

EPHEMERIDES

7 5.9

7 6.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
36718	2000 <i>RK</i> ₄₁		7 5.9 188°22	2°0/ 6.5 18			390782	2003 <i>WQ</i> ₁₀₉		7 5.9 205°91	2°6/ 5.1 18		
5 31	19 25.49	-16 0.5	2.801	3.626	10.6	18.8	5 31	19 29.59	-29 43.8	2.565	3.401	11.1	22.6
6 10	19 20.36	-15 44.5	2.715	3.625	8.2	18.6	6 10	19 23.87	-30 18.2	2.477	3.395	8.6	22.4
6 20	19 13.73	-15 32.9	2.653	3.624	5.5	18.5	6 20	19 16.20	-30 51.3	2.414	3.389	5.7	22.2
6 30	19 6.08	-15 25.6	2.617	3.622	2.9	18.3	6 30	19 7.11	-31 19.7	2.378	3.382	3.2	22.0
7 10	18 58.02	-15 22.2	2.611	3.620	2.3	18.2	7 10	18 57.39	-31 40.5	2.370	3.375	3.1	22.0
7 20	18 50.20	-15 22.1	2.633	3.617	4.7	18.4	7 20	18 47.92	-31 52.0	2.390	3.366	5.7	22.2
7 30	18 43.28	-15 24.8	2.684	3.615	7.5	18.6	7 30	18 39.57	-31 54.2	2.438	3.358	8.6	22.4
8 9	18 37.76	-15 29.8	2.759	3.611	10.0	18.7	8 9	18 33.02	-31 48.3	2.510	3.348	11.3	22.5
244853	2003 <i>UB</i> ₁₄₈		7 5.9 277°49	1°8/ 5.4 18			98213	2000 <i>SV</i> ₁₃₈		7 6.0 296°54	4°3/ 6.6 18		
5 31	19 27.54	-24 48.1	1.890	2.744	13.8	20.4	5 31	19 27.22	-14 35.8	1.350	2.210	17.9	19.5
6 10	19 22.99	-25 32.7	1.800	2.730	10.6	20.1	6 10	19 23.35	-14 4.1	1.266	2.194	14.2	19.2
6 20	19 15.98	-26 21.4	1.733	2.716	6.8	19.9	6 20	19 16.52	-13 41.9	1.202	2.179	9.9	18.9
6 30	19 7.10	-27 10.0	1.691	2.702	3.0	19.6	6 30	19 7.40	-13 30.7	1.159	2.164	5.7	18.7
7 10	18 57.29	-27 54.3	1.676	2.688	2.8	19.6	7 10	18 57.15	-13 30.5	1.140	2.149	4.7	18.6
7 20	18 47.66	-28 30.8	1.688	2.674	6.7	19.8	7 20	18 47.20	-13 40.4	1.145	2.134	8.6	18.7
7 30	18 39.39	-28 57.9	1.725	2.660	10.6	20.0	7 30	18 38.96	-13 58.8	1.172	2.119	13.4	19.0
8 9	18 33.37	-29 15.7	1.785	2.645	14.2	20.2	8 9	18 33.54	-14 23.1	1.219	2.105	17.7	19.2
307029	2001 <i>XB</i> ₁₃₃		7 5.9 173°68	5°7/ 6.7 18			341210	2007 <i>RQ</i> ₁₁₇		7 6.0 213°87	1°3/ 5.7 18		
5 31	19 29.47	-9 8.0	2.049	2.863	14.3	21.1	5 31	19 28.45	-25 50.7	2.138	2.984	12.7	21.7
6 10	19 23.79	-8 6.3	1.971	2.865	11.6	20.9	6 10	19 23.23	-26 5.0	2.055	2.981	9.7	21.5
6 20	19 16.10	-7 14.7	1.915	2.867	8.7	20.7	6 20	19 15.88	-26 19.6	1.996	2.977	6.2	21.3
6 30	19 7.02	-6 33.2	1.885	2.869	6.3	20.6	6 30	19 7.00	-26 31.9	1.962	2.973	2.6	21.0
7 10	18 57.41	-6 5.1	1.882	2.870	5.9	20.5	7 10	18 57.49	-26 39.6	1.956	2.969	2.2	21.0
7 20	18 48.16	-5 50.3	1.905	2.870	7.8	20.6	7 20	18 48.32	-26 41.3	1.978	2.964	5.8	21.2
7 30	18 40.18	-5 48.1	1.954	2.870	10.6	20.8	7 30	18 40.44	-26 37.1	2.026	2.960	9.3	21.4
8 9	18 34.12	-5 56.5	2.026	2.870	13.4	21.0	8 9	18 34.60	-26 28.0	2.097	2.955	12.5	21.6
245273	2005 <i>BQ</i>		7 5.9 171°14	1°0/ 5.7 18			153647	2001 <i>TJ</i> ₉₇		7 6.0 237°50	7°7/ 3.9 18		
5 31	19 29.28	-25 14.9	2.223	3.065	12.4	21.4	5 31	19 34.39	-40 0.1	1.793	2.632	15.1	19.8
6 10	19 23.69	-25 25.3	2.144	3.068	9.4	21.2	6 10	19 28.73	-41 5.3	1.720	2.626	12.3	19.6
6 20	19 16.06	-25 36.1	2.089	3.070	6.0	21.0	6 20	19 19.89	-42 2.1	1.667	2.621	9.7	19.4
6 30	19 7.01	-25 44.9	2.061	3.072	2.4	20.8	6 30	19 8.66	-42 42.6	1.639	2.615	7.9	19.3
7 10	18 57.42	-25 49.7	2.060	3.073	1.9	20.7	7 10	18 56.38	-43 0.8	1.635	2.609	8.1	19.3
7 20	18 48.20	-25 49.3	2.088	3.074	5.5	21.0	7 20	18 44.62	-42 54.5	1.656	2.603	10.2	19.4
7 30	18 40.27	-25 44.0	2.142	3.075	8.9	21.2	7 30	18 34.87	-42 25.8	1.701	2.596	13.1	19.6
8 9	18 34.30	-25 34.7	2.220	3.075	12.0	21.4	8 9	18 28.17	-41 40.2	1.765	2.590	15.9	19.8
391727	2008 <i>CH</i> ₁₃₁		7 5.9 1°11	4°4/ 7.6 18			234079	1999 <i>TO</i> ₄₈		7 6.0 166°37	0°7/ 6.2 18		
5 31	19 23.05	-9 28.1	1.906	2.738	14.6	20.4	5 31	19 28.08	-19 39.6	2.240	3.078	12.5	22.1
6 10	19 19.18	-9 30.5	1.829	2.737	11.6	20.2	6 10	19 22.73	-19 49.7	2.161	3.082	9.5	21.9
6 20	19 13.31	-9 46.2	1.773	2.737	8.4	20.0	6 20	19 15.45	-20 4.3	2.106	3.085	6.1	21.7
6 30	19 6.00	-10 15.4	1.741	2.737	5.4	19.8	6 30	19 6.82	-20 21.7	2.077	3.088	2.5	21.5
7 10	18 58.08	-10 56.6	1.735	2.737	4.5	19.8	7 10	18 57.65	-20 40.0	2.077	3.091	1.6	21.4
7 20	18 50.47	-11 47.1	1.755	2.738	6.8	19.9	7 20	18 48.81	-20 57.6	2.104	3.093	5.3	21.7
7 30	18 44.05	-12 43.7	1.801	2.739	10.0	20.1	7 30	18 41.15	-21 13.6	2.158	3.094	8.7	21.9
8 9	18 39.53	-13 42.6	1.869	2.741	13.1	20.3	8 9	18 35.34	-21 27.4	2.236	3.096	11.7	22.1
125061	2001 <i>TU</i> ₂₃₃		7 5.9 101°89	2°0/ 5.6 17			358927	2008 <i>HR</i> ₂₅		7 6.0 137°62	0°6/ 5.8 18		
5 31	19 33.05	-25 52.3	1.395	2.258	17.2	20.2	5 31	19 26.14	-23 48.1	2.518	3.359	11.2	22.4
6 10	19 27.56	-26 16.3	1.335	2.269	13.2	20.0	6 10	19 21.09	-24 4.0	2.443	3.366	8.5	22.3
6 20	19 18.98	-26 41.5	1.295	2.279	8.5	19.7	6 20	19 14.32	-24 21.5	2.391	3.372	5.4	22.1
6 30	19 8.21	-27 3.2	1.279	2.290	3.6	19.5	6 30	19 6.36	-24 38.4	2.366	3.378	2.1	21.9
7 10	18 56.69	-27 17.3	1.287	2.300	3.1	19.5	7 10	18 57.96	-24 52.8	2.370	3.383	1.6	21.8
7 20	18 45.92	-27 21.8	1.321	2.310	7.7	19.8	7 20	18 49.88	-25 3.6	2.401	3.389	4.8	22.1
7 30	18 37.28	-27 17.3	1.379	2.320	12.2	20.1	7 30	18 42.87	-25 10.3	2.460	3.394	7.9	22.3
8 9	18 31.69	-27 6.2	1.457	2.329	16.1	20.3	8 9	18 37.51	-25 13.2	2.544	3.399	10.6	22.5
161807	2006 <i>VS</i> ₉₆		7 5.9 208°79	0°5/ 6.1 18			77298	2001 <i>FP</i> ₇₃		7 6.0 28°17	2°4/ 5.4 18		
5 31	19 29.89	-20 14.7	1.956	2.799	13.8	21.5	5 31	19 27.83	-27 4.9	1.742	2.602	14.5	19.2
6 10	19 24.48	-20 26.1	1.871	2.794	10.6	21.3	6 10	19 23.21	-27 39.1	1.673	2.604	11.1	19.0
6 20	19 16.76	-20 42.3	1.808	2.788	6.9	21.0	6 20	19 16.07	-28 14.1	1.625	2.607	7.2	18.8
6 30	19 7.36	-21 1.5	1.771	2.782	2.7	20.8	6 30	19 7.13	-28 45.5	1.601	2.610	3.4	18.5
7 10	18 57.21	-21 21.1	1.761	2.775	1.8	20.7	7 10	18 57.47	-29 9.6	1.604	2.614	3.2	18.5
7 20	18 47.36	-21 39.4	1.779	2.768	6.0	20.9	7 20	18 48.27	-29 24.0	1.632	2.617	6.9	18.8
7 30	18 38.85	-21 55.1	1.823	2.760	10.0	21.2	7 30	18 40.67	-29 28.5	1.685	2.621	10.7	19.0
8 9	18 32.51	-22 8.0	1.890	2.752	13.4	21.4	8 9	18 35.51	-29 24.8	1.760	2.625	14.1	19.2
304672	2006 <i>WH</i> ₉₅		7 5.9 148°62	1°5/ 5.5 18			80729	2000 <i>CS</i> ₂₈		7 6.0 132°98	1°3/ 6.3 18		
5 31	19 26.87	-25 49.2	2.532	3.373	11.1	21.9	5 31	19 30.21	-18 33.6	1.799	2.643	14.8	20.2
6 10	19 21.68	-26 19.9	2.456	3.379	8.4	21.8	6 10	19 24.69	-18 36.5	1.730	2.653	11.3	20.0
6 20	19 14.71	-26 51.5	2.405	3.385	5.4	21.6	6 20	19 16.84	-18 45.4	1.683	2.662	7.4	19.8
6 30	19 6.51	-27 21.0	2.380	3.390	2.4	21.4	6 30	19 7.38	-18 58.8	1.661	2.671	3.2	19.6
7 10	18 57.81	-27 46.2	2.384	3.395	2.1	21.4	7 10	18 57.32	-19 14.6	1.666	2.680	2.1	19.5
7 20	18 49.42	-28 5.2	2.416	3.400	5.1	21.6	7 20	18 47.75	-19 31.1	1.698	2.688	6.2	19.8
7 30	18 42.10	-28 17.6	2.476	3.405	8.1	21.8	7 30	18 39.70	-19 47.0	1.756	2.696	10.1	20.0
8 9	18 36.49	-28 24.0	2.559	3.409	10.7	22.0	8 9	18 33.93	-20 1.7	1.836	2.703	13.6	20.3
151122	2001 <i>WU</i> ₅₆												

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
91903	1999 VA ₁₉		7 6.0 288°65	9°5/ 6.7 18			260063	2004 HE ₃₉		7 6.0 127°03	17°4/ 6.7 18		
5 31	19 25.08	+ 2 50.4	2.352	3.114	14.2	19.4	5 31	19 33.08	+ 5 5.2	1.149	1.946	24.2	20.2
6 10	19 20.37	+ 4 22.8	2.269	3.105	12.5	19.3	6 10	19 27.82	+ 7 54.1	1.098	1.952	21.6	20.0
6 20	19 13.94	+ 5 41.9	2.207	3.096	10.8	19.2	6 20	19 19.31	+10 17.0	1.064	1.958	19.3	19.9
6 30	19 6.27	+ 6 43.2	2.169	3.086	9.7	19.1	6 30	19 8.46	+12 1.5	1.048	1.963	17.7	19.8
7 10	18 58.04	+ 7 23.6	2.155	3.077	9.5	19.0	7 10	18 56.68	+12 59.4	1.051	1.969	17.5	19.8
7 20	18 50.01	+ 7 42.0	2.165	3.068	10.4	19.1	7 20	18 45.56	+13 8.8	1.072	1.974	18.6	19.9
7 30	18 42.94	+ 7 39.3	2.199	3.059	11.9	19.2	7 30	18 36.58	+12 34.4	1.111	1.978	20.5	20.0
8 9	18 37.44	+ 7 18.4	2.254	3.051	13.7	19.3	8 9	18 30.77	+11 26.4	1.165	1.982	22.8	20.2
294062	2007 TX ₁₆₅		7 6.0 274°32	5°3/ 3.8 18			342766	2008 WC ₉₇		7 6.0 247°09	1°6/ 6.2 18		
5 31	19 29.97	-33 46.7	2.079	2.923	13.1	20.5	5 31	19 29.97	-20 16.9	2.007	2.848	13.6	20.0
6 10	19 25.00	-35 0.4	1.987	2.905	10.4	20.3	6 10	19 24.45	-19 42.2	1.917	2.838	10.5	19.7
6 20	19 17.40	-36 13.1	1.918	2.886	7.5	20.1	6 20	19 16.71	-19 9.1	1.850	2.828	6.9	19.5
6 30	19 7.74	-37 18.2	1.874	2.866	5.5	19.9	6 30	19 7.38	-18 37.3	1.809	2.818	3.1	19.2
7 10	18 57.00	-38 10.1	1.858	2.847	5.8	19.9	7 10	18 57.39	-18 6.9	1.795	2.807	2.3	19.2
7 20	18 46.34	-38 44.8	1.868	2.827	8.3	20.0	7 20	18 47.73	-17 38.4	1.809	2.797	6.1	19.4
7 30	18 37.03	-39 1.7	1.902	2.808	11.4	20.1	7 30	18 39.41	-17 12.6	1.849	2.786	9.9	19.6
8 9	18 30.09	-39 2.8	1.959	2.788	14.4	20.3	8 9	18 33.18	-16 50.1	1.912	2.774	13.3	19.8
211053	2002 CF ₆₄		7 6.0 181°62	3°1/ 5.2 17			347971	2003 SN ₄₄		7 6.0 292°03	4°8/ 6.8 18		
5 31	19 34.06	-28 25.6	1.821	2.667	14.6	20.9	5 31	19 26.09	-11 31.4	1.830	2.665	15.0	20.8
6 10	19 27.98	-29 10.9	1.745	2.668	11.2	20.7	6 10	19 21.87	-10 59.5	1.727	2.638	12.1	20.5
6 20	19 19.17	-29 56.2	1.691	2.669	7.4	20.5	6 20	19 15.31	-10 36.9	1.645	2.611	8.8	20.3
6 30	19 8.35	-30 36.4	1.662	2.669	3.9	20.3	6 30	19 6.94	-10 25.2	1.587	2.584	5.7	20.0
7 10	18 56.66	-31 6.6	1.661	2.668	3.8	20.3	7 10	18 57.61	-10 25.0	1.555	2.556	5.0	19.9
7 20	18 45.41	-31 24.3	1.687	2.667	7.3	20.5	7 20	18 48.36	-10 36.0	1.548	2.529	7.7	20.0
7 30	18 35.83	-31 29.4	1.739	2.664	11.1	20.7	7 30	18 40.27	-10 56.7	1.566	2.501	11.5	20.2
8 9	18 28.86	-31 24.1	1.812	2.661	14.5	20.9	8 9	18 34.28	-11 25.0	1.606	2.473	15.1	20.3
374750	2006 SP ₁₉₆		7 6.0 274°52	8°6/ 4.3 18			480699	2015 PH ₁₂₈		7 6.0 151°16	2°1/ 6.8 18		
5 31	19 35.46	-40 53.4	1.562	2.406	16.6	21.1	5 31	19 24.48	-14 43.8	2.311	3.144	12.3	21.4
6 10	19 30.03	-41 53.8	1.488	2.398	13.7	20.9	6 10	19 19.98	-14 56.7	2.231	3.146	9.5	21.3
6 20	19 20.97	-42 43.9	1.435	2.389	10.8	20.7	6 20	19 13.71	-15 17.5	2.174	3.147	6.4	21.1
6 30	19 9.15	-43 14.7	1.403	2.380	8.9	20.5	6 30	19 6.20	-15 45.3	2.142	3.148	3.3	20.9
7 10	18 56.12	-43 19.4	1.396	2.371	9.1	20.5	7 10	18 58.18	-16 18.3	2.138	3.149	2.4	20.8
7 20	18 43.73	-42 55.9	1.412	2.362	11.3	20.6	7 20	18 50.41	-16 54.6	2.162	3.150	5.2	21.0
7 30	18 33.71	-42 7.7	1.451	2.353	14.4	20.8	7 30	18 43.68	-17 31.9	2.213	3.151	8.4	21.2
8 9	18 27.22	-41 1.8	1.509	2.344	17.6	21.0	8 9	18 38.60	-18 8.8	2.288	3.151	11.3	21.4
368867	2006 QU ₄₈		7 6.0 318°29	4°4/ 7.2 18			430980	2005 WL ₁₃₅		7 6.0 257°48	0°0/ 5.8 17		
5 31	19 23.47	-11 53.7	1.242	2.108	18.8	20.2	5 31	19 28.32	-20 23.8	1.898	2.745	14.0	22.0
6 10	19 20.79	-11 58.7	1.157	2.088	15.0	20.0	6 10	19 23.55	-20 56.8	1.805	2.731	10.8	21.7
6 20	19 15.09	-12 21.7	1.091	2.068	10.6	19.6	6 20	19 16.37	-21 36.9	1.734	2.716	6.9	21.5
6 30	19 6.95	-13 3.5	1.045	2.050	6.1	19.3	6 30	19 7.34	-22 21.2	1.688	2.700	2.7	21.2
7 10	18 57.52	-14 1.8	1.022	2.031	4.7	19.2	7 10	18 57.38	-23 5.9	1.670	2.684	1.8	21.1
7 20	18 48.24	-15 12.2	1.022	2.014	8.7	19.4	7 20	18 47.58	-23 47.9	1.679	2.668	6.3	21.3
7 30	18 40.65	-16 28.8	1.043	1.998	13.8	19.6	7 30	18 39.05	-24 24.8	1.713	2.652	10.4	21.6
8 9	18 35.97	-17 45.7	1.084	1.982	18.5	19.8	8 9	18 32.71	-24 55.8	1.770	2.635	14.1	21.7
401703	2013 HB ₄₀		7 6.0 251°71	10°0/ 8.1 16			498374	2007 WJ ₂₂		7 6.0 244°84	0°3/ 6.1 17		
5 31	19 23.44	+ 8 56.5	2.625	3.345	13.8	22.1	5 31	19 31.25	-22 18.0	1.537	2.394	16.2	21.8
6 10	19 19.00	+10 11.7	2.543	3.337	12.5	22.0	6 10	19 26.13	-22 8.3	1.456	2.387	12.5	21.5
6 20	19 13.00	+11 10.7	2.481	3.328	11.2	21.9	6 20	19 18.13	-22 1.2	1.396	2.379	8.1	21.3
6 30	19 5.91	+11 49.8	2.441	3.320	10.3	21.8	6 30	19 8.02	-21 54.8	1.360	2.372	3.2	21.0
7 10	18 58.31	+12 6.6	2.424	3.311	10.1	21.8	7 10	18 56.97	-21 47.3	1.349	2.364	2.1	20.9
7 20	18 50.88	+12 0.7	2.430	3.302	10.6	21.8	7 20	18 46.37	-21 37.8	1.364	2.355	7.1	21.2
7 30	18 44.29	+11 33.4	2.459	3.293	11.7	21.9	7 30	18 37.53	-21 26.5	1.403	2.347	11.8	21.4
8 9	18 39.09	+10 48.4	2.509	3.284	13.1	21.9	8 9	18 31.43	-21 14.6	1.464	2.338	15.9	21.6
260307	2004 TE ₁₂₃		7 6.0 190°88	8°8/ 9.5 18			439410	2013 CU ₃₀		7 6.0 340°32	0°3/ 6.1 18		
5 31	19 22.50	+ 7 59.7	2.771	3.495	13.1	20.9	5 31	19 24.85	-19 18.3	2.036	2.884	13.2	20.5
6 10	19 18.15	+ 8 44.8	2.693	3.495	11.6	20.8	6 10	19 20.60	-19 52.6	1.955	2.882	10.1	20.3
6 20	19 12.39	+ 9 13.6	2.634	3.494	10.3	20.7	6 20	19 14.29	-20 33.8	1.898	2.879	6.5	20.1
6 30	19 5.65	+ 9 23.4	2.598	3.492	9.2	20.6	6 30	19 6.47	-21 19.4	1.865	2.877	2.5	19.8
7 10	18 58.50	+ 9 12.9	2.586	3.491	8.8	20.6	7 10	18 58.00	-22 6.2	1.860	2.875	1.6	19.7
7 20	18 51.54	+ 8 42.8	2.598	3.490	9.3	20.6	7 20	18 49.78	-22 51.1	1.882	2.873	5.6	20.0
7 30	18 45.40	+ 7 55.1	2.634	3.488	10.4	20.7	7 30	18 42.76	-23 32.1	1.931	2.871	9.3	20.2
8 9	18 40.57	+ 6 53.5	2.692	3.486	11.8	20.8	8 9	18 37.67	-24 7.7	2.002	2.870	12.6	20.4
2965	Surikov		7 6.0 57°60	7°5/10.2 18			501656	2014 SG ₃₀₅		7 6.0 282°61	6°1/ 6.8 17		
5 31	19 30.54	+ 0 39.3	1.326	2.133	21.0	15.8	5 31	19 28.21	-11 10.8	1.371	2.220	18.3	21.9
6 10	19 25.38	- 0 21.2	1.273	2.158	17.3	15.6	6 10	19 24.19	-10 28.1	1.280	2.199	14.8	21.6
6 20	19 17.47	- 1 53.3	1.239	2.182	13.2	15.4	6 20	19 17.17	- 9 57.1	1.208	2.177	10.9	21.3
6 30	19 7.67	- 3 55.5	1.226	2.207	9.4	15.3	6 30	19 7.75	- 9 40.6	1.158	2.155	7.2	21.0
7 10	18 57.23	- 6 20.8	1.239	2.232	7.5	15.2	7 10	18 57.08	- 9 40.2	1.132	2.133	6.4	20.9
7 20	18 47.49	- 8 58.7	1.277	2.257	9.1	15.4	7 20	18 46.53	- 9 55.3	1.129	2.111	9.6	21.0
7 30	18 39.65	-11 37.7	1.342	2.282	12.6	15.7	7 30	18 37.60	-10 24.0	1.148	2.089	14.1	21.2
8 9	18 34.54	-14 8.3	1.429	2.307	16.1	16.0	8 9	18 31.45	-11 2.7	1.187	2.067	18.5	21.4
44262	1998 QR ₅₁		7 6.0 176°52	8°8/ 4.4 18			349195	2007 RF ₁₈₉		7 6.0 271°88	0°4/ 6.1 18		
5 31	19												

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7 6.0

7 6.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
437007	2012 <i>TU</i> ₂₄₇		7 6.0 47°50	6°5/ 4.8 16			77214	2001 <i>FM</i> ₂₃		7 6.0 45°23	4°4/ 7.2 18		
5 31	19 32.46	-38 15.9	1.784	2.629	14.9	21.3	5 31	19 27.06	-12 11.9	1.405	2.257	17.7	18.9
6 10	19 26.96	-38 58.2	1.720	2.633	12.0	21.1	6 10	19 22.87	-12 3.1	1.341	2.263	14.0	18.7
6 20	19 18.56	-39 31.6	1.676	2.637	9.0	20.9	6 20	19 15.99	-12 8.2	1.296	2.269	9.8	18.5
6 30	19 8.13	-39 50.1	1.656	2.642	6.8	20.8	6 30	19 7.21	-12 27.4	1.274	2.276	5.7	18.3
7 10	18 56.97	-39 49.2	1.661	2.646	6.9	20.8	7 10	18 57.68	-12 58.9	1.275	2.283	4.6	18.2
7 20	18 46.49	-39 28.3	1.692	2.651	9.1	21.0	7 20	18 48.68	-13 39.7	1.301	2.290	7.9	18.4
7 30	18 37.97	-38 49.8	1.746	2.656	12.0	21.2	7 30	18 41.41	-14 25.9	1.351	2.297	12.0	18.7
8 9	18 32.27	-37 58.9	1.822	2.661	14.8	21.4	8 9	18 36.73	-15 14.1	1.421	2.304	15.8	18.9
287611	2003 <i>GL</i> ₄₈		7 6.0 93°44	3°9/ 4.7 18			253927	2004 <i>CK</i> ₇₅		7 6.0 131°42	2°4/ 6.7 17		
5 31	19 27.96	-31 45.0	2.205	3.051	12.4	20.4	5 31	19 30.04	-15 31.3	1.803	2.641	15.0	21.5
6 10	19 22.98	-32 36.0	2.131	3.053	9.6	20.2	6 10	19 24.56	-15 32.4	1.735	2.652	11.6	21.3
6 20	19 15.81	-33 24.8	2.081	3.055	6.6	20.0	6 20	19 16.81	-15 42.1	1.688	2.663	7.8	21.1
6 30	19 7.07	-34 6.8	2.057	3.057	4.2	19.9	6 30	19 7.47	-15 59.3	1.666	2.673	3.9	20.9
7 10	18 57.67	-34 38.2	2.060	3.059	4.3	19.9	7 10	18 57.54	-16 22.1	1.672	2.683	2.9	20.9
7 20	18 48.61	-34 57.0	2.090	3.061	6.8	20.0	7 20	18 48.08	-16 48.4	1.704	2.692	6.3	21.1
7 30	18 40.88	-35 3.0	2.146	3.063	9.7	20.2	7 30	18 40.11	-17 16.3	1.762	2.700	10.2	21.3
8 9	18 35.23	-34 58.2	2.224	3.065	12.5	20.4	8 9	18 34.36	-17 44.1	1.842	2.709	13.5	21.6
475735	2006 <i>WZ</i> ₇₄		7 6.0 306°35	3°2/ 6.5 18			201568	2003 <i>SQ</i> ₃₈		7 6.0 212°60	2°9/ 6.8 18		
5 31	19 25.70	-15 16.6	2.039	2.878	13.5	21.4	5 31	19 27.33	-13 39.2	2.563	3.382	11.6	20.8
6 10	19 21.13	-14 43.8	1.955	2.872	10.6	21.2	6 10	19 22.00	-13 21.7	2.470	3.374	9.2	20.6
6 20	19 14.56	-14 16.7	1.893	2.866	7.3	21.0	6 20	19 14.98	-13 10.3	2.400	3.366	6.4	20.4
6 30	19 6.58	-13 56.1	1.856	2.859	4.1	20.8	6 30	19 6.75	-13 5.4	2.357	3.357	3.7	20.2
7 10	18 58.01	-13 42.2	1.846	2.853	3.5	20.7	7 10	18 57.99	-13 6.4	2.342	3.347	3.1	20.2
7 20	18 49.74	-13 34.8	1.863	2.847	6.3	20.9	7 20	18 49.43	-13 12.9	2.355	3.336	5.4	20.3
7 30	18 42.67	-13 33.3	1.905	2.842	9.7	21.1	7 30	18 41.82	-13 23.8	2.396	3.325	8.3	20.5
8 9	18 37.48	-13 36.8	1.971	2.836	12.8	21.3	8 9	18 35.76	-13 38.1	2.462	3.314	11.1	20.6
356194	2009 <i>LA</i> ₅		7 6.0 321°31	1°1/ 6.5 18			95217	2002 <i>CD</i> ₁₁		7 6.0 28°86	0°1/ 6.0 18		
5 31	19 24.94	-17 1.2	2.116	2.958	13.0	20.9	5 31	19 25.06	-21 49.1	1.943	2.797	13.5	19.1
6 10	19 20.57	-17 31.7	2.035	2.956	10.0	20.7	6 10	19 20.77	-22 6.4	1.874	2.803	10.2	18.9
6 20	19 14.24	-18 10.2	1.976	2.954	6.5	20.5	6 20	19 14.38	-22 27.5	1.827	2.810	6.5	18.6
6 30	19 6.47	-18 54.9	1.942	2.952	2.8	20.3	6 30	19 6.54	-22 50.3	1.805	2.817	2.5	18.4
7 10	18 58.08	-19 42.9	1.936	2.950	1.8	20.2	7 10	18 58.15	-23 12.1	1.810	2.824	1.7	18.4
7 20	18 49.93	-20 31.3	1.958	2.948	5.4	20.4	7 20	18 50.16	-23 31.2	1.841	2.832	5.7	18.6
7 30	18 42.91	-21 17.5	2.006	2.947	9.0	20.7	7 30	18 43.49	-23 46.4	1.898	2.840	9.4	18.9
8 9	18 37.72	-22 0.0	2.078	2.945	12.2	20.9	8 9	18 38.84	-23 57.7	1.978	2.848	12.6	19.1
392682	2011 <i>UC</i> ₄₀₅		7 6.0 340°29	7°0/ 7.6 16			614	<i>Pia</i>		7 6.0 225°89	3°5/ 6.8 18 R		
5 31	19 23.13	-6 15.3	1.716	2.544	16.1	20.8	5 31	19 26.94	-13 16.5	2.106	2.936	13.5	15.7
6 10	19 19.51	-5 33.3	1.638	2.537	13.3	20.6	6 10	19 22.05	-12 56.2	2.020	2.930	10.6	15.5
6 20	19 13.69	-5 5.7	1.580	2.531	10.3	20.4	6 20	19 15.17	-12 43.7	1.955	2.923	7.4	15.3
6 30	19 6.29	-4 55.3	1.544	2.525	7.8	20.2	6 30	19 6.86	-12 39.4	1.916	2.916	4.4	15.1
7 10	18 58.20	-5 3.0	1.532	2.519	7.1	20.2	7 10	18 57.93	-12 43.1	1.904	2.909	3.7	15.1
7 20	18 50.41	-5 27.9	1.545	2.515	8.9	20.2	7 20	18 49.26	-12 53.8	1.919	2.902	6.3	15.2
7 30	18 43.91	-6 7.1	1.581	2.510	11.8	20.4	7 30	18 41.74	-13 10.2	1.960	2.894	9.6	15.4
8 9	18 39.48	-6 56.7	1.639	2.507	14.9	20.6	8 9	18 36.06	-13 30.7	2.024	2.886	12.7	15.6
40119	1998 <i>QB</i> ₂₃		7 6.0 248°09	2°4/ 5.2 18			368930	2006 <i>VS</i> ₄₃		7 6.0 293°71	3°6/ 6.8 17		
5 31	19 26.69	-29 19.3	2.593	3.434	10.9	19.3	5 31	19 27.60	-14 5.0	1.518	2.369	16.7	21.0
6 10	19 21.71	-29 46.9	2.502	3.423	8.4	19.1	6 10	19 23.71	-13 59.3	1.413	2.336	13.3	20.7
6 20	19 14.88	-30 13.4	2.436	3.413	5.6	18.9	6 20	19 16.93	-14 5.3	1.327	2.303	9.3	20.3
6 30	19 6.70	-30 35.8	2.396	3.402	3.0	18.8	6 30	19 7.77	-14 23.6	1.265	2.270	5.1	20.0
7 10	18 57.93	-30 51.6	2.384	3.391	2.9	18.7	7 10	18 57.21	-14 53.0	1.226	2.236	4.0	19.9
7 20	18 49.38	-30 59.3	2.401	3.380	5.5	18.9	7 20	18 46.54	-15 31.2	1.213	2.203	8.1	20.0
7 30	18 41.87	-30 58.8	2.444	3.368	8.4	19.1	7 30	18 37.22	-16 15.3	1.223	2.169	13.0	20.2
8 9	18 36.07	-30 51.2	2.511	3.356	11.1	19.2	8 9	18 30.49	-17 2.1	1.254	2.135	17.6	20.4
9339	<i>Kimnovak</i>		7 6.0 43°69	0°4/ 6.1 18			264341	1999 <i>XF</i> ₁₇		7 6.0 277°80	4°5/ 5.8 18		
5 31	19 25.38	-20 49.8	1.994	2.845	13.3	18.1	5 31	19 34.98	-16 37.5	1.723	2.558	15.8	19.8
6 10	19 20.88	-20 57.3	1.928	2.855	10.1	18.0	6 10	19 28.89	-15 16.6	1.614	2.528	12.6	19.5
6 20	19 14.37	-21 8.9	1.884	2.866	6.5	17.8	6 20	19 19.98	-13 54.7	1.527	2.497	8.9	19.2
6 30	19 6.49	-21 22.6	1.866	2.877	2.5	17.5	6 30	19 8.85	-12 34.3	1.465	2.466	5.4	18.9
7 10	18 58.13	-21 36.7	1.874	2.889	1.6	17.5	7 10	18 56.55	-11 18.3	1.431	2.434	5.0	18.8
7 20	18 50.20	-21 49.6	1.910	2.900	5.5	17.8	7 20	18 44.36	-10 10.5	1.424	2.402	8.6	19.0
7 30	18 43.59	-22 0.4	1.971	2.912	9.1	18.0	7 30	18 33.61	-9 13.7	1.443	2.369	12.9	19.1
8 9	18 38.93	-22 9.0	2.055	2.924	12.2	18.2	8 9	18 25.37	-8 29.5	1.484	2.336	17.0	19.3
127908	2003 <i>GM</i> ₂₆		7 6.0 339°00	3°5/ 6.8 18			385463	2003 <i>TG</i> ₈		7 6.0 296°46	2°7/ 6.3 16		
5 31	19 23.73	-13 52.0	1.887	2.731	14.2	19.6	5 31	19 28.75	-17 58.5	1.824	2.669	14.6	20.3
6 10	19 19.82	-13 31.4	1.806	2.725	11.2	19.4	6 10	19 23.67	-17 12.7	1.742	2.664	11.3	20.0
6 20	19 13.83	-13 19.1	1.746	2.718	7.8	19.1	6 20	19 16.30	-16 30.2	1.682	2.659	7.6	19.8
6 30	19 6.34	-13 15.8	1.710	2.713	4.5	18.9	6 30	19 7.31	-15 51.8	1.647	2.654	3.9	19.6
7 10	18 58.23	-13 21.0	1.701	2.708	3.7	18.9	7 10	18 57.67	-15 18.1	1.639	2.648	3.2	19.5
7 20	18 50.42	-13 33.7	1.717	2.703	6.5	19.0	7 20	18 48.43	-14 50.0	1.657	2.644	6.7	19.7
7 30	18 43.83	-13 52.2	1.758	2.698	10.1	19.2	7 30	18 40.62	-14 27.9	1.701	2.639	10.5	19.9
8 9	18 39.21	-14 14.7	1.822	2.695	13.4	19.4	8 9	18 35.00	-14 11.7	1.767	2.634	14.0	20.1
179749	2002 <i>RT</i> ₁₈₈		7 6.0 4°11	3°1/ 6.8 18			32934	1995 <i>SP</i> ₂₅		7 6.0 243°73	0°4/ 5.9 18		

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7 6.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
371433	2006 <i>SH</i> ₁₉₂		7 6.0 268°83	2.5/ 5.4	18		504036	2005 <i>US</i> ₂₀₃		7 6.1 217°15	0.7/ 5.9	17	
5 31	19 30.94	-26 45.7	1.653	2.510	15.3	21.6	5 31	19 30.31	-23 27.3	2.220	3.059	12.5	23.2
6 10	19 26.11	-27 20.6	1.560	2.491	11.8	21.4	6 10	19 24.70	-23 45.9	2.129	3.050	9.6	23.0
6 20	19 18.34	-27 57.7	1.489	2.471	7.8	21.1	6 20	19 16.94	-24 7.0	2.061	3.041	6.2	22.8
6 30	19 8.26	-28 32.5	1.442	2.451	3.7	20.8	6 30	19 7.60	-24 27.9	2.019	3.030	2.4	22.5
7 10	18 56.98	-28 59.9	1.421	2.431	3.4	20.7	7 10	18 57.54	-24 46.2	2.006	3.019	1.8	22.4
7 20	18 45.89	-29 16.8	1.425	2.411	7.7	20.9	7 20	18 47.72	-25 0.0	2.020	3.008	5.6	22.7
7 30	18 36.40	-29 22.4	1.454	2.390	12.1	21.1	7 30	18 39.09	-25 8.6	2.062	2.995	9.2	22.9
8 9	18 29.64	-29 18.3	1.505	2.369	16.1	21.3	8 9	18 32.43	-25 12.6	2.128	2.982	12.4	23.1
49614	1999 <i>FB</i> ₃₉		7 6.0 170°74	7.4/ 4.4	18		178237	2006 <i>WV</i> ₁₃₁		7 6.1 202°94	0.7/ 5.8	18	
5 31	19 36.82	-46 4.0	2.483	3.285	12.5	19.3	5 31	19 26.21	-22 31.2	2.282	3.126	12.1	20.3
6 10	19 29.78	-46 46.7	2.414	3.288	10.5	19.2	6 10	19 21.49	-23 5.0	2.201	3.125	9.2	20.1
6 20	19 20.16	-47 17.6	2.366	3.291	8.7	19.0	6 20	19 14.83	-23 42.5	2.143	3.124	5.9	19.9
6 30	19 8.77	-47 31.1	2.344	3.292	7.6	19.0	6 30	19 6.79	-24 21.1	2.111	3.123	2.3	19.7
7 10	18 56.76	-47 23.7	2.347	3.294	7.6	19.0	7 10	18 58.14	-24 57.7	2.108	3.122	1.7	19.6
7 20	18 45.37	-46 55.1	2.377	3.295	8.9	19.1	7 20	18 49.75	-25 30.2	2.132	3.120	5.3	19.9
7 30	18 35.74	-46 7.8	2.431	3.296	10.8	19.2	7 30	18 42.46	-25 57.1	2.183	3.118	8.7	20.1
8 9	18 28.64	-45 6.7	2.507	3.297	12.7	19.3	8 9	18 36.98	-26 18.2	2.258	3.117	11.7	20.2
253725	2003 <i>WC</i> ₉		7 6.0 202°08	1.0/ 5.9	17	R	289158	2004 <i>VS</i> ₂₅		7 6.1 269°84	3.7/ 4.7	18	
5 31	19 32.38	-25 21.3	1.659	2.512	15.4	20.9	5 31	19 27.31	-32 39.5	2.505	3.346	11.2	20.6
6 10	19 26.81	-25 21.0	1.582	2.511	11.8	20.7	6 10	19 22.41	-33 20.7	2.415	3.332	8.8	20.4
6 20	19 18.49	-25 20.9	1.526	2.508	7.6	20.5	6 20	19 15.48	-33 59.5	2.348	3.319	6.2	20.2
6 30	19 8.20	-25 18.0	1.494	2.506	3.0	20.2	6 30	19 7.06	-34 32.0	2.307	3.305	4.0	20.1
7 10	18 57.11	-25 10.1	1.489	2.503	2.3	20.1	7 10	18 57.95	-34 54.8	2.294	3.291	4.1	20.1
7 20	18 46.53	-24 56.3	1.510	2.500	6.8	20.4	7 20	18 49.04	-35 6.1	2.308	3.277	6.4	20.2
7 30	18 37.70	-24 37.5	1.557	2.496	11.2	20.6	7 30	18 41.24	-35 5.9	2.349	3.263	9.1	20.3
8 9	18 31.50	-24 15.6	1.625	2.492	15.0	20.9	8 9	18 35.28	-34 55.7	2.412	3.249	11.7	20.5
250946	2005 <i>YD</i> ₂₈₂		7 6.1 237°23	0.4/ 5.9	18		192679	1999 <i>SO</i> ₁₂		7 6.1 320°32	3.8/ 6.8	18	
5 31	19 25.66	-23 14.5	2.612	3.452	10.9	21.7	5 31	19 23.45	-14 37.7	1.416	2.279	17.0	19.2
6 10	19 20.83	-23 27.9	2.521	3.443	8.3	21.5	6 10	19 20.54	-14 18.9	1.323	2.253	13.5	19.0
6 20	19 14.28	-23 43.1	2.454	3.434	5.3	21.3	6 20	19 14.86	-14 10.5	1.250	2.228	9.4	18.6
6 30	19 6.52	-23 58.5	2.413	3.425	2.0	21.0	6 30	19 6.98	-14 13.4	1.198	2.204	5.3	18.3
7 10	18 58.21	-24 12.1	2.401	3.416	1.5	21.0	7 10	18 57.94	-14 27.3	1.170	2.180	4.2	18.2
7 20	18 50.11	-24 22.8	2.418	3.406	4.8	21.2	7 20	18 49.02	-14 50.5	1.166	2.157	8.1	18.4
7 30	18 42.97	-24 29.9	2.462	3.396	7.9	21.4	7 30	18 41.61	-15 20.8	1.184	2.135	12.9	18.6
8 9	18 37.41	-24 33.7	2.530	3.386	10.6	21.5	8 9	18 36.80	-15 55.3	1.222	2.114	17.3	18.8
272532	2005 <i>UO</i> ₂₉₆		7 6.1 12°63	2.2/ 6.5	18		215355	2001 <i>XY</i> ₁₄₆		7 6.1 151°17	2.1/ 5.3	18	
5 31	19 27.93	-17 34.8	1.621	2.474	15.7	20.6	5 31	19 27.23	-26 29.1	2.301	3.146	11.9	20.6
6 10	19 23.32	-17 20.2	1.548	2.475	12.2	20.3	6 10	19 22.30	-27 15.2	2.224	3.148	9.1	20.4
6 20	19 16.21	-17 12.4	1.496	2.475	8.1	20.1	6 20	19 15.36	-28 2.6	2.171	3.151	5.9	20.2
6 30	19 7.32	-17 10.7	1.467	2.476	3.8	19.9	6 30	19 7.00	-28 47.8	2.144	3.153	2.8	20.0
7 10	18 57.71	-17 14.1	1.464	2.476	2.8	19.8	7 10	18 58.02	-29 27.2	2.146	3.155	2.7	20.0
7 20	18 48.56	-17 21.2	1.486	2.477	6.8	20.0	7 20	18 49.32	-29 58.6	2.175	3.157	5.7	20.2
7 30	18 40.98	-17 30.9	1.534	2.478	11.0	20.3	7 30	18 41.79	-30 20.8	2.231	3.158	8.9	20.4
8 9	18 35.79	-17 42.3	1.602	2.478	14.7	20.5	8 9	18 36.14	-30 34.6	2.310	3.160	11.7	20.6
501694	2014 <i>UB</i> ₄		7 6.1 278°69	3.4/ 6.7	17		367503	2009 <i>JF</i> ₅		7 6.1 56°82	1.9/ 5.7	17	
5 31	19 28.48	-14 53.3	1.416	2.271	17.5	21.5	5 31	19 31.29	-24 37.3	1.232	2.105	18.4	20.7
6 10	19 24.37	-14 43.9	1.327	2.253	13.8	21.2	6 10	19 26.48	-25 12.9	1.184	2.123	14.0	20.5
6 20	19 17.30	-14 45.6	1.257	2.235	9.5	20.9	6 20	19 18.46	-25 51.8	1.155	2.141	8.9	20.3
6 30	19 7.89	-14 58.6	1.210	2.216	5.0	20.6	6 30	19 8.22	-26 28.4	1.148	2.160	3.7	20.0
7 10	18 57.26	-15 21.4	1.187	2.197	3.9	20.4	7 10	18 57.29	-26 57.7	1.166	2.179	3.1	20.0
7 20	18 46.80	-15 51.8	1.188	2.178	8.1	20.6	7 20	18 47.25	-27 16.9	1.207	2.198	8.0	20.4
7 30	18 37.97	-16 26.9	1.213	2.160	13.0	20.9	7 30	18 39.51	-27 25.8	1.272	2.217	12.6	20.7
8 9	18 31.90	-17 4.1	1.258	2.141	17.5	21.1	8 9	18 34.92	-27 26.3	1.356	2.237	16.6	21.0
41339	1999 <i>YR</i> ₉		7 6.1 200°29	0.9/ 5.8	18		6378	1987 <i>SE</i> ₁₃		7 6.1 261°96	0.1/ 6.0	18	R
5 31	19 28.22	-23 37.9	2.268	3.110	12.2	19.6	5 31	19 25.34	-22 6.7	2.551	3.391	11.1	18.2
6 10	19 23.03	-24 6.6	2.184	3.107	9.3	19.4	6 10	19 20.69	-22 22.5	2.455	3.377	8.5	18.0
6 20	19 15.81	-24 38.1	2.123	3.104	6.0	19.2	6 20	19 14.28	-22 41.1	2.382	3.362	5.4	17.8
6 30	19 7.15	-25 9.6	2.089	3.100	2.4	18.9	6 30	19 6.58	-23 1.0	2.335	3.347	2.1	17.5
7 10	18 57.84	-25 38.1	2.083	3.097	1.9	18.9	7 10	18 58.28	-23 20.0	2.317	3.332	1.4	17.4
7 20	18 48.79	-26 1.7	2.105	3.092	5.4	19.1	7 20	18 50.14	-23 36.8	2.328	3.316	4.8	17.7
7 30	18 40.91	-26 19.4	2.154	3.087	8.9	19.3	7 30	18 42.95	-23 50.5	2.365	3.301	8.1	17.8
8 9	18 34.90	-26 31.4	2.227	3.082	11.9	19.5	8 9	18 37.34	-24 0.8	2.427	3.285	11.0	18.0
158486	2002 <i>EM</i> ₈		7 6.1 219°33	1.7/ 6.5	18		342028	2008 <i>RX</i> ₁₀₁		7 6.1 187°59	1.5/ 6.5	17	
5 31	19 28.42	-17 2.4	2.209	3.042	12.8	21.1	5 31	19 28.09	-17 31.4	2.237	3.071	12.6	22.1
6 10	19 23.18	-17 5.2	2.118	3.034	9.9	20.9	6 10	19 22.83	-17 32.7	2.154	3.071	9.7	21.9
6 20	19 15.92	-17 14.2	2.049	3.025	6.6	20.7	6 20	19 15.65	-17 39.6	2.094	3.070	6.4	21.7
6 30	19 7.20	-17 28.4	2.007	3.015	3.1	20.4	6 30	19 7.10	-17 51.0	2.060	3.068	2.9	21.5
7 10	18 57.80	-17 46.2	1.992	3.005	2.2	20.3	7 10	18 57.97	-18 5.5	2.054	3.066	2.1	21.4
7 20	18 48.62	-18 6.1	2.006	2.994	5.6	20.5	7 20	18 49.14	-18 21.7	2.076	3.064	5.4	21.7
7 30	18 40.56	-18 26.8	2.046	2.982	9.1	20.7	7 30	18 41.45	-18 38.5	2.125	3.061	8.8	21.9
8 9	18 34.33	-18 47.2	2.110	2.970	12.3	20.9	8 9	18 35.57	-18 54.9	2.198	3.058	11.9	22.1
346814	2009 <i>CG</i> ₄₉		7 6.1 138°91	1.5/ 6.5	18		286746	2002 <i>GU</i> ₁₅₀	</				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
303931	2005 <i>UN</i> ₅₁₆		7 6.1 180°98	0°2/ 6.1 18			512642	2016 <i>TA</i> ₅₄		7 6.1 176°43	0°8/ 5.9 18		
5 31	19 25.71	-20 57.3	2.746	3.580	10.5	22.6	5 31	19 27.21	-25 39.4	2.682	3.520	10.7	21.4
6 10	19 20.72	-21 9.9	2.662	3.581	8.0	22.5	6 10	19 21.91	-25 37.9	2.600	3.521	8.1	21.3
6 20	19 14.16	-21 25.5	2.602	3.581	5.1	22.3	6 20	19 14.94	-25 36.0	2.542	3.522	5.2	21.1
6 30	19 6.49	-21 42.5	2.570	3.581	2.0	22.1	6 30	19 6.85	-25 31.9	2.512	3.522	2.1	20.9
7 10	18 58.38	-21 59.4	2.566	3.581	1.3	22.0	7 10	18 58.33	-25 24.5	2.509	3.523	1.6	20.8
7 20	18 50.50	-22 14.9	2.592	3.580	4.4	22.2	7 20	18 50.12	-25 13.5	2.536	3.523	4.6	21.1
7 30	18 43.54	-22 28.2	2.645	3.579	7.4	22.4	7 30	18 42.94	-24 59.0	2.590	3.523	7.6	21.2
8 9	18 38.07	-22 39.2	2.722	3.578	10.0	22.6	8 9	18 37.36	-24 41.9	2.669	3.523	10.2	21.4
6835	Molfino		7 6.1 291°62	2°5/ 6.5 18			130918	2000 <i>WP</i> ₈		7 6.1 137°25	0°0/ 5.9 18		
5 31	19 26.87	-16 57.8	1.724	2.574	15.1	18.1	5 31	19 31.81	-23 46.5	2.112	2.951	13.1	19.8
6 10	19 22.63	-16 43.2	1.631	2.555	11.8	17.8	6 10	19 25.66	-23 28.2	2.039	2.961	10.0	19.6
6 20	19 15.92	-16 35.3	1.559	2.537	7.9	17.5	6 20	19 17.43	-23 10.0	1.990	2.970	6.4	19.4
6 30	19 7.33	-16 33.9	1.511	2.519	3.9	17.3	6 30	19 7.81	-22 50.4	1.967	2.978	2.5	19.2
7 10	18 57.82	-16 38.2	1.489	2.500	3.0	17.2	7 10	18 57.73	-22 28.9	1.972	2.987	1.6	19.2
7 20	18 48.51	-16 47.0	1.492	2.482	6.8	17.4	7 20	18 48.17	-22 5.4	2.006	2.994	5.5	19.4
7 30	18 40.56	-16 59.1	1.521	2.464	11.1	17.6	7 30	18 40.01	-21 40.8	2.066	3.002	9.1	19.7
8 9	18 34.88	-17 13.3	1.571	2.446	15.0	17.8	8 9	18 33.93	-21 16.3	2.150	3.009	12.2	19.9
176350	2001 <i>TR</i> ₅₃		7 6.1 306°39	1°8/ 5.5 18			449579	2014 <i>JD</i> ₂₄		7 6.1 352°59	9°6/ 7.6 16 R		
5 31	19 26.17	-25 9.9	1.874	2.731	13.7	19.8	5 31	19 21.32	- 2 2.0	1.662	2.480	17.0	20.8
6 10	19 22.06	-25 47.4	1.785	2.716	10.6	19.6	6 10	19 18.24	- 0 43.6	1.589	2.472	14.5	20.6
6 20	19 15.54	-26 28.2	1.717	2.700	6.9	19.3	6 20	19 12.99	+ 0 18.7	1.535	2.466	12.0	20.4
6 30	19 7.18	-27 8.7	1.675	2.685	3.0	19.1	6 30	19 6.19	+ 1 0.0	1.503	2.461	10.1	20.3
7 10	18 57.93	-27 44.8	1.658	2.670	2.7	19.0	7 10	18 58.73	+ 1 17.4	1.493	2.457	9.7	20.3
7 20	18 48.87	-28 13.5	1.668	2.655	6.6	19.2	7 20	18 51.59	+ 1 10.6	1.506	2.454	10.9	20.3
7 30	18 41.15	-28 33.5	1.704	2.641	10.5	19.4	7 30	18 45.72	+ 0 41.8	1.541	2.452	13.2	20.5
8 9	18 35.65	-28 45.1	1.761	2.627	14.1	19.6	8 9	18 41.90	- 0 4.1	1.596	2.451	15.8	20.6
429155	2009 <i>UR</i> ₁₂₁		7 6.1 291°35	8°6/ 2.7 18			398300	2010 <i>VN</i> ₂₀₇		7 6.1 351°89	2°1/ 6.4 18		
5 31	19 32.67	-37 47.5	1.580	2.432	16.1	20.7	5 31	19 25.62	-18 16.4	1.973	2.820	13.6	20.0
6 10	19 28.30	-39 26.8	1.491	2.408	13.2	20.4	6 10	19 21.19	-17 45.6	1.894	2.818	10.5	19.8
6 20	19 20.32	-41 3.9	1.424	2.383	10.4	20.2	6 20	19 14.72	-17 18.7	1.837	2.815	7.0	19.6
6 30	19 9.28	-42 28.4	1.379	2.359	8.7	20.1	6 30	19 6.82	-16 56.0	1.805	2.813	3.4	19.4
7 10	18 56.49	-43 30.8	1.359	2.334	9.3	20.0	7 10	18 58.36	-16 37.3	1.800	2.812	2.6	19.3
7 20	18 43.70	-44 4.7	1.363	2.310	11.9	20.1	7 20	18 50.27	-16 22.6	1.822	2.810	5.9	19.5
7 30	18 32.85	-44 9.7	1.388	2.285	15.4	20.3	7 30	18 43.44	-16 11.8	1.869	2.810	9.5	19.7
8 9	18 25.43	-43 50.7	1.433	2.261	18.7	20.4	8 9	18 38.57	-16 4.6	1.939	2.809	12.8	19.9
445365	2010 <i>ON</i> ₉₀		7 6.1 231°22	8°7/ 9.3 18			294962	2008 <i>DR</i> ₈₆		7 6.1 258°87	1°8/ 6.7 18		
5 31	19 23.11	+10 20.2	3.148	3.847	12.1	21.8	5 31	19 25.10	-16 6.8	2.229	3.066	12.6	21.1
6 10	19 18.61	+11 6.9	3.057	3.834	11.0	21.7	6 10	19 20.65	-16 14.3	2.144	3.061	9.7	20.9
6 20	19 12.78	+11 38.5	2.985	3.821	9.8	21.6	6 20	19 14.33	-16 28.9	2.081	3.056	6.5	20.7
6 30	19 6.01	+11 52.3	2.936	3.807	9.0	21.5	6 30	19 6.68	-16 49.8	2.044	3.052	3.2	20.5
7 10	18 58.81	+11 46.9	2.910	3.793	8.7	21.5	7 10	18 58.44	-17 15.1	2.035	3.047	2.2	20.4
7 20	18 51.72	+11 22.3	2.909	3.779	9.1	21.5	7 20	18 50.44	-17 43.2	2.053	3.042	5.4	20.6
7 30	18 45.31	+10 40.0	2.932	3.764	10.0	21.6	7 30	18 43.50	-18 12.3	2.097	3.037	8.7	20.8
8 9	18 40.06	+ 9 43.2	2.977	3.749	11.3	21.6	8 9	18 38.29	-18 40.9	2.166	3.032	11.8	21.0
496763	2016 <i>XO</i> ₃		7 6.1 240°63	4°1/ 6.6 17			294690	2008 <i>AB</i> ₁₂₉		7 6.1 135°02	1°0/ 5.9 17		
5 31	19 26.98	-10 16.5	2.851	3.655	11.0	21.7	5 31	19 31.98	-23 34.3	1.707	2.558	15.2	22.1
6 10	19 21.63	- 9 28.8	2.750	3.640	8.9	21.5	6 10	19 26.39	-23 59.4	1.639	2.567	11.6	21.9
6 20	19 14.75	- 8 46.6	2.672	3.624	6.6	21.3	6 20	19 18.21	-24 27.6	1.593	2.575	7.4	21.7
6 30	19 6.79	- 8 11.5	2.622	3.608	4.6	21.2	6 30	19 8.20	-24 55.3	1.572	2.583	2.9	21.4
7 10	18 58.33	- 7 44.3	2.600	3.591	4.3	21.1	7 10	18 57.49	-25 19.0	1.577	2.591	2.2	21.4
7 20	18 50.03	- 7 25.6	2.607	3.573	5.9	21.2	7 20	18 47.31	-25 36.4	1.609	2.598	6.6	21.7
7 30	18 42.53	- 7 15.2	2.641	3.556	8.3	21.3	7 30	18 38.81	-25 47.0	1.667	2.605	10.7	22.0
8 9	18 36.40	- 7 12.3	2.700	3.537	10.6	21.5	8 9	18 32.81	-25 51.6	1.747	2.611	14.2	22.2
7070	1994 <i>YO</i> ₂		7 6.1 238°93	2°0/ 6.6 18			370865	2005 <i>ES</i> ₃₄		7 6.1 48°21	0°2/ 6.1 17		
5 31	19 30.13	-16 6.3	1.639	2.485	15.9	17.5	5 31	19 31.13	-23 39.3	1.213	2.087	18.6	20.3
6 10	19 25.26	-16 23.1	1.551	2.474	12.4	17.3	6 10	19 26.31	-23 31.6	1.164	2.103	14.2	20.0
6 20	19 17.71	-16 50.7	1.484	2.462	8.3	17.0	6 20	19 18.33	-23 26.2	1.134	2.120	9.0	19.8
6 30	19 8.09	-17 27.3	1.442	2.450	3.9	16.7	6 30	19 8.23	-23 20.5	1.126	2.138	3.5	19.5
7 10	18 57.45	-18 10.1	1.425	2.438	2.6	16.6	7 10	18 57.54	-23 12.2	1.141	2.156	2.2	19.5
7 20	18 47.01	-18 55.4	1.434	2.425	7.0	16.8	7 20	18 47.79	-23 0.8	1.181	2.175	7.6	19.9
7 30	18 38.05	-19 40.4	1.469	2.412	11.5	17.1	7 30	18 40.33	-22 47.0	1.244	2.194	12.4	20.2
8 9	18 31.57	-20 22.7	1.526	2.398	15.5	17.3	8 9	18 35.97	-22 32.0	1.326	2.213	16.5	20.5
445528	2011 <i>AE</i> ₂₉		7 6.1 155°40	7°0/ 6.5 18			339258	2004 <i>VQ</i> ₆₄		7 6.1 248°88	0°9/ 5.9 18		
5 31	19 48.06	-39 40.6	1.247	2.091	20.0	20.4	5 31	19 31.47	-25 41.1	2.297	3.134	12.2	20.7
6 10	19 39.85	-39 30.8	1.182	2.096	16.1	20.1	6 10	19 25.62	-25 37.5	2.194	3.114	9.4	20.5
6 20	19 27.25	-39 3.4	1.134	2.099	11.8	19.9	6 20	19 17.60	-25 33.2	2.115	3.094	6.1	20.3
6 30	19 11.67	-38 10.0	1.109	2.103	8.0	19.7	6 30	19 7.98	-25 25.9	2.062	3.073	2.5	20.0
7 10	18 55.32	-36 47.3	1.108	2.106	7.3	19.7	7 10	18 57.61	-25 14.2	2.038	3.052	1.8	19.9
7 20	18 40.50	-34 59.7	1.133	2.108	10.5	19.9	7 20	18 47.43	-24 57.3	2.042	3.029	5.6	20.1
7 30	18 29.06	-32 57.4	1.181	2.110	14.8	20.1	7 30	18 38.45	-24 35.8	2.074	3.007	9.2	20.3
8 9	18 21.92	-30 52.2	1.250	2.112	18.9	20.4	8 9	18 31.42	-24 11.3	2.130	2.983	12.5	20.5
70588	1999 <i>TA</i> ₁₇₃		7 6.1 241°08	0°3/ 5.9 18			381847	2009 <i>WU</i> ₂₂₉	</				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
43192	1999 YG ₁₃	7 6.1 290°03	4.1/ 4.3	18			482923	2014 HL ₁₆₄	7 6.1 346°84	4.5/ 8.2	18		
5 31	19 29.12	-28 12.3	1.797	2.652	14.3	18.4	5 31	19 23.32	-7 13.6	1.932	2.756	14.7	20.3
6 10	19 24.65	-29 37.1	1.711	2.639	11.1	18.2	6 10	19 19.57	-7 39.9	1.849	2.751	11.9	20.1
6 20	19 17.45	-31 6.1	1.647	2.626	7.5	17.9	6 20	19 13.81	-8 23.0	1.787	2.746	8.7	19.8
6 30	19 8.06	-32 32.8	1.609	2.613	4.5	17.7	6 30	19 6.57	-9 22.4	1.749	2.742	5.7	19.7
7 10	18 57.52	-33 50.0	1.598	2.600	4.8	17.7	7 10	18 58.64	-10 35.8	1.736	2.738	4.6	19.6
7 20	18 47.08	-34 52.2	1.613	2.587	8.1	17.9	7 20	18 50.93	-11 59.1	1.751	2.735	6.7	19.7
7 30	18 38.08	-35 37.3	1.653	2.574	11.9	18.1	7 30	18 44.34	-13 27.5	1.792	2.732	9.9	19.9
8 9	18 31.60	-36 5.9	1.714	2.561	15.3	18.3	8 9	18 39.62	-14 56.1	1.856	2.730	13.1	20.1
17174	1999 RX ₅₃	7 6.1 143°80	4.2/ 7.5	18			106642	2000 WL ₁₃₄	7 6.1 132°11	6.0/ 4.1	18		
5 31	19 26.74	-9 59.6	1.903	2.730	14.8	18.3	5 31	19 31.68	-40 50.0	2.529	3.351	11.7	19.8
6 10	19 22.09	-10 2.9	1.827	2.733	11.8	18.1	6 10	19 25.80	-41 43.5	2.463	3.358	9.6	19.6
6 20	19 15.35	-10 19.2	1.772	2.736	8.4	17.9	6 20	19 17.69	-42 28.9	2.421	3.366	7.5	19.5
6 30	19 7.10	-10 48.4	1.742	2.738	5.3	17.7	6 30	19 8.02	-43 1.4	2.403	3.373	6.2	19.4
7 10	18 58.23	-11 28.7	1.738	2.741	4.3	17.7	7 10	18 57.75	-43 17.6	2.413	3.379	6.3	19.4
7 20	18 49.67	-12 17.6	1.760	2.743	6.7	17.8	7 20	18 47.90	-43 16.2	2.449	3.386	7.8	19.5
7 30	18 42.37	-13 11.7	1.809	2.746	10.1	18.0	7 30	18 39.47	-42 58.7	2.510	3.392	9.9	19.7
8 9	18 37.06	-14 7.8	1.880	2.748	13.3	18.2	8 9	18 33.18	-42 28.3	2.593	3.399	11.9	19.8
375771	2009 ST ₁₅₀	7 6.1 289°08	4.5/ 6.9	17			377716	2005 WU ₁₀₉	7 6.1 285°97	1.1/ 5.8	18		
5 31	19 26.99	-12 46.7	1.585	2.431	16.4	21.4	5 31	19 28.43	-23 29.2	1.646	2.505	15.2	21.0
6 10	19 22.89	-12 19.1	1.496	2.415	13.1	21.2	6 10	19 24.08	-23 55.9	1.561	2.493	11.7	20.8
6 20	19 16.20	-12 1.9	1.428	2.399	9.3	20.9	6 20	19 17.02	-24 27.0	1.497	2.481	7.6	20.5
6 30	19 7.54	-11 56.2	1.382	2.383	5.7	20.6	6 30	19 7.90	-24 59.1	1.457	2.469	3.0	20.2
7 10	18 57.90	-12 2.2	1.361	2.366	4.8	20.5	7 10	18 57.79	-25 28.2	1.443	2.457	2.3	20.1
7 20	18 48.48	-12 18.7	1.365	2.351	7.9	20.7	7 20	18 47.94	-25 51.4	1.454	2.445	6.9	20.4
7 30	18 40.50	-12 44.0	1.393	2.335	12.1	20.9	7 30	18 39.65	-26 7.4	1.491	2.433	11.4	20.6
8 9	18 34.91	-13 15.2	1.442	2.319	16.0	21.1	8 9	18 33.89	-26 16.5	1.548	2.421	15.3	20.8
413001	1999 UR ₃₀	7 6.1 206°31	1.1/ 5.8	17			152134	2004 TR ₁₂₉	7 6.1 354°53	4.2/ 4.7	18		
5 31	19 32.09	-24 11.6	1.994	2.837	13.6	22.4	5 31	19 27.35	-32 30.4	2.104	2.953	12.8	19.5
6 10	19 26.33	-24 35.7	1.908	2.831	10.4	22.2	6 10	19 22.76	-33 20.5	2.029	2.951	10.0	19.3
6 20	19 18.17	-25 2.3	1.845	2.825	6.7	22.0	6 20	19 15.90	-34 7.9	1.977	2.950	7.0	19.1
6 30	19 8.23	-25 28.2	1.807	2.818	2.7	21.7	6 30	19 7.38	-34 47.9	1.951	2.949	4.6	19.0
7 10	18 57.49	-25 50.1	1.798	2.811	2.1	21.7	7 10	18 58.16	-35 16.5	1.951	2.949	4.7	19.0
7 20	18 47.05	-26 5.8	1.815	2.802	6.1	21.9	7 20	18 49.28	-35 31.5	1.978	2.948	7.2	19.2
7 30	18 37.99	-26 14.9	1.860	2.793	10.0	22.1	7 30	18 41.77	-35 33.2	2.030	2.948	10.1	19.3
8 9	18 31.16	-26 17.9	1.927	2.784	13.5	22.3	8 9	18 36.41	-35 23.4	2.104	2.948	12.9	19.5
54690	2001 EB	7 6.1 131°15	26.6/30.3	12 C			374954	2007 CZ ₃₅	7 6.1 263°41	1.0/ 5.9	18		
5 31	21 2.26	-71 53.3	1.191	1.889	28.4	20.1	5 31	19 30.62	-24 16.0	1.772	2.624	14.7	21.6
6 10	21 2.63	-75 55.6	1.190	1.912	27.4	20.1	6 10	19 25.63	-24 29.4	1.679	2.607	11.3	21.3
6 20	20 43.61	-79 26.7	1.202	1.933	26.8	20.1	6 20	19 17.98	-24 45.3	1.606	2.588	7.3	21.0
6 30	19 51.06	-81 55.6	1.225	1.952	26.6	20.2	6 30	19 8.28	-25 0.4	1.559	2.570	2.9	20.7
7 10	18 27.91	-82 39.7	1.260	1.970	26.7	20.3	7 10	18 57.56	-25 11.9	1.537	2.551	2.2	20.6
7 20	17 19.44	-81 34.8	1.305	1.985	27.1	20.4	7 20	18 47.05	-25 17.7	1.543	2.532	6.7	20.9
7 30	16 49.25	-79 29.8	1.359	1.999	27.6	20.5	7 30	18 38.00	-25 17.3	1.573	2.512	11.1	21.1
8 9	16 45.46	-77 4.0	1.420	2.012	28.2	20.6	8 9	18 31.41	-25 11.8	1.626	2.493	15.0	21.3
442576	2012 BU ₈₂	7 6.1 279°03	2.3/ 5.6	18			478861	2012 VB ₇₆	7 6.1 216°47	0.9/ 6.4	18		
5 31	19 27.74	-29 32.1	2.347	3.191	11.8	21.3	5 31	19 27.39	-19 8.9	2.446	3.280	11.7	22.6
6 10	19 22.73	-29 41.9	2.258	3.181	9.1	21.1	6 10	19 22.29	-19 15.4	2.355	3.272	9.0	22.4
6 20	19 15.70	-29 49.3	2.193	3.171	6.0	20.9	6 20	19 15.37	-19 26.2	2.287	3.265	5.8	22.2
6 30	19 7.25	-29 51.7	2.154	3.161	3.1	20.7	6 30	19 7.14	-19 40.0	2.247	3.257	2.5	22.0
7 10	18 58.19	-29 46.9	2.142	3.151	2.8	20.6	7 10	18 58.33	-19 55.4	2.234	3.248	1.6	21.9
7 20	18 49.43	-29 34.2	2.158	3.141	5.7	20.8	7 20	18 49.73	-20 11.0	2.250	3.239	5.0	22.1
7 30	18 41.86	-29 14.2	2.201	3.131	8.9	21.0	7 30	18 42.14	-20 25.7	2.293	3.229	8.3	22.3
8 9	18 36.19	-28 48.6	2.267	3.121	11.8	21.2	8 9	18 36.21	-20 39.1	2.361	3.219	11.2	22.5
101308	1998 SX ₁₃₃	7 6.1 222°78	11.1/ 1.4	18			376256	2011 FU ₂	7 6.1 124°30	5.8/ 8.6	17		
5 31	19 43.60	-55 33.2	2.408	3.170	13.9	20.1	5 31	19 27.78	-4 32.2	1.864	2.671	15.8	20.8
6 10	19 36.26	-57 1.2	2.340	3.162	12.6	20.0	6 10	19 22.90	-4 46.2	1.791	2.678	12.9	20.7
6 20	19 25.16	-58 13.9	2.293	3.154	11.5	19.9	6 20	19 15.88	-5 18.2	1.738	2.686	9.8	20.5
6 30	19 11.10	-59 2.6	2.268	3.145	11.1	19.9	6 30	19 7.35	-6 8.7	1.710	2.693	6.9	20.3
7 10	18 55.67	-59 21.5	2.266	3.135	11.3	19.9	7 10	18 58.20	-7 15.5	1.707	2.700	5.8	20.3
7 20	18 40.77	-59 8.7	2.286	3.125	12.3	19.9	7 20	18 49.39	-8 34.7	1.732	2.707	7.6	20.4
7 30	18 28.27	-58 27.2	2.327	3.115	13.6	20.0	7 30	18 41.87	-10 1.3	1.782	2.714	10.5	20.6
8 9	18 19.38	-57 23.6	2.387	3.104	15.1	20.1	8 9	18 36.36	-11 30.0	1.856	2.720	13.6	20.8
91147	1998 OM ₂	7 6.1 103°11	0.2/ 6.2	18			506153	2016 EV ₁₁₀	7 6.1 331°90	5.9/ 4.5	17		
5 31	19 25.90	-21 35.5	2.319	3.162	11.9	19.7	5 31	19 29.08	-31 18.8	1.244	2.121	18.0	20.9
6 10	19 21.18	-21 39.6	2.241	3.164	9.1	19.6	6 10	19 25.60	-32 28.4	1.174	2.112	14.2	20.7
6 20	19 14.63	-21 46.5	2.186	3.166	5.8	19.4	6 20	19 18.51	-33 38.0	1.124	2.105	9.9	20.4
6 30	19 6.81	-21 54.6	2.157	3.168	2.3	19.1	6 30	19 8.60	-34 38.9	1.096	2.098	6.5	20.2
7 10	18 58.51	-22 2.5	2.156	3.170	1.4	19.1	7 10	18 57.35	-35 22.7	1.090	2.091	6.7	20.2
7 20	18 50.51	-22 8.9	2.182	3.172	5.0	19.3	7 20	18 46.57	-35 44.6	1.107	2.085	10.4	20.4
7 30	18 43.63	-22 13.5	2.236	3.174	8.3	19.5	7 30	18 38.07	-35 44.8	1.146	2.080	14.8	20.6
8 9	18 38.49	-22 16.1	2.313	3.176	11.3	19.7	8 9	18 33.09	-35 27.6	1.203	2.075	18.8	20.8
497079	2003 WR ₁₅	7 6.1 192°29	1.9/ 6.5	17			68918	2002 KZ ₉	7 6.1 281°39	5.0/ 6.9	18		
5 31	19 31.23	-17 22.0											

EPHEMERIDES

7 6.1

7 6.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
435773	2008 <i>UP</i> ₂₈₅		7 6.1 325°01	1°5/ 5.8 16			91178	1998 <i>RV</i> ₂₃		7 6.1 281°56	2°3/ 6.7 18		
5 31	19 27.49	-24 40.7	1.623	2.485	15.3	21.5	5 31	19 24.56	-15 35.8	2.371	3.204	12.0	19.5
6 10	19 23.32	-25 5.8	1.545	2.479	11.7	21.2	6 10	19 20.23	-15 27.8	2.275	3.190	9.4	19.3
6 20	19 16.49	-25 33.8	1.488	2.472	7.5	21.0	6 20	19 14.11	-15 25.9	2.203	3.176	6.4	19.1
6 30	19 7.67	-26 1.1	1.455	2.466	3.1	20.7	6 30	19 6.71	-15 29.9	2.156	3.161	3.3	18.9
7 10	18 57.98	-26 24.1	1.447	2.460	2.5	20.6	7 10	18 58.71	-15 39.0	2.137	3.147	2.6	18.8
7 20	18 48.66	-26 40.1	1.465	2.455	6.9	20.9	7 20	18 50.88	-15 52.2	2.146	3.133	5.3	19.0
7 30	18 40.94	-26 48.4	1.507	2.450	11.3	21.1	7 30	18 44.00	-16 8.4	2.181	3.118	8.6	19.1
8 9	18 35.75	-26 49.9	1.571	2.445	15.0	21.4	8 9	18 38.74	-16 26.3	2.239	3.104	11.5	19.3
175069	2004 <i>GU</i> ₂₈		7 6.1 175°11	0°3/ 5.9 18			470661	2008 <i>SD</i> ₁₇₃		7 6.1 262°17	2°7/ 6.7 17		
5 31	19 26.90	-21 9.9	2.240	3.083	12.3	20.6	5 31	19 27.51	-15 33.4	1.942	2.781	14.1	22.1
6 10	19 22.09	-21 47.8	2.160	3.084	9.4	20.4	6 10	19 22.87	-15 22.8	1.850	2.767	11.0	21.8
6 20	19 15.32	-22 30.7	2.104	3.084	6.0	20.2	6 20	19 16.01	-15 19.5	1.779	2.753	7.5	21.6
6 30	19 7.14	-23 15.8	2.073	3.085	2.3	20.0	6 30	19 7.49	-15 23.5	1.733	2.739	3.9	21.3
7 10	18 58.34	-23 59.9	2.071	3.085	1.6	19.9	7 10	18 58.20	-15 33.7	1.714	2.724	3.0	21.3
7 20	18 49.79	-24 40.4	2.097	3.085	5.3	20.2	7 20	18 49.10	-15 48.8	1.722	2.710	6.3	21.4
7 30	18 42.37	-25 15.6	2.149	3.085	8.7	20.4	7 30	18 41.22	-16 7.5	1.755	2.695	10.1	21.6
8 9	18 36.77	-25 44.8	2.226	3.085	11.8	20.6	8 9	18 35.36	-16 28.3	1.811	2.680	13.6	21.8
336297	2008 <i>SH</i> ₃₀₁		7 6.1 292°43	1°3/ 6.5 18			213474	2002 <i>EU</i> ₁₁₅		7 6.1 154°67	0°4/ 5.9 17		
5 31	19 26.72	-17 59.6	1.703	2.556	15.1	20.7	5 31	19 31.88	-21 21.1	1.633	2.484	15.7	20.9
6 10	19 22.66	-18 14.6	1.611	2.539	11.7	20.5	6 10	19 26.53	-21 56.6	1.562	2.489	12.0	20.7
6 20	19 16.08	-18 38.2	1.540	2.521	7.7	20.2	6 20	19 18.48	-22 38.4	1.512	2.494	7.7	20.4
6 30	19 7.55	-19 8.8	1.494	2.504	3.3	19.9	6 30	19 8.46	-23 22.7	1.487	2.499	3.0	20.2
7 10	18 58.04	-19 43.6	1.472	2.487	2.1	19.8	7 10	18 57.61	-24 5.1	1.488	2.502	2.0	20.1
7 20	18 48.69	-20 19.7	1.477	2.469	6.6	20.0	7 20	18 47.21	-24 42.1	1.516	2.506	6.7	20.4
7 30	18 40.69	-20 54.6	1.507	2.452	11.1	20.2	7 30	18 38.48	-25 11.9	1.569	2.509	11.1	20.7
8 9	18 35.02	-21 26.8	1.559	2.435	15.0	20.4	8 9	18 32.34	-25 34.5	1.644	2.511	14.8	20.9
429610	2011 <i>FW</i> ₁₁		7 6.1 85°86	7°6/ 4.2 17			292253	2006 <i>SO</i> ₈₉		7 6.1 337°73	0°1/ 6.2 18		
5 31	19 36.49	-39 58.3	1.782	2.618	15.3	20.9	5 31	19 25.92	-21 54.7	1.782	2.639	14.3	20.5
6 10	19 30.16	-41 12.7	1.734	2.638	12.4	20.7	6 10	19 21.82	-21 57.3	1.702	2.633	11.0	20.2
6 20	19 20.77	-42 17.0	1.707	2.659	9.6	20.6	6 20	19 15.38	-22 3.4	1.644	2.627	7.1	20.0
6 30	19 9.27	-43 3.5	1.705	2.679	7.8	20.6	6 30	19 7.24	-22 11.1	1.610	2.622	2.8	19.7
7 10	18 57.05	-43 26.9	1.728	2.699	8.0	20.6	7 10	18 58.38	-22 18.6	1.602	2.617	1.7	19.6
7 20	18 45.63	-43 26.1	1.775	2.718	9.9	20.8	7 20	18 49.87	-22 24.3	1.620	2.612	6.1	19.9
7 30	18 36.36	-43 4.0	1.846	2.738	12.4	21.0	7 30	18 42.78	-22 27.6	1.663	2.608	10.2	20.1
8 9	18 30.11	-42 26.1	1.938	2.757	14.9	21.2	8 9	18 37.89	-22 28.6	1.729	2.605	13.8	20.4
475031	2005 <i>UM</i> ₂₈		7 6.1 175°42	0°1/ 6.1 18			136748	1995 <i>WG</i> ₂₃		7 6.1 346°05	6°1/ 4.7 18		
5 31	19 26.10	-22 24.5	2.646	3.484	10.8	22.2	5 31	19 28.53	-32 14.2	1.237	2.115	18.1	19.4
6 10	19 21.15	-22 35.2	2.565	3.485	8.2	22.0	6 10	19 25.17	-33 17.8	1.171	2.108	14.2	19.2
6 20	19 14.55	-22 48.0	2.507	3.486	5.2	21.8	6 20	19 18.21	-34 19.4	1.123	2.103	10.0	18.9
6 30	19 6.81	-23 1.4	2.476	3.487	2.0	21.6	6 30	19 8.50	-35 10.4	1.097	2.099	6.7	18.7
7 10	18 58.61	-23 13.6	2.473	3.487	1.3	21.6	7 10	18 57.56	-35 43.4	1.094	2.095	6.8	18.7
7 20	18 50.68	-23 23.5	2.499	3.488	4.6	21.8	7 20	18 47.17	-35 54.4	1.114	2.092	10.4	18.9
7 30	18 43.72	-23 30.7	2.553	3.488	7.6	22.0	7 30	18 39.10	-35 44.3	1.155	2.090	14.6	19.1
8 9	18 38.30	-23 35.1	2.631	3.488	10.3	22.2	8 9	18 34.52	-35 17.7	1.214	2.088	18.5	19.4
246544	2008 <i>RV</i> ₈₀		7 6.1 143°85	2°9/ 6.6 18			121771	2000 <i>AN</i> ₃		7 6.1 189°40	4°1/ 4.6 18		
5 31	19 28.66	-16 7.0	2.025	2.861	13.7	20.5	5 31	19 28.40	-35 19.9	2.745	3.577	10.6	20.3
6 10	19 23.40	-15 33.8	1.949	2.865	10.7	20.3	6 10	19 23.09	-36 2.7	2.667	3.576	8.4	20.2
6 20	19 16.12	-15 5.9	1.896	2.868	7.2	20.1	6 20	19 15.90	-36 41.2	2.612	3.575	6.1	20.0
6 30	19 7.44	-14 43.8	1.867	2.871	3.9	19.9	6 30	19 7.39	-37 11.7	2.584	3.574	4.4	19.9
7 10	18 58.23	-14 27.5	1.866	2.875	3.2	19.9	7 10	18 58.30	-37 31.3	2.584	3.573	4.5	19.9
7 20	18 49.42	-14 16.8	1.892	2.878	6.1	20.1	7 20	18 49.50	-37 38.5	2.612	3.571	6.3	20.0
7 30	18 41.90	-14 11.5	1.945	2.880	9.5	20.3	7 30	18 41.79	-37 33.7	2.665	3.570	8.6	20.2
8 9	18 36.33	-14 10.7	2.020	2.883	12.7	20.5	8 9	18 35.85	-37 18.9	2.743	3.568	10.8	20.3
186364	2002 <i>GQ</i> ₉₇		7 6.1 325°57	4°6/ 7.3 18			261130	2005 <i>TG</i> ₃₀		7 6.1 255°71	3°2/ 7.4 18		
5 31	19 23.67	-10 3.1	2.132	2.958	13.4	19.6	5 31	19 25.04	-10 43.4	2.575	3.390	11.7	21.1
6 10	19 19.62	-9 36.5	2.048	2.952	10.8	19.4	6 10	19 20.48	-10 54.9	2.473	3.373	9.3	20.9
6 20	19 13.74	-9 19.8	1.986	2.946	7.9	19.2	6 20	19 14.24	-11 16.3	2.394	3.356	6.6	20.7
6 30	19 6.54	-9 14.1	1.948	2.940	5.4	19.0	6 30	19 6.77	-11 47.3	2.341	3.338	4.1	20.5
7 10	18 58.78	-9 19.3	1.937	2.934	4.7	19.0	7 10	18 58.67	-12 26.7	2.316	3.320	3.3	20.5
7 20	18 51.26	-9 34.7	1.951	2.929	6.7	19.1	7 20	18 50.67	-13 12.6	2.320	3.302	5.4	20.6
7 30	18 44.80	-9 58.6	1.992	2.924	9.6	19.3	7 30	18 43.49	-14 2.7	2.351	3.283	8.3	20.7
8 9	18 40.05	-10 28.7	2.055	2.919	12.4	19.4	8 9	18 37.77	-14 54.5	2.407	3.264	11.1	20.9
250795	2005 <i>TZ</i> ₁₃₁		7 6.1 310°97	1°4/ 5.7 18			17890	1999 <i>DU</i> ₆		7 6.1 274°23	0°7/ 6.4 18		
5 31	19 26.04	-25 14.0	2.022	2.875	13.0	20.4	5 31	19 27.96	-16 59.0	1.773	2.619	14.9	16.6
6 10	19 21.77	-25 37.5	1.935	2.864	10.0	20.2	6 10	19 23.55	-17 48.5	1.683	2.607	11.5	16.3
6 20	19 15.29	-26 2.9	1.871	2.854	6.5	19.9	6 20	19 16.65	-18 50.0	1.614	2.594	7.5	16.1
6 30	19 7.20	-26 27.2	1.832	2.843	2.7	19.7	6 30	19 7.82	-20 0.3	1.571	2.581	3.1	15.8
7 10	18 58.36	-26 47.4	1.820	2.833	2.3	19.6	7 10	18 57.98	-21 15.0	1.554	2.569	1.9	15.6
7 20	18 49.78	-27 1.7	1.835	2.823	6.0	19.8	7 20	18 48.27	-22 28.9	1.564	2.556	6.4	15.9
7 30	18 42.46	-27 9.4	1.875	2.813	9.7	20.0	7 30	18 39.86	-23 37.9	1.601	2.543	10.8	16.1
8 9	18 37.18	-27 10.8	1.938	2.804	13.0	20.2	8 9	18 33.70	-24 39.5	1.660	2.530	14.6	16.3
471656	2012 <i>TE</i> ₁₂₆		7 6.1 291°20	8°6/ 3.8 18			287502	2003 <i>BQ</i> ₄₃	</				

EPHEMERIDES

7 6.1

7 6.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
318801	2005 <i>SH</i> ₁₄₇		7 6.1 217°94	0°4/ 6.3 18			159150	2004 <i>XG</i> ₁₀₅		7 6.1 286°80	2°6/ 5.4 18		
5 31	19 25.88	-20 29.0	2.698	3.532	10.7	22.5	5 31	19 27.17	-29 47.7	2.361	3.205	11.7	20.4
6 10	19 21.00	-20 37.7	2.607	3.526	8.2	22.3	6 10	19 22.43	-30 9.9	2.268	3.190	9.0	20.2
6 20	19 14.50	-20 49.7	2.541	3.519	5.3	22.1	6 20	19 15.66	-30 30.5	2.198	3.175	6.1	20.0
6 30	19 6.84	-21 3.5	2.501	3.512	2.1	21.9	6 30	19 7.39	-30 46.3	2.154	3.160	3.3	19.8
7 10	18 58.67	-21 17.7	2.490	3.504	1.3	21.8	7 10	18 58.44	-30 54.6	2.137	3.144	3.1	19.8
7 20	18 50.71	-21 31.1	2.507	3.496	4.5	22.0	7 20	18 49.71	-30 54.2	2.149	3.129	5.9	19.9
7 30	18 43.64	-21 43.0	2.552	3.488	7.6	22.2	7 30	18 42.12	-30 45.1	2.186	3.114	9.1	20.1
8 9	18 38.07	-21 52.9	2.622	3.479	10.3	22.4	8 9	18 36.39	-30 28.7	2.247	3.099	12.0	20.2
360159	2013 <i>CP</i> ₆₈		7 6.1 252°62	4°4/ 7.4 18			514116	2015 <i>EB</i> ₇₅		7 6.1 263°45	3°8/ 5.3 18		
5 31	19 24.59	-9 21.7	2.258	3.077	13.0	21.4	5 31	19 31.81	-31 13.5	1.810	2.660	14.5	21.0
6 10	19 20.23	-9 4.1	2.174	3.073	10.5	21.2	6 10	19 26.64	-31 43.7	1.723	2.647	11.3	20.8
6 20	19 14.09	-8 56.7	2.112	3.069	7.7	21.0	6 20	19 18.69	-32 11.3	1.657	2.633	7.7	20.6
6 30	19 6.70	-9 0.4	2.075	3.065	5.2	20.8	6 30	19 8.65	-32 31.3	1.616	2.620	4.5	20.3
7 10	18 58.77	-9 14.8	2.064	3.061	4.5	20.8	7 10	18 57.63	-32 39.6	1.601	2.605	4.4	20.3
7 20	18 51.07	-9 38.8	2.080	3.057	6.4	20.9	7 20	18 46.93	-32 34.2	1.612	2.591	7.6	20.5
7 30	18 44.39	-10 10.4	2.123	3.053	9.2	21.1	7 30	18 37.86	-32 15.7	1.648	2.577	11.4	20.6
8 9	18 39.34	-10 47.3	2.188	3.048	11.9	21.2	8 9	18 31.38	-31 47.4	1.706	2.562	14.9	20.8
434673	2006 <i>AD</i> ₄₆		7 6.1 194°54	1°2/ 6.5 18			201573	2003 <i>SK</i> ₅₉		7 6.1 317°35	3°9/ 6.4 18		
5 31	19 28.92	-18 10.6	2.094	2.931	13.3	22.3	5 31	19 28.21	-16 9.6	1.648	2.497	15.7	19.5
6 10	19 23.72	-18 19.0	2.010	2.929	10.2	22.1	6 10	19 23.66	-15 13.8	1.566	2.488	12.4	19.3
6 20	19 16.43	-18 33.3	1.950	2.927	6.7	21.9	6 20	19 16.63	-14 22.7	1.504	2.479	8.6	19.0
6 30	19 7.64	-18 52.2	1.915	2.924	2.9	21.6	6 30	19 7.80	-13 37.8	1.467	2.470	4.9	18.8
7 10	18 58.20	-19 13.6	1.908	2.921	1.9	21.6	7 10	18 58.19	-13 0.6	1.455	2.462	4.2	18.7
7 20	18 49.04	-19 35.7	1.928	2.918	5.6	21.8	7 20	18 48.97	-12 32.1	1.468	2.454	7.5	18.9
7 30	18 41.10	-19 57.2	1.975	2.914	9.3	22.0	7 30	18 41.24	-12 12.9	1.506	2.446	11.5	19.1
8 9	18 35.11	-20 17.1	2.046	2.909	12.5	22.2	8 9	18 35.85	-12 2.1	1.566	2.438	15.2	19.3
302303	2001 <i>YF</i> ₁₀₉		7 6.1 148°82	3°1/ 4.7 18			283666	2002 <i>PK</i> ₁₀₆		7 6.2 269°60	2°3/ 6.5 18		
5 31	19 28.98	-29 18.3	2.486	3.325	11.4	20.9	5 31	19 27.87	-17 19.9	2.062	2.901	13.4	20.9
6 10	19 23.66	-30 24.2	2.411	3.330	8.7	20.7	6 10	19 23.05	-16 57.1	1.966	2.884	10.4	20.6
6 20	19 16.35	-31 30.2	2.361	3.335	5.9	20.5	6 20	19 16.10	-16 38.9	1.892	2.868	7.0	20.4
6 30	19 7.61	-32 31.8	2.338	3.340	3.5	20.4	6 30	19 7.59	-16 25.3	1.844	2.851	3.5	20.1
7 10	18 58.22	-33 25.0	2.343	3.345	3.6	20.4	7 10	18 58.34	-16 15.9	1.823	2.834	2.7	20.1
7 20	18 49.05	-34 7.0	2.377	3.349	6.1	20.6	7 20	18 49.28	-16 10.3	1.829	2.817	6.0	20.2
7 30	18 41.01	-34 36.9	2.438	3.353	8.8	20.8	7 30	18 41.40	-16 8.1	1.861	2.799	9.7	20.4
8 9	18 34.79	-34 55.7	2.523	3.357	11.4	20.9	8 9	18 35.44	-16 8.8	1.917	2.782	13.1	20.6
80718	2000 <i>CW</i> ₂₃		7 6.1 264°06	0°8/ 6.3 18			475916	2007 <i>DO</i> ₁₁₇		7 6.2 208°57	6°6/ 3.5 18		
5 31	19 30.12	-20 14.8	1.725	2.575	15.1	20.1	5 31	19 32.92	-45 18.8	2.958	3.759	10.7	21.7
6 10	19 25.29	-20 16.2	1.630	2.557	11.7	19.8	6 10	19 26.74	-46 13.0	2.880	3.753	9.0	21.6
6 20	19 17.81	-20 22.7	1.557	2.538	7.7	19.5	6 20	19 18.38	-46 58.3	2.825	3.748	7.5	21.5
6 30	19 8.29	-20 32.7	1.508	2.519	3.1	19.2	6 30	19 8.44	-47 29.9	2.796	3.742	6.6	21.4
7 10	18 57.74	-20 43.9	1.485	2.499	2.0	19.1	7 10	18 57.82	-47 44.4	2.794	3.735	6.8	21.4
7 20	18 47.37	-20 54.6	1.489	2.480	6.7	19.3	7 20	18 47.50	-47 40.7	2.817	3.728	8.0	21.5
7 30	18 38.43	-21 3.8	1.517	2.460	11.2	19.6	7 30	18 38.46	-47 19.8	2.866	3.721	9.6	21.6
8 9	18 31.91	-21 11.2	1.568	2.439	15.2	19.8	8 9	18 31.45	-46 44.9	2.937	3.714	11.3	21.7
350882	2002 <i>QS</i> ₅₇		7 6.1 289°35	4°5/ 5.1 18			419654	2010 <i>TW</i> ₆₉		7 6.2 204°14	2°9/ 6.8 17		
5 31	19 30.95	-33 30.6	1.917	2.765	13.9	21.2	5 31	19 30.25	-15 28.8	1.681	2.523	15.7	22.1
6 10	19 25.98	-34 0.5	1.821	2.742	11.0	21.0	6 10	19 25.19	-15 16.6	1.601	2.521	12.3	21.9
6 20	19 18.28	-34 26.4	1.747	2.719	7.8	20.7	6 20	19 17.61	-15 12.9	1.543	2.518	8.4	21.6
6 30	19 8.49	-34 43.1	1.697	2.696	5.0	20.5	6 30	19 8.20	-15 17.5	1.509	2.514	4.4	21.4
7 10	18 57.66	-34 46.3	1.673	2.673	5.0	20.5	7 10	18 57.98	-15 29.0	1.500	2.511	3.3	21.3
7 20	18 47.06	-34 34.2	1.675	2.649	7.9	20.6	7 20	18 48.13	-15 46.0	1.518	2.507	6.9	21.5
7 30	18 37.99	-34 7.6	1.702	2.626	11.4	20.8	7 30	18 39.78	-16 6.6	1.561	2.502	11.1	21.7
8 9	18 31.43	-33 29.8	1.751	2.603	14.8	20.9	8 9	18 33.80	-16 29.2	1.626	2.497	14.8	22.0
349247	2007 <i>TH</i> ₁₁₃		7 6.1 248°93	3°2/ 4.9 18			48898	1998 <i>MO</i> ₅		7 6.2 332°49	3°8/ 8.3 18		
5 31	19 29.71	-29 47.3	2.215	3.059	12.4	21.0	5 31	19 24.99	-5 37.4	1.136	1.989	21.0	16.6
6 10	19 24.57	-30 33.9	2.124	3.045	9.6	20.8	6 10	19 22.58	-7 20.8	1.047	1.968	17.1	16.3
6 20	19 17.14	-31 20.3	2.056	3.031	6.5	20.6	6 20	19 16.83	-9 46.1	0.975	1.948	12.2	15.9
6 30	19 7.99	-32 2.1	2.014	3.017	3.8	20.4	6 30	19 8.21	-12 52.4	0.925	1.930	6.7	15.6
7 10	18 58.00	-32 35.3	1.999	3.003	3.8	20.3	7 10	18 57.81	-16 29.7	0.900	1.913	3.9	15.3
7 20	18 48.17	-32 57.3	2.012	2.988	6.6	20.5	7 20	18 47.22	-20 20.1	0.901	1.897	8.8	15.6
7 30	18 39.58	-33 7.4	2.051	2.973	9.9	20.7	7 30	18 38.29	-24 3.8	0.927	1.883	14.8	15.8
8 9	18 33.05	-33 7.1	2.113	2.957	12.9	20.8	8 9	18 32.60	-27 25.6	0.974	1.871	20.2	16.1
94439	2001 <i>TY</i> ₆₂		7 6.1 298°36	3°2/ 6.8 17			228340	2000 <i>SS</i> ₁₂₉		7 6.2 328°63	1°1/ 6.1 17		
5 31	19 29.50	-15 32.3	1.342	2.201	18.1	19.6	5 31	19 28.25	-24 7.2	1.288	2.162	17.7	19.7
6 10	19 25.13	-15 21.3	1.272	2.200	14.1	19.3	6 10	19 24.58	-23 9.6	1.201	2.141	13.8	19.4
6 20	19 17.80	-15 21.1	1.220	2.199	9.6	19.1	6 20	19 17.69	-22 7.7	1.135	2.121	9.0	19.1
6 30	19 8.29	-15 31.3	1.191	2.198	4.9	18.8	6 30	19 8.35	-21 1.6	1.090	2.102	3.7	18.7
7 10	18 57.84	-15 50.2	1.186	2.197	3.7	18.7	7 10	18 57.87	-19 52.5	1.069	2.084	2.5	18.6
7 20	18 47.87	-16 15.3	1.205	2.197	7.9	19.0	7 20	18 47.81	-18 43.5	1.073	2.067	8.1	18.9
7 30	18 39.75	-16 44.1	1.248	2.196	12.6	19.2	7 30	18 39.71	-17 38.5	1.099	2.051	13.4	19.1
8 9	18 34.46	-17 14.3	1.310	2.195	16.8	19.5	8 9	18 34.67	-16 40.7	1.144	2.036	18.1	19.4
129441	1981 <i>DJ</i> ₃		7 6.1 184°92	0°0/ 5.9 18			154854	2004 <i>RT</i> ₆₅					

EPHEMERIDES

7 6.2

7 6.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
442923	2013 CA ₄₈		7 6.2 66°97'	3°6'	5.3	18	457644	2009 BG ₁₈₅		7 6.2 155°78'	5°2'	5.3	17
5 31	19 28.86	-32 30.2	2.227	3.071	12.3	20.8	5 31	19 37.96	-34 26.8	1.671	2.515	15.8	21.9
6 10	19 23.65	-32 57.2	2.161	3.081	9.6	20.6	6 10	19 31.38	-35 3.3	1.604	2.521	12.4	21.7
6 20	19 16.36	-33 20.1	2.118	3.091	6.6	20.5	6 20	19 21.69	-35 33.6	1.558	2.528	8.8	21.5
6 30	19 7.63	-33 35.4	2.100	3.100	4.1	20.3	6 30	19 9.80	-35 51.1	1.536	2.533	5.8	21.3
7 10	18 58.40	-33 40.4	2.109	3.110	4.0	20.3	7 10	18 57.10	-35 51.3	1.541	2.538	5.7	21.3
7 20	18 49.64	-33 34.2	2.146	3.121	6.4	20.5	7 20	18 45.10	-35 33.2	1.571	2.542	8.6	21.5
7 30	18 42.25	-33 17.7	2.208	3.131	9.2	20.7	7 30	18 35.21	-34 59.4	1.626	2.546	12.1	21.7
8 9	18 36.90	-32 53.2	2.294	3.141	11.9	20.9	8 9	18 28.35	-34 14.9	1.702	2.549	15.4	21.9
199085	2005 XO ₁₀₄		7 6.2 324°51'	6°1'	5.8	18	505796	2015 BX ₃₁₅		7 6.2 104°19'	6°1'	7.5	17
5 31	19 30.70	-36 9.9	1.341	2.208	17.6	19.3	5 31	19 29.04	-9 7.8	1.476	2.313	17.8	21.1
6 10	19 26.87	-36 17.9	1.253	2.183	14.1	19.0	6 10	19 24.40	-8 36.2	1.409	2.318	14.4	20.9
6 20	19 19.39	-36 15.4	1.184	2.160	10.3	18.7	6 20	19 17.15	-8 19.5	1.362	2.324	10.6	20.7
6 30	19 9.07	-35 55.7	1.137	2.137	6.9	18.4	6 30	19 8.03	-8 19.5	1.336	2.329	7.2	20.5
7 10	18 57.42	-35 13.8	1.113	2.115	6.6	18.4	7 10	18 58.18	-8 35.9	1.335	2.334	6.2	20.5
7 20	18 46.25	-34 9.4	1.112	2.093	9.9	18.5	7 20	18 48.81	-9 6.8	1.359	2.339	8.7	20.6
7 30	18 37.36	-32 47.2	1.133	2.073	14.4	18.7	7 30	18 41.10	-9 48.7	1.406	2.344	12.3	20.8
8 9	18 31.97	-31 14.7	1.174	2.054	18.6	18.9	8 9	18 35.88	-10 37.4	1.475	2.349	15.9	21.1
140755	2001 UY ₁₁₇		7 6.2 262°37'	1°1'	5.8	18	100547	1997 EQ ₃₅		7 6.2 104°51'	1°3'	6.5	17
5 31	19 27.30	-24 40.5	2.208	3.055	12.3	20.3	5 31	19 30.83	-18 16.1	1.597	2.447	16.1	19.7
6 10	19 22.57	-25 0.5	2.120	3.045	9.4	20.1	6 10	19 25.62	-18 28.6	1.534	2.459	12.3	19.5
6 20	19 15.77	-25 22.3	2.054	3.035	6.1	19.8	6 20	19 17.85	-18 48.8	1.491	2.471	8.0	19.3
6 30	19 7.46	-25 43.2	2.014	3.025	2.5	19.6	6 30	19 8.28	-19 14.5	1.472	2.483	3.4	19.0
7 10	18 58.47	-26 0.9	2.001	3.014	1.9	19.5	7 10	18 58.05	-19 42.8	1.480	2.494	2.1	19.0
7 20	18 49.70	-26 13.5	2.016	3.004	5.6	19.8	7 20	18 48.37	-20 11.0	1.514	2.505	6.6	19.3
7 30	18 42.10	-26 20.3	2.058	2.994	9.1	20.0	7 30	18 40.37	-20 37.3	1.572	2.516	10.8	19.6
8 9	18 36.40	-26 22.0	2.122	2.983	12.2	20.1	8 9	18 34.87	-21 0.7	1.653	2.527	14.5	19.8
122437	2000 QW ₁₂₀		7 6.2 216°35'	1°1'	5.9	18	12887	1998 QP ₃₅		7 6.2 297°90'	0°4'	6.0	18
5 31	19 31.27	-25 50.3	2.033	2.877	13.3	20.1	5 31	19 25.60	-22 41.9	2.201	3.048	12.3	18.3
6 10	19 25.68	-25 53.1	1.948	2.872	10.2	19.9	6 10	19 21.36	-22 59.2	2.101	3.027	9.5	18.0
6 20	19 17.79	-25 55.6	1.885	2.866	6.6	19.7	6 20	19 15.08	-23 19.9	2.025	3.006	6.1	17.8
6 30	19 8.24	-25 55.4	1.849	2.859	2.7	19.4	6 30	19 7.24	-23 41.9	1.974	2.985	2.4	17.5
7 10	18 57.99	-25 50.3	1.839	2.853	2.1	19.3	7 10	18 58.65	-24 2.7	1.950	2.964	1.6	17.4
7 20	18 48.10	-25 39.5	1.858	2.845	5.9	19.6	7 20	18 50.18	-24 20.6	1.954	2.943	5.5	17.6
7 30	18 39.61	-25 23.7	1.902	2.838	9.7	19.8	7 30	18 42.77	-24 34.3	1.983	2.923	9.2	17.8
8 9	18 33.28	-25 4.1	1.970	2.830	13.1	20.0	8 9	18 37.20	-24 43.8	2.036	2.902	12.5	18.0
148462	2000 YN ₁₃₆		7 6.2 153°93'	4°8'	8.4	18	228385	2000 XW ₂₀		7 6.2 156°13'	1°5'	5.9	18
5 31	19 24.40	-4 25.1	2.767	3.555	11.7	20.6	5 31	19 31.89	-27 1.1	2.265	3.102	12.4	21.0
6 10	19 19.73	-4 25.4	2.687	3.561	9.6	20.4	6 10	19 25.82	-27 7.6	2.190	3.110	9.4	20.8
6 20	19 13.63	-4 37.5	2.629	3.566	7.4	20.3	6 20	19 17.69	-27 12.9	2.138	3.116	6.1	20.6
6 30	19 6.55	-5 2.0	2.597	3.571	5.5	20.2	6 30	19 8.17	-27 14.5	2.113	3.122	2.7	20.4
7 10	18 59.07	-5 38.0	2.592	3.576	4.8	20.1	7 10	18 58.14	-27 10.6	2.116	3.128	2.2	20.4
7 20	18 51.80	-6 23.9	2.616	3.581	6.0	20.2	7 20	18 48.54	-27 0.4	2.147	3.133	5.5	20.6
7 30	18 45.36	-7 17.3	2.666	3.585	8.0	20.4	7 30	18 40.27	-26 44.7	2.206	3.137	8.8	20.8
8 9	18 40.25	-8 15.3	2.742	3.589	10.2	20.5	8 9	18 34.00	-26 24.9	2.288	3.141	11.7	21.0
113130	2002 RA ₈₅		7 6.2 310°50'	2°0'	6.6	18	450956	2008 JS ₂₈		7 6.2 285°01'	4°7'	3.8	16
5 31	19 25.55	-17 39.7	1.702	2.557	15.0	19.0	5 31	19 28.71	-33 11.0	2.343	3.184	11.9	20.8
6 10	19 21.79	-17 31.8	1.609	2.537	11.7	18.8	6 10	19 23.93	-34 29.1	2.251	3.167	9.4	20.6
6 20	19 15.57	-17 30.7	1.537	2.517	7.8	18.5	6 20	19 16.86	-35 46.7	2.183	3.150	6.8	20.4
6 30	19 7.47	-17 36.0	1.489	2.498	3.7	18.2	6 30	19 7.99	-36 58.3	2.141	3.133	4.9	20.3
7 10	18 58.44	-17 46.4	1.466	2.479	2.6	18.1	7 10	18 58.16	-37 58.6	2.127	3.116	5.3	20.2
7 20	18 49.58	-18 0.3	1.468	2.460	6.7	18.3	7 20	18 48.38	-38 43.9	2.141	3.099	7.5	20.4
7 30	18 42.06	-18 16.2	1.495	2.441	11.0	18.5	7 30	18 39.72	-39 13.0	2.180	3.082	10.3	20.5
8 9	18 36.81	-18 33.0	1.543	2.423	15.0	18.7	8 9	18 33.08	-39 27.3	2.241	3.065	12.9	20.6
280981	2006 DW ₆₅		7 6.2 154°90'	0°2'	6.2	18	281941	2011 FF ₁₄₈		7 6.2 351°93'	3°7'	5.4	18
5 31	19 29.49	-20 50.9	2.169	3.008	12.8	21.4	5 31	19 26.09	-28 57.9	1.333	2.210	17.0	19.3
6 10	19 24.07	-21 8.4	2.093	3.014	9.8	21.2	6 10	19 22.90	-29 31.5	1.264	2.204	13.2	19.1
6 20	19 16.62	-21 29.9	2.041	3.020	6.3	21.0	6 20	19 16.58	-30 4.4	1.214	2.199	8.8	18.8
6 30	19 7.77	-21 53.4	2.015	3.026	2.5	20.8	6 30	19 7.92	-30 31.4	1.187	2.195	4.7	18.6
7 10	18 58.34	-22 16.4	2.016	3.031	1.5	20.7	7 10	18 58.26	-30 47.3	1.182	2.191	4.4	18.6
7 20	18 49.26	-22 37.2	2.046	3.035	5.3	21.0	7 20	18 49.12	-30 49.8	1.202	2.189	8.5	18.8
7 30	18 41.42	-22 54.6	2.103	3.040	8.9	21.2	7 30	18 41.97	-30 39.2	1.244	2.188	12.9	19.0
8 9	18 35.50	-23 8.6	2.183	3.043	12.0	21.4	8 9	18 37.85	-30 18.3	1.305	2.188	16.9	19.3
393867	2005 SG ₂₇₉		7 6.2 342°60'	5°5'	7.4	18	289995	2005 PC ₉		7 6.2 299°63'	5°3'	5.0	18
5 31	19 24.33	-8 25.6	2.024	2.846	14.2	20.8	5 31	19 30.68	-36 29.2	2.015	2.858	13.5	20.6
6 10	19 20.23	-7 47.0	1.944	2.843	11.5	20.6	6 10	19 25.64	-36 59.3	1.928	2.842	10.8	20.4
6 20	19 14.21	-7 19.4	1.886	2.840	8.7	20.4	6 20	19 17.99	-37 22.9	1.862	2.827	7.9	20.2
6 30	19 6.84	-7 4.4	1.852	2.837	6.2	20.3	6 30	19 8.41	-37 34.9	1.820	2.812	5.7	20.0
7 10	18 58.91	-7 2.7	1.843	2.835	5.6	20.2	7 10	18 57.97	-37 31.4	1.805	2.797	5.7	20.0
7 20	18 51.25	-7 13.8	1.860	2.832	7.4	20.3	7 20	18 47.88	-37 11.1	1.816	2.782	8.0	20.1
7 30	18 44.72	-7 35.9	1.903	2.830	10.2	20.5	7 30	18 39.36	-36 35.5	1.851	2.767	11.1	20.2
8 9	18 39.98	-8 6.2	1.967	2.829	13.0	20.7	8 9	18 33.29	-35 48.4	1.908	2.752	14.1	20.4
25314	1999 AK ₃		7 6.2 239°33'	4°6'	6.9	18	189361	2008 DP ₈₁		7 6.2 77°72'	1°6'	6.5	17
5 31	19 27.85	-10 55.2	2.252	3.069	13.1</								

EPHEMERIDES

7 6.2

7 6.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
153307	2001 <i>KF</i> ₁₀		7 6.2 13°90	0°5/ 6.3 17			184668	2005 <i>SK</i> ₆₀		7 6.2 346°61	0°0/ 5.9 18		
5 31	19 25.89	-19 23.3	0.972	1.863	20.7	19.3	5 31	19 26.17	-21 57.8	1.993	2.844	13.3	20.4
6 10	19 23.29	-19 49.4	0.917	1.865	16.0	19.0	6 10	19 21.81	-22 5.2	1.915	2.842	10.2	20.2
6 20	19 17.08	-20 27.7	0.878	1.868	10.3	18.7	6 20	19 15.34	-22 15.9	1.858	2.840	6.5	20.0
6 30	19 8.18	-21 14.1	0.860	1.872	4.1	18.4	6 30	19 7.36	-22 28.1	1.827	2.838	2.5	19.7
7 10	18 58.17	-22 2.8	0.863	1.878	2.4	18.3	7 10	18 58.76	-22 39.7	1.822	2.837	1.6	19.7
7 20	18 48.87	-22 48.4	0.887	1.884	8.7	18.7	7 20	18 50.49	-22 49.2	1.844	2.835	5.6	19.9
7 30	18 41.98	-23 27.3	0.932	1.892	14.3	19.0	7 30	18 43.48	-22 55.9	1.892	2.834	9.4	20.2
8 9	18 38.60	-23 58.1	0.994	1.900	19.1	19.4	8 9	18 38.47	-22 59.9	1.963	2.833	12.7	20.4
479287	2013 <i>GY</i> ₅₆		7 6.2 126°59	0°5/ 6.3 18			431043	2006 <i>BP</i> ₂₂		7 6.2 85°83	1°4/ 6.6 17		
5 31	19 25.81	-20 11.7	2.634	3.470	10.9	22.1	5 31	19 28.35	-17 1.6	1.771	2.617	14.9	21.3
6 10	19 20.93	-20 20.9	2.559	3.478	8.3	21.9	6 10	19 23.57	-17 23.5	1.704	2.627	11.5	21.1
6 20	19 14.47	-20 33.4	2.508	3.487	5.3	21.7	6 20	19 16.50	-17 54.1	1.659	2.637	7.5	20.8
6 30	19 6.93	-20 48.0	2.484	3.495	2.2	21.5	6 30	19 7.81	-18 31.1	1.638	2.648	3.3	20.6
7 10	18 58.98	-21 3.0	2.488	3.503	1.3	21.5	7 10	18 58.50	-19 11.6	1.644	2.658	2.1	20.5
7 20	18 51.31	-21 17.3	2.521	3.511	4.5	21.7	7 20	18 49.62	-19 52.5	1.677	2.668	6.1	20.8
7 30	18 44.62	-21 30.2	2.581	3.518	7.4	21.9	7 30	18 42.19	-20 31.4	1.735	2.678	10.0	21.1
8 9	18 39.45	-21 41.1	2.666	3.526	10.1	22.1	8 9	18 36.95	-21 6.8	1.816	2.688	13.4	21.3
277250	2005 <i>RL</i> ₄₁		7 6.2 320°51	0°1/ 6.1 17			472531	2015 <i>CJ</i> ₆₁		7 6.2 154°99	4°6/ 5.7 17		
5 31	19 25.61	-21 27.3	1.321	2.196	17.3	21.0	5 31	19 36.12	-35 0.2	1.797	2.639	14.9	20.7
6 10	19 22.61	-21 46.4	1.237	2.177	13.4	20.7	6 10	19 29.74	-35 8.9	1.725	2.642	11.7	20.5
6 20	19 16.52	-22 13.0	1.172	2.159	8.7	20.4	6 20	19 20.53	-35 9.6	1.674	2.644	8.3	20.3
6 30	19 8.00	-22 44.2	1.129	2.142	3.4	20.1	6 30	19 9.38	-34 57.7	1.648	2.647	5.3	20.1
7 10	18 58.23	-23 15.9	1.110	2.125	2.2	19.9	7 10	18 57.57	-34 30.3	1.648	2.649	5.0	20.1
7 20	18 48.68	-23 44.6	1.114	2.109	7.8	20.2	7 20	18 46.45	-33 47.8	1.675	2.651	7.7	20.3
7 30	18 40.89	-24 7.9	1.141	2.094	13.0	20.5	7 30	18 37.27	-32 53.3	1.727	2.652	11.2	20.5
8 9	18 36.05	-24 25.2	1.187	2.079	17.6	20.7	8 9	18 30.85	-31 51.6	1.802	2.654	14.4	20.7
175458	2006 <i>QF</i> ₉₀		7 6.2 296°57	1°7/ 5.9 18			94727	2001 <i>XA</i> ₆₅		7 6.2 138°37	0°4/ 6.3 18		
5 31	19 31.25	-26 56.3	1.405	2.271	17.0	19.9	5 31	19 29.80	-19 47.8	1.981	2.822	13.7	20.0
6 10	19 26.79	-26 52.3	1.321	2.256	13.2	19.6	6 10	19 24.50	-20 10.6	1.909	2.831	10.5	19.8
6 20	19 19.11	-26 46.8	1.256	2.240	8.6	19.3	6 20	19 17.02	-20 38.9	1.860	2.839	6.8	19.6
6 30	19 8.97	-26 36.3	1.214	2.225	3.7	19.0	6 30	19 8.01	-21 10.5	1.836	2.847	2.7	19.4
7 10	18 57.67	-26 18.2	1.197	2.210	2.8	18.9	7 10	18 58.39	-21 42.4	1.840	2.854	1.6	19.3
7 20	18 46.77	-25 51.5	1.204	2.196	7.9	19.2	7 20	18 49.15	-22 12.2	1.871	2.861	5.7	19.6
7 30	18 37.82	-25 18.1	1.235	2.181	12.9	19.4	7 30	18 41.26	-22 38.5	1.929	2.868	9.4	19.8
8 9	18 31.92	-24 41.0	1.286	2.167	17.3	19.6	8 9	18 35.45	-23 0.7	2.010	2.874	12.7	20.1
356772	2011 <i>UV</i> ₂₇₉		7 6.2 206°43	1°1/ 5.9 18			422166	2014 <i>RB</i> ₉		7 6.2 71°47	1°2/ 5.9 17		
5 31	19 27.33	-25 25.1	2.502	3.343	11.3	21.8	5 31	19 31.44	-22 55.7	1.264	2.134	18.3	21.5
6 10	19 22.31	-25 40.5	2.418	3.340	8.6	21.6	6 10	19 26.98	-23 29.5	1.200	2.137	14.0	21.2
6 20	19 15.48	-25 56.5	2.357	3.337	5.5	21.4	6 20	19 19.23	-24 9.5	1.154	2.140	9.0	21.0
6 30	19 7.37	-26 10.9	2.323	3.333	2.3	21.2	6 30	19 9.01	-24 50.8	1.130	2.142	3.6	20.7
7 10	18 58.72	-26 21.7	2.317	3.330	1.8	21.2	7 10	18 57.77	-25 28.1	1.131	2.145	2.6	20.6
7 20	18 50.34	-26 27.6	2.339	3.326	5.0	21.4	7 20	18 47.10	-25 57.4	1.156	2.148	8.0	20.9
7 30	18 43.02	-26 28.4	2.389	3.322	8.1	21.6	7 30	18 38.56	-26 17.3	1.204	2.151	13.0	21.2
8 9	18 37.38	-26 24.8	2.462	3.317	10.9	21.7	8 9	18 33.20	-26 28.7	1.271	2.154	17.3	21.5
238612	2005 <i>BG</i> ₉		7 6.2 127°55	1°9/ 5.7 18			514519	2016 <i>WH</i> ₄₇		7 6.2 246°03	1°8/ 5.4 18		
5 31	19 30.64	-27 13.7	2.166	3.009	12.7	21.5	5 31	19 26.72	-25 49.6	2.482	3.325	11.3	21.5
6 10	19 24.99	-27 36.1	2.098	3.020	9.7	21.3	6 10	19 21.99	-26 33.1	2.395	3.317	8.6	21.3
6 20	19 17.24	-27 58.1	2.052	3.031	6.3	21.2	6 20	19 15.39	-27 18.6	2.330	3.310	5.6	21.1
6 30	19 8.05	-28 16.3	2.032	3.041	2.9	21.0	6 30	19 7.40	-28 2.9	2.293	3.302	2.6	20.9
7 10	18 58.33	-28 28.2	2.040	3.051	2.5	20.9	7 10	18 58.76	-28 42.9	2.284	3.294	2.4	20.8
7 20	18 49.05	-28 32.6	2.076	3.061	5.7	21.2	7 20	18 50.29	-29 16.0	2.303	3.286	5.4	21.0
7 30	18 41.13	-28 29.6	2.139	3.070	9.1	21.4	7 30	18 42.83	-29 41.2	2.350	3.278	8.5	21.2
8 9	18 35.26	-28 20.5	2.225	3.079	12.0	21.6	8 9	18 37.07	-29 58.6	2.420	3.270	11.3	21.4
395581	2011 <i>UY</i> ₂₆₀		7 6.2 270°42	4°0/ 4.8 18			437603	2014 <i>BP</i> ₆		7 6.2 83°45	1°0/ 6.5 17		
5 31	19 28.82	-32 20.4	2.196	3.041	12.5	21.1	5 31	19 27.30	-18 28.6	1.911	2.757	14.0	21.6
6 10	19 23.95	-33 7.3	2.113	3.032	9.7	20.9	6 10	19 22.69	-18 43.7	1.837	2.760	10.7	21.4
6 20	19 16.79	-33 52.0	2.052	3.024	6.8	20.7	6 20	19 15.92	-19 5.5	1.784	2.764	7.0	21.2
6 30	19 7.96	-34 29.9	2.017	3.016	4.4	20.5	6 30	19 7.60	-19 32.1	1.757	2.767	3.0	20.9
7 10	18 58.35	-34 56.9	2.009	3.007	4.5	20.5	7 10	18 58.66	-20 1.1	1.757	2.771	1.8	20.9
7 20	18 49.00	-35 10.8	2.028	2.999	7.0	20.6	7 20	18 50.06	-20 30.1	1.783	2.775	5.8	21.1
7 30	18 40.94	-35 11.7	2.072	2.990	10.0	20.8	7 30	18 42.78	-20 57.5	1.836	2.778	9.6	21.4
8 9	18 34.99	-35 1.4	2.139	2.982	12.8	21.0	8 9	18 37.56	-21 22.1	1.911	2.782	12.9	21.6
469580	2003 <i>YZ</i> ₉		7 6.2 250°98	0°7/ 6.0 18			176328	2001 <i>SH</i> ₂₅₅		7 6.2 230°86	1°2/ 5.8 18		
5 31	19 30.42	-24 36.4	2.442	3.277	11.7	21.9	5 31	19 27.72	-25 0.5	2.284	3.128	12.1	21.0
6 10	19 24.84	-24 40.8	2.337	3.256	9.0	21.7	6 10	19 22.83	-25 23.5	2.199	3.123	9.2	20.8
6 20	19 17.23	-24 45.8	2.255	3.234	5.8	21.5	6 20	19 15.94	-25 48.1	2.137	3.117	5.9	20.6
6 30	19 8.11	-24 49.3	2.200	3.211	2.3	21.2	6 30	19 7.61	-26 11.5	2.101	3.111	2.5	20.3
7 10	18 58.25	-24 49.6	2.174	3.188	1.6	21.1	7 10	18 58.64	-26 31.2	2.093	3.105	2.0	20.3
7 20	18 48.53	-24 45.6	2.176	3.164	5.3	21.3	7 20	18 49.93	-26 45.6	2.112	3.099	5.4	20.5
7 30	18 39.85	-24 37.2	2.206	3.139	8.7	21.5	7 30	18 42.36	-26 53.9	2.158	3.093	8.8	20.7
8 9	18 32.96	-24 25.4	2.261	3.114	11.9	21.7	8 9	18 36.63	-26 56.6	2.228	3.086	11.8	20.9
133016	2002 <i>VY</i> ₇		7 6.2 319°25	0°0/ 5.9 18			470612	2008 <i>RQ</i> ₉₉					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
284565	2007 <i>TR</i> ₄₆		7 6.2 249°24	1°0/ 6.4 18			288642	2004 <i>PP</i> ₃₆		7 6.2 257°63	1°4/ 6.4 18		
5 31	19 27.78	-19 48.7	2.046	2.889	13.3	21.0	5 31	19 30.30	-19 18.4	2.049	2.887	13.5	21.0
6 10	19 23.00	-19 44.4	1.961	2.883	10.2	20.8	6 10	19 25.06	-19 4.6	1.948	2.867	10.5	20.8
6 20	19 16.10	-19 44.2	1.898	2.877	6.7	20.6	6 20	19 17.55	-18 54.4	1.869	2.846	6.9	20.5
6 30	19 7.69	-19 47.0	1.861	2.871	2.8	20.3	6 30	19 8.33	-18 47.2	1.815	2.824	3.1	20.3
7 10	18 58.62	-19 51.4	1.850	2.865	1.8	20.2	7 10	18 58.25	-18 41.8	1.789	2.803	2.1	20.1
7 20	18 49.84	-19 56.2	1.868	2.858	5.6	20.5	7 20	18 48.32	-18 37.6	1.791	2.780	6.0	20.4
7 30	18 42.29	-20 0.8	1.911	2.852	9.4	20.7	7 30	18 39.58	-18 34.4	1.819	2.757	9.9	20.5
8 9	18 36.70	-20 5.0	1.977	2.845	12.7	20.9	8 9	18 32.86	-18 32.0	1.871	2.734	13.5	20.7
364683	2007 <i>TW</i> ₃₇₆		7 6.2 302°77	5°1/ 4.6 17			21054	Ojmjakon		7 6.2 335°84	0°5/ 6.4 18		
5 31	19 29.26	-28 46.2	1.256	2.132	17.9	20.5	5 31	19 25.20	-18 18.9	1.904	2.754	13.9	16.9
6 10	19 26.10	-29 58.0	1.167	2.107	14.1	20.2	6 10	19 21.26	-18 57.8	1.822	2.748	10.7	16.7
6 20	19 19.27	-31 15.7	1.098	2.082	9.7	19.8	6 20	19 15.13	-19 45.6	1.762	2.743	6.9	16.4
6 30	19 9.29	-32 31.2	1.051	2.056	5.8	19.5	6 30	19 7.37	-20 39.4	1.726	2.738	2.8	16.2
7 10	18 57.48	-33 35.1	1.026	2.031	6.1	19.5	7 10	18 58.85	-21 35.7	1.718	2.733	1.6	16.1
7 20	18 45.65	-34 20.0	1.025	2.007	10.5	19.6	7 20	18 50.55	-22 30.7	1.736	2.728	5.8	16.3
7 30	18 35.81	-34 43.3	1.045	1.983	15.5	19.8	7 30	18 43.48	-23 21.5	1.781	2.724	9.8	16.6
8 9	18 29.54	-34 47.3	1.083	1.959	20.2	20.0	8 9	18 38.43	-24 6.5	1.848	2.720	13.2	16.8
488442	2016 <i>YH</i> ₂		7 6.2 278°50	8°7/ 8.2 17			479510	2014 <i>BP</i> ₁₂		7 6.2 157°55	0°8/ 6.5 17		
5 31	19 23.79	+ 3 8.8	2.435	3.195	13.8	20.9	5 31	19 27.91	-18 48.7	2.098	2.939	13.1	21.8
6 10	19 19.60	+ 4 10.4	2.348	3.185	12.1	20.8	6 10	19 23.01	-19 7.0	2.021	2.942	10.1	21.6
6 20	19 13.76	+ 4 57.4	2.283	3.174	10.4	20.7	6 20	19 16.07	-19 31.4	1.966	2.945	6.5	21.4
6 30	19 6.75	+ 5 26.3	2.240	3.164	9.1	20.6	6 30	19 7.69	-19 59.8	1.937	2.947	2.7	21.2
7 10	18 59.20	+ 5 35.3	2.221	3.154	8.8	20.5	7 10	18 58.71	-20 29.8	1.935	2.950	1.6	21.1
7 20	18 51.82	+ 5 24.2	2.227	3.144	9.5	20.6	7 20	18 50.03	-20 59.4	1.961	2.952	5.4	21.4
7 30	18 45.31	+ 4 54.6	2.257	3.134	11.0	20.6	7 30	18 42.56	-21 26.8	2.014	2.954	9.0	21.6
8 9	18 40.28	+ 4 9.8	2.309	3.124	12.9	20.7	8 9	18 37.00	-21 51.2	2.090	2.955	12.2	21.8
273933	2007 <i>JX</i> ₁₀		7 6.2 104°80	2°9/ 5.4 17			376563	2013 <i>PA</i> ₁₀		7 6.2 122°69	3°2/ 7.0 17		
5 31	19 33.76	-28 59.0	1.985	2.827	13.7	21.2	5 31	19 29.82	-13 58.1	1.722	2.560	15.6	21.3
6 10	19 27.50	-29 40.3	1.929	2.850	10.5	21.1	6 10	19 24.71	-13 51.6	1.653	2.569	12.2	21.1
6 20	19 18.90	-30 19.9	1.895	2.872	6.9	20.9	6 20	19 17.26	-13 55.1	1.606	2.578	8.4	20.9
6 30	19 8.73	-30 53.4	1.888	2.893	3.7	20.7	6 30	19 8.17	-14 8.2	1.582	2.586	4.6	20.7
7 10	18 58.04	-31 17.2	1.908	2.914	3.5	20.8	7 10	18 58.44	-14 29.4	1.585	2.594	3.5	20.6
7 20	18 47.94	-31 29.5	1.955	2.934	6.5	21.0	7 20	18 49.17	-14 56.4	1.614	2.602	6.7	20.8
7 30	18 39.45	-31 31.0	2.029	2.954	9.8	21.2	7 30	18 41.39	-15 27.1	1.669	2.610	10.5	21.1
8 9	18 33.28	-31 23.8	2.126	2.973	12.7	21.5	8 9	18 35.87	-15 59.2	1.746	2.617	13.9	21.3
512410	2016 <i>PA</i> ₇₅		7 6.2 291°51	0°9/ 5.9 18			515299	2012 <i>US</i> ₆₁		7 6.2 297°74	1°6/ 5.6 18		
5 31	19 27.57	-24 21.1	1.974	2.825	13.4	20.9	5 31	19 28.99	-22 4.7	1.728	2.582	14.9	20.9
6 10	19 23.02	-24 35.7	1.889	2.817	10.3	20.7	6 10	19 24.90	-23 8.2	1.619	2.548	11.5	20.6
6 20	19 16.22	-24 52.4	1.826	2.808	6.6	20.5	6 20	19 17.99	-24 22.4	1.532	2.514	7.5	20.3
6 30	19 7.77	-25 8.4	1.789	2.800	2.7	20.2	6 30	19 8.71	-25 42.9	1.469	2.480	3.2	19.9
7 10	18 58.58	-25 21.2	1.778	2.792	2.0	20.1	7 10	18 57.97	-27 3.8	1.433	2.446	2.7	19.8
7 20	18 49.68	-25 29.2	1.794	2.784	5.9	20.4	7 20	18 47.00	-28 18.7	1.424	2.412	7.4	20.0
7 30	18 42.10	-25 31.8	1.836	2.776	9.8	20.6	7 30	18 37.22	-29 23.2	1.440	2.377	12.1	20.2
8 9	18 36.61	-25 29.7	1.901	2.768	13.1	20.8	8 9	18 29.89	-30 15.6	1.478	2.343	16.4	20.4
422494	2014 <i>SV</i> ₃₄₂		7 6.2 179°99	4°1/ 7.1 17			224502	2005 <i>WD</i> ₂₈		7 6.2 170°94	2°1/ 5.6 18		
5 31	19 31.10	-12 55.7	1.640	2.476	16.3	22.1	5 31	19 31.69	-27 8.5	2.154	2.994	12.8	21.6
6 10	19 25.87	-12 35.1	1.564	2.477	12.9	21.9	6 10	19 25.96	-27 42.1	2.077	2.998	9.8	21.4
6 20	19 18.11	-12 25.1	1.509	2.478	9.1	21.7	6 20	19 18.01	-28 16.0	2.023	3.001	6.4	21.2
6 30	19 8.51	-12 26.1	1.478	2.478	5.4	21.5	6 30	19 8.47	-28 46.4	1.995	3.003	3.1	21.0
7 10	18 58.14	-12 37.4	1.472	2.478	4.4	21.4	7 10	18 58.27	-29 10.1	1.995	3.005	2.8	21.0
7 20	18 48.16	-12 57.4	1.492	2.477	7.4	21.6	7 20	18 48.41	-29 25.2	2.024	3.006	6.0	21.2
7 30	18 39.74	-13 24.0	1.538	2.476	11.4	21.8	7 30	18 39.90	-29 31.3	2.078	3.007	9.4	21.4
8 9	18 33.71	-13 54.6	1.605	2.475	15.0	22.0	8 9	18 33.48	-29 29.9	2.157	3.007	12.4	21.6
39283	2001 <i>BN</i> ₄₅		7 6.2 259°44	0°8/ 6.5 18			158726	2003 <i>LG</i> ₂		7 6.2 337°07	1°7/ 6.7 18		
5 31	19 28.75	-17 19.8	1.945	2.785	14.0	18.9	5 31	19 23.36	-16 26.4	1.338	2.208	17.4	18.8
6 10	19 24.05	-18 1.3	1.849	2.769	10.9	18.6	6 10	19 20.72	-16 51.5	1.258	2.194	13.6	18.5
6 20	19 17.01	-18 53.1	1.775	2.753	7.1	18.4	6 20	19 15.25	-17 30.1	1.198	2.182	9.0	18.2
6 30	19 8.14	-19 52.4	1.726	2.737	3.0	18.1	6 30	19 7.56	-18 20.3	1.159	2.170	4.1	17.9
7 10	18 58.31	-20 55.7	1.705	2.720	1.8	18.0	7 10	18 58.77	-19 18.1	1.144	2.159	2.5	17.7
7 20	18 48.56	-21 58.6	1.712	2.703	6.0	18.2	7 20	18 50.23	-20 18.6	1.153	2.149	7.4	18.0
7 30	18 39.97	-22 57.9	1.745	2.685	10.2	18.4	7 30	18 43.33	-21 17.4	1.185	2.140	12.4	18.3
8 9	18 33.46	-23 51.3	1.802	2.667	13.8	18.6	8 9	18 39.15	-22 11.0	1.237	2.132	16.8	18.5
521733	2015 <i>RS</i> ₂₇₀		7 6.2 18°93	4°5/ 4.9 18			512890	2016 <i>WH</i> ₂₉		7 6.2 279°25	1°7/ 6.9 18		
5 31	19 28.35	-35 39.5	2.424	3.261	11.7	21.5	5 31	19 25.25	-15 34.9	2.247	3.082	12.5	21.1
6 10	19 23.33	-36 15.2	2.350	3.262	9.2	21.3	6 10	19 20.98	-15 55.5	2.155	3.071	9.7	20.9
6 20	19 16.26	-36 45.8	2.299	3.263	6.7	21.2	6 20	19 14.81	-16 24.5	2.085	3.060	6.5	20.7
6 30	19 7.73	-37 7.1	2.273	3.265	4.8	21.1	6 30	19 7.24	-17 0.7	2.041	3.048	3.1	20.5
7 10	18 58.64	-37 16.3	2.275	3.266	4.8	21.1	7 10	18 59.00	-17 42.0	2.024	3.037	2.1	20.4
7 20	18 49.91	-37 12.2	2.304	3.267	6.7	21.2	7 20	18 50.91	-18 25.8	2.035	3.025	5.3	20.6
7 30	18 42.46	-36 55.8	2.358	3.269	9.3	21.4	7 30	18 43.82	-19 9.8	2.073	3.014	8.8	20.8
8 9	18 36.96	-36 29.3	2.435	3.270	11.7	21.5	8 9	18 38.43	-19 52.1	2.135	3.002	11.9	21.0
143467	2003 <i>CH</i> ₃		7										

EPHEMERIDES

7 6.2

7 6.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
311184	2004 <i>WT</i> _{h m}		7 6.2 217°67	0°9/ 5.9 17			248600	2006 <i>DL</i> _{h m}		7 6.2 23°46	4°6/ 5.8 17		
5 31	19 32.32	-22 30.4	1.652	2.503	15.6	21.4	5 31	19 30.01	-30 54.5	1.007	1.896	20.3	19.5
6 10	19 27.14	-23 6.5	1.570	2.497	12.0	21.2	6 10	19 26.55	-31 15.0	0.958	1.903	15.8	19.3
6 20	19 19.16	-23 48.5	1.508	2.490	7.7	20.9	6 20	19 19.19	-31 30.5	0.926	1.912	10.6	19.0
6 30	19 9.04	-24 32.3	1.472	2.483	3.1	20.6	6 30	19 9.07	-31 34.5	0.914	1.922	5.8	18.8
7 10	18 57.90	-25 13.5	1.462	2.476	2.2	20.5	7 10	18 58.06	-31 22.4	0.924	1.933	5.3	18.8
7 20	18 47.04	-25 48.2	1.478	2.468	7.0	20.8	7 20	18 48.11	-30 54.0	0.955	1.945	9.7	19.1
7 30	18 37.78	-26 14.9	1.520	2.459	11.4	21.1	7 30	18 40.91	-30 12.8	1.007	1.958	14.5	19.4
8 9	18 31.14	-26 33.6	1.583	2.450	15.3	21.3	8 9	18 37.42	-29 24.3	1.077	1.972	18.8	19.7
176732	2002 <i>RP</i> ₄₉		7 6.2 302°89	1°2/ 6.5 18			439177	2011 <i>WY</i> ₄₉		7 6.2 204°16	5°1/ 7.3 18		
5 31	19 27.40	-18 14.9	1.427	2.290	16.9	20.1	5 31	19 25.95	-7 47.1	2.496	3.301	12.3	21.2
6 10	19 23.72	-18 30.4	1.343	2.276	13.2	19.8	6 10	19 21.15	-7 2.2	2.412	3.299	10.1	21.1
6 20	19 17.14	-18 55.8	1.279	2.262	8.7	19.5	6 20	19 14.73	-6 26.0	2.350	3.296	7.7	20.9
6 30	19 8.30	-19 29.2	1.237	2.248	3.7	19.2	6 30	19 7.18	-6 0.3	2.314	3.294	5.7	20.8
7 10	18 58.33	-20 7.3	1.220	2.234	2.3	19.0	7 10	18 59.17	-5 45.9	2.305	3.291	5.2	20.7
7 20	18 48.58	-20 46.3	1.227	2.221	7.4	19.3	7 20	18 51.38	-5 42.8	2.324	3.288	6.7	20.8
7 30	18 40.47	-21 23.4	1.258	2.208	12.3	19.6	7 30	18 44.53	-5 50.0	2.368	3.284	9.0	21.0
8 9	18 35.08	-21 56.7	1.310	2.196	16.7	19.8	8 9	18 39.19	-6 5.7	2.436	3.281	11.4	21.1
426956	2013 <i>YC</i> ₂₇		7 6.2 194°85	0°6/ 6.0 17			480704	2015 <i>PL</i> ₂₅₈		7 6.2 305°60	0°7/ 6.4 18		
5 31	19 29.03	-22 7.4	2.002	2.847	13.5	21.2	5 31	19 26.21	-19 59.1	2.128	2.973	12.8	21.6
6 10	19 24.07	-22 39.0	1.922	2.846	10.3	20.9	6 10	19 21.75	-20 5.7	2.046	2.970	9.8	21.4
6 20	19 16.88	-23 15.2	1.864	2.845	6.6	20.7	6 20	19 15.31	-20 16.8	1.987	2.967	6.4	21.1
6 30	19 8.07	-23 53.0	1.832	2.843	2.6	20.5	6 30	19 7.45	-20 31.0	1.953	2.964	2.6	20.9
7 10	18 58.53	-24 29.0	1.827	2.842	1.8	20.4	7 10	18 58.99	-20 46.4	1.946	2.961	1.6	20.8
7 20	18 49.28	-25 0.5	1.850	2.840	5.8	20.7	7 20	18 50.81	-21 1.5	1.967	2.958	5.3	21.1
7 30	18 41.32	-25 26.2	1.899	2.837	9.6	20.9	7 30	18 43.78	-21 15.2	2.013	2.955	8.9	21.3
8 9	18 35.44	-25 45.7	1.972	2.835	12.9	21.1	8 9	18 38.61	-21 27.0	2.084	2.952	12.1	21.5
496024	2008 <i>RT</i> ₁₀₄		7 6.2 243°35	10°2/ 2.6 18			187261	2005 <i>SM</i> ₂₇₉		7 6.2 189°23	1°3/ 5.8 18		
5 31	19 46.15	-53 36.2	2.460	3.225	13.6	22.5	5 31	19 27.43	-25 43.4	2.569	3.408	11.0	21.5
6 10	19 38.09	-54 44.6	2.374	3.205	12.1	22.3	6 10	19 22.40	-26 5.3	2.486	3.408	8.4	21.3
6 20	19 26.41	-55 38.6	2.309	3.185	10.9	22.2	6 20	19 15.59	-26 28.0	2.428	3.407	5.4	21.1
6 30	19 11.93	-56 9.9	2.267	3.164	10.2	22.1	6 30	19 7.54	-26 48.8	2.396	3.405	2.4	20.9
7 10	18 56.14	-56 12.3	2.249	3.142	10.5	22.1	7 10	18 58.95	-27 5.8	2.392	3.404	1.9	20.9
7 20	18 40.86	-55 44.1	2.255	3.120	11.5	22.1	7 20	18 50.62	-27 17.4	2.417	3.402	4.9	21.1
7 30	18 27.84	-54 48.1	2.284	3.097	13.1	22.2	7 30	18 43.32	-27 23.3	2.468	3.400	8.0	21.3
8 9	18 18.25	-53 30.9	2.333	3.073	14.9	22.3	8 9	18 37.68	-27 24.0	2.545	3.398	10.7	21.5
319323	2006 <i>BG</i> ₁₇₄		7 6.2 246°35	2°8/ 5.5 17			204242	2004 <i>DV</i> ₄₈		7 6.2 113°97	1°1/ 5.9 18		
5 31	19 31.34	-28 48.4	1.952	2.799	13.7	21.2	5 31	19 29.26	-25 8.7	2.241	3.083	12.3	20.9
6 10	19 26.09	-29 15.6	1.864	2.788	10.6	20.9	6 10	19 23.88	-25 23.2	2.172	3.095	9.4	20.8
6 20	19 18.33	-29 42.1	1.798	2.776	7.1	20.7	6 20	19 16.55	-25 38.3	2.126	3.106	6.0	20.6
6 30	19 8.68	-30 3.8	1.757	2.764	3.6	20.5	6 30	19 7.90	-25 51.7	2.107	3.118	2.5	20.4
7 10	18 58.15	-30 17.0	1.743	2.751	3.4	20.4	7 10	18 58.76	-26 1.1	2.115	3.129	1.9	20.3
7 20	18 47.89	-30 19.8	1.756	2.738	6.8	20.6	7 20	18 50.03	-26 5.4	2.152	3.139	5.3	20.6
7 30	18 39.08	-30 12.3	1.794	2.725	10.5	20.8	7 30	18 42.57	-26 4.6	2.215	3.150	8.6	20.8
8 9	18 32.60	-29 56.6	1.855	2.712	13.9	21.0	8 9	18 37.01	-25 59.5	2.302	3.160	11.5	21.0
171399	2006 <i>QL</i> ₆₆		7 6.2 296°40	1°0/ 6.5 18			255274	2005 <i>VJ</i> ₅₃		7 6.2 203°75	5°7/ 7.7 18		
5 31	19 26.74	-19 14.0	1.961	2.808	13.6	20.3	5 31	19 24.83	-4 32.4	2.659	3.449	12.0	20.6
6 10	19 22.33	-19 17.1	1.877	2.802	10.5	20.1	6 10	19 20.21	-3 51.1	2.574	3.446	10.0	20.5
6 20	19 15.76	-19 25.6	1.816	2.796	6.9	19.8	6 20	19 14.10	-3 20.0	2.511	3.444	7.9	20.3
6 30	19 7.64	-19 38.0	1.780	2.790	2.9	19.6	6 30	19 6.94	-3 1.0	2.474	3.440	6.2	20.2
7 10	18 58.83	-19 52.7	1.770	2.784	1.8	19.5	7 10	18 59.34	-2 54.9	2.463	3.437	5.8	20.2
7 20	18 50.30	-20 8.0	1.788	2.779	5.7	19.7	7 20	18 51.93	-3 1.3	2.480	3.434	6.9	20.3
7 30	18 43.02	-20 22.7	1.831	2.773	9.6	20.0	7 30	18 45.38	-3 19.0	2.522	3.430	8.9	20.4
8 9	18 37.75	-20 36.0	1.896	2.768	13.0	20.2	8 9	18 40.20	-3 45.8	2.588	3.426	11.0	20.5
415111	2012 <i>CY</i> ₄₇		7 6.2 165°76	3°7/ 5.4 16			313955	2004 <i>RF</i> ₂₁₅		7 6.2 178°43	5°6/ 4.8 18		
5 31	19 35.88	-30 59.5	1.893	2.734	14.3	22.9	5 31	19 33.37	-42 44.0	2.908	3.715	10.7	21.1
6 10	19 29.49	-31 35.1	1.821	2.740	11.1	22.7	6 10	19 26.91	-43 11.5	2.832	3.716	8.8	21.0
6 20	19 20.44	-32 7.8	1.770	2.745	7.5	22.5	6 20	19 18.45	-43 30.0	2.779	3.717	7.0	20.9
6 30	19 9.47	-32 32.6	1.746	2.749	4.4	22.3	6 30	19 8.63	-43 35.8	2.753	3.717	5.7	20.8
7 10	18 57.75	-32 45.5	1.748	2.752	4.2	22.3	7 10	18 58.33	-43 26.2	2.753	3.718	5.8	20.8
7 20	18 46.53	-32 44.7	1.778	2.755	7.2	22.5	7 20	18 48.47	-43 1.1	2.781	3.717	7.1	20.9
7 30	18 37.02	-32 31.4	1.833	2.757	10.8	22.7	7 30	18 39.92	-42 22.0	2.836	3.717	8.9	21.0
8 9	18 30.08	-32 8.7	1.911	2.758	13.9	22.9	8 9	18 33.33	-41 32.2	2.913	3.716	10.8	21.2
50345	2000 <i>CK</i> ₆₅		7 6.2 342°21	1°7/ 5.8 18			213120	2000 <i>BU</i> ₃₇		7 6.2 338°85	4°7/ 5.5 18		
5 31	19 27.90	-26 3.2	1.717	2.576	14.7	18.8	5 31	19 32.54	-35 1.7	1.914	2.758	14.1	19.6
6 10	19 23.59	-26 20.1	1.640	2.572	11.3	18.5	6 10	19 27.00	-35 20.0	1.839	2.757	11.1	19.4
6 20	19 16.75	-26 37.9	1.585	2.568	7.3	18.3	6 20	19 18.85	-35 31.4	1.786	2.756	7.9	19.2
6 30	19 8.06	-26 53.3	1.554	2.565	3.2	18.0	6 30	19 8.86	-35 31.5	1.758	2.755	5.2	19.1
7 10	18 58.59	-27 3.2	1.549	2.562	2.6	18.0	7 10	18 58.19	-35 17.2	1.756	2.754	5.0	19.0
7 20	18 49.53	-27 5.9	1.570	2.559	6.6	18.2	7 20	18 48.07	-34 48.0	1.781	2.754	7.6	19.2
7 30	18 42.02	-27 1.3	1.616	2.557	10.7	18.5	7 30	18 39.66	-34 6.2	1.830	2.753	10.8	19.4
8 9	18 36.92	-26 50.9	1.683	2.555	14.3	18.7	8 9	18 33.77	-33 15.8	1.902	2.753	13.8	19.6
291675	2006 <i>HX</i> ₈₂		7 6.2 5°13	2°5/ 5.6 16			272752	2005 <i>YP</i> ₁₄₁		7 6.2			

EPHEMERIDES

7 6.2

7 6.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
16567	1992 CQ ₃		7 6.2 35°24	1.5°/ 6.4	18		193490	2000 YW ₅		7 6.2 285°93	4.5°/ 5.8	18	
5 31	19 30.19	-20 35.4	1.172	2.046	19.1	17.8	5 31	19 34.06	-34 27.9	1.774	2.620	14.9	19.5
6 10	19 25.98	-20 13.3	1.114	2.053	14.7	17.5	6 10	19 28.50	-34 34.9	1.687	2.606	11.8	19.2
6 20	19 18.53	-19 56.5	1.075	2.060	9.6	17.3	6 20	19 20.04	-34 34.6	1.620	2.592	8.3	19.0
6 30	19 8.80	-19 43.8	1.057	2.069	4.0	17.0	6 30	19 9.44	-34 22.0	1.578	2.578	5.2	18.8
7 10	18 58.26	-19 34.0	1.063	2.077	2.6	16.9	7 10	18 57.92	-33 54.1	1.562	2.564	4.9	18.7
7 20	18 48.50	-19 26.2	1.092	2.087	7.9	17.2	7 20	18 46.87	-33 10.4	1.572	2.550	7.9	18.9
7 30	18 40.95	-19 20.1	1.143	2.097	13.0	17.6	7 30	18 37.63	-32 13.9	1.607	2.536	11.6	19.1
8 9	18 36.52	-19 15.8	1.214	2.107	17.3	17.9	8 9	18 31.15	-31 9.4	1.664	2.522	15.1	19.3
54796	2001 MW ₁₀		7 6.2 10°02	4.1°/ 5.3	18		520773	2014 SZ ₁₇₃		7 6.2 73°11	4.2°/ 5.3	17	
5 31	19 26.86	-28 23.0	1.159	2.044	18.5	17.9	5 31	19 33.37	-29 7.7	1.283	2.152	18.1	21.1
6 10	19 23.87	-29 12.3	1.101	2.046	14.3	17.7	6 10	19 28.63	-29 57.3	1.222	2.157	14.0	20.9
6 20	19 17.44	-30 2.4	1.062	2.048	9.5	17.4	6 20	19 20.41	-30 46.7	1.181	2.163	9.4	20.7
6 30	19 8.45	-30 46.4	1.044	2.052	5.1	17.2	6 30	19 9.63	-31 28.7	1.161	2.168	5.2	20.4
7 10	18 58.44	-31 17.8	1.048	2.057	4.9	17.2	7 10	18 57.81	-31 57.0	1.166	2.173	5.0	20.4
7 20	18 49.11	-31 33.2	1.075	2.063	9.2	17.4	7 20	18 46.69	-32 8.3	1.194	2.178	9.0	20.7
7 30	18 42.05	-31 32.7	1.124	2.070	13.8	17.7	7 30	18 37.87	-32 3.7	1.245	2.184	13.5	21.0
8 9	18 38.32	-31 19.5	1.191	2.078	17.9	18.0	8 9	18 32.41	-31 46.8	1.316	2.189	17.5	21.2
499562	2010 RM ₁₅₉		7 6.2 235°80	2.8°/ 5.6	17		379486	2010 EB ₁₀₆		7 6.2 169°94	1.1°/ 6.7	18	
5 31	19 33.77	-28 21.0	1.720	2.570	15.1	22.4	5 31	19 28.82	-16 31.8	2.253	3.084	12.7	20.8
6 10	19 28.30	-28 48.0	1.633	2.559	11.7	22.1	6 10	19 23.63	-17 7.4	2.172	3.087	9.8	20.6
6 20	19 19.95	-29 14.7	1.569	2.548	7.8	21.9	6 20	19 16.51	-17 51.2	2.114	3.089	6.4	20.4
6 30	19 9.42	-29 36.3	1.528	2.536	3.9	21.6	6 30	19 7.98	-18 40.8	2.083	3.092	2.8	20.1
7 10	18 57.84	-29 48.7	1.514	2.524	3.5	21.5	7 10	18 58.83	-19 33.4	2.080	3.094	1.7	20.1
7 20	18 46.59	-29 49.6	1.527	2.511	7.4	21.8	7 20	18 49.91	-20 25.9	2.105	3.095	5.2	20.3
7 30	18 37.01	-29 39.4	1.564	2.498	11.6	22.0	7 30	18 42.09	-21 15.8	2.158	3.096	8.6	20.5
8 9	18 30.12	-29 20.7	1.623	2.484	15.3	22.2	8 9	18 36.05	-22 1.6	2.236	3.096	11.7	20.7
13417	1999 VH ₆		7 6.2 311°44	4.4°/ 7.1	18		235229	2003 SY ₂₅₂		7 6.2 308°20	8.1°/ 8.5	18	
5 31	19 26.49	-12 20.6	1.762	2.601	15.3	17.3	5 31	19 24.96	-2 39.8	1.738	2.548	16.7	20.2
6 10	19 22.30	-11 50.5	1.680	2.594	12.2	17.1	6 10	19 21.19	-2 5.1	1.656	2.539	14.0	20.0
6 20	19 15.84	-11 30.0	1.619	2.587	8.7	16.9	6 20	19 15.19	-1 48.0	1.592	2.529	11.3	19.8
6 30	19 7.73	-11 20.3	1.583	2.581	5.5	16.7	6 30	19 7.53	-1 51.7	1.551	2.520	8.9	19.7
7 10	18 58.89	-11 21.5	1.571	2.575	4.6	16.6	7 10	18 59.09	-2 17.2	1.533	2.511	8.1	19.6
7 20	18 50.35	-11 32.7	1.585	2.569	7.3	16.8	7 20	18 50.87	-3 2.9	1.539	2.502	9.5	19.7
7 30	18 43.13	-11 52.3	1.624	2.563	10.9	17.0	7 30	18 43.88	-4 5.3	1.569	2.493	12.2	19.8
8 9	18 38.02	-12 17.8	1.684	2.557	14.3	17.2	8 9	18 38.96	-5 18.8	1.621	2.485	15.2	20.0
430157	2013 TS ₇₁		7 6.2 239°19	0.7°/ 6.1	18		6125	Singto		7 6.2 297°01	0.9°/ 6.4	18	
5 31	19 31.30	-23 25.3	1.878	2.725	14.2	22.3	5 31	19 28.86	-20 0.5	1.300	2.169	17.9	17.0
6 10	19 26.09	-23 40.6	1.788	2.713	10.9	22.1	6 10	19 25.19	-20 5.8	1.217	2.153	13.9	16.7
6 20	19 18.37	-23 58.9	1.719	2.700	7.1	21.9	6 20	19 18.32	-20 18.8	1.153	2.137	9.2	16.4
6 30	19 8.77	-24 17.4	1.676	2.688	2.8	21.6	6 30	19 8.92	-20 37.6	1.110	2.122	3.8	16.0
7 10	18 58.26	-24 33.1	1.660	2.674	1.9	21.5	7 10	18 58.23	-20 58.9	1.092	2.107	2.3	15.9
7 20	18 48.00	-24 44.0	1.671	2.661	6.3	21.7	7 20	18 47.78	-21 19.9	1.097	2.091	7.9	16.2
7 30	18 39.12	-24 49.5	1.708	2.646	10.4	21.9	7 30	18 39.17	-21 38.6	1.125	2.077	13.2	16.4
8 9	18 32.55	-24 50.2	1.767	2.632	14.1	22.1	8 9	18 33.59	-21 54.4	1.172	2.062	18.0	16.6
472723	2015 FB ₇₂		7 6.2 198°19	4.2°/ 7.3	18		462573	2009 DW ₁₂₇		7 6.2 344°25	3.4°/ 6.9	17	
5 31	19 28.31	-10 56.5	2.069	2.891	14.0	21.4	5 31	19 22.13	-15 52.8	1.036	1.923	20.0	20.0
6 10	19 23.33	-10 37.9	1.986	2.889	11.1	21.2	6 10	19 20.40	-15 41.7	0.967	1.911	15.8	19.7
6 20	19 16.33	-10 29.3	1.924	2.886	8.0	21.0	6 20	19 15.37	-15 43.9	0.915	1.901	10.7	19.4
6 30	19 7.90	-10 31.2	1.888	2.883	5.1	20.8	6 30	19 7.76	-15 59.7	0.882	1.891	5.5	19.1
7 10	18 58.83	-10 43.3	1.878	2.879	4.3	20.7	7 10	18 58.94	-16 27.2	0.871	1.883	3.9	18.9
7 20	18 50.03	-11 4.3	1.895	2.875	6.6	20.9	7 20	18 50.53	-17 3.0	0.880	1.877	8.8	19.2
7 30	18 42.39	-11 32.3	1.939	2.871	9.8	21.1	7 30	18 44.15	-17 43.1	0.910	1.872	14.2	19.5
8 9	18 36.61	-12 4.9	2.005	2.866	12.8	21.3	8 9	18 41.00	-18 23.6	0.957	1.869	19.1	19.7
247097	2000 SL ₂₉₄		7 6.2 295°66	3.9°/ 6.6	18		137335	1999 TE ₆₈		7 6.2 187°03	1.6°/ 6.6	17	
5 31	19 26.97	-13 59.8	2.086	2.918	13.5	20.3	5 31	19 31.11	-17 39.3	1.885	2.723	14.5	21.4
6 10	19 22.42	-13 13.1	1.988	2.899	10.7	20.1	6 10	19 25.72	-17 41.2	1.805	2.723	11.2	21.2
6 20	19 15.83	-12 31.5	1.913	2.880	7.6	19.9	6 20	19 18.00	-17 49.8	1.746	2.723	7.4	20.9
6 30	19 7.73	-11 56.6	1.862	2.861	4.7	19.6	6 30	19 8.61	-18 3.7	1.713	2.721	3.4	20.7
7 10	18 58.92	-11 29.2	1.838	2.841	4.1	19.6	7 10	18 58.49	-18 21.0	1.706	2.720	2.2	20.6
7 20	18 50.29	-11 10.1	1.841	2.822	6.7	19.7	7 20	18 48.70	-18 40.0	1.727	2.717	6.1	20.8
7 30	18 42.74	-10 59.3	1.870	2.803	10.0	19.8	7 30	18 40.29	-18 59.2	1.775	2.714	10.0	21.1
8 9	18 37.04	-10 55.8	1.922	2.784	13.2	20.0	8 9	18 34.06	-19 17.7	1.845	2.711	13.5	21.3
478264	2011 UW ₄₀₁		7 6.2 168°78	2.5°/ 6.9	17		42573	1997 AN ₁		7 6.2 97°54	2.0°/ 6.0	18	R
5 31	19 26.45	-15 17.9	2.351	3.181	12.2	22.2	5 31	19 33.73	-28 54.7	1.854	2.700	14.4	18.3
6 10	19 21.66	-15 0.8	2.271	3.182	9.5	22.0	6 10	19 27.65	-28 45.7	1.787	2.711	11.0	18.1
6 20	19 15.13	-14 49.6	2.213	3.184	6.5	21.8	6 20	19 19.13	-28 33.1	1.743	2.722	7.2	17.9
6 30	19 7.39	-14 44.2	2.181	3.185	3.5	21.6	6 30	19 8.98	-28 14.4	1.723	2.732	3.3	17.7
7 10	18 59.16	-14 44.2	2.177	3.185	2.8	21.6	7 10	18 58.33	-27 48.0	1.731	2.742	2.6	17.7
7 20	18 51.22	-14 48.9	2.200	3.186	5.3	21.8	7 20	18 48.32	-27 14.4	1.766	2.753	6.3	17.9
7 30	18 44.32	-14 57.2	2.251	3.187	8.4	22.0	7 30	18 40.01	-26 35.6	1.826	2.763	10.0	18.2
8 9	18 39.06	-15 8.3	2.325	3.187	11.2	22.1	8 9	18 34.11	-25 54.2	1.910	2.773	13.3	18.4
436931	2012 TG ₁₁₆		7 6.2 24°60	6.2°/ 7.2	17		485146	2010 OW ₁₁₈		7 6.2 289°91	0.5°/ 6.4	17	
5 31	19 27.00												

EPHEMERIDES

7 6.2

7 6.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
157793	1994 <i>EZ</i> ₅		7 6.2 136°19	1°9/ 5.7 17			394691	2008 <i>CK</i> ₁₇₄		7 6.3 65°73	2°0/ 6.7 18		
5 31	19 32.49	-26 53.4	2.184	3.022	12.7	20.7	5 31	19 27.11	-17 13.3	2.068	2.907	13.3	21.0
6 10	19 26.46	-27 23.7	2.116	3.036	9.7	20.5	6 10	19 22.32	-16 59.9	2.001	2.920	10.3	20.8
6 20	19 18.30	-27 53.8	2.071	3.049	6.3	20.3	6 20	19 15.61	-16 52.2	1.958	2.933	6.8	20.6
6 30	19 8.67	-28 20.4	2.053	3.061	2.9	20.1	6 30	19 7.63	-16 49.6	1.939	2.947	3.3	20.4
7 10	18 58.49	-28 40.5	2.063	3.073	2.6	20.1	7 10	18 59.20	-16 51.2	1.948	2.960	2.4	20.4
7 20	18 48.75	-28 52.4	2.101	3.084	5.8	20.3	7 20	18 51.19	-16 56.1	1.984	2.973	5.5	20.6
7 30	18 40.39	-28 56.2	2.166	3.095	9.1	20.5	7 30	18 44.43	-17 3.3	2.046	2.987	8.9	20.8
8 9	18 34.09	-28 53.1	2.254	3.105	12.0	20.7	8 9	18 39.52	-17 12.0	2.132	3.000	11.9	21.0
174800	2003 <i>WV</i> ₁₅₉		7 6.2 98°06	0°7/ 6.1 17			505724	2015 <i>AQ</i> ₂₄₄		7 6.3 133°07	6°1/ 4.2 17		
5 31	19 32.46	-22 52.1	1.562	2.417	16.1	21.2	5 31	19 34.97	-35 34.7	1.897	2.737	14.3	22.0
6 10	19 27.08	-23 15.7	1.501	2.430	12.3	20.9	6 10	19 29.09	-36 51.6	1.833	2.746	11.4	21.8
6 20	19 18.98	-23 43.3	1.462	2.444	7.9	20.7	6 20	19 20.39	-38 3.7	1.792	2.755	8.4	21.6
6 30	19 8.99	-24 11.1	1.446	2.458	3.1	20.5	6 30	19 9.62	-39 3.8	1.776	2.763	6.3	21.5
7 10	18 58.31	-24 35.5	1.456	2.471	2.1	20.4	7 10	18 57.97	-39 46.0	1.787	2.772	6.5	21.6
7 20	18 48.25	-24 54.1	1.493	2.484	6.7	20.8	7 20	18 46.79	-40 7.7	1.823	2.779	8.8	21.7
7 30	18 40.01	-25 6.2	1.554	2.496	11.0	21.0	7 30	18 37.37	-40 9.8	1.885	2.787	11.7	21.9
8 9	18 34.41	-25 12.6	1.637	2.509	14.7	21.3	8 9	18 30.64	-39 56.1	1.967	2.794	14.4	22.1
440705	2005 <i>YT</i> ₁₅₃		7 6.2 298°16	0°8/ 5.9 18			335129	2004 <i>TW</i> ₂₉₉		7 6.3 343°44	3°9/ 6.3 17		
5 31	19 25.92	-22 3.5	2.269	3.114	12.1	20.6	5 31	19 26.73	-18 26.8	1.285	2.156	17.9	19.1
6 10	19 21.60	-22 50.3	2.181	3.105	9.2	20.4	6 10	19 23.30	-17 16.2	1.210	2.145	14.1	18.9
6 20	19 15.32	-23 42.5	2.116	3.097	5.9	20.1	6 20	19 16.89	-16 7.8	1.153	2.135	9.6	18.6
6 30	19 7.57	-24 36.8	2.077	3.088	2.4	19.9	6 30	19 8.30	-15 4.2	1.119	2.126	5.3	18.3
7 10	18 59.11	-25 29.8	2.066	3.080	1.8	19.8	7 10	18 58.77	-14 7.8	1.108	2.118	4.4	18.2
7 20	18 50.80	-26 18.3	2.083	3.071	5.4	20.1	7 20	18 49.72	-13 21.2	1.121	2.111	8.5	18.5
7 30	18 43.53	-27 0.3	2.127	3.063	8.8	20.3	7 30	18 42.51	-12 46.0	1.155	2.105	13.2	18.7
8 9	18 38.03	-27 35.0	2.194	3.055	11.9	20.5	8 9	18 38.13	-12 21.9	1.210	2.101	17.5	18.9
389222	2009 <i>DH</i> ₁₂₁		7 6.2 231°10	1°2/ 6.6 17			96263	1995 <i>SE</i> ₂		7 6.3 265°68	6°0/ 5.0 18		
5 31	19 27.10	-18 41.7	2.089	2.930	13.1	21.5	5 31	19 34.92	-37 51.6	1.962	2.797	14.1	19.8
6 10	19 22.47	-18 44.7	2.007	2.929	10.1	21.3	6 10	19 29.17	-38 26.3	1.872	2.781	11.4	19.6
6 20	19 15.83	-18 53.1	1.949	2.927	6.6	21.1	6 20	19 20.54	-38 53.6	1.803	2.763	8.5	19.4
6 30	19 7.74	-19 5.6	1.915	2.925	2.9	20.8	6 30	19 9.73	-39 7.5	1.759	2.746	6.4	19.2
7 10	18 59.04	-19 20.5	1.909	2.923	1.8	20.8	7 10	18 57.91	-39 3.2	1.741	2.728	6.4	19.2
7 20	18 50.64	-19 36.3	1.931	2.921	5.5	21.0	7 20	18 46.45	-38 39.3	1.749	2.711	8.7	19.3
7 30	18 43.41	-19 51.9	1.978	2.919	9.1	21.2	7 30	18 36.70	-37 57.7	1.782	2.692	11.8	19.4
8 9	18 38.08	-20 6.4	2.049	2.917	12.3	21.4	8 9	18 29.65	-37 3.0	1.836	2.674	14.8	19.6
505927	2015 <i>ER</i> ₇₂		7 6.2 233°51	1°7/ 5.9 17			28724	2000 <i>GG</i> ₁₁₁		7 6.3 3°33	5°1/ 5.2 18		
5 31	19 32.56	-26 47.5	1.770	2.620	14.7	21.8	5 31	19 27.08	-29 19.2	0.989	1.883	20.2	17.1
6 10	19 27.16	-26 54.6	1.687	2.613	11.4	21.5	6 10	19 24.66	-30 12.7	0.933	1.881	15.7	16.8
6 20	19 19.11	-27 1.1	1.625	2.605	7.4	21.3	6 20	19 18.31	-31 6.5	0.894	1.881	10.6	16.5
6 30	19 9.09	-27 3.7	1.588	2.598	3.2	21.0	6 30	19 8.98	-31 52.3	0.874	1.882	6.1	16.3
7 10	18 58.22	-26 59.8	1.577	2.590	2.5	20.9	7 10	18 58.39	-32 22.2	0.876	1.884	5.9	16.3
7 20	18 47.74	-26 48.2	1.593	2.582	6.7	21.2	7 20	18 48.54	-32 32.2	0.898	1.887	10.4	16.5
7 30	18 38.87	-26 29.6	1.635	2.573	10.9	21.4	7 30	18 41.33	-32 23.3	0.940	1.891	15.4	16.8
8 9	18 32.51	-26 6.1	1.699	2.564	14.5	21.6	8 9	18 37.93	-31 59.9	1.000	1.897	19.8	17.1
45253	1999 <i>YU</i> ₄		7 6.2 351°96	1°2/ 6.1 18			510639	2012 <i>TS</i> ₂₁₀		7 6.3 289°75	1°8/ 6.6 18		
5 31	19 26.75	-26 37.5	1.362	2.237	16.9	17.5	5 31	19 28.28	-18 48.1	1.776	2.625	14.7	21.6
6 10	19 23.28	-26 19.6	1.290	2.229	13.0	17.3	6 10	19 23.87	-18 30.7	1.683	2.608	11.5	21.3
6 20	19 16.84	-25 59.6	1.237	2.223	8.4	17.0	6 20	19 17.03	-18 18.0	1.611	2.591	7.6	21.1
6 30	19 8.23	-25 35.2	1.206	2.218	3.5	16.7	6 30	19 8.34	-18 9.4	1.564	2.573	3.5	20.8
7 10	18 58.76	-25 5.1	1.200	2.214	2.4	16.6	7 10	18 58.76	-18 4.2	1.543	2.556	2.4	20.6
7 20	18 49.85	-24 29.7	1.218	2.212	7.4	16.9	7 20	18 49.39	-18 1.6	1.548	2.539	6.5	20.9
7 30	18 42.85	-23 50.9	1.258	2.210	12.1	17.2	7 30	18 41.36	-18 1.1	1.578	2.522	10.7	21.1
8 9	18 38.70	-23 11.2	1.319	2.210	16.3	17.4	8 9	18 35.57	-18 2.2	1.630	2.505	14.6	21.3
386072	2007 <i>HW</i> ₃₉		7 6.2 259°77	1°8/ 6.8 18			37273	2000 <i>XP</i> ₄₀		7 6.3 50°14	8°9/ 5.1 18		
5 31	19 28.53	-16 38.5	1.852	2.694	14.5	20.9	5 31	19 37.47	-43 41.6	1.653	2.486	16.4	18.5
6 10	19 23.96	-16 47.6	1.760	2.681	11.3	20.7	6 10	19 31.48	-44 28.2	1.596	2.493	13.6	18.3
6 20	19 17.03	-17 5.1	1.690	2.667	7.6	20.4	6 20	19 22.06	-45 0.9	1.557	2.501	11.0	18.1
6 30	19 8.30	-17 30.0	1.644	2.652	3.6	20.1	6 30	19 10.26	-45 11.7	1.542	2.509	9.1	18.0
7 10	18 58.68	-18 0.0	1.625	2.638	2.4	20.0	7 10	18 57.70	-44 55.9	1.550	2.517	9.1	18.1
7 20	18 49.23	-18 32.6	1.632	2.623	6.3	20.2	7 20	18 46.08	-44 13.7	1.582	2.525	10.9	18.2
7 30	18 41.04	-19 5.8	1.666	2.608	10.4	20.5	7 30	18 36.89	-43 9.4	1.637	2.534	13.4	18.4
8 9	18 34.99	-19 37.9	1.721	2.593	14.1	20.6	8 9	18 31.03	-41 50.6	1.713	2.542	16.0	18.6
302839	2003 <i>FQ</i> ₅₆		7 6.3 31°11	4°5/ 7.2 17			387798	2003 <i>WZ</i> ₁₉₄		7 6.3 352°37	2°9/ 5.2 17		
5 31	19 27.89	-13 42.7	1.124	1.994	20.1	20.2	5 31	19 28.48	-26 42.4	1.766	2.623	14.5	20.4
6 10	19 24.31	-13 23.8	1.067	2.000	15.8	19.9	6 10	19 24.14	-27 40.5	1.692	2.622	11.1	20.2
6 20	19 17.56	-13 19.4	1.028	2.007	10.9	19.7	6 20	19 17.23	-28 41.4	1.639	2.621	7.3	20.0
6 30	19 8.53	-13 29.8	1.009	2.014	6.2	19.4	6 30	19 8.42	-29 39.9	1.612	2.620	3.7	19.8
7 10	18 58.62	-13 53.4	1.013	2.023	4.8	19.4	7 10	18 58.73	-30 30.8	1.611	2.619	3.6	19.8
7 20	18 49.37	-14 27.0	1.039	2.031	8.7	19.6	7 20	18 49.35	-31 10.4	1.635	2.619	7.1	20.0
7 30	18 42.22	-15 6.6	1.087	2.041	13.4	19.9	7 30	18 41.48	-31 37.2	1.685	2.618	10.9	20.2
8 9	18 38.13	-15 48.5	1.154	2.051	17.7	20.2	8 9	18 36.02	-31 52.2	1.757	2.618	14.3	20.4
404744	2014 <i>JD</i> ₃₁		7 6.3 310°35	8°5/ 1.3 17			198998	2005 <i>WO</i> ₄₁					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
133936	2004 TQ_8		7 6.3 289°03	3°8/ 8.2 17			398194	2010 ME_{20}		7 6.3 238°55	6°9/ 9.1 18		
5 31	19 32.32	- 5 42.7	1.109	1.951	22.1	19.1	5 31	19 24.23	+ 0 17.9	2.502	3.275	13.2	21.0
6 10	19 28.51	- 7 25.2	1.023	1.939	17.9	18.8	6 10	19 19.97	+ 0 37.2	2.415	3.269	11.2	20.9
6 20	19 20.98	- 9 49.2	0.956	1.927	12.7	18.5	6 20	19 14.11	+ 0 41.5	2.348	3.262	9.2	20.7
6 30	19 10.23	-12 53.0	0.910	1.914	6.9	18.1	6 30	19 7.11	+ 0 29.1	2.305	3.256	7.5	20.6
7 10	18 57.51	-16 25.3	0.889	1.902	4.0	17.9	7 10	18 59.60	- 0 0.4	2.287	3.249	6.9	20.6
7 20	18 44.60	-20 7.8	0.895	1.890	9.2	18.2	7 20	18 52.25	- 0 45.7	2.295	3.242	7.8	20.6
7 30	18 33.55	-23 40.8	0.926	1.878	15.4	18.4	7 30	18 45.76	- 1 44.1	2.330	3.235	9.6	20.7
8 9	18 26.02	-26 50.6	0.978	1.867	20.8	18.7	8 9	18 40.70	- 2 51.8	2.388	3.228	11.7	20.8
109164	2001 QA_{63}		7 6.3 307°32	4°2/ 5.7 18			478731	2012 UV_{65}		7 6.3 320°65	5°3/ 4.6 18		
5 31	19 31.76	-31 52.1	1.485	2.347	16.4	19.4	5 31	19 26.84	-30 38.7	1.421	2.294	16.4	20.4
6 10	19 27.26	-32 9.6	1.403	2.333	12.9	19.1	6 10	19 23.91	-31 42.3	1.331	2.268	13.0	20.2
6 20	19 19.55	-32 22.5	1.342	2.320	8.9	18.9	6 20	19 17.71	-32 48.0	1.261	2.242	9.1	19.9
6 30	19 9.41	-32 25.5	1.303	2.308	5.1	18.6	6 30	19 8.84	-33 48.5	1.214	2.217	5.8	19.6
7 10	18 58.16	-32 14.3	1.289	2.295	4.8	18.6	7 10	18 58.47	-34 36.5	1.190	2.192	6.0	19.6
7 20	18 47.37	-31 47.6	1.299	2.283	8.5	18.7	7 20	18 48.18	-35 6.3	1.190	2.169	9.7	19.7
7 30	18 38.55	-31 7.5	1.333	2.271	12.8	19.0	7 30	18 39.65	-35 16.6	1.211	2.146	14.1	19.9
8 9	18 32.79	-30 18.6	1.387	2.260	16.8	19.2	8 9	18 34.24	-35 9.5	1.252	2.124	18.2	20.1
429391	2010 PW_{77}		7 6.3 243°98	0°7/ 6.4 18			509546	2008 AT_{101}		7 6.3 202°11	0°8/ 6.6 18		
5 31	19 31.09	-19 31.8	1.661	2.510	15.6	21.5	5 31	19 27.24	-18 26.4	2.660	3.488	11.0	23.0
6 10	19 26.24	-19 47.7	1.573	2.498	12.1	21.2	6 10	19 22.22	-18 42.6	2.570	3.484	8.5	22.8
6 20	19 18.68	-20 10.8	1.506	2.487	7.9	20.9	6 20	19 15.55	-19 3.8	2.504	3.480	5.5	22.6
6 30	19 9.04	-20 38.9	1.463	2.474	3.3	20.6	6 30	19 7.69	-19 28.5	2.465	3.475	2.4	22.4
7 10	18 58.36	-21 8.8	1.447	2.461	1.9	20.5	7 10	18 59.29	-19 54.9	2.455	3.469	1.4	22.3
7 20	18 47.91	-21 37.7	1.456	2.448	6.7	20.8	7 20	18 51.07	-20 21.4	2.474	3.463	4.6	22.6
7 30	18 38.95	-22 3.6	1.491	2.435	11.3	21.0	7 30	18 43.76	-20 46.7	2.520	3.456	7.6	22.7
8 9	18 32.48	-22 25.7	1.548	2.421	15.3	21.2	8 9	18 37.94	-21 10.0	2.592	3.449	10.4	22.9
438602	2007 VV_{110}		7 6.3 347°26	3°9/ 6.7 16			495326	2014 KE_7		7 6.3 300°98	4°9/ 4.6 18		
5 31	19 25.42	-15 52.0	1.509	2.367	16.4	20.6	5 31	19 29.71	-34 26.0	2.127	2.970	12.9	21.4
6 10	19 21.87	-15 5.7	1.432	2.360	12.9	20.4	6 10	19 24.83	-35 19.7	2.050	2.967	10.2	21.2
6 20	19 15.78	-14 25.9	1.376	2.353	8.9	20.2	6 20	19 17.57	-36 9.7	1.997	2.964	7.3	21.0
6 30	19 7.84	-13 54.2	1.342	2.347	5.1	19.9	6 30	19 8.56	-36 50.8	1.968	2.961	5.2	20.9
7 10	18 59.12	-13 31.4	1.333	2.342	4.2	19.9	7 10	18 58.76	-37 18.7	1.966	2.958	5.3	20.9
7 20	18 50.79	-13 17.9	1.349	2.337	7.6	20.0	7 20	18 49.29	-37 31.1	1.990	2.955	7.6	21.0
7 30	18 44.01	-13 13.0	1.387	2.334	11.7	20.3	7 30	18 41.21	-37 28.4	2.039	2.952	10.4	21.2
8 9	18 39.63	-13 15.3	1.447	2.332	15.5	20.5	8 9	18 35.36	-37 13.0	2.111	2.949	13.1	21.3
358424	2007 CU_{62}		7 6.3 78°36	0°2/ 6.3 18			84919	Karinthy		7 6.3 191°50	5°0/ 4.4 18		
5 31	19 29.91	-23 46.3	2.295	3.133	12.2	20.2	5 31	19 32.12	-35 33.8	2.345	3.178	12.2	20.3
6 10	19 24.27	-23 18.8	2.224	3.145	9.3	20.0	6 10	19 26.51	-36 33.7	2.268	3.177	9.7	20.1
6 20	19 16.78	-22 51.0	2.177	3.156	6.0	19.9	6 20	19 18.58	-37 29.4	2.214	3.176	7.1	20.0
6 30	19 8.09	-22 22.2	2.157	3.168	2.3	19.6	6 30	19 8.95	-38 15.7	2.186	3.174	5.3	19.8
7 10	18 59.02	-21 52.2	2.165	3.179	1.4	19.6	7 10	18 58.54	-38 48.3	2.186	3.172	5.4	19.8
7 20	18 50.43	-21 21.3	2.201	3.191	5.0	19.9	7 20	18 48.42	-39 5.1	2.212	3.169	7.4	20.0
7 30	18 43.08	-20 50.6	2.264	3.202	8.3	20.1	7 30	18 39.62	-39 6.3	2.264	3.166	10.0	20.1
8 9	18 37.58	-20 21.0	2.352	3.213	11.2	20.3	8 9	18 32.95	-38 54.4	2.339	3.163	12.5	20.3
258487	2002 AO_{44}		7 6.3 71°50	0°9/ 6.6 17			285991	2001 SH_{15}		7 6.3 326°21	7°6/ 4.4 18		
5 31	19 26.22	-18 12.3	2.162	3.003	12.8	20.7	5 31	19 31.96	-40 24.0	1.819	2.660	14.8	20.1
6 10	19 21.73	-18 33.1	2.088	3.009	9.8	20.5	6 10	19 27.17	-41 18.4	1.744	2.652	12.2	19.9
6 20	19 15.33	-19 0.3	2.036	3.015	6.4	20.3	6 20	19 19.38	-42 3.9	1.691	2.644	9.6	19.7
6 30	19 7.58	-19 32.1	2.011	3.020	2.7	20.1	6 30	19 9.35	-42 33.5	1.660	2.636	7.8	19.6
7 10	18 59.29	-20 5.9	2.012	3.026	1.6	20.0	7 10	18 58.34	-42 41.8	1.654	2.629	7.9	19.6
7 20	18 51.31	-20 39.6	2.041	3.032	5.2	20.3	7 20	18 47.81	-42 27.1	1.672	2.622	9.9	19.7
7 30	18 44.46	-21 11.5	2.097	3.038	8.6	20.5	7 30	18 39.15	-41 51.4	1.714	2.615	12.6	19.8
8 9	18 39.40	-21 40.3	2.176	3.044	11.7	20.7	8 9	18 33.36	-40 59.7	1.776	2.609	15.4	20.0
521250	2015 HA_{191}		7 6.3 18°96	3°3/ 6.8 17			255820	2006 SP_{57}		7 6.3 337°71	3°7/ 5.9 18		
5 31	19 27.13	-16 13.2	1.563	2.417	16.2	20.6	5 31	19 30.00	-30 10.0	1.226	2.103	18.3	19.8
6 10	19 22.97	-15 37.1	1.496	2.421	12.6	20.3	6 10	19 26.34	-30 19.9	1.154	2.094	14.2	19.5
6 20	19 16.35	-15 8.1	1.449	2.426	8.6	20.1	6 20	19 19.16	-30 25.8	1.101	2.086	9.6	19.2
6 30	19 8.02	-14 46.9	1.426	2.431	4.7	19.9	6 30	19 9.33	-30 22.7	1.070	2.078	5.0	19.0
7 10	18 59.05	-14 33.6	1.427	2.437	3.7	19.9	7 10	18 58.36	-30 6.4	1.061	2.072	4.4	18.9
7 20	18 50.58	-14 27.7	1.454	2.443	7.1	20.1	7 20	18 48.00	-29 36.2	1.076	2.066	8.8	19.1
7 30	18 43.68	-14 28.5	1.504	2.450	11.1	20.3	7 30	18 39.90	-28 54.5	1.112	2.061	13.7	19.4
8 9	18 39.14	-14 34.4	1.577	2.457	14.7	20.6	8 9	18 35.18	-28 5.9	1.168	2.057	18.1	19.6
130696	2000 SK_{152}		7 6.3 250°47	2°9/ 6.9 18			412201	2013 GQ_{104}		7 6.3 169°77	3°8/ 5.4 17		
5 31	19 28.84	-14 29.2	2.101	2.931	13.5	20.4	5 31	19 35.15	-28 52.6	1.499	2.356	16.6	21.4
6 10	19 23.93	-14 20.1	2.003	2.914	10.6	20.2	6 10	19 29.69	-29 41.1	1.430	2.358	12.9	21.2
6 20	19 16.90	-14 18.8	1.926	2.896	7.3	20.0	6 20	19 21.04	-30 29.8	1.381	2.360	8.6	21.0
6 30	19 8.28	-14 25.1	1.875	2.878	4.0	19.7	6 30	19 10.02	-31 12.3	1.356	2.362	4.7	20.7
7 10	18 58.86	-14 38.1	1.851	2.860	3.1	19.6	7 10	18 57.97	-31 42.7	1.356	2.363	4.5	20.7
7 20	18 49.56	-14 56.6	1.854	2.840	6.1	19.8	7 20	18 46.44	-31 57.8	1.382	2.364	8.3	20.9
7 30	18 41.35	-15 19.0	1.884	2.821	9.7	20.0	7 30	18 36.93	-31 58.0	1.432	2.364	12.5	21.2
8 9	18 35.02	-15 43.9	1.937	2.801	13.1	20.1	8 9	18 30.46	-31 46.5	1.502	2.364	16.3	21.4
211165	2002 HZ_1		7 6.3 25°65	3°6/ 5.4 17			62061	2000 RU_{71}		7 6.3 314°87	2°9/ 7.0 18		
5 31	19 28.52</												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
179557	2002 <i>DL</i> ₇		7 6.3 29°28'	5°5'	3.9	18	521546	2015 <i>ON</i> ₁₀₁		7 6.3 318°65'	1°2'	6.6	18
5 31	19 29.23	-33 20.5	1.906	2.757	13.8	19.3	5 31	19 25.80	-19 23.2	2.119	2.964	12.8	21.3
6 10	19 24.72	-34 47.3	1.842	2.763	10.9	19.1	6 10	19 21.56	-19 13.4	2.033	2.956	9.9	21.1
6 20	19 17.64	-36 11.9	1.801	2.770	7.9	18.9	6 20	19 15.34	-19 7.6	1.968	2.947	6.5	20.9
6 30	19 8.64	-37 27.3	1.785	2.777	5.7	18.8	6 30	19 7.70	-19 5.1	1.929	2.939	2.9	20.7
7 10	18 58.80	-38 27.6	1.796	2.785	6.0	18.9	7 10	18 59.45	-19 4.9	1.917	2.931	1.8	20.6
7 20	18 49.30	-39 9.2	1.832	2.793	8.4	19.0	7 20	18 51.44	-19 6.1	1.932	2.923	5.4	20.8
7 30	18 41.34	-39 32.0	1.893	2.802	11.3	19.2	7 30	18 44.57	-19 8.0	1.973	2.916	9.0	21.0
8 9	18 35.80	-39 38.2	1.975	2.810	14.0	19.4	8 9	18 39.53	-19 10.4	2.037	2.908	12.2	21.2
310594	2001 <i>VT</i> ₈₂		7 6.3 264°83'	7°5'	2.5	18	40184	1998 <i>RQ</i> ₅₈		7 6.3 25°08'	4°7'	7.8	18
5 31	19 33.47	-41 15.5	2.269	3.093	12.8	21.2	5 31	19 24.36	-8 16.2	2.278	3.093	13.0	18.3
6 10	19 28.12	-42 48.4	2.185	3.079	10.7	21.0	6 10	19 20.20	-7 56.9	2.200	3.095	10.5	18.1
6 20	19 20.01	-44 15.7	2.125	3.064	8.7	20.9	6 20	19 14.33	-7 48.4	2.143	3.096	7.9	18.0
6 30	19 9.67	-45 29.9	2.089	3.050	7.6	20.8	6 30	19 7.27	-7 51.7	2.111	3.098	5.5	17.8
7 10	18 58.15	-46 24.8	2.080	3.035	8.0	20.8	7 10	18 59.72	-8 6.5	2.106	3.100	4.8	17.8
7 20	18 46.68	-46 56.9	2.096	3.019	9.7	20.8	7 20	18 52.42	-8 31.6	2.127	3.102	6.4	17.9
7 30	18 36.63	-47 6.2	2.137	3.004	12.0	21.0	7 30	18 46.11	-9 4.9	2.174	3.104	9.0	18.1
8 9	18 29.06	-46 56.0	2.198	2.988	14.2	21.1	8 9	18 41.39	-9 43.7	2.245	3.106	11.6	18.2
340558	2006 <i>KA</i> ₆₆		7 6.3 31°56'	0°1'	6.3	17	39528	1989 <i>TB</i> ₁₆		7 6.3 285°92'	3°1'	5.7	18
5 31	19 28.28	-20 51.2	1.841	2.691	14.3	21.6	5 31	19 31.76	-28 4.9	1.446	2.310	16.7	18.9
6 10	19 23.71	-21 8.3	1.765	2.691	10.9	21.4	6 10	19 27.42	-28 31.6	1.360	2.293	13.0	18.6
6 20	19 16.84	-21 30.5	1.710	2.692	7.1	21.1	6 20	19 19.83	-28 58.8	1.293	2.275	8.7	18.3
6 30	19 8.30	-21 55.5	1.681	2.692	2.8	20.9	6 30	19 9.68	-29 21.3	1.250	2.258	4.3	18.0
7 10	18 59.05	-22 20.5	1.678	2.693	1.6	20.8	7 10	18 58.23	-29 34.1	1.231	2.241	3.9	18.0
7 20	18 50.15	-22 43.4	1.702	2.693	5.9	21.1	7 20	18 47.05	-29 34.4	1.236	2.224	8.3	18.2
7 30	18 42.63	-23 2.6	1.751	2.694	9.9	21.3	7 30	18 37.73	-29 22.4	1.265	2.207	13.0	18.4
8 9	18 37.29	-23 17.9	1.823	2.695	13.4	21.5	8 9	18 31.47	-29 0.9	1.314	2.190	17.3	18.6
212960	2009 <i>BB</i> ₆₆		7 6.3 133°71'	0°8'	6.1	17	436814	2012 <i>RL</i> ₁₆		7 6.3 246°97'	0°4'	6.4	17
5 31	19 29.16	-24 26.2	2.082	2.928	13.0	21.0	5 31	19 29.68	-21 31.2	1.788	2.638	14.6	21.3
6 10	19 24.11	-24 34.4	2.006	2.931	9.9	20.8	6 10	19 24.84	-21 28.0	1.709	2.636	11.2	21.1
6 20	19 16.94	-24 43.9	1.953	2.934	6.4	20.6	6 20	19 17.60	-21 28.1	1.653	2.634	7.3	20.8
6 30	19 8.30	-24 52.2	1.926	2.937	2.6	20.3	6 30	19 8.62	-21 30.0	1.621	2.632	2.9	20.6
7 10	18 59.07	-24 57.3	1.926	2.940	1.7	20.3	7 10	18 58.92	-21 31.8	1.615	2.630	1.7	20.5
7 20	18 50.22	-24 58.1	1.953	2.942	5.5	20.5	7 20	18 49.60	-21 32.3	1.636	2.628	6.1	20.7
7 30	18 42.68	-24 54.6	2.006	2.945	9.1	20.8	7 30	18 41.74	-21 31.1	1.682	2.625	10.2	21.0
8 9	18 37.14	-24 47.3	2.083	2.947	12.3	21.0	8 9	18 36.16	-21 28.6	1.751	2.623	13.8	21.2
247113	2000 <i>UC</i> ₁₂		7 6.3 316°92'	8°9'	2.3	18	118023	2103 <i>T</i> ₋₂		7 6.3 272°33'	4°5'	7.1	18
5 31	19 28.87	-35 34.4	1.373	2.241	17.1	19.6	5 31	19 29.86	-13 5.7	1.527	2.371	17.0	20.2
6 10	19 26.11	-37 28.1	1.282	2.210	14.0	19.4	6 10	19 25.53	-12 39.8	1.434	2.352	13.6	19.9
6 20	19 19.62	-39 24.6	1.211	2.179	10.9	19.1	6 20	19 18.40	-12 24.2	1.361	2.332	9.7	19.6
6 30	19 9.83	-41 12.8	1.162	2.148	9.0	18.9	6 30	19 9.07	-12 20.4	1.311	2.312	5.8	19.4
7 10	18 57.96	-42 40.7	1.137	2.118	9.8	18.8	7 10	18 58.59	-12 28.1	1.286	2.292	4.8	19.3
7 20	18 45.85	-43 39.4	1.134	2.089	13.0	18.9	7 20	18 48.23	-12 46.4	1.285	2.272	8.2	19.4
7 30	18 35.65	-44 6.0	1.151	2.060	16.9	19.1	7 30	18 39.33	-13 13.1	1.308	2.251	12.6	19.6
8 9	18 29.11	-44 4.3	1.186	2.033	20.7	19.2	8 9	18 32.98	-13 45.6	1.352	2.230	16.8	19.8
336390	2008 <i>UL</i> ₈₉		7 6.3 153°35'	0°7'	6.4	17	147052	2002 <i>RT</i> ₉₄		7 6.3 272°70'	1°9'	5.9	18
5 31	19 29.46	-20 34.2	1.877	2.723	14.2	20.9	5 31	19 31.79	-25 51.0	1.685	2.539	15.2	20.0
6 10	19 24.51	-20 31.4	1.801	2.725	10.9	20.7	6 10	19 27.03	-26 15.5	1.589	2.518	11.8	19.7
6 20	19 17.29	-20 32.7	1.746	2.726	7.1	20.5	6 20	19 19.39	-26 42.4	1.514	2.496	7.8	19.4
6 30	19 8.46	-20 36.5	1.717	2.728	2.9	20.3	6 30	19 9.48	-27 7.7	1.463	2.474	3.5	19.1
7 10	18 58.98	-20 41.1	1.714	2.729	1.7	20.2	7 10	18 58.36	-27 27.1	1.439	2.451	2.8	19.0
7 20	18 49.88	-20 45.3	1.739	2.730	5.9	20.4	7 20	18 47.36	-27 37.9	1.440	2.428	7.3	19.2
7 30	18 42.18	-20 48.5	1.789	2.731	9.8	20.7	7 30	18 37.89	-27 39.5	1.466	2.405	11.8	19.5
8 9	18 36.63	-20 50.6	1.862	2.732	13.2	20.9	8 9	18 31.03	-27 33.1	1.513	2.382	15.8	19.6
93255	2000 <i>SC</i> ₁₆₃		7 6.3 185°90'	7°1'	4.5	18	303668	2005 <i>MH</i> ₃₄		7 6.3 318°40'	2°6'	7.2	18
5 31	19 36.40	-40 53.4	2.038	2.864	14.0	20.3	5 31	19 25.24	-13 44.2	1.952	2.790	14.0	20.4
6 10	19 30.22	-41 48.3	1.966	2.864	11.5	20.2	6 10	19 21.31	-13 58.7	1.866	2.783	11.0	20.2
6 20	19 21.18	-42 34.0	1.916	2.863	9.0	20.0	6 20	19 15.29	-14 24.0	1.802	2.775	7.5	19.9
6 30	19 10.04	-43 4.0	1.891	2.863	7.3	19.9	6 30	19 7.73	-14 59.0	1.763	2.767	4.0	19.7
7 10	18 58.04	-43 13.5	1.891	2.862	7.4	19.9	7 10	18 59.45	-15 41.8	1.750	2.760	2.9	19.6
7 20	18 46.56	-43 0.9	1.917	2.860	9.3	20.0	7 20	18 51.37	-16 29.5	1.763	2.753	6.0	19.8
7 30	18 36.90	-42 28.5	1.967	2.858	11.8	20.2	7 30	18 44.44	-17 19.1	1.803	2.747	9.6	20.0
8 9	18 29.98	-41 41.1	2.039	2.856	14.3	20.3	8 9	18 39.42	-18 8.1	1.865	2.740	13.0	20.2
168405	1998 <i>FW</i> ₁₁₅		7 6.3 124°48'	3°9'	7.0	17	480197	2015 <i>FH</i> ₃₄₀		7 6.3 61°39'	0°4'	6.4	16
5 31	19 31.36	-13 58.3	1.597	2.437	16.5	20.0	5 31	19 30.82	-22 14.6	1.683	2.536	15.3	21.1
6 10	19 26.15	-13 32.2	1.529	2.446	13.0	19.8	6 10	19 25.57	-22 0.5	1.625	2.552	11.6	20.9
6 20	19 18.42	-13 15.7	1.482	2.453	9.0	19.6	6 20	19 17.93	-21 48.8	1.588	2.569	7.5	20.7
6 30	19 8.92	-13 9.3	1.459	2.461	5.2	19.4	6 30	19 8.69	-21 38.1	1.575	2.586	3.0	20.5
7 10	18 58.74	-13 12.3	1.461	2.468	4.1	19.4	7 10	18 58.96	-21 27.1	1.589	2.604	1.7	20.4
7 20	18 49.07	-13 23.5	1.489	2.475	7.3	19.6	7 20	18 49.87	-21 15.3	1.629	2.621	6.1	20.7
7 30	18 41.02	-13 41.1	1.541	2.482	11.2	19.8	7 30	18 42.45	-21 3.1	1.695	2.639	10.1	21.0
8 9	18 35.40	-14 3.0	1.616	2.488	14.8	20.0	8 9	18 37.39	-20 50.9	1.782	2.656	13.6	21.3
138964	2001 <i>CL</i> ₉		7 6.3 183°05'	1°4'	5.9	18	144050	2004 <i>BD</i> ₃₀		7 6.3 190°88'	1°		

EPHEMERIDES

7 6.3

7 6.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
83515	2001 <i>SF</i> ₁₃₂		7 6.3 321°60	1°0/ 6.0 18			465584	2008 <i>YR</i> ₁₁₈		7 6.3 86°42	0°6/ 6.2 17		
5 31	19 28.34	-24 44.5	2.050	2.898	13.1	20.1	5 31	19 34.36	-23 18.4	1.384	2.244	17.6	21.6
6 10	19 23.59	-24 59.1	1.972	2.898	10.0	19.9	6 10	19 28.82	-23 27.9	1.329	2.261	13.4	21.4
6 20	19 16.69	-25 15.2	1.916	2.897	6.4	19.7	6 20	19 20.29	-23 40.6	1.294	2.277	8.6	21.1
6 30	19 8.26	-25 30.2	1.886	2.897	2.7	19.5	6 30	19 9.71	-23 53.0	1.282	2.294	3.4	20.9
7 10	18 59.19	-25 41.6	1.883	2.896	1.9	19.4	7 10	18 58.46	-24 1.9	1.296	2.310	2.1	20.8
7 20	18 50.46	-25 47.9	1.907	2.896	5.7	19.7	7 20	18 48.00	-24 5.7	1.334	2.326	7.2	21.2
7 30	18 43.02	-25 48.9	1.957	2.895	9.3	19.9	7 30	18 39.63	-24 4.3	1.397	2.342	11.7	21.5
8 9	18 37.61	-25 45.3	2.030	2.895	12.5	20.1	8 9	18 34.18	-23 59.1	1.481	2.358	15.6	21.8
512579	2016 <i>ST</i> ₃₈		7 6.3 312°45	6°3/ 7.8 18			142332	2002 <i>RG</i> ₁₈₇		7 6.3 18°16	2°1/ 6.5 17		
5 31	19 24.78	-7 47.1	1.686	2.517	16.2	21.2	5 31	19 29.23	-19 44.6	1.260	2.130	18.3	19.2
6 10	19 21.30	-7 16.4	1.596	2.499	13.3	21.0	6 10	19 25.20	-19 11.8	1.197	2.133	14.1	18.9
6 20	19 15.48	-6 59.6	1.525	2.482	10.1	20.7	6 20	19 18.14	-18 44.0	1.153	2.137	9.3	18.7
6 30	19 7.88	-6 59.1	1.477	2.464	7.3	20.5	6 30	19 8.93	-18 21.1	1.131	2.141	4.2	18.4
7 10	18 59.37	-7 15.5	1.453	2.447	6.4	20.4	7 10	18 58.90	-18 2.7	1.133	2.146	2.9	18.3
7 20	18 51.02	-7 47.9	1.453	2.431	8.5	20.5	7 20	18 49.52	-17 48.5	1.158	2.152	7.7	18.6
7 30	18 43.90	-8 33.3	1.478	2.414	11.9	20.7	7 30	18 42.15	-17 38.4	1.206	2.159	12.5	18.9
8 9	18 38.92	-9 27.7	1.523	2.399	15.4	20.9	8 9	18 37.69	-17 32.1	1.274	2.166	16.7	19.2
11644	1997 <i>BR</i> ₁		7 6.3 68°18	1°9/ 7.1 18			435838	2008 <i>WW</i> ₈₇		7 6.3 299°32	3°8/ 4.9 16		
5 31	19 27.65	-14 55.5	2.110	2.942	13.3	17.5	5 31	19 29.51	-28 44.6	1.718	2.576	14.8	21.3
6 10	19 22.70	-15 19.2	2.053	2.967	10.3	17.4	6 10	19 25.24	-29 46.0	1.636	2.565	11.5	21.0
6 20	19 15.90	-15 51.4	2.019	2.992	6.8	17.2	6 20	19 18.20	-30 49.5	1.576	2.555	7.8	20.8
6 30	19 7.88	-16 30.2	2.011	3.017	3.3	17.0	6 30	19 9.02	-31 49.1	1.540	2.545	4.5	20.6
7 10	18 59.45	-17 13.1	2.030	3.042	2.2	17.0	7 10	18 58.78	-32 38.8	1.531	2.535	4.5	20.5
7 20	18 51.45	-17 57.5	2.077	3.066	5.2	17.3	7 20	18 48.76	-33 14.8	1.546	2.526	7.9	20.7
7 30	18 44.77	-18 41.0	2.150	3.091	8.5	17.5	7 30	18 40.29	-33 35.6	1.586	2.516	11.7	20.9
8 9	18 39.70	-19 21.8	2.248	3.115	11.4	17.7	8 9	18 34.38	-33 42.9	1.648	2.507	15.2	21.1
141242	2001 <i>XV</i> ₂₅₇		7 6.3 157°84	0°2/ 6.3 18			137931	2000 <i>BY</i> ₂₆		7 6.3 182°51	1°3/ 6.0 18		
5 31	19 29.89	-24 10.4	2.437	3.273	11.7	19.9	5 31	19 33.00	-25 5.6	1.945	2.787	13.9	20.4
6 10	19 24.31	-23 58.6	2.358	3.277	8.9	19.7	6 10	19 27.28	-25 24.2	1.866	2.788	10.7	20.2
6 20	19 16.92	-23 46.9	2.302	3.281	5.7	19.5	6 20	19 19.15	-25 44.1	1.809	2.789	6.9	19.9
6 30	19 8.29	-23 33.9	2.273	3.284	2.3	19.3	6 30	19 9.28	-26 2.2	1.778	2.788	2.9	19.7
7 10	18 59.20	-23 18.7	2.273	3.287	1.4	19.3	7 10	18 58.68	-26 15.4	1.774	2.787	2.2	19.6
7 20	18 50.48	-23 1.1	2.301	3.290	4.8	19.5	7 20	18 48.45	-26 22.2	1.798	2.786	6.1	19.9
7 30	18 42.90	-22 41.5	2.357	3.293	8.1	19.7	7 30	18 39.68	-26 22.3	1.848	2.784	10.0	20.1
8 9	18 37.08	-22 20.9	2.437	3.295	10.9	19.9	8 9	18 33.18	-26 16.9	1.921	2.781	13.3	20.3
348007	2003 <i>SB</i> ₂₆₆		7 6.3 296°46	3°4/ 7.1 18			518783	2010 <i>AE</i> ₁₄₁		7 6.3 186°23	2°0/ 6.9 17		
5 31	19 26.67	-14 3.4	1.761	2.604	15.1	20.7	5 31	19 28.62	-15 31.0	1.959	2.795	14.1	21.4
6 10	19 22.71	-13 49.6	1.668	2.586	12.0	20.5	6 10	19 23.84	-15 47.7	1.879	2.795	10.9	21.2
6 20	19 16.38	-13 45.1	1.595	2.567	8.4	20.2	6 20	19 16.90	-16 13.6	1.820	2.795	7.3	21.0
6 30	19 8.23	-13 50.4	1.546	2.549	4.7	20.0	6 30	19 8.40	-16 47.1	1.787	2.794	3.6	20.7
7 10	18 59.17	-14 4.6	1.522	2.531	3.7	19.9	7 10	18 59.19	-17 25.9	1.781	2.794	2.4	20.6
7 20	18 50.26	-14 26.3	1.525	2.513	6.9	20.0	7 20	18 50.26	-18 7.2	1.802	2.793	5.8	20.9
7 30	18 42.60	-14 53.6	1.552	2.495	10.9	20.2	7 30	18 42.56	-18 48.5	1.850	2.791	9.6	21.1
8 9	18 37.09	-15 24.3	1.601	2.478	14.7	20.4	8 9	18 36.86	-19 28.0	1.920	2.790	12.9	21.3
509840	2008 <i>YS</i> ₄₁		7 6.3 209°68	0°8/ 5.9 18			412747	2014 <i>OB</i> ₃₆₇		7 6.3 308°86	4°3/ 5.7 17		
5 31	19 29.23	-22 23.4	2.093	2.936	13.0	22.1	5 31	19 31.18	-29 41.6	1.145	2.025	19.1	20.7
6 10	19 24.31	-23 3.8	2.010	2.933	10.0	21.9	6 10	19 27.73	-30 9.4	1.069	2.010	15.0	20.4
6 20	19 17.21	-23 49.0	1.949	2.929	6.4	21.7	6 20	19 20.43	-30 36.0	1.011	1.995	10.2	20.1
6 30	19 8.50	-24 35.8	1.914	2.926	2.6	21.4	6 30	19 10.06	-30 54.6	0.973	1.981	5.5	19.8
7 10	18 59.05	-25 20.4	1.908	2.921	1.8	21.4	7 10	18 58.17	-30 59.1	0.958	1.967	5.0	19.7
7 20	18 49.81	-26 0.0	1.929	2.917	5.7	21.6	7 20	18 46.71	-30 46.5	0.965	1.954	9.7	19.9
7 30	18 41.78	-26 32.7	1.976	2.913	9.4	21.8	7 30	18 37.62	-30 18.4	0.993	1.941	15.0	20.2
8 9	18 35.74	-26 58.2	2.047	2.908	12.6	22.0	8 9	18 32.25	-29 39.4	1.039	1.929	19.7	20.4
478403	2012 <i>BW</i> ₁₃₁		7 6.3 182°97	4°3/ 8.4 18			390370	2013 <i>QP</i> ₂₆		7 6.3 219°51	2°1/ 6.9 17		
5 31	19 24.24	-5 10.7	3.086	3.872	10.6	21.9	5 31	19 30.52	-16 3.8	1.875	2.712	14.6	22.0
6 10	19 19.68	-5 8.3	2.999	3.872	8.7	21.7	6 10	19 25.45	-16 8.2	1.788	2.705	11.4	21.7
6 20	19 13.83	-5 15.9	2.935	3.872	6.7	21.6	6 20	19 18.04	-16 20.9	1.722	2.697	7.7	21.5
6 30	19 7.07	-5 34.3	2.896	3.872	4.9	21.5	6 30	19 8.89	-16 40.9	1.682	2.689	3.8	21.2
7 10	18 59.92	-6 2.7	2.886	3.871	4.3	21.4	7 10	18 58.90	-17 6.4	1.668	2.680	2.6	21.1
7 20	18 52.93	-6 40.0	2.904	3.869	5.4	21.5	7 20	18 49.15	-17 35.0	1.681	2.671	6.2	21.3
7 30	18 46.65	-7 24.2	2.950	3.868	7.4	21.6	7 30	18 40.69	-18 4.8	1.721	2.662	10.2	21.6
8 9	18 41.55	-8 13.1	3.021	3.866	9.4	21.8	8 9	18 34.38	-18 34.2	1.783	2.651	13.8	21.8
227471	2005 <i>WO</i> ₁₆₀		7 6.3 169°62	2°1/ 5.8 18			2167	Erin		7 6.3 96°21	1°9/ 6.7 18 R		
5 31	19 31.60	-26 59.2	1.834	2.683	14.3	20.7	5 31	19 32.16	-18 5.9	1.780	2.621	15.1	16.3
6 10	19 26.37	-27 23.3	1.759	2.685	11.0	20.5	6 10	19 26.43	-17 49.4	1.720	2.640	11.6	16.1
6 20	19 18.63	-27 47.7	1.706	2.686	7.2	20.2	6 20	19 18.44	-17 38.4	1.682	2.658	7.6	15.9
6 30	19 9.08	-28 8.5	1.678	2.687	3.3	20.0	6 30	19 8.93	-17 32.3	1.669	2.677	3.6	15.7
7 10	18 58.77	-28 22.4	1.677	2.688	2.8	20.0	7 10	18 58.95	-17 29.9	1.682	2.695	2.4	15.7
7 20	18 48.89	-28 27.6	1.702	2.688	6.5	20.2	7 20	18 49.55	-17 30.4	1.723	2.712	6.1	15.9
7 30	18 40.56	-28 24.2	1.753	2.689	10.4	20.4	7 30	18 41.72	-17 33.0	1.789	2.730	9.9	16.2
8 9	18 34.60	-28 13.8	1.826	2.689	13.8	20.6	8 9	18 36.14	-17 37.2	1.878	2.746	13.2	16.4
317873	2003 <i>UJ</i> ₅₉		7 6.3 304°66	0°4/ 6.2 18			185559	2008 <i>AO</i> ₂₂		7 6.3 159°54			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
276019	2002 <i>AF</i> ₁₃		7 6.3 29°63	3°4/ 6.2	18		478384	2012 <i>BE</i> ₂		7 6.3 210°96	2°2/ 5.9	18	
5 31	19 33.87	-32 0.8	1.488	2.347	16.6	19.4	5 31	19 29.93	-30 15.1	2.471	3.309	11.5	21.0
6 10	19 28.49	-31 48.7	1.425	2.353	12.9	19.2	6 10	19 24.49	-30 16.8	2.389	3.307	8.8	20.8
6 20	19 20.09	-31 29.6	1.381	2.360	8.7	19.0	6 20	19 17.13	-30 15.2	2.329	3.305	5.9	20.6
6 30	19 9.64	-30 59.7	1.361	2.367	4.6	18.7	6 30	19 8.46	-30 8.0	2.297	3.303	3.1	20.4
7 10	18 58.55	-30 17.4	1.365	2.375	3.9	18.7	7 10	18 59.28	-29 53.4	2.292	3.301	2.7	20.4
7 20	18 48.28	-29 24.0	1.396	2.383	7.6	19.0	7 20	18 50.46	-29 31.4	2.316	3.299	5.4	20.6
7 30	18 40.12	-28 23.2	1.450	2.391	11.7	19.2	7 30	18 42.82	-29 2.7	2.366	3.296	8.4	20.7
8 9	18 34.90	-27 19.7	1.526	2.400	15.4	19.5	8 9	18 37.01	-28 29.3	2.441	3.294	11.1	20.9
514401	2016 <i>SB</i> ₅₀		7 6.3 160°90	1°0/ 6.8	18		442091	2010 <i>TQ</i> ₂₆		7 6.3 277°25	4°3/ 5.1	18	
5 31	19 26.17	-16 33.1	2.372	3.204	12.0	21.5	5 31	19 30.05	-34 34.8	2.273	3.112	12.3	21.4
6 10	19 21.66	-17 12.4	2.289	3.205	9.3	21.3	6 10	19 24.98	-35 7.0	2.190	3.104	9.7	21.2
6 20	19 15.36	-17 59.7	2.229	3.205	6.1	21.1	6 20	19 17.67	-35 34.7	2.129	3.097	6.9	21.0
6 30	19 7.77	-18 52.9	2.196	3.205	2.7	20.9	6 30	19 8.74	-35 53.5	2.094	3.089	4.7	20.9
7 10	18 59.58	-19 49.2	2.192	3.206	1.5	20.8	7 10	18 59.10	-36 0.3	2.086	3.081	4.7	20.8
7 20	18 51.59	-20 45.4	2.215	3.206	4.9	21.1	7 20	18 49.78	-35 53.6	2.104	3.073	6.9	21.0
7 30	18 44.57	-21 39.1	2.267	3.206	8.2	21.3	7 30	18 41.78	-35 34.3	2.149	3.066	9.7	21.1
8 9	18 39.18	-22 28.5	2.343	3.206	11.1	21.5	8 9	18 35.86	-35 4.8	2.216	3.058	12.5	21.3
394782	2008 <i>GB</i> ₁₄₂		7 6.3 29°10	9°8/ 7.4	18		459510	2013 <i>ER</i> ₁₈		7 6.3 53°55	0°0/ 6.1	17	
5 31	19 26.88	- 0 44.4	1.867	2.660	16.3	19.7	5 31	19 32.72	-23 2.0	1.182	2.054	19.1	21.1
6 10	19 22.32	+ 1 0.1	1.808	2.671	14.0	19.5	6 10	19 28.11	-22 54.2	1.124	2.062	14.7	20.8
6 20	19 15.79	+ 2 29.3	1.769	2.682	11.8	19.4	6 20	19 20.14	-22 49.6	1.084	2.070	9.5	20.6
6 30	19 7.90	+ 3 37.9	1.753	2.694	10.2	19.3	6 30	19 9.77	-22 45.5	1.067	2.079	3.7	20.3
7 10	18 59.54	+ 4 22.8	1.761	2.706	9.8	19.3	7 10	18 58.55	-22 39.6	1.072	2.087	2.2	20.2
7 20	18 51.59	+ 4 43.2	1.793	2.720	10.8	19.4	7 20	18 48.13	-22 30.7	1.102	2.096	7.9	20.6
7 30	18 44.92	+ 4 40.9	1.847	2.733	12.7	19.6	7 30	18 40.00	-22 19.3	1.154	2.106	13.0	20.9
8 9	18 40.16	+ 4 19.9	1.922	2.747	14.7	19.7	8 9	18 35.12	-22 6.6	1.225	2.115	17.3	21.2
261305	2005 <i>US</i> ₁₉₃		7 6.3 174°48	0°3/ 6.2	18		234337	2001 <i>FX</i> ₃		7 6.3 104°67	2°8/ 5.3	18	
5 31	19 27.10	-22 45.6	2.697	3.532	10.7	22.1	5 31	19 31.61	-27 10.5	2.023	2.867	13.4	20.5
6 10	19 22.14	-23 1.0	2.615	3.534	8.1	21.9	6 10	19 26.16	-28 13.0	1.960	2.882	10.2	20.3
6 20	19 15.54	-23 18.5	2.557	3.535	5.2	21.7	6 20	19 18.41	-29 16.7	1.919	2.897	6.7	20.1
6 30	19 7.81	-23 36.3	2.525	3.536	2.1	21.5	6 30	19 9.02	-30 16.5	1.905	2.911	3.5	20.0
7 10	18 59.60	-23 52.6	2.523	3.537	1.3	21.4	7 10	18 58.96	-31 7.9	1.918	2.925	3.4	20.0
7 20	18 51.62	-24 6.2	2.549	3.538	4.5	21.7	7 20	18 49.31	-31 47.7	1.959	2.939	6.5	20.2
7 30	18 44.59	-24 16.4	2.602	3.538	7.5	21.9	7 30	18 41.07	-32 15.1	2.026	2.952	9.8	20.4
8 9	18 39.08	-24 23.2	2.681	3.538	10.1	22.0	8 9	18 35.02	-32 31.2	2.116	2.965	12.7	20.6
249788	2000 <i>XA</i> ₅₃		7 6.3 189°79	1°7/ 6.2	18		255959	2006 <i>TP</i> ₃₄		7 6.3 25°70	1°2/ 6.5	17	
5 31	19 33.61	-30 11.7	2.645	3.472	11.1	20.4	5 31	19 29.33	-20 17.9	1.317	2.185	17.8	19.9
6 10	19 27.03	-29 49.3	2.558	3.471	8.6	20.2	6 10	19 25.24	-20 7.9	1.254	2.189	13.7	19.7
6 20	19 18.62	-29 22.2	2.496	3.470	5.6	20.0	6 20	19 18.18	-20 3.7	1.209	2.193	8.9	19.4
6 30	19 8.98	-28 48.9	2.461	3.468	2.7	19.8	6 30	19 8.99	-20 3.7	1.188	2.199	3.8	19.1
7 10	18 58.94	-28 8.6	2.456	3.467	2.1	19.8	7 10	18 58.99	-20 6.0	1.190	2.204	2.2	19.0
7 20	18 49.32	-27 22.2	2.481	3.465	4.9	20.0	7 20	18 49.59	-20 9.0	1.216	2.211	7.3	19.4
7 30	18 40.91	-26 31.3	2.534	3.463	7.9	20.2	7 30	18 42.13	-20 12.1	1.266	2.217	12.1	19.7
8 9	18 34.31	-25 38.5	2.613	3.460	10.6	20.4	8 9	18 37.51	-20 14.9	1.335	2.224	16.3	19.9
372371	2009 <i>MK</i>		7 6.3 323°76	0°6/ 6.3	18	R	57282	2001 <i>QX</i> ₁₅₅		7 6.3 234°97	1°0/ 6.1	18	
5 31	19 32.06	-25 45.4	1.261	2.132	18.2	19.6	5 31	19 32.16	-25 9.3	1.844	2.692	14.4	20.2
6 10	19 27.79	-24 42.9	1.176	2.114	14.2	19.3	6 10	19 26.86	-25 14.3	1.758	2.683	11.1	20.0
6 20	19 20.10	-23 33.7	1.112	2.097	9.3	19.0	6 20	19 19.03	-25 20.0	1.694	2.675	7.2	19.7
6 30	19 9.83	-22 17.4	1.069	2.081	3.8	18.6	6 30	19 9.32	-25 23.6	1.655	2.666	3.0	19.4
7 10	18 58.40	-20 55.5	1.051	2.066	2.3	18.4	7 10	18 58.77	-25 22.8	1.643	2.657	2.0	19.3
7 20	18 47.48	-19 31.9	1.057	2.051	8.1	18.7	7 20	18 48.55	-25 16.2	1.657	2.647	6.3	19.6
7 30	18 38.68	-18 11.7	1.086	2.038	13.6	19.0	7 30	18 39.82	-25 4.2	1.698	2.637	10.4	19.8
8 9	18 33.11	-16 59.4	1.134	2.025	18.4	19.3	8 9	18 33.45	-24 48.2	1.761	2.627	14.1	20.0
16465	<i>Basilow</i>		7 6.3 121°04	19°2/ 2.3	18		88490	2001 <i>QH</i> ₁₃₂		7 6.3 185°95	0°7/ 6.3	18	
5 31	20 6.73	-57 47.3	1.233	2.018	23.5	18.8	5 31	19 35.39	-25 2.9	1.459	2.315	17.0	19.3
6 10	19 58.73	-60 43.2	1.208	2.039	21.4	18.7	6 10	19 29.78	-24 51.7	1.386	2.315	13.1	19.1
6 20	19 42.54	-63 10.3	1.199	2.058	19.9	18.7	6 20	19 21.08	-24 40.5	1.333	2.315	8.5	18.8
6 30	19 19.26	-64 47.2	1.208	2.077	19.2	18.7	6 30	19 10.15	-24 26.3	1.303	2.315	3.4	18.5
7 10	18 52.94	-65 20.2	1.235	2.094	19.4	18.7	7 10	18 58.32	-24 7.3	1.299	2.314	2.1	18.4
7 20	18 29.06	-64 49.8	1.279	2.111	20.5	18.9	7 20	18 47.09	-23 43.2	1.321	2.313	7.3	18.8
7 30	18 11.95	-63 29.9	1.339	2.126	21.9	19.0	7 30	18 37.85	-23 15.5	1.367	2.311	12.0	19.0
8 9	18 3.00	-61 39.7	1.412	2.140	23.4	19.2	8 9	18 31.57	-22 46.6	1.434	2.309	16.2	19.3
418132	2008 <i>AY</i> ₁₃		7 6.3 97°49	0°9/ 6.5	17		493614	2015 <i>OZ</i> ₁₁		7 6.3 209°50	2°6/ 5.9	18	
5 31	19 33.46	-20 50.9	1.588	2.438	16.2	21.6	5 31	19 31.00	-31 14.6	2.444	3.279	11.6	21.2
6 10	19 27.76	-20 41.6	1.528	2.454	12.4	21.4	6 10	19 25.35	-31 17.6	2.360	3.277	9.0	21.0
6 20	19 19.46	-20 36.4	1.489	2.470	8.0	21.2	6 20	19 17.71	-31 16.7	2.300	3.274	6.1	20.9
6 30	19 9.39	-20 33.6	1.474	2.485	3.3	20.9	6 30	19 8.71	-31 9.2	2.266	3.271	3.3	20.7
7 10	18 58.74	-20 31.4	1.486	2.500	1.9	20.9	7 10	18 59.17	-30 53.4	2.261	3.267	3.0	20.6
7 20	18 48.76	-20 28.9	1.523	2.515	6.5	21.2	7 20	18 50.01	-30 28.9	2.283	3.264	5.6	20.8
7 30	18 40.57	-20 25.9	1.586	2.530	10.7	21.5	7 30	18 42.07	-29 57.1	2.333	3.261	8.6	21.0
8 9	18 34.93	-20 22.7	1.671	2.544	14.4	21.8	8 9	18 36.03	-29 20.0	2.407	3.257	11.3	21.2
467396	2005 <i>GJ</i> ₁₉		7 6.3 58°30	6°1/ 5.2	17		245453	2005 <i>LU</i> ₁₀		7 6.3 63°3			

EPHEMERIDES

7 6.3

7 6.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
11337	Sandro		7 6.3 351°01	3°5/ 5.8 18			470287	2007 EY ₉₁		7 6.3 52°37	3°5/ 7.2 16		
5 31	19 27.22	-28 7.1	1.072	1.961	19.4	17.9	5 31	19 29.20	-14 9.1	1.419	2.271	17.6	21.3
6 10	19 24.60	-28 32.2	1.008	1.954	15.0	17.6	6 10	19 24.68	-14 1.6	1.367	2.291	13.7	21.1
6 20	19 18.30	-28 57.3	0.961	1.949	10.0	17.3	6 20	19 17.57	-14 6.0	1.335	2.311	9.3	20.9
6 30	19 9.19	-29 16.4	0.934	1.944	5.0	17.0	6 30	19 8.71	-14 21.4	1.326	2.331	5.0	20.7
7 10	18 58.86	-29 24.3	0.930	1.941	4.3	17.0	7 10	18 59.28	-14 45.9	1.341	2.351	3.7	20.6
7 20	18 49.15	-29 18.4	0.947	1.939	9.2	17.2	7 20	18 50.51	-15 16.7	1.381	2.372	7.2	20.9
7 30	18 41.84	-28 59.7	0.984	1.939	14.4	17.5	7 30	18 43.52	-15 50.8	1.445	2.393	11.2	21.2
8 9	18 38.06	-28 31.8	1.040	1.939	19.0	17.8	8 9	18 39.05	-16 25.6	1.531	2.414	14.9	21.5
480009	2014 MC ₁₀		7 6.3 144°80	6°4/ 7.9 18			316925	2000 YD ₃₄		7 6.3 145°41	2°3/ 7.1 17		
5 31	19 25.37	-3 49.2	2.431	3.223	13.0	21.4	5 31	19 32.64	-14 15.3	2.078	2.900	13.9	21.1
6 10	19 20.87	-3 2.3	2.353	3.224	10.9	21.3	6 10	19 26.67	-14 31.9	2.006	2.913	10.8	20.9
6 20	19 14.76	-2 27.0	2.297	3.226	8.6	21.1	6 20	19 18.61	-14 57.8	1.956	2.926	7.3	20.7
6 30	19 7.54	-2 5.3	2.265	3.228	6.9	21.0	6 30	19 9.10	-15 31.2	1.933	2.938	3.7	20.5
7 10	18 59.86	-1 58.3	2.259	3.230	6.4	21.0	7 10	18 59.02	-16 9.9	1.938	2.949	2.6	20.5
7 20	18 52.42	-2 5.7	2.279	3.231	7.5	21.1	7 20	18 49.31	-16 51.3	1.971	2.959	5.7	20.7
7 30	18 45.91	-2 25.9	2.325	3.233	9.5	21.2	7 30	18 40.89	-17 32.9	2.032	2.968	9.2	20.9
8 9	18 40.90	-2 56.2	2.394	3.234	11.7	21.4	8 9	18 34.43	-18 13.1	2.117	2.977	12.3	21.1
206669	2003 YY ₈₆		7 6.3 191°13	2°7/ 6.9 18			339516	2005 GB ₁₃₆		7 6.3 72°21	1°2/ 5.9 18		
5 31	19 28.37	-14 59.2	2.283	3.110	12.6	20.9	5 31	19 28.87	-23 14.9	1.914	2.764	13.8	20.5
6 10	19 23.32	-14 39.5	2.200	3.109	9.9	20.7	6 10	19 24.15	-24 0.0	1.847	2.774	10.5	20.3
6 20	19 16.42	-14 25.9	2.139	3.108	6.8	20.5	6 20	19 17.16	-24 49.2	1.802	2.784	6.7	20.1
6 30	19 8.22	-14 18.5	2.104	3.106	3.8	20.3	6 30	19 8.57	-25 38.6	1.783	2.794	2.8	19.9
7 10	18 59.47	-14 16.8	2.096	3.104	3.0	20.3	7 10	18 59.33	-26 24.3	1.790	2.804	2.1	19.9
7 20	18 51.00	-14 20.2	2.117	3.102	5.6	20.4	7 20	18 50.46	-27 3.1	1.825	2.814	6.0	20.1
7 30	18 43.60	-14 27.9	2.164	3.099	8.7	20.6	7 30	18 42.98	-27 33.6	1.886	2.824	9.7	20.4
8 9	18 37.92	-14 38.6	2.235	3.096	11.7	20.8	8 9	18 37.63	-27 55.8	1.969	2.834	12.9	20.6
123452	2000 WJ ₁₃₄		7 6.3 182°11	0°7/ 6.4 18			426844	2013 VV ₁₁		7 6.3 154°97	9°5/ 8.4 17		
5 31	19 31.98	-21 46.1	2.098	2.935	13.2	20.0	5 31	19 30.72	+ 5 33.1	2.459	3.190	14.4	22.2
6 10	19 26.22	-21 25.6	2.017	2.936	10.2	19.8	6 10	19 24.86	+ 6 53.8	2.389	3.200	12.7	22.1
6 20	19 18.35	-21 6.5	1.958	2.936	6.6	19.6	6 20	19 17.30	+ 7 58.7	2.341	3.209	11.1	22.0
6 30	19 8.98	-20 47.8	1.926	2.936	2.7	19.3	6 30	19 8.57	+ 8 43.8	2.315	3.217	9.9	21.9
7 10	18 59.04	-20 28.9	1.921	2.936	1.6	19.3	7 10	18 59.37	+ 9 7.1	2.315	3.224	9.5	21.9
7 20	18 49.48	-20 9.7	1.945	2.935	5.5	19.5	7 20	18 50.45	+ 9 8.1	2.339	3.231	10.2	21.9
7 30	18 41.25	-19 50.6	1.995	2.933	9.2	19.8	7 30	18 42.54	+ 8 48.8	2.388	3.237	11.5	22.0
8 9	18 35.03	-19 32.5	2.069	2.932	12.4	20.0	8 9	18 36.24	+ 8 12.8	2.459	3.243	13.1	22.2
204504	2005 CR ₄₅		7 6.3 150°19	0°7/ 6.1 18 R			13305	Danielang		7 6.3 6°94	3°6/ 6.9 18		
5 31	19 30.20	-23 34.4	2.361	3.197	12.0	22.1	5 31	19 28.22	-15 49.0	1.347	2.208	17.9	18.2
6 10	19 24.69	-23 54.7	2.286	3.205	9.1	21.9	6 10	19 24.34	-15 19.6	1.279	2.208	14.0	18.0
6 20	19 17.29	-24 17.0	2.234	3.213	5.9	21.7	6 20	19 17.62	-14 59.4	1.230	2.208	9.6	17.7
6 30	19 8.55	-24 38.8	2.209	3.220	2.3	21.5	6 30	19 8.83	-14 48.9	1.204	2.210	5.2	17.5
7 10	18 59.29	-24 57.9	2.213	3.227	1.6	21.5	7 10	18 59.21	-14 47.5	1.201	2.211	4.0	17.4
7 20	18 50.36	-25 12.6	2.245	3.233	5.0	21.7	7 20	18 50.08	-14 54.3	1.222	2.213	7.8	17.6
7 30	18 42.59	-25 22.5	2.304	3.239	8.3	21.9	7 30	18 42.74	-15 7.4	1.266	2.216	12.3	17.9
8 9	18 36.63	-25 27.8	2.388	3.244	11.2	22.1	8 9	18 38.10	-15 24.8	1.331	2.219	16.3	18.1
34383	2000 RH ₅₆		7 6.3 3°91	1°9/ 6.1 18			438105	2005 GO ₂₂		7 6.3 288°67	0°7/ 6.2 15 R		
5 31	19 29.45	-28 23.4	1.887	2.739	13.9	18.5	5 31	19 51.35	-22 22.6	1.954	2.758	15.3	23.2
6 10	19 24.64	-28 20.2	1.812	2.739	10.7	18.3	6 10	19 42.86	-22 51.4	1.796	2.697	12.2	22.9
6 20	19 17.47	-28 14.5	1.759	2.739	7.0	18.0	6 20	19 30.51	-23 26.7	1.661	2.632	8.3	22.5
6 30	19 8.66	-28 3.6	1.731	2.740	3.2	17.8	6 30	19 14.47	-24 4.3	1.554	2.564	3.4	22.0
7 10	18 59.24	-27 46.0	1.729	2.741	2.6	17.8	7 10	18 55.60	-24 37.9	1.479	2.493	2.3	21.8
7 20	18 50.28	-27 21.3	1.754	2.742	6.2	18.0	7 20	18 35.42	-25 2.0	1.436	2.418	8.1	22.0
7 30	18 42.82	-26 50.7	1.804	2.744	9.9	18.2	7 30	18 15.93	-25 13.7	1.424	2.339	13.8	22.1
8 9	18 37.62	-26 16.6	1.877	2.746	13.2	18.4	8 9	17 59.00	-25 14.3	1.438	2.256	19.1	22.2
433761	2015 BD ₁₈		7 6.3 60°55	1°5/ 6.1 17			165026	2000 DJ ₉		7 6.4 289°04	2°2/ 6.9 18		
5 31	19 31.83	-26 14.1	1.566	2.425	15.9	21.3	5 31	19 27.02	-16 3.8	1.892	2.735	14.2	20.4
6 10	19 26.80	-26 19.1	1.501	2.432	12.2	21.0	6 10	19 22.81	-16 6.7	1.806	2.726	11.1	20.2
6 20	19 19.02	-26 23.9	1.456	2.439	7.9	20.8	6 20	19 16.39	-16 17.8	1.741	2.717	7.5	19.9
6 30	19 9.30	-26 25.4	1.435	2.446	3.4	20.6	6 30	19 8.32	-16 36.3	1.700	2.707	3.7	19.7
7 10	18 58.88	-26 20.8	1.439	2.453	2.5	20.5	7 10	18 59.49	-17 0.6	1.686	2.698	2.5	19.6
7 20	18 49.07	-26 9.4	1.470	2.460	6.8	20.8	7 20	18 50.88	-17 28.5	1.699	2.689	6.1	19.8
7 30	18 41.08	-25 51.9	1.524	2.468	11.1	21.1	7 30	18 43.49	-17 58.1	1.736	2.680	9.9	20.0
8 9	18 35.74	-25 30.5	1.601	2.475	14.8	21.3	8 9	18 38.13	-18 27.6	1.797	2.672	13.4	20.2
210437	2008 YR ₃₈		7 6.3 165°79	3°2/ 7.2 17			195053	2002 CE ₇₄		7 6.4 67°63	6°3/ 5.7 18		
5 31	19 27.80	-13 21.4	2.189	3.015	13.1	20.7	5 31	19 36.46	-38 7.2	1.679	2.521	15.8	19.6
6 10	19 22.93	-13 5.5	2.110	3.018	10.3	20.5	6 10	19 30.45	-38 32.4	1.618	2.530	12.6	19.4
6 20	19 16.19	-12 57.5	2.053	3.020	7.2	20.3	6 20	19 21.39	-38 47.5	1.577	2.539	9.3	19.2
6 30	19 8.14	-12 57.4	2.022	3.022	4.2	20.1	6 30	19 10.25	-38 46.6	1.560	2.549	6.8	19.1
7 10	18 59.54	-13 4.7	2.017	3.023	3.4	20.1	7 10	18 58.45	-38 26.0	1.568	2.558	6.6	19.1
7 20	18 51.24	-13 18.3	2.040	3.025	5.8	20.2	7 20	18 47.48	-37 45.9	1.601	2.568	8.9	19.3
7 30	18 44.04	-13 36.8	2.090	3.026	9.0	20.4	7 30	18 38.64	-36 50.1	1.659	2.577	12.0	19.5
8 9	18 38.60	-13 58.6	2.163	3.027	11.9	20.6	8 9	18 32.79	-35 44.4	1.738	2.587	15.0	19.7
37158	2000 VV ₆₁		7 6.3 345°46	16°0/ 7.5 18			170964	2005 CP ₈		7 6.4 182°00	0°7/ 6.2 17		
5 31	19 50.86	-58 27.1	1.380	2.169	2								

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7 6.4

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
179355	2001 <i>XF</i> ₁₃₈		7 6.4 166°58	3°3/ 7.1 18			168897	2000 <i>WA</i> ₁₃₆		7 6.4 205°65	0°8/ 6.6 18		
5 31	19 27.10	-13 25.7	2.329	3.153	12.5	20.6	5 31	19 32.17	-19 1.7	1.770	2.613	15.1	20.8
6 10	19 22.30	-12 58.8	2.248	3.155	9.9	20.4	6 10	19 26.93	-19 18.8	1.687	2.609	11.7	20.5
6 20	19 15.75	-12 38.6	2.190	3.156	6.9	20.2	6 20	19 19.15	-19 43.0	1.626	2.604	7.6	20.3
6 30	19 7.98	-12 25.7	2.158	3.157	4.2	20.0	6 30	19 9.46	-20 12.1	1.589	2.599	3.2	20.0
7 10	18 59.73	-12 20.0	2.153	3.158	3.5	20.0	7 10	18 58.90	-20 43.0	1.579	2.593	1.8	19.9
7 20	18 51.75	-12 20.9	2.176	3.159	5.7	20.1	7 20	18 48.61	-21 13.0	1.596	2.587	6.3	20.2
7 30	18 44.81	-12 27.6	2.226	3.159	8.6	20.3	7 30	18 39.76	-21 40.3	1.638	2.580	10.6	20.4
8 9	18 39.51	-12 38.8	2.299	3.160	11.4	20.5	8 9	18 33.26	-22 4.1	1.704	2.573	14.3	20.6
182961	2002 <i>JU</i> ₁₁₆		7 6.4 36°70	4°0/ 4.4 18			142457	2002 <i>TX</i> ₄		7 6.4 220°14	3°5/ 5.3 18		
5 31	19 29.13	-29 6.2	2.048	2.896	13.1	19.2	5 31	19 33.30	-29 20.2	1.829	2.677	14.5	19.8
6 10	19 24.49	-30 35.2	1.980	2.903	10.1	19.0	6 10	19 27.98	-30 7.7	1.747	2.671	11.2	19.5
6 20	19 17.50	-32 5.7	1.935	2.910	6.9	18.9	6 20	19 19.93	-30 55.3	1.687	2.664	7.6	19.3
6 30	19 8.78	-33 31.3	1.917	2.918	4.3	18.7	6 30	19 9.81	-31 37.6	1.652	2.657	4.3	19.1
7 10	18 59.25	-34 46.3	1.927	2.926	4.5	18.8	7 10	18 58.71	-32 9.7	1.644	2.650	4.1	19.1
7 20	18 49.96	-35 46.6	1.964	2.934	7.2	18.9	7 20	18 47.89	-32 28.5	1.662	2.642	7.4	19.3
7 30	18 42.00	-36 30.5	2.026	2.942	10.3	19.1	7 30	18 38.64	-32 33.9	1.706	2.633	11.2	19.5
8 9	18 36.20	-36 59.3	2.111	2.951	13.1	19.3	8 9	18 31.92	-32 27.9	1.771	2.625	14.6	19.7
147212	2002 <i>WW</i> ₈		7 6.4 226°78	0°9/ 6.1 18			140974	2001 <i>VW</i> ₁₂₀		7 6.4 213°54	2°4/ 5.4 18		
5 31	19 32.05	-23 46.1	1.930	2.773	14.0	21.2	5 31	19 28.71	-27 36.0	2.446	3.286	11.5	20.3
6 10	19 26.75	-24 7.2	1.841	2.764	10.7	21.0	6 10	19 23.76	-28 22.3	2.361	3.282	8.8	20.1
6 20	19 18.99	-24 31.3	1.774	2.754	7.0	20.8	6 20	19 16.85	-29 9.5	2.301	3.278	5.8	20.0
6 30	19 9.38	-24 55.2	1.733	2.744	2.8	20.5	6 30	19 8.50	-29 54.1	2.267	3.273	3.0	19.8
7 10	18 58.90	-25 16.0	1.719	2.733	2.0	20.4	7 10	18 59.48	-30 32.4	2.261	3.269	2.9	19.7
7 20	18 48.65	-25 31.3	1.732	2.721	6.2	20.6	7 20	18 50.65	-31 2.3	2.284	3.264	5.6	19.9
7 30	18 39.76	-25 40.3	1.772	2.709	10.2	20.9	7 30	18 42.89	-31 22.8	2.333	3.259	8.7	20.1
8 9	18 33.11	-25 43.7	1.834	2.697	13.7	21.1	8 9	18 36.90	-31 34.4	2.406	3.254	11.4	20.3
498116	2007 <i>SD</i> ₃		7 6.4 273°24	5°8/ 5.1 17			476229	2007 <i>VZ</i> ₂₀		7 6.4 277°65	2°1/ 6.9 18		
5 31	19 35.45	-33 42.9	1.497	2.352	16.7	21.2	5 31	19 27.78	-16 26.7	1.997	2.836	13.7	21.7
6 10	19 30.53	-34 27.6	1.408	2.332	13.3	21.0	6 10	19 23.39	-16 23.3	1.900	2.817	10.8	21.4
6 20	19 22.09	-35 8.9	1.339	2.312	9.6	20.7	6 20	19 16.80	-16 27.1	1.824	2.799	7.3	21.2
6 30	19 10.80	-35 39.2	1.293	2.291	6.4	20.4	6 30	19 8.54	-16 37.4	1.773	2.779	3.6	20.9
7 10	18 58.03	-35 51.6	1.271	2.270	6.3	20.4	7 10	18 59.45	-16 52.9	1.748	2.760	2.5	20.8
7 20	18 45.50	-35 42.8	1.274	2.249	9.7	20.5	7 20	18 50.48	-17 12.2	1.751	2.741	6.0	21.0
7 30	18 34.99	-35 14.2	1.300	2.228	13.9	20.7	7 30	18 42.63	-17 33.6	1.779	2.721	9.9	21.2
8 9	18 27.79	-34 30.7	1.346	2.206	17.9	20.9	8 9	18 36.74	-17 55.9	1.831	2.702	13.4	21.3
87295	2000 <i>PT</i> ₂₀		7 6.4 279°91	2°2/ 5.6 18			257428	2010 <i>LH</i> ₃₈		7 6.4 342°83	0°2/ 6.3 18		
5 31	19 29.93	-25 26.2	1.730	2.586	14.8	19.6	5 31	19 22.90	-21 48.1	1.460	2.334	16.0	20.0
6 10	19 25.55	-26 11.7	1.641	2.570	11.4	19.3	6 10	19 20.41	-22 6.2	1.378	2.318	12.4	19.8
6 20	19 18.46	-27 1.3	1.574	2.555	7.5	19.1	6 20	19 15.23	-22 30.5	1.316	2.303	8.0	19.5
6 30	19 9.25	-27 50.5	1.530	2.540	3.5	18.8	6 30	19 8.00	-22 58.5	1.277	2.289	3.2	19.1
7 10	18 58.95	-28 34.4	1.513	2.525	3.1	18.7	7 10	18 59.77	-23 26.6	1.262	2.277	1.9	19.0
7 20	18 48.80	-29 9.0	1.523	2.509	7.1	18.9	7 20	18 51.80	-23 52.0	1.271	2.266	7.0	19.3
7 30	18 40.11	-29 32.8	1.557	2.494	11.4	19.1	7 30	18 45.38	-24 12.5	1.303	2.256	11.7	19.6
8 9	18 33.89	-29 46.3	1.612	2.479	15.1	19.3	8 9	18 41.50	-24 27.6	1.355	2.248	15.8	19.8
126560	2002 <i>CD</i> ₁₀₅		7 6.4 65°65	2°1/ 6.9 17			71121	1999 <i>XY</i> ₁₆₃		7 6.4 138°53	0°0/ 6.1 18		
5 31	19 28.24	-15 54.0	1.731	2.576	15.2	19.7	5 31	19 30.26	-22 32.1	2.017	2.860	13.5	18.6
6 10	19 23.80	-16 3.3	1.659	2.580	11.8	19.5	6 10	19 25.05	-22 34.3	1.942	2.865	10.3	18.4
6 20	19 17.02	-16 22.0	1.608	2.585	7.9	19.3	6 20	19 17.69	-22 38.9	1.890	2.870	6.6	18.2
6 30	19 8.57	-16 48.6	1.581	2.589	3.8	19.0	6 30	19 8.82	-22 43.9	1.863	2.874	2.6	17.9
7 10	18 59.42	-17 21.0	1.581	2.593	2.5	18.9	7 10	18 59.36	-22 47.6	1.864	2.879	1.5	17.8
7 20	18 50.64	-17 56.3	1.606	2.598	6.2	19.2	7 20	18 50.30	-22 48.9	1.892	2.883	5.5	18.1
7 30	18 43.27	-18 32.1	1.657	2.602	10.2	19.4	7 30	18 42.58	-22 47.4	1.947	2.887	9.3	18.4
8 9	18 38.12	-19 6.5	1.731	2.607	13.8	19.7	8 9	18 36.90	-22 43.6	2.024	2.891	12.5	18.6
510455	2011 <i>WW</i> ₃₁		7 6.4 152°17	2°9/ 5.4 18			304771	2007 <i>EX</i> ₁₄₉		7 6.4 0°69	0°7/ 6.5 17		
5 31	19 29.50	-32 31.3	3.063	3.891	9.7	23.4	5 31	19 23.47	-19 14.4	0.896	1.795	21.3	20.3
6 10	19 23.87	-32 58.0	2.989	3.899	7.6	23.3	6 10	19 21.97	-19 34.7	0.839	1.791	16.5	20.0
6 20	19 16.64	-33 21.6	2.939	3.907	5.2	23.1	6 20	19 16.76	-20 8.0	0.798	1.789	10.8	19.7
6 30	19 8.32	-33 39.2	2.916	3.915	3.2	23.0	6 30	19 8.71	-20 50.9	0.776	1.789	4.4	19.3
7 10	18 59.58	-33 48.8	2.922	3.922	3.2	23.0	7 10	18 59.40	-21 38.1	0.775	1.790	2.4	19.2
7 20	18 51.12	-33 49.6	2.957	3.929	5.0	23.1	7 20	18 50.71	-22 23.6	0.793	1.793	8.9	19.6
7 30	18 43.65	-33 41.9	3.020	3.935	7.3	23.3	7 30	18 44.43	-23 3.2	0.831	1.797	14.8	19.9
8 9	18 37.70	-33 27.1	3.107	3.941	9.5	23.5	8 9	18 41.76	-23 35.1	0.887	1.802	19.8	20.2
17859	<i>Galinaryabova</i>		7 6.4 356°12	3°6/ 5.0 18			522965	2016 <i>PO</i> ₁₁₅		7 6.4 17°11	1°3/ 6.7 17		
5 31	19 28.23	-29 46.9	2.022	2.873	13.1	17.0	5 31	19 26.99	-18 46.2	1.433	2.297	16.8	21.2
6 10	19 23.81	-30 42.4	1.947	2.872	10.2	16.8	6 10	19 23.31	-18 53.5	1.367	2.300	13.0	20.9
6 20	19 17.06	-31 37.7	1.894	2.871	6.9	16.6	6 20	19 16.93	-19 8.9	1.322	2.304	8.5	20.7
6 30	19 8.61	-32 27.9	1.867	2.870	4.1	16.4	6 30	19 8.61	-19 30.5	1.299	2.309	3.6	20.4
7 10	18 59.39	-33 8.7	1.867	2.870	4.1	16.4	7 10	18 59.50	-19 55.5	1.300	2.315	2.1	20.3
7 20	18 50.45	-33 37.1	1.893	2.870	6.9	16.6	7 20	18 50.87	-20 21.1	1.327	2.321	6.8	20.7
7 30	18 42.86	-33 52.7	1.944	2.870	10.1	16.8	7 30	18 43.95	-20 45.3	1.377	2.328	11.4	20.9
8 9	18 37.43	-33 56.7	2.018	2.870	13.1	17.0	8 9	18 39.59	-21 6.9	1.447	2.335	15.3	21.2
12659	<i>Schlegel</i>		7 6.4 258°50										

EPHEMERIDES

7 6.4

7 6.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
457761	2009 <i>JT</i> ₃		7 6.4	6°20	2.7/ 7.3	17	82122	2001 <i>FR</i> ₇₇		7 6.4	146°78	4°8/ 7.7	18
5 31	19 22.16	-14 9.3	0.992	1.879	20.7	19.9	5 31	19 30.18	-10 14.4	1.710	2.538	16.1	20.0
6 10	19 20.55	-14 41.1	0.934	1.878	16.2	19.6	6 10	19 25.26	-9 58.3	1.638	2.543	12.9	19.8
6 20	19 15.63	-15 32.7	0.894	1.880	10.9	19.3	6 20	19 17.98	-9 55.1	1.586	2.548	9.3	19.6
6 30	19 8.22	-16 41.8	0.873	1.883	5.3	19.0	6 30	19 9.02	-10 5.4	1.558	2.553	6.0	19.4
7 10	18 59.71	-18 2.2	0.873	1.887	3.2	18.9	7 10	18 59.36	-10 28.4	1.555	2.557	5.0	19.3
7 20	18 51.73	-19 26.3	0.895	1.893	8.3	19.2	7 20	18 50.08	-11 1.9	1.579	2.561	7.4	19.5
7 30	18 45.87	-20 46.7	0.937	1.901	13.7	19.5	7 30	18 42.22	-11 43.1	1.627	2.565	10.9	19.7
8 9	18 43.21	-21 58.2	0.998	1.910	18.4	19.9	8 9	18 36.59	-12 28.5	1.698	2.568	14.3	19.9
119810	2002 <i>AA</i> ₁₅₆		7 6.4	136°38	3°5/ 5.5	18	508969	2004 <i>VH</i> ₆₉		7 6.4	244°25	0°9/ 6.1	17
5 31	19 30.59	-33 9.8	2.415	3.251	11.8	19.8	5 31	19 30.24	-23 38.7	2.054	2.897	13.2	22.2
6 10	19 25.15	-33 32.9	2.341	3.255	9.2	19.6	6 10	19 25.29	-24 4.1	1.962	2.885	10.2	22.0
6 20	19 17.68	-33 51.9	2.290	3.259	6.4	19.5	6 20	19 18.05	-24 32.9	1.893	2.873	6.6	21.8
6 30	19 8.82	-34 3.1	2.265	3.264	4.0	19.3	6 30	19 9.09	-25 2.0	1.850	2.861	2.7	21.5
7 10	18 59.42	-34 4.1	2.268	3.267	3.9	19.3	7 10	18 59.29	-25 28.3	1.834	2.848	1.9	21.4
7 20	18 50.41	-33 54.2	2.298	3.271	6.1	19.5	7 20	18 49.68	-25 49.5	1.845	2.834	5.9	21.7
7 30	18 42.67	-33 34.2	2.355	3.275	8.8	19.6	7 30	18 41.28	-26 4.5	1.883	2.821	9.7	21.9
8 9	18 36.86	-33 6.3	2.435	3.279	11.4	19.8	8 9	18 34.95	-26 13.5	1.944	2.807	13.1	22.1
336469	2008 <i>VS</i> ₉		7 6.4	244°86	6°0/ 8.3	18	21154	1993 <i>NS</i> ₁		7 6.4	286°24	0°9/ 6.7	18
5 31	19 27.60	-4 45.7	2.185	2.982	14.1	21.2	5 31	19 26.69	-18 6.1	2.328	3.164	12.1	19.2
6 10	19 22.98	-4 29.0	2.089	2.968	11.7	21.0	6 10	19 22.37	-18 26.6	2.221	3.139	9.4	18.9
6 20	19 16.41	-4 26.1	2.013	2.953	9.1	20.8	6 20	19 16.09	-18 53.9	2.136	3.113	6.2	18.7
6 30	19 8.38	-4 38.7	1.962	2.938	6.8	20.6	6 30	19 8.31	-19 26.5	2.077	3.087	2.7	18.4
7 10	18 59.63	-5 6.8	1.937	2.922	6.1	20.5	7 10	18 59.73	-20 2.3	2.046	3.060	1.6	18.3
7 20	18 50.98	-5 49.1	1.939	2.906	7.5	20.6	7 20	18 51.16	-20 38.9	2.043	3.034	5.2	18.5
7 30	18 43.30	-6 42.9	1.966	2.889	10.2	20.7	7 30	18 43.50	-21 14.4	2.067	3.007	8.8	18.7
8 9	18 37.33	-7 44.3	2.018	2.872	13.0	20.9	8 9	18 37.51	-21 47.4	2.115	2.981	12.1	18.8
12476	1997 <i>EU</i> ₂		7 6.4	133°22	0°0/ 6.2	18	117748	2005 <i>GC</i> ₄₄		7 6.4	123°95	1°5/ 6.7	18
5 31	19 32.78	-21 17.4	1.780	2.624	14.9	18.9	5 31	19 29.26	-18 41.1	2.084	2.922	13.3	20.0
6 10	19 27.22	-21 38.8	1.712	2.635	11.4	18.7	6 10	19 24.18	-18 28.3	2.010	2.928	10.2	19.8
6 20	19 19.21	-22 5.1	1.665	2.645	7.3	18.5	6 20	19 17.09	-18 20.0	1.958	2.934	6.7	19.6
6 30	19 9.47	-22 33.2	1.644	2.655	2.9	18.2	6 30	19 8.63	-18 15.3	1.932	2.940	3.1	19.4
7 10	18 59.05	-23 0.1	1.650	2.664	1.7	18.1	7 10	18 59.62	-18 13.4	1.933	2.946	2.0	19.3
7 20	18 49.09	-23 23.2	1.682	2.673	6.1	18.4	7 20	18 51.00	-18 13.4	1.961	2.951	5.4	19.6
7 30	18 40.69	-23 41.5	1.741	2.682	10.1	18.7	7 30	18 43.62	-18 14.8	2.016	2.957	9.0	19.8
8 9	18 34.63	-23 55.1	1.822	2.689	13.6	18.9	8 9	18 38.14	-18 17.1	2.095	2.962	12.1	20.0
435779	2008 <i>UX</i> ₃₀₈		7 6.4	120°59	0°9/ 6.5	17	246679	2008 <i>YE</i> ₁₅₉		7 6.4	219°99	2°4/ 5.8	17
5 31	19 30.71	-20 57.1	1.977	2.819	13.8	21.1	5 31	19 30.32	-28 2.5	2.065	2.910	13.1	21.3
6 10	19 25.37	-20 41.1	1.904	2.825	10.5	20.9	6 10	19 25.29	-28 28.4	1.984	2.908	10.1	21.1
6 20	19 17.88	-20 27.8	1.853	2.832	6.9	20.7	6 20	19 17.99	-28 53.9	1.926	2.905	6.7	20.8
6 30	19 8.91	-20 16.2	1.828	2.838	2.9	20.5	6 30	19 9.04	-29 15.4	1.894	2.902	3.3	20.6
7 10	18 59.40	-20 5.3	1.830	2.845	1.7	20.4	7 10	18 59.37	-29 29.8	1.889	2.899	2.9	20.6
7 20	18 50.31	-19 54.7	1.860	2.851	5.6	20.7	7 20	18 50.03	-29 35.5	1.911	2.895	6.2	20.8
7 30	18 42.60	-19 44.6	1.915	2.856	9.3	20.9	7 30	18 42.03	-29 32.3	1.959	2.892	9.6	21.0
8 9	18 36.96	-19 35.0	1.994	2.862	12.6	21.1	8 9	18 36.15	-29 21.9	2.030	2.888	12.8	21.2
505748	2015 <i>BG</i> ₈₈		7 6.4	180°96	1°9/ 6.9	17	496211	2011 <i>UZ</i> ₈₂		7 6.4	13°93	4°0/ 6.7	17
5 31	19 31.13	-16 42.9	1.943	2.778	14.2	22.4	5 31	19 28.70	-17 59.9	1.018	1.900	20.7	20.6
6 10	19 25.82	-16 46.7	1.863	2.779	11.1	22.2	6 10	19 25.40	-17 1.8	0.962	1.903	16.2	20.3
6 20	19 18.28	-16 57.9	1.805	2.780	7.4	21.9	6 20	19 18.64	-16 10.5	0.922	1.906	11.0	20.0
6 30	19 9.12	-17 15.2	1.772	2.780	3.5	21.7	6 30	19 9.39	-15 27.9	0.902	1.910	5.8	19.7
7 10	18 59.25	-17 36.8	1.766	2.779	2.3	21.6	7 10	18 59.21	-14 55.5	0.905	1.916	4.5	19.7
7 20	18 49.70	-18 0.7	1.788	2.778	5.9	21.8	7 20	18 49.79	-14 33.9	0.928	1.922	9.1	20.0
7 30	18 41.46	-18 25.2	1.836	2.777	9.7	22.1	7 30	18 42.70	-14 22.9	0.973	1.930	14.2	20.3
8 9	18 35.30	-18 49.1	1.908	2.774	13.1	22.3	8 9	18 38.91	-14 20.7	1.036	1.938	18.8	20.6
207804	2007 <i>TQ</i> ₂₃₁		7 6.4	3°72	1°2/ 6.0	16	347874	2002 <i>TU</i> ₃		7 6.4	312°82	3°4/ 5.6	17
5 31	19 28.66	-24 25.1	1.923	2.774	13.7	21.0	5 31	19 28.21	-27 13.9	1.298	2.173	17.5	20.1
6 10	19 24.09	-24 48.8	1.847	2.774	10.5	20.8	6 10	19 25.25	-27 53.3	1.208	2.148	13.7	19.8
6 20	19 17.22	-25 14.8	1.792	2.774	6.8	20.6	6 20	19 18.88	-28 36.4	1.138	2.123	9.2	19.4
6 30	19 8.71	-25 40.3	1.763	2.774	2.8	20.3	6 30	19 9.69	-29 17.5	1.089	2.098	4.6	19.1
7 10	18 59.50	-26 2.0	1.760	2.774	2.1	20.3	7 10	18 58.93	-29 50.2	1.064	2.074	4.2	19.0
7 20	18 50.63	-26 17.9	1.785	2.774	6.0	20.5	7 20	18 48.24	-30 9.8	1.061	2.051	9.0	19.2
7 30	18 43.12	-26 27.5	1.835	2.775	9.7	20.8	7 30	18 39.42	-30 14.9	1.081	2.028	14.2	19.4
8 9	18 37.74	-26 31.0	1.907	2.775	13.1	21.0	8 9	18 33.85	-30 7.5	1.119	2.006	18.8	19.6
336273	2008 <i>SF</i> ₂₁₈		7 6.4	316°17	3°9/ 5.9	18	64109	2001 <i>TW</i> ₈		7 6.4	185°06	3°4/ 5.5	18
5 31	19 30.62	-31 34.5	1.462	2.327	16.5	19.3	5 31	19 32.90	-30 8.2	1.919	2.764	14.0	18.9
6 10	19 26.71	-31 41.8	1.371	2.303	13.0	19.1	6 10	19 27.48	-30 46.0	1.842	2.764	10.8	18.7
6 20	19 19.54	-31 44.1	1.299	2.279	9.0	18.8	6 20	19 19.51	-31 22.3	1.788	2.764	7.3	18.5
6 30	19 9.82	-31 36.4	1.250	2.256	5.0	18.5	6 30	19 9.68	-31 52.3	1.759	2.763	4.2	18.3
7 10	18 58.83	-31 14.6	1.225	2.233	4.5	18.4	7 10	18 59.05	-32 12.0	1.757	2.763	3.9	18.3
7 20	18 48.14	-30 37.7	1.224	2.211	8.4	18.5	7 20	18 48.80	-32 19.2	1.782	2.761	7.0	18.5
7 30	18 39.33	-29 48.0	1.246	2.190	13.0	18.7	7 30	18 40.08	-32 14.4	1.832	2.760	10.5	18.7
8 9	18 33.57	-28 50.0	1.289	2.169	17.3	18.9	8 9	18 33.77	-31 59.8	1.905	2.758	13.7	18.9
340282	2006 <i>BD</i> ₂₆₁		7 6.4	325°46	5°1/ 5.6	18	383947	2008 <i>SF</i> ₂₇₂		7 6.4			

EPHEMERIDES

7 6.4

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
251871	1999 VE ₁₈		7 6.4 12 ^o 01	9 ^o 1/ 8.0 16			237525	2000 SB ₂₅₇		7 6.4 231 ^o 09	2 ^o 2/ 5.8 18		
5 31	19 24.49	- 2 22.1	1.747	2.556	16.6	19.4	5 31	19 31.51	-26 58.4	1.973	2.819	13.6	21.0
6 10	19 20.82	- 1 3.7	1.682	2.560	14.1	19.3	6 10	19 26.38	-27 27.8	1.888	2.812	10.5	20.8
6 20	19 15.07	- 0 1.0	1.636	2.564	11.6	19.1	6 20	19 18.82	-27 58.1	1.825	2.804	6.9	20.6
6 30	19 7.87	+ 0 41.5	1.612	2.569	9.6	19.0	6 30	19 9.45	-28 25.4	1.787	2.796	3.3	20.3
7 10	19 0.10	+ 1 1.6	1.612	2.575	9.1	19.0	7 10	18 59.24	-28 46.2	1.776	2.787	2.8	20.3
7 20	18 52.69	+ 0 59.0	1.635	2.582	10.3	19.1	7 20	18 49.29	-28 58.3	1.793	2.778	6.4	20.5
7 30	18 46.55	+ 0 36.3	1.680	2.589	12.4	19.2	7 30	18 40.72	-29 1.3	1.835	2.769	10.1	20.7
8 9	18 42.38	- 0 2.3	1.747	2.598	14.9	19.4	8 9	18 34.37	-28 56.5	1.900	2.759	13.5	20.9
314684	2006 QC ₁₅₆		7 6.4 96 ^o 43	3 ^o 2/ 5.9 17			482117	2010 NQ ₇₇		7 6.4 240 ^o 95	8 ^o 5/ 30.9 18		
5 31	19 35.01	-29 26.6	1.503	2.360	16.6	20.7	5 31	19 41.57	-55 19.7	3.346	4.090	10.7	22.7
6 10	19 29.49	-29 45.0	1.440	2.369	12.8	20.5	6 10	19 34.22	-56 35.9	3.262	4.071	9.6	22.5
6 20	19 20.93	-30 0.7	1.398	2.377	8.5	20.3	6 20	19 24.03	-57 40.8	3.200	4.051	8.8	22.5
6 30	19 10.25	-30 8.9	1.379	2.386	4.4	20.1	6 30	19 11.60	-58 28.3	3.162	4.031	8.5	22.4
7 10	18 58.79	-30 6.1	1.385	2.394	3.8	20.1	7 10	18 57.98	-58 54.1	3.149	4.010	8.7	22.4
7 20	18 48.04	-29 51.3	1.417	2.403	7.6	20.3	7 20	18 44.48	-58 56.5	3.160	3.988	9.5	22.4
7 30	18 39.33	-29 26.2	1.473	2.411	11.8	20.6	7 30	18 32.42	-58 36.5	3.194	3.965	10.6	22.5
8 9	18 33.55	-28 54.2	1.550	2.419	15.5	20.8	8 9	18 22.86	-57 58.0	3.248	3.943	11.8	22.6
268950	2007 DJ ₅₁		7 6.4 41 ^o 33	3 ^o 1/ 5.9 17	R		17595	1995 EO		7 6.4 138 ^o 72	1 ^o 7/ 6.7 18		
5 31	19 32.28	-29 26.2	1.407	2.272	17.0	20.2	5 31	19 33.08	-18 30.5	1.603	2.449	16.2	18.5
6 10	19 27.48	-29 37.5	1.350	2.283	13.1	20.0	6 10	19 27.68	-18 22.9	1.533	2.456	12.5	18.3
6 20	19 19.64	-29 45.6	1.313	2.295	8.7	19.8	6 20	19 19.65	-18 21.8	1.485	2.463	8.3	18.1
6 30	19 9.72	-29 46.4	1.299	2.307	4.4	19.6	6 30	19 9.75	-18 25.8	1.461	2.470	3.7	17.8
7 10	18 59.11	-29 36.5	1.310	2.320	3.7	19.6	7 10	18 59.12	-18 33.1	1.462	2.476	2.3	17.8
7 20	18 49.28	-29 15.7	1.345	2.333	7.6	19.8	7 20	18 49.00	-18 42.1	1.490	2.482	6.6	18.0
7 30	18 41.54	-28 45.9	1.404	2.347	11.9	20.1	7 30	18 40.55	-18 51.9	1.543	2.487	10.9	18.3
8 9	18 36.73	-28 10.4	1.484	2.361	15.6	20.4	8 9	18 34.63	-19 1.7	1.618	2.492	14.7	18.6
187312	2005 UZ ₂₇		7 6.4 181 ^o 01	0 ^o 3/ 6.3 18			408924	2001 XC ₁₉₂		7 6.4 202 ^o 60	1 ^o 3/ 6.6 17		
5 31	19 27.40	-22 51.5	2.331	3.173	11.9	21.1	5 31	19 33.57	-19 51.3	1.635	2.481	15.9	21.1
6 10	19 22.71	-23 2.6	2.251	3.173	9.1	20.9	6 10	19 28.17	-19 39.7	1.555	2.479	12.4	20.9
6 20	19 16.16	-23 16.1	2.193	3.173	5.9	20.7	6 20	19 20.06	-19 32.9	1.496	2.475	8.1	20.6
6 30	19 8.30	-23 29.9	2.162	3.173	2.3	20.4	6 30	19 9.96	-19 29.4	1.462	2.472	3.5	20.3
7 10	18 59.88	-23 42.3	2.158	3.173	1.4	20.4	7 10	18 58.99	-19 27.7	1.453	2.468	2.1	20.2
7 20	18 51.74	-23 51.8	2.183	3.173	5.0	20.6	7 20	18 48.41	-19 26.7	1.471	2.463	6.7	20.5
7 30	18 44.69	-23 58.0	2.234	3.173	8.3	20.8	7 30	18 39.45	-19 25.9	1.514	2.458	11.2	20.7
8 9	18 39.38	-24 0.8	2.309	3.173	11.2	21.0	8 9	18 33.04	-19 25.5	1.579	2.452	15.1	21.0
352436	2008 AK ₂₁		7 6.4 169 ^o 88	2 ^o 3/ 5.8 18			498140	2007 TN ₅₆		7 6.4 242 ^o 12	3 ^o 6/ 5.5 17		
5 31	19 30.49	-29 44.9	2.638	3.471	11.0	21.7	5 31	19 35.38	-29 33.0	1.764	2.610	15.0	22.2
6 10	19 24.88	-30 1.7	2.558	3.474	8.4	21.5	6 10	19 29.86	-30 12.9	1.673	2.595	11.7	22.0
6 20	19 17.47	-30 16.4	2.503	3.477	5.6	21.4	6 20	19 21.38	-30 52.6	1.603	2.579	8.0	21.7
6 30	19 8.79	-30 26.1	2.474	3.479	3.0	21.2	6 30	19 10.58	-31 26.8	1.557	2.562	4.4	21.5
7 10	18 59.62	-30 28.9	2.474	3.481	2.7	21.2	7 10	18 58.59	-31 50.3	1.539	2.545	4.2	21.4
7 20	18 50.76	-30 24.0	2.502	3.483	5.2	21.3	7 20	18 46.79	-31 59.9	1.546	2.527	7.7	21.6
7 30	18 43.01	-30 11.7	2.558	3.484	8.0	21.5	7 30	18 36.60	-31 55.7	1.579	2.508	11.8	21.8
8 9	18 36.97	-29 53.5	2.638	3.484	10.6	21.7	8 9	18 29.10	-31 40.3	1.634	2.489	15.5	22.0
398477	2011 UA ₁₃₇		7 6.4 334 ^o 12	3 ^o 1/ 6.9 18			345958	2007 SS ₁₉		7 6.4 200 ^o 50	2 ^o 2/ 5.8 18		
5 31	19 27.12	-15 3.5	2.035	2.871	13.6	20.9	5 31	19 30.43	-27 52.9	2.189	3.031	12.6	21.5
6 10	19 22.66	-14 34.3	1.954	2.868	10.7	20.7	6 10	19 25.26	-28 18.2	2.108	3.029	9.7	21.3
6 20	19 16.21	-14 11.5	1.895	2.866	7.4	20.5	6 20	19 17.94	-28 43.0	2.049	3.027	6.4	21.1
6 30	19 8.34	-13 55.6	1.861	2.863	4.2	20.3	6 30	19 9.07	-29 4.1	2.017	3.025	3.1	20.8
7 10	18 59.88	-13 46.4	1.854	2.861	3.3	20.3	7 10	18 59.52	-29 18.6	2.012	3.022	2.7	20.8
7 20	18 51.72	-13 43.7	1.873	2.859	6.1	20.4	7 20	18 50.28	-29 24.9	2.035	3.019	5.9	21.0
7 30	18 44.74	-13 46.7	1.918	2.858	9.4	20.6	7 30	18 42.30	-29 22.9	2.085	3.016	9.2	21.2
8 9	18 39.61	-13 54.0	1.987	2.856	12.6	20.8	8 9	18 36.33	-29 14.0	2.157	3.013	12.2	21.4
321965	2010 UA ₂₃		7 6.4 92 ^o 18	0 ^o 7/ 6.6 17			462826	2010 SE ₁₈		7 6.4 343 ^o 26	1 ^o 9/ 6.7 17		
5 31	19 32.45	-20 9.1	1.549	2.401	16.4	20.9	5 31	19 20.51	-19 34.4	0.928	1.829	20.5	20.8
6 10	19 27.21	-20 15.1	1.488	2.414	12.6	20.7	6 10	19 19.76	-19 20.2	0.859	1.813	16.1	20.4
6 20	19 19.33	-20 26.8	1.447	2.428	8.1	20.5	6 20	19 15.47	-19 14.7	0.807	1.798	10.7	20.1
6 30	19 9.60	-20 42.0	1.431	2.442	3.3	20.2	6 30	19 8.36	-19 17.5	0.772	1.784	4.8	19.7
7 10	18 59.20	-20 58.0	1.440	2.455	1.9	20.2	7 10	18 59.86	-19 26.5	0.758	1.773	2.9	19.5
7 20	18 49.41	-21 12.8	1.476	2.468	6.5	20.5	7 20	18 51.75	-19 39.4	0.764	1.764	8.9	19.8
7 30	18 41.38	-21 25.3	1.536	2.481	10.9	20.8	7 30	18 45.85	-19 54.0	0.788	1.756	14.9	20.1
8 9	18 35.92	-21 35.3	1.618	2.494	14.6	21.0	8 9	18 43.43	-20 8.2	0.829	1.751	20.1	20.4
286894	2002 PF ₃₈		7 6.4 287 ^o 89	0 ^o 2/ 6.4 18			187839	1999 VD ₁₈₄		7 6.4 305 ^o 41	5 ^o 1/ 7.4 18		
5 31	19 30.29	-21 32.7	1.512	2.371	16.4	21.4	5 31	19 25.20	- 9 25.5	2.106	2.928	13.7	19.8
6 10	19 26.18	-21 38.1	1.419	2.350	12.7	21.1	6 10	19 21.25	- 8 49.0	2.011	2.911	11.2	19.6
6 20	19 19.11	-21 48.7	1.346	2.329	8.4	20.8	6 20	19 15.38	- 8 22.0	1.938	2.894	8.4	19.4
6 30	19 9.70	-22 2.2	1.296	2.308	3.4	20.4	6 30	19 8.07	- 8 6.2	1.889	2.877	5.9	19.2
7 10	18 59.04	-22 15.9	1.271	2.286	1.9	20.2	7 10	19 0.07	- 8 2.4	1.866	2.860	5.2	19.2
7 20	18 48.52	-22 27.2	1.271	2.265	7.2	20.5	7 20	18 52.21	- 8 10.3	1.869	2.844	7.1	19.3
7 30	18 39.56	-22 35.2	1.295	2.243	12.2	20.7	7 30	18 45.36	- 8 28.6	1.897	2.828	10.0	19.4
8 9	18 33.31	-22 39.8	1.340	2.222	16.7	21.0	8 9	18 40.24	- 8 54.9	1.948	2.812	13.0	19.6
2761													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
481723	2008 <i>EO</i> ₁₆₇		7 6.4 154°10	0°8/ 6.7 18			184594	2005 <i>QV</i> ₁₄₂		7 6.4 301°99	3°4/ 5.3 18		
5 31	19 26.57	-17 56.2	2.257	3.095	12.4	21.6	5 31	19 29.95	-26 54.0	1.473	2.339	16.4	19.7
6 10	19 22.16	-18 23.2	2.176	3.095	9.6	21.4	6 10	19 26.13	-27 52.4	1.391	2.325	12.7	19.4
6 20	19 15.87	-18 56.9	2.118	3.095	6.2	21.2	6 20	19 19.21	-28 55.3	1.329	2.311	8.5	19.1
6 30	19 8.24	-19 35.4	2.085	3.095	2.7	20.9	6 30	19 9.81	-29 56.5	1.290	2.298	4.4	18.8
7 10	19 0.00	-20 16.4	2.081	3.095	1.5	20.8	7 10	18 59.13	-30 49.5	1.276	2.285	4.2	18.8
7 20	18 51.99	-20 57.1	2.104	3.095	5.0	21.1	7 20	18 48.64	-31 29.0	1.287	2.272	8.4	19.0
7 30	18 45.02	-21 35.7	2.154	3.095	8.4	21.3	7 30	18 39.88	-31 53.3	1.321	2.259	12.9	19.2
8 9	18 39.77	-22 10.7	2.228	3.095	11.5	21.5	8 9	18 34.03	-32 3.7	1.375	2.247	16.9	19.4
225062	2007 <i>HS</i> ₁₁		7 6.4 107°62	2°1/ 5.8 17			320292	2007 <i>RO</i> ₂₂₁		7 6.4 338°86	1°7/ 6.8 16 R		
5 31	19 31.37	-26 1.3	1.768	2.619	14.7	20.4	5 31	19 27.44	-18 11.5	1.731	2.582	15.0	20.8
6 10	19 26.37	-26 35.8	1.698	2.625	11.2	20.1	6 10	19 23.35	-18 4.5	1.653	2.578	11.6	20.6
6 20	19 18.83	-27 11.9	1.651	2.631	7.3	19.9	6 20	19 16.90	-18 4.0	1.595	2.574	7.7	20.3
6 30	19 9.46	-27 45.5	1.628	2.637	3.4	19.7	6 30	19 8.73	-18 8.9	1.562	2.571	3.6	20.1
7 10	18 59.34	-28 12.6	1.631	2.643	2.8	19.7	7 10	18 59.81	-18 17.9	1.554	2.567	2.3	20.0
7 20	18 49.66	-28 30.9	1.661	2.648	6.6	19.9	7 20	18 51.22	-18 29.5	1.572	2.564	6.2	20.2
7 30	18 41.55	-28 39.7	1.716	2.654	10.5	20.2	7 30	18 44.02	-18 42.2	1.615	2.562	10.3	20.4
8 9	18 35.86	-28 40.5	1.794	2.659	13.9	20.4	8 9	18 39.03	-18 55.3	1.680	2.560	14.0	20.7
67596	2000 <i>SV</i> ₁₃₉		7 6.4 76°65	2°9/ 6.0 17			344696	2003 <i>SK</i> ₃₉₂		7 6.4 207°88	0°9/ 6.1 18		
5 31	19 36.07	-28 43.1	1.354	2.215	17.8	18.4	5 31	19 29.76	-23 11.6	2.110	2.953	13.0	21.5
6 10	19 30.42	-28 56.4	1.300	2.231	13.6	18.2	6 10	19 24.82	-23 42.2	2.027	2.950	9.9	21.3
6 20	19 21.57	-29 7.2	1.266	2.247	9.0	18.0	6 20	19 17.73	-24 16.4	1.967	2.947	6.4	21.1
6 30	19 10.53	-29 10.8	1.254	2.263	4.3	17.8	6 30	19 9.05	-24 51.2	1.932	2.943	2.6	20.9
7 10	18 58.80	-29 3.7	1.268	2.279	3.6	17.7	7 10	18 59.64	-25 23.5	1.925	2.939	1.8	20.8
7 20	18 47.96	-28 45.4	1.306	2.295	7.8	18.0	7 20	18 50.47	-25 50.7	1.946	2.935	5.6	21.0
7 30	18 39.40	-28 18.1	1.368	2.310	12.2	18.3	7 30	18 42.52	-26 11.7	1.993	2.931	9.2	21.2
8 9	18 33.96	-27 45.2	1.451	2.326	16.0	18.6	8 9	18 36.55	-26 26.5	2.064	2.926	12.5	21.4
300834	2007 <i>XS</i> ₃₂		7 6.4 268°58	5°7/ 5.2 18			424530	2008 <i>EK</i> ₉₄		7 6.4 171°50	0°4/ 6.3 17		
5 31	19 34.04	-38 55.6	2.231	3.059	12.9	20.3	5 31	19 33.00	-21 36.3	1.946	2.785	14.0	22.3
6 10	19 28.32	-39 25.1	2.142	3.045	10.4	20.1	6 10	19 27.39	-22 6.8	1.868	2.789	10.8	22.1
6 20	19 20.07	-39 46.7	2.076	3.031	7.9	20.0	6 20	19 19.42	-22 42.3	1.813	2.792	6.9	21.8
6 30	19 9.97	-39 55.3	2.034	3.017	6.0	19.8	6 30	19 9.73	-23 19.4	1.783	2.794	2.8	21.6
7 10	18 59.05	-39 47.4	2.019	3.002	6.0	19.8	7 10	18 59.28	-23 54.9	1.781	2.796	1.7	21.5
7 20	18 48.49	-39 21.9	2.030	2.988	7.9	19.9	7 20	18 49.15	-24 25.9	1.807	2.797	5.9	21.8
7 30	18 39.43	-38 40.5	2.067	2.973	10.6	20.0	7 30	18 40.41	-24 51.0	1.860	2.797	9.8	22.0
8 9	18 32.74	-37 47.1	2.127	2.958	13.3	20.2	8 9	18 33.87	-25 10.1	1.935	2.797	13.2	22.2
107049	2000 <i>YZ</i> ₁₃₉		7 6.4 158°46	6°6/ 4.2 18			12133	Titulaer		7 6.4 228°55	2°1/ 5.7 18 R		
5 31	19 36.35	-40 31.0	2.285	3.105	12.8	20.1	5 31	19 28.53	-28 35.0	2.700	3.536	10.7	19.1
6 10	19 30.06	-41 36.8	2.217	3.111	10.5	20.0	6 10	19 23.50	-28 59.4	2.610	3.528	8.2	18.9
6 20	19 21.18	-42 34.8	2.172	3.117	8.3	19.8	6 20	19 16.69	-29 23.1	2.543	3.519	5.4	18.7
6 30	19 10.41	-43 18.6	2.153	3.122	6.8	19.7	6 30	19 8.59	-29 43.2	2.504	3.510	2.8	18.5
7 10	18 58.84	-43 43.8	2.160	3.126	6.9	19.8	7 10	18 59.92	-29 57.5	2.493	3.501	2.5	18.5
7 20	18 47.68	-43 48.6	2.193	3.130	8.6	19.9	7 20	18 51.43	-30 4.6	2.510	3.492	5.1	18.6
7 30	18 38.10	-43 34.5	2.251	3.134	10.8	20.0	7 30	18 43.92	-30 4.3	2.555	3.482	7.9	18.8
8 9	18 30.97	-43 5.2	2.332	3.137	13.1	20.2	8 9	18 38.02	-29 57.6	2.623	3.472	10.5	19.0
10204	Turing		7 6.4 211°11	2°2/ 7.1 18			177264	2003 <i>WQ</i> ₆₄		7 6.4 119°88	1°1/ 6.1 17		
5 31	19 27.76	-15 5.8	2.181	3.012	13.0	18.7	5 31	19 33.69	-23 45.0	1.680	2.529	15.5	20.9
6 10	19 23.11	-15 13.4	2.096	3.008	10.2	18.6	6 10	19 28.14	-24 12.3	1.615	2.541	11.8	20.7
6 20	19 16.52	-15 28.9	2.033	3.005	6.9	18.3	6 20	19 19.97	-24 42.7	1.572	2.553	7.6	20.5
6 30	19 8.52	-15 51.7	1.996	3.002	3.5	18.1	6 30	19 9.94	-25 12.5	1.554	2.564	3.1	20.2
7 10	18 59.89	-16 19.9	1.986	2.998	2.5	18.0	7 10	18 59.20	-25 37.9	1.561	2.575	2.1	20.2
7 20	18 51.48	-16 51.6	2.005	2.994	5.4	18.2	7 20	18 48.98	-25 56.4	1.596	2.586	6.5	20.5
7 30	18 44.15	-17 24.8	2.049	2.989	8.9	18.4	7 30	18 40.47	-26 7.7	1.656	2.596	10.6	20.7
8 9	18 38.58	-17 57.8	2.118	2.985	12.0	18.6	8 9	18 34.48	-26 12.4	1.738	2.606	14.2	21.0
490135	2008 <i>UY</i> ₁₂₄		7 6.4 219°48	7°5/ 3.8 15			437217	2012 <i>WZ</i> ₂₂		7 6.4 298°44	0°4/ 6.3 18		
5 31	19 35.73	-41 26.3	2.105	2.929	13.7	21.7	5 31	19 29.07	-23 25.1	1.753	2.608	14.7	21.5
6 10	19 29.98	-42 37.4	2.029	2.924	11.3	21.6	6 10	19 24.84	-23 26.9	1.659	2.588	11.4	21.3
6 20	19 21.36	-43 40.6	1.976	2.919	9.1	21.4	6 20	19 18.04	-23 31.0	1.587	2.569	7.4	21.0
6 30	19 10.55	-44 28.6	1.947	2.913	7.6	21.3	6 30	19 9.26	-23 35.2	1.538	2.550	3.0	20.7
7 10	18 58.73	-44 55.9	1.944	2.907	7.9	21.3	7 10	18 59.51	-23 37.4	1.516	2.531	1.8	20.5
7 20	18 47.25	-45 0.3	1.967	2.901	9.6	21.4	7 20	18 49.95	-23 35.9	1.519	2.512	6.4	20.8
7 30	18 37.45	-44 42.9	2.013	2.895	12.0	21.6	7 30	18 41.78	-23 30.5	1.548	2.493	10.8	21.0
8 9	18 30.34	-44 8.3	2.080	2.888	14.4	21.7	8 9	18 35.95	-23 21.9	1.598	2.474	14.7	21.2
238900	2005 <i>YT</i> ₁₆₃		7 6.4 241°35	0°8/ 6.6 17			392438	2010 <i>RQ</i> ₉₆		7 6.4 328°68	2°9/ 5.7 18		
5 31	19 32.05	-19 15.7	1.410	2.267	17.4	20.7	5 31	19 27.03	-28 39.0	1.784	2.644	14.2	20.3
6 10	19 27.54	-19 31.9	1.332	2.261	13.5	20.5	6 10	19 23.31	-29 7.0	1.698	2.628	11.0	20.0
6 20	19 19.97	-19 56.8	1.273	2.255	8.9	20.2	6 20	19 17.04	-29 34.7	1.633	2.614	7.4	19.8
6 30	19 10.05	-20 28.0	1.237	2.248	3.7	19.9	6 30	19 8.86	-29 58.2	1.592	2.600	3.9	19.5
7 10	18 59.01	-21 1.6	1.226	2.241	2.0	19.7	7 10	18 59.76	-30 13.7	1.577	2.586	3.5	19.5
7 20	18 48.27	-21 34.1	1.240	2.233	7.3	20.0	7 20	18 50.91	-30 18.9	1.587	2.573	7.0	19.7
7 30	18 39.32	-22 3.2	1.277	2.226	12.3	20.3	7 30	18 43.50	-30 13.8	1.622	2.561	10.9	19.9
8 9	18 33.22	-22 27.9	1.336	2.218	16.7	20.5	8 9	18 38.45	-29 59.8	1.679	2.550	14.4	20.1
198205	2004 <i>TM</i> ₁₄₉		7 6.4 135°32	0°5/ 6.5 18			418209	2008 <i>CU</i> ₁₃₉		7			

EPHEMERIDES

7 6.4

7 6.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
276463	2003 <i>GR</i> ₄₇		7 6.4 185°37	7°6/ 8.9 18			446121	2013 <i>EH</i> ₉		7 6.4 261°63	2°6/ 5.9 18		
5 31	19 27.85	- 1 40.9	1.971	2.762	15.6	20.9	5 31	19 30.27	-30 9.6	2.296	3.137	12.1	21.3
6 10	19 23.28	- 1 10.9	1.892	2.762	13.2	20.8	6 10	19 25.14	-30 21.8	2.208	3.128	9.4	21.1
6 20	19 16.68	- 0 57.8	1.834	2.761	10.6	20.6	6 20	19 17.90	-30 31.4	2.143	3.118	6.3	20.9
6 30	19 8.63	- 1 3.9	1.798	2.761	8.4	20.5	6 30	19 9.14	-30 35.3	2.103	3.109	3.4	20.7
7 10	18 59.93	- 1 29.7	1.788	2.760	7.6	20.4	7 10	18 59.72	-30 31.3	2.091	3.099	3.0	20.7
7 20	18 51.48	- 2 13.6	1.802	2.759	8.8	20.5	7 20	18 50.58	-30 18.4	2.107	3.090	5.8	20.8
7 30	18 44.18	- 3 12.2	1.842	2.758	11.2	20.6	7 30	18 42.67	-29 57.3	2.149	3.080	9.0	21.0
8 9	18 38.75	- 4 20.8	1.904	2.756	13.8	20.8	8 9	18 36.71	-29 30.0	2.215	3.070	12.0	21.2
38361	1999 <i>RY</i> ₁₅₄		7 6.4 144°47	4°3/ 7.9 18			193637	2001 <i>CQ</i> ₄₈		7 6.4 216°03	0°6/ 6.3 18		
5 31	19 25.67	- 8 40.9	2.390	3.201	12.6	19.2	5 31	19 31.15	-23 49.4	2.221	3.058	12.6	21.1
6 10	19 21.27	- 8 27.1	2.311	3.204	10.2	19.0	6 10	19 25.79	-23 59.0	2.132	3.052	9.7	20.9
6 20	19 15.22	- 8 23.6	2.253	3.206	7.5	18.8	6 20	19 18.32	-24 10.2	2.066	3.044	6.3	20.7
6 30	19 8.00	- 8 31.1	2.220	3.208	5.2	18.7	6 30	19 9.32	-24 20.9	2.026	3.036	2.5	20.4
7 10	19 0.30	- 8 49.1	2.215	3.210	4.4	18.6	7 10	18 59.63	-24 28.9	2.014	3.028	1.6	20.3
7 20	18 52.83	- 9 16.3	2.236	3.212	6.0	18.8	7 20	18 50.17	-24 32.9	2.030	3.019	5.4	20.6
7 30	18 46.31	- 9 50.6	2.284	3.214	8.6	18.9	7 30	18 41.91	-24 32.5	2.073	3.010	9.0	20.8
8 9	18 41.32	-10 29.7	2.356	3.216	11.2	19.1	8 9	18 35.56	-24 28.4	2.140	3.000	12.1	21.0
396274	2014 <i>CS</i> ₂₀		7 6.4 205°22	1°3/ 6.1 18			299692	2006 <i>QE</i> ₁₀₇		7 6.4 304°86	0°3/ 6.5 18		
5 31	19 32.24	-26 25.7	2.569	3.399	11.3	22.7	5 31	19 27.81	-21 36.2	1.846	2.697	14.2	20.2
6 10	19 26.34	-26 36.1	2.477	3.393	8.7	22.5	6 10	19 23.69	-21 36.6	1.754	2.682	10.9	19.9
6 20	19 18.52	-26 46.2	2.409	3.386	5.7	22.3	6 20	19 17.20	-21 40.6	1.685	2.666	7.1	19.7
6 30	19 9.34	-26 53.5	2.369	3.378	2.5	22.1	6 30	19 8.94	-21 46.6	1.640	2.651	2.9	19.4
7 10	18 59.55	-26 56.1	2.357	3.370	1.9	22.0	7 10	18 59.82	-21 52.7	1.620	2.635	1.6	19.3
7 20	18 50.00	-26 53.0	2.375	3.361	5.0	22.2	7 20	18 50.90	-21 57.4	1.628	2.621	6.0	19.5
7 30	18 41.53	-26 44.4	2.420	3.351	8.2	22.4	7 30	18 43.28	-22 0.0	1.660	2.606	10.2	19.7
8 9	18 34.79	-26 31.1	2.490	3.340	11.0	22.6	8 9	18 37.82	-22 0.6	1.715	2.592	13.9	19.9
435619	2008 <i>SF</i> ₁₀₅		7 6.4 93°70	7°1/ 8.3 18			183909	2004 <i>CW</i> ₉₆		7 6.4 134°60	4°2/ 7.4 17		
5 31	19 28.19	- 4 38.2	1.906	2.711	15.6	20.8	5 31	19 30.68	-12 12.8	1.713	2.546	15.9	20.8
6 10	19 23.48	- 3 52.8	1.839	2.721	12.9	20.7	6 10	19 25.69	-11 51.4	1.642	2.552	12.6	20.6
6 20	19 16.75	- 3 21.9	1.793	2.732	10.1	20.5	6 20	19 18.35	-11 40.7	1.592	2.558	8.9	20.4
6 30	19 8.63	- 3 7.9	1.770	2.742	7.8	20.4	6 30	19 9.33	-11 41.4	1.566	2.564	5.5	20.2
7 10	18 59.98	- 3 11.4	1.773	2.752	7.1	20.4	7 10	18 59.64	-11 52.7	1.565	2.570	4.4	20.1
7 20	18 51.70	- 3 31.6	1.800	2.762	8.5	20.5	7 20	18 50.36	-12 13.1	1.590	2.575	7.1	20.3
7 30	18 44.68	- 4 5.7	1.852	2.771	10.9	20.6	7 30	18 42.54	-12 40.4	1.641	2.580	10.8	20.5
8 9	18 39.58	- 4 49.8	1.927	2.781	13.5	20.8	8 9	18 36.94	-13 11.9	1.713	2.585	14.2	20.7
165262	2000 <i>SD</i> ₂₂₈		7 6.4 279°85	3°2/ 6.9 18			523094	2016 <i>RY</i> ₄₇		7 6.4 282°47	2°3/ 5.7 18		
5 31	19 30.22	-15 54.7	1.464	2.316	17.2	20.9	5 31	19 29.49	-26 56.9	1.932	2.782	13.7	21.7
6 10	19 26.11	-15 37.3	1.374	2.299	13.6	20.6	6 10	19 24.96	-27 31.1	1.847	2.773	10.5	21.5
6 20	19 19.08	-15 28.7	1.304	2.281	9.3	20.3	6 20	19 18.01	-28 6.6	1.784	2.764	7.0	21.3
6 30	19 9.77	-15 29.3	1.256	2.263	4.9	20.0	6 30	19 9.26	-28 39.6	1.747	2.755	3.4	21.0
7 10	18 59.26	-15 38.0	1.233	2.244	3.6	19.9	7 10	18 59.65	-29 6.2	1.736	2.746	2.9	21.0
7 20	18 48.91	-15 53.4	1.235	2.226	7.7	20.0	7 20	18 50.29	-29 24.0	1.751	2.737	6.5	21.2
7 30	18 40.12	-16 13.6	1.260	2.208	12.5	20.3	7 30	18 42.27	-29 32.2	1.792	2.728	10.2	21.4
8 9	18 33.99	-16 36.7	1.306	2.189	16.9	20.5	8 9	18 36.48	-29 32.0	1.856	2.719	13.6	21.6
420406	2012 <i>CB</i> ₅₇		7 6.4 172°98	1°9/ 6.8 17			177276	2003 <i>WB</i> ₁₃₅		7 6.4 286°72	0°8/ 6.6 18		
5 31	19 33.19	-17 52.4	1.742	2.581	15.4	22.0	5 31	19 30.84	-20 51.3	1.481	2.339	16.7	20.5
6 10	19 27.67	-17 44.0	1.665	2.584	12.0	21.8	6 10	19 26.70	-20 46.8	1.387	2.318	13.0	20.2
6 20	19 19.66	-17 42.0	1.610	2.586	7.9	21.6	6 20	19 19.55	-20 47.3	1.314	2.296	8.6	19.9
6 30	19 9.85	-17 45.3	1.580	2.588	3.7	21.3	6 30	19 10.01	-20 51.1	1.263	2.274	3.6	19.5
7 10	18 59.29	-17 52.3	1.576	2.589	2.4	21.2	7 10	18 59.20	-20 56.0	1.238	2.253	2.0	19.4
7 20	18 49.13	-18 1.6	1.599	2.590	6.4	21.5	7 20	18 48.51	-21 0.1	1.237	2.231	7.3	19.6
7 30	18 40.48	-18 12.2	1.648	2.590	10.5	21.7	7 30	18 39.43	-21 2.7	1.260	2.209	12.4	19.9
8 9	18 34.19	-18 23.3	1.719	2.589	14.2	21.9	8 9	18 33.09	-21 3.9	1.303	2.187	16.9	20.1
4613	Mamoru		7 6.4 277°28	2°4/ 7.1 18 R			30503	2000 <i>RW</i> ₇₉		7 6.4 169°61	3°0/ 7.1 18		
5 31	19 29.12	-14 56.9	2.059	2.890	13.7	16.4	5 31	19 27.74	-14 13.1	2.360	3.184	12.4	17.6
6 10	19 24.55	-15 1.1	1.949	2.861	10.8	16.1	6 10	19 22.88	-13 46.9	2.278	3.185	9.7	17.4
6 20	19 17.74	-15 14.0	1.861	2.832	7.4	15.8	6 20	19 16.28	-13 26.8	2.220	3.187	6.8	17.3
6 30	19 9.17	-15 35.3	1.798	2.803	3.9	15.6	6 30	19 8.46	-13 13.3	2.187	3.188	4.0	17.1
7 10	18 59.60	-16 3.5	1.762	2.773	2.7	15.4	7 10	19 0.15	-13 6.2	2.183	3.189	3.2	17.0
7 20	18 50.01	-16 36.6	1.753	2.742	6.1	15.6	7 20	18 52.11	-13 5.0	2.205	3.189	5.5	17.2
7 30	18 41.42	-17 12.4	1.771	2.712	10.0	15.8	7 30	18 45.11	-13 9.1	2.255	3.190	8.5	17.4
8 9	18 34.72	-17 48.9	1.812	2.680	13.7	15.9	8 9	18 39.72	-13 17.2	2.329	3.190	11.3	17.6
480697	2015 <i>PY</i> ₁₂₅		7 6.4 251°55	3°5/ 7.9 18			178147	2006 <i>TC</i> ₈₇		7 6.4 123°46	2°4/ 5.7 18		
5 31	19 25.96	- 9 34.5	2.381	3.195	12.6	21.2	5 31	19 29.44	-28 22.8	2.168	3.013	12.6	20.3
6 10	19 21.62	- 9 50.0	2.291	3.188	10.1	21.0	6 10	19 24.56	-28 51.2	2.092	3.014	9.7	20.1
6 20	19 15.54	-10 17.1	2.222	3.181	7.3	20.8	6 20	19 17.55	-29 18.8	2.038	3.016	6.4	19.9
6 30	19 8.19	-10 55.4	2.179	3.174	4.6	20.6	6 30	19 9.02	-29 42.4	2.010	3.017	3.3	19.7
7 10	19 0.23	-11 43.4	2.163	3.166	3.6	20.5	7 10	18 59.85	-29 59.0	2.009	3.018	2.9	19.7
7 20	18 52.41	-12 38.7	2.175	3.159	5.6	20.6	7 20	18 51.01	-30 6.9	2.036	3.019	5.9	19.9
7 30	18 45.50	-13 38.2	2.215	3.151	8.5	20.8	7 30	18 43.44	-30 6.0	2.089	3.021	9.2	20.1
8 9	18 40.13	-14 39.2	2.279	3.144	11.3	21.0	8 9	18 37.86	-29 57.8	2.165	3.022	12.1	20.3
239456	2007 <i>TB</i> ₂₄₂		7 6.4										

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
241720	2000 <i>UZ</i> ₄₃		7 6.4 214°59	3°6/ 7.3 18			443018	2013 <i>EN</i> ₄		7 6.5 286°99	3°0/ 7.1 18		
5 31	19 26.89	-11 39.9	2.610	3.424	11.6	20.6	5 31	19 26.87	-14 26.3	2.210	3.040	12.9	21.1
6 10	19 22.12	-11 12.0	2.521	3.419	9.3	20.4	6 10	19 22.40	-14 4.2	2.126	3.037	10.1	20.9
6 20	19 15.76	-10 51.0	2.455	3.413	6.7	20.2	6 20	19 16.09	-13 48.7	2.065	3.034	7.0	20.7
6 30	19 8.27	-10 37.5	2.415	3.408	4.3	20.1	6 30	19 8.46	-13 40.1	2.029	3.030	4.0	20.5
7 10	19 0.30	-10 31.7	2.402	3.402	3.7	20.0	7 10	19 0.26	-13 38.2	2.020	3.027	3.2	20.4
7 20	18 52.52	-10 33.2	2.418	3.396	5.5	20.1	7 20	18 52.32	-13 42.3	2.038	3.024	5.7	20.6
7 30	18 45.62	-10 41.2	2.461	3.390	8.1	20.3	7 30	18 45.44	-13 51.4	2.083	3.021	8.9	20.8
8 9	18 40.17	-10 54.3	2.528	3.383	10.7	20.4	8 9	18 40.27	-14 4.2	2.151	3.018	11.8	21.0
31418	1999 <i>AJ</i> ₃₄		7 6.4 123°14	2°7/ 7.1 18			184001	2004 <i>EQ</i> ₇₈		7 6.5 71°11	2°3/ 5.9 17		
5 31	19 32.46	-15 30.8	1.491	2.337	17.2	18.6	5 31	19 33.36	-26 21.1	1.484	2.343	16.6	20.4
6 10	19 27.42	-15 29.6	1.425	2.346	13.4	18.4	6 10	19 28.20	-26 52.5	1.429	2.359	12.7	20.2
6 20	19 19.65	-15 38.8	1.378	2.354	9.1	18.2	6 20	19 20.16	-27 24.9	1.394	2.376	8.3	20.0
6 30	19 9.92	-15 57.3	1.355	2.362	4.6	17.9	6 30	19 10.12	-27 53.5	1.383	2.393	3.8	19.8
7 10	18 59.40	-16 22.8	1.357	2.369	3.1	17.8	7 10	18 59.39	-28 14.0	1.398	2.410	3.1	19.7
7 20	18 49.39	-16 52.7	1.385	2.376	7.1	18.1	7 20	18 49.36	-28 24.3	1.438	2.427	7.2	20.0
7 30	18 41.10	-17 24.3	1.437	2.383	11.4	18.4	7 30	18 41.28	-28 24.8	1.502	2.443	11.4	20.3
8 9	18 35.41	-17 55.8	1.511	2.390	15.3	18.6	8 9	18 35.99	-28 17.4	1.588	2.460	15.0	20.6
262642	2006 <i>WT</i> ₄₉		7 6.5 189°83	2°4/ 5.8 17			522813	2016 <i>NT</i> ₈₀		7 6.5 291°29	2°8/ 7.4 18		
5 31	19 32.67	-26 22.2	1.754	2.604	14.9	21.0	5 31	19 27.55	-13 16.0	1.767	2.607	15.2	21.5
6 10	19 27.56	-27 3.7	1.677	2.603	11.4	20.8	6 10	19 23.64	-13 36.3	1.672	2.588	12.1	21.2
6 20	19 19.78	-27 47.4	1.623	2.603	7.5	20.6	6 20	19 17.31	-14 9.8	1.597	2.570	8.3	20.9
6 30	19 10.01	-28 28.5	1.593	2.602	3.6	20.3	6 30	19 9.09	-14 55.7	1.546	2.551	4.5	20.7
7 10	18 59.34	-29 2.4	1.590	2.600	3.1	20.3	7 10	18 59.86	-15 51.3	1.521	2.533	3.1	20.5
7 20	18 49.01	-29 26.2	1.613	2.599	6.9	20.5	7 20	18 50.69	-16 53.1	1.523	2.514	6.6	20.7
7 30	18 40.26	-29 39.1	1.661	2.597	10.9	20.8	7 30	18 42.72	-17 57.0	1.550	2.496	10.7	20.9
8 9	18 34.01	-29 42.4	1.732	2.595	14.4	21.0	8 9	18 36.89	-18 59.6	1.599	2.478	14.6	21.1
154801	2004 <i>PC</i> ₈₄		7 6.5 325°06	4°4/ 5.4 18			119891	2002 <i>CQ</i> ₂₆₁		7 6.5 247°54	0°5/ 6.6 18		
5 31	19 28.28	-32 41.9	1.816	2.672	14.2	19.9	5 31	19 30.41	-18 56.6	2.047	2.885	13.5	20.5
6 10	19 24.39	-33 12.5	1.727	2.652	11.2	19.7	6 10	19 25.54	-19 26.6	1.950	2.869	10.5	20.3
6 20	19 17.85	-33 39.7	1.659	2.634	7.9	19.5	6 20	19 18.39	-20 4.1	1.876	2.853	6.9	20.1
6 30	19 9.28	-33 58.7	1.615	2.616	5.0	19.2	6 30	19 9.48	-20 46.9	1.826	2.837	2.9	19.8
7 10	18 59.74	-34 5.3	1.596	2.598	4.9	19.2	7 10	18 59.66	-21 31.7	1.805	2.820	1.5	19.6
7 20	18 50.45	-33 57.6	1.603	2.581	7.7	19.3	7 20	18 49.92	-22 15.5	1.811	2.802	5.7	19.9
7 30	18 42.65	-33 36.0	1.633	2.565	11.3	19.5	7 30	18 41.30	-22 55.7	1.844	2.785	9.7	20.1
8 9	18 37.32	-33 3.6	1.685	2.549	14.7	19.7	8 9	18 34.68	-23 31.3	1.901	2.766	13.2	20.3
317794	2003 <i>SF</i> ₁₇₉		7 6.5 322°49	0°9/ 6.7 17			269031	2007 <i>FM</i> ₁₁		7 6.5 111°94	1°1/ 6.2 17		
5 31	19 26.35	-18 28.2	1.196	2.072	18.7	20.0	5 31	19 34.36	-25 13.7	1.997	2.836	13.7	21.4
6 10	19 23.75	-18 52.7	1.117	2.056	14.6	19.7	6 10	19 28.19	-25 24.5	1.936	2.856	10.5	21.2
6 20	19 17.91	-19 29.8	1.055	2.041	9.6	19.4	6 20	19 19.80	-25 35.7	1.897	2.875	6.7	21.0
6 30	19 9.45	-20 17.1	1.015	2.026	4.1	19.0	6 30	19 9.92	-25 44.5	1.884	2.894	2.8	20.8
7 10	18 59.61	-21 9.8	0.997	2.012	2.2	18.9	7 10	18 59.55	-25 48.6	1.898	2.912	1.9	20.7
7 20	18 49.96	-22 2.8	1.002	1.999	8.0	19.2	7 20	18 49.74	-25 47.1	1.941	2.930	5.7	21.0
7 30	18 42.15	-22 51.7	1.030	1.987	13.6	19.4	7 30	18 41.45	-25 40.3	2.010	2.947	9.2	21.3
8 9	18 37.45	-23 33.9	1.076	1.976	18.4	19.7	8 9	18 35.34	-25 29.4	2.103	2.963	12.3	21.5
504969	2011 <i>GD</i> ₁₇		7 6.5 80°81	0°1/ 6.5 17			333305	2000 <i>VB</i> ₃₅		7 6.5 258°80	3°2/ 7.1 18		
5 31	19 31.57	-21 53.5	1.695	2.546	15.3	21.4	5 31	19 30.85	-13 38.1	2.317	3.134	12.8	21.4
6 10	19 26.43	-21 55.1	1.632	2.559	11.7	21.0	6 10	19 25.59	-13 18.7	2.205	3.108	10.2	21.1
6 20	19 18.83	-22 0.1	1.591	2.572	7.5	21.0	6 20	19 18.30	-13 5.9	2.116	3.080	7.2	20.9
6 30	19 9.55	-22 6.5	1.574	2.585	3.0	20.8	6 30	19 9.44	-13 0.1	2.052	3.052	4.2	20.7
7 10	18 59.67	-22 12.1	1.583	2.598	1.6	20.7	7 10	18 59.74	-13 1.1	2.017	3.023	3.4	20.6
7 20	18 50.33	-22 15.5	1.618	2.611	6.1	21.0	7 20	18 50.06	-13 8.4	2.010	2.993	6.0	20.7
7 30	18 42.62	-22 16.4	1.679	2.624	10.2	21.3	7 30	18 41.29	-13 20.9	2.030	2.963	9.4	20.8
8 9	18 37.27	-22 15.2	1.762	2.636	13.7	21.5	8 9	18 34.24	-13 37.4	2.074	2.931	12.6	21.0
348141	2004 <i>CO</i> ₂₀		7 6.5 151°31	1°1/ 6.1 18			105283	2000 <i>QQ</i> ₃₈		7 6.5 271°43	1°3/ 6.2 17		
5 31	19 29.15	-24 13.7	2.027	2.873	13.3	21.3	5 31	19 32.77	-24 55.7	1.446	2.307	16.9	20.0
6 10	19 24.43	-24 36.6	1.949	2.874	10.2	21.1	6 10	19 28.24	-25 7.3	1.363	2.295	13.1	19.7
6 20	19 17.53	-25 1.7	1.894	2.874	6.6	20.9	6 20	19 20.57	-25 21.1	1.300	2.283	8.6	19.4
6 30	19 9.06	-25 26.4	1.864	2.875	2.7	20.6	6 30	19 10.46	-25 33.6	1.260	2.271	3.6	19.1
7 10	18 59.91	-25 47.6	1.862	2.875	1.9	20.6	7 10	18 59.18	-25 40.9	1.244	2.259	2.5	19.0
7 20	18 51.07	-26 3.6	1.886	2.876	5.7	20.8	7 20	18 48.21	-25 41.0	1.254	2.246	7.5	19.3
7 30	18 43.52	-26 13.5	1.937	2.876	9.4	21.1	7 30	18 39.06	-25 33.7	1.287	2.234	12.4	19.5
8 9	18 38.01	-26 17.8	2.010	2.876	12.6	21.3	8 9	18 32.85	-25 20.8	1.341	2.221	16.8	19.8
262885	2007 <i>CM</i> ₅		7 6.5 128°71	7°0/10.9 18			122420	2000 <i>QV</i> ₁₀₀		7 6.5 274°82	0°9/ 6.7 18		
5 31	19 26.41	+ 5 3.1	2.832	3.564	12.7	21.0	5 31	19 30.08	-18 38.1	1.911	2.752	14.2	20.0
6 10	19 21.55	+ 5 0.1	2.756	3.576	10.9	20.9	6 10	19 25.53	-18 54.1	1.807	2.727	11.1	19.8
6 20	19 15.29	+ 4 40.6	2.701	3.587	9.2	20.7	6 20	19 18.54	-19 17.6	1.724	2.702	7.3	19.5
6 30	19 8.07	+ 4 3.3	2.670	3.597	7.7	20.7	6 30	19 9.62	-19 46.9	1.666	2.676	3.2	19.2
7 10	19 0.48	+ 3 8.8	2.665	3.608	7.0	20.6	7 10	18 59.63	-20 19.4	1.635	2.650	1.8	19.0
7 20	18 53.11	+ 1 59.2	2.687	3.618	7.5	20.7	7 20	18 49.64	-20 52.4	1.631	2.623	6.1	19.2
7 30	18 46.55	+ 0 37.8	2.736	3.627	8.8	20.8	7 30	18 40.80	-21 23.7	1.653	2.596	10.4	19.4
8 9	18 41.31	- 0 51.3	2.811	3.637	10.5	20.9	8 9	18 34.07	-21 52.2	1.698	2.569	14.3	19.6
313384	2002 <i>LP</i> ₆₀		7 6.5 31°72	2°1/ 6.1 17			242883	2006 <i>JH</i> ₆					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
40596	1999 RA ₁₄₈		7 6.5 265°30	1.7/ 6.1	18		392546	2011 SC ₁₃		7 6.5 313°32	2.4/ 6.9	18	
5 31	19 29.55	-27 42.4	2.453	3.291	11.5	18.7	5 31	19 27.73	-17 38.3	1.761	2.609	14.9	20.9
6 10	19 24.53	-27 51.0	2.356	3.275	8.9	18.5	6 10	19 23.68	-17 12.8	1.673	2.596	11.6	20.7
6 20	19 17.54	-27 58.6	2.282	3.259	5.9	18.3	6 20	19 17.26	-16 52.5	1.606	2.583	7.9	20.4
6 30	19 9.10	-28 2.8	2.234	3.242	2.8	18.1	6 30	19 9.08	-16 37.6	1.562	2.570	4.0	20.2
7 10	19 0.00	-28 1.4	2.214	3.225	2.2	18.0	7 10	19 0.07	-16 27.7	1.545	2.557	2.8	20.1
7 20	18 51.08	-27 53.6	2.223	3.209	5.3	18.2	7 20	18 51.30	-16 22.3	1.554	2.545	6.5	20.3
7 30	18 43.23	-27 39.6	2.258	3.191	8.5	18.4	7 30	18 43.86	-16 20.9	1.587	2.533	10.6	20.5
8 9	18 37.14	-27 20.5	2.317	3.174	11.5	18.5	8 9	18 38.59	-16 22.8	1.642	2.521	14.3	20.7
496898	2001 CM ₄₇		7 6.5 145°16	1.3/ 6.1	18		199566	2006 EG ₄₇		7 6.5 340°10	0.4/ 6.4	18	
5 31	19 32.25	-25 59.5	2.361	3.195	12.0	22.0	5 31	19 28.52	-22 3.6	1.616	2.475	15.5	20.1
6 10	19 26.41	-26 16.3	2.288	3.206	9.2	21.8	6 10	19 24.53	-22 26.7	1.540	2.471	11.9	19.8
6 20	19 18.62	-26 33.1	2.239	3.216	6.0	21.7	6 20	19 17.91	-22 55.2	1.484	2.467	7.7	19.6
6 30	19 9.48	-26 47.4	2.216	3.225	2.6	21.5	6 30	19 9.36	-23 26.0	1.452	2.464	3.1	19.3
7 10	18 59.83	-26 56.9	2.222	3.234	2.0	21.4	7 10	18 59.92	-23 55.6	1.446	2.461	1.8	19.2
7 20	18 50.55	-27 0.5	2.256	3.243	5.2	21.7	7 20	18 50.82	-24 21.2	1.465	2.458	6.5	19.5
7 30	18 42.50	-26 58.2	2.318	3.251	8.4	21.9	7 30	18 43.25	-24 41.0	1.509	2.456	10.9	19.7
8 9	18 36.31	-26 51.0	2.404	3.258	11.2	22.1	8 9	18 38.12	-24 55.1	1.575	2.454	14.7	20.0
161384	2003 UK ₂₅		7 6.5 276°29	2.4/ 5.9	18		324947	2007 YY ₁₃		7 6.5 176°79	1.8/ 6.2	17	
5 31	19 31.23	-28 19.1	1.882	2.731	14.0	19.8	5 31	19 36.74	-27 40.3	1.994	2.830	13.9	21.5
6 10	19 26.29	-28 34.1	1.802	2.727	10.8	19.5	6 10	19 30.26	-27 45.5	1.915	2.833	10.7	21.2
6 20	19 18.87	-28 47.8	1.745	2.724	7.2	19.3	6 20	19 21.32	-27 48.9	1.858	2.835	7.0	21.0
6 30	19 9.67	-28 56.7	1.712	2.720	3.5	19.1	6 30	19 10.64	-27 47.4	1.827	2.836	3.2	20.8
7 10	18 59.71	-28 58.0	1.706	2.716	2.9	19.0	7 10	18 59.26	-27 38.6	1.824	2.836	2.4	20.7
7 20	18 50.12	-28 50.5	1.726	2.713	6.4	19.2	7 20	18 48.34	-27 22.0	1.850	2.836	6.1	21.0
7 30	18 42.02	-28 34.6	1.772	2.709	10.2	19.5	7 30	18 38.97	-26 58.5	1.902	2.835	9.9	21.2
8 9	18 36.24	-28 12.5	1.840	2.706	13.6	19.7	8 9	18 31.93	-26 30.5	1.977	2.833	13.2	21.4
287660	2003 ND ₁		7 6.5 11°25	0.3/ 6.3	17		253478	2003 SH ₆₆		7 6.5 311°02	6.0/ 7.9	18	
5 31	19 23.90	-16 20.3	0.934	1.826	21.3	18.9	5 31	19 26.78	-9 32.3	1.313	2.163	18.9	19.7
6 10	19 22.31	-17 51.8	0.880	1.828	16.4	18.6	6 10	19 23.69	-9 16.3	1.231	2.149	15.3	19.5
6 20	19 17.14	-19 45.8	0.843	1.832	10.6	18.3	6 20	19 17.69	-9 17.7	1.167	2.134	11.3	19.2
6 30	19 9.18	-21 54.6	0.826	1.838	4.2	18.0	6 30	19 9.38	-9 38.6	1.123	2.120	7.4	18.9
7 10	18 59.95	-24 6.1	0.830	1.846	2.5	17.9	7 10	18 59.88	-10 18.3	1.103	2.107	6.1	18.8
7 20	18 51.24	-26 7.9	0.857	1.854	8.8	18.3	7 20	18 50.55	-11 14.0	1.106	2.094	9.0	18.9
7 30	18 44.84	-27 51.1	0.904	1.865	14.5	18.7	7 30	18 42.81	-12 20.7	1.131	2.081	13.4	19.1
8 9	18 41.96	-29 12.4	0.970	1.877	19.3	19.0	8 9	18 37.80	-13 32.6	1.176	2.069	17.7	19.4
47734	2000 DX ₅₅		7 6.5 210°14	1.4/ 6.9	18		506989	2008 SM ₂₁₈		7 6.5 269°66	3.4/ 6.8	17	
5 31	19 28.51	-17 31.1	2.131	2.967	13.1	19.7	5 31	19 30.97	-16 16.6	1.869	2.705	14.7	20.9
6 10	19 23.81	-17 38.0	2.047	2.964	10.1	19.5	6 10	19 25.97	-15 28.6	1.779	2.693	11.6	20.7
6 20	19 17.10	-17 51.3	1.986	2.962	6.7	19.3	6 20	19 18.65	-14 44.8	1.710	2.682	8.0	20.5
6 30	19 8.93	-18 9.7	1.950	2.959	3.1	19.0	6 30	19 9.62	-14 6.1	1.667	2.670	4.5	20.2
7 10	19 0.12	-18 31.5	1.942	2.955	1.9	18.9	7 10	18 59.82	-13 33.7	1.650	2.657	3.7	20.2
7 20	18 51.55	-18 54.9	1.961	2.952	5.4	19.2	7 20	18 50.27	-13 8.2	1.660	2.645	6.8	20.3
7 30	18 44.11	-19 18.3	2.007	2.948	8.9	19.4	7 30	18 42.04	-12 49.9	1.695	2.633	10.6	20.5
8 9	18 38.51	-19 40.6	2.076	2.944	12.1	19.6	8 9	18 35.92	-12 38.5	1.753	2.621	14.1	20.7
80847	2000 DX ₁₉		7 6.5 161°91	0.3/ 6.6	17		434696	2006 BY ₁₉₆		7 6.5 166°53	4.8/ 8.4	17	
5 31	19 32.70	-20 45.8	1.916	2.755	14.2	20.9	5 31	19 29.14	-6 31.9	2.350	3.146	13.2	21.6
6 10	19 27.18	-20 58.0	1.840	2.760	10.9	20.7	6 10	19 23.99	-6 28.6	2.269	3.151	10.8	21.4
6 20	19 19.34	-21 14.7	1.786	2.765	7.1	20.5	6 20	19 17.08	-6 37.7	2.210	3.156	8.1	21.3
6 30	19 9.84	-21 33.7	1.758	2.769	2.9	20.2	6 30	19 8.92	-6 59.7	2.177	3.160	5.7	21.1
7 10	18 59.65	-21 52.5	1.758	2.773	1.5	20.1	7 10	19 0.22	-7 33.8	2.171	3.163	4.9	21.1
7 20	18 49.83	-22 9.2	1.785	2.776	5.8	20.4	7 20	18 51.75	-8 17.9	2.193	3.166	6.4	21.2
7 30	18 41.41	-22 22.7	1.838	2.778	9.7	20.7	7 30	18 44.29	-9 9.4	2.241	3.168	8.9	21.4
8 9	18 35.18	-22 33.1	1.914	2.780	13.1	20.9	8 9	18 38.44	-10 5.2	2.315	3.169	11.6	21.5
509137	2006 AQ ₇₃		7 6.5 248°80	0.5/ 6.6	18		479940	2014 HQ ₁₅₀		7 6.5 196°25	0.8/ 6.3	18	
5 31	19 31.22	-21 5.4	1.998	2.838	13.7	21.7	5 31	19 29.24	-24 5.2	2.120	2.964	12.9	21.4
6 10	19 26.17	-21 6.3	1.903	2.824	10.6	21.4	6 10	19 24.44	-24 19.4	2.040	2.963	9.8	21.2
6 20	19 18.80	-21 10.9	1.830	2.809	6.9	21.2	6 20	19 17.54	-24 35.6	1.983	2.963	6.4	21.0
6 30	19 9.68	-21 17.4	1.783	2.793	2.9	20.9	6 30	19 9.13	-24 51.2	1.951	2.962	2.6	20.8
7 10	18 59.70	-21 24.0	1.762	2.777	1.6	20.8	7 10	19 0.10	-25 3.9	1.947	2.962	1.7	20.7
7 20	18 49.90	-21 29.4	1.769	2.761	5.8	21.0	7 20	18 51.36	-25 12.2	1.971	2.961	5.4	21.0
7 30	18 41.34	-21 32.7	1.803	2.744	9.8	21.2	7 30	18 43.85	-25 15.7	2.020	2.960	9.0	21.2
8 9	18 34.85	-21 34.3	1.859	2.726	13.4	21.4	8 9	18 38.30	-25 14.8	2.093	2.959	12.2	21.4
435181	2007 RO ₁₁		7 6.5 312°64	3.2/ 7.1	17		126461	2002 CD ₃₃		7 6.5 216°33	2.0/ 7.3	18	
5 31	19 26.75	-15 23.7	1.647	2.497	15.7	21.1	5 31	19 29.61	-13 54.4	1.881	2.714	14.7	20.3
6 10	19 23.14	-15 5.7	1.557	2.479	12.4	20.9	6 10	19 24.97	-14 34.6	1.798	2.712	11.5	20.0
6 20	19 17.03	-14 56.2	1.487	2.462	8.6	20.6	6 20	19 18.04	-15 27.4	1.736	2.709	7.8	19.8
6 30	19 9.02	-14 55.4	1.440	2.445	4.7	20.3	6 30	19 9.40	-16 30.8	1.699	2.706	3.8	19.6
7 10	19 0.05	-15 2.7	1.418	2.429	3.5	20.2	7 10	18 59.93	-17 41.0	1.689	2.702	2.3	19.5
7 20	18 51.26	-15 16.9	1.421	2.412	7.0	20.4	7 20	18 50.63	-18 53.5	1.707	2.699	5.9	19.7
7 30	18 43.80	-15 36.2	1.449	2.397	11.2	20.6	7 30	18 42.57	-20 4.3	1.752	2.695	9.9	19.9
8 9	18 38.62	-15 58.8	1.498	2.381	15.1	20.8	8 9	18 36.58	-21 10.3	1.820	2.691	13.4	20.1
414060	2007 RC ₃₀₂		7 6.5 126°78	11.4/ 10.7	16		190491	2000 FJ ₁₀		7 6.5 239°70	10.7/ 7.2	17	
5 31	19 32.23	+ 8 20.1	1										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
102703	1999 <i>VE</i> ₈₇		7 6.5 312°87	20°9/	1.8 18		376118	2011 <i>AH</i> ₇		7 6.5 242°96	0°7/	6.7 17	
5 31	19 25.32	+14 17.7	1.379	2.123	23.3	18.8	5 31	19 31.11	-18 58.2	1.747	2.592	15.1	21.7
6 10	19 22.68	+17 10.0	1.299	2.091	22.2	18.6	6 10	19 26.41	-19 19.9	1.659	2.582	11.7	21.5
6 20	19 17.18	+19 39.8	1.233	2.060	21.3	18.5	6 20	19 19.15	-19 49.5	1.593	2.572	7.7	21.2
6 30	19 9.27	+21 34.6	1.183	2.030	20.9	18.3	6 30	19 9.92	-20 24.7	1.551	2.561	3.3	20.9
7 10	18 59.91	+22 43.8	1.148	2.000	21.1	18.2	7 10	18 59.72	-21 2.2	1.535	2.550	1.7	20.8
7 20	18 50.38	+23 1.0	1.129	1.970	22.0	18.2	7 20	18 49.70	-21 38.9	1.546	2.539	6.3	21.1
7 30	18 42.15	+22 25.5	1.124	1.941	23.5	18.2	7 30	18 41.06	-22 12.5	1.583	2.527	10.7	21.3
8 9	18 36.51	+21 3.7	1.131	1.914	25.3	18.2	8 9	18 34.74	-22 41.7	1.642	2.515	14.6	21.5
389833	2012 <i>JW</i> ₅		7 6.5 311°17	1°0/	7.0 17		106420	2000 <i>VC</i> ₃₈		7 6.5 215°57	2°2/	5.8 17	
5 31	19 32.80	- 8 3.0	0.951	1.812	23.5	19.7	5 31	19 34.25	-25 27.1	1.853	2.697	14.5	19.7
6 10	19 29.79	-10 30.9	0.872	1.801	18.8	19.3	6 10	19 28.83	-26 17.1	1.767	2.690	11.2	19.5
6 20	19 22.64	-13 48.8	0.809	1.790	12.7	19.0	6 20	19 20.73	-27 10.8	1.703	2.682	7.3	19.2
6 30	19 11.76	-17 50.9	0.769	1.780	5.6	18.5	6 30	19 10.57	-28 3.5	1.664	2.673	3.4	19.0
7 10	18 58.45	-22 17.9	0.754	1.770	2.6	18.3	7 10	18 59.37	-28 50.2	1.653	2.664	3.0	18.9
7 20	18 44.77	-26 42.3	0.765	1.760	10.2	18.7	7 20	18 48.36	-29 27.0	1.669	2.654	6.8	19.1
7 30	18 33.17	-30 39.1	0.800	1.751	17.2	19.0	7 30	18 38.78	-29 52.5	1.711	2.644	10.8	19.4
8 9	18 25.65	-33 55.5	0.854	1.743	23.0	19.4	8 9	18 31.63	-30 7.5	1.776	2.632	14.4	19.6
263902	2009 <i>FS</i> ₃₄		7 6.5 355°29	4°9/	7.8 17		261693	2005 <i>YW</i> ₂₁₃		7 6.5 263°89	0°4/	6.7 18	
5 31	19 25.54	-11 42.9	1.150	2.017	19.9	20.0	5 31	19 27.20	-18 28.0	2.584	3.414	11.2	21.1
6 10	19 22.92	-11 36.5	1.084	2.014	15.9	19.8	6 10	19 22.67	-19 4.8	2.482	3.397	8.7	20.9
6 20	19 17.22	-11 47.9	1.035	2.011	11.3	19.5	6 20	19 16.36	-19 48.3	2.404	3.380	5.7	20.7
6 30	19 9.18	-12 17.7	1.006	2.009	6.7	19.2	6 30	19 8.72	-20 36.5	2.353	3.363	2.4	20.5
7 10	19 0.06	-13 3.9	0.999	2.007	5.1	19.1	7 10	19 0.38	-21 26.8	2.331	3.345	1.2	20.3
7 20	18 51.34	-14 2.0	1.014	2.007	8.6	19.3	7 20	18 52.09	-22 16.4	2.337	3.328	4.7	20.6
7 30	18 44.51	-15 6.5	1.051	2.008	13.4	19.6	7 30	18 44.62	-23 3.3	2.371	3.310	7.9	20.7
8 9	18 40.61	-16 12.0	1.107	2.010	17.8	19.9	8 9	18 38.66	-23 46.0	2.431	3.291	10.9	20.9
43689	2002 <i>JY</i> ₇₁		7 6.5 99°12	4°7/	8.1 18 R		117675	2005 <i>EK</i> ₂₁₄		7 6.5 23°18	1°2/	6.1 17	
5 31	19 29.00	- 8 57.0	1.920	2.739	15.0	19.0	5 31	19 29.32	-24 3.4	1.833	2.685	14.2	20.2
6 10	19 24.17	- 8 47.2	1.854	2.752	12.0	18.9	6 10	19 24.85	-24 32.7	1.758	2.686	10.9	20.0
6 20	19 17.30	- 8 50.2	1.808	2.766	8.8	18.7	6 20	19 17.99	-25 5.3	1.706	2.687	7.1	19.7
6 30	19 9.02	- 9 6.5	1.787	2.779	5.8	18.5	6 30	19 9.40	-25 37.6	1.678	2.688	3.0	19.5
7 10	19 0.21	- 9 34.9	1.793	2.792	4.8	18.5	7 10	19 0.05	-26 6.3	1.676	2.690	2.1	19.4
7 20	18 51.72	-10 13.1	1.824	2.804	6.8	18.7	7 20	18 51.05	-26 28.8	1.701	2.691	6.1	19.7
7 30	18 44.68	-10 58.3	1.882	2.817	9.8	18.9	7 30	18 43.46	-26 44.1	1.752	2.693	10.0	19.9
8 9	18 39.40	-11 47.1	1.962	2.829	12.8	19.1	8 9	18 38.10	-26 52.6	1.825	2.695	13.5	20.1
498120	2007 <i>SF</i> ₁₃		7 6.5 293°86	7°0/	5.2 17		254181	2004 <i>RQ</i> ₁₇		7 6.5 231°45	0°7/	6.2 18	
5 31	19 34.98	-35 37.6	1.341	2.202	17.9	21.1	5 31	19 27.42	-23 16.9	2.664	3.500	10.8	20.8
6 10	19 30.73	-36 24.8	1.259	2.185	14.4	20.8	6 10	19 22.73	-23 41.8	2.573	3.492	8.3	20.6
6 20	19 22.65	-37 6.3	1.196	2.167	10.7	20.5	6 20	19 16.32	-24 9.3	2.506	3.484	5.3	20.4
6 30	19 11.49	-37 33.4	1.154	2.149	7.6	20.3	6 30	19 8.68	-24 37.1	2.465	3.476	2.2	20.2
7 10	18 58.78	-37 38.6	1.136	2.132	7.5	20.3	7 10	19 0.45	-25 3.0	2.453	3.467	1.4	20.1
7 20	18 46.42	-37 18.6	1.141	2.115	10.7	20.4	7 20	18 52.38	-25 25.4	2.470	3.458	4.6	20.4
7 30	18 36.35	-36 35.8	1.167	2.097	14.9	20.6	7 30	18 45.20	-25 43.3	2.514	3.449	7.7	20.5
8 9	18 29.94	-35 36.7	1.213	2.081	19.0	20.8	8 9	18 39.55	-25 56.5	2.582	3.440	10.4	20.7
188738	2005 <i>UA</i> ₁₂₀		7 6.5 81°68	3°4/	5.5 18		353709	2011 <i>VM</i>		7 6.5 95°39	0°5/	6.4 18	
5 31	19 29.96	-31 21.3	2.256	3.098	12.3	20.8	5 31	19 30.82	-25 0.7	2.433	3.268	11.7	20.6
6 10	19 24.94	-31 56.9	2.187	3.106	9.5	20.6	6 10	19 25.17	-24 51.3	2.367	3.285	8.9	20.5
6 20	19 17.83	-32 29.8	2.141	3.114	6.5	20.4	6 20	19 17.75	-24 41.5	2.324	3.302	5.7	20.3
6 30	19 9.25	-32 56.3	2.120	3.122	3.9	20.3	6 30	19 9.18	-24 30.0	2.308	3.319	2.3	20.1
7 10	19 0.09	-33 13.2	2.127	3.130	3.8	20.3	7 10	19 0.24	-24 15.7	2.321	3.335	1.4	20.0
7 20	18 51.31	-33 19.2	2.161	3.138	6.2	20.4	7 20	18 51.74	-23 58.6	2.362	3.351	4.7	20.3
7 30	18 43.82	-33 14.4	2.222	3.146	9.1	20.6	7 30	18 44.43	-23 39.0	2.430	3.367	7.8	20.5
8 9	18 38.31	-33 0.9	2.305	3.154	11.8	20.8	8 9	18 38.87	-23 18.1	2.523	3.383	10.6	20.7
144753	2004 <i>HF</i> ₁		7 6.5 223°82	4°4/	8.5 18		67482	2000 <i>RC</i> ₁₃		7 6.5 330°68	1°5/	6.7 18	
5 31	19 32.34	- 6 21.8	2.280	3.071	13.8	20.4	5 31	19 28.47	-20 16.2	1.874	2.722	14.1	19.0
6 10	19 26.72	- 6 49.3	2.177	3.058	11.2	20.2	6 10	19 24.07	-19 47.8	1.790	2.714	10.9	18.8
6 20	19 19.06	- 7 32.3	2.096	3.044	8.3	20.0	6 20	19 17.42	-19 21.9	1.728	2.707	7.2	18.6
6 30	19 9.81	- 8 30.7	2.041	3.029	5.5	19.8	6 30	19 9.16	-18 58.4	1.691	2.701	3.3	18.3
7 10	18 59.73	- 9 42.4	2.015	3.013	4.4	19.7	7 10	19 0.21	-18 36.9	1.681	2.695	2.1	18.2
7 20	18 49.67	-11 4.0	2.018	2.997	6.3	19.8	7 20	18 51.59	-18 17.4	1.697	2.689	5.9	18.5
7 30	18 40.56	-12 31.1	2.049	2.979	9.4	20.0	7 30	18 44.29	-18 0.3	1.738	2.683	9.9	18.7
8 9	18 33.17	-13 59.6	2.106	2.961	12.5	20.1	8 9	18 39.07	-17 45.6	1.802	2.678	13.3	18.9
17313	9542 <i>P-L</i>		7 6.5 286°97	1°1/	6.2 18		45899	2000 <i>XS</i> ₄₉		7 6.5 152°30	2°1/	5.7 18	
5 31	19 28.53	-24 19.2	2.088	2.935	12.9	18.7	5 31	19 33.88	-23 48.0	1.709	2.557	15.3	18.9
6 10	19 23.99	-24 41.6	2.006	2.931	9.9	18.5	6 10	19 28.59	-24 55.7	1.637	2.563	11.7	18.7
6 20	19 17.31	-25 6.2	1.947	2.927	6.4	18.3	6 20	19 20.58	-26 9.3	1.587	2.568	7.6	18.5
6 30	19 9.08	-25 30.5	1.913	2.924	2.7	18.0	6 30	19 10.50	-27 23.0	1.563	2.572	3.4	18.3
7 10	19 0.16	-25 51.5	1.907	2.920	1.9	18.0	7 10	18 59.48	-28 30.8	1.565	2.576	3.0	18.2
7 20	18 51.51	-26 7.4	1.927	2.917	5.6	18.2	7 20	18 48.76	-29 27.8	1.594	2.580	7.0	18.5
7 30	18 44.08	-26 17.4	1.974	2.914	9.2	18.4	7 30	18 39.64	-30 11.7	1.649	2.584	11.0	18.7
8 9	18 38.61	-26 21.9	2.044	2.910	12.4	18.6	8 9	18 33.06	-30 43.1	1.727	2.586	14.6	19.0
236389	2006 <i>DZ</i> ₂₉		7 6.5 125°93	3°1/	5.8 18		167306	2003 <i>UU</i> ₂₂₈		7 6.5 353°81			

EPHEMERIDES

7 6.5

7 6.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
384955	2012 <i>TZ</i> ₁₃₄		7 6.5 283°70	0°1/ 6.6 16			443757	2015 <i>MF</i> ₉		7 6.5 334°40	0°3/ 6.5 18		
5 31	19 28.92	-20 13.0	1.809	2.658	14.5	21.2	5 31	19 30.55	-23 33.9	2.071	2.914	13.2	20.5
6 10	19 24.62	-20 39.1	1.725	2.651	11.2	21.0	6 10	19 25.41	-23 6.2	1.990	2.912	10.1	20.3
6 20	19 17.93	-21 11.9	1.663	2.644	7.3	20.7	6 20	19 18.17	-22 38.4	1.930	2.909	6.6	20.0
6 30	19 9.43	-21 48.9	1.626	2.637	3.0	20.5	6 30	19 9.45	-22 9.4	1.897	2.907	2.7	19.8
7 10	19 0.07	-22 26.7	1.615	2.630	1.6	20.3	7 10	19 0.16	-21 39.1	1.890	2.905	1.4	19.7
7 20	18 50.94	-23 2.3	1.631	2.623	6.0	20.6	7 20	18 51.24	-21 7.7	1.912	2.904	5.4	20.0
7 30	18 43.14	-23 33.6	1.672	2.617	10.2	20.9	7 30	18 43.63	-20 36.2	1.960	2.902	9.1	20.2
8 9	18 37.53	-23 59.7	1.736	2.610	13.8	21.1	8 9	18 38.01	-20 5.8	2.032	2.901	12.4	20.4
157208	2004 <i>RH</i> ₂₂		7 6.5 288°48	0°3/ 6.6 17			260515	2005 <i>EK</i> ₇₈		7 6.5 229°32	1°3/ 6.9 17		
5 31	19 29.92	-20 54.0	1.710	2.561	15.1	20.7	5 31	19 31.82	-17 45.1	1.672	2.516	15.7	21.0
6 10	19 25.45	-21 2.9	1.631	2.558	11.7	20.5	6 10	19 27.04	-18 2.9	1.587	2.509	12.2	20.7
6 20	19 18.46	-21 16.9	1.574	2.555	7.6	20.3	6 20	19 19.61	-18 29.6	1.523	2.501	8.1	20.5
6 30	19 9.63	-21 33.9	1.541	2.552	3.1	20.0	6 30	19 10.17	-19 3.3	1.483	2.493	3.6	20.2
7 10	18 59.98	-21 51.2	1.533	2.549	1.6	19.9	7 10	18 59.74	-19 40.9	1.470	2.484	2.0	20.1
7 20	18 50.65	-22 6.8	1.553	2.546	6.2	20.2	7 20	18 49.52	-20 19.0	1.483	2.475	6.5	20.3
7 30	18 42.80	-22 19.6	1.597	2.543	10.5	20.4	7 30	18 40.76	-20 55.3	1.521	2.466	11.0	20.6
8 9	18 37.28	-22 29.3	1.663	2.540	14.2	20.6	8 9	18 34.41	-21 28.1	1.581	2.456	14.9	20.8
131915	2002 <i>BB</i> ₁₈		7 6.5 107°03	2°3/ 7.1 18			216355	2007 <i>YX</i> ₆₄		7 6.5 26°30	2°5/ 7.4 17		
5 31	19 30.84	-15 46.5	1.413	2.266	17.6	19.7	5 31	19 26.40	-14 18.6	1.947	2.785	14.1	20.4
6 10	19 26.53	-15 59.4	1.342	2.267	13.7	19.5	6 10	19 22.35	-14 29.1	1.873	2.789	11.0	20.2
6 20	19 19.35	-16 24.3	1.290	2.268	9.2	19.2	6 20	19 16.26	-14 49.3	1.820	2.793	7.5	20.0
6 30	19 10.03	-16 59.4	1.262	2.270	4.5	19.0	6 30	19 8.71	-15 18.2	1.792	2.797	4.0	19.8
7 10	18 59.76	-17 41.5	1.257	2.271	2.8	18.9	7 10	19 0.55	-15 53.9	1.790	2.802	2.7	19.7
7 20	18 49.88	-18 26.7	1.278	2.272	7.2	19.1	7 20	18 52.68	-16 33.7	1.816	2.806	5.7	19.9
7 30	18 41.72	-19 11.6	1.323	2.273	11.9	19.4	7 30	18 46.01	-17 15.1	1.866	2.811	9.3	20.1
8 9	18 36.26	-19 53.8	1.389	2.274	16.0	19.7	8 9	18 41.22	-17 55.9	1.940	2.816	12.5	20.3
491715	2012 <i>UW</i> ₁₄₃		7 6.5 137°27	1°3/ 6.9 17			50812	2000 <i>FC</i> ₃₀		7 6.5 251°53	4°4/ 7.6 18		
5 31	19 28.77	-17 49.4	1.996	2.836	13.7	22.0	5 31	19 30.21	-10 55.1	1.897	2.720	15.0	18.6
6 10	19 24.14	-18 0.1	1.919	2.838	10.6	21.8	6 10	19 25.51	-10 42.8	1.800	2.703	12.1	18.4
6 20	19 17.40	-18 17.5	1.864	2.841	7.0	21.5	6 20	19 18.50	-10 41.8	1.724	2.686	8.7	18.1
6 30	19 9.15	-18 40.1	1.834	2.843	3.2	21.3	6 30	19 9.71	-10 52.8	1.672	2.668	5.5	17.9
7 10	19 0.26	-19 5.8	1.831	2.845	1.8	21.2	7 10	18 59.99	-11 15.3	1.647	2.650	4.5	17.8
7 20	18 51.66	-19 32.5	1.856	2.847	5.5	21.5	7 20	18 50.36	-11 47.8	1.648	2.631	7.0	17.9
7 30	18 44.29	-19 58.4	1.906	2.849	9.2	21.7	7 30	18 41.88	-12 27.6	1.674	2.612	10.7	18.1
8 9	18 38.88	-20 22.5	1.980	2.851	12.5	21.9	8 9	18 35.44	-13 12.0	1.724	2.592	14.2	18.3
352479	2008 <i>BO</i> ₃₁		7 6.5 155°71	2°0/ 7.3 14 C			235798	2004 <i>XJ</i> ₂₃		7 6.5 268°96	1°6/ 5.9 18		
5 31	19 27.54	-14 49.4	2.689	3.508	11.2	22.3	5 31	19 30.82	-24 9.8	1.976	2.821	13.6	20.5
6 10	19 22.62	-14 56.7	2.609	3.514	8.7	22.1	6 10	19 26.16	-24 52.0	1.877	2.801	10.5	20.3
6 20	19 16.14	-15 10.5	2.552	3.521	5.9	21.9	6 20	19 19.03	-25 39.1	1.800	2.780	6.9	20.0
6 30	19 8.59	-15 30.1	2.522	3.526	3.1	21.8	6 30	19 9.96	-26 27.3	1.749	2.759	3.0	19.7
7 10	19 0.59	-15 53.9	2.521	3.532	2.2	21.7	7 10	18 59.85	-27 12.1	1.725	2.738	2.4	19.6
7 20	18 52.80	-16 20.7	2.549	3.536	4.6	21.9	7 20	18 49.76	-27 50.2	1.729	2.716	6.3	19.8
7 30	18 45.91	-16 48.8	2.604	3.541	7.4	22.1	7 30	18 40.87	-28 19.6	1.758	2.694	10.3	20.0
8 9	18 40.46	-17 17.0	2.685	3.545	10.0	22.2	8 9	18 34.13	-28 40.2	1.810	2.672	13.9	20.2
213501	2002 <i>GV</i> ₇₆		7 6.5 325°96	1°6/ 6.9 18			177066	2003 <i>FE</i> ₈		7 6.5 57°51	8°0/ 10.9 18		
5 31	19 26.56	-16 33.3	1.214	2.086	18.7	19.1	5 31	19 26.42	+ 3 16.7	2.093	2.858	15.6	19.4
6 10	19 23.88	-17 0.1	1.136	2.073	14.7	18.8	6 10	19 22.08	+ 3 15.6	2.027	2.873	13.4	19.3
6 20	19 18.02	-17 41.6	1.076	2.060	9.8	18.5	6 20	19 15.93	+ 2 53.8	1.981	2.887	11.0	19.2
6 30	19 9.64	-18 36.0	1.038	2.048	4.4	18.1	6 30	19 8.55	+ 2 9.8	1.957	2.902	9.0	19.1
7 10	18 59.94	-19 38.5	1.022	2.037	2.4	18.0	7 10	19 0.69	+ 1 4.7	1.957	2.917	8.0	19.0
7 20	18 50.45	-20 43.5	1.030	2.027	7.9	18.3	7 20	18 53.15	- 0 18.4	1.984	2.932	8.7	19.1
7 30	18 42.75	-21 45.6	1.060	2.017	13.3	18.5	7 30	18 46.71	- 1 54.4	2.036	2.948	10.5	19.3
8 9	18 38.07	-22 41.4	1.109	2.009	18.0	18.8	8 9	18 41.97	- 3 37.4	2.112	2.963	12.7	19.4
131661	2001 <i>XX</i> ₁₄₆		7 6.5 153°69	0°9/ 6.3 17			181545	2006 <i>UX</i> ₁₉₈		7 6.5 163°35	0°7/ 6.3 18		
5 31	19 32.96	-22 44.0	1.424	2.284	17.2	20.1	5 31	19 28.87	-23 41.2	2.417	3.255	11.7	21.3
6 10	19 28.27	-23 10.8	1.354	2.285	13.2	19.8	6 10	19 23.93	-23 58.1	2.338	3.258	8.9	21.1
6 20	19 20.53	-23 42.9	1.304	2.287	8.6	19.6	6 20	19 17.14	-24 17.0	2.281	3.260	5.8	20.9
6 30	19 10.53	-24 16.5	1.277	2.288	3.5	19.3	6 30	19 9.05	-24 35.6	2.252	3.262	2.4	20.7
7 10	18 59.53	-24 47.1	1.274	2.289	2.2	19.2	7 10	19 0.42	-24 51.8	2.250	3.264	1.5	20.6
7 20	18 48.98	-25 11.3	1.298	2.290	7.3	19.5	7 20	18 52.05	-25 4.2	2.277	3.266	4.9	20.9
7 30	18 40.31	-25 27.9	1.345	2.291	12.0	19.8	7 30	18 44.76	-25 12.2	2.330	3.267	8.1	21.1
8 9	18 34.51	-25 37.5	1.412	2.292	16.1	20.0	8 9	18 39.17	-25 15.9	2.408	3.269	11.0	21.3
366107	2012 <i>DG</i> ₁₇		7 6.5 124°55	1°2/ 7.0 18			394741	2008 <i>FJ</i> ₂₅		7 6.5 24°41	1°2/ 6.2 15		
5 31	19 25.56	-17 7.4	2.786	3.613	10.6	20.7	5 31	19 27.34	-24 22.0	1.761	2.619	14.5	21.1
6 10	19 21.10	-17 22.0	2.707	3.620	8.2	20.5	6 10	19 23.35	-24 44.3	1.697	2.627	11.0	20.9
6 20	19 15.16	-17 41.9	2.652	3.626	5.4	20.4	6 20	19 17.01	-25 9.1	1.653	2.636	7.1	20.7
6 30	19 8.20	-18 5.9	2.624	3.632	2.5	20.2	6 30	19 9.04	-25 33.2	1.635	2.646	3.0	20.5
7 10	19 0.81	-18 32.4	2.624	3.637	1.5	20.1	7 10	19 0.43	-25 53.6	1.642	2.656	2.1	20.4
7 20	18 53.63	-19 0.0	2.653	3.643	4.2	20.3	7 20	18 52.27	-26 8.3	1.675	2.666	6.1	20.7
7 30	18 47.29	-19 27.3	2.709	3.649	7.0	20.5	7 30	18 45.56	-26 16.6	1.733	2.678	9.9	21.0
8 9	18 42.32	-19 53.3	2.791	3.654	9.6	20.7	8 9	18 41.07	-26 19.0	1.813	2.689	13.3	21.2
242519	2005 <i>AH</i> ₇												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
370931	2005 <i>QB</i> ₃₄		7 6.5 321°54	1°2/ 6.9 14	C		380402	2002 <i>XB</i> ₁₂₀		7 6.5 314°86	1°1/ 6.2 17		
5 31	19 23.79	-18 29.6	2.506	3.345	11.3	21.0	5 31	19 27.22	-22 41.9	1.283	2.159	17.7	20.7
6 10	19 20.12	-18 27.5	2.403	3.322	8.8	20.8	6 10	19 24.59	-23 10.8	1.191	2.132	13.8	20.4
6 20	19 14.75	-18 29.9	2.323	3.300	5.8	20.6	6 20	19 18.68	-23 47.8	1.118	2.105	9.1	20.1
6 30	19 8.14	-18 36.0	2.269	3.278	2.7	20.3	6 30	19 10.04	-24 29.2	1.067	2.079	3.8	19.7
7 10	19 0.90	-18 44.9	2.242	3.256	1.6	20.2	7 10	18 59.84	-25 9.9	1.039	2.053	2.5	19.5
7 20	18 53.76	-18 55.5	2.243	3.235	4.7	20.4	7 20	18 49.62	-25 45.1	1.033	2.028	8.2	19.8
7 30	18 47.47	-19 6.8	2.270	3.214	8.0	20.6	7 30	18 41.10	-26 11.9	1.050	2.004	13.7	20.0
8 9	18 42.65	-19 18.2	2.322	3.193	10.9	20.7	8 9	18 35.68	-26 29.8	1.086	1.981	18.7	20.2
121737	1999 <i>XY</i> ₁₉₀		7 6.5 245°07	0°5/ 6.4 18			134273	2006 <i>BR</i> ₁₅₆		7 6.5 186°99	1°1/ 6.2 18		
5 31	19 28.83	-24 32.7	2.783	3.615	10.5	20.4	5 31	19 32.37	-24 55.1	2.424	3.256	11.8	22.0
6 10	19 23.74	-24 31.0	2.685	3.601	8.0	20.2	6 10	19 26.64	-25 14.8	2.339	3.255	9.1	21.8
6 20	19 16.97	-24 29.5	2.610	3.587	5.2	20.0	6 20	19 18.94	-25 35.7	2.277	3.254	5.9	21.6
6 30	19 8.99	-24 26.8	2.562	3.573	2.1	19.8	6 30	19 9.82	-25 55.2	2.243	3.252	2.5	21.4
7 10	19 0.46	-24 21.6	2.543	3.558	1.3	19.7	7 10	19 0.08	-26 10.9	2.237	3.250	1.8	21.3
7 20	18 52.11	-24 13.3	2.553	3.542	4.4	19.9	7 20	18 50.59	-26 21.2	2.260	3.247	5.1	21.6
7 30	18 44.65	-24 1.9	2.591	3.527	7.5	20.0	7 30	18 42.23	-26 25.7	2.310	3.243	8.4	21.8
8 9	18 38.68	-23 48.0	2.654	3.511	10.2	20.2	8 9	18 35.66	-26 25.2	2.385	3.239	11.3	21.9
90228	2003 <i>BN</i> ₁₉		7 6.5 104°72	3°2/ 7.8 17			36905	2000 <i>SX</i> ₁₇₉		7 6.5 224°02	3°9/ 5.3 18		
5 31	19 26.96	-11 11.1	2.211	3.032	13.2	19.9	5 31	19 31.00	-33 56.5	2.575	3.407	11.2	19.2
6 10	19 22.53	-11 26.3	2.134	3.037	10.4	19.7	6 10	19 25.71	-34 31.7	2.489	3.400	8.8	19.0
6 20	19 16.28	-11 52.6	2.078	3.042	7.3	19.5	6 20	19 18.39	-35 3.1	2.427	3.393	6.3	18.9
6 30	19 8.73	-12 29.2	2.047	3.046	4.3	19.4	6 30	19 9.61	-35 27.2	2.391	3.386	4.2	18.7
7 10	19 0.61	-13 14.2	2.044	3.051	3.3	19.3	7 10	19 0.18	-35 40.7	2.383	3.378	4.2	18.7
7 20	18 52.74	-14 4.9	2.069	3.055	5.6	19.5	7 20	18 50.99	-35 42.4	2.402	3.371	6.2	18.8
7 30	18 45.90	-14 58.6	2.120	3.060	8.7	19.7	7 30	18 42.92	-35 32.4	2.448	3.363	8.8	19.0
8 9	18 40.74	-15 52.5	2.196	3.064	11.6	19.8	8 9	18 36.69	-35 12.9	2.518	3.354	11.3	19.1
397076	2005 <i>UH</i> ₂₃₁		7 6.5 316°05	0°8/ 6.7 18			338608	2003 <i>SN</i> ₁₉₇		7 6.5 329°52	7°8/ 4.6 16		
5 31	19 26.55	-20 15.8	1.875	2.727	14.0	20.6	5 31	19 33.22	-39 16.5	1.627	2.474	15.9	20.2
6 10	19 22.82	-20 15.8	1.781	2.707	10.8	20.4	6 10	19 28.78	-40 16.9	1.554	2.467	13.1	20.0
6 20	19 16.80	-20 20.6	1.707	2.688	7.1	20.1	6 20	19 21.06	-41 9.2	1.502	2.459	10.2	19.8
6 30	19 9.04	-20 28.9	1.659	2.669	3.0	19.8	6 30	19 10.85	-41 45.3	1.472	2.453	8.1	19.7
7 10	19 0.42	-20 38.9	1.636	2.651	1.7	19.7	7 10	18 59.51	-41 59.1	1.466	2.446	8.2	19.6
7 20	18 51.94	-20 49.0	1.639	2.632	5.9	19.9	7 20	18 48.64	-41 48.2	1.484	2.440	10.4	19.8
7 30	18 44.67	-20 58.2	1.668	2.615	10.0	20.1	7 30	18 39.79	-41 14.6	1.525	2.434	13.4	19.9
8 9	18 39.46	-21 6.1	1.718	2.598	13.7	20.3	8 9	18 34.05	-40 24.0	1.585	2.429	16.5	20.1
86474	2000 <i>CT</i> ₇₉		7 6.5 131°13	1°9/ 7.1 18			37656	1994 <i>PP</i> ₆		7 6.5 305°04	3°5/ 5.8 18		
5 31	19 28.58	-16 34.2	2.031	2.868	13.6	19.7	5 31	19 30.72	-32 8.4	2.066	2.910	13.1	19.4
6 10	19 23.95	-16 36.5	1.954	2.871	10.6	19.5	6 10	19 25.89	-32 25.3	1.980	2.900	10.3	19.2
6 20	19 17.28	-16 45.9	1.899	2.874	7.1	19.3	6 20	19 18.69	-32 38.3	1.917	2.890	7.1	18.9
6 30	19 9.15	-17 1.5	1.870	2.877	3.5	19.1	6 30	19 9.78	-32 43.5	1.878	2.880	4.2	18.7
7 10	19 0.41	-17 21.5	1.867	2.879	2.2	19.0	7 10	19 0.11	-32 38.3	1.866	2.871	3.9	18.7
7 20	18 51.97	-17 44.1	1.891	2.882	5.5	19.2	7 20	18 50.76	-32 21.4	1.881	2.861	6.7	18.9
7 30	18 44.72	-18 7.8	1.942	2.885	9.1	19.5	7 30	18 42.80	-31 53.9	1.922	2.852	10.0	19.0
8 9	18 39.37	-18 31.2	2.016	2.887	12.3	19.7	8 9	18 37.03	-31 18.5	1.985	2.843	13.1	19.2
193618	2001 <i>CP</i> ₁₉		7 6.5 179°13	4°3/ 7.7 18			392112	2009 <i>EV</i> ₂₅		7 6.5 117°72	3°6/ 7.8 17		
5 31	19 29.60	- 9 10.4	2.534	3.335	12.3	21.4	5 31	19 27.65	-10 52.0	2.281	3.098	13.0	21.6
6 10	19 24.27	- 8 43.1	2.450	3.337	9.9	21.2	6 10	19 22.94	-10 46.8	2.208	3.108	10.3	21.4
6 20	19 17.27	- 8 24.5	2.388	3.338	7.3	21.0	6 20	19 16.48	-10 51.3	2.157	3.117	7.4	21.3
6 30	19 9.10	- 8 15.5	2.353	3.339	5.1	20.9	6 30	19 8.81	-11 5.6	2.131	3.127	4.6	21.1
7 10	19 0.45	- 8 16.2	2.345	3.339	4.4	20.9	7 10	19 0.66	-11 28.7	2.133	3.136	3.7	21.1
7 20	18 52.01	- 8 25.9	2.366	3.338	6.0	21.0	7 20	18 52.79	-11 58.8	2.162	3.144	5.7	21.2
7 30	18 44.52	- 8 43.4	2.413	3.337	8.5	21.1	7 30	18 45.96	-12 33.8	2.217	3.153	8.6	21.4
8 9	18 38.55	- 9 6.8	2.485	3.335	11.0	21.3	8 9	18 40.78	-13 11.6	2.297	3.161	11.3	21.6
442011	2010 <i>OK</i> ₅₅		7 6.5 318°92	0°2/ 6.5 18			83603	2001 <i>SO</i> ₂₆₈		7 6.5 117°51	5°3/ 8.6 18		
5 31	19 29.97	-24 40.8	2.195	3.036	12.6	20.6	5 31	19 27.05	- 5 53.0	2.140	2.944	14.1	19.8
6 10	19 24.92	-24 19.6	2.110	3.032	9.7	20.4	6 10	19 22.63	- 5 48.5	2.063	2.949	11.5	19.6
6 20	19 17.85	-23 57.6	2.049	3.028	6.3	20.1	6 20	19 16.37	- 5 57.9	2.008	2.954	8.7	19.5
6 30	19 9.36	-23 33.7	2.013	3.024	2.5	19.9	6 30	19 8.80	- 6 22.2	1.977	2.959	6.3	19.3
7 10	19 0.31	-23 7.3	2.005	3.020	1.4	19.8	7 10	19 0.67	- 7 0.2	1.972	2.963	5.4	19.3
7 20	18 51.60	-22 38.5	2.025	3.017	5.2	20.1	7 20	18 52.79	- 7 49.9	1.994	2.968	6.8	19.4
7 30	18 44.12	-22 8.3	2.072	3.013	8.7	20.3	7 30	18 45.98	- 8 47.9	2.042	2.972	9.5	19.5
8 9	18 38.53	-21 37.8	2.143	3.010	11.9	20.5	8 9	18 40.86	- 9 50.5	2.114	2.977	12.2	19.7
35102	1991 <i>RT</i>		7 6.5 330°65	11°9/ 10.4 18			303944	2005 <i>WY</i> ₁₈₂		7 6.5 110°94	7°9/ 2.1 17		
5 31	19 21.96	+ 2 27.3	1.339	2.153	20.5	17.9	5 31	19 39.06	-47 50.7	2.836	3.622	11.5	20.9
6 10	19 19.99	+ 3 9.1	1.253	2.130	18.0	17.7	6 10	19 32.27	-49 31.8	2.786	3.640	9.9	20.8
6 20	19 15.35	+ 3 24.4	1.183	2.108	15.3	17.4	6 20	19 22.88	-51 2.3	2.759	3.658	8.6	20.7
6 30	19 8.58	+ 3 6.4	1.132	2.087	13.0	17.2	6 30	19 11.51	-52 15.9	2.759	3.675	7.9	20.7
7 10	19 0.65	+ 2 12.1	1.100	2.068	11.9	17.1	7 10	18 59.19	-53 7.9	2.784	3.692	8.2	20.7
7 20	18 52.78	+ 0 42.8	1.090	2.049	12.9	17.1	7 20	18 47.09	-53 36.5	2.836	3.709	9.2	20.8
7 30	18 46.29	- 1 15.4	1.100	2.032	15.5	17.2	7 30	18 36.42	-53 43.0	2.911	3.725	10.6	20.9
8 9	18 42.29	- 3 31.9	1.130	2.016	18.8	17.3	8 9	18 28.11	-53 31.3	3.007	3.741	12.0	21.1
406735	2008 <i>GB</i> ₁₂₉		7 6.5 359°28	5°9/ 8.7 15			198210	2004 <i>TF</i> ₁₆₃					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
186031	2001 QO ₃₂₈	7 6.5 200°65	1.4/ 7.1 18				195799	2002 QW ₇	7 6.5 283°47	1.2/ 6.9 18			
5 31	19 27.78	-16 26.4	2.132	2.967	13.1	19.9	5 31	19 28.13	-16 49.1	1.928	2.769	14.1	19.8
6 10	19 23.34	-16 50.2	2.051	2.967	10.2	19.7	6 10	19 23.95	-17 20.4	1.839	2.759	10.9	19.6
6 20	19 16.92	-17 22.1	1.991	2.966	6.8	19.5	6 20	19 17.52	-18 1.4	1.772	2.749	7.3	19.4
6 30	19 9.06	-18 0.5	1.958	2.966	3.1	19.2	6 30	19 9.39	-18 50.1	1.729	2.739	3.3	19.1
7 10	19 0.54	-18 42.9	1.951	2.965	1.8	19.1	7 10	19 0.41	-19 43.1	1.714	2.728	1.8	19.0
7 20	18 52.25	-19 26.5	1.973	2.964	5.3	19.4	7 20	18 51.57	-20 37.1	1.726	2.718	5.8	19.2
7 30	18 45.05	-20 9.1	2.021	2.964	8.8	19.6	7 30	18 43.89	-21 28.8	1.763	2.708	9.7	19.4
8 9	18 39.65	-20 48.8	2.093	2.963	12.0	19.8	8 9	18 38.22	-22 16.3	1.824	2.698	13.3	19.6
395500	2011 UZ ₉₄	7 6.5 168°53	4.3/ 7.8 17				240946	2006 GY ₄₁	7 6.5 132°77	3.6/ 5.2 18			
5 31	19 27.09	- 9 10.4	2.441	3.250	12.5	21.6	5 31	19 34.21	-30 55.6	2.285	3.118	12.4	20.9
6 10	19 22.45	- 8 47.2	2.360	3.252	10.1	21.5	6 10	19 28.24	-31 51.4	2.219	3.132	9.6	20.7
6 20	19 16.15	- 8 33.2	2.301	3.253	7.4	21.3	6 20	19 20.07	-32 45.3	2.176	3.146	6.6	20.6
6 30	19 8.69	- 8 29.5	2.268	3.255	5.1	21.2	6 30	19 10.33	-33 32.6	2.160	3.159	4.1	20.4
7 10	19 0.75	- 8 35.8	2.261	3.256	4.4	21.1	7 10	18 59.96	-34 9.3	2.172	3.172	4.0	20.5
7 20	18 53.04	- 8 51.3	2.282	3.257	6.0	21.2	7 20	18 49.95	-34 33.2	2.212	3.184	6.4	20.6
7 30	18 46.27	- 9 14.4	2.330	3.258	8.6	21.4	7 30	18 41.27	-34 44.3	2.279	3.195	9.3	20.8
8 9	18 41.02	- 9 43.2	2.402	3.259	11.1	21.6	8 9	18 34.67	-34 44.4	2.369	3.206	11.9	21.0
129379	6799 P-L	7 6.5 239°91	0.4/ 6.6 18				358272	2006 TG ₁₂₁	7 6.5 135°75	2.7/ 7.8 18			
5 31	19 31.20	-20 23.9	2.034	2.872	13.6	20.9	5 31	19 27.33	-11 29.6	2.784	3.592	11.1	22.2
6 10	19 26.20	-20 37.0	1.940	2.859	10.5	20.7	6 10	19 22.41	-11 39.4	2.708	3.604	8.8	22.0
6 20	19 18.92	-20 55.1	1.868	2.846	6.9	20.4	6 20	19 16.03	-11 57.5	2.656	3.616	6.1	21.9
6 30	19 9.92	-21 16.3	1.822	2.832	2.8	20.2	6 30	19 8.65	-12 23.1	2.630	3.628	3.7	21.7
7 10	19 0.07	-21 38.1	1.803	2.818	1.5	20.0	7 10	19 0.86	-12 55.1	2.633	3.638	2.8	21.7
7 20	18 50.36	-21 58.5	1.812	2.803	5.7	20.3	7 20	18 53.30	-13 31.7	2.665	3.649	4.7	21.8
7 30	18 41.85	-22 16.2	1.847	2.788	9.6	20.5	7 30	18 46.60	-14 11.1	2.725	3.659	7.2	22.0
8 9	18 35.36	-22 30.7	1.905	2.772	13.1	20.7	8 9	18 41.25	-14 51.3	2.810	3.669	9.6	22.2
12904	1998 RB ₆₅	7 6.5 34°60	0°/ 6.3 18				286202	2001 UO ₈₀	7 6.5 317°96	1.7/ 6.1 18			
5 31	19 27.34	-21 56.1	2.005	2.854	13.3	17.8	5 31	19 28.15	-24 37.1	1.372	2.244	17.0	20.3
6 10	19 23.05	-22 5.1	1.937	2.862	10.2	17.6	6 10	19 25.03	-25 3.0	1.287	2.225	13.2	20.1
6 20	19 16.71	-22 17.5	1.890	2.871	6.6	17.4	6 20	19 18.79	-25 33.6	1.221	2.206	8.7	19.7
6 30	19 8.95	-22 31.3	1.869	2.880	2.6	17.1	6 30	19 10.06	-26 4.6	1.177	2.188	3.8	19.4
7 10	19 0.64	-22 44.4	1.874	2.889	1.4	17.1	7 10	19 0.03	-26 31.5	1.157	2.170	2.7	19.3
7 20	18 52.70	-22 55.4	1.906	2.898	5.3	17.3	7 20	18 50.18	-26 50.6	1.160	2.154	7.8	19.5
7 30	18 46.03	-23 3.4	1.964	2.908	8.9	17.6	7 30	18 42.06	-27 0.5	1.187	2.138	12.8	19.8
8 9	18 41.29	-23 8.5	2.045	2.919	12.1	17.8	8 9	18 36.87	-27 1.9	1.233	2.122	17.3	20.0
384421	2009 WY ₂₃₄	7 6.5 304°49	2°/ 6.6 17				384739	2011 LU ₁₂	7 6.5 153°48	4.5/ 7.1 17			
5 31	19 31.67	-20 49.3	1.461	2.319	16.9	20.9	5 31	19 32.13	-12 44.7	2.028	2.848	14.2	20.7
6 10	19 27.57	-20 2.6	1.358	2.288	13.3	20.6	6 10	19 26.55	-11 49.1	1.951	2.853	11.3	20.5
6 20	19 20.39	-19 15.7	1.276	2.257	9.0	20.3	6 20	19 18.91	-11 0.1	1.896	2.857	8.2	20.3
6 30	19 10.70	-18 28.7	1.216	2.225	4.2	19.9	6 30	19 9.85	-10 19.5	1.867	2.861	5.3	20.2
7 10	18 59.64	-17 42.0	1.181	2.194	2.9	19.8	7 10	19 0.23	- 9 48.5	1.865	2.865	4.6	20.1
7 20	18 48.60	-16 57.3	1.171	2.163	7.8	20.0	7 20	18 50.98	- 9 27.6	1.891	2.868	6.9	20.3
7 30	18 39.14	-16 16.5	1.184	2.133	13.1	20.2	7 30	18 43.00	- 9 16.5	1.942	2.871	10.0	20.5
8 9	18 32.45	-15 41.4	1.218	2.103	17.8	20.4	8 9	18 36.97	- 9 13.9	2.017	2.874	12.9	20.7
203650	2002 GV ₁₅₉	7 6.5 55°93	0°/ 6.4 17				454866	2015 TF ₁₃	7 6.6 357°53	15°/ 13.2 16			
5 31	19 29.99	-22 19.7	1.727	2.580	14.9	20.2	5 31	19 22.17	+15 55.1	1.725	2.439	20.2	20.4
6 10	19 25.48	-22 45.1	1.656	2.584	11.4	20.0	6 10	19 19.46	+17 22.3	1.662	2.435	18.8	20.3
6 20	19 18.51	-23 15.2	1.607	2.588	7.4	19.7	6 20	19 14.61	+18 21.0	1.614	2.432	17.5	20.2
6 30	19 9.75	-23 46.8	1.581	2.593	3.0	19.5	6 30	19 8.21	+18 44.4	1.582	2.430	16.5	20.1
7 10	19 0.23	-24 16.4	1.582	2.597	1.8	19.4	7 10	19 1.10	+18 29.1	1.567	2.429	15.9	20.1
7 20	18 51.10	-24 41.4	1.610	2.602	6.2	19.7	7 20	18 54.26	+17 35.1	1.571	2.429	16.0	20.1
7 30	18 43.46	-25 0.6	1.662	2.606	10.3	19.9	7 30	18 48.63	+16 6.3	1.593	2.430	16.8	20.1
8 9	18 38.14	-25 13.8	1.737	2.611	13.8	20.2	8 9	18 44.99	+14 10.4	1.634	2.432	18.0	20.2
358885	2008 GK ₂₁	7 6.5 307°21	4.9/ 4.9 18				337109	1999 RY ₉₃	7 6.6 287°53	2.6/ 7.2 18			
5 31	19 30.69	-35 15.6	2.228	3.067	12.5	20.7	5 31	19 30.19	-14 49.5	1.974	2.806	14.2	21.2
6 10	19 25.82	-36 2.9	2.151	3.064	9.9	20.5	6 10	19 25.72	-14 52.4	1.857	2.770	11.3	21.0
6 20	19 18.65	-36 45.7	2.096	3.061	7.3	20.4	6 20	19 18.86	-15 4.7	1.762	2.733	7.8	20.7
6 30	19 9.80	-37 19.3	2.067	3.058	5.2	20.2	6 30	19 10.04	-15 26.0	1.691	2.696	4.1	20.4
7 10	19 0.20	-37 39.7	2.064	3.055	5.2	20.2	7 10	19 0.06	-15 55.0	1.647	2.658	2.9	20.2
7 20	18 50.90	-37 45.2	2.088	3.052	7.3	20.4	7 20	18 49.92	-16 29.5	1.630	2.620	6.4	20.3
7 30	18 42.93	-37 36.1	2.137	3.049	10.0	20.5	7 30	18 40.75	-17 7.4	1.639	2.581	10.6	20.5
8 9	18 37.10	-37 15.2	2.209	3.047	12.6	20.7	8 9	18 33.55	-17 46.4	1.672	2.542	14.5	20.7
263405	2008 DE ₂₆	7 6.5 89°63	7.8/ 8.7 17				376369	2011 LH ₁₅	7 6.6 123°30	6.0/ 4.4 18			
5 31	19 30.11	- 4 22.9	1.590	2.403	17.8	20.7	5 31	19 34.99	-35 29.6	1.923	2.762	14.2	20.6
6 10	19 25.44	- 3 40.2	1.528	2.415	14.8	20.6	6 10	19 29.49	-36 46.6	1.858	2.770	11.3	20.5
6 20	19 18.39	- 3 15.2	1.485	2.427	11.5	20.4	6 20	19 21.22	-37 59.2	1.816	2.778	8.4	20.3
6 30	19 9.66	- 3 10.6	1.464	2.438	8.8	20.3	6 30	19 10.91	-39 0.3	1.799	2.785	6.3	20.2
7 10	19 0.30	- 3 26.8	1.467	2.450	7.9	20.2	7 10	18 59.68	-39 44.3	1.808	2.793	6.4	20.2
7 20	18 51.39	- 4 2.1	1.495	2.461	9.4	20.4	7 20	18 48.86	-40 8.2	1.843	2.800	8.6	20.4
7 30	18 43.99	- 4 52.3	1.546	2.473	12.2	20.5	7 30	18 39.70	-40 12.6	1.902	2.806	11.5	20.5
8 9	18 38.85	- 5 52.4	1.619	2.484	15.2	20.8	8 9	18 33.14	-40 1.1	1.983	2.813	14.2	20.7
200450	2000 WH ₁₆	7 6.5 297°97	3.4/ 5.5 18				213837	2003 RR ₁₅	7 6.6 45°30	1.2/ 6.7 18			
5 31	19 30.84	-27 48.5											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
321334	2009 <i>HE</i> ₉₈		7 6.6 339°23	6°4/ 7.6 17			408627	2014 <i>KO</i> ₉₃		7 6.6 343°94	1°7/ 6.9 18		
5 31	19 26.27	-11 20.0	1.188	2.051	19.6	20.4	5 31	19 26.75	-18 22.0	1.990	2.835	13.6	20.4
6 10	19 23.53	-10 35.2	1.116	2.041	15.9	20.2	6 10	19 22.72	-18 9.8	1.908	2.830	10.5	20.2
6 20	19 17.73	-10 4.3	1.062	2.033	11.7	19.9	6 20	19 16.63	-18 2.7	1.848	2.826	7.0	20.0
6 30	19 9.61	-9 50.5	1.028	2.026	7.7	19.6	6 30	19 9.06	-18 0.1	1.814	2.822	3.3	19.8
7 10	19 0.38	-9 54.9	1.015	2.019	6.5	19.6	7 10	19 0.85	-18 1.0	1.805	2.818	2.1	19.7
7 20	18 51.50	-10 16.1	1.025	2.013	9.5	19.7	7 20	18 52.92	-18 4.4	1.823	2.815	5.6	19.9
7 30	18 44.42	-10 51.1	1.056	2.008	13.9	19.9	7 30	18 46.17	-18 9.6	1.867	2.813	9.2	20.1
8 9	18 40.22	-11 35.0	1.106	2.004	18.2	20.2	8 9	18 41.32	-18 15.8	1.934	2.810	12.5	20.3
234340	2001 <i>FS</i> ₄₄		7 6.6 151°23	3°8/ 5.4 17			350336	2012 <i>UG</i> ₁₀₀		7 6.6 246°95	2°5/ 7.3 18		
5 31	19 34.63	-33 39.7	2.529	3.355	11.6	21.5	5 31	19 29.11	-15 2.2	2.161	2.990	13.2	22.1
6 10	19 28.39	-34 17.0	2.457	3.365	9.1	21.3	6 10	19 24.44	-14 57.1	2.067	2.977	10.4	21.9
6 20	19 20.10	-34 50.2	2.410	3.375	6.4	21.1	6 20	19 17.76	-14 59.4	1.995	2.965	7.1	21.7
6 30	19 10.37	-35 15.3	2.389	3.384	4.2	21.0	6 30	19 9.57	-15 8.8	1.948	2.952	3.8	21.5
7 10	19 0.08	-35 29.3	2.396	3.392	4.1	21.0	7 10	19 0.64	-15 24.2	1.928	2.938	2.7	21.4
7 20	18 50.16	-35 31.0	2.431	3.400	6.2	21.2	7 20	18 51.86	-15 44.2	1.936	2.925	5.7	21.5
7 30	18 41.50	-35 21.1	2.494	3.407	8.8	21.3	7 30	18 44.12	-16 7.3	1.971	2.911	9.2	21.7
8 9	18 34.79	-35 1.8	2.580	3.413	11.2	21.5	8 9	18 38.17	-16 31.9	2.029	2.897	12.4	21.9
262365	2006 <i>TF</i> ₈₉		7 6.6 266°54	0°8/ 6.4 18			245293	2005 <i>CF</i> ₅₃		7 6.6 122°51	2°4/ 7.5 18		
5 31	19 33.02	-23 47.4	1.715	2.564	15.2	21.8	5 31	19 29.32	-13 32.5	2.139	2.964	13.4	20.9
6 10	19 28.21	-24 0.2	1.618	2.544	11.8	21.5	6 10	19 24.44	-13 49.8	2.066	2.974	10.5	20.7
6 20	19 20.60	-24 16.1	1.543	2.523	7.8	21.2	6 20	19 17.63	-14 16.8	2.015	2.984	7.2	20.5
6 30	19 10.79	-24 32.1	1.491	2.502	3.2	20.9	6 30	19 9.46	-14 52.1	1.990	2.994	3.8	20.3
7 10	18 59.82	-24 44.9	1.466	2.481	2.0	20.7	7 10	19 0.73	-15 33.6	1.993	3.003	2.6	20.3
7 20	18 48.95	-24 52.4	1.467	2.459	6.7	21.0	7 20	18 52.29	-16 18.6	2.023	3.012	5.4	20.5
7 30	18 39.52	-24 53.7	1.494	2.437	11.3	21.2	7 30	18 44.99	-17 4.6	2.080	3.021	8.7	20.7
8 9	18 32.60	-24 49.8	1.542	2.414	15.4	21.4	8 9	18 39.48	-17 49.5	2.161	3.029	11.7	20.9
311478	2005 <i>UG</i> ₅₁₆		7 6.6 154°10	1°7/ 7.2 18			4162	SAF		7 6.6 247°06	3°8/ 7.1 18		
5 31	19 26.82	-15 42.0	3.028	3.845	10.1	22.1	5 31	19 29.85	-13 23.4	2.238	3.059	13.1	16.5
6 10	19 21.97	-15 39.9	2.947	3.852	7.8	21.9	6 10	19 24.85	-12 40.3	2.145	3.048	10.4	16.3
6 20	19 15.74	-15 42.6	2.891	3.859	5.3	21.8	6 20	19 17.93	-12 2.9	2.075	3.038	7.4	16.1
6 30	19 8.59	-15 49.7	2.861	3.865	2.8	21.6	6 30	19 9.61	-11 32.4	2.031	3.027	4.7	15.9
7 10	19 1.05	-16 0.4	2.861	3.872	1.9	21.6	7 10	19 0.65	-11 9.6	2.013	3.016	4.0	15.9
7 20	18 53.73	-16 13.6	2.890	3.877	4.1	21.7	7 20	18 51.89	-10 54.7	2.024	3.004	6.2	16.0
7 30	18 47.19	-16 28.5	2.947	3.882	6.7	21.9	7 30	18 44.17	-10 47.4	2.061	2.993	9.3	16.2
8 9	18 41.92	-16 44.2	3.029	3.887	9.0	22.1	8 9	18 38.19	-10 46.9	2.121	2.981	12.3	16.3
89248	2001 <i>UR</i> ₁₆₉		7 6.6 92°09	4°4/ 5.1 17			241335	2007 <i>VB</i> ₂₁₀		7 6.6 55°96	0°9/ 6.4 16		
5 31	19 31.65	-32 59.2	2.132	2.973	12.9	20.2	5 31	19 30.40	-24 24.4	1.893	2.742	14.0	20.8
6 10	19 26.55	-33 52.8	2.064	2.981	10.1	20.0	6 10	19 25.65	-24 33.5	1.819	2.744	10.7	20.6
6 20	19 19.13	-34 43.3	2.020	2.989	7.2	19.8	6 20	19 18.59	-24 44.2	1.767	2.747	7.0	20.3
6 30	19 10.05	-35 25.7	2.001	2.997	4.8	19.7	6 30	19 9.90	-24 53.9	1.739	2.750	2.9	20.1
7 10	19 0.28	-35 55.8	2.009	3.005	4.8	19.7	7 10	19 0.52	-25 0.3	1.739	2.753	1.8	20.0
7 20	18 50.87	-36 11.7	2.043	3.012	7.1	19.9	7 20	18 51.54	-25 2.0	1.765	2.756	5.8	20.3
7 30	18 42.87	-36 13.5	2.103	3.020	9.9	20.1	7 30	18 43.95	-24 58.9	1.817	2.759	9.7	20.5
8 9	18 37.03	-36 3.5	2.186	3.028	12.6	20.3	8 9	18 38.53	-24 51.7	1.891	2.762	13.0	20.8
515060	2010 <i>LO</i> ₅₅		7 6.6 294°81	2°0/ 6.6 18			144676	2004 <i>FU</i> ₁₃₄		7 6.6 46°08	10°5/ 5.1 17		
5 31	19 31.90	-20 7.8	2.132	2.966	13.2	20.8	5 31	19 40.84	-50 3.5	1.878	2.681	15.9	19.2
6 10	19 26.49	-19 13.6	2.039	2.954	10.3	20.6	6 10	19 34.48	-51 0.6	1.827	2.693	13.7	19.0
6 20	19 18.99	-18 19.4	1.968	2.942	6.9	20.3	6 20	19 24.62	-51 40.6	1.795	2.704	11.8	18.9
6 30	19 9.99	-17 26.0	1.923	2.930	3.4	20.1	6 30	19 12.34	-51 55.6	1.786	2.717	10.6	18.9
7 10	19 0.34	-16 34.3	1.907	2.919	2.4	20.0	7 10	18 59.31	-51 41.1	1.799	2.729	10.6	18.9
7 20	18 50.98	-15 45.7	1.919	2.907	5.8	20.2	7 20	18 47.29	-50 57.3	1.835	2.742	11.7	19.0
7 30	18 42.84	-15 1.7	1.958	2.895	9.4	20.4	7 30	18 37.77	-49 48.8	1.894	2.755	13.5	19.2
8 9	18 36.62	-14 23.4	2.020	2.884	12.6	20.6	8 9	18 31.63	-48 23.1	1.973	2.768	15.5	19.3
63315	2001 <i>FV</i> ₃₄		7 6.6 25°02	2°8/ 7.2 18			504290	2006 <i>XP</i> ₄₉		7 6.6 201°86	0°2/ 6.7 17		
5 31	19 27.43	-16 11.1	1.123	1.998	19.7	19.0	5 31	19 31.70	-19 51.0	1.833	2.676	14.6	22.2
6 10	19 24.39	-16 9.2	1.069	2.006	15.3	18.8	6 10	19 26.80	-20 20.8	1.752	2.673	11.3	22.0
6 20	19 18.20	-16 20.0	1.034	2.016	10.3	18.6	6 20	19 19.47	-20 57.7	1.692	2.671	7.4	21.7
6 30	19 9.77	-16 42.1	1.019	2.027	5.1	18.3	6 30	19 10.31	-21 38.8	1.657	2.668	3.0	21.4
7 10	19 0.48	-17 12.7	1.026	2.039	3.2	18.2	7 10	19 0.29	-22 20.6	1.649	2.664	1.5	21.3
7 20	18 51.85	-17 47.9	1.056	2.052	7.8	18.5	7 20	18 50.52	-22 59.8	1.669	2.661	6.0	21.6
7 30	18 45.26	-18 24.3	1.108	2.066	12.7	18.8	7 30	18 42.11	-23 34.2	1.714	2.657	10.1	21.8
8 9	18 41.66	-18 59.1	1.179	2.081	17.0	19.2	8 9	18 35.92	-24 3.1	1.782	2.652	13.7	22.1
441814	2009 <i>KP</i> ₂₃		7 6.6 332°30	1°2/ 6.1 18			500176	2012 <i>FN</i> ₄₅		7 6.6 114°64	1°2/ 6.3 17		
5 31	19 27.65	-22 40.7	1.940	2.791	13.6	20.6	5 31	19 34.53	-24 8.2	1.633	2.482	15.8	22.1
6 10	19 23.65	-23 29.8	1.858	2.785	10.5	20.3	6 10	19 29.08	-24 30.0	1.568	2.494	12.1	21.9
6 20	19 17.39	-24 24.6	1.798	2.779	6.8	20.1	6 20	19 20.93	-24 54.5	1.525	2.506	7.8	21.7
6 30	19 9.42	-25 21.5	1.763	2.774	2.9	19.8	6 30	19 10.86	-25 18.0	1.506	2.517	3.3	21.4
7 10	19 0.62	-26 16.1	1.755	2.769	2.1	19.8	7 10	19 0.07	-25 36.9	1.513	2.527	2.1	21.4
7 20	18 52.01	-27 4.8	1.775	2.764	6.0	20.0	7 20	18 49.81	-25 49.1	1.547	2.538	6.5	21.7
7 30	18 44.63	-27 45.2	1.820	2.760	9.8	20.2	7 30	18 41.29	-25 54.3	1.606	2.548	10.7	21.9
8 9	18 39.31	-28 16.9	1.887	2.756	13.2	20.4	8 9	18 35.35	-25 53.5	1.687	2.558	14.4	22.2
384018	2008 <i>UH</i> ₈₈		7 6.6 211°74	0°8/ 6.8 17			285344	1999 <i>RE</i> ₁₅		7 6.6 307°61	4°		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
135200	2001 RR ₄₉		7 6.6 256°64	0°3/ 6.7 18			38550	1999 VS ₅₃		7 6.6 43°96	8°3/ 8.7 18		
5 31	19 32.12	-21 17.3	1.902	2.744	14.2	20.5	5 31	19 26.38	-0 39.3	2.095	2.880	15.0	18.2
6 10	19 27.19	-21 23.2	1.805	2.726	11.0	20.2	6 10	19 22.17	+0 23.6	2.029	2.889	12.8	18.1
6 20	19 19.80	-21 33.5	1.729	2.708	7.3	20.0	6 20	19 16.16	+1 11.2	1.983	2.898	10.6	18.0
6 30	19 10.50	-21 45.9	1.679	2.689	3.0	19.7	6 30	19 8.92	+1 40.4	1.960	2.908	8.8	17.9
7 10	19 0.22	-21 58.3	1.655	2.670	1.5	19.5	7 10	19 1.19	+1 49.7	1.961	2.918	8.3	17.9
7 20	18 50.06	-22 8.7	1.659	2.651	6.0	19.8	7 20	18 53.77	+1 39.6	1.987	2.928	9.2	17.9
7 30	18 41.17	-22 16.3	1.688	2.631	10.3	20.0	7 30	18 47.43	+1 12.1	2.037	2.938	11.0	18.1
8 9	18 34.46	-22 21.1	1.741	2.610	14.0	20.2	8 9	18 42.77	+0 31.2	2.109	2.948	13.1	18.2
377089	2002 VY ₁₄₂		7 6.6 304°18	1°2/ 6.8 17			231311	2006 BN ₂₁₄		7 6.6 222°78	2°0/ 7.1 18		
5 31	19 28.92	-19 22.8	1.409	2.272	17.1	21.5	5 31	19 31.26	-16 38.4	2.245	3.071	12.9	21.2
6 10	19 25.56	-19 25.6	1.317	2.249	13.4	21.2	6 10	19 26.03	-16 29.5	2.150	3.061	10.1	21.0
6 20	19 19.18	-19 36.3	1.244	2.227	8.9	20.9	6 20	19 18.77	-16 26.1	2.079	3.050	6.8	20.8
6 30	19 10.38	-19 53.3	1.194	2.204	3.9	20.6	6 30	19 10.03	-16 28.0	2.033	3.039	3.4	20.6
7 10	19 0.25	-20 14.1	1.167	2.182	2.1	20.4	7 10	19 0.59	-16 33.9	2.015	3.027	2.3	20.5
7 20	18 50.19	-20 35.9	1.165	2.161	7.4	20.6	7 20	18 51.31	-16 43.0	2.025	3.014	5.4	20.7
7 30	18 41.69	-20 56.7	1.186	2.139	12.6	20.9	7 30	18 43.09	-16 54.2	2.063	3.001	8.9	20.9
8 9	18 35.96	-21 15.4	1.227	2.119	17.2	21.1	8 9	18 36.66	-17 6.6	2.124	2.987	12.1	21.0
2902	Westerlund		7 6.6 322°30	4°9/ 7.4 18 R			137606	1999 VJ ₁₇₅		7 6.6 315°62	0°9/ 6.7 18		
5 31	19 25.18	-13 59.1	1.083	1.960	20.1	16.6	5 31	19 28.35	-21 12.7	1.245	2.119	18.2	19.7
6 10	19 23.25	-13 32.4	1.002	1.939	16.2	16.3	6 10	19 25.48	-21 0.6	1.158	2.097	14.3	19.4
6 20	19 17.98	-13 19.0	0.938	1.918	11.5	16.0	6 20	19 19.32	-20 53.3	1.089	2.074	9.5	19.1
6 30	19 9.96	-13 21.1	0.893	1.899	6.7	15.7	6 30	19 10.51	-20 49.5	1.041	2.053	4.1	18.7
7 10	19 0.46	-13 38.6	0.870	1.880	5.1	15.5	7 10	19 0.28	-20 47.1	1.017	2.032	2.2	18.5
7 20	18 51.06	-14 9.6	0.867	1.862	9.3	15.7	7 20	18 50.19	-20 44.5	1.015	2.012	7.9	18.8
7 30	18 43.52	-14 50.4	0.885	1.846	14.7	15.9	7 30	18 41.91	-20 41.3	1.035	1.992	13.5	19.1
8 9	18 39.17	-15 36.6	0.920	1.831	19.8	16.1	8 9	18 36.70	-20 37.6	1.074	1.974	18.5	19.3
19605	1999 NU ₅₂		7 6.6 287°77	9°1/ 9.1 18			67615	2000 SU ₁₆₆		7 6.6 301°09	4°1/ 7.0 18		
5 31	19 27.00	-0 6.4	1.804	2.596	16.8	17.6	5 31	19 30.09	-16 11.0	1.314	2.174	18.3	18.2
6 10	19 23.14	+0 37.3	1.718	2.584	14.4	17.5	6 10	19 26.55	-15 27.9	1.225	2.153	14.6	17.9
6 20	19 17.09	+1 2.6	1.651	2.573	11.9	17.3	6 20	19 19.88	-14 51.5	1.154	2.132	10.2	17.6
6 30	19 9.37	+1 5.9	1.606	2.561	9.9	17.1	6 30	19 10.71	-14 23.1	1.106	2.111	5.7	17.3
7 10	19 0.83	+0 45.4	1.584	2.550	9.1	17.0	7 10	19 0.22	-14 3.8	1.081	2.091	4.4	17.2
7 20	18 52.43	+0 2.0	1.587	2.538	10.2	17.1	7 20	18 49.85	-13 53.7	1.079	2.070	8.6	17.3
7 30	18 45.20	-1 1.0	1.612	2.527	12.5	17.2	7 30	18 41.16	-13 52.6	1.100	2.051	13.6	17.5
8 9	18 39.93	-2 17.8	1.659	2.516	15.3	17.3	8 9	18 35.35	-13 59.0	1.140	2.031	18.2	17.8
40959	1999 TB ₂₄₃		7 6.6 345°06	11°8/ 10.1 18			131065	2000 YS ₇₅		7 6.6 260°11	0°0/ 6.4 18		
5 31	19 25.20	+11 4.6	2.252	2.966	16.0	18.0	5 31	19 31.70	-21 54.4	2.062	2.901	13.4	21.2
6 10	19 21.29	+12 24.9	2.180	2.964	14.6	17.9	6 10	19 26.74	-22 2.1	1.961	2.881	10.4	20.9
6 20	19 15.63	+13 25.1	2.126	2.962	13.2	17.8	6 20	19 19.46	-22 13.2	1.882	2.860	6.8	20.7
6 30	19 8.70	+14 0.8	2.092	2.960	12.2	17.7	6 30	19 10.40	-22 25.9	1.828	2.839	2.8	20.4
7 10	19 1.21	+14 9.2	2.079	2.958	11.8	17.7	7 10	19 0.41	-22 37.9	1.802	2.817	1.4	20.2
7 20	18 53.91	+13 50.1	2.088	2.957	12.2	17.7	7 20	18 50.52	-22 47.4	1.804	2.795	5.7	20.5
7 30	18 47.57	+13 5.7	2.119	2.955	13.2	17.8	7 30	18 41.77	-22 53.7	1.831	2.772	9.7	20.7
8 9	18 42.81	+12 0.8	2.169	2.954	14.6	17.9	8 9	18 35.04	-22 56.8	1.883	2.749	13.3	20.8
36956	2000 SU ₂₇₃		7 6.6 300°02	1°9/ 5.9 18			66782	1999 TT ₂₂₅		7 6.6 261°96	4°4/ 8.0 18		
5 31	19 28.79	-26 28.0	2.103	2.950	12.8	19.2	5 31	19 26.25	-8 53.3	2.361	3.172	12.8	20.2
6 10	19 24.40	-26 57.4	2.018	2.943	9.9	19.0	6 10	19 22.05	-8 35.5	2.272	3.165	10.3	20.0
6 20	19 17.83	-27 28.1	1.956	2.935	6.5	18.8	6 20	19 16.12	-8 27.9	2.206	3.158	7.7	19.9
6 30	19 9.65	-27 56.7	1.919	2.928	3.1	18.6	6 30	19 8.95	-8 31.2	2.164	3.152	5.3	19.7
7 10	19 0.72	-28 20.2	1.909	2.920	2.5	18.5	7 10	19 1.21	-8 45.3	2.149	3.145	4.5	19.6
7 20	18 52.01	-28 36.3	1.926	2.913	5.8	18.7	7 20	18 53.63	-9 9.1	2.161	3.138	6.2	19.7
7 30	18 44.50	-28 44.5	1.969	2.906	9.4	18.9	7 30	18 46.97	-9 40.7	2.200	3.131	8.8	19.9
8 9	18 38.98	-28 45.3	2.035	2.899	12.5	19.1	8 9	18 41.85	-10 17.7	2.262	3.124	11.5	20.1
115273	2003 SA ₁₈₂		7 6.6 204°90	4°0/ 7.9 18			493687	2015 SD ₁₇		7 6.6 339°77	23°7/ 10.8 17		
5 31	19 28.48	-9 52.3	2.258	3.070	13.2	19.9	5 31	20 7.23	-65 2.3	0.945	1.736	28.7	20.0
6 10	19 23.79	-9 45.1	2.171	3.067	10.6	19.7	6 10	20 1.73	-66 15.0	0.894	1.726	27.1	19.9
6 20	19 17.26	-9 48.5	2.106	3.063	7.7	19.5	6 20	19 45.60	-66 49.2	0.854	1.718	25.5	19.7
6 30	19 9.38	-10 2.7	2.066	3.059	5.0	19.3	6 30	19 21.31	-66 19.8	0.825	1.711	24.3	19.6
7 10	19 0.88	-10 27.1	2.054	3.054	4.1	19.3	7 10	18 55.33	-64 28.8	0.810	1.705	23.7	19.5
7 20	18 52.57	-10 59.9	2.069	3.050	6.1	19.4	7 20	18 34.36	-61 17.6	0.810	1.700	24.1	19.5
7 30	18 45.26	-11 39.1	2.110	3.044	9.0	19.5	7 30	18 21.93	-57 6.2	0.826	1.696	25.5	19.6
8 9	18 39.61	-12 21.9	2.176	3.039	11.9	19.7	8 9	18 17.92	-52 22.7	0.858	1.694	27.5	19.7
309053	2006 UM ₂₇₂		7 6.6 111°05	3°4/ 5.4 18			343775	2011 FA ₁₅₁		7 6.6 26°76	5°7/ 6.2 18		
5 31	19 30.64	-30 36.3	2.282	3.122	12.2	20.8	5 31	19 34.93	-35 50.4	1.431	2.288	17.2	19.6
6 10	19 25.64	-31 24.6	2.210	3.128	9.5	20.6	6 10	19 29.99	-36 4.0	1.372	2.295	13.6	19.4
6 20	19 18.52	-32 11.4	2.162	3.135	6.5	20.4	6 20	19 21.77	-36 8.3	1.332	2.303	9.8	19.2
6 30	19 9.90	-32 52.5	2.140	3.141	3.9	20.3	6 30	19 11.29	-35 57.5	1.315	2.312	6.5	19.0
7 10	19 0.62	-33 24.3	2.145	3.147	3.8	20.3	7 10	19 0.06	-35 28.3	1.321	2.321	6.0	19.0
7 20	18 51.65	-33 44.7	2.178	3.153	6.2	20.5	7 20	18 49.69	-34 41.2	1.352	2.331	8.8	19.2
7 30	18 43.92	-33 53.5	2.237	3.160	9.1	20.7	7 30	18 41.57	-33 40.4	1.407	2.342	12.5	19.4
8 9	18 38.14	-33 52.1	2.319	3.165	11.8	20.8	8 9	18 36.57	-32 31.7	1.482	2.353	16.0	19.7
368167	1999 VV ₆₅		7 6.6 290°59	0°1/ 6.6 18			429440	2010 VR ₆₁		7 6.6 255°41	1°0/ 6.9 17		
5 31	19 31.15	-21 50.0	1.489	2									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
24371	2000 AC ₁₄₀		7 6.6 315°78	2°6/ 7.4 18			309604	2008 BQ ₂₈		7 6.6 24.41	1°3/ 6.4 17		
5 31	19 25.95	-15 4.8	1.229	2.098	18.7	18.2	5 31	19 29.25	-25 28.7	1.841	2.693	14.1	20.9
6 10	19 23.70	-15 21.5	1.137	2.071	14.9	17.9	6 10	19 24.88	-25 38.4	1.771	2.698	10.8	20.7
6 20	19 18.28	-15 54.4	1.063	2.044	10.2	17.5	6 20	19 18.18	-25 48.9	1.722	2.703	7.0	20.5
6 30	19 10.17	-16 43.3	1.009	2.018	5.1	17.2	6 30	19 9.85	-25 57.5	1.698	2.709	3.0	20.2
7 10	19 0.48	-17 45.0	0.978	1.992	3.1	17.0	7 10	19 0.87	-26 1.8	1.701	2.715	2.0	20.2
7 20	18 50.69	-18 54.3	0.970	1.967	8.2	17.2	7 20	18 52.32	-26 0.6	1.730	2.721	5.9	20.4
7 30	18 42.48	-20 5.3	0.984	1.943	13.8	17.4	7 30	18 45.19	-25 53.9	1.784	2.727	9.7	20.7
8 9	18 37.26	-21 13.1	1.017	1.920	18.9	17.6	8 9	18 40.26	-25 42.7	1.860	2.734	13.1	20.9
437694	2014 DQ ₂₉		7 6.6 230°07	2°6/ 7.4 16			87270	2000 OR ₆₉		7 6.6 245°46	2°3/ 7.5 18		
5 31	19 28.64	-14 51.3	1.981	2.815	14.0	21.4	5 31	19 27.59	-14 2.7	2.319	3.144	12.5	19.6
6 10	19 24.21	-14 50.6	1.900	2.813	11.0	21.2	6 10	19 23.19	-14 14.7	2.228	3.136	9.8	19.4
6 20	19 17.68	-14 58.5	1.840	2.811	7.5	21.0	6 20	19 16.94	-14 35.3	2.159	3.128	6.8	19.2
6 30	19 9.62	-15 14.4	1.805	2.809	4.0	20.8	6 30	19 9.35	-15 3.8	2.116	3.119	3.6	18.9
7 10	19 0.88	-15 36.7	1.797	2.807	2.8	20.7	7 10	19 1.10	-15 38.6	2.100	3.111	2.5	18.8
7 20	18 52.39	-16 3.7	1.815	2.805	5.8	20.9	7 20	18 53.00	-16 17.4	2.113	3.102	5.2	19.0
7 30	18 45.08	-16 37.2	1.860	2.803	9.4	21.1	7 30	18 45.84	-16 58.1	2.152	3.093	8.5	19.2
8 9	18 39.69	-17 3.5	1.928	2.801	12.7	21.3	8 9	18 40.30	-17 38.7	2.216	3.084	11.5	19.4
260939	2005 SL ₉		7 6.6 312°40	6°1/ 5.1 18			375982	2009 WG ₂₄₈		7 6.6 194°85	2°1/ 7.2 17		
5 31	19 31.80	-37 12.5	1.895	2.738	14.2	20.1	5 31	19 31.09	-16 18.4	2.008	2.840	13.9	21.8
6 10	19 27.39	-37 53.1	1.805	2.718	11.5	19.9	6 10	19 26.08	-16 17.4	1.925	2.838	10.9	21.6
6 20	19 20.15	-38 27.5	1.736	2.698	8.7	19.6	6 20	19 18.91	-16 23.6	1.863	2.836	7.3	21.3
6 30	19 10.75	-38 49.8	1.691	2.678	6.5	19.5	6 30	19 10.16	-16 36.2	1.827	2.834	3.7	21.1
7 10	19 0.28	-38 55.2	1.670	2.659	6.5	19.4	7 10	19 0.70	-16 53.6	1.818	2.831	2.4	21.0
7 20	18 50.05	-38 41.3	1.676	2.640	8.7	19.5	7 20	18 51.50	-17 14.1	1.837	2.827	5.7	21.2
7 30	18 41.40	-38 9.4	1.705	2.621	11.8	19.7	7 30	18 43.51	-17 36.1	1.882	2.824	9.4	21.5
8 9	18 35.35	-37 23.4	1.755	2.603	14.9	19.8	8 9	18 37.49	-17 58.4	1.950	2.820	12.8	21.7
312497	2009 BR ₆₀		7 6.6 171°76	0°8/ 6.5 17			475948	2007 EV ₂₁₉		7 6.6 157°60	3°1/ 7.9 18		
5 31	19 36.39	-24 30.4	1.626	2.473	16.0	21.6	5 31	19 26.35	-10 26.5	3.149	3.950	10.1	22.4
6 10	19 30.64	-24 31.0	1.551	2.475	12.3	21.4	6 10	19 21.62	-10 17.0	3.067	3.957	8.1	22.3
6 20	19 22.06	-24 32.7	1.498	2.478	8.0	21.1	6 20	19 15.60	-10 14.6	3.010	3.963	5.8	22.1
6 30	19 11.44	-24 32.7	1.469	2.479	3.3	20.8	6 30	19 8.71	-10 19.4	2.979	3.969	3.8	22.0
7 10	18 59.97	-24 28.4	1.466	2.481	1.9	20.7	7 10	19 1.46	-10 30.9	2.976	3.975	3.1	22.0
7 20	18 48.99	-24 18.7	1.490	2.481	6.6	21.0	7 20	18 54.39	-10 48.2	3.002	3.980	4.6	22.1
7 30	18 39.78	-24 4.3	1.539	2.481	11.1	21.3	7 30	18 48.05	-11 10.3	3.056	3.985	6.7	22.2
8 9	18 33.24	-23 46.8	1.610	2.481	14.9	21.5	8 9	18 42.88	-11 35.5	3.136	3.989	8.9	22.4
83404	2001 ST ₃₃		7 6.6 31°56	1°0/ 6.9 18			380096	2013 TR ₆		7 6.6 276°37	0°2/ 6.6 18		
5 31	19 28.43	-19 21.3	1.928	2.773	13.9	19.1	5 31	19 31.96	-22 48.6	1.587	2.441	15.9	21.1
6 10	19 24.09	-19 24.9	1.854	2.776	10.7	18.9	6 10	19 27.47	-22 51.2	1.504	2.432	12.3	20.9
6 20	19 17.61	-19 33.9	1.801	2.779	7.0	18.7	6 20	19 20.18	-22 57.2	1.441	2.423	8.1	20.6
6 30	19 9.59	-19 46.8	1.773	2.783	3.1	18.5	6 30	19 10.78	-23 4.0	1.403	2.414	3.3	20.3
7 10	19 0.94	-20 1.7	1.771	2.786	1.6	18.4	7 10	19 0.37	-23 9.1	1.389	2.404	1.7	20.1
7 20	18 52.62	-20 17.0	1.797	2.790	5.5	18.6	7 20	18 50.27	-23 10.7	1.402	2.395	6.7	20.4
7 30	18 45.57	-20 31.5	1.848	2.794	9.3	18.9	7 30	18 41.76	-23 8.6	1.438	2.386	11.3	20.7
8 9	18 40.51	-20 44.4	1.922	2.798	12.7	19.1	8 9	18 35.84	-23 3.2	1.497	2.376	15.3	20.9
105502	2000 QN ₂₅₀		7 6.6 258°55	1°6/ 7.3 18			83924	2001 VZ ₂₃		7 6.6 357°67	2°9/ 5.8 18 R		
5 31	19 27.78	-15 41.9	2.274	3.104	12.6	19.8	5 31	19 29.36	-28 23.3	1.877	2.729	13.9	19.2
6 10	19 23.41	-16 5.1	2.181	3.094	9.8	19.6	6 10	19 25.11	-28 59.9	1.802	2.728	10.7	19.0
6 20	19 17.13	-16 36.8	2.111	3.084	6.6	19.4	6 20	19 18.44	-29 36.5	1.749	2.727	7.2	18.8
6 30	19 9.42	-17 15.6	2.066	3.073	3.2	19.1	6 30	19 10.01	-30 9.0	1.720	2.727	3.8	18.6
7 10	19 1.01	-17 59.2	2.050	3.063	1.9	19.0	7 10	19 0.79	-30 33.4	1.718	2.727	3.4	18.6
7 20	18 52.71	-18 45.0	2.061	3.052	5.1	19.2	7 20	18 51.90	-30 47.6	1.742	2.727	6.6	18.8
7 30	18 45.38	-19 30.5	2.099	3.041	8.6	19.4	7 30	18 44.42	-30 51.2	1.791	2.727	10.2	19.0
8 9	18 39.72	-20 14.0	2.162	3.031	11.7	19.6	8 9	18 39.19	-30 45.6	1.862	2.728	13.5	19.2
386486	2009 AM ₃₅		7 6.6 345°15	1°9/ 7.2 16			257555	1998 SM ₁₀₄		7 6.6 286°62	0°0/ 6.4 18		
5 31	19 28.10	-16 29.4	1.818	2.661	14.7	21.1	5 31	19 30.74	-21 1.3	1.570	2.425	16.0	20.9
6 10	19 24.01	-16 37.0	1.739	2.659	11.4	20.9	6 10	19 26.76	-21 22.7	1.476	2.405	12.5	20.6
6 20	19 17.66	-16 53.1	1.682	2.658	7.7	20.7	6 20	19 19.91	-21 51.5	1.402	2.384	8.2	20.3
6 30	19 9.66	-17 16.5	1.649	2.656	3.7	20.5	6 30	19 10.76	-22 24.7	1.352	2.363	3.4	20.0
7 10	19 0.92	-17 45.1	1.642	2.655	2.3	20.4	7 10	19 0.35	-22 58.8	1.327	2.342	1.8	19.8
7 20	18 52.45	-18 16.5	1.661	2.654	5.9	20.6	7 20	18 49.99	-23 30.1	1.327	2.321	6.9	20.1
7 30	18 45.26	-18 48.5	1.706	2.653	9.9	20.8	7 30	18 41.09	-23 56.4	1.352	2.300	11.8	20.3
8 9	18 40.15	-19 19.3	1.773	2.652	13.4	21.0	8 9	18 34.77	-24 17.0	1.397	2.279	16.1	20.5
523619	2007 RX ₁₉		7 6.6 201°19	16°3/30.1 18 CR			379652	2011 EK ₂₅		7 6.6 60°93	2°8/ 5.9 17		
5 31	21 3.36	-73 13.4	2.387	2.991	17.5	23.7	5 31	19 32.18	-27 0.9	1.596	2.453	15.7	20.8
6 10	20 48.72	-75 14.6	2.332	2.985	16.9	23.6	6 10	19 27.51	-27 45.2	1.534	2.463	12.1	20.6
6 20	20 20.14	-76 55.5	2.291	2.978	16.5	23.6	6 20	19 20.08	-28 30.8	1.494	2.474	8.0	20.4
6 30	19 37.08	-77 53.8	2.268	2.968	16.3	23.5	6 30	19 10.67	-29 12.6	1.477	2.485	4.0	20.2
7 10	18 47.05	-77 49.8	2.262	2.957	16.5	23.5	7 10	19 0.48	-29 45.7	1.486	2.496	3.4	20.2
7 20	18 3.16	-76 41.1	2.274	2.944	17.0	23.5	7 20	18 50.79	-30 7.3	1.521	2.507	7.1	20.4
7 30	17 33.45	-74 44.2	2.303	2.929	17.7	23.6	7 30	18 42.85	-30 17.0	1.580	2.519	11.1	20.7
8 9	17 17.69	-72 20.3	2.348	2.913	18.5	23.6	8 9	18 37.52	-30 16.7	1.660	2.530	14.6	20.9
440903	2006 UP ₃₄₅		7 6.6 78°52	1°0/ 6.8 18			67564	2000 SS ₈₇		7 6.6 297°91	3°7/ 7.6 18		
5 31	19 30.56	-21 8.											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
62703	2000 <i>TG</i> ₃₄		7 6.6 267°09	4.3/ 4.9	18		440556	2005 <i>UD</i> ₂₆₅		7 6.6 193°17	0°0/ 6.7	18	
5 31	19 32.04	-34 49.2	2.594	3.423	11.3	19.3	5 31	19 27.97	-21 22.5	2.890	3.718	10.2	22.9
6 10	19 26.83	-35 32.7	2.492	3.400	9.0	19.1	6 10	19 23.11	-21 35.9	2.802	3.716	7.8	22.7
6 20	19 19.45	-36 13.0	2.414	3.377	6.5	19.0	6 20	19 16.72	-21 52.1	2.738	3.714	5.1	22.6
6 30	19 10.43	-36 45.9	2.362	3.353	4.6	18.8	6 30	19 9.24	-22 9.5	2.701	3.712	2.1	22.3
7 10	19 0.56	-37 7.7	2.337	3.329	4.6	18.8	7 10	19 1.28	-22 26.6	2.694	3.709	1.0	22.3
7 20	18 50.75	-37 16.2	2.341	3.304	6.7	18.8	7 20	18 53.48	-22 42.1	2.715	3.705	4.1	22.5
7 30	18 41.98	-37 11.3	2.370	3.279	9.3	19.0	7 30	18 46.52	-22 55.1	2.764	3.701	7.0	22.7
8 9	18 35.08	-36 54.9	2.423	3.254	11.9	19.1	8 9	18 40.94	-23 5.6	2.839	3.697	9.5	22.8
332383	2007 <i>FU</i> ₄₄		7 6.6 282°15	2.7/ 7.2	18		499627	2010 <i>UO</i> ₈₄		7 6.6 258°60	1.4/ 6.4	17	
5 31	19 29.60	-15 52.2	1.711	2.554	15.5	21.0	5 31	19 34.74	-25 12.7	1.754	2.600	15.1	22.4
6 10	19 25.38	-15 40.2	1.625	2.544	12.2	20.7	6 10	19 29.60	-25 26.0	1.656	2.580	11.7	22.2
6 20	19 18.69	-15 36.4	1.560	2.534	8.3	20.5	6 20	19 21.64	-25 41.0	1.580	2.559	7.7	21.9
6 30	19 10.15	-15 40.6	1.519	2.524	4.4	20.2	6 30	19 11.46	-25 54.4	1.528	2.538	3.4	21.6
7 10	19 0.73	-15 51.6	1.503	2.514	3.0	20.1	7 10	19 0.10	-26 2.8	1.503	2.516	2.2	21.4
7 20	18 51.53	-16 8.0	1.513	2.505	6.6	20.3	7 20	18 48.85	-26 4.0	1.504	2.494	6.8	21.7
7 30	18 43.67	-16 28.0	1.548	2.495	10.7	20.5	7 30	18 39.06	-25 57.9	1.530	2.471	11.3	21.9
8 9	18 38.06	-16 49.9	1.606	2.485	14.5	20.7	8 9	18 31.78	-25 45.8	1.579	2.448	15.3	22.1
10370	Hylonome		7 6.6 71°06	0.2/ 7.1	10 C		382554	2001 <i>VG</i> ₁₁₁		7 6.6 311°00	4.7/ 5.3	18	
5 31	19 8.55	-18 22.2	23.812	24.632	1.4	22.6	5 31	19 29.97	-29 29.6	1.400	2.269	16.9	20.4
6 10	19 7.44	-18 23.3	23.731	24.640	1.1	22.6	6 10	19 26.90	-30 23.2	1.305	2.239	13.3	20.1
6 20	19 6.19	-18 24.7	23.677	24.649	0.7	22.6	6 20	19 20.45	-31 19.8	1.229	2.210	9.3	19.8
6 30	19 4.86	-18 26.6	23.651	24.657	0.3	22.5	6 30	19 11.16	-32 12.7	1.176	2.181	5.5	19.5
7 10	19 3.49	-18 28.8	23.653	24.666	0.2	22.5	7 10	19 0.19	-32 54.7	1.146	2.152	5.3	19.4
7 20	19 2.13	-18 31.3	23.685	24.675	0.5	22.5	7 20	18 49.15	-33 20.2	1.140	2.124	9.4	19.5
7 30	19 0.85	-18 33.9	23.745	24.683	0.9	22.6	7 30	18 39.81	-33 27.4	1.156	2.096	14.1	19.7
8 9	18 59.69	-18 36.5	23.832	24.692	1.3	22.6	8 9	18 33.63	-33 18.6	1.191	2.069	18.6	19.9
298744	2004 <i>GM</i> ₆₂		7 6.6 318°05	1.1/ 6.9	18		348126	2004 <i>BM</i> ₁₆		7 6.7 200°62	3.1/ 5.4	18	
5 31	19 27.74	-18 59.3	1.919	2.765	13.9	20.7	5 31	19 32.55	-30 44.6	2.601	3.431	11.2	22.0
6 10	19 23.70	-19 3.8	1.835	2.757	10.8	20.5	6 10	19 26.99	-31 28.6	2.514	3.426	8.7	21.9
6 20	19 17.48	-19 14.1	1.771	2.750	7.1	20.3	6 20	19 19.44	-32 11.3	2.451	3.422	6.0	21.7
6 30	19 9.63	-19 29.1	1.733	2.743	3.2	20.0	6 30	19 10.41	-32 48.9	2.416	3.416	3.6	21.5
7 10	19 1.03	-19 46.7	1.721	2.736	1.7	19.9	7 10	19 0.69	-33 18.1	2.409	3.410	3.5	21.5
7 20	18 52.65	-20 5.1	1.736	2.729	5.7	20.1	7 20	18 51.14	-33 36.9	2.430	3.404	5.8	21.6
7 30	18 45.49	-20 22.9	1.776	2.722	9.6	20.4	7 30	18 42.65	-33 44.9	2.478	3.397	8.5	21.8
8 9	18 40.33	-20 39.3	1.839	2.716	13.1	20.6	8 9	18 35.94	-33 43.3	2.551	3.389	11.1	22.0
508775	1999 <i>RW</i> ₁₀₅		7 6.6 314°10	4.2/ 6.3	18		346732	2009 <i>AX</i> ₃₃		7 6.7 314°65	0.9/ 6.4	17	
5 31	19 33.66	-32 53.3	1.491	2.349	16.6	20.8	5 31	19 28.99	-22 33.4	1.808	2.660	14.4	20.8
6 10	19 29.49	-32 50.8	1.390	2.318	13.2	20.5	6 10	19 24.91	-23 8.4	1.726	2.653	11.1	20.6
6 20	19 21.94	-32 40.9	1.310	2.287	9.3	20.2	6 20	19 18.40	-23 48.8	1.665	2.647	7.2	20.3
6 30	19 11.66	-32 18.3	1.251	2.256	5.4	19.9	6 30	19 10.06	-24 31.2	1.630	2.640	3.0	20.1
7 10	18 59.95	-31 39.2	1.217	2.225	4.6	19.8	7 10	19 0.85	-25 11.8	1.620	2.634	1.9	20.0
7 20	18 48.40	-30 42.6	1.208	2.195	8.5	19.9	7 20	18 51.85	-25 47.2	1.637	2.629	6.1	20.2
7 30	18 38.72	-29 32.0	1.222	2.166	13.2	20.1	7 30	18 44.19	-26 15.6	1.679	2.623	10.2	20.5
8 9	18 32.15	-28 13.2	1.257	2.137	17.7	20.3	8 9	18 38.75	-26 36.7	1.744	2.618	13.8	20.7
499635	2010 <i>VD</i> ₁₅		7 6.6 142°05	0.0/ 6.6	17		496628	2015 <i>TO</i> ₂₀₉		7 6.7 268°18	19.0/ 6.6	17	
5 31	19 34.41	-22 44.3	1.644	2.492	15.8	21.6	5 31	19 32.08	+ 8 14.2	1.204	1.984	24.2	21.4
6 10	19 29.04	-22 36.4	1.572	2.497	12.2	21.4	6 10	19 28.11	+11 3.5	1.141	1.976	22.2	21.2
6 20	19 21.00	-22 30.8	1.521	2.501	7.9	21.2	6 20	19 20.93	+13 28.2	1.094	1.967	20.4	21.1
6 30	19 11.05	-22 25.5	1.495	2.506	3.2	20.9	6 30	19 11.23	+15 15.6	1.064	1.959	19.2	21.0
7 10	19 0.35	-22 18.6	1.494	2.509	1.6	20.8	7 10	19 0.25	+16 15.9	1.051	1.951	19.0	20.9
7 20	18 50.13	-22 9.3	1.520	2.513	6.4	21.1	7 20	18 49.49	+16 25.0	1.055	1.942	20.0	21.0
7 30	18 41.60	-21 57.9	1.571	2.517	10.7	21.4	7 30	18 40.51	+15 45.7	1.076	1.934	21.7	21.0
8 9	18 35.59	-21 45.3	1.645	2.520	14.5	21.6	8 9	18 34.49	+14 27.4	1.111	1.925	23.8	21.2
289993	2005 <i>PX</i> ₆		7 6.6 333°41	0.2/ 6.5	18		145589	2006 <i>PC</i> ₁₈		7 6.7 358°27	3.8/ 6.3	17	
5 31	19 27.02	-18 40.0	1.738	2.591	14.9	19.5	5 31	19 32.77	-30 29.2	1.221	2.094	18.6	19.8
6 10	19 23.54	-19 43.2	1.652	2.579	11.5	19.3	6 10	19 28.88	-30 37.9	1.155	2.092	14.5	19.5
6 20	19 17.61	-20 58.2	1.587	2.568	7.5	19.0	6 20	19 21.44	-30 42.3	1.108	2.090	9.8	19.3
6 30	19 9.77	-22 20.9	1.547	2.558	3.1	18.7	6 30	19 11.38	-30 37.1	1.082	2.089	5.2	19.0
7 10	19 0.93	-23 46.0	1.534	2.549	1.7	18.6	7 10	19 0.25	-30 18.5	1.079	2.089	4.3	19.0
7 20	18 52.18	-25 7.7	1.547	2.540	6.3	18.9	7 20	18 49.80	-29 46.0	1.099	2.090	8.6	19.2
7 30	18 44.68	-26 21.6	1.586	2.531	10.6	19.1	7 30	18 41.66	-29 2.3	1.142	2.091	13.4	19.5
8 9	18 39.39	-27 25.0	1.647	2.524	14.3	19.3	8 9	18 36.86	-28 12.3	1.204	2.093	17.6	19.7
246292	2007 <i>TW</i> ₇₇		7 6.6 245°07	2.0/ 7.1	17		401260	2012 <i>BJ</i> ₉₉		7 6.7 270°75	2.9/ 7.9	18	
5 31	19 29.40	-17 29.6	2.018	2.855	13.7	20.9	5 31	19 26.45	-11 16.4	2.430	3.247	12.3	21.2
6 10	19 24.77	-17 16.5	1.936	2.853	10.6	20.7	6 10	19 22.26	-11 35.6	2.338	3.239	9.7	21.0
6 20	19 18.06	-17 9.0	1.875	2.850	7.2	20.5	6 20	19 16.35	-12 5.5	2.267	3.230	6.9	20.8
6 30	19 9.84	-17 6.5	1.840	2.847	3.5	20.2	6 30	19 9.16	-12 45.2	2.223	3.221	4.1	20.6
7 10	19 0.96	-17 8.1	1.832	2.845	2.3	20.1	7 10	19 1.35	-13 33.1	2.206	3.213	3.0	20.6
7 20	18 52.36	-17 12.9	1.851	2.842	5.6	20.4	7 20	18 53.66	-14 26.8	2.217	3.204	5.2	20.7
7 30	18 44.95	-17 19.9	1.896	2.839	9.3	20.6	7 30	18 46.83	-15 23.4	2.255	3.195	8.2	20.9
8 9	18 39.47	-17 28.3	1.964	2.836	12.6	20.8	8 9	18 41.50	-16 20.3	2.318	3.186	11.1	21.0
477523	2010 <i>ES</i> ₃₂		7 6.6 82°13	4.4/ 8.0	18		477716	2010 <i>SZ</i> ₈	</				

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
341184	2007 <i>RJ</i> ₂₈		7 6.7 329°13	8°0/ 4.8 17			469993	2006 <i>KE</i> ₁₃		7 6.7 82°34	1°6/ 7.3 17		
5 31	19 34.28	-40 16.0	1.653	2.497	15.9	20.3	5 31	19 30.17	-15 15.2	1.846	2.682	14.8	21.2
6 10	19 29.74	-41 12.0	1.580	2.488	13.1	20.1	6 10	19 25.50	-15 52.9	1.778	2.694	11.5	21.0
6 20	19 21.91	-41 58.8	1.527	2.481	10.3	20.0	6 20	19 18.61	-16 41.4	1.732	2.706	7.6	20.8
6 30	19 11.58	-42 28.6	1.496	2.474	8.3	19.8	6 30	19 10.12	-17 38.1	1.710	2.718	3.6	20.6
7 10	19 0.14	-42 35.4	1.489	2.467	8.4	19.8	7 10	19 0.97	-18 39.2	1.716	2.730	2.0	20.5
7 20	18 49.18	-42 17.1	1.506	2.460	10.4	19.9	7 20	18 52.15	-19 40.7	1.749	2.742	5.7	20.8
7 30	18 40.25	-41 36.2	1.546	2.454	13.4	20.1	7 30	18 44.66	-20 39.3	1.808	2.754	9.5	21.0
8 9	18 34.42	-40 38.3	1.606	2.449	16.3	20.3	8 9	18 39.25	-21 32.7	1.891	2.765	12.9	21.3
310622	2002 <i>AL</i> ₁₀₉		7 6.7 239°70	1°3/ 6.3 18			253371	2003 <i>HK</i> ₁₂		7 6.7 22°03	10°1/ 10.4 18		
5 31	19 30.66	-26 38.4	2.698	3.529	10.8	21.9	5 31	19 24.34	+ 1 55.4	1.644	2.439	18.1	19.4
6 10	19 25.41	-26 48.2	2.599	3.515	8.3	21.7	6 10	19 21.12	+ 2 47.4	1.587	2.451	15.6	19.2
6 20	19 18.36	-26 57.7	2.524	3.500	5.5	21.5	6 20	19 15.77	+ 3 17.3	1.549	2.463	13.1	19.1
6 30	19 9.97	-27 4.7	2.475	3.484	2.5	21.3	6 30	19 8.95	+ 3 21.4	1.530	2.476	11.0	19.0
7 10	19 0.97	-27 7.4	2.456	3.468	1.8	21.2	7 10	19 1.57	+ 2 58.8	1.534	2.490	10.1	19.0
7 20	18 52.11	-27 4.7	2.465	3.452	4.8	21.4	7 20	18 54.58	+ 2 11.6	1.560	2.505	10.9	19.0
7 30	18 44.19	-26 56.6	2.502	3.435	7.8	21.5	7 30	18 48.90	+ 1 4.3	1.609	2.521	12.7	19.2
8 9	18 37.87	-26 44.0	2.564	3.418	10.6	21.7	8 9	18 45.21	- 0 16.5	1.679	2.537	15.0	19.4
189048	2000 <i>QG</i> ₁₆₉		7 6.7 333°56	2°9/ 6.3 18			34330	2000 <i>QB</i> ₂₀₉		7 6.7 114°18	2°0/ 6.4 18		
5 31	19 23.08	-28 0.7	1.070	1.964	19.0	19.6	5 31	19 37.11	-26 59.4	1.501	2.353	16.8	19.3
6 10	19 22.18	-28 3.8	0.980	1.930	15.0	19.2	6 10	19 31.38	-27 8.5	1.437	2.364	12.9	19.1
6 20	19 17.67	-28 5.3	0.908	1.897	10.1	18.8	6 20	19 22.64	-27 17.0	1.394	2.374	8.5	18.9
6 30	19 10.11	-28 0.7	0.855	1.866	4.9	18.4	6 30	19 11.79	-27 20.9	1.375	2.384	3.8	18.6
7 10	19 0.80	-27 45.6	0.822	1.836	3.7	18.2	7 10	19 0.16	-27 16.9	1.381	2.394	2.7	18.6
7 20	18 51.54	-27 17.7	0.811	1.808	9.2	18.4	7 20	18 49.21	-27 4.1	1.413	2.404	7.1	18.9
7 30	18 44.31	-26 38.3	0.819	1.783	15.2	18.7	7 30	18 40.25	-26 43.8	1.470	2.413	11.5	19.2
8 9	18 40.64	-25 50.9	0.844	1.759	20.5	18.9	8 9	18 34.17	-26 18.7	1.548	2.421	15.3	19.4
224176	2005 <i>QY</i> ₁₃₈		7 6.7 216°95	0°4/ 6.6 18			487606	2015 <i>MH</i> ₁₅		7 6.7 342°45	5°9/ 8.0 18		
5 31	19 33.09	-22 35.8	2.151	2.986	13.0	22.3	5 31	19 26.29	- 8 0.8	1.905	2.726	15.0	21.3
6 10	19 27.67	-22 52.0	2.059	2.977	10.1	22.1	6 10	19 22.49	- 7 21.6	1.825	2.722	12.3	21.1
6 20	19 20.02	-23 11.5	1.990	2.968	6.6	21.9	6 20	19 16.66	- 6 54.2	1.766	2.718	9.3	20.9
6 30	19 10.71	-23 31.7	1.948	2.958	2.7	21.6	6 30	19 9.34	- 6 40.7	1.729	2.714	6.7	20.8
7 10	19 0.61	-23 50.1	1.933	2.947	1.5	21.5	7 10	19 1.36	- 6 41.8	1.718	2.710	5.9	20.7
7 20	18 50.69	-24 4.8	1.946	2.936	5.5	21.7	7 20	18 53.62	- 6 56.8	1.733	2.707	7.7	20.8
7 30	18 41.95	-24 14.9	1.986	2.924	9.2	21.9	7 30	18 47.02	- 7 23.7	1.772	2.704	10.5	21.0
8 9	18 35.18	-24 20.8	2.050	2.912	12.5	22.1	8 9	18 42.29	- 7 59.3	1.833	2.702	13.5	21.2
102581	1999 <i>US</i> ₄₄		7 6.7 338°53	3°9/ 7.0 18			237074	2008 <i>SU</i> ₂₅₉		7 6.7 214°73	4°0/ 7.5 18		
5 31	19 28.68	-16 53.4	1.221	2.089	18.9	18.6	5 31	19 30.26	-12 5.1	2.106	2.925	13.8	21.1
6 10	19 25.48	-16 7.6	1.148	2.081	14.9	18.3	6 10	19 25.35	-11 34.8	2.019	2.921	11.0	20.9
6 20	19 19.17	-15 28.8	1.093	2.072	10.3	18.0	6 20	19 18.43	-11 12.7	1.954	2.916	7.9	20.7
6 30	19 10.49	-14 58.4	1.059	2.065	5.6	17.8	6 30	19 10.05	-10 59.6	1.915	2.910	5.0	20.6
7 10	19 0.72	-14 37.2	1.048	2.059	4.2	17.6	7 10	19 1.01	-10 55.8	1.902	2.904	4.2	20.5
7 20	18 51.36	-14 25.5	1.060	2.053	8.4	17.9	7 20	18 52.19	-11 0.5	1.916	2.898	6.4	20.6
7 30	18 43.86	-14 22.5	1.094	2.048	13.3	18.1	7 30	18 44.48	-11 12.8	1.957	2.891	9.6	20.8
8 9	18 39.28	-14 26.7	1.147	2.044	17.7	18.4	8 9	18 38.59	-11 30.8	2.021	2.885	12.6	21.0
37712	2005 <i>WU</i> ₉₆		7 6.7 31°91	0°0/ 6.4 17			179528	2002 <i>CE</i> ₁₉₁		7 6.7 116°64	0°6/ 6.9 18		
5 31	19 29.86	-21 2.0	1.482	2.342	16.6	20.8	5 31	19 28.57	-19 45.3	2.425	3.258	11.8	21.3
6 10	19 25.85	-21 23.5	1.416	2.348	12.7	20.6	6 10	19 23.79	-19 55.7	2.350	3.266	9.1	21.1
6 20	19 19.10	-21 51.4	1.371	2.354	8.3	20.3	6 20	19 17.26	-20 10.3	2.299	3.275	5.9	20.9
6 30	19 10.37	-22 22.6	1.349	2.361	3.4	20.0	6 30	19 9.52	-20 27.5	2.274	3.284	2.5	20.7
7 10	19 0.81	-22 53.6	1.352	2.367	1.7	19.9	7 10	19 1.30	-20 45.6	2.277	3.292	1.3	20.7
7 20	18 51.71	-23 21.1	1.380	2.375	6.6	20.3	7 20	18 53.35	-21 3.1	2.309	3.300	4.6	20.9
7 30	18 44.31	-23 43.5	1.433	2.383	11.1	20.6	7 30	18 46.43	-21 19.0	2.367	3.308	7.8	21.1
8 9	18 39.47	-24 0.5	1.506	2.391	15.0	20.8	8 9	18 41.14	-21 32.8	2.450	3.316	10.6	21.3
253736	2003 <i>WT</i> ₃₂		7 6.7 324°87	3°0/ 6.9 17			65975	1998 <i>HV</i> ₄₆		7 6.7 51°03	7°1/ 8.7 18 R		
5 31	19 29.16	-18 40.1	1.222	2.092	18.7	20.0	5 31	19 28.46	- 5 42.2	1.617	2.437	17.3	19.2
6 10	19 25.97	-17 59.0	1.143	2.078	14.7	19.7	6 10	19 24.32	- 5 4.6	1.554	2.448	14.2	19.0
6 20	19 19.58	-17 22.8	1.083	2.065	10.0	19.4	6 20	19 17.88	- 4 43.6	1.511	2.458	11.0	18.8
6 30	19 10.69	-16 52.4	1.044	2.052	5.0	19.1	6 30	19 9.83	- 4 41.4	1.490	2.469	8.2	18.7
7 10	19 0.60	-16 28.0	1.028	2.040	3.5	18.9	7 10	19 1.15	- 4 58.2	1.493	2.481	7.2	18.7
7 20	18 50.84	-16 10.1	1.035	2.029	8.2	19.2	7 20	18 52.89	- 5 32.1	1.520	2.492	8.7	18.8
7 30	18 42.94	-15 58.7	1.063	2.019	13.4	19.4	7 30	18 46.05	- 6 19.4	1.571	2.504	11.6	19.0
8 9	18 38.05	-15 53.3	1.111	2.010	18.1	19.7	8 9	18 41.39	- 7 15.4	1.644	2.516	14.6	19.2
122135	2000 <i>JR</i> ₃₆		7 6.7 45°46	5°9/ 5.4 17			193676	2001 <i>DN</i> ₁₀₃		7 6.7 68°58	5°9/ 5.3 17		
5 31	19 34.45	-31 10.8	1.120	1.996	19.7	19.3	5 31	19 35.46	-35 52.3	1.744	2.588	15.2	19.9
6 10	19 30.41	-32 18.2	1.071	2.008	15.3	19.1	6 10	19 30.00	-36 46.2	1.690	2.605	12.1	19.7
6 20	19 22.53	-33 23.3	1.040	2.020	10.7	18.9	6 20	19 21.69	-37 33.4	1.657	2.622	8.8	19.6
6 30	19 11.85	-34 17.0	1.031	2.033	6.7	18.7	6 30	19 11.39	-38 7.5	1.649	2.639	6.4	19.5
7 10	19 0.09	-34 51.2	1.043	2.046	6.5	18.7	7 10	19 0.39	-38 23.8	1.666	2.656	6.3	19.5
7 20	18 49.20	-35 2.8	1.079	2.060	10.1	19.0	7 20	18 50.04	-38 21.0	1.708	2.673	8.5	19.7
7 30	18 40.90	-34 53.6	1.135	2.075	14.4	19.3	7 30	18 41.60	-38 1.0	1.774	2.690	11.5	19.9
8 9	18 36.26	-34 28.9	1.211	2.089	18.3	19.6	8 9	18 35.89	-37 28.1	1.862	2.707	14.3	20.1
356737	2011 <i>UL</i> ₁₉₉		7 6.7 316°69	0°5/ 6.7 18			462527	2008 <					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
472923	2015 <i>GM</i> ₁₆		7 6.7 265°44	2°3/ 7.5 17			388970	2008 <i>TL</i> ₁₅₄		7 6.7 230°81	5°0/ 5.4 18		
5 31	19 29.21	-14 4.0	1.844	2.679	14.9	21.3	5 31	19 36.12	-36 8.8	2.237	3.065	12.8	21.6
6 10	19 24.96	-14 27.9	1.758	2.672	11.7	21.1	6 10	19 30.21	-36 44.9	2.148	3.054	10.3	21.4
6 20	19 18.41	-15 3.5	1.693	2.666	8.0	20.8	6 20	19 21.79	-37 15.5	2.082	3.042	7.6	21.3
6 30	19 10.12	-15 49.5	1.653	2.659	4.1	20.6	6 30	19 11.50	-37 35.6	2.041	3.030	5.4	21.1
7 10	19 0.98	-16 43.1	1.640	2.652	2.6	20.5	7 10	19 0.33	-37 41.2	2.027	3.018	5.3	21.1
7 20	18 51.99	-17 40.6	1.653	2.645	6.0	20.7	7 20	18 49.43	-37 30.8	2.040	3.005	7.4	21.2
7 30	18 44.23	-18 38.6	1.692	2.638	10.0	20.9	7 30	18 39.95	-37 5.3	2.080	2.991	10.3	21.3
8 9	18 38.52	-19 34.1	1.754	2.631	13.6	21.1	8 9	18 32.76	-36 28.0	2.142	2.977	13.1	21.5
504750	2009 <i>WR</i> ₅₁		7 6.7 188°03	2°7/ 5.5 17			11296	Denzen		7 6.7 271°17	3°4/ 7.4 18		
5 31	19 33.79	-27 27.1	2.303	3.137	12.3	22.2	5 31	19 30.19	-14 31.6	1.691	2.531	15.8	17.4
6 10	19 28.18	-28 26.4	2.220	3.136	9.5	22.0	6 10	19 25.88	-14 12.9	1.606	2.522	12.5	17.2
6 20	19 20.36	-29 27.3	2.160	3.135	6.4	21.8	6 20	19 19.09	-14 3.1	1.542	2.513	8.7	16.9
6 30	19 10.89	-30 25.4	2.128	3.133	3.4	21.7	6 30	19 10.43	-14 2.6	1.500	2.504	4.9	16.7
7 10	19 0.60	-31 16.3	2.124	3.131	3.2	21.6	7 10	19 0.87	-14 10.7	1.485	2.494	3.7	16.6
7 20	18 50.48	-31 56.9	2.149	3.127	6.0	21.8	7 20	18 51.54	-14 26.1	1.495	2.485	6.9	16.8
7 30	18 41.52	-32 25.8	2.200	3.124	9.2	22.0	7 30	18 43.58	-14 46.9	1.530	2.475	10.9	17.0
8 9	18 34.51	-32 43.9	2.276	3.120	12.1	22.2	8 9	18 37.86	-15 11.3	1.587	2.466	14.7	17.2
434121	2002 <i>PK</i> ₁₉₀		7 6.7 10°29	0°3/ 6.6 16			251946	1999 <i>XV</i> ₅₆		7 6.7 304°02	5°7/ 7.3 18		
5 31	19 27.75	-21 23.2	1.502	2.365	16.2	21.2	5 31	19 27.69	-9 13.3	2.116	2.932	13.9	20.1
6 10	19 24.27	-21 49.0	1.434	2.367	12.5	21.0	6 10	19 23.51	-8 14.0	2.015	2.909	11.4	19.8
6 20	19 18.12	-22 21.2	1.386	2.370	8.1	20.7	6 20	19 17.35	-7 22.4	1.936	2.886	8.7	19.6
6 30	19 10.01	-22 56.7	1.361	2.373	3.3	20.5	6 30	19 9.68	-6 41.0	1.881	2.864	6.4	19.4
7 10	19 1.06	-23 31.7	1.361	2.377	1.7	20.4	7 10	19 1.25	-6 11.6	1.852	2.841	5.8	19.4
7 20	18 52.50	-24 2.7	1.387	2.381	6.6	20.7	7 20	18 52.90	-5 55.1	1.850	2.819	7.6	19.4
7 30	18 45.55	-24 28.0	1.436	2.387	11.0	21.0	7 30	18 45.53	-5 51.5	1.872	2.797	10.5	19.6
8 9	18 41.10	-24 47.0	1.506	2.393	14.9	21.2	8 9	18 39.88	-5 58.9	1.917	2.775	13.4	19.7
100322	1995 <i>MJ</i> ₈		7 6.7 337°74	5°8/ 7.9 17			208422	2001 <i>SE</i> ₃₄₀		7 6.7 357°99	9°3/ 6.5 16 R		
5 31	19 26.47	-10 47.3	1.232	2.091	19.3	19.3	5 31	19 34.20	-43 32.7	1.358	2.209	18.3	19.1
6 10	19 23.75	-10 22.6	1.158	2.082	15.6	19.1	6 10	19 30.17	-43 52.7	1.294	2.204	15.3	18.9
6 20	19 18.06	-10 14.0	1.102	2.073	11.4	18.8	6 20	19 22.33	-43 55.7	1.247	2.201	12.2	18.7
6 30	19 10.08	-10 23.6	1.067	2.066	7.4	18.6	6 30	19 11.77	-43 33.8	1.221	2.198	9.8	18.6
7 10	19 0.99	-10 51.0	1.053	2.059	5.9	18.4	7 10	19 0.27	-42 42.5	1.217	2.198	9.5	18.6
7 20	18 52.18	-11 33.6	1.063	2.053	8.9	18.6	7 20	18 49.73	-41 23.1	1.236	2.198	11.4	18.7
7 30	18 45.08	-12 27.0	1.094	2.048	13.4	18.8	7 30	18 41.79	-39 41.9	1.277	2.201	14.4	18.9
8 9	18 40.77	-13 25.9	1.144	2.043	17.6	19.1	8 9	18 37.41	-37 48.3	1.338	2.204	17.6	19.1
189016	1998 <i>RS</i> ₃₇		7 6.7 297°54	6°1/ 8.4 18			28834	2000 <i>JD</i> ₃₇		7 6.7 278°60	1°3/ 6.3 18		
5 31	19 25.65	-4 55.7	2.261	3.061	13.6	20.4	5 31	19 29.76	-24 45.0	2.040	2.886	13.2	18.6
6 10	19 21.83	-4 26.2	2.160	3.040	11.4	20.2	6 10	19 25.27	-25 7.7	1.955	2.879	10.2	18.4
6 20	19 16.20	-4 8.9	2.080	3.018	8.9	20.0	6 20	19 18.54	-25 32.5	1.892	2.871	6.7	18.2
6 30	19 9.18	-4 6.0	2.024	2.996	6.9	19.8	6 30	19 10.17	-25 56.6	1.854	2.864	2.9	17.9
7 10	19 1.46	-4 18.1	1.993	2.975	6.2	19.7	7 10	19 1.03	-26 17.2	1.843	2.857	2.0	17.8
7 20	18 53.79	-4 44.8	1.988	2.954	7.5	19.8	7 20	18 52.11	-26 32.0	1.860	2.850	5.7	18.1
7 30	18 46.99	-5 24.0	2.009	2.932	10.0	19.9	7 30	18 44.41	-26 40.4	1.902	2.843	9.4	18.3
8 9	18 41.75	-6 12.6	2.053	2.911	12.7	20.0	8 9	18 38.74	-26 42.8	1.968	2.835	12.7	18.5
219698	2001 <i>XF</i> ₂₁		7 6.7 177°82	2°5/ 6.0 18			433037	2012 <i>SY</i> ₂₅		7 6.7 345°18	10°1/ 4.8 16		
5 31	19 34.52	-28 54.5	2.120	2.957	13.1	20.3	5 31	19 32.06	-41 58.4	1.314	2.172	18.4	20.6
6 10	19 28.78	-29 18.0	2.041	2.959	10.1	20.1	6 10	19 28.91	-43 2.1	1.246	2.162	15.4	20.4
6 20	19 20.72	-29 40.1	1.985	2.960	6.8	19.9	6 20	19 21.84	-43 53.7	1.197	2.152	12.4	20.2
6 30	19 11.01	-29 57.2	1.955	2.961	3.5	19.6	6 30	19 11.72	-44 23.2	1.169	2.144	10.4	20.1
7 10	19 0.58	-30 6.1	1.952	2.961	3.0	19.6	7 10	19 0.24	-44 23.0	1.161	2.137	10.5	20.0
7 20	18 50.51	-30 5.6	1.977	2.961	6.1	19.8	7 20	18 49.40	-43 50.7	1.176	2.131	12.6	20.1
7 30	18 41.81	-29 55.9	2.029	2.960	9.5	20.0	7 30	18 41.09	-42 50.3	1.210	2.126	15.7	20.3
8 9	18 35.25	-29 39.0	2.104	2.959	12.5	20.2	8 9	18 36.51	-41 29.9	1.263	2.122	18.9	20.5
72700	2001 <i>FC</i> ₇₇		7 6.7 153°32	3°7/ 7.9 18			370449	2002 <i>XY</i> ₁₂		7 6.7 273°09	0°4/ 6.8 18		
5 31	19 29.45	-10 51.4	2.249	3.063	13.2	20.4	5 31	19 31.80	-20 10.7	1.702	2.550	15.4	21.7
6 10	19 24.54	-10 44.7	2.171	3.069	10.5	20.2	6 10	19 27.40	-20 26.2	1.605	2.529	12.0	21.5
6 20	19 17.80	-10 47.9	2.116	3.075	7.5	20.0	6 20	19 20.29	-20 48.7	1.528	2.507	7.9	21.2
6 30	19 9.78	-11 1.0	2.085	3.080	4.7	19.8	6 30	19 11.01	-21 15.9	1.475	2.485	3.3	20.8
7 10	19 1.21	-11 23.0	2.082	3.085	3.8	19.8	7 10	19 0.56	-21 44.7	1.448	2.463	1.7	20.7
7 20	18 52.89	-11 52.5	2.107	3.089	5.8	19.9	7 20	18 50.13	-22 12.1	1.448	2.441	6.5	20.9
7 30	18 45.63	-12 27.2	2.158	3.093	8.8	20.1	7 30	18 41.04	-22 36.3	1.472	2.418	11.2	21.2
8 9	18 40.04	-13 4.9	2.233	3.097	11.6	20.3	8 9	18 34.35	-22 56.4	1.519	2.395	15.3	21.3
280971	2006 <i>DH</i> ₁₁		7 6.7 178°55	1°6/ 6.2 18			294518	2007 <i>XB</i> ₁₆		7 6.7 144°78	0°4/ 6.5 17		
5 31	19 33.18	-26 3.7	2.409	3.240	11.9	21.5	5 31	19 38.77	-13 56.5	1.218	2.064	20.3	20.0
6 10	19 27.47	-26 30.9	2.327	3.243	9.2	21.3	6 10	19 33.64	-16 5.9	1.146	2.069	15.8	19.7
6 20	19 19.76	-26 59.0	2.268	3.244	6.0	21.1	6 20	19 24.84	-18 42.1	1.095	2.074	10.3	19.4
6 30	19 10.59	-27 24.7	2.236	3.245	2.7	20.9	6 30	19 13.01	-21 36.2	1.068	2.078	4.2	19.1
7 10	19 0.80	-27 45.5	2.233	3.245	2.1	20.8	7 10	18 59.54	-24 33.6	1.068	2.082	2.3	19.0
7 20	18 51.25	-27 59.6	2.258	3.244	5.2	21.1	7 20	18 46.20	-27 19.1	1.095	2.086	8.5	19.4
7 30	18 42.84	-28 6.6	2.311	3.243	8.4	21.3	7 30	18 34.90	-29 41.9	1.148	2.089	14.1	19.7
8 9	18 36.27	-28 7.2	2.388	3.241	11.3	21.4	8 9	18 27.06	-31 38.3	1.222	2.092	18.7	20.0
112872	2002 <i>QG</i> ₃₇		7 6.7 202°27	4°4/ 5.5 18			272524	2005 <i>UR</i> ₂₆₇		7 6.7 134			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
279714	2011 <i>GG</i> ₄₈		7 6.7 27°71'	2.2°/ 7.1 17			100225	1994 <i>PS</i> ₁₃		7 6.7 248°61'	2.3°/ 6.1 18		
5 31	19 29.01	-17 36.3	1.427	2.286	17.1	20.6	5 31	19 31.00	-29 17.2	2.340	3.178	12.0	19.6
6 10	19 25.17	-17 24.1	1.364	2.293	13.3	20.4	6 10	19 25.94	-29 28.9	2.254	3.172	9.3	19.4
6 20	19 18.65	-17 20.0	1.322	2.301	8.9	20.1	6 20	19 18.84	-29 38.6	2.190	3.165	6.2	19.2
6 30	19 10.22	-17 23.2	1.301	2.310	4.3	19.9	6 30	19 10.27	-29 43.5	2.153	3.159	3.2	19.0
7 10	19 1.05	-17 32.2	1.306	2.319	2.7	19.8	7 10	19 1.06	-29 41.4	2.143	3.152	2.7	18.9
7 20	18 52.40	-17 45.0	1.335	2.329	6.8	20.1	7 20	18 52.11	-29 31.4	2.161	3.146	5.5	19.1
7 30	18 45.44	-18 0.0	1.387	2.339	11.2	20.4	7 30	18 44.34	-29 13.9	2.206	3.139	8.7	19.3
8 9	18 41.01	-18 15.8	1.461	2.350	15.1	20.6	8 9	18 38.45	-28 50.5	2.274	3.132	11.6	19.5
33686	1999 <i>JC</i> ₁₂₂		7 6.7 307°95'	3.0°/ 5.5 18			13099	1993 <i>FO</i> ₇		7 6.7 199°21'	0.9°/ 6.4 18		
5 31	19 29.23	-27 17.4	1.979	2.829	13.4	18.5	5 31	19 34.04	-23 23.5	1.960	2.799	14.0	18.6
6 10	19 25.12	-28 16.4	1.893	2.818	10.4	18.3	6 10	19 28.61	-23 49.4	1.876	2.796	10.8	18.4
6 20	19 18.61	-29 18.2	1.829	2.807	7.0	18.1	6 20	19 20.77	-24 18.8	1.814	2.792	7.0	18.1
6 30	19 10.27	-30 18.2	1.790	2.796	3.8	17.8	6 30	19 11.12	-24 48.4	1.778	2.788	2.9	17.9
7 10	19 0.98	-31 11.4	1.778	2.785	3.5	17.8	7 10	19 0.62	-25 14.9	1.769	2.783	1.8	17.8
7 20	18 51.81	-31 54.0	1.793	2.775	6.7	18.0	7 20	18 50.37	-25 35.9	1.787	2.777	5.9	18.0
7 30	18 43.87	-32 24.3	1.833	2.764	10.3	18.2	7 30	18 41.46	-25 50.3	1.833	2.771	9.8	18.3
8 9	18 38.08	-32 42.7	1.895	2.754	13.5	18.4	8 9	18 34.75	-25 58.7	1.901	2.765	13.3	18.5
82802	2001 <i>QM</i> ₂₇		7 6.7 327°79'	2.7°/ 7.3 18			472340	2015 <i>AC</i> ₂₄₅		7 6.7 23°39'	3.4°/ 5.4 17		
5 31	19 25.71	-16 18.2	1.271	2.140	18.2	18.4	5 31	19 30.93	-25 23.8	1.480	2.343	16.4	19.8
6 10	19 23.31	-16 14.1	1.187	2.122	14.4	18.1	6 10	19 27.01	-26 47.5	1.414	2.346	12.7	19.6
6 20	19 17.91	-16 21.6	1.122	2.104	9.8	17.8	6 20	19 20.11	-28 17.4	1.369	2.350	8.4	19.3
6 30	19 10.11	-16 40.3	1.078	2.087	5.0	17.5	6 30	19 10.95	-29 46.2	1.347	2.355	4.4	19.1
7 10	19 1.04	-17 8.4	1.057	2.070	3.2	17.3	7 10	19 0.70	-31 6.1	1.351	2.360	4.1	19.1
7 20	18 52.12	-17 42.8	1.059	2.055	7.8	17.5	7 20	18 50.79	-32 11.1	1.381	2.365	8.0	19.3
7 30	18 44.85	-18 20.3	1.083	2.041	12.9	17.8	7 30	18 42.62	-32 58.8	1.434	2.371	12.2	19.6
8 9	18 40.40	-18 57.7	1.126	2.028	17.6	18.0	8 9	18 37.24	-33 29.9	1.508	2.377	15.9	19.8
88630	2001 <i>RU</i> ₃₄		7 6.7 31°40'	0.5°/ 6.7 17			478396	2012 <i>BU</i> ₇₂		7 6.7 203°54'	4.4°/ 9.3 18		
5 31	19 32.97	-23 22.4	1.037	1.917	20.5	19.1	5 31	19 27.29	-4 44.5	2.966	3.741	11.3	21.8
6 10	19 29.08	-22 53.1	0.983	1.925	15.8	18.8	6 10	19 22.57	-4 3.6	2.872	3.737	9.3	21.7
6 20	19 21.56	-22 25.7	0.948	1.934	10.3	18.6	6 20	19 16.42	-4 35.3	2.800	3.733	7.2	21.5
6 30	19 11.47	-21 58.8	0.932	1.944	4.3	18.3	6 30	19 9.25	-5 19.5	2.754	3.728	5.2	21.4
7 10	19 0.48	-21 31.3	0.939	1.954	2.1	18.2	7 10	19 1.59	-6 15.2	2.737	3.723	4.4	21.3
7 20	18 50.38	-21 3.6	0.968	1.966	8.1	18.6	7 20	18 54.03	-7 20.3	2.748	3.718	5.5	21.4
7 30	18 42.75	-20 37.0	1.019	1.977	13.5	18.9	7 30	18 47.17	-8 31.9	2.789	3.712	7.5	21.5
8 9	18 38.55	-20 12.9	1.088	1.990	18.1	19.2	8 9	18 41.54	-9 46.8	2.855	3.706	9.7	21.7
499280	2009 <i>VD</i> ₇₂		7 6.7 195°11'	2.8°/ 7.6 18			383314	2006 <i>HT</i> ₇₄		7 6.7 111°93'	1.9°/ 7.3 17		
5 31	19 31.24	-12 46.2	2.603	3.411	11.8	23.1	5 31	19 30.06	-16 27.7	1.952	2.787	14.1	21.7
6 10	19 25.75	-12 40.9	2.511	3.407	9.3	22.9	6 10	19 25.33	-16 31.8	1.879	2.794	11.0	21.5
6 20	19 18.55	-12 42.9	2.442	3.403	6.6	22.7	6 20	19 18.49	-16 43.5	1.827	2.801	7.4	21.3
6 30	19 10.12	-12 52.1	2.400	3.398	3.9	22.5	6 30	19 10.14	-17 1.6	1.801	2.808	3.6	21.1
7 10	19 1.11	-13 7.7	2.387	3.393	3.0	22.4	7 10	19 1.16	-17 24.2	1.802	2.814	2.2	21.0
7 20	18 52.27	-13 28.4	2.402	3.386	5.1	22.6	7 20	18 52.52	-17 49.4	1.829	2.821	5.6	21.2
7 30	18 44.33	-13 52.8	2.446	3.379	8.0	22.7	7 30	18 45.13	-18 15.4	1.883	2.827	9.3	21.4
8 9	18 37.90	-14 19.5	2.515	3.370	10.7	22.9	8 9	18 39.72	-18 40.8	1.960	2.833	12.5	21.7
51665	2001 <i>JN</i> ₁₀		7 6.7 325°76'	5.1°/ 4.9 18			508206	2015 <i>FU</i> ₃₉₆		7 6.7 206°30'	6.2°/ 8.9 18		
5 31	19 29.32	-30 52.0	1.594	2.456	15.5	18.3	5 31	19 29.34	-3 8.9	2.346	3.128	13.7	22.0
6 10	19 25.89	-32 1.6	1.512	2.442	12.2	18.1	6 10	19 24.49	-2 48.9	2.257	3.123	11.4	21.8
6 20	19 19.49	-33 12.4	1.451	2.428	8.6	17.8	6 20	19 17.84	-2 42.6	2.188	3.117	9.0	21.7
6 30	19 10.73	-34 17.6	1.414	2.415	5.6	17.6	6 30	19 9.88	-2 51.7	2.144	3.111	7.0	21.5
7 10	19 0.75	-35 10.2	1.401	2.402	5.7	17.6	7 10	19 1.29	-3 16.3	2.126	3.104	6.2	21.5
7 20	18 50.92	-35 45.5	1.413	2.390	8.8	17.7	7 20	18 52.85	-3 55.1	2.136	3.096	7.4	21.5
7 30	18 42.71	-36 2.3	1.449	2.378	12.6	17.9	7 30	18 45.34	-4 45.5	2.171	3.088	9.7	21.7
8 9	18 37.26	-36 2.7	1.504	2.368	16.2	18.1	8 9	18 39.41	-5 44.1	2.231	3.079	12.1	21.8
152599	1995 <i>UX</i> ₁₀		7 6.7 252°55'	0.0°/ 6.5 18			475968	2007 <i>JV</i> ₂₈		7 6.7 4°50'	10.6°/ 2.4 16		
5 31	19 29.19	-22 16.9	2.269	3.108	12.3	20.8	5 31	19 26.25	-36 32.2	1.100	1.985	19.3	19.9
6 10	19 24.54	-22 23.0	2.181	3.101	9.5	20.6	6 10	19 24.81	-38 53.4	1.049	1.984	15.8	19.7
6 20	19 17.93	-22 31.9	2.116	3.094	6.2	20.4	6 20	19 19.43	-41 10.6	1.017	1.985	12.5	19.5
6 30	19 9.90	-22 41.6	2.077	3.087	2.5	20.1	6 30	19 10.87	-43 9.6	1.006	1.988	10.7	19.4
7 10	19 1.22	-22 50.5	2.065	3.080	1.3	20.0	7 10	19 0.75	-44 38.0	1.015	1.992	11.3	19.4
7 20	18 52.75	-22 57.2	2.081	3.073	5.0	20.3	7 20	18 51.13	-45 29.0	1.045	1.999	14.0	19.6
7 30	18 45.36	-23 1.1	2.124	3.066	8.5	20.5	7 30	18 44.04	-45 43.4	1.094	2.007	17.3	19.8
8 9	18 39.74	-23 2.3	2.191	3.058	11.6	20.6	8 9	18 40.84	-45 27.9	1.160	2.016	20.4	20.1
69181	4821 <i>P-L</i>		7 6.7 270°04'	1.1°/ 6.9 17			236824	2007 <i>RQ</i> ₄₇		7 6.7 57°90'	5.9°/ 8.5 18		
5 31	19 29.79	-18 34.0	1.885	2.727	14.3	20.1	5 31	19 28.55	-7 28.7	1.761	2.581	16.1	20.0
6 10	19 25.43	-18 42.9	1.795	2.716	11.1	19.8	6 10	19 24.22	-7 2.6	1.699	2.596	13.0	19.8
6 20	19 18.75	-18 58.6	1.727	2.704	7.4	19.6	6 20	19 17.76	-6 51.0	1.658	2.610	9.8	19.6
6 30	19 10.31	-19 19.6	1.683	2.692	3.3	19.3	6 30	19 9.83	-6 55.1	1.640	2.625	6.9	19.5
7 10	19 1.00	-19 43.5	1.666	2.681	1.8	19.2	7 10	19 1.36	-7 14.4	1.647	2.640	5.9	19.5
7 20	18 51.86	-20 8.3	1.676	2.669	5.9	19.4	7 20	18 53.29	-7 47.1	1.679	2.656	7.6	19.6
7 30	18 43.94	-20 32.2	1.711	2.657	9.9	19.6	7 30	18 46.57	-8 29.8	1.736	2.671	10.5	19.8
8 9	18 38.12	-20 54.0	1.770	2.645	13.6	19.8	8 9	18 41.86	-9 18.7	1.815	2.686	13.5	20.0
508715	2017 <i>UQ</i> ₂₅		7 6.7 175°95'	0.0°/ 6.6 17			16561	Rawls		7 6.7 325°85'	7.5°/ 8		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
228474	2001 SZ ₄₆		7 6.7 288°34	0°3/ 6.8 17			13606	Bean		7 6.7 18°01	2°4/ 7.2 17		
5 31	19 30.87	-20 34.6	1.645	2.497	15.6	21.0	5 31	19 29.45	-17 16.1	1.321	2.184	18.0	18.5
6 10	19 26.84	-20 49.7	1.545	2.472	12.2	20.7	6 10	19 25.80	-17 5.3	1.256	2.187	14.1	18.3
6 20	19 20.03	-21 11.5	1.467	2.447	8.1	20.4	6 20	19 19.25	-17 3.7	1.210	2.190	9.5	18.0
6 30	19 10.99	-21 38.0	1.412	2.422	3.4	20.1	6 30	19 10.57	-17 10.5	1.186	2.194	4.6	17.8
7 10	19 0.70	-22 6.0	1.382	2.397	1.7	19.9	7 10	19 1.02	-17 23.9	1.186	2.199	2.9	17.7
7 20	18 50.39	-22 32.4	1.378	2.372	6.7	20.2	7 20	18 51.95	-17 41.6	1.209	2.204	7.3	18.0
7 30	18 41.44	-22 55.2	1.399	2.347	11.5	20.4	7 30	18 44.68	-18 1.7	1.256	2.210	12.0	18.2
8 9	18 34.94	-23 13.8	1.441	2.321	15.8	20.6	8 9	18 40.14	-18 22.2	1.323	2.216	16.1	18.5
5474	Gingasen		7 6.7 134°59	2°6/ 7.1 18			508237	2015 HF ₂₈		7 6.7 49°34	8°9/ 9.5 18		
5 31	19 33.30	-17 5.5	1.645	2.486	16.1	17.0	5 31	19 27.97	-1 11.3	1.653	2.455	17.7	21.1
6 10	19 28.16	-16 41.9	1.573	2.492	12.5	16.8	6 10	19 23.91	-0 22.8	1.594	2.468	15.0	20.9
6 20	19 20.49	-16 25.0	1.522	2.497	8.5	16.6	6 20	19 17.63	+0 6.1	1.553	2.481	12.2	20.8
6 30	19 11.00	-16 14.5	1.495	2.502	4.3	16.3	6 30	19 9.82	+0 12.2	1.535	2.494	9.8	20.7
7 10	19 0.78	-16 9.6	1.495	2.506	2.9	16.3	7 10	19 1.42	-0 5.2	1.539	2.508	8.9	20.6
7 20	18 51.00	-16 9.4	1.520	2.511	6.6	16.5	7 20	18 53.43	-0 44.3	1.567	2.523	10.0	20.7
7 30	18 42.79	-16 13.1	1.570	2.515	10.7	16.8	7 30	18 46.83	-1 40.8	1.618	2.537	12.2	20.9
8 9	18 36.97	-16 19.8	1.643	2.519	14.4	17.0	8 9	18 42.31	-2 49.1	1.691	2.552	14.8	21.1
252192	2001 FJ ₁		7 6.7 209°80	9°3/ 9.5 17			169685	2002 JZ ₁₂₅		7 6.7 102°45	2°6/ 7.4 18		
5 31	19 31.97	+5 44.1	2.422	3.150	14.7	21.1	5 31	19 32.53	-15 15.0	1.496	2.341	17.2	20.0
6 10	19 26.48	+6 31.4	2.329	3.141	13.0	21.0	6 10	19 27.81	-15 21.6	1.430	2.350	13.4	19.8
6 20	19 19.14	+7 1.8	2.257	3.131	11.2	20.8	6 20	19 20.38	-15 39.4	1.384	2.359	9.1	19.6
6 30	19 10.43	+7 11.9	2.207	3.120	9.8	20.7	6 30	19 11.01	-16 6.9	1.361	2.368	4.6	19.3
7 10	19 1.04	+6 59.7	2.182	3.108	9.3	20.7	7 10	19 0.82	-16 41.6	1.364	2.376	2.9	19.3
7 20	18 51.74	+6 25.5	2.183	3.095	9.9	20.7	7 20	18 51.09	-17 20.0	1.392	2.385	6.8	19.5
7 30	18 43.35	+5 31.7	2.209	3.080	11.5	20.8	7 30	18 43.03	-17 59.2	1.445	2.393	11.2	19.8
8 9	18 36.55	+4 22.7	2.257	3.065	13.4	20.9	8 9	18 37.52	-18 37.0	1.519	2.401	15.0	20.0
431164	2006 RD ₄₄		7 6.7 269°61	2°8/ 7.3 18			504724	2009 UQ ₁₀₈		7 6.7 233°68	8°2/ 7.9 17		
5 31	19 31.80	-15 28.4	1.708	2.546	15.7	22.1	5 31	19 30.48	-3 45.7	1.877	2.675	16.0	21.6
6 10	19 27.34	-15 21.3	1.608	2.524	12.5	21.8	6 10	19 25.77	-2 36.5	1.795	2.669	13.5	21.4
6 20	19 20.24	-15 23.3	1.529	2.502	8.6	21.5	6 20	19 18.88	-1 40.4	1.733	2.663	10.9	21.2
6 30	19 11.04	-15 34.1	1.473	2.479	4.5	21.2	6 30	19 10.38	-1 1.3	1.694	2.656	8.8	21.1
7 10	19 0.69	-15 52.4	1.444	2.455	3.1	21.1	7 10	19 1.12	-0 41.7	1.679	2.650	8.2	21.0
7 20	18 50.35	-16 16.2	1.440	2.431	6.9	21.2	7 20	18 52.08	-0 42.1	1.690	2.643	9.6	21.1
7 30	18 41.28	-16 43.7	1.462	2.407	11.3	21.4	7 30	18 44.23	-1 0.9	1.725	2.636	12.1	21.2
8 9	18 34.52	-17 12.8	1.505	2.382	15.4	21.6	8 9	18 38.35	-1 34.4	1.781	2.628	14.8	21.4
292735	2006 UO ₁₆₂		7 6.7 226°53	5°5/ 4.7 18			256433	2007 BS ₇₇		7 6.7 304°74	3°8/ 8.1 18		
5 31	19 32.94	-36 26.5	2.203	3.037	12.8	21.3	5 31	19 26.19	-10 24.5	2.173	2.994	13.4	20.6
6 10	19 27.86	-37 26.7	2.127	3.034	10.3	21.1	6 10	19 22.31	-10 24.7	2.083	2.984	10.7	20.4
6 20	19 20.33	-38 22.3	2.073	3.032	7.7	20.9	6 20	19 16.55	-10 36.0	2.014	2.975	7.8	20.2
6 30	19 10.98	-39 7.6	2.044	3.029	5.8	20.8	6 30	19 9.40	-10 58.7	1.971	2.966	4.9	20.1
7 10	19 0.78	-39 38.1	2.042	3.026	5.9	20.8	7 10	19 1.60	-11 31.6	1.953	2.957	3.9	20.0
7 20	18 50.84	-39 51.5	2.067	3.024	7.9	20.9	7 20	18 53.93	-12 12.8	1.963	2.948	6.0	20.1
7 30	18 42.28	-39 48.0	2.116	3.021	10.5	21.1	7 30	18 47.23	-12 59.7	1.999	2.939	9.1	20.3
8 9	18 35.96	-39 30.6	2.188	3.018	13.0	21.3	8 9	18 42.19	-13 49.4	2.059	2.931	12.1	20.4
253784	2003 WJ ₁₅₅		7 6.7 304°84	1°2/ 7.1 18			277607	2006 AJ ₆₈		7 6.7 73°74	3°2/ 8.1 18		
5 31	19 29.04	-17 7.6	1.349	2.211	17.8	19.9	5 31	19 29.80	-11 5.9	1.740	2.570	15.8	20.1
6 10	19 25.85	-17 38.1	1.263	2.194	14.0	19.6	6 10	19 25.41	-11 37.7	1.668	2.577	12.5	19.9
6 20	19 19.60	-18 22.3	1.196	2.177	9.3	19.3	6 20	19 18.71	-12 24.5	1.617	2.584	8.7	19.7
6 30	19 10.87	-19 17.8	1.151	2.161	4.2	19.0	6 30	19 10.31	-13 24.7	1.590	2.592	4.9	19.5
7 10	19 0.78	-20 20.3	1.130	2.145	2.1	18.8	7 10	19 1.17	-14 34.7	1.590	2.599	3.4	19.4
7 20	18 50.76	-21 24.1	1.134	2.130	7.4	19.1	7 20	18 52.33	-15 49.9	1.616	2.607	6.3	19.6
7 30	18 42.34	-22 24.6	1.160	2.115	12.7	19.3	7 30	18 44.82	-17 5.8	1.668	2.614	10.1	19.8
8 9	18 36.75	-23 18.5	1.207	2.100	17.4	19.5	8 9	18 39.46	-18 18.4	1.743	2.622	13.6	20.1
17399	Andysanto		7 6.7 283°55	17°4/ 5.4 18			508906	2003 WM ₁₀₈		7 6.7 160°59	2°4/ 7.3 18		
5 31	19 53.96	-54 4.7	1.118	1.937	23.5	17.6	5 31	19 31.10	-15 17.4	2.702	3.515	11.3	23.0
6 10	19 48.43	-55 26.3	1.052	1.922	21.2	17.4	6 10	19 25.49	-14 55.1	2.621	3.522	8.8	22.8
6 20	19 36.04	-56 24.0	1.000	1.907	19.0	17.2	6 20	19 18.31	-14 37.7	2.564	3.529	6.1	22.7
6 30	19 17.94	-56 38.5	0.964	1.893	17.6	17.0	6 30	19 10.04	-14 25.1	2.534	3.535	3.4	22.5
7 10	18 57.37	-55 54.9	0.946	1.878	17.6	17.0	7 10	19 1.33	-14 17.1	2.532	3.540	2.5	22.4
7 20	18 38.49	-54 10.5	0.947	1.863	19.1	17.0	7 20	18 52.89	-14 13.2	2.560	3.545	4.8	22.6
7 30	18 24.73	-51 36.4	0.966	1.849	21.6	17.1	7 30	18 45.39	-14 12.9	2.616	3.549	7.5	22.8
8 9	18 17.54	-48 32.4	1.001	1.834	24.6	17.3	8 9	18 39.37	-14 15.6	2.698	3.553	10.1	23.0
357237	2002 LV ₅₃		7 6.7 94°36	1°3/ 7.3 18			168854	2000 UP ₈₄		7 6.7 150°46	2°9/ 5.9 18		
5 31	19 27.40	-16 4.3	2.420	3.248	12.0	20.3	5 31	19 36.20	-27 21.8	1.688	2.535	15.5	20.2
6 10	19 22.99	-16 35.5	2.341	3.253	9.3	20.1	6 10	19 30.65	-28 6.3	1.619	2.542	12.0	20.0
6 20	19 16.85	-17 14.2	2.285	3.258	6.2	19.9	6 20	19 22.27	-28 51.8	1.570	2.548	7.9	19.8
6 30	19 9.48	-17 59.0	2.255	3.262	2.9	19.7	6 30	19 11.81	-29 33.3	1.547	2.554	4.0	19.6
7 10	19 1.55	-18 47.1	2.253	3.267	1.6	19.6	7 10	19 0.45	-30 5.6	1.550	2.559	3.5	19.5
7 20	18 53.82	-19 36.0	2.280	3.272	4.6	19.9	7 20	18 49.53	-30 25.9	1.579	2.564	7.1	19.8
7 30	18 47.04	-20 23.4	2.335	3.277	7.8	20.1	7 30	18 40.33	-30 33.9	1.633	2.568	11.1	20.0
8 9	18 41.83	-21 7.7	2.414	3.281	10.7	20.3	8 9	18 33.78	-30 31.6	1.710	2.572	14.6	20.2
177787	2005 LB ₁₈		7 6.7 5°52	3°8/ 7.5 17			420341	2012 BQ ₃₉		7 6.7 150°73	3°1/ 6.3 17		
5 31	19 27.10	-15 6.0	1.176	2.046	19.3	20.							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
86475	2000 <i>CJ</i> ₈₀		7 6.7 297°00	1°1/ 6.9 18			37123	2000 <i>VW</i> ₁₀		7 6.7 175°29	0°8/ 6.9 18		
5 31	19 30.28	-18 42.3	1.230	2.098	18.8	18.9	5 31	19 28.51	-19 8.0	2.616	3.444	11.2	20.0
6 10	19 27.16	-18 57.6	1.143	2.079	14.7	18.6	6 10	19 23.72	-19 13.4	2.533	3.446	8.6	19.8
6 20	19 20.67	-19 24.2	1.076	2.059	9.9	18.3	6 20	19 17.29	-19 22.9	2.472	3.447	5.7	19.6
6 30	19 11.40	-20 0.2	1.029	2.040	4.3	17.9	6 30	19 9.70	-19 35.2	2.439	3.448	2.5	19.4
7 10	19 0.57	-20 41.5	1.005	2.021	2.1	17.7	7 10	19 1.60	-19 49.0	2.434	3.448	1.3	19.3
7 20	18 49.78	-21 23.6	1.005	2.002	8.0	18.0	7 20	18 53.71	-20 3.1	2.457	3.449	4.4	19.5
7 30	18 40.77	-22 2.8	1.027	1.983	13.7	18.2	7 30	18 46.75	-20 16.5	2.509	3.449	7.5	19.7
8 9	18 34.90	-22 37.2	1.068	1.965	18.8	18.5	8 9	18 41.28	-20 28.7	2.584	3.449	10.2	19.9
32266	2000 <i>PN</i> ₁		7 6.7 156°51	2°5/ 5.7 18			512768	2016 <i>UT</i> ₅₇		7 6.7 305°15	2°7/ 6.1 18		
5 31	19 30.14	-27 3.2	2.185	3.028	12.6	18.4	5 31	19 30.57	-28 26.0	1.799	2.652	14.4	21.5
6 10	19 25.49	-27 53.4	2.107	3.028	9.7	18.3	6 10	19 26.41	-28 49.6	1.708	2.635	11.2	21.3
6 20	19 18.69	-28 45.3	2.052	3.029	6.4	18.1	6 20	19 19.64	-29 12.9	1.639	2.618	7.6	21.0
6 30	19 10.31	-29 34.6	2.023	3.029	3.3	17.9	6 30	19 10.84	-29 32.1	1.594	2.601	3.9	20.7
7 10	19 1.20	-30 17.6	2.021	3.030	3.0	17.8	7 10	19 1.03	-29 43.4	1.575	2.585	3.3	20.7
7 20	18 52.31	-30 51.4	2.047	3.030	5.9	18.0	7 20	18 51.42	-29 44.6	1.582	2.569	6.9	20.9
7 30	18 44.60	-31 14.8	2.099	3.030	9.2	18.2	7 30	18 43.23	-29 35.6	1.613	2.553	10.9	21.1
8 9	18 38.84	-31 28.5	2.175	3.031	12.2	18.4	8 9	18 37.42	-29 18.3	1.667	2.537	14.5	21.2
17846	1998 <i>HB</i> ₁₁₅		7 6.7 152°88	4°7/ 8.6 18			418096	2007 <i>WN</i> ₈		7 6.7 194°94	0°3/ 6.8 17		
5 31	19 29.82	-7 37.0	2.022	2.831	14.7	17.7	5 31	19 35.37	-21 37.8	1.869	2.706	14.6	22.0
6 10	19 25.11	-7 45.7	1.943	2.835	11.9	17.5	6 10	19 29.69	-21 37.3	1.786	2.704	11.3	21.8
6 20	19 18.36	-8 8.7	1.886	2.839	8.7	17.3	6 20	19 21.53	-21 40.1	1.724	2.701	7.4	21.6
6 30	19 10.16	-8 46.1	1.854	2.843	5.8	17.2	6 30	19 11.54	-21 44.1	1.688	2.698	3.1	21.3
7 10	19 1.29	-9 36.3	1.848	2.847	4.7	17.1	7 10	19 0.73	-21 47.4	1.679	2.694	1.5	21.2
7 20	18 52.67	-10 36.2	1.869	2.850	6.6	17.2	7 20	18 50.24	-21 48.6	1.697	2.689	5.9	21.5
7 30	18 45.18	-11 42.2	1.916	2.853	9.6	17.4	7 30	18 41.17	-21 47.3	1.742	2.684	10.1	21.7
8 9	18 39.53	-12 50.3	1.988	2.856	12.6	17.6	8 9	18 34.39	-21 44.1	1.810	2.678	13.7	21.9
358890	2008 <i>GL</i> ₃₇		7 6.7 292°34	6°3/ 8.4 18			442168	2010 <i>VJ</i> ₂₁₀		7 6.7 303°04	0°2/ 6.7 18		
5 31	19 26.24	-4 25.5	2.317	3.112	13.5	21.1	5 31	19 29.39	-23 46.9	2.143	2.986	12.8	21.1
6 10	19 22.15	-3 45.8	2.231	3.106	11.2	20.9	6 10	19 24.91	-23 37.4	2.050	2.972	9.9	20.9
6 20	19 16.35	-3 18.0	2.167	3.101	8.9	20.7	6 20	19 18.33	-23 28.6	1.979	2.959	6.5	20.6
6 30	19 9.32	-3 4.3	2.127	3.095	6.9	20.6	6 30	19 10.21	-23 19.0	1.934	2.945	2.7	20.4
7 10	19 1.72	-3 5.4	2.112	3.089	6.3	20.6	7 10	19 1.38	-23 7.5	1.917	2.932	1.3	20.2
7 20	18 54.29	-3 20.9	2.124	3.084	7.5	20.6	7 20	18 52.76	-22 53.4	1.926	2.919	5.3	20.5
7 30	18 47.78	-3 49.1	2.161	3.078	9.7	20.7	7 30	18 45.29	-22 37.0	1.962	2.906	9.0	20.7
8 9	18 42.81	-4 27.1	2.221	3.073	12.1	20.9	8 9	18 39.71	-22 19.1	2.021	2.893	12.3	20.9
510853	2013 <i>CY</i> ₇₀		7 6.7 56°58	6°2/ 9.6 18			364745	2007 <i>VL</i> ₂₆₈		7 6.7 313°02	1°2/ 6.4 17		
5 31	19 26.84	-2 44.4	2.098	2.892	14.7	20.9	5 31	19 28.58	-22 39.4	1.186	2.064	18.7	20.9
6 10	19 22.63	-2 42.8	2.034	2.907	12.2	20.8	6 10	19 26.10	-23 9.1	1.100	2.041	14.6	20.6
6 20	19 16.64	-2 57.7	1.989	2.923	9.5	20.6	6 20	19 20.14	-23 47.5	1.032	2.018	9.7	20.2
6 30	19 9.41	-3 29.9	1.968	2.939	7.2	20.5	6 30	19 11.28	-24 30.5	0.985	1.996	4.1	19.8
7 10	19 1.70	-4 18.2	1.972	2.955	6.2	20.5	7 10	19 0.77	-25 12.7	0.960	1.975	2.5	19.7
7 20	18 54.30	-5 19.9	2.003	2.971	7.3	20.6	7 20	18 50.27	-25 48.7	0.958	1.954	8.4	19.9
7 30	18 47.99	-6 30.9	2.060	2.987	9.6	20.8	7 30	18 41.64	-26 15.5	0.978	1.934	14.2	20.2
8 9	18 43.35	-7 46.9	2.140	3.003	12.0	21.0	8 9	18 36.30	-26 32.6	1.016	1.915	19.3	20.4
394683	2008 <i>CS</i> ₁₂₉		7 6.7 346°32	2°9/ 6.2 18			161528	2004 <i>TE</i> ₁₃₃		7 6.7 291°19	6°2/ 7.8 18		
5 31	19 31.36	-30 25.0	1.947	2.794	13.7	20.5	5 31	19 29.93	-10 33.0	1.359	2.204	18.6	19.6
6 10	19 26.62	-30 32.9	1.869	2.792	10.6	20.3	6 10	19 26.40	-9 53.6	1.272	2.187	15.2	19.4
6 20	19 19.48	-30 37.4	1.813	2.789	7.2	20.0	6 20	19 19.91	-9 27.3	1.203	2.169	11.3	19.1
6 30	19 10.64	-30 35.4	1.781	2.787	3.9	19.8	6 30	19 11.05	-9 17.0	1.155	2.151	7.6	18.8
7 10	19 1.10	-30 24.3	1.776	2.784	3.3	19.8	7 10	19 0.93	-9 23.7	1.131	2.133	6.4	18.7
7 20	18 51.95	-30 3.5	1.797	2.783	6.3	20.0	7 20	18 50.90	-9 46.8	1.130	2.115	9.2	18.8
7 30	18 44.25	-29 34.2	1.844	2.781	9.9	20.2	7 30	18 42.41	-10 23.4	1.151	2.097	13.6	19.0
8 9	18 38.78	-28 58.9	1.914	2.780	13.1	20.4	8 9	18 36.62	-11 9.4	1.192	2.080	17.9	19.2
45036	1999 <i>XD</i> ₃		7 6.7 236°94	4°6/ 7.6 18			299740	2006 <i>RA</i> ₇₃		7 6.7 245°69	0°8/ 6.5 18		
5 31	19 31.58	-12 14.8	1.678	2.510	16.2	19.7	5 31	19 30.13	-24 6.7	2.176	3.017	12.7	21.8
6 10	19 26.96	-11 44.0	1.595	2.504	13.0	19.5	6 10	19 25.44	-24 21.4	2.090	3.012	9.8	21.6
6 20	19 19.84	-11 23.3	1.532	2.497	9.3	19.2	6 20	19 18.65	-24 38.1	2.028	3.006	6.4	21.4
6 30	19 10.85	-11 14.0	1.493	2.490	5.9	19.0	6 30	19 10.34	-24 54.3	1.990	3.001	2.7	21.2
7 10	19 0.97	-11 16.1	1.479	2.483	4.8	18.9	7 10	19 1.34	-25 7.8	1.981	2.995	1.6	21.1
7 20	18 51.34	-11 28.7	1.490	2.475	7.5	19.1	7 20	18 52.57	-25 17.0	1.998	2.989	5.3	21.3
7 30	18 43.10	-11 49.9	1.527	2.467	11.3	19.3	7 30	18 44.95	-25 21.2	2.042	2.983	8.9	21.5
8 9	18 37.13	-12 17.3	1.585	2.459	14.9	19.5	8 9	18 39.22	-25 20.9	2.110	2.977	12.0	21.7
89863	2002 <i>CV</i> ₁₂₆		7 6.7 267°69	3°9/ 5.8 18			483149	2015 <i>OH</i> ₆₉		7 6.7 230°42	2°0/ 6.6 18		
5 31	19 32.33	-33 50.2	2.274	3.110	12.4	20.0	5 31	19 36.00	-30 42.1	2.297	3.126	12.5	20.9
6 10	19 27.10	-34 10.3	2.196	3.109	9.7	19.8	6 10	19 29.68	-30 17.0	2.211	3.124	9.7	20.7
6 20	19 19.68	-34 25.5	2.140	3.108	6.9	19.6	6 20	19 21.23	-29 46.5	2.149	3.122	6.5	20.5
6 30	19 10.70	-34 32.3	2.109	3.107	4.4	19.5	6 30	19 11.33	-29 8.5	2.113	3.120	3.2	20.3
7 10	19 1.09	-34 27.9	2.106	3.105	4.1	19.5	7 10	19 0.90	-28 22.5	2.106	3.117	2.3	20.2
7 20	18 51.85	-34 11.5	2.130	3.104	6.4	19.6	7 20	18 50.92	-27 29.2	2.128	3.115	5.4	20.4
7 30	18 43.93	-33 44.2	2.180	3.103	9.3	19.8	7 30	18 42.32	-26 31.0	2.178	3.112	8.7	20.7
8 9	18 38.05	-33 8.6	2.253	3.102	12.0	19.9	8 9	18 35.75	-25 30.9	2.252	3.110	11.7	20.8
470291	2007 <i>EX</i> ₁₅₁		7 6.7 22°89	9°6/10.6 16			4277	Holubov		7 6.7 263°87	1°6/ 6.5 18		

EPHEMERIDES

7 6.7

7 6.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
395951	2013 <i>AG</i> ₁₃₀		7 6.7 243°05	1.4/ 7.1	18		69270	1989 <i>BB</i>		7 6.7 141°70	3.4/ 6.2	18	
5 31	19 28.89	-18 8.8	2.137	2.973	13.1	21.6	5 31	19 38.49	-31 25.1	1.852	2.689	14.7	17.8
6 10	19 24.41	-18 9.0	2.054	2.971	10.1	21.4	6 10	19 32.13	-31 41.4	1.783	2.699	11.4	17.6
6 20	19 17.94	-18 14.9	1.994	2.969	6.7	21.2	6 20	19 23.09	-31 53.6	1.735	2.708	7.8	17.4
6 30	19 10.04	-18 25.3	1.959	2.967	3.1	20.9	6 30	19 12.18	-31 57.1	1.713	2.716	4.4	17.2
7 10	19 1.51	-18 38.7	1.951	2.965	1.8	20.8	7 10	19 0.59	-31 49.0	1.718	2.724	3.8	17.2
7 20	18 53.21	-18 53.6	1.970	2.962	5.2	21.1	7 20	18 49.56	-31 28.6	1.750	2.732	6.9	17.4
7 30	18 46.03	-19 8.9	2.016	2.960	8.8	21.3	7 30	18 40.29	-30 57.7	1.808	2.739	10.4	17.6
8 9	18 40.65	-19 23.7	2.086	2.958	11.9	21.5	8 9	18 33.59	-30 19.7	1.889	2.745	13.7	17.9
43502	2001 <i>CY</i> ₂₈		7 6.7 279°78	3.9/ 5.6	18		123495	2000 <i>WK</i> ₁₇₃		7 6.7 218°44	0.6/ 6.9	18	
5 31	19 33.75	-28 25.9	1.524	2.381	16.3	19.0	5 31	19 30.20	-21 34.7	2.615	3.444	11.2	20.1
6 10	19 29.54	-29 17.5	1.433	2.362	12.8	18.7	6 10	19 25.05	-21 16.9	2.525	3.439	8.6	19.9
6 20	19 22.10	-30 12.0	1.363	2.342	8.8	18.4	6 20	19 18.19	-21 0.3	2.458	3.434	5.6	19.7
6 30	19 12.02	-31 3.2	1.316	2.321	4.9	18.1	6 30	19 10.13	-20 44.4	2.419	3.428	2.4	19.5
7 10	19 0.48	-31 44.5	1.294	2.301	4.5	18.1	7 10	19 1.57	-20 28.4	2.408	3.423	1.2	19.4
7 20	18 48.98	-32 11.3	1.297	2.281	8.4	18.2	7 20	18 53.23	-20 12.1	2.426	3.417	4.5	19.6
7 30	18 39.15	-32 22.0	1.323	2.260	13.0	18.4	7 30	18 45.85	-19 55.8	2.471	3.410	7.6	19.8
8 9	18 32.27	-32 18.8	1.370	2.239	17.1	18.6	8 9	18 40.03	-19 39.8	2.542	3.404	10.4	19.9
507641	2013 <i>NP</i> ₂		7 6.7 356°88	0.9/ 6.8	17		283270	2011 <i>HS</i> ₁₂		7 6.7 356°94	0.8/ 6.4	18	
5 31	19 24.73	-22 0.1	0.957	1.853	20.5	20.6	5 31	19 25.84	-18 33.6	1.280	2.152	17.9	19.2
6 10	19 23.24	-21 36.9	0.896	1.846	16.0	20.3	6 10	19 23.46	-19 50.5	1.209	2.148	13.8	19.0
6 20	19 18.15	-21 18.0	0.852	1.842	10.5	19.9	6 20	19 18.07	-21 23.1	1.158	2.144	9.0	18.7
6 30	19 10.35	-21 2.3	0.827	1.839	4.5	19.6	6 30	19 10.33	-23 5.6	1.130	2.142	3.7	18.4
7 10	19 1.36	-20 48.5	0.822	1.838	2.2	19.5	7 10	19 1.41	-24 49.8	1.126	2.141	2.2	18.3
7 20	18 52.96	-20 35.8	0.838	1.838	8.4	19.8	7 20	18 52.73	-26 27.3	1.146	2.141	7.5	18.6
7 30	18 46.84	-20 24.1	0.874	1.841	14.1	20.1	7 30	18 45.76	-27 51.9	1.189	2.142	12.5	18.9
8 9	18 44.10	-20 13.5	0.928	1.845	19.0	20.4	8 9	18 41.63	-29 0.6	1.252	2.145	16.9	19.1
61140	2000 <i>NR</i> ₅		7 6.7 325°72	2.9/ 6.9	18 R		36228	1999 <i>UK</i> ₉		7 6.8 210°56	1.6/ 7.3	18	
5 31	19 26.47	-19 10.4	1.247	2.121	18.2	17.6	5 31	19 27.78	-16 44.8	2.736	3.559	10.9	19.3
6 10	19 24.17	-18 26.7	1.153	2.090	14.4	17.2	6 10	19 23.14	-16 40.1	2.646	3.555	8.5	19.2
6 20	19 18.71	-17 45.9	1.077	2.060	9.9	16.9	6 20	19 16.95	-16 40.3	2.580	3.550	5.7	19.0
6 30	19 10.66	-17 9.0	1.022	2.031	5.0	16.5	6 30	19 9.64	-16 44.7	2.540	3.545	2.9	18.8
7 10	19 1.15	-16 36.6	0.990	2.003	3.5	16.3	7 10	19 1.83	-16 52.5	2.528	3.540	1.9	18.7
7 20	18 51.68	-16 9.8	0.981	1.977	8.3	16.5	7 20	18 54.19	-17 2.7	2.545	3.535	4.4	18.9
7 30	18 43.85	-15 49.5	0.993	1.951	13.8	16.7	7 30	18 47.38	-17 14.5	2.590	3.529	7.3	19.0
8 9	18 38.97	-15 35.7	1.023	1.927	18.8	16.9	8 9	18 41.97	-17 27.1	2.659	3.523	10.0	19.2
164773	1999 <i>CW</i> ₄₈		7 6.7 62°38	0.0/ 6.5	17		507198	2010 <i>TN</i> ₂₁		7 6.8 278°75	0.5/ 6.6	17	
5 31	19 34.03	-20 15.7	1.221	2.086	19.1	19.7	5 31	19 33.01	-22 41.2	1.525	2.380	16.4	22.9
6 10	19 29.44	-20 46.1	1.171	2.105	14.6	19.5	6 10	19 28.77	-22 53.7	1.431	2.359	12.8	22.6
6 20	19 21.66	-21 24.9	1.141	2.124	9.5	19.2	6 20	19 21.49	-23 11.0	1.356	2.338	8.5	22.3
6 30	19 11.63	-22 7.9	1.132	2.143	3.9	19.0	6 30	19 11.78	-23 30.3	1.306	2.317	3.5	21.9
7 10	19 0.82	-22 49.8	1.147	2.163	1.9	18.9	7 10	19 0.73	-23 47.9	1.280	2.295	1.9	21.8
7 20	18 50.75	-23 26.6	1.187	2.182	7.3	19.3	7 20	18 49.74	-24 1.1	1.279	2.273	7.1	22.0
7 30	18 42.83	-23 56.2	1.250	2.202	12.2	19.6	7 30	18 40.31	-24 8.7	1.303	2.251	12.2	22.3
8 9	18 37.97	-24 18.4	1.333	2.222	16.3	19.9	8 9	18 33.61	-24 11.2	1.348	2.229	16.6	22.5
187679	Folins88		7 6.7 81°98	2.9/ 7.5	17		271847	2004 <i>TS</i> ₂₃₅		7 6.8 346°51	1.2/ 6.5	17	
5 31	19 34.34	-14 43.0	1.567	2.404	16.9	20.9	5 31	19 28.29	-23 34.9	1.384	2.254	17.0	20.7
6 10	19 28.86	-14 40.0	1.514	2.430	13.2	20.7	6 10	19 25.14	-23 58.0	1.310	2.247	13.1	20.4
6 20	19 20.89	-14 47.4	1.483	2.454	8.9	20.5	6 20	19 19.05	-24 25.9	1.256	2.241	8.6	20.1
6 30	19 11.23	-15 4.1	1.475	2.479	4.7	20.3	6 30	19 10.70	-24 55.1	1.225	2.236	3.6	19.8
7 10	19 1.04	-15 27.8	1.492	2.503	3.2	20.3	7 10	19 1.30	-25 21.3	1.217	2.231	2.2	19.7
7 20	18 51.48	-15 56.0	1.536	2.527	6.6	20.5	7 20	18 52.25	-25 41.3	1.233	2.228	7.2	20.0
7 30	18 43.63	-16 26.3	1.605	2.551	10.5	20.8	7 30	18 44.93	-25 53.8	1.272	2.225	12.0	20.3
8 9	18 38.20	-16 56.8	1.697	2.574	14.0	21.1	8 9	18 40.37	-25 59.1	1.332	2.223	16.2	20.5
72168	2000 <i>YL</i> ₁₀₇		7 6.7 285°05	1.2/ 6.5	18 R		512092	2015 <i>OA</i> ₁₂		7 6.8 156°88	2.4/ 7.9	18	
5 31	19 33.13	-24 12.4	1.478	2.336	16.7	19.8	5 31	19 28.09	-12 26.0	2.482	3.298	12.1	21.5
6 10	19 29.04	-24 29.1	1.382	2.312	13.1	19.5	6 10	19 23.51	-12 48.8	2.400	3.302	9.5	21.3
6 20	19 21.77	-24 49.8	1.306	2.288	8.7	19.2	6 20	19 17.26	-13 21.0	2.340	3.305	6.6	21.1
6 30	19 11.90	-25 10.9	1.253	2.264	3.7	18.8	6 30	19 9.79	-14 1.7	2.306	3.307	3.7	21.0
7 10	19 0.58	-25 28.3	1.224	2.239	2.3	18.6	7 10	19 1.78	-14 48.9	2.301	3.310	2.5	20.9
7 20	18 49.28	-25 38.8	1.221	2.214	7.5	18.9	7 20	18 53.95	-15 39.9	2.324	3.313	4.9	21.0
7 30	18 39.58	-25 41.5	1.241	2.189	12.7	19.1	7 30	18 47.02	-16 32.4	2.375	3.315	7.8	21.2
8 9	18 32.74	-25 37.3	1.282	2.164	17.2	19.3	8 9	18 41.59	-17 24.1	2.451	3.317	10.6	21.4
258575	2002 <i>CU</i> ₁₃₆		7 6.7 48°48	6.9/10.6	18		375749	2009 <i>SL</i> ₄₁		7 6.8 237°25	0.1/ 6.7	18	
5 31	19 28.48	- 0 18.7	1.894	2.680	16.3	19.3	5 31	19 33.26	-22 12.8	1.937	2.776	14.1	22.4
6 10	19 24.01	- 0 36.4	1.839	2.706	13.6	19.2	6 10	19 28.18	-22 23.6	1.844	2.765	10.9	22.1
6 20	19 17.59	- 1 14.6	1.803	2.732	10.7	19.0	6 20	19 20.67	-22 38.1	1.774	2.752	7.2	21.9
6 30	19 9.87	- 2 13.6	1.791	2.758	8.1	18.9	6 30	19 11.31	-22 53.8	1.729	2.740	3.0	21.6
7 10	19 1.69	- 3 30.9	1.804	2.785	6.9	18.9	7 10	19 1.03	-23 8.4	1.711	2.726	1.5	21.4
7 20	18 53.93	- 5 1.9	1.844	2.812	7.8	19.0	7 20	18 50.93	-23 19.8	1.721	2.713	5.9	21.7
7 30	18 47.42	- 6 41.1	1.910	2.839	10.1	19.2	7 30	18 42.11	-23 27.1	1.756	2.699	10.0	21.9
8 9	18 42.77	- 8 22.5	2.000	2.866	12.6	19.4	8 9	18 35.45	-23 30.6	1.815	2.684	13.6	22.1
251969	2000 <i>AV</i> ₈₉		7 6.7 256°15	0.2/ 6.8	18		298040	2002 <i>PO</i> ₁₈₂		7 6.8 299			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
424020	2006 <i>XS</i> ₁₃		7 6.8 178°81	0°7/ 6.6 17			335823	2007 <i>JU</i> ₄₂		7 6.8 52°32	5°4/ 6.4 17		
5 31	19 34.10	-23 19.2	1.945	2.784	14.0	21.8	5 31	19 38.20	-36 0.7	1.518	2.367	16.9	19.6
6 10	19 28.69	-23 39.8	1.866	2.786	10.8	21.6	6 10	19 32.41	-36 11.6	1.462	2.381	13.3	19.4
6 20	19 20.90	-24 3.5	1.809	2.787	7.0	21.3	6 20	19 23.46	-36 13.0	1.426	2.395	9.5	19.2
6 30	19 11.36	-24 27.3	1.777	2.787	2.9	21.1	6 30	19 12.39	-35 59.5	1.413	2.410	6.3	19.0
7 10	19 1.05	-24 48.1	1.773	2.787	1.7	21.0	7 10	19 0.68	-35 28.3	1.425	2.425	5.7	19.0
7 20	18 51.05	-25 3.9	1.796	2.787	5.8	21.3	7 20	18 49.88	-34 40.2	1.462	2.440	8.4	19.2
7 30	18 42.41	-25 13.9	1.846	2.786	9.7	21.5	7 30	18 41.31	-33 39.2	1.523	2.455	11.9	19.5
8 9	18 35.97	-25 18.6	1.918	2.784	13.1	21.7	8 9	18 35.79	-32 31.1	1.606	2.471	15.3	19.7
260482	2005 <i>CV</i> ₃₂		7 6.8 22°29	2°4/ 6.3 17			134788	2000 <i>DJ</i> ₁₁₇		7 6.8 323°96	4°8/ 7.9 18		
5 31	19 29.64	-25 44.1	1.048	1.934	19.9	20.0	5 31	19 28.00	-11 44.3	1.410	2.259	17.9	19.5
6 10	19 26.76	-26 9.8	0.997	1.942	15.3	19.8	6 10	19 24.74	-11 29.7	1.330	2.249	14.3	19.3
6 20	19 20.29	-26 38.1	0.963	1.951	10.0	19.5	6 20	19 18.73	-11 29.4	1.269	2.240	10.3	19.0
6 30	19 11.22	-27 3.8	0.950	1.961	4.5	19.2	6 30	19 10.61	-11 44.2	1.230	2.231	6.3	18.8
7 10	19 1.15	-27 21.5	0.959	1.973	3.3	19.2	7 10	19 1.43	-12 13.3	1.215	2.222	4.9	18.7
7 20	18 51.86	-27 28.5	0.990	1.985	8.4	19.5	7 20	18 52.48	-12 54.1	1.224	2.214	7.9	18.8
7 30	18 44.95	-27 25.1	1.042	1.999	13.5	19.9	7 30	18 45.05	-13 42.9	1.255	2.207	12.2	19.0
8 9	18 41.41	-27 13.3	1.112	2.013	17.9	20.2	8 9	18 40.15	-14 35.4	1.308	2.200	16.3	19.3
45622	2000 <i>DN</i> ₈₇		7 6.8 277°60	2°4/ 7.7 18			1833	Shmakova		7 6.8 337°55	5°9/ 8.6 18		
5 31	19 29.16	-13 46.8	1.992	2.822	14.1	19.5	5 31	19 26.79	-7 58.7	1.546	2.381	17.3	19.7
6 10	19 24.99	-14 10.7	1.893	2.804	11.2	19.2	6 10	19 23.52	-7 46.1	1.467	2.373	14.1	15.5
6 20	19 18.60	-14 46.2	1.815	2.786	7.7	19.0	6 20	19 17.78	-7 50.3	1.408	2.367	10.5	15.3
6 30	19 10.48	-15 32.3	1.763	2.767	4.0	18.7	6 30	19 10.17	-8 12.7	1.370	2.361	7.2	15.1
7 10	19 1.44	-16 26.4	1.737	2.749	2.6	18.6	7 10	19 1.66	-8 52.7	1.356	2.355	6.0	15.0
7 20	18 52.42	-17 25.3	1.739	2.730	5.8	18.7	7 20	18 53.36	-9 47.3	1.366	2.350	8.1	15.1
7 30	18 44.43	-18 25.5	1.766	2.711	9.7	18.9	7 30	18 46.43	-10 52.2	1.400	2.346	11.7	15.3
8 9	18 38.35	-19 24.0	1.818	2.693	13.3	19.1	8 9	18 41.76	-12 2.2	1.456	2.342	15.3	15.5
209685	2005 <i>EX</i> ₁₈		7 6.8 254°15	6°9/ 4.7 18			155279	2005 <i>WW</i> ₁₇₃		7 6.8 119°12	0°2/ 6.8 18		
5 31	19 37.45	-40 57.1	2.180	3.000	13.4	20.8	5 31	19 32.08	-20 42.5	1.798	2.642	14.8	20.7
6 10	19 31.67	-41 47.6	2.091	2.985	11.1	20.6	6 10	19 27.23	-21 0.2	1.726	2.648	11.4	20.5
6 20	19 23.08	-42 30.2	2.025	2.969	8.7	20.4	6 20	19 19.99	-21 23.4	1.675	2.654	7.4	20.3
6 30	19 12.34	-42 58.6	1.982	2.953	7.1	20.3	6 30	19 11.02	-21 49.4	1.650	2.660	3.1	20.0
7 10	19 0.57	-43 7.8	1.966	2.937	7.2	20.2	7 10	19 1.31	-22 15.3	1.651	2.666	1.4	19.9
7 20	18 49.05	-42 55.6	1.976	2.920	8.9	20.3	7 20	18 51.97	-22 38.8	1.679	2.672	5.8	20.2
7 30	18 39.10	-42 23.5	2.010	2.903	11.5	20.4	7 30	18 44.06	-22 58.4	1.732	2.677	9.9	20.5
8 9	18 31.70	-41 35.8	2.067	2.886	14.0	20.6	8 9	18 38.38	-23 13.8	1.808	2.682	13.4	20.7
116662	2004 <i>CW</i> ₃₉		7 6.8 305°23	6°0/ 8.9 18			181267	2005 <i>WX</i> ₁₆		7 6.8 324°40	0°3/ 6.8 18		
5 31	19 26.78	-5 53.1	1.831	2.646	15.7	19.2	5 31	19 27.40	-21 10.5	1.889	2.740	13.9	20.4
6 10	19 23.26	-5 47.8	1.735	2.628	13.0	19.0	6 10	19 23.73	-21 15.6	1.800	2.726	10.8	20.1
6 20	19 17.52	-5 59.1	1.660	2.609	10.0	18.7	6 20	19 17.79	-21 25.1	1.732	2.712	7.1	19.9
6 30	19 10.05	-6 28.6	1.607	2.591	7.2	18.5	6 30	19 10.16	-21 37.3	1.688	2.699	3.0	19.6
7 10	19 1.67	-7 16.1	1.578	2.573	6.0	18.4	7 10	19 1.70	-21 50.2	1.671	2.686	1.4	19.5
7 20	18 53.33	-8 19.0	1.576	2.555	7.8	18.5	7 20	18 53.42	-22 2.0	1.679	2.673	5.7	19.7
7 30	18 46.06	-9 33.2	1.598	2.537	11.0	18.6	7 30	18 46.34	-22 11.6	1.713	2.662	9.7	19.9
8 9	18 40.74	-10 53.7	1.643	2.520	14.4	18.8	8 9	18 41.30	-22 18.7	1.770	2.650	13.3	20.1
304822	2007 <i>RU</i>		7 6.8 19°57	0°0/ 6.6 17			225880	2001 <i>YM</i> ₆₇		7 6.8 158°47	1°6/ 6.3 17		
5 31	19 31.22	-23 49.0	1.016	1.901	20.5	19.3	5 31	19 33.94	-25 36.0	2.154	2.990	13.0	21.2
6 10	19 27.97	-23 24.8	0.961	1.906	15.8	19.1	6 10	19 28.36	-26 4.5	2.078	2.996	10.0	21.0
6 20	19 21.07	-23 2.3	0.924	1.912	10.4	18.8	6 20	19 20.58	-26 34.3	2.026	3.002	6.5	20.8
6 30	19 11.54	-22 39.8	0.907	1.919	4.3	18.5	6 30	19 11.24	-27 2.1	1.999	3.008	2.9	20.6
7 10	19 1.04	-22 15.8	0.912	1.927	2.0	18.4	7 10	19 1.22	-27 24.7	2.000	3.012	2.2	20.5
7 20	18 51.35	-21 50.3	0.938	1.936	8.1	18.8	7 20	18 51.52	-27 40.3	2.029	3.017	5.6	20.8
7 30	18 44.10	-21 24.6	0.986	1.947	13.6	19.1	7 30	18 43.11	-27 48.4	2.085	3.020	9.0	21.0
8 9	18 40.28	-21 0.4	1.052	1.958	18.3	19.4	8 9	18 36.71	-27 49.8	2.165	3.024	12.1	21.2
159310	2006 <i>BG</i> ₁₀₁		7 6.8 336°76	1°0/ 7.0 18			216657	2003 <i>UL</i> ₂₀₂		7 6.8 272°76	3°9/ 5.6 18		
5 31	19 26.09	-18 35.4	1.333	2.202	17.5	19.6	5 31	19 33.89	-28 16.9	1.526	2.383	16.3	20.6
6 10	19 23.57	-18 53.4	1.253	2.189	13.7	19.3	6 10	19 29.61	-29 14.3	1.441	2.369	12.8	20.3
6 20	19 18.13	-19 22.0	1.192	2.176	9.1	19.0	6 20	19 22.14	-30 14.9	1.377	2.356	8.7	20.0
6 30	19 10.40	-19 59.1	1.153	2.164	4.0	18.7	6 30	19 12.12	-31 12.1	1.336	2.342	4.9	19.8
7 10	19 1.51	-20 41.0	1.138	2.153	1.9	18.5	7 10	19 0.73	-31 59.2	1.321	2.328	4.5	19.7
7 20	18 52.82	-21 23.7	1.146	2.144	7.2	18.8	7 20	18 49.48	-32 31.3	1.330	2.314	8.4	19.9
7 30	18 45.76	-22 3.6	1.177	2.135	12.2	19.0	7 30	18 39.93	-32 47.2	1.363	2.299	12.7	20.1
8 9	18 41.42	-22 38.7	1.228	2.127	16.7	19.3	8 9	18 33.30	-32 48.8	1.417	2.285	16.7	20.3
392071	2009 <i>CP</i> ₅₆		7 6.8 97°02	1°6/ 6.3 17			377912	2006 <i>DX</i> ₂₁₄		7 6.8 150°86	1°8/ 7.3 17		
5 31	19 31.40	-25 57.3	2.094	2.936	13.1	21.8	5 31	19 31.85	-16 28.6	2.230	3.055	13.0	22.0
6 10	19 26.41	-26 20.8	2.024	2.945	10.0	21.6	6 10	19 26.53	-16 29.4	2.154	3.063	10.1	21.8
6 20	19 19.29	-26 45.1	1.977	2.955	6.5	21.4	6 20	19 19.28	-16 36.6	2.100	3.071	6.8	21.7
6 30	19 10.67	-27 7.2	1.955	2.964	3.0	21.2	6 30	19 10.68	-16 49.2	2.072	3.078	3.4	21.5
7 10	19 1.45	-27 24.2	1.961	2.973	2.2	21.2	7 10	19 1.51	-17 5.7	2.073	3.085	2.1	21.4
7 20	18 52.59	-27 34.6	1.994	2.982	5.5	21.4	7 20	18 52.64	-17 24.5	2.101	3.091	5.1	21.6
7 30	18 45.03	-27 37.9	2.053	2.991	9.0	21.6	7 30	18 44.91	-17 44.4	2.157	3.097	8.5	21.8
8 9	18 39.48	-27 35.2	2.136	3.000	12.0	21.9	8 9	18 38.95	-18 4.2	2.237	3.102	11.5	22.0
522688	2016 <i>KK</i> ₅		7 6.8 56°49	6°4/ 8.4 17			370937	2005 <i>QS</i> ₁₈₀		7 6.8 344°02			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
213378	2001 <i>UG</i> ₂₉		7 6.8 275°32	6°0/ 8.7 18			158515	2002 <i>EU</i> ₁₄₀		7 6.8 260°63	2°3/ 7.5 18		
5 31	19 27.19	- 5 22.3	2.143	2.945	14.2	20.4	5 31	19 30.05	-15 27.3	1.834	2.671	14.8	20.6
6 10	19 23.12	- 4 59.3	2.056	2.938	11.7	20.2	6 10	19 25.75	-15 32.3	1.748	2.663	11.7	20.4
6 20	19 17.18	- 4 49.5	1.990	2.931	9.1	20.0	6 20	19 19.12	-15 46.5	1.682	2.655	8.0	20.1
6 30	19 9.86	- 4 54.7	1.948	2.924	6.8	19.9	6 30	19 10.73	-16 9.1	1.642	2.647	4.1	19.9
7 10	19 1.89	- 5 15.0	1.931	2.917	6.0	19.8	7 10	19 1.50	-16 38.2	1.627	2.639	2.6	19.7
7 20	18 54.07	- 5 49.2	1.940	2.910	7.4	19.9	7 20	18 52.45	-17 11.4	1.639	2.631	6.1	19.9
7 30	18 47.23	- 6 34.7	1.975	2.903	9.9	20.0	7 30	18 44.64	-17 46.3	1.676	2.623	10.1	20.2
8 9	18 42.07	- 7 27.9	2.033	2.895	12.6	20.2	8 9	18 38.91	-18 20.9	1.737	2.614	13.7	20.4
260043	2004 <i>GB</i> ₅₅		7 6.8 26°58	0°0/ 6.7 17			518181	2016 <i>NG</i> ₇₁		7 6.8 265°59	0°7/ 6.5 18		
5 31	19 29.38	-21 47.4	1.899	2.747	14.0	21.0	5 31	19 31.17	-21 32.7	2.069	2.908	13.3	21.8
6 10	19 25.06	-21 53.4	1.826	2.750	10.8	20.8	6 10	19 26.60	-22 15.0	1.970	2.890	10.3	21.5
6 20	19 18.53	-22 3.0	1.774	2.753	7.0	20.6	6 20	19 19.72	-23 3.9	1.892	2.871	6.8	21.3
6 30	19 10.42	-22 14.3	1.747	2.757	2.9	20.3	6 30	19 11.02	-23 56.3	1.841	2.851	2.8	21.0
7 10	19 1.64	-22 25.1	1.746	2.761	1.4	20.2	7 10	19 1.34	-24 48.3	1.817	2.832	1.6	20.9
7 20	18 53.21	-22 34.0	1.772	2.765	5.5	20.5	7 20	18 51.65	-25 36.3	1.821	2.812	5.7	21.1
7 30	18 46.10	-22 40.2	1.824	2.770	9.4	20.7	7 30	18 43.04	-26 17.8	1.851	2.791	9.7	21.3
8 9	18 41.04	-22 43.7	1.898	2.775	12.7	21.0	8 9	18 36.39	-26 51.8	1.905	2.771	13.2	21.5
140815	2001 <i>UL</i> ₁₆₀		7 6.8 271°87	4°8/ 4.9 18			185789	1999 <i>VH</i> ₆₉		7 6.8 333°41	2°6/ 7.4 18		
5 31	19 31.95	-33 30.8	2.149	2.989	12.9	20.1	5 31	19 26.84	-15 42.0	1.941	2.782	14.0	19.9
6 10	19 27.22	-34 33.9	2.069	2.983	10.2	19.9	6 10	19 23.12	-15 27.4	1.855	2.773	11.0	19.6
6 20	19 20.08	-35 34.8	2.012	2.978	7.4	19.7	6 20	19 17.31	-15 20.1	1.791	2.764	7.6	19.4
6 30	19 11.12	-36 28.0	1.980	2.973	5.2	19.6	6 30	19 9.96	-15 19.9	1.752	2.756	4.1	19.2
7 10	19 1.27	-37 8.8	1.975	2.968	5.2	19.6	7 10	19 1.90	-15 26.2	1.738	2.749	2.9	19.1
7 20	18 51.62	-37 34.1	1.997	2.963	7.5	19.7	7 20	18 54.05	-15 37.7	1.751	2.742	5.9	19.3
7 30	18 43.26	-37 43.7	2.044	2.958	10.3	19.9	7 30	18 47.34	-15 53.1	1.788	2.735	9.5	19.5
8 9	18 37.07	-37 39.7	2.113	2.953	13.1	20.0	8 9	18 42.52	-16 11.0	1.849	2.729	12.9	19.7
432010	2008 <i>UQ</i> ₃₅₆		7 6.8 312°37	1°8/ 6.3 18			420602	2012 <i>HV</i> ₄₆		7 6.8 114°37	2°6/ 7.7 17		
5 31	19 29.86	-24 59.4	1.592	2.451	15.6	21.0	5 31	19 31.88	-13 44.5	1.651	2.487	16.3	21.0
6 10	19 26.19	-25 26.8	1.505	2.436	12.1	20.8	6 10	19 27.24	-14 8.1	1.580	2.495	12.7	20.8
6 20	19 19.72	-25 57.8	1.439	2.422	8.0	20.5	6 20	19 20.10	-14 44.4	1.530	2.502	8.7	20.6
6 30	19 11.07	-26 28.5	1.397	2.407	3.6	20.2	6 30	19 11.13	-15 31.7	1.504	2.509	4.5	20.4
7 10	19 1.30	-26 54.9	1.380	2.393	2.5	20.1	7 10	19 1.36	-16 26.5	1.503	2.515	2.8	20.3
7 20	18 51.71	-27 13.6	1.387	2.379	7.0	20.3	7 20	18 51.93	-17 24.9	1.530	2.522	6.4	20.5
7 30	18 43.64	-27 23.6	1.419	2.366	11.5	20.5	7 30	18 43.95	-18 23.1	1.581	2.528	10.5	20.8
8 9	18 38.13	-27 25.6	1.472	2.353	15.5	20.7	8 9	18 38.29	-19 18.0	1.656	2.535	14.2	21.0
63276	2001 <i>DP</i> ₂₂		7 6.8 208°23	4°6/ 8.5 18			248950	2006 <i>WP</i> ₁₈₈		7 6.8 341°05	4°4/ 4.9 18		
5 31	19 29.83	- 7 33.4	2.234	3.036	13.7	19.6	5 31	19 28.79	-28 55.8	1.681	2.541	14.9	19.6
6 10	19 25.08	- 7 33.6	2.145	3.032	11.1	19.5	6 10	19 25.38	-30 16.3	1.603	2.532	11.7	19.4
6 20	19 18.44	- 7 46.5	2.077	3.026	8.3	19.3	6 20	19 19.21	-31 40.1	1.546	2.524	8.1	19.1
6 30	19 10.39	- 8 12.6	2.034	3.021	5.7	19.1	6 30	19 10.89	-33 0.5	1.514	2.516	5.0	18.9
7 10	19 1.66	- 8 51.0	2.018	3.014	4.7	19.0	7 10	19 1.45	-34 10.6	1.507	2.509	5.0	18.9
7 20	18 53.08	- 9 39.4	2.029	3.008	6.4	19.1	7 20	18 52.16	-35 5.1	1.525	2.503	8.2	19.1
7 30	18 45.47	-10 35.1	2.068	3.001	9.2	19.3	7 30	18 44.34	-35 41.9	1.568	2.497	11.8	19.3
8 9	18 39.54	-11 34.6	2.130	2.993	12.1	19.5	8 9	18 39.04	-36 2.2	1.631	2.492	15.2	19.5
237923	2002 <i>PA</i> ₁₇₅		7 6.8 298°88	2°3/ 6.1 18			144312	2004 <i>DO</i> ₁₄		7 6.8 192°84	1°2/ 6.5 17		
5 31	19 30.75	-26 36.5	1.837	2.688	14.3	21.3	5 31	19 35.06	-24 41.5	1.922	2.761	14.2	21.5
6 10	19 26.47	-27 12.2	1.754	2.680	11.0	21.0	6 10	19 29.54	-24 58.7	1.840	2.760	10.9	21.3
6 20	19 19.68	-27 49.9	1.692	2.671	7.3	20.8	6 20	19 21.55	-25 17.7	1.780	2.758	7.2	21.1
6 30	19 10.98	-28 25.4	1.655	2.663	3.6	20.6	6 30	19 11.74	-25 35.5	1.746	2.756	3.1	20.8
7 10	19 1.37	-28 54.8	1.644	2.655	2.9	20.5	7 10	19 1.11	-25 48.9	1.739	2.753	1.9	20.7
7 20	18 51.97	-29 15.1	1.660	2.648	6.5	20.7	7 20	18 50.77	-25 56.2	1.759	2.749	6.0	21.0
7 30	18 43.95	-29 25.5	1.701	2.640	10.4	20.9	7 30	18 41.85	-25 57.0	1.805	2.745	9.9	21.2
8 9	18 38.22	-29 27.0	1.763	2.632	13.9	21.1	8 9	18 35.18	-25 52.4	1.875	2.740	13.4	21.4
342699	2008 <i>VO</i> ₇₂		7 6.8 314°99	0°3/ 6.7 18			362371	2010 <i>NE</i> ₄₈		7 6.8 265°69	3°5/ 5.8 18		
5 31	19 28.15	-21 16.3	1.506	2.368	16.2	20.3	5 31	19 31.38	-32 23.3	2.376	3.212	11.9	21.2
6 10	19 25.06	-21 40.6	1.413	2.345	12.7	20.1	6 10	19 26.47	-32 51.5	2.288	3.203	9.4	21.0
6 20	19 19.12	-22 12.7	1.339	2.323	8.4	19.7	6 20	19 19.43	-33 16.6	2.223	3.193	6.5	20.9
6 30	19 10.88	-22 49.8	1.289	2.300	3.5	19.4	6 30	19 10.84	-33 35.0	2.184	3.183	4.1	20.7
7 10	19 1.37	-23 27.9	1.263	2.279	1.8	19.2	7 10	19 1.53	-33 43.8	2.172	3.173	3.8	20.6
7 20	18 51.90	-24 3.2	1.262	2.257	7.0	19.5	7 20	18 52.44	-33 41.4	2.187	3.163	6.2	20.8
7 30	18 43.87	-24 33.0	1.285	2.237	11.9	19.7	7 30	18 44.52	-33 28.2	2.229	3.153	9.1	20.9
8 9	18 38.42	-24 56.4	1.328	2.217	16.3	19.9	8 9	18 38.51	-33 6.1	2.294	3.143	11.8	21.1
240773	2005 <i>QA</i> ₁₈₃		7 6.8 339°50	0°6/ 6.9 18			505514	2013 <i>XE</i> ₃		7 6.8 213°16	1°7/ 6.3 18		
5 31	19 27.07	-19 36.6	1.761	2.614	14.7	20.3	5 31	19 33.53	-25 50.1	2.127	2.964	13.1	22.0
6 10	19 23.58	-19 51.7	1.678	2.605	11.4	20.1	6 10	19 28.23	-26 16.5	2.039	2.958	10.1	21.8
6 20	19 17.76	-20 13.5	1.617	2.598	7.5	19.9	6 20	19 20.65	-26 44.5	1.974	2.951	6.6	21.5
6 30	19 10.18	-20 40.2	1.580	2.590	3.2	19.6	6 30	19 11.37	-27 10.6	1.935	2.944	3.0	21.3
7 10	19 1.76	-21 9.0	1.569	2.584	1.5	19.4	7 10	19 1.29	-27 31.7	1.924	2.936	2.2	21.2
7 20	18 53.57	-21 37.4	1.583	2.578	5.9	19.7	7 20	18 51.40	-27 45.6	1.941	2.928	5.7	21.4
7 30	18 46.66	-22 3.5	1.622	2.572	10.0	20.0	7 30	18 42.75	-27 51.8	1.984	2.920	9.4	21.6
8 9	18 41.89	-22 26.1	1.684	2.568	13.7	20.2	8 9	18 36.15	-27 51.2	2.050	2.910	12.6	21.8
468258	2015 <i>BZ</i> ₃₄₇		7 6.8 266°79	0°9/ 6.4 18			361438	2007 <					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
270457	2002 <i>CW</i> ₂₄₆		7 6.8 40°77	3°7/ 7.9 17			254354	2004 <i>TM</i> ₄₁		7 6.8 142°72	3°5/ 5.7 18		
5 31	19 29.01	-12 30.6	1.477	2.323	17.3	20.2	5 31	19 30.99	-32 41.0	2.469	3.304	11.6	20.2
6 10	19 25.15	-12 33.2	1.418	2.336	13.7	20.0	6 10	19 26.02	-33 10.6	2.392	3.305	9.0	20.0
6 20	19 18.75	-12 49.6	1.378	2.349	9.5	19.8	6 20	19 19.06	-33 36.9	2.337	3.306	6.3	19.8
6 30	19 10.58	-13 19.0	1.361	2.364	5.4	19.6	6 30	19 10.68	-33 56.3	2.309	3.307	4.0	19.7
7 10	19 1.70	-13 59.0	1.369	2.378	3.9	19.5	7 10	19 1.71	-34 6.3	2.308	3.309	3.8	19.7
7 20	18 53.30	-14 46.0	1.401	2.393	6.9	19.7	7 20	18 53.03	-34 5.4	2.335	3.310	5.9	19.8
7 30	18 46.49	-15 36.2	1.458	2.409	10.9	20.0	7 30	18 45.50	-33 54.1	2.388	3.311	8.6	20.0
8 9	18 42.05	-16 26.2	1.537	2.425	14.6	20.3	8 9	18 39.80	-33 34.2	2.465	3.312	11.2	20.2
380884	2006 <i>DB</i> ₃₉		7 6.8 131°06	0°1/ 6.8 17			72436	2001 <i>CH</i> ₄₄		7 6.8 57°50	7°2/ 4.3 18		
5 31	19 32.71	-21 29.3	2.065	2.901	13.5	22.1	5 31	19 35.21	-36 43.4	1.701	2.546	15.5	18.7
6 10	19 27.40	-21 39.0	1.993	2.912	10.3	21.9	6 10	19 30.34	-38 15.2	1.645	2.558	12.4	18.6
6 20	19 19.96	-21 52.3	1.944	2.921	6.7	21.7	6 20	19 22.41	-39 41.3	1.611	2.570	9.5	18.4
6 30	19 11.04	-22 6.9	1.921	2.931	2.8	21.4	6 30	19 12.20	-40 53.4	1.601	2.583	7.5	18.3
7 10	19 1.52	-22 20.9	1.925	2.940	1.3	21.3	7 10	19 0.99	-41 44.6	1.616	2.596	7.6	18.4
7 20	18 52.36	-22 32.5	1.956	2.948	5.2	21.6	7 20	18 50.27	-42 11.7	1.656	2.609	9.8	18.5
7 30	18 44.49	-22 41.2	2.015	2.957	8.9	21.9	7 30	18 41.43	-42 15.8	1.719	2.622	12.6	18.7
8 9	18 38.61	-22 46.9	2.097	2.965	12.1	22.1	8 9	18 35.47	-42 1.3	1.803	2.635	15.3	18.9
380177	2000 <i>SO</i> ₅₁		7 6.8 229°63	0°3/ 6.9 18			508314	2015 <i>KG</i> ₁₃₇		7 6.8 54°98	3°2/ 5.9 17		
5 31	19 33.16	-21 25.5	2.325	3.153	12.4	21.6	5 31	19 33.00	-28 23.4	1.650	2.503	15.5	21.5
6 10	19 27.73	-21 28.3	2.226	3.140	9.6	21.4	6 10	19 28.18	-29 6.3	1.596	2.522	11.9	21.3
6 20	19 20.24	-21 34.0	2.150	3.126	6.3	21.1	6 20	19 20.71	-29 48.7	1.563	2.541	7.9	21.2
6 30	19 11.20	-21 40.9	2.101	3.111	2.7	20.9	6 30	19 11.40	-30 25.4	1.555	2.561	4.2	21.0
7 10	19 1.41	-21 47.5	2.080	3.095	1.2	20.7	7 10	19 1.42	-30 52.1	1.572	2.580	3.7	21.0
7 20	18 51.74	-21 52.3	2.088	3.079	5.1	21.0	7 20	18 52.02	-31 6.7	1.615	2.600	7.0	21.2
7 30	18 43.12	-21 54.9	2.123	3.062	8.7	21.2	7 30	18 44.36	-31 9.5	1.683	2.620	10.7	21.5
8 9	18 36.30	-21 55.3	2.183	3.045	11.9	21.3	8 9	18 39.23	-31 2.4	1.772	2.640	13.9	21.7
390927	2005 <i>FO</i>		7 6.8 219°23	3°3/ 5.5 18			360398	2002 <i>EH</i> ₁₅₆		7 6.8 199°43	6°0/ 5.3 18		
5 31	19 35.44	-33 29.9	3.058	3.874	10.0	22.5	5 31	19 35.75	-41 20.3	2.485	3.300	12.1	21.3
6 10	19 29.16	-34 3.9	2.959	3.860	7.9	22.3	6 10	19 29.86	-41 55.0	2.408	3.298	9.9	21.1
6 20	19 21.01	-34 34.8	2.884	3.846	5.6	22.2	6 20	19 21.64	-42 21.1	2.353	3.297	7.8	21.0
6 30	19 11.49	-34 59.2	2.836	3.830	3.7	22.0	6 30	19 11.77	-42 33.9	2.324	3.295	6.3	20.9
7 10	19 1.28	-35 14.3	2.818	3.814	3.6	22.0	7 10	19 1.23	-42 30.1	2.322	3.293	6.2	20.9
7 20	18 51.19	-35 18.7	2.830	3.797	5.4	22.1	7 20	18 51.09	-42 8.8	2.346	3.291	7.7	21.0
7 30	18 42.02	-35 12.5	2.869	3.779	7.8	22.2	7 30	18 42.37	-41 31.8	2.395	3.289	9.8	21.1
8 9	18 34.45	-34 57.1	2.934	3.760	10.2	22.4	8 9	18 35.83	-40 42.6	2.468	3.286	12.1	21.3
122688	2000 <i>SK</i> ₇		7 6.8 241°51	1°9/ 6.3 18			168384	1997 <i>NP</i> ₃		7 6.8 3°17	2°1/ 7.4 18		
5 31	19 33.35	-26 47.0	1.980	2.823	13.7	20.1	5 31	19 27.20	-16 48.9	1.508	2.365	16.5	19.5
6 10	19 28.30	-27 7.8	1.892	2.813	10.6	19.9	6 10	19 23.94	-16 52.4	1.437	2.365	12.9	19.3
6 20	19 20.82	-27 29.3	1.825	2.802	7.0	19.7	6 20	19 18.12	-17 5.4	1.386	2.365	8.6	19.1
6 30	19 11.49	-27 48.0	1.783	2.792	3.3	19.4	6 30	19 10.41	-17 26.9	1.357	2.365	4.2	18.8
7 10	19 1.28	-28 0.6	1.769	2.781	2.5	19.3	7 10	19 1.86	-17 54.5	1.353	2.367	2.4	18.7
7 20	18 51.28	-28 5.3	1.781	2.769	6.1	19.5	7 20	18 53.66	-18 25.5	1.374	2.369	6.5	19.0
7 30	18 42.60	-28 1.8	1.820	2.758	10.0	19.7	7 30	18 46.95	-18 57.2	1.419	2.373	10.9	19.2
8 9	18 36.13	-27 51.4	1.881	2.746	13.4	19.9	8 9	18 42.63	-19 27.6	1.485	2.376	14.8	19.5
111833	2002 <i>EN</i> ₁₂		7 6.8 151°02	1°3/ 7.1 17			121825	2000 <i>BV</i> ₉		7 6.8 244°42	0°9/ 6.9 17		
5 31	19 34.95	-18 49.7	1.678	2.518	15.9	20.4	5 31	19 33.86	-19 35.0	1.386	2.242	17.7	20.7
6 10	19 29.58	-18 52.5	1.606	2.525	12.3	20.2	6 10	19 29.49	-19 44.1	1.308	2.236	13.8	20.4
6 20	19 21.62	-19 1.8	1.554	2.531	8.1	19.9	6 20	19 22.00	-20 1.3	1.249	2.230	9.2	20.1
6 30	19 11.79	-19 15.9	1.528	2.537	3.6	19.7	6 30	19 12.11	-20 24.1	1.213	2.223	4.0	19.8
7 10	19 1.17	-19 32.4	1.527	2.542	1.9	19.6	7 10	19 1.04	-20 49.3	1.202	2.217	1.9	19.7
7 20	18 50.95	-19 49.2	1.553	2.546	6.2	19.9	7 20	18 50.26	-21 13.8	1.215	2.210	7.2	20.0
7 30	18 42.31	-20 5.0	1.605	2.551	10.5	20.1	7 30	18 41.26	-21 35.4	1.252	2.203	12.3	20.2
8 9	18 36.08	-20 19.2	1.679	2.554	14.2	20.4	8 9	18 35.12	-21 53.6	1.309	2.196	16.7	20.5
177364	2004 <i>BF</i> ₁₅		7 6.8 275°12	0°4/ 6.9 18			58553	1997 <i>GK</i> ₄₃		7 6.8 60°15	9°3/ 10.0 18		
5 31	19 31.68	-19 47.4	1.545	2.398	16.4	20.3	5 31	19 27.36	+ 3 39.4	2.152	2.911	15.4	18.9
6 10	19 27.54	-20 7.5	1.462	2.389	12.7	20.1	6 10	19 23.08	+ 4 40.1	2.091	2.926	13.4	18.8
6 20	19 20.60	-20 35.7	1.399	2.380	8.4	19.8	6 20	19 17.06	+ 5 22.8	2.051	2.941	11.5	18.7
6 30	19 11.48	-21 9.3	1.360	2.371	3.6	19.5	6 30	19 9.84	+ 5 44.3	2.032	2.956	9.9	18.6
7 10	19 1.27	-21 44.8	1.347	2.362	1.7	19.3	7 10	19 2.17	+ 5 43.3	2.037	2.972	9.3	18.6
7 20	18 51.27	-22 18.6	1.358	2.353	6.7	19.6	7 20	18 54.81	+ 5 20.6	2.066	2.988	9.9	18.7
7 30	18 42.80	-22 48.4	1.394	2.344	11.4	19.9	7 30	18 48.51	+ 4 39.1	2.118	3.003	11.3	18.8
8 9	18 36.90	-23 13.3	1.452	2.335	15.5	20.1	8 9	18 43.85	+ 3 43.2	2.193	3.019	13.1	19.0
512152	2015 <i>PR</i> ₂₉₄		7 6.8 316°76	3°4/ 5.5 18			4533	Orth		7 6.8 170°51	10°5/ 11.0 18 A		
5 31	19 29.82	-28 49.1	2.017	2.865	13.3	20.4	5 31	19 31.91	+ 8 40.3	2.213	2.930	16.2	17.8
6 10	19 25.67	-29 46.7	1.934	2.857	10.3	20.2	6 10	19 26.62	+ 9 27.7	2.138	2.935	14.4	17.7
6 20	19 19.15	-30 45.6	1.873	2.849	7.0	20.0	6 20	19 19.43	+ 9 54.4	2.081	2.939	12.6	17.6
6 30	19 10.82	-31 41.0	1.838	2.842	4.1	19.8	6 30	19 10.86	+ 9 56.8	2.046	2.943	11.2	17.5
7 10	19 1.60	-32 28.2	1.829	2.834	3.9	19.7	7 10	19 1.68	+ 9 33.1	2.034	2.945	10.5	17.5
7 20	18 52.53	-33 3.7	1.847	2.827	6.8	19.9	7 20	18 52.73	+ 8 44.4	2.046	2.947	11.0	17.5
7 30	18 44.71	-33 26.4	1.891	2.820	10.1	20.1	7 30	18 44.84	+ 7 34.0	2.082	2.948	12.3	17.6
8 9	18 39.01	-33 37.0	1.956	2.813	13.3	20.3	8 9	18 38.67	+ 6 7.7	2.140	2.948	14.0	17.7
122459	2000 <i>QX</i> ₁₄₄		7 6.8 275°12	0°7/ 6.6 18			437330	2013 <i>RG</i> ₃₇		7 6.8 282°5			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
166573	2002 <i>RE</i> ₁₂₃		7 6.8 200°33	0°8/ 7.1 18			247126	2000 <i>UE</i> ₁₀₃		7 6.8 289°84	2°2/ 7.1 18		
5 31	19 30.13	-18 7.1	2.306	3.135	12.4	20.4	5 31	19 31.98	-18 51.0	1.737	2.581	15.3	19.8
6 10	19 25.36	-18 31.3	2.219	3.133	9.6	20.2	6 10	19 27.57	-18 20.5	1.637	2.557	12.0	19.5
6 20	19 18.68	-19 2.1	2.156	3.130	6.4	20.0	6 20	19 20.56	-17 53.5	1.558	2.534	8.2	19.3
6 30	19 10.58	-19 37.5	2.118	3.127	2.8	19.8	6 30	19 11.52	-17 29.9	1.503	2.510	4.0	18.9
7 10	19 1.82	-20 15.1	2.109	3.123	1.4	19.7	7 10	19 1.41	-17 9.5	1.473	2.486	2.6	18.8
7 20	18 53.22	-20 52.6	2.127	3.120	4.9	19.9	7 20	18 51.39	-16 52.3	1.470	2.462	6.6	19.0
7 30	18 45.63	-21 28.0	2.174	3.115	8.3	20.1	7 30	18 42.66	-16 38.5	1.492	2.439	11.1	19.2
8 9	18 39.74	-22 0.0	2.244	3.111	11.4	20.3	8 9	18 36.23	-16 28.2	1.536	2.415	15.1	19.4
470529	2008 <i>CQ</i> ₂₁₅		7 6.8 53°33	0°1/ 6.8 17			52460	1995 <i>DA</i> ₃		7 6.8 15°41	19°1/ 6.6 18		
5 31	19 33.02	-22 10.8	1.362	2.224	17.7	21.2	5 31	19 33.60	+ 5 14.1	1.064	1.867	25.3	18.6
6 10	19 28.54	-22 19.7	1.306	2.238	13.6	21.0	6 10	19 29.59	+ 8 28.8	1.013	1.868	22.9	18.4
6 20	19 21.12	-22 33.2	1.269	2.252	8.8	20.8	6 20	19 22.20	+11 18.3	0.977	1.869	20.8	18.2
6 30	19 11.62	-22 48.5	1.255	2.266	3.6	20.5	6 30	19 12.24	+13 28.1	0.959	1.870	19.4	18.1
7 10	19 1.37	-23 2.2	1.266	2.281	1.7	20.4	7 10	19 1.11	+14 47.8	0.958	1.872	19.2	18.1
7 20	18 51.77	-23 12.3	1.301	2.296	6.8	20.8	7 20	18 50.45	+15 13.5	0.975	1.874	20.2	18.2
7 30	18 44.10	-23 18.1	1.360	2.312	11.5	21.1	7 30	18 41.85	+14 49.0	1.007	1.876	22.0	18.3
8 9	18 39.22	-23 19.9	1.440	2.327	15.4	21.4	8 9	18 36.44	+13 44.9	1.053	1.878	24.2	18.5
437813	2015 <i>DR</i> ₉₄		7 6.8 38°84	8°3/ 5.6 17			150261	1999 <i>RC</i> ₆₈		7 6.8 265°67	5°0/ 5.4 18		
5 31	19 36.98	-40 10.6	1.460	2.307	17.4	20.3	5 31	19 34.92	-38 10.6	2.545	3.365	11.7	20.5
6 10	19 32.04	-41 3.3	1.408	2.319	14.2	20.1	6 10	19 29.27	-38 38.6	2.447	3.346	9.5	20.3
6 20	19 23.59	-41 44.4	1.375	2.332	11.0	19.9	6 20	19 21.35	-39 0.2	2.372	3.326	7.1	20.1
6 30	19 12.67	-42 5.8	1.365	2.345	8.7	19.8	6 30	19 11.75	-39 10.9	2.323	3.306	5.4	20.0
7 10	19 0.89	-42 2.3	1.377	2.358	8.5	19.8	7 10	19 1.35	-39 7.7	2.301	3.286	5.3	19.9
7 20	18 49.99	-41 33.2	1.414	2.372	10.6	20.0	7 20	18 51.15	-38 49.0	2.307	3.265	7.0	20.0
7 30	18 41.48	-40 42.8	1.472	2.387	13.5	20.2	7 30	18 42.16	-38 16.0	2.338	3.245	9.5	20.1
8 9	18 36.29	-39 37.7	1.551	2.401	16.4	20.4	8 9	18 35.20	-37 31.6	2.394	3.224	12.0	20.3
476307	2007 <i>WU</i> ₃₁		7 6.8 278°99	1°0/ 6.9 18			168444	1998 <i>XX</i> ₂₂		7 6.8 208°67	1°8/ 6.2 18		
5 31	19 31.51	-20 27.4	2.066	2.903	13.4	21.8	5 31	19 31.92	-26 18.5	2.315	3.151	12.2	20.9
6 10	19 26.80	-20 12.7	1.962	2.880	10.5	21.5	6 10	19 26.86	-26 51.7	2.229	3.147	9.4	20.8
6 20	19 19.83	-20 0.9	1.880	2.857	7.0	21.3	6 20	19 19.73	-27 26.2	2.166	3.142	6.2	20.5
6 30	19 11.13	-19 51.1	1.824	2.833	3.1	21.0	6 30	19 11.06	-27 58.8	2.129	3.137	3.0	20.3
7 10	19 1.54	-19 42.1	1.795	2.809	1.6	20.8	7 10	19 1.67	-28 26.2	2.120	3.132	2.3	20.3
7 20	18 52.04	-19 33.5	1.793	2.785	5.6	21.0	7 20	18 52.47	-28 46.5	2.140	3.126	5.4	20.5
7 30	18 43.63	-19 25.0	1.818	2.761	9.6	21.2	7 30	18 44.37	-28 58.7	2.186	3.120	8.7	20.7
8 9	18 37.19	-19 16.8	1.866	2.737	13.2	21.4	8 9	18 38.12	-29 3.6	2.256	3.113	11.7	20.8
288348	2004 <i>BD</i> ₁₃₂		7 6.8 233°79	0°6/ 6.9 17			260643	2005 <i>GR</i> ₁₃₅		7 6.8 262°27	4°8/ 8.2 17		
5 31	19 34.15	-20 42.5	1.827	2.667	14.8	22.3	5 31	19 29.29	-11 7.5	1.314	2.164	18.8	20.4
6 10	19 29.04	-20 44.2	1.737	2.656	11.5	22.0	6 10	19 25.80	-11 1.9	1.250	2.169	15.1	20.2
6 20	19 21.39	-20 50.5	1.667	2.645	7.6	21.8	6 20	19 19.46	-11 12.7	1.203	2.173	10.8	20.0
6 30	19 11.80	-20 59.4	1.623	2.633	3.3	21.5	6 30	19 11.04	-11 40.3	1.179	2.179	6.5	19.7
7 10	19 1.25	-21 8.8	1.605	2.620	1.5	21.3	7 10	19 1.70	-12 22.5	1.177	2.185	4.9	19.7
7 20	18 50.89	-21 17.0	1.614	2.607	6.1	21.6	7 20	18 52.78	-13 15.4	1.200	2.191	7.9	19.9
7 30	18 41.88	-21 23.1	1.650	2.594	10.3	21.8	7 30	18 45.57	-14 14.4	1.245	2.198	12.2	20.1
8 9	18 35.15	-21 27.2	1.708	2.580	14.1	22.0	8 9	18 41.02	-15 14.7	1.311	2.205	16.2	20.4
186540	2002 <i>VO</i> ₁₂₇		7 6.8 296°82	1°8/ 7.2 18			493585	2015 <i>MU</i>		7 6.8 4°47	0°2/ 6.8 16		
5 31	19 30.67	-18 29.4	1.482	2.337	16.8	20.3	5 31	19 28.30	-20 34.6	1.594	2.452	15.7	20.7
6 10	19 27.01	-18 20.7	1.388	2.315	13.3	20.0	6 10	19 24.78	-21 7.8	1.521	2.451	12.1	20.5
6 20	19 20.44	-18 19.1	1.314	2.293	9.0	19.7	6 20	19 18.70	-21 48.5	1.470	2.452	7.9	20.2
6 30	19 11.53	-18 23.9	1.262	2.271	4.2	19.4	6 30	19 10.71	-22 33.6	1.442	2.453	3.3	20.0
7 10	19 1.34	-18 33.4	1.235	2.249	2.4	19.2	7 10	19 1.85	-23 18.8	1.439	2.454	1.6	19.8
7 20	18 51.21	-18 45.8	1.232	2.227	7.2	19.4	7 20	18 53.29	-24 0.6	1.462	2.457	6.3	20.2
7 30	18 42.56	-18 59.6	1.254	2.206	12.2	19.6	7 30	18 46.21	-24 36.3	1.509	2.459	10.6	20.4
8 9	18 36.53	-19 13.6	1.296	2.185	16.6	19.8	8 9	18 41.50	-25 5.0	1.578	2.463	14.4	20.7
46497	2214 <i>T</i> ₋₃		7 6.8 62°24	2°9/ 7.3 18			85932	1999 <i>CS</i> ₁₄₁		7 6.8 311°66	0°6/ 6.9 18		
5 31	19 33.22	-17 14.7	1.405	2.257	17.7	18.5	5 31	19 30.12	-19 57.9	1.501	2.359	16.5	19.8
6 10	19 28.55	-16 44.4	1.342	2.266	13.8	18.3	6 10	19 26.44	-20 10.1	1.419	2.349	12.9	19.6
6 20	19 21.08	-16 21.4	1.299	2.276	9.4	18.1	6 20	19 19.94	-20 29.7	1.358	2.339	8.5	19.3
6 30	19 11.62	-16 6.0	1.279	2.286	4.8	17.8	6 30	19 11.29	-20 54.5	1.319	2.329	3.6	19.0
7 10	19 1.39	-15 57.4	1.283	2.295	3.3	17.8	7 10	19 1.56	-21 21.4	1.304	2.320	1.7	18.8
7 20	18 51.74	-15 54.8	1.313	2.305	7.2	18.0	7 20	18 52.05	-21 47.4	1.315	2.311	6.7	19.1
7 30	18 43.90	-15 57.3	1.366	2.315	11.6	18.3	7 30	18 44.10	-22 10.5	1.350	2.302	11.5	19.4
8 9	18 38.71	-16 3.6	1.440	2.326	15.5	18.6	8 9	18 38.71	-22 29.8	1.406	2.294	15.7	19.6
124742	2001 <i>SV</i> ₂₀₇		7 6.8 187°77	3°7/ 6.0 18			91529	1999 <i>RL</i> ₁₉₃		7 6.8 322°65	6°0/ 8.7 18		
5 31	19 37.90	-29 30.6	1.560	2.409	16.4	20.3	5 31	19 26.28	- 5 50.6	2.092	2.899	14.3	20.1
6 10	19 32.45	-30 7.7	1.486	2.409	12.8	20.0	6 10	19 22.54	- 5 25.3	2.006	2.892	11.8	19.9
6 20	19 23.84	-30 44.0	1.432	2.408	8.7	19.8	6 20	19 16.91	- 5 13.1	1.941	2.885	9.2	19.8
6 30	19 12.85	-31 13.6	1.402	2.407	4.8	19.6	6 30	19 9.90	- 5 15.7	1.900	2.878	6.8	19.6
7 10	19 0.78	-31 31.3	1.398	2.406	4.2	19.5	7 10	19 2.25	- 5 33.5	1.884	2.872	6.0	19.5
7 20	18 49.15	-31 34.4	1.420	2.404	7.9	19.7	7 20	18 54.75	- 6 5.1	1.894	2.865	7.4	19.6
7 30	18 39.41	-31 23.8	1.466	2.402	12.1	20.0	7 30	18 48.25	- 6 48.2	1.929	2.859	9.9	19.8
8 9	18 32.62	-31 2.5	1.533	2.399	15.8	20.2	8 9	18 43.43	- 7 39.1	1.987	2.854	12.7	19.9
39011	2000 <i>UY</i> ₄₄	</											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
507932	2015 AS ₄₁		7 6.8 301°51	0°9/ 6.6 17			144017	2004 BS ₉		7 6.8 176°44	0°4/ 6.9 18		
5 31	19 30.84	-22 21.5	1.301	2.169	17.9	21.8	5 31	19 34.25	-20 24.1	1.884	2.721	14.5	20.8
6 10	19 27.82	-22 48.8	1.205	2.141	14.1	21.5	6 10	19 28.93	-20 38.2	1.805	2.723	11.2	20.6
6 20	19 21.41	-23 24.6	1.129	2.113	9.4	21.1	6 20	19 21.22	-20 57.6	1.747	2.724	7.4	20.3
6 30	19 12.13	-24 5.4	1.074	2.085	4.0	20.7	6 30	19 11.75	-21 20.0	1.715	2.725	3.1	20.1
7 10	19 1.12	-24 45.9	1.042	2.057	2.3	20.5	7 10	19 1.50	-21 42.6	1.710	2.726	1.4	19.9
7 20	18 49.98	-25 21.3	1.035	2.030	8.1	20.8	7 20	18 51.53	-22 3.2	1.733	2.726	5.7	20.2
7 30	18 40.47	-25 48.4	1.049	2.003	13.8	21.0	7 30	18 42.94	-22 20.6	1.782	2.725	9.8	20.5
8 9	18 34.07	-26 6.9	1.083	1.976	18.8	21.2	8 9	18 36.54	-22 34.4	1.854	2.724	13.3	20.7
470367	2007 TQ ₆₈		7 6.8 202°58	10°0/ 8.9 17			147816	2005 SU ₁₂₅		7 6.8 307°13	5°4/ 4.9 18		
5 31	19 33.68	+ 4 38.9	2.229	2.966	15.6	22.1	5 31	19 32.14	-35 31.7	2.111	2.949	13.1	19.7
6 10	19 28.08	+ 5 50.8	2.142	2.960	13.7	21.9	6 10	19 27.53	-36 29.3	2.031	2.943	10.5	19.5
6 20	19 20.48	+ 6 46.5	2.076	2.954	11.9	21.8	6 20	19 20.43	-37 22.9	1.975	2.937	7.8	19.4
6 30	19 11.40	+ 7 21.6	2.032	2.946	10.4	21.7	6 30	19 11.47	-38 7.1	1.943	2.931	5.7	19.2
7 10	19 1.59	+ 7 33.4	2.013	2.938	10.0	21.6	7 10	19 1.61	-38 37.0	1.937	2.926	5.7	19.2
7 20	18 51.91	+ 7 21.3	2.019	2.928	10.7	21.6	7 20	18 51.99	-38 50.3	1.958	2.920	7.8	19.3
7 30	18 43.24	+ 6 47.3	2.049	2.917	12.3	21.7	7 30	18 43.73	-38 47.0	2.003	2.915	10.6	19.5
8 9	18 36.31	+ 5 55.6	2.101	2.906	14.3	21.8	8 9	18 37.73	-38 29.8	2.071	2.909	13.3	19.7
249359	2008 YK ₃₈		7 6.8 204°15	0°2/ 6.9 17			342811	2008 XW ₃		7 6.8 175°88	0°1/ 6.8 18		
5 31	19 30.96	-19 49.3	2.256	3.088	12.6	21.2	5 31	19 32.11	-23 2.2	1.897	2.741	14.2	20.6
6 10	19 26.10	-20 17.1	2.169	3.084	9.7	21.0	6 10	19 27.27	-22 59.5	1.819	2.742	10.9	20.4
6 20	19 19.24	-20 50.7	2.105	3.081	6.4	20.7	6 20	19 20.11	-22 58.8	1.763	2.742	7.1	20.1
6 30	19 10.89	-21 27.7	2.067	3.077	2.7	20.5	6 30	19 11.28	-22 58.3	1.731	2.742	3.0	19.9
7 10	19 1.83	-22 5.3	2.057	3.072	1.2	20.4	7 10	19 1.73	-22 56.2	1.726	2.742	1.4	19.8
7 20	18 52.93	-22 41.2	2.075	3.067	5.0	20.6	7 20	18 52.53	-22 51.4	1.749	2.742	5.6	20.1
7 30	18 45.08	-23 13.4	2.121	3.062	8.6	20.8	7 30	18 44.69	-22 43.9	1.797	2.742	9.6	20.3
8 9	18 39.01	-23 41.2	2.190	3.056	11.7	21.0	8 9	18 39.00	-22 34.4	1.868	2.742	13.0	20.5
244671	2003 KN ₃₃		7 6.8 223°72	3°9/ 8.3 18			176022	2000 SR ₇₁		7 6.8 19°70	7°2/ 4.9 18		
5 31	19 27.31	- 9 20.7	2.441	3.250	12.5	21.1	5 31	19 33.89	-39 48.5	1.879	2.716	14.6	19.2
6 10	19 23.05	- 9 19.2	2.354	3.247	10.0	21.0	6 10	19 29.16	-40 46.9	1.815	2.719	11.9	19.0
6 20	19 17.12	- 9 28.1	2.289	3.243	7.3	20.8	6 20	19 21.59	-41 36.9	1.771	2.723	9.3	18.8
6 30	19 9.98	- 9 47.5	2.249	3.240	4.8	20.6	6 30	19 11.94	-42 11.9	1.751	2.727	7.5	18.7
7 10	19 2.27	-10 16.8	2.236	3.236	3.9	20.6	7 10	19 1.42	-42 27.0	1.756	2.732	7.5	18.7
7 20	18 54.71	-10 54.1	2.251	3.232	5.6	20.7	7 20	18 51.38	-42 20.4	1.786	2.736	9.3	18.9
7 30	18 48.03	-11 37.2	2.292	3.228	8.3	20.8	7 30	18 43.09	-41 54.0	1.839	2.742	11.9	19.0
8 9	18 42.83	-12 23.7	2.359	3.224	11.0	21.0	8 9	18 37.48	-41 12.3	1.913	2.747	14.4	19.2
471097	2010 AQ ₆₈		7 6.8 231°00	1°6/ 6.3 18			138010	2000 CG ₁₀₀		7 6.8 179°19	1°6/ 6.5 17		
5 31	19 33.00	-24 23.3	2.068	2.906	13.3	21.6	5 31	19 36.10	-26 22.9	1.923	2.762	14.2	20.7
6 10	19 28.02	-25 4.3	1.977	2.897	10.3	21.3	6 10	19 30.38	-26 35.8	1.844	2.763	11.0	20.5
6 20	19 20.69	-25 49.2	1.909	2.886	6.8	21.1	6 20	19 22.16	-26 48.8	1.787	2.764	7.2	20.3
6 30	19 11.56	-26 34.2	1.867	2.876	3.0	20.9	6 30	19 12.14	-26 58.7	1.756	2.765	3.3	20.1
7 10	19 1.51	-27 15.3	1.852	2.865	2.2	20.8	7 10	19 1.35	-27 2.5	1.752	2.765	2.2	20.0
7 20	18 51.57	-27 49.5	1.865	2.853	5.9	21.0	7 20	18 50.91	-26 59.1	1.775	2.764	6.0	20.2
7 30	18 42.82	-28 15.2	1.904	2.841	9.7	21.2	7 30	18 41.95	-26 48.6	1.824	2.763	9.9	20.5
8 9	18 36.14	-28 32.5	1.967	2.828	13.0	21.4	8 9	18 35.30	-26 32.7	1.897	2.761	13.3	20.7
354787	2005 UG ₂₅₉		7 6.8 78°21	4°6/ 8.2 16			152763	1999 LN ₄		7 6.8 358°95	22°6/ 25.1 18		
5 31	19 27.75	- 9 13.2	2.280	3.091	13.2	20.7	5 31	19 20.37	+25 10.6	1.254	1.945	27.5	18.7
6 10	19 23.40	- 8 45.8	2.204	3.097	10.6	20.5	6 10	19 19.25	+26 41.1	1.202	1.939	26.4	18.5
6 20	19 17.33	- 8 28.3	2.151	3.103	7.9	20.4	6 20	19 15.38	+27 28.0	1.159	1.935	25.3	18.4
6 30	19 10.04	- 8 21.6	2.122	3.109	5.4	20.2	6 30	19 9.45	+27 21.2	1.126	1.933	24.2	18.3
7 10	19 2.26	- 8 25.8	2.119	3.115	4.6	20.2	7 10	19 2.57	+26 14.6	1.104	1.933	23.2	18.2
7 20	18 54.73	- 8 39.9	2.144	3.121	6.2	20.3	7 20	18 56.02	+24 7.9	1.096	1.935	22.7	18.2
7 30	18 48.19	- 9 2.3	2.195	3.126	8.8	20.5	7 30	18 51.08	+21 7.4	1.103	1.939	22.7	18.2
8 9	18 43.24	- 9 30.7	2.269	3.132	11.4	20.7	8 9	18 48.72	+17 26.4	1.126	1.946	23.3	18.3
296903	2010 CK ₁₆		7 6.8 45°26	1°3/ 6.4 18			389038	2008 US ₃₅₅		7 6.8 300°68	2°9/ 7.5 18		
5 31	19 30.79	-24 12.5	1.942	2.788	13.8	21.0	5 31	19 30.14	-14 59.1	1.685	2.527	15.8	20.8
6 10	19 26.30	-24 45.0	1.865	2.789	10.6	20.8	6 10	19 26.46	-14 55.5	1.573	2.491	12.6	20.5
6 20	19 19.51	-25 20.8	1.811	2.790	6.9	20.5	6 20	19 20.10	-15 2.1	1.481	2.454	8.8	20.2
6 30	19 11.04	-25 56.3	1.781	2.791	3.0	20.3	6 30	19 11.51	-15 18.9	1.412	2.417	4.8	19.9
7 10	19 1.80	-26 28.2	1.779	2.792	2.0	20.2	7 10	19 1.55	-15 44.9	1.368	2.380	3.2	19.7
7 20	18 52.83	-26 53.8	1.803	2.793	5.8	20.5	7 20	18 51.37	-16 17.9	1.350	2.342	7.0	19.8
7 30	18 45.17	-27 11.9	1.853	2.794	9.6	20.7	7 30	18 42.29	-16 55.4	1.356	2.305	11.7	20.0
8 9	18 39.61	-27 22.8	1.926	2.795	12.9	20.9	8 9	18 35.47	-17 34.8	1.384	2.268	16.1	20.2
371574	2006 VR ₁₃₀		7 6.8 217°06	0°3/ 6.8 17			313959	2004 RB ₂₇₂		7 6.8 224°78	3°4/ 8.1 18		
5 31	19 33.98	-21 54.6	1.920	2.758	14.2	22.4	5 31	19 27.20	-10 41.2	2.545	3.356	12.0	21.7
6 10	19 28.82	-22 14.0	1.832	2.751	11.0	22.2	6 10	19 22.93	-10 37.5	2.456	3.352	9.6	21.5
6 20	19 21.23	-22 37.9	1.766	2.744	7.2	22.0	6 20	19 17.03	-10 42.8	2.390	3.347	6.9	21.3
6 30	19 11.79	-23 3.6	1.726	2.736	3.0	21.7	6 30	19 9.97	-10 57.4	2.349	3.343	4.4	21.2
7 10	19 1.44	-23 28.1	1.712	2.727	1.5	21.5	7 10	19 2.37	-11 20.3	2.336	3.338	3.5	21.1
7 20	18 51.29	-23 49.0	1.726	2.718	5.8	21.8	7 20	18 54.91	-11 50.1	2.351	3.334	5.3	21.2
7 30	18 42.44	-24 5.0	1.767	2.709	9.9	22.0	7 30	18 48.29	-12 25.1	2.392	3.329	8.0	21.4
8 9	18 35.78	-24 16.2	1.830	2.699	13.5	22.2	8 9	18 43.11	-13 3.0	2.459	3.324	10.6	21.5
352740	2008 TC ₆₂		7 6.8 324°21	1°3/ 6.4 18			385608						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
171452	2007 SZ ₁₃		7 6.8 252°66	1.5°/ 6.4	18		16887	Blouke		7 6.9 240°53	4.5°/ 8.4	18	
5 31	19 32.13	-26 5.7	2.131	2.971	13.0	21.2	5 31	19 27.89	-8 11.2	2.382	3.187	12.9	19.0
6 10	19 27.26	-26 22.9	2.039	2.959	10.0	21.0	6 10	19 23.59	-7 57.6	2.291	3.179	10.5	18.8
6 20	19 20.14	-26 40.9	1.969	2.947	6.6	20.7	6 20	19 17.55	-7 54.8	2.222	3.171	7.8	18.6
6 30	19 11.34	-26 56.8	1.926	2.935	3.0	20.5	6 30	19 10.24	-8 3.4	2.177	3.163	5.4	18.4
7 10	19 1.73	-27 8.0	1.909	2.922	2.1	20.4	7 10	19 2.32	-8 23.3	2.160	3.155	4.6	18.4
7 20	18 52.29	-27 12.7	1.920	2.909	5.7	20.6	7 20	18 54.53	-8 53.1	2.169	3.146	6.1	18.4
7 30	18 44.03	-27 10.5	1.958	2.896	9.3	20.8	7 30	18 47.62	-9 30.8	2.206	3.138	8.8	18.6
8 9	18 37.78	-27 2.4	2.019	2.883	12.6	21.0	8 9	18 42.24	-10 13.9	2.266	3.129	11.5	18.8
177076	2003 FV ₄₂		7 6.8 100°03	2°3/ 6.2	17		52654	1998 AK ₅		7 6.9 22°43	3°3/ 6.3	18	
5 31	19 32.63	-28 51.4	2.415	3.248	11.8	21.0	5 31	19 33.02	-31 36.8	1.977	2.820	13.7	18.1
6 10	19 27.14	-29 17.1	2.352	3.267	9.1	20.8	6 10	19 28.02	-31 47.9	1.903	2.822	10.7	17.9
6 20	19 19.75	-29 41.4	2.312	3.286	6.0	20.7	6 20	19 20.61	-31 55.0	1.851	2.824	7.3	17.7
6 30	19 11.06	-30 1.1	2.298	3.304	3.2	20.5	6 30	19 11.52	-31 54.5	1.823	2.827	4.2	17.5
7 10	19 1.91	-30 13.9	2.313	3.322	2.7	20.5	7 10	19 1.76	-31 43.8	1.823	2.829	3.6	17.5
7 20	18 53.14	-30 18.5	2.356	3.339	5.3	20.7	7 20	18 52.42	-31 22.3	1.849	2.832	6.4	17.7
7 30	18 45.58	-30 15.1	2.426	3.356	8.2	20.9	7 30	18 44.57	-30 51.4	1.900	2.835	9.8	17.9
8 9	18 39.83	-30 5.2	2.520	3.373	10.8	21.1	8 9	18 38.97	-30 13.7	1.975	2.838	12.9	18.1
160539	1997 SG		7 6.9 234°03	2°0/ 6.5	18		103197	1999 XZ ₂₄₇		7 6.9 94°93	1°2/ 7.3	18	
5 31	19 35.71	-26 13.7	1.482	2.337	16.8	19.6	5 31	19 32.68	-17 37.3	2.124	2.952	13.4	20.2
6 10	19 30.89	-26 32.3	1.405	2.333	13.1	19.3	6 10	19 27.24	-17 54.1	2.064	2.976	10.3	20.0
6 20	19 22.94	-26 52.2	1.347	2.328	8.7	19.1	6 20	19 19.84	-18 17.3	2.027	3.000	6.8	19.8
6 30	19 12.61	-27 9.2	1.313	2.323	4.0	18.8	6 30	19 11.13	-18 44.8	2.016	3.024	3.1	19.6
7 10	19 1.18	-27 19.1	1.304	2.318	2.8	18.7	7 10	19 1.95	-19 14.4	2.032	3.047	1.6	19.6
7 20	18 50.11	-27 19.6	1.321	2.312	7.3	19.0	7 20	18 53.19	-19 43.9	2.077	3.069	5.0	19.8
7 30	18 40.88	-27 11.0	1.361	2.306	12.0	19.2	7 30	18 45.68	-20 11.7	2.149	3.091	8.4	20.1
8 9	18 34.54	-26 55.4	1.423	2.300	16.1	19.4	8 9	18 40.03	-20 37.0	2.245	3.113	11.4	20.3
99725	2002 JK ₄₉		7 6.9 84°24	0°8/ 6.9	17		62855	2000 UE ₇₇		7 6.9 9°41	9°2/ 8.3	18	
5 31	19 35.37	-21 35.7	1.434	2.288	17.4	19.8	5 31	19 26.82	-6 10.9	1.290	2.131	19.6	17.3
6 10	19 30.29	-21 19.1	1.370	2.297	13.4	19.6	6 10	19 23.88	-4 50.4	1.229	2.133	16.4	17.1
6 20	19 22.30	-21 6.0	1.326	2.306	8.8	19.3	6 20	19 18.23	-3 46.6	1.185	2.136	13.0	16.9
6 30	19 12.24	-20 54.9	1.305	2.316	3.8	19.1	6 30	19 10.62	-3 4.8	1.162	2.140	10.1	16.7
7 10	19 1.40	-20 44.2	1.310	2.325	1.8	18.9	7 10	19 2.19	-2 47.8	1.161	2.145	9.2	16.7
7 20	18 51.16	-20 33.2	1.339	2.334	6.8	19.3	7 20	18 54.19	-2 55.5	1.181	2.151	10.9	16.8
7 30	18 42.81	-20 22.1	1.393	2.343	11.4	19.6	7 30	18 47.84	-3 24.8	1.223	2.159	13.9	17.0
8 9	18 37.21	-20 11.5	1.468	2.352	15.4	19.8	8 9	18 44.00	-4 10.0	1.284	2.167	17.2	17.2
333462	2004 PW ₉₆		7 6.9 271°78	6°9/ 5.8	18		255440	2005 YW ₂		7 6.9 196°34	3°5/ 5.7	18	
5 31	19 38.78	-39 18.7	1.764	2.598	15.5	20.6	5 31	19 32.70	-35 46.1	3.195	4.011	9.6	21.3
6 10	19 33.16	-39 50.8	1.684	2.589	12.6	20.3	6 10	19 26.99	-36 9.8	3.108	4.008	7.6	21.1
6 20	19 24.35	-40 13.4	1.625	2.581	9.7	20.1	6 20	19 19.61	-36 28.9	3.046	4.004	5.6	21.0
6 30	19 13.17	-40 19.8	1.589	2.573	7.3	20.0	6 30	19 11.06	-36 40.5	3.011	4.000	3.9	20.9
7 10	19 0.95	-40 5.2	1.579	2.564	7.1	20.0	7 10	19 2.00	-36 42.5	3.005	3.996	3.7	20.8
7 20	18 49.24	-39 28.3	1.593	2.556	9.3	20.1	7 20	18 53.16	-36 34.0	3.027	3.991	5.3	20.9
7 30	18 39.50	-38 32.3	1.632	2.547	12.4	20.2	7 30	18 45.26	-36 15.6	3.076	3.985	7.4	21.1
8 9	18 32.74	-37 22.9	1.692	2.539	15.5	20.4	8 9	18 38.88	-35 49.1	3.151	3.979	9.5	21.2
89948	2002 GJ ₅₇		7 6.9 336°19	0°2/ 6.9	18		482153	2010 TB ₃₄		7 6.9 274°34	5°1/ 8.4	16	
5 31	19 30.16	-23 3.9	2.066	2.909	13.2	18.6	5 31	19 27.02	-7 17.9	2.361	3.164	13.0	21.8
6 10	19 25.61	-22 45.7	1.982	2.904	10.2	18.4	6 10	19 22.93	-6 53.3	2.272	3.157	10.6	21.7
6 20	19 18.97	-22 28.4	1.921	2.900	6.7	18.1	6 20	19 17.13	-6 39.5	2.204	3.150	8.1	21.5
6 30	19 10.82	-22 10.9	1.885	2.895	2.8	17.9	6 30	19 10.08	-6 37.8	2.162	3.143	5.9	21.3
7 10	19 2.04	-21 52.4	1.876	2.892	1.3	17.8	7 10	19 2.44	-6 48.1	2.145	3.136	5.1	21.3
7 20	18 53.55	-21 32.7	1.895	2.888	5.3	18.0	7 20	18 54.95	-7 9.8	2.156	3.128	6.5	21.3
7 30	18 46.28	-21 12.2	1.939	2.885	9.0	18.2	7 30	18 48.35	-7 41.0	2.192	3.121	9.0	21.5
8 9	18 40.94	-20 51.6	2.007	2.882	12.2	18.4	8 9	18 43.26	-8 19.0	2.252	3.114	11.6	21.6
509074	2005 UR ₁₁		7 6.9 228°78	0°3/ 6.9	17		53046	1998 WU ₂₂		7 6.9 302°63	2°6/ 7.3	18	
5 31	19 32.09	-20 12.8	1.815	2.658	14.7	22.2	5 31	19 29.92	-17 1.8	1.453	2.308	17.1	19.2
6 10	19 27.48	-20 32.7	1.732	2.654	11.4	22.0	6 10	19 26.53	-16 49.7	1.359	2.285	13.5	18.9
6 20	19 20.41	-20 58.9	1.670	2.649	7.5	21.8	6 20	19 20.23	-16 46.1	1.285	2.263	9.3	18.6
6 30	19 11.50	-21 28.9	1.633	2.644	3.2	21.5	6 30	19 11.60	-16 50.8	1.233	2.240	4.7	18.3
7 10	19 1.70	-21 59.8	1.623	2.638	1.4	21.4	7 10	19 1.68	-17 2.6	1.205	2.218	2.9	18.1
7 20	18 52.13	-22 28.7	1.639	2.633	5.9	21.6	7 20	18 51.80	-17 19.6	1.202	2.196	7.3	18.3
7 30	18 43.88	-22 53.8	1.681	2.627	10.1	21.9	7 30	18 43.37	-17 39.9	1.222	2.175	12.3	18.6
8 9	18 37.85	-23 14.6	1.746	2.621	13.7	22.1	8 9	18 37.56	-18 1.7	1.262	2.154	16.8	18.8
126730	2002 CL ₂₇₀		7 6.9 330°40	0°7/ 6.7	18		65003	2002 AB ₇₁		7 6.9 32°97	2°6/ 5.8	18	
5 31	19 28.37	-23 32.7	1.904	2.755	13.8	19.8	5 31	19 30.36	-26 31.6	2.006	2.853	13.4	19.0
6 10	19 24.56	-23 46.8	1.819	2.745	10.7	19.6	6 10	19 26.02	-27 30.6	1.933	2.856	10.3	18.8
6 20	19 18.47	-24 3.9	1.755	2.736	7.0	19.3	6 20	19 19.39	-28 32.2	1.882	2.860	6.8	18.6
6 30	19 10.69	-24 21.5	1.716	2.727	2.9	19.1	6 30	19 11.08	-29 31.6	1.857	2.864	3.5	18.4
7 10	19 2.09	-24 37.1	1.703	2.718	1.6	18.9	7 10	19 1.98	-30 24.4	1.859	2.868	3.1	18.3
7 20	18 53.71	-24 48.6	1.717	2.710	5.7	19.2	7 20	18 53.12	-31 6.9	1.889	2.872	6.3	18.6
7 30	18 46.58	-24 55.3	1.756	2.703	9.7	19.4	7 30	18 45.52	-31 37.9	1.943	2.877	9.7	18.8
8 9	18 41.50	-24 57.4	1.818	2.696	13.2	19.6	8 9	18 40.00	-31 57.7	2.021	2.882	12.8	19.0
512151	2015 PR ₂₇₁		7 6.9 290°17	2°4/ 7.8	18		501396	2013 YH ₈₃		7 6.9 259°45	0°7/ 6.7	17	
5 31	19 27.53	-13 41.1	2.251	3.077	12.8								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
218075	2002 GY ₇₀		7 6.9 348°63	0°3/ 6.8 18			221028	2005 QS ₃₂		7 6.9 294°31	1°2/ 6.6 17		
5 31	19 27.24	-21 23.6	1.902	2.753	13.8	19.4	5 31	19 32.18	-24 22.3	1.530	2.388	16.3	20.5
6 10	19 23.67	-21 52.1	1.821	2.748	10.7	19.2	6 10	19 28.29	-24 37.6	1.437	2.367	12.7	20.2
6 20	19 17.89	-22 26.1	1.763	2.743	7.0	18.9	6 20	19 21.40	-24 56.4	1.365	2.346	8.4	19.9
6 30	19 10.47	-23 3.2	1.728	2.739	2.9	18.7	6 30	19 12.11	-25 15.2	1.315	2.326	3.6	19.6
7 10	19 2.28	-23 40.0	1.720	2.736	1.4	18.6	7 10	19 1.53	-25 30.4	1.290	2.305	2.2	19.4
7 20	18 54.30	-24 13.8	1.739	2.733	5.6	18.8	7 20	18 51.04	-25 39.1	1.291	2.284	7.1	19.7
7 30	18 47.52	-24 42.5	1.783	2.730	9.5	19.1	7 30	18 42.09	-25 40.4	1.315	2.264	12.0	19.9
8 9	18 42.74	-25 5.6	1.849	2.728	12.9	19.3	8 9	18 35.84	-25 35.4	1.360	2.243	16.4	20.1
213562	2002 LH ₃₂		7 6.9 64°98	1°8/ 7.5 16			390254	2012 XJ ₁₀₆		7 6.9 270°94	0°2/ 6.8 18		
5 31	19 33.15	-14 53.5	1.322	2.174	18.7	20.2	5 31	19 30.05	-21 49.4	2.085	2.926	13.2	21.0
6 10	19 28.74	-15 35.2	1.267	2.191	14.5	20.0	6 10	19 25.67	-22 8.1	1.996	2.917	10.2	20.8
6 20	19 21.39	-16 31.6	1.231	2.209	9.7	19.8	6 20	19 19.14	-22 31.1	1.930	2.909	6.7	20.5
6 30	19 11.94	-17 39.2	1.218	2.226	4.5	19.6	6 30	19 11.00	-22 56.1	1.889	2.900	2.8	20.3
7 10	19 1.64	-18 52.1	1.230	2.244	2.3	19.5	7 10	19 2.09	-23 20.4	1.876	2.891	1.3	20.2
7 20	18 51.91	-20 4.5	1.266	2.262	6.9	19.8	7 20	18 53.35	-23 42.0	1.889	2.882	5.3	20.4
7 30	18 44.04	-21 11.6	1.327	2.280	11.6	20.1	7 30	18 45.74	-23 59.5	1.929	2.873	9.1	20.6
8 9	18 38.95	-22 10.6	1.409	2.297	15.6	20.4	8 9	18 40.03	-24 12.7	1.993	2.864	12.4	20.8
478931	2012 XF ₁₂		7 6.9 267°29	0°3/ 6.8 18			478203	2011 UA ₂₅₇		7 6.9 244°06	0°0/ 6.7 18		
5 31	19 31.43	-22 52.5	1.979	2.821	13.7	22.1	5 31	19 30.26	-22 7.2	2.386	3.219	11.9	22.8
6 10	19 26.85	-22 59.3	1.889	2.810	10.6	21.9	6 10	19 25.54	-22 15.2	2.293	3.209	9.2	22.6
6 20	19 19.96	-23 8.9	1.820	2.799	7.0	21.7	6 20	19 18.91	-22 26.0	2.223	3.199	6.0	22.4
6 30	19 11.34	-23 19.2	1.777	2.788	2.9	21.4	6 30	19 10.87	-22 37.9	2.179	3.189	2.5	22.2
7 10	19 1.88	-23 28.0	1.761	2.776	1.4	21.2	7 10	19 2.17	-22 49.0	2.163	3.178	1.2	22.1
7 20	18 52.62	-23 33.6	1.772	2.765	5.6	21.5	7 20	18 53.61	-22 58.1	2.175	3.167	4.8	22.3
7 30	18 44.58	-23 35.4	1.809	2.753	9.6	21.7	7 30	18 46.05	-23 4.2	2.214	3.156	8.2	22.5
8 9	18 38.61	-23 33.9	1.869	2.741	13.1	21.9	8 9	18 40.17	-23 7.6	2.278	3.144	11.3	22.7
11036	1989 AW ₅		7 6.9 196°54	0°3/ 6.8 18			452130	2015 OT ₃₉		7 6.9 1°33	3°9/ 6.5 18		
5 31	19 32.51	-21 55.1	2.051	2.888	13.5	18.9	5 31	19 34.32	-34 8.7	1.875	2.718	14.3	20.2
6 10	19 27.52	-22 15.4	1.968	2.886	10.4	18.7	6 10	19 29.17	-34 4.5	1.800	2.717	11.3	20.0
6 20	19 20.31	-22 39.9	1.907	2.884	6.8	18.5	6 20	19 21.45	-33 53.0	1.746	2.716	7.9	19.8
6 30	19 11.46	-23 5.9	1.872	2.882	2.8	18.3	6 30	19 11.92	-33 30.8	1.716	2.717	4.8	19.7
7 10	19 1.85	-23 30.8	1.864	2.879	1.4	18.1	7 10	19 1.73	-32 55.8	1.713	2.717	4.2	19.6
7 20	18 52.46	-23 52.3	1.884	2.876	5.4	18.4	7 20	18 52.06	-32 8.4	1.736	2.718	6.9	19.8
7 30	18 44.30	-24 9.3	1.930	2.872	9.2	18.6	7 30	18 44.05	-31 11.2	1.785	2.720	10.3	20.0
8 9	18 38.14	-24 21.6	2.000	2.868	12.5	18.8	8 9	18 38.47	-30 8.5	1.856	2.722	13.5	20.2
374295	2005 SD ₃₈		7 6.9 295°82	1°3/ 6.6 18			47876	2000 FM ₂₁		7 6.9 276°52	3°3/ 5.6 18		
5 31	19 31.80	-24 13.3	1.544	2.402	16.1	21.2	5 31	19 32.05	-28 28.2	2.025	2.869	13.4	19.1
6 10	19 28.00	-24 34.2	1.449	2.379	12.6	20.9	6 10	19 27.58	-29 22.8	1.931	2.852	10.5	18.9
6 20	19 21.22	-24 59.4	1.374	2.356	8.4	20.6	6 20	19 20.62	-30 19.5	1.860	2.835	7.1	18.6
6 30	19 12.04	-25 25.2	1.323	2.333	3.6	20.3	6 30	19 11.71	-31 13.5	1.813	2.817	4.0	18.4
7 10	19 1.52	-25 47.7	1.296	2.310	2.3	20.1	7 10	19 1.76	-31 59.8	1.794	2.800	3.8	18.4
7 20	18 51.04	-26 3.6	1.295	2.288	7.2	20.4	7 20	18 51.83	-32 34.7	1.801	2.782	6.8	18.5
7 30	18 42.05	-26 11.6	1.317	2.265	12.0	20.6	7 30	18 43.12	-32 56.9	1.835	2.764	10.4	18.7
8 9	18 35.75	-26 12.3	1.360	2.243	16.4	20.8	8 9	18 36.56	-33 7.1	1.891	2.747	13.7	18.9
96517	1998 QG ₉₉		7 6.9 290°09	3°4/ 5.8 18			75511	1999 XS ₂₀₀		7 6.9 99°61	1°0/ 6.7 18		
5 31	19 31.04	-31 32.8	2.317	3.155	12.1	19.7	5 31	19 35.35	-26 29.6	1.992	2.829	13.8	19.4
6 10	19 26.46	-32 2.8	2.219	3.135	9.5	19.5	6 10	19 29.54	-26 16.3	1.923	2.841	10.6	19.3
6 20	19 19.68	-32 30.9	2.144	3.115	6.6	19.3	6 20	19 21.48	-26 1.7	1.876	2.853	6.9	19.1
6 30	19 11.23	-32 53.1	2.094	3.095	4.0	19.1	6 30	19 11.89	-25 43.5	1.855	2.865	3.0	18.8
7 10	19 1.94	-33 6.3	2.072	3.075	3.8	19.1	7 10	19 1.77	-25 20.7	1.862	2.876	1.7	18.8
7 20	18 52.77	-33 8.5	2.077	3.055	6.3	19.2	7 20	18 52.16	-24 53.4	1.896	2.888	5.5	19.0
7 30	18 44.70	-32 59.6	2.108	3.035	9.4	19.4	7 30	18 44.03	-24 22.7	1.958	2.899	9.2	19.3
8 9	18 38.56	-32 41.4	2.162	3.015	12.3	19.5	8 9	18 38.07	-23 50.4	2.042	2.910	12.4	19.5
77323	2001 FU ₉₀		7 6.9 127°47	1°5/ 6.5 18			37801	1997 WO ₄₇		7 6.9 192°73	1°2/ 6.6 17 R		
5 31	19 35.84	-24 34.9	1.721	2.565	15.4	20.0	5 31	19 36.68	-24 35.3	1.757	2.599	15.2	19.8
6 10	19 30.38	-25 4.6	1.654	2.576	11.8	19.8	6 10	19 31.13	-24 51.3	1.677	2.598	11.8	19.6
6 20	19 22.28	-25 37.0	1.608	2.587	7.7	19.5	6 20	19 22.87	-25 9.4	1.618	2.596	7.7	19.4
6 30	19 12.29	-26 8.1	1.587	2.597	3.4	19.3	6 30	19 12.60	-25 26.2	1.583	2.593	3.3	19.1
7 10	19 1.52	-26 33.9	1.593	2.606	2.2	19.2	7 10	19 1.40	-25 38.4	1.576	2.590	2.0	19.0
7 20	18 51.19	-26 52.0	1.625	2.616	6.3	19.5	7 20	18 50.53	-25 44.1	1.595	2.587	6.3	19.3
7 30	18 42.50	-27 1.9	1.683	2.624	10.4	19.8	7 30	18 41.22	-25 43.1	1.641	2.582	10.6	19.5
8 9	18 36.28	-27 4.6	1.764	2.633	13.9	20.0	8 9	18 34.39	-25 36.4	1.708	2.577	14.3	19.7
435764	2008 UC ₂₄₄		7 6.9 48°25	2°0/ 6.6 17			400224	2007 DV ₉₂		7 6.9 187°82	3°7/ 8.4 18		
5 31	19 34.21	-28 3.0	1.607	2.460	15.8	20.5	5 31	19 27.39	-9 33.6	2.535	3.342	12.1	21.7
6 10	19 29.17	-28 1.5	1.548	2.474	12.2	20.3	6 10	19 23.10	-9 32.7	2.450	3.341	9.7	21.5
6 20	19 21.45	-27 57.8	1.509	2.489	8.0	20.1	6 20	19 17.19	-9 41.6	2.387	3.341	7.1	21.3
6 30	19 11.90	-27 49.0	1.495	2.504	3.7	19.9	6 30	19 10.12	-10 0.5	2.349	3.340	4.6	21.2
7 10	19 1.73	-27 32.9	1.506	2.519	2.6	19.9	7 10	19 2.54	-10 28.6	2.339	3.340	3.7	21.1
7 20	18 52.22	-27 9.3	1.543	2.534	6.5	20.2	7 20	18 55.12	-11 4.2	2.357	3.339	5.4	21.2
7 30	18 44.50	-26 39.7	1.605	2.550	10.5	20.4	7 30	18 48.55	-11 45.1	2.402	3.338	8.0	21.4
8 9	18 39.34	-26 6.7	1.689	2.566	14.0	20.7	8 9	18 43.40	-12 29.2	2.472	3.337	10.6	21.6
489641	2007 TO ₄₂₇		7 6.9 355°02	3°1/ 5.9 16			497168	2004 SG ₅		7 6.9 295°55	6°9/ 4.7 18		
5 31	19 29.49	-27 18.4	1.555										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
284068	2005 <i>EU</i> ₁₀₄		7 6.9 29°55'	1.5°/ 6.6	17		97046	1999 <i>UF</i> ₃₀		7 6.9 355°40'	2.1°/ 6.3	17	
5 31	19 32.00	-25 53.7	1.731	2.583	14.9	20.6	5 31	19 31.50	-26 0.7	1.662	2.517	15.3	20.0
6 10	19 27.47	-26 4.0	1.660	2.586	11.5	20.4	6 10	19 27.33	-26 30.9	1.588	2.516	11.8	19.7
6 20	19 20.42	-26 14.9	1.610	2.590	7.5	20.1	6 20	19 20.48	-27 3.2	1.535	2.515	7.8	19.5
6 30	19 11.54	-26 23.5	1.584	2.594	3.3	19.9	6 30	19 11.64	-27 33.4	1.505	2.514	3.6	19.2
7 10	19 1.91	-26 26.9	1.584	2.598	2.2	19.8	7 10	19 1.90	-27 57.6	1.501	2.514	2.7	19.2
7 20	18 52.69	-26 23.8	1.610	2.602	6.2	20.1	7 20	18 52.50	-28 13.1	1.523	2.514	6.7	19.4
7 30	18 45.01	-26 14.4	1.661	2.606	10.2	20.3	7 30	18 44.65	-28 19.3	1.570	2.514	10.8	19.7
8 9	18 39.70	-26 0.1	1.734	2.611	13.8	20.6	8 9	18 39.27	-28 17.4	1.638	2.514	14.4	19.9
365890	2011 <i>VB</i> ₁₂		7 6.9 52°87'	1.9°/ 6.4	17		510781	2013 <i>AJ</i> ₇₀		7 6.9 261°30'	4.4°/ 5.5	18	
5 31	19 33.90	-24 2.6	1.226	2.094	18.8	20.5	5 31	19 34.47	-33 54.1	2.231	3.064	12.7	21.9
6 10	19 29.81	-24 43.1	1.168	2.104	14.5	20.3	6 10	19 29.28	-34 34.0	2.135	3.046	10.1	21.7
6 20	19 22.37	-25 29.0	1.129	2.113	9.4	20.0	6 20	19 21.65	-35 10.8	2.062	3.028	7.3	21.5
6 30	19 12.45	-26 14.6	1.113	2.123	4.2	19.7	6 30	19 12.13	-35 39.6	2.014	3.009	4.9	21.3
7 10	19 1.50	-26 53.9	1.120	2.133	2.8	19.7	7 10	19 1.66	-35 56.2	1.993	2.990	4.8	21.3
7 20	18 51.17	-27 22.9	1.151	2.144	7.8	20.0	7 20	18 51.30	-35 58.6	2.000	2.970	7.1	21.4
7 30	18 42.98	-27 40.4	1.204	2.155	12.7	20.3	7 30	18 42.20	-35 46.7	2.032	2.950	10.1	21.5
8 9	18 37.96	-27 47.7	1.278	2.166	16.9	20.6	8 9	18 35.24	-35 23.0	2.087	2.930	13.1	21.7
78840	2003 <i>QE</i> ₄₇		7 6.9 273°89'	2.2°/ 7.3	18		257104	2008 <i>GG</i> ₅₂		7 6.9 178°94'	2.0°/ 6.3	17	
5 31	19 33.33	-17 20.0	1.621	2.463	16.2	19.8	5 31	19 36.53	-26 39.2	2.062	2.896	13.6	22.5
6 10	19 28.95	-17 10.6	1.520	2.440	12.8	19.5	6 10	19 30.66	-27 7.3	1.982	2.898	10.5	22.3
6 20	19 21.75	-17 8.7	1.440	2.415	8.8	19.2	6 20	19 22.40	-27 36.1	1.924	2.899	6.9	22.0
6 30	19 12.27	-17 13.8	1.383	2.391	4.3	18.9	6 30	19 12.38	-28 1.8	1.892	2.900	3.3	21.8
7 10	19 1.51	-17 24.4	1.352	2.365	2.6	18.7	7 10	19 1.58	-28 21.1	1.888	2.900	2.5	21.8
7 20	18 50.71	-17 38.8	1.347	2.340	7.0	18.9	7 20	18 51.07	-28 31.9	1.912	2.899	5.9	22.0
7 30	18 41.26	-17 55.4	1.366	2.314	11.7	19.1	7 30	18 41.93	-28 34.1	1.963	2.897	9.6	22.2
8 9	18 34.27	-18 13.0	1.406	2.287	16.1	19.3	8 9	18 34.97	-28 28.9	2.038	2.895	12.8	22.4
293750	2007 <i>RS</i> ₅₇		7 6.9 221°85'	4.7°/ 7.9	17		218607	2005 <i>NG</i> ₁₂₄		7 6.9 301°90'	1.3°/ 6.6	17	
5 31	19 32.84	-11 31.2	1.631	2.461	16.7	21.3	5 31	19 31.96	-24 37.8	1.478	2.339	16.6	20.6
6 10	19 28.21	-11 8.5	1.549	2.456	13.4	21.1	6 10	19 28.14	-24 49.9	1.392	2.323	12.9	20.3
6 20	19 21.00	-10 57.6	1.487	2.450	9.7	20.8	6 20	19 21.30	-25 4.8	1.326	2.308	8.5	20.0
6 30	19 11.85	-10 59.5	1.448	2.444	6.1	20.6	6 30	19 12.10	-25 19.3	1.282	2.293	3.7	19.7
7 10	19 1.75	-11 13.8	1.434	2.438	4.8	20.5	7 10	19 1.68	-25 29.6	1.263	2.278	2.2	19.5
7 20	18 51.88	-11 38.9	1.445	2.431	7.5	20.7	7 20	18 51.45	-25 33.4	1.269	2.263	7.1	19.8
7 30	18 43.42	-12 12.3	1.482	2.424	11.4	20.9	7 30	18 42.87	-25 30.1	1.299	2.249	12.0	20.1
8 9	18 37.29	-12 50.9	1.540	2.417	15.2	21.1	8 9	18 37.05	-25 21.0	1.349	2.235	16.3	20.3
121673	1999 <i>XF</i> ₅₁		7 6.9 209°90'	0.4°/ 6.7	18		383341	2006 <i>PQ</i> ₃₇		7 6.9 41°79'	3.0°/ 8.3	18	
5 31	19 29.15	-23 8.4	2.778	3.608	10.6	20.7	5 31	19 29.64	-10 48.5	1.697	2.528	16.1	19.6
6 10	19 24.41	-23 23.6	2.689	3.604	8.1	20.5	6 10	19 25.57	-11 35.2	1.629	2.538	12.7	19.4
6 20	19 18.03	-23 41.0	2.623	3.599	5.3	20.3	6 20	19 19.16	-12 38.1	1.581	2.549	8.8	19.2
6 30	19 10.48	-23 58.5	2.584	3.594	2.2	20.1	6 30	19 11.06	-13 55.1	1.557	2.560	4.9	19.0
7 10	19 2.40	-24 14.5	2.574	3.589	1.1	20.0	7 10	19 2.20	-15 21.6	1.560	2.571	3.1	18.9
7 20	18 54.47	-24 27.6	2.592	3.583	4.3	20.2	7 20	18 53.64	-16 52.0	1.590	2.583	6.1	19.1
7 30	18 47.39	-24 37.2	2.639	3.577	7.2	20.4	7 30	18 46.43	-18 21.0	1.645	2.595	10.0	19.4
8 9	18 41.76	-24 43.2	2.710	3.571	9.9	20.6	8 9	18 41.35	-19 44.3	1.725	2.607	13.5	19.6
16934	1998 <i>FA</i> ₉₁		7 6.9 192°81'	0.8°/ 6.6	18		426501	2013 <i>RJ</i> ₃₅		7 6.9 265°22'	3.7°/ 5.8	18	
5 31	19 30.31	-23 19.2	2.379	3.214	11.9	18.7	5 31	19 34.18	-28 41.0	1.678	2.529	15.4	20.8
6 10	19 25.58	-23 48.0	2.295	3.213	9.2	18.6	6 10	19 29.68	-29 33.5	1.593	2.517	12.0	20.5
6 20	19 18.93	-24 19.7	2.235	3.212	6.0	18.3	6 20	19 22.24	-30 27.8	1.528	2.505	8.2	20.3
6 30	19 10.89	-24 51.8	2.201	3.210	2.5	18.1	6 30	19 12.49	-31 18.3	1.488	2.493	4.6	20.0
7 10	19 2.21	-25 21.7	2.195	3.209	1.5	18.0	7 10	19 1.52	-31 59.0	1.474	2.480	4.2	20.0
7 20	18 53.71	-25 47.1	2.217	3.207	4.9	18.3	7 20	18 50.70	-32 26.0	1.485	2.468	7.7	20.2
7 30	18 46.25	-26 7.1	2.266	3.205	8.2	18.5	7 30	18 41.43	-32 38.2	1.521	2.455	11.8	20.4
8 9	18 40.49	-26 21.5	2.340	3.203	11.1	18.7	8 9	18 34.81	-32 37.4	1.578	2.442	15.5	20.6
183781	2004 <i>BH</i> ₂₂		7 6.9 106°76'	0.6°/ 7.0	17		474157	1998 <i>XL</i> ₂₅		7 6.9 264°50'	2.8°/ 7.5	18	
5 31	19 34.65	-19 58.5	1.662	2.506	15.9	21.2	5 31	19 30.86	-15 6.5	2.177	3.002	13.2	21.9
6 10	19 29.40	-20 8.4	1.598	2.519	12.2	21.0	6 10	19 26.21	-14 46.0	2.075	2.983	10.5	21.7
6 20	19 21.61	-20 24.2	1.555	2.532	8.0	20.7	6 20	19 19.49	-14 31.6	1.996	2.963	7.3	21.5
6 30	19 12.02	-20 43.5	1.536	2.545	3.4	20.5	6 30	19 11.21	-14 23.7	1.941	2.943	4.1	21.3
7 10	19 1.73	-21 3.6	1.543	2.558	1.5	20.4	7 10	19 2.13	-14 21.8	1.914	2.923	3.0	21.1
7 20	18 51.92	-21 22.2	1.577	2.571	6.0	20.7	7 20	18 53.11	-14 25.4	1.914	2.902	5.8	21.3
7 30	18 43.71	-21 38.1	1.636	2.583	10.2	21.0	7 30	18 45.10	-14 33.5	1.941	2.881	9.3	21.5
8 9	18 37.91	-21 50.9	1.718	2.594	13.9	21.2	8 9	18 38.85	-14 45.1	1.992	2.860	12.6	21.6
328154	2008 <i>CJ</i> ₁₀₅		7 6.9 114°61'	1.9°/ 6.4	17		78299	2002 <i>PF</i> ₅₅		7 6.9 293°96'	1.5°/ 6.7	18	
5 31	19 37.36	-25 53.3	1.793	2.633	15.0	22.0	5 31	19 33.33	-27 7.1	1.866	2.712	14.3	18.7
6 10	19 31.38	-26 23.0	1.732	2.652	11.5	21.8	6 10	19 28.64	-27 0.4	1.767	2.690	11.1	18.5
6 20	19 22.83	-26 53.8	1.693	2.670	7.5	21.6	6 20	19 21.34	-26 52.0	1.689	2.667	7.4	18.2
6 30	19 12.51	-27 21.4	1.679	2.687	3.4	21.4	6 30	19 12.05	-26 39.2	1.636	2.645	3.4	17.9
7 10	19 1.52	-27 42.4	1.691	2.704	2.5	21.4	7 10	19 1.74	-26 20.0	1.609	2.623	2.1	17.8
7 20	18 51.07	-27 54.5	1.732	2.720	6.2	21.6	7 20	18 51.60	-25 53.8	1.609	2.601	6.2	18.0
7 30	18 42.28	-27 58.0	1.798	2.736	10.1	21.9	7 30	18 42.82	-25 21.4	1.635	2.579	10.5	18.2
8 9	18 35.92	-27 54.2	1.887	2.751	13.4	22.2	8 9	18 36.35	-24 45.2	1.683	2.557	14.2	18.4
3169	Ostro		7 6.9 150°46'	3.7°/ 5.1	18 A		311170	2004 <i>TX</i> ₂₄					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
521439	2015 <i>NB</i> ₂₈		7 6.9 270 ^o .71	4 ^o .6/ 8.9 18			120126	2003 <i>FH</i> ₁₀₁		7 6.9 33 ^o .33	4 ^o .4/ 8.3 17		
5 31	19 27.22	- 6 27.8	2.442	3.240	12.8	21.4	5 31	19 27.75	- 9 55.6	2.042	2.862	14.2	20.0
6 10	19 23.14	- 6 30.4	2.345	3.227	10.5	21.3	6 10	19 23.73	- 9 41.1	1.966	2.866	11.4	19.9
6 20	19 17.35	- 6 45.7	2.269	3.214	7.9	21.1	6 20	19 17.78	- 9 37.8	1.912	2.870	8.3	19.7
6 30	19 10.28	- 7 14.2	2.218	3.201	5.6	20.9	6 30	19 10.47	- 9 46.4	1.882	2.874	5.5	19.5
7 10	19 2.57	- 7 55.1	2.194	3.188	4.7	20.8	7 10	19 2.56	- 10 6.2	1.878	2.878	4.4	19.5
7 20	18 54.93	- 8 46.5	2.198	3.174	6.1	20.9	7 20	18 54.91	- 10 35.4	1.900	2.883	6.3	19.6
7 30	18 48.11	- 9 45.7	2.228	3.161	8.6	21.0	7 30	18 48.34	- 11 11.8	1.948	2.888	9.3	19.8
8 9	18 42.74	- 10 49.4	2.283	3.148	11.3	21.2	8 9	18 43.52	- 11 52.6	2.019	2.892	12.2	20.0
96801	1999 <i>RC</i> ₁₃₁		7 6.9 356 ^o .53	4 ^o .4/ 6.8 18			86229	1999 <i>TZ</i> ₁₀₇		7 6.9 189 ^o .25	0 ^o .8/ 7.1 18		
5 31	19 35.46	-34 1.6	1.397	2.256	17.4	18.4	5 31	19 30.86	-21 2.2	2.401	3.232	12.0	18.8
6 10	19 30.89	-33 49.6	1.326	2.253	13.8	18.2	6 10	19 25.87	-20 43.3	2.317	3.232	9.2	18.6
6 20	19 23.00	-33 28.3	1.274	2.250	9.6	17.9	6 20	19 19.06	-20 26.3	2.257	3.232	6.1	18.4
6 30	19 12.71	-32 53.1	1.245	2.248	5.6	17.7	6 30	19 10.98	-20 10.5	2.222	3.231	2.7	18.2
7 10	19 1.52	-32 1.8	1.240	2.247	4.7	17.6	7 10	19 2.37	-19 55.3	2.216	3.231	1.3	18.1
7 20	18 51.03	-30 55.7	1.260	2.247	8.1	17.8	7 20	18 54.02	-19 40.5	2.238	3.230	4.7	18.3
7 30	18 42.71	-29 39.4	1.303	2.248	12.4	18.1	7 30	18 46.72	-19 26.1	2.287	3.229	8.0	18.5
8 9	18 37.51	-28 19.0	1.367	2.250	16.3	18.3	8 9	18 41.09	-19 12.5	2.361	3.228	10.9	18.7
125862	2001 <i>XA</i> ₁₉₁		7 6.9 267 ^o .47	0 ^o .3/ 6.9 18			81319	2000 <i>GB</i> ₁₅		7 6.9 124 ^o .69	2 ^o .1/ 7.4 18		
5 31	19 32.97	-21 57.9	1.805	2.649	14.8	20.2	5 31	19 32.37	-16 41.0	1.658	2.500	16.0	20.1
6 10	19 28.29	-21 51.7	1.713	2.635	11.5	20.0	6 10	19 27.79	-16 42.2	1.585	2.504	12.5	19.8
6 20	19 21.07	-21 48.4	1.642	2.621	7.6	19.7	6 20	19 20.69	-16 52.1	1.532	2.507	8.4	19.6
6 30	19 11.92	-21 46.2	1.596	2.607	3.2	19.4	6 30	19 11.75	-17 9.4	1.503	2.511	4.1	19.4
7 10	19 1.82	-21 43.5	1.577	2.592	1.5	19.3	7 10	19 2.01	-17 32.0	1.500	2.514	2.4	19.2
7 20	18 51.90	-21 39.1	1.584	2.577	6.0	19.5	7 20	18 52.61	-17 57.6	1.524	2.517	6.3	19.5
7 30	18 43.33	-21 32.8	1.616	2.563	10.4	19.7	7 30	18 44.67	-18 24.1	1.572	2.520	10.5	19.8
8 9	18 37.02	-21 24.9	1.671	2.548	14.2	20.0	8 9	18 39.06	-18 49.9	1.642	2.523	14.2	20.0
117238	2004 <i>SQ</i> ₁₇		7 6.9 266 ^o .54	2 ^o .5/ 7.8 18			497755	2006 <i>SO</i> ₂₆₄		7 6.9 197 ^o .87	1 ^o .7/ 7.2 17		
5 31	19 30.81	-13 49.3	1.912	2.741	14.6	19.6	5 31	19 34.50	-18 23.4	1.886	2.719	14.7	22.0
6 10	19 26.51	-14 9.5	1.814	2.724	11.6	19.4	6 10	19 29.19	-18 9.8	1.802	2.716	11.4	21.8
6 20	19 19.89	-14 41.4	1.737	2.707	8.0	19.1	6 20	19 21.50	-18 1.4	1.740	2.714	7.7	21.5
6 30	19 11.45	-15 24.1	1.685	2.689	4.3	18.9	6 30	19 12.08	-17 57.2	1.703	2.710	3.7	21.3
7 10	19 2.02	-16 15.1	1.659	2.671	2.7	18.7	7 10	19 1.86	-17 56.3	1.693	2.707	2.1	21.2
7 20	18 52.59	-17 11.2	1.661	2.653	6.0	18.9	7 20	18 51.92	-17 57.4	1.710	2.702	5.9	21.4
7 30	18 44.26	-18 8.8	1.689	2.634	10.0	19.1	7 30	18 43.32	-18 0.1	1.754	2.697	9.9	21.6
8 9	18 37.92	-19 4.9	1.740	2.616	13.7	19.3	8 9	18 36.87	-18 3.9	1.820	2.692	13.4	21.8
123871	2001 <i>DM</i> ₂₂		7 6.9 164 ^o .42	8 ^o .8/ 3.0 18 R			318473	2005 <i>EJ</i> ₅₈		7 6.9 153 ^o .01	0 ^o .9/ 7.1 17		
5 31	19 38.15	-49 16.4	2.541	3.330	12.6	19.3	5 31	19 35.81	-19 28.6	1.825	2.659	15.0	22.1
6 10	19 32.36	-50 35.9	2.477	3.331	10.9	19.2	6 10	19 30.18	-19 32.2	1.751	2.667	11.6	21.9
6 20	19 23.77	-51 44.1	2.434	3.332	9.6	19.1	6 20	19 22.12	-19 41.3	1.699	2.675	7.7	21.6
6 30	19 13.05	-52 34.3	2.415	3.333	8.8	19.0	6 30	19 12.32	-19 53.9	1.672	2.681	3.4	21.4
7 10	19 1.33	-53 1.7	2.420	3.333	9.0	19.0	7 10	19 1.77	-20 7.9	1.673	2.687	1.6	21.3
7 20	18 49.92	-53 4.8	2.450	3.334	10.1	19.1	7 20	18 51.61	-20 21.5	1.700	2.693	5.8	21.6
7 30	18 40.11	-52 45.0	2.503	3.334	11.6	19.2	7 30	18 42.91	-20 33.6	1.754	2.698	9.9	21.8
8 9	18 32.87	-52 6.6	2.575	3.335	13.2	19.3	8 9	18 36.47	-20 43.9	1.831	2.702	13.4	22.0
342705	2008 <i>VS</i> ₇₉		7 6.9 186 ^o .48	4 ^o .6/ 5.5 17			497896	2006 <i>UR</i> ₃₂₂		7 6.9 176 ^o .10	1 ^o .0/ 6.7 17		
5 31	19 35.39	-34 16.4	2.209	3.041	12.9	21.4	5 31	19 35.37	-24 0.0	1.955	2.792	14.1	23.1
6 10	19 29.86	-35 2.4	2.132	3.041	10.2	21.2	6 10	19 29.85	-24 19.7	1.876	2.794	10.8	22.9
6 20	19 21.93	-35 44.6	2.076	3.040	7.3	21.0	6 20	19 21.93	-24 41.8	1.819	2.796	7.1	22.7
6 30	19 12.23	-36 17.9	2.047	3.039	5.0	20.9	6 30	19 12.25	-25 3.4	1.787	2.797	3.0	22.4
7 10	19 1.74	-36 38.3	2.044	3.038	4.9	20.9	7 10	19 1.79	-25 21.3	1.783	2.798	1.7	22.3
7 20	18 51.52	-36 43.9	2.069	3.036	7.1	21.0	7 20	18 51.64	-25 33.6	1.807	2.798	5.8	22.6
7 30	18 42.68	-36 35.1	2.119	3.034	9.9	21.2	7 30	18 42.86	-25 39.7	1.857	2.797	9.6	22.8
8 9	18 36.02	-36 14.6	2.192	3.032	12.7	21.4	8 9	18 36.28	-25 40.4	1.930	2.796	13.0	23.0
41416	2000 <i>AF</i> ₂₃₁		7 6.9 235 ^o .63	3 ^o .8/ 7.9 18			429508	2011 <i>BO</i> ₁₇		7 6.9 289 ^o .48	1 ^o .5/ 7.4 18		
5 31	19 30.22	-11 57.5	2.190	3.007	13.4	19.7	5 31	19 30.79	-17 1.8	1.541	2.391	16.6	21.2
6 10	19 25.60	-11 37.5	2.098	2.998	10.8	19.5	6 10	19 27.06	-17 20.9	1.452	2.376	13.0	21.0
6 20	19 19.02	-11 26.1	2.028	2.989	7.7	19.3	6 20	19 20.56	-17 51.1	1.382	2.360	8.8	20.7
6 30	19 11.00	-11 23.9	1.984	2.979	4.9	19.1	6 30	19 11.84	-18 30.6	1.336	2.345	4.1	20.4
7 10	19 2.29	-11 30.5	1.966	2.969	3.9	19.0	7 10	19 1.93	-19 16.2	1.315	2.330	2.1	20.2
7 20	18 53.72	-11 45.1	1.975	2.959	6.0	19.1	7 20	18 52.09	-20 3.9	1.319	2.314	6.7	20.4
7 30	18 46.15	-12 6.2	2.011	2.949	9.2	19.3	7 30	18 43.66	-20 50.4	1.348	2.299	11.5	20.7
8 9	18 40.31	-12 31.8	2.071	2.938	12.2	19.5	8 9	18 37.73	-21 33.1	1.398	2.284	15.8	20.9
521428	2015 <i>MN</i> ₁₄₉		7 6.9 253 ^o .43	5 ^o .3/ 8.6 18			23331	Halimzeidan		7 6.9 37 ^o .52	6 ^o .2/ 8.2 18		
5 31	19 27.51	- 6 29.1	2.383	3.182	13.0	21.4	5 31	19 30.45	-10 27.1	1.257	2.107	19.6	18.3
6 10	19 23.33	- 6 3.8	2.294	3.175	10.7	21.2	6 10	19 26.76	- 9 45.7	1.200	2.117	15.8	18.1
6 20	19 17.44	- 5 49.7	2.227	3.169	8.2	21.0	6 20	19 20.19	- 9 19.7	1.161	2.127	11.5	17.9
6 30	19 10.32	- 5 48.0	2.184	3.162	6.1	20.9	6 30	19 11.56	- 9 11.3	1.143	2.138	7.7	17.7
7 10	19 2.61	- 5 59.0	2.167	3.155	5.3	20.8	7 10	19 2.13	- 9 20.5	1.147	2.149	6.3	17.6
7 20	18 55.04	- 6 21.9	2.178	3.148	6.6	20.9	7 20	18 53.25	- 9 45.2	1.175	2.161	8.8	17.8
7 30	18 48.35	- 6 54.7	2.214	3.141	9.0	21.0	7 30	18 46.18	- 10 21.8	1.225	2.174	12.7	18.1
8 9	18 43.16	- 7 34.8	2.274	3.134	11.6	21.2	8 9	18 41.81					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
415792	2001 AS ₄₉	7 6.9 158°40	0°4/ 6.9 17				504068	2005 YD ₁₇₇	7 6.9 149°92	0°2/ 6.9 17			
5 31	19 35.96	-22 1.2	1.653	2.497	15.9	22.1	5 31	19 34.41	-23 2.7	2.079	2.913	13.4	22.3
6 10	19 30.58	-21 51.7	1.579	2.501	12.3	21.9	6 10	19 28.87	-23 3.3	2.003	2.920	10.3	22.1
6 20	19 22.52	-21 45.2	1.526	2.504	8.1	21.7	6 20	19 21.15	-23 5.9	1.950	2.927	6.7	21.9
6 30	19 12.52	-21 39.6	1.497	2.507	3.4	21.4	6 30	19 11.90	-23 8.3	1.923	2.933	2.8	21.6
7 10	19 1.71	-21 33.4	1.495	2.510	1.5	21.3	7 10	19 2.04	-23 8.8	1.923	2.939	1.3	21.5
7 20	18 51.33	-21 25.5	1.519	2.512	6.2	21.6	7 20	18 52.53	-23 6.3	1.952	2.944	5.3	21.8
7 30	18 42.59	-21 16.1	1.568	2.514	10.6	21.9	7 30	18 44.33	-23 0.9	2.007	2.949	8.9	22.1
8 9	18 36.35	-21 5.8	1.640	2.516	14.4	22.1	8 9	18 38.15	-22 53.1	2.086	2.953	12.1	22.3
927	Ratisbona	7 6.9 93°00	6°4/ 5.0 18				143470	2003 CZ ₄	7 6.9 207°45	3°5/ 6.2 18			
5 31	19 35.23	-41 33.4	2.426	3.243	12.3	14.8	5 31	19 34.32	-32 50.9	2.160	2.995	13.0	19.9
6 10	19 29.64	-42 21.4	2.361	3.251	10.1	14.6	6 10	19 28.95	-33 4.1	2.081	2.994	10.2	19.7
6 20	19 21.71	-43 1.0	2.319	3.260	8.0	14.5	6 20	19 21.28	-33 12.8	2.024	2.994	7.1	19.5
6 30	19 12.13	-43 26.9	2.301	3.268	6.6	14.4	6 30	19 11.98	-33 13.2	1.993	2.993	4.3	19.4
7 10	19 1.89	-43 35.7	2.309	3.276	6.6	14.4	7 10	19 2.01	-33 2.8	1.989	2.992	3.8	19.3
7 20	18 52.07	-43 26.3	2.344	3.284	8.0	14.5	7 20	18 52.41	-32 40.9	2.012	2.991	6.3	19.5
7 30	18 43.69	-43 0.3	2.403	3.292	10.0	14.7	7 30	18 44.21	-32 8.9	2.061	2.991	9.4	19.7
8 9	18 37.50	-42 21.2	2.485	3.300	12.1	14.8	8 9	18 38.15	-31 29.4	2.134	2.990	12.4	19.9
234779	2002 PQ ₁₆₉	7 6.9 10°93	0°1/ 6.9 17				496886	2000 UN ₁₅	7 6.9 268°38	0°9/ 6.8 17			
5 31	19 28.70	-21 10.5	1.491	2.353	16.4	20.3	5 31	19 35.48	-24 39.5	1.542	2.394	16.4	21.8
6 10	19 25.32	-21 33.5	1.423	2.355	12.6	20.1	6 10	19 30.82	-24 41.6	1.451	2.377	12.8	21.5
6 20	19 19.25	-22 3.2	1.375	2.358	8.3	19.8	6 20	19 23.09	-24 45.4	1.380	2.360	8.5	21.2
6 30	19 11.20	-22 36.4	1.350	2.361	3.4	19.6	6 30	19 12.94	-24 47.7	1.332	2.342	3.7	20.9
7 10	19 2.29	-23 9.5	1.350	2.366	1.6	19.4	7 10	19 1.52	-24 45.6	1.309	2.324	2.0	20.8
7 20	18 53.75	-23 39.2	1.375	2.371	6.5	19.8	7 20	18 50.26	-24 37.2	1.313	2.306	7.0	21.0
7 30	18 46.80	-24 3.5	1.424	2.377	10.9	20.0	7 30	18 40.64	-24 22.9	1.340	2.288	11.9	21.3
8 9	18 42.35	-24 22.0	1.494	2.383	14.8	20.3	8 9	18 33.79	-24 4.3	1.389	2.269	16.3	21.5
476093	2007 TC ₆₆	7 6.9 68°89	0°3/ 6.8 16				506664	2006 SH ₂₅₅	7 6.9 289°75	1°8/ 7.3 17			
5 31	19 59.44	-19 32.0	1.500	2.303	19.2	23.2	5 31	19 31.88	-18 23.5	1.494	2.346	16.9	22.5
6 10	19 47.57	-20 34.0	1.478	2.377	14.5	23.0	6 10	19 28.09	-18 17.9	1.398	2.324	13.3	22.2
6 20	19 32.82	-21 40.1	1.478	2.448	9.2	22.9	6 20	19 21.36	-18 19.8	1.322	2.301	9.0	21.9
6 30	19 16.46	-22 43.1	1.507	2.516	3.7	22.7	6 30	19 12.25	-18 28.4	1.269	2.278	4.3	21.6
7 10	19 0.13	-23 37.4	1.566	2.581	1.7	22.7	7 10	19 1.81	-18 41.8	1.240	2.255	2.3	21.4
7 20	18 45.37	-24 19.9	1.655	2.643	6.5	23.2	7 20	18 51.37	-18 57.8	1.237	2.232	7.1	21.6
7 30	18 33.33	-24 51.0	1.773	2.703	10.7	23.6	7 30	18 42.38	-19 14.7	1.257	2.209	12.1	21.8
8 9	18 24.62	-25 12.8	1.915	2.761	14.0	23.9	8 9	18 36.02	-19 31.5	1.298	2.186	16.7	22.1
318593	2005 JH ₂	7 6.9 176°37	1°2/ 7.2 17				43894	1995 TP	7 6.9 301°25	5°3/ 7.9 18			
5 31	19 35.01	-18 54.5	1.808	2.644	15.1	21.6	5 31	19 29.94	-12 1.6	1.432	2.277	17.8	19.0
6 10	19 29.68	-18 57.1	1.730	2.646	11.7	21.4	6 10	19 26.48	-11 28.1	1.345	2.261	14.4	18.7
6 20	19 21.87	-19 5.8	1.672	2.648	7.8	21.2	6 20	19 20.21	-11 6.3	1.277	2.245	10.5	18.5
6 30	19 12.26	-19 18.9	1.640	2.649	3.5	20.9	6 30	19 11.72	-10 58.2	1.231	2.229	6.7	18.2
7 10	19 1.83	-19 34.2	1.634	2.649	1.7	20.8	7 10	19 2.07	-11 4.2	1.209	2.214	5.4	18.1
7 20	18 51.72	-19 49.9	1.656	2.649	5.9	21.1	7 20	18 52.53	-11 23.4	1.211	2.199	8.3	18.2
7 30	18 43.02	-20 4.6	1.704	2.648	10.0	21.3	7 30	18 44.47	-11 53.4	1.235	2.184	12.6	18.4
8 9	18 36.58	-20 17.8	1.774	2.647	13.7	21.5	8 9	18 38.95	-12 30.6	1.280	2.169	16.8	18.6
468880	2013 TW ₁₄	7 6.9 325°81	5°3/ 7.9 17				57005	2000 ST ₃₄₉	7 6.9 143°86	3°8/ 5.5 18			
5 31	19 25.79	-12 20.0	1.206	2.071	19.3	20.8	5 31	19 32.32	-31 31.0	2.275	3.112	12.4	19.1
6 10	19 23.79	-11 55.2	1.121	2.049	15.6	20.5	6 10	19 27.41	-32 24.3	2.200	3.114	9.7	18.9
6 20	19 18.72	-11 44.9	1.054	2.029	11.3	20.1	6 20	19 20.32	-33 16.1	2.147	3.117	6.7	18.7
6 30	19 11.17	-11 51.2	1.007	2.009	7.0	19.8	6 30	19 11.61	-34 1.7	2.121	3.119	4.3	18.6
7 10	19 2.25	-12 14.3	0.982	1.990	5.4	19.7	7 10	19 2.17	-34 37.1	2.122	3.122	4.2	18.6
7 20	18 53.38	-12 52.0	0.979	1.972	8.8	19.8	7 20	18 52.96	-35 0.1	2.151	3.124	6.5	18.7
7 30	18 46.12	-13 40.6	0.997	1.955	13.7	20.0	7 30	18 44.96	-35 10.2	2.205	3.126	9.3	18.9
8 9	18 41.72	-14 35.2	1.033	1.940	18.4	20.3	8 9	18 38.94	-35 9.0	2.283	3.128	12.0	19.1
261450	2005 VX ₃₉	7 6.9 239°34	1°7/ 6.4 18				469214	2016 GZ ₂₄₁	7 6.9 6°91	3°9/ 7.8 17			
5 31	19 30.67	-26 55.0	2.528	3.362	11.3	21.4	5 31	19 25.99	-14 41.1	1.094	1.970	20.0	20.4
6 10	19 25.86	-27 15.4	2.437	3.353	8.8	21.3	6 10	19 23.89	-14 24.6	1.034	1.970	15.8	20.1
6 20	19 19.17	-27 36.1	2.369	3.345	5.8	21.1	6 20	19 18.64	-14 22.0	0.992	1.972	11.0	19.8
6 30	19 11.09	-27 54.4	2.328	3.335	2.8	20.8	6 30	19 11.04	-14 33.7	0.969	1.975	6.1	19.6
7 10	19 2.36	-28 8.0	2.314	3.326	2.1	20.8	7 10	19 2.43	-14 57.9	0.968	1.980	4.2	19.5
7 20	18 53.80	-28 15.4	2.329	3.316	5.0	21.0	7 20	18 54.29	-15 31.4	0.989	1.985	8.1	19.7
7 30	18 46.22	-28 16.3	2.372	3.307	8.1	21.1	7 30	18 48.09	-16 10.3	1.031	1.993	13.0	20.0
8 9	18 40.31	-28 11.2	2.438	3.297	10.9	21.3	8 9	18 44.83	-16 50.5	1.092	2.001	17.4	20.3
249779	2000 WG ₆₇	7 6.9 195°01	7°8/ 8.9 18				264917	2002 TJ ₂₆₉	7 6.9 261°15	1°7/ 7.3 18			
5 31	19 28.62	+ 5 27.4	3.140	3.858	11.8	20.7	5 31	19 33.21	-18 29.8	1.710	2.552	15.5	21.0
6 10	19 23.74	+ 6 30.4	3.054	3.856	10.4	20.6	6 10	19 28.62	-18 19.7	1.618	2.537	12.2	20.7
6 20	19 17.52	+ 7 21.1	2.990	3.852	9.1	20.5	6 20	19 21.42	-18 15.6	1.547	2.522	8.2	20.4
6 30	19 10.34	+ 7 56.5	2.950	3.849	8.1	20.4	6 30	19 12.18	-18 16.5	1.499	2.507	3.9	20.1
7 10	19 2.71	+ 8 15.3	2.935	3.844	7.8	20.4	7 10	19 1.90	-18 21.0	1.477	2.491	2.2	20.0
7 20	18 55.20	+ 8 16.9	2.946	3.840	8.2	20.4	7 20	18 51.75	-18 27.8	1.482	2.475	6.4	20.2
7 30	18 48.37	+ 8 2.5	2.982	3.834	9.3	20.5	7 30	18 42.96	-18 35.8	1.512	2.459	10.9	20.4
8 9	18 42.69	+ 7 34.5	3.041	3.829	10.7	20.6	8 9	18 36.51	-18 44.3	1.564	2.443	14.9	20.6
418205	2008 CF ₁₂₂	7 6.9 115°99	1°7/ 7.3 17				440539	2005 UA ₁₇₇	7 6.9 299°16	1°1/ 6.6 18			
5 31	19 35.15	-18 5.4	1.694										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
508284	2015 <i>JU</i> ₁₂		7 6.9 152°85	4.7/ 5.1	18		510824	2013 <i>BG</i> ₇₇		7 6.9 93°24	2.6/ 8.2	17	
5 31	19 36.63	-34 43.9	2.391	3.215	12.2	21.6	5 31	19 29.16	-11 52.6	2.342	3.158	12.7	21.8
6 10	19 30.66	-35 43.6	2.320	3.224	9.7	21.4	6 10	19 24.58	-12 16.6	2.270	3.171	10.0	21.6
6 20	19 22.40	-36 39.5	2.272	3.232	7.1	21.3	6 20	19 18.25	-12 50.9	2.221	3.184	7.0	21.5
6 30	19 12.48	-37 26.4	2.251	3.240	5.0	21.1	6 30	19 10.71	-13 34.2	2.197	3.197	4.0	21.3
7 10	19 1.82	-38 0.2	2.258	3.247	5.0	21.1	7 10	19 2.66	-14 24.2	2.201	3.210	2.7	21.2
7 20	18 51.45	-38 18.6	2.292	3.253	6.9	21.3	7 20	18 54.85	-15 18.3	2.234	3.223	5.0	21.4
7 30	18 42.37	-38 22.0	2.353	3.259	9.5	21.5	7 30	18 48.02	-16 13.6	2.294	3.236	8.0	21.6
8 9	18 35.37	-38 12.8	2.437	3.264	11.9	21.6	8 9	18 42.78	-17 7.7	2.379	3.248	10.8	21.8
508815	2000 <i>XE</i> ₂		7 6.9 264°86	3.9/ 5.7	18		31637	Bhimaraju		7 6.9 204°31	0.0/ 6.8	18	
5 31	19 39.97	-30 2.6	1.988	2.819	14.1	23.2	5 31	19 33.04	-21 9.7	1.926	2.765	14.2	19.3
6 10	19 34.13	-30 52.2	1.873	2.786	11.2	23.0	6 10	19 28.14	-21 24.9	1.843	2.762	11.0	19.1
6 20	19 25.31	-31 43.3	1.781	2.751	7.8	22.7	6 20	19 20.89	-21 45.0	1.782	2.759	7.2	18.9
6 30	19 13.96	-32 30.2	1.714	2.716	4.6	22.4	6 30	19 11.91	-22 7.4	1.746	2.756	3.0	18.6
7 10	19 1.06	-33 6.8	1.675	2.679	4.3	22.3	7 10	19 2.11	-22 29.6	1.737	2.752	1.3	18.5
7 20	18 47.91	-33 29.0	1.663	2.641	7.6	22.5	7 20	18 52.54	-22 49.3	1.755	2.748	5.6	18.8
7 30	18 35.96	-33 35.4	1.678	2.601	11.6	22.6	7 30	18 44.26	-23 5.3	1.800	2.744	9.6	19.0
8 9	18 26.46	-33 28.1	1.716	2.561	15.4	22.8	8 9	18 38.10	-23 17.4	1.867	2.739	13.1	19.2
130017	1999 <i>VB</i> ₆₆		7 6.9 282°42	0.0/ 6.7	18		44366	1998 <i>SQ</i> ₂₃		7 6.9 288°74	1.5/ 7.4	18	
5 31	19 31.06	-21 25.3	1.846	2.691	14.4	20.8	5 31	19 29.95	-16 51.4	1.888	2.727	14.4	18.6
6 10	19 26.85	-21 39.9	1.754	2.677	11.2	20.6	6 10	19 25.79	-17 9.6	1.805	2.723	11.2	18.4
6 20	19 20.20	-21 59.7	1.683	2.662	7.4	20.3	6 20	19 19.38	-17 36.5	1.743	2.718	7.5	18.1
6 30	19 11.66	-22 22.2	1.637	2.647	3.1	20.0	6 30	19 11.29	-18 10.5	1.707	2.714	3.6	17.9
7 10	19 2.16	-22 44.8	1.617	2.632	1.4	19.8	7 10	19 2.39	-18 49.0	1.696	2.710	1.9	17.7
7 20	18 52.78	-23 5.0	1.623	2.617	5.9	20.1	7 20	18 53.68	-19 29.1	1.713	2.707	5.6	18.0
7 30	18 44.65	-23 21.4	1.656	2.602	10.1	20.3	7 30	18 46.17	-20 8.2	1.755	2.703	9.6	18.2
8 9	18 38.68	-23 33.7	1.710	2.588	13.9	20.5	8 9	18 40.68	-20 44.7	1.820	2.699	13.1	18.4
61325	2000 <i>OV</i> ₅₆		7 6.9 310°81	4.3/ 6.1	18		106643	2000 <i>WO</i> ₁₃₄		7 6.9 279°85	0.3/ 6.9	18	
5 31	19 33.49	-33 55.4	1.972	2.814	13.8	19.1	5 31	19 31.32	-24 3.5	2.248	3.085	12.5	19.6
6 10	19 28.68	-34 16.7	1.889	2.805	10.9	18.9	6 10	19 26.58	-23 55.8	2.151	3.069	9.7	19.4
6 20	19 21.32	-34 32.9	1.828	2.797	7.8	18.7	6 20	19 19.77	-23 48.6	2.076	3.053	6.3	19.2
6 30	19 12.08	-34 39.6	1.791	2.788	5.0	18.5	6 30	19 11.43	-23 40.4	2.027	3.037	2.7	18.9
7 10	19 2.00	-34 33.5	1.780	2.780	4.6	18.5	7 10	19 2.35	-23 29.9	2.005	3.021	1.3	18.8
7 20	18 52.26	-34 13.4	1.795	2.772	7.2	18.6	7 20	18 53.42	-23 16.3	2.012	3.004	5.1	19.0
7 30	18 43.99	-33 40.6	1.836	2.765	10.4	18.8	7 30	18 45.58	-23 0.0	2.045	2.988	8.7	19.2
8 9	18 38.07	-32 58.3	1.899	2.757	13.5	19.0	8 9	18 39.57	-22 41.6	2.102	2.972	12.0	19.4
260734	2005 <i>LZ</i> ₁₉		7 6.9 283°45	10.2/ 1.1	18		88101	2000 <i>WV</i> ₇₇		7 6.9 300°85	1.4/ 7.2	18	
5 31	19 39.89	-38 39.9	1.595	2.435	16.6	19.8	5 31	19 30.08	-19 32.9	2.130	2.967	13.1	19.6
6 10	19 35.54	-41 13.1	1.505	2.410	13.9	19.6	6 10	19 25.61	-19 11.9	2.042	2.959	10.2	19.4
6 20	19 27.18	-43 49.1	1.438	2.384	11.5	19.4	6 20	19 19.11	-18 54.0	1.976	2.951	6.8	19.1
6 30	19 15.10	-46 14.4	1.395	2.359	10.2	19.2	6 30	19 11.13	-18 38.9	1.935	2.943	3.2	18.9
7 10	19 0.44	-48 15.0	1.377	2.333	11.1	19.2	7 10	19 2.49	-18 26.0	1.921	2.935	1.8	18.8
7 20	18 45.10	-49 40.9	1.384	2.307	13.7	19.3	7 20	18 54.07	-18 15.0	1.935	2.927	5.3	19.0
7 30	18 31.40	-50 29.1	1.412	2.281	16.8	19.4	7 30	18 46.76	-18 5.6	1.975	2.920	8.9	19.2
8 9	18 21.34	-50 44.5	1.458	2.254	19.9	19.6	8 9	18 41.27	-17 57.8	2.038	2.912	12.1	19.4
154137	2002 <i>ET</i> ₁₂₂		7 6.9 4°92	2.8/ 6.3	18		288917	2004 <i>SY</i> ₈		7 6.9 271°20	2.5/ 7.6	18	
5 31	19 30.43	-29 28.5	1.934	2.783	13.7	19.4	5 31	19 28.29	-14 49.1	2.460	3.282	12.0	21.1
6 10	19 26.19	-29 49.0	1.859	2.783	10.6	19.2	6 10	19 24.02	-14 39.1	2.361	3.267	9.5	20.9
6 20	19 19.61	-30 7.7	1.807	2.784	7.2	19.0	6 20	19 17.99	-14 35.4	2.285	3.252	6.6	20.7
6 30	19 11.34	-30 21.2	1.779	2.785	3.8	18.8	6 30	19 10.66	-14 38.0	2.235	3.237	3.7	20.4
7 10	19 2.36	-30 26.5	1.777	2.786	3.2	18.8	7 10	19 2.70	-14 46.2	2.213	3.222	2.6	20.3
7 20	18 53.72	-30 22.1	1.802	2.788	6.3	19.0	7 20	18 54.82	-14 59.0	2.218	3.207	5.0	20.5
7 30	18 46.48	-30 8.6	1.852	2.790	9.8	19.2	7 30	18 47.82	-15 15.3	2.251	3.192	8.1	20.7
8 9	18 41.39	-29 47.7	1.924	2.793	12.9	19.4	8 9	18 42.31	-15 33.8	2.307	3.176	11.1	20.8
369474	2010 <i>TP</i> ₃₄		7 6.9 80°45	5.0/ 8.2	17		418257	2008 <i>EG</i> ₆		7 6.9 86°86	1.5/ 6.5	17	
5 31	19 32.15	-10 55.6	1.470	2.307	17.9	21.4	5 31	19 35.77	-23 28.9	1.555	2.405	16.4	21.1
6 10	19 27.80	-10 35.4	1.404	2.314	14.3	21.2	6 10	19 30.56	-24 11.2	1.498	2.423	12.6	20.9
6 20	19 20.79	-10 29.3	1.358	2.322	10.3	21.0	6 20	19 22.57	-24 57.9	1.462	2.442	8.2	20.7
6 30	19 11.87	-10 38.1	1.333	2.330	6.5	20.8	6 30	19 12.60	-25 44.2	1.450	2.460	3.5	20.5
7 10	19 2.13	-11 0.7	1.333	2.338	5.1	20.7	7 10	19 1.88	-26 25.1	1.464	2.478	2.3	20.5
7 20	18 52.81	-11 34.7	1.358	2.345	7.7	20.9	7 20	18 51.71	-26 57.5	1.504	2.495	6.6	20.8
7 30	18 45.10	-12 16.7	1.407	2.353	11.6	21.1	7 30	18 43.32	-27 20.0	1.569	2.513	10.8	21.1
8 9	18 39.85	-13 2.9	1.477	2.361	15.3	21.4	8 9	18 37.56	-27 33.7	1.656	2.530	14.4	21.3
75157	1999 <i>VP</i> ₁₀₉		7 6.9 197°31	0.2/ 6.9	18 R		246568	2008 <i>SO</i> ₂₆₃		7 6.9 197°83	11.1/ 10.9	18	
5 31	19 34.89	-21 17.6	1.888	2.725	14.5	21.1	5 31	19 29.19	+ 8 27.7	2.116	2.845	16.5	21.1
6 10	19 29.59	-21 26.6	1.805	2.723	11.2	20.9	6 10	19 24.85	+ 9 25.3	2.039	2.843	14.8	20.9
6 20	19 21.86	-21 39.8	1.743	2.720	7.4	20.6	6 20	19 18.59	+10 2.3	1.981	2.842	13.1	20.8
6 30	19 12.31	-21 55.1	1.707	2.717	3.1	20.3	6 30	19 10.92	+10 14.3	1.942	2.840	11.7	20.7
7 10	19 1.92	-22 10.0	1.697	2.713	1.4	20.2	7 10	19 2.60	+ 9 59.3	1.927	2.838	11.1	20.7
7 20	18 51.78	-22 22.5	1.715	2.708	5.8	20.5	7 20	18 54.46	+ 9 17.8	1.934	2.835	11.5	20.7
7 30	18 43.00	-22 31.7	1.760	2.703	9.9	20.7	7 30	18 47.33	+ 8 12.7	1.964	2.833	12.8	20.8
8 9	18 36.43	-22 37.7	1.827	2.697	13.4	20.9	8 9	18 41.92	+ 6 49.7	2.015	2.830	14.5	20.9
514402	2016 <i>SG</i> ₅₀		7 6.9 192°20	5.0/ 4.8	18		404606	2014 <i>DE</i> ₁₂₀					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
123153	2000 <i>TK</i> ₃₈		7 6.9 358°94	0.4/ 6.8	18		11772	Jacoblemaire		7 6.9 84°28	2°0/ 7.6	18	
5 31	19 24.85	-19 38.9	0.948	1.842	20.8	18.5	5 31	19 31.64	-16 12.6	1.801	2.638	15.1	17.9
6 10	19 23.70	-20 23.1	0.888	1.838	16.2	18.2	6 10	19 27.01	-16 21.1	1.734	2.650	11.7	17.7
6 20	19 18.95	-21 21.7	0.845	1.835	10.7	17.9	6 20	19 20.11	-16 38.3	1.688	2.661	7.9	17.5
6 30	19 11.37	-22 30.0	0.821	1.833	4.5	17.6	6 30	19 11.60	-17 2.7	1.666	2.673	3.9	17.3
7 10	19 2.42	-23 40.6	0.818	1.833	2.1	17.4	7 10	19 2.44	-17 32.0	1.671	2.685	2.2	17.2
7 20	18 53.89	-24 45.7	0.835	1.835	8.4	17.8	7 20	18 53.64	-18 3.6	1.703	2.696	5.8	17.5
7 30	18 47.57	-25 40.1	0.873	1.839	14.2	18.1	7 30	18 46.21	-18 35.4	1.760	2.708	9.6	17.7
8 9	18 44.70	-26 21.6	0.929	1.844	19.2	18.4	8 9	18 40.89	-19 5.8	1.841	2.719	13.0	18.0
208498	2001 <i>VU</i> ₁₁₁		7 6.9 272°80	3°9/ 5.8	18		449904	2015 <i>MN</i> ₁₁₅		7 6.9 356°18	2°4/ 6.4	18	
5 31	19 35.15	-27 48.5	1.415	2.274	17.2	20.7	5 31	19 29.52	-27 15.5	1.689	2.547	15.0	20.9
6 10	19 31.06	-28 43.9	1.331	2.260	13.5	20.5	6 10	19 25.85	-27 38.5	1.615	2.544	11.6	20.7
6 20	19 23.57	-29 43.2	1.266	2.245	9.2	20.2	6 20	19 19.61	-28 2.0	1.561	2.542	7.7	20.4
6 30	19 13.31	-30 39.8	1.224	2.231	5.0	19.9	6 30	19 11.47	-28 22.3	1.532	2.540	3.8	20.2
7 10	19 1.53	-31 26.4	1.207	2.216	4.5	19.8	7 10	19 2.48	-28 35.8	1.527	2.539	2.9	20.1
7 20	18 49.85	-31 57.8	1.215	2.201	8.6	20.0	7 20	18 53.82	-28 40.5	1.548	2.539	6.6	20.4
7 30	18 39.98	-32 12.4	1.245	2.185	13.3	20.2	7 30	18 46.67	-28 36.3	1.594	2.539	10.6	20.6
8 9	18 33.23	-32 12.4	1.296	2.170	17.6	20.5	8 9	18 41.88	-28 24.6	1.661	2.540	14.1	20.8
510485	2011 <i>WU</i> ₁₃₁		7 6.9 231°55	2°8/ 5.7	18		442144	2010 <i>VA</i> ₃₁		7 6.9 275°41	4°2/ 8.1	15	
5 31	19 31.45	-28 19.3	2.389	3.225	11.9	22.1	5 31	19 27.81	-10 5.6	2.417	3.228	12.5	21.6
6 10	19 26.71	-29 14.1	2.303	3.220	9.2	21.9	6 10	19 23.66	-9 41.9	2.321	3.215	10.1	21.4
6 20	19 19.90	-30 10.1	2.240	3.214	6.2	21.7	6 20	19 17.78	-9 26.8	2.247	3.201	7.5	21.2
6 30	19 11.53	-31 3.2	2.204	3.208	3.5	21.5	6 30	19 10.62	-9 21.4	2.198	3.188	5.1	21.1
7 10	19 2.38	-31 49.4	2.196	3.202	3.2	21.5	7 10	19 2.85	-9 25.7	2.176	3.174	4.2	21.0
7 20	18 53.35	-32 25.8	2.216	3.196	5.8	21.6	7 20	18 55.17	-9 39.1	2.181	3.161	5.9	21.1
7 30	18 45.35	-32 51.3	2.263	3.189	8.9	21.8	7 30	18 48.34	-10 0.1	2.213	3.147	8.6	21.2
8 9	18 39.16	-33 6.4	2.333	3.183	11.7	22.0	8 9	18 43.01	-10 26.9	2.269	3.133	11.4	21.4
70364	1999 <i>RN</i> ₁₉₄		7 6.9 220°85	1°2/ 7.2	18		176438	2001 <i>WR</i> ₂₅		7 6.9 246°44	4°8/ 8.1	18	
5 31	19 35.12	-19 22.2	1.930	2.762	14.4	19.6	5 31	19 29.27	-9 31.4	2.218	3.029	13.5	20.3
6 10	19 29.78	-19 18.5	1.839	2.753	11.2	19.4	6 10	19 24.84	-8 54.0	2.133	3.025	10.9	20.1
6 20	19 22.03	-19 19.6	1.769	2.744	7.5	19.2	6 20	19 18.56	-8 25.9	2.069	3.021	8.2	20.0
6 30	19 12.45	-19 24.2	1.725	2.733	3.4	18.9	6 30	19 10.95	-8 8.4	2.030	3.017	5.7	19.8
7 10	19 1.98	-19 30.7	1.708	2.722	1.7	18.8	7 10	19 2.73	-8 2.0	2.018	3.012	4.9	19.7
7 20	18 51.68	-19 37.6	1.718	2.710	5.8	19.0	7 20	18 54.70	-8 6.5	2.032	3.008	6.6	19.8
7 30	18 42.65	-19 44.1	1.755	2.698	9.9	19.2	7 30	18 47.66	-8 20.5	2.072	3.004	9.3	20.0
8 9	18 35.77	-19 49.9	1.815	2.685	13.5	19.4	8 9	18 42.27	-8 41.9	2.136	2.999	12.1	20.2
323750	2005 <i>NB</i> ₇₅		7 6.9 337°51	1°9/ 7.5	18		426329	2012 <i>UJ</i> ₁₅₆		7 6.9 3°73	9°7/ 4.9	16	
5 31	19 30.08	-16 16.2	1.414	2.269	17.5	19.8	5 31	19 31.17	-39 55.0	1.235	2.102	18.8	20.0
6 10	19 26.61	-16 34.2	1.338	2.264	13.7	19.6	6 10	19 28.55	-41 8.8	1.178	2.101	15.5	19.8
6 20	19 20.30	-17 4.3	1.282	2.260	9.3	19.3	6 20	19 22.08	-42 12.0	1.140	2.101	12.3	19.6
6 30	19 11.82	-17 44.8	1.248	2.256	4.4	19.0	6 30	19 12.68	-42 54.6	1.122	2.102	10.0	19.5
7 10	19 2.26	-18 32.1	1.239	2.253	2.3	18.9	7 10	19 2.01	-43 8.8	1.125	2.105	10.0	19.5
7 20	18 52.96	-19 22.2	1.254	2.250	6.9	19.2	7 20	18 52.02	-42 52.4	1.150	2.110	12.3	19.7
7 30	18 45.25	-20 11.1	1.293	2.247	11.6	19.4	7 30	18 44.51	-42 8.7	1.195	2.116	15.4	19.9
8 9	18 40.15	-20 56.2	1.353	2.245	15.9	19.7	8 9	18 40.62	-41 5.1	1.258	2.123	18.6	20.1
511153	2013 <i>YV</i> ₃₇		7 6.9 201°90	1°8/ 7.5	18		263038	2007 <i>GL</i> ₃₁		7 6.9 115°17	0°9/ 6.7	18	
5 31	19 32.13	-16 5.6	2.420	3.238	12.3	23.2	5 31	19 29.81	-24 29.3	2.451	3.287	11.6	21.3
6 10	19 26.95	-16 10.2	2.328	3.233	9.6	23.0	6 10	19 25.19	-24 47.3	2.372	3.290	8.9	21.2
6 20	19 19.91	-16 21.3	2.259	3.228	6.5	22.8	6 20	19 18.75	-25 6.9	2.317	3.294	5.8	21.0
6 30	19 11.49	-16 37.9	2.217	3.222	3.3	22.6	6 30	19 11.02	-25 25.8	2.288	3.298	2.5	20.8
7 10	19 2.43	-16 58.6	2.203	3.216	2.0	22.5	7 10	19 2.74	-25 41.7	2.287	3.302	1.5	20.7
7 20	18 53.51	-17 21.7	2.218	3.208	4.9	22.7	7 20	18 54.70	-25 53.4	2.315	3.305	4.7	20.9
7 30	18 45.54	-17 45.9	2.260	3.200	8.2	22.9	7 30	18 47.69	-26 0.2	2.369	3.309	7.9	21.1
8 9	18 39.21	-18 9.9	2.327	3.192	11.2	23.0	8 9	18 42.32	-26 2.4	2.447	3.312	10.7	21.3
396873	2004 <i>TK</i> ₇₈		7 6.9 325°15	3°5/ 7.1	18		70442	1999 <i>TR</i> ₉		7 6.9 268°84	1°8/ 6.5	18	
5 31	19 29.75	-17 2.2	1.819	2.661	14.8	19.6	5 31	19 35.55	-25 22.9	1.721	2.566	15.3	19.0
6 10	19 25.78	-16 2.5	1.722	2.640	11.7	19.4	6 10	19 30.80	-25 46.9	1.620	2.543	12.0	18.7
6 20	19 19.48	-15 5.3	1.647	2.619	8.2	19.1	6 20	19 23.14	-26 14.0	1.540	2.518	8.0	18.4
6 30	19 11.41	-14 11.9	1.596	2.598	4.7	18.9	6 30	19 13.11	-26 40.2	1.484	2.493	3.7	18.1
7 10	19 2.47	-13 24.1	1.570	2.578	3.7	18.8	7 10	19 1.75	-27 1.3	1.455	2.468	2.5	17.9
7 20	18 53.67	-12 43.4	1.571	2.559	6.8	18.9	7 20	18 50.37	-27 14.3	1.452	2.442	6.9	18.2
7 30	18 46.09	-12 11.0	1.597	2.541	10.7	19.1	7 30	18 40.38	-27 18.1	1.473	2.416	11.5	18.4
8 9	18 40.58	-11 46.9	1.646	2.523	14.3	19.3	8 9	18 32.92	-27 14.0	1.517	2.389	15.6	18.6
138118	2000 <i>EA</i> ₄		7 6.9 146°15	1°5/ 6.5	18		63217	2001 <i>AU</i> ₂₉		7 6.9 281°86	3°2/ 6.1	18	
5 31	19 35.63	-24 54.9	1.842	2.683	14.6	19.9	5 31	19 34.29	-26 54.5	1.478	2.336	16.7	18.7
6 10	19 30.22	-25 24.2	1.770	2.690	11.3	19.7	6 10	19 30.29	-27 39.1	1.388	2.317	13.1	18.4
6 20	19 22.29	-25 55.7	1.720	2.697	7.4	19.5	6 20	19 23.05	-28 27.8	1.317	2.297	8.9	18.1
6 30	19 12.54	-26 25.8	1.695	2.704	3.3	19.2	6 30	19 13.14	-29 14.9	1.270	2.277	4.5	17.8
7 10	19 2.00	-26 50.7	1.697	2.710	2.2	19.2	7 10	19 1.75	-29 54.2	1.247	2.258	3.8	17.7
7 20	18 51.83	-27 8.1	1.726	2.716	6.1	19.4	7 20	18 50.37	-30 21.0	1.249	2.238	8.1	17.9
7 30	18 43.16	-27 17.4	1.781	2.721	10.0	19.7	7 30	18 40.65	-30 33.7	1.275	2.218	12.9	18.1
8 9	18 36.81	-27 19.6	1.859	2.726	13.4	19.9	8 9	18 33.87	-30 33.9	1.321	2.198	17.2	18.3
462255	2008 <i>DU</i> ₂₇		7 6.9 111°04	3°3/ 7.9	17		314475	2005 <i>WG</i> ₉₀		7 6.9 254°14			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
349186	2007 <i>RX</i> ₁₄₁		7 6.9 341°19	8°2/ 4.8 18			508473	2016 <i>NF</i> ₆₆		7 6.9 192°47	7°1/ 9.5 18		
5 31	19 27.21	-36 7.9	1.235	2.112	18.1	19.1	5 31	19 29.85	-2 0.3	2.117	2.900	14.9	21.6
6 10	19 25.56	-37 16.3	1.159	2.092	14.8	18.8	6 10	19 25.39	-1 36.4	2.034	2.899	12.6	21.4
6 20	19 20.28	-38 20.2	1.102	2.074	11.3	18.6	6 20	19 19.01	-1 28.4	1.972	2.898	10.1	21.2
6 30	19 12.04	-39 10.3	1.066	2.058	8.6	18.4	6 30	19 11.21	-1 38.2	1.933	2.896	7.9	21.1
7 10	19 2.25	-39 38.2	1.051	2.043	8.7	18.4	7 10	19 2.76	-2 6.1	1.920	2.894	7.1	21.0
7 20	18 52.72	-39 39.0	1.057	2.029	11.6	18.5	7 20	18 54.48	-2 50.5	1.932	2.892	8.1	21.1
7 30	18 45.34	-39 13.6	1.083	2.018	15.4	18.6	7 30	18 47.22	-3 48.4	1.970	2.890	10.3	21.2
8 9	18 41.45	-38 27.1	1.127	2.008	19.2	18.8	8 9	18 41.68	-4 55.3	2.031	2.887	12.9	21.4
478369	2011 <i>YU</i> ₄₅		7 6.9 161°90	2°8/ 6.3 18			98543	2000 <i>VQ</i> ₅₁		7 6.9 263°75	3°4/ 6.4 17		
5 31	19 33.78	-32 55.4	2.842	3.665	10.5	22.2	5 31	19 36.45	-29 13.4	1.447	2.304	17.1	20.1
6 10	19 27.98	-33 0.6	2.762	3.668	8.2	22.0	6 10	19 31.72	-29 36.0	1.374	2.301	13.3	19.9
6 20	19 20.43	-33 1.4	2.705	3.672	5.7	21.8	6 20	19 23.75	-29 57.1	1.321	2.299	9.0	19.6
6 30	19 11.70	-32 55.5	2.676	3.675	3.4	21.7	6 30	19 13.34	-30 11.7	1.291	2.297	4.8	19.4
7 10	19 2.50	-32 41.2	2.675	3.678	3.0	21.7	7 10	19 1.83	-30 15.0	1.285	2.295	3.9	19.3
7 20	18 53.63	-32 18.2	2.703	3.681	5.0	21.8	7 20	18 50.78	-30 5.2	1.304	2.293	7.8	19.5
7 30	18 45.82	-31 47.5	2.759	3.683	7.5	22.0	7 30	18 41.69	-29 43.4	1.347	2.291	12.3	19.8
8 9	18 39.66	-31 11.1	2.840	3.686	9.9	22.1	8 9	18 35.61	-29 13.1	1.411	2.288	16.3	20.0
499531	2010 <i>RK</i> ₇₁		7 6.9 295°26	5°0/ 7.9 17			106765	2000 <i>XW</i> ₁₁		7 6.9 245°14	4°6/ 5.5 18		
5 31	19 30.45	-12 5.2	1.383	2.230	18.3	21.2	5 31	19 33.91	-36 16.6	2.535	3.360	11.6	20.2
6 10	19 27.14	-11 42.0	1.292	2.209	14.8	20.9	6 10	19 28.64	-36 53.9	2.446	3.349	9.3	20.0
6 20	19 20.88	-11 31.8	1.219	2.188	10.7	20.6	6 20	19 21.20	-37 26.5	2.380	3.338	6.9	19.8
6 30	19 12.21	-11 36.4	1.168	2.168	6.7	20.3	6 30	19 12.16	-37 50.1	2.340	3.327	5.0	19.7
7 10	19 2.20	-11 55.8	1.140	2.147	5.2	20.2	7 10	19 2.35	-38 1.2	2.326	3.315	4.9	19.7
7 20	18 52.18	-12 28.2	1.136	2.127	8.4	20.3	7 20	18 52.74	-37 58.3	2.341	3.303	6.7	19.7
7 30	18 43.63	-13 10.5	1.155	2.107	13.0	20.5	7 30	18 44.28	-37 41.9	2.381	3.291	9.2	19.9
8 9	18 37.74	-13 58.7	1.194	2.087	17.5	20.7	8 9	18 37.74	-37 14.3	2.445	3.279	11.7	20.0
159275	2006 <i>AD</i> ₄		7 6.9 212°34	1°8/ 6.2 18			206981	2004 <i>TC</i> ₁₁₈		7 6.9 316°29	4°0/ 7.9 17		
5 31	19 33.55	-23 54.3	1.992	2.832	13.8	20.4	5 31	19 29.13	-13 27.9	1.199	2.062	19.5	20.2
6 10	19 28.68	-24 51.1	1.908	2.828	10.6	20.2	6 10	19 26.45	-13 23.6	1.120	2.048	15.6	20.0
6 20	19 21.40	-25 53.0	1.846	2.823	7.0	20.0	6 20	19 20.58	-13 34.8	1.058	2.035	11.0	19.7
6 30	19 12.28	-26 55.8	1.810	2.819	3.2	19.8	6 30	19 12.13	-14 2.0	1.017	2.022	6.2	19.3
7 10	19 2.21	-27 54.5	1.801	2.814	2.4	19.7	7 10	19 2.32	-14 43.5	0.998	2.010	4.2	19.2
7 20	18 52.27	-28 45.2	1.821	2.808	6.1	19.9	7 20	18 52.63	-15 35.2	1.002	1.998	8.2	19.4
7 30	18 43.56	-29 25.5	1.866	2.802	9.8	20.1	7 30	18 44.67	-16 32.3	1.028	1.987	13.4	19.6
8 9	18 36.96	-29 55.5	1.935	2.796	13.2	20.3	8 9	18 39.67	-17 30.1	1.073	1.977	18.2	19.9
20982	1981 <i>EL</i> ₁₇		7 6.9 40°70	9°3/ 9.7 18			22000	1999 <i>XF</i> ₄₀		7 6.9 74°65	0°4/ 6.8 18		
5 31	19 29.07	-0 38.0	1.667	2.463	17.8	18.9	5 31	19 29.79	-22 40.2	2.277	3.115	12.3	18.6
6 10	19 25.18	+0 15.9	1.600	2.469	15.2	18.7	6 10	19 25.28	-22 59.5	2.203	3.122	9.4	18.4
6 20	19 19.01	+0 50.5	1.551	2.474	12.5	18.6	6 20	19 18.88	-23 21.7	2.152	3.129	6.1	18.2
6 30	19 11.22	+1 2.1	1.524	2.480	10.2	18.4	6 30	19 11.13	-23 44.7	2.126	3.136	2.6	18.0
7 10	19 2.72	+0 49.3	1.520	2.486	9.3	18.4	7 10	19 2.82	-24 6.1	2.129	3.144	1.3	17.9
7 20	18 54.53	+0 13.3	1.539	2.492	10.3	18.5	7 20	18 54.78	-24 24.1	2.159	3.151	4.8	18.2
7 30	18 47.66	-0 42.1	1.581	2.499	12.6	18.6	7 30	18 47.82	-24 37.9	2.216	3.158	8.2	18.4
8 9	18 42.86	-1 51.0	1.644	2.505	15.2	18.8	8 9	18 42.60	-24 47.4	2.296	3.166	11.1	18.6
366713	2003 <i>WP</i> ₁₇₂		7 6.9 249°53	1°7/ 6.5 17			92079	1999 <i>XN</i> ₁₀		7 6.9 203°79	0°7/ 6.8 18		
5 31	19 34.88	-24 26.0	1.688	2.536	15.5	21.6	5 31	19 31.05	-24 58.2	2.487	3.320	11.5	19.4
6 10	19 30.20	-25 0.9	1.599	2.523	12.0	21.4	6 10	19 26.12	-24 56.4	2.402	3.318	8.9	19.2
6 20	19 22.67	-25 40.4	1.531	2.510	8.0	21.1	6 20	19 19.37	-24 54.7	2.341	3.317	5.8	19.0
6 30	19 12.90	-26 20.1	1.487	2.496	3.6	20.8	6 30	19 11.33	-24 51.7	2.306	3.315	2.5	18.8
7 10	19 1.95	-26 55.6	1.469	2.482	2.4	20.7	7 10	19 2.75	-24 45.7	2.299	3.314	1.3	18.7
7 20	18 51.10	-27 23.1	1.477	2.468	6.8	20.9	7 20	18 54.40	-24 36.3	2.320	3.312	4.6	18.9
7 30	18 41.72	-27 41.2	1.511	2.453	11.2	21.1	7 30	18 47.09	-24 23.5	2.369	3.310	7.8	19.1
8 9	18 34.87	-27 50.4	1.566	2.438	15.2	21.4	8 9	18 41.44	-24 8.0	2.443	3.308	10.7	19.3
347891	2002 <i>TS</i> ₂₁₈		7 6.9 278°09	1°8/ 6.6 18			476164	2007 <i>TO</i> ₃₈₃		7 6.9 304°27	2°0/ 7.5 18		
5 31	19 33.57	-27 23.7	2.064	2.904	13.3	20.5	5 31	19 29.80	-17 19.0	1.828	2.670	14.7	21.3
6 10	19 28.70	-27 30.6	1.963	2.882	10.4	20.2	6 10	19 25.83	-17 10.7	1.740	2.659	11.5	21.0
6 20	19 21.43	-27 36.9	1.884	2.861	6.9	20.0	6 20	19 19.55	-17 9.2	1.674	2.648	7.8	20.8
6 30	19 12.31	-27 39.4	1.830	2.839	3.3	19.7	6 30	19 11.52	-17 13.9	1.631	2.638	3.9	20.5
7 10	19 2.24	-27 35.8	1.804	2.817	2.3	19.6	7 10	19 2.64	-17 23.5	1.614	2.627	2.3	20.4
7 20	18 52.28	-27 24.6	1.805	2.794	5.9	19.8	7 20	18 53.93	-17 36.6	1.624	2.617	5.9	20.6
7 30	18 43.53	-27 6.2	1.832	2.772	9.8	20.0	7 30	18 46.45	-17 51.7	1.658	2.607	10.0	20.8
8 9	18 36.89	-26 42.1	1.882	2.749	13.3	20.1	8 9	18 41.03	-18 7.6	1.716	2.597	13.6	21.0
209599	2004 <i>YK</i>		7 6.9 53°68	10°7/ 7.1 17			170158	2003 <i>EJ</i> ₉		7 6.9 92°43	2°6/ 6.5 18		
5 31	19 42.62	-8 15.5	1.163	1.992	22.1	18.5	5 31	19 33.53	-30 14.9	2.178	3.015	12.8	20.1
6 10	19 35.71	-5 32.5	1.126	2.023	18.2	18.3	6 10	19 28.30	-30 24.1	2.103	3.020	9.9	20.0
6 20	19 25.76	-3 5.7	1.110	2.054	14.3	18.2	6 20	19 20.90	-30 30.4	2.051	3.025	6.7	19.8
6 30	19 13.91	-1 4.3	1.115	2.086	11.4	18.1	6 30	19 11.99	-30 30.8	2.025	3.030	3.6	19.6
7 10	19 1.69	+0 25.1	1.144	2.118	10.8	18.2	7 10	19 2.48	-30 22.9	2.026	3.035	2.9	19.5
7 20	18 50.61	+1 20.3	1.196	2.149	12.6	18.4	7 20	18 53.35	-30 6.3	2.055	3.040	5.7	19.7
7 30	18 41.88	+1 43.8	1.270	2.181	15.5	18.7	7 30	18 45.55	-29 41.8	2.110	3.044	9.0	19.9
8 9	18 36.22	+1 42.3	1.363	2.213	18.3	18.9	8 9	18 39.77	-29 11.5	2.188	3.049	11.9	20.1
338812	2003 <i>WU</i> ₁₈		7 6.9 174°92	3°1/ 6.1 18			393869	2005 <i>SS</i> ₂₉₁		7 6.9 341°			

EPHEMERIDES

7 6.9

7 6.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
40823	1999 TU ₉₀		7 6.9 316°29	8°6/ 4.0	18		314280	2005 SN ₃₂		7 6.9 232°10	2°8/ 8.0	18	
5 31	19 33.40	-38 17.2	1.528	2.381	16.5	18.6	5 31	19 28.61	-11 59.8	2.988	3.792	10.5	23.0
6 10	19 30.00	-39 41.5	1.446	2.361	13.7	18.4	6 10	19 23.98	-11 54.9	2.886	3.778	8.4	22.9
6 20	19 23.09	-41 1.6	1.383	2.341	10.8	18.1	6 20	19 17.89	-11 57.0	2.806	3.764	6.0	22.7
6 30	19 13.26	-42 8.0	1.342	2.322	8.8	18.0	6 30	19 10.73	-12 6.0	2.754	3.749	3.7	22.5
7 10	19 1.83	-42 52.1	1.325	2.303	9.1	17.9	7 10	19 3.03	-12 21.4	2.730	3.734	2.8	22.4
7 20	18 50.47	-43 8.7	1.330	2.285	11.5	18.0	7 20	18 55.40	-12 42.1	2.734	3.718	4.6	22.5
7 30	18 41.03	-42 57.8	1.358	2.267	14.8	18.2	7 30	18 48.45	-13 6.9	2.767	3.702	7.1	22.7
8 9	18 34.86	-42 24.3	1.404	2.250	18.1	18.3	8 9	18 42.73	-13 34.3	2.826	3.685	9.6	22.8
353001	2009 BX ₁₂₅		7 6.9 276°72	0°7/ 6.8	18		281918	2011 FE ₂		7 6.9 139°42	6°3/ 9.2	18	
5 31	19 31.69	-23 44.3	1.969	2.812	13.7	21.3	5 31	19 30.91	-4 43.5	1.941	2.740	15.6	20.7
6 10	19 27.23	-23 55.2	1.879	2.801	10.6	21.1	6 10	19 26.32	-4 27.0	1.867	2.746	12.9	20.5
6 20	19 20.44	-24 8.7	1.810	2.789	7.0	20.8	6 20	19 19.66	-4 26.0	1.812	2.752	9.9	20.3
6 30	19 11.90	-24 22.3	1.767	2.777	3.0	20.6	6 30	19 11.51	-4 42.1	1.781	2.757	7.4	20.2
7 10	19 2.49	-24 33.4	1.750	2.765	1.5	20.4	7 10	19 2.70	-5 14.7	1.775	2.762	6.3	20.1
7 20	18 53.25	-24 40.3	1.760	2.753	5.7	20.7	7 20	18 54.15	-6 1.9	1.796	2.767	7.7	20.2
7 30	18 45.24	-24 42.4	1.796	2.741	9.6	20.9	7 30	18 46.76	-6 59.9	1.842	2.772	10.3	20.4
8 9	18 39.30	-24 40.1	1.856	2.729	13.1	21.1	8 9	18 41.25	-8 4.6	1.911	2.776	13.2	20.6
264907	2002 TZ ₁₃₁		7 6.9 254°65	1°1/ 6.8	18		88934	2001 TE ₃₂		7 6.9 195°76	2°0/ 7.4	18	
5 31	19 35.69	-24 55.1	1.810	2.652	14.8	20.9	5 31	19 31.07	-17 42.2	2.216	3.045	12.9	19.8
6 10	19 30.62	-25 1.6	1.714	2.635	11.5	20.7	6 10	19 26.26	-17 16.7	2.133	3.045	10.1	19.6
6 20	19 22.85	-25 9.4	1.640	2.618	7.7	20.4	6 20	19 19.52	-16 55.4	2.073	3.044	6.8	19.4
6 30	19 12.97	-25 15.7	1.590	2.600	3.3	20.1	6 30	19 11.43	-16 38.2	2.039	3.044	3.5	19.2
7 10	19 2.01	-25 17.6	1.568	2.582	1.9	20.0	7 10	19 2.75	-16 24.8	2.031	3.043	2.3	19.1
7 20	18 51.18	-25 13.5	1.571	2.563	6.3	20.2	7 20	18 54.32	-16 14.9	2.052	3.042	5.2	19.3
7 30	18 41.74	-25 3.3	1.601	2.544	10.7	20.4	7 30	18 46.99	-16 8.2	2.099	3.042	8.6	19.5
8 9	18 34.69	-24 48.3	1.653	2.525	14.6	20.6	8 9	18 41.41	-16 4.2	2.170	3.041	11.6	19.7
188967	2008 CW ₁₅₃		7 6.9 180°06	3°8/ 6.0	18 R		77723	2001 OF ₅₅		7 6.9 64°97	8°3/ 4.9	18	
5 31	19 37.40	-30 26.8	1.783	2.625	15.0	20.9	5 31	19 38.58	-43 38.4	1.944	2.765	14.8	19.2
6 10	19 31.93	-31 6.4	1.707	2.626	11.7	20.7	6 10	19 33.00	-44 38.9	1.884	2.772	12.3	19.0
6 20	19 23.64	-31 44.6	1.653	2.626	8.1	20.5	6 20	19 24.37	-45 28.1	1.844	2.780	10.1	18.9
6 30	19 13.26	-32 15.8	1.624	2.627	4.7	20.3	6 30	19 13.55	-45 58.9	1.828	2.787	8.5	18.8
7 10	19 1.92	-32 35.4	1.621	2.626	4.2	20.2	7 10	19 1.85	-46 6.4	1.836	2.795	8.5	18.8
7 20	18 50.94	-32 41.2	1.645	2.626	7.3	20.4	7 20	18 50.74	-45 49.4	1.869	2.803	10.0	18.9
7 30	18 41.60	-32 33.4	1.693	2.625	11.0	20.6	7 30	18 41.56	-45 10.6	1.925	2.811	12.2	19.1
8 9	18 34.86	-32 14.9	1.764	2.623	14.4	20.8	8 9	18 35.24	-44 15.3	2.002	2.819	14.5	19.3
348096	2003 XH ₁₈		7 6.9 298°97	0°7/ 6.9	18		107614	2001 ED ₅		7 6.9 66°75	0°6/ 6.8	17	
5 31	19 35.07	-25 50.8	1.773	2.618	14.9	20.4	5 31	19 34.51	-22 0.6	1.391	2.249	17.6	19.7
6 10	19 30.34	-25 29.8	1.663	2.585	11.7	20.1	6 10	19 29.92	-22 29.4	1.334	2.264	13.5	19.5
6 20	19 22.80	-25 6.5	1.574	2.553	7.8	19.8	6 20	19 22.38	-23 4.1	1.297	2.279	8.8	19.3
6 30	19 13.01	-24 38.8	1.510	2.520	3.4	19.4	6 30	19 12.71	-23 40.7	1.283	2.294	3.7	19.0
7 10	19 1.97	-24 5.1	1.472	2.487	1.7	19.2	7 10	19 2.23	-24 14.7	1.294	2.309	1.8	18.9
7 20	18 50.95	-23 25.3	1.460	2.454	6.5	19.5	7 20	18 52.32	-24 42.6	1.330	2.325	6.8	19.3
7 30	18 41.27	-22 41.0	1.475	2.421	11.2	19.7	7 30	18 44.30	-25 3.2	1.390	2.340	11.4	19.6
8 9	18 34.03	-21 55.0	1.511	2.388	15.4	19.8	8 9	18 39.08	-25 16.6	1.471	2.355	15.3	19.8
378145	2006 VP ₈₃		7 6.9 359°63	2°5/ 7.4	17		172792	2004 FW ₄₀		7 6.9 87°18	0°8/ 6.8	18	
5 31	19 31.39	-18 14.5	1.324	2.185	18.1	20.7	5 31	19 31.50	-23 26.7	2.079	2.919	13.2	20.4
6 10	19 27.71	-17 47.1	1.254	2.183	14.2	20.5	6 10	19 26.78	-23 47.7	2.008	2.928	10.1	20.2
6 20	19 21.06	-17 26.5	1.203	2.182	9.6	20.2	6 20	19 19.95	-24 11.4	1.959	2.937	6.6	20.0
6 30	19 12.21	-17 12.7	1.174	2.182	4.8	20.0	6 30	19 11.63	-24 35.2	1.936	2.946	2.8	19.8
7 10	19 2.38	-17 4.9	1.169	2.182	2.9	19.8	7 10	19 2.69	-24 56.3	1.941	2.955	1.5	19.7
7 20	18 52.97	-17 2.2	1.188	2.183	7.3	20.1	7 20	18 54.08	-25 12.9	1.973	2.964	5.2	20.0
7 30	18 45.35	-17 3.7	1.229	2.184	12.1	20.4	7 30	18 46.70	-25 24.3	2.031	2.973	8.8	20.2
8 9	18 40.49	-17 8.4	1.292	2.186	16.3	20.6	8 9	18 41.26	-25 30.5	2.112	2.982	11.9	20.4
127232	2002 JQ ₁₆		7 6.9 357°02	7°8/ 9.8	18		382276	2012 TO ₂₁₁		7 6.9 40°21	0°1/ 7.0	17	
5 31	19 24.79	-4 31.8	1.327	2.164	19.4	18.6	5 31	19 32.19	-22 26.9	1.638	2.490	15.6	20.3
6 10	19 22.56	-4 16.7	1.256	2.159	16.2	18.3	6 10	19 27.75	-22 21.5	1.572	2.498	12.1	20.1
6 20	19 17.68	-4 24.2	1.203	2.156	12.6	18.1	6 20	19 20.78	-22 19.2	1.526	2.506	7.9	19.9
6 30	19 10.80	-4 57.1	1.170	2.154	9.3	17.9	6 30	19 12.01	-22 17.9	1.504	2.514	3.3	19.6
7 10	19 2.97	-5 54.7	1.159	2.153	7.8	17.8	7 10	19 2.54	-22 15.8	1.507	2.523	1.4	19.5
7 20	18 55.39	-7 12.8	1.171	2.153	9.4	17.9	7 20	18 53.52	-22 11.9	1.537	2.532	6.0	19.8
7 30	18 49.30	-8 45.1	1.205	2.154	12.8	18.1	7 30	18 46.08	-22 5.9	1.592	2.541	10.2	20.1
8 9	18 45.65	-10 23.5	1.259	2.157	16.4	18.4	8 9	18 41.01	-21 58.4	1.668	2.551	13.9	20.3
264169	2010 CW ₅₅		7 6.9 97°69	3°1/ 7.7	17		122826	2000 SB ₁₀₈		7 6.9 257°82	0°3/ 7.1	18	
5 31	19 32.34	-14 43.7	1.892	2.722	14.8	20.7	5 31	19 32.69	-20 59.6	1.913	2.753	14.2	20.5
6 10	19 27.41	-14 21.4	1.824	2.733	11.6	20.5	6 10	19 28.08	-21 6.6	1.820	2.739	11.1	20.3
6 20	19 20.33	-14 7.0	1.776	2.744	8.0	20.3	6 20	19 21.06	-21 18.2	1.748	2.725	7.3	20.0
6 30	19 11.76	-14 0.5	1.754	2.755	4.5	20.1	6 30	19 12.20	-21 32.5	1.701	2.711	3.1	19.7
7 10	19 2.60	-14 1.3	1.758	2.766	3.3	20.1	7 10	19 2.41	-21 47.2	1.681	2.697	1.3	19.6
7 20	18 53.82	-14 8.3	1.788	2.777	6.0	20.3	7 20	18 52.75	-22 0.3	1.689	2.682	5.7	19.8
7 30	18 46.35	-14 20.3	1.845	2.788	9.5	20.5	7 30	18 44.31	-22 10.8	1.722	2.667	9.9	20.1
8 9	18 40.88	-14 35.5	1.924	2.798	12.7	20.7	8 9	18 37.99	-22 18.4	1.778	2.652	13.6	20.2
440420	2005 QW ₁₂₉		7 6.9 282°22	2°8/ 8.0	18		468379	2016 FB ₅₆		7 6.9 45°46	0°6/ 7.1	17	
5 31	19 28.42	-13 4.6	2.186										

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7 6.9

7 7.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
111945	2002 GY ₅₅		7 6.9 109°77	0°5/ 6.8 17			358954	2008 KE ₉		7 7.0 9°96	0°5/ 6.8 18		
5 31	19 36.56	-21 45.6	1.580	2.425	16.4	20.6	5 31	19 28.83	-22 34.2	2.050	2.895	13.2	20.5
6 10	19 31.21	-22 16.8	1.518	2.440	12.6	20.4	6 10	19 24.84	-22 57.1	1.973	2.896	10.1	20.3
6 20	19 23.09	-22 53.7	1.476	2.455	8.2	20.2	6 20	19 18.77	-23 23.7	1.919	2.898	6.6	20.1
6 30	19 13.00	-23 32.3	1.459	2.469	3.4	19.9	6 30	19 11.18	-23 51.7	1.889	2.899	2.8	19.9
7 10	19 2.12	-24 8.4	1.468	2.483	1.7	19.8	7 10	19 2.92	-24 18.2	1.887	2.902	1.4	19.8
7 20	18 51.72	-24 38.7	1.504	2.497	6.4	20.2	7 20	18 54.91	-24 41.0	1.911	2.904	5.2	20.1
7 30	18 43.06	-25 1.8	1.564	2.510	10.7	20.4	7 30	18 48.06	-24 59.0	1.961	2.907	8.9	20.3
8 9	18 36.99	-25 18.0	1.647	2.522	14.4	20.7	8 9	18 43.10	-25 11.9	2.035	2.910	12.1	20.5
80344	1999 XM ₁₁₂		7 6.9 217°92	3°8/ 5.9 18			253660	2003 UF ₁₆₄		7 7.0 219°84	0°5/ 6.9 17		
5 31	19 36.30	-29 44.7	1.765	2.610	15.0	19.9	5 31	19 35.04	-21 52.4	1.765	2.607	15.2	21.3
6 10	19 31.23	-30 32.5	1.685	2.605	11.8	19.6	6 10	19 30.09	-22 19.0	1.679	2.600	11.8	21.0
6 20	19 23.30	-31 20.3	1.626	2.600	8.1	19.4	6 20	19 22.49	-22 51.3	1.615	2.593	7.7	20.8
6 30	19 13.18	-32 2.5	1.591	2.594	4.7	19.2	6 30	19 12.85	-23 26.1	1.575	2.585	3.3	20.5
7 10	19 1.99	-32 33.8	1.582	2.588	4.3	19.1	7 10	19 2.19	-23 59.5	1.562	2.577	1.6	20.3
7 20	18 51.05	-32 51.1	1.600	2.582	7.5	19.3	7 20	18 51.71	-24 28.5	1.576	2.569	6.2	20.6
7 30	18 41.67	-32 54.0	1.643	2.575	11.3	19.5	7 30	18 42.62	-24 51.2	1.615	2.560	10.5	20.8
8 9	18 34.89	-32 44.9	1.708	2.568	14.7	19.7	8 9	18 35.91	-25 7.8	1.677	2.550	14.3	21.1
491707	2012 UH ₁₁₆		7 6.9 196°13	0°6/ 7.2 16			453693	2010 WT ₁₂		7 7.0 336°30	5°8/ 4.2 18		
5 31	19 31.94	-20 19.5	2.068	2.904	13.4	22.0	5 31	19 31.54	-34 20.0	2.015	2.858	13.5	20.1
6 10	19 27.15	-20 21.5	1.986	2.903	10.4	21.8	6 10	19 27.49	-35 48.5	1.937	2.851	10.8	19.9
6 20	19 20.24	-20 27.8	1.926	2.902	6.9	21.5	6 20	19 20.86	-37 15.8	1.881	2.844	8.0	19.7
6 30	19 11.78	-20 36.7	1.891	2.900	3.0	21.3	6 30	19 12.20	-38 35.0	1.851	2.838	6.1	19.6
7 10	19 2.63	-20 46.6	1.883	2.899	1.3	21.2	7 10	19 2.46	-39 39.8	1.847	2.832	6.3	19.6
7 20	18 53.72	-20 55.9	1.903	2.897	5.2	21.4	7 20	18 52.82	-40 26.1	1.869	2.826	8.5	19.7
7 30	18 45.99	-21 3.9	1.950	2.895	9.0	21.7	7 30	18 44.49	-40 52.7	1.915	2.821	11.3	19.9
8 9	18 40.19	-21 10.1	2.020	2.893	12.3	21.9	8 9	18 38.46	-41 1.7	1.983	2.817	14.0	20.0
241533	2010 DA ₃₄		7 6.9 4°58	2°0/ 7.6 18			164417	2006 BM ₅₇		7 7.0 9°45	3°9/ 6.4 17		
5 31	19 30.42	-15 54.5	1.795	2.634	15.0	20.2	5 31	19 31.66	-28 26.0	1.034	1.919	20.2	19.6
6 10	19 26.27	-16 5.8	1.717	2.634	11.8	20.0	6 10	19 28.95	-28 57.1	0.977	1.920	15.8	19.3
6 20	19 19.81	-16 26.5	1.661	2.634	8.0	19.8	6 20	19 22.39	-29 28.3	0.936	1.922	10.6	19.0
6 30	19 11.64	-16 55.3	1.628	2.634	4.0	19.5	6 30	19 12.93	-29 52.9	0.916	1.924	5.5	18.8
7 10	19 2.68	-17 29.9	1.621	2.635	2.3	19.4	7 10	19 2.20	-30 5.0	0.917	1.928	4.5	18.7
7 20	18 53.97	-18 7.3	1.641	2.635	5.9	19.6	7 20	18 52.15	-30 1.7	0.940	1.933	9.1	19.0
7 30	18 46.53	-18 45.2	1.687	2.635	9.8	19.9	7 30	18 44.55	-29 44.2	0.983	1.939	14.2	19.3
8 9	18 41.18	-19 21.5	1.755	2.636	13.4	20.1	8 9	18 40.56	-29 16.4	1.045	1.946	18.8	19.6
513785	2013 AS ₇₈		7 6.9 197°94	2°4/ 7.8 18			328111	2008 AV ₅₇		7 7.0 170°62	1°0/ 7.3 17		
5 31	19 30.00	-14 7.5	2.665	3.478	11.4	22.7	5 31	19 35.06	-18 57.8	1.809	2.645	15.1	21.8
6 10	19 25.17	-14 1.2	2.575	3.475	9.0	22.6	6 10	19 29.83	-19 7.6	1.732	2.648	11.7	21.6
6 20	19 18.72	-14 1.3	2.508	3.471	6.3	22.4	6 20	19 22.14	-19 23.9	1.676	2.651	7.8	21.4
6 30	19 11.09	-14 7.6	2.467	3.467	3.5	22.2	6 30	19 12.64	-19 44.7	1.644	2.653	3.5	21.1
7 10	19 2.94	-14 19.3	2.454	3.463	2.5	22.1	7 10	19 2.33	-20 7.5	1.640	2.655	1.6	21.0
7 20	18 54.93	-14 35.3	2.471	3.458	4.7	22.3	7 20	18 52.31	-20 29.9	1.662	2.656	5.8	21.3
7 30	18 47.76	-14 54.4	2.514	3.453	7.5	22.4	7 30	18 43.69	-20 50.5	1.711	2.656	10.0	21.5
8 9	18 42.01	-15 15.3	2.583	3.447	10.2	22.6	8 9	18 37.32	-21 8.5	1.782	2.656	13.6	21.8
389842	2012 QO ₃₀		7 6.9 104°41	0°8/ 6.9 18			423025	2003 TB ₂₁		7 7.0 304°37	2°6/ 6.2 18		
5 31	19 34.73	-25 14.7	1.847	2.690	14.5	20.8	5 31	19 31.32	-24 15.2	1.311	2.179	17.8	20.7
6 10	19 29.48	-25 7.7	1.774	2.695	11.2	20.6	6 10	19 28.40	-25 8.8	1.221	2.156	13.9	20.4
6 20	19 21.81	-25 0.7	1.722	2.700	7.3	20.4	6 20	19 22.11	-26 11.6	1.150	2.133	9.3	20.1
6 30	19 12.43	-24 51.5	1.696	2.706	3.1	20.1	6 30	19 12.95	-27 18.0	1.101	2.111	4.4	19.7
7 10	19 2.38	-24 38.5	1.696	2.711	1.6	20.0	7 10	19 2.09	-28 20.8	1.076	2.088	3.4	19.6
7 20	18 52.75	-24 21.0	1.724	2.716	5.7	20.3	7 20	18 51.14	-29 13.3	1.074	2.066	8.5	19.8
7 30	18 44.62	-23 59.9	1.777	2.721	9.7	20.6	7 30	18 41.86	-29 51.8	1.095	2.045	13.8	20.0
8 9	18 38.76	-23 36.6	1.853	2.727	13.1	20.8	8 9	18 35.70	-30 16.1	1.135	2.024	18.5	20.3
329766	2004 FJ ₁₅₇		7 7.0 117°92	0°6/ 7.1 17			501594	2014 QA ₂₂₄		7 7.0 127°03	1°9/ 6.7 17		
5 31	19 35.00	-20 12.4	1.745	2.585	15.4	22.0	5 31	19 37.81	-26 31.9	1.337	2.195	18.1	21.7
6 10	19 29.74	-20 20.8	1.678	2.597	11.9	21.8	6 10	19 32.84	-26 38.3	1.269	2.198	14.1	21.4
6 20	19 22.02	-20 34.6	1.631	2.608	7.8	21.6	6 20	19 24.52	-26 44.9	1.220	2.201	9.3	21.2
6 30	19 12.53	-20 51.5	1.610	2.619	3.3	21.4	6 30	19 13.72	-26 47.4	1.194	2.204	4.2	20.9
7 10	19 2.34	-21 8.9	1.615	2.630	1.4	21.2	7 10	19 1.88	-26 42.2	1.193	2.207	2.6	20.8
7 20	18 52.58	-21 25.0	1.647	2.641	5.8	21.6	7 20	18 50.60	-26 28.0	1.216	2.209	7.5	21.1
7 30	18 44.34	-21 38.5	1.705	2.651	9.9	21.8	7 30	18 41.43	-26 6.1	1.262	2.211	12.4	21.4
8 9	18 38.40	-21 49.1	1.785	2.661	13.5	22.1	8 9	18 35.39	-25 39.4	1.330	2.214	16.6	21.6
251844	1999 TV ₂₆₇		7 7.0 252°13	0°9/ 7.2 18			18365	Shimomoto		7 7.0 46°38	4°3/ 5.4 18		
5 31	19 31.08	-20 36.7	2.534	3.361	11.5	20.7	5 31	19 32.39	-31 52.7	2.079	2.921	13.2	16.6
6 10	19 26.14	-20 17.6	2.438	3.350	9.0	20.5	6 10	19 27.78	-32 51.1	2.007	2.924	10.3	16.4
6 20	19 19.43	-20 0.4	2.364	3.338	5.9	20.3	6 20	19 20.81	-33 47.9	1.957	2.927	7.3	16.2
6 30	19 11.42	-19 44.4	2.317	3.326	2.7	20.0	6 30	19 12.09	-34 37.9	1.933	2.930	4.8	16.1
7 10	19 2.81	-19 29.2	2.299	3.313	1.4	19.9	7 10	19 2.56	-35 16.5	1.935	2.933	4.6	16.1
7 20	18 54.36	-19 14.4	2.309	3.301	4.6	20.1	7 20	18 53.29	-35 41.1	1.964	2.937	7.0	16.2
7 30	18 46.85	-19 0.1	2.347	3.288	7.8	20.3	7 30	18 45.34	-35 51.3	2.018	2.940	10.0	16.4
8 9	18 40.91	-18 46.6	2.409	3.275	10.8	20.5	8 9	18 39.54	-35 48.9	2.095	2.944	12.8	16.6
225823	2001 XR ₄		7 7.0 125°39	3°5/ 5.1 18			324353	2006 QR ₅₅		7 7.0 324°42	0°9/ 6.9 17		
5 31	19 39.56	-27 27.2	2										