ</i> ₁₈₀		7 11.7 164°67	1.0/12.1	17		217547	2007 <i>DB</i> ₈₆		7 11.7 338°24	8.9/16.5	18	
6 10	19 47.91	-17 53.9	2.341	3.215	10.8	21.5	6 10	19 42.50	+ 2 53.1	1.750	2.573	16.1	19.1
6 20	19 41.99	-18 6.7	2.271	3.218	7.8	21.3	6 20	19 38.63	+ 2 50.8	1.669	2.559	13.6	18.9
6 30	19 34.50	-18 24.5	2.227	3.222	4.5	21.1	6 30	19 32.88	+ 2 23.0	1.608	2.545	11.2	18.8
7 10	19 26.10	-18 45.5	2.210	3.225	1.3	20.8	7 10	19 25.90	+ 1 28.1	1.568	2.532	9.3	18.6
7 20	19 17.52	-19 7.7	2.221	3.228	3.0	21.0	7 20	19 18.54	+ 0 7.5	1.553	2.520	9.0	18.6
7 30	19 9.59	-19 29.4	2.261	3.230	6.4	21.2	7 30	19 11.78	- 1 34.5	1.561	2.509	10.6	18.6
8 9	19 3.03	-19 49.4	2.326	3.232	9.5	21.4	8 9	19 6.53	- 3 30.7	1.594	2.498	13.2	18.8
8 19	18 58.34	-20 6.7	2.415	3.233	12.2	21.6	8 19	19 3.45	- 5 33.2	1.648	2.489	16.0	18.9
394298	2006 <i>VD</i> ₈₃		7 11.7 243°14	3.1/12.7	18		47485	2000 <i>AO</i> ₂₂		7 11.7 52°59	3.3/10.3	18	
6 10	19 46.98	-13 18.3	2.184	3.052	11.7	21.0	6 10	19 49.46	-27 24.6	1.689	2.584	13.2	17.8
6 20	19 41.42	-12 59.0	2.109	3.048	8.8	20.8	6 20	19 43.72	-28 30.5	1.635	2.593	9.5	17.6
6 30	19 34.23	-12 47.3	2.058	3.044	5.7	20.6	6 30	19 35.70	-29 36.1	1.606	2.602	5.7	17.4
7 10	19 26.06	-12 43.0	2.033	3.040	3.2	20.5	7 10	19 26.31	-30 35.3	1.602	2.612	3.3	17.2
7 20	19 17.69	-12 45.4	2.036	3.036	4.2	20.5	7 20	19 16.69	-31 23.0	1.624	2.621	5.5	17.4
7 30	19 9.96	-12 53.2	2.066	3.032	7.2	20.7	7 30	19 8.07	-31 56.5	1.672	2.631	9.1	17.6
8 9	19 3.62	-13 5.2	2.121	3.027	10.3	20.9	8 9	19 1.49	-32 15.7	1.743	2.641	12.6	17.9
8 19	18 59.20	-13 19.6	2.198	3.023	13.1	21.1	8 19	18 57.59	-32 22.5	1.835	2.651	15.6	18.1
311908	2007 <i>AZ</i> ₁₀		7 11.7 166°23	3.4/14.0	18		476050	2007 <i>RJ</i> ₂₉₄		7 11.7 291°35	2.3/12.4	18	
6 10	19 46.34	- 6 57.8	2.619	3.458	10.9	20.6	6 10	19 47.40	-15 41.3	1.826	2.707	13.0	21.7
6 20	19 40.76	- 7 41.6	2.542	3.461	8.4	20.4	6 20	19 42.10	-15 39.0	1.747	2.695	9.6	21.5
6 30	19 33.80	- 8 38.3	2.490	3.463	5.8	20.2	6 30	19 34.79	-15 44.8	1.690	2.684	5.8	21.2
7 10	19 26.00	- 9 46.0	2.466	3.466	3.7	20.1	7 10	19 26.21	-15 57.4	1.660	2.672	2.5	21.0
7 20	19 17.99	-11 2.0	2.472	3.468	4.0	20.1	7 20	19 17.27	-16 15.0	1.655	2.660	4.0	21.1
7 30	19 10.46	-12 22.5	2.506	3.469	6.3	20.3	7 30	19 9.03	-16 35.7	1.677	2.649	8.0	21.3
8 9	19 4.05	-13 43.8	2.569	3.471	8.9	20.5	8 9	19 2.45	-16 57.5	1.723	2.637	11.8	21.5
8 19	18 59.24	-15 2.8	2.656	3.472	11.3	20.6	8 19	18 58.17	-17 18.8	1.790	2.626	15.1	21.7
505435	2013 <i>SV</i> ₁₅		7 11.7 233°04	4.2/10.2	18		39754	1997 <i>CS</i> ₁₄		7 11.7 6°96	2.2/11.1	18	
6 10	19 53.43	-31 18.8	1.855	2.740	12.7	21.4	6 10	19 49.03	-25 45.7	1.520	2.420	14.1	18.9
6 20	19 46.64	-32 3.5	1.780	2.730	9.4	21.2	6 20	19 43.58	-26 14.2	1.460	2.420	10.1	18.7
6 30	19 37.38	-32 44.4	1.729	2.719	6.1	20.9	6 30	19 35.69	-26 43.2	1.422	2.421	5.8	18.4
7 10	19 26.55	-33 15.9	1.704	2.708	4.2	20.8	7 10	19 26.33	-27 8.1	1.408	2.422	2.2	18.2
7 20	19 15.29	-33 33.8	1.705	2.697	6.0	20.9	7 20	19 16.72	-27 25.3	1.420	2.424	4.8	18.4
7 30	19 4.93	-33 36.4	1.733	2.684	9.4	21.1	7 30	19 8.19	-27 32.7	1.456	2.426	9.2	18.7
8 9	18 56.62	-33 24.9	1.784	2.672	12.9	21.2	8 9	19 1.83	-27 30.8	1.516	2.428	13.2	18.9
8 19	18 51.09	-33 2.4	1.856	2.659	15.9	21.4	8 19	18 58.31	-27 21.0	1.595	2.431	16.6	19.1
390506	2014 <i>BS</i> ₂₁		7 11.7 285°62	5.3/14.2	17		430327	2013 <i>YJ</i> ₃₃		7 11.7 287°52	1.9/10.8	18	
6 10	19 46.54	- 5 54.5	1.788	2.642	14.5	20.2	6 10	19 49.23	-22 29.1	1.679	2.571	13.4	20.4
6 20	19 41.54	- 6 14.4	1.703	2.628	11.4	20.0	6 20	19 43.86	-23 44.6	1.595	2.553	9.6	20.1
6 30	19 34.51	- 6 53.2	1.640	2.613	8.2	19.7	6 30	19 36.01	-25 8.1	1.535	2.535	5.5	19.8
7 10	19 26.13	- 7 50.4	1.602	2.599	5.6	19.6	7 10	19 26.42	-26 33.6	1.502	2.516	1.9	19.5
7 20	19 17.30	- 9 3.1	1.590	2.584	5.9	19.5	7 20	19 16.15	-27 54.1	1.495	2.498	4.8	19.7
7 30	19 9.05	-10 26.8	1.604	2.570	8.8	19.7	7 30	19 6.51	-29 4.2	1.514	2.479	9.3	19.9
8 9	19 2.38	-11 55.7	1.642	2.555	12.4	19.9	8 9	18 58.74	-30 0.6	1.557	2.461	13.5	20.1
8 19	18 57.99	-13 24.6	1.703	2.541	15.7	20.0	8 19	18 53.74	-30 43.1	1.620	2.442	17.1	20.3
179773	2002 <i>SZ</i> ₃₆		7 11.7 319°12	1.9/12.1	17		349158	2007 <i>PS</i> ₁₆					

EPHEMERIDES

7 11.7

7 11.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
312440	2008 <i>HF</i> ₄₈		7 11.7 205°51	0°8/11.4	18		318580	2005 <i>GL</i> ₁₆₂		7 11.7	9°86	9°3/15.5	17
6 10	19 47.37	-23 30.8	2.416	3.297	10.2	22.0	6 10	19 29.39	-6 26.1	0.594	1.534	23.3	18.2
6 20	19 41.68	-23 52.4	2.343	3.295	7.3	21.8	6 20	19 30.68	-5 58.1	0.569	1.539	18.6	18.0
6 30	19 34.39	-24 15.4	2.295	3.292	4.1	21.6	6 30	19 28.89	-6 7.2	0.557	1.549	13.7	17.8
7 10	19 26.14	-24 37.2	2.274	3.290	0.9	21.3	7 10	19 25.37	-6 53.4	0.560	1.563	10.0	17.7
7 20	19 17.69	-24 55.8	2.282	3.287	3.2	21.5	7 20	19 21.67	-8 10.3	0.579	1.582	9.8	17.7
7 30	19 9.85	-25 9.5	2.317	3.284	6.5	21.7	7 30	19 19.46	-9 46.2	0.614	1.604	13.0	18.0
8 9	19 3.38	-25 17.9	2.379	3.280	9.5	21.9	8 9	19 19.93	-11 27.2	0.665	1.630	17.3	18.4
8 19	18 58.77	-25 21.3	2.463	3.277	12.2	22.1	8 19	19 23.57	-13 2.2	0.732	1.658	21.3	18.8
45028	1999 <i>WD</i> ₉		7 11.7 196°50	4°5/13.1	18		355648	2008 <i>EA</i> ₆₀		7 11.7 58°20	5°8/10.6	16	
6 10	19 49.82	-10 36.1	1.668	2.536	14.7	18.3	6 10	19 54.76	-38 51.8	1.989	2.861	12.5	20.4
6 20	19 43.86	-10 20.6	1.598	2.535	11.2	18.0	6 20	19 47.16	-39 4.3	1.942	2.876	9.7	20.3
6 30	19 35.77	-10 18.0	1.551	2.534	7.6	17.8	6 30	19 37.41	-39 4.8	1.918	2.892	7.1	20.1
7 10	19 26.36	-10 28.0	1.529	2.532	4.8	17.6	7 10	19 26.59	-38 49.5	1.919	2.907	5.8	20.1
7 20	19 16.66	-10 49.2	1.532	2.530	5.6	17.7	7 20	19 15.89	-38 17.0	1.947	2.923	6.8	20.2
7 30	19 7.81	-11 19.3	1.561	2.528	9.0	17.9	7 30	19 6.50	-37 28.9	2.001	2.939	9.2	20.4
8 9	19 0.81	-11 54.9	1.614	2.525	12.6	18.1	8 9	18 59.31	-36 29.0	2.079	2.955	11.8	20.6
8 19	18 56.28	-12 33.1	1.688	2.522	16.0	18.3	8 19	18 54.79	-35 21.9	2.179	2.971	14.2	20.8
401533	2013 <i>EJ</i> ₁₀₁		7 11.7 214°95	1°9/12.7	18		52739	1998 <i>HP</i> ₁₀₉		7 11.7 47°35	4°4/13.8	18	
6 10	19 45.46	-14 4.0	2.320	3.190	11.0	20.5	6 10	19 45.82	-8 14.8	1.808	2.671	14.0	18.1
6 20	19 40.32	-14 31.3	2.247	3.189	8.1	20.3	6 20	19 40.73	-8 28.4	1.756	2.689	10.7	17.9
6 30	19 33.65	-15 7.4	2.198	3.189	4.9	20.1	6 30	19 33.90	-8 57.0	1.727	2.706	7.3	17.8
7 10	19 26.04	-15 50.1	2.176	3.188	2.1	20.0	7 10	19 26.10	-9 39.1	1.723	2.724	4.7	17.7
7 20	19 18.21	-16 37.1	2.182	3.187	3.3	20.0	7 20	19 18.21	-10 31.8	1.745	2.742	5.1	17.7
7 30	19 10.94	-17 25.4	2.216	3.186	6.4	20.2	7 30	19 11.16	-11 31.0	1.793	2.761	7.9	17.9
8 9	19 4.95	-18 12.5	2.276	3.185	9.6	20.4	8 9	19 5.72	-12 32.7	1.866	2.780	11.1	18.2
8 19	19 0.75	-18 56.5	2.359	3.184	12.3	20.6	8 19	19 2.40	-13 33.2	1.961	2.799	13.9	18.4
440239	2004 <i>RB</i> ₂		7 11.7 282°03	2°0/11.4	17		507416	2012 <i>PL</i> ₁₀		7 11.7 4°43	10°6/16.2	17	
6 10	19 53.50	-29 47.1	2.401	3.275	10.6	20.6	6 10	19 42.82	+ 0 58.9	1.219	2.077	19.7	20.4
6 20	19 46.17	-29 27.7	2.303	3.250	7.7	20.4	6 20	19 39.32	+ 1 25.2	1.163	2.076	16.5	20.2
6 30	19 36.95	-29 2.5	2.231	3.225	4.6	20.2	6 30	19 33.42	+ 1 21.2	1.124	2.076	13.4	20.0
7 10	19 26.54	-28 29.4	2.187	3.199	2.1	20.0	7 10	19 26.06	+ 0 44.6	1.104	2.078	11.1	19.9
7 20	19 15.86	-27 47.5	2.173	3.174	3.8	20.0	7 20	19 18.38	-0 23.3	1.105	2.081	10.8	19.9
7 30	19 5.88	-26 57.7	2.187	3.148	7.2	20.2	7 30	19 11.69	-1 56.5	1.128	2.085	12.7	20.0
8 9	18 57.47	-26 2.1	2.228	3.122	10.4	20.4	8 9	19 7.11	-3 45.7	1.172	2.091	15.7	20.2
8 19	18 51.25	-25 3.5	2.292	3.095	13.3	20.5	8 19	19 5.33	-5 41.0	1.234	2.098	18.9	20.4
30488	Steinlechner		7 11.7 273°50	0°9/12.1	18		198028	2004 <i>RX</i> ₂₃₁		7 11.7 174°11	1°1/12.1	18	
6 10	19 46.92	-18 27.9	2.121	3.002	11.5	19.0	6 10	19 49.52	-17 55.8	2.157	3.031	11.6	21.4
6 20	19 41.55	-18 39.9	2.041	2.992	8.3	18.8	6 20	19 43.30	-18 6.8	2.087	3.034	8.4	21.2
6 30	19 34.42	-18 57.3	1.985	2.981	4.8	18.6	6 30	19 35.33	-18 23.2	2.041	3.036	4.8	21.0
7 10	19 26.17	-19 18.3	1.956	2.971	1.2	18.3	7 10	19 26.33	-18 43.0	2.022	3.037	1.4	20.7
7 20	19 17.63	-19 40.6	1.954	2.961	3.3	18.4	7 20	19 17.13	-19 4.1	2.032	3.038	3.3	20.9
7 30	19 9.71	-20 2.3	1.979	2.950	7.0	18.7	7 30	19 8.65	-19 24.7	2.070	3.039	6.9	21.1
8 9	19 3.23	-20 22.0	2.030	2.940	10.5	18.8	8 9	19 1.67	-19 43.4	2.133	3.039	10.2	21.3
8 19	18 58.79	-20 38.9	2.102	2.929	13.5	19.0	8 19	18 56.74	-19 59.6	2.218	3.038	13.1	21.5
287311	2002 <i>TM</i> ₂₅₀		7 11.7 254°68	4°8/13.1	18		384475	2010 <i>CT</i> ₃₄		7 11.7 138°48	5°6/9.9	18	
6 10	19 49.09	-10 19.4	1.646	2.516	14.8	20.7	6 10	19 54.67	-37 20.3	2.097	2.969	12.0	21.3
6 20	19 43.45	-10 1.6	1.570	2.507	11.4	20.5	6 20	19 47.20	-38 0.1	2.042	2.977	9.2	21.1
6 30	19 35.61	-9 56.9	1.516	2.498	7.7	20.2	6 30	19 37.55	-38 30.4	2.011	2.986	6.7	21.0
7 10	19 26.36	-10 5.5	1.486	2.489	5.0	20.1	7 10	19 26.66	-38 46.4	2.005	2.994	5.6	20.9
7 20	19 16.73	-10 26.2	1.482	2.479	5.8	20.1	7 20	19 15.66	-38 45.3	2.027	3.001	6.7	21.0
7 30	19 7.87	-10 56.7	1.503	2.470	9.2	20.3	7 30	19 5.76	-38 27.0	2.075	3.008	9.2	21.2
8 9	19 0.82	-11 33.7	1.547	2.460	13.0	20.5	8 9	18 57.91	-37 54.4	2.147	3.015	11.8	21.4
8 19	18 56.29	-12 14.0	1.612	2.450	16.4	20.7	8 19	18 52.68	-37 11.3	2.240	3.021	14.2	21.6
390031	2012 <i>UL</i> ₄₁		7 11.7 257°33	2°7/12.6	16		438648	2008 <i>CR</i> ₁₅₉		7 11.7 311°84	2°0/10.9	18	
6 10	19 47.72	-14 10.3	1.881	2.756	13.0	21.2	6 10	19 47.98	-25 50.4	2.054	2.942	11.5	21.3
6 20	19 42.23	-14 9.1	1.807	2.752	9.6	21.0	6 20	19 42.41	-26 29.2	1.986	2.941	8.2	21.1
6 30	19 34.82	-14 17.0	1.757	2.747	6.0	20.8	6 30	19 34.93	-27 8.7	1.942	2.939	4.7	20.9
7 10	19 26.24	-14 32.9	1.732	2.743	2.9	20.6	7 10	19 26.28	-27 44.8	1.924	2.938	2.0	20.7
7 20	19 17.38	-14 55.0	1.734	2.738	4.2	20.7	7 20	19 17.38	-28 14.4	1.934	2.936	4.1	20.8
7 30	19 9.24	-15 21.1	1.762	2.733	7.8	20.9	7 30	19 9.22	-28 35.4	1.971	2.935	7.6	21.1
8 9	19 2.72	-15 48.9	1.815	2.728	11.4	21.1	8 9	19 2.69	-28 47.3	2.033	2.933	10.9	21.3
8 19	18 58.42	-16 16.5	1.890	2.723	14.5	21.3	8 19	18 58.38	-28 51.0	2.116	2.932	13.8	21.5
494510	2016 <i>XT</i> ₉		7 11.7 277°16	0°3/11.8	18		370176	2002 <i>BD</i> ₂₅		7 11.7 163°62	5°1/10.2	17	
6 10	19 48.20	-21 21.5	2.158	3.040	11.3	21.5	6 10	19 56.03	-37 6.6	2.242	3.109	11.5	21.6
6 20	19 42.41	-21 13.6	2.080	3.032	8.1	21.3	6 20	19 48.06	-37 37.6	2.181	3.115	8.8	21.5
6 30	19 34.86	-21 7.7	2.025	3.023	4.6	21.0	6 30	19 37.99	-37 59.5	2.145	3.120	6.3	21.3
7 10	19 26.24	-21 2.3	1.998	3.014	0.8	20.7	7 10	19 26.73	-38 7.8	2.135	3.125	5.1	21.2
7 20	19 17.39	-20 56.1	1.999	3.005	3.2	20.9	7 20	19 15.37	-37 59.9	2.153	3.129	6.3	21.3
7 30	19 9.23	-20 48.4	2.026	2.997	7.0	21.1	7 30	19 5.04	-37 36.1	2.199	3.132	8.7	21.5
8 9	19 2.57	-20 39.2	2.080	2.988	10.4	21.3	8 9	18 56.69	-36 59.1	2.269	3.135	11.3	21.7
8 19	18 57.97	-20 28.6	2.155	2.979	13.3	21.5	8 19	18 50.88	-36 12.6	2.360	3.137	13.7	21.8
212988	2009 <i>DA</i> ₁₈		7 11.7	3°89	2°8/12.8	17	442034	2010 <i>PY</i> ₃₅		7 11.7 249°54</			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
119678	2001 XX ₁₀₅	7 11.7 128°12' 7°0' / 9.0 18					501904	2014 WV ₄₆₄	7 11.7 245°88' 2°1' / 12.3 17				
6 10	19 55.08	-38 1.6	1.807	2.684	13.3	19.8	6 10	19 52.03	-17 0.8	1.582	2.466	14.6	22.1
6 20	19 47.94	-39 15.6	1.756	2.692	10.4	19.6	6 20	19 45.77	-16 53.2	1.503	2.454	10.7	21.8
6 30	19 38.17	-40 19.7	1.728	2.700	7.9	19.5	6 30	19 37.03	-16 52.9	1.446	2.441	6.4	21.5
7 10	19 26.80	-41 6.5	1.725	2.707	7.0	19.5	7 10	19 26.69	-16 58.5	1.414	2.428	2.4	21.2
7 20	19 15.18	-41 31.4	1.748	2.714	8.3	19.6	7 20	19 15.87	-17 8.2	1.409	2.415	4.4	21.3
7 30	19 4.74	-41 33.4	1.796	2.721	10.9	19.7	7 30	19 5.91	-17 20.0	1.429	2.401	9.1	21.6
8 9	18 56.67	-41 15.6	1.866	2.727	13.6	19.9	8 9	18 57.96	-17 32.5	1.472	2.387	13.4	21.8
8 19	18 51.66	-40 42.8	1.956	2.733	16.1	20.1	8 19	18 52.81	-17 44.6	1.536	2.372	17.2	22.0
314596	2006 AT ₇₁	7 11.7 196°64' 0°1' / 11.8 18					111667	2002 BH ₇	7 11.7 172°02' 5°1' / 9.8 18				
6 10	19 46.56	-21 24.9	2.784	3.659	9.2	21.7	6 10	19 51.11	-36 46.4	2.305	3.179	11.0	19.8
6 20	19 40.92	-21 31.5	2.708	3.657	6.6	21.5	6 20	19 44.60	-37 24.8	2.242	3.179	8.4	19.6
6 30	19 33.93	-21 40.0	2.658	3.654	3.7	21.3	6 30	19 36.14	-37 55.3	2.203	3.180	6.1	19.5
7 10	19 26.16	-21 48.8	2.636	3.652	0.6	21.0	7 10	19 26.52	-38 13.7	2.191	3.180	5.1	19.4
7 20	19 18.22	-21 56.5	2.643	3.649	2.6	21.2	7 20	19 16.73	-38 17.3	2.206	3.181	6.2	19.5
7 30	19 10.82	-22 2.2	2.678	3.646	5.6	21.4	7 30	19 7.80	-38 5.6	2.247	3.181	8.5	19.7
8 9	19 4.58	-22 5.4	2.740	3.642	8.4	21.6	8 9	19 0.62	-37 40.4	2.312	3.181	11.0	19.8
8 19	18 59.93	-22 6.0	2.826	3.638	10.8	21.7	8 19	18 55.77	-37 4.9	2.399	3.181	13.3	20.0
151383	2002 EZ ₅₈	7 11.7 225°40' 0°5' / 11.9 18					154216	2002 JR ₅₅	7 11.7 116°00' 7°5' / 15.1 18				
6 10	19 46.85	-19 39.1	2.503	3.379	10.1	21.3	6 10	19 46.48	+ 4 28.0	2.836	3.612	11.7	19.9
6 20	19 41.28	-19 50.9	2.424	3.373	7.3	21.1	6 20	19 40.70	+ 5 19.6	2.780	3.629	10.1	19.8
6 30	19 34.21	-20 6.4	2.370	3.366	4.1	20.9	6 30	19 33.75	+ 5 56.0	2.746	3.646	8.6	19.7
7 10	19 26.21	-20 23.8	2.343	3.359	0.8	20.6	7 10	19 26.16	+ 6 15.7	2.737	3.663	7.6	19.7
7 20	19 17.98	-20 41.2	2.345	3.352	2.8	20.8	7 20	19 18.49	+ 6 18.3	2.754	3.679	7.6	19.7
7 30	19 10.31	-20 57.3	2.375	3.344	6.2	21.0	7 30	19 11.37	+ 6 4.8	2.798	3.694	8.5	19.8
8 9	19 3.89	-21 11.0	2.431	3.336	9.2	21.2	8 9	19 5.32	+ 5 37.8	2.865	3.709	9.9	19.9
8 19	18 59.22	-21 21.9	2.511	3.328	11.8	21.3	8 19	19 0.74	+ 5 0.6	2.954	3.724	11.4	20.0
292751	2006 UE ₁₇₈	7 11.7 323°31' 6°6' / 14.2 18					420448	2012 DN ₅₁	7 11.7 65°28' 3°7' / 10.9 17				
6 10	19 45.28	- 3 55.1	1.941	2.785	13.9	20.4	6 10	19 54.54	-29 11.0	1.328	2.227	15.7	20.7
6 20	19 40.42	- 3 32.0	1.868	2.780	11.3	20.2	6 20	19 47.61	-29 43.8	1.288	2.246	11.4	20.5
6 30	19 33.83	- 3 25.1	1.816	2.776	8.6	20.0	6 30	19 37.93	-30 12.2	1.269	2.266	6.8	20.3
7 10	19 26.16	- 3 35.4	1.789	2.771	6.8	19.9	7 10	19 26.78	-30 30.3	1.275	2.285	3.8	20.2
7 20	19 18.22	- 4 2.3	1.787	2.767	7.0	19.9	7 20	19 15.68	-30 34.6	1.305	2.305	6.0	20.4
7 30	19 10.94	- 4 43.5	1.810	2.762	9.0	20.0	7 30	19 6.17	-30 24.8	1.360	2.325	10.2	20.7
8 9	19 5.10	- 5 35.1	1.857	2.758	11.8	20.2	8 9	18 59.37	-30 3.5	1.437	2.344	14.1	20.9
8 19	19 1.28	- 6 32.9	1.926	2.755	14.5	20.3	8 19	18 55.83	-29 34.3	1.532	2.364	17.4	21.2
286520	2002 CL ₅₇	7 11.7 159°63' 5°3' / 14.8 18					147156	2002 UL ₁₇	7 11.7 218°73' 2°6' / 10.8 17				
6 10	19 44.98	- 1 55.1	2.801	3.617	10.9	20.9	6 10	19 52.78	-27 24.8	1.919	2.803	12.3	20.8
6 20	19 39.71	- 1 53.6	2.730	3.623	8.9	20.8	6 20	19 46.08	-28 3.4	1.843	2.795	9.0	20.6
6 30	19 33.24	- 2 5.2	2.681	3.628	6.8	20.7	6 30	19 37.11	-28 41.3	1.792	2.787	5.3	20.3
7 10	19 26.06	- 2 30.1	2.659	3.632	5.5	20.6	7 10	19 26.69	-29 14.0	1.767	2.778	2.7	20.1
7 20	19 18.74	- 3 7.1	2.665	3.636	5.5	20.6	7 20	19 15.89	-29 37.5	1.770	2.769	4.8	20.3
7 30	19 11.90	- 3 54.2	2.698	3.640	6.9	20.7	7 30	19 5.90	-29 49.8	1.799	2.759	8.5	20.5
8 9	19 6.09	- 4 48.6	2.757	3.644	8.9	20.8	8 9	18 57.79	-29 51.3	1.853	2.748	12.1	20.7
8 19	19 1.72	- 5 47.0	2.840	3.647	10.9	21.0	8 19	18 52.26	-29 43.8	1.928	2.737	15.2	20.9
299965	2006 TK ₈₁	7 11.7 84°73' 4°7' / 10.1 18					288479	2004 FX ₁₇	7 11.7 303°10' 23°5' / 20.2 18				
6 10	19 50.91	-34 21.9	2.083	2.964	11.6	20.8	6 10	19 47.36	+20 14.7	1.089	1.848	27.5	20.0
6 20	19 44.52	-35 1.0	2.026	2.970	8.8	20.6	6 20	19 43.11	+22 21.4	1.037	1.839	26.1	19.9
6 30	19 36.09	-35 33.5	1.992	2.976	6.0	20.4	6 30	19 35.85	+23 43.2	0.996	1.831	24.8	19.8
7 10	19 26.49	-35 54.7	1.985	2.982	4.7	20.4	7 10	19 26.54	+24 8.9	0.967	1.823	23.8	19.7
7 20	19 16.74	-36 1.8	2.004	2.988	6.0	20.5	7 20	19 16.56	+23 31.9	0.951	1.816	23.5	19.6
7 30	19 7.94	-35 54.2	2.050	2.994	8.7	20.6	7 30	19 7.59	+21 52.7	0.949	1.808	23.8	19.6
8 9	19 1.00	-35 33.7	2.120	3.000	11.5	20.8	8 9	19 1.15	+19 20.9	0.961	1.801	24.9	19.6
8 19	18 56.50	-35 3.3	2.211	3.006	13.9	21.0	8 19	18 58.19	+16 11.3	0.986	1.795	26.5	19.7
47471	2000 AM	7 11.7 179°70' 0°1' / 11.8 18					340516	2006 JT ₂₁	7 11.7 271°06' 2°7' / 10.4 18				
6 10	19 52.36	-21 15.7	1.923	2.803	12.5	19.1	6 10	19 49.90	-26 1.4	1.953	2.841	12.0	20.6
6 20	19 45.54	-21 25.2	1.853	2.805	9.0	18.9	6 20	19 44.14	-27 6.9	1.868	2.822	8.7	20.4
6 30	19 36.67	-21 37.6	1.808	2.806	5.0	18.6	6 30	19 36.13	-28 15.4	1.807	2.803	5.2	20.2
7 10	19 26.59	-21 50.4	1.790	2.806	0.8	18.3	7 10	19 26.57	-29 21.4	1.773	2.784	2.7	20.0
7 20	19 16.28	-22 1.3	1.799	2.806	3.5	18.6	7 20	19 16.43	-30 19.7	1.766	2.765	4.9	20.1
7 30	19 6.83	-22 8.8	1.836	2.805	7.7	18.8	7 30	19 6.89	-31 6.5	1.787	2.745	8.7	20.2
8 9	18 59.17	-22 12.6	1.898	2.803	11.3	19.0	8 9	18 59.03	-31 40.1	1.832	2.725	12.3	20.4
8 19	18 53.91	-22 12.9	1.981	2.801	14.5	19.2	8 19	18 53.64	-32 1.5	1.897	2.705	15.5	20.6
52724	1998 GC ₄	7 11.7 149°74' 0°1' / 11.7 18					472858	2015 FE ₂₉₄	7 11.7 131°00' 5°7' / 14.6 16				
6 10	19 47.45	-19 46.7	2.357	3.235	10.6	18.1	6 10	19 48.30	- 3 38.7	2.139	2.972	13.2	22.4
6 20	19 41.78	-20 33.0	2.289	3.240	7.6	17.9	6 20	19 42.34	- 3 38.8	2.078	2.985	10.6	22.2
6 30	19 34.51	-21 24.3	2.247	3.244	4.2	17.7	6 30	19 34.79	- 3 54.7	2.039	2.997	7.9	22.1
7 10	19 26.26	-22 17.2	2.232	3.248	0.6	17.4	7 10	19 26.33	- 4 26.1	2.026	3.009	6.0	22.0
7 20	19 17.80	-23 8.5	2.246	3.252	3.0	17.6	7 20	19 17.74	- 5 11.4	2.039	3.021	6.1	22.0
7 30	19 9.94	-23 55.5	2.288	3.256	6.5	17.9	7 30	19 9.85	- 6 7.3	2.080	3.032	8.1	22.2
8 9	19 3.42	-24 36.3	2.357	3.259	9.6	18.1	8 9	19 3.39	- 7 9.8	2.146	3.042	10.6	22.3
8 19	18 58.78	-25 10.3	2.448	3.262	12.2	18.2	8 19	18 58.85	- 8 15.1	2.235	3.052	13.1	22.5
368536	2003 WH ₁₁₅	7 11.7 276°70' 1°7' / 12.1 18 R					152074	2004 RC ₁₄	7 11.7 322°13' 4°4' / 13.7 18				
6 10	19 51.60	-18 21.5	1.531	2.419	14.7	21.1	6 10	19 44.62	- 8 20.2	2.048	2.908	12.7	20.2
6 20	19 45.64	-18 9.0	1.444	2.398	10.8	20.8	6 20	19 39.93	- 8 22.1	1.97			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
390750	2003 <i>SR</i> ₂₈₄		7 11.7 269°02	6°4/13.9	18		509880	2009 <i>BO</i> ₆₀		7 11.8 227°28	3°7/ 9.9	18	
6 10	19 47.15	- 4 30.6	1.988	2.830	13.7	21.0	6 10	19 51.15	-29 40.5	2.142	3.024	11.3	21.5
6 20	19 41.85	- 4 4.2	1.901	2.813	11.1	20.8	6 20	19 44.86	-30 49.3	2.066	3.015	8.3	21.3
6 30	19 34.70	- 3 52.7	1.835	2.795	8.5	20.6	6 30	19 36.45	-31 57.3	2.016	3.006	5.3	21.0
7 10	19 26.34	- 3 57.5	1.794	2.778	6.6	20.5	7 10	19 26.64	-32 58.7	1.993	2.997	3.7	20.9
7 20	19 17.58	- 4 18.6	1.779	2.760	6.9	20.5	7 20	19 16.38	-33 49.0	1.997	2.987	5.4	21.0
7 30	19 9.37	- 4 54.2	1.790	2.741	9.2	20.6	7 30	19 6.78	-34 25.1	2.029	2.977	8.5	21.2
8 9	19 2.57	- 5 40.9	1.825	2.723	12.1	20.7	8 9	18 58.83	-34 46.9	2.086	2.966	11.6	21.4
8 19	18 57.84	- 6 34.8	1.881	2.704	15.0	20.9	8 19	18 53.26	-34 55.9	2.164	2.955	14.3	21.5
431063	2006 <i>BD</i> ₁₈₅		7 11.7 147°09	0°8/11.5	17		315320	2007 <i>TY</i> ₃₃₂		7 11.8 158°20	1°0/12.1	17	
6 10	19 50.56	-22 52.2	1.956	2.841	12.1	22.1	6 10	19 52.84	-18 47.0	1.690	2.571	13.9	21.7
6 20	19 44.23	-23 17.5	1.893	2.847	8.7	21.9	6 20	19 46.05	-18 51.9	1.626	2.577	10.0	21.5
6 30	19 35.95	-23 45.0	1.854	2.852	4.8	21.6	6 30	19 37.04	-19 2.5	1.586	2.582	5.7	21.2
7 10	19 26.51	-24 11.5	1.842	2.857	1.0	21.4	7 10	19 26.71	-19 16.4	1.572	2.587	1.4	20.9
7 20	19 16.89	-24 34.0	1.857	2.862	3.6	21.6	7 20	19 16.18	-19 31.1	1.584	2.591	3.9	21.1
7 30	19 8.11	-24 50.7	1.899	2.867	7.5	21.8	7 30	19 6.64	-19 44.7	1.623	2.594	8.3	21.4
8 9	19 1.08	-25 1.2	1.966	2.871	11.0	22.0	8 9	18 59.10	-19 56.2	1.687	2.597	12.2	21.6
8 19	18 56.37	-25 5.8	2.055	2.875	14.0	22.3	8 19	18 54.18	-20 5.2	1.771	2.600	15.6	21.9
120081	2003 <i>ED</i> ₁₂		7 11.7 28°30	5°9/10.3	18		335551	2006 <i>BZ</i> ₁₂₅		7 11.8 237°84	8°6/16.5	18	
6 10	19 51.25	-36 19.4	1.655	2.544	13.7	18.9	6 10	19 47.02	+ 3 46.4	1.897	2.703	15.7	20.5
6 20	19 45.09	-36 50.6	1.608	2.555	10.5	18.7	6 20	19 41.76	+ 3 40.5	1.821	2.699	13.3	20.3
6 30	19 36.50	-37 11.6	1.584	2.567	7.4	18.6	6 30	19 34.64	+ 3 10.2	1.765	2.695	10.8	20.2
7 10	19 26.58	-37 17.2	1.584	2.579	5.9	18.5	7 10	19 26.36	+ 2 14.4	1.733	2.691	9.0	20.1
7 20	19 16.65	-37 4.8	1.608	2.591	7.2	18.6	7 20	19 17.77	+ 0 54.9	1.725	2.687	8.8	20.0
7 30	19 8.02	-36 35.0	1.658	2.605	10.1	18.8	7 30	19 9.81	- 0 43.9	1.743	2.682	10.2	20.1
8 9	19 1.73	-35 51.3	1.730	2.619	13.1	19.0	8 9	19 3.35	- 2 35.3	1.785	2.678	12.6	20.2
8 19	18 58.32	-34 58.1	1.821	2.633	15.9	19.3	8 19	18 59.02	- 4 32.0	1.850	2.673	15.2	20.4
104627	2000 <i>GY</i> ₁₁₂		7 11.7 164°52	1°2/11.3	18		439085	2011 <i>PN</i> ₁₂		7 11.8 323°23	1°8/10.9	18	
6 10	19 52.07	-23 45.6	1.830	2.715	12.8	19.9	6 10	19 46.80	-22 48.3	1.552	2.452	13.8	20.2
6 20	19 45.46	-24 15.6	1.765	2.719	9.2	19.7	6 20	19 42.23	-23 50.6	1.475	2.437	10.0	19.9
6 30	19 36.70	-24 47.4	1.725	2.723	5.1	19.5	6 30	19 35.19	-24 59.7	1.421	2.422	5.6	19.6
7 10	19 26.63	-25 17.2	1.711	2.726	1.4	19.2	7 10	19 26.47	-26 10.2	1.392	2.407	1.9	19.4
7 20	19 16.33	-25 41.4	1.724	2.728	4.0	19.4	7 20	19 17.18	-27 15.7	1.388	2.393	4.8	19.5
7 30	19 6.95	-25 58.3	1.764	2.731	8.1	19.7	7 30	19 8.65	-28 11.4	1.409	2.379	9.4	19.8
8 9	18 59.47	-26 7.4	1.828	2.732	11.8	19.9	8 9	19 2.11	-28 54.5	1.454	2.366	13.7	20.0
8 19	18 54.52	-26 9.6	1.914	2.733	14.9	20.1	8 19	18 58.37	-29 25.0	1.517	2.354	17.3	20.2
152024	2004 <i>MZ</i> ₆		7 11.7 272°75	2°1/12.8	18		119868	2002 <i>CU</i> ₁₄₉		7 11.8 311°59	3°1/13.3	18	
6 10	19 45.74	-13 45.6	2.231	3.101	11.4	20.2	6 10	19 45.30	-10 46.2	2.061	2.928	12.4	20.0
6 20	19 40.67	-14 8.2	2.150	3.093	8.5	20.0	6 20	19 40.46	-11 13.4	1.983	2.920	9.4	19.8
6 30	19 33.96	-14 40.1	2.094	3.084	5.2	19.8	6 30	19 33.90	-11 53.4	1.928	2.913	6.1	19.6
7 10	19 26.23	-15 19.6	2.064	3.075	2.4	19.6	7 10	19 26.25	-12 44.4	1.899	2.906	3.4	19.4
7 20	19 18.20	-16 4.1	2.062	3.067	3.5	19.6	7 20	19 18.30	-13 43.6	1.897	2.899	4.1	19.5
7 30	19 10.71	-16 51.0	2.087	3.058	6.8	19.8	7 30	19 10.92	-14 47.3	1.922	2.893	7.3	19.7
8 9	19 4.53	-17 37.5	2.139	3.049	10.0	20.0	8 9	19 4.92	-15 51.7	1.973	2.886	10.6	19.8
8 19	19 0.22	-18 21.5	2.213	3.040	12.9	20.2	8 19	19 0.89	-16 53.7	2.046	2.880	13.6	20.0
30311	2000 <i>JS</i> ₁₀		7 11.7 138°12	11°2/13.3	18		199214	2006 <i>AY</i> ₂₇		7 11.8 135°77	1°3/12.2	18	
6 10	19 57.16	- 0 51.2	1.379	2.213	19.1	17.5	6 10	19 49.44	-17 13.4	2.033	2.909	12.1	20.9
6 20	19 49.27	+ 0 57.0	1.328	2.225	15.9	17.3	6 20	19 43.31	-17 27.9	1.970	2.917	8.8	20.7
6 30	19 38.84	+ 2 23.8	1.296	2.237	13.0	17.2	6 30	19 35.41	-17 48.7	1.931	2.926	5.1	20.5
7 10	19 26.96	+ 3 23.2	1.288	2.247	11.3	17.1	7 10	19 26.47	-18 13.7	1.920	2.934	1.6	20.3
7 20	19 14.93	+ 3 52.2	1.303	2.257	11.7	17.2	7 20	19 17.38	-18 40.5	1.935	2.942	3.4	20.4
7 30	19 4.15	+ 3 51.8	1.341	2.266	13.8	17.3	7 30	19 9.06	-19 6.8	1.979	2.949	7.1	20.7
8 9	18 55.76	+ 3 27.1	1.401	2.275	16.6	17.5	8 9	19 2.34	-19 31.2	2.048	2.956	10.5	20.9
8 19	18 50.38	+ 2 45.0	1.478	2.282	19.3	17.7	8 19	18 57.75	-19 52.7	2.139	2.963	13.4	21.1
250707	2005 <i>RQ</i> ₂₄		7 11.8 281°90	18°1/ 9.3	15		343705	2011 <i>EZ</i> ₁₆		7 11.8 298°42	16°2/10.3	16	
6 10	20 15.12	-54 41.1	1.049	1.899	22.7	20.3	6 10	20 11.19	-52 56.1	1.091	1.946	21.6	20.4
6 20	20 5.77	-55 56.9	0.988	1.882	20.5	20.1	6 20	20 1.97	-53 57.8	1.038	1.938	19.1	20.2
6 30	19 49.52	-56 39.0	0.943	1.864	18.7	19.9	6 30	19 46.88	-54 26.6	1.001	1.930	17.1	20.0
7 10	19 28.67	-56 27.4	0.915	1.847	18.1	19.8	7 10	19 28.23	-54 6.5	0.983	1.922	16.2	20.0
7 20	19 7.24	-55 10.8	0.905	1.829	19.0	19.8	7 20	19 9.52	-52 50.3	0.984	1.915	17.0	20.0
7 30	18 49.62	-52 53.1	0.914	1.811	21.2	19.8	7 30	18 54.28	-50 43.3	1.003	1.907	19.2	20.1
8 9	18 38.44	-49 52.2	0.938	1.794	24.2	20.0	8 9	18 44.62	-48 1.6	1.041	1.900	22.0	20.2
8 19	18 34.15	-46 28.7	0.978	1.776	27.3	20.1	8 19	18 40.91	-45 2.5	1.094	1.893	24.9	20.4
166441	2002 <i>PA</i> ₅₁		7 11.8 274°23	1°2/12.1	18		480482	2015 <i>LD</i> ₂₄		7 11.8 32°47	5°7/ 9.3	17	
6 10	19 48.93	-18 49.0	1.877	2.760	12.6	20.1	6 10	19 50.44	-34 27.5	1.833	2.721	12.7	20.1
6 20	19 43.14	-18 41.7	1.805	2.756	9.2	19.9	6 20	19 44.56	-35 40.0	1.778	2.724	9.6	20.0
6 30	19 35.40	-18 39.0	1.756	2.752	5.3	19.7	6 30	19 36.33	-36 46.4	1.746	2.728	6.9	19.8
7 10	19 26.46	-18 39.5	1.733	2.748	1.5	19.4	7 10	19 26.64	-37 40.1	1.739	2.732	5.7	19.7
7 20	19 17.28	-18 41.7	1.737	2.744	3.6	19.5	7 20	19 16.65	-38 16.3	1.759	2.737	7.2	19.8
7 30	19 8.89	-18 44.5	1.768	2.740	7.6	19.8	7 30	19 7.63	-38 33.1	1.803	2.741	10.0	20.0
8 9	19 2.20	-18 47.0	1.823	2.736	11.3	20.0	8 9	19 0.69	-38 32.2	1.870	2.746	12.9	20.2
8 19	18 57.81	-18 48.7	1.900	2.732	14.5	20.2	8 19	18 56.48	-38 16.7	1.957	2.751	15.6	20.4
4397	Jalopez		7 11.8 104°01	2°3/11.3	18		469549						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
442125	2010 <i>TS</i> ₁₈₄		7 11.8 166°31'	3°4/13.1	18		8364	1990 <i>RE</i> ₅		7 11.8 52°98'	5°0/10.6	18	
6 10	19 45.74	-11 7.0	2.420	3.279	11.0	20.7	6 10	19 53.06	-35 42.6	1.910	2.790	12.6	16.8
6 20	19 40.47	-10 54.5	2.348	3.280	8.4	20.5	6 20	19 46.14	-35 59.6	1.856	2.799	9.5	16.6
6 30	19 33.78	-10 50.7	2.300	3.281	5.6	20.3	6 30	19 37.05	-36 7.3	1.825	2.808	6.6	16.4
7 10	19 26.25	-10 55.4	2.279	3.281	3.5	20.2	7 10	19 26.76	-36 1.6	1.820	2.817	5.0	16.4
7 20	19 18.55	-11 7.5	2.285	3.282	4.1	20.2	7 20	19 16.46	-35 40.7	1.841	2.827	6.2	16.5
7 30	19 11.43	-11 25.7	2.319	3.283	6.6	20.4	7 30	19 7.34	-35 5.2	1.889	2.836	9.0	16.7
8 9	19 5.54	-11 48.1	2.379	3.283	9.4	20.6	8 9	19 0.33	-34 18.2	1.960	2.846	12.0	16.9
8 19	19 1.33	-12 12.8	2.461	3.284	11.9	20.8	8 19	18 55.97	-33 23.7	2.052	2.856	14.6	17.1
11591	1995 <i>FV</i>		7 11.8 54°11'	2°8/12.7	18		244317	2002 <i>GU</i> ₁₆₁		7 11.8 240°27'	6°8/14.9	18	
6 10	19 49.78	-14 21.7	1.278	2.171	16.7	17.7	6 10	19 44.76	+ 0 8.7	2.433	3.246	12.4	20.7
6 20	19 44.28	-14 34.8	1.225	2.179	12.3	17.5	6 20	19 39.81	+ 0 32.3	2.356	3.241	10.4	20.6
6 30	19 36.22	-15 1.4	1.193	2.188	7.5	17.2	6 30	19 33.45	+ 0 40.4	2.301	3.237	8.4	20.4
7 10	19 26.63	-15 38.8	1.184	2.197	3.2	17.0	7 10	19 26.23	+ 0 31.8	2.271	3.232	7.0	20.3
7 20	19 16.83	-16 22.8	1.200	2.206	4.9	17.1	7 20	19 18.80	+ 0 6.9	2.266	3.227	7.0	20.3
7 30	19 8.23	-17 9.2	1.239	2.216	9.6	17.4	7 30	19 11.87	- 0 32.7	2.288	3.221	8.4	20.4
8 9	19 1.97	-17 53.9	1.301	2.226	14.0	17.7	8 9	19 6.08	- 1 23.8	2.334	3.216	10.5	20.5
8 19	18 58.72	-18 34.5	1.382	2.236	17.8	18.0	8 19	19 1.94	- 2 22.4	2.403	3.211	12.6	20.7
68041	2000 <i>YE</i> ₄₂		7 11.8 327°19'	1°3/11.9	18		517673	2015 <i>CL</i> ₃₂		7 11.8 91°77'	8°9/10.0	18	
6 10	19 47.47	-20 47.3	1.065	1.980	17.4	18.2	6 10	19 59.91	-44 18.1	1.691	2.554	14.8	20.7
6 20	19 43.42	-20 21.9	0.991	1.959	12.8	17.9	6 20	19 51.59	-44 57.7	1.641	2.560	12.1	20.5
6 30	19 36.15	-20 0.4	0.937	1.938	7.4	17.5	6 30	19 40.26	-45 19.7	1.612	2.566	9.9	20.4
7 10	19 26.67	-19 41.2	0.903	1.919	1.7	17.1	7 10	19 27.27	-45 17.0	1.606	2.572	8.9	20.4
7 20	19 16.48	-19 23.2	0.891	1.900	5.3	17.3	7 20	19 14.28	-44 46.8	1.625	2.579	9.9	20.5
7 30	19 7.41	-19 5.8	0.901	1.883	11.3	17.5	7 30	19 3.00	-43 50.9	1.669	2.585	12.1	20.6
8 9	19 1.05	-18 49.2	0.930	1.867	16.9	17.8	8 9	18 54.66	-42 35.6	1.734	2.591	14.7	20.8
8 19	18 58.37	-18 33.4	0.976	1.853	21.7	18.0	8 19	18 49.83	-41 8.2	1.818	2.597	17.1	21.0
388585	2007 <i>RQ</i> ₁₀₅		7 11.8 311°92'	0°7/12.0	18		111741	2002 <i>CL</i> ₈₅		7 11.8 293°75'	0°1/11.7	18	
6 10	19 47.78	-18 52.9	1.724	2.613	13.3	21.1	6 10	19 50.24	-20 2.3	1.301	2.201	15.9	19.7
6 20	19 42.54	-19 10.1	1.651	2.606	9.6	20.9	6 20	19 45.22	-20 34.6	1.215	2.176	11.7	19.4
6 30	19 35.18	-19 34.0	1.601	2.599	5.5	20.6	6 30	19 37.15	-21 16.8	1.151	2.151	6.6	19.1
7 10	19 26.48	-20 1.9	1.577	2.592	1.2	20.3	7 10	19 26.88	-22 4.5	1.110	2.126	1.0	18.6
7 20	19 17.44	-20 30.9	1.578	2.586	3.7	20.5	7 20	19 15.70	-22 52.3	1.093	2.101	4.9	18.8
7 30	19 9.18	-20 58.1	1.606	2.579	8.1	20.8	7 30	19 5.29	-23 35.3	1.099	2.075	10.6	19.1
8 9	19 2.72	-21 21.9	1.657	2.573	12.1	21.0	8 9	18 57.21	-24 10.4	1.128	2.050	15.9	19.3
8 19	18 58.70	-21 41.3	1.729	2.567	15.5	21.2	8 19	18 52.54	-24 36.8	1.174	2.026	20.4	19.5
505523	2013 <i>YW</i> ₂₃		7 11.8 170°16'	3°2/12.7	18		479278	2013 <i>GC</i> ₁₂		7 11.8 173°85'	6°5/8.8	18	
6 10	19 50.41	-12 48.5	2.289	3.147	11.6	22.0	6 10	19 52.49	-42 58.4	2.610	3.464	10.5	21.0
6 20	19 43.82	-12 24.7	2.218	3.151	8.7	21.8	6 20	19 45.61	-43 48.7	2.551	3.465	8.6	20.9
6 30	19 35.65	-12 8.3	2.172	3.155	5.7	21.6	6 30	19 36.76	-44 28.3	2.516	3.466	7.0	20.8
7 10	19 26.54	-11 59.0	2.152	3.158	3.4	21.5	7 10	19 26.75	-44 52.6	2.507	3.467	6.5	20.8
7 20	19 17.28	-11 56.3	2.162	3.160	4.2	21.5	7 20	19 16.54	-44 58.9	2.525	3.468	7.3	20.8
7 30	19 8.71	-11 59.4	2.199	3.162	7.0	21.7	7 30	19 7.18	-44 47.0	2.568	3.468	9.0	21.0
8 9	19 1.56	-12 6.9	2.263	3.163	10.0	21.9	8 9	18 59.56	-44 19.0	2.634	3.468	10.9	21.1
8 19	18 56.32	-12 17.5	2.349	3.163	12.7	22.1	8 19	18 54.27	-43 38.4	2.722	3.469	12.8	21.2
249574	1994 <i>UD</i> ₁₀		7 11.8 338°92'	1°3/11.4	18		486451	2013 <i>GA</i> ₁₀		7 11.8 161°17'	2°5/10.6	18	
6 10	19 46.80	-24 41.9	1.724	2.621	12.8	20.3	6 10	19 48.21	-28 53.9	2.537	3.418	9.8	21.5
6 20	19 41.90	-24 56.3	1.651	2.611	9.2	20.1	6 20	19 42.34	-29 29.9	2.471	3.421	7.1	21.4
6 30	19 34.84	-25 11.6	1.602	2.601	5.2	19.8	6 30	19 34.88	-30 3.9	2.430	3.423	4.3	21.2
7 10	19 26.44	-25 24.8	1.577	2.593	1.5	19.6	7 10	19 26.47	-30 32.6	2.417	3.426	2.5	21.1
7 20	19 17.72	-25 33.0	1.579	2.584	4.1	19.7	7 20	19 17.88	-30 53.6	2.432	3.428	4.0	21.2
7 30	19 9.84	-25 34.9	1.605	2.577	8.3	20.0	7 30	19 9.93	-31 5.6	2.475	3.430	6.8	21.4
8 9	19 3.80	-25 30.2	1.656	2.570	12.2	20.2	8 9	19 3.36	-31 8.7	2.543	3.431	9.5	21.5
8 19	19 0.27	-25 19.9	1.726	2.564	15.5	20.4	8 19	18 58.68	-31 4.0	2.634	3.433	11.9	21.7
506685	2006 <i>TG</i> ₂₈		7 11.8 251°09'	1°0/11.4	17		88507	2001 <i>QC</i> ₁₄₂		7 11.8 343°84'	4°6/10.5	18	
6 10	19 52.04	-23 4.2	1.758	2.645	13.2	22.8	6 10	19 44.47	-27 4.9	0.878	1.809	18.4	18.0
6 20	19 45.76	-23 30.4	1.675	2.630	9.5	22.5	6 20	19 41.79	-28 2.7	0.820	1.795	13.5	17.6
6 30	19 37.08	-23 59.9	1.615	2.613	5.4	22.3	6 30	19 35.45	-29 3.4	0.780	1.783	8.2	17.3
7 10	19 26.80	-24 28.8	1.581	2.597	1.2	21.9	7 10	19 26.63	-29 58.1	0.760	1.772	4.6	17.0
7 20	19 16.00	-24 53.4	1.574	2.579	4.2	22.1	7 20	19 17.09	-30 37.7	0.759	1.763	7.8	17.2
7 30	19 5.95	-25 11.3	1.593	2.561	8.6	22.3	7 30	19 9.00	-30 57.3	0.778	1.756	13.4	17.5
8 9	18 57.81	-25 21.6	1.636	2.543	12.8	22.5	8 9	19 4.17	-30 56.9	0.814	1.751	18.7	17.7
8 19	18 52.34	-25 25.1	1.700	2.524	16.3	22.7	8 19	19 3.55	-30 39.7	0.865	1.747	23.3	18.0
164244	2004 <i>TC</i> ₁₀₃		7 11.8 307°89'	3°2/10.9	17		442529	2011 <i>WT</i> ₁₂₁		7 11.8 212°56'	0°0/11.8	18	
6 10	19 51.07	-26 43.6	1.204	2.112	16.3	20.1	6 10	19 47.68	-21 29.2	2.807	3.680	9.2	22.3
6 20	19 45.89	-27 22.4	1.134	2.099	11.9	19.8	6 20	19 41.80	-21 35.6	2.725	3.673	6.6	22.1
6 30	19 37.48	-28 2.5	1.085	2.085	7.0	19.5	6 30	19 34.53	-21 43.7	2.669	3.665	3.7	21.9
7 10	19 26.88	-28 37.1	1.059	2.072	3.3	19.2	7 10	19 26.43	-21 52.1	2.641	3.658	0.6	21.6
7 20	19 15.64	-29 0.3	1.056	2.059	6.2	19.4	7 20	19 18.13	-21 59.2	2.643	3.649	2.6	21.8
7 30	19 5.57	-29 8.9	1.075	2.047	11.4	19.6	7 30	19 10.34	-22 4.2	2.673	3.641	5.7	22.0
8 9	18 58.25	-29 3.5	1.116	2.035	16.3	19.9	8 9	19 3.70	-22 6.6	2.731	3.631	8.5	22.2
8 19	18 54.59	-28 47.0	1.173	2.023	20.5	20.1	8 19	18 58.68	-22 6.3	2.812	3.622	10.9	22.3
282067	1999 <i>XC</i> ₉		7 11.8 300°18'	1°3/11.1	18		310665	2002 <i>EC</i> ₁₁₉		7 11			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
45904	2000 YV ₂₉		7 11.8 195°15	0°8/12.2	18	R	158565	2002 JR ₉₃		7 11.8 90°49	5°2/13.3	17	
6 10	19 48.91	-16 53.2	2.131	3.006	11.7	18.5	6 10	19 50.66	-8 50.8	1.876	2.731	13.9	20.4
6 20	19 43.05	-17 35.0	2.057	3.004	8.5	18.3	6 20	19 44.13	-8 13.5	1.826	2.752	10.7	20.3
6 30	19 35.38	-18 24.8	2.007	3.002	4.9	18.1	6 30	19 35.86	-7 48.5	1.799	2.773	7.5	20.1
7 10	19 26.58	-19 19.5	1.984	2.999	1.2	17.8	7 10	19 26.67	-7 36.4	1.798	2.793	5.3	20.0
7 20	19 17.47	-20 15.4	1.989	2.996	3.2	18.0	7 20	19 17.47	-7 36.6	1.823	2.813	5.8	20.1
7 30	19 8.98	-21 9.2	2.023	2.993	7.0	18.2	7 30	19 9.20	-7 47.6	1.875	2.833	8.4	20.3
8 9	19 1.96	-21 58.3	2.083	2.989	10.4	18.4	8 9	19 2.63	-8 6.8	1.951	2.852	11.3	20.5
8 19	18 57.00	-22 41.3	2.165	2.985	13.4	18.6	8 19	18 58.24	-8 31.4	2.049	2.871	14.0	20.7
143957	2003 YB ₁₂₅		7 11.8 218°53	1°9/11.4	17		108988	2001 PM ₅₄		7 11.8 344°84	0°1/11.8	18	
6 10	19 55.48	-27 14.2	1.654	2.541	13.8	19.9	6 10	19 47.99	-21 21.8	1.754	2.646	12.9	20.0
6 20	19 48.19	-27 9.1	1.582	2.536	10.0	19.7	6 20	19 42.67	-21 31.7	1.686	2.643	9.3	19.8
6 30	19 38.37	-27 0.7	1.534	2.531	5.8	19.4	6 30	19 35.27	-21 45.2	1.641	2.640	5.2	19.5
7 10	19 27.04	-26 45.6	1.512	2.526	2.0	19.1	7 10	19 26.61	-21 59.9	1.621	2.637	0.8	19.2
7 20	19 15.45	-26 22.2	1.516	2.520	4.5	19.3	7 20	19 17.68	-22 13.2	1.627	2.635	3.7	19.4
7 30	19 4.98	-25 50.7	1.546	2.514	8.9	19.6	7 30	19 9.61	-22 23.3	1.660	2.633	7.9	19.7
8 9	18 56.75	-25 13.3	1.601	2.508	13.0	19.8	8 9	19 3.34	-22 29.6	1.716	2.631	11.8	19.9
8 19	18 51.45	-24 32.7	1.677	2.501	16.5	20.0	8 19	18 59.48	-22 31.8	1.793	2.630	15.1	20.1
307877	2004 BG ₆₉		7 11.8 240°41	3°1/13.2	18		437042	2012 TD ₃₁₇		7 11.8 279°85	3°5/13.3	18	
6 10	19 47.83	-10 2.1	2.838	3.682	10.0	21.6	6 10	19 47.57	-10 39.2	1.873	2.740	13.4	20.9
6 20	19 41.96	-10 5.8	2.738	3.661	7.7	21.5	6 20	19 42.40	-10 59.2	1.783	2.720	10.2	20.7
6 30	19 34.68	-10 18.2	2.663	3.640	5.2	21.3	6 30	19 35.20	-11 33.3	1.715	2.700	6.7	20.4
7 10	19 26.49	-10 38.8	2.616	3.617	3.3	21.1	7 10	19 26.62	-12 20.3	1.673	2.679	3.8	20.2
7 20	19 17.97	-11 6.6	2.598	3.594	3.8	21.1	7 20	19 17.53	-13 17.6	1.657	2.659	4.6	20.2
7 30	19 9.82	-11 39.8	2.610	3.570	6.2	21.2	7 30	19 8.96	-14 21.2	1.668	2.638	8.2	20.4
8 9	19 2.67	-12 16.4	2.648	3.545	8.8	21.4	8 9	19 1.92	-15 27.0	1.704	2.617	11.9	20.6
8 19	18 57.03	-12 54.5	2.711	3.519	11.3	21.5	8 19	18 57.11	-16 31.3	1.761	2.596	15.4	20.7
305944	2009 HA ₁₄		7 11.8 272°32	8°4/15.0	18		166480	2002 PZ ₁₃₁		7 11.8 239°15	1°7/12.4	18	
6 10	19 45.39	+ 2 41.6	2.221	3.025	13.7	20.9	6 10	19 48.80	-16 50.0	2.170	3.043	11.6	20.6
6 20	19 40.42	+ 3 22.3	2.142	3.016	11.7	20.8	6 20	19 42.94	-16 44.7	2.088	3.033	8.5	20.4
6 30	19 33.89	+ 3 45.1	2.085	3.006	9.8	20.6	6 30	19 35.33	-16 45.0	2.030	3.023	5.1	20.2
7 10	19 26.37	+ 3 48.1	2.051	2.997	8.6	20.5	7 10	19 26.62	-16 49.8	1.999	3.013	2.0	19.9
7 20	19 18.57	+ 3 30.6	2.041	2.988	8.6	20.5	7 20	19 17.62	-16 57.6	1.996	3.002	3.5	20.0
7 30	19 11.30	+ 2 54.1	2.056	2.978	9.9	20.6	7 30	19 9.25	-17 7.3	2.021	2.990	7.0	20.2
8 9	19 5.29	+ 2 2.1	2.095	2.969	11.8	20.7	8 9	19 2.30	-17 17.6	2.071	2.979	10.4	20.4
8 19	19 1.07	+ 0 59.1	2.156	2.959	14.0	20.8	8 19	18 57.37	-17 27.6	2.143	2.967	13.4	20.6
61985	2000 RW ₃₀		7 11.8 355°11	2°2/11.4	18		400906	2010 SP ₅		7 11.8 270°35	2°8/12.7	18	
6 10	19 51.64	-27 32.5	1.410	2.311	14.9	17.8	6 10	19 47.06	-14 2.4	2.240	3.108	11.4	21.1
6 20	19 45.68	-27 26.6	1.348	2.308	10.8	17.5	6 20	19 41.58	-13 41.6	2.164	3.103	8.6	20.9
6 30	19 37.06	-27 17.3	1.307	2.306	6.2	17.3	6 30	19 34.52	-13 27.7	2.112	3.099	5.4	20.7
7 10	19 26.86	-27 1.1	1.290	2.304	2.3	17.0	7 10	19 26.50	-13 20.3	2.086	3.094	3.0	20.6
7 20	19 16.45	-26 36.2	1.298	2.304	4.9	17.2	7 20	19 18.27	-13 18.8	2.088	3.089	3.9	20.6
7 30	19 7.29	-26 3.1	1.331	2.303	9.6	17.5	7 30	19 10.67	-13 22.4	2.118	3.085	6.9	20.8
8 9	19 0.56	-25 24.1	1.386	2.304	13.9	17.7	8 9	19 4.41	-13 29.8	2.172	3.080	10.0	21.0
8 19	18 56.91	-24 41.9	1.461	2.304	17.5	18.0	8 19	19 0.03	-13 39.5	2.250	3.075	12.8	21.2
105661	2000 SO ₃₂		7 11.8 284°14	1°3/11.3	18		245092	2004 PA ₁₄		7 11.8 24°58	6°1/15.6	17	
6 10	19 47.86	-24 14.8	2.102	2.989	11.3	20.2	6 10	19 44.94	- 2 20.9	1.615	2.464	16.0	19.2
6 20	19 42.43	-24 42.8	2.022	2.976	8.1	20.0	6 20	19 40.43	- 3 7.1	1.558	2.476	12.8	19.0
6 30	19 35.10	-25 12.5	1.966	2.964	4.6	19.7	6 30	19 34.00	- 4 17.3	1.523	2.489	9.3	18.8
7 10	19 26.57	-25 40.8	1.937	2.952	1.4	19.5	7 10	19 26.43	- 5 49.2	1.511	2.502	6.6	18.7
7 20	19 17.70	-26 4.7	1.935	2.940	3.7	19.6	7 20	19 18.67	- 7 37.5	1.525	2.517	6.5	18.7
7 30	19 9.48	-26 22.2	1.961	2.928	7.4	19.8	7 30	19 11.75	- 9 35.0	1.565	2.532	8.9	18.9
8 9	19 2.78	-26 32.6	2.011	2.916	10.8	20.0	8 9	19 6.54	-11 33.9	1.630	2.548	12.1	19.1
8 19	18 58.25	-26 36.4	2.083	2.903	13.8	20.2	8 19	19 3.62	-13 27.8	1.717	2.565	15.1	19.4
476186	2007 UN ₈		7 11.8 263°46	2°9/10.8	17		115091	2003 SB ₁₅		7 11.8 229°57	5°1/13.9	18	
6 10	19 52.11	-30 2.4	2.226	3.106	11.1	22.1	6 10	19 47.44	- 5 59.2	2.201	3.043	12.6	20.2
6 20	19 45.52	-30 22.7	2.135	3.084	8.2	21.9	6 20	19 41.94	- 5 55.7	2.118	3.034	10.0	20.0
6 30	19 36.86	-30 39.6	2.069	3.061	5.0	21.6	6 30	19 34.78	- 6 5.9	2.058	3.024	7.3	19.8
7 10	19 26.85	-30 49.5	2.029	3.038	2.9	21.5	7 10	19 26.56	- 6 30.1	2.023	3.014	5.3	19.7
7 20	19 16.43	-30 49.6	2.018	3.014	4.6	21.5	7 20	19 18.03	- 7 7.0	2.016	3.004	5.6	19.7
7 30	19 6.66	-30 38.9	2.034	2.990	7.9	21.7	7 30	19 10.03	- 7 54.0	2.036	2.993	7.9	19.8
8 9	18 58.52	-30 18.4	2.075	2.966	11.2	21.8	8 9	19 3.35	- 8 48.0	2.081	2.981	10.7	19.9
8 19	18 52.67	-29 50.2	2.138	2.941	14.1	22.0	8 19	18 58.54	- 9 45.2	2.148	2.969	13.4	20.1
442555	2012 AB ₆		7 11.8 268°23	1°2/12.3	18		308677	2006 DD ₄₅		7 11.8 77°55	3°3/12.9	17	
6 10	19 46.62	-16 38.6	2.366	3.239	10.7	21.6	6 10	19 51.47	-12 57.4	1.280	2.167	17.1	20.7
6 20	19 41.36	-17 1.9	2.275	3.221	7.9	21.4	6 20	19 45.46	-13 13.1	1.232	2.182	12.7	20.5
6 30	19 34.45	-17 32.2	2.210	3.203	4.6	21.1	6 30	19 36.90	-13 43.8	1.205	2.197	7.8	20.3
7 10	19 26.48	-18 7.5	2.171	3.185	1.5	20.9	7 10	19 26.88	-14 26.6	1.201	2.212	3.7	20.1
7 20	19 18.15	-18 45.5	2.160	3.167	3.1	21.0	7 20	19 16.72	-15 17.0	1.221	2.227	5.1	20.2
7 30	19 10.28	-19 23.7	2.178	3.148	6.5	21.2	7 30	19 7.83	-16 10.3	1.266	2.242	9.6	20.5
8 9	19 3.65	-20 0.1	2.221	3.129	9.8	21.4	8 9	19 1.32	-17 2.1	1.334	2.256	13.9	20.8
8 19	18 58.85	-20 33.3	2.288	3.110	12.7	21.5	8 19	18 57.81	-17 49.6	1.420	2.271	17.6	21.1
469671	2004 VN ₁₅		7 11.8 286°91	10°5/13.9	15		357752	2005 SQ ₇₄		7 11.8 282°10	4°5/13.6	18	
6 10	19 46.36	+ 9 0											

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7 11.8

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
54773	2001 <i>LP</i> ₁₂		7 11.8 329°55	5°5/14.3	18		20294	1998 <i>FA</i> ₇₃		7 11.8 201°27	5°0/10.3	18	
6 10	19 44.54	- 7 5.0	1.234	2.117	17.8	18.3	6 10	19 54.83	-32 10.8	1.575	2.465	14.2	18.9
6 20	19 40.94	- 7 37.5	1.157	2.100	14.0	18.0	6 20	19 48.04	-33 0.9	1.512	2.463	10.6	18.6
6 30	19 34.69	- 8 36.3	1.099	2.083	9.7	17.7	6 30	19 38.47	-33 45.7	1.472	2.462	7.0	18.4
7 10	19 26.59	-10 0.7	1.063	2.068	6.1	17.5	7 10	19 27.17	-34 18.5	1.457	2.460	5.0	18.3
7 20	19 17.81	-11 45.6	1.050	2.053	6.5	17.5	7 20	19 15.50	-34 34.5	1.467	2.457	6.9	18.4
7 30	19 9.81	-13 42.7	1.061	2.039	10.6	17.6	7 30	19 5.01	-34 32.1	1.502	2.455	10.5	18.6
8 9	19 3.94	-15 42.4	1.093	2.027	15.3	17.9	8 9	18 56.97	-34 13.7	1.560	2.452	14.1	18.8
8 19	19 1.15	-17 36.3	1.145	2.015	19.6	18.1	8 19	18 52.11	-33 43.2	1.637	2.449	17.4	19.0
67174	2000 <i>BS</i> ₁₈		7 11.8 70°65	1°3/11.4	17		366811	2005 <i>ED</i> ₂₅		7 11.8 135°44	2°0/12.6	17	
6 10	19 52.73	-24 3.6	1.427	2.324	15.0	19.0	6 10	19 51.98	-15 0.2	1.702	2.578	14.1	20.8
6 20	19 46.25	-24 24.0	1.380	2.339	10.7	18.8	6 20	19 45.46	-15 24.8	1.643	2.589	10.3	20.6
6 30	19 37.28	-24 45.8	1.355	2.355	6.0	18.6	6 30	19 36.80	-15 59.4	1.607	2.600	6.1	20.4
7 10	19 26.94	-25 4.6	1.355	2.370	1.5	18.3	7 10	19 26.89	-16 41.2	1.596	2.610	2.3	20.2
7 20	19 16.54	-25 17.2	1.380	2.386	4.5	18.6	7 20	19 16.79	-17 26.6	1.613	2.619	4.0	20.3
7 30	19 7.45	-25 22.2	1.430	2.402	9.1	18.9	7 30	19 7.62	-18 12.0	1.657	2.628	8.1	20.6
8 9	19 0.75	-25 19.8	1.503	2.417	13.2	19.2	8 9	19 0.37	-18 54.8	1.725	2.637	11.9	20.8
8 19	18 57.00	-25 11.6	1.596	2.433	16.6	19.4	8 19	18 55.63	-19 33.1	1.814	2.644	15.2	21.0
58232	1993 <i>FD</i> ₄₁		7 11.8 221°06	3°6/12.9	18		72292	2001 <i>BE</i> ₂₂		7 11.8 85°23	1°2/11.5	18	
6 10	19 51.38	-12 32.3	1.520	2.396	15.4	19.6	6 10	19 55.16	-24 34.1	1.444	2.337	15.1	19.5
6 20	19 45.38	-12 33.8	1.447	2.391	11.6	19.3	6 20	19 47.89	-24 41.9	1.400	2.357	10.8	19.3
6 30	19 36.93	-12 48.6	1.397	2.385	7.4	19.1	6 30	19 38.15	-24 49.7	1.377	2.376	6.0	19.0
7 10	19 26.92	-13 15.2	1.370	2.379	3.9	18.8	7 10	19 27.09	-24 53.9	1.379	2.395	1.5	18.8
7 20	19 16.47	-13 51.2	1.369	2.372	5.1	18.9	7 20	19 16.07	-24 52.0	1.407	2.414	4.4	19.0
7 30	19 6.91	-14 33.0	1.394	2.365	9.3	19.1	7 30	19 6.46	-24 43.5	1.461	2.432	9.0	19.4
8 9	18 59.37	-15 17.1	1.441	2.358	13.5	19.3	8 9	18 59.31	-24 29.4	1.538	2.450	13.1	19.6
8 19	18 54.60	-16 0.4	1.510	2.350	17.2	19.6	8 19	18 55.15	-24 11.5	1.635	2.468	16.4	19.9
59716	1999 <i>JP</i> ₁₃₁		7 11.8 328°62	9°8/ 7.3	18		484696	2008 <i>UJ</i> ₂₆₉		7 11.8 234°72	0°7/11.5	17	
6 10	19 52.21	-40 22.4	1.438	2.327	15.4	17.8	6 10	19 49.62	-22 16.1	1.899	2.785	12.4	22.0
6 20	19 46.89	-42 9.6	1.378	2.316	12.6	17.6	6 20	19 43.80	-22 44.2	1.826	2.780	8.9	21.7
6 30	19 38.18	-43 46.3	1.340	2.305	10.4	17.4	6 30	19 35.93	-23 15.8	1.777	2.775	5.0	21.5
7 10	19 27.14	-45 1.2	1.324	2.295	9.9	17.4	7 10	19 26.77	-23 47.5	1.754	2.770	1.0	21.2
7 20	19 15.37	-45 46.4	1.332	2.286	11.5	17.4	7 20	19 17.29	-24 16.0	1.759	2.765	3.7	21.4
7 30	19 4.83	-45 59.0	1.361	2.277	14.2	17.6	7 30	19 8.58	-24 38.9	1.790	2.759	7.8	21.6
8 9	18 57.16	-45 42.5	1.409	2.269	17.3	17.7	8 9	19 1.58	-24 55.3	1.846	2.754	11.5	21.8
8 19	18 53.34	-45 3.2	1.474	2.262	20.0	17.9	8 19	18 56.94	-25 5.4	1.923	2.748	14.6	22.0
182377	2001 <i>QW</i> ₁₉₆		7 11.8 339°22	2°4/12.3	18		241538	Chudniv		7 11.8 87°28	6°1/ 9.7	17	
6 10	19 45.91	-17 12.4	1.167	2.075	16.8	19.7	6 10	19 53.87	-37 1.2	1.874	2.752	12.9	20.0
6 20	19 41.99	-17 2.3	1.099	2.061	12.4	19.4	6 20	19 46.95	-37 56.2	1.826	2.765	9.9	19.9
6 30	19 35.25	-17 2.1	1.050	2.049	7.4	19.1	6 30	19 37.66	-38 41.6	1.802	2.778	7.3	19.7
7 10	19 26.67	-17 10.5	1.024	2.038	2.7	18.8	7 10	19 27.03	-39 11.5	1.803	2.790	6.1	19.7
7 20	19 17.58	-17 25.2	1.020	2.028	5.0	18.9	7 20	19 16.28	-39 22.6	1.830	2.803	7.4	19.8
7 30	19 9.55	-17 43.3	1.038	2.019	10.4	19.2	7 30	19 6.70	-39 14.4	1.882	2.815	9.9	20.0
8 9	19 3.92	-18 2.3	1.077	2.011	15.3	19.4	8 9	18 59.33	-38 49.7	1.957	2.828	12.7	20.2
8 19	19 1.53	-18 20.2	1.134	2.005	19.6	19.7	8 19	18 54.76	-38 12.9	2.052	2.840	15.1	20.4
414467	2009 <i>KD</i> ₁₄		7 11.8 180°67	4°7/ 9.1	16		381977	2010 <i>FR</i> ₈₉		7 11.8 114°76	2°2/12.8	17	
6 10	19 56.84	-29 30.0	1.885	2.764	12.8	21.6	6 10	19 49.53	-13 52.8	2.287	3.150	11.4	21.9
6 20	19 49.34	-31 24.7	1.819	2.766	9.4	21.4	6 20	19 43.19	-14 7.3	2.232	3.171	8.4	21.7
6 30	19 39.22	-33 19.6	1.779	2.767	6.2	21.2	6 30	19 35.35	-14 29.7	2.203	3.191	5.2	21.6
7 10	19 27.29	-35 5.8	1.767	2.767	4.8	21.2	7 10	19 26.67	-14 58.1	2.200	3.210	2.4	21.4
7 20	19 14.74	-36 35.6	1.784	2.767	6.7	21.3	7 20	19 17.92	-15 30.5	2.226	3.230	3.4	21.5
7 30	19 2.94	-37 44.1	1.829	2.765	10.0	21.5	7 30	19 9.91	-16 4.4	2.280	3.248	6.5	21.7
8 9	18 53.18	-38 31.2	1.898	2.763	13.2	21.7	8 9	19 3.32	-16 38.0	2.361	3.266	9.4	22.0
8 19	18 46.30	-38 59.5	1.987	2.760	16.0	21.9	8 19	18 58.61	-17 9.8	2.464	3.283	12.0	22.2
404918	2014 <i>LR</i>		7 11.8 334°95	3°9/13.7	18		141891	2002 <i>PG</i> ₅₅		7 11.8 289°45	0°3/11.8	18	
6 10	19 43.18	- 9 29.6	1.634	2.512	14.5	19.6	6 10	19 51.99	-22 58.3	1.458	2.354	14.8	19.7
6 20	19 39.46	-10 2.0	1.549	2.491	11.1	19.3	6 20	19 46.08	-22 52.2	1.379	2.338	10.8	19.4
6 30	19 33.65	-10 52.7	1.485	2.471	7.4	19.1	6 30	19 37.46	-22 47.6	1.323	2.322	6.1	19.1
7 10	19 26.42	-12 0.3	1.445	2.452	4.3	18.8	7 10	19 27.05	-22 41.7	1.290	2.307	1.0	18.7
7 20	19 18.68	-13 21.0	1.431	2.434	4.9	18.8	7 20	19 16.13	-22 32.5	1.283	2.291	4.4	18.9
7 30	19 11.52	-14 49.5	1.442	2.417	8.6	19.0	7 30	19 6.19	-22 19.0	1.301	2.275	9.5	19.2
8 9	19 6.00	-16 19.5	1.476	2.401	12.6	19.2	8 9	18 58.50	-22 1.8	1.342	2.260	14.2	19.4
8 19	19 2.87	-17 45.9	1.532	2.387	16.3	19.4	8 19	18 53.87	-21 42.1	1.401	2.245	18.2	19.6
150111	1991 <i>TK</i> ₁₅		7 11.8 224°49	5°6/13.9	18		193194	2000 <i>QH</i> ₁₁₈		7 11.8 291°98	11°0/15.3	18	
6 10	19 48.16	- 4 30.3	2.376	3.207	12.1	21.4	6 10	19 46.82	+ 4 47.4	1.735	2.541	16.9	20.4
6 20	19 42.36	- 4 10.8	2.290	3.195	9.8	21.3	6 20	19 42.03	+ 5 31.8	1.643	2.515	14.7	20.2
6 30	19 34.99	- 4 4.2	2.226	3.183	7.4	21.1	6 30	19 35.11	+ 5 52.8	1.570	2.489	12.6	20.0
7 10	19 26.61	- 4 11.4	2.189	3.171	5.7	21.0	7 10	19 26.69	+ 5 46.1	1.519	2.463	11.2	19.9
7 20	19 17.93	- 4 31.8	2.179	3.158	6.0	21.0	7 20	19 17.68	+ 5 9.8	1.490	2.436	11.2	19.8
7 30	19 9.74	- 5 3.9	2.196	3.144	7.9	21.1	7 30	19 9.15	+ 4 5.4	1.485	2.410	12.7	19.8
8 9	19 2.78	- 5 44.9	2.239	3.129	10.5	21.2	8 9	19 2.16	+ 2 38.2	1.501	2.383	15.2	19.9
8 19	18 57.58	- 6 31.7	2.304	3.114	13.0	21.3	8 19	18 57.52	+ 0 55.5	1.537	2.357	17.9	20.0
222606	2001 <i>XC</i> ₃₅		7 11.8 136°61	2°0/11.3	17		180365	2003 <i>YZ</i> ₁₀₆					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
374428	2005 <i>WX</i> ₁₂₆		7 11.8 179°94	1.7/12.5	17		342786	2008 <i>WR</i> ₁₁₇		7 11.8 330°38	1.8/11.2	17	
6 10	19 50.03	-15 31.2	2.296	3.162	11.3	22.1	6 10	19 47.85	-24 3.2	1.464	2.367	14.3	20.2
6 20	19 43.71	-15 44.5	2.223	3.164	8.3	21.9	6 20	19 43.11	-24 40.6	1.393	2.355	10.4	19.9
6 30	19 35.74	-16 4.6	2.174	3.165	5.0	21.7	6 30	19 35.81	-25 21.8	1.344	2.345	5.9	19.7
7 10	19 26.77	-16 29.9	2.152	3.165	2.0	21.5	7 10	19 26.84	-26 1.9	1.319	2.334	1.9	19.4
7 20	19 17.57	-16 58.3	2.160	3.165	3.3	21.6	7 20	19 17.40	-26 36.0	1.319	2.325	4.8	19.5
7 30	19 9.01	-17 27.8	2.195	3.164	6.6	21.8	7 30	19 8.88	-27 0.9	1.343	2.316	9.5	19.8
8 9	19 1.84	-17 56.4	2.257	3.162	9.8	22.0	8 9	19 2.51	-27 15.6	1.390	2.307	13.8	20.0
8 19	18 56.60	-18 23.1	2.343	3.160	12.6	22.2	8 19	18 59.06	-27 20.7	1.456	2.300	17.6	20.2
257147	2008 <i>HP</i> ₁₃		7 11.8 32°38	0.4/11.7	18		342712	2008 <i>WC</i> ₁₀		7 11.8 8°85	2.3/11.2	16	
6 10	19 47.48	-22 21.8	2.013	2.901	11.7	20.9	6 10	19 50.24	-26 42.1	1.623	2.519	13.6	20.5
6 20	19 42.07	-22 35.3	1.950	2.905	8.4	20.7	6 20	19 44.50	-27 3.9	1.561	2.519	9.8	20.3
6 30	19 34.88	-22 51.1	1.911	2.910	4.7	20.5	6 30	19 36.41	-27 24.9	1.522	2.520	5.7	20.1
7 10	19 26.64	-23 6.8	1.899	2.915	0.8	20.2	7 10	19 26.92	-27 40.8	1.508	2.521	2.3	19.9
7 20	19 18.24	-23 20.1	1.913	2.920	3.3	20.5	7 20	19 17.19	-27 48.6	1.519	2.523	4.7	20.0
7 30	19 10.62	-23 29.5	1.955	2.925	7.1	20.7	7 30	19 8.50	-27 46.9	1.556	2.524	8.8	20.3
8 9	19 4.60	-23 34.5	2.021	2.931	10.5	20.9	8 9	19 1.89	-27 36.5	1.616	2.526	12.7	20.5
8 19	19 0.71	-23 35.3	2.108	2.937	13.4	21.1	8 19	18 58.02	-27 19.2	1.696	2.529	16.0	20.7
126637	2002 <i>CM</i> ₁₇₀		7 11.8 171°94	2.4/10.8	18		343779	2011 <i>GF</i> ₂		7 11.8 19°55	23.0/9.1	16	
6 10	19 52.43	-28 15.6	2.378	3.254	10.6	21.1	6 10	19 41.19	+30 19.7	1.186	1.868	29.2	19.9
6 20	19 45.47	-28 50.0	2.311	3.258	7.7	20.9	6 20	19 38.35	+31 35.1	1.161	1.884	28.0	19.8
6 30	19 36.74	-29 22.4	2.269	3.262	4.6	20.7	6 30	19 33.05	+31 56.8	1.143	1.901	26.6	19.8
7 10	19 26.93	-29 49.3	2.255	3.265	2.4	20.6	7 10	19 26.39	+31 18.8	1.134	1.920	25.2	19.7
7 20	19 16.92	-30 7.9	2.269	3.267	4.1	20.7	7 20	19 19.62	+29 40.2	1.136	1.942	24.1	19.7
7 30	19 7.65	-30 16.9	2.312	3.268	7.1	20.9	7 30	19 14.09	+27 6.0	1.151	1.965	23.3	19.8
8 9	18 59.94	-30 16.8	2.381	3.269	10.1	21.1	8 9	19 10.82	+23 47.9	1.181	1.990	23.0	19.8
8 19	18 54.33	-30 9.0	2.473	3.269	12.6	21.3	8 19	19 10.38	+20 1.3	1.227	2.016	23.3	20.0
121822	2000 <i>BT</i>		7 11.8 158°16	1.2/12.3	18		498277	2007 <i>VS</i> ₃₄		7 11.8 247°86	3.4/10.5	17	
6 10	19 46.90	-18 1.6	2.622	3.493	9.9	19.7	6 10	19 54.26	-27 37.5	1.710	2.597	13.4	22.4
6 20	19 41.28	-17 54.1	2.551	3.496	7.2	19.5	6 20	19 47.68	-28 34.5	1.627	2.580	9.9	22.2
6 30	19 34.31	-17 50.3	2.505	3.499	4.2	19.3	6 30	19 38.41	-29 32.6	1.568	2.563	6.0	21.9
7 10	19 26.55	-17 49.3	2.487	3.501	1.4	19.1	7 10	19 27.28	-30 25.5	1.534	2.544	3.4	21.7
7 20	19 18.66	-17 50.1	2.498	3.503	2.8	19.2	7 20	19 15.46	-31 7.5	1.527	2.525	5.7	21.8
7 30	19 11.35	-17 51.8	2.536	3.505	5.8	19.4	7 30	19 4.42	-31 35.0	1.547	2.505	9.8	22.0
8 9	19 5.24	-17 53.7	2.602	3.507	8.7	19.6	8 9	18 55.44	-31 47.9	1.590	2.485	13.8	22.2
8 19	19 0.77	-17 55.4	2.690	3.509	11.1	19.8	8 19	18 49.43	-31 48.2	1.653	2.464	17.3	22.4
54862	Sundaigakuen		7 11.8 280°18	3.5/10.7	18		321204	2008 <i>YS</i> ₃₅		7 11.8 301°87	1.3/11.5	18	
6 10	19 52.43	-28 43.8	1.627	2.519	13.7	19.1	6 10	19 49.88	-24 49.5	1.824	2.714	12.6	20.7
6 20	19 46.42	-29 20.8	1.544	2.499	10.1	18.8	6 20	19 44.06	-25 0.7	1.753	2.709	9.1	20.5
6 30	19 37.69	-29 56.6	1.484	2.479	6.2	18.5	6 30	19 36.12	-25 12.3	1.705	2.704	5.1	20.2
7 10	19 27.12	-30 25.6	1.448	2.458	3.5	18.3	7 10	19 26.88	-25 21.2	1.684	2.699	1.4	20.0
7 20	19 15.94	-30 43.1	1.439	2.438	5.7	18.4	7 20	19 17.37	-25 25.1	1.688	2.694	3.9	20.2
7 30	19 5.60	-30 46.7	1.455	2.417	9.9	18.6	7 30	19 8.71	-25 22.6	1.719	2.689	8.0	20.4
8 9	18 57.41	-30 37.1	1.493	2.396	14.0	18.8	8 9	19 1.89	-25 14.1	1.775	2.684	11.8	20.6
8 19	18 52.25	-30 17.0	1.552	2.375	17.6	19.0	8 19	18 57.54	-25 0.6	1.851	2.680	15.0	20.8
314386	2005 <i>US</i> ₁₁₀		7 11.8 231°60	0.2/11.9	18		189755	2002 <i>AM</i> ₄₃		7 11.8 285°12	1.5/12.5	18	
6 10	19 47.23	-20 42.1	2.904	3.776	9.0	22.4	6 10	19 48.65	-15 29.0	1.658	2.541	14.0	19.8
6 20	19 41.54	-20 51.1	2.816	3.763	6.5	22.2	6 20	19 43.49	-16 10.5	1.573	2.523	10.3	19.6
6 30	19 34.48	-21 2.4	2.754	3.750	3.6	22.0	6 30	19 36.00	-17 4.8	1.510	2.505	6.1	19.3
7 10	19 26.59	-21 14.6	2.720	3.736	0.6	21.7	7 10	19 26.89	-18 8.6	1.472	2.487	1.9	18.9
7 20	19 18.46	-21 26.2	2.715	3.721	2.5	21.9	7 20	19 17.19	-19 17.3	1.461	2.469	4.0	19.1
7 30	19 10.77	-21 36.0	2.739	3.707	5.5	22.1	7 30	19 8.11	-20 25.8	1.476	2.451	8.6	19.3
8 9	19 4.16	-21 43.4	2.791	3.692	8.3	22.2	8 9	19 0.80	-21 29.8	1.515	2.432	12.9	19.5
8 19	18 59.09	-21 48.2	2.866	3.676	10.7	22.4	8 19	18 56.09	-22 26.8	1.575	2.414	16.7	19.7
299908	2006 <i>ST</i> ₃₉₀		7 11.8 317°05	0.6/12.0	18		236513	2006 <i>GE</i> ₄₇		7 11.8 138°27	1.7/11.2	17	
6 10	19 47.77	-19 40.7	1.871	2.758	12.5	21.2	6 10	19 51.41	-25 45.9	2.083	2.966	11.6	21.8
6 20	19 42.47	-19 48.3	1.798	2.752	9.0	21.0	6 20	19 44.87	-26 14.4	2.023	2.975	8.3	21.6
6 30	19 35.20	-20 0.7	1.749	2.746	5.1	20.7	6 30	19 36.44	-26 42.7	1.987	2.984	4.7	21.4
7 10	19 26.71	-20 15.8	1.725	2.740	1.1	20.4	7 10	19 26.92	-27 7.1	1.978	2.992	1.8	21.2
7 20	19 17.95	-20 31.4	1.727	2.735	3.5	20.6	7 20	19 17.25	-27 25.0	1.997	3.000	3.9	21.3
7 30	19 9.93	-20 45.7	1.757	2.730	7.6	20.8	7 30	19 8.43	-27 34.9	2.044	3.007	7.4	21.6
8 9	19 3.57	-20 57.4	1.810	2.724	11.3	21.1	8 9	19 1.30	-27 37.0	2.116	3.015	10.6	21.8
8 19	18 59.49	-21 6.0	1.885	2.720	14.5	21.3	8 19	18 56.43	-27 32.5	2.209	3.021	13.4	22.0
230282	2001 <i>XH</i> ₂₁₅		7 11.8 224°36	3.3/11.7	18		45472	2000 <i>AJ</i> ₂₀₈		7 11.8 343°68	0.3/11.9	18	
6 10	20 1.99	-33 34.1	1.902	2.771	13.1	20.3	6 10	19 43.17	-19 24.3	0.980	1.903	17.8	18.4
6 20	19 52.59	-33 1.0	1.824	2.766	9.8	20.1	6 20	19 40.49	-19 51.3	0.916	1.887	13.0	18.1
6 30	19 40.75	-32 16.5	1.771	2.760	6.1	19.8	6 30	19 34.66	-20 30.4	0.871	1.874	7.4	17.7
7 10	19 27.56	-31 17.8	1.745	2.753	3.4	19.6	7 10	19 26.70	-21 17.1	0.845	1.862	1.3	17.3
7 20	19 14.34	-30 5.0	1.749	2.747	5.0	19.7	7 20	19 18.10	-22 5.7	0.841	1.851	5.2	17.5
7 30	19 2.43	-28 41.0	1.781	2.740	8.7	19.9	7 30	19 10.66	-22 50.1	0.858	1.843	11.3	17.8
8 9	18 52.89	-27 11.1	1.840	2.733	12.3	20.1	8 9	19 5.94	-23 26.6	0.893	1.836	16.8	18.1
8 19	18 46.31	-25 40.6	1.922	2.726	15.4	20.3	8 19	19 4.88	-23 53.2	0.945	1.831	21.4	18.3
269508	2009 <i>UX</i> ₉₅		7 11.8 178°90	2.0/12.5	18		474459	2003 <i>SK</i> ₇₇		7 11			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
431386	2007 <i>EK</i> ₁₉₇		7 11.8 117°48	0°4/11.7	17		170597	2003 <i>YA</i> ₂₀		7 11.8 241°30	1°6/11.2	18	
6 10	19 52.13	-22 10.2	1.887	2.769	12.6	22.1	6 10	19 49.29	-24 41.2	2.027	2.913	11.7	20.2
6 20	19 45.42	-22 28.3	1.831	2.784	9.0	21.9	6 20	19 43.54	-25 17.8	1.954	2.908	8.4	20.0
6 30	19 36.75	-22 48.9	1.800	2.798	5.0	21.7	6 30	19 35.83	-25 56.1	1.905	2.903	4.8	19.7
7 10	19 26.98	-23 8.8	1.795	2.811	0.8	21.5	7 10	19 26.88	-26 32.3	1.883	2.898	1.7	19.5
7 20	19 17.11	-23 25.4	1.818	2.825	3.5	21.7	7 20	19 17.61	-27 2.9	1.889	2.892	3.9	19.6
7 30	19 8.19	-23 37.2	1.868	2.837	7.5	22.0	7 30	19 9.06	-27 25.7	1.921	2.887	7.6	19.9
8 9	19 1.12	-23 43.8	1.943	2.850	11.1	22.2	8 9	19 2.15	-27 40.0	1.978	2.881	11.1	20.1
8 19	18 56.42	-23 45.7	2.040	2.862	14.0	22.4	8 19	18 57.49	-27 46.5	2.057	2.875	14.1	20.3
173601	2001 <i>DJ</i> ₅₉		7 11.8 141°26	2°4/11.1	17		348046	2003 <i>UF</i> ₁₄₄		7 11.8 278°42	3°8/10.3	18	
6 10	19 54.99	-27 6.2	1.760	2.645	13.2	21.0	6 10	19 52.28	-30 38.4	2.018	2.901	11.9	21.6
6 20	19 47.69	-27 33.2	1.702	2.655	9.6	20.8	6 20	19 46.04	-31 21.8	1.924	2.873	8.9	21.3
6 30	19 38.11	-27 58.5	1.668	2.664	5.5	20.6	6 30	19 37.42	-32 3.2	1.854	2.845	5.7	21.1
7 10	19 27.21	-28 17.7	1.661	2.674	2.4	20.4	7 10	19 27.16	-32 37.3	1.810	2.816	3.8	20.9
7 20	19 16.15	-28 27.7	1.680	2.682	4.6	20.6	7 20	19 16.27	-32 59.8	1.793	2.786	5.6	20.9
7 30	19 6.21	-28 27.5	1.727	2.690	8.5	20.8	7 30	19 5.98	-33 8.4	1.803	2.756	9.0	21.1
8 9	18 58.38	-28 18.0	1.797	2.697	12.2	21.1	8 9	18 57.44	-33 3.4	1.838	2.726	12.5	21.2
8 19	18 53.27	-28 1.5	1.889	2.704	15.3	21.3	8 19	18 51.47	-32 47.0	1.893	2.695	15.7	21.4
9194	Ananoff		7 11.8 239°54	2°0/12.6	18		234000	1996 <i>XP</i> ₁₃		7 11.8 219°98	1°8/10.9	18	
6 10	19 50.46	-14 54.6	1.572	2.454	14.7	18.5	6 10	19 51.55	-26 8.8	2.483	3.358	10.2	21.5
6 20	19 44.77	-15 26.2	1.497	2.447	10.9	18.2	6 20	19 44.95	-26 46.1	2.398	3.346	7.4	21.3
6 30	19 36.68	-16 10.4	1.445	2.439	6.5	17.9	6 30	19 36.55	-27 23.6	2.339	3.334	4.3	21.0
7 10	19 27.01	-17 3.9	1.418	2.432	2.3	17.7	7 10	19 27.00	-27 58.0	2.308	3.321	1.9	20.9
7 20	19 16.87	-18 2.6	1.417	2.424	4.2	17.8	7 20	19 17.10	-28 26.1	2.306	3.307	3.7	21.0
7 30	19 7.53	-19 1.6	1.442	2.416	8.8	18.0	7 30	19 7.75	-28 46.2	2.333	3.292	6.9	21.1
8 9	19 0.13	-19 57.2	1.490	2.407	13.1	18.2	8 9	18 59.78	-28 57.8	2.387	3.277	10.0	21.3
8 19	18 55.46	-20 47.0	1.560	2.399	16.8	18.5	8 19	18 53.81	-29 1.7	2.463	3.260	12.6	21.5
208722	2002 <i>JD</i> ₁₁₉		7 11.8 61°29	6°3/14.6	17		419818	2010 <i>XH</i> ₁₂		7 11.8 86°33	0°3/11.9	17	
6 10	19 49.11	-5 26.3	1.311	2.178	18.0	19.3	6 10	19 52.37	-21 23.2	1.555	2.445	14.4	20.6
6 20	19 43.81	-5 46.7	1.258	2.189	14.1	19.1	6 20	19 45.93	-21 17.5	1.497	2.453	10.3	20.4
6 30	19 36.08	-6 31.0	1.224	2.200	10.0	18.9	6 30	19 37.17	-21 14.9	1.463	2.461	5.8	20.1
7 10	19 26.90	-7 37.5	1.214	2.212	6.7	18.8	7 10	19 27.09	-21 13.0	1.453	2.469	1.0	19.8
7 20	19 17.48	-9 1.3	1.227	2.223	6.9	18.8	7 20	19 16.87	-21 10.0	1.469	2.476	3.9	20.1
7 30	19 9.16	-10 35.4	1.265	2.235	10.1	19.0	7 30	19 7.78	-21 4.9	1.511	2.484	8.5	20.4
8 9	19 3.03	-12 12.0	1.325	2.247	14.0	19.3	8 9	19 0.84	-20 57.6	1.576	2.492	12.6	20.6
8 19	18 59.75	-13 44.8	1.406	2.259	17.5	19.5	8 19	18 56.64	-20 48.7	1.662	2.500	16.0	20.9
95113	2002 <i>AG</i> ₁₂₁		7 11.8 51°32	2°1/11.2	18		171477	1993 <i>YL</i> ₁		7 11.8 273°35	3°4/10.3	18	
6 10	19 49.68	-27 40.4	1.991	2.879	11.8	19.1	6 10	19 50.06	-28 41.3	2.002	2.889	11.8	20.4
6 20	19 43.66	-27 52.2	1.935	2.889	8.5	18.9	6 20	19 44.32	-29 38.1	1.921	2.873	8.6	20.2
6 30	19 35.77	-28 1.8	1.902	2.899	4.9	18.7	6 30	19 36.40	-30 34.8	1.864	2.857	5.4	20.0
7 10	19 26.83	-28 6.0	1.896	2.909	2.2	18.6	7 10	19 27.00	-31 26.2	1.833	2.841	3.4	19.8
7 20	19 17.82	-28 3.1	1.917	2.919	4.1	18.7	7 20	19 17.10	-32 7.7	1.830	2.825	5.2	19.9
7 30	19 9.72	-27 52.4	1.964	2.929	7.5	18.9	7 30	19 7.86	-32 36.4	1.853	2.809	8.6	20.1
8 9	19 3.39	-27 35.0	2.037	2.940	10.8	19.2	8 9	19 0.31	-32 51.8	1.901	2.792	12.0	20.3
8 19	18 59.32	-27 12.4	2.131	2.951	13.6	19.4	8 19	18 55.21	-32 55.4	1.969	2.775	15.0	20.4
360998	2005 <i>UD</i> ₄₅₄		7 11.8 186°25	4°2/ 9.3	18		340374	2006 <i>DZ</i> ₁₈₁		7 11.8 24°19	6°6/10.0	16	
6 10	19 49.83	-35 7.3	2.905	3.774	9.1	21.5	6 10	19 52.56	-36 3.6	1.515	2.407	14.6	20.5
6 20	19 43.58	-36 6.8	2.838	3.774	6.9	21.4	6 20	19 46.49	-36 53.0	1.464	2.412	11.2	20.3
6 30	19 35.71	-37 1.4	2.796	3.773	5.0	21.2	6 30	19 37.64	-37 32.5	1.435	2.417	8.0	20.2
7 10	19 26.84	-37 47.2	2.783	3.772	4.2	21.2	7 10	19 27.17	-37 55.6	1.429	2.423	6.6	20.1
7 20	19 17.69	-38 21.2	2.798	3.770	5.2	21.2	7 20	19 16.51	-37 57.9	1.447	2.429	8.0	20.2
7 30	19 9.10	-38 41.9	2.841	3.768	7.2	21.4	7 30	19 7.20	-37 39.4	1.489	2.435	11.1	20.4
8 9	19 1.80	-38 49.9	2.909	3.766	9.4	21.5	8 9	19 0.43	-37 3.6	1.553	2.443	14.4	20.6
8 19	18 56.34	-38 46.9	2.999	3.763	11.3	21.7	8 19	18 56.85	-36 15.3	1.637	2.450	17.3	20.8
250907	2005 <i>WK</i>		7 11.8 311°84	0°1/11.9	15		934	Thüringia		7 11.8 282°61	5°0/10.6	18	R
6 10	19 46.96	-20 59.8	1.888	2.778	12.3	20.8	6 10	19 54.92	-35 24.2	1.938	2.816	12.5	14.4
6 20	19 42.04	-21 12.0	1.801	2.757	8.9	20.6	6 20	19 47.92	-35 41.3	1.851	2.794	9.6	14.2
6 30	19 35.07	-21 28.4	1.737	2.736	5.0	20.3	6 30	19 38.42	-35 49.7	1.788	2.771	6.7	14.0
7 10	19 26.76	-21 46.7	1.699	2.715	0.8	20.0	7 10	19 27.31	-35 44.6	1.751	2.749	5.0	13.8
7 20	19 18.01	-22 4.3	1.687	2.695	3.5	20.1	7 20	19 15.77	-35 22.8	1.740	2.727	6.4	13.9
7 30	19 9.88	-22 19.2	1.702	2.675	7.8	20.3	7 30	19 5.15	-34 44.3	1.755	2.704	9.5	14.0
8 9	19 3.35	-22 30.3	1.740	2.655	11.7	20.5	8 9	18 56.60	-33 51.9	1.795	2.681	12.9	14.2
8 19	18 59.12	-22 37.2	1.800	2.636	15.1	20.7	8 19	18 50.88	-32 50.1	1.855	2.658	16.0	14.3
348004	2003 <i>SL</i> ₂₅₂		7 11.8 314°83	9°2/ 7.1	18		332945	2011 <i>DM</i> ₂₈		7 11.8 240°61	3°0/12.9	18	
6 10	19 51.51	-39 2.1	1.508	2.397	14.8	19.1	6 10	19 49.65	-13 5.0	1.753	2.627	13.9	21.3
6 20	19 46.54	-40 46.8	1.427	2.367	12.0	18.9	6 20	19 43.97	-13 15.3	1.675	2.618	10.4	21.1
6 30	19 38.19	-42 25.4	1.368	2.338	9.8	18.7	6 30	19 36.16	-13 37.3	1.620	2.609	6.6	20.8
7 10	19 27.32	-43 47.1	1.333	2.309	9.3	18.6	7 10	19 26.96	-14 9.3	1.590	2.600	3.3	20.6
7 20	19 15.35	-44 42.4	1.321	2.280	11.1	18.6	7 20	19 17.35	-14 48.9	1.586	2.590	4.4	20.7
7 30	19 4.20	-45 6.8	1.331	2.251	14.2	18.7	7 30	19 8.46	-15 32.7	1.609	2.580	8.3	20.9
8 9	18 55.65	-45 1.4	1.360	2.224	17.6	18.8	8 9	19 1.29	-16 17.5	1.656	2.570	12.2	21.1
8 19	18 50.92	-44 31.8	1.406	2.197	20.7	19.0	8 19	18 56.53	-17 0.7	1.724	2.560	15.6	21.3
63941	2001 <i>SP</i> ₅₆		7 11.8 250°94	3°5/12.9	18		250796	2005 <i>TF</i> ₁₃₄		7 11.8 306°88	4°6/10.5		

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7 11.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
251600	2009 <i>HQ</i> ₆₉		7 11.8	44°57'	4.3/13.4	16	404825	2014 <i>JC</i> ₇₄		7 11.8	345°91'	4.1/12.9	18
6 10	19 46.76	-10 15.3	1.910	2.775	13.2	20.3	6 10	19 45.50	-12 8.4	1.745	2.623	13.7	20.0
6 20	19 41.56	-9 59.7	1.848	2.782	10.1	20.1	6 20	19 40.92	-11 40.7	1.673	2.616	10.4	19.8
6 30	19 34.63	-9 55.7	1.809	2.790	6.9	19.9	6 30	19 34.41	-11 23.2	1.623	2.609	7.0	19.6
7 10	19 26.70	-10 3.2	1.795	2.797	4.5	19.8	7 10	19 26.72	-11 16.3	1.598	2.602	4.3	19.4
7 20	19 18.62	-10 20.8	1.808	2.805	5.0	19.8	7 20	19 18.75	-11 19.6	1.597	2.597	5.2	19.4
7 30	19 11.29	-10 46.5	1.847	2.813	7.9	20.0	7 30	19 11.51	-11 31.5	1.622	2.592	8.4	19.6
8 9	19 5.51	-11 17.5	1.910	2.821	11.0	20.2	8 9	19 5.91	-11 49.8	1.671	2.588	11.9	19.8
8 19	19 1.79	-11 51.2	1.994	2.829	13.8	20.4	8 19	19 2.54	-12 12.1	1.740	2.585	15.1	20.0
172283	2002 <i>TU</i> ₁₃₇		7 11.8	287°55'	1.5/12.2	18	111409	2001 <i>XZ</i> ₁₈₃		7 11.8	242°55'	1.4/12.5	18
6 10	19 49.28	-18 40.2	1.914	2.796	12.5	19.6	6 10	19 46.76	-15 45.9	2.286	3.158	11.1	19.8
6 20	19 43.59	-18 23.0	1.831	2.781	9.2	19.3	6 20	19 41.52	-16 15.1	2.207	3.152	8.1	19.6
6 30	19 35.89	-18 9.9	1.772	2.767	5.4	19.1	6 30	19 34.65	-16 52.1	2.153	3.146	4.8	19.4
7 10	19 26.93	-17 59.9	1.738	2.753	1.8	18.8	7 10	19 26.76	-17 34.8	2.127	3.140	1.7	19.1
7 20	19 17.63	-17 52.1	1.732	2.738	3.7	18.9	7 20	19 18.58	-18 20.4	2.128	3.134	3.1	19.2
7 30	19 9.03	-17 45.6	1.752	2.724	7.7	19.1	7 30	19 10.95	-19 6.1	2.157	3.128	6.5	19.4
8 9	19 2.06	-17 40.0	1.797	2.710	11.5	19.3	8 9	19 4.62	-19 49.6	2.212	3.121	9.8	19.6
8 19	18 57.36	-17 35.0	1.863	2.696	14.8	19.5	8 19	19 0.14	-20 29.3	2.290	3.115	12.6	19.8
91673	1999 <i>TY</i> ₁₁₄		7 11.8	255°48'	4.8/13.7	18	86402	2000 <i>AB</i> ₁₄₄		7 11.9	253°61'	7.0/11.7	18
6 10	19 45.87	-7 19.0	2.318	3.165	11.8	19.2	6 10	20 7.62	-37 59.5	1.225	2.107	18.0	18.0
6 20	19 40.76	-6 58.7	2.242	3.162	9.3	19.1	6 20	19 58.19	-37 50.4	1.151	2.094	14.0	17.7
6 30	19 34.16	-6 49.7	2.190	3.158	6.8	18.9	6 30	19 44.59	-37 22.3	1.096	2.080	9.8	17.4
7 10	19 26.65	-6 52.6	2.163	3.154	4.9	18.8	7 10	19 28.36	-36 26.4	1.065	2.065	7.0	17.2
7 20	19 18.94	-7 6.6	2.163	3.150	5.3	18.8	7 20	19 11.75	-35 0.1	1.058	2.050	8.6	17.3
7 30	19 11.77	-7 30.2	2.190	3.147	7.4	18.9	7 30	18 57.17	-33 8.1	1.076	2.035	13.0	17.5
8 9	19 5.85	-8 1.2	2.242	3.143	10.1	19.1	8 9	18 46.40	-31 1.6	1.117	2.019	17.7	17.7
8 19	19 1.66	-8 36.7	2.317	3.139	12.6	19.3	8 19	18 40.21	-28 52.1	1.176	2.002	21.9	17.9
195166	2002 <i>CF</i> ₂₃₅		7 11.8	311°66'	2.5/11.3	18	509898	2009 <i>CF</i> ₂₈		7 11.9	222°94'	0.2/11.9	18
6 10	19 50.84	-27 12.2	1.397	2.299	14.9	19.5	6 10	19 49.12	-20 7.4	2.332	3.208	10.8	22.5
6 20	19 45.65	-27 22.1	1.310	2.271	11.0	19.2	6 20	19 43.21	-20 27.0	2.251	3.199	7.8	22.3
6 30	19 37.48	-27 30.3	1.244	2.243	6.5	18.8	6 30	19 35.60	-20 50.5	2.194	3.190	4.4	22.1
7 10	19 27.24	-27 32.4	1.201	2.215	2.6	18.5	7 10	19 26.92	-21 15.8	2.165	3.181	0.8	21.8
7 20	19 16.24	-27 24.7	1.183	2.188	5.4	18.6	7 20	19 17.94	-21 40.4	2.164	3.171	3.0	22.0
7 30	19 6.13	-27 5.6	1.189	2.161	10.5	18.8	7 30	19 9.53	-22 2.5	2.191	3.160	6.6	22.2
8 9	18 58.37	-26 36.6	1.216	2.135	15.3	19.0	8 9	19 2.48	-22 21.0	2.244	3.149	9.9	22.4
8 19	18 53.93	-26 0.5	1.262	2.109	19.5	19.2	8 19	18 57.37	-22 35.5	2.320	3.138	12.7	22.6
221687	2007 <i>DW</i> ₃₅		7 11.8	248°26'	5.7/14.1	18	135613	2002 <i>JN</i> ₂₈		7 11.9	38°07'	3.4/12.8	17
6 10	19 49.18	-5 31.4	1.944	2.788	13.9	21.9	6 10	19 49.59	-14 22.0	1.176	2.074	17.5	19.3
6 20	19 43.52	-5 26.2	1.855	2.771	11.1	21.6	6 20	19 44.38	-14 16.4	1.128	2.083	13.0	19.0
6 30	19 35.90	-5 37.0	1.788	2.755	8.2	21.4	6 30	19 36.51	-14 24.3	1.099	2.093	8.0	18.8
7 10	19 26.96	-6 4.2	1.746	2.737	6.0	21.3	7 10	19 27.07	-14 44.0	1.092	2.104	3.8	18.6
7 20	19 17.56	-6 46.7	1.731	2.719	6.3	21.2	7 20	19 17.46	-15 12.4	1.109	2.115	5.3	18.7
7 30	19 8.70	-7 41.6	1.742	2.700	8.9	21.4	7 30	19 9.16	-15 45.6	1.149	2.127	10.0	19.0
8 9	19 1.31	-8 44.9	1.778	2.681	12.1	21.5	8 9	19 3.32	-16 20.0	1.210	2.139	14.5	19.3
8 19	18 56.08	-9 52.0	1.836	2.662	15.2	21.7	8 19	19 0.58	-16 52.8	1.290	2.152	18.3	19.6
387421	2013 <i>VP</i> ₁		7 11.8	168°36'	1.5/12.5	17	376117	2011 <i>AB</i>		7 11.9	214°09'	0.9/12.2	17
6 10	19 49.66	-15 56.5	1.852	2.729	13.1	21.2	6 10	19 51.19	-17 44.5	1.915	2.792	12.7	22.0
6 20	19 43.82	-16 22.1	1.783	2.731	9.6	21.0	6 20	19 44.99	-18 8.6	1.837	2.785	9.3	21.8
6 30	19 36.00	-16 56.6	1.739	2.733	5.6	20.7	6 30	19 36.71	-18 40.0	1.783	2.778	5.3	21.5
7 10	19 26.96	-17 37.4	1.720	2.734	1.9	20.5	7 10	19 27.12	-19 15.9	1.756	2.771	1.4	21.2
7 20	19 17.64	-18 21.2	1.729	2.735	3.6	20.6	7 20	19 17.14	-19 53.1	1.756	2.763	3.5	21.4
7 30	19 9.09	-19 4.7	1.764	2.736	7.6	20.9	7 30	19 7.87	-20 28.9	1.783	2.754	7.7	21.6
8 9	19 2.23	-19 45.5	1.824	2.737	11.3	21.1	8 9	19 0.26	-21 1.1	1.835	2.745	11.5	21.8
8 19	18 57.67	-20 21.8	1.906	2.737	14.5	21.3	8 19	18 54.99	-21 28.8	1.910	2.735	14.7	22.0
371501	2006 <i>UP</i> ₃₉		7 11.8	279°06'	2.0/11.2	18	324999	2008 <i>BX</i> ₂₇		7 11.9	131°77'	0.4/11.8	17
6 10	19 52.22	-25 10.4	1.556	2.450	14.2	21.7	6 10	19 54.79	-22 41.4	1.784	2.665	13.3	21.9
6 20	19 46.37	-25 41.7	1.471	2.429	10.3	21.4	6 20	19 47.44	-22 45.5	1.727	2.679	9.5	21.7
6 30	19 37.78	-26 15.2	1.409	2.407	6.0	21.1	6 30	19 37.96	-22 51.0	1.694	2.692	5.3	21.4
7 10	19 27.29	-26 46.2	1.371	2.385	2.1	20.8	7 10	19 27.30	-22 55.3	1.688	2.704	0.9	21.1
7 20	19 16.12	-27 9.9	1.359	2.363	5.0	21.0	7 20	19 16.55	-22 56.2	1.709	2.716	3.7	21.4
7 30	19 5.74	-27 23.5	1.373	2.341	9.7	21.2	7 30	19 6.88	-22 52.9	1.757	2.727	7.9	21.7
8 9	18 57.51	-27 26.6	1.409	2.319	14.2	21.4	8 9	18 59.23	-22 45.6	1.830	2.737	11.6	21.9
8 19	18 52.32	-27 20.8	1.464	2.297	18.1	21.6	8 19	18 54.14	-22 35.4	1.925	2.747	14.8	22.1
401433	2013 <i>CN</i> ₁₁₀		7 11.8	164°39'	1.9/12.9	18	163169	2002 <i>CX</i> ₁₉₉		7 11.9	330°20'	1.9/11.3	17
6 10	19 46.81	-13 36.6	2.619	3.480	10.2	21.9	6 10	19 52.35	-24 29.1	1.328	2.229	15.6	20.1
6 20	19 41.30	-14 3.0	2.547	3.484	7.6	21.7	6 20	19 46.50	-25 0.9	1.267	2.228	11.3	19.9
6 30	19 34.42	-14 37.2	2.500	3.488	4.6	21.5	6 30	19 37.81	-25 35.2	1.227	2.226	6.4	19.6
7 10	19 26.71	-15 17.6	2.480	3.491	2.1	21.3	7 10	19 27.31	-26 6.6	1.210	2.225	2.0	19.3
7 20	19 18.81	-16 1.7	2.490	3.494	3.0	21.4	7 20	19 16.44	-26 30.3	1.218	2.224	5.1	19.5
7 30	19 11.42	-16 47.1	2.528	3.496	5.9	21.6	7 30	19 6.76	-26 43.9	1.251	2.223	10.1	19.8
8 9	19 5.18	-17 31.8	2.593	3.499	8.7	21.8	8 9	18 59.59	-26 47.1	1.305	2.222	14.6	20.0
8 19	19 0.56	-18 14.0	2.682	3.500	11.2	22.0	8 19	18 55.68	-26 41.9	1.378	2.221	18.4	20.3
234236	2000 <i>SG</i> ₂₇₂		7 11.8	244°53'	0.2/11.8	18	448509	2010 <i>ME</i> ₁₀₀		7			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
316203	2010 <i>MV</i> ₅₆		7 11.9 349°96	0°2/11.9	18		37734	1996 <i>UR</i> ₃		7 11.9 4°55	3°2/12.4	18	
6 10	19 47.42	-21 23.2	1.755	2.648	12.9	19.8	6 10	19 47.16	-17 36.4	0.968	1.884	18.6	17.5
6 20	19 42.35	-21 20.9	1.686	2.643	9.3	19.6	6 20	19 43.15	-16 55.7	0.916	1.883	13.8	17.2
6 30	19 35.24	-21 21.7	1.640	2.639	5.2	19.3	6 30	19 36.04	-16 23.8	0.884	1.883	8.3	16.9
7 10	19 26.90	-21 23.6	1.620	2.636	0.9	19.0	7 10	19 27.07	-16 1.2	0.871	1.885	3.6	16.6
7 20	19 18.31	-21 24.7	1.625	2.633	3.6	19.2	7 20	19 17.83	-15 47.2	0.880	1.888	5.8	16.8
7 30	19 10.56	-21 23.9	1.656	2.631	7.8	19.5	7 30	19 10.03	-15 40.7	0.910	1.892	11.1	17.1
8 9	19 4.58	-21 20.7	1.711	2.629	11.7	19.7	8 9	19 5.02	-15 39.9	0.959	1.898	16.2	17.4
8 19	19 0.97	-21 15.2	1.787	2.628	14.9	19.9	8 19	19 3.50	-15 42.7	1.025	1.906	20.5	17.7
57886	2002 <i>AL</i> ₁₈₃		7 11.9 45°75	3°9/10.4	18		465337	2007 <i>VW</i> ₁₃₈		7 11.9 248°72	3°5/10.6	17	
6 10	19 50.22	-31 35.1	2.045	2.930	11.7	19.2	6 10	19 53.21	-26 58.0	1.500	2.395	14.5	21.1
6 20	19 44.25	-32 14.6	1.983	2.932	8.6	19.0	6 20	19 47.14	-28 0.0	1.429	2.386	10.6	20.8
6 30	19 36.26	-32 49.8	1.944	2.934	5.6	18.8	6 30	19 38.25	-29 3.8	1.381	2.377	6.4	20.6
7 10	19 27.06	-33 16.3	1.932	2.936	3.9	18.7	7 10	19 27.46	-30 2.4	1.357	2.368	3.5	20.4
7 20	19 17.64	-33 31.0	1.947	2.938	5.4	18.8	7 20	19 16.09	-30 49.4	1.360	2.359	5.9	20.5
7 30	19 9.07	-33 32.7	1.988	2.940	8.3	19.0	7 30	19 5.68	-31 21.1	1.387	2.349	10.3	20.7
8 9	19 2.29	-33 22.4	2.053	2.942	11.4	19.2	8 9	18 57.59	-31 37.0	1.437	2.339	14.5	20.9
8 19	18 57.88	-33 2.5	2.139	2.944	14.0	19.4	8 19	18 52.68	-31 39.6	1.506	2.329	18.1	21.2
290552	2005 <i>UV</i> ₉₆		7 11.9 317°20	0°4/11.7	18		313260	2001 <i>WZ</i> ₉₀		7 11.9 308°31	4°3/10.8	17	
6 10	19 47.26	-21 52.8	2.121	3.007	11.3	20.4	6 10	19 51.65	-28 47.2	1.136	2.047	16.9	20.4
6 20	19 42.00	-22 17.5	2.049	3.003	8.1	20.2	6 20	19 46.89	-29 22.8	1.056	2.021	12.6	20.1
6 30	19 34.97	-22 45.5	2.002	3.000	4.5	20.0	6 30	19 38.54	-29 57.6	0.996	1.995	7.8	19.7
7 10	19 26.86	-23 14.0	1.980	2.996	0.8	19.7	7 10	19 27.57	-30 24.2	0.958	1.969	4.4	19.5
7 20	19 18.49	-23 40.3	1.986	2.993	3.3	19.9	7 20	19 15.59	-30 35.7	0.942	1.944	7.2	19.5
7 30	19 10.79	-24 2.4	2.020	2.990	7.0	20.1	7 30	19 4.66	-30 28.9	0.948	1.919	12.5	19.7
8 9	19 4.56	-24 19.2	2.078	2.987	10.3	20.3	8 9	18 56.64	-30 5.4	0.973	1.895	17.8	20.0
8 19	19 0.39	-24 30.5	2.159	2.984	13.2	20.5	8 19	18 52.68	-29 29.1	1.015	1.872	22.5	20.2
237024	2008 <i>ST</i> ₃₉		7 11.9 216°77	2°6/10.9	18		397750	2008 <i>FW</i> ₈₈		7 11.9 355°76	9°2/15.1	18	
6 10	19 51.38	-27 25.1	1.942	2.828	12.1	20.9	6 10	19 44.26	+ 2 23.5	1.842	2.667	15.4	20.2
6 20	19 45.18	-28 1.1	1.871	2.824	8.8	20.7	6 20	19 39.95	+ 2 16.3	1.775	2.663	13.0	20.0
6 30	19 36.83	-28 36.4	1.824	2.820	5.2	20.5	6 30	19 33.88	+ 2 49.4	1.728	2.660	10.9	19.9
7 10	19 27.16	-29 6.5	1.804	2.816	2.6	20.3	7 10	19 26.75	+ 3 0.0	1.704	2.658	9.4	19.8
7 20	19 17.17	-29 28.0	1.811	2.811	4.6	20.4	7 20	19 19.36	+ 2 47.4	1.703	2.657	9.4	19.8
7 30	19 8.00	-29 39.0	1.845	2.806	8.2	20.6	7 30	19 12.64	+ 2 13.3	1.725	2.656	10.8	19.9
8 9	19 0.63	-29 39.9	1.903	2.801	11.7	20.8	8 9	19 7.39	+ 1 22.0	1.770	2.656	13.0	20.0
8 19	18 55.72	-29 32.1	1.982	2.796	14.7	21.0	8 19	19 4.18	+ 0 18.9	1.835	2.657	15.4	20.2
189753	2001 <i>YS</i> ₁₂₇		7 11.9 188°93	1°4/11.5	18		282442	2003 <i>YX</i> ₅₅		7 11.9 190°11	1°8/12.4	17	
6 10	19 53.06	-25 44.5	1.865	2.750	12.6	20.2	6 10	19 52.54	-16 41.6	1.941	2.813	12.8	21.8
6 20	19 46.31	-25 47.9	1.796	2.749	9.1	20.0	6 20	19 45.86	-16 40.3	1.868	2.812	9.4	21.6
6 30	19 37.41	-25 50.0	1.751	2.749	5.2	19.7	6 30	19 37.18	-16 45.5	1.818	2.811	5.6	21.4
7 10	19 27.25	-25 48.2	1.733	2.748	1.5	19.5	7 10	19 27.28	-16 55.6	1.795	2.808	2.1	21.2
7 20	19 16.87	-25 40.3	1.741	2.746	3.9	19.7	7 20	19 17.11	-17 8.8	1.800	2.805	3.7	21.3
7 30	19 7.44	-25 25.9	1.777	2.745	8.0	19.9	7 30	19 7.71	-17 23.3	1.832	2.802	7.6	21.5
8 9	18 59.92	-25 5.9	1.837	2.743	11.6	20.1	8 9	19 0.00	-17 37.8	1.889	2.797	11.3	21.7
8 19	18 54.91	-24 42.0	1.919	2.741	14.8	20.3	8 19	18 54.61	-17 51.4	1.969	2.792	14.4	21.9
438553	2007 <i>TH</i> ₂₇₅		7 11.9 291°51	3°2/10.7	18		355695	2008 <i>FK</i> ₄₁		7 11.9 6°47	2°4/12.8	18	
6 10	19 50.08	-28 10.4	1.810	2.701	12.6	21.0	6 10	19 45.75	-14 22.1	1.902	2.781	12.7	20.5
6 20	19 44.53	-28 54.4	1.728	2.683	9.3	20.7	6 20	19 40.99	-14 30.2	1.835	2.782	9.4	20.3
6 30	19 36.63	-29 38.3	1.670	2.666	5.6	20.5	6 30	19 34.46	-14 47.7	1.791	2.783	5.8	20.0
7 10	19 27.15	-30 16.8	1.638	2.648	3.2	20.3	7 10	19 26.84	-15 13.1	1.773	2.784	2.7	19.9
7 20	19 17.16	-30 45.6	1.632	2.630	5.2	20.4	7 20	19 19.00	-15 44.0	1.780	2.786	3.8	19.9
7 30	19 7.89	-31 2.1	1.652	2.613	9.0	20.6	7 30	19 11.87	-16 17.9	1.815	2.788	7.4	20.2
8 9	19 0.50	-31 6.2	1.695	2.595	12.8	20.8	8 9	19 6.27	-16 52.3	1.873	2.791	10.8	20.4
8 19	18 55.75	-30 59.5	1.759	2.578	16.0	21.0	8 19	19 2.77	-17 25.1	1.954	2.794	13.9	20.6
429623	2011 <i>FK</i> ₄₄		7 11.9 141°97	0°7/12.1	17		304647	2006 <i>WY</i> ₁₁		7 11.9 286°72	6°4/13.7	18	
6 10	19 51.16	-18 54.8	1.935	2.813	12.5	22.2	6 10	19 47.12	- 4 46.3	2.119	2.958	13.1	20.4
6 20	19 44.79	-19 11.8	1.872	2.822	9.0	22.0	6 20	19 41.81	- 3 59.7	2.043	2.953	10.6	20.2
6 30	19 36.51	-19 34.1	1.834	2.830	5.1	21.8	6 30	19 34.87	- 3 26.0	1.991	2.947	8.1	20.0
7 10	19 27.10	-19 59.2	1.822	2.837	1.1	21.5	7 10	19 26.92	- 3 7.1	1.963	2.942	6.5	19.9
7 20	19 17.52	-20 24.3	1.838	2.845	3.4	21.7	7 20	19 18.72	- 3 3.3	1.961	2.937	6.8	19.9
7 30	19 8.77	-20 47.4	1.881	2.851	7.3	22.0	7 30	19 11.12	- 3 13.8	1.985	2.931	8.8	20.0
8 9	19 1.73	-21 7.1	1.949	2.858	10.9	22.2	8 9	19 4.88	- 3 36.1	2.034	2.926	11.3	20.2
8 19	18 56.96	-21 23.0	2.039	2.864	13.9	22.4	8 19	19 0.55	- 4 7.1	2.103	2.921	13.8	20.3
439541	2014 <i>DV</i> ₃		7 11.9 31°62	4°6/14.3	17		491791	2012 <i>XE</i> ₁₂		7 11.9 306°07	0°8/12.1	17	
6 10	19 46.46	- 7 11.5	1.675	2.538	14.9	20.6	6 10	19 49.33	-20 8.5	1.675	2.565	13.5	21.1
6 20	19 41.63	- 7 45.6	1.613	2.545	11.5	20.4	6 20	19 43.93	-20 1.1	1.596	2.552	9.9	20.9
6 30	19 34.83	- 8 38.3	1.574	2.552	7.9	20.2	6 30	19 36.27	-19 57.7	1.540	2.538	5.7	20.6
7 10	19 26.85	- 9 47.3	1.558	2.560	5.0	20.0	7 10	19 27.16	-19 56.6	1.509	2.525	1.3	20.3
7 20	19 18.62	-11 8.4	1.569	2.568	5.3	20.1	7 20	19 17.66	-19 56.2	1.504	2.512	3.8	20.4
7 30	19 11.19	-12 36.1	1.606	2.577	8.4	20.3	7 30	19 8.96	-19 55.1	1.525	2.499	8.4	20.7
8 9	19 5.46	-14 4.5	1.667	2.586	11.9	20.5	8 9	19 2.12	-19 52.7	1.569	2.487	12.5	20.9
8 19	19 2.02	-15 29.0	1.750	2.595	15.0	20.7	8 19	18 57.84	-19 49.0	1.633	2.475	16.1	21.1
276040	2002 <i>AE</i> ₁₅₇		7 11.9 157°39	1°4/12.4	18		309916	2009 <i>FQ</i>					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
446081	2013 <i>CW</i> ₁₇₂		7 11.9 119°27'	4.3/14.1	18		291987	2006 <i>QK</i> ₉₇		7 11.9 352°46'	1°0/12.1	17	
6 10	19 45.91	- 7 9.1	2.366	3.212	11.7	21.3	6 10	19 46.32	-20 27.2	0.999	1.918	17.9	20.0
6 20	19 40.79	- 7 14.6	2.298	3.218	9.1	21.2	6 20	19 42.69	-20 15.8	0.941	1.910	13.1	19.7
6 30	19 34.23	- 7 32.5	2.253	3.223	6.5	21.0	6 30	19 35.93	-20 10.9	0.902	1.904	7.5	19.4
7 10	19 26.82	- 8 2.1	2.234	3.229	4.5	20.9	7 10	19 27.18	-20 10.2	0.883	1.899	1.6	19.0
7 20	19 19.25	- 8 41.7	2.242	3.234	4.7	20.9	7 20	19 17.99	-20 11.1	0.886	1.895	5.0	19.2
7 30	19 12.24	- 9 28.8	2.278	3.239	6.9	21.1	7 30	19 10.13	-20 11.8	0.909	1.893	10.9	19.6
8 9	19 6.45	-10 20.3	2.340	3.244	9.5	21.2	8 9	19 5.04	-20 10.9	0.953	1.893	16.2	19.9
8 19	19 2.36	-11 13.3	2.425	3.249	12.0	21.4	8 19	19 3.50	-20 8.1	1.013	1.894	20.7	20.1
255834	2006 <i>SP</i> ₉₆		7 11.9 113°07'	2°0/11.2	17		23346	4695 <i>P-L</i>		7 11.9 94°43'	4°6/10.7	18	
6 10	19 53.58	-25 14.4	1.629	2.519	13.9	21.2	6 10	19 55.08	-31 9.5	1.437	2.331	15.1	18.7
6 20	19 46.88	-25 49.6	1.575	2.530	10.0	20.9	6 20	19 48.40	-31 48.1	1.381	2.336	11.1	18.4
6 30	19 37.83	-26 25.3	1.544	2.542	5.7	20.7	6 30	19 38.88	-32 21.5	1.348	2.340	7.1	18.2
7 10	19 27.41	-26 56.8	1.539	2.553	2.1	20.5	7 10	19 27.65	-32 43.0	1.338	2.345	4.6	18.1
7 20	19 16.82	-27 20.3	1.560	2.564	4.6	20.7	7 20	19 16.18	-32 48.6	1.354	2.349	6.6	18.2
7 30	19 7.35	-27 33.9	1.607	2.574	8.7	21.0	7 30	19 6.06	-32 37.5	1.394	2.353	10.5	18.4
8 9	19 0.04	-27 37.9	1.678	2.584	12.5	21.2	8 9	19 58.54	-32 12.2	1.456	2.358	14.3	18.7
8 19	18 55.52	-27 33.9	1.769	2.594	15.7	21.5	8 19	18 54.29	-31 36.9	1.537	2.362	17.7	18.9
118813	2000 <i>ST</i> ₈₀		7 11.9 141°15'	3°9/10.4	18		255511	2006 <i>BO</i> ₁₄₅		7 11.9 229°70'	5°5/15.4	18	
6 10	19 53.49	-31 11.3	2.019	2.900	12.0	20.0	6 10	19 45.27	- 0 40.0	2.739	3.549	11.3	20.6
6 20	19 46.62	-31 59.1	1.962	2.909	8.8	19.8	6 20	19 40.26	- 0 52.0	2.653	3.541	9.2	20.5
6 30	19 37.63	-32 42.7	1.928	2.917	5.7	19.6	6 30	19 33.96	- 1 18.9	2.591	3.534	7.2	20.3
7 10	19 27.39	-33 17.2	1.922	2.925	3.9	19.5	7 10	19 26.85	- 2 0.8	2.555	3.526	5.8	20.2
7 20	19 16.95	-33 38.9	1.942	2.933	5.4	19.6	7 20	19 19.51	- 2 56.4	2.546	3.518	5.7	20.2
7 30	19 7.45	-33 46.7	1.990	2.940	8.5	19.8	7 30	19 12.58	- 4 3.0	2.565	3.510	7.1	20.3
8 9	18 59.85	-33 41.7	2.062	2.947	11.5	20.0	8 9	19 6.65	- 5 17.1	2.611	3.501	9.2	20.4
8 19	18 54.73	-33 26.4	2.155	2.953	14.2	20.2	8 19	19 2.18	- 6 35.0	2.680	3.492	11.3	20.6
5185	Alerossi		7 11.9 223°34'	4°4/13.3	18		366218	2012 <i>TP</i> ₁₈₄		7 11.9 325°61'	3°1/10.9	16	
6 10	19 48.71	- 9 45.2	2.002	2.861	13.0	17.2	6 10	19 50.48	-28 8.1	1.558	2.456	13.9	21.2
6 20	19 43.07	- 9 25.3	1.927	2.856	10.0	17.0	6 20	19 45.01	-28 37.8	1.490	2.448	10.2	21.0
6 30	19 35.64	- 9 16.6	1.874	2.851	6.9	16.8	6 30	19 37.00	-29 6.0	1.443	2.440	6.1	20.7
7 10	19 27.09	- 9 19.2	1.847	2.846	4.6	16.6	7 10	19 27.37	-29 27.7	1.421	2.433	3.1	20.5
7 20	19 18.27	- 9 32.4	1.846	2.841	5.2	16.6	7 20	19 17.35	-29 39.0	1.424	2.426	5.4	20.6
7 30	19 10.11	- 9 54.4	1.872	2.835	8.0	16.8	7 30	19 8.33	-29 38.2	1.452	2.419	9.5	20.9
8 9	19 3.43	-10 22.9	1.923	2.830	11.2	17.0	8 9	19 1.49	-29 26.1	1.503	2.413	13.5	21.1
8 19	18 58.82	-10 55.0	1.996	2.824	14.1	17.2	8 19	18 57.56	-29 5.1	1.574	2.407	17.0	21.3
103398	2000 <i>AS</i> ₁₂₉		7 11.9 217°13'	1°6/12.6	18		241388	2008 <i>SP</i> ₂₆₂		7 11.9 202°65'	4°6/10.2	18	
6 10	19 48.85	-15 25.2	2.559	3.422	10.4	21.2	6 10	19 55.02	-35 58.0	2.414	3.281	10.8	21.4
6 20	19 42.94	-15 42.1	2.472	3.412	7.6	21.0	6 20	19 47.59	-36 29.7	2.341	3.276	8.2	21.2
6 30	19 35.49	-16 5.6	2.411	3.402	4.6	20.8	6 30	19 38.17	-36 54.1	2.293	3.270	5.8	21.0
7 10	19 27.07	-16 34.2	2.378	3.391	1.8	20.6	7 10	19 27.54	-37 6.9	2.272	3.264	4.6	21.0
7 20	19 18.35	-17 5.9	2.374	3.379	3.0	20.6	7 20	19 16.67	-37 5.4	2.279	3.258	5.8	21.0
7 30	19 10.12	-17 38.8	2.398	3.367	6.2	20.8	7 30	19 6.62	-36 49.2	2.314	3.251	8.2	21.2
8 9	19 3.06	-18 10.8	2.450	3.354	9.2	21.0	8 9	18 58.29	-36 20.1	2.373	3.243	10.8	21.3
8 19	18 57.73	-18 40.9	2.525	3.340	11.8	21.1	8 19	18 52.29	-35 41.5	2.455	3.234	13.2	21.5
360504	2003 <i>HH</i> ₃₃		7 11.9 3°78'	8°0/13.7	17		187313	2005 <i>UH</i> ₃₅		7 11.9 40°64'	2°5/10.9	18	
6 10	19 43.41	- 9 18.1	0.867	1.778	20.8	19.3	6 10	19 48.61	-27 29.1	2.039	2.927	11.5	20.3
6 20	19 40.61	- 8 22.9	0.819	1.776	16.3	19.0	6 20	19 43.08	-28 5.7	1.979	2.933	8.3	20.1
6 30	19 34.73	- 7 49.7	0.788	1.775	11.7	18.7	6 30	19 35.66	-28 41.2	1.943	2.938	4.9	19.9
7 10	19 26.97	- 7 41.9	0.775	1.777	8.4	18.6	7 10	19 27.13	-29 11.8	1.933	2.944	2.5	19.7
7 20	19 18.85	- 7 59.0	0.781	1.780	9.0	18.6	7 20	19 18.41	-29 34.4	1.950	2.950	4.3	19.9
7 30	19 12.11	- 8 37.1	0.806	1.785	12.8	18.8	7 30	19 10.49	-29 47.3	1.994	2.956	7.6	20.1
8 9	19 8.11	- 9 28.8	0.850	1.792	17.4	19.1	8 9	19 4.23	-29 50.8	2.063	2.963	10.8	20.3
8 19	19 7.60	-10 26.7	0.909	1.801	21.5	19.4	8 19	19 0.19	-29 46.0	2.153	2.969	13.6	20.5
388642	2007 <i>TG</i> ₁₆₃		7 11.9 323°92'	1°9/12.4	18		85660	1998 <i>QX</i> ₃₃		7 11.9 296°72'	6°8/10.2	18	
6 10	19 46.99	-17 29.4	1.493	2.388	14.6	20.6	6 10	19 55.74	-42 24.6	2.214	3.072	11.9	18.6
6 20	19 42.51	-17 24.3	1.412	2.369	10.8	20.3	6 20	19 48.37	-42 44.5	2.138	3.059	9.7	18.4
6 30	19 35.61	-17 27.0	1.353	2.350	6.4	20.0	6 30	19 38.68	-42 51.4	2.086	3.046	7.7	18.3
7 10	19 27.12	-17 36.2	1.318	2.332	2.2	19.7	7 10	19 27.62	-42 40.6	2.060	3.033	6.8	18.2
7 20	19 18.10	-17 49.9	1.308	2.315	4.3	19.8	7 20	19 16.37	-42 9.6	2.059	3.020	7.6	18.2
7 30	19 9.87	-18 5.8	1.321	2.299	9.0	20.0	7 30	19 6.17	-41 19.1	2.085	3.007	9.7	18.3
8 9	19 3.57	-18 21.9	1.358	2.283	13.5	20.2	8 9	18 58.05	-40 12.6	2.135	2.995	12.2	18.5
8 19	19 0.01	-18 36.9	1.414	2.268	17.4	20.4	8 19	18 52.65	-38 55.3	2.206	2.982	14.5	18.6
80404	1999 <i>XD</i> ₁₈₄		7 11.9 146°24'	5°5/10.0	18		333556	2005 <i>VV</i> ₈₉		7 11.9 60°26'	7°0/12.9	17	
6 10	19 56.68	-34 42.7	1.824	2.702	13.2	19.5	6 10	19 51.80	- 8 4.4	1.575	2.436	15.8	20.5
6 20	19 49.17	-35 37.0	1.769	2.711	10.0	19.4	6 20	19 45.48	- 6 47.7	1.518	2.444	12.5	20.3
6 30	19 39.16	-36 23.7	1.737	2.719	7.0	19.2	6 30	19 37.03	- 5 44.1	1.482	2.452	9.2	20.1
7 10	19 27.66	-36 56.6	1.732	2.727	5.5	19.1	7 10	19 27.36	- 4 56.7	1.471	2.460	7.1	20.0
7 20	19 15.95	-37 11.5	1.753	2.734	6.9	19.2	7 20	19 17.55	- 4 27.1	1.485	2.468	7.7	20.1
7 30	19 5.40	-37 7.7	1.800	2.741	9.8	19.4	7 30	19 8.76	- 4 15.1	1.523	2.476	10.3	20.2
8 9	18 57.12	-36 47.8	1.870	2.747	12.9	19.6	8 9	19 1.92	- 4 17.9	1.585	2.485	13.5	20.5
8 19	18 51.76	-36 15.9	1.960	2.752	15.6	19.8	8 19	18 57.61	- 4 32.2	1.666	2.493	16.5	20.7
18403	Atsuhitotaisei		7 11.9 151°53'	1°4/12.5	18		70100	1999 <i>JO</i> ₁₂₁		7 11.9			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
176155	2001 <i>GU</i> ₁		7 11.9 111°42'	1.2°/12.3	17		177744	2005 <i>JG</i> ₄₄		7 11.9 351°46'	4.9°/12.9	18	
6 10	19 52.83	-17 58.6	1.618	2.501	14.3	21.5	6 10	19 49.44	-12 48.9	1.281	2.171	16.9	19.7
6 20	19 46.25	-18 9.9	1.564	2.514	10.4	21.3	6 20	19 44.35	-12 9.7	1.219	2.168	12.8	19.5
6 30	19 37.47	-18 28.1	1.532	2.528	6.0	21.1	6 30	19 36.67	-11 42.8	1.176	2.165	8.5	19.2
7 10	19 27.44	-18 50.6	1.526	2.541	1.6	20.9	7 10	19 27.38	-11 29.0	1.157	2.163	5.1	19.0
7 20	19 17.26	-19 14.4	1.546	2.553	3.8	21.0	7 20	19 17.75	-11 28.0	1.160	2.162	6.2	19.1
7 30	19 8.16	-19 37.0	1.593	2.566	8.2	21.3	7 30	19 9.19	-11 38.1	1.187	2.161	10.3	19.3
8 9	19 1.09	-19 57.0	1.663	2.578	12.1	21.6	8 9	19 2.90	-11 56.4	1.236	2.160	14.6	19.6
8 19	18 56.64	-20 13.6	1.755	2.589	15.5	21.8	8 19	18 59.58	-12 19.7	1.303	2.161	18.4	19.8
320588	2008 <i>BE</i> ₂₀		7 11.9 87°38'	2.6°/11.3	17		7135	1993 <i>VO</i>		7 11.9 289°59'	4.8°/13.1	18	
6 10	19 54.91	-27 48.0	1.463	2.357	14.9	20.7	6 10	19 49.28	-10 52.7	1.621	2.493	14.9	18.0
6 20	19 48.07	-28 0.9	1.409	2.366	10.8	20.5	6 20	19 44.08	-10 29.9	1.531	2.469	11.5	17.7
6 30	19 38.60	-28 10.9	1.377	2.374	6.3	20.3	6 30	19 36.54	-10 19.4	1.462	2.445	7.9	17.4
7 10	19 27.62	-28 13.6	1.370	2.383	2.7	20.1	7 10	19 27.38	-10 21.8	1.418	2.421	5.0	17.2
7 20	19 16.52	-28 6.1	1.388	2.391	5.1	20.2	7 20	19 17.61	-10 36.7	1.399	2.397	5.9	17.2
7 30	19 6.75	-27 48.3	1.431	2.399	9.4	20.5	7 30	19 8.44	-11 2.1	1.404	2.373	9.5	17.3
8 9	18 59.44	-27 22.1	1.497	2.407	13.5	20.8	8 9	19 1.03	-11 35.1	1.433	2.349	13.6	17.5
8 19	18 55.21	-26 50.5	1.583	2.415	16.9	21.0	8 19	18 56.20	-12 12.5	1.482	2.325	17.4	17.7
92928	2000 <i>RP</i> ₂₃		7 11.9 220°62'	7.6°/14.8	18		407667	2011 <i>SY</i> ₁₈₅		7 11.9 134°60'	4.5°/10.8	17	
6 10	19 48.39	-0 10.9	2.088	2.905	14.1	19.5	6 10	19 57.27	-30 46.6	1.398	2.291	15.5	21.3
6 20	19 42.83	+0 17.7	2.008	2.898	11.7	19.3	6 20	19 50.05	-31 25.5	1.344	2.298	11.4	21.1
6 30	19 35.53	+0 28.9	1.951	2.890	9.4	19.2	6 30	19 39.87	-31 59.2	1.311	2.304	7.2	20.8
7 10	19 27.14	+0 21.0	1.918	2.882	7.8	19.1	7 10	19 27.90	-32 21.0	1.303	2.310	4.5	20.7
7 20	19 18.43	-0 6.0	1.910	2.874	7.9	19.1	7 20	19 15.72	-32 26.5	1.319	2.315	6.6	20.8
7 30	19 10.29	-0 50.0	1.928	2.865	9.5	19.1	7 30	19 4.96	-32 15.0	1.360	2.321	10.6	21.1
8 9	19 3.53	-1 47.2	1.970	2.856	11.9	19.3	8 9	18 56.93	-31 49.3	1.424	2.325	14.6	21.3
8 19	18 58.74	-2 52.7	2.034	2.847	14.4	19.4	8 19	18 52.32	-31 13.9	1.506	2.330	18.1	21.6
66711	1999 <i>TQ</i> ₉₉		7 11.9 271°31'	7.6°/15.1	18		225819	2001 <i>WW</i> ₈₁		7 11.9 295°95'	0.5°/12.1	17	
6 10	19 47.18	-0 43.1	1.918	2.745	14.7	19.5	6 10	19 50.07	-19 33.4	1.613	2.503	14.0	20.5
6 20	19 42.15	-0 28.0	1.834	2.732	12.2	19.3	6 20	19 44.52	-19 51.7	1.544	2.499	10.1	20.3
6 30	19 35.25	-0 32.2	1.771	2.718	9.7	19.1	6 30	19 36.68	-20 16.3	1.498	2.496	5.8	20.0
7 10	19 27.11	-0 57.4	1.731	2.704	7.9	19.0	7 10	19 27.40	-20 44.3	1.476	2.492	1.1	19.7
7 20	19 18.57	-1 42.8	1.717	2.689	7.9	19.0	7 20	19 17.76	-21 12.3	1.481	2.489	3.8	19.9
7 30	19 10.58	-2 45.8	1.728	2.675	9.8	19.1	7 30	19 9.01	-21 37.5	1.511	2.486	8.4	20.2
8 9	19 4.03	-4 1.4	1.763	2.661	12.5	19.2	8 9	19 2.20	-21 58.4	1.565	2.483	12.6	20.4
8 19	18 59.58	-5 24.2	1.819	2.646	15.3	19.4	8 19	18 58.03	-22 14.3	1.640	2.480	16.1	20.6
386783	2010 <i>DK</i> ₇₄		7 11.9 223°96'	10.6°/17.4	18		179353	2001 <i>XG</i> ₁₃₄		7 11.9 231°54'	0.9°/12.2	18	
6 10	19 46.95	+8 37.8	2.012	2.785	16.0	20.8	6 10	19 48.20	-18 50.0	2.240	3.117	11.1	20.7
6 20	19 41.83	+9 5.8	1.940	2.782	14.1	20.7	6 20	19 42.64	-18 54.6	2.164	3.112	8.1	20.5
6 30	19 34.99	+9 9.3	1.887	2.779	12.2	20.5	6 30	19 35.42	-19 3.6	2.113	3.108	4.6	20.3
7 10	19 27.06	+8 45.8	1.856	2.776	10.9	20.4	7 10	19 27.18	-19 15.4	2.089	3.104	1.2	20.0
7 20	19 18.85	+7 55.1	1.847	2.773	10.6	20.4	7 20	19 18.71	-19 28.3	2.092	3.099	3.0	20.2
7 30	19 11.24	+6 40.1	1.863	2.770	11.5	20.5	7 30	19 10.86	-19 40.7	2.124	3.095	6.6	20.4
8 9	19 5.06	+5 6.3	1.901	2.766	13.2	20.6	8 9	19 4.41	-19 51.7	2.180	3.090	9.9	20.6
8 19	19 0.87	+3 20.5	1.961	2.763	15.2	20.7	8 19	18 59.88	-20 0.7	2.260	3.085	12.7	20.8
336418	2008 <i>UB</i> ₂₀₄		7 11.9 327°43'	4.7°/10.6	18		183259	2002 <i>TT</i> ₁₉₆		7 11.9 260°17'	4.0°/13.1	18	
6 10	19 48.45	-30 16.7	1.256	2.166	15.7	19.6	6 10	19 50.66	-11 44.5	1.712	2.582	14.3	20.7
6 20	19 44.30	-30 52.7	1.177	2.140	11.7	19.3	6 20	19 44.93	-11 33.0	1.626	2.565	11.0	20.5
6 30	19 36.97	-31 26.0	1.119	2.115	7.5	19.0	6 30	19 36.96	-11 33.2	1.563	2.547	7.3	20.2
7 10	19 27.44	-31 49.8	1.082	2.091	4.8	18.8	7 10	19 27.46	-11 44.9	1.524	2.530	4.3	20.0
7 20	19 17.13	-31 58.2	1.069	2.068	7.1	18.8	7 20	19 17.45	-12 6.7	1.511	2.511	5.2	20.0
7 30	19 7.82	-31 48.7	1.078	2.046	11.7	19.0	7 30	19 8.09	-12 36.5	1.524	2.493	8.9	20.2
8 9	19 1.12	-31 22.6	1.107	2.026	16.4	19.2	8 9	19 0.46	-13 11.3	1.561	2.474	12.9	20.4
8 19	18 58.02	-30 43.8	1.153	2.007	20.6	19.4	8 19	18 55.31	-13 48.3	1.619	2.455	16.4	20.6
67016	1999 <i>XL</i> ₁₃₀		7 11.9 286°39'	2.4°/11.1	18		437946	2002 <i>RX</i> ₂₂₆		7 11.9 322°13'	4.3°/10.9	18	
6 10	19 51.47	-27 5.1	1.828	2.717	12.6	19.2	6 10	19 51.49	-31 51.8	1.591	2.485	13.9	20.4
6 20	19 45.62	-27 30.6	1.738	2.692	9.3	19.0	6 20	19 45.83	-32 9.8	1.516	2.471	10.4	20.1
6 30	19 37.36	-27 55.9	1.671	2.668	5.5	18.7	6 30	19 37.53	-32 21.8	1.464	2.456	6.7	19.9
7 10	19 27.48	-28 16.6	1.630	2.643	2.5	18.4	7 10	19 27.55	-32 22.9	1.436	2.443	4.3	19.7
7 20	19 17.01	-28 29.2	1.616	2.618	4.7	18.5	7 20	19 17.16	-32 9.7	1.433	2.429	6.1	19.8
7 30	19 7.23	-28 31.6	1.627	2.592	8.8	18.7	7 30	19 7.80	-31 41.8	1.454	2.417	9.9	20.0
8 9	18 59.28	-28 24.1	1.663	2.567	12.7	18.9	8 9	19 0.69	-31 1.7	1.499	2.405	13.8	20.2
8 19	18 53.97	-28 8.4	1.719	2.542	16.2	19.1	8 19	18 56.57	-30 13.0	1.563	2.393	17.2	20.4
255192	2005 <i>UY</i> ₂₉₉		7 11.9 338°29'	0.8°/11.6	18		73309	2002 <i>JC</i> ₇₅		7 11.9 12°74'	5.0°/10.2	17	
6 10	19 46.78	-22 49.4	1.735	2.630	12.9	20.3	6 10	19 51.16	-28 54.6	1.198	2.107	16.4	18.7
6 20	19 42.10	-23 11.4	1.662	2.620	9.3	20.0	6 20	19 46.09	-30 10.9	1.146	2.108	12.0	18.4
6 30	19 35.30	-23 36.7	1.611	2.611	5.2	19.8	6 30	19 37.86	-31 26.6	1.114	2.110	7.6	18.2
7 10	19 27.14	-24 2.1	1.586	2.602	1.1	19.4	7 10	19 27.61	-32 32.4	1.105	2.113	5.0	18.1
7 20	19 18.64	-24 24.4	1.587	2.594	3.8	19.6	7 20	19 16.94	-33 20.8	1.120	2.116	7.4	18.2
7 30	19 10.91	-24 41.3	1.613	2.586	8.1	19.9	7 30	19 7.61	-33 48.1	1.157	2.120	11.8	18.5
8 9	19 4.95	-24 51.9	1.662	2.579	12.0	20.1	8 9	19 1.07	-33 55.3	1.215	2.124	16.0	18.7
8 19	19 1.42	-24 56.2	1.733	2.573	15.4	20.3	8 19	18 58.12	-33 46.1	1.290	2.129	19.6	19.0
277705	2006 <i>DR</i> ₄		7 11.9 336°05'	4.2°/13.5	16		257219	2009 <i>BM</</i>					

EPHEMERIDES

7 11.9

7 11.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
504242	2006 <i>US</i> ₂₆₆		7 11.9 284°40	0°9/11.6	17		353932	1995 <i>WZ</i> ₁₃		7 11.9 312°79	1°7/11.1	18	
6 10	19 51.18	-22 24.9	1.480	2.376	14.6	21.6	6 10	19 47.99	-24 16.2	2.010	2.898	11.7	20.8
6 20	19 45.64	-22 53.6	1.406	2.365	10.6	21.3	6 20	19 42.80	-25 3.9	1.936	2.892	8.4	20.6
6 30	19 37.47	-23 27.1	1.355	2.354	6.0	21.0	6 30	19 35.66	-25 54.3	1.887	2.885	4.8	20.4
7 10	19 27.56	-24 1.1	1.327	2.343	1.3	20.6	7 10	19 27.28	-26 43.3	1.865	2.879	1.8	20.2
7 20	19 17.14	-24 31.3	1.325	2.333	4.4	20.8	7 20	19 18.54	-27 27.0	1.869	2.873	4.0	20.3
7 30	19 7.62	-24 54.4	1.349	2.322	9.4	21.1	7 30	19 10.46	-28 2.5	1.901	2.867	7.7	20.5
8 9	19 0.28	-25 9.4	1.394	2.311	13.8	21.3	8 9	19 3.96	-28 28.5	1.957	2.861	11.1	20.7
8 19	18 55.91	-25 16.7	1.460	2.301	17.7	21.6	8 19	18 59.69	-28 45.3	2.034	2.855	14.1	20.9
441376	2008 <i>EG</i> ₆₂		7 11.9 144°16	5°2/14.2	16		159101	2004 <i>TP</i> ₃₅₁		7 11.9 351°03	0°7/11.7	16	R
6 10	19 46.50	-5 36.8	2.288	3.128	12.2	21.4	6 10	19 44.11	-21 6.1	1.111	2.028	16.6	19.0
6 20	19 41.31	-5 21.7	2.218	3.131	9.7	21.2	6 20	19 41.02	-21 39.8	1.049	2.018	12.1	18.7
6 30	19 34.63	-5 19.5	2.171	3.133	7.2	21.1	6 30	19 35.06	-22 22.0	1.006	2.009	6.8	18.3
7 10	19 27.06	-5 30.6	2.149	3.136	5.4	21.0	7 10	19 27.21	-23 8.0	0.985	2.002	1.2	17.9
7 20	19 19.31	-5 54.1	2.154	3.138	5.6	21.0	7 20	19 18.86	-23 52.1	0.987	1.996	4.9	18.2
7 30	19 12.14	-6 27.9	2.186	3.141	7.6	21.1	7 30	19 11.61	-24 29.3	1.010	1.992	10.5	18.5
8 9	19 6.22	-7 9.3	2.243	3.143	10.1	21.3	8 9	19 6.86	-24 57.1	1.054	1.990	15.5	18.8
8 19	19 2.06	-7 55.0	2.323	3.145	12.5	21.5	8 19	19 5.41	-25 14.7	1.115	1.989	19.7	19.0
468426	2000 <i>US</i> ₆₄		7 11.9 289°82	1°1/12.2	18		246338	2007 <i>TA</i> ₂₅₀		7 11.9 358°44	1°4/12.4	17	
6 10	19 50.82	-19 11.0	1.705	2.591	13.6	21.4	6 10	19 49.13	-18 1.3	1.797	2.681	13.1	20.6
6 20	19 45.23	-19 8.4	1.611	2.563	10.0	21.1	6 20	19 43.60	-17 57.5	1.730	2.681	9.5	20.4
6 30	19 37.22	-19 11.1	1.538	2.535	5.8	20.8	6 30	19 36.07	-17 59.6	1.685	2.680	5.6	20.1
7 10	19 27.54	-19 17.3	1.491	2.507	1.5	20.5	7 10	19 27.35	-18 6.0	1.666	2.680	1.8	19.9
7 20	19 17.20	-19 24.9	1.470	2.478	4.0	20.6	7 20	19 18.38	-18 14.9	1.673	2.680	3.7	20.0
7 30	19 7.47	-19 32.2	1.476	2.449	8.7	20.8	7 30	19 10.23	-18 24.8	1.706	2.680	7.7	20.3
8 9	18 59.53	-19 38.0	1.505	2.420	13.1	21.0	8 9	19 3.81	-18 34.4	1.764	2.680	11.5	20.5
8 19	18 54.21	-19 42.1	1.554	2.392	16.9	21.2	8 19	18 59.72	-18 42.8	1.843	2.681	14.7	20.7
392024	2009 <i>BR</i> ₁₁		7 11.9 169°59	3°1/13.3	17		512087	2015 <i>OF</i> ₃		7 11.9 314°94	5°0/10.6	18	
6 10	19 48.36	-11 8.4	2.415	3.269	11.2	22.0	6 10	19 52.70	-36 1.2	2.021	2.900	12.1	20.3
6 20	19 42.59	-11 9.8	2.343	3.272	8.5	21.8	6 20	19 46.25	-36 18.1	1.949	2.891	9.2	20.1
6 30	19 35.33	-11 20.4	2.295	3.276	5.6	21.6	6 30	19 37.59	-36 26.2	1.900	2.882	6.5	19.9
7 10	19 27.18	-11 39.4	2.274	3.278	3.3	21.5	7 10	19 27.61	-36 21.4	1.877	2.873	5.0	19.8
7 20	19 18.85	-12 5.3	2.281	3.280	3.9	21.5	7 20	19 17.39	-36 1.2	1.880	2.864	6.2	19.8
7 30	19 11.09	-12 36.2	2.317	3.282	6.6	21.7	7 30	19 8.13	-35 25.7	1.909	2.856	9.0	20.0
8 9	19 4.59	-13 9.8	2.379	3.283	9.4	21.9	8 9	19 0.82	-34 37.7	1.962	2.848	12.0	20.2
8 19	18 59.83	-13 44.1	2.464	3.284	12.0	22.1	8 19	18 56.09	-33 41.0	2.037	2.841	14.7	20.3
508813	2000 <i>WZ</i> ₁₀₉		7 11.9 233°29	6°3/8.9	18		72235	2001 <i>AA</i> ₁₇		7 11.9 221°11	0°1/11.9	18	
6 10	19 54.90	-37 35.2	2.115	2.986	11.9	21.3	6 10	19 52.89	-20 24.8	1.765	2.647	13.3	19.7
6 20	19 48.05	-38 47.3	2.041	2.974	9.4	21.1	6 20	19 46.52	-20 48.2	1.687	2.639	9.7	19.5
6 30	19 38.73	-39 52.3	1.992	2.963	7.1	21.0	6 30	19 37.84	-21 17.0	1.634	2.631	5.5	19.2
7 10	19 27.78	-40 43.6	1.969	2.950	6.3	20.9	7 10	19 27.67	-21 47.8	1.606	2.622	0.9	18.9
7 20	19 16.29	-41 16.3	1.973	2.938	7.6	21.0	7 20	19 17.07	-22 17.2	1.605	2.612	3.8	19.1
7 30	19 5.59	-41 28.3	2.002	2.924	10.1	21.1	7 30	19 7.24	-22 42.4	1.631	2.602	8.2	19.3
8 9	18 56.82	-41 21.2	2.055	2.911	12.8	21.2	8 9	18 59.28	-23 2.2	1.682	2.591	12.3	19.5
8 19	18 50.78	-40 58.6	2.128	2.897	15.2	21.4	8 19	18 53.91	-23 16.4	1.753	2.580	15.8	19.7
187868	2000 <i>PA</i> ₁₀		7 11.9 334°77	0°1/11.9	18		350310	2012 <i>UR</i> ₄₈		7 11.9 307°57	3°2/12.9	17	
6 10	19 43.18	-17 18.9	1.114	2.028	16.9	19.1	6 10	19 48.70	-13 37.9	1.807	2.682	13.4	21.5
6 20	19 40.55	-18 25.9	1.036	2.003	12.4	18.7	6 20	19 43.29	-13 26.8	1.737	2.680	10.1	21.3
6 30	19 34.95	-19 52.0	0.978	1.979	7.1	18.4	6 30	19 35.92	-13 25.2	1.689	2.677	6.4	21.1
7 10	19 27.20	-21 32.0	0.941	1.957	1.2	17.9	7 10	19 27.34	-13 32.4	1.666	2.675	3.4	20.9
7 20	19 18.56	-23 17.0	0.927	1.936	5.0	18.1	7 20	19 18.50	-13 47.0	1.670	2.673	4.4	20.9
7 30	19 10.69	-24 57.4	0.935	1.917	11.0	18.4	7 30	19 10.41	-14 6.9	1.699	2.670	8.0	21.1
8 9	19 5.23	-26 25.6	0.964	1.900	16.5	18.6	8 9	19 3.98	-14 30.0	1.753	2.668	11.6	21.4
8 19	19 3.27	-27 37.4	1.009	1.885	21.2	18.8	8 19	18 59.82	-14 54.3	1.828	2.666	14.8	21.6
11734	1998 <i>KM</i> ₅₅		7 11.9 174°67	5°9/13.9	18		231689	1996 <i>VV</i> ₃₇		7 11.9 264°86	2°3/12.8	18	
6 10	19 49.23	-5 2.9	2.154	2.990	13.0	17.2	6 10	19 50.17	-14 37.4	2.007	2.876	12.5	21.7
6 20	19 43.33	-4 30.6	2.083	2.992	10.4	17.0	6 20	19 44.42	-14 46.0	1.911	2.853	9.4	21.4
6 30	19 35.79	-4 11.7	2.035	2.994	7.9	16.9	6 30	19 36.65	-15 3.5	1.839	2.829	5.8	21.1
7 10	19 27.27	-4 7.1	2.013	2.995	6.1	16.8	7 10	19 27.49	-15 28.8	1.793	2.805	2.6	20.9
7 20	19 18.53	-4 16.7	2.017	2.996	6.3	16.8	7 20	19 17.79	-15 59.7	1.775	2.780	3.9	20.9
7 30	19 10.44	-4 38.9	2.047	2.996	8.4	16.9	7 30	19 8.60	-16 33.8	1.784	2.754	7.7	21.1
8 9	19 3.74	-5 10.9	2.103	2.996	11.0	17.1	8 9	19 0.86	-17 8.5	1.818	2.728	11.5	21.3
8 19	18 58.96	-5 49.4	2.181	2.996	13.5	17.3	8 19	18 55.32	-17 42.0	1.874	2.702	14.9	21.5
262439	2006 <i>UA</i> ₉₀		7 11.9 175°13	3°2/13.0	18		71156	1999 <i>XA</i> ₁₉₄		7 11.9 281°55	3°6/10.7	18	
6 10	19 47.90	-12 22.9	2.278	3.140	11.5	20.7	6 10	19 51.42	-29 46.6	1.828	2.717	12.6	19.2
6 20	19 42.33	-12 4.4	2.206	3.141	8.7	20.5	6 20	19 45.54	-30 24.3	1.753	2.705	9.3	19.0
6 30	19 35.21	-11 53.9	2.158	3.141	5.7	20.3	6 30	19 37.32	-30 59.5	1.701	2.694	5.8	18.8
7 10	19 27.17	-11 51.2	2.137	3.142	3.4	20.2	7 10	19 27.59	-31 27.4	1.674	2.682	3.6	18.6
7 20	19 18.95	-11 55.5	2.143	3.142	4.1	20.2	7 20	19 17.44	-31 43.9	1.674	2.671	5.4	18.7
7 30	19 11.35	-12 5.8	2.177	3.142	6.9	20.4	7 30	19 8.12	-31 47.3	1.700	2.659	9.0	18.9
8 9	19 5.07	-12 20.3	2.236	3.142	9.8	20.6	8 9	19 0.73	-31 38.4	1.750	2.648	12.6	19.1
8 19	19 0.62	-12 37.5	2.318	3.142	12.5	20.8	8 19	18 55.98	-31 19.5	1.819	2.636	15.7	19.3
6013	Andanike		7 11.9 48°69	2°2/12.4	18		261956	2006 <i>PQ</i> ₁₁		7 11.9 289°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
155014	2005 <i>QG</i> ₁₂		7 11.9 252°13	5°2/13.9	18		250069	2002 <i>ED</i> ₈₁		7 11.9 27°14	1°9/12.4	17	
6 10	19 49.99	- 6 56.0	1.977	2.824	13.6	21.1	6 10	19 52.07	-17 46.5	1.344	2.237	16.0	20.4
6 20	19 44.25	- 6 51.5	1.884	2.804	10.8	20.9	6 20	19 46.23	-17 38.2	1.283	2.238	11.7	20.1
6 30	19 36.54	- 7 1.5	1.814	2.784	7.7	20.7	6 30	19 37.76	-17 37.8	1.242	2.239	6.9	19.8
7 10	19 27.47	- 7 26.6	1.769	2.764	5.5	20.5	7 10	19 27.68	-17 43.4	1.226	2.240	2.3	19.6
7 20	19 17.91	- 8 5.3	1.751	2.742	5.8	20.5	7 20	19 17.29	-17 52.7	1.234	2.241	4.5	19.7
7 30	19 8.84	- 8 55.2	1.759	2.720	8.6	20.6	7 30	19 8.03	-18 3.7	1.266	2.242	9.5	20.0
8 9	19 1.21	- 9 52.5	1.793	2.698	11.9	20.7	8 9	19 1.10	-18 14.8	1.320	2.244	14.0	20.3
8 19	18 55.73	-10 53.2	1.849	2.675	15.1	20.9	8 19	18 57.19	-18 24.8	1.394	2.245	17.8	20.5
479277	2013 <i>GW</i> ₁₀		7 11.9 129°94	4°9/14.5	18		354307	2002 <i>TD</i> ₂₇₉		7 11.9 308°80	3°4/11.1	18	
6 10	19 45.99	- 3 33.4	2.885	3.705	10.5	21.9	6 10	19 51.34	-29 44.3	1.668	2.561	13.4	20.3
6 20	19 40.66	- 3 19.6	2.821	3.719	8.4	21.8	6 20	19 45.78	-30 1.6	1.580	2.536	9.9	20.1
6 30	19 34.18	- 3 17.4	2.781	3.731	6.4	21.7	6 30	19 37.61	-30 15.4	1.515	2.510	6.2	19.8
7 10	19 27.05	- 3 26.9	2.767	3.743	5.1	21.6	7 10	19 27.68	-30 21.2	1.475	2.485	3.4	19.6
7 20	19 19.82	- 3 47.2	2.781	3.755	5.1	21.6	7 20	19 17.17	-30 15.3	1.460	2.460	5.5	19.6
7 30	19 13.08	- 4 17.0	2.823	3.767	6.6	21.7	7 30	19 7.46	-29 56.6	1.470	2.435	9.6	19.8
8 9	19 7.36	- 4 53.8	2.891	3.778	8.5	21.9	8 9	18 59.82	-29 26.5	1.503	2.411	13.6	20.0
8 19	19 3.04	- 5 35.0	2.982	3.789	10.4	22.0	8 19	18 55.07	-28 48.0	1.557	2.387	17.3	20.2
311146	2004 <i>RZ</i> ₂₄₇		7 11.9 262°93	2°8/11.4	18		390866	2004 <i>TY</i> ₇₅		7 11.9 282°62	3°0/10.8	18	
6 10	19 54.46	-32 17.4	2.436	3.307	10.5	20.3	6 10	19 52.80	-27 43.0	1.864	2.749	12.6	21.3
6 20	19 47.09	-32 3.6	2.353	3.296	7.8	20.1	6 20	19 46.75	-28 26.0	1.766	2.719	9.3	21.0
6 30	19 37.91	-31 42.9	2.294	3.284	4.9	19.9	6 30	19 38.17	-29 9.9	1.692	2.687	5.6	20.7
7 10	19 27.67	-31 13.1	2.264	3.271	2.9	19.7	7 10	19 27.79	-29 49.3	1.644	2.655	3.0	20.5
7 20	19 17.27	-30 33.2	2.263	3.259	4.2	19.8	7 20	19 16.65	-30 19.6	1.623	2.622	5.2	20.6
7 30	19 7.68	-29 44.1	2.290	3.247	7.1	20.0	7 30	19 6.05	-30 37.7	1.629	2.589	9.2	20.7
8 9	18 59.71	-28 48.0	2.344	3.235	10.1	20.1	8 9	18 57.25	-30 43.2	1.658	2.556	13.1	20.9
8 19	18 53.90	-27 48.0	2.421	3.222	12.7	20.3	8 19	18 51.14	-30 37.6	1.708	2.522	16.7	21.1
498513	2008 <i>DG</i> ₇₆		7 11.9 172°07	0°7/11.7	17		225919	2002 <i>AL</i> ₁₀₂		7 11.9 119°19	1°4/11.4	18	
6 10	19 53.57	-22 41.1	1.809	2.692	13.0	22.5	6 10	19 51.24	-23 26.1	1.765	2.653	13.0	20.5
6 20	19 46.85	-23 2.2	1.742	2.695	9.4	22.3	6 20	19 45.24	-24 9.6	1.704	2.659	9.4	20.3
6 30	19 37.94	-23 25.8	1.700	2.697	5.3	22.0	6 30	19 37.06	-24 56.0	1.666	2.664	5.3	20.1
7 10	19 27.69	-23 48.4	1.683	2.699	1.0	21.7	7 10	19 27.56	-25 40.8	1.655	2.670	1.6	19.8
7 20	19 17.18	-24 7.1	1.694	2.700	3.8	22.0	7 20	19 17.79	-26 19.8	1.670	2.675	4.1	20.0
7 30	19 7.59	-24 19.9	1.732	2.701	8.0	22.2	7 30	19 8.92	-26 50.3	1.712	2.680	8.2	20.3
8 9	18 59.90	-24 26.4	1.794	2.701	11.8	22.4	8 9	19 1.94	-27 11.4	1.778	2.685	11.9	20.5
8 19	18 54.75	-24 27.4	1.878	2.701	15.0	22.7	8 19	18 57.49	-27 23.7	1.865	2.690	15.0	20.7
36162	1999 <i>RX</i> ₂₂₁		7 11.9 40°00	3°9/12.9	18		330734	2008 <i>RE</i> ₁₄₀		7 11.9 305°11	5°0/13.8	18	
6 10	19 48.20	-12 10.1	1.983	2.851	12.8	17.9	6 10	19 47.25	- 8 58.6	1.562	2.434	15.3	20.8
6 20	19 42.66	-11 32.6	1.922	2.858	9.7	17.7	6 20	19 42.68	- 9 0.8	1.478	2.415	12.0	20.6
6 30	19 35.44	-11 3.8	1.883	2.866	6.5	17.6	6 30	19 35.81	- 9 20.0	1.415	2.397	8.3	20.3
7 10	19 27.27	-10 44.3	1.871	2.874	4.1	17.4	7 10	19 27.38	- 9 56.1	1.376	2.379	5.3	20.1
7 20	19 18.97	-10 33.9	1.885	2.882	4.8	17.5	7 20	19 18.39	-10 46.9	1.361	2.361	5.9	20.1
7 30	19 11.44	-10 31.9	1.925	2.890	7.7	17.7	7 30	19 10.03	-11 48.5	1.371	2.343	9.4	20.3
8 9	19 5.43	-10 36.5	1.990	2.899	10.7	17.9	8 9	19 3.44	-12 55.9	1.404	2.326	13.4	20.4
8 19	19 1.46	-10 45.9	2.077	2.908	13.5	18.1	8 19	18 59.42	-14 4.2	1.458	2.309	17.2	20.6
436845	2012 <i>SF</i> ₁₉		7 11.9 217°46	1°5/12.4	16		59835	1999 <i>RJ</i> ₄₀		7 11.9 270°45	3°0/12.9	18	
6 10	19 49.77	-17 30.3	2.073	2.948	12.0	21.8	6 10	19 47.47	-13 16.4	2.263	3.128	11.5	19.2
6 20	19 43.90	-17 29.0	1.997	2.944	8.7	21.5	6 20	19 42.13	-12 57.8	2.182	3.119	8.6	19.0
6 30	19 36.21	-17 33.2	1.945	2.939	5.2	21.3	6 30	19 35.18	-12 46.5	2.126	3.111	5.6	18.8
7 10	19 27.41	-17 41.5	1.920	2.934	1.8	21.1	7 10	19 27.25	-12 42.4	2.096	3.102	3.2	18.6
7 20	19 18.34	-17 52.3	1.922	2.929	3.4	21.2	7 20	19 19.06	-12 44.9	2.093	3.094	4.0	18.6
7 30	19 9.95	-18 4.0	1.952	2.924	7.1	21.4	7 30	19 11.45	-12 52.7	2.118	3.085	6.9	18.8
8 9	19 3.07	-18 15.5	2.007	2.918	10.6	21.6	8 9	19 5.14	-13 4.6	2.168	3.076	10.0	19.0
8 19	18 58.29	-18 25.9	2.085	2.912	13.6	21.8	8 19	19 0.67	-13 18.9	2.241	3.068	12.8	19.1
12255	1988 <i>XR</i> ₁		7 11.9 236°49	2°2/11.1	18		164526	2006 <i>HA</i> ₆₄		7 11.9 252°93	0°7/12.2	18	
6 10	19 52.66	-24 49.1	1.660	2.550	13.6	17.7	6 10	19 49.39	-18 51.4	1.909	2.791	12.5	21.2
6 20	19 46.58	-25 41.5	1.587	2.542	9.9	17.5	6 20	19 43.82	-19 8.3	1.833	2.784	9.1	20.9
6 30	19 37.99	-26 37.1	1.537	2.534	5.7	17.2	6 30	19 36.26	-19 31.2	1.781	2.778	5.2	20.7
7 10	19 27.73	-27 30.3	1.512	2.526	2.3	17.0	7 10	19 27.44	-19 57.7	1.755	2.771	1.2	20.4
7 20	19 16.96	-28 15.8	1.514	2.517	4.8	17.1	7 20	19 18.29	-20 24.9	1.756	2.764	3.4	20.6
7 30	19 7.04	-28 50.0	1.542	2.508	9.1	17.3	7 30	19 9.84	-20 50.6	1.784	2.757	7.5	20.8
8 9	18 59.14	-29 12.1	1.594	2.498	13.2	17.6	8 9	19 3.01	-21 13.1	1.836	2.749	11.3	21.0
8 19	18 54.07	-29 23.1	1.666	2.489	16.6	17.8	8 19	18 58.46	-21 31.5	1.910	2.742	14.5	21.2
157572	2005 <i>UV</i> ₁₉₁		7 11.9 100°66	2°8/10.9	17		249151	2008 <i>AW</i> ₇₇		7 11.9 105°50	1°2/11.5	18	
6 10	19 53.03	-27 34.0	1.711	2.600	13.3	20.4	6 10	19 49.30	-24 29.4	2.073	2.958	11.5	21.0
6 20	19 46.55	-28 13.1	1.657	2.611	9.6	20.2	6 20	19 43.61	-24 51.4	2.005	2.959	8.3	20.8
6 30	19 37.77	-28 50.7	1.626	2.621	5.7	20.0	6 30	19 36.06	-25 14.3	1.962	2.960	4.7	20.6
7 10	19 27.66	-29 22.0	1.621	2.632	2.9	19.8	7 10	19 27.40	-25 35.2	1.945	2.960	1.4	20.4
7 20	19 17.38	-29 43.0	1.642	2.642	4.9	20.0	7 20	19 18.52	-25 51.3	1.956	2.961	3.6	20.6
7 30	19 8.16	-29 52.3	1.689	2.652	8.7	20.3	7 30	19 10.39	-26 1.2	1.993	2.961	7.2	20.8
8 9	19 1.03	-29 50.7	1.760	2.662	12.3	20.5	8 9	19 3.85	-26 4.7	2.056	2.962	10.6	21.0
8 19	18 56.60	-29 40.1	1.852	2.672	15.3	20.7	8 19	18 59.47	-26 2.3	2.140	2.962	13.5	21.2
162378	2000 <i>AF</i> ₂₀₁		7 11.9 215°51	2°8/13.2	18		499580	2010 <i>TT</i>					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
259283	2003 <i>EP</i> ₅		7 11.9	49°56'	4.3/13.9	18	484625	2008 <i>SA</i> ₁₄₄		7 11.9	205°99'	19.3/4.0	18
6 10	19 47.26	- 8 43.6	1.802	2.665	14.0	19.9	6 10	20 16.56	-56 58.5	1.172	2.004	21.9	21.3
6 20	19 42.07	- 8 53.2	1.754	2.686	10.7	19.7	6 20	20 7.83	-59 37.4	1.135	2.002	20.3	21.2
6 30	19 35.14	- 9 17.3	1.728	2.707	7.3	19.6	6 30	19 51.79	-61 44.3	1.114	1.998	19.4	21.1
7 10	19 27.26	- 9 54.2	1.727	2.729	4.6	19.5	7 10	19 30.25	-62 59.5	1.111	1.995	19.5	21.1
7 20	19 19.29	-10 41.4	1.752	2.750	5.0	19.5	7 20	19 7.24	-63 11.5	1.125	1.990	20.5	21.2
7 30	19 12.18	-11 35.0	1.804	2.772	7.8	19.7	7 30	18 47.76	-62 22.6	1.155	1.985	22.3	21.3
8 9	19 6.69	-12 31.1	1.879	2.794	10.9	20.0	8 9	18 35.16	-60 47.5	1.199	1.979	24.3	21.4
8 19	19 3.31	-13 26.3	1.977	2.817	13.8	20.2	8 19	18 30.21	-58 43.0	1.255	1.973	26.2	21.6
32419	2000 <i>RY</i> ₃₃		7 11.9	14°25'	4.7/11.1	18	430393	2014 <i>XD</i> ₂₆		7 11.9	179°63'	0.3/12.1	17
6 10	19 51.22	-31 30.5	1.211	2.119	16.3	16.7	6 10	19 53.79	-20 58.2	1.603	2.489	14.2	21.6
6 20	19 45.96	-31 50.4	1.161	2.123	12.1	16.5	6 20	19 47.22	-20 58.2	1.537	2.490	10.3	21.4
6 30	19 37.70	-32 3.2	1.132	2.128	7.6	16.3	6 30	19 38.25	-21 1.9	1.493	2.491	5.8	21.1
7 10	19 27.70	-32 3.2	1.126	2.134	4.8	16.1	7 10	19 27.83	-21 6.7	1.475	2.491	1.1	20.8
7 20	19 17.55	-31 47.3	1.142	2.142	6.8	16.2	7 20	19 17.14	-21 10.3	1.483	2.491	3.9	21.0
7 30	19 8.92	-31 15.7	1.182	2.150	11.0	16.5	7 30	19 7.46	-21 11.3	1.517	2.490	8.5	21.3
8 9	19 3.07	-30 32.2	1.242	2.160	15.1	16.8	8 9	18 59.87	-21 9.5	1.575	2.490	12.7	21.5
8 19	19 0.61	-29 41.1	1.320	2.170	18.7	17.0	8 19	18 55.05	-21 5.1	1.654	2.488	16.2	21.7
139222	2001 <i>HL</i> ₄		7 11.9	19°04'	2.9/10.9	18	494252	2016 <i>QM</i> ₂₁		7 11.9	297°68'	3.5/12.9	17
6 10	19 50.46	-25 10.1	1.274	2.180	15.8	18.9	6 10	19 49.06	-13 20.7	1.785	2.659	13.6	21.4
6 20	19 45.36	-26 8.8	1.220	2.183	11.4	18.6	6 20	19 43.61	-13 0.7	1.712	2.654	10.3	21.1
6 30	19 37.41	-27 10.7	1.187	2.186	6.6	18.4	6 30	19 36.17	-12 50.0	1.662	2.650	6.6	20.9
7 10	19 27.67	-28 8.4	1.177	2.190	2.9	18.2	7 10	19 27.49	-12 48.4	1.637	2.645	3.7	20.7
7 20	19 17.56	-28 55.8	1.191	2.195	5.7	18.3	7 20	19 18.51	-12 55.0	1.638	2.640	4.7	20.8
7 30	19 8.67	-29 28.7	1.229	2.200	10.4	18.6	7 30	19 10.29	-13 8.1	1.666	2.636	8.2	21.0
8 9	19 2.31	-29 46.9	1.289	2.205	14.8	18.9	8 9	19 3.75	-13 25.7	1.717	2.631	11.8	21.2
8 19	18 59.20	-29 52.1	1.367	2.212	18.5	19.2	8 19	18 59.50	-13 45.7	1.789	2.627	15.0	21.4
480694	2015 <i>PK</i> ₁₁₀		7 11.9	277°81'	1.2/11.5	18	292998	2006 <i>WK</i> ₁₆		7 11.9	265°95'	1.4/12.3	18
6 10	19 48.62	-24 10.8	2.161	3.046	11.1	21.5	6 10	19 52.21	-18 55.4	1.591	2.478	14.3	20.8
6 20	19 43.17	-24 35.3	2.082	3.036	8.0	21.3	6 20	19 46.21	-18 43.9	1.513	2.466	10.5	20.5
6 30	19 35.87	-25 1.4	2.028	3.025	4.6	21.0	6 30	19 37.78	-18 37.5	1.458	2.454	6.2	20.2
7 10	19 27.42	-25 26.1	1.999	3.015	1.3	20.8	7 10	19 27.78	-18 34.7	1.427	2.442	1.8	19.9
7 20	19 18.64	-25 46.6	1.999	3.004	3.5	20.9	7 20	19 17.33	-18 33.9	1.422	2.430	4.1	20.1
7 30	19 10.48	-26 1.1	2.026	2.993	7.1	21.1	7 30	19 7.73	-18 33.7	1.443	2.418	8.8	20.3
8 9	19 3.82	-26 9.1	2.077	2.983	10.5	21.3	8 9	19 0.14	-18 33.4	1.488	2.405	13.1	20.5
8 19	18 59.24	-26 11.0	2.151	2.972	13.4	21.5	8 19	18 55.29	-18 32.7	1.553	2.393	16.8	20.7
398917	2013 <i>CZ</i> ₁₅₆		7 11.9	358°88'	4.4/10.4	18	244834	2003 <i>UA</i> ₅₈		7 11.9	188°11'	5.1/13.7	17
6 10	19 49.06	-32 2.0	1.789	2.682	12.7	20.0	6 10	19 49.10	- 6 46.0	2.329	3.168	12.1	21.1
6 20	19 43.82	-32 41.8	1.727	2.680	9.4	19.8	6 20	19 43.21	- 6 16.7	2.254	3.167	9.6	20.9
6 30	19 36.34	-33 16.8	1.688	2.678	6.2	19.6	6 30	19 35.78	- 5 58.7	2.202	3.166	7.0	20.7
7 10	19 27.49	-33 42.2	1.674	2.678	4.4	19.4	7 10	19 27.42	- 5 52.5	2.177	3.165	5.2	20.6
7 20	19 18.38	-33 54.2	1.686	2.678	6.0	19.5	7 20	19 18.84	- 5 58.1	2.179	3.163	5.5	20.6
7 30	19 10.21	-33 51.7	1.723	2.678	9.2	19.7	7 30	19 10.84	- 6 14.2	2.208	3.160	7.6	20.8
8 9	19 4.00	-33 35.9	1.782	2.679	12.4	19.9	8 9	19 4.13	- 6 38.6	2.263	3.158	10.2	20.9
8 19	19 0.38	-33 9.7	1.863	2.681	15.3	20.1	8 19	18 59.21	- 7 8.5	2.340	3.154	12.7	21.1
135651	2002 <i>LM</i> ₆		7 11.9	346°12'	3.6/13.1	18	27091	Alisonbick		7 11.9	41°02'	7.0/13.5	18
6 10	19 46.71	-13 28.0	1.133	2.035	17.7	19.4	6 10	19 50.36	- 8 42.5	1.253	2.132	17.9	17.7
6 20	19 42.80	-13 35.6	1.070	2.028	13.3	19.2	6 20	19 44.86	- 7 45.6	1.207	2.145	14.0	17.5
6 30	19 36.06	-13 59.7	1.026	2.021	8.4	18.9	6 30	19 36.92	- 7 6.1	1.181	2.158	10.0	17.3
7 10	19 27.48	-14 38.8	1.004	2.016	4.0	18.6	7 10	19 27.60	- 6 45.8	1.176	2.173	7.3	17.2
7 20	19 18.39	-15 28.7	1.004	2.011	5.4	18.7	7 20	19 18.20	- 6 44.8	1.196	2.188	7.8	17.2
7 30	19 10.36	-16 24.2	1.026	2.007	10.4	18.9	7 30	19 10.04	- 7 0.7	1.238	2.203	10.9	17.5
8 9	19 4.74	-17 20.0	1.069	2.005	15.3	19.2	8 9	19 4.17	- 7 29.0	1.301	2.219	14.5	17.7
8 19	19 2.35	-18 11.8	1.130	2.003	19.6	19.5	8 19	19 1.16	- 8 4.8	1.383	2.236	17.9	18.0
134159	2005 <i>BP</i>		7 11.9	211°49'	0.1/11.9	18	215054	2009 <i>DJ</i> ₆₄		7 11.9	1°79'	1.5/12.5	18
6 10	19 50.55	-21 22.5	1.888	2.773	12.5	20.2	6 10	19 47.96	-15 55.8	1.123	2.028	17.5	19.4
6 20	19 44.63	-21 29.7	1.819	2.771	9.0	20.0	6 20	19 43.73	-16 38.5	1.065	2.026	12.9	19.1
6 30	19 36.70	-21 40.1	1.772	2.770	5.1	19.8	6 30	19 36.61	-17 37.0	1.027	2.026	7.5	18.8
7 10	19 27.55	-21 51.2	1.752	2.768	0.9	19.5	7 10	19 27.61	-18 46.3	1.011	2.026	2.1	18.5
7 20	19 18.15	-22 0.8	1.759	2.767	3.4	19.7	7 20	19 18.13	-19 59.7	1.017	2.027	4.7	18.7
7 30	19 9.55	-22 7.5	1.793	2.765	7.5	19.9	7 30	19 9.81	-21 10.3	1.047	2.029	10.2	19.0
8 9	19 2.68	-22 10.6	1.851	2.763	11.2	20.1	8 9	19 4.00	-22 12.9	1.098	2.031	15.3	19.3
8 19	18 58.13	-22 10.3	1.931	2.761	14.4	20.3	8 19	19 1.51	-23 4.8	1.167	2.034	19.5	19.6
79662	1998 <i>SS</i> ₃₀		7 11.9	144°77'	0.6/11.8	18	164054	2003 <i>VH</i> ₆		7 11.9	228°35'	2.4/11.1	18
6 10	19 53.32	-22 23.0	1.889	2.770	12.7	20.1	6 10	19 51.73	-28 2.5	2.112	2.994	11.5	20.6
6 20	19 46.56	-22 46.5	1.828	2.780	9.1	19.9	6 20	19 45.45	-28 27.1	2.036	2.987	8.4	20.4
6 30	19 37.74	-23 12.6	1.792	2.789	5.1	19.7	6 30	19 37.19	-28 49.9	1.985	2.980	5.0	20.2
7 10	19 27.73	-23 37.9	1.781	2.797	1.0	19.4	7 10	19 27.68	-29 7.4	1.961	2.972	2.5	20.0
7 20	19 17.52	-23 59.3	1.798	2.805	3.6	19.7	7 20	19 17.86	-29 16.7	1.965	2.965	4.3	20.1
7 30	19 8.23	-24 15.1	1.843	2.812	7.6	19.9	7 30	19 8.80	-29 16.6	1.995	2.957	7.7	20.3
8 9	19 0.77	-24 24.9	1.913	2.819	11.2	20.2	8 9	19 1.40	-29 7.7	2.051	2.949	11.0	20.5
8 19	18 55.73	-24 29.0	2.004	2.825	14.3	20.4	8 19	18 56.29	-28 51.5	2.128	2.940	13.9	20.7
263962	2009 <i>JA</i> ₄		7 11.9	330°85'	1.8/12.8	18	257721	1999 <i>XP</i> ₂₁₈		7 11.			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
34292	2000 QK ₁₅₁		7 11.9 305°85	3°4/12.8	18		415484	2014 OY ₂₂₉		7 11.9 354°49	1°8/12.4	17	
6 10	19 47.88	-13 31.9	1.992	2.863	12.5	18.0	6 10	19 47.16	-18 7.1	0.928	1.847	18.9	20.4
6 20	19 42.66	-13 3.4	1.910	2.850	9.5	17.8	6 20	19 43.57	-18 7.8	0.873	1.842	13.9	20.1
6 30	19 35.62	-12 42.4	1.851	2.837	6.2	17.6	6 30	19 36.69	-18 20.1	0.836	1.837	8.2	19.8
7 10	19 27.43	-12 29.3	1.818	2.824	3.6	17.4	7 10	19 27.68	-18 41.4	0.819	1.834	2.4	19.4
7 20	19 18.91	-12 23.7	1.811	2.812	4.5	17.4	7 20	19 18.18	-19 7.4	0.823	1.833	5.3	19.6
7 30	19 11.03	-12 24.7	1.832	2.800	7.7	17.6	7 30	19 10.06	-19 34.0	0.847	1.832	11.3	20.0
8 9	19 4.61	-12 31.0	1.876	2.788	11.1	17.8	8 9	19 4.84	-19 58.1	0.891	1.833	16.8	20.3
8 19	19 0.27	-12 41.0	1.942	2.776	14.2	18.0	8 19	19 3.33	-20 17.7	0.950	1.836	21.4	20.6
233290	2006 AM ₉₆		7 11.9 261°18	3°3/13.0	18		499106	2009 HP ₉		7 11.9 357°89	4°5/10.4	17	
6 10	19 50.26	-12 48.5	1.937	2.803	13.0	20.9	6 10	19 48.57	-26 51.2	1.076	1.993	17.1	20.5
6 20	19 44.53	-12 40.1	1.846	2.784	9.9	20.7	6 20	19 44.54	-28 10.2	1.022	1.990	12.5	20.2
6 30	19 36.78	-12 41.3	1.778	2.764	6.4	20.4	6 30	19 37.24	-29 32.4	0.988	1.987	7.6	19.9
7 10	19 27.66	-12 51.6	1.737	2.744	3.6	20.2	7 10	19 27.78	-30 48.2	0.975	1.986	4.5	19.7
7 20	19 18.06	-13 9.9	1.722	2.723	4.5	20.2	7 20	19 17.78	-31 48.7	0.985	1.986	7.3	19.9
7 30	19 9.02	-13 34.1	1.734	2.702	8.0	20.4	7 30	19 9.10	-32 28.6	1.017	1.987	12.1	20.2
8 9	19 1.50	-14 2.0	1.770	2.681	11.7	20.6	8 9	19 3.28	-32 47.7	1.068	1.988	16.8	20.4
8 19	18 56.21	-14 31.5	1.829	2.659	15.1	20.8	8 19	19 1.19	-32 48.6	1.136	1.991	20.7	20.7
453435	2009 QA ₁₂		7 11.9 297°36	2°8/13.3	18		385602	2005 EK ₁₃₀		7 11.9 157°19	0°6/11.8	17	
6 10	19 45.76	-12 2.8	2.280	3.145	11.4	20.8	6 10	19 51.33	-23 18.0	2.017	2.899	11.9	21.6
6 20	19 40.98	-12 13.1	2.199	3.135	8.6	20.6	6 20	19 45.09	-23 26.2	1.950	2.902	8.6	21.4
6 30	19 34.62	-12 33.2	2.141	3.126	5.6	20.4	6 30	19 36.95	-23 35.6	1.908	2.905	4.8	21.1
7 10	19 27.28	-13 2.1	2.109	3.116	3.1	20.2	7 10	19 27.69	-23 43.7	1.891	2.907	1.0	20.9
7 20	19 19.64	-13 37.8	2.104	3.107	3.8	20.2	7 20	19 18.23	-23 48.5	1.903	2.910	3.4	21.0
7 30	19 12.52	-14 18.0	2.127	3.097	6.7	20.4	7 30	19 9.59	-23 48.8	1.942	2.912	7.2	21.3
8 9	19 6.63	-15 0.1	2.176	3.088	9.8	20.6	8 9	19 2.62	-23 44.6	2.006	2.914	10.7	21.5
8 19	19 2.53	-15 41.9	2.247	3.079	12.6	20.7	8 19	18 57.89	-23 36.6	2.092	2.915	13.7	21.7
91062	1998 FH ₆₂		7 11.9 198°12	0°0/11.9	18		9515	Dubner		7 11.9 324°78	19°8/28.4	18	
6 10	19 51.53	-21 14.5	2.044	2.923	11.9	20.2	6 10	20 3.01	-60 4.4	1.272	2.098	20.8	16.2
6 20	19 45.25	-21 25.1	1.971	2.921	8.6	20.0	6 20	19 58.03	-62 37.6	1.222	2.075	20.0	16.0
6 30	19 37.06	-21 38.7	1.921	2.918	4.9	19.8	6 30	19 46.45	-64 41.5	1.189	2.053	19.8	15.9
7 10	19 27.69	-21 53.0	1.899	2.915	0.8	19.5	7 10	19 29.50	-65 59.4	1.172	2.031	20.3	15.9
7 20	19 18.04	-22 5.6	1.904	2.911	3.3	19.6	7 20	19 10.54	-66 20.0	1.170	2.011	21.4	15.9
7 30	19 9.14	-22 15.2	1.937	2.908	7.2	19.9	7 30	18 54.24	-65 42.2	1.183	1.992	23.0	16.0
8 9	19 1.86	-22 20.9	1.995	2.903	10.8	20.1	8 9	18 44.17	-64 15.6	1.208	1.974	24.8	16.0
8 19	18 56.78	-22 23.1	2.076	2.898	13.8	20.3	8 19	18 41.49	-62 13.2	1.244	1.957	26.6	16.1
147195	2002 VM ₉₂		7 11.9 155°89	0°1/11.9	17		519116	2010 MR ₂₇		7 11.9 255°25	2°3/13.1	18	
6 10	19 53.47	-21 25.6	1.842	2.723	13.0	20.7	6 10	19 46.80	-13 18.2	2.387	3.251	11.0	21.8
6 20	19 46.72	-21 31.5	1.778	2.729	9.3	20.4	6 20	19 41.69	-13 35.7	2.303	3.241	8.2	21.6
6 30	19 37.89	-21 40.2	1.737	2.734	5.2	20.2	6 30	19 35.03	-14 2.0	2.243	3.230	5.2	21.4
7 10	19 27.82	-21 49.2	1.723	2.739	0.9	19.9	7 10	19 27.38	-14 35.7	2.210	3.220	2.5	21.2
7 20	19 17.56	-21 56.2	1.736	2.744	3.5	20.1	7 20	19 19.44	-15 14.8	2.205	3.209	3.4	21.3
7 30	19 8.23	-22 0.1	1.777	2.748	7.7	20.4	7 30	19 11.97	-15 56.8	2.228	3.198	6.4	21.5
8 9	19 0.75	-22 0.4	1.842	2.751	11.4	20.6	8 9	19 5.70	-16 39.2	2.277	3.187	9.5	21.6
8 19	18 55.72	-21 57.6	1.929	2.754	14.6	20.8	8 19	19 1.18	-17 20.2	2.349	3.176	12.3	21.8
185190	2006 SA ₃₉₅		7 11.9 243°91	1°8/11.3	17		39247	2000 YU ₈₆		7 11.9 54°34	2°4/12.6	18	
6 10	19 52.17	-23 45.4	1.537	2.430	14.3	20.8	6 10	19 49.24	-16 17.7	2.064	2.937	12.1	18.5
6 20	19 46.34	-24 31.6	1.469	2.427	10.4	20.5	6 20	19 43.41	-15 48.4	2.003	2.947	8.9	18.4
6 30	19 37.93	-25 21.7	1.424	2.423	5.9	20.3	6 30	19 35.92	-15 24.6	1.967	2.957	5.4	18.2
7 10	19 27.86	-26 10.3	1.404	2.419	1.9	20.0	7 10	19 27.51	-15 6.1	1.957	2.968	2.6	18.0
7 20	19 17.34	-26 52.3	1.410	2.415	4.7	20.2	7 20	19 19.02	-14 52.3	1.974	2.978	3.7	18.1
7 30	19 7.77	-27 24.1	1.441	2.411	9.3	20.4	7 30	19 11.32	-14 42.9	2.019	2.989	7.0	18.3
8 9	19 0.35	-27 44.9	1.496	2.407	13.5	20.7	8 9	19 5.14	-14 36.9	2.089	3.000	10.2	18.5
8 19	18 55.85	-27 55.4	1.570	2.402	17.0	20.9	8 19	19 0.98	-14 33.6	2.181	3.011	13.0	18.7
308026	2004 RF ₂₇₉		7 11.9 224°61	4°8/13.4	17		210928	2001 TN ₂₉		7 11.9 275°43	3°0/13.1	18	
6 10	19 51.67	-10 46.3	1.443	2.318	16.2	20.7	6 10	19 47.76	-13 4.2	2.075	2.943	12.2	20.8
6 20	19 45.91	-10 34.3	1.374	2.314	12.4	20.5	6 20	19 42.52	-12 56.7	1.996	2.935	9.2	20.6
6 30	19 37.66	-10 37.2	1.326	2.310	8.3	20.2	6 30	19 35.54	-12 58.0	1.941	2.927	5.9	20.3
7 10	19 27.82	-10 54.6	1.301	2.306	5.1	20.0	7 10	19 27.47	-13 7.6	1.911	2.919	3.3	20.2
7 20	19 17.56	-11 24.6	1.301	2.301	5.9	20.0	7 20	19 19.11	-13 24.2	1.909	2.911	4.1	20.2
7 30	19 8.21	-12 4.1	1.326	2.297	9.7	20.3	7 30	19 11.35	-13 46.0	1.933	2.903	7.3	20.4
8 9	19 0.93	-12 48.8	1.373	2.292	13.9	20.5	8 9	19 5.00	-14 10.8	1.982	2.895	10.6	20.6
8 19	18 56.48	-13 35.0	1.441	2.287	17.6	20.7	8 19	19 0.64	-14 36.9	2.054	2.886	13.6	20.7
389175	2009 BK ₁₂₃		7 11.9 235°65	12°0/18.0	17		90189	2003 AS ₄₀		7 11.9 324°46	6°7/13.4	18	
6 10	19 53.86	+ 7 3.6	1.254	2.064	21.9	20.7	6 10	19 45.37	-10 33.7	0.976	1.881	19.5	17.8
6 20	19 47.99	+ 6 46.2	1.175	2.054	18.9	20.5	6 20	19 42.37	- 9 59.6	0.902	1.858	15.3	17.5
6 30	19 39.12	+ 5 47.9	1.112	2.043	15.6	20.2	6 30	19 36.16	- 9 44.3	0.846	1.835	10.7	17.1
7 10	19 28.11	+ 4 4.6	1.070	2.031	12.9	20.0	7 10	19 27.65	- 9 50.4	0.808	1.814	7.0	16.9
7 20	19 16.25	+ 1 38.3	1.050	2.019	12.1	20.0	7 20	19 18.23	-10 18.1	0.791	1.793	7.9	16.8
7 30	19 5.17	- 1 21.5	1.054	2.006	13.9	20.0	7 30	19 9.72	-11 3.9	0.793	1.774	12.6	17.0
8 9	18 56.37	- 4 39.4	1.081	1.992	17.4	20.2	8 9	19 3.80	-12 1.7	0.814	1.757	18.0	17.2
8 19	18 50.87	- 7 59.5	1.129	1.978	21.3	20.4	8 19	19 1.58	-13 4.6	0.851	1.741	22.9	17.4
479143	2013 BU ₆₁		7 11.9 60°22	2°6/11.3	18		174744	2003 UA ₂₃₇		7 11.9 189°69	3°3/10.9	17	
6 10	19 51.35												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
90785	1994 <i>JU</i> ₂		7 11.9 282°23	6°2/13.6	18		132593	2002 <i>JX</i> ₁₃₂		7 11.9	7°91	3°6/12.6	18
6 10	19 48.97	- 7 9.9	1.773	2.629	14.5	19.4	6 10	19 50.05	-16 8.3	1.134	2.036	17.6	18.8
6 20	19 43.69	- 6 30.9	1.690	2.613	11.6	19.1	6 20	19 45.10	-15 30.8	1.079	2.037	13.1	18.6
6 30	19 36.34	- 6 5.4	1.628	2.597	8.6	18.9	6 30	19 37.32	-15 2.9	1.042	2.038	8.1	18.3
7 10	19 27.63	- 5 55.1	1.590	2.581	6.4	18.8	7 10	19 27.81	-14 45.0	1.028	2.040	3.9	18.1
7 20	19 18.48	- 6 0.2	1.578	2.565	6.9	18.7	7 20	19 18.02	-14 36.2	1.036	2.043	5.6	18.2
7 30	19 9.95	- 6 19.7	1.591	2.549	9.5	18.9	7 30	19 9.50	-14 35.3	1.068	2.046	10.5	18.5
8 9	19 3.03	- 6 50.5	1.627	2.533	12.9	19.0	8 9	19 3.53	-14 40.2	1.119	2.051	15.2	18.7
8 19	18 58.40	- 7 28.9	1.684	2.517	16.0	19.2	8 19	19 0.79	-14 48.8	1.189	2.056	19.2	19.0
470630	2008 <i>SM</i> ₄₂		7 11.9 320°84	1°9/11.5	18		281107	2006 <i>XR</i> ₇₃		7 11.9 150°03	0°1/11.9	18	
6 10	19 48.73	-24 57.1	1.332	2.238	15.2	21.4	6 10	19 49.00	-18 34.2	2.749	3.616	9.6	20.6
6 20	19 44.38	-25 17.8	1.249	2.212	11.2	21.1	6 20	19 43.10	-19 38.4	2.679	3.623	6.9	20.4
6 30	19 37.12	-25 40.9	1.186	2.186	6.5	20.8	6 30	19 35.77	-20 48.1	2.635	3.630	3.9	20.3
7 10	19 27.80	-26 2.0	1.146	2.161	2.1	20.4	7 10	19 27.54	-22 0.0	2.620	3.636	0.6	20.0
7 20	19 17.72	-26 16.5	1.130	2.137	5.1	20.5	7 20	19 19.06	-23 10.4	2.635	3.642	2.6	20.2
7 30	19 8.48	-26 21.7	1.138	2.114	10.4	20.8	7 30	19 11.06	-24 16.3	2.681	3.647	5.7	20.4
8 9	19 1.55	-26 17.1	1.166	2.091	15.3	21.0	8 9	19 4.18	-25 15.4	2.755	3.653	8.5	20.6
8 19	18 57.90	-26 4.1	1.213	2.070	19.6	21.2	8 19	18 58.93	-26 6.8	2.852	3.658	10.9	20.8
21302	Shirakamisanchi		7 11.9 341°88	2°6/12.5	18		380812	2005 <i>YS</i> ₅₆		7 11.9 306°44	0°2/12.0	17	
6 10	19 49.97	-17 21.8	1.206	2.107	16.9	18.1	6 10	19 52.22	-21 52.9	1.625	2.515	13.9	21.0
6 20	19 45.06	-16 59.0	1.142	2.100	12.5	17.8	6 20	19 46.12	-21 42.5	1.557	2.512	10.1	20.7
6 30	19 37.33	-16 44.6	1.098	2.095	7.5	17.6	6 30	19 37.70	-21 34.2	1.512	2.510	5.7	20.5
7 10	19 27.80	-16 37.7	1.076	2.090	3.0	17.3	7 10	19 27.87	-21 26.1	1.491	2.508	1.0	20.1
7 20	19 17.87	-16 36.8	1.078	2.085	5.0	17.4	7 20	19 17.78	-21 16.6	1.497	2.505	3.8	20.3
7 30	19 9.06	-16 40.4	1.103	2.082	10.1	17.7	7 30	19 8.66	-21 5.0	1.529	2.503	8.4	20.6
8 9	19 2.70	-16 46.6	1.148	2.079	15.0	17.9	8 9	19 1.57	-20 51.5	1.585	2.501	12.5	20.8
8 19	18 59.54	-16 54.0	1.213	2.077	19.1	18.2	8 19	18 57.15	-20 36.6	1.661	2.499	16.0	21.1
75458	1999 <i>XS</i> ₁₄₇		7 11.9 64°46	1°8/11.4	18 R		418221	2008 <i>CY</i> ₁₈₁		7 11.9 30°02	3°6/13.7	17	
6 10	19 52.81	-23 56.6	1.362	2.261	15.5	19.2	6 10	19 49.24	-10 5.9	1.402	2.280	16.4	20.1
6 20	19 46.78	-24 35.5	1.314	2.273	11.1	19.0	6 20	19 44.20	-10 50.8	1.339	2.282	12.4	19.9
6 30	19 38.12	-25 17.0	1.287	2.286	6.3	18.7	6 30	19 36.74	-11 55.2	1.297	2.285	8.0	19.6
7 10	19 27.92	-25 55.6	1.284	2.299	1.9	18.5	7 10	19 27.73	-13 15.8	1.279	2.289	4.1	19.4
7 20	19 17.53	-26 26.6	1.306	2.311	4.8	18.7	7 20	19 18.32	-14 46.7	1.287	2.292	4.9	19.5
7 30	19 8.43	-26 47.2	1.352	2.324	9.5	19.0	7 30	19 9.84	-16 20.8	1.319	2.296	9.1	19.7
8 9	19 1.75	-26 57.5	1.422	2.337	13.7	19.3	8 9	19 3.42	-17 51.6	1.375	2.300	13.4	20.0
8 19	18 58.13	-26 58.9	1.510	2.351	17.2	19.6	8 19	18 59.78	-19 14.5	1.452	2.304	17.2	20.2
231248	2005 <i>YJ</i> ₁₃₁		7 11.9 301°98	1°0/12.4	18		479991	2014 <i>KQ</i> ₂₂		7 11.9 68°36	3°4/13.0	16	
6 10	19 48.80	-17 19.6	1.527	2.418	14.6	20.5	6 10	19 48.78	-12 59.4	2.037	2.904	12.5	20.9
6 20	19 44.06	-17 52.3	1.440	2.395	10.7	20.2	6 20	19 43.16	-12 33.0	1.971	2.909	9.4	20.7
6 30	19 36.79	-18 36.4	1.375	2.372	6.3	19.9	6 30	19 35.85	-12 14.9	1.929	2.914	6.1	20.5
7 10	19 27.75	-19 28.6	1.334	2.349	1.6	19.5	7 10	19 27.56	-12 5.0	1.913	2.919	3.6	20.4
7 20	19 17.99	-20 24.5	1.318	2.327	4.1	19.6	7 20	19 19.10	-12 2.8	1.924	2.924	4.4	20.4
7 30	19 8.87	-21 19.5	1.328	2.304	9.1	19.8	7 30	19 11.38	-12 7.1	1.962	2.929	7.4	20.6
8 9	19 1.64	-22 9.7	1.361	2.282	13.7	20.0	8 9	19 5.15	-12 16.4	2.025	2.935	10.5	20.8
8 19	18 57.22	-22 52.9	1.413	2.261	17.8	20.2	8 19	19 0.93	-12 28.9	2.110	2.940	13.3	21.0
252203	2001 <i>FG</i> ₁₀₇		7 11.9 159°56	2°3/10.9	18		255030	2005 <i>TJ</i> ₇₄		7 12.0 214°97	3°2/13.7	18	
6 10	19 48.87	-28 33.3	2.666	3.544	9.5	20.6	6 10	19 46.37	- 9 25.5	2.889	3.734	9.8	21.3
6 20	19 43.06	-29 5.5	2.599	3.547	6.9	20.4	6 20	19 41.13	- 9 29.1	2.804	3.726	7.6	21.1
6 30	19 35.74	-29 35.9	2.558	3.551	4.2	20.3	6 30	19 34.64	- 9 41.6	2.744	3.718	5.2	21.0
7 10	19 27.51	-30 1.5	2.544	3.554	2.3	20.1	7 10	19 27.36	-10 2.4	2.711	3.710	3.4	20.8
7 20	19 19.11	-30 20.2	2.559	3.556	3.7	20.2	7 20	19 19.86	-10 30.4	2.706	3.701	3.7	20.9
7 30	19 11.30	-30 30.6	2.602	3.559	6.4	20.4	7 30	19 12.76	-11 3.9	2.730	3.692	5.9	21.0
8 9	19 4.79	-30 32.9	2.671	3.561	9.0	20.6	8 9	19 6.65	-11 40.9	2.781	3.682	8.3	21.1
8 19	19 0.06	-30 28.0	2.763	3.563	11.3	20.8	8 19	19 1.96	-12 19.4	2.856	3.672	10.6	21.3
381853	2009 <i>WK</i> ₂₅₉		7 11.9 214°17	1°9/12.7	18		23210	2000 <i>SA</i> ₂₉₃		7 12.0 353°94	6°2/10.4	18	
6 10	19 51.01	-15 48.5	2.285	3.150	11.4	22.6	6 10	19 53.48	-38 28.4	1.887	2.764	12.9	18.3
6 20	19 44.76	-15 49.3	2.201	3.141	8.4	22.4	6 20	19 47.04	-38 56.8	1.825	2.762	10.1	18.2
6 30	19 36.78	-15 56.4	2.142	3.132	5.1	22.2	6 30	19 38.20	-39 14.3	1.786	2.760	7.5	18.0
7 10	19 27.71	-16 8.6	2.111	3.123	2.1	21.9	7 10	19 27.96	-39 15.9	1.771	2.759	6.2	17.9
7 20	19 18.33	-16 24.2	2.107	3.112	3.4	22.0	7 20	19 17.54	-38 58.8	1.782	2.758	7.3	18.0
7 30	19 9.52	-16 41.7	2.132	3.101	6.8	22.2	7 30	19 8.23	-38 23.4	1.818	2.757	9.9	18.1
8 9	19 2.08	-16 59.7	2.184	3.090	10.1	22.4	8 9	19 1.10	-37 32.9	1.877	2.757	12.7	18.3
8 19	18 56.59	-17 17.0	2.258	3.077	12.9	22.6	8 19	18 56.74	-36 32.0	1.957	2.757	15.3	18.5
476587	2008 <i>RP</i> ₁₃₇		7 11.9 225°95	11°5/17.5	18		371591	2006 <i>WQ</i> ₄₉		7 12.0 278°89	2°2/11.1	18	
6 10	19 47.69	+ 9 55.1	1.938	2.704	16.7	21.3	6 10	19 51.90	-24 13.6	1.553	2.447	14.2	21.2
6 20	19 42.55	+10 36.6	1.868	2.701	14.9	21.1	6 20	19 46.38	-25 7.6	1.471	2.429	10.3	20.9
6 30	19 35.60	+10 52.7	1.816	2.698	13.1	21.0	6 30	19 38.15	-26 6.7	1.412	2.410	6.0	20.6
7 10	19 27.51	+10 40.0	1.785	2.695	11.9	20.9	7 10	19 28.02	-27 5.2	1.378	2.392	2.3	20.3
7 20	19 19.11	+ 9 57.8	1.776	2.691	11.6	20.9	7 20	19 17.18	-27 56.9	1.369	2.373	5.0	20.5
7 30	19 11.34	+ 8 48.6	1.790	2.688	12.4	21.0	7 30	19 7.08	-28 37.6	1.386	2.354	9.7	20.7
8 9	19 5.04	+ 7 17.9	1.826	2.684	14.0	21.1	8 9	18 59.06	-29 5.4	1.426	2.335	14.1	20.9
8 19	19 0.81	+ 5 32.9	1.883	2.680	16.0	21.2	8 19	18 54.03	-29 21.2	1.485	2.316	17.9	21.1
3790	Raywilson		7 11.9 248°37	0°1/11.9	18		394349	2007 <i>AH</i> ₂₈		7 12.0 1			