

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
248376	2005 <i>RV</i> ₂₀		4 8.9 208°26	4.9/14.9	18		497405	2005 <i>WF</i> ₁₇		4 9.0 21°22	3.9/12.4	17	
3 2	13 34.73	-26 7.5	2.734	3.438	13.1	20.6	3 2	13 30.56	-19 49.2	1.363	2.160	19.7	20.0
3 12	13 30.66	-26 27.5	2.630	3.435	11.1	20.5	3 12	13 28.73	-19 42.3	1.294	2.169	16.1	19.8
3 22	13 24.80	-26 31.2	2.547	3.432	8.9	20.3	3 22	13 24.12	-19 8.7	1.243	2.179	11.9	19.6
4 1	13 17.60	-26 17.5	2.488	3.429	6.6	20.2	4 1	13 17.42	-18 9.2	1.213	2.190	7.3	19.4
4 11	13 9.73	-25 47.0	2.457	3.425	5.1	20.0	4 11	13 9.83	-16 49.4	1.207	2.202	4.0	19.2
4 21	13 1.93	-25 2.4	2.453	3.422	5.3	20.1	4 21	13 2.61	-15 18.4	1.226	2.216	6.0	19.3
5 1	12 54.96	-24 8.2	2.477	3.418	7.1	20.2	5 1	12 56.95	-13 47.2	1.269	2.230	10.3	19.6
5 11	12 49.43	-23 10.1	2.528	3.414	9.5	20.3	5 11	12 53.67	-12 26.2	1.334	2.245	14.5	19.9
403793	2011 <i>SG</i> ₂₃₁		4 8.9 162°16	0.7/ 9.7	17		466563	2014 <i>TJ</i> ₂₃		4 9.0 123°58	0.4/ 8.7	16	
3 2	13 39.17	-12 34.6	1.853	2.640	15.7	22.8	3 2	13 39.46	- 8 20.2	1.764	2.567	15.7	21.9
3 12	13 34.61	-12 9.0	1.768	2.646	12.4	22.6	3 12	13 34.87	- 8 5.2	1.687	2.576	12.2	21.7
3 22	13 27.65	-11 27.4	1.705	2.651	8.5	22.4	3 22	13 27.85	- 7 38.1	1.632	2.584	8.2	21.5
4 1	13 18.94	-10 32.1	1.668	2.656	4.1	22.1	4 1	13 19.03	- 7 2.2	1.602	2.593	3.7	21.2
4 11	13 9.41	- 9 28.4	1.658	2.660	1.0	21.9	4 11	13 9.43	- 6 22.3	1.599	2.601	1.2	21.1
4 21	13 0.15	- 8 22.9	1.677	2.663	5.3	22.2	4 21	13 0.14	- 5 44.3	1.625	2.608	5.7	21.4
5 1	12 52.15	- 7 22.7	1.723	2.666	9.5	22.4	5 1	12 52.18	- 5 13.8	1.676	2.616	10.0	21.7
5 11	12 46.17	- 6 33.8	1.793	2.668	13.3	22.7	5 11	12 46.31	- 4 54.9	1.751	2.623	13.7	21.9
109466	2001 <i>QW</i> ₂₁₅		4 8.9 200°14	0.5/ 8.3	18		86251	1999 <i>TE</i> ₁₈₃		4 9.0 247°81	1.2/ 7.6	18	
3 2	13 34.49	- 7 43.4	2.694	3.483	11.2	20.9	3 2	13 32.15	- 6 18.3	2.681	3.480	11.0	20.0
3 12	13 30.25	- 7 18.1	2.598	3.480	8.7	20.7	3 12	13 28.51	- 5 39.3	2.580	3.469	8.5	19.8
3 22	13 24.40	- 6 44.3	2.526	3.476	5.8	20.5	3 22	13 23.29	- 4 51.7	2.504	3.458	5.6	19.6
4 1	13 17.38	- 6 4.5	2.482	3.472	2.6	20.3	4 1	13 16.91	- 3 58.6	2.455	3.446	2.5	19.4
4 11	13 9.81	- 5 22.4	2.467	3.468	1.1	20.1	4 11	13 9.96	- 3 4.3	2.435	3.434	1.7	19.3
4 21	13 2.35	- 4 42.0	2.482	3.463	4.3	20.4	4 21	13 3.09	- 2 13.2	2.445	3.422	4.7	19.5
5 1	12 55.66	- 4 7.1	2.526	3.458	7.5	20.5	5 1	12 56.95	- 1 29.7	2.484	3.410	7.8	19.7
5 11	12 50.28	- 3 41.0	2.596	3.452	10.3	20.7	5 11	12 52.07	- 0 56.9	2.547	3.397	10.6	19.9
95441	2002 <i>CW</i> ₂₄₄		4 8.9 304°33	1.7/10.8	18		374451	2005 <i>XF</i> ₄		4 9.0 171°65	1.9/ 7.0	17	
3 2	13 33.71	-14 23.2	2.396	3.170	12.9	19.6	3 2	13 37.04	- 4 13.3	2.291	3.093	12.6	22.3
3 12	13 29.96	-14 23.9	2.298	3.166	10.3	19.4	3 12	13 32.45	- 3 34.5	2.206	3.097	9.7	22.1
3 22	13 24.37	-14 12.2	2.223	3.161	7.3	19.2	3 22	13 25.97	- 2 47.8	2.145	3.100	6.4	21.9
4 1	13 17.42	-13 49.0	2.174	3.156	4.0	18.9	4 1	13 18.12	- 1 57.1	2.112	3.102	3.0	21.7
4 11	13 9.79	-13 17.1	2.152	3.151	1.7	18.8	4 11	13 9.67	- 1 7.5	2.107	3.104	2.4	21.6
4 21	13 2.26	-12 40.2	2.160	3.147	4.1	18.9	4 21	13 1.42	- 0 24.0	2.132	3.105	5.6	21.9
5 1	12 55.60	-12 2.8	2.195	3.142	7.5	19.1	5 1	12 54.14	+ 0 9.1	2.185	3.106	9.0	22.1
5 11	12 50.42	-11 29.7	2.255	3.138	10.6	19.3	5 11	12 48.44	+ 0 29.2	2.262	3.106	12.0	22.3
191944	2005 <i>UG</i> ₄₈		4 8.9 264°43	3.6/ 6.5	18		22116	2000 <i>RK</i> ₇₁		4 9.0 253°21	1.9/ 6.3	18	
3 2	13 39.76	- 1 59.7	1.469	2.297	17.1	20.3	3 2	13 30.17	- 2 4.7	3.155	3.962	9.4	19.0
3 12	13 35.92	- 1 21.5	1.377	2.281	13.4	20.1	3 12	13 26.68	- 1 29.0	3.065	3.958	7.2	18.8
3 22	13 29.06	- 0 32.8	1.305	2.264	9.0	19.8	3 22	13 21.91	- 0 48.6	2.999	3.954	4.7	18.7
4 1	13 19.78	+ 0 20.5	1.257	2.247	4.7	19.5	4 1	13 16.24	- 0 6.7	2.962	3.951	2.4	18.5
4 11	13 9.17	+ 1 10.4	1.235	2.229	4.4	19.4	4 11	13 10.15	+ 0 33.1	2.954	3.947	2.3	18.5
4 21	12 58.59	+ 1 48.6	1.239	2.211	8.8	19.6	4 21	13 4.16	+ 1 7.7	2.976	3.943	4.6	18.6
5 1	12 49.43	+ 2 8.9	1.267	2.193	13.7	19.8	5 1	12 58.79	+ 1 34.1	3.026	3.939	7.1	18.8
5 11	12 42.76	+ 2 7.7	1.316	2.175	18.1	20.0	5 11	12 54.46	+ 1 50.3	3.101	3.935	9.3	19.0
85647	1998 <i>PZ</i>		4 9.0 156°85	1.6/ 7.9	18		61247	2000 <i>OF</i> ₂₃		4 9.0 248°08	6.4/ 2.5	18	
3 2	13 43.35	- 5 8.7	1.715	2.519	16.0	19.8	3 2	13 36.93	+ 7 51.6	2.018	2.843	13.2	19.1
3 12	13 37.97	- 4 50.4	1.636	2.527	12.4	19.6	3 12	13 32.76	+ 9 2.5	1.933	2.830	10.5	18.9
3 22	13 29.95	- 4 22.3	1.579	2.533	8.2	19.4	3 22	13 26.40	+10 14.6	1.871	2.816	7.9	18.7
4 1	13 20.00	- 3 48.4	1.548	2.539	3.7	19.1	4 1	13 18.40	+11 20.5	1.835	2.802	6.4	18.5
4 11	13 9.17	- 3 14.2	1.545	2.544	2.2	19.0	4 11	13 9.59	+12 12.6	1.827	2.787	7.3	18.6
4 21	12 58.66	- 2 45.3	1.570	2.549	6.5	19.3	4 21	13 0.92	+12 45.2	1.845	2.772	9.8	18.7
5 1	12 49.59	- 2 26.8	1.622	2.553	10.9	19.6	5 1	12 53.31	+12 55.0	1.888	2.757	12.8	18.8
5 11	12 42.77	- 2 21.8	1.697	2.556	14.6	19.8	5 11	12 47.48	+12 41.7	1.952	2.742	15.6	19.0
362961	2013 <i>BT</i> ₂₄		4 9.0 183°53	5.5/ 1.2	18		150862	2001 <i>SW</i> ₁₄₀		4 9.0 158°76	0.0/ 8.8	18	
3 2	13 32.24	+ 9 55.2	2.729	3.549	10.3	20.6	3 2	13 36.40	-10 26.4	2.038	2.832	14.2	21.0
3 12	13 28.46	+11 11.5	2.658	3.549	8.2	20.4	3 12	13 32.24	- 9 55.5	1.953	2.836	11.1	20.8
3 22	13 23.16	+12 26.8	2.612	3.549	6.4	20.3	3 22	13 25.97	- 9 11.3	1.891	2.840	7.5	20.6
4 1	13 16.80	+13 35.3	2.593	3.549	5.5	20.3	4 1	13 18.17	- 8 16.7	1.854	2.844	3.4	20.3
4 11	13 9.98	+14 31.5	2.604	3.548	6.3	20.3	4 11	13 9.68	- 7 16.9	1.846	2.848	0.9	20.1
4 21	13 3.32	+15 11.6	2.641	3.547	8.1	20.4	4 21	13 1.41	- 6 17.8	1.866	2.851	5.1	20.5
5 1	12 57.44	+15 33.2	2.704	3.546	10.2	20.6	5 1	12 54.23	- 5 25.4	1.914	2.853	9.0	20.7
5 11	12 52.81	+15 36.1	2.788	3.545	12.2	20.7	5 11	12 48.82	- 4 44.4	1.986	2.855	12.4	20.9
176672	2002 <i>PR</i> ₃₉		4 9.0 173°14	0.7/ 8.3	16		60981	2000 <i>KP</i> ₁₂		4 9.0 141°15	1.6/ 7.8	18	
3 2	13 37.91	- 8 26.8	2.117	2.911	13.7	21.7	3 2	13 39.00	- 6 26.3	1.501	2.320	17.2	19.5
3 12	13 33.31	- 7 51.8	2.030	2.914	10.7	21.5	3 12	13 34.99	- 5 56.4	1.424	2.323	13.4	19.3
3 22	13 26.63	- 7 5.1	1.966	2.917	7.1	21.3	3 22	13 28.18	- 5 13.2	1.369	2.326	8.9	19.0
4 1	13 18.45	- 6 10.1	1.929	2.919	3.1	21.1	4 1	13 19.28	- 4 21.6	1.338	2.329	4.0	18.7
4 11	13 9.57	- 5 11.9	1.920	2.921	1.3	20.9	4 11	13 9.41	- 3 28.5	1.333	2.332	2.3	18.6
4 21	13 0.90	- 4 16.3	1.941	2.922	5.3	21.2	4 21	12 59.86	- 2 41.4	1.354	2.335	7.1	18.9
5 1	12 53.30	- 3 28.8	1.989	2.922	9.1	21.4	5 1	12 51.82	- 2 6.9	1.400	2.337	11.8	19.2
5 11	12 47.43	- 2 53.6	2.062	2.921	12.4	21.6	5 11	12 46.15	- 1 49.3	1.468	2.339	15.9	19.4
248961	2006 <i>YW</i> ₃		4 9.0 293°82	3.4/ 5.4	17		310894	2003 <i>RF</i> ₅		4 9.0 152°56	0.1/ 8.9	18	
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EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
238888	2005 YR ₇₁		4 9.0 99°08	0°5/ 8.6	18		122164	2000 KA ₃		4 9.0 256°27	6°3/16.4	18	
3 2	13 41.03	- 8 8.4	1.455	2.269	17.9	20.9	3 2	13 36.61	-31 12.3	2.280	2.963	15.9	19.9
3 12	13 36.56	- 7 54.7	1.386	2.280	14.0	20.7	3 12	13 32.75	-30 58.6	2.155	2.941	13.9	19.7
3 22	13 29.21	- 7 27.2	1.336	2.291	9.3	20.4	3 22	13 26.57	-30 19.0	2.048	2.918	11.4	19.5
4 1	13 19.73	- 6 49.5	1.311	2.302	4.2	20.2	4 1	13 18.59	-29 10.8	1.964	2.895	8.7	19.3
4 11	13 9.33	- 6 7.7	1.312	2.313	1.4	20.0	4 11	13 9.65	-27 34.4	1.906	2.871	6.7	19.1
4 21	12 59.36	- 5 28.6	1.339	2.324	6.6	20.4	4 21	13 0.72	-25 34.4	1.877	2.846	6.6	19.0
5 1	12 51.04	- 4 58.8	1.392	2.334	11.4	20.7	5 1	12 52.84	-23 19.0	1.876	2.821	8.7	19.1
5 11	12 45.21	- 4 42.9	1.466	2.344	15.5	20.9	5 11	12 46.80	-20 59.0	1.903	2.795	11.8	19.2
292330	2006 SO ₁₈₃		4 9.0 117°80	0°2/ 8.8	17		198278	2004 TR ₂₈₂		4 9.0 130°44	1°5/ 7.4	17	
3 2	13 33.90	- 9 23.4	2.607	3.394	11.6	21.9	3 2	13 35.14	- 6 19.8	2.102	2.908	13.4	20.9
3 12	13 29.78	- 8 55.8	2.526	3.407	9.0	21.8	3 12	13 31.14	- 5 33.1	2.024	2.916	10.3	20.7
3 22	13 24.07	- 8 18.6	2.470	3.419	6.0	21.6	3 22	13 25.18	- 4 36.0	1.969	2.924	6.8	20.5
4 1	13 17.24	- 7 34.6	2.441	3.431	2.7	21.4	4 1	13 17.83	- 3 32.9	1.941	2.932	3.0	20.3
4 11	13 9.96	- 6 47.5	2.441	3.442	0.8	21.3	4 11	13 9.88	- 2 29.6	1.941	2.940	2.1	20.2
4 21	13 2.88	- 6 1.7	2.471	3.453	4.1	21.5	4 21	13 2.17	- 1 32.0	1.970	2.947	5.7	20.5
5 1	12 56.65	- 5 21.2	2.529	3.464	7.2	21.7	5 1	12 55.52	- 0 45.3	2.026	2.953	9.3	20.7
5 11	12 51.76	- 4 49.3	2.613	3.475	10.0	21.9	5 11	12 50.52	- 0 13.0	2.106	2.960	12.4	20.9
389734	2011 SC ₁₀₉		4 9.0 241°63	1°5/ 7.2	17		234922	2002 TX ₃₆₄		4 9.0 138°92	2°2/ 6.5	18	
3 2	13 31.94	- 6 12.5	2.425	3.230	11.9	21.5	3 2	13 32.00	- 5 19.9	2.122	2.936	13.0	20.5
3 12	13 28.51	- 5 19.7	2.331	3.223	9.1	21.3	3 12	13 28.76	- 4 13.3	2.039	2.937	10.0	20.3
3 22	13 23.37	- 4 16.9	2.261	3.217	6.0	21.1	3 22	13 23.63	- 2 55.8	1.979	2.937	6.5	20.1
4 1	13 16.99	- 3 8.0	2.218	3.209	2.7	20.9	4 1	13 17.15	- 1 32.6	1.947	2.938	3.1	19.9
4 11	13 10.01	- 1 58.3	2.205	3.202	2.1	20.8	4 11	13 10.05	- 0 10.4	1.943	2.938	2.9	19.9
4 21	13 3.16	- 0 53.5	2.220	3.195	5.3	21.0	4 21	13 3.14	+ 1 4.1	1.968	2.938	6.2	20.1
5 1	12 57.12	+ 0 1.6	2.264	3.187	8.6	21.2	5 1	12 57.20	+ 2 5.0	2.019	2.939	9.7	20.3
5 11	12 52.47	+ 0 43.1	2.331	3.180	11.5	21.4	5 11	12 52.82	+ 2 48.8	2.094	2.939	12.8	20.5
137506	1999 VA ₂₂		4 9.0 212°17	0°4/ 8.6	16		303686	2005 NN ₆₀		4 9.0 251°69	5°2/ 1.7	18	
3 2	13 38.20	- 9 14.1	2.134	2.924	13.7	21.4	3 2	13 32.20	+ 7 3.6	2.656	3.476	10.5	20.8
3 12	13 33.67	- 8 42.9	2.035	2.917	10.8	21.1	3 12	13 28.61	+ 8 27.4	2.565	3.460	8.3	20.6
3 22	13 26.99	- 7 59.1	1.958	2.908	7.2	20.9	3 22	13 23.42	+ 9 53.4	2.500	3.444	6.2	20.5
4 1	13 18.70	- 7 5.7	1.909	2.899	3.2	20.6	4 1	13 17.05	+11 15.6	2.464	3.428	5.2	20.4
4 11	13 9.59	- 6 7.5	1.888	2.889	1.1	20.4	4 11	13 10.09	+12 27.8	2.456	3.411	6.0	20.4
4 21	13 0.59	- 5 10.3	1.897	2.879	5.2	20.7	4 21	13 3.21	+13 25.0	2.476	3.394	8.1	20.5
5 1	12 52.59	- 4 19.9	1.933	2.867	9.2	20.9	5 1	12 57.05	+14 3.6	2.522	3.376	10.5	20.6
5 11	12 46.33	- 3 41.1	1.994	2.855	12.7	21.1	5 11	12 52.17	+14 22.6	2.590	3.358	12.8	20.7
359012	2008 UD ₂₁₅		4 9.0 122°02	2°2/10.7	18		410226	2007 SV ₁₉		4 9.0 134°58	0°3/ 8.8	18	
3 2	13 42.19	-14 28.7	1.638	2.421	17.5	21.9	3 2	13 39.91	- 9 11.2	1.870	2.666	15.2	22.5
3 12	13 37.25	-14 33.5	1.563	2.435	14.0	21.7	3 12	13 35.09	- 8 47.1	1.793	2.678	11.9	22.3
3 22	13 29.58	-14 21.0	1.508	2.448	9.9	21.5	3 22	13 27.94	- 8 10.4	1.739	2.689	7.9	22.1
4 1	13 19.89	-13 52.3	1.477	2.461	5.3	21.2	4 1	13 19.13	- 7 24.2	1.710	2.700	3.6	21.9
4 11	13 9.32	-13 11.1	1.474	2.473	2.2	21.1	4 11	13 9.60	- 6 33.9	1.709	2.711	1.1	21.7
4 21	12 59.11	-12 23.6	1.497	2.485	5.6	21.3	4 21	13 0.38	- 5 45.3	1.737	2.721	5.5	22.0
5 1	12 50.43	-11 36.8	1.547	2.496	9.9	21.6	5 1	12 52.45	- 5 4.3	1.792	2.730	9.6	22.3
5 11	12 44.11	-10 57.6	1.621	2.506	13.9	21.8	5 11	12 46.51	- 4 35.2	1.871	2.738	13.1	22.5
379900	2012 UL ₁₆₁		4 9.0 56°12	3°0/12.2	17		353477	2011 SG ₃₆		4 9.0 161°88	1°0/ 7.7	18	
3 2	13 33.98	-18 41.3	2.151	2.913	14.5	20.6	3 2	13 31.80	- 7 18.5	2.742	3.538	10.9	21.6
3 12	13 30.35	-18 41.9	2.068	2.923	11.8	20.4	3 12	13 28.15	- 6 29.9	2.654	3.541	8.4	21.4
3 22	13 24.71	-18 25.8	2.006	2.932	8.7	20.2	3 22	13 23.01	- 5 32.3	2.591	3.544	5.5	21.3
4 1	13 17.62	-17 53.7	1.969	2.942	5.4	20.1	4 1	13 16.82	- 4 29.1	2.556	3.547	2.4	21.1
4 11	13 9.90	-17 8.4	1.958	2.952	3.1	19.9	4 11	13 10.16	- 3 24.8	2.550	3.549	1.5	21.0
4 21	13 2.39	-16 14.7	1.976	2.962	4.6	20.0	4 21	13 3.66	- 2 24.1	2.575	3.552	4.5	21.2
5 1	12 55.93	-15 18.5	2.022	2.973	7.8	20.2	5 1	12 57.91	- 1 31.2	2.628	3.554	7.4	21.4
5 11	12 51.14	-14 25.8	2.092	2.983	10.9	20.5	5 11	12 53.39	- 0 49.4	2.706	3.556	10.1	21.6
517650	2015 BD ₅₄₃		4 9.0 205°05	6°1/ 1.7	17		499611	2010 TD ₁₈₇		4 9.0 265°75	3°7/11.5	17	
3 2	13 37.12	+10 40.2	2.460	3.274	11.4	21.9	3 2	13 42.16	-16 30.0	1.808	2.576	16.7	21.8
3 12	13 32.44	+11 47.7	2.382	3.269	9.2	21.8	3 12	13 37.62	-17 4.7	1.695	2.554	13.8	21.6
3 22	13 25.95	+12 53.5	2.328	3.263	7.1	21.6	3 22	13 30.22	-17 24.8	1.602	2.532	10.2	21.3
4 1	13 18.16	+13 51.5	2.302	3.257	6.2	21.6	4 1	13 20.44	-17 28.7	1.533	2.509	6.3	21.0
4 11	13 9.77	+14 35.6	2.304	3.250	6.9	21.6	4 11	13 9.21	-17 16.8	1.492	2.486	3.7	20.8
4 21	13 1.56	+15 1.7	2.333	3.242	8.9	21.7	4 21	12 57.77	-16 52.0	1.477	2.462	6.0	20.9
5 1	12 54.26	+15 7.8	2.388	3.234	11.3	21.8	5 1	12 47.43	-16 20.0	1.490	2.438	10.3	21.1
5 11	12 48.47	+14 53.9	2.464	3.226	13.5	22.0	5 11	12 39.31	-15 48.0	1.526	2.413	14.4	21.2
67606	2000 SY ₁₅₀		4 9.0 156°95	0°1/ 9.1	18		194035	2001 SU ₈₁		4 9.0 341°34	1°8/ 7.6	18	
3 2	13 36.84	-10 1.0	2.108	2.900	13.9	19.5	3 2	13 32.61	- 8 57.3	1.252	2.088	18.9	19.7
3 12	13 32.53	- 9 42.0	2.022	2.904	10.9	19.3	3 12	13 30.59	- 7 54.5	1.176	2.085	14.8	19.4
3 22	13 26.16	- 9 11.0	1.959	2.908	7.3	19.1	3 22	13 25.58	- 6 29.6	1.119	2.081	9.8	19.1
4 1	13 18.29	- 8 30.6	1.922	2.911	3.4	18.9	4 1	13 18.25	- 4 49.3	1.085	2.078	4.3	18.7
4 11	13 9.74	- 7 45.3	1.913	2.915	0.8	18.7	4 11	13 9.80	- 3 4.4	1.076	2.076	2.7	18.6
4 21	13 1.38	- 7 0.0	1.933	2.918	4.9	19.0	4 21	13 1.62	- 1 27.2	1.091	2.073	8.1	18.9
5 1	12 54.09	- 6 20.0	1.980	2.920	8.7	19.2	5 1	12 55.05	- 0 8.8	1.130	2.072	13.4	19.2
5 11	12 48.51	- 5 49.7	2.052	2.922	12.0	19.4	5 11	12 51.02	+ 0 43.9	1.188	2.070	18.0	19.5
3174	Alcock		4 9.0 102°46	0°8/ 8.1	18 R		331946	2004 TH ₂₄₃		4 9.0 197°73	2°7/12.2	17	
3 2	13 34.59	- 6 58.2	2.506	3.301	11.8	17.3							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
336439	2008 UZ ₂₈₂		4 9.0 217°61	1°9/ 7.2 17			7252	Kakegawa		4 9.1 232°98	4°4/ 4.6 18		
3 2	13 36.29	- 3 59.6	2.155	2.963	13.1	21.4	3 2	13 39.56	+ 4 33.3	2.394	3.203	11.9	18.5
3 12	13 32.10	- 3 30.2	2.066	2.959	10.1	21.2	3 12	13 34.49	+ 5 17.6	2.297	3.188	9.3	18.3
3 22	13 25.90	- 2 53.0	2.000	2.955	6.7	21.0	3 22	13 27.47	+ 6 4.1	2.223	3.172	6.6	18.1
4 1	13 18.22	- 2 11.7	1.960	2.951	3.1	20.7	4 1	13 18.96	+ 6 47.8	2.178	3.155	4.6	18.0
4 11	13 9.84	- 1 31.3	1.949	2.946	2.4	20.7	4 11	13 9.71	+ 7 23.2	2.162	3.138	5.0	18.0
4 21	13 1.61	- 0 56.7	1.967	2.942	5.8	20.9	4 21	13 0.53	+ 7 45.8	2.174	3.119	7.5	18.1
5 1	12 54.36	- 0 32.1	2.011	2.937	9.4	21.1	5 1	12 52.25	+ 7 52.7	2.214	3.100	10.5	18.2
5 11	12 48.77	- 0 20.6	2.080	2.931	12.6	21.3	5 11	12 45.53	+ 7 42.7	2.276	3.081	13.2	18.4
434859	2006 SF ₂₂₁		4 9.0 222°47	0°1/ 9.2 17			333205	2012 HA		4 9.1 334°59	9°5/ 6.5 17		
3 2	13 34.17	-10 12.6	2.434	3.222	12.3	21.8	3 2	13 59.08	+13 4.8	1.072	1.897	22.2	19.9
3 12	13 30.27	- 9 52.2	2.337	3.217	9.7	21.6	3 12	13 52.01	+12 59.1	1.002	1.895	18.2	19.6
3 22	13 24.60	- 9 20.9	2.265	3.213	6.5	21.4	3 22	13 40.37	+12 39.8	0.951	1.893	13.8	19.4
4 1	13 17.61	- 8 41.1	2.218	3.208	3.0	21.2	4 1	13 25.12	+11 56.2	0.921	1.892	10.2	19.2
4 11	13 9.99	- 7 56.6	2.201	3.203	0.7	21.0	4 11	13 8.23	+10 40.7	0.915	1.890	10.0	19.1
4 21	13 2.49	- 7 11.7	2.213	3.198	4.3	21.2	4 21	12 52.00	+ 8 53.4	0.934	1.889	13.5	19.3
5 1	12 55.84	- 6 31.0	2.253	3.192	7.8	21.4	5 1	12 38.55	+ 6 40.3	0.977	1.888	18.2	19.6
5 11	12 50.62	- 5 58.6	2.318	3.187	10.9	21.6	5 11	12 29.12	+ 4 10.5	1.040	1.888	22.6	19.8
94421	2001 TY ₃₃		4 9.0 4°23	5°5/12.8 18			477787	2011 BU ₇₀		4 9.1 100°32	0°8/10.3 18		
3 2	13 38.50	-19 57.5	1.381	2.164	20.3	19.3	3 2	13 30.39	-13 7.4	3.355	4.123	9.7	22.2
3 12	13 35.25	-20 38.4	1.300	2.163	16.8	19.0	3 12	13 26.81	-12 48.3	3.268	4.134	7.6	22.1
3 22	13 28.79	-20 57.0	1.236	2.163	12.8	18.8	3 22	13 22.01	-12 20.1	3.206	4.145	5.2	21.9
4 1	13 19.78	-20 50.7	1.193	2.164	8.5	18.5	4 1	13 16.37	-11 44.6	3.171	4.156	2.7	21.8
4 11	13 9.45	-20 20.5	1.174	2.164	5.6	18.4	4 11	13 10.37	-11 4.3	3.166	4.166	0.8	21.6
4 21	12 59.30	-19 31.7	1.180	2.165	7.2	18.5	4 21	13 4.51	-10 22.3	3.190	4.177	3.0	21.8
5 1	12 50.80	-18 33.2	1.210	2.166	11.3	18.7	5 1	12 59.26	- 9 41.9	3.245	4.187	5.5	22.0
5 11	12 45.04	-17 35.4	1.261	2.168	15.5	18.9	5 11	12 55.02	- 9 6.1	3.325	4.198	7.8	22.2
368962	2007 BZ ₄₃		4 9.0 57°74	8°0/ 1.4 18			515774	2015 KX ₃₈		4 9.1 62°78	1°5/10.9 17		
3 2	13 34.78	+ 7 26.2	1.509	2.354	15.8	20.0	3 2	13 32.19	-16 32.6	2.168	2.943	14.1	20.8
3 12	13 31.38	+ 9 23.0	1.467	2.375	12.4	19.9	3 12	13 28.86	-15 53.0	2.091	2.959	11.2	20.7
3 22	13 25.53	+11 19.0	1.448	2.397	9.4	19.7	3 22	13 23.66	-14 56.2	2.037	2.975	7.8	20.5
4 1	13 18.02	+13 2.9	1.454	2.419	8.0	19.7	4 1	13 17.18	-13 45.1	2.008	2.991	4.2	20.3
4 11	13 9.94	+14 24.1	1.486	2.441	9.2	19.8	4 11	13 10.17	-12 24.7	2.008	3.008	1.5	20.1
4 21	13 2.40	+15 16.4	1.542	2.463	11.8	20.0	4 21	13 3.45	-11 1.2	2.036	3.024	4.2	20.3
5 1	12 56.33	+15 37.6	1.620	2.485	14.8	20.2	5 1	12 57.75	- 9 41.5	2.092	3.041	7.7	20.6
5 11	12 52.39	+15 29.7	1.716	2.507	17.4	20.5	5 11	12 53.63	- 8 31.5	2.174	3.057	10.9	20.8
39512	1985 TA ₁		4 9.0 186°13	0°0/ 8.8 18			315966	2008 WA ₆₇		4 9.1 295°98	17°2/25.0 18		
3 2	13 38.69	-10 29.6	2.118	2.904	14.0	19.8	3 2	13 36.51	-43 37.7	1.200	1.872	28.1	20.0
3 12	13 34.02	- 9 57.7	2.025	2.904	11.0	19.6	3 12	13 35.41	-45 10.5	1.121	1.868	26.2	19.8
3 22	13 27.22	- 9 12.3	1.955	2.903	7.4	19.4	3 22	13 29.95	-46 2.6	1.052	1.864	23.8	19.6
4 1	13 18.84	- 8 16.5	1.912	2.902	3.4	19.2	4 1	13 20.67	-46 1.3	0.996	1.860	21.2	19.4
4 11	13 9.71	- 7 15.1	1.898	2.900	0.9	18.9	4 11	13 9.25	-44 57.6	0.954	1.857	18.8	19.2
4 21	13 0.75	- 6 13.9	1.913	2.896	5.0	19.2	4 21	12 57.99	-42 50.4	0.930	1.853	17.4	19.1
5 1	12 52.86	- 5 19.0	1.956	2.893	9.0	19.5	5 1	12 49.21	-39 50.5	0.925	1.850	17.6	19.1
5 11	12 46.72	- 4 35.3	2.024	2.888	12.4	19.7	5 11	12 44.47	-36 19.3	0.939	1.847	19.4	19.2
176005	2000 RW ₃₄		4 9.0 221°07	3°4/12.8 18			435301	2007 TD ₄₅₂		4 9.1 89°00	6°4/ 2.8 17		
3 2	13 37.44	-20 7.3	2.814	3.545	12.2	20.7	3 2	13 38.11	+11 16.4	2.223	3.040	12.4	21.0
3 12	13 32.72	-20 30.5	2.705	3.537	10.1	20.6	3 12	13 33.30	+12 2.1	2.157	3.046	9.9	20.8
3 22	13 26.22	-20 41.2	2.619	3.529	7.6	20.4	3 22	13 26.56	+12 44.1	2.115	3.051	7.7	20.7
4 1	13 18.38	-20 38.8	2.559	3.521	5.1	20.2	4 1	13 18.48	+13 16.3	2.099	3.057	6.4	20.6
4 11	13 9.83	-20 24.1	2.527	3.513	3.5	20.1	4 11	13 9.87	+13 33.4	2.110	3.063	7.0	20.7
4 21	13 1.31	-19 59.5	2.525	3.504	4.4	20.1	4 21	13 1.56	+13 32.2	2.149	3.068	9.1	20.8
5 1	12 53.55	-19 28.5	2.551	3.494	6.8	20.3	5 1	12 54.33	+13 11.6	2.212	3.074	11.5	21.0
5 11	12 47.15	-18 55.8	2.604	3.485	9.4	20.4	5 11	12 48.76	+12 32.8	2.298	3.080	13.8	21.1
225504	2000 QR ₁₅		4 9.0 254°11	0°9/ 9.9 18			327380	2005 UG ₃₄₉		4 9.1 191°65	3°6/10.3 18		
3 2	13 37.02	-12 33.2	2.156	2.937	13.9	21.1	3 2	13 56.04	-10 51.1	1.276	2.065	21.3	20.8
3 12	13 32.92	-12 18.7	2.045	2.918	11.1	20.9	3 12	13 49.49	-12 14.7	1.190	2.064	17.3	20.6
3 22	13 26.65	-11 50.2	1.955	2.899	7.7	20.6	3 22	13 38.78	-13 30.0	1.123	2.064	12.4	20.3
4 1	13 18.67	-11 9.3	1.892	2.879	3.9	20.3	4 1	13 24.55	-14 33.3	1.079	2.062	7.0	20.0
4 11	13 9.75	-10 19.4	1.857	2.858	1.0	20.1	4 11	13 8.32	-15 22.1	1.062	2.060	3.6	19.7
4 21	13 0.82	- 9 25.6	1.851	2.837	4.8	20.3	4 21	12 52.13	-15 56.6	1.073	2.058	7.7	20.0
5 1	12 52.80	- 8 33.8	1.872	2.815	8.9	20.5	5 1	12 38.03	-16 20.7	1.109	2.054	13.2	20.3
5 11	12 46.49	- 7 49.8	1.918	2.793	12.5	20.7	5 11	12 27.49	-16 41.2	1.167	2.051	18.2	20.5
9082	Leonardmartin		4 9.0 248°39	8°1/29.9 18			302193	2001 UA		4 9.1 246°64	2°6/ 7.1 17		
3 2	13 44.08	+21 13.1	2.785	3.567	11.1	19.7	3 2	13 41.89	- 3 12.8	1.808	2.616	15.2	21.7
3 12	13 37.79	+22 12.4	2.694	3.542	9.6	19.5	3 12	13 37.13	- 2 41.0	1.703	2.597	11.9	21.4
3 22	13 29.55	+23 3.9	2.627	3.517	8.5	19.4	3 22	13 29.71	- 1 59.4	1.621	2.576	8.0	21.2
4 1	13 19.87	+23 41.0	2.588	3.491	8.1	19.3	4 1	13 20.17	- 1 12.7	1.565	2.555	3.9	20.9
4 11	13 9.48	+23 58.4	2.576	3.464	8.9	19.4	4 11	13 9.43	- 0 26.9	1.537	2.533	3.2	20.8
4 21	12 59.19	+23 52.9	2.591	3.436	10.4	19.4	4 21	12 58.65	+ 0 11.4	1.537	2.510	7.3	21.0
5 1	12 49.80	+23 23.9	2.630	3.407	12.3	19.5	5 1	12 49.02	+ 0 36.6	1.563	2.486	11.8	21.2
5 11	12 41.97	+22 33.1	2.691	3.378	14.1	19.6	5 11	12 41.49	+ 0 44.8	1.612	2.461	15.8	21.4
225868	2001 XE ₂₂₉		4 9.1 60°02	0°5/ 8.4 17			35145	1993 AM		4 9.1 60°10	6°7/15.0 18		
3 2	13 31.34	- 7 9.5	2.984	3.778	10.2	20.9	3 2	13 38.28</					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
83786	2001 <i>TT</i> ₂₀₃		4 9.1 132°43	4.2/ 4.3	18		430201	2013 <i>TX</i> ₁₃₇		4 9.1 140°37	2.8/ 6.1	17	
3 2	13 35.89	+ 5 2.7	2.500	3.314	11.3	19.9	3 2	13 36.22	- 1 18.0	2.309	3.119	12.2	21.6
3 12	13 31.38	+ 5 48.1	2.428	3.323	8.7	19.7	3 12	13 31.80	- 0 31.4	2.233	3.128	9.4	21.4
3 22	13 25.20	+ 6 34.4	2.382	3.331	6.2	19.6	3 22	13 25.57	+ 0 20.9	2.182	3.137	6.2	21.3
4 1	13 17.86	+ 7 16.7	2.363	3.339	4.4	19.5	4 1	13 18.08	+ 1 14.3	2.158	3.145	3.4	21.1
4 11	13 10.05	+ 7 50.2	2.372	3.346	4.8	19.5	4 11	13 10.05	+ 2 3.5	2.163	3.153	3.3	21.1
4 21	13 2.47	+ 8 11.2	2.410	3.353	7.0	19.7	4 21	13 2.25	+ 2 43.7	2.197	3.161	6.2	21.3
5 1	12 55.80	+ 8 17.4	2.475	3.360	9.6	19.8	5 1	12 55.43	+ 3 11.3	2.258	3.168	9.3	21.5
5 11	12 50.55	+ 8 8.4	2.563	3.367	11.9	20.0	5 11	12 50.15	+ 3 24.3	2.342	3.175	12.0	21.7
171883	2001 <i>QH</i> ₃₂₈		4 9.1 82°20	4.8/ 3.1	18		18040	1999 <i>NC</i> ₆₀		4 9.1 147°07	1.7/ 11.1	18	
3 2	13 34.41	+ 5 19.3	2.393	3.213	11.5	19.6	3 2	13 35.01	- 17 0.6	2.280	3.044	13.8	18.8
3 12	13 30.19	+ 6 37.1	2.343	3.240	8.9	19.5	3 12	13 31.03	- 16 26.1	2.191	3.052	11.0	18.6
3 22	13 24.35	+ 7 55.4	2.319	3.267	6.4	19.4	3 22	13 25.15	- 15 34.6	2.125	3.059	7.8	18.4
4 1	13 17.44	+ 9 8.1	2.322	3.294	4.9	19.3	4 1	13 17.92	- 14 28.2	2.085	3.066	4.3	18.2
4 11	13 10.17	+ 10 9.3	2.355	3.320	5.5	19.4	4 11	13 10.09	- 13 11.2	2.073	3.072	1.7	18.0
4 21	13 3.23	+ 10 54.8	2.415	3.346	7.6	19.6	4 21	13 2.48	- 11 49.7	2.091	3.078	4.2	18.2
5 1	12 57.27	+ 11 22.1	2.501	3.371	10.0	19.8	5 1	12 55.86	- 10 30.1	2.137	3.084	7.7	18.4
5 11	12 52.74	+ 11 31.1	2.609	3.397	12.2	20.0	5 11	12 50.83	- 9 18.7	2.210	3.089	10.9	18.7
196907	2003 <i>TC</i> ₁₉		4 9.1 194°07	0.2/ 9.3	18		224981	2007 <i>EJ</i> ₈₀		4 9.1 326°41	0.2/ 9.3	17	
3 2	13 35.29	- 10 50.6	2.317	3.103	12.9	21.0	3 2	13 35.46	- 10 15.6	1.737	2.543	15.8	20.5
3 12	13 31.23	- 10 26.3	2.223	3.102	10.1	20.8	3 12	13 32.05	- 10 1.8	1.649	2.539	12.4	20.3
3 22	13 25.30	- 9 50.0	2.153	3.100	6.9	20.6	3 22	13 26.21	- 9 33.9	1.583	2.535	8.4	20.0
4 1	13 17.99	- 9 4.1	2.109	3.098	3.2	20.4	4 1	13 18.52	- 8 54.3	1.541	2.531	3.9	19.7
4 11	13 10.02	- 8 12.8	2.094	3.095	0.7	20.2	4 11	13 9.93	- 8 8.0	1.526	2.528	0.9	19.5
4 21	13 2.19	- 7 20.9	2.108	3.093	4.5	20.5	4 21	13 1.50	- 7 21.0	1.538	2.525	5.6	19.8
5 1	12 55.28	- 6 33.6	2.150	3.090	8.1	20.7	5 1	12 54.28	- 6 39.9	1.576	2.522	10.0	20.0
5 11	12 49.91	- 5 55.3	2.217	3.086	11.3	20.9	5 11	12 49.08	- 6 10.1	1.636	2.519	13.9	20.3
505329	2013 <i>AC</i> ₆		4 9.1 174°77	2.3/ 11.8	17		246902	1998 <i>DT</i> ₁₉		4 9.1 28°48	3.8/ 11.9	17	
3 2	13 33.70	- 18 1.8	2.603	3.356	12.5	22.3	3 2	13 41.34	- 16 35.1	2.027	2.788	15.4	20.2
3 12	13 29.84	- 17 48.8	2.506	3.357	10.1	22.1	3 12	13 36.35	- 17 28.9	1.939	2.793	12.6	20.0
3 22	13 24.29	- 17 21.3	2.432	3.358	7.4	21.9	3 22	13 28.97	- 18 10.2	1.874	2.799	9.3	19.8
4 1	13 17.51	- 16 40.3	2.384	3.359	4.4	21.7	4 1	13 19.76	- 18 37.5	1.833	2.805	5.9	19.6
4 11	13 10.14	- 15 48.6	2.364	3.360	2.3	21.6	4 11	13 9.65	- 18 51.0	1.820	2.811	3.8	19.5
4 21	13 2.92	- 14 50.4	2.374	3.360	3.9	21.7	4 21	12 59.67	- 18 52.8	1.836	2.818	5.4	19.6
5 1	12 56.52	- 13 50.6	2.412	3.360	6.9	21.9	5 1	12 50.86	- 18 47.0	1.879	2.825	8.6	19.8
5 11	12 51.51	- 12 54.6	2.476	3.360	9.7	22.0	5 11	12 44.01	- 18 38.8	1.946	2.832	11.8	20.0
302838	2003 <i>FB</i> ₅₅		4 9.1 1°72	5.3/ 3.8	17		470481	2008 <i>BN</i> ₄		4 9.1 192°03	3.6/ 12.9	17	
3 2	13 31.52	+ 3 50.4	1.829	2.667	13.8	19.5	3 2	13 36.09	- 20 14.3	2.533	3.272	13.2	21.6
3 12	13 28.70	+ 4 54.1	1.757	2.666	10.7	19.3	3 12	13 31.84	- 20 32.0	2.434	3.271	10.9	21.4
3 22	13 23.77	+ 6 1.2	1.709	2.665	7.6	19.1	3 22	13 25.73	- 20 35.3	2.357	3.271	8.2	21.2
4 1	13 17.32	+ 7 4.7	1.686	2.666	5.4	19.0	4 1	13 18.22	- 20 23.9	2.305	3.270	5.5	21.0
4 11	13 10.19	+ 7 57.1	1.690	2.667	6.1	19.0	4 11	13 10.03	- 19 59.3	2.281	3.269	3.6	20.9
4 21	13 3.31	+ 8 32.5	1.720	2.668	8.9	19.2	4 21	13 1.92	- 19 24.3	2.286	3.267	4.6	21.0
5 1	12 57.53	+ 8 47.4	1.773	2.671	12.1	19.4	5 1	12 54.69	- 18 43.4	2.319	3.266	7.2	21.1
5 11	12 53.52	+ 8 41.0	1.848	2.674	15.0	19.6	5 11	12 48.95	- 18 2.0	2.378	3.264	10.0	21.3
110774	2001 <i>UT</i> ₂₉		4 9.1 280°84	5.9/ 4.7	17		329033	2011 <i>AV</i> ₃₀		4 9.1 36°81	0.6/ 9.8	17	
3 2	13 41.24	+ 6 44.5	1.743	2.567	15.0	19.3	3 2	13 31.16	- 11 36.6	2.781	3.563	11.1	21.3
3 12	13 36.41	+ 7 18.4	1.664	2.562	11.8	19.1	3 12	13 27.70	- 11 22.8	2.696	3.571	8.7	21.1
3 22	13 29.04	+ 7 51.8	1.608	2.558	8.6	18.9	3 22	13 22.77	- 10 59.4	2.634	3.578	5.9	20.9
4 1	13 19.76	+ 8 18.0	1.577	2.553	6.2	18.7	4 1	13 16.80	- 10 28.1	2.599	3.586	2.9	20.7
4 11	13 9.60	+ 8 30.5	1.573	2.548	6.6	18.7	4 11	13 10.38	- 9 52.1	2.592	3.594	0.7	20.6
4 21	12 59.71	+ 8 24.7	1.595	2.544	9.5	18.9	4 21	13 4.12	- 9 14.8	2.616	3.602	3.6	20.8
5 1	12 51.15	+ 7 58.8	1.642	2.539	12.9	19.1	5 1	12 58.58	- 8 39.9	2.667	3.610	6.5	21.0
5 11	12 44.75	+ 7 13.3	1.711	2.534	16.1	19.3	5 11	12 54.27	- 8 10.9	2.744	3.619	9.2	21.2
326429	2001 <i>TF</i> ₂₀₇		4 9.1 341°03	0.6/ 9.4	17		302120	2001 <i>QO</i> ₁₃		4 9.1 224°80	1.0/ 9.8	16	
3 2	13 40.27	- 7 33.6	1.418	2.236	18.1	19.7	3 2	13 41.04	- 12 7.1	1.841	2.626	15.8	21.8
3 12	13 36.47	- 8 8.5	1.332	2.228	14.4	19.5	3 12	13 36.43	- 11 57.1	1.740	2.616	12.6	21.5
3 22	13 29.57	- 8 34.2	1.266	2.220	9.8	19.2	3 22	13 29.22	- 11 31.9	1.659	2.604	8.8	21.3
4 1	13 20.19	- 8 51.6	1.223	2.213	4.7	18.9	4 1	13 19.96	- 10 53.0	1.604	2.591	4.3	21.0
4 11	13 9.49	- 9 3.4	1.205	2.207	1.1	18.6	4 11	13 9.60	- 10 4.4	1.577	2.578	1.1	20.7
4 21	12 58.88	- 9 13.1	1.213	2.202	6.4	18.9	4 21	12 59.27	- 9 11.8	1.577	2.564	5.5	21.0
5 1	12 49.80	- 9 25.1	1.246	2.197	11.6	19.2	5 1	12 50.13	- 8 22.2	1.605	2.549	10.0	21.2
5 11	12 43.31	- 9 43.7	1.301	2.193	16.1	19.4	5 11	12 43.07	- 7 41.8	1.657	2.533	14.1	21.4
507424	2012 <i>QT</i> ₂₈		4 9.1 271°69	1.7/ 10.8	17		136937	1998 <i>QT</i> ₂₈		4 9.1 283°46	3.2/ 11.6	17	
3 2	13 34.44	- 15 33.5	2.105	2.881	14.4	22.4	3 2	13 35.75	- 17 27.7	1.653	2.436	17.4	20.3
3 12	13 31.02	- 15 13.1	1.992	2.861	11.6	22.2	3 12	13 32.64	- 17 29.7	1.556	2.425	14.2	20.1
3 22	13 25.44	- 14 35.6	1.902	2.840	8.3	21.9	3 22	13 26.84	- 17 11.3	1.478	2.414	10.4	19.8
4 1	13 18.17	- 13 42.1	1.836	2.820	4.5	21.7	4 1	13 18.91	- 16 32.3	1.424	2.403	6.2	19.6
4 11	13 9.98	- 12 36.3	1.799	2.799	1.7	21.4	4 11	13 9.85	- 15 36.0	1.395	2.392	3.2	19.3
4 21	13 1.79	- 11 23.7	1.789	2.777	4.7	21.6	4 21	13 0.85	- 14 28.4	1.392	2.381	5.7	19.5
5 1	12 54.52	- 10 11.3	1.808	2.756	8.8	21.8	5 1	12 53.11	- 13 18.1	1.416	2.370	10.1	19.7
5 11	12 48.95	- 9 6.2	1.851	2.734	12.5	22.0	5 11	12 47.58	- 12 13.9	1.462	2.359	14.3	19.9
171276	2006 <i>FP</i> ₁₂		4 9.1 293°30	0.8/ 8.6	18		301						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
119296	2001 <i>SD</i> ₁₀		4 9.1 116°50	1.6°/10.8	18		383272	2006 <i>DZ</i> ₁₀₄		4 9.1 161°45	3.1°/12.0	17	
3 2	13 35.53	-16 51.1	2.035	2.806	15.0	20.0	3 2	13 39.07	-17 57.1	2.341	3.090	13.9	21.4
3 12	13 31.60	-16 7.2	1.955	2.820	11.9	19.8	3 12	13 34.24	-18 13.5	2.247	3.094	11.3	21.2
3 22	13 25.60	-15 4.4	1.896	2.834	8.4	19.6	3 22	13 27.37	-18 15.8	2.176	3.099	8.3	21.0
4 1	13 18.14	-13 45.4	1.864	2.847	4.5	19.4	4 1	13 18.99	-18 3.8	2.130	3.102	5.2	20.8
4 11	13 10.08	-12 15.7	1.860	2.860	1.6	19.2	4 11	13 9.88	-17 39.4	2.113	3.106	3.1	20.7
4 21	13 2.32	-10 42.7	1.884	2.872	4.6	19.5	4 21	13 0.91	-17 5.8	2.125	3.109	4.6	20.8
5 1	12 55.70	-9 13.9	1.937	2.884	8.4	19.7	5 1	12 52.93	-16 28.0	2.165	3.111	7.6	21.0
5 11	12 50.85	-7 56.1	2.016	2.896	11.8	19.9	5 11	12 46.62	-15 51.2	2.230	3.113	10.7	21.2
170343	2003 <i>SN</i> ₁₅₆		4 9.1 135°72	0.6°/9.6	18		5156	Golant		4 9.1 295°78	3.9°/5.8	18	
3 2	13 39.17	-11 5.5	1.688	2.486	16.5	20.4	3 2	13 34.62	-2 20.7	1.506	2.341	16.3	17.5
3 12	13 34.93	-10 54.9	1.608	2.492	13.0	20.2	3 12	13 31.91	-1 22.2	1.411	2.320	12.8	17.2
3 22	13 28.12	-10 29.4	1.548	2.497	8.9	19.9	3 22	13 26.46	-0 10.6	1.338	2.299	8.6	16.9
4 1	13 19.39	-9 51.3	1.513	2.502	4.2	19.7	4 1	13 18.79	+1 7.3	1.288	2.277	4.7	16.6
4 11	13 9.77	-9 5.6	1.505	2.506	0.9	19.4	4 11	13 9.90	+2 22.3	1.264	2.256	4.8	16.6
4 21	13 0.41	-8 18.4	1.524	2.511	5.6	19.8	4 21	13 1.02	+3 25.1	1.265	2.235	9.0	16.8
5 1	12 52.42	-7 36.3	1.569	2.515	10.1	20.0	5 1	12 53.39	+4 7.7	1.290	2.214	13.7	17.0
5 11	12 46.60	-7 5.0	1.638	2.519	14.0	20.3	5 11	12 48.02	+4 26.1	1.336	2.193	17.9	17.2
18779	Hattuyhong		4 9.1 49°01	2.0°/7.8	18		56502	2000 <i>GY</i> ₁₅₈		4 9.1 212°92	1.8°/7.3	18	
3 2	13 40.81	-4 4.7	1.392	2.217	17.9	17.7	3 2	13 37.16	-5 20.0	2.146	2.949	13.3	19.9
3 12	13 36.64	-3 55.5	1.320	2.223	14.0	17.4	3 12	13 32.87	-4 38.0	2.052	2.942	10.3	19.7
3 22	13 29.47	-3 36.7	1.269	2.228	9.3	17.2	3 22	13 26.52	-3 45.9	1.981	2.935	6.8	19.4
4 1	13 20.05	-3 12.7	1.242	2.233	4.3	16.9	4 1	13 18.62	-2 47.8	1.937	2.927	3.2	19.2
4 11	13 9.62	-2 49.6	1.240	2.239	2.6	16.8	4 11	13 9.97	-1 49.4	1.921	2.919	2.3	19.1
4 21	12 59.55	-2 33.5	1.264	2.245	7.4	17.1	4 21	13 1.44	-0 56.4	1.935	2.910	5.9	19.3
5 1	12 51.14	-2 29.4	1.312	2.251	12.2	17.4	5 1	12 53.90	-0 14.0	1.976	2.900	9.6	19.5
5 11	12 45.30	-2 40.1	1.382	2.258	16.4	17.7	5 11	12 48.03	+0 14.1	2.041	2.890	12.9	19.7
392175	2009 <i>KZ</i> ₁₃		4 9.1 127°46	1.5°/11.0	18		380435	2003 <i>SZ</i> ₈₆		4 9.1 207°08	0.2°/8.9	17	
3 2	13 31.75	-16 39.7	2.540	3.305	12.5	20.8	3 2	13 39.06	-7 42.4	2.290	3.079	13.0	20.9
3 12	13 28.35	-16 2.8	2.448	3.309	10.0	20.6	3 12	13 34.21	-7 39.6	2.194	3.075	10.2	20.7
3 22	13 23.30	-15 10.6	2.378	3.313	7.0	20.4	3 22	13 27.35	-7 28.4	2.122	3.071	6.8	20.5
4 1	13 17.08	-14 5.2	2.335	3.317	3.8	20.2	4 1	13 19.00	-7 10.6	2.077	3.067	3.1	20.2
4 11	13 10.33	-12 50.7	2.321	3.320	1.5	20.0	4 11	13 9.90	-6 49.7	2.061	3.062	0.9	20.0
4 21	13 3.76	-11 32.2	2.336	3.324	3.8	20.2	4 21	13 0.92	-6 29.2	2.074	3.057	4.7	20.3
5 1	12 58.01	-10 15.6	2.380	3.327	7.0	20.4	5 1	12 52.89	-6 13.1	2.115	3.052	8.4	20.5
5 11	12 53.63	-9 6.2	2.450	3.330	10.0	20.6	5 11	12 46.48	-6 4.8	2.182	3.046	11.6	20.7
202615	2006 <i>HR</i> ₆₄		4 9.1 127°13	1.2°/7.7	17		496976	2002 <i>QH</i> ₁₀₀		4 9.1 232°60	1.3°/7.9	17	
3 2	13 35.05	-6 37.3	2.216	3.018	12.9	21.2	3 2	13 38.19	-6 43.0	2.023	2.824	14.0	23.0
3 12	13 31.03	-5 58.0	2.136	3.026	10.0	21.0	3 12	13 33.89	-6 9.2	1.923	2.811	11.0	22.7
3 22	13 25.14	-5 8.9	2.080	3.034	6.6	20.8	3 22	13 27.34	-5 24.0	1.845	2.798	7.3	22.5
4 1	13 17.93	-4 14.0	2.051	3.042	2.9	20.6	4 1	13 19.06	-4 30.9	1.794	2.785	3.3	22.2
4 11	13 10.14	-3 18.3	2.051	3.050	1.8	20.5	4 11	13 9.88	-3 35.3	1.771	2.771	1.9	22.1
4 21	13 2.57	-2 27.1	2.079	3.057	5.3	20.7	4 21	13 0.76	-2 43.2	1.777	2.756	5.9	22.3
5 1	12 56.00	-1 45.3	2.135	3.064	8.7	21.0	5 1	12 52.66	-2 0.5	1.810	2.740	10.0	22.5
5 11	12 50.99	-1 16.2	2.215	3.071	11.8	21.2	5 11	12 46.37	-1 31.4	1.867	2.724	13.6	22.7
505344	2013 <i>AD</i> ₁₅₇		4 9.1 179°76	1.7°/6.7	18		351537	2005 <i>SP</i> ₂₁₂		4 9.1 223°05	0.2°/9.4	17	
3 2	13 32.45	-4 8.0	3.076	3.873	9.8	22.1	3 2	13 32.82	-11 6.4	2.965	3.742	10.6	22.1
3 12	13 28.52	-3 17.7	2.986	3.874	7.5	22.0	3 12	13 28.97	-10 37.8	2.860	3.733	8.3	21.9
3 22	13 23.24	-2 21.1	2.921	3.875	4.9	21.8	3 22	13 23.65	-9 59.2	2.779	3.724	5.6	21.7
4 1	13 17.01	-1 21.3	2.886	3.875	2.4	21.6	4 1	13 17.25	-9 12.6	2.725	3.714	2.7	21.5
4 11	13 10.36	-0 22.7	2.881	3.875	2.1	21.6	4 11	13 10.34	-8 21.3	2.702	3.703	0.6	21.3
4 21	13 3.83	+0 31.0	2.906	3.875	4.6	21.8	4 21	13 3.49	-7 29.2	2.708	3.693	3.7	21.5
5 1	12 57.96	+1 16.0	2.960	3.874	7.2	21.9	5 1	12 57.30	-6 40.4	2.744	3.682	6.7	21.7
5 11	12 53.19	+1 49.9	3.039	3.872	9.5	22.1	5 11	12 52.28	-5 58.5	2.806	3.670	9.3	21.9
127755	2003 <i>FD</i> ₂₈		4 9.1 275°36	1.8°/10.4	16		142639	2002 <i>TO</i> ₁₈₆		4 9.1 160°02	2.1°/11.1	18	
3 2	13 37.60	-13 49.8	1.542	2.340	17.8	20.9	3 2	13 36.96	-16 22.9	1.907	2.681	15.7	20.3
3 12	13 34.36	-13 46.2	1.439	2.321	14.4	20.6	3 12	13 33.00	-16 4.8	1.819	2.685	12.6	20.1
3 22	13 28.20	-13 23.5	1.356	2.302	10.2	20.3	3 22	13 26.74	-15 28.4	1.752	2.689	9.0	19.9
4 1	13 19.63	-12 42.5	1.296	2.282	5.4	20.0	4 1	13 18.76	-14 35.1	1.710	2.692	5.0	19.6
4 11	13 9.68	-11 47.0	1.262	2.263	1.8	19.7	4 11	13 9.98	-13 29.1	1.696	2.695	2.1	19.4
4 21	12 59.65	-10 43.8	1.254	2.242	6.1	19.9	4 21	13 1.42	-12 17.0	1.709	2.697	4.9	19.6
5 1	12 50.91	-9 41.7	1.271	2.222	11.3	20.2	5 1	12 54.04	-11 6.1	1.750	2.699	8.9	19.9
5 11	12 44.55	-8 49.3	1.309	2.202	16.0	20.4	5 11	12 48.59	-10 3.4	1.815	2.701	12.6	20.1
264752	2002 <i>DJ</i> ₇		4 9.1 69°18	8.1°/2.6	18		505915	2015 <i>EO</i> ₂₈		4 9.1 258°07	1.3°/7.7	17	
3 2	13 41.35	+12 22.3	1.700	2.525	15.2	19.9	3 2	13 34.17	-6 57.7	2.005	2.814	13.9	21.5
3 12	13 36.17	+13 25.1	1.656	2.548	12.2	19.8	3 12	13 30.69	-6 16.3	1.915	2.809	10.8	21.3
3 22	13 28.61	+14 21.6	1.635	2.571	9.6	19.6	3 22	13 25.13	-5 23.1	1.848	2.804	7.1	21.1
4 1	13 19.45	+15 3.3	1.639	2.594	8.2	19.6	4 1	13 18.02	-4 22.2	1.807	2.799	3.2	20.8
4 11	13 9.81	+15 23.6	1.668	2.617	8.9	19.7	4 11	13 10.16	-3 19.5	1.794	2.793	1.9	20.7
4 21	13 0.77	+15 19.3	1.723	2.639	11.1	19.9	4 21	13 2.45	-2 21.2	1.809	2.788	5.8	21.0
5 1	12 53.25	+14 50.6	1.801	2.662	13.7	20.1	5 1	12 55.77	-1 33.1	1.851	2.783	9.7	21.2
5 11	12 47.89	+14 0.1	1.899	2.684	16.2	20.3	5 11	12 50.79	-0 59.4	1.916	2.778	13.1	21.4
186112	2001 <i>TR</i> ₉₅		4 9.1 224°56	1.5°/10.5	17		463181	2012 <i>BE</i> ₁₀₇		4 9.1 337°95	2.7°/10.8	17	
3 2	13 38.09	-14 2.8	2.201	2.973	14.0	21.9	3 2						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
108089	2001 <i>FE</i> ₁₇₅		4 9.1 291°00	3°5/ 5.4	18		215747	2004 <i>EU</i> ₈₂		4 9.1 270°63	1°7/ 7.0	17	
3 2	13 32.51	- 1 42.0	1.967	2.792	13.5	19.5	3 2	13 31.55	- 6 37.8	2.252	3.060	12.5	20.7
3 12	13 29.49	- 0 35.4	1.874	2.778	10.4	19.2	3 12	13 28.42	- 5 33.6	2.160	3.054	9.7	20.5
3 22	13 24.40	+ 0 40.8	1.805	2.764	7.0	19.0	3 22	13 23.50	- 4 17.7	2.092	3.049	6.3	20.3
4 1	13 17.72	+ 2 0 6	1.762	2.749	4.0	18.8	4 1	13 17.26	- 2 54.6	2.052	3.043	2.9	20.1
4 11	13 10.24	+ 3 16.7	1.747	2.735	4.3	18.8	4 11	13 10.40	- 1 30.8	2.041	3.038	2.3	20.0
4 21	13 2.86	+ 4 21.8	1.759	2.721	7.6	18.9	4 21	13 3.67	- 0 12.7	2.058	3.032	5.7	20.2
5 1	12 56.46	+ 5 10.2	1.796	2.707	11.2	19.1	5 1	12 57.81	+ 0 53.8	2.103	3.026	9.2	20.4
5 11	12 51.75	+ 5 38.5	1.856	2.694	14.5	19.3	5 11	12 53.43	+ 1 44.7	2.171	3.021	12.3	20.6
286230	2001 <i>UP</i> ₁₆₀		4 9.1 123°39	1°7/ 7.2	18		129775	1999 <i>JU</i> ₁₁		4 9.1 42°51	21°9/ 27.1	18	
3 2	13 35.36	- 3 38.6	2.558	3.359	11.4	20.9	3 2	13 50.40	+ 40 6.3	1.145	1.925	23.8	17.8
3 12	13 30.99	- 3 10.0	2.479	3.369	8.8	20.7	3 12	13 44.48	+ 41 53.7	1.146	1.948	22.6	17.8
3 22	13 25.00	- 2 35.4	2.425	3.379	5.8	20.5	3 22	13 34.48	+ 42 58.6	1.161	1.972	22.0	17.9
4 1	13 17.86	- 1 58.1	2.399	3.389	2.7	20.3	4 1	13 22.06	+ 43 9.0	1.190	1.997	22.0	17.9
4 11	13 10.24	- 1 22.3	2.402	3.398	2.1	20.3	4 11	13 9.39	+ 42 21.2	1.234	2.023	22.5	18.1
4 21	13 2.82	- 0 51.7	2.434	3.407	5.0	20.5	4 21	12 58.39	+ 40 39.9	1.292	2.050	23.4	18.2
5 1	12 56.27	- 0 29.7	2.494	3.416	8.0	20.7	5 1	12 50.38	+ 38 15.1	1.365	2.077	24.5	18.4
5 11	12 51.10	- 0 18.5	2.579	3.425	10.7	20.9	5 11	12 45.84	+ 35 19.4	1.449	2.104	25.4	18.6
508110	2015 <i>DL</i> ₁₇₉		4 9.1 335°38	10°2/ 18.6	17		457252	2008 <i>QQ</i> ₂₈		4 9.1 219°95	2°1/ 7.4	18	
3 2	13 35.82	- 34 7.1	1.836	2.521	19.2	20.7	3 2	13 39.78	- 5 41.6	1.681	2.493	16.0	22.1
3 12	13 32.91	- 35 12.3	1.741	2.514	17.1	20.5	3 12	13 35.56	- 4 56.6	1.590	2.485	12.5	21.8
3 22	13 27.18	- 35 52.3	1.662	2.508	14.8	20.3	3 22	13 28.69	- 3 58.3	1.520	2.476	8.3	21.6
4 1	13 19.16	- 36 1.9	1.602	2.503	12.4	20.2	4 1	13 19.77	- 2 51.7	1.476	2.467	3.8	21.3
4 11	13 9.89	- 35 38.3	1.565	2.498	10.6	20.0	4 11	13 9.80	- 1 44.0	1.459	2.457	2.8	21.2
4 21	13 0.63	- 34 43.3	1.551	2.493	10.2	20.0	4 21	12 59.95	- 0 43.0	1.470	2.446	7.2	21.4
5 1	12 52.72	- 33 23.3	1.560	2.489	11.4	20.0	5 1	12 51.38	+ 0 4.1	1.506	2.434	11.7	21.6
5 11	12 47.16	- 31 48.7	1.593	2.485	13.7	20.2	5 11	12 45.00	+ 0 32.8	1.565	2.422	15.7	21.9
461836	2006 <i>CH</i>		4 9.1 92°19	7°9/ 14.4	18		507506	2012 <i>UA</i> ₁₇₉		4 9.1 182°30	3°7/ 5.1	17	
3 2	13 55.50	- 25 25.9	1.694	2.402	19.8	21.7	3 2	13 36.41	+ 3 9.3	2.530	3.341	11.2	21.9
3 12	13 47.87	- 26 56.7	1.629	2.434	16.8	21.6	3 12	13 31.87	+ 3 48.2	2.448	3.341	8.7	21.8
3 22	13 36.91	- 28 5.9	1.583	2.466	13.4	21.4	3 22	13 25.63	+ 4 29.4	2.390	3.341	6.0	21.6
4 1	13 23.46	- 28 47.9	1.561	2.497	10.2	21.3	4 1	13 18.19	+ 5 8.3	2.360	3.341	3.9	21.4
4 11	13 8.92	- 29 0.5	1.565	2.527	8.1	21.3	4 11	13 10.20	+ 5 40.4	2.360	3.341	4.2	21.5
4 21	12 54.89	- 28 46.3	1.597	2.557	8.5	21.3	4 21	13 2.38	+ 6 1.7	2.388	3.340	6.5	21.6
5 1	12 42.84	- 28 12.5	1.656	2.585	10.8	21.5	5 1	12 55.43	+ 6 9.8	2.443	3.338	9.3	21.8
5 11	12 33.74	- 27 29.1	1.739	2.612	13.7	21.8	5 11	12 49.89	+ 6 3.6	2.522	3.337	11.8	21.9
91039	1998 <i>FA</i> ₁₀		4 9.1 81°01	4°6/ 12.4	18		189481	1999 <i>UD</i> ₃₈		4 9.1 106°06	0°2/ 8.9	18	
3 2	13 42.60	- 18 34.9	1.886	2.641	16.5	18.9	3 2	13 36.19	- 10 42.2	2.302	3.087	13.0	20.9
3 12	13 37.59	- 19 27.6	1.798	2.646	13.7	18.7	3 12	13 31.75	- 9 56.8	2.231	3.110	10.1	20.8
3 22	13 29.97	- 20 5.2	1.731	2.651	10.3	18.5	3 22	13 25.54	- 8 59.4	2.184	3.132	6.7	20.6
4 1	13 20.32	- 20 25.7	1.689	2.656	6.8	18.3	4 1	13 18.11	- 7 53.3	2.164	3.154	3.0	20.4
4 11	13 9.65	- 20 29.4	1.673	2.661	4.6	18.1	4 11	13 10.22	- 6 43.9	2.173	3.175	0.8	20.2
4 21	12 59.11	- 20 18.6	1.685	2.665	6.0	18.2	4 21	13 2.65	- 5 36.8	2.212	3.195	4.5	20.5
5 1	12 49.85	- 19 58.4	1.724	2.670	9.2	18.4	5 1	12 56.09	- 4 37.2	2.280	3.215	7.9	20.8
5 11	12 42.75	- 19 35.4	1.787	2.675	12.6	18.6	5 11	12 51.09	- 3 49.2	2.372	3.234	10.9	21.0
426920	2013 <i>WZ</i> ₉₈		4 9.1 77°57	2°0/ 7.3	17		196729	2003 <i>SU</i> ₁₁₉		4 9.1 229°33	0°9/ 9.9	18	
3 2	13 36.35	- 3 49.7	1.969	2.782	13.9	21.2	3 2	13 36.42	- 12 0.8	2.196	2.979	13.6	21.1
3 12	13 32.34	- 3 21.5	1.888	2.785	10.7	21.0	3 12	13 32.34	- 11 51.3	2.098	2.973	10.8	20.9
3 22	13 26.20	- 2 45.2	1.830	2.787	7.1	20.8	3 22	13 26.21	- 11 29.2	2.022	2.966	7.5	20.6
4 1	13 18.50	- 2 5.1	1.798	2.789	3.4	20.5	4 1	13 18.54	- 10 56.3	1.972	2.959	3.7	20.4
4 11	13 10.10	- 1 26.3	1.794	2.791	2.6	20.5	4 11	13 10.10	- 10 15.9	1.951	2.952	1.0	20.2
4 21	13 1.91	- 0 54.2	1.818	2.793	6.1	20.7	4 21	13 1.75	- 9 32.7	1.958	2.945	4.6	20.4
5 1	12 54.83	- 0 33.0	1.868	2.796	9.9	20.9	5 1	12 54.36	- 8 51.9	1.993	2.938	8.3	20.6
5 11	12 49.52	- 0 25.5	1.941	2.798	13.2	21.1	5 11	12 48.61	- 8 18.3	2.053	2.930	11.7	20.8
162606	2000 <i>SR</i> ₇₇		4 9.1 132°86	1°2/ 7.9	18		301689	2010 <i>FV</i> ₈₈		4 9.1 342°25	3°4/ 5.8	17	
3 2	13 36.96	- 8 47.3	1.644	2.455	16.3	20.6	3 2	13 28.27	- 4 8.0	1.547	2.388	15.7	20.2
3 12	13 33.21	- 7 53.1	1.568	2.463	12.7	20.4	3 12	13 26.73	- 2 55.3	1.463	2.376	12.1	19.9
3 22	13 26.96	- 6 43.0	1.514	2.470	8.4	20.1	3 22	13 22.82	- 1 28.1	1.400	2.364	8.0	19.7
4 1	13 18.89	- 5 22.1	1.485	2.476	3.7	19.9	4 1	13 17.08	+ 0 6.6	1.362	2.353	4.2	19.4
4 11	13 10.01	- 3 58.3	1.483	2.483	2.0	19.8	4 11	13 10.44	+ 1 39.2	1.350	2.343	4.3	19.4
4 21	13 1.45	- 2 40.0	1.508	2.489	6.5	20.1	4 21	13 3.95	+ 2 59.8	1.363	2.334	8.3	19.6
5 1	12 54.24	- 1 35.1	1.559	2.494	10.9	20.3	5 1	12 58.64	+ 4 0.6	1.400	2.327	12.6	19.8
5 11	12 49.15	- 0 48.7	1.633	2.499	14.7	20.6	5 11	12 55.32	+ 4 37.1	1.458	2.320	16.4	20.0
115870	2003 <i>UZ</i> ₂₇₈		4 9.1 91°60	1°1/ 7.9	18		93574	2000 <i>UG</i> ₄₃		4 9.1 213°93	1°9/ 7.3	18	
3 2	13 34.99	- 7 3.2	2.099	2.903	13.5	20.0	3 2	13 37.41	- 4 5.8	2.103	2.910	13.4	20.1
3 12	13 31.09	- 6 26.5	2.023	2.914	10.4	19.8	3 12	13 33.10	- 3 36.9	2.013	2.905	10.4	19.9
3 22	13 25.24	- 5 39.5	1.971	2.926	6.8	19.6	3 22	13 26.70	- 2 59.8	1.946	2.901	6.9	19.7
4 1	13 18.02	- 4 46.1	1.945	2.937	3.0	19.4	4 1	13 18.75	- 2 18.5	1.905	2.896	3.2	19.4
4 11	13 10.22	- 3 51.7	1.948	2.948	1.7	19.3	4 11	13 10.06	- 1 38.0	1.894	2.891	2.4	19.4
4 21	13 2.68	- 3 1.7	1.979	2.959	5.3	19.6	4 21	13 1.51	- 1 3.2	1.910	2.885	5.9	19.6
5 1	12 56.19	- 2 21.1	2.037	2.970	8.9	19.8	5 1	12 53.97	- 0 38.7	1.954	2.879	9.6	19.8
5 11	12 51.35	- 1 53.2	2.119	2.980	12.1	20.0	5 11	12 48.15	- 0 27.3	2.021	2.873	12.9	20.0
338154	2002 <i>QN</i> ₁₄₂		4 9.1 175°79	0°2/ 9.3	17		471434	2011					

EPHEMERIDES

4 9.1

4 9.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
197281	2003 <i>WG</i> ₁₀₃		4 9.1 31°75	2°5/ 6.9	18		51947	2001 <i>QE</i> ₂₁₅		4 9.1 101°88	2°6/ 6.0	18	
3 2	13 35.17	- 3 5.7	1.769	2.592	14.8	19.4	3 2	13 33.43	- 2 38.5	2.327	3.140	12.1	18.7
3 12	13 31.60	- 2 34.6	1.698	2.599	11.4	19.2	3 12	13 29.67	- 1 38.8	2.255	3.152	9.2	18.6
3 22	13 25.77	- 1 55.5	1.648	2.607	7.5	19.0	3 22	13 24.21	- 0 32.0	2.207	3.164	6.1	18.4
4 1	13 18.32	- 1 13.2	1.625	2.615	3.7	18.8	4 1	13 17.55	+ 0 36.8	2.187	3.176	3.2	18.2
4 11	13 10.18	- 0 33.8	1.628	2.624	3.1	18.8	4 11	13 10.41	+ 1 41.9	2.196	3.187	3.2	18.2
4 21	13 2.33	- 0 2.9	1.657	2.633	6.7	19.0	4 21	13 3.51	+ 2 37.9	2.234	3.199	6.0	18.4
5 1	12 55.70	+ 0 15.2	1.713	2.642	10.5	19.2	5 1	12 57.54	+ 3 20.8	2.298	3.210	9.0	18.6
5 11	12 50.99	+ 0 18.0	1.791	2.651	13.9	19.5	5 11	12 53.01	+ 3 48.2	2.387	3.221	11.8	18.8
149469	2003 <i>EL</i> ₁₂		4 9.1 35°65	1°9/10.6	18		320578	2008 <i>AU</i> ₁₁₅		4 9.1 158°18	2°2/11.1	16	
3 2	13 35.06	-14 12.3	1.439	2.246	18.4	19.7	3 2	13 39.49	-15 33.2	1.917	2.690	15.7	21.9
3 12	13 32.09	-14 6.9	1.372	2.258	14.7	19.5	3 12	13 34.99	-15 32.8	1.830	2.695	12.6	21.7
3 22	13 26.39	-13 41.9	1.324	2.271	10.2	19.2	3 22	13 28.11	-15 16.0	1.763	2.699	9.0	21.5
4 1	13 18.67	-12 59.3	1.299	2.285	5.4	19.0	4 1	13 19.46	-14 43.9	1.722	2.703	5.0	21.3
4 11	13 10.10	-12 4.7	1.298	2.299	1.9	18.8	4 11	13 9.96	-13 59.5	1.709	2.707	2.2	21.1
4 21	13 1.92	-11 5.6	1.324	2.314	5.7	19.1	4 21	13 0.66	-13 8.3	1.723	2.710	5.0	21.3
5 1	12 55.27	-10 10.3	1.374	2.329	10.3	19.4	5 1	12 52.58	-12 16.8	1.765	2.713	8.9	21.5
5 11	12 50.95	- 9 25.8	1.447	2.345	14.4	19.7	5 11	12 46.49	-11 31.2	1.831	2.715	12.5	21.7
36821	2000 <i>SY</i> ₈₄		4 9.1 136°50	0°8/ 8.0	18		467373	2004 <i>QX</i> ₂₄		4 9.1 153°72	12°3/23.1	18	
3 2	13 33.81	- 6 51.9	2.939	3.728	10.4	20.5	3 2	13 51.68	+40 17.5	2.714	3.416	13.2	21.1
3 12	13 29.61	- 6 18.7	2.857	3.740	8.0	20.3	3 12	13 43.62	+41 29.0	2.687	3.426	12.6	21.1
3 22	13 24.00	- 5 38.2	2.800	3.751	5.3	20.1	3 22	13 33.33	+42 19.7	2.680	3.435	12.3	21.1
4 1	13 17.41	- 4 53.3	2.772	3.762	2.3	20.0	4 1	13 21.61	+42 42.9	2.695	3.444	12.5	21.1
4 11	13 10.41	- 4 7.4	2.773	3.773	1.2	19.9	4 11	13 9.51	+42 34.7	2.731	3.452	13.0	21.1
4 21	13 3.59	- 3 24.5	2.805	3.783	4.1	20.1	4 21	12 58.08	+41 55.0	2.788	3.459	13.8	21.2
5 1	12 57.50	- 2 47.8	2.865	3.793	6.8	20.3	5 1	12 48.20	+40 46.6	2.862	3.465	14.7	21.3
5 11	12 52.59	- 2 20.2	2.952	3.802	9.3	20.5	5 11	12 40.47	+39 14.3	2.953	3.471	15.6	21.4
249250	2008 <i>RZ</i> ₁₁₂		4 9.1 218°46	1°6/10.8	17		234427	2001 <i>RV</i> ₁₃₂		4 9.1 202°37	0°3/ 9.3	18	
3 2	13 35.85	-15 3.2	2.259	3.030	13.7	21.3	3 2	13 43.20	- 9 31.3	1.822	2.612	15.8	20.6
3 12	13 31.87	-14 49.3	2.159	3.024	11.0	21.1	3 12	13 38.06	- 9 29.5	1.728	2.608	12.5	20.4
3 22	13 25.89	-14 20.7	2.080	3.017	7.8	20.8	3 22	13 30.31	- 9 15.6	1.656	2.603	8.5	20.2
4 1	13 18.41	-13 38.6	2.028	3.011	4.2	20.6	4 1	13 20.53	- 8 51.4	1.609	2.598	4.0	19.9
4 11	13 10.18	-12 46.5	2.004	3.004	1.6	20.4	4 11	13 9.70	- 8 20.7	1.590	2.592	0.9	19.6
4 21	13 2.04	-11 49.1	2.009	2.996	4.4	20.6	4 21	12 58.99	- 7 48.7	1.600	2.585	5.6	19.9
5 1	12 54.83	-10 52.2	2.042	2.988	8.0	20.8	5 1	12 49.54	- 7 21.0	1.637	2.578	10.1	20.2
5 11	12 49.24	-10 1.5	2.100	2.980	11.3	21.0	5 11	12 42.24	- 7 2.5	1.698	2.569	14.0	20.4
74312	1998 <i>UO</i> ₆		4 9.1 193°54	1°1/ 7.9	18		16215	Venkatraman		4 9.1 358°40	0°6/ 9.5	18	
3 2	13 34.98	- 6 39.8	2.295	3.096	12.6	20.2	3 2	13 37.64	- 9 50.6	1.201	2.029	20.1	18.6
3 12	13 31.03	- 6 4.5	2.206	3.094	9.8	20.0	3 12	13 34.83	- 9 56.0	1.126	2.027	15.9	18.4
3 22	13 25.22	- 5 19.5	2.139	3.093	6.4	19.8	3 22	13 28.69	- 9 44.6	1.070	2.026	10.9	18.1
4 1	13 18.06	- 4 28.4	2.100	3.091	2.9	19.6	4 1	13 19.92	- 9 18.6	1.035	2.026	5.2	17.7
4 11	13 10.27	- 3 35.9	2.090	3.089	1.7	19.5	4 11	13 9.84	- 8 43.5	1.024	2.026	1.1	17.4
4 21	13 2.62	- 2 47.2	2.109	3.087	5.1	19.7	4 21	13 0.02	- 8 6.7	1.037	2.026	7.0	17.8
5 1	12 55.89	- 2 6.9	2.155	3.085	8.6	19.9	5 1	12 51.98	- 7 36.6	1.073	2.027	12.6	18.1
5 11	12 50.68	- 1 38.5	2.225	3.082	11.7	20.1	5 11	12 46.78	- 7 19.7	1.129	2.029	17.4	18.4
461546	2003 <i>UE</i> ₃₆₄		4 9.1 259°45	4°6/ 5.5	16		155769	2000 <i>ST</i> ₂₃₂		4 9.1 267°41	6°3/10.6	18	
3 2	13 39.24	+ 1 15.6	1.677	2.502	15.4	21.7	3 2	13 58.79	-12 6.7	1.109	1.902	23.6	19.6
3 12	13 35.17	+ 2 2.6	1.587	2.489	12.0	21.4	3 12	13 52.62	-14 18.4	1.025	1.899	19.5	19.3
3 22	13 28.47	+ 2 56.2	1.518	2.474	8.3	21.1	3 22	13 41.61	-16 25.8	0.959	1.896	14.5	19.0
4 1	13 19.70	+ 3 50.0	1.475	2.460	5.1	20.9	4 1	13 26.28	-18 21.4	0.916	1.893	9.2	18.7
4 11	13 9.86	+ 4 36.1	1.458	2.445	5.3	20.9	4 11	13 8.28	-19 56.9	0.898	1.890	6.3	18.5
4 21	13 0.11	+ 5 7.6	1.468	2.430	8.9	21.1	4 21	12 50.04	-21 7.4	0.906	1.887	9.6	18.7
5 1	12 51.62	+ 5 19.8	1.503	2.414	12.9	21.3	5 1	12 34.16	-21 55.1	0.938	1.883	15.1	19.0
5 11	12 45.29	+ 5 10.7	1.559	2.399	16.7	21.5	5 11	12 22.49	-22 28.6	0.991	1.880	20.2	19.3
472167	2014 <i>DA</i> ₃₈		4 9.1 174°77	1°9/11.2	17		201587	2003 <i>SU</i> ₁₀₄		4 9.1 213°36	1°4/10.5	18	
3 2	13 36.27	-15 14.7	2.725	3.483	11.9	21.9	3 2	13 36.42	-13 32.6	2.223	2.999	13.7	20.6
3 12	13 31.79	-15 21.2	2.628	3.484	9.6	21.7	3 12	13 32.32	-13 26.4	2.126	2.996	10.9	20.4
3 22	13 25.62	-15 16.5	2.555	3.486	6.8	21.6	3 22	13 26.20	-13 6.9	2.052	2.992	7.6	20.2
4 1	13 18.22	-15 1.4	2.508	3.486	3.9	21.4	4 1	13 18.56	-12 35.6	2.003	2.988	4.0	20.0
4 11	13 10.23	-14 37.7	2.490	3.487	1.9	21.2	4 11	13 10.18	-11 55.5	1.983	2.983	1.4	19.8
4 21	13 2.34	-14 8.7	2.502	3.488	3.8	21.4	4 21	13 1.90	-11 11.1	1.992	2.979	4.4	20.0
5 1	12 55.25	-13 38.0	2.542	3.488	6.7	21.5	5 1	12 54.58	-10 27.8	2.028	2.974	8.1	20.2
5 11	12 49.51	-13 9.8	2.609	3.487	9.5	21.7	5 11	12 48.89	- 9 50.5	2.089	2.969	11.4	20.4
387121	2012 <i>TN</i> ₁₇₅		4 9.1 284°08	0°5/ 9.6	17		31212	1998 <i>BZ</i> ₈		4 9.1 112°47	2°3/ 6.9	18	
3 2	13 34.94	-11 11.1	2.059	2.852	14.1	21.2	3 2	13 37.71	- 3 24.1	1.927	2.740	14.2	18.4
3 12	13 31.29	-10 55.7	1.967	2.849	11.1	21.0	3 12	13 33.37	- 2 47.6	1.854	2.750	10.9	18.2
3 22	13 25.56	-10 27.3	1.898	2.845	7.6	20.8	3 22	13 26.87	- 2 2.9	1.803	2.759	7.2	18.0
4 1	13 18.27	- 9 48.1	1.854	2.842	3.6	20.6	4 1	13 18.83	- 1 15.0	1.779	2.769	3.5	17.8
4 11	13 10.22	- 9 2.3	1.837	2.839	0.8	20.3	4 11	13 10.13	- 0 29.6	1.782	2.778	2.9	17.8
4 21	13 2.31	- 8 15.1	1.849	2.835	4.8	20.6	4 21	13 1.73	+ 0 7.8	1.813	2.787	6.4	18.0
5 1	12 55.41	- 7 31.9	1.888	2.832	8.7	20.8	5 1	12 54.50	+ 0 32.8	1.871	2.795	10.1	18.2
5 11	12 50.22	- 6 57.8	1.951	2.829	12.2	21.0	5 11	12 49.11	+ 0 42.9	1.952	2.804	13.3	18.5
426734	2013 <i>TF</i> ₆₇		4 9.1 94°19	6°1/15.2	18		416098	2002 <i>PZ</i> ₁₂		4 9.1 295°10	3°1/11.5	17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
224319	2005 <i>UZ</i> ₃₆		4 9.1 151°26	0°3/ 8.8 17			171262	2006 <i>DA</i> ₈₀		4 9.1 230°78	1°3/ 7.9 17		
3 2	13 37.48	- 8 55.7	2.029	2.825	14.2	21.6	3 2	13 37.92	- 7 56.2	1.784	2.590	15.4	21.2
3 12	13 33.20	- 8 32.2	1.945	2.830	11.1	21.4	3 12	13 34.02	- 7 9.2	1.688	2.579	12.1	20.9
3 22	13 26.79	- 7 56.9	1.884	2.835	7.4	21.2	3 22	13 27.65	- 6 7.3	1.614	2.568	8.1	20.7
4 1	13 18.82	- 7 12.9	1.849	2.839	3.3	20.9	4 1	13 19.36	- 4 54.5	1.565	2.556	3.6	20.4
4 11	13 10.15	- 6 25.0	1.842	2.843	1.0	20.7	4 11	13 10.06	- 3 37.7	1.544	2.544	2.0	20.2
4 21	13 1.70	- 5 38.6	1.864	2.847	5.1	21.1	4 21	13 0.86	- 2 24.8	1.551	2.531	6.5	20.5
5 1	12 54.34	- 4 59.1	1.912	2.850	9.0	21.3	5 1	12 52.82	- 1 23.4	1.584	2.517	11.0	20.7
5 11	12 48.76	- 4 30.6	1.985	2.853	12.5	21.5	5 11	12 46.80	- 0 38.9	1.640	2.502	14.9	20.9
153740	2001 <i>UL</i> ₁₄₃		4 9.1 210°89	1°4/ 7.7 17			71544	2000 <i>CD</i> ₁₂₃		4 9.1 126°43	1°2/ 7.9 18		
3 2	13 37.39	- 5 57.3	2.088	2.891	13.6	21.4	3 2	13 35.93	- 6 9.0	2.210	3.012	13.0	20.0
3 12	13 33.14	- 5 24.1	1.996	2.886	10.6	21.2	3 12	13 31.78	- 5 37.4	2.130	3.020	10.0	19.8
3 22	13 26.79	- 4 40.8	1.927	2.881	7.0	20.9	3 22	13 25.73	- 4 56.7	2.073	3.027	6.6	19.6
4 1	13 18.86	- 3 51.1	1.884	2.875	3.2	20.7	4 1	13 18.33	- 4 10.7	2.043	3.034	3.0	19.4
4 11	13 10.16	- 3 0.4	1.870	2.869	2.0	20.6	4 11	13 10.33	- 3 24.0	2.042	3.041	1.8	19.3
4 21	13 1.59	- 2 14.0	1.884	2.862	5.7	20.8	4 21	13 2.55	- 2 41.7	2.069	3.048	5.2	19.5
5 1	12 54.04	- 1 37.3	1.926	2.855	9.5	21.0	5 1	12 55.77	- 2 8.1	2.124	3.054	8.7	19.8
5 11	12 48.21	- 1 13.8	1.991	2.847	12.9	21.2	5 11	12 50.58	- 1 46.5	2.203	3.061	11.8	20.0
41803	2000 <i>WR</i> ₂₄		4 9.1 76°80	1°8/ 7.6 18			307987	2004 <i>QP</i> ₂₇		4 9.1 211°99	4°1/ 5.3 17		
3 2	13 35.47	- 7 54.2	1.492	2.315	17.1	19.3	3 2	13 40.18	+ 0 29.4	1.948	2.762	14.0	22.2
3 12	13 32.30	- 6 54.8	1.421	2.322	13.3	19.1	3 12	13 35.48	+ 1 29.4	1.858	2.754	10.9	21.9
3 22	13 26.50	- 5 38.9	1.370	2.329	8.7	18.8	3 22	13 28.45	+ 2 36.6	1.792	2.745	7.5	21.7
4 1	13 18.77	- 4 12.5	1.344	2.336	3.9	18.5	4 1	13 19.67	+ 3 44.7	1.752	2.736	4.5	21.5
4 11	13 10.19	- 2 44.6	1.344	2.343	2.5	18.5	4 11	13 10.01	+ 4 46.4	1.741	2.726	4.8	21.5
4 21	13 1.96	- 1 24.7	1.371	2.350	7.2	18.8	4 21	13 0.48	+ 5 35.1	1.757	2.715	8.0	21.7
5 1	12 55.17	- 0 21.0	1.422	2.358	11.7	19.0	5 1	12 52.08	+ 6 6.0	1.800	2.703	11.7	21.8
5 11	12 50.61	+ 0 21.7	1.495	2.365	15.7	19.3	5 11	12 45.58	+ 6 16.8	1.866	2.690	15.0	22.0
215745	2004 <i>EK</i> ₅₀		4 9.1 114°89	2°0/ 7.2 17			248324	2005 <i>QX</i> ₇		4 9.1 285°74	5°4/ 14.0 17		
3 2	13 37.46	- 2 21.3	2.316	3.121	12.4	20.4	3 2	13 38.76	- 23 41.1	2.371	3.091	14.4	20.0
3 12	13 32.84	- 2 1.9	2.237	3.128	9.5	20.3	3 12	13 34.32	- 24 29.9	2.265	3.083	12.3	19.9
3 22	13 26.37	- 1 37.1	2.182	3.136	6.3	20.1	3 22	13 27.69	- 25 3.7	2.181	3.075	9.7	19.7
4 1	13 18.59	- 1 10.5	2.153	3.143	3.1	19.9	4 1	13 19.35	- 25 20.2	2.121	3.067	7.2	19.5
4 11	13 10.24	- 0 46.2	2.154	3.150	2.5	19.8	4 11	13 10.07	- 25 19.1	2.087	3.059	5.5	19.4
4 21	13 2.12	- 0 28.0	2.184	3.157	5.5	20.0	4 21	13 0.77	- 25 2.0	2.082	3.051	6.0	19.4
5 1	12 54.96	- 0 19.1	2.241	3.164	8.7	20.2	5 1	12 52.37	- 24 33.1	2.104	3.044	8.2	19.5
5 11	12 49.36	- 0 21.3	2.323	3.170	11.6	20.4	5 11	12 45.67	- 23 58.1	2.150	3.036	10.9	19.7
140753	2001 <i>UC</i> ₁₁₆		4 9.1 265°39	3°0/ 6.3 17			351497	2005 <i>QQ</i> ₁₆₃		4 9.1 197°84	1°1/ 8.4 18		
3 2	13 37.77	+ 0 31.2	2.314	3.124	12.2	20.1	3 2	13 41.81	- 6 40.1	1.474	2.289	17.7	21.0
3 12	13 32.78	+ 0 54.5	2.220	3.114	9.5	19.9	3 12	13 37.48	- 6 26.9	1.393	2.288	13.9	20.7
3 22	13 26.44	+ 1 21.6	2.150	3.104	6.4	19.7	3 22	13 30.18	- 6 1.2	1.331	2.287	9.3	20.4
4 1	13 18.68	+ 1 48.6	2.108	3.094	3.6	19.5	4 1	13 20.56	- 5 26.6	1.293	2.285	4.2	20.1
4 11	13 10.22	+ 2 11.0	2.094	3.084	3.5	19.5	4 11	13 9.81	- 4 49.0	1.282	2.283	1.8	20.0
4 21	13 1.86	+ 2 24.8	2.108	3.074	6.3	19.6	4 21	12 59.28	- 4 15.2	1.297	2.281	6.9	20.3
5 1	12 54.41	+ 2 27.0	2.150	3.064	9.5	19.8	5 1	12 50.29	- 3 51.6	1.337	2.278	11.9	20.5
5 11	12 48.51	+ 2 16.0	2.216	3.053	12.5	20.0	5 11	12 43.81	- 3 42.6	1.399	2.275	16.2	20.8
405436	2004 <i>TT</i> ₃₅		4 9.1 264°87	0°2/ 9.3 16			381315	2007 <i>VH</i> ₁₆₉		4 9.1 150°44	3°2/ 12.9 17		
3 2	13 41.37	- 9 18.1	1.633	2.435	16.8	22.0	3 2	13 34.21	- 20 49.9	2.457	3.199	13.5	21.4
3 12	13 37.20	- 9 18.4	1.528	2.415	13.4	21.7	3 12	13 30.46	- 20 43.1	2.362	3.202	11.1	21.2
3 22	13 30.12	- 9 5.5	1.443	2.394	9.2	21.4	3 22	13 24.87	- 20 19.8	2.289	3.205	8.3	21.0
4 1	13 20.62	- 8 41.1	1.383	2.373	4.4	21.1	4 1	13 17.96	- 19 40.3	2.241	3.208	5.4	20.8
4 11	13 9.73	- 8 9.1	1.350	2.351	0.9	20.8	4 11	13 10.43	- 18 47.1	2.221	3.211	3.3	20.7
4 21	12 58.71	- 7 35.2	1.343	2.329	6.3	21.1	4 21	13 3.04	- 17 44.6	2.229	3.214	4.3	20.8
5 1	12 48.91	- 7 5.9	1.362	2.307	11.4	21.3	5 1	12 56.56	- 16 38.2	2.266	3.216	7.1	20.9
5 11	12 41.44	- 6 47.2	1.404	2.284	15.9	21.5	5 11	12 51.57	- 15 34.1	2.329	3.218	10.0	21.1
3577	<i>Putilin</i>		4 9.1 77°63	1°2/ 10.9 18			498766	2008 <i>UA</i> ₅₄		4 9.1 175°12	1°0/ 10.3 17		
3 2	13 31.78	- 14 34.6	3.113	3.876	10.5	16.5	3 2	13 35.16	- 13 44.6	2.464	3.237	12.6	22.3
3 12	13 28.03	- 14 21.5	3.033	3.893	8.3	16.3	3 12	13 31.09	- 13 18.6	2.371	3.239	10.0	22.1
3 22	13 22.96	- 13 58.4	2.975	3.910	5.8	16.2	3 22	13 25.25	- 12 39.2	2.300	3.240	6.9	21.9
4 1	13 16.98	- 13 26.6	2.946	3.928	3.1	16.0	4 1	13 18.12	- 11 48.6	2.256	3.242	3.5	21.7
4 11	13 10.63	- 12 48.8	2.945	3.945	1.2	15.9	4 11	13 10.40	- 10 50.5	2.241	3.242	1.0	21.5
4 21	13 4.44	- 12 8.1	2.974	3.961	3.2	16.1	4 21	13 2.82	- 9 49.8	2.256	3.243	4.0	21.7
5 1	12 58.95	- 11 28.2	3.033	3.978	5.7	16.3	5 1	12 56.12	- 8 51.6	2.299	3.243	7.4	21.9
5 11	12 54.56	- 10 52.3	3.118	3.995	8.1	16.4	5 11	12 50.88	- 8 0.9	2.368	3.242	10.5	22.1
341616	2007 <i>UT</i> ₁₃₁		4 9.1 146°21	0°5/ 8.5 18			207815	2007 <i>TB</i> ₂₅₆		4 9.1 102°97	0°9/ 8.2 17		
3 2	13 33.24	- 9 40.8	2.490	3.281	12.0	21.3	3 2	13 35.27	- 6 57.3	2.230	3.031	12.9	20.8
3 12	13 29.51	- 8 54.2	2.404	3.286	9.3	21.1	3 12	13 31.26	- 6 30.2	2.150	3.038	10.0	20.6
3 22	13 24.13	- 7 56.3	2.342	3.292	6.2	20.9	3 22	13 25.40	- 5 53.7	2.093	3.046	6.6	20.4
4 1	13 17.57	- 6 50.5	2.307	3.297	2.8	20.7	4 1	13 18.19	- 5 11.3	2.062	3.053	2.9	20.2
4 11	13 10.50	- 5 41.5	2.301	3.302	1.0	20.6	4 11	13 10.41	- 4 27.4	2.060	3.060	1.4	20.1
4 21	13 3.60	- 4 34.6	2.326	3.307	4.5	20.8	4 21	13 2.83	- 3 46.8	2.087	3.068	5.0	20.4
5 1	12 57.55	- 3 35.0	2.378	3.312	7.7	21.0	5 1	12 56.23	- 3 13.9	2.141	3.075	8.5	20.6
5 11	12 52.87	- 2 46.5	2.456	3.316	10.6	21.2	5 11	12 51.19	- 2 52.1	2.220	3.082	11.6	20.8
135440	2001 <i>UV</i> ₁₇₉		4 9.1 154°25	7°7/ 29.4 18			407399	2010 <i>TC</i> ₂₀					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
287221	2002 <i>TD</i> ₄		4 9.1 201°06	1°3/ 7.8 17			98159	2000 <i>SN</i> ₇₆		4 9.2 200°82	2°4/ 7.1 18		
3 2	13 37.66	- 6 53.4	2.124	2.922	13.5	21.6	3 2	13 40.53	- 3 29.0	1.893	2.701	14.6	20.2
3 12	13 33.33	- 6 11.5	2.031	2.918	10.5	21.4	3 12	13 35.82	- 2 52.9	1.805	2.698	11.3	19.9
3 22	13 26.92	- 5 18.4	1.961	2.914	7.0	21.2	3 22	13 28.73	- 2 7.9	1.739	2.694	7.6	19.7
4 1	13 18.95	- 4 17.9	1.917	2.908	3.1	20.9	4 1	13 19.85	- 1 18.4	1.699	2.689	3.7	19.4
4 11	13 10.23	- 3 15.6	1.903	2.902	1.9	20.8	4 11	13 10.09	- 0 30.6	1.688	2.684	3.0	19.4
4 21	13 1.65	- 2 17.3	1.918	2.896	5.6	21.1	4 21	13 0.50	+ 0 9.5	1.704	2.678	6.7	19.6
5 1	12 54.07	- 1 28.8	1.960	2.888	9.4	21.3	5 1	12 52.09	+ 0 36.9	1.748	2.671	10.7	19.8
5 11	12 48.19	- 0 54.1	2.026	2.881	12.8	21.5	5 11	12 45.63	+ 0 48.5	1.814	2.664	14.3	20.0
162099	1998 <i>QV</i> ₄₁		4 9.1 242°31	3°4/12.5 18			429216	2009 <i>WY</i> ₂₆₂		4 9.2 178°66	5°9/15.2 17		
3 2	13 39.13	-19 25.7	2.561	3.297	13.1	20.7	3 2	13 37.39	-26 33.4	2.184	2.897	15.7	21.2
3 12	13 34.40	-19 44.6	2.443	3.280	10.9	20.5	3 12	13 33.37	-26 57.2	2.087	2.898	13.4	21.0
3 22	13 27.65	-19 49.8	2.348	3.263	8.2	20.3	3 22	13 27.10	-27 0.7	2.010	2.898	10.7	20.8
4 1	13 19.33	-19 40.7	2.278	3.245	5.4	20.1	4 1	13 19.11	-26 42.1	1.956	2.899	8.0	20.6
4 11	13 10.13	-19 18.3	2.237	3.226	3.5	19.9	4 11	13 10.26	-26 2.0	1.928	2.899	6.1	20.5
4 21	13 0.88	-18 45.2	2.225	3.207	4.6	20.0	4 21	13 1.53	-25 4.1	1.928	2.898	6.3	20.5
5 1	12 52.41	-18 5.6	2.242	3.187	7.5	20.1	5 1	12 53.88	-23 54.5	1.954	2.898	8.5	20.6
5 11	12 45.46	-17 25.1	2.285	3.167	10.5	20.3	5 11	12 48.08	-22 40.9	2.005	2.897	11.3	20.8
91423	1999 <i>OT</i> ₄		4 9.1 256°71	2°4/11.4 18			140087	2001 <i>SM</i> ₁₂₃		4 9.2 292°64	4°1/12.9 18		
3 2	13 36.38	-16 20.7	2.035	2.807	15.0	20.0	3 2	13 37.04	-20 16.3	2.189	2.937	14.8	19.8
3 12	13 32.64	-16 20.2	1.933	2.796	12.1	19.8	3 12	13 33.03	-20 44.1	2.091	2.933	12.2	19.6
3 22	13 26.65	-16 3.5	1.851	2.785	8.8	19.6	3 22	13 26.85	-20 56.1	2.013	2.928	9.3	19.4
4 1	13 18.90	-15 31.1	1.795	2.774	5.1	19.3	4 1	13 19.00	-20 51.5	1.960	2.924	6.3	19.2
4 11	13 10.24	-14 45.7	1.765	2.763	2.5	19.1	4 11	13 10.29	-20 31.3	1.933	2.920	4.2	19.0
4 21	13 1.62	-13 52.1	1.764	2.751	4.8	19.2	4 21	13 1.63	-19 58.5	1.935	2.916	5.2	19.1
5 1	12 54.02	-12 56.7	1.789	2.740	8.7	19.4	5 1	12 53.97	-19 18.3	1.963	2.912	8.1	19.3
5 11	12 48.23	-12 5.9	1.840	2.728	12.3	19.6	5 11	12 48.04	-18 36.8	2.017	2.908	11.3	19.4
351588	2005 <i>UA</i> ₄₈₁		4 9.1 237°85	8°3/28.1 18			171495	1996 <i>XD</i> ₂₄		4 9.2 196°23	1°1/ 8.1 18		
3 2	13 38.75	+23 55.9	2.931	3.715	10.5	21.1	3 2	13 39.45	- 7 1.3	1.910	2.711	14.7	21.1
3 12	13 33.63	+24 59.4	2.859	3.702	9.3	20.9	3 12	13 34.97	- 6 30.9	1.820	2.709	11.5	20.9
3 22	13 26.82	+25 53.7	2.811	3.688	8.5	20.9	3 22	13 28.16	- 5 48.9	1.753	2.706	7.7	20.6
4 1	13 18.82	+26 32.9	2.790	3.673	8.4	20.8	4 1	13 19.60	- 4 59.1	1.712	2.703	3.4	20.4
4 11	13 10.29	+26 52.3	2.794	3.658	9.1	20.9	4 11	13 10.17	- 4 6.8	1.699	2.699	1.7	20.2
4 21	13 1.92	+26 49.4	2.823	3.643	10.4	20.9	4 21	13 0.91	- 3 18.3	1.714	2.694	5.9	20.5
5 1	12 54.40	+26 24.0	2.874	3.627	11.9	21.0	5 1	12 52.81	- 2 39.2	1.757	2.689	10.0	20.7
5 11	12 48.27	+25 37.8	2.946	3.611	13.4	21.1	5 11	12 46.63	- 2 13.7	1.822	2.684	13.7	20.9
66269	1999 <i>JN</i> ₃		4 9.1 250°72	4°3/13.6 18			473263	2015 <i>ML</i> ₃₅		4 9.2 209°30	4°7/ 3.5 17		
3 2	13 37.66	-24 35.0	1.997	2.728	16.5	19.0	3 2	13 34.28	+ 5 59.6	2.512	3.331	11.1	21.1
3 12	13 33.90	-24 5.9	1.877	2.707	13.9	18.7	3 12	13 30.33	+ 6 55.7	2.433	3.328	8.7	20.9
3 22	13 27.66	-23 10.5	1.776	2.685	10.7	18.5	3 22	13 24.72	+ 7 52.9	2.378	3.326	6.3	20.8
4 1	13 19.44	-21 47.4	1.699	2.662	7.2	18.2	4 1	13 17.92	+ 8 45.8	2.351	3.323	4.8	20.7
4 11	13 10.12	-19 59.2	1.649	2.638	4.5	18.0	4 11	13 10.58	+ 9 29.2	2.352	3.320	5.3	20.7
4 21	13 0.78	-17 52.5	1.628	2.613	5.6	18.0	4 21	13 3.40	+ 9 59.0	2.381	3.317	7.5	20.8
5 1	12 52.52	-15 37.6	1.636	2.588	9.2	18.1	5 1	12 57.05	+10 12.4	2.436	3.314	10.0	21.0
5 11	12 46.24	-13 26.2	1.670	2.561	13.2	18.3	5 11	12 52.07	+10 8.9	2.514	3.310	12.4	21.1
266678	2009 <i>HU</i> ₈₂		4 9.1 289°67	2°4/ 7.2 18			115560	2003 <i>UB</i> ₇₉		4 9.2 211°56	0°7/ 9.8 18		
3 2	13 42.75	+ 0 19.3	2.396	3.193	12.2	20.4	3 2	13 39.15	-12 4.2	1.998	2.782	14.8	21.1
3 12	13 37.24	+ 0 16.9	2.279	3.164	9.6	20.1	3 12	13 34.75	-11 45.4	1.900	2.775	11.8	20.8
3 22	13 29.60	+ 0 16.6	2.185	3.136	6.5	19.9	3 22	13 28.05	-11 12.0	1.824	2.768	8.1	20.6
4 1	13 20.25	+ 0 15.6	2.120	3.107	3.4	19.6	4 1	13 19.57	-10 25.9	1.773	2.761	4.0	20.3
4 11	13 9.94	+ 0 10.6	2.084	3.078	2.8	19.5	4 11	13 10.19	- 9 31.5	1.751	2.752	0.9	20.1
4 21	12 59.54	- 0 1.4	2.078	3.049	5.9	19.7	4 21	13 0.90	- 8 34.5	1.757	2.743	5.0	20.3
5 1	12 49.96	- 0 22.8	2.102	3.020	9.5	19.8	5 1	12 52.70	- 7 41.2	1.791	2.734	9.2	20.6
5 11	12 41.96	- 0 54.9	2.150	2.990	12.7	20.0	5 11	12 46.36	- 6 57.5	1.849	2.723	12.9	20.8
463144	2011 <i>YP</i> ₃₀		4 9.1 162°31	0°6/ 9.7 16			121393	1999 <i>TA</i> ₁₂₀		4 9.2 241°98	2°2/11.2 18		
3 2	13 40.57	-11 35.8	1.972	2.755	15.0	22.4	3 2	13 36.09	-15 47.3	2.057	2.831	14.8	20.1
3 12	13 35.72	-11 18.2	1.886	2.761	11.8	22.2	3 12	13 32.33	-15 43.9	1.960	2.826	11.9	19.8
3 22	13 28.57	-10 46.6	1.822	2.767	8.1	22.0	3 22	13 26.40	-15 24.8	1.885	2.821	8.5	19.6
4 1	13 19.72	-10 3.4	1.784	2.772	3.9	21.7	4 1	13 18.80	-14 50.7	1.835	2.815	4.8	19.4
4 11	13 10.09	- 9 13.0	1.775	2.776	0.8	21.5	4 11	13 10.37	-14 4.8	1.812	2.810	2.2	19.2
4 21	13 0.69	- 8 21.1	1.794	2.780	5.0	21.8	4 21	13 2.04	-13 12.1	1.817	2.804	4.7	19.3
5 1	12 52.48	- 7 33.7	1.841	2.783	9.1	22.1	5 1	12 54.74	-12 18.5	1.849	2.799	8.5	19.6
5 11	12 46.19	- 6 56.0	1.913	2.785	12.7	22.3	5 11	12 49.21	-11 30.4	1.906	2.793	12.0	19.8
197085	2003 <i>UK</i> ₁₇₉		4 9.2 119°73	1°3/ 7.7 18			405472	2004 <i>VX</i> ₅₃		4 9.2 202°76	2°5/ 6.9 17		
3 2	13 37.70	- 5 0.8	2.505	3.299	11.8	21.3	3 2	13 41.49	- 2 58.3	2.052	2.854	13.8	21.8
3 12	13 32.83	- 4 32.6	2.431	3.317	9.1	21.1	3 12	13 36.41	- 2 20.8	1.959	2.849	10.7	21.6
3 22	13 26.28	- 3 57.5	2.382	3.334	6.0	21.0	3 22	13 29.06	- 1 35.0	1.890	2.843	7.2	21.4
4 1	13 18.56	- 3 18.7	2.361	3.351	2.7	20.8	4 1	13 20.01	- 0 45.5	1.847	2.836	3.6	21.1
4 11	13 10.38	- 2 40.5	2.369	3.368	1.8	20.7	4 11	13 10.11	+ 0 2.0	1.834	2.828	3.0	21.1
4 21	13 2.46	- 2 6.8	2.408	3.384	4.8	21.0	4 21	13 0.35	+ 0 41.9	1.849	2.820	6.5	21.3
5 1	12 55.48	- 1 41.1	2.474	3.399	7.9	21.2	5 1	12 51.67	+ 1 9.6	1.892	2.810	10.3	21.5
5 11	12 49.95	- 1 25.8	2.566	3.414	10.6	21.4	5 11	12 44.83	+ 1 22.1	1.958	2.800	13.7	21.7
508604	2017 <i>ST</i> ₈		4 9.2 203°08	1°4/ 7									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
61749	2000 <i>QU</i> ₁₅₆		4 9.2 305°74	1.4/ 7.7	18		459966	2014 <i>ON</i> ₁		4 9.2 241°85	6°5/13.7	17	
3 2	13 32.43	- 9 39.0	1.755	2.567	15.4	19.2	3 2	13 41.80	-23 8.5	1.665	2.411	18.7	21.5
3 12	13 29.71	- 8 24.4	1.668	2.564	11.9	19.0	3 12	13 37.74	-23 54.4	1.564	2.401	15.9	21.2
3 22	13 24.72	- 6 51.5	1.604	2.560	7.9	18.7	3 22	13 30.63	-24 19.6	1.482	2.390	12.5	21.0
4 1	13 18.04	- 5 5 8	1.565	2.557	3.5	18.4	4 1	13 21.00	-24 20.5	1.422	2.378	9.0	20.8
4 11	13 10.56	- 3 16.0	1.554	2.553	2.1	18.3	4 11	13 9.93	-23 56.3	1.387	2.367	6.6	20.6
4 21	13 3.27	- 1 31.7	1.571	2.550	6.5	18.6	4 21	12 58.77	-23 9.9	1.377	2.355	7.4	20.6
5 1	12 57.12	- 0 1.7	1.614	2.547	10.8	18.8	5 1	12 48.95	-22 8.8	1.393	2.342	10.8	20.7
5 11	12 52.84	+ 1 7.9	1.680	2.544	14.5	19.1	5 11	12 41.63	-21 2.9	1.432	2.329	14.6	20.9
100800	1998 <i>FZ</i> ₈₉		4 9.2 65°07	0°7/ 8.7	18		386160	2007 <i>TL</i> ₃₇₃		4 9.2 67°38	1°2/ 7.9	18	
3 2	13 43.32	- 6 0.7	1.660	2.465	16.4	18.8	3 2	13 36.43	- 6 6.7	2.082	2.886	13.6	21.0
3 12	13 37.96	- 6 6.0	1.600	2.489	12.7	18.7	3 12	13 32.17	- 5 36.5	2.019	2.909	10.4	20.8
3 22	13 30.06	- 6 2.2	1.561	2.514	8.4	18.5	3 22	13 26.00	- 4 57.6	1.978	2.933	6.8	20.6
4 1	13 20.39	- 5 52.3	1.547	2.538	3.8	18.2	4 1	13 18.52	- 4 13.7	1.965	2.956	3.1	20.4
4 11	13 10.06	- 5 40.5	1.561	2.562	1.3	18.1	4 11	13 10.55	- 3 30.0	1.980	2.979	1.8	20.4
4 21	13 0.24	- 5 31.1	1.603	2.586	5.8	18.4	4 21	13 2.92	- 2 51.3	2.023	3.003	5.3	20.7
5 1	12 51.95	- 5 28.1	1.671	2.610	10.0	18.7	5 1	12 56.40	- 2 21.7	2.094	3.026	8.7	20.9
5 11	12 45.90	- 5 34.6	1.762	2.634	13.6	19.0	5 11	12 51.55	- 2 4.2	2.188	3.049	11.8	21.1
121419	1999 <i>TW</i> ₁₄₇		4 9.2 258°29	1°7/11.1	18		413828	2006 <i>RS</i> ₃₃		4 9.2 170°45	0°3/ 9.4	16	
3 2	13 34.41	-15 5.9	2.646	3.410	12.1	20.5	3 2	13 39.45	-10 50.9	2.199	2.980	13.7	22.5
3 12	13 30.56	-15 0.8	2.536	3.396	9.7	20.3	3 12	13 34.65	-10 28.7	2.110	2.984	10.8	22.3
3 22	13 24.99	-14 43.4	2.448	3.382	6.9	20.1	3 22	13 27.78	- 9 54.0	2.043	2.988	7.3	22.1
4 1	13 18.11	-14 14.8	2.387	3.368	3.9	19.9	4 1	13 19.41	- 9 9.5	2.003	2.991	3.4	21.8
4 11	13 10.55	-13 37.2	2.355	3.354	1.7	19.7	4 11	13 10.34	- 8 19.2	1.992	2.994	0.7	21.6
4 21	13 3.01	-12 54.4	2.352	3.339	3.9	19.8	4 21	13 1.45	- 7 28.3	2.011	2.995	4.7	21.9
5 1	12 56.21	-12 10.6	2.377	3.324	7.0	20.0	5 1	12 53.60	- 6 42.1	2.057	2.996	8.4	22.1
5 11	12 50.76	-11 30.6	2.429	3.309	10.0	20.2	5 11	12 47.45	- 6 5.3	2.129	2.996	11.8	22.3
19041	6055 <i>P-L</i>		4 9.2 141°65	0°8/ 9.9	18		375733	2009 <i>RC</i> ₃₁		4 9.2 317°43	2°2/10.7	17	
3 2	13 40.79	-12 28.1	1.968	2.748	15.1	20.3	3 2	13 36.02	-13 35.5	1.538	2.341	17.6	20.4
3 12	13 35.85	-12 9.7	1.888	2.761	11.9	20.1	3 12	13 33.15	-13 49.5	1.443	2.326	14.3	20.1
3 22	13 28.63	-11 36.9	1.829	2.773	8.2	19.9	3 22	13 27.47	-13 46.8	1.367	2.312	10.1	19.9
4 1	13 19.77	-10 51.8	1.797	2.784	4.0	19.7	4 1	13 19.51	-13 27.8	1.314	2.299	5.5	19.5
4 11	13 10.19	- 9 58.9	1.793	2.794	1.0	19.4	4 11	13 10.30	-12 55.5	1.286	2.286	2.2	19.3
4 21	13 0.90	- 9 4.1	1.817	2.804	4.9	19.8	4 21	13 1.08	-12 15.5	1.284	2.274	5.9	19.5
5 1	12 52.83	- 8 13.5	1.870	2.813	8.9	20.0	5 1	12 53.16	-11 34.8	1.307	2.262	10.7	19.7
5 11	12 46.69	- 7 32.3	1.947	2.821	12.4	20.2	5 11	12 47.55	-11 1.1	1.351	2.250	15.2	20.0
140570	2001 <i>TY</i> ₂₁₃		4 9.2 7°58	0°6/ 9.8	18		435868	2008 <i>YO</i> ₄₈		4 9.2 89°70	0°7/ 8.5	17	
3 2	13 34.10	-11 39.9	2.182	2.971	13.5	20.0	3 2	13 35.31	- 7 43.8	2.153	2.953	13.3	21.8
3 12	13 30.55	-11 23.2	2.092	2.971	10.7	19.8	3 12	13 31.44	- 7 19.2	2.071	2.959	10.3	21.6
3 22	13 25.06	-10 53.8	2.025	2.972	7.3	19.6	3 22	13 25.63	- 6 44.5	2.011	2.964	6.9	21.4
4 1	13 18.14	-10 13.9	1.984	2.972	3.5	19.4	4 1	13 18.42	- 6 2.7	1.978	2.969	3.1	21.2
4 11	13 10.55	- 9 27.6	1.971	2.972	0.8	19.2	4 11	13 10.58	- 5 18.6	1.973	2.974	1.2	21.0
4 21	13 3.11	- 8 39.7	1.986	2.973	4.5	19.4	4 21	13 2.93	- 4 37.1	1.997	2.979	5.0	21.3
5 1	12 56.63	- 7 55.5	2.028	2.973	8.2	19.7	5 1	12 56.28	- 4 2.8	2.047	2.984	8.6	21.5
5 11	12 51.73	- 7 19.7	2.096	2.974	11.5	19.9	5 11	12 51.24	- 3 39.3	2.122	2.989	11.8	21.7
389908	2012 <i>TO</i> ₅₆		4 9.2 109°65	0°1/ 9.3	17		508253	2015 <i>HV</i> ₇₆		4 9.2 183°28	0°4/ 8.7	17	
3 2	13 36.11	- 9 37.5	2.459	3.244	12.3	21.4	3 2	13 35.02	- 8 19.2	2.525	3.316	11.9	22.0
3 12	13 31.76	- 9 24.4	2.377	3.255	9.6	21.3	3 12	13 30.96	- 7 55.6	2.434	3.316	9.2	21.9
3 22	13 25.67	- 9 1.7	2.319	3.266	6.5	21.1	3 22	13 25.20	- 7 22.7	2.366	3.316	6.2	21.7
4 1	13 18.36	- 8 31.7	2.288	3.278	3.0	20.9	4 1	13 18.20	- 6 43.2	2.325	3.315	2.8	21.4
4 11	13 10.52	- 7 57.8	2.287	3.288	0.6	20.7	4 11	13 10.63	- 6 0.8	2.314	3.315	0.9	21.3
4 21	13 2.88	- 7 23.9	2.314	3.299	4.2	21.0	4 21	13 3.18	- 5 19.9	2.332	3.314	4.4	21.5
5 1	12 56.14	- 6 54.1	2.370	3.309	7.5	21.2	5 1	12 56.56	- 4 44.4	2.378	3.313	7.7	21.7
5 11	12 50.85	- 6 31.9	2.451	3.320	10.4	21.4	5 11	12 51.33	- 4 18.0	2.449	3.312	10.6	21.9
467375	2004 <i>RA</i> ₆₆		4 9.2 218°73	0°4/ 8.7	17		417424	2006 <i>KC</i> ₄₇		4 9.2 257°57	2°2/ 7.3	17	
3 2	13 36.66	- 9 13.8	2.608	3.390	11.8	22.7	3 2	13 38.93	- 4 58.2	1.826	2.636	15.0	22.1
3 12	13 32.25	- 8 39.2	2.501	3.379	9.2	22.5	3 12	13 34.92	- 4 18.4	1.722	2.616	11.7	21.9
3 22	13 26.08	- 7 54.0	2.419	3.367	6.2	22.3	3 22	13 28.40	- 3 26.6	1.639	2.595	7.9	21.6
4 1	13 18.61	- 7 0.7	2.365	3.354	2.8	22.1	4 1	13 19.87	- 2 27.3	1.582	2.573	3.7	21.3
4 11	13 10.47	- 6 3.3	2.340	3.341	0.9	21.9	4 11	13 10.23	- 1 26.8	1.553	2.550	2.8	21.2
4 21	13 2.39	- 5 6.7	2.346	3.327	4.4	22.2	4 21	13 0.54	- 0 32.1	1.552	2.527	7.0	21.4
5 1	12 55.09	- 4 15.5	2.380	3.312	7.8	22.3	5 1	12 51.93	+ 0 10.0	1.577	2.504	11.4	21.6
5 11	12 49.16	- 3 34.0	2.440	3.297	10.8	22.5	5 11	12 45.30	+ 0 35.1	1.624	2.480	15.4	21.8
247875	2003 <i>UO</i> ₁₄₅		4 9.2 201°39	0°3/ 8.9	16		176512	2001 <i>YU</i> ₅₉		4 9.2 105°85	5°7/15.9	18	
3 2	13 38.77	- 9 51.9	2.081	2.870	14.1	22.0	3 2	13 35.53	-27 59.0	2.484	3.182	14.4	20.3
3 12	13 34.31	- 9 19.3	1.986	2.866	11.1	21.8	3 12	13 31.65	-28 20.5	2.390	3.188	12.3	20.1
3 22	13 27.67	- 8 33.4	1.912	2.861	7.5	21.5	3 22	13 25.81	-28 23.3	2.317	3.194	10.0	20.0
4 1	13 19.39	- 7 37.3	1.866	2.856	3.4	21.3	4 1	13 18.53	-28 5.7	2.266	3.199	7.6	19.8
4 11	13 10.30	- 6 35.8	1.848	2.849	0.9	21.1	4 11	13 10.55	-27 28.8	2.242	3.205	5.9	19.7
4 21	13 1.33	- 5 34.9	1.859	2.842	5.2	21.3	4 21	13 2.72	-26 35.4	2.245	3.210	5.9	19.8
5 1	12 53.41	- 4 40.9	1.898	2.834	9.2	21.6	5 1	12 55.84	-25 31.0	2.275	3.216	7.6	19.9
5 11	12 47.25	- 3 58.6	1.961	2.826	12.7	21.8	5 11	12 50.55	-24 22.1	2.331	3.221	10.0	20.0
295453	2008 <i>OJ</i> ₂₄		4 9.2 336°63	0°9/ 9.9	17		344573	2003 <i>AV</i> ₁₆		4 9.2 168°53	4°0/13.8	18	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
185241	2006 UR ₁₅		4 9.2 219°12	3°5/ 5.3	17		163351	2002 NW ₃₂		4 9.2 99°22	3°3/13.4	18	
3 2	13 35.95	+ 2 41.8	2.552	3.363	11.2	20.8	3 2	13 37.26	-22 3.8	2.639	3.364	13.0	19.9
3 12	13 31.64	+ 3 18.1	2.465	3.359	8.7	20.6	3 12	13 32.55	-21 54.4	2.564	3.391	10.7	19.8
3 22	13 25.63	+ 3 57.0	2.402	3.354	6.0	20.4	3 22	13 26.15	-21 28.9	2.510	3.418	8.0	19.6
4 1	13 18.40	+ 4 34.1	2.367	3.349	3.8	20.3	4 1	13 18.60	-20 48.1	2.482	3.445	5.3	19.5
4 11	13 10.59	+ 5 4.9	2.361	3.344	4.0	20.3	4 11	13 10.61	-19 54.5	2.483	3.470	3.4	19.4
4 21	13 2.93	+ 5 25.7	2.384	3.338	6.4	20.4	4 21	13 2.90	-18 52.3	2.514	3.496	4.1	19.5
5 1	12 56.08	+ 5 33.7	2.434	3.333	9.2	20.6	5 1	12 56.15	-17 47.0	2.573	3.520	6.6	19.7
5 11	12 50.61	+ 5 27.7	2.507	3.327	11.7	20.7	5 11	12 50.87	-16 43.8	2.659	3.544	9.1	19.9
305576	2008 XC ₄₇		4 9.2 87°03	15°3/29.5	17		58323	1994 PK ₃₉		4 9.2 196°30	0°3/ 8.8	18	
3 2	13 52.47	+31 1.4	1.556	2.335	18.5	20.3	3 2	13 33.83	- 8 46.2	3.045	3.827	10.2	20.6
3 12	13 45.17	+32 29.7	1.535	2.359	16.7	20.2	3 12	13 29.76	- 8 17.0	2.946	3.824	8.0	20.4
3 22	13 34.79	+33 32.6	1.533	2.383	15.6	20.2	3 22	13 24.28	- 7 39.3	2.872	3.820	5.3	20.2
4 1	13 22.46	+33 59.1	1.552	2.407	15.4	20.2	4 1	13 17.77	- 6 55.7	2.826	3.816	2.4	20.0
4 11	13 9.75	+33 43.4	1.592	2.430	16.0	20.3	4 11	13 10.78	- 6 9.4	2.811	3.812	0.8	19.9
4 21	12 58.15	+32 46.5	1.652	2.453	17.3	20.5	4 21	13 3.89	- 5 23.9	2.825	3.807	3.8	20.1
5 1	12 48.79	+31 13.8	1.731	2.475	18.9	20.6	5 1	12 57.65	- 4 43.1	2.869	3.802	6.6	20.3
5 11	12 42.31	+29 13.9	1.826	2.497	20.4	20.8	5 11	12 52.55	- 4 9.9	2.939	3.796	9.2	20.5
262791	2006 YB ₃₇		4 9.2 46°17	4°1/12.4	17		98021	2000 QX ₂₄₃		4 9.2 134°10	1°4/ 8.0	18	
3 2	13 37.91	-18 40.2	1.595	2.372	18.2	20.3	3 2	13 39.18	- 7 19.8	1.641	2.451	16.3	19.9
3 12	13 34.32	-19 4.2	1.519	2.381	14.9	20.1	3 12	13 35.04	- 6 39.8	1.566	2.459	12.7	19.7
3 22	13 28.01	-19 8.0	1.462	2.391	11.1	19.9	3 22	13 28.34	- 5 46.2	1.512	2.467	8.4	19.4
4 1	13 19.64	-18 51.2	1.427	2.401	7.0	19.7	4 1	13 19.76	- 4 43.8	1.483	2.474	3.8	19.2
4 11	13 10.31	-18 16.2	1.418	2.411	4.2	19.5	4 11	13 10.34	- 3 39.6	1.481	2.481	2.1	19.1
4 21	13 1.26	-17 28.4	1.435	2.421	5.9	19.7	4 21	13 1.24	- 2 41.1	1.507	2.488	6.5	19.4
5 1	12 53.67	-16 35.5	1.477	2.432	9.7	19.9	5 1	12 53.53	- 1 54.9	1.559	2.494	10.9	19.6
5 11	12 48.38	-15 45.6	1.543	2.443	13.5	20.2	5 11	12 47.98	- 1 25.5	1.633	2.500	14.7	19.9
5423	Horahofejš		4 9.2 62°85	1°4/10.2	18		423468	2005 SE ₁₉₄		4 9.2 260°88	0°1/ 9.1	17	
3 2	13 39.80	-12 39.7	1.401	2.207	18.9	17.5	3 2	13 42.92	- 6 48.2	1.853	2.649	15.3	21.0
3 12	13 35.86	-12 38.1	1.338	2.224	15.0	17.3	3 12	13 37.94	- 7 4.0	1.756	2.640	12.1	20.8
3 22	13 29.02	-12 18.3	1.294	2.242	10.3	17.1	3 22	13 30.37	- 7 11.6	1.681	2.631	8.2	20.5
4 1	13 20.06	-11 42.7	1.273	2.260	5.2	16.8	4 1	13 20.77	- 7 12.9	1.631	2.621	3.8	20.2
4 11	13 10.24	-10 56.7	1.277	2.278	1.5	16.6	4 11	13 10.10	- 7 10.8	1.610	2.612	0.9	20.0
4 21	13 0.88	-10 7.5	1.307	2.296	5.9	17.0	4 21	12 59.47	- 7 8.8	1.617	2.602	5.6	20.3
5 1	12 53.21	- 9 22.9	1.362	2.314	10.7	17.3	5 1	12 50.01	- 7 11.0	1.651	2.592	10.0	20.5
5 11	12 48.05	- 8 49.3	1.439	2.332	14.8	17.6	5 11	12 42.64	- 7 20.7	1.709	2.582	13.9	20.7
502867	2015 DH ₂₀₃		4 9.2 93°67	7°6/16.2	17		246502	2008 AC ₇₂		4 9.2 147°99	5°8/ 1.6	17	
3 2	13 41.73	-29 11.8	2.121	2.813	16.7	21.5	3 2	13 33.46	+ 9 10.2	2.497	3.318	11.1	20.6
3 12	13 36.92	-30 12.9	2.036	2.824	14.5	21.3	3 12	13 29.72	+10 30.4	2.429	3.322	8.8	20.4
3 22	13 29.60	-30 53.8	1.970	2.836	12.0	21.0	3 22	13 24.34	+11 49.8	2.387	3.326	6.8	20.3
4 1	13 20.36	-31 11.0	1.927	2.848	9.5	21.0	4 1	13 17.81	+13 2.1	2.372	3.330	5.8	20.2
4 11	13 10.16	-31 3.6	1.909	2.859	7.8	20.9	4 11	13 10.79	+14 1.4	2.385	3.333	6.6	20.3
4 21	13 0.11	-30 33.7	1.917	2.870	7.8	21.0	4 21	13 3.95	+14 43.3	2.425	3.336	8.5	20.4
5 1	12 51.29	-29 46.7	1.951	2.881	9.4	21.1	5 1	12 57.97	+15 5.4	2.490	3.340	10.8	20.6
5 11	12 44.54	-28 50.5	2.010	2.892	11.7	21.2	5 11	12 53.35	+15 7.7	2.577	3.343	12.9	20.7
61656	2000 QR ₁₁₃		4 9.2 262°82	1°6/ 7.6	17		284456	2007 FM ₂₈		4 9.2 250°61	3°6/11.5	17	
3 2	13 35.24	- 6 28.3	1.830	2.643	14.8	19.5	3 2	13 43.74	-16 27.2	1.711	2.480	17.4	21.1
3 12	13 31.81	- 5 45.3	1.745	2.641	11.5	19.3	3 12	13 39.17	-16 54.5	1.601	2.461	14.4	20.8
3 22	13 26.12	- 4 50.0	1.681	2.638	7.6	19.1	3 22	13 31.61	-17 5.5	1.510	2.442	10.6	20.5
4 1	13 18.73	- 3 47.0	1.644	2.635	3.5	18.8	4 1	13 21.52	-16 58.9	1.444	2.421	6.4	20.2
4 11	13 10.53	- 2 42.8	1.634	2.632	2.3	18.7	4 11	13 9.91	-16 35.3	1.404	2.400	3.6	20.0
4 21	13 2.51	- 1 44.3	1.651	2.629	6.3	19.0	4 21	12 58.09	-15 58.6	1.392	2.378	6.1	20.1
5 1	12 55.62	- 0 57.6	1.694	2.627	10.4	19.2	5 1	12 47.47	-15 15.5	1.405	2.355	10.6	20.3
5 11	12 50.60	- 0 26.9	1.760	2.624	14.0	19.4	5 11	12 39.21	-14 34.1	1.443	2.331	15.0	20.5
377216	2003 YX ₁₀		4 9.2 104°66	2°3/12.1	18		279163	2009 SX ₁₃₅		4 9.2 192°96	0°5/ 9.7	17	
3 2	13 38.72	-18 18.2	2.761	3.499	12.2	22.0	3 2	13 36.79	-12 15.0	2.283	3.062	13.3	22.0
3 12	13 33.53	-18 10.0	2.687	3.528	9.9	21.8	3 12	13 32.59	-11 45.3	2.187	3.060	10.5	21.8
3 22	13 26.73	-17 48.5	2.636	3.557	7.1	21.7	3 22	13 26.44	-11 2.1	2.114	3.058	7.2	21.6
4 1	13 18.84	-17 14.6	2.613	3.585	4.3	21.5	4 1	13 18.84	-10 7.6	2.068	3.055	3.5	21.3
4 11	13 10.54	-16 31.2	2.618	3.613	2.3	21.4	4 11	13 10.55	- 9 6.2	2.050	3.052	0.7	21.1
4 21	13 2.53	-15 41.9	2.654	3.639	3.7	21.6	4 21	13 2.39	- 8 3.3	2.062	3.048	4.5	21.4
5 1	12 55.43	-14 51.3	2.720	3.665	6.3	21.8	5 1	12 55.17	- 7 4.6	2.102	3.043	8.2	21.6
5 11	12 49.75	-14 3.8	2.813	3.690	8.9	22.0	5 11	12 49.53	- 6 15.1	2.168	3.038	11.5	21.8
307191	2002 ET ₁₃₃		4 9.2 52°67	1°9/10.6	18		141057	2001 XS ₅		4 9.2 133°66	4°2/ 3.5	18	
3 2	13 37.31	-14 25.4	1.397	2.201	19.0	20.8	3 2	13 33.34	+ 4 3.7	2.625	3.442	10.7	20.4
3 12	13 34.12	-14 18.7	1.324	2.209	15.2	20.6	3 12	13 29.50	+ 5 17.1	2.555	3.451	8.3	20.2
3 22	13 28.00	-13 51.3	1.270	2.217	10.7	20.3	3 22	13 24.13	+ 6 32.9	2.511	3.460	5.9	20.1
4 1	13 19.68	-13 5.0	1.239	2.225	5.6	20.1	4 1	13 17.70	+ 7 45.5	2.495	3.469	4.3	20.0
4 11	13 10.34	-12 5.3	1.233	2.233	1.9	19.8	4 11	13 10.82	+ 8 49.4	2.508	3.478	4.9	20.0
4 21	13 1.34	-11 0.3	1.252	2.242	5.9	20.1	4 21	13 4.13	+ 9 40.2	2.549	3.486	7.0	20.2
5 1	12 53.94	- 9 59.0	1.296	2.250	10.8	20.4	5 1	12 58.25	+10 14.8	2.617	3.494	9.4	20.3
5 11	12 49.02	- 9 9.2	1.361	2.259	15.2	20.7	5 11	12 53.66	+10 32.2	2.708	3.501	11.7	20.5
402875	2007 RQ ₂₂₃		4 9.2 145°08	0°2/ 9.4	18		456178	2006 HZ ₄₃		4 9.2 343°98	3°1/ 7.1	17	
3 2	13 40.12	-10 53.4	1.914	2.702	15.2								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
91261	1999 <i>CY</i> ₉₄		4 9.2 2°12	5:7/ 5.4	18		200227	1999 <i>UU</i> ₂₀		4 9.2 217°41	0°9/ 8.2	17	
3 2	13 36.21	+ 1 15.1	1.197	2.049	18.6	18.9	3 2	13 34.66	- 8 28.8	2.091	2.892	13.6	21.5
3 12	13 33.61	+ 2 9.4	1.131	2.047	14.5	18.6	3 12	13 31.10	- 7 44.6	2.000	2.889	10.6	21.3
3 22	13 27.85	+ 3 11.5	1.085	2.047	10.0	18.4	3 22	13 25.53	- 6 47.7	1.932	2.885	7.1	21.1
4 1	13 19.67	+ 4 12.3	1.060	2.047	6.2	18.2	4 1	13 18.47	- 5 41.9	1.891	2.882	3.2	20.8
4 11	13 10.38	+ 5 1.2	1.060	2.048	6.6	18.2	4 11	13 10.69	- 4 32.9	1.878	2.878	1.5	20.7
4 21	13 1.45	+ 5 29.9	1.083	2.049	10.6	18.4	4 21	13 3.06	- 3 27.1	1.893	2.874	5.4	20.9
5 1	12 54.25	+ 5 33.1	1.127	2.052	15.1	18.7	5 1	12 56.41	- 2 30.3	1.935	2.870	9.2	21.1
5 11	12 49.73	+ 5 10.4	1.190	2.055	19.2	18.9	5 11	12 51.41	- 1 47.1	2.002	2.865	12.6	21.3
58320	1994 <i>PE</i> ₃₈		4 9.2 239°57	2°3/ 11.9	18		470638	2008 <i>SA</i> ₈₆		4 9.2 155°73	2°0/ 11.4	17	
3 2	13 35.24	-17 17.3	2.728	3.478	12.1	19.9	3 2	13 34.41	-17 36.0	2.152	2.918	14.4	22.1
3 12	13 31.20	-17 17.1	2.617	3.467	9.8	19.7	3 12	13 30.89	-17 3.0	2.060	2.921	11.6	21.9
3 22	13 25.44	-17 4.2	2.530	3.455	7.2	19.5	3 22	13 25.37	-16 11.6	1.990	2.924	8.3	21.7
4 1	13 18.38	-16 39.0	2.468	3.443	4.3	19.3	4 1	13 18.38	-15 3.8	1.946	2.926	4.7	21.5
4 11	13 10.66	-16 3.4	2.435	3.430	2.3	19.2	4 11	13 10.73	-13 43.9	1.930	2.929	2.0	21.3
4 21	13 2.96	-15 20.7	2.432	3.418	3.9	19.3	4 21	13 3.26	-12 18.2	1.942	2.931	4.4	21.5
5 1	12 56.00	-14 35.3	2.457	3.405	6.8	19.4	5 1	12 56.80	-10 54.0	1.983	2.933	8.0	21.7
5 11	12 50.37	-13 52.0	2.509	3.391	9.7	19.6	5 11	12 51.99	- 9 38.1	2.049	2.934	11.4	21.9
345542	2006 <i>QB</i> ₁₀₅		4 9.2 174°90	1°3/ 7.5	18		6422	Akagi		4 9.2 275°91	7°9/ 31.7	18	R
3 2	13 34.15	- 5 31.6	2.936	3.728	10.3	22.2	3 2	13 35.13	+ 9 51.5	1.858	2.691	13.8	16.9
3 12	13 30.02	- 4 51.0	2.846	3.731	7.9	22.0	3 12	13 31.81	+11 29.3	1.777	2.675	11.2	16.7
3 22	13 24.44	- 4 3.3	2.781	3.733	5.2	21.8	3 22	13 26.20	+13 8.3	1.719	2.660	8.8	16.5
4 1	13 17.85	- 3 11.5	2.744	3.734	2.4	21.6	4 1	13 18.85	+14 39.1	1.687	2.644	7.9	16.4
4 11	13 10.79	- 2 19.7	2.738	3.735	1.7	21.6	4 11	13 10.62	+15 52.2	1.682	2.628	9.0	16.4
4 21	13 3.87	- 1 31.8	2.762	3.736	4.4	21.8	4 21	13 2.50	+16 40.8	1.701	2.612	11.6	16.5
5 1	12 57.65	- 0 51.4	2.814	3.736	7.2	21.9	5 1	12 55.47	+17 1.0	1.743	2.595	14.5	16.7
5 11	12 52.60	- 0 21.2	2.892	3.736	9.7	22.1	5 11	12 50.31	+16 53.1	1.804	2.579	17.3	16.8
419906	2011 <i>AW</i> ₇₉		4 9.2 145°62	1°1/ 8.2	18		146351	2001 <i>OH</i> ₉₇		4 9.2 211°69	1°9/ 7.2	18	
3 2	13 40.74	- 5 49.3	2.144	2.938	13.6	21.0	3 2	13 38.63	- 4 5.5	2.423	3.219	12.1	21.2
3 12	13 35.62	- 5 32.2	2.063	2.948	10.5	20.8	3 12	13 33.90	- 3 27.0	2.324	3.210	9.4	21.0
3 22	13 28.42	- 5 6.6	2.005	2.957	7.0	20.6	3 22	13 27.29	- 2 40.5	2.249	3.201	6.3	20.8
4 1	13 19.73	- 4 35.9	1.975	2.965	3.1	20.4	4 1	13 19.27	- 1 49.7	2.202	3.191	3.0	20.5
4 11	13 10.38	- 4 4.3	1.973	2.973	1.6	20.2	4 11	13 10.54	- 0 59.5	2.184	3.180	2.4	20.5
4 21	13 1.27	- 3 36.3	2.001	2.980	5.3	20.5	4 21	13 1.89	- 0 14.7	2.197	3.169	5.5	20.7
5 1	12 53.26	- 3 15.9	2.056	2.987	8.9	20.7	5 1	12 54.11	+ 0 20.3	2.237	3.156	8.9	20.8
5 11	12 47.00	- 3 6.1	2.136	2.993	12.1	21.0	5 11	12 47.83	+ 0 42.5	2.302	3.143	11.9	21.0
410800	2009 <i>HH</i> ₇₉		4 9.2 39°48	2°1/ 7.7	18		508259	2015 <i>HH</i> ₆₀		4 9.2 245°68	2°7/ 6.5	17	
3 2	13 36.82	- 5 45.2	1.361	2.192	18.0	20.9	3 2	13 36.99	- 0 11.5	2.388	3.196	11.9	21.5
3 12	13 33.66	- 5 11.0	1.294	2.200	13.9	20.7	3 12	13 32.63	+ 0 13.5	2.296	3.189	9.2	21.3
3 22	13 27.64	- 4 23.3	1.248	2.208	9.2	20.4	3 22	13 26.42	+ 0 42.9	2.228	3.182	6.2	21.1
4 1	13 19.50	- 3 28.1	1.225	2.217	4.2	20.1	4 1	13 18.86	+ 1 12.6	2.188	3.175	3.4	20.9
4 11	13 10.44	- 2 33.1	1.227	2.226	2.7	20.1	4 11	13 10.64	+ 1 38.4	2.176	3.167	3.2	20.9
4 21	13 1.78	- 1 46.5	1.254	2.236	7.4	20.4	4 21	13 2.53	+ 1 56.4	2.193	3.160	6.0	21.1
5 1	12 54.70	- 1 14.8	1.306	2.246	12.2	20.7	5 1	12 55.30	+ 2 3.5	2.238	3.152	9.1	21.3
5 11	12 50.05	- 1 1.9	1.378	2.256	16.3	20.9	5 11	12 49.55	+ 1 57.8	2.306	3.145	12.0	21.4
246754	2009 <i>BK</i> ₁₅₂		4 9.2 100°20	1°8/ 7.4	17		132175	2002 <i>EA</i> ₂₄		4 9.2 292°76	0°9/ 8.5	17	
3 2	13 35.87	- 4 3.1	2.168	2.976	13.0	21.2	3 2	13 35.82	- 8 58.7	1.503	2.321	17.2	20.0
3 12	13 31.87	- 3 33.6	2.087	2.980	10.0	21.0	3 12	13 33.18	- 8 27.0	1.397	2.294	13.7	19.7
3 22	13 25.93	- 2 56.6	2.029	2.984	6.6	20.8	3 22	13 27.66	- 7 37.4	1.311	2.267	9.3	19.4
4 1	13 18.60	- 2 15.8	1.998	2.989	3.1	20.6	4 1	13 19.74	- 6 32.8	1.249	2.240	4.3	19.0
4 11	13 10.65	- 1 36.3	1.995	2.993	2.3	20.5	4 11	13 10.40	- 5 19.9	1.212	2.213	1.6	18.8
4 21	13 2.90	- 1 2.6	2.021	2.997	5.6	20.8	4 21	13 0.89	- 4 7.4	1.201	2.185	7.1	19.0
5 1	12 56.14	- 0 38.9	2.074	3.001	9.1	21.0	5 1	12 52.58	- 3 4.8	1.214	2.158	12.5	19.2
5 11	12 50.98	- 0 27.8	2.150	3.005	12.2	21.2	5 11	12 46.59	- 2 19.9	1.249	2.131	17.3	19.4
228375	2000 <i>WH</i> ₇₀		4 9.2 159°55	2°7/ 12.2	17		26994	1997 <i>XU</i> ₁		4 9.2 186°55	4°8/ 3.5	18	
3 2	13 38.11	-18 42.1	2.527	3.270	13.1	21.6	3 2	13 35.83	+ 6 34.8	2.574	3.388	11.0	18.9
3 12	13 33.43	-18 37.5	2.434	3.278	10.7	21.4	3 12	13 31.53	+ 7 31.3	2.496	3.388	8.6	18.7
3 22	13 26.91	-18 18.1	2.363	3.284	7.8	21.2	3 22	13 25.57	+ 8 28.4	2.442	3.387	6.3	18.6
4 1	13 19.05	-17 44.4	2.318	3.290	4.8	21.0	4 1	13 18.42	+ 9 20.8	2.416	3.386	4.8	18.5
4 11	13 10.56	-16 58.9	2.302	3.296	2.7	20.9	4 11	13 10.75	+10 3.3	2.419	3.385	5.4	18.5
4 21	13 2.24	-16 5.7	2.316	3.301	4.1	21.0	4 21	13 3.25	+10 32.0	2.450	3.383	7.5	18.6
5 1	12 54.84	-15 9.9	2.358	3.305	7.1	21.2	5 1	12 56.58	+10 44.5	2.508	3.381	9.9	18.8
5 11	12 48.95	-14 16.9	2.427	3.309	10.0	21.4	5 11	12 51.27	+10 40.0	2.588	3.378	12.2	18.9
102930	1999 <i>XO</i> ₄₀		4 9.2 182°22	0°7/ 8.5	18		179790	2002 <i>TE</i> ₁₄		4 9.2 207°11	2°3/ 6.9	17	
3 2	13 40.10	- 7 42.3	2.101	2.893	13.9	20.7	3 2	13 39.19	- 3 16.9	2.109	2.914	13.4	21.4
3 12	13 35.29	- 7 16.7	2.011	2.894	10.8	20.5	3 12	13 34.61	- 2 38.4	2.017	2.908	10.4	21.2
3 22	13 28.31	- 6 40.5	1.944	2.895	7.2	20.3	3 22	13 27.90	- 1 51.6	1.948	2.902	6.9	21.0
4 1	13 19.74	- 5 56.6	1.904	2.894	3.3	20.0	4 1	13 19.58	- 1 0.9	1.906	2.896	3.4	20.7
4 11	13 10.41	- 5 9.8	1.893	2.893	1.3	19.9	4 11	13 10.49	- 0 11.8	1.893	2.889	2.9	20.7
4 21	13 1.24	- 4 25.4	1.910	2.892	5.3	20.1	4 21	13 1.52	+ 0 30.1	1.909	2.881	6.3	20.9
5 1	12 53.15	- 3 48.5	1.956	2.889	9.2	20.4	5 1	12 53.57	+ 1 0.1	1.952	2.872	9.9	21.1
5 11	12 46.82	- 3 23.1	2.026	2.886	12.6	20.6	5 11	12 47.35	+ 1 15.4	2.018	2.863	13.2	21.3
497341	2005 <i>UF</i> ₈₅		4 9.2 244°97	1°3/ 7.9	17		102460	1999 <i>TN</i> ₂₂₆		4 9.2 298°71	1°4/ 10.3	17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
457445	2008 <i>UU</i> ₁₂₆		4 9.2 192°03	0°9/10.1	17		241681	2000 <i>RX</i> ₈		4 9.2 198°25	0°7/10.2	18	
3 2	13 39.92	-13 43.4	1.927	2.705	15.4	22.5	3 2	13 33.63	-13 10.4	3.041	3.807	10.6	20.8
3 12	13 35.45	-13 12.1	1.832	2.704	12.3	22.3	3 12	13 29.68	-12 41.2	2.939	3.804	8.4	20.6
3 22	13 28.60	-12 23.4	1.759	2.702	8.5	22.1	3 22	13 24.29	-12 1.3	2.860	3.800	5.8	20.4
4 1	13 19.95	-11 19.5	1.712	2.698	4.3	21.8	4 1	13 17.87	-11 12.3	2.810	3.795	2.9	20.2
4 11	13 10.41	-10 5.6	1.693	2.694	1.0	21.6	4 11	13 10.95	-10 17.5	2.789	3.790	0.7	20.0
4 21	13 1.02	-8 48.5	1.703	2.690	5.1	21.8	4 21	13 4.12	-9 20.6	2.799	3.785	3.4	20.3
5 1	12 52.80	-7 35.8	1.740	2.684	9.4	22.1	5 1	12 57.96	-8 26.0	2.838	3.779	6.3	20.4
5 11	12 46.53	-6 34.3	1.803	2.677	13.2	22.3	5 11	12 52.94	-7 37.3	2.904	3.772	8.9	20.6
131016	2000 <i>XX</i> ₂₅		4 9.2 131°09	3°0/6.3	18		182083	2000 <i>HS</i> ₅₁		4 9.2 335°84	1°3/8.2	18	
3 2	13 40.03	+0 19.5	2.290	3.094	12.5	20.4	3 2	13 36.24	-6 32.4	1.537	2.360	16.7	19.5
3 12	13 34.87	+0 51.1	2.217	3.108	9.6	20.2	3 12	13 33.12	-6 11.3	1.454	2.354	13.1	19.2
3 22	13 27.83	+1 26.5	2.168	3.120	6.5	20.0	3 22	13 27.33	-5 37.5	1.392	2.349	8.7	19.0
4 1	13 19.46	+2 1.4	2.147	3.133	3.6	19.9	4 1	13 19.47	-4 55.2	1.353	2.345	4.0	18.7
4 11	13 10.56	+2 31.1	2.155	3.144	3.5	19.9	4 11	13 10.59	-4 10.6	1.340	2.340	2.0	18.5
4 21	13 1.93	+2 51.7	2.192	3.156	6.2	20.1	4 21	13 1.88	-3 30.5	1.353	2.337	6.7	18.8
5 1	12 54.34	+3 0.2	2.257	3.167	9.3	20.3	5 1	12 54.51	-3 1.3	1.391	2.333	11.4	19.1
5 11	12 48.37	+2 55.4	2.345	3.177	12.1	20.5	5 11	12 49.36	-2 47.6	1.451	2.330	15.5	19.3
205570	2001 <i>SU</i> ₃₂₄		4 9.2 247°05	2°6/11.2	17		224527	2005 <i>WC</i> ₉₀		4 9.2 153°97	1°1/8.2	17	
3 2	13 40.18	-15 46.2	1.673	2.454	17.3	21.7	3 2	13 38.38	-6 41.2	2.152	2.949	13.4	21.0
3 12	13 36.30	-15 48.9	1.570	2.440	14.1	21.4	3 12	13 33.86	-6 13.6	2.069	2.955	10.4	20.8
3 22	13 29.59	-15 32.8	1.487	2.425	10.2	21.1	3 22	13 27.31	-5 36.4	2.009	2.961	6.9	20.6
4 1	13 20.58	-14 58.0	1.428	2.409	5.8	20.8	4 1	13 19.31	-4 53.0	1.976	2.967	3.1	20.4
4 11	13 10.27	-14 7.4	1.394	2.393	2.6	20.6	4 11	13 10.65	-4 8.2	1.972	2.972	1.6	20.2
4 21	12 59.91	-13 6.8	1.388	2.377	5.7	20.8	4 21	13 2.19	-3 27.0	1.996	2.976	5.2	20.5
5 1	12 50.80	-12 4.4	1.408	2.360	10.4	21.0	5 1	12 54.78	-2 54.1	2.048	2.980	8.9	20.7
5 11	12 43.97	-11 8.5	1.451	2.342	14.8	21.2	5 11	12 49.04	-2 32.7	2.125	2.984	12.1	20.9
83957	2001 <i>XO</i> ₃₅		4 9.2 170°37	1°0/10.3	18		439498	2014 <i>AN</i> ₁₉		4 9.2 77°56	2°6/11.9	17	
3 2	13 37.09	-11 56.5	2.611	3.383	12.0	19.6	3 2	13 35.65	-17 35.4	2.209	2.970	14.2	21.3
3 12	13 32.57	-11 57.0	2.517	3.385	9.5	19.4	3 12	13 31.79	-17 35.2	2.125	2.981	11.5	21.1
3 22	13 26.33	-11 47.5	2.446	3.387	6.6	19.2	3 22	13 25.95	-17 19.6	2.063	2.991	8.4	20.9
4 1	13 18.82	-11 29.4	2.403	3.388	3.4	19.0	4 1	13 18.69	-16 49.1	2.026	3.002	5.0	20.7
4 11	13 10.70	-11 5.3	2.388	3.389	1.0	18.8	4 11	13 10.78	-16 6.8	2.016	3.012	2.7	20.6
4 21	13 2.71	-10 38.3	2.404	3.390	3.8	19.0	4 21	13 3.08	-15 17.2	2.035	3.022	4.4	20.7
5 1	12 55.53	-10 12.3	2.448	3.391	7.0	19.2	5 1	12 56.39	-14 25.7	2.082	3.033	7.6	20.9
5 11	12 49.76	-9 50.9	2.518	3.391	9.9	19.4	5 11	12 51.34	-13 38.0	2.154	3.043	10.7	21.2
427301	2014 <i>WR</i> ₂₆₀		4 9.2 45°61	3°0/6.7	17		306656	2000 <i>SL</i> ₁₈₉		4 9.2 184°75	1°4/10.8	17	
3 2	13 35.93	-3 32.0	1.562	2.390	16.2	21.4	3 2	13 35.78	-16 2.6	2.376	3.140	13.3	21.4
3 12	13 32.63	-2 41.2	1.492	2.396	12.5	21.2	3 12	13 31.77	-15 25.3	2.279	3.140	10.6	21.2
3 22	13 26.81	-1 39.7	1.443	2.402	8.3	21.0	3 22	13 25.90	-14 31.9	2.204	3.140	7.5	21.0
4 1	13 19.14	-0 33.7	1.419	2.409	4.2	20.7	4 1	13 18.67	-13 24.2	2.156	3.139	4.0	20.8
4 11	13 10.65	+0 28.7	1.421	2.415	3.7	20.7	4 11	13 10.79	-12 6.8	2.137	3.138	1.4	20.6
4 21	13 2.47	+1 20.0	1.449	2.422	7.6	21.0	4 21	13 3.06	-10 45.1	2.148	3.136	4.1	20.8
5 1	12 55.67	+1 54.2	1.502	2.429	11.8	21.2	5 1	12 56.25	-9 25.7	2.188	3.133	7.6	21.0
5 11	12 50.99	+2 8.6	1.576	2.437	15.5	21.5	5 11	12 50.96	-8 14.6	2.253	3.130	10.8	21.2
276519	2003 <i>RU</i> ₁₂		4 9.2 199°36	1°2/7.9	18		323464	2004 <i>KM</i> ₃		4 9.2 342°41	2°8/7.2	17	
3 2	13 38.11	-5 10.6	2.609	3.399	11.5	21.3	3 2	13 36.13	-3 11.8	1.475	2.307	16.8	19.9
3 12	13 33.35	-4 48.1	2.512	3.396	8.9	21.2	3 12	13 33.11	-2 43.0	1.395	2.301	13.1	19.6
3 22	13 26.84	-4 18.6	2.440	3.391	5.9	21.0	3 22	13 27.36	-2 4.1	1.336	2.296	8.7	19.3
4 1	13 19.06	-3 44.9	2.396	3.386	2.7	20.7	4 1	13 19.50	-1 20.5	1.301	2.291	4.3	19.1
4 11	13 10.67	-3 10.7	2.382	3.380	1.6	20.6	4 11	13 10.61	-0 39.5	1.291	2.287	3.5	19.0
4 21	13 2.37	-2 39.9	2.397	3.374	4.7	20.8	4 21	13 1.91	-0 7.8	1.306	2.284	7.7	19.2
5 1	12 54.89	-2 16.1	2.441	3.368	7.9	21.0	5 1	12 54.60	+0 8.6	1.346	2.281	12.3	19.5
5 11	12 48.80	-2 2.1	2.511	3.360	10.8	21.2	5 11	12 49.58	+0 6.8	1.406	2.279	16.3	19.7
289085	Andrewell		4 9.2 71°65	0°7/9.6	18		309582	2008 <i>AZ</i> ₉₈		4 9.2 268°37	5°8/2.0	18	
3 2	13 42.36	-9 57.7	1.395	2.204	18.8	20.9	3 2	13 34.32	+9 0.1	2.429	3.250	11.3	21.0
3 12	13 37.96	-10 4.7	1.329	2.219	14.8	20.7	3 12	13 30.61	+10 8.5	2.342	3.236	9.1	20.8
3 22	13 30.55	-9 56.8	1.282	2.233	10.1	20.4	3 22	13 25.12	+11 17.1	2.280	3.221	7.0	20.6
4 1	13 20.89	-9 36.5	1.258	2.247	4.8	20.2	4 1	13 18.32	+12 19.6	2.245	3.206	5.9	20.5
4 11	13 10.28	-9 8.4	1.260	2.262	1.0	19.9	4 11	13 10.88	+13 9.8	2.237	3.190	6.6	20.6
4 21	13 0.11	-8 38.8	1.288	2.276	6.2	20.3	4 21	13 3.52	+13 43.2	2.256	3.175	8.7	20.7
5 1	12 51.66	-8 14.3	1.341	2.290	11.1	20.6	5 1	12 56.99	+13 57.0	2.301	3.160	11.2	20.8
5 11	12 45.80	-8 0.1	1.416	2.305	15.3	20.9	5 11	12 51.87	+13 50.5	2.367	3.144	13.6	20.9
392478	2011 <i>GJ</i> ₇₄		4 9.2 175°74	4°2/5.5	17		169577	2002 <i>GO</i> ₁₄		4 9.2 23°46	1°1/9.8	18	
3 2	13 39.97	+3 36.0	2.078	2.892	13.2	21.3	3 2	13 40.67	-8 59.1	1.147	1.977	20.8	19.2
3 12	13 35.14	+4 6.0	1.998	2.893	10.3	21.1	3 12	13 37.33	-9 34.1	1.083	1.984	16.5	18.9
3 22	13 28.20	+4 37.9	1.942	2.894	7.2	20.9	3 22	13 30.52	-9 55.4	1.037	1.992	11.3	18.7
4 1	13 19.72	+5 6.4	1.913	2.894	4.6	20.7	4 1	13 21.03	-10 4.1	1.011	2.001	5.5	18.4
4 11	13 10.55	+5 26.5	1.911	2.894	4.8	20.7	4 11	13 10.31	-10 3.7	1.010	2.012	1.4	18.1
4 21	13 1.59	+5 33.9	1.938	2.894	7.5	20.9	4 21	13 0.00	-9 59.3	1.033	2.023	6.8	18.5
5 1	12 53.74	+5 26.3	1.991	2.894	10.7	21.1	5 1	12 51.65	-9 57.3	1.078	2.035	12.2	18.8
5 11	12 47.65	+5 3.0	2.067	2.894	13.6	21.3	5 11	12 46.29	-10 3.2	1.144	2.048	16.9	19.1
238001	2002 <i>TC</i> ₁₀₅		4 9.2 177°55	0°8/10.2	18		402888	2007 <i>RT</i> ₃₂₂		4 9.2 219°76	0°0/9.1	16	
3 2	13 35.38	-12 56.0	2.543	3.316	12.3	21.6	3 2						

EPHEMERIDES

4 9.2

4 9.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
315256	2007 <i>TK</i> ₁₂		4 9.2 132°03	0°9/ 8.4 18			385656	2005 <i>RK</i> ₅₁		4 9.2 293°08	5°0/ 13.5 16		
3 2	13 42.09	- 7 14.0	1.951	2.745	14.7	21.7	3 2	13 38.00	-22 7.5	2.300	3.033	14.5	21.0
3 12	13 36.86	- 6 49.6	1.876	2.760	11.4	21.5	3 12	13 34.04	-22 45.5	2.177	3.006	12.3	20.8
3 22	13 29.37	- 6 14.7	1.824	2.774	7.6	21.3	3 22	13 27.83	-23 8.8	2.075	2.980	9.7	20.6
4 1	13 20.27	- 5 32.8	1.798	2.788	3.4	21.0	4 1	13 19.77	-23 15.2	1.998	2.953	6.9	20.4
4 11	13 10.50	- 4 49.0	1.801	2.801	1.4	20.9	4 11	13 10.60	-23 4.5	1.946	2.926	5.1	20.2
4 21	13 1.04	- 4 8.6	1.833	2.814	5.5	21.2	4 21	13 1.24	-22 38.3	1.923	2.899	5.8	20.2
5 1	12 52.84	- 3 36.7	1.892	2.825	9.4	21.5	5 1	12 52.68	-22 1.2	1.927	2.873	8.5	20.3
5 11	12 46.57	- 3 16.9	1.975	2.836	12.8	21.7	5 11	12 45.79	-21 19.1	1.956	2.846	11.6	20.4
292682	2006 <i>UN</i> ₉₂		4 9.2 218°68	0°0/ 9.2 18			434038	2001 <i>SG</i> ₂₄₉		4 9.2 209°06	0°4/ 8.7 17		
3 2	13 32.91	-11 20.1	2.454	3.240	12.3	21.1	3 2	13 34.20	- 9 5.3	2.770	3.554	11.1	22.1
3 12	13 29.49	-10 40.5	2.358	3.237	9.6	20.9	3 12	13 30.28	- 8 30.3	2.670	3.549	8.6	21.9
3 22	13 24.35	- 9 48.4	2.286	3.234	6.5	20.7	3 22	13 24.79	- 7 45.5	2.594	3.543	5.8	21.7
4 1	13 17.96	- 8 46.4	2.241	3.230	3.0	20.5	4 1	13 18.16	- 6 53.6	2.546	3.536	2.6	21.5
4 11	13 10.99	- 7 39.2	2.225	3.227	0.6	20.3	4 11	13 10.98	- 5 58.5	2.528	3.529	0.9	21.3
4 21	13 4.13	- 6 32.0	2.239	3.224	4.3	20.6	4 21	13 3.89	- 5 4.4	2.540	3.522	4.1	21.5
5 1	12 58.09	- 5 30.1	2.280	3.220	7.7	20.8	5 1	12 57.52	- 4 15.7	2.581	3.514	7.2	21.7
5 11	12 53.43	- 4 38.1	2.347	3.216	10.7	21.0	5 11	12 52.39	- 3 36.0	2.647	3.506	10.0	21.9
299433	2006 <i>AS</i> ₃₉		4 9.2 69°42	2°2/ 10.8 18			458734	2011 <i>OC</i> ₃		4 9.2 292°86	5°5/ 4.9 17		
3 2	13 39.41	-14 36.5	1.360	2.162	19.5	21.8	3 2	13 35.99	- 0 49.0	1.295	2.139	17.9	20.8
3 12	13 35.86	-14 36.2	1.290	2.173	15.6	21.6	3 12	13 33.74	+ 0 25.3	1.199	2.112	14.1	20.5
3 22	13 29.26	-14 15.2	1.239	2.184	11.0	21.3	3 22	13 28.31	+ 1 55.2	1.123	2.085	9.8	20.2
4 1	13 20.38	-13 34.9	1.211	2.196	5.9	21.1	4 1	13 20.20	+ 3 32.3	1.070	2.057	6.0	19.9
4 11	13 10.47	-12 40.6	1.207	2.207	2.2	20.9	4 11	13 10.50	+ 5 4.5	1.042	2.030	6.6	19.8
4 21	13 0.95	-11 40.0	1.229	2.219	6.0	21.2	4 21	13 0.63	+ 6 19.3	1.037	2.002	11.2	20.0
5 1	12 53.13	-10 42.3	1.275	2.230	10.9	21.5	5 1	12 52.14	+ 7 7.0	1.055	1.975	16.4	20.2
5 11	12 47.90	- 9 55.4	1.344	2.242	15.3	21.7	5 11	12 46.27	+ 7 22.8	1.090	1.947	21.1	20.4
498114	2007 <i>RN</i> ₃₂₅		4 9.2 159°01	0°5/ 8.6 17			371217	2006 <i>AA</i> ₁₀₁		4 9.2 129°22	1°0/ 8.1 17		
3 2	13 35.81	- 7 52.4	2.939	3.721	10.6	22.7	3 2	13 37.26	- 7 21.5	2.218	3.013	13.1	21.8
3 12	13 31.32	- 7 27.1	2.851	3.728	8.2	22.5	3 12	13 32.89	- 6 43.2	2.140	3.026	10.2	21.6
3 22	13 25.37	- 6 54.0	2.787	3.735	5.4	22.3	3 22	13 26.62	- 5 54.7	2.086	3.038	6.7	21.4
4 1	13 18.37	- 6 15.7	2.751	3.741	2.4	22.1	4 1	13 19.00	- 4 59.8	2.059	3.050	3.0	21.2
4 11	13 10.92	- 5 35.4	2.746	3.747	0.9	22.0	4 11	13 10.82	- 4 3.6	2.061	3.061	1.5	21.1
4 21	13 3.61	- 4 56.7	2.771	3.752	3.9	22.2	4 21	13 2.88	- 3 11.4	2.093	3.072	5.1	21.4
5 1	12 57.03	- 4 23.1	2.825	3.757	6.8	22.4	5 1	12 55.96	- 2 28.0	2.151	3.082	8.6	21.6
5 11	12 51.66	- 3 57.3	2.905	3.761	9.3	22.6	5 11	12 50.64	- 1 56.9	2.235	3.092	11.7	21.8
380482	2004 <i>AG</i> ₄		4 9.2 42°79	1°1/ 8.3 17			518391	2017 <i>TF</i> ₁₀		4 9.3 239°43	3°1/ 12.6 17		
3 2	13 35.66	- 6 56.2	1.754	2.568	15.3	20.7	3 2	13 36.09	-20 32.2	2.226	2.973	14.6	21.9
3 12	13 32.09	- 6 30.7	1.689	2.584	11.8	20.5	3 12	13 32.37	-20 14.2	2.115	2.960	12.0	21.7
3 22	13 26.27	- 5 54.3	1.645	2.601	7.8	20.3	3 22	13 26.55	-19 36.8	2.025	2.946	9.0	21.5
4 1	13 18.87	- 5 11.0	1.627	2.618	3.5	20.1	4 1	13 19.10	-18 40.2	1.961	2.932	5.6	21.3
4 11	13 10.82	- 4 26.6	1.635	2.635	1.6	20.0	4 11	13 10.79	-17 27.1	1.924	2.917	3.2	21.1
4 21	13 3.13	- 3 46.8	1.671	2.653	5.7	20.3	4 21	13 2.52	-16 3.0	1.915	2.902	4.7	21.1
5 1	12 56.68	- 3 16.9	1.732	2.671	9.7	20.6	5 1	12 55.19	-14 35.0	1.935	2.886	8.1	21.3
5 11	12 52.15	- 3 0.1	1.817	2.690	13.2	20.8	5 11	12 49.53	-13 10.8	1.981	2.870	11.5	21.5
519289	2011 <i>BN</i> ₁₆₈		4 9.2 132°64	4°6/ 13.5 17			16458	1989 <i>WZ</i> ₂		4 9.3 183°25	0°5/ 8.7 18		
3 2	13 38.52	-22 3.4	2.007	2.749	16.1	22.5	3 2	13 37.46	- 6 47.6	2.756	3.541	11.1	18.6
3 12	13 34.39	-22 19.8	1.918	2.755	13.4	22.3	3 12	13 32.76	- 6 40.7	2.662	3.541	8.7	18.5
3 22	13 27.92	-22 17.0	1.850	2.761	10.2	22.1	3 22	13 26.43	- 6 27.0	2.593	3.541	5.8	18.3
4 1	13 19.70	-21 54.0	1.805	2.767	7.0	21.9	4 1	13 18.92	- 6 8.7	2.551	3.541	2.6	18.1
4 11	13 10.63	-21 12.6	1.787	2.772	4.7	21.8	4 11	13 10.85	- 5 48.5	2.539	3.540	0.9	17.9
4 21	13 1.73	-20 17.3	1.796	2.778	5.5	21.8	4 21	13 2.89	- 5 29.5	2.557	3.539	4.1	18.2
5 1	12 54.01	-19 14.6	1.832	2.783	8.5	22.0	5 1	12 55.70	- 5 15.0	2.604	3.538	7.2	18.3
5 11	12 48.22	-18 12.1	1.893	2.787	11.7	22.2	5 11	12 49.82	- 5 7.4	2.677	3.536	9.9	18.5
20206	1997 <i>FA</i> ₄		4 9.2 314°04	0°8/ 9.9 18			343005	2009 <i>BB</i> ₈₁		4 9.3 155°29	1°5/ 10.7 18		
3 2	13 38.84	-10 2.0	2.336	3.117	13.0	18.3	3 2	13 39.41	-13 5.5	2.498	3.263	12.7	21.1
3 12	13 34.21	-10 18.8	2.240	3.114	10.3	18.1	3 12	13 34.49	-13 18.2	2.406	3.268	10.1	20.9
3 22	13 27.60	-10 26.9	2.167	3.111	7.1	17.9	3 22	13 27.71	-13 20.5	2.336	3.272	7.1	20.7
4 1	13 19.51	-10 27.3	2.121	3.107	3.5	17.6	4 1	13 19.54	-13 13.0	2.294	3.276	3.8	20.5
4 11	13 10.67	-10 22.2	2.103	3.104	0.9	17.4	4 11	13 10.72	-12 57.9	2.280	3.279	1.5	20.4
4 21	13 1.91	-10 14.5	2.115	3.101	4.3	17.7	4 21	13 2.02	-12 38.3	2.296	3.283	4.0	20.6
5 1	12 54.06	-10 7.7	2.155	3.099	7.8	17.9	5 1	12 54.21	-12 17.9	2.341	3.286	7.2	20.8
5 11	12 47.79	-10 5.1	2.220	3.096	11.0	18.1	5 11	12 47.92	-12 0.5	2.412	3.289	10.2	21.0
388344	2006 <i>TW</i> ₆₃		4 9.2 194°50	1°5/ 7.2 17			205812	2002 <i>CY</i> ₂₀₁		4 9.3 30°50	2°9/ 11.1 18		
3 2	13 33.18	- 5 37.2	2.898	3.692	10.4	22.0	3 2	13 40.53	-14 19.4	1.417	2.215	19.1	20.1
3 12	13 29.37	- 4 42.9	2.803	3.690	8.0	21.8	3 12	13 36.83	-14 46.1	1.338	2.217	15.4	19.8
3 22	13 24.12	- 3 40.6	2.734	3.687	5.3	21.7	3 22	13 30.04	-14 55.4	1.278	2.220	11.0	19.6
4 1	13 17.82	- 2 33.7	2.694	3.684	2.5	21.5	4 1	13 20.83	-14 46.9	1.240	2.223	6.2	19.3
4 11	13 11.04	- 1 26.7	2.684	3.680	1.9	21.4	4 11	13 10.43	-14 23.5	1.227	2.226	2.9	19.1
4 21	13 4.37	- 0 24.3	2.704	3.676	4.6	21.6	4 21	13 0.23	-13 50.6	1.240	2.230	6.1	19.3
5 1	12 58.38	+ 0 29.5	2.752	3.671	7.5	21.8	5 1	12 51.64	-13 15.5	1.278	2.233	10.9	19.6
5 11	12 53.56	+ 1 11.7	2.827	3.666	10.0	21.9	5 11	12 45.64	-12 46.0	1.337	2.237	15.3	19.8
366680	2003 <i>UQ</i> ₁₃₄		4 9.2 99°61	3°2/ 12.4 18			11983	1995 <i>UH</i> ₆		4 9.3 185°83	1°0/ 8		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
214769	2006 <i>UA</i> ₄₇		4 9.3 246°47'	1°0/ 8.1 18			24166	1999 <i>WW</i> ₃		4 9.3 116°81'	4°5/ 5.2 18		
3 2	13 35.25	- 6 29.4	2.696	3.487	11.2	21.3	3 2	13 39.74	+ 1 23.3	1.816	2.636	14.6	18.2
3 12	13 31.21	- 6 0.8	2.587	3.471	8.7	21.1	3 12	13 35.15	+ 2 24.5	1.752	2.650	11.3	18.0
3 22	13 25.50	- 5 24.0	2.504	3.455	5.8	20.8	3 22	13 28.29	+ 3 30.6	1.710	2.665	7.7	17.8
4 1	13 18.54	- 4 41.7	2.448	3.438	2.6	20.6	4 1	13 19.82	+ 4 34.8	1.695	2.678	4.9	17.7
4 11	13 10.93	- 3 57.6	2.421	3.421	1.4	20.5	4 11	13 10.71	+ 5 29.7	1.708	2.692	5.1	17.7
4 21	13 3.35	- 3 15.8	2.424	3.403	4.5	20.7	4 21	13 1.98	+ 6 9.6	1.748	2.705	8.2	17.9
5 1	12 56.47	- 2 40.4	2.456	3.385	7.8	20.9	5 1	12 54.53	+ 6 30.5	1.814	2.717	11.5	18.2
5 11	12 50.88	- 2 14.7	2.513	3.366	10.6	21.0	5 11	12 49.05	+ 6 31.6	1.901	2.729	14.6	18.4
300799	2007 <i>VZ</i> ₃₃₁		4 9.3 327°50'	7°8/31.1 17			105435	2000 <i>QJ</i> ₁₇₇		4 9.3 82°75'	2°7/12.2 18		
3 2	13 36.12	+15 51.2	2.297	3.113	12.1	20.0	3 2	13 36.59	-18 8.3	2.393	3.145	13.5	18.8
3 12	13 32.02	+17 2.0	2.233	3.113	10.0	19.9	3 12	13 32.33	-18 11.3	2.314	3.163	10.9	18.6
3 22	13 26.05	+18 6.9	2.193	3.113	8.4	19.8	3 22	13 26.24	-17 59.7	2.258	3.182	8.0	18.4
4 1	13 18.76	+18 58.8	2.179	3.112	7.9	19.7	4 1	13 18.85	-17 34.2	2.227	3.200	4.9	18.3
4 11	13 10.90	+19 31.9	2.191	3.112	8.7	19.8	4 11	13 10.91	-16 57.5	2.224	3.218	2.7	18.2
4 21	13 3.29	+19 42.6	2.228	3.112	10.4	19.9	4 21	13 3.21	-16 13.5	2.251	3.236	4.1	18.3
5 1	12 56.66	+19 29.9	2.289	3.111	12.5	20.0	5 1	12 56.48	-15 27.1	2.305	3.254	7.1	18.5
5 11	12 51.60	+18 55.4	2.369	3.111	14.5	20.2	5 11	12 51.29	-14 43.5	2.385	3.272	9.9	18.7
413289	2003 <i>US</i> ₁₅₅		4 9.3 110°43'	3°1/ 6.7 18			196508	2003 <i>MY</i> ₁₂		4 9.3 259°78'	5°4/ 3.3 18		
3 2	13 38.41	- 3 0.8	1.604	2.427	16.1	21.7	3 2	13 35.85	+ 4 52.3	2.149	2.971	12.6	20.6
3 12	13 34.55	- 2 12.4	1.531	2.432	12.4	21.5	3 12	13 32.11	+ 6 5.7	2.055	2.953	9.9	20.4
3 22	13 28.13	- 1 14.1	1.480	2.438	8.3	21.3	3 22	13 26.33	+ 7 23.3	1.986	2.935	7.2	20.2
4 1	13 19.83	- 0 11.8	1.454	2.444	4.2	21.0	4 1	13 18.99	+ 8 38.4	1.943	2.917	5.4	20.0
4 11	13 10.68	+ 0 46.5	1.455	2.449	3.8	21.0	4 11	13 10.86	+ 9 43.6	1.928	2.898	6.2	20.0
4 21	13 1.85	+ 1 33.7	1.482	2.455	7.6	21.3	4 21	13 2.78	+10 32.9	1.941	2.878	8.8	20.1
5 1	12 54.39	+ 2 4.2	1.535	2.460	11.8	21.5	5 1	12 55.61	+11 1.9	1.979	2.859	11.8	20.3
5 11	12 49.10	+ 2 15.3	1.609	2.465	15.5	21.7	5 11	12 50.05	+11 9.1	2.038	2.839	14.7	20.4
299815	2006 <i>SM</i> ₁₄₃		4 9.3 3°90'	0°6/ 9.9 17			277673	2006 <i>BG</i> ₂₁₇		4 9.3 91°83'	2°6/ 6.9 17		
3 2	13 34.11	-11 40.9	2.101	2.892	13.9	20.9	3 2	13 37.13	- 2 59.7	1.899	2.714	14.3	21.0
3 12	13 30.74	-11 24.5	2.012	2.892	11.0	20.7	3 12	13 33.13	- 2 20.3	1.825	2.722	11.0	20.8
3 22	13 25.36	-10 55.0	1.946	2.892	7.5	20.5	3 22	13 26.97	- 1 33.0	1.773	2.730	7.3	20.6
4 1	13 18.51	-10 14.7	1.905	2.893	3.7	20.3	4 1	13 19.24	- 0 42.6	1.748	2.738	3.6	20.3
4 11	13 10.96	- 9 27.6	1.892	2.893	0.8	20.0	4 11	13 10.83	+ 0 4.7	1.750	2.745	3.1	20.3
4 21	13 3.55	- 8 39.0	1.907	2.894	4.6	20.3	4 21	13 2.69	+ 0 43.4	1.780	2.753	6.6	20.5
5 1	12 57.13	- 7 54.2	1.949	2.895	8.4	20.5	5 1	12 55.70	+ 1 8.9	1.836	2.761	10.2	20.8
5 11	12 52.34	- 7 18.1	2.015	2.896	11.7	20.7	5 11	12 50.54	+ 1 18.7	1.915	2.768	13.5	21.0
498505	2008 <i>DX</i> ₁₈		4 9.3 125°27'	4°3/ 3.0 17			102931	1999 <i>XE</i> ₄₁		4 9.3 248°45'	0°8/ 9.9 18		
3 2	13 34.00	+ 5 47.0	2.877	3.689	10.0	22.0	3 2	13 39.63	-12 1.5	1.964	2.747	15.0	20.4
3 12	13 29.90	+ 7 0.5	2.813	3.705	7.8	21.8	3 12	13 35.43	-11 48.0	1.854	2.729	12.0	20.1
3 22	13 24.40	+ 8 14.7	2.776	3.721	5.6	21.7	3 22	13 28.80	-11 19.9	1.766	2.711	8.3	19.9
4 1	13 17.94	+ 9 24.6	2.767	3.736	4.4	21.7	4 1	13 20.24	-10 38.6	1.704	2.691	4.2	19.6
4 11	13 11.10	+10 25.1	2.788	3.751	4.9	21.7	4 11	13 10.59	- 9 47.9	1.669	2.671	0.9	19.3
4 21	13 4.46	+11 12.5	2.838	3.765	6.8	21.9	4 21	13 0.88	- 8 53.4	1.663	2.650	5.2	19.6
5 1	12 58.58	+11 44.2	2.914	3.779	8.9	22.0	5 1	12 52.18	- 8 1.7	1.685	2.629	9.6	19.8
5 11	12 53.90	+11 59.5	3.014	3.792	10.9	22.2	5 11	12 45.38	- 7 18.9	1.730	2.606	13.6	20.0
148932	2001 <i>XR</i> ₉₂		4 9.3 243°47'	0°3/ 9.0 18			252993	2002 <i>QR</i> ₁₀₂		4 9.3 272°87'	3°5/ 6.4 17		
3 2	13 38.21	- 8 52.0	2.001	2.797	14.4	20.0	3 2	13 37.87	- 1 45.2	1.672	2.495	15.5	21.1
3 12	13 34.13	- 8 34.9	1.902	2.786	11.3	19.7	3 12	13 34.31	- 0 59.7	1.578	2.480	12.1	20.8
3 22	13 27.79	- 8 5.8	1.825	2.775	7.7	19.5	3 22	13 28.16	- 0 4.5	1.506	2.464	8.2	20.5
4 1	13 19.70	- 7 27.5	1.774	2.764	3.5	19.2	4 1	13 19.95	+ 0 54.6	1.460	2.448	4.4	20.3
4 11	13 10.70	- 6 44.2	1.751	2.752	0.9	19.0	4 11	13 10.65	+ 1 50.1	1.439	2.432	4.2	20.2
4 21	13 1.75	- 6 1.3	1.756	2.740	5.3	19.2	4 21	13 1.40	+ 2 34.5	1.446	2.416	8.1	20.4
5 1	12 53.82	- 5 24.4	1.788	2.728	9.4	19.5	5 1	12 53.34	+ 3 2.0	1.477	2.399	12.4	20.6
5 11	12 47.70	- 4 58.1	1.844	2.715	13.1	19.7	5 11	12 47.38	+ 3 9.2	1.530	2.383	16.3	20.8
283564	2001 <i>VB</i> ₇₄		4 9.3 114°65'	6°0/17.3 17			38938	2000 <i>SU</i> ₂₅₈		4 9.3 260°31'	3°3/ 6.4 18		
3 2	13 36.81	-31 19.6	2.710	3.377	13.9	21.1	3 2	13 36.45	- 4 5.2	1.587	2.412	16.1	19.6
3 12	13 32.53	-31 36.2	2.622	3.392	12.1	21.0	3 12	13 33.28	- 3 1.8	1.498	2.401	12.5	19.3
3 22	13 26.40	-31 33.5	2.552	3.406	10.0	20.8	3 22	13 27.48	- 1 44.6	1.431	2.390	8.4	19.0
4 1	13 18.94	-31 10.1	2.505	3.420	7.9	20.7	4 1	13 19.64	- 0 19.8	1.389	2.379	4.3	18.8
4 11	13 10.88	-30 26.7	2.485	3.434	6.3	20.6	4 11	13 10.73	+ 1 3.4	1.373	2.367	4.0	18.7
4 21	13 3.02	-29 26.4	2.492	3.447	6.1	20.6	4 21	13 1.93	+ 2 15.9	1.384	2.355	8.2	18.9
5 1	12 56.10	-28 14.2	2.527	3.460	7.4	20.7	5 1	12 54.39	+ 3 10.1	1.419	2.343	12.6	19.2
5 11	12 50.73	-26 56.7	2.588	3.473	9.3	20.9	5 11	12 49.02	+ 3 41.4	1.476	2.331	16.6	19.4
440196	2004 <i>FK</i> ₁₅₈		4 9.3 49°16'	1°5/10.9 17			345592	2006 <i>SC</i> ₇₂		4 9.3 121°90'	0°7/ 8.4 18		
3 2	13 34.33	-13 44.5	2.738	3.506	11.6	20.8	3 2	13 34.78	- 7 36.8	2.671	3.461	11.3	22.1
3 12	13 30.33	-13 49.4	2.658	3.522	9.2	20.7	3 12	13 30.67	- 7 5.5	2.591	3.473	8.7	22.0
3 22	13 24.78	-13 44.1	2.602	3.538	6.5	20.5	3 22	13 25.01	- 6 25.7	2.535	3.485	5.8	21.8
4 1	13 18.15	-13 29.8	2.572	3.554	3.5	20.3	4 1	13 18.26	- 5 40.6	2.507	3.497	2.6	21.6
4 11	13 11.06	-13 8.7	2.571	3.570	1.5	20.2	4 11	13 11.05	- 4 53.9	2.508	3.508	1.1	21.5
4 21	13 4.13	-12 43.8	2.600	3.587	3.5	20.4	4 21	13 4.03	- 4 9.8	2.539	3.519	4.2	21.7
5 1	12 58.01	-12 18.8	2.657	3.604	6.4	20.6	5 1	12 57.82	- 3 32.2	2.598	3.530	7.2	21.9
5 11	12 53.17	-11 57.1	2.739	3.621	9.0	20.8	5 11	12 52.91	- 3 3.9	2.683	3.541	9.9	22.1
423785	2006 <i>FG</i> ₃		4 9.3 57°95'	1°4/ 7.8 18			308620	2005 <i>WM</i> ₁₉₁		4 9.3 242°98'	5°0/ 2.7 18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
488620	2002 <i>TM</i> ₂₃₉		4 9.3 153°77	0°7/10.1	17		78939	2003 <i>SF</i> ₁₆₁		4 9.3 199°46	0°2/ 9.1	18	
3 2	13 39.10	-11 9.5	2.769	3.536	11.5	22.2	3 2	13 37.48	- 9 0.8	2.651	3.431	11.6	21.0
3 12	13 34.01	-11 9.8	2.678	3.544	9.1	22.0	3 12	13 32.90	- 8 41.0	2.551	3.427	9.1	20.8
3 22	13 27.26	-11 1.2	2.612	3.552	6.2	21.8	3 22	13 26.62	- 8 11.9	2.476	3.422	6.1	20.6
4 1	13 19.32	-10 45.0	2.573	3.559	3.1	21.6	4 1	13 19.07	- 7 35.8	2.428	3.417	2.8	20.4
4 11	13 10.83	-10 23.5	2.564	3.565	0.8	21.4	4 11	13 10.90	- 6 56.1	2.410	3.411	0.7	20.2
4 21	13 2.49	-10 0.0	2.586	3.571	3.7	21.7	4 21	13 2.82	- 6 16.8	2.422	3.405	4.2	20.5
5 1	12 54.96	- 9 37.7	2.636	3.577	6.8	21.9	5 1	12 55.53	- 5 41.7	2.463	3.398	7.4	20.7
5 11	12 48.78	- 9 20.0	2.714	3.582	9.5	22.1	5 11	12 49.60	- 5 14.6	2.529	3.391	10.3	20.8
342981	2009 <i>BJ</i> ₄₃		4 9.3 65°51	0°2/ 9.5	17		312034	2007 <i>RA</i> ₁₄₆		4 9.3 187°61	1°1/10.3	17	
3 2	13 35.82	-10 11.3	2.105	2.898	13.8	21.4	3 2	13 40.22	-13 41.8	2.173	2.943	14.2	21.6
3 12	13 31.98	- 9 56.9	2.024	2.906	10.8	21.2	3 12	13 35.45	-13 20.4	2.076	2.943	11.3	21.4
3 22	13 26.14	- 9 30.9	1.965	2.914	7.3	21.0	3 22	13 28.54	-12 44.2	2.002	2.941	7.9	21.2
4 1	13 18.86	- 8 55.9	1.933	2.922	3.4	20.8	4 1	13 20.01	-11 55.0	1.954	2.939	4.0	21.0
4 11	13 10.93	- 8 15.8	1.928	2.930	0.7	20.6	4 11	13 10.70	-10 56.8	1.935	2.936	1.1	20.7
4 21	13 3.20	- 7 35.6	1.951	2.938	4.6	20.9	4 21	13 1.51	- 9 54.9	1.946	2.933	4.6	21.0
5 1	12 56.51	- 7 0.1	2.002	2.946	8.3	21.1	5 1	12 53.37	- 8 55.6	1.985	2.928	8.4	21.2
5 11	12 51.47	- 6 33.5	2.077	2.954	11.6	21.4	5 11	12 46.96	- 8 4.4	2.049	2.923	11.9	21.4
402170	2004 <i>RJ</i> ₃₃₆		4 9.3 152°38	1°4/10.5	16		36118	1999 <i>RE</i> ₁₃₅		4 9.3 26°65	1°8/ 7.6	18	
3 2	13 39.67	-14 13.2	1.732	2.516	16.7	22.4	3 2	13 34.77	- 6 21.6	1.809	2.624	14.9	17.7
3 12	13 35.50	-13 53.8	1.648	2.523	13.3	22.2	3 12	13 31.51	- 5 35.7	1.729	2.626	11.5	17.5
3 22	13 28.78	-13 16.3	1.586	2.528	9.3	21.9	3 22	13 26.01	- 4 37.6	1.670	2.627	7.6	17.3
4 1	13 20.16	-12 22.7	1.548	2.534	4.8	21.7	4 1	13 18.86	- 3 32.1	1.638	2.629	3.5	17.0
4 11	13 10.65	-11 18.0	1.537	2.538	1.4	21.4	4 11	13 10.95	- 2 26.0	1.632	2.630	2.4	16.9
4 21	13 1.39	-10 9.3	1.555	2.543	5.3	21.7	4 21	13 3.24	- 1 26.2	1.654	2.632	6.3	17.2
5 1	12 53.45	- 9 4.4	1.598	2.546	9.7	22.0	5 1	12 56.68	- 0 38.8	1.701	2.634	10.3	17.4
5 11	12 47.65	- 8 10.1	1.666	2.550	13.6	22.2	5 11	12 51.98	- 0 8.0	1.772	2.636	13.9	17.6
70066	1999 <i>JC</i> ₄₅		4 9.3 245°76	3°0/ 6.9	18		510339	2011 <i>SG</i> ₁₀₈		4 9.3 194°62	5°8/17.4	18	
3 2	13 41.08	- 1 57.2	1.738	2.553	15.4	19.0	3 2	13 40.14	-32 55.3	3.514	4.143	11.5	23.0
3 12	13 36.71	- 1 26.0	1.644	2.541	12.0	18.7	3 12	13 34.86	-33 34.2	3.401	4.140	10.2	22.9
3 22	13 29.72	- 0 46.4	1.572	2.528	8.1	18.5	3 22	13 27.90	-33 58.4	3.309	4.136	8.6	22.8
4 1	13 20.67	- 0 3.6	1.525	2.514	4.2	18.2	4 1	13 19.68	-34 5.9	3.241	4.131	7.1	22.7
4 11	13 10.53	+ 0 36.1	1.506	2.500	3.6	18.1	4 11	13 10.77	-33 56.3	3.200	4.126	6.0	22.6
4 21	13 0.44	+ 1 6.5	1.513	2.486	7.5	18.3	4 21	13 1.85	-33 30.5	3.188	4.121	5.9	22.6
5 1	12 51.57	+ 1 22.4	1.547	2.471	11.8	18.5	5 1	12 53.61	-32 51.6	3.203	4.115	6.8	22.6
5 11	12 44.81	+ 1 20.9	1.603	2.456	15.7	18.7	5 11	12 46.63	-32 3.9	3.245	4.108	8.2	22.7
140569	2001 <i>TF</i> ₂₁₃		4 9.3 172°12	3°6/13.2	17		381555	2008 <i>TB</i> ₉₅		4 9.3 220°94	1°0/ 8.3	17	
3 2	13 35.93	-20 57.8	2.457	3.195	13.6	20.4	3 2	13 36.24	- 7 38.1	2.125	2.924	13.5	21.9
3 12	13 31.97	-21 6.7	2.360	3.196	11.2	20.2	3 12	13 32.39	- 7 3.4	2.031	2.919	10.5	21.7
3 22	13 26.12	-20 59.9	2.284	3.197	8.5	20.0	3 22	13 26.50	- 6 17.4	1.961	2.913	7.0	21.5
4 1	13 18.87	-20 37.2	2.234	3.198	5.7	19.8	4 1	13 19.08	- 5 23.5	1.917	2.907	3.2	21.2
4 11	13 10.92	-20 0.4	2.211	3.198	3.7	19.7	4 11	13 10.91	- 4 26.9	1.901	2.901	1.5	21.1
4 21	13 3.08	-19 12.9	2.216	3.199	4.6	19.8	4 21	13 2.86	- 3 33.2	1.914	2.895	5.3	21.4
5 1	12 56.14	-18 20.0	2.250	3.199	7.2	19.9	5 1	12 55.78	- 2 47.9	1.954	2.888	9.1	21.6
5 11	12 50.71	-17 27.3	2.309	3.199	10.1	20.1	5 11	12 50.34	- 2 15.2	2.018	2.881	12.5	21.8
199002	2005 <i>WO</i> ₅₅		4 9.3 139°98	1°0/10.1	18		65994	1998 <i>KE</i> ₅₃		4 9.3 277°59	8°4/31.0	18	
3 2	13 41.03	-13 0.8	1.654	2.444	17.1	20.8	3 2	13 36.98	+13 19.7	2.008	2.832	13.3	19.5
3 12	13 36.62	-12 42.8	1.576	2.454	13.6	20.6	3 12	13 33.21	+14 46.7	1.922	2.810	11.0	19.3
3 22	13 29.55	-12 7.4	1.517	2.462	9.4	20.4	3 22	13 27.20	+16 11.8	1.860	2.789	9.1	19.2
4 1	13 20.52	-11 16.9	1.484	2.471	4.7	20.1	4 1	13 19.46	+17 26.2	1.823	2.767	8.4	19.1
4 11	13 10.58	-10 16.6	1.477	2.479	1.1	19.9	4 11	13 10.82	+18 21.3	1.812	2.745	9.5	19.1
4 21	13 0.94	- 9 13.5	1.498	2.486	5.5	20.2	4 21	13 2.26	+18 51.4	1.827	2.722	11.7	19.2
5 1	12 52.73	- 8 15.4	1.545	2.492	10.1	20.5	5 1	12 54.71	+18 53.6	1.864	2.700	14.4	19.3
5 11	12 46.76	- 7 28.8	1.616	2.499	14.0	20.7	5 11	12 48.96	+18 28.7	1.920	2.677	16.9	19.5
57664	2001 <i>UY</i> ₁₇		4 9.3 160°47	7°2/19.4	18		51191	2000 <i>HT</i> ₉₄		4 9.3 56°71	4°3/13.5	18 R	
3 2	13 39.94	-36 56.3	3.143	3.751	13.1	19.3	3 2	13 35.41	-23 28.1	1.510	2.275	19.6	19.3
3 12	13 34.94	-37 38.6	3.044	3.757	11.7	19.2	3 12	13 32.44	-22 58.1	1.445	2.297	16.1	19.1
3 22	13 28.06	-38 3.1	2.963	3.763	10.2	19.1	3 22	13 26.78	-21 59.1	1.397	2.319	12.1	18.9
4 1	13 19.75	-38 7.1	2.904	3.769	8.7	19.0	4 1	13 19.21	-20 32.4	1.372	2.342	7.7	18.7
4 11	13 10.74	-37 50.0	2.869	3.774	7.5	18.9	4 11	13 10.91	-18 44.3	1.373	2.365	4.5	18.5
4 21	13 1.79	-37 13.0	2.862	3.778	7.2	18.9	4 21	13 3.09	-16 45.0	1.399	2.388	5.7	18.7
5 1	12 53.71	-36 19.6	2.881	3.782	7.8	18.9	5 1	12 56.84	-14 46.3	1.453	2.411	9.5	18.9
5 11	12 47.11	-35 15.5	2.926	3.786	9.1	19.0	5 11	12 52.88	-12 59.0	1.530	2.434	13.4	19.2
504423	2008 <i>AZ</i> ₂₈		4 9.3 152°45	2°1/12.2	17		240718	2005 <i>GU</i> ₁₂₅		4 9.3 266°75	1°6/ 7.8	17	
3 2	13 35.41	-18 22.1	3.072	3.810	11.1	23.0	3 2	13 38.74	- 3 28.9	2.225	3.027	12.9	20.3
3 12	13 31.05	-18 9.6	2.979	3.820	9.0	22.9	3 12	13 34.25	- 3 19.6	2.128	3.017	10.0	20.1
3 22	13 25.22	-17 44.6	2.908	3.829	6.5	22.7	3 22	13 27.73	- 3 4.2	2.054	3.007	6.7	19.9
4 1	13 18.37	-17 8.1	2.865	3.837	4.0	22.6	4 1	13 19.66	- 2 45.7	2.007	2.998	3.2	19.6
4 11	13 11.05	-16 22.5	2.850	3.845	2.2	22.4	4 11	13 10.80	- 2 28.0	1.989	2.987	2.1	19.5
4 21	13 3.86	-15 31.1	2.867	3.852	3.4	22.5	4 21	13 2.02	- 2 14.9	2.000	2.977	5.5	19.7
5 1	12 57.41	-14 38.1	2.912	3.859	5.9	22.7	5 1	12 54.17	- 2 9.8	2.038	2.967	9.1	19.9
5 11	12 52.15	-13 47.6	2.985	3.865	8.4	22.9	5 11	12 47.94	- 2 15.3	2.100	2.957	12.3	20.1
5256	Farquhar		4 9.3 273°59	2°8/12.2	18		312064	2007 <i>SC</i> ₂₃		4 9.3 82°45	0°8/ 8.5	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
309920	2009 <i>FS</i> ₂₄		4 9.3 46°90	0°8/ 8.7 18			170571	2003 <i>XB</i> ₄		4 9.3 66°16	1°4/ 8.1 18		
3 2	13 37.13	- 8 55.8	1.316	2.142	18.8	20.8	3 2	13 38.11	- 7 15.3	1.486	2.305	17.3	19.9
3 12	13 34.06	- 8 26.5	1.252	2.153	14.7	20.6	3 12	13 34.45	- 6 38.5	1.421	2.320	13.4	19.7
3 22	13 28.05	- 7 40.3	1.207	2.165	9.8	20.3	3 22	13 28.13	- 5 47.9	1.377	2.334	8.9	19.4
4 1	13 19.88	- 6 42.1	1.185	2.177	4.4	20.0	4 1	13 19.87	- 4 48.7	1.358	2.349	4.0	19.2
4 11	13 10.78	- 5 39.6	1.188	2.190	1.5	19.9	4 11	13 10.83	- 3 48.3	1.364	2.364	2.1	19.1
4 21	13 2.10	- 4 41.7	1.217	2.203	6.8	20.2	4 21	13 2.20	- 2 54.5	1.397	2.379	6.7	19.4
5 1	12 55.08	- 3 56.1	1.269	2.216	11.8	20.6	5 1	12 55.08	- 2 13.8	1.455	2.394	11.2	19.7
5 11	12 50.55	- 3 28.2	1.342	2.229	16.0	20.8	5 11	12 50.24	- 1 50.3	1.534	2.409	15.1	20.0
370985	2005 <i>SL</i> ₂₈₁		4 9.3 190°60	1°9/ 7.5 17			501054	2013 <i>SA</i>		4 9.3 216°23	0°6/ 9.9 17		
3 2	13 38.39	- 4 13.4	2.033	2.839	13.8	21.6	3 2	13 39.24	- 11 29.0	2.536	3.307	12.4	22.6
3 12	13 34.09	- 3 43.3	1.946	2.838	10.7	21.4	3 12	13 34.46	- 11 15.1	2.429	3.296	9.8	22.4
3 22	13 27.65	- 3 4.8	1.883	2.837	7.1	21.2	3 22	13 27.79	- 10 50.1	2.344	3.286	6.8	22.1
4 1	13 19.62	- 2 21.8	1.846	2.836	3.4	20.9	4 1	13 19.69	- 10 15.6	2.287	3.274	3.3	21.9
4 11	13 10.84	- 1 39.7	1.837	2.835	2.4	20.9	4 11	13 10.85	- 9 34.9	2.260	3.262	0.7	21.7
4 21	13 2.22	- 1 3.6	1.857	2.833	6.0	21.1	4 21	13 2.05	- 8 51.8	2.263	3.248	4.2	21.9
5 1	12 54.66	- 0 38.1	1.903	2.831	9.7	21.3	5 1	12 54.06	- 8 11.1	2.295	3.234	7.6	22.1
5 11	12 48.86	- 0 26.3	1.973	2.828	13.1	21.5	5 11	12 47.53	- 7 36.9	2.352	3.220	10.8	22.3
285119	1995 <i>ST</i> ₁₄		4 9.3 164°85	0°5/ 8.6 17			286057	2001 <i>SJ</i> ₂₈₅		4 9.3 123°10	0°4/ 9.7 17		
3 2	13 34.22	- 8 33.0	2.726	3.513	11.2	22.2	3 2	13 39.60	- 9 43.8	2.755	3.526	11.5	21.2
3 12	13 30.29	- 7 57.5	2.636	3.517	8.7	22.0	3 12	13 34.36	- 9 46.0	2.673	3.542	9.0	21.1
3 22	13 24.81	- 7 12.8	2.571	3.520	5.8	21.8	3 22	13 27.48	- 9 40.2	2.614	3.557	6.1	20.9
4 1	13 18.22	- 6 21.6	2.533	3.523	2.6	21.6	4 1	13 19.45	- 9 27.8	2.584	3.571	2.9	20.7
4 11	13 11.14	- 5 28.0	2.525	3.526	1.0	21.5	4 11	13 10.92	- 9 11.4	2.583	3.585	0.6	20.5
4 21	13 4.19	- 4 36.3	2.547	3.528	4.1	21.7	4 21	13 2.59	- 8 53.8	2.614	3.599	3.7	20.8
5 1	12 58.00	- 3 50.6	2.597	3.530	7.2	21.9	5 1	12 55.10	- 8 38.2	2.673	3.612	6.7	21.0
5 11	12 53.08	- 3 14.4	2.673	3.532	9.9	22.1	5 11	12 48.98	- 8 27.4	2.759	3.625	9.4	21.2
212907	2007 <i>XO</i> ₇		4 9.3 54°91	4°0/ 5.1 17			364196	2006 <i>QE</i> ₁₉		4 9.3 208°04	1°3/ 7.9 15		
3 2	13 34.24	+ 1 23.1	2.097	2.920	12.8	19.9	3 2	13 39.46	- 6 24.2	2.176	2.971	13.4	22.3
3 12	13 30.70	+ 2 20.4	2.026	2.927	9.9	19.7	3 12	13 34.87	- 5 48.4	2.079	2.964	10.4	22.1
3 22	13 25.26	+ 3 22.2	1.979	2.934	6.8	19.5	3 22	13 28.17	- 5 2.2	2.005	2.957	7.0	21.9
4 1	13 18.46	+ 4 22.8	1.958	2.941	4.3	19.4	4 1	13 19.89	- 4 9.2	1.959	2.949	3.2	21.6
4 11	13 11.10	+ 5 15.8	1.966	2.949	4.6	19.4	4 11	13 10.82	- 3 14.6	1.941	2.940	1.8	21.5
4 21	13 3.96	+ 5 56.0	2.000	2.956	7.3	19.6	4 21	13 1.84	- 2 23.8	1.953	2.931	5.5	21.7
5 1	12 57.83	+ 6 19.9	2.061	2.964	10.4	19.8	5 1	12 53.83	- 1 42.1	1.992	2.921	9.3	21.9
5 11	12 53.29	+ 6 26.1	2.143	2.972	13.2	20.0	5 11	12 47.51	- 1 13.4	2.056	2.909	12.7	22.1
315300	2007 <i>TQ</i> ₁₆₉		4 9.3 86°59	2°3/ 7.4 18			216671	2004 <i>BC</i> ₅₇		4 9.3 307°45	6°6/ 3.7 17		
3 2	13 40.21	- 5 3.8	1.572	2.389	16.7	21.0	3 2	13 35.84	+ 4 25.6	1.518	2.359	15.9	19.7
3 12	13 35.83	- 4 17.9	1.512	2.410	12.8	20.8	3 12	13 32.91	+ 5 38.3	1.438	2.347	12.6	19.5
3 22	13 28.90	- 3 21.0	1.473	2.430	8.4	20.6	3 22	13 27.30	+ 6 56.4	1.379	2.334	9.1	19.2
4 1	13 20.17	- 2 18.7	1.459	2.450	4.0	20.3	4 1	13 19.61	+ 8 10.9	1.345	2.322	6.7	19.1
4 11	13 10.75	- 1 18.9	1.472	2.470	2.9	20.3	4 11	13 10.87	+ 9 11.9	1.336	2.311	7.5	19.1
4 21	13 1.81	- 0 28.6	1.513	2.489	7.0	20.6	4 21	13 2.27	+ 9 51.2	1.351	2.299	10.8	19.2
5 1	12 54.38	+ 0 6.7	1.578	2.508	11.2	20.9	5 1	12 55.00	+ 10 4.1	1.389	2.288	14.6	19.4
5 11	12 49.15	+ 0 24.0	1.666	2.527	14.8	21.1	5 11	12 49.94	+ 9 49.9	1.446	2.278	18.2	19.6
6021	1991 <i>TM</i>		4 9.3 280°10	4°0/ 5.7 18			308162	2005 <i>BH</i> ₈		4 9.3 70°43	5°9/ 4.7 18		
3 2	13 35.79	- 1 52.6	1.615	2.445	15.7	16.9	3 2	13 39.22	+ 3 26.9	1.473	2.309	16.6	20.4
3 12	13 32.76	- 0 47.8	1.525	2.430	12.2	16.7	3 12	13 35.39	+ 4 28.7	1.408	2.314	13.0	20.2
3 22	13 27.16	+ 0 28.6	1.457	2.416	8.3	16.4	3 22	13 28.81	+ 5 34.7	1.365	2.320	9.1	20.0
4 1	13 19.53	+ 1 49.9	1.413	2.401	4.7	16.2	4 1	13 20.22	+ 6 36.3	1.345	2.326	6.2	19.9
4 11	13 10.85	+ 3 7.1	1.396	2.386	4.8	16.1	4 11	13 10.76	+ 7 24.6	1.351	2.331	6.7	19.9
4 21	13 2.24	+ 4 11.3	1.405	2.372	8.7	16.3	4 21	13 1.68	+ 7 52.7	1.383	2.337	10.0	20.1
5 1	12 54.84	+ 4 55.6	1.439	2.357	12.9	16.5	5 1	12 54.12	+ 7 57.1	1.437	2.343	13.8	20.3
5 11	12 49.54	+ 5 16.4	1.493	2.342	16.8	16.7	5 11	12 48.88	+ 7 37.6	1.512	2.349	17.3	20.6
130520	2000 <i>QO</i> ₁₇₅		4 9.3 131°58	2°4/ 11.4 18			245120	2004 <i>QP</i> ₂₁		4 9.3 164°65	1°4/ 10.4 17		
3 2	13 39.28	- 16 52.6	1.712	2.488	17.2	20.4	3 2	13 42.24	- 13 6.0	1.783	2.564	16.4	21.3
3 12	13 35.24	- 16 37.1	1.631	2.498	13.8	20.1	3 12	13 37.49	- 13 3.3	1.697	2.569	13.1	21.1
3 22	13 28.63	- 16 1.4	1.571	2.507	9.9	19.9	3 22	13 30.15	- 12 45.2	1.632	2.573	9.1	20.8
4 1	13 20.13	- 15 6.8	1.534	2.515	5.6	19.7	4 1	13 20.86	- 12 12.9	1.592	2.577	4.7	20.6
4 11	13 10.75	- 13 58.1	1.525	2.524	2.4	19.5	4 11	13 10.62	- 11 30.4	1.579	2.580	1.5	20.3
4 21	13 1.66	- 12 42.3	1.543	2.531	5.2	19.7	4 21	13 0.58	- 10 43.2	1.595	2.582	5.2	20.6
5 1	12 53.93	- 11 28.0	1.587	2.539	9.5	20.0	5 1	12 51.86	- 9 58.1	1.637	2.584	9.6	20.9
5 11	12 48.36	- 10 22.8	1.655	2.545	13.4	20.2	5 11	12 45.29	- 9 21.2	1.703	2.585	13.5	21.1
418203	2008 <i>CD</i> ₁₀₂		4 9.3 174°96	3°6/ 5.6 16			313051	2000 <i>RV</i> ₃₆		4 9.3 187°33	1°0/ 9.9 18		
3 2	13 37.18	- 1 50.9	1.882	2.700	14.3	22.3	3 2	13 50.23	- 9 22.4	2.053	2.821	15.0	20.7
3 12	13 33.28	- 0 39.5	1.803	2.702	11.0	22.1	3 12	13 43.46	- 9 53.1	1.955	2.821	11.9	20.5
3 22	13 27.16	+ 0 41.3	1.747	2.703	7.4	21.9	3 22	13 34.08	- 10 15.3	1.880	2.820	8.3	20.3
4 1	13 19.41	+ 2 4.9	1.718	2.704	4.2	21.7	4 1	13 22.69	- 10 29.6	1.832	2.818	4.1	20.0
4 11	13 10.91	+ 3 23.3	1.716	2.705	4.4	21.7	4 11	13 10.24	- 10 37.2	1.814	2.815	1.1	19.8
4 21	13 2.64	+ 4 29.2	1.743	2.705	7.7	21.9	4 21	12 57.88	- 10 41.0	1.827	2.812	5.0	20.1
5 1	12 55.50	+ 5 17.0	1.795	2.705	11.3	22.1	5 1	12 46.72	- 10 44.2	1.870	2.808	9.2	20.3
5 11	12 50.21	+ 5 44.2	1.870	2.704	14.5	22.3	5 11	12 37.66	- 10 50.8	1.938	2.803	12.8	20.5
244047	2001 <i>TK</i> ₆		4 9.3 241°43	2°2/ 7.0 17			123805	2001 <i>BZ</i> ₆₀		4 9.3 3			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
264213	2010 <i>RM</i> ₃₉		4 9.3 189°57	0°0/ 9.1 16			470949	2009 <i>KD</i> ₃₀		4 9.3 74°75	4°1/ 4.4 17		
3 2	13 40.84	- 9 41.5	2.238	3.019	13.5	22.1	3 2	13 33.19	+ 2 32.2	2.343	3.164	11.7	21.4
3 12	13 35.86	- 9 22.7	2.143	3.018	10.6	21.9	3 12	13 29.73	+ 3 36.3	2.268	3.167	9.1	21.2
3 22	13 28.80	- 8 52.6	2.070	3.016	7.2	21.7	3 22	13 24.56	+ 4 44.1	2.217	3.170	6.3	21.0
4 1	13 20.18	- 8 13.5	2.025	3.013	3.4	21.5	4 1	13 18.17	+ 5 50.1	2.193	3.173	4.3	20.9
4 11	13 10.79	- 7 29.6	2.008	3.010	0.7	21.2	4 11	13 11.24	+ 6 48.3	2.198	3.176	4.8	20.9
4 21	13 1.52	- 6 45.4	2.022	3.006	4.7	21.5	4 21	13 4.49	+ 7 33.7	2.231	3.179	7.2	21.1
5 1	12 53.25	- 6 6.1	2.064	3.001	8.5	21.7	5 1	12 58.61	+ 8 3.1	2.289	3.182	9.9	21.3
5 11	12 46.66	- 5 36.0	2.130	2.995	11.9	21.9	5 11	12 54.15	+ 8 14.9	2.371	3.185	12.5	21.4
83549	2001 <i>SR</i> ₁₇₄		4 9.3 159°23	1°3/ 7.8 18			436644	2011 <i>QG</i> ₂₅		4 9.3 231°33	2°9/ 12.2 17		
3 2	13 35.40	- 5 33.9	2.417	3.216	12.1	19.6	3 2	13 38.07	-17 49.6	2.549	3.295	12.9	21.8
3 12	13 31.42	- 5 3.1	2.330	3.219	9.3	19.4	3 12	13 33.63	-18 8.6	2.444	3.288	10.6	21.6
3 22	13 25.68	- 4 24.4	2.268	3.221	6.2	19.2	3 22	13 27.29	-18 15.0	2.360	3.281	7.8	21.4
4 1	13 18.69	- 3 40.9	2.233	3.223	2.8	19.0	4 1	13 19.50	-18 8.4	2.303	3.274	4.9	21.2
4 11	13 11.11	- 2 57.2	2.226	3.225	1.8	18.9	4 11	13 10.95	-17 50.3	2.274	3.266	3.0	21.1
4 21	13 3.69	- 2 17.6	2.249	3.227	4.9	19.1	4 21	13 2.43	-17 23.5	2.274	3.258	4.3	21.1
5 1	12 57.14	- 1 46.2	2.300	3.229	8.2	19.3	5 1	12 54.72	-16 51.9	2.303	3.250	7.2	21.3
5 11	12 52.01	- 1 26.0	2.375	3.230	11.1	19.5	5 11	12 48.48	-16 20.4	2.357	3.242	10.1	21.5
14977	Bressler		4 9.3 130°93	0°2/ 9.5 18 9			165550	2001 <i>DH</i> ₄₀		4 9.3 105°80	0°5/ 9.7 18		
3 2	13 36.42	-10 24.8	2.300	3.086	13.0	19.0	3 2	13 40.66	-12 13.3	1.785	2.573	16.1	20.8
3 12	13 32.31	-10 6.6	2.215	3.093	10.2	18.8	3 12	13 35.99	-11 44.1	1.716	2.594	12.7	20.6
3 22	13 26.33	- 9 37.4	2.153	3.099	6.9	18.6	3 22	13 28.94	-10 59.1	1.669	2.615	8.6	20.4
4 1	13 19.00	- 8 59.3	2.117	3.105	3.3	18.4	4 1	13 20.22	-10 1.5	1.647	2.635	4.1	20.2
4 11	13 11.05	- 8 16.4	2.110	3.111	0.6	18.2	4 11	13 10.84	- 8 57.1	1.653	2.654	0.8	19.9
4 21	13 3.28	- 7 33.3	2.132	3.117	4.4	18.5	4 21	13 1.85	- 7 52.6	1.687	2.673	5.2	20.3
5 1	12 56.46	- 6 54.5	2.181	3.123	7.9	18.7	5 1	12 54.22	- 6 55.1	1.748	2.692	9.3	20.6
5 11	12 51.17	- 6 24.2	2.256	3.128	11.0	18.9	5 11	12 48.65	- 6 9.7	1.833	2.709	12.9	20.8
288593	2004 <i>JO</i> ₂₁		4 9.3 118°39	1°4/ 10.9 17			69301	1992 <i>ES</i> ₈		4 9.3 286°52	1°9/ 7.3 18		
3 2	13 33.71	-15 11.7	2.365	3.137	13.1	20.8	3 2	13 35.31	- 3 29.1	2.272	3.080	12.5	19.7
3 12	13 30.23	-14 47.2	2.274	3.140	10.5	20.6	3 12	13 31.57	- 3 2.2	2.176	3.069	9.7	19.5
3 22	13 24.95	-14 8.1	2.206	3.143	7.4	20.4	3 22	13 25.93	- 2 28.2	2.104	3.059	6.4	19.2
4 1	13 18.37	-13 16.4	2.164	3.147	3.9	20.2	4 1	13 18.87	- 1 50.6	2.058	3.048	3.1	19.0
4 11	13 11.18	-12 15.9	2.150	3.150	1.4	20.0	4 11	13 11.10	- 1 14.1	2.041	3.038	2.4	18.9
4 21	13 4.15	-11 11.6	2.164	3.153	4.0	20.2	4 21	13 3.40	- 0 43.2	2.053	3.028	5.6	19.1
5 1	12 58.00	-10 9.1	2.207	3.156	7.4	20.5	5 1	12 56.57	- 0 22.0	2.091	3.017	9.1	19.3
5 11	12 53.32	- 9 13.7	2.276	3.159	10.5	20.7	5 11	12 51.26	- 0 13.1	2.153	3.007	12.2	19.5
414806	2010 <i>SP</i> ₃₇		4 9.3 199°97	0°5/ 8.8 15			285761	2000 <i>UE</i> ₂₅		4 9.3 83°58	2°5/ 7.3 18		
3 2	13 38.43	- 9 37.0	2.044	2.835	14.2	23.1	3 2	13 40.04	- 4 52.3	1.515	2.335	17.0	20.5
3 12	13 34.21	- 8 56.9	1.950	2.832	11.2	22.9	3 12	13 35.82	- 4 3.5	1.455	2.354	13.1	20.3
3 22	13 27.80	- 8 3.1	1.878	2.828	7.5	22.7	3 22	13 28.96	- 3 3.3	1.417	2.374	8.6	20.1
4 1	13 19.75	- 6 58.9	1.833	2.823	3.4	22.4	4 1	13 20.26	- 1 57.9	1.403	2.394	4.1	19.9
4 11	13 10.89	- 5 49.7	1.816	2.817	1.1	22.2	4 11	13 10.84	- 0 55.3	1.416	2.413	3.2	19.9
4 21	13 2.16	- 4 42.2	1.829	2.811	5.3	22.5	4 21	13 1.90	- 0 3.2	1.455	2.432	7.3	20.2
5 1	12 54.48	- 3 42.6	1.869	2.804	9.4	22.7	5 1	12 54.51	+ 0 32.8	1.520	2.450	11.5	20.5
5 11	12 48.56	- 2 56.1	1.933	2.797	12.9	22.9	5 11	12 49.39	+ 0 49.8	1.607	2.469	15.2	20.7
288065	2003 <i>UE</i> ₃₄₃		4 9.3 66°38	2°9/ 11.5 18			352550	2008 <i>CF</i> ₂₀₅		4 9.3 231°11	5°3/ 14.9 18		
3 2	13 39.51	-16 20.2	1.457	2.248	19.0	20.8	3 2	13 37.99	-25 45.7	2.609	3.312	13.7	21.4
3 12	13 35.77	-16 25.1	1.389	2.263	15.3	20.6	3 12	13 33.67	-26 22.2	2.504	3.307	11.7	21.2
3 22	13 29.16	-16 9.1	1.340	2.279	11.0	20.4	3 22	13 27.38	-26 42.9	2.419	3.302	9.4	21.0
4 1	13 20.43	-15 33.3	1.314	2.295	6.3	20.2	4 1	13 19.57	-26 46.1	2.358	3.297	7.1	20.9
4 11	13 10.77	-14 42.1	1.313	2.311	2.9	20.0	4 11	13 10.95	-26 31.9	2.325	3.291	5.5	20.8
4 21	13 1.52	-13 42.6	1.338	2.327	5.7	20.2	4 21	13 2.34	-26 2.2	2.319	3.286	5.7	20.8
5 1	12 53.89	-12 43.5	1.388	2.343	10.2	20.5	5 1	12 54.57	-25 21.2	2.341	3.280	7.6	20.9
5 11	12 48.71	-11 52.7	1.461	2.359	14.3	20.8	5 11	12 48.33	-24 34.5	2.389	3.274	10.0	21.0
453303	2008 <i>UH</i> ₂₁₃		4 9.3 169°90	2°6/ 11.5 16			111793	2002 <i>CG</i> ₂₄₀		4 9.3 289°35	1°7/ 10.6 18		
3 2	13 41.37	-16 54.2	1.786	2.555	16.8	22.6	3 2	13 36.20	-14 14.3	1.510	2.311	18.0	19.6
3 12	13 36.88	-16 47.1	1.698	2.559	13.6	22.4	3 12	13 33.48	-14 3.7	1.412	2.296	14.5	19.4
3 22	13 29.79	-16 20.8	1.630	2.563	9.8	22.1	3 22	13 27.91	-13 32.8	1.334	2.280	10.3	19.1
4 1	13 20.72	-15 36.2	1.586	2.566	5.6	21.9	4 1	13 20.02	-12 42.5	1.279	2.265	5.4	18.8
4 11	13 10.70	-14 36.8	1.570	2.568	2.6	21.7	4 11	13 10.84	-11 37.5	1.249	2.250	1.7	18.5
4 21	13 0.87	-13 29.0	1.581	2.569	5.2	21.9	4 21	13 1.65	-10 25.3	1.245	2.235	6.0	18.7
5 1	12 52.36	-12 20.8	1.620	2.570	9.4	22.1	5 1	12 53.75	- 9 15.2	1.265	2.220	11.1	18.9
5 11	12 46.01	-11 19.8	1.683	2.570	13.3	22.4	5 11	12 48.20	- 8 16.2	1.308	2.205	15.7	19.2
100353	1995 <i>TC</i> ₂		4 9.3 196°80	0°0/ 9.1 16			303321	2004 <i>TR</i> ₈₁		4 9.3 39°20	0°4/ 9.7 18		
3 2	13 39.13	-10 36.5	2.173	2.956	13.8	21.2	3 2	13 35.22	-13 4.4	1.352	2.167	19.0	20.5
3 12	13 34.63	-10 6.9	2.077	2.953	10.8	21.0	3 12	13 32.68	-12 24.4	1.278	2.171	15.0	20.3
3 22	13 28.02	- 9 24.2	2.003	2.949	7.4	20.8	3 22	13 27.24	-11 21.7	1.223	2.176	10.3	20.0
4 1	13 19.84	- 8 31.1	1.956	2.945	3.4	20.5	4 1	13 19.61	-10 0.3	1.191	2.180	4.9	19.7
4 11	13 10.88	- 7 32.2	1.938	2.940	0.7	20.3	4 11	13 10.96	- 8 28.2	1.183	2.185	0.9	19.4
4 21	13 2.04	- 6 33.0	1.949	2.934	4.8	20.6	4 21	13 2.61	- 6 56.0	1.202	2.191	6.4	19.8
5 1	12 54.19	- 5 39.3	1.989	2.927	8.7	20.8	5 1	12 55.82	- 5 34.3	1.245	2.196	11.5	20.1
5 11	12 48.04	- 4 56.2	2.053	2.920	12.2	21.0	5 11	12 51.47	- 4 31.2	1.309	2.202	16.0	20.4
375831	2009 <i>UO</i> ₈₇		4 9.3 223°88	3°9/ 13.6 17			377703	2005 <i>WW</i> ₂₄		4 9.3 289°37	5°6/ 5.0 17		

EPHEMERIDES

4 9.3

4 9.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
219611	2001 <i>TF</i> ₁₀₁		4 9.3 170°71	0°1/ 9.4 17			263087	2007 <i>SB</i> ₂₀		4 9.3 281°39	2°5/10.9 17		
3 2	13 39.51	- 9 58.9	2.539	3.314	12.2	22.0	3 2	13 40.34	-13 41.9	1.540	2.334	18.0	20.8
3 12	13 34.53	- 9 39.8	2.447	3.319	9.6	21.8	3 12	13 36.72	-14 3.0	1.443	2.321	14.6	20.5
3 22	13 27.74	- 9 10.5	2.379	3.323	6.5	21.6	3 22	13 30.12	-14 8.1	1.367	2.309	10.5	20.3
4 1	13 19.66	- 8 33.4	2.338	3.327	3.0	21.4	4 1	13 21.08	-13 57.1	1.313	2.297	5.8	20.0
4 11	13 10.96	- 7 51.9	2.327	3.329	0.6	21.2	4 11	13 10.66	-13 32.4	1.285	2.284	2.5	19.7
4 21	13 2.41	- 7 10.2	2.347	3.331	4.2	21.4	4 21	13 0.20	-12 58.8	1.282	2.272	6.0	19.9
5 1	12 54.75	- 6 32.6	2.395	3.332	7.5	21.7	5 1	12 51.08	-12 23.4	1.306	2.259	10.9	20.1
5 11	12 48.55	- 6 2.8	2.470	3.332	10.5	21.8	5 11	12 44.39	-11 53.5	1.351	2.247	15.4	20.4
260873	2005 <i>QV</i> ₁₁₂		4 9.3 187°13	4°1/ 4.7 17 R			26309	2003 <i>HJ</i> ₃₂		4 9.3 252°22	5°4/ 4.6 17		
3 2	13 38.02	+ 2 27.4	2.382	3.192	11.9	21.9	3 2	13 39.35	+ 2 2.1	1.689	2.514	15.3	20.5
3 12	13 33.47	+ 3 30.4	2.299	3.192	9.2	21.7	3 12	13 35.49	+ 3 11.4	1.597	2.498	12.0	20.2
3 22	13 27.08	+ 4 37.6	2.240	3.191	6.4	21.6	3 22	13 29.02	+ 4 28.5	1.527	2.481	8.4	20.0
4 1	13 19.37	+ 5 43.5	2.210	3.189	4.3	21.4	4 1	13 20.46	+ 5 46.0	1.482	2.464	5.7	19.8
4 11	13 11.03	+ 6 41.9	2.208	3.186	4.7	21.4	4 11	13 10.81	+ 6 54.6	1.465	2.446	6.2	19.8
4 21	13 2.86	+ 7 27.8	2.235	3.183	7.2	21.6	4 21	13 1.19	+ 7 46.2	1.474	2.427	9.6	19.9
5 1	12 55.59	+ 7 57.7	2.290	3.179	10.1	21.8	5 1	12 52.77	+ 8 15.1	1.507	2.408	13.6	20.1
5 11	12 49.83	+ 8 10.0	2.367	3.175	12.7	21.9	5 11	12 46.46	+ 8 19.1	1.561	2.389	17.2	20.3
262241	2006 <i>SU</i> ₂₈₉		4 9.3 241°61	5°9/ 3.6 17			106781	2000 <i>XU</i> ₂₀		4 9.3 236°35	2°4/ 6.6 18		
3 2	13 38.92	+ 5 11.4	1.935	2.756	13.8	21.4	3 2	13 37.81	+ 0 3.1	2.908	3.705	10.3	20.2
3 12	13 34.76	+ 6 22.9	1.845	2.742	10.9	21.2	3 12	13 33.05	+ 0 24.6	2.805	3.692	8.0	20.0
3 22	13 28.29	+ 7 38.5	1.779	2.728	7.9	21.0	3 22	13 26.71	+ 0 49.4	2.727	3.678	5.4	19.8
4 1	13 20.04	+ 8 50.6	1.739	2.712	6.0	20.8	4 1	13 19.19	+ 1 14.5	2.677	3.663	3.0	19.7
4 11	13 10.88	+ 9 51.3	1.727	2.697	6.7	20.8	4 11	13 11.09	+ 1 36.4	2.658	3.648	2.8	19.6
4 21	13 1.81	+10 33.9	1.741	2.680	9.5	21.0	4 21	13 3.03	+ 1 51.9	2.668	3.633	5.2	19.8
5 1	12 53.80	+10 54.2	1.781	2.663	12.8	21.1	5 1	12 55.65	+ 1 58.3	2.707	3.617	7.9	19.9
5 11	12 47.65	+10 51.2	1.841	2.646	15.9	21.3	5 11	12 49.50	+ 1 54.2	2.771	3.601	10.5	20.1
405269	2003 <i>SD</i> ₃₂₆		4 9.3 124°11	0°9/10.0 18			174633	2003 <i>SM</i> ₁₁₀		4 9.3 256°64	1°2/10.3 18		
3 2	13 41.77	-12 4.4	1.870	2.653	15.7	22.5	3 2	13 38.73	-13 51.6	1.882	2.664	15.6	21.1
3 12	13 36.85	-11 53.4	1.794	2.668	12.4	22.3	3 12	13 34.94	-13 30.4	1.770	2.643	12.6	20.8
3 22	13 29.56	-11 28.0	1.740	2.683	8.5	22.1	3 22	13 28.64	-12 51.5	1.679	2.621	8.9	20.5
4 1	13 20.55	-10 50.6	1.710	2.697	4.2	21.9	4 1	13 20.31	-11 56.0	1.613	2.598	4.6	20.2
4 11	13 10.80	-10 5.4	1.709	2.711	1.0	21.7	4 11	13 10.83	-10 48.2	1.574	2.575	1.2	19.9
4 21	13 1.36	- 9 18.1	1.737	2.724	5.0	22.0	4 21	13 1.25	- 9 34.4	1.563	2.551	5.3	20.1
5 1	12 53.22	- 8 34.8	1.791	2.736	9.1	22.3	5 1	12 52.70	- 8 22.6	1.580	2.526	9.9	20.3
5 11	12 47.09	- 8 0.6	1.870	2.748	12.7	22.5	5 11	12 46.11	- 7 20.4	1.620	2.501	14.1	20.5
7913	Parfenov		4 9.3 162°24	0°2/ 9.5 18			300897	2008 <i>BQ</i> ₂₄		4 9.3 216°13	8°6/19.9 18		
3 2	13 35.62	-10 48.3	2.278	3.065	13.1	17.9	3 2	13 39.05	-37 55.3	2.697	3.312	15.0	20.9
3 12	13 31.76	-10 23.9	2.189	3.067	10.3	17.7	3 12	13 34.77	-38 49.1	2.593	3.308	13.5	20.7
3 22	13 26.01	- 9 47.5	2.122	3.069	7.0	17.5	3 22	13 28.28	-39 23.0	2.506	3.304	11.9	20.6
4 1	13 18.89	- 9 1.7	2.082	3.071	3.3	17.3	4 1	13 20.06	-39 33.2	2.439	3.300	10.3	20.5
4 11	13 11.13	- 8 10.5	2.071	3.073	0.6	17.0	4 11	13 10.90	-39 18.2	2.397	3.296	9.0	20.4
4 21	13 3.52	- 7 19.1	2.089	3.074	4.4	17.3	4 21	13 1.73	-38 38.8	2.378	3.291	8.6	20.4
5 1	12 56.83	- 6 32.4	2.134	3.076	8.0	17.5	5 1	12 53.52	-37 39.0	2.386	3.287	9.2	20.4
5 11	12 51.68	- 5 54.9	2.204	3.077	11.2	17.8	5 11	12 47.05	-36 25.3	2.418	3.282	10.7	20.5
83355	2001 <i>RV</i> ₁₅₁		4 9.3 91°26	3°2/ 6.3 18			215879	2005 <i>EA</i> ₂₃₁		4 9.3 10°60	6°1/ 5.6 17		
3 2	13 38.01	+ 0 55.6	2.235	3.046	12.5	19.3	3 2	13 38.18	+ 3 35.2	1.206	2.056	18.6	19.8
3 12	13 33.51	+ 1 22.6	2.160	3.054	9.7	19.1	3 12	13 35.19	+ 4 13.0	1.144	2.058	14.6	19.6
3 22	13 27.11	+ 1 53.0	2.108	3.061	6.5	18.9	3 22	13 29.03	+ 4 54.0	1.101	2.060	10.2	19.3
4 1	13 19.37	+ 2 22.4	2.083	3.069	3.7	18.8	4 1	13 20.46	+ 5 29.5	1.080	2.064	6.7	19.1
4 11	13 11.05	+ 2 46.3	2.087	3.076	3.6	18.8	4 11	13 10.84	+ 5 50.7	1.083	2.069	6.9	19.2
4 21	13 2.95	+ 3 0.7	2.119	3.084	6.3	19.0	4 21	13 1.62	+ 5 51.1	1.109	2.074	10.6	19.4
5 1	12 55.86	+ 3 3.1	2.178	3.091	9.4	19.2	5 1	12 54.19	+ 5 27.8	1.157	2.081	14.9	19.6
5 11	12 50.36	+ 2 52.0	2.261	3.098	12.3	19.4	5 11	12 49.44	+ 4 41.6	1.224	2.088	18.8	19.9
334770	2003 <i>SF</i> ₈₀		4 9.3 188°38	3°2/13.1 17			43808	1991 <i>RF</i> ₁₁		4 9.3 151°79	2°0/11.2 18		
3 2	13 36.96	-20 59.0	2.591	3.323	13.1	21.3	3 2	13 40.95	-15 40.7	2.141	2.902	14.6	19.5
3 12	13 32.70	-20 55.2	2.489	3.322	10.8	21.2	3 12	13 36.04	-15 35.5	2.054	2.912	11.8	19.3
3 22	13 26.62	-20 35.6	2.409	3.321	8.1	21.0	3 22	13 28.96	-15 15.2	1.988	2.921	8.4	19.1
4 1	13 19.18	-20 0.3	2.354	3.319	5.3	20.8	4 1	13 20.28	-14 40.7	1.949	2.929	4.7	18.9
4 11	13 11.08	-19 11.3	2.328	3.317	3.3	20.7	4 11	13 10.88	-13 55.5	1.938	2.937	2.0	18.7
4 21	13 3.07	-18 12.6	2.331	3.314	4.3	20.7	4 21	13 1.68	-13 4.1	1.956	2.943	4.5	18.9
5 1	12 55.92	-17 9.3	2.362	3.311	7.0	20.9	5 1	12 53.59	-12 12.6	2.003	2.949	8.1	19.1
5 11	12 50.23	-16 7.2	2.421	3.307	9.8	21.1	5 11	12 47.30	-11 26.7	2.074	2.955	11.5	19.3
148524	2001 <i>PP</i> ₅₉		4 9.3 217°44	6°8/ 1.4 17			376226	2011 <i>EG</i> ₂₇		4 9.3 51°20	2°0/10.7 17		
3 2	13 38.29	+10 20.2	2.239	3.056	12.3	20.8	3 2	13 42.10	-12 12.3	1.665	2.455	17.0	21.3
3 12	13 33.89	+11 43.8	2.159	3.047	10.0	20.6	3 12	13 37.48	-12 43.2	1.591	2.467	13.6	21.1
3 22	13 27.49	+13 7.0	2.103	3.038	7.8	20.5	3 22	13 30.20	-13 1.0	1.537	2.480	9.5	20.8
4 1	13 19.60	+14 22.2	2.074	3.028	6.8	20.4	4 1	13 20.93	-13 6.0	1.508	2.492	5.1	20.6
4 11	13 11.00	+15 22.3	2.072	3.017	7.7	20.4	4 11	13 10.75	-13 0.7	1.506	2.505	2.0	20.4
4 21	13 2.52	+16 1.9	2.098	3.005	9.9	20.5	4 21	13 0.86	-12 48.8	1.530	2.519	5.3	20.7
5 1	12 55.01	+16 18.3	2.148	2.993	12.4	20.7	5 1	12 52.41	-12 35.7	1.581	2.532	9.6	20.9
5 11	12 49.12	+16 11.5	2.219	2.981	14.8	20.8	5 11	12 46.21	-12 26.5	1.656	2.546	13.3	21.2
124748	2001 <i>SQ</i> ₂₁₂		4 9.3 208°80	0°7/ 8.8 18			313048	2000 <i>QX</i> ₂₀₉		4 9.3 173°61	0°9/10.2 18		

EPHEMERIDES

4 9.3

4 9.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
511096	2013 <i>TO</i> ₁₃₉		4 9.3 181°22	2°5/ 6.2 17			199664	2006 <i>GX</i> ₄₇		4 9.3 326°92	0°3/ 9.1 17		
3 2	13 38.91	- 0 3.6	2.927	3.721	10.3	22.6	3 2	13 35.16	- 9 8.8	1.825	2.631	15.1	20.8
3 12	13 33.78	+ 0 34.3	2.837	3.723	8.0	22.5	3 12	13 31.98	- 8 48.8	1.735	2.625	11.9	20.6
3 22	13 27.12	+ 1 16.2	2.773	3.723	5.4	22.3	3 22	13 26.49	- 8 15.7	1.666	2.619	8.0	20.4
4 1	13 19.35	+ 1 58.4	2.738	3.723	3.0	22.1	4 1	13 19.26	- 7 32.5	1.623	2.614	3.7	20.1
4 11	13 11.09	+ 2 36.9	2.734	3.723	3.0	22.1	4 11	13 11.15	- 6 44.3	1.607	2.608	0.9	19.9
4 21	13 2.95	+ 3 8.1	2.760	3.721	5.3	22.3	4 21	13 3.16	- 5 56.9	1.618	2.603	5.5	20.2
5 1	12 55.56	+ 3 29.3	2.815	3.718	7.9	22.5	5 1	12 56.27	- 5 16.5	1.654	2.599	9.7	20.4
5 11	12 49.43	+ 3 38.6	2.895	3.715	10.3	22.6	5 11	12 51.25	- 4 48.1	1.714	2.594	13.5	20.6
89	<i>Julia</i>		4 9.3 219°81	7°9/16.8 18			420342	2012 <i>BV</i> ₄₄		4 9.3 271°42	3°2/11.6 17		
3 2	13 42.17	-31 31.4	2.298	2.967	16.1	11.6	3 2	13 39.16	-16 26.7	1.655	2.435	17.5	21.2
3 12	13 37.48	-32 24.3	2.190	2.959	14.2	11.5	3 12	13 35.65	-16 41.8	1.554	2.422	14.3	21.0
3 22	13 30.28	-32 57.4	2.100	2.950	12.0	11.3	3 22	13 29.33	-16 38.8	1.472	2.407	10.5	20.7
4 1	13 21.07	-33 6.9	2.033	2.941	9.8	11.1	4 1	13 20.73	-16 17.1	1.414	2.393	6.2	20.4
4 11	13 10.71	-32 50.8	1.990	2.931	8.2	11.0	4 11	13 10.83	-15 38.9	1.381	2.378	3.2	20.2
4 21	13 0.27	-32 10.7	1.974	2.921	8.0	11.0	4 21	13 0.87	-14 49.1	1.375	2.364	5.8	20.3
5 1	12 50.88	-31 11.2	1.984	2.910	9.5	11.0	5 1	12 52.15	-13 55.4	1.395	2.349	10.3	20.5
5 11	12 43.44	-30 0.3	2.019	2.898	11.8	11.2	5 11	12 45.69	-13 6.0	1.438	2.334	14.6	20.7
74837	1999 <i>TD</i> ₃₃		4 9.3 255°31	1°0/10.1 17			213585	2002 <i>NS</i> ₆₀		4 9.3 280°30	1°8/ 7.8 17		
3 2	13 39.30	-12 10.0	1.797	2.587	16.0	20.6	3 2	13 35.28	- 7 40.9	1.598	2.416	16.3	20.5
3 12	13 35.44	-12 1.2	1.693	2.572	12.8	20.3	3 12	13 32.39	- 6 46.5	1.511	2.409	12.8	20.3
3 22	13 29.00	-11 37.0	1.610	2.556	8.9	20.1	3 22	13 26.94	- 5 35.7	1.445	2.402	8.5	20.0
4 1	13 20.49	-10 58.8	1.552	2.539	4.5	19.8	4 1	13 19.52	- 4 13.7	1.404	2.395	3.9	19.7
4 11	13 10.84	-10 10.5	1.521	2.523	1.1	19.5	4 11	13 11.11	- 2 48.6	1.389	2.389	2.4	19.6
4 21	13 1.15	- 9 17.9	1.518	2.505	5.4	19.7	4 21	13 2.84	- 1 29.5	1.402	2.382	7.0	19.8
5 1	12 52.57	- 8 28.1	1.541	2.488	10.1	20.0	5 1	12 55.83	- 0 24.7	1.439	2.375	11.6	20.1
5 11	12 46.04	- 7 47.5	1.587	2.470	14.2	20.2	5 11	12 50.93	+ 0 20.3	1.498	2.368	15.6	20.3
471390	2011 <i>ST</i> ₁₂₉		4 9.3 168°26	0°9/ 8.1 17			32960	1996 <i>NO</i> ₄		4 9.3 229°61	5°8/14.8 18		
3 2	13 33.94	- 6 49.4	2.779	3.571	10.9	22.2	3 2	13 40.64	-25 50.3	2.299	3.006	15.2	19.6
3 12	13 30.08	- 6 15.4	2.690	3.573	8.4	22.0	3 12	13 36.12	-26 24.0	2.188	2.995	13.0	19.4
3 22	13 24.72	- 5 33.3	2.625	3.576	5.6	21.8	3 22	13 29.28	-26 39.9	2.097	2.983	10.5	19.2
4 1	13 18.28	- 4 46.2	2.587	3.578	2.5	21.6	4 1	13 20.60	-26 35.3	2.029	2.971	7.8	19.1
4 11	13 11.34	- 3 58.0	2.580	3.579	1.3	21.5	4 11	13 10.88	-26 10.2	1.988	2.958	6.0	18.9
4 21	13 4.53	- 3 12.7	2.602	3.581	4.3	21.7	4 21	13 1.11	-25 26.8	1.975	2.944	6.3	18.9
5 1	12 58.45	- 2 34.1	2.652	3.582	7.2	21.9	5 1	12 52.30	-24 30.3	1.989	2.931	8.5	19.0
5 11	12 53.60	- 2 5.1	2.728	3.583	9.9	22.1	5 11	12 45.28	-23 27.9	2.029	2.916	11.4	19.2
354359	2003 <i>HR</i> ₃₄		4 9.3 304°01	0°4/ 9.7 17			121107	1999 <i>GF</i> ₅		4 9.3 23°55	22°6/21.3 18 R		
3 2	13 31.51	-12 52.1	2.225	3.014	13.3	20.9	3 2	13 40.18	+36 47.1	1.018	1.833	23.8	17.2
3 12	13 28.78	-12 9.1	2.120	2.999	10.5	20.7	3 12	13 37.50	+39 8.0	1.011	1.844	22.9	17.1
3 22	13 24.17	-11 10.3	2.037	2.983	7.2	20.4	3 22	13 30.69	+40 46.6	1.018	1.857	22.6	17.2
4 1	13 18.13	- 9 58.4	1.980	2.968	3.5	20.2	4 1	13 21.13	+41 29.0	1.040	1.871	22.9	17.2
4 11	13 11.36	- 8 38.3	1.951	2.953	0.6	19.9	4 11	13 10.86	+41 8.9	1.075	1.887	23.8	17.4
4 21	13 4.64	- 7 16.2	1.951	2.938	4.5	20.2	4 21	13 1.79	+39 49.6	1.123	1.904	25.0	17.5
5 1	12 58.75	- 5 59.0	1.979	2.923	8.4	20.4	5 1	12 55.34	+37 39.9	1.183	1.922	26.3	17.7
5 11	12 54.36	- 4 52.6	2.031	2.909	11.8	20.6	5 11	12 52.17	+34 52.4	1.254	1.941	27.4	17.9
353703	2011 <i>UN</i> ₃₉₂		4 9.3 219°68	1°8/11.3 18			385905	2006 <i>SX</i> ₃₇₅		4 9.3 68°59	2°8/ 6.2 17		
3 2	13 36.62	-14 52.4	2.637	3.398	12.2	21.2	3 2	13 33.95	- 2 15.5	2.190	3.005	12.6	21.1
3 12	13 32.39	-14 58.6	2.536	3.394	9.8	21.0	3 12	13 30.40	- 1 18.4	2.122	3.019	9.7	21.0
3 22	13 26.41	-14 53.5	2.457	3.389	7.0	20.8	3 22	13 25.05	- 0 14.4	2.077	3.034	6.4	20.8
4 1	13 19.12	-14 37.8	2.405	3.385	4.0	20.6	4 1	13 18.46	+ 0 51.2	2.060	3.048	3.4	20.6
4 11	13 11.17	-14 13.6	2.382	3.380	1.8	20.5	4 11	13 11.35	+ 1 52.5	2.071	3.062	3.4	20.6
4 21	13 3.29	-13 44.0	2.388	3.375	3.8	20.6	4 21	13 4.50	+ 2 44.1	2.111	3.077	6.2	20.8
5 1	12 56.18	-13 12.8	2.423	3.370	6.9	20.8	5 1	12 58.62	+ 3 21.9	2.176	3.091	9.3	21.1
5 11	12 50.44	-12 44.4	2.484	3.365	9.8	20.9	5 11	12 54.25	+ 3 43.7	2.266	3.106	12.1	21.3
237551	2000 <i>WQ</i> ₁₉		4 9.3 272°10	28°1/29.5 15			69537	1997 <i>GZ</i> ₃₂		4 9.3 337°20	1°1/10.2 18		
3 2	14 40.77	+35 48.5	0.928	1.668	30.8	20.6	3 2	13 33.34	-11 59.9	1.545	2.357	17.1	19.2
3 12	14 31.23	+37 52.1	0.834	1.630	29.5	20.3	3 12	13 31.09	-11 56.2	1.454	2.345	13.7	19.0
3 22	14 12.31	+39 37.1	0.752	1.591	28.5	19.9	3 22	13 26.21	-11 35.8	1.383	2.334	9.5	18.7
4 1	13 43.11	+40 22.5	0.683	1.548	28.2	19.7	4 1	13 19.24	-11 0.3	1.335	2.323	4.8	18.4
4 11	13 5.93	+39 16.9	0.633	1.503	29.5	19.5	4 11	13 11.17	-10 14.5	1.312	2.313	1.2	18.1
4 21	12 26.86	+35 46.0	0.603	1.456	33.0	19.4	4 21	13 3.16	- 9 24.7	1.314	2.304	5.7	18.4
5 1	11 52.93	+29 58.5	0.594	1.407	38.1	19.4	5 1	12 56.39	- 8 38.6	1.341	2.296	10.5	18.6
5 11	11 27.89	+22 44.0	0.604	1.355	43.8	19.6	5 11	12 51.79	- 8 3.1	1.390	2.289	14.9	18.8
331217	2011 <i>BK</i> ₄₇		4 9.3 240°07	0°1/ 9.5 17			430896	2005 <i>SS</i> ₃		4 9.3 102°41	0°9/ 8.4 18		
3 2	13 36.43	-11 25.8	2.039	2.828	14.3	21.8	3 2	13 36.38	- 9 46.7	1.960	2.757	14.5	21.5
3 12	13 32.78	-10 53.4	1.938	2.818	11.3	21.6	3 12	13 32.51	- 8 45.7	1.888	2.775	11.3	21.3
3 22	13 26.95	- 9 6.2	1.860	2.807	7.7	21.3	3 22	13 26.57	- 7 30.4	1.839	2.791	7.5	21.1
4 1	13 19.46	- 9 6.5	1.807	2.796	3.7	21.1	4 1	13 19.19	- 6 5.7	1.817	2.808	3.3	20.9
4 11	13 11.10	- 7 59.5	1.783	2.784	0.7	20.8	4 11	13 11.22	- 4 38.5	1.823	2.824	1.5	20.8
4 21	13 2.81	- 6 51.4	1.787	2.772	5.0	21.1	4 21	13 3.56	- 3 16.3	1.859	2.840	5.4	21.1
5 1	12 55.51	- 5 48.8	1.818	2.760	9.1	21.3	5 1	12 57.05	- 2 5.5	1.921	2.855	9.3	21.3
5 11	12 49.93	- 4 57.5	1.873	2.748	12.8	21.5	5 11	12 52.29	- 1 10.8	2.008	2.870	12.6	21.5
207386	2005 <i>TN</i> ₁₀₅		4 9.3 116°63	16°5/ 1.4 17			123048	2000 <i>SY</i> ₂₉₄		4 9.3 162°40	1°3/10.		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
320948	2008 <i>HK</i> ₂		4 9.3 316 ^o .77	0 ^o 3/ 9.1 17			146167	2000 <i>SY</i> ₂₆₆		4 9.3 176 ^o .99	6 ^o 3/17.8 18		
3 2	13 34.38	-10 4.8	1.552	2.368	16.9	20.6	3 2	13 34.73	-32 22.1	2.574	3.241	14.6	19.8
3 12	13 31.84	-9 35.6	1.462	2.357	13.3	20.4	3 12	13 31.20	-32 25.9	2.472	3.242	12.7	19.7
3 22	13 26.68	-8 49.1	1.392	2.346	9.1	20.1	3 22	13 25.75	-32 8.2	2.388	3.242	10.6	19.5
4 1	13 19.45	-7 48.7	1.345	2.336	4.2	19.8	4 1	13 18.87	-31 27.1	2.328	3.242	8.4	19.4
4 11	13 11.14	-6 40.9	1.325	2.326	1.1	19.5	4 11	13 11.31	-30 23.7	2.292	3.243	6.7	19.3
4 21	13 2.91	-5 33.8	1.330	2.317	6.2	19.8	4 21	13 3.89	-29 1.2	2.284	3.243	6.4	19.2
5 1	12 55.94	-4 35.6	1.360	2.308	11.1	20.1	5 1	12 57.41	-27 25.8	2.304	3.243	7.7	19.3
5 11	12 51.14	-3 52.9	1.412	2.299	15.4	20.3	5 11	12 52.51	-25 45.1	2.350	3.242	9.8	19.5
119506	2001 <i>UQ</i> ₁₂₈		4 9.3 145 ^o .10	1 ^o 9/ 7.3 18			197537	2004 <i>EW</i> ₇₁		4 9.3 84 ^o .15	1 ^o 6/11.5 18		
3 2	13 40.22	-3 32.9	2.409	3.203	12.3	21.2	3 2	13 33.88	-15 27.8	3.165	3.918	10.5	20.6
3 12	13 35.08	-2 58.9	2.330	3.216	9.4	21.0	3 12	13 29.88	-15 29.2	3.079	3.932	8.4	20.5
3 22	13 28.12	-2 18.2	2.277	3.228	6.3	20.8	3 22	13 24.52	-15 20.6	3.017	3.946	6.0	20.3
4 1	13 19.88	-1 34.7	2.251	3.240	3.0	20.6	4 1	13 18.20	-15 3.1	2.981	3.959	3.4	20.2
4 11	13 11.09	-0 53.0	2.255	3.251	2.4	20.6	4 11	13 11.46	-14 38.6	2.975	3.973	1.7	20.1
4 21	13 2.54	-0 17.4	2.288	3.261	5.3	20.8	4 21	13 4.85	-14 10.0	2.999	3.986	3.2	20.2
5 1	12 54.96	+ 0 8.4	2.350	3.270	8.5	21.0	5 1	12 58.91	-13 40.2	3.052	3.999	5.6	20.4
5 11	12 48.92	+ 0 22.2	2.437	3.278	11.3	21.2	5 11	12 54.09	-13 12.8	3.132	4.013	8.0	20.6
440199	2004 <i>GP</i> ₃₉		4 9.3 1 ^o .77	5 ^o 5/14.9 17			473965	2016 <i>EE</i> ₁₈₈		4 9.3 0 ^o .92	2 ^o 7/11.6 17		
3 2	13 27.51	-25 9.2	1.525	2.294	19.3	19.9	3 2	13 35.45	-17 9.7	1.496	2.289	18.5	21.2
3 12	13 26.63	-25 1.8	1.441	2.291	16.3	19.7	3 12	13 32.79	-16 57.3	1.413	2.288	15.0	21.0
3 22	13 23.20	-24 24.6	1.374	2.291	12.7	19.4	3 22	13 27.36	-16 21.8	1.348	2.288	10.8	20.7
4 1	13 17.81	-23 16.8	1.329	2.291	8.8	19.2	4 1	13 19.78	-15 24.4	1.306	2.288	6.2	20.5
4 11	13 11.49	-21 42.1	1.307	2.293	5.9	19.0	4 11	13 11.14	-14 9.9	1.289	2.288	2.7	20.2
4 21	13 5.37	-19 48.9	1.310	2.297	6.3	19.1	4 21	13 2.69	-12 46.4	1.298	2.289	5.7	20.4
5 1	13 0.56	-17 48.5	1.338	2.302	9.6	19.3	5 1	12 55.66	-11 24.1	1.332	2.289	10.3	20.7
5 11	12 57.88	-15 53.3	1.389	2.308	13.5	19.5	5 11	12 50.95	-10 12.1	1.389	2.290	14.7	20.9
158444	2002 <i>CX</i> ₉₉		4 9.3 341 ^o .39	1 ^o 1/ 8.4 17			432062	2008 <i>YA</i> ₅₂		4 9.3 242 ^o .11	5 ^o 5/ 3.3 17		
3 2	13 35.44	-7 8.4	1.637	2.455	16.0	20.0	3 2	13 35.61	+ 6 33.9	2.205	3.027	12.3	21.4
3 12	13 32.44	-6 46.2	1.552	2.450	12.5	19.7	3 12	13 31.81	+ 7 37.6	2.127	3.024	9.7	21.2
3 22	13 26.94	-6 11.4	1.488	2.445	8.4	19.5	3 22	13 26.11	+ 8 42.5	2.073	3.020	7.1	21.0
4 1	13 19.52	-5 27.8	1.449	2.440	3.8	19.2	4 1	13 19.03	+ 9 42.2	2.046	3.016	5.5	20.9
4 11	13 11.15	-4 41.2	1.436	2.436	1.7	19.0	4 11	13 11.30	+10 30.4	2.047	3.012	6.2	20.9
4 21	13 2.93	-3 58.4	1.449	2.433	6.2	19.3	4 21	13 3.74	+11 2.2	2.074	3.008	8.5	21.1
5 1	12 55.94	-3 25.5	1.487	2.430	10.7	19.6	5 1	12 57.13	+11 14.6	2.127	3.004	11.2	21.2
5 11	12 51.01	-3 7.0	1.548	2.427	14.7	19.8	5 11	12 52.07	+11 7.3	2.201	3.000	13.8	21.4
192726	1999 <i>TJ</i> ₁₆₁		4 9.3 235 ^o .88	1 ^o 2/10.5 18			464588	2016 <i>CW</i> ₁₀₅		4 9.3 312 ^o .84	6 ^o 5/13.9 17		
3 2	13 36.78	-13 31.0	2.136	2.915	14.1	20.8	3 2	13 33.99	-22 35.6	1.364	2.144	20.6	20.5
3 12	13 32.96	-13 18.9	2.037	2.908	11.3	20.6	3 12	13 32.39	-23 10.2	1.263	2.122	17.5	20.3
3 22	13 27.03	-12 52.6	1.960	2.901	7.9	20.3	3 22	13 27.63	-23 19.4	1.179	2.101	13.8	20.0
4 1	13 19.50	-12 13.5	1.908	2.893	4.1	20.1	4 1	13 20.15	-22 59.2	1.114	2.080	9.7	19.7
4 11	13 11.16	-11 25.3	1.884	2.885	1.3	19.9	4 11	13 11.02	-22 9.2	1.073	2.059	6.7	19.4
4 21	13 2.88	-10 32.8	1.889	2.877	4.5	20.1	4 21	13 1.70	-20 54.0	1.054	2.040	7.7	19.4
5 1	12 55.57	-9 42.1	1.921	2.869	8.4	20.3	5 1	12 53.77	-19 23.7	1.059	2.021	11.8	19.6
5 11	12 49.94	-8 58.4	1.978	2.860	11.9	20.5	5 11	12 48.52	-17 51.6	1.085	2.002	16.4	19.8
353804	2012 <i>TM</i> ₁₀₆		4 9.3 185 ^o .12	0 ^o 3/ 9.7 17			264509	2001 <i>QU</i> ₃₁₁		4 9.3 142 ^o .26	1 ^o 3/ 7.9 16		
3 2	13 35.84	-11 3.8	2.439	3.220	12.5	22.0	3 2	13 38.33	-6 57.5	2.368	3.159	12.5	22.0
3 12	13 31.85	-10 41.6	2.345	3.220	9.8	21.8	3 12	13 33.67	-6 10.5	2.289	3.172	9.7	21.8
3 22	13 26.08	-10 8.0	2.275	3.220	6.7	21.6	3 22	13 27.22	-5 13.8	2.234	3.185	6.4	21.7
4 1	13 18.99	-9 25.3	2.231	3.219	3.2	21.4	4 1	13 19.49	-4 11.3	2.207	3.198	2.9	21.4
4 11	13 11.28	-8 37.3	2.217	3.218	0.6	21.2	4 11	13 11.23	-3 8.1	2.210	3.209	1.7	21.4
4 21	13 3.69	-7 48.4	2.231	3.217	4.2	21.5	4 21	13 3.20	-2 9.6	2.243	3.220	5.0	21.6
5 1	12 56.95	-7 3.4	2.274	3.216	7.6	21.7	5 1	12 56.13	-1 20.5	2.304	3.230	8.3	21.8
5 11	12 51.65	-6 26.6	2.342	3.214	10.7	21.9	5 11	12 50.58	-0 44.1	2.389	3.239	11.3	22.0
235364	2003 <i>WU</i> ₆		4 9.3 256 ^o .32	1 ^o 2/10.5 17			97627	2000 <i>EB</i> ₁₂₈		4 9.3 47 ^o .55	6 ^o 9/13.6 18		
3 2	13 37.32	-13 16.3	2.321	3.094	13.3	21.5	3 2	13 49.74	-22 35.6	1.966	2.685	17.1	19.0
3 12	13 33.30	-13 6.4	2.208	3.075	10.7	21.2	3 12	13 43.58	-24 13.7	1.878	2.694	14.5	18.8
3 22	13 27.26	-12 43.4	2.117	3.056	7.5	21.0	3 22	13 34.52	-25 37.6	1.811	2.702	11.6	18.7
4 1	13 19.63	-12 8.5	2.053	3.037	3.9	20.7	4 1	13 23.14	-26 42.4	1.768	2.711	8.7	18.5
4 11	13 11.13	-11 24.8	2.016	3.017	1.2	20.5	4 11	13 10.47	-27 25.0	1.753	2.720	7.0	18.4
4 21	13 2.60	-10 36.5	2.009	2.997	4.4	20.7	4 21	12 57.81	-27 45.7	1.766	2.729	7.6	18.5
5 1	12 54.89	-9 49.0	2.031	2.976	8.1	20.9	5 1	12 46.45	-27 48.1	1.807	2.738	9.9	18.6
5 11	12 48.74	-9 7.5	2.077	2.955	11.6	21.0	5 11	12 37.42	-27 38.9	1.872	2.747	12.7	18.8
511064	2013 <i>TH</i> ₅		4 9.3 203 ^o .39	6 ^o 9/20.0 18 C			38816	2000 <i>RZ</i> ₇₃		4 9.3 203 ^o .43	0 ^o 1/ 9.4 18		
3 2	13 42.83	-39 33.1	3.523	4.094	12.2	24.1	3 2	13 40.52	-10 40.4	2.051	2.835	14.5	19.9
3 12	13 37.12	-39 56.4	3.402	4.087	11.1	24.0	3 12	13 35.93	-10 15.0	1.954	2.830	11.4	19.7
3 22	13 29.56	-40 1.9	3.300	4.078	9.7	23.9	3 22	13 29.07	-9 36.1	1.878	2.824	7.8	19.5
4 1	13 20.61	-39 46.8	3.220	4.068	8.4	23.8	4 1	13 20.49	-8 45.9	1.829	2.818	3.7	19.2
4 11	13 10.95	-39 10.3	3.165	4.058	7.3	23.7	4 11	13 11.02	-7 49.3	1.809	2.810	0.7	19.0
4 21	13 1.34	-38 13.6	3.138	4.046	6.9	23.6	4 21	13 1.65	-6 51.8	1.817	2.802	5.1	19.3
5 1	12 52.53	-37 0.1	3.139	4.033	7.5	23.7	5 1	12 53.33	-5 59.9	1.854	2.793	9.2	19.5
5 11	12 45.16	-35 35.4	3.167	4.020	8.7	23.7	5 11	12 46.83	-5 18.5	1.915	2.783	12.8	19.7
505043													

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
292631	2006 <i>UZ</i> ₂₃		4 9.3 70°09	1.5°/11.0	17		375819	2009 <i>UO</i> ₃₅		4 9.4 159°40	0°1/ 9.5	17	
3 2	13 34.10	-15 18.2	2.271	3.044	13.5	20.6	3 2	13 37.67	-10 53.0	2.253	3.036	13.3	22.0
3 12	13 30.62	-14 57.5	2.188	3.054	10.8	20.4	3 12	13 33.39	-10 26.2	2.165	3.041	10.5	21.9
3 22	13 25.29	-14 22.1	2.126	3.063	7.6	20.2	3 22	13 27.17	-9 47.1	2.101	3.046	7.1	21.7
4 1	13 18.65	-13 33.8	2.090	3.073	4.1	20.0	4 1	13 19.54	-8 58.4	2.063	3.051	3.4	21.4
4 11	13 11.41	-12 36.6	2.083	3.083	1.5	19.8	4 11	13 11.26	-8 4.4	2.053	3.055	0.6	21.2
4 21	13 4.37	-11 35.6	2.104	3.092	4.1	20.0	4 21	13 3.15	-7 10.2	2.073	3.059	4.5	21.5
5 1	12 58.27	-10 36.4	2.153	3.102	7.5	20.3	5 1	12 56.01	-6 21.1	2.121	3.062	8.1	21.7
5 11	12 53.69	-9 44.2	2.227	3.112	10.6	20.5	5 11	12 50.47	-5 41.6	2.195	3.065	11.4	21.9
177745	2005 <i>JM</i> ₄₄		4 9.3 295°07	1°9/ 7.9	17		213104	1999 <i>XF</i> ₂₆		4 9.4 213°64	1°9/ 7.7	16	
3 2	13 37.21	-5 38.5	1.568	2.389	16.5	20.6	3 2	13 42.49	-3 46.8	2.225	3.018	13.2	21.4
3 12	13 34.22	-5 10.0	1.465	2.365	13.0	20.3	3 12	13 37.27	-3 22.1	2.125	3.009	10.3	21.2
3 22	13 28.45	-4 28.3	1.384	2.341	8.8	19.9	3 22	13 29.89	-2 49.8	2.049	2.999	6.9	21.0
4 1	13 20.40	-3 37.4	1.326	2.317	4.1	19.6	4 1	13 20.87	-2 13.6	1.999	2.989	3.3	20.7
4 11	13 11.03	-2 44.0	1.294	2.293	2.6	19.4	4 11	13 11.00	-1 37.9	1.980	2.977	2.3	20.6
4 21	13 1.54	-1 55.6	1.288	2.269	7.3	19.7	4 21	13 1.18	-1 7.5	1.990	2.965	5.8	20.8
5 1	12 53.22	-1 19.7	1.307	2.245	12.3	19.9	5 1	12 52.34	-0 46.6	2.028	2.951	9.5	21.0
5 11	12 47.13	-1 1.5	1.347	2.222	16.8	20.1	5 11	12 45.19	-0 38.0	2.091	2.937	12.8	21.2
461115	2015 <i>DG</i> ₂₂		4 9.3 74°97	5°0/ 4.3	18		437232	2012 <i>XX</i> ₇		4 9.4 144°90	5°3/ 3.4	18	
3 2	13 35.68	+2 40.2	1.884	2.711	13.9	20.8	3 2	13 36.46	+7 50.5	2.362	3.180	11.7	20.7
3 12	13 32.05	+3 54.9	1.821	2.723	10.7	20.7	3 12	13 32.30	+8 43.6	2.289	3.182	9.3	20.5
3 22	13 26.33	+5 13.6	1.782	2.736	7.5	20.5	3 22	13 26.35	+9 36.0	2.241	3.184	6.9	20.4
4 1	13 19.13	+6 29.2	1.770	2.749	5.2	20.4	4 1	13 19.13	+10 22.2	2.219	3.186	5.4	20.3
4 11	13 11.33	+7 33.9	1.784	2.761	5.7	20.4	4 11	13 11.36	+10 56.7	2.225	3.188	6.0	20.3
4 21	13 3.85	+8 21.8	1.826	2.774	8.5	20.6	4 21	13 3.78	+11 15.7	2.259	3.190	8.1	20.5
5 1	12 57.52	+8 49.3	1.892	2.787	11.6	20.8	5 1	12 57.13	+11 17.0	2.318	3.192	10.6	20.6
5 11	12 52.95	+8 55.4	1.980	2.799	14.4	21.0	5 11	12 51.96	+11 0.5	2.399	3.193	12.9	20.8
249539	Pedrosevilla		4 9.3 304°71	4°0/13.3	17		435367	2007 <i>VK</i> ₂₉₁		4 9.4 206°72	3°2/ 5.5	17	
3 2	13 34.51	-20 55.4	2.167	2.917	14.8	20.0	3 2	13 36.59	+1 37.3	2.654	3.460	10.9	22.1
3 12	13 31.35	-21 6.7	2.060	2.903	12.3	19.8	3 12	13 32.26	+2 19.0	2.564	3.456	8.5	21.9
3 22	13 26.07	-21 0.6	1.973	2.890	9.4	19.6	3 22	13 26.28	+3 4.3	2.499	3.450	5.8	21.7
4 1	13 19.13	-20 36.2	1.911	2.877	6.3	19.4	4 1	13 19.10	+3 48.7	2.462	3.445	3.6	21.6
4 11	13 11.30	-19 55.3	1.875	2.864	4.1	19.2	4 11	13 11.36	+4 27.9	2.454	3.439	3.7	21.6
4 21	13 3.48	-19 1.7	1.867	2.851	5.1	19.3	4 21	13 3.73	+4 57.8	2.476	3.432	6.1	21.7
5 1	12 56.57	-18 1.3	1.885	2.838	8.1	19.4	5 1	12 56.87	+5 15.5	2.525	3.425	8.8	21.9
5 11	12 51.33	-17 0.9	1.928	2.826	11.4	19.6	5 11	12 51.33	+5 19.3	2.598	3.418	11.4	22.0
396359	2014 <i>DC</i> ₈₇		4 9.3 259°70	2°3/ 6.5	17		332143	2005 <i>XH</i> ₇		4 9.4 94°80	11°3/30.5	18	
3 2	13 32.99	-3 36.4	2.365	3.175	12.0	20.8	3 2	13 44.81	+22 55.4	1.846	2.647	15.2	20.5
3 12	13 29.69	-2 40.8	2.276	3.171	9.2	20.6	3 12	13 39.30	+24 4.4	1.793	2.650	13.2	20.4
3 22	13 24.66	-1 37.0	2.212	3.167	6.1	20.4	3 22	13 31.25	+24 59.6	1.762	2.654	11.8	20.3
4 1	13 18.37	-0 29.3	2.174	3.163	3.1	20.2	4 1	13 21.43	+25 31.7	1.754	2.657	11.3	20.2
4 11	13 11.48	+0 36.6	2.166	3.159	2.9	20.2	4 11	13 10.93	+25 34.0	1.770	2.661	12.1	20.3
4 21	13 4.70	+1 35.2	2.186	3.155	5.8	20.4	4 21	13 0.91	+25 4.4	1.809	2.664	13.8	20.4
5 1	12 58.76	+2 21.9	2.233	3.151	9.0	20.5	5 1	12 52.40	+24 4.1	1.870	2.667	15.8	20.6
5 11	12 54.21	+2 53.6	2.304	3.147	11.9	20.7	5 11	12 46.11	+22 38.2	1.949	2.671	17.8	20.7
375816	2009 <i>UP</i> ₂₆		4 9.3 186°92	0°3/ 8.9	17		87779	2000 <i>SY</i> ₁₀₈		4 9.4 152°91	0°3/ 9.1	18	
3 2	13 37.27	-9 52.5	2.393	3.176	12.6	22.3	3 2	13 38.24	-8 57.5	2.078	2.870	14.0	19.6
3 12	13 32.99	-9 15.3	2.298	3.176	9.9	22.1	3 12	13 34.01	-8 36.4	1.992	2.875	10.9	19.4
3 22	13 26.87	-8 26.3	2.228	3.175	6.7	21.9	3 22	13 27.68	-8 3.9	1.930	2.879	7.4	19.2
4 1	13 19.40	-7 28.4	2.184	3.173	3.0	21.6	4 1	13 19.81	-7 22.9	1.893	2.883	3.4	18.9
4 11	13 11.27	-6 26.3	2.170	3.171	0.8	21.4	4 11	13 11.23	-6 37.9	1.885	2.886	0.9	18.7
4 21	13 3.28	-5 25.1	2.185	3.168	4.5	21.7	4 21	13 2.83	-5 54.2	1.905	2.890	4.9	19.0
5 1	12 56.17	-4 30.3	2.229	3.165	8.1	21.9	5 1	12 55.48	-5 16.7	1.953	2.893	8.8	19.3
5 11	12 50.55	-3 45.9	2.299	3.161	11.2	22.1	5 11	12 49.86	-4 49.7	2.025	2.895	12.2	19.5
213849	2003 <i>SF</i> ₅₅		4 9.4 99°70	2°4/ 6.7	18		350097	2011 <i>OQ</i> ₁		4 9.4 124°87	4°2/ 3.5	18	
3 2	13 39.86	-7 32.2	1.906	2.705	14.8	20.9	3 2	13 33.14	+2 30.5	2.529	3.346	11.1	20.9
3 12	13 35.09	-5 48.9	1.847	2.736	11.3	20.7	3 12	13 29.59	+3 59.7	2.458	3.356	8.5	20.8
3 22	13 28.22	-3 52.2	1.812	2.766	7.4	20.5	3 22	13 24.47	+5 33.0	2.413	3.364	6.0	20.6
4 1	13 19.94	-1 49.7	1.806	2.796	3.5	20.4	4 1	13 18.25	+7 4.3	2.397	3.373	4.3	20.5
4 11	13 11.19	+0 9.2	1.829	2.824	3.1	20.4	4 11	13 11.55	+8 27.2	2.410	3.381	4.9	20.6
4 21	13 2.91	+1 55.8	1.882	2.851	6.6	20.6	4 21	13 5.03	+9 36.2	2.452	3.390	7.2	20.7
5 1	12 55.90	+3 23.3	1.964	2.878	10.2	20.9	5 1	12 59.33	+10 27.8	2.520	3.398	9.7	20.9
5 11	12 50.75	+4 28.4	2.068	2.904	13.3	21.2	5 11	12 54.94	+11 0.5	2.611	3.405	12.0	21.1
298760	2004 <i>HU</i> ₆₇		4 9.4 24°61	0°2/ 9.6	17		398789	2013 <i>AX</i> ₁₂₆		4 9.4 222°55	3°5/13.6	18	
3 2	13 33.97	-11 15.3	2.130	2.923	13.7	21.0	3 2	13 34.70	-21 55.5	2.690	3.419	12.7	21.4
3 12	13 30.67	-10 48.1	2.043	2.924	10.8	20.8	3 12	13 30.99	-21 54.9	2.584	3.414	10.6	21.2
3 22	13 25.43	-10 7.8	1.978	2.926	7.3	20.5	3 22	13 25.54	-21 38.7	2.500	3.409	8.1	21.0
4 1	13 18.75	-9 16.9	1.939	2.928	3.5	20.3	4 1	13 18.81	-21 7.0	2.442	3.403	5.4	20.8
4 11	13 11.41	-8 20.2	1.928	2.930	0.6	20.1	4 11	13 11.43	-20 21.4	2.411	3.397	3.6	20.7
4 21	13 4.22	-7 23.1	1.946	2.932	4.6	20.4	4 21	13 4.12	-19 25.6	2.409	3.391	4.3	20.7
5 1	12 58.00	-6 31.3	1.990	2.935	8.3	20.6	5 1	12 57.58	-18 24.3	2.436	3.385	6.7	20.9
5 11	12 53.36	-5 49.6	2.059	2.937	11.6	20.8	5 11	12 52.41	-17 23.2	2.489	3.379	9.4	21.0
82310	2001 <i>KQ</i> ₅₁		4 9.4 258°55	4°3/13.2	18		251012	2006 <i>PE</i> ₃₈		4 9.4 181°29	2°8/ 6.5	17	
3 2	13 37.66	-21 9.8	1.856	2.610	16.8	19.6							

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
460114	2014 <i>PX</i> ₂₆		4 9.4 175°95	2.6/11.4	16		419136	2009 <i>SR</i> ₂₆₅		4 9.4 278°04	0.1/9.3	17	
3 2	13 42.58	-15 36.0	1.833	2.602	16.4	22.1	3 2	13 42.70	-7 4.6	1.805	2.603	15.6	20.4
3 12	13 37.86	-15 46.2	1.742	2.605	13.3	21.9	3 12	13 38.08	-7 19.5	1.706	2.591	12.3	20.2
3 22	13 30.55	-15 40.3	1.673	2.606	9.6	21.6	3 22	13 30.83	-7 25.9	1.629	2.578	8.4	19.9
4 1	13 21.26	-15 18.2	1.628	2.607	5.5	21.4	4 1	13 21.48	-7 25.4	1.576	2.566	4.0	19.6
4 11	13 10.96	-14 42.9	1.610	2.608	2.6	21.2	4 11	13 10.97	-7 21.2	1.552	2.554	0.8	19.3
4 21	13 0.80	-13 59.1	1.620	2.608	5.2	21.4	4 21	13 0.45	-7 16.9	1.555	2.541	5.6	19.6
5 1	12 51.90	-13 13.4	1.658	2.607	9.3	21.6	5 1	12 51.09	-7 16.8	1.585	2.528	10.2	19.9
5 11	12 45.13	-12 32.4	1.719	2.606	13.1	21.8	5 11	12 43.82	-7 24.7	1.639	2.516	14.2	20.1
497565	2006 <i>DU</i> ₁₄₆		4 9.4 306°24	0.0/9.2	17		304717	2006 <i>XU</i> ₅		4 9.4 160°79	0.3/9.0	18	
3 2	13 34.81	-10 31.7	1.896	2.696	14.9	21.6	3 2	13 36.93	-7 55.6	3.059	3.836	10.3	21.8
3 12	13 31.65	-10 1.6	1.805	2.691	11.7	21.3	3 12	13 32.28	-7 42.7	2.968	3.842	8.0	21.6
3 22	13 26.28	-9 16.9	1.736	2.686	7.9	21.1	3 22	13 26.19	-7 22.8	2.902	3.848	5.4	21.5
4 1	13 19.23	-8 20.6	1.692	2.682	3.7	20.8	4 1	13 19.06	-6 58.0	2.864	3.853	2.5	21.3
4 11	13 11.36	-7 18.1	1.675	2.677	0.8	20.6	4 11	13 11.47	-6 31.0	2.856	3.858	0.7	21.1
4 21	13 3.62	-6 15.9	1.686	2.673	5.2	20.9	4 21	13 4.01	-6 4.7	2.879	3.862	3.6	21.4
5 1	12 56.93	-5 20.5	1.724	2.668	9.4	21.1	5 1	12 57.23	-5 42.2	2.931	3.866	6.4	21.6
5 11	12 52.04	-4 37.5	1.785	2.664	13.1	21.4	5 11	12 51.63	-5 26.1	3.010	3.869	8.9	21.7
344304	2001 <i>UR</i> ₁₁₄		4 9.4 142°77	0.5/9.9	18		497097	2004 <i>BW</i> ₇		4 9.4 110°60	5.9/2.4	18	
3 2	13 34.77	-12 8.7	2.656	3.430	11.8	21.5	3 2	13 37.86	+10 11.7	2.451	3.264	11.5	21.7
3 12	13 30.85	-11 39.9	2.567	3.438	9.2	21.3	3 12	13 33.20	+11 19.8	2.397	3.283	9.2	21.6
3 22	13 25.33	-10 59.8	2.503	3.445	6.3	21.2	3 22	13 26.85	+12 25.2	2.367	3.302	7.0	21.5
4 1	13 18.68	-10 10.7	2.465	3.452	3.1	21.0	4 1	13 19.35	+13 22.0	2.365	3.321	5.9	21.4
4 11	13 11.51	-9 16.4	2.457	3.459	0.6	20.8	4 11	13 11.43	+14 4.7	2.390	3.339	6.6	21.5
4 21	13 4.49	-8 21.1	2.479	3.465	3.8	21.0	4 21	13 3.81	+14 29.8	2.444	3.356	8.4	21.7
5 1	12 58.27	-7 29.4	2.529	3.471	6.9	21.2	5 1	12 57.15	+14 35.9	2.522	3.373	10.6	21.8
5 11	12 53.36	-6 45.4	2.606	3.477	9.7	21.4	5 11	12 51.97	+14 23.4	2.622	3.390	12.6	22.0
372409	2009 <i>RW</i> ₃₆		4 9.4 206°58	5.5/14.4	17		123679	2000 <i>YF</i> ₉₂		4 9.4 117°39	4.3/13.9	18	
3 2	13 42.56	-24 39.5	2.310	3.019	15.1	22.7	3 2	13 37.45	-23 11.0	2.138	2.871	15.5	19.5
3 12	13 37.59	-25 18.4	2.204	3.014	12.8	22.5	3 12	13 33.51	-23 11.7	2.051	2.882	12.9	19.3
3 22	13 30.29	-25 40.6	2.119	3.008	10.2	22.3	3 22	13 27.42	-22 52.5	1.985	2.892	9.9	19.1
4 1	13 21.15	-25 43.6	2.057	3.002	7.5	22.1	4 1	13 19.75	-22 13.1	1.942	2.902	6.7	19.0
4 11	13 11.00	-25 27.1	2.023	2.995	5.7	22.0	4 11	13 11.36	-21 15.9	1.927	2.911	4.5	18.8
4 21	13 0.83	-24 53.5	2.017	2.987	6.1	22.0	4 21	13 3.18	-20 5.9	1.939	2.921	5.1	18.9
5 1	12 51.65	-24 7.5	2.038	2.979	8.4	22.1	5 1	12 56.10	-18 49.9	1.979	2.930	7.9	19.1
5 11	12 44.28	-23 16.0	2.085	2.970	11.2	22.3	5 11	12 50.80	-17 35.3	2.044	2.939	11.0	19.3
67440	2000 <i>QD</i> ₁₃₇		4 9.4 215°95	1.9/7.7	17		164847	1999 <i>TC</i> ₁₅₃		4 9.4 223°95	4.4/7.8	18	
3 2	13 40.53	-5 26.3	1.908	2.711	14.7	20.2	3 2	13 56.97	+3 25.6	1.279	2.092	20.0	19.9
3 12	13 36.11	-4 47.5	1.814	2.703	11.5	20.0	3 12	13 50.33	+3 6.3	1.195	2.087	15.9	19.7
3 22	13 29.31	-3 57.4	1.741	2.695	7.7	19.7	3 22	13 39.70	+2 45.3	1.130	2.081	11.1	19.3
4 1	13 20.68	-3 0.5	1.696	2.686	3.6	19.4	4 1	13 25.80	+2 17.3	1.089	2.075	6.2	19.0
4 11	13 11.11	-2 2.8	1.678	2.676	2.4	19.3	4 11	13 10.15	+1 37.2	1.075	2.069	4.9	19.0
4 21	13 1.63	-1 10.7	1.688	2.665	6.4	19.6	4 21	12 54.68	+0 42.5	1.088	2.062	9.5	19.2
5 1	12 53.25	-0 30.2	1.726	2.654	10.5	19.8	5 1	12 41.28	+0 26.9	1.126	2.054	14.8	19.4
5 11	12 46.79	-0 5.3	1.786	2.642	14.2	20.0	5 11	12 31.25	-1 49.4	1.186	2.047	19.5	19.7
336968	2011 <i>JJ</i> ₁₇		4 9.4 276°95	2.8/6.7	17		182121	2000 <i>QL</i> ₂₂₇		4 9.4 251°17	0.3/10.1	18	
3 2	13 36.29	-2 18.0	2.007	2.822	13.6	20.6	3 2	13 27.55	-11 44.8	4.830	5.596	6.9	20.3
3 12	13 32.67	-1 38.7	1.914	2.811	10.6	20.4	3 12	13 24.65	-11 22.0	4.720	5.586	5.4	20.1
3 22	13 26.92	-0 51.5	1.845	2.801	7.1	20.2	3 22	13 20.91	-10 53.1	4.636	5.576	3.7	20.0
4 1	13 19.54	-0 1.0	1.801	2.790	3.7	20.0	4 1	13 16.59	-10 19.3	4.580	5.566	1.8	19.9
4 11	13 11.34	+0 46.9	1.785	2.779	3.3	19.9	4 11	13 11.98	-9 42.5	4.555	5.556	0.4	19.7
4 21	13 3.23	+1 26.4	1.797	2.768	6.7	20.1	4 21	13 7.41	-9 4.7	4.560	5.546	2.2	19.9
5 1	12 56.10	+1 52.7	1.835	2.757	10.4	20.3	5 1	13 3.20	-8 28.2	4.595	5.536	4.1	20.0
5 11	12 50.68	+2 3.1	1.896	2.746	13.7	20.5	5 11	12 59.63	-7 55.1	4.657	5.526	5.8	20.1
430589	2002 <i>RT</i> ₂₁₇		4 9.4 232°81	1.8/7.1	17		371639	2007 <i>BW</i> ₁₇		4 9.4 63°36	4.4/12.9	18	
3 2	13 34.85	-5 21.8	2.588	3.385	11.4	22.1	3 2	13 40.03	-19 45.9	1.653	2.419	18.1	20.9
3 12	13 31.06	-4 24.8	2.484	3.372	8.8	21.9	3 12	13 36.05	-20 11.7	1.581	2.434	14.9	20.8
3 22	13 25.59	-3 18.3	2.406	3.359	5.9	21.7	3 22	13 29.39	-20 17.2	1.527	2.450	11.1	20.6
4 1	13 18.86	-2 6.1	2.355	3.345	2.8	21.5	4 1	13 20.74	-20 1.6	1.496	2.465	7.2	20.4
4 11	13 11.49	-0 53.4	2.334	3.330	2.3	21.4	4 11	13 11.18	-19 27.3	1.491	2.481	4.5	20.2
4 21	13 4.17	+0 14.3	2.343	3.315	5.3	21.6	4 21	13 1.93	-18 39.4	1.512	2.497	5.8	20.3
5 1	12 57.59	+1 12.1	2.380	3.300	8.5	21.8	5 1	12 54.13	-17 45.5	1.559	2.513	9.4	20.6
5 11	12 52.32	+1 56.4	2.443	3.283	11.3	21.9	5 11	12 48.60	-16 53.7	1.629	2.529	13.0	20.8
423848	2006 <i>QS</i> ₇₂		4 9.4 220°46	1.1/8.3	17		132436	2002 <i>GW</i> ₁₆₄		4 9.4 182°31	1.1/8.4	18	
3 2	13 39.18	-7 24.2	2.001	2.799	14.3	22.2	3 2	13 39.00	-8 20.4	1.930	2.728	14.7	20.1
3 12	13 34.96	-6 49.4	1.904	2.791	11.2	22.0	3 12	13 34.81	-7 36.0	1.843	2.729	11.5	19.9
3 22	13 28.49	-6 2.6	1.830	2.782	7.5	21.8	3 22	13 28.36	-6 38.2	1.777	2.729	7.7	19.7
4 1	13 20.29	-5 7.3	1.782	2.772	3.4	21.5	4 1	13 20.22	-5 31.0	1.739	2.729	3.5	19.4
4 11	13 11.21	-4 9.0	1.762	2.762	1.6	21.3	4 11	13 11.27	-4 20.6	1.728	2.728	1.6	19.3
4 21	13 2.19	-3 13.8	1.770	2.751	5.7	21.6	4 21	13 2.50	-3 13.8	1.746	2.727	5.7	19.5
5 1	12 54.21	-2 27.7	1.806	2.739	9.8	21.8	5 1	12 54.85	-2 17.2	1.791	2.725	9.8	19.8
5 11	12 48.03	-1 55.2	1.866	2.727	13.4	22.0	5 11	12 49.06	-1 35.5	1.860	2.722	13.4	20.0
160724	2000 <i>QM</i> ₁₇₁		4 9.4 134°80	1.3/10.5	18		497292	2005 <i>ST</i> ₈₈		4 9.4 244°32	0.6/9.9	17	
3 2	13 40.27	-13 36.8	1.683	2.471									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
470640	2008 <i>SJ</i> ₁₀₁		4 9.4 247°42	2°2/ 7.1 17			240624	2004 <i>XF</i> ₁₂₅		4 9.4 111°38	2°4/ 7.3 18		
3 2	13 37.05	- 3 47.2	2.211	3.016	12.9	22.1	3 2	13 41.90	- 1 15.1	2.247	3.046	12.9	20.7
3 12	13 33.11	- 3 6.5	2.110	3.002	10.0	21.9	3 12	13 36.52	- 0 57.6	2.175	3.063	9.9	20.6
3 22	13 27.16	- 2 17.1	2.033	2.987	6.7	21.6	3 22	13 29.20	- 0 35.8	2.127	3.079	6.6	20.4
4 1	13 19.67	- 1 23.0	1.983	2.972	3.3	21.4	4 1	13 20.52	- 0 13.1	2.107	3.095	3.4	20.2
4 11	13 11.39	- 0 29.7	1.961	2.957	2.7	21.3	4 11	13 11.29	+ 0 6.1	2.116	3.111	2.8	20.2
4 21	13 3.14	+ 0 17.5	1.968	2.941	6.0	21.5	4 21	13 2.35	+ 0 18.3	2.155	3.126	5.7	20.4
5 1	12 55.77	+ 0 53.5	2.003	2.925	9.6	21.7	5 1	12 54.49	+ 0 20.7	2.221	3.141	8.9	20.6
5 11	12 49.98	+ 1 15.1	2.061	2.909	12.9	21.8	5 11	12 48.30	+ 0 11.8	2.312	3.155	11.8	20.8
303726	2005 <i>QE</i> ₃₅		4 9.4 194°58	4°5/ 14.7 17			94060	2000 <i>YE</i> ₁₈		4 9.4 135°99	0°9/ 10.4 17		
3 2	13 40.15	-25 3.8	3.130	3.820	11.8	21.5	3 2	13 36.37	-14 11.9	2.188	2.963	13.9	20.3
3 12	13 35.05	-25 39.0	3.021	3.817	10.0	21.4	3 12	13 32.48	-13 37.6	2.102	2.972	11.1	20.1
3 22	13 28.23	-26 1.3	2.934	3.814	8.0	21.2	3 22	13 26.64	-12 47.9	2.040	2.980	7.7	19.9
4 1	13 20.12	-26 9.1	2.873	3.811	6.0	21.1	4 1	13 19.39	-11 45.4	2.003	2.988	3.9	19.6
4 11	13 11.31	-26 2.6	2.841	3.807	4.6	21.0	4 11	13 11.50	-10 34.7	1.994	2.996	1.0	19.4
4 21	13 2.50	-25 43.3	2.838	3.803	4.9	21.0	4 21	13 3.82	- 9 21.8	2.015	3.003	4.3	19.7
5 1	12 54.39	-25 14.5	2.863	3.799	6.5	21.1	5 1	12 57.14	- 8 13.0	2.064	3.010	8.0	19.9
5 11	12 47.57	-24 40.4	2.916	3.794	8.6	21.2	5 11	12 52.08	- 7 13.8	2.138	3.017	11.3	20.1
460254	2014 <i>QG</i> ₂₇₈		4 9.4 234°37	0°7/ 9.9 16			258256	2001 <i>TP</i> ₁₈₉		4 9.4 95°65	3°5/ 12.9 18		
3 2	13 41.03	-11 12.2	1.611	2.409	17.2	22.5	3 2	13 38.77	-20 50.3	1.974	2.723	16.1	20.5
3 12	13 37.07	-11 6.6	1.518	2.401	13.7	22.2	3 12	13 34.55	-20 38.6	1.899	2.744	13.2	20.4
3 22	13 30.30	-10 45.5	1.446	2.394	9.5	21.9	3 22	13 28.10	-20 6.6	1.845	2.764	9.8	20.2
4 1	13 21.28	-10 10.5	1.397	2.386	4.7	21.6	4 1	13 20.07	-19 15.2	1.815	2.785	6.2	20.0
4 11	13 11.08	- 9 26.2	1.375	2.377	0.9	21.3	4 11	13 11.38	-18 8.2	1.812	2.804	3.6	19.9
4 21	13 0.92	- 8 38.9	1.380	2.368	5.8	21.6	4 21	13 3.02	-16 51.5	1.837	2.824	4.8	20.0
5 1	12 52.09	- 7 55.8	1.411	2.359	10.7	21.9	5 1	12 55.90	-15 32.9	1.890	2.843	8.1	20.2
5 11	12 45.56	- 7 23.3	1.464	2.349	15.1	22.1	5 11	12 50.68	-14 19.7	1.968	2.861	11.4	20.5
474039	2016 <i>GT</i> ₂₁₇		4 9.4 310°91	0°6/ 8.9 17			503845	2017 <i>MV</i> ₃		4 9.4 272°67	5°2/ 5.4 17		
3 2	13 38.11	- 7 19.7	1.475	2.295	17.4	20.6	3 2	13 42.76	+ 3 5.8	1.714	2.533	15.4	21.7
3 12	13 35.08	- 7 17.5	1.381	2.278	13.8	20.3	3 12	13 38.40	+ 3 49.2	1.610	2.507	12.2	21.5
3 22	13 29.14	- 7 2.9	1.306	2.262	9.4	20.0	3 22	13 31.24	+ 4 37.9	1.528	2.480	8.7	21.2
4 1	13 20.82	- 6 38.6	1.255	2.246	4.4	19.6	4 1	13 21.79	+ 5 25.3	1.472	2.453	5.7	20.9
4 11	13 11.16	- 6 9.6	1.229	2.230	1.3	19.4	4 11	13 11.01	+ 6 3.5	1.442	2.425	5.9	20.9
4 21	13 1.45	- 5 42.1	1.229	2.215	6.6	19.7	4 21	13 0.09	+ 6 25.7	1.439	2.396	9.4	21.0
5 1	12 53.06	- 5 22.4	1.252	2.201	11.8	19.9	5 1	12 50.31	+ 6 27.0	1.460	2.367	13.6	21.2
5 11	12 47.05	- 5 15.9	1.298	2.186	16.4	20.1	5 11	12 42.70	+ 6 5.8	1.503	2.338	17.5	21.3
341147	2007 <i>PV</i> ₁₉		4 9.4 243°00	0°2/ 9.6 17			296374	2009 <i>FA</i> ₄₄		4 9.4 96°32	3°2/ 5.5 17		
3 2	13 37.04	-10 33.8	2.498	3.277	12.3	22.2	3 2	13 33.87	- 1 12.5	2.311	3.125	12.1	20.9
3 12	13 32.92	-10 12.7	2.387	3.261	9.7	22.0	3 12	13 30.34	- 0 3.7	2.239	3.136	9.2	20.7
3 22	13 26.95	- 9 40.4	2.300	3.245	6.6	21.8	3 22	13 25.09	+ 1 11.6	2.192	3.147	6.2	20.6
4 1	13 19.56	- 8 58.9	2.240	3.228	3.2	21.5	4 1	13 18.63	+ 2 27.9	2.172	3.158	3.6	20.4
4 11	13 11.42	- 8 11.7	2.208	3.210	0.6	21.3	4 11	13 11.66	+ 3 38.8	2.182	3.169	3.8	20.5
4 21	13 3.28	- 7 23.3	2.207	3.192	4.3	21.5	4 21	13 4.91	+ 4 39.0	2.219	3.179	6.4	20.6
5 1	12 55.90	- 6 38.4	2.234	3.174	7.8	21.7	5 1	12 59.06	+ 5 24.2	2.284	3.189	9.4	20.8
5 11	12 49.94	- 6 1.4	2.286	3.154	11.0	21.9	5 11	12 54.63	+ 5 52.4	2.372	3.200	12.1	21.0
60728	2000 <i>GS</i> ₇₆		4 9.4 267°11	1°4/ 10.6 17			349252	2007 <i>TJ</i> ₁₃₀		4 9.4 140°82	0°9/ 8.3 17		
3 2	13 37.39	-15 2.9	1.624	2.414	17.4	19.8	3 2	13 36.47	- 6 43.0	2.534	3.325	11.8	21.8
3 12	13 34.38	-14 34.4	1.517	2.394	14.1	19.5	3 12	13 32.23	- 6 13.8	2.450	3.334	9.1	21.7
3 22	13 28.61	-13 43.6	1.430	2.373	10.0	19.2	3 22	13 26.31	- 5 36.3	2.391	3.342	6.1	21.5
4 1	13 20.56	-12 31.6	1.366	2.352	5.2	18.9	4 1	13 19.20	- 4 53.6	2.359	3.349	2.7	21.3
4 11	13 11.21	-11 3.7	1.329	2.330	1.4	18.5	4 11	13 11.55	- 4 9.9	2.357	3.357	1.3	21.2
4 21	13 1.76	- 9 28.0	1.319	2.308	5.8	18.8	4 21	13 4.08	- 3 29.2	2.384	3.364	4.5	21.4
5 1	12 53.50	- 7 55.0	1.334	2.285	10.9	19.0	5 1	12 57.45	- 2 55.6	2.439	3.370	7.7	21.6
5 11	12 47.46	- 6 34.4	1.373	2.262	15.6	19.2	5 11	12 52.21	- 2 32.1	2.520	3.377	10.5	21.8
357103	2001 <i>TP</i> ₂₀₈		4 9.4 138°86	0°0/ 9.2 18			426216	2012 <i>KJ</i> ₄₉		4 9.4 215°85	7°7/ 31.9 17		
3 2	13 42.51	-10 7.3	1.774	2.565	16.1	22.3	3 2	13 37.82	+12 5.8	2.052	2.874	13.1	21.0
3 12	13 37.66	- 9 45.2	1.697	2.578	12.6	22.1	3 12	13 33.77	+13 30.9	1.981	2.870	10.7	20.8
3 22	13 30.31	- 9 9.1	1.641	2.589	8.5	21.8	3 22	13 27.59	+14 53.6	1.933	2.865	8.6	20.7
4 1	13 21.14	- 8 22.0	1.611	2.600	4.0	21.6	4 1	13 19.86	+16 5.7	1.912	2.860	7.7	20.6
4 11	13 11.15	- 7 29.2	1.608	2.610	0.8	21.3	4 11	13 11.42	+16 59.5	1.917	2.855	8.6	20.7
4 21	13 1.46	- 6 37.2	1.634	2.619	5.5	21.7	4 21	13 3.17	+17 29.9	1.947	2.849	10.8	20.8
5 1	12 53.11	- 5 52.3	1.687	2.628	9.8	22.0	5 1	12 55.99	+17 34.7	2.001	2.843	13.3	20.9
5 11	12 46.87	- 5 19.4	1.763	2.636	13.5	22.2	5 11	12 50.55	+17 14.9	2.075	2.837	15.7	21.1
173310	1999 <i>VU</i> ₂₉		4 9.4 189°51	0°8/ 10.1 16			406326	2007 <i>PE</i> ₄₉		4 9.4 199°41	1°9/ 7.5 16		
3 2	13 39.95	-12 41.8	2.155	2.930	14.1	21.5	3 2	13 40.31	- 5 34.0	2.035	2.834	14.0	22.6
3 12	13 35.39	-12 20.6	2.060	2.929	11.2	21.3	3 12	13 35.76	- 4 46.6	1.942	2.830	10.9	22.4
3 22	13 28.69	-11 45.4	1.986	2.927	7.8	21.1	3 22	13 29.00	- 3 48.1	1.873	2.825	7.3	22.1
4 1	13 20.39	-10 58.1	1.939	2.925	3.9	20.8	4 1	13 20.55	- 2 43.0	1.830	2.820	3.4	21.9
4 11	13 11.29	-10 2.7	1.921	2.922	0.9	20.6	4 11	13 11.28	- 1 37.5	1.816	2.814	2.5	21.8
4 21	13 2.30	- 9 4.6	1.931	2.918	4.6	20.9	4 21	13 2.13	- 0 37.9	1.831	2.807	6.1	22.0
5 1	12 54.34	- 8 9.8	1.970	2.914	8.5	21.1	5 1	12 54.04	+ 0 10.0	1.874	2.799	10.0	22.2
5 11	12 48.10	- 7 23.6	2.035	2.908	11.9	21.3	5 11	12 47.74	+ 0 42.2	1.940	2.790	13.5	22.4
411797	2012 <i>CY</i> ₅₀		4 9.4 70°49	2°2/									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
95991	2004 <i>ND</i> ₇		4 9.4 208°49	3°4/ 5.5 18			94588	2001 <i>VX</i> ₅₇		4 9.4 134°76	2°5/11.5 18		
3 2	13 37.58	+ 0 43.6	2.518	3.324	11.5	20.5	3 2	13 40.35	-16 42.8	1.625	2.404	17.8	20.0
3 12	13 33.19	+ 1 37.9	2.426	3.317	8.9	20.3	3 12	13 36.38	-16 34.4	1.545	2.412	14.4	19.8
3 22	13 27.03	+ 2 37.2	2.358	3.310	6.1	20.1	3 22	13 29.70	-16 5.4	1.483	2.419	10.3	19.5
4 1	13 19.58	+ 3 36.8	2.319	3.301	3.7	20.0	4 1	13 20.97	-15 17.0	1.446	2.427	5.9	19.3
4 11	13 11.49	+ 4 31.4	2.308	3.293	3.9	20.0	4 11	13 11.26	-14 13.6	1.434	2.433	2.5	19.1
4 21	13 3.50	+ 5 16.1	2.327	3.283	6.4	20.1	4 21	13 1.82	-13 2.2	1.450	2.439	5.4	19.3
5 1	12 56.32	+ 5 47.3	2.374	3.273	9.4	20.3	5 1	12 53.80	-11 51.5	1.492	2.445	9.8	19.6
5 11	12 50.54	+ 6 2.8	2.444	3.262	12.0	20.4	5 11	12 48.05	-10 49.6	1.558	2.451	13.9	19.8
133906	2004 <i>RA</i> ₁₀₆		4 9.4 200°85	1°3/10.5 18			249645	1999 <i>TV</i> ₂₁₂		4 9.4 182°80	0°9/10.3 16		
3 2	13 41.37	-13 23.3	1.880	2.659	15.8	21.5	3 2	13 39.47	-13 42.4	2.178	2.949	14.1	21.6
3 12	13 36.90	-13 11.2	1.784	2.655	12.6	21.2	3 12	13 34.99	-13 14.1	2.084	2.951	11.2	21.4
3 22	13 29.95	-12 43.1	1.710	2.651	8.8	21.0	3 22	13 28.42	-12 30.5	2.011	2.951	7.8	21.2
4 1	13 21.07	-12 0.6	1.661	2.646	4.6	20.7	4 1	13 20.29	-11 33.9	1.965	2.951	4.0	21.0
4 11	13 11.20	-11 7.7	1.639	2.640	1.3	20.5	4 11	13 11.40	-10 28.5	1.948	2.949	1.0	20.7
4 21	13 1.43	-10 10.2	1.646	2.634	5.1	20.7	4 21	13 2.64	-9 20.2	1.960	2.947	4.5	21.0
5 1	12 52.82	-9 15.1	1.680	2.627	9.4	20.9	5 1	12 54.91	-8 15.2	2.001	2.945	8.3	21.2
5 11	12 46.23	-8 28.6	1.739	2.619	13.3	21.2	5 11	12 48.87	-7 19.3	2.067	2.941	11.8	21.4
1559	Kustaanheimo		4 9.4 10°06	2°4/10.9 18			503093	2015 <i>FV</i> ₂₉₈		4 9.4 35°87	5°1/ 4.2 18		
3 2	13 36.59	-13 38.8	1.256	2.072	20.1	15.1	3 2	13 33.54	+ 2 33.6	1.802	2.635	14.1	20.5
3 12	13 34.19	-13 55.3	1.182	2.073	16.2	14.8	3 12	13 30.56	+ 3 49.9	1.741	2.647	10.9	20.3
3 22	13 28.62	-13 52.3	1.126	2.075	11.5	14.5	3 22	13 25.46	+ 5 10.6	1.703	2.658	7.6	20.1
4 1	13 20.57	-13 30.4	1.092	2.078	6.2	14.3	4 1	13 18.88	+ 6 28.1	1.691	2.671	5.3	20.0
4 11	13 11.29	-12 53.8	1.082	2.082	2.4	14.0	4 11	13 11.68	+ 7 34.3	1.706	2.684	5.9	20.1
4 21	13 2.26	-12 9.4	1.095	2.087	6.3	14.3	4 21	13 4.78	+ 8 23.0	1.747	2.697	8.7	20.3
5 1	12 54.88	-11 26.2	1.132	2.092	11.4	14.6	5 1	12 59.03	+ 8 50.6	1.812	2.710	11.8	20.5
5 11	12 50.18	-10 52.0	1.190	2.099	16.0	14.9	5 11	12 55.05	+ 8 56.0	1.899	2.724	14.7	20.7
209600	2004 <i>YN</i> ₃		4 9.4 160°40	2°9/ 6.6 18			508783	1999 <i>XE</i> ₄₉		4 9.4 156°22	3°0/ 5.9 17		
3 2	13 40.54	- 3 5.4	1.969	2.775	14.2	21.6	3 2	13 38.89	+ 1 14.3	2.718	3.518	10.9	22.2
3 12	13 35.87	- 2 6.2	1.890	2.782	10.9	21.4	3 12	13 33.94	+ 1 54.3	2.639	3.527	8.4	22.0
3 22	13 28.99	- 0 57.8	1.835	2.789	7.3	21.2	3 22	13 27.38	+ 2 37.4	2.585	3.535	5.7	21.9
4 1	13 20.52	+ 0 14.2	1.808	2.796	3.8	21.0	4 1	13 19.69	+ 3 19.7	2.560	3.543	3.4	21.7
4 11	13 11.33	+ 1 22.6	1.808	2.801	3.5	21.0	4 11	13 11.53	+ 3 56.7	2.565	3.550	3.5	21.7
4 21	13 2.39	+ 2 21.1	1.838	2.805	6.8	21.2	4 21	13 3.54	+ 4 24.9	2.599	3.557	5.8	21.9
5 1	12 54.60	+ 3 4.4	1.894	2.809	10.5	21.4	5 1	12 56.39	+ 4 41.5	2.662	3.562	8.4	22.1
5 11	12 48.66	+ 3 29.7	1.973	2.812	13.7	21.6	5 11	12 50.57	+ 4 45.2	2.749	3.567	10.8	22.2
497853	2006 <i>UW</i> ₉₇		4 9.4 147°84	1°0/10.7 17			231855	2000 <i>SF</i> ₁₃₈		4 9.4 179°58	1°5/11.1 17		
3 2	13 33.56	-15 9.1	2.655	3.420	12.0	21.9	3 2	13 38.27	-15 10.1	2.511	3.270	12.8	21.9
3 12	13 29.58	-14 27.2	2.563	3.426	9.5	21.7	3 12	13 33.78	-14 54.1	2.414	3.271	10.2	21.7
3 22	13 24.82	-13 31.3	2.494	3.431	6.6	21.6	3 22	13 27.47	-14 24.8	2.339	3.272	7.2	21.5
4 1	13 18.52	-12 23.9	2.452	3.436	3.5	21.4	4 1	13 19.81	-13 43.4	2.292	3.273	4.0	21.3
4 11	13 11.71	-11 8.9	2.439	3.440	1.0	21.2	4 11	13 11.50	-12 53.1	2.273	3.273	1.5	21.2
4 21	13 5.05	-9 51.6	2.457	3.445	3.7	21.4	4 21	13 3.30	-11 58.1	2.284	3.272	3.9	21.3
5 1	12 59.18	-8 37.3	2.504	3.449	6.8	21.6	5 1	12 55.97	-11 3.7	2.324	3.270	7.2	21.5
5 11	12 54.61	-7 30.9	2.577	3.453	9.7	21.8	5 11	12 50.12	-10 14.8	2.391	3.268	10.3	21.7
221259	2005 <i>UM</i> ₂₉₉		4 9.4 52°32	0°3/ 9.7 18			518397	2017 <i>UX</i> ₂₀		4 9.4 199°21	2°5/ 6.8 17		
3 2	13 36.39	-11 24.2	1.660	2.463	16.5	20.4	3 2	13 35.56	- 3 42.3	2.118	2.929	13.1	21.6
3 12	13 33.09	-10 59.6	1.586	2.473	13.0	20.2	3 12	13 31.94	- 2 49.5	2.033	2.928	10.2	21.4
3 22	13 27.34	-10 18.9	1.533	2.483	8.8	20.0	3 22	13 26.35	- 1 47.7	1.971	2.926	6.8	21.2
4 1	13 19.80	- 9 25.4	1.504	2.493	4.2	19.7	4 1	13 19.31	- 0 41.8	1.936	2.925	3.4	21.0
4 11	13 11.47	- 8 25.0	1.501	2.503	0.7	19.5	4 11	13 11.59	+ 0 22.2	1.929	2.923	3.0	21.0
4 21	13 3.41	- 7 24.6	1.526	2.514	5.4	19.9	4 21	13 4.02	+ 1 18.3	1.950	2.921	6.2	21.2
5 1	12 56.66	- 6 31.4	1.576	2.524	9.8	20.1	5 1	12 57.41	+ 2 1.4	1.998	2.919	9.7	21.4
5 11	12 51.95	- 5 51.0	1.649	2.535	13.6	20.4	5 11	12 52.41	+ 2 28.4	2.070	2.917	12.9	21.6
427396	1996 <i>TA</i>		4 9.4 137°68	1°5/10.8 15			101577	1999 <i>BV</i> ₂		4 9.4 278°56	4°4/12.4 18		
3 2	13 42.53	-13 20.2	2.401	3.161	13.3	21.9	3 2	13 42.25	-17 53.5	1.837	2.597	16.7	18.6
3 12	13 37.06	-13 27.0	2.316	3.175	10.6	21.7	3 12	13 37.99	-18 39.5	1.730	2.582	13.9	18.3
3 22	13 29.63	-13 22.4	2.254	3.188	7.4	21.5	3 22	13 30.99	-19 11.0	1.644	2.567	10.5	18.1
4 1	13 20.78	-13 7.3	2.219	3.201	4.0	21.3	4 1	13 21.72	-19 26.0	1.582	2.552	6.9	17.8
4 11	13 11.30	-12 44.3	2.213	3.213	1.5	21.2	4 11	13 11.10	-19 24.3	1.546	2.536	4.4	17.7
4 21	13 2.01	-12 16.8	2.238	3.224	4.1	21.4	4 21	13 0.33	-19 8.3	1.537	2.521	6.0	17.7
5 1	12 53.72	-11 49.1	2.291	3.235	7.4	21.6	5 1	12 50.67	-18 43.1	1.555	2.505	9.7	17.9
5 11	12 47.07	-11 25.4	2.371	3.245	10.4	21.8	5 11	12 43.14	-18 15.5	1.596	2.489	13.6	18.1
43665	2002 <i>FM</i> ₂₂		4 9.4 18°55	7°8/ 2.3 18			370055	2000 <i>TE</i> ₆₃		4 9.4 177°77	3°6/13.8 17		
3 2	13 37.23	+10 5.6	1.728	2.561	14.7	18.5	3 2	13 38.21	-23 4.2	2.654	3.371	13.1	21.7
3 12	13 33.61	+11 21.0	1.664	2.562	11.8	18.3	3 12	13 33.72	-22 55.6	2.553	3.374	10.9	21.6
3 22	13 27.63	+12 34.4	1.623	2.564	9.2	18.1	3 22	13 27.43	-22 30.0	2.473	3.375	8.4	21.4
4 1	13 19.92	+13 36.9	1.606	2.566	7.8	18.0	4 1	13 19.79	-21 47.4	2.418	3.376	5.7	21.2
4 11	13 11.46	+14 20.5	1.615	2.569	8.7	18.1	4 11	13 11.51	-20 49.9	2.392	3.377	3.7	21.1
4 21	13 3.30	+14 39.8	1.649	2.571	11.1	18.2	4 21	13 3.35	-19 41.5	2.395	3.376	4.4	21.1
5 1	12 56.41	+14 32.7	1.705	2.574	14.0	18.4	5 1	12 56.06	-18 27.6	2.428	3.375	6.9	21.3
5 11	12 51.50	+14 0.7	1.781	2.577	16.7	18.6	5 11	12 50.23	-17 14.4	2.487	3.373	9.6	21.4
254586	2005 <i>GF</i> ₄₇		4 9.4 258°17	0°8/ 9.9 17			76069	2000 <i>DS</i> ₇₇		4 9.4 149°31	0°0/ 9.3 18 R		
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
10439	van Schooten		4 9.4 70°62	0°3/ 9.7 18			461946	2006 SF ₃₉₃		4 9.4 252°00	0°3/ 9.7 17		
3 2	13 36.39	-10 48.2	2.092	2.882	14.0	18.6	3 2	13 40.35	-10 18.6	1.897	2.687	15.2	21.9
3 12	13 32.57	-10 31.4	2.014	2.894	11.0	18.4	3 12	13 36.22	-10 9.6	1.792	2.671	12.1	21.6
3 22	13 26.75	-10 2.4	1.958	2.905	7.5	18.2	3 22	13 29.60	-9 47.6	1.708	2.655	8.4	21.4
4 1	13 19.48	-9 23.7	1.928	2.916	3.6	18.0	4 1	13 21.01	-9 14.1	1.650	2.638	4.0	21.1
4 11	13 11.59	-8 39.7	1.925	2.927	0.6	17.8	4 11	13 11.32	-8 33.3	1.619	2.621	0.7	20.8
4 21	13 3.91	-7 55.3	1.952	2.939	4.5	18.1	4 21	13 1.58	-7 50.5	1.617	2.603	5.3	21.1
5 1	12 57.28	-7 15.6	2.005	2.950	8.3	18.3	5 1	12 52.88	-7 11.6	1.641	2.585	9.8	21.3
5 11	12 52.30	-6 44.9	2.083	2.961	11.5	18.6	5 11	12 46.13	-6 42.3	1.689	2.567	13.8	21.5
96930	1999 TD ₁₂₉		4 9.4 250°36	0°8/10.1 17			451526	2011 WH ₆		4 9.4 89°34	0°5/ 9.8 18		
3 2	13 37.25	-11 51.9	1.973	2.762	14.8	20.2	3 2	13 40.85	-11 19.1	1.522	2.323	17.8	21.8
3 12	13 33.53	-11 41.4	1.881	2.759	11.7	20.0	3 12	13 36.76	-11 2.9	1.453	2.338	14.1	21.6
3 22	13 27.58	-11 17.1	1.811	2.756	8.1	19.8	3 22	13 29.92	-10 30.2	1.403	2.353	9.6	21.3
4 1	13 19.96	-10 41.1	1.766	2.753	4.0	19.5	4 1	13 21.07	-9 43.9	1.378	2.367	4.6	21.1
4 11	13 11.49	-9 57.3	1.749	2.750	0.9	19.3	4 11	13 11.34	-8 49.9	1.379	2.381	0.8	20.8
4 21	13 3.13	-9 10.9	1.759	2.747	4.8	19.5	4 21	13 1.99	-7 55.4	1.407	2.395	5.7	21.2
5 1	12 55.82	-8 27.7	1.796	2.744	8.9	19.8	5 1	12 54.17	-7 7.9	1.460	2.409	10.4	21.5
5 11	12 50.31	-7 53.1	1.858	2.741	12.5	20.0	5 11	12 48.68	-6 33.2	1.537	2.422	14.5	21.8
306229	2011 QG ₆₁		4 9.4 133°18	2°0/ 6.6 18			278860	2008 TN ₂₉		4 9.4 193°21	2°0/ 7.2 18		
3 2	13 33.16	-4 46.6	2.728	3.528	10.8	21.2	3 2	13 37.61	-3 37.6	2.543	3.340	11.6	21.9
3 12	13 29.55	-3 37.9	2.647	3.537	8.3	21.0	3 12	13 33.19	-2 58.2	2.451	3.338	9.0	21.7
3 22	13 24.48	-2 21.1	2.592	3.546	5.5	20.9	3 22	13 27.04	-2 11.8	2.383	3.335	6.0	21.5
4 1	13 18.36	-1 0.6	2.566	3.555	2.7	20.7	4 1	13 19.63	-1 22.0	2.343	3.332	3.0	21.3
4 11	13 11.81	+0 18.1	2.569	3.563	2.5	20.7	4 11	13 11.61	-0 33.4	2.333	3.328	2.4	21.2
4 21	13 5.41	+1 30.1	2.603	3.571	5.1	20.9	4 21	13 3.70	+0 9.4	2.352	3.324	5.3	21.4
5 1	12 59.76	+2 31.0	2.665	3.579	7.9	21.1	5 1	12 56.60	+0 42.6	2.399	3.319	8.4	21.6
5 11	12 55.33	+3 17.8	2.752	3.587	10.4	21.2	5 11	12 50.90	+1 3.5	2.472	3.313	11.2	21.8
191723	2004 RE ₂₃₇		4 9.4 152°56	1°1/10.4 17			247389	2001 YX ₁₂₄		4 9.4 151°23	3°7/12.7 18		
3 2	13 37.14	-13 13.5	1.956	2.740	15.0	21.1	3 2	13 43.17	-19 45.3	1.946	2.692	16.4	21.2
3 12	13 33.43	-12 58.4	1.868	2.742	12.0	20.9	3 12	13 38.20	-19 52.1	1.859	2.703	13.5	21.0
3 22	13 27.50	-12 28.2	1.801	2.744	8.3	20.6	3 22	13 30.75	-19 40.0	1.793	2.712	10.0	20.8
4 1	13 19.90	-11 44.8	1.759	2.745	4.3	20.4	4 1	13 21.45	-19 8.8	1.751	2.721	6.3	20.6
4 11	13 11.51	-10 52.4	1.745	2.746	1.1	20.2	4 11	13 11.26	-18 20.9	1.737	2.729	3.7	20.4
4 21	13 3.27	-9 56.6	1.759	2.748	4.7	20.4	4 21	13 1.30	-17 21.4	1.751	2.736	5.2	20.5
5 1	12 56.12	-9 3.9	1.800	2.749	8.8	20.7	5 1	12 52.60	-16 17.4	1.793	2.742	8.7	20.8
5 11	12 50.79	-8 19.9	1.865	2.750	12.4	20.9	5 11	12 45.96	-15 16.5	1.859	2.748	12.2	21.0
246812	2009 HD ₆₀		4 9.4 292°76	0°5/ 8.8 17			411458	2010 XV ₉		4 9.4 99°66	3°6/ 6.1 18		
3 2	13 32.80	-9 44.3	2.302	3.097	12.7	20.6	3 2	13 39.80	-0 42.1	1.833	2.649	14.7	21.8
3 12	13 29.71	-8 59.6	2.207	3.092	9.9	20.4	3 12	13 35.33	+0 11.7	1.770	2.667	11.3	21.6
3 22	13 24.83	-8 2.2	2.136	3.087	6.7	20.2	3 22	13 28.63	+1 11.7	1.730	2.685	7.6	21.4
4 1	13 18.62	-6 55.6	2.091	3.081	3.0	20.0	4 1	13 20.37	+2 12.0	1.716	2.702	4.3	21.2
4 11	13 11.76	-5 44.9	2.075	3.076	1.0	19.8	4 11	13 11.49	+3 5.5	1.729	2.719	4.2	21.2
4 21	13 5.01	-4 35.7	2.087	3.071	4.7	20.0	4 21	13 2.98	+3 46.4	1.771	2.735	7.4	21.5
5 1	12 59.10	-3 33.9	2.127	3.065	8.3	20.2	5 1	12 55.74	+4 10.7	1.838	2.751	10.9	21.7
5 11	12 54.62	-2 44.0	2.192	3.060	11.4	20.4	5 11	12 50.41	+4 16.9	1.928	2.767	14.0	21.9
158980	2004 RG ₃₀₆		4 9.4 172°22	2°2/ 6.9 18			293244	2007 BD ₇₈		4 9.4 194°83	0°7/ 8.8 17		
3 2	13 34.98	-6 2.2	2.155	2.960	13.1	20.3	3 2	13 37.31	-8 41.6	1.931	2.731	14.6	21.3
3 12	13 31.45	-4 48.0	2.070	2.962	10.1	20.1	3 12	13 33.57	-8 9.7	1.843	2.730	11.5	21.1
3 22	13 25.99	-3 21.9	2.009	2.964	6.7	19.9	3 22	13 27.61	-7 25.1	1.778	2.729	7.7	20.9
4 1	13 19.15	-1 49.3	1.975	2.965	3.2	19.7	4 1	13 19.98	-6 31.1	1.738	2.728	3.5	20.6
4 11	13 11.67	-0 17.2	1.971	2.966	2.8	19.6	4 11	13 11.55	-5 33.2	1.725	2.727	1.2	20.4
4 21	13 4.35	+1 7.2	1.996	2.967	6.1	19.8	4 21	13 3.27	-4 37.6	1.741	2.725	5.4	20.7
5 1	12 57.99	+2 17.9	2.048	2.967	9.6	20.0	5 1	12 56.08	-3 50.3	1.784	2.723	9.5	21.0
5 11	12 53.19	+3 10.8	2.123	2.967	12.7	20.2	5 11	12 50.69	-3 16.0	1.850	2.721	13.1	21.2
126116	2001 YT ₁₁₃		4 9.4 297°48	7°1/15.4 17			100397	1995 YK ₅		4 9.4 207°49	3°7/ 5.2 18		
3 2	13 36.62	-26 37.3	1.803	2.534	18.0	19.7	3 2	13 36.57	+3 10.0	2.560	3.370	11.2	20.3
3 12	13 33.77	-27 14.5	1.697	2.517	15.6	19.5	3 12	13 32.36	+3 49.8	2.475	3.367	8.7	20.1
3 22	13 28.22	-27 29.3	1.608	2.501	12.7	19.3	3 22	13 26.46	+4 32.0	2.414	3.364	6.0	19.9
4 1	13 20.45	-27 17.9	1.541	2.485	9.6	19.0	4 1	13 19.36	+5 12.1	2.381	3.361	4.0	19.8
4 11	13 11.39	-26 39.6	1.497	2.469	7.4	18.9	4 11	13 11.68	+5 45.5	2.377	3.357	4.2	19.8
4 21	13 2.24	-25 37.5	1.479	2.453	7.5	18.8	4 21	13 4.13	+6 8.3	2.401	3.354	6.5	19.9
5 1	12 54.23	-24 18.6	1.487	2.437	10.1	18.9	5 1	12 57.40	+6 17.8	2.453	3.350	9.2	20.1
5 11	12 48.40	-22 53.1	1.517	2.421	13.5	19.1	5 11	12 52.02	+6 12.9	2.528	3.346	11.7	20.2
7609	1995 WX ₃		4 9.4 23°89	0°3/ 9.2 18			460913	2014 WM ₂₁₄		4 9.4 237°59	4°8/ 5.2 16		
3 2	13 41.84	-6 22.6	1.734	2.538	15.9	16.7	3 2	13 40.11	+1 47.1	1.807	2.626	14.7	21.6
3 12	13 37.32	-6 38.4	1.653	2.541	12.5	16.5	3 12	13 35.98	+2 46.3	1.717	2.615	11.5	21.4
3 22	13 30.24	-6 45.8	1.593	2.545	8.4	16.2	3 22	13 29.38	+3 52.2	1.649	2.603	8.0	21.1
4 1	13 21.23	-6 47.0	1.559	2.549	3.9	16.0	4 1	13 20.87	+4 57.8	1.608	2.590	5.2	20.9
4 11	13 11.29	-6 45.3	1.552	2.553	0.9	15.7	4 11	13 11.38	+5 55.4	1.594	2.577	5.5	20.9
4 21	13 1.55	-6 44.4	1.572	2.558	5.6	16.1	4 21	13 1.97	+6 37.9	1.607	2.563	8.7	21.1
5 1	12 53.12	-6 48.3	1.619	2.563	9.9	16.3	5 1	12 53.71	+7 0.5	1.645	2.549	12.5	21.3
5 11	12 46.80	-7 0.2	1.689	2.568	13.7	16.6	5 11	12 47.43	+7 1.3	1.705	2.534	15.9	21.4
250450	2003 YZ ₁₂₆		4 9.4 150°69	1°4/10.6 18			333086	2011 UU ₁₆₁		4 9.4 104°41	0°0/ 9.3 18		
3 2	13 41.90	-13 9.8	1.963	2.738	15.3	21.1	3 2	13 43.24	-9 48.5	1.695	2.488	16.6	22.1
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
324405	2006 <i>ST</i> ₁₆₀		4 9.4 186°35	2.4/ 7.9	17	R	415899	2001 <i>TS</i> ₁₉₈		4 9.4 122°37	2.7/ 6.7	18	
3 2	13 45.60	- 1 29.4	1.780	2.585	15.5	20.8	3 2	13 40.96	- 1 33.4	2.306	3.105	12.6	22.0
3 12	13 40.20	- 1 29.9	1.695	2.585	12.1	20.5	3 12	13 35.75	- 0 50.8	2.238	3.126	9.7	21.9
3 22	13 32.18	- 1 25.5	1.632	2.585	8.2	20.3	3 22	13 28.69	- 0 2.8	2.195	3.146	6.4	21.7
4 1	13 22.15	- 1 19.9	1.595	2.584	4.0	20.0	4 1	13 20.36	+ 0 46.2	2.179	3.166	3.4	21.5
4 11	13 11.15	- 1 17.4	1.586	2.583	2.8	20.0	4 11	13 11.53	+ 1 30.8	2.193	3.185	3.1	21.5
4 21	13 0.34	- 1 22.0	1.606	2.583	6.6	20.2	4 21	13 3.01	+ 2 6.9	2.236	3.202	5.9	21.7
5 1	12 50.86	- 1 36.6	1.652	2.582	10.8	20.4	5 1	12 55.53	+ 2 30.8	2.307	3.220	9.0	22.0
5 11	12 43.54	- 2 3.0	1.722	2.580	14.5	20.7	5 11	12 49.65	+ 2 40.9	2.403	3.236	11.7	22.2
246489	2007 <i>XA</i> ₃₁		4 9.4 16°43	3.3/ 5.9	17		462185	2007 <i>TB</i> ₄₄₄		4 9.4 175°27	0.1/ 9.3	16	
3 2	13 34.35	- 0 21.1	2.128	2.948	12.8	20.3	3 2	13 42.76	- 8 45.7	1.799	2.592	15.8	22.0
3 12	13 30.97	+ 0 27.4	2.050	2.949	9.9	20.1	3 12	13 38.01	- 8 38.5	1.712	2.594	12.5	21.8
3 22	13 25.69	+ 1 21.8	1.995	2.951	6.7	20.0	3 22	13 30.71	- 8 19.4	1.647	2.596	8.5	21.5
4 1	13 19.03	+ 2 16.7	1.967	2.953	3.9	19.8	4 1	13 21.48	- 7 50.9	1.608	2.597	4.0	21.3
4 11	13 11.75	+ 3 6.4	1.966	2.955	3.9	19.8	4 11	13 11.30	- 7 17.3	1.596	2.598	0.8	21.0
4 21	13 4.64	+ 3 45.7	1.993	2.957	6.7	20.0	4 21	13 1.30	- 6 44.0	1.612	2.598	5.5	21.4
5 1	12 58.48	+ 4 10.7	2.046	2.960	9.9	20.2	5 1	12 52.55	- 6 16.5	1.655	2.597	9.9	21.6
5 11	12 53.88	+ 4 19.3	2.122	2.962	12.8	20.3	5 11	12 45.89	- 5 59.3	1.722	2.596	13.7	21.8
373389	2013 <i>NU</i> ₆		4 9.4 313°78	16°6/ 14.6	17		101497	1998 <i>XB</i> ₆		4 9.4 138°44	1°6/ 7.8	17	
3 2	13 47.44	-34 24.3	1.462	2.151	23.2	19.8	3 2	13 36.43	- 5 30.2	2.164	2.967	13.1	20.9
3 12	13 44.39	-37 21.8	1.356	2.123	21.5	19.5	3 12	13 32.57	- 4 56.1	2.080	2.970	10.2	20.7
3 22	13 37.07	-40 5.8	1.266	2.096	19.5	19.3	3 22	13 26.77	- 4 13.0	2.020	2.973	6.8	20.5
4 1	13 25.43	-42 24.0	1.195	2.069	17.7	19.1	4 1	13 19.55	- 3 24.7	1.986	2.976	3.1	20.3
4 11	13 10.36	-44 3.4	1.144	2.043	16.7	18.9	4 11	13 11.68	- 2 36.3	1.980	2.979	2.0	20.2
4 21	12 53.74	-44 54.9	1.113	2.017	16.9	18.9	4 21	13 3.97	- 1 52.9	2.003	2.982	5.4	20.4
5 1	12 38.20	-44 57.8	1.102	1.992	18.4	18.9	5 1	12 57.24	- 1 19.0	2.054	2.984	9.0	20.6
5 11	12 26.18	-44 22.2	1.109	1.968	20.7	18.9	5 11	12 52.09	- 0 58.0	2.128	2.987	12.1	20.8
37482	2114 <i>T</i> ₋₁		4 9.4 24°28	3°2/ 6.1	18		40361	1999 <i>NG</i> ₂₁		4 9.4 194°44	5°8/ 15.4	18	
3 2	13 31.96	- 5 46.2	1.578	2.408	16.0	18.2	3 2	13 40.79	-26 55.5	2.419	3.115	14.8	20.1
3 12	13 29.75	- 4 13.0	1.506	2.413	12.3	17.9	3 12	13 36.16	-27 29.3	2.316	3.113	12.7	19.9
3 22	13 25.17	- 2 24.1	1.457	2.418	8.1	17.7	3 22	13 29.34	-27 45.3	2.232	3.111	10.2	19.8
4 1	13 18.86	- 0 27.6	1.434	2.424	4.1	17.5	4 1	13 20.83	-27 41.2	2.173	3.108	7.8	19.6
4 11	13 11.78	+ 1 25.8	1.437	2.431	4.1	17.5	4 11	13 11.42	-27 17.1	2.140	3.104	6.1	19.5
4 21	13 4.97	+ 3 5.8	1.467	2.437	7.9	17.7	4 21	13 2.04	-26 35.3	2.134	3.100	6.2	19.5
5 1	12 59.40	+ 4 24.4	1.522	2.445	12.0	18.0	5 1	12 53.61	-25 40.7	2.157	3.096	8.1	19.6
5 11	12 55.78	+ 5 17.3	1.598	2.453	15.6	18.2	5 11	12 46.90	-24 40.2	2.205	3.091	10.6	19.7
326407	2001 <i>SO</i> ₁₇₁		4 9.4 142°25	0°1/ 9.3	17		513069	2017 <i>WW</i> ₁₉		4 9.4 189°07	8°3/ 26.2	18	
3 2	13 41.14	- 8 44.5	1.988	2.778	14.6	21.0	3 2	13 37.74	+26 11.6	3.163	3.939	10.0	21.9
3 12	13 36.42	- 8 37.0	1.904	2.785	11.5	20.8	3 12	13 33.02	+27 31.7	3.109	3.938	9.0	21.8
3 22	13 29.45	- 8 18.7	1.843	2.791	7.8	20.6	3 22	13 26.78	+28 42.0	3.080	3.936	8.4	21.8
4 1	13 20.82	- 7 52.0	1.808	2.797	3.6	20.4	4 1	13 19.47	+29 36.7	3.076	3.934	8.4	21.8
4 11	13 11.41	- 7 21.1	1.802	2.803	0.7	20.1	4 11	13 11.70	+30 11.5	3.097	3.931	9.1	21.8
4 21	13 2.21	- 6 50.5	1.823	2.809	5.0	20.5	4 21	13 4.11	+30 24.3	3.143	3.928	10.2	21.9
5 1	12 54.15	- 6 25.1	1.873	2.814	9.0	20.7	5 1	12 57.29	+30 14.8	3.209	3.924	11.5	22.0
5 11	12 47.95	- 6 8.9	1.946	2.819	12.5	20.9	5 11	12 51.74	+29 44.8	3.295	3.919	12.7	22.1
435330	2007 <i>VK</i> ₃₁		4 9.4 80°74	0°0/ 9.5	17		402008	2003 <i>QZ</i> ₆₉		4 9.4 128°28	2°1/ 11.4	18	
3 2	13 39.70	- 8 39.9	2.204	2.991	13.5	21.8	3 2	13 41.01	-16 12.8	1.892	2.660	16.1	22.1
3 12	13 34.99	- 8 39.8	2.129	3.007	10.5	21.6	3 12	13 36.45	-16 0.4	1.813	2.674	12.9	21.9
3 22	13 28.30	- 8 30.4	2.076	3.023	7.1	21.4	3 22	13 29.52	-15 30.3	1.754	2.688	9.2	21.7
4 1	13 20.22	- 8 14.0	2.050	3.039	3.3	21.2	4 1	13 20.87	-14 44.0	1.720	2.701	5.1	21.5
4 11	13 11.54	- 7 53.8	2.053	3.055	0.6	21.0	4 11	13 11.44	-13 45.5	1.714	2.713	2.1	21.3
4 21	13 3.11	- 7 33.6	2.085	3.070	4.4	21.3	4 21	13 2.30	-12 41.1	1.737	2.725	4.8	21.5
5 1	12 55.72	- 7 17.2	2.144	3.086	8.0	21.6	5 1	12 54.42	-11 37.7	1.787	2.736	8.7	21.7
5 11	12 49.99	- 7 7.9	2.229	3.101	11.1	21.8	5 11	12 48.53	-10 42.0	1.861	2.747	12.3	22.0
167080	2003 <i>RX</i> ₂₁		4 9.4 128°61	0°8/ 8.7	18		384096	2008 <i>WL</i> ₃₀		4 9.4 191°25	2°8/ 12.8	17	
3 2	13 39.61	- 9 34.9	1.895	2.689	15.1	20.9	3 2	13 37.42	-19 58.5	2.730	3.463	12.5	22.2
3 12	13 35.23	- 8 45.4	1.820	2.704	11.8	20.7	3 12	13 33.09	-19 52.0	2.626	3.461	10.2	22.0
3 22	13 28.61	- 7 41.7	1.767	2.718	7.8	20.5	3 22	13 27.02	-19 30.9	2.544	3.459	7.6	21.9
4 1	13 20.40	- 6 28.3	1.741	2.731	3.5	20.2	4 1	13 19.66	-18 55.4	2.488	3.456	4.9	21.7
4 11	13 11.51	- 5 11.5	1.744	2.745	1.3	20.1	4 11	13 11.67	-18 7.7	2.461	3.453	2.9	21.5
4 21	13 2.92	- 3 58.6	1.775	2.757	5.5	20.4	4 21	13 3.75	-17 11.5	2.464	3.449	3.9	21.6
5 1	12 55.56	- 2 56.3	1.833	2.769	9.5	20.7	5 1	12 56.62	-16 11.6	2.496	3.444	6.7	21.8
5 11	12 50.08	- 2 9.1	1.915	2.780	13.0	20.9	5 11	12 50.87	-15 13.3	2.554	3.439	9.4	21.9
17404	1986 <i>TZ</i> ₃		4 9.4 292°06	2°1/ 7.9	18		370211	2002 <i>GO</i> ₁₃₈		4 9.4 172°37	0°0/ 9.2	18	
3 2	13 38.92	- 5 14.8	1.460	2.283	17.4	18.0	3 2	13 37.86	-18 1.3	1.215	2.017	21.4	20.7
3 12	13 35.92	- 4 50.4	1.358	2.259	13.7	17.7	3 12	13 35.30	-16 7.0	1.134	2.020	17.1	20.4
3 22	13 29.90	- 4 12.9	1.276	2.234	9.3	17.4	3 22	13 29.43	-13 32.4	1.072	2.022	11.8	20.1
4 1	13 21.34	- 3 26.2	1.218	2.209	4.4	17.0	4 1	13 21.02	-10 23.7	1.034	2.023	5.5	19.8
4 11	13 11.28	- 2 37.3	1.185	2.184	2.7	16.9	4 11	13 11.41	- 6 56.3	1.022	2.024	1.1	19.4
4 21	13 1.04	- 1 53.9	1.177	2.159	7.7	17.1	4 21	13 2.15	- 3 31.1	1.038	2.024	7.7	19.9
5 1	12 52.04	- 1 23.8	1.194	2.134	13.0	17.3	5 1	12 54.68	- 0 28.6	1.080	2.024	13.7	20.2
5 11	12 45.46	- 1 12.4	1.231	2.109	17.8	17.5	5 11	12 49.99	+ 1 57.6	1.144	2.023	18.8	20.5
15995	1998 <i>YQ</i> ₉		4 9.4 345°81	1°6/ 10.5	18		11758	Sargent		4 9.4 261°10	1°6/ 11.		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
332346	2007 <i>DQ</i> ₃₄	4 9.4 43°09	5°2/ 3.9 18				212894	2007 <i>VV</i> ₃₀₆	4 9.4 117°48	0°6/10.1 17			
3 2	13 33.87	+ 0 28.7	1.716	2.549	14.7	20.3	3 2	13 36.38	-11 49.0	2.417	3.196	12.7	21.2
3 12	13 31.06	+ 2 11.7	1.645	2.552	11.4	20.1	3 12	13 32.34	-11 32.6	2.333	3.205	10.0	21.0
3 22	13 25.98	+ 4 3.8	1.598	2.555	7.9	19.9	3 22	13 26.53	-11 4.8	2.271	3.214	6.9	20.8
4 1	13 19.24	+ 5 55.9	1.576	2.558	5.4	19.8	4 1	13 19.43	-10 27.7	2.236	3.222	3.4	20.6
4 11	13 11.75	+ 7 37.8	1.582	2.561	6.2	19.8	4 11	13 11.76	- 9 44.8	2.229	3.231	0.7	20.4
4 21	13 4.50	+ 9 0.8	1.615	2.564	9.3	20.0	4 21	13 4.26	- 9 0.5	2.252	3.239	4.0	20.7
5 1	12 58.42	+ 9 59.0	1.672	2.567	12.8	20.2	5 1	12 57.65	- 8 19.3	2.303	3.247	7.4	20.9
5 11	12 54.21	+10 30.4	1.749	2.570	15.9	20.4	5 11	12 52.50	- 7 45.4	2.379	3.255	10.4	21.1
389748	2011 <i>SP</i> ₁₄₄	4 9.4 305°78	0°0/ 9.3 17				60354	2000 <i>AP</i> ₈₈	4 9.4 126°37	1°2/10.6 18			
3 2	13 38.12	- 8 3.4	2.278	3.068	13.0	20.8	3 2	13 40.57	-13 42.8	1.945	2.722	15.4	20.1
3 12	13 33.88	- 8 4.1	2.185	3.066	10.2	20.6	3 12	13 36.02	-13 27.3	1.866	2.735	12.2	19.9
3 22	13 27.67	- 7 56.3	2.115	3.063	6.9	20.4	3 22	13 29.20	-12 56.5	1.809	2.749	8.5	19.7
4 1	13 20.00	- 7 41.9	2.071	3.060	3.2	20.1	4 1	13 20.74	-12 12.2	1.777	2.761	4.4	19.4
4 11	13 11.61	- 7 24.0	2.056	3.058	0.6	19.9	4 11	13 11.54	-11 18.9	1.772	2.773	1.3	19.2
4 21	13 3.31	- 7 6.2	2.070	3.055	4.5	20.2	4 21	13 2.60	-10 22.3	1.797	2.785	4.7	19.5
5 1	12 55.91	- 6 52.4	2.111	3.053	8.1	20.4	5 1	12 54.87	- 9 28.9	1.849	2.796	8.7	19.8
5 11	12 50.09	- 6 45.7	2.178	3.050	11.3	20.6	5 11	12 49.05	- 8 44.1	1.925	2.807	12.2	20.0
284396	2006 <i>TE</i> ₆₅	4 9.4 172°31	4°3/ 4.0 18				54631	2000 <i>SJ</i> ₁₁₅	4 9.4 38°48	0°4/ 8.9 18			
3 2	13 34.65	+ 3 50.6	2.550	3.365	11.0	21.0	3 2	13 33.22	- 7 38.2	3.004	3.791	10.2	18.6
3 12	13 30.87	+ 4 57.4	2.472	3.367	8.6	20.8	3 12	13 29.56	- 7 24.5	2.914	3.794	8.0	18.5
3 22	13 25.47	+ 6 7.0	2.419	3.368	6.1	20.6	3 22	13 24.50	- 7 3.9	2.849	3.798	5.3	18.3
4 1	13 18.91	+ 7 14.0	2.394	3.369	4.4	20.5	4 1	13 18.46	- 6 38.6	2.811	3.801	2.4	18.1
4 11	13 11.82	+ 8 12.8	2.398	3.370	4.9	20.6	4 11	13 11.96	- 6 11.3	2.803	3.804	0.7	18.0
4 21	13 4.89	+ 8 58.8	2.430	3.371	7.1	20.7	4 21	13 5.56	- 5 45.1	2.824	3.808	3.6	18.2
5 1	12 58.75	+ 9 28.9	2.489	3.372	9.6	20.9	5 1	12 59.82	- 5 23.0	2.874	3.811	6.4	18.4
5 11	12 53.94	+ 9 41.8	2.570	3.372	12.0	21.0	5 11	12 55.18	- 5 7.6	2.950	3.815	8.9	18.6
253850	2003 <i>YJ</i> ₁₅₂	4 9.4 12°10	4°3/ 7.2 18				196605	2003 <i>QM</i> ₇₅	4 9.4 214°41	0°8/ 8.4 18			
3 2	13 43.65	+ 2 14.9	1.295	2.130	18.5	19.3	3 2	13 35.82	- 8 37.7	2.467	3.256	12.2	21.3
3 12	13 39.48	+ 2 12.5	1.226	2.132	14.5	19.0	3 12	13 31.96	- 7 50.6	2.368	3.249	9.5	21.1
3 22	13 32.07	+ 2 11.9	1.177	2.135	10.0	18.7	3 22	13 26.33	- 6 52.1	2.292	3.241	6.3	20.8
4 1	13 22.20	+ 2 7.4	1.151	2.139	5.6	18.5	4 1	13 19.38	- 5 45.5	2.243	3.233	2.9	20.6
4 11	13 11.20	+ 1 53.2	1.150	2.143	4.8	18.5	4 11	13 11.78	- 4 35.7	2.224	3.225	1.3	20.5
4 21	13 0.58	+ 1 25.6	1.174	2.149	8.8	18.7	4 21	13 4.26	- 3 28.1	2.235	3.215	4.7	20.7
5 1	12 51.72	+ 0 42.4	1.221	2.155	13.4	19.0	5 1	12 57.54	- 2 28.1	2.274	3.206	8.2	20.9
5 11	12 45.60	- 0 15.8	1.289	2.162	17.5	19.2	5 11	12 52.23	- 1 39.9	2.338	3.196	11.2	21.1
211476	2003 <i>EX</i> ₃₇	4 9.4 20°93	10°4/26.6 18				502915	2015 <i>ED</i> ₁₈	4 9.4 174°09	1°9/11.0 17			
3 2	13 32.12	+18 17.1	1.900	2.731	13.6	18.9	3 2	13 42.06	-13 15.9	2.080	2.851	14.7	21.4
3 12	13 29.54	+20 34.0	1.855	2.736	11.7	18.7	3 12	13 37.22	-13 36.7	1.987	2.852	11.8	21.2
3 22	13 24.87	+22 42.2	1.835	2.742	10.5	18.7	3 22	13 30.09	-13 45.7	1.917	2.853	8.4	21.0
4 1	13 18.69	+24 31.1	1.839	2.748	10.6	18.7	4 1	13 21.21	-13 43.0	1.872	2.853	4.6	20.7
4 11	13 11.87	+25 52.1	1.868	2.755	11.8	18.8	4 11	13 11.46	-13 30.9	1.855	2.854	1.9	20.6
4 21	13 5.32	+26 40.5	1.919	2.762	13.6	18.9	4 21	13 1.79	-13 12.5	1.867	2.854	4.6	20.7
5 1	12 59.88	+26 55.5	1.991	2.770	15.6	19.1	5 1	12 53.20	-12 52.5	1.906	2.854	8.4	21.0
5 11	12 56.17	+26 39.9	2.078	2.778	17.4	19.2	5 11	12 46.45	-12 35.7	1.971	2.854	11.9	21.2
62291	2000 <i>SN</i> ₁₁₂	4 9.4 291°44	0°6/ 9.8 18				399162	2014 <i>FM</i> ₂₉	4 9.4 311°46	0°0/ 9.3 17			
3 2	13 40.58	- 9 19.9	1.783	2.580	15.8	19.6	3 2	13 40.71	- 7 0.2	2.167	2.957	13.6	20.3
3 12	13 36.64	- 9 32.4	1.677	2.560	12.6	19.3	3 12	13 36.14	- 7 19.5	2.063	2.944	10.7	20.1
3 22	13 30.06	- 9 34.0	1.593	2.541	8.7	19.0	3 22	13 29.38	- 7 32.1	1.983	2.931	7.3	19.9
4 1	13 21.32	- 9 26.0	1.533	2.521	4.3	18.7	4 1	13 20.91	- 7 39.3	1.929	2.918	3.5	19.6
4 11	13 11.34	- 9 11.4	1.500	2.502	0.8	18.4	4 11	13 11.51	- 7 43.5	1.903	2.905	0.6	19.3
4 21	13 1.25	- 8 54.3	1.494	2.482	5.5	18.7	4 21	13 2.09	- 7 47.4	1.906	2.892	4.8	19.6
5 1	12 52.23	- 8 39.9	1.515	2.463	10.2	18.9	5 1	12 53.60	- 7 54.2	1.938	2.880	8.7	19.8
5 11	12 45.27	- 8 33.0	1.559	2.444	14.4	19.1	5 11	12 46.80	- 8 6.9	1.994	2.868	12.1	20.0
141150	2001 <i>XK</i> ₁₀₉	4 9.4 94°94	4°1/13.9 18				363748	2005 <i>AF</i>	4 9.4 147°55	0°3/ 9.8 18			
3 2	13 36.52	-22 29.4	2.400	3.130	14.0	20.3	3 2	13 41.32	-11 49.5	2.011	2.790	14.8	22.8
3 12	13 32.65	-22 43.4	2.308	3.137	11.7	20.1	3 12	13 36.52	-11 18.8	1.929	2.802	11.7	22.6
3 22	13 26.85	-22 40.9	2.238	3.143	9.0	19.9	3 22	13 29.51	-10 33.6	1.869	2.813	8.0	22.4
4 1	13 19.61	-22 21.2	2.191	3.149	6.2	19.8	4 1	13 20.88	- 9 36.8	1.836	2.823	3.8	22.1
4 11	13 11.69	-21 46.0	2.172	3.155	4.3	19.7	4 11	13 11.53	- 8 33.4	1.831	2.833	0.6	21.9
4 21	13 3.90	-20 58.8	2.181	3.161	4.8	19.7	4 21	13 2.44	- 7 29.6	1.856	2.842	4.9	22.2
5 1	12 57.04	-20 4.7	2.218	3.167	7.3	19.9	5 1	12 54.51	- 6 31.7	1.908	2.849	8.8	22.5
5 11	12 51.74	-19 9.9	2.280	3.173	10.1	20.0	5 11	12 48.44	- 5 44.9	1.985	2.856	12.3	22.7
371128	2005 <i>WB</i> ₅₄	4 9.4 127°61	4°1/ 4.9 18				386470	2008 <i>YS</i> ₅₀	4 9.4 60°99	1°8/ 7.7 17			
3 2	13 39.67	+ 3 15.6	2.347	3.155	12.1	21.3	3 2	13 36.65	- 4 32.8	2.037	2.846	13.7	21.4
3 12	13 34.75	+ 4 11.2	2.281	3.172	9.4	21.1	3 12	13 32.82	- 4 3.4	1.962	2.855	10.6	21.2
3 22	13 28.04	+ 5 9.2	2.240	3.189	6.5	21.0	3 22	13 26.97	- 3 25.8	1.910	2.865	7.0	21.0
4 1	13 20.08	+ 6 4.1	2.227	3.205	4.4	20.9	4 1	13 19.68	- 2 44.1	1.884	2.874	3.3	20.8
4 11	13 11.63	+ 6 50.4	2.243	3.220	4.7	20.9	4 11	13 11.76	- 2 3.3	1.886	2.884	2.2	20.7
4 21	13 3.46	+ 7 23.8	2.287	3.235	7.0	21.1	4 21	13 4.06	- 1 28.6	1.916	2.894	5.7	21.0
5 1	12 56.30	+ 7 41.6	2.358	3.249	9.8	21.3	5 1	12 57.42	- 1 4.0	1.973	2.904	9.2	21.2
5 11	12 50.67	+ 7 43.0	2.453	3.262	12.3	21.5	5 11	12 52.45	- 0 52.5	2.053	2.914	12.4	21.4
242795	2006 <i>AX</i> ₇₉	4 9.4 11°21	7°5/ 4.3 16				457637	2009 <i>BM</i> ₁₅₆	4 9.4 53°25	0°8/ 8.8 18			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
309899	2009 <i>EK</i> ₄		4 9.5 10°40'	2.1/ 8.1	18		297629	2001 <i>TC</i> ₈₆		4 9.5 89°83'	2.0/10.9	18	
3 2	13 35.85	- 5 23.6	1.155	2.000	19.7	20.1	3 2	13 43.87	-13 49.8	1.480	2.270	18.8	20.6
3 12	13 33.73	- 5 2.9	1.089	2.001	15.4	19.8	3 12	13 39.26	-13 57.4	1.413	2.289	15.0	20.4
3 22	13 28.39	- 4 28.4	1.042	2.004	10.3	19.6	3 22	13 31.72	-13 47.0	1.365	2.307	10.5	20.2
4 1	13 20.57	- 3 45.5	1.015	2.008	4.8	19.3	4 1	13 22.01	-13 20.0	1.340	2.324	5.6	19.9
4 11	13 11.59	- 3 2.5	1.013	2.012	2.8	19.1	4 11	13 11.38	-12 40.7	1.342	2.342	2.0	19.7
4 21	13 2.94	- 2 27.8	1.034	2.018	7.9	19.5	4 21	13 1.16	-11 55.5	1.370	2.359	5.6	20.0
5 1	12 56.02	- 2 8.3	1.077	2.025	13.2	19.8	5 1	12 52.61	-11 12.1	1.424	2.376	10.3	20.3
5 11	12 51.81	- 2 8.2	1.139	2.033	17.7	20.1	5 11	12 46.57	-10 37.1	1.501	2.393	14.4	20.6
169116	2001 <i>OT</i> ₆₉		4 9.5 158°04'	1.9/11.9	18		15806	Kohei		4 9.5 17°37'	5.5/ 3.9	18	
3 2	13 37.55	-16 57.8	3.260	3.997	10.5	21.1	3 2	13 33.80	+ 3 57.4	1.840	2.674	13.9	17.0
3 12	13 32.80	-16 55.3	3.164	4.006	8.5	21.0	3 12	13 30.85	+ 5 10.6	1.772	2.677	10.8	16.8
3 22	13 26.64	-16 42.1	3.092	4.014	6.2	20.8	3 22	13 25.78	+ 6 27.3	1.727	2.681	7.7	16.6
4 1	13 19.46	-16 18.9	3.048	4.021	3.7	20.7	4 1	13 19.17	+ 7 40.2	1.708	2.685	5.6	16.5
4 11	13 11.81	-15 47.7	3.033	4.028	1.9	20.6	4 11	13 11.89	+ 8 41.2	1.715	2.689	6.3	16.5
4 21	13 4.27	-15 11.3	3.049	4.035	3.2	20.7	4 21	13 4.84	+ 9 24.4	1.749	2.694	9.0	16.7
5 1	12 57.40	-14 33.1	3.095	4.040	5.6	20.8	5 1	12 58.90	+ 9 46.1	1.806	2.700	12.1	16.9
5 11	12 51.67	-13 56.7	3.168	4.045	8.0	21.0	5 11	12 54.70	+ 9 45.5	1.885	2.706	15.0	17.1
233121	2005 <i>TD</i> ₄₀		4 9.5 46°28'	3.4/ 7.5	18		420645	2012 <i>JK</i> ₈		4 9.5 25°12'	3.2/ 7.5	18	
3 2	13 43.08	- 1 37.0	1.212	2.048	19.5	20.3	3 2	13 38.68	- 1 54.5	1.274	2.113	18.5	19.8
3 12	13 39.17	- 1 21.6	1.149	2.056	15.2	20.0	3 12	13 35.51	- 1 37.8	1.214	2.123	14.3	19.6
3 22	13 31.92	- 0 58.2	1.105	2.065	10.2	19.7	3 22	13 29.33	- 1 13.2	1.173	2.134	9.6	19.3
4 1	13 22.17	- 0 32.7	1.083	2.074	5.2	19.5	4 1	13 20.93	- 0 46.4	1.155	2.145	4.8	19.1
4 11	13 11.31	- 0 12.7	1.086	2.083	4.0	19.4	4 11	13 11.58	- 0 24.6	1.162	2.158	3.7	19.0
4 21	13 0.90	- 0 4.4	1.114	2.093	8.5	19.7	4 21	13 2.67	- 0 13.8	1.193	2.172	8.0	19.3
5 1	12 52.38	- 0 12.3	1.164	2.103	13.5	20.0	5 1	12 55.46	- 0 18.3	1.247	2.187	12.6	19.6
5 11	12 46.68	- 0 38.1	1.235	2.113	17.8	20.3	5 11	12 50.79	- 0 39.9	1.322	2.202	16.7	19.9
242071	2002 <i>TR</i> ₁₃₅		4 9.5 242°01'	2.7/12.3	18		336857	2011 <i>FZ</i> ₈₂		4 9.5 294°66'	0.3/ 9.2	17	
3 2	13 36.33	-18 10.9	2.352	3.106	13.7	20.8	3 2	13 40.01	- 7 35.4	1.863	2.663	15.1	20.7
3 12	13 32.60	-18 6.9	2.246	3.097	11.2	20.6	3 12	13 35.89	- 7 37.8	1.771	2.657	11.9	20.5
3 22	13 26.91	-17 47.3	2.162	3.087	8.2	20.4	3 22	13 29.35	- 7 30.4	1.699	2.650	8.1	20.2
4 1	13 19.72	-17 12.6	2.104	3.078	5.0	20.2	4 1	13 20.94	- 7 15.5	1.654	2.643	3.8	20.0
4 11	13 11.75	-16 25.1	2.073	3.068	2.7	20.0	4 11	13 11.56	- 6 56.6	1.635	2.637	0.8	19.7
4 21	13 3.81	-15 29.1	2.071	3.058	4.3	20.1	4 21	13 2.25	- 6 38.3	1.645	2.630	5.4	20.0
5 1	12 56.73	-14 30.0	2.096	3.047	7.5	20.3	5 1	12 54.06	- 6 25.2	1.680	2.624	9.7	20.3
5 11	12 51.19	-13 34.0	2.148	3.037	10.8	20.4	5 11	12 47.81	- 6 21.2	1.740	2.618	13.4	20.5
236816	2007 <i>RV</i> ₂₅		4 9.5 286°72'	0.7/10.1	17		228139	2009 <i>RS</i> ₃₃		4 9.5 220°44'	0.1/ 9.3	17	
3 2	13 36.47	-11 49.3	2.047	2.836	14.3	21.5	3 2	13 35.60	-11 53.5	1.999	2.790	14.5	20.7
3 12	13 32.85	-11 34.2	1.958	2.835	11.4	21.3	3 12	13 32.25	-11 0.9	1.904	2.785	11.5	20.5
3 22	13 27.12	-11 5.7	1.890	2.835	7.8	21.1	3 22	13 26.77	- 9 51.5	1.832	2.780	7.8	20.3
4 1	13 19.82	-10 25.9	1.848	2.835	3.9	20.9	4 1	13 19.68	- 8 28.7	1.786	2.775	3.6	20.0
4 11	13 11.75	- 9 38.9	1.833	2.835	0.8	20.6	4 11	13 11.80	- 6 58.8	1.768	2.769	0.8	19.8
4 21	13 3.81	- 8 49.9	1.846	2.834	4.6	20.9	4 21	13 4.04	- 5 29.2	1.778	2.763	5.1	20.1
5 1	12 56.88	- 8 4.6	1.887	2.834	8.5	21.1	5 1	12 57.29	- 4 7.7	1.816	2.757	9.2	20.3
5 11	12 51.66	- 7 28.0	1.952	2.834	12.0	21.3	5 11	12 52.26	- 3 0.3	1.879	2.751	12.9	20.5
428904	2008 <i>VG</i> ₁₁		4 9.5 298°55'	1.8/ 7.7	17		321471	2009 <i>RZ</i> ₄₉		4 9.5 283°17'	0.6/ 9.8	17	
3 2	13 35.00	- 5 53.3	1.936	2.748	14.2	20.9	3 2	13 42.06	- 9 3.6	1.765	2.560	16.0	20.8
3 12	13 31.81	- 5 9.5	1.847	2.742	11.0	20.7	3 12	13 37.84	- 9 19.5	1.661	2.543	12.8	20.6
3 22	13 26.49	- 4 14.4	1.780	2.736	7.3	20.5	3 22	13 30.92	- 9 25.1	1.578	2.525	8.9	20.3
4 1	13 19.55	- 3 12.3	1.739	2.730	3.4	20.2	4 1	13 21.79	- 9 21.5	1.520	2.508	4.3	20.0
4 11	13 11.81	- 2 9.5	1.725	2.724	2.3	20.1	4 11	13 11.39	- 9 11.4	1.489	2.491	0.8	19.7
4 21	13 4.18	- 1 12.4	1.740	2.718	6.1	20.3	4 21	13 0.89	- 8 59.0	1.485	2.473	5.6	20.0
5 1	12 57.57	- 0 26.9	1.780	2.712	10.0	20.6	5 1	12 51.50	- 8 49.0	1.509	2.456	10.3	20.2
5 11	12 52.69	+ 0 3.0	1.843	2.706	13.5	20.8	5 11	12 44.23	- 8 46.3	1.555	2.438	14.5	20.4
380929	2006 <i>HU</i> ₃₀		4 9.5 274°94'	1.9°5/31.9	13 C		435265	2007 <i>TN</i> ₂₁₈		4 9.5 113°66'	1.8/11.6	17	
3 2	14 14.76	+21 21.1	0.981	1.781	25.6	22.0	3 2	13 35.04	-16 51.1	2.357	3.119	13.4	21.7
3 12	14 8.49	+23 8.6	0.875	1.738	23.1	21.6	3 12	13 31.42	-16 27.0	2.269	3.127	10.8	21.5
3 22	13 55.46	+24 54.1	0.785	1.692	20.7	21.2	3 22	13 25.98	-15 47.4	2.203	3.135	7.7	21.3
4 1	13 35.11	+26 12.1	0.713	1.643	19.5	20.9	4 1	13 19.24	-14 53.9	2.163	3.143	4.4	21.1
4 11	13 8.63	+26 29.7	0.662	1.591	21.1	20.7	4 11	13 11.89	-13 50.2	2.152	3.151	1.8	21.0
4 21	12 39.31	+25 20.0	0.632	1.536	25.7	20.7	4 21	13 4.72	-12 41.6	2.169	3.158	3.9	21.1
5 1	12 11.73	+22 36.7	0.622	1.479	32.1	20.8	5 1	12 58.46	-11 33.9	2.215	3.166	7.3	21.4
5 11	11 49.53	+18 38.2	0.627	1.418	38.8	20.9	5 11	12 53.70	-10 32.6	2.287	3.173	10.3	21.6
473083	2015 <i>HG</i> ₁₄₄		4 9.5 354°57'	2.1/11.3	17		89557	2001 <i>XY</i> ₉₈		4 9.5 187°16'	4.0/ 5.9	18	
3 2	13 32.37	-15 45.1	1.672	2.467	16.8	20.5	3 2	13 41.65	- 0 3.6	1.821	2.635	14.8	19.8
3 12	13 30.20	-15 33.4	1.585	2.463	13.5	20.2	3 12	13 37.06	+ 0 50.0	1.740	2.635	11.5	19.6
3 22	13 25.63	-15 2.1	1.518	2.460	9.7	20.0	3 22	13 30.05	+ 1 50.7	1.681	2.634	7.9	19.4
4 1	13 19.21	-14 12.8	1.474	2.457	5.4	19.7	4 1	13 21.22	+ 2 52.3	1.648	2.633	4.6	19.2
4 11	13 11.87	-13 9.9	1.455	2.455	2.1	19.5	4 11	13 11.53	+ 3 47.5	1.643	2.631	4.6	19.2
4 21	13 4.66	-12 0.3	1.463	2.454	5.1	19.7	4 21	13 2.03	+ 4 29.8	1.666	2.628	7.9	19.4
5 1	12 58.62	-10 52.2	1.497	2.454	9.4	19.9	5 1	12 53.75	+ 4 54.4	1.714	2.625	11.7	19.6
5 11	12 54.56	- 9 53.0	1.553	2.454	13.4	20.2	5 11	12 47.47	+ 4 59.5	1.785	2.621	15.1	19.8
246108	2007 <i>FT</i> ₂₇		4 9.5 213°42'	1.2/ 6.8	18		49499	1999 <i>CJ</i> ₈		4 9.5 280°24'	4.5/ 4.4	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
213804	2003 <i>GE</i> ₁₇		4 9.5	4°44'	8°5'/28.7	18	414103	2007 <i>TQ</i> ₃₁₈		4 9.5	245°10'	0°6'/9.9	16
3 2	13 30.17	+ 9 41.3	1.855	2.697	13.4	18.7	3 2	13 38.47	-12 32.1	1.758	2.550	16.2	21.7
3 12	13 28.11	+12 23.4	1.795	2.697	10.9	18.5	3 12	13 34.96	-12 3.9	1.658	2.537	12.9	21.5
3 22	13 23.99	+15 6.9	1.761	2.698	9.0	18.4	3 22	13 28.90	-11 17.8	1.578	2.525	9.0	21.2
4 1	13 18.37	+17 39.5	1.755	2.699	8.6	18.4	4 1	13 20.82	-10 16.1	1.524	2.512	4.4	20.9
4 11	13 12.06	+19 49.7	1.776	2.701	10.1	18.5	4 11	13 11.64	- 9 4.0	1.496	2.498	0.8	20.6
4 21	13 5.93	+21 29.7	1.822	2.703	12.5	18.6	4 21	13 2.49	- 7 48.8	1.497	2.484	5.5	20.9
5 1	13 0.83	+22 35.6	1.890	2.707	15.0	18.8	5 1	12 54.47	- 6 38.8	1.523	2.470	10.2	21.1
5 11	12 57.40	+23 8.1	1.975	2.710	17.2	19.0	5 11	12 48.50	- 5 41.2	1.573	2.455	14.4	21.3
462558	2009 <i>CO</i> ₆₅		4 9.5	325°61'	4°2'/12.4	17	53062	1998 <i>XH</i> ₂₈		4 9.5	179°94'	4°8'/13.1	18
3 2	13 35.69	-17 49.9	1.341	2.140	20.0	21.0	3 2	13 41.72	-20 33.1	1.620	2.381	18.6	19.0
3 12	13 33.66	-18 12.4	1.251	2.128	16.5	20.7	3 12	13 37.79	-20 55.9	1.531	2.382	15.5	18.8
3 22	13 28.51	-18 12.5	1.179	2.116	12.3	20.4	3 22	13 30.95	-20 57.4	1.462	2.382	11.7	18.5
4 1	13 20.79	-17 48.8	1.128	2.106	7.7	20.1	4 1	13 21.81	-20 35.8	1.414	2.382	7.7	18.3
4 11	13 11.61	-17 3.4	1.100	2.096	4.3	19.9	4 11	13 11.47	-19 52.7	1.392	2.382	4.9	18.1
4 21	13 2.41	-16 2.6	1.096	2.086	6.5	20.0	4 21	13 1.24	-18 53.4	1.396	2.382	6.2	18.2
5 1	12 54.68	-14 56.0	1.116	2.077	11.3	20.2	5 1	12 52.44	-17 46.2	1.426	2.381	10.1	18.4
5 11	12 49.57	-13 54.3	1.156	2.069	16.0	20.5	5 11	12 46.04	-16 40.6	1.480	2.380	14.0	18.6
79629	1998 <i>RC</i> ₇₁		4 9.5	141°75'	2°8'/6.8	18	497583	2006 <i>HG</i> ₂₀		4 9.5	245°89'	0°3'/9.2	18
3 2	13 38.01	- 3 46.2	1.797	2.612	14.9	20.0	3 2	13 43.06	- 6 36.7	2.206	2.991	13.5	21.2
3 12	13 34.21	- 2 50.2	1.720	2.617	11.6	19.8	3 12	13 37.92	- 6 48.3	2.104	2.982	10.7	21.0
3 22	13 28.11	- 1 43.8	1.665	2.622	7.7	19.6	3 22	13 30.56	- 6 52.9	2.025	2.972	7.2	20.7
4 1	13 20.31	- 0 32.8	1.637	2.626	3.9	19.3	4 1	13 21.50	- 6 52.2	1.973	2.962	3.4	20.5
4 11	13 11.73	+ 0 35.3	1.636	2.630	3.4	19.3	4 11	13 11.53	- 6 48.8	1.950	2.952	0.8	20.2
4 21	13 3.39	+ 1 33.5	1.663	2.634	7.0	19.5	4 21	13 1.58	- 6 45.9	1.957	2.941	4.8	20.5
5 1	12 56.25	+ 2 16.1	1.715	2.638	10.9	19.8	5 1	12 52.58	- 6 46.7	1.992	2.931	8.7	20.7
5 11	12 51.02	+ 2 40.1	1.790	2.641	14.3	20.0	5 11	12 45.29	- 6 54.4	2.052	2.920	12.1	20.9
272677	2005 <i>XE</i> ₁₇		4 9.5	129°11'	0°9'/10.5	16	112638	2002 <i>PQ</i> ₈₁		4 9.5	270°85'	3°0'/6.8	17
3 2	13 39.21	-13 47.9	2.463	3.226	12.9	22.4	3 2	13 36.55	- 4 26.6	1.661	2.483	15.7	19.8
3 12	13 34.45	-13 21.3	2.382	3.245	10.2	22.2	3 12	13 33.49	- 3 27.4	1.570	2.470	12.2	19.6
3 22	13 27.41	-12 41.7	2.325	3.262	7.0	22.0	3 22	13 27.90	- 2 14.8	1.500	2.458	8.2	19.3
4 1	13 20.11	-11 51.4	2.295	3.279	3.6	21.8	4 1	13 20.34	- 0 54.6	1.455	2.445	4.2	19.0
4 11	13 11.79	-10 54.2	2.295	3.296	0.9	21.6	4 11	13 11.74	+ 0 24.9	1.437	2.432	3.6	19.0
4 21	13 3.70	- 9 55.0	2.324	3.311	3.9	21.9	4 21	13 3.21	+ 1 35.1	1.446	2.419	7.7	19.2
5 1	12 56.57	- 8 58.9	2.383	3.326	7.2	22.1	5 1	12 55.84	+ 2 28.6	1.480	2.406	12.0	19.4
5 11	12 50.94	- 8 10.4	2.467	3.340	10.2	22.3	5 11	12 50.52	+ 3 0.8	1.535	2.393	16.0	19.6
204188	2004 <i>BB</i> ₆₅		4 9.5	257°83'	0°6'/8.8	17	293815	2007 <i>RN</i> ₁₇₂		4 9.5	270°59'	1°9'/7.6	18
3 2	13 36.59	- 7 47.0	2.151	2.949	13.4	21.1	3 2	13 36.61	- 4 21.8	2.103	2.911	13.3	20.9
3 12	13 32.82	- 7 26.4	2.062	2.947	10.5	20.9	3 12	13 32.92	- 3 50.2	2.010	2.902	10.4	20.7
3 22	13 27.05	- 6 55.6	1.995	2.946	7.0	20.7	3 22	13 27.19	- 3 10.0	1.939	2.893	6.9	20.5
4 1	13 19.80	- 6 17.6	1.955	2.945	3.2	20.4	4 1	13 19.90	- 2 25.0	1.895	2.885	3.3	20.2
4 11	13 11.84	- 5 36.8	1.943	2.944	1.1	20.2	4 11	13 11.84	- 1 40.4	1.878	2.876	2.4	20.1
4 21	13 4.00	- 4 57.9	1.959	2.943	4.9	20.5	4 21	13 3.85	- 1 1.5	1.890	2.867	5.8	20.3
5 1	12 57.11	- 4 25.7	2.003	2.942	8.6	20.7	5 1	12 56.80	- 0 32.8	1.928	2.858	9.5	20.5
5 11	12 51.83	- 4 4.0	2.070	2.941	11.9	20.9	5 11	12 51.38	- 0 17.7	1.990	2.849	12.8	20.7
172026	2001 <i>VF</i> ₁		4 9.5	169°46'	6°1'/31.5	18	162593	2000 <i>SY</i> ₄₇		4 9.5	191°14'	0°9'/10.4	18
3 2	13 37.29	+15 28.4	3.128	3.927	9.6	21.4	3 2	13 39.76	-14 11.5	2.000	2.775	15.1	20.5
3 12	13 32.61	+16 32.2	3.062	3.932	7.9	21.3	3 12	13 35.52	-13 37.7	1.905	2.774	12.0	20.2
3 22	13 26.51	+17 31.4	3.022	3.936	6.6	21.2	3 22	13 29.01	-12 46.6	1.831	2.772	8.4	20.0
4 1	13 19.42	+18 21.0	3.009	3.940	6.1	21.1	4 1	13 20.78	-11 40.5	1.784	2.769	4.3	19.7
4 11	13 11.92	+18 56.8	3.025	3.943	6.7	21.2	4 11	13 11.69	-10 24.2	1.764	2.765	1.0	19.5
4 21	13 4.58	+19 16.1	3.068	3.945	8.1	21.3	4 21	13 2.72	- 9 4.6	1.774	2.761	4.8	19.8
5 1	12 57.97	+19 17.6	3.137	3.947	9.8	21.4	5 1	12 54.85	- 7 49.0	1.811	2.756	9.0	20.0
5 11	12 52.54	+19 1.9	3.227	3.948	11.4	21.5	5 11	12 48.83	- 6 44.1	1.873	2.750	12.7	20.2
505945	2015 <i>FA</i> ₇₈		4 9.5	204°64'	0°7'/8.7	18	368688	2005 <i>SA</i> ₃₄		4 9.5	195°31'	1°7'/7.5	17
3 2	13 38.21	- 6 36.0	2.619	3.406	11.6	21.6	3 2	13 37.27	- 6 22.1	2.391	3.185	12.3	22.4
3 12	13 33.70	- 6 23.4	2.522	3.402	9.0	21.4	3 12	13 33.12	- 5 22.4	2.297	3.183	9.6	22.2
3 22	13 27.46	- 6 3.5	2.449	3.398	6.1	21.2	3 22	13 27.15	- 4 11.9	2.227	3.179	6.3	22.0
4 1	13 19.95	- 5 38.6	2.404	3.394	2.8	20.9	4 1	13 19.84	- 4 55.0	2.185	3.175	3.0	21.8
4 11	13 11.81	- 5 11.9	2.388	3.389	1.0	20.8	4 11	13 11.87	- 1 37.3	2.173	3.170	2.2	21.7
4 21	13 3.75	- 4 47.0	2.402	3.384	4.3	21.0	4 21	13 4.01	- 0 24.8	2.191	3.165	5.4	21.9
5 1	12 56.47	- 4 27.4	2.445	3.378	7.5	21.2	5 1	12 57.01	+ 0 37.0	2.236	3.158	8.8	22.1
5 11	12 50.56	- 4 15.8	2.513	3.373	10.4	21.4	5 11	12 51.48	+ 1 24.3	2.307	3.151	11.8	22.3
153063	2000 <i>QC</i> ₁₇₆		4 9.5	166°72'	1°0'/10.5	17	192733	1999 <i>TV</i> ₁₉₂		4 9.5	265°94'	0°7'/8.9	18
3 2	13 38.42	-13 33.4	2.439	3.206	12.9	21.2	3 2	13 42.74	- 5 43.3	2.118	2.909	13.8	19.9
3 12	13 33.98	-13 11.0	2.347	3.211	10.3	21.0	3 12	13 37.86	- 5 48.3	2.009	2.891	10.9	19.7
3 22	13 27.69	-12 35.7	2.277	3.215	7.1	20.8	3 22	13 30.66	- 5 46.1	1.923	2.872	7.4	19.4
4 1	13 20.06	-11 49.2	2.235	3.219	3.7	20.6	4 1	13 21.62	- 5 39.0	1.864	2.853	3.5	19.2
4 11	13 11.80	-10 55.3	2.222	3.223	1.0	20.4	4 11	13 11.53	- 5 29.9	1.833	2.834	1.2	18.9
4 21	13 3.68	- 9 58.6	2.238	3.225	4.0	20.7	4 21	13 1.38	- 5 22.6	1.832	2.815	5.3	19.2
5 1	12 56.46	- 9 4.3	2.283	3.227	7.4	20.9	5 1	12 52.16	- 5 20.8	1.858	2.795	9.3	19.4
5 11	12 50.74	- 8 17.3	2.354	3.229	10.5	21.1	5 11	12 44.70	- 5 27.5	1.909	2.775	13.0	19.6
56385	2000 <i>EN</i> ₄₈		4 9.5	272°67'	0°0'/9.3	18	106993	2000 <i>YC</i> ₁₀₆		4 9.5	59°56'	6°3'/	

EPHEMERIDES

4 9.5

4 9.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
429649	2011 <i>GU</i> ₃		4 9.5 52°29	3°3/ 6.6	17		210887	2001 <i>SL</i> ₉₃		4 9.5 232°80	2°5/11.9	17	
3 2	13 37.92	- 1 8.5	1.800	2.620	14.7	21.1	3 2	13 38.50	-16 27.4	2.432	3.187	13.2	21.5
3 12	13 34.13	- 0 30.1	1.727	2.626	11.4	20.9	3 12	13 34.25	-16 40.7	2.329	3.181	10.8	21.3
3 22	13 28.05	+ 0 15.0	1.675	2.632	7.7	20.7	3 22	13 28.04	-16 41.3	2.248	3.174	7.9	21.1
4 1	13 20.30	+ 1 1.5	1.650	2.637	4.2	20.5	4 1	13 20.33	-16 29.3	2.192	3.167	4.7	20.9
4 11	13 11.80	+ 1 42.8	1.651	2.643	3.8	20.5	4 11	13 11.84	-16 6.4	2.165	3.160	2.5	20.8
4 21	13 3.55	+ 2 13.4	1.679	2.649	7.1	20.7	4 21	13 3.38	-15 35.9	2.167	3.153	4.2	20.8
5 1	12 56.50	+ 2 29.1	1.733	2.656	10.9	20.9	5 1	12 55.75	-15 2.0	2.197	3.146	7.4	21.0
5 11	12 51.34	+ 2 28.0	1.810	2.662	14.2	21.1	5 11	12 49.65	-14 29.8	2.252	3.138	10.5	21.2
111207	2001 <i>WZ</i> ₂₉		4 9.5 179°87	0°9/ 8.5	17		351563	2005 <i>UU</i> ₆₀		4 9.5 334°40	2°6/ 7.9	15	
3 2	13 38.22	- 8 2.5	2.477	3.262	12.2	21.4	3 2	13 38.79	- 4 3.3	1.174	2.015	19.6	21.1
3 12	13 33.77	- 7 20.4	2.385	3.264	9.5	21.2	3 12	13 36.25	- 3 48.3	1.097	2.007	15.5	20.8
3 22	13 27.54	- 6 27.9	2.316	3.265	6.3	21.0	3 22	13 30.34	- 3 21.3	1.038	1.999	10.4	20.4
4 1	13 20.01	- 5 28.4	2.276	3.265	2.9	20.8	4 1	13 21.68	- 2 47.5	1.001	1.992	5.0	20.1
4 11	13 11.86	- 4 26.5	2.265	3.265	1.3	20.6	4 11	13 11.59	- 2 14.5	0.987	1.986	3.2	20.0
4 21	13 3.85	- 3 27.4	2.284	3.264	4.7	20.9	4 21	13 1.62	- 1 50.4	0.997	1.981	8.4	20.3
5 1	12 56.69	- 2 35.9	2.332	3.262	8.0	21.1	5 1	12 53.37	- 1 42.0	1.029	1.976	13.9	20.5
5 11	12 50.97	- 1 55.8	2.405	3.260	11.0	21.3	5 11	12 47.95	- 1 52.9	1.081	1.972	18.7	20.8
260997	2005 <i>SG</i> ₈₉		4 9.5 111°77	0°5/10.1	17		275709	2000 <i>WJ</i> ₃₁		4 9.5 44°96	7°8/ 3.6	18	
3 2	13 34.19	-12 5.7	2.498	3.278	12.3	20.7	3 2	13 39.79	+ 9 10.6	1.502	2.338	16.3	19.6
3 12	13 30.68	-11 42.3	2.407	3.280	9.7	20.5	3 12	13 35.76	+10 16.3	1.458	2.359	13.0	19.4
3 22	13 25.48	-11 7.1	2.339	3.282	6.6	20.3	3 22	13 29.15	+11 18.5	1.435	2.380	9.8	19.3
4 1	13 19.05	-10 22.4	2.298	3.284	3.3	20.1	4 1	13 20.78	+12 8.2	1.436	2.402	7.9	19.2
4 11	13 12.04	- 9 31.8	2.285	3.286	0.6	19.9	4 11	13 11.80	+12 37.6	1.462	2.424	8.5	19.3
4 21	13 5.15	- 8 39.9	2.301	3.289	3.9	20.2	4 21	13 3.37	+12 42.5	1.512	2.446	11.0	19.5
5 1	12 59.07	- 7 51.3	2.346	3.291	7.2	20.4	5 1	12 56.50	+12 21.9	1.585	2.469	14.0	19.8
5 11	12 54.35	- 7 10.4	2.416	3.293	10.2	20.6	5 11	12 51.84	+11 38.3	1.678	2.492	16.8	20.0
374396	2005 <i>VC</i> ₄₈		4 9.5 280°40	0°2/ 9.3	17		390024	2012 <i>UQ</i> ₃₁		4 9.5 147°58	3°9/14.3	17	
3 2	13 37.06	-10 30.9	1.850	2.648	15.3	21.9	3 2	13 36.27	-23 25.1	2.601	3.321	13.3	21.4
3 12	13 33.84	-10 0.3	1.738	2.622	12.2	21.6	3 12	13 32.35	-23 25.4	2.506	3.327	11.1	21.2
3 22	13 28.19	- 9 13.7	1.647	2.597	8.4	21.3	3 22	13 26.64	-23 8.9	2.431	3.332	8.6	21.0
4 1	13 20.54	- 8 13.3	1.581	2.570	4.0	21.0	4 1	13 19.62	-22 35.5	2.382	3.337	5.9	20.9
4 11	13 11.74	- 7 4.4	1.542	2.544	0.8	20.7	4 11	13 11.98	-21 47.2	2.360	3.342	4.0	20.8
4 21	13 2.82	- 5 53.9	1.531	2.517	5.7	21.0	4 21	13 4.47	-20 47.5	2.367	3.347	4.5	20.8
5 1	12 54.87	- 4 49.6	1.547	2.490	10.3	21.2	5 1	12 57.81	-19 41.8	2.402	3.351	6.8	20.9
5 11	12 48.81	- 3 58.1	1.586	2.463	14.5	21.4	5 11	12 52.60	-18 35.9	2.463	3.355	9.5	21.1
189331	2007 <i>DR</i> ₇₇		4 9.5 82°38	2°7/11.4	18		300229	2006 <i>XF</i> ₇₃		4 9.5 140°08	0°9/10.6	18	
3 2	13 40.88	-15 55.1	1.335	2.131	20.1	20.2	3 2	13 36.21	-12 47.5	2.773	3.540	11.5	21.8
3 12	13 37.41	-15 57.6	1.263	2.141	16.3	19.9	3 12	13 32.05	-12 37.5	2.683	3.547	9.1	21.6
3 22	13 30.78	-15 37.9	1.210	2.151	11.6	19.7	3 22	13 26.30	-12 17.2	2.617	3.555	6.3	21.4
4 1	13 21.73	-14 56.8	1.178	2.161	6.5	19.4	4 1	13 19.43	-11 48.2	2.577	3.561	3.3	21.2
4 11	13 11.56	-13 59.0	1.172	2.171	2.7	19.2	4 11	13 12.02	-11 13.1	2.567	3.568	0.9	21.1
4 21	13 1.72	-12 52.7	1.190	2.181	6.1	19.4	4 21	13 4.75	-10 35.6	2.587	3.574	3.5	21.3
5 1	12 53.60	-11 47.6	1.233	2.190	11.0	19.7	5 1	12 58.24	- 9 59.4	2.635	3.580	6.5	21.5
5 11	12 48.15	-10 52.7	1.298	2.200	15.5	20.0	5 11	12 53.00	- 9 28.2	2.710	3.586	9.2	21.7
339036	2004 <i>HU</i> ₆₆		4 9.5 46°07	1°2/ 8.4	17		394466	1978 <i>RX</i> ₆		4 9.5 241°08	2°9/ 6.8	17	
3 2	13 38.65	- 5 8.7	1.982	2.787	14.1	20.7	3 2	13 38.20	- 4 26.0	1.764	2.579	15.2	20.0
3 12	13 34.46	- 5 0.5	1.907	2.797	11.0	20.5	3 12	13 34.65	- 3 25.1	1.671	2.567	11.9	19.8
3 22	13 28.16	- 4 44.7	1.855	2.808	7.3	20.3	3 22	13 28.64	- 2 11.2	1.599	2.555	8.0	19.5
4 1	13 20.33	- 4 24.3	1.829	2.819	3.4	20.1	4 1	13 20.71	- 0 50.0	1.553	2.543	4.0	19.3
4 11	13 11.83	- 4 3.5	1.831	2.831	1.6	20.0	4 11	13 11.78	+ 0 30.5	1.535	2.530	3.5	19.2
4 21	13 3.57	- 3 46.5	1.860	2.842	5.3	20.3	4 21	13 2.90	+ 1 42.2	1.545	2.517	7.4	19.4
5 1	12 56.42	- 3 37.2	1.917	2.854	9.1	20.5	5 1	12 55.16	+ 2 37.8	1.579	2.503	11.6	19.6
5 11	12 51.04	- 3 38.1	1.997	2.866	12.3	20.7	5 11	12 49.38	+ 3 13.0	1.637	2.488	15.5	19.8
506445	2001 <i>QE</i> ₁₀₅		4 9.5 186°30	0°1/ 9.6	18		309737	2008 <i>SJ</i> ₂₃₆		4 9.5 104°00	0°3/10.9	15	
3 2	13 35.83	-10 41.6	3.039	3.810	10.5	22.0	3 2	13 21.02	-12 24.1	12.817	13.571	2.8	23.8
3 12	13 31.61	-10 13.3	2.940	3.809	8.2	21.8	3 12	13 19.29	-12 14.7	12.729	13.586	2.2	23.7
3 22	13 25.95	- 9 35.7	2.865	3.808	5.6	21.6	3 22	13 17.28	-12 3.2	12.667	13.601	1.5	23.7
4 1	13 19.24	- 8 50.7	2.819	3.807	2.7	21.4	4 1	13 15.08	-11 50.0	12.633	13.616	0.8	23.6
4 11	13 12.02	- 8 1.8	2.803	3.804	0.4	21.2	4 11	13 12.81	-11 35.7	12.631	13.631	0.3	23.5
4 21	13 4.89	- 7 12.4	2.817	3.802	3.5	21.5	4 21	13 10.56	-11 20.9	12.658	13.646	0.8	23.6
5 1	12 58.43	- 6 26.6	2.861	3.798	6.4	21.7	5 1	13 8.43	-11 6.3	12.716	13.661	1.5	23.7
5 11	12 53.12	- 5 47.7	2.931	3.795	9.0	21.8	5 11	13 6.52	-10 52.4	12.801	13.675	2.2	23.8
412178	2013 <i>GW</i> ₉₄		4 9.5 315°42	0°3/ 9.2	16		116988	2004 <i>HM</i> ₃₄		4 9.5 229°37	1°1/ 8.3	18	
3 2	13 34.85	-11 13.5	1.393	2.212	18.3	21.2	3 2	13 37.09	- 8 15.2	2.206	3.000	13.3	19.9
3 12	13 32.66	-10 32.3	1.307	2.204	14.5	20.9	3 12	13 33.26	- 7 25.8	2.105	2.989	10.4	19.7
3 22	13 27.62	- 9 29.7	1.241	2.196	9.9	20.6	3 22	13 27.43	- 6 23.5	2.026	2.977	6.9	19.4
4 1	13 20.31	- 8 9.8	1.198	2.188	4.6	20.3	4 1	13 20.06	- 5 12.1	1.974	2.965	3.2	19.2
4 11	13 11.83	- 6 40.4	1.179	2.181	1.1	20.0	4 11	13 11.90	- 3 57.2	1.952	2.952	1.6	19.0
4 21	13 3.46	- 5 11.8	1.187	2.174	6.7	20.4	4 21	13 3.79	- 2 45.0	1.958	2.938	5.3	19.2
5 1	12 56.49	- 3 54.4	1.218	2.168	11.9	20.6	5 1	12 56.57	- 1 41.9	1.993	2.924	9.1	19.4
5 11	12 51.89	- 2 56.2	1.271	2.162	16.5	20.9	5 11	12 50.93	- 0 52.5	2.052	2.910	12.5	19.6
502436	2015 <i>BY</i> ₂₇₅		4 9.5 113°36	3°4/ 5.7	17		302310	2001 <i>YZ</i> ₁₆₀		4 9.5 180°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
281766	2009 <i>FM</i> ₇₄		4 9.5 244°16	4.6/ 4.0	18		196458	2003 <i>HS</i> ₅₂		4 9.5 325°90	1.0/ 8.6	17	
3 2	13 34.62	+ 3 56.9	2.319	3.138	11.8	20.3	3 2	13 33.70	- 8 37.9	1.548	2.369	16.7	20.2
3 12	13 31.12	+ 5 3.1	2.238	3.135	9.2	20.1	3 12	13 31.49	- 8 2.4	1.458	2.357	13.1	19.9
3 22	13 25.84	+ 6 12.6	2.181	3.131	6.6	20.0	3 22	13 26.70	- 7 10.6	1.388	2.344	8.9	19.7
4 1	13 19.26	+ 7 19.5	2.151	3.127	4.8	19.8	4 1	13 19.87	- 6 6.4	1.341	2.333	4.1	19.3
4 11	13 12.06	+ 8 17.6	2.150	3.123	5.3	19.9	4 11	13 11.96	- 4 56.8	1.321	2.322	1.6	19.1
4 21	13 5.00	+ 9 1.8	2.176	3.119	7.6	20.0	4 21	13 4.11	- 3 50.1	1.326	2.311	6.5	19.4
5 1	12 58.79	+ 9 28.6	2.228	3.115	10.4	20.2	5 1	12 57.47	- 2 54.4	1.356	2.301	11.3	19.7
5 11	12 54.02	+ 9 36.7	2.303	3.111	13.0	20.3	5 11	12 52.95	- 2 15.9	1.407	2.292	15.6	19.9
129575	1997 <i>LM</i>		4 9.5 269°26	8.1/31.6	18		504151	2006 <i>SA</i> ₂₂₀		4 9.5 173°98	0.0/ 9.6	18	
3 2	13 39.67	+14 46.1	2.183	2.996	12.7	19.6	3 2	13 36.24	-10 1.9	2.856	3.631	11.0	22.7
3 12	13 35.33	+15 57.2	2.097	2.976	10.6	19.4	3 12	13 32.03	- 9 40.7	2.761	3.633	8.6	22.5
3 22	13 28.85	+17 4.5	2.034	2.956	8.8	19.3	3 22	13 26.29	- 9 10.4	2.691	3.635	5.8	22.3
4 1	13 20.74	+18 0.1	1.996	2.935	8.1	19.2	4 1	13 19.44	- 8 33.1	2.649	3.637	2.8	22.1
4 11	13 11.79	+18 36.9	1.985	2.914	9.0	19.2	4 11	13 12.07	- 7 52.0	2.636	3.638	0.5	21.9
4 21	13 2.90	+18 50.3	2.000	2.893	11.0	19.3	4 21	13 4.80	- 7 10.7	2.654	3.639	3.7	22.2
5 1	12 54.99	+18 38.2	2.038	2.871	13.5	19.4	5 1	12 58.25	- 6 33.1	2.700	3.639	6.7	22.4
5 11	12 48.77	+18 1.6	2.096	2.849	15.8	19.5	5 11	12 52.92	- 6 2.5	2.773	3.639	9.4	22.5
102656	1999 <i>VY</i> ₅₄		4 9.5 285°69	0.3/ 9.3	17		503915	2002 <i>QD</i> ₇₁		4 9.5 213°25	2.2/11.7	17	
3 2	13 37.65	- 9 47.5	1.594	2.402	16.8	19.9	3 2	13 38.10	-16 1.9	2.396	3.154	13.3	22.6
3 12	13 34.69	- 9 24.9	1.491	2.382	13.4	19.6	3 12	13 33.94	-16 4.1	2.295	3.150	10.8	22.4
3 22	13 28.97	- 8 45.8	1.408	2.361	9.2	19.3	3 22	13 27.83	-15 52.8	2.215	3.145	7.8	22.2
4 1	13 21.00	- 7 52.8	1.350	2.340	4.3	19.0	4 1	13 20.25	-15 28.7	2.162	3.140	4.5	22.0
4 11	13 11.72	- 6 51.6	1.317	2.319	1.0	18.7	4 11	13 11.91	-14 54.1	2.137	3.134	2.2	21.8
4 21	13 2.34	- 5 49.5	1.310	2.297	6.3	19.0	4 21	13 3.63	-14 12.7	2.141	3.128	4.1	21.9
5 1	12 54.12	- 4 54.9	1.329	2.276	11.4	19.2	5 1	12 56.20	-13 29.5	2.173	3.122	7.4	22.1
5 11	12 48.10	- 4 14.8	1.370	2.255	15.9	19.4	5 11	12 50.31	-12 49.5	2.231	3.116	10.6	22.3
197565	2004 <i>GG</i> ₉		4 9.5 288°88	0.6/ 9.9	17		486709	2014 <i>AN</i> ₄₃		4 9.5 59°41	22.2/19.6	18	
3 2	13 40.37	-10 6.7	1.360	2.174	18.9	20.2	3 2	13 46.35	+36 31.5	1.096	1.898	23.3	20.4
3 12	13 37.37	-10 11.5	1.263	2.156	15.2	19.9	3 12	13 42.54	+39 16.5	1.084	1.906	22.4	20.4
3 22	13 31.12	-10 0.5	1.186	2.138	10.6	19.6	3 22	13 34.47	+41 22.7	1.088	1.915	22.2	20.4
4 1	13 22.13	- 9 35.1	1.130	2.119	5.2	19.2	4 1	13 23.41	+42 34.1	1.106	1.924	22.7	20.4
4 11	13 11.51	- 8 59.7	1.099	2.101	0.9	18.9	4 11	13 11.41	+42 42.6	1.138	1.933	23.8	20.5
4 21	13 0.73	- 8 20.9	1.093	2.083	6.7	19.2	4 21	13 0.51	+41 49.5	1.184	1.942	25.1	20.7
5 1	12 51.35	- 7 46.7	1.111	2.065	12.4	19.4	5 1	12 52.34	+40 2.8	1.241	1.951	26.5	20.8
5 11	12 44.62	- 7 24.5	1.150	2.047	17.4	19.7	5 11	12 47.68	+37 34.9	1.308	1.961	27.8	21.0
480440	2015 <i>KY</i> ₁₃₄		4 9.5 290°98	0.9/ 8.6	16		300215	2006 <i>WC</i> ₁₈₀		4 9.5 220°69	2.0/ 6.9	17	
3 2	13 38.37	- 6 12.0	2.292	3.087	12.8	22.0	3 2	13 35.98	- 2 27.5	2.899	3.695	10.3	22.1
3 12	13 34.37	- 6 0.7	2.173	3.057	10.1	21.8	3 12	13 31.84	- 1 52.1	2.799	3.686	8.0	21.9
3 22	13 28.29	- 5 41.0	2.076	3.026	6.8	21.5	3 22	13 26.18	- 1 11.2	2.725	3.676	5.4	21.7
4 1	13 20.54	- 5 15.2	2.006	2.996	3.2	21.2	4 1	13 19.41	- 0 28.0	2.679	3.666	2.8	21.6
4 11	13 11.82	- 4 47.0	1.964	2.965	1.3	21.0	4 11	13 12.08	+ 0 13.5	2.662	3.656	2.4	21.5
4 21	13 2.95	- 4 20.6	1.951	2.933	5.1	21.2	4 21	13 4.81	+ 0 49.6	2.675	3.645	4.9	21.7
5 1	12 54.84	- 4 0.4	1.966	2.902	9.0	21.4	5 1	12 58.20	+ 1 17.1	2.717	3.633	7.7	21.8
5 11	12 48.25	- 3 50.0	2.006	2.870	12.5	21.5	5 11	12 52.77	+ 1 33.5	2.784	3.621	10.2	22.0
117199	2004 <i>RM</i> ₁₇₃		4 9.5 209°74	1.2/10.6	18		96902	1999 <i>TH</i> ₈₁		4 9.5 298°48	2.7/ 7.1	18	
3 2	13 40.32	-14 16.0	1.913	2.690	15.6	20.7	3 2	13 37.52	- 2 19.9	1.889	2.705	14.3	20.0
3 12	13 36.17	-13 52.1	1.815	2.684	12.5	20.5	3 12	13 33.88	- 1 47.8	1.801	2.698	11.1	19.7
3 22	13 29.60	-13 10.7	1.737	2.677	8.8	20.2	3 22	13 27.98	- 1 8.0	1.735	2.691	7.5	19.5
4 1	13 21.15	-12 13.6	1.685	2.669	4.6	20.0	4 1	13 20.37	- 0 25.1	1.695	2.684	3.9	19.2
4 11	13 11.72	-11 5.2	1.660	2.661	1.2	19.7	4 11	13 11.90	+ 0 14.9	1.682	2.677	3.3	19.2
4 21	13 2.36	- 9 52.0	1.664	2.652	5.0	19.9	4 21	13 3.54	+ 0 46.6	1.697	2.671	6.7	19.4
5 1	12 54.12	- 8 41.6	1.695	2.642	9.3	20.2	5 1	12 56.25	+ 1 5.3	1.738	2.664	10.6	19.6
5 11	12 47.81	- 7 41.0	1.751	2.632	13.2	20.4	5 11	12 50.78	+ 1 8.2	1.801	2.658	14.0	19.8
215157	1999 <i>XY</i> ₂₅₁		4 9.5 195°42	0.4/ 9.9	16		413737	2006 <i>BL</i> ₂₁₆		4 9.5 74°96	7.7/ 2.4	18	
3 2	13 39.80	-11 59.3	2.175	2.952	14.0	22.1	3 2	13 39.61	+10 49.9	1.803	2.628	14.5	20.6
3 12	13 35.38	-11 30.1	2.077	2.949	11.1	21.9	3 12	13 35.27	+12 8.2	1.754	2.647	11.6	20.4
3 22	13 28.85	-10 46.8	2.003	2.946	7.6	21.7	3 22	13 28.69	+13 22.6	1.729	2.666	9.0	20.3
4 1	13 20.73	- 9 51.7	1.954	2.942	3.7	21.4	4 1	13 20.57	+14 24.6	1.729	2.685	7.7	20.3
4 11	13 11.81	- 8 49.4	1.935	2.937	0.6	21.2	4 11	13 11.89	+15 6.9	1.755	2.704	8.5	20.4
4 21	13 3.00	- 7 45.6	1.945	2.931	4.6	21.5	4 21	13 3.65	+15 25.2	1.806	2.722	10.7	20.5
5 1	12 55.17	- 6 46.2	1.983	2.925	8.5	21.7	5 1	12 56.71	+15 18.4	1.881	2.741	13.3	20.7
5 11	12 49.02	- 5 56.8	2.046	2.917	12.0	21.9	5 11	12 51.72	+14 48.4	1.975	2.759	15.7	20.9
163175	2002 <i>CB</i> ₂₃₉		4 9.5 39°24	0.6/ 9.9	18		502535	2015 <i>BF</i> ₄₄₂		4 9.5 191°90	1.9/11.2	17	
3 2	13 36.74	-12 7.8	1.226	2.048	20.1	19.8	3 2	13 39.31	-14 34.3	2.125	2.895	14.5	21.9
3 12	13 34.24	-11 45.7	1.163	2.060	15.9	19.6	3 12	13 35.10	-14 38.5	2.031	2.894	11.6	21.7
3 22	13 28.64	-11 2.4	1.119	2.072	10.9	19.3	3 22	13 28.72	-14 28.8	1.958	2.893	8.3	21.4
4 1	13 20.74	-10 1.8	1.096	2.086	5.3	19.0	4 1	13 20.70	-14 6.1	1.911	2.892	4.6	21.2
4 11	13 11.82	- 8 51.7	1.098	2.100	0.9	18.8	4 11	13 11.85	-13 33.2	1.892	2.891	1.9	21.0
4 21	13 3.33	- 7 41.7	1.124	2.114	6.4	19.2	4 21	13 3.09	-12 54.3	1.901	2.889	4.5	21.2
5 1	12 56.57	- 6 41.6	1.174	2.129	11.6	19.5	5 1	12 55.34	-12 14.7	1.937	2.887	8.2	21.4
5 11	12 52.40	- 5 58.3	1.245	2.145	16.1	19.8	5 11	12 49.32	-11 39.7	1.999	2.885	11.6	21.6
382659	2002 <i>TK</i> ₆₁		4 9.5 161°15	2.7									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
462180	2007 <i>TL</i> ₃₆₈		4 9.5 187°54	2°0/11.4 16			305958	2009 <i>HE</i> ₄₅		4 9.5 321°80	2°7/ 7.1 17		
3 2	13 42.53	-15 39.5	2.248	3.003	14.2	22.4	3 2	13 35.81	-1 48.5	1.967	2.786	13.7	20.3
3 12	13 37.49	-15 34.2	2.149	3.003	11.5	22.2	3 12	13 32.53	-1 21.8	1.873	2.771	10.7	20.1
3 22	13 30.28	-15 14.2	2.072	3.002	8.2	21.9	3 22	13 27.09	-0 48.3	1.802	2.758	7.2	19.8
4 1	13 21.42	-14 40.3	2.021	3.000	4.6	21.7	4 1	13 19.98	-0 12.4	1.755	2.744	3.8	19.6
4 11	13 11.73	-13 55.4	1.998	2.997	2.0	21.5	4 11	13 12.02	+0 20.6	1.737	2.731	3.2	19.5
4 21	13 2.12	-13 4.0	2.006	2.993	4.4	21.7	4 21	13 4.11	+0 45.6	1.745	2.719	6.6	19.7
5 1	12 53.52	-12 11.7	2.042	2.988	8.0	21.9	5 1	12 57.16	+0 58.3	1.779	2.707	10.3	19.9
5 11	12 46.65	-11 24.3	2.103	2.982	11.4	22.1	5 11	12 51.93	+0 56.0	1.836	2.695	13.7	20.1
102202	1999 <i>SC</i> ₁₇		4 9.5 300°21	8°2/16.2 18			345782	2007 <i>ES</i> ₁₉₂		4 9.5 291°07	2°1/10.9 17		
3 2	13 37.73	-28 40.5	1.845	2.560	18.2	19.1	3 2	13 42.82	-12 10.3	1.818	2.600	16.1	21.0
3 12	13 34.82	-29 33.8	1.735	2.540	15.9	18.9	3 12	13 38.49	-12 45.0	1.711	2.583	13.0	20.8
3 22	13 29.14	-30 5.4	1.643	2.521	13.3	18.7	3 22	13 31.45	-13 8.8	1.626	2.566	9.3	20.5
4 1	13 21.14	-30 10.7	1.571	2.502	10.5	18.4	4 1	13 22.19	-13 21.4	1.566	2.549	5.2	20.2
4 11	13 11.74	-29 47.7	1.523	2.483	8.5	18.3	4 11	13 11.62	-13 23.9	1.532	2.532	2.1	20.0
4 21	13 2.15	-28 58.0	1.500	2.464	8.5	18.2	4 21	13 0.90	-13 19.3	1.526	2.515	5.3	20.2
5 1	12 53.66	-27 47.6	1.501	2.445	10.6	18.3	5 1	12 51.26	-13 12.0	1.547	2.498	9.8	20.4
5 11	12 47.37	-26 26.2	1.526	2.427	13.6	18.4	5 11	12 43.71	-13 7.2	1.592	2.481	13.9	20.6
367033	2006 <i>CV</i> ₅₈		4 9.5 144°30	3°2/ 5.6 15			143375	2003 <i>BG</i> ₁₃		4 9.5 334°53	5°3/ 3.7 18		
3 2	13 38.78	+0 34.3	2.654	3.454	11.1	22.7	3 2	13 33.91	+4 30.6	2.038	2.866	12.9	19.4
3 12	13 33.96	+1 30.9	2.580	3.468	8.5	22.5	3 12	13 30.85	+5 42.7	1.960	2.862	10.1	19.2
3 22	13 27.51	+2 31.6	2.532	3.482	5.8	22.4	3 22	13 25.82	+6 58.2	1.906	2.857	7.3	19.0
4 1	13 20.05	+3 31.8	2.512	3.495	3.5	22.3	4 1	13 19.33	+8 10.2	1.878	2.853	5.4	18.9
4 11	13 12.01	+4 26.4	2.523	3.507	3.6	22.3	4 11	13 12.16	+9 11.6	1.878	2.849	6.1	18.9
4 21	13 4.22	+5 11.2	2.563	3.518	6.0	22.4	4 21	13 5.13	+9 56.4	1.904	2.846	8.6	19.1
5 1	12 57.27	+5 43.0	2.631	3.529	8.6	22.6	5 1	12 59.07	+10 20.9	1.955	2.842	11.6	19.2
5 11	12 51.68	+6 0.2	2.724	3.539	11.0	22.8	5 11	12 54.61	+10 24.1	2.027	2.839	14.4	19.4
6259	Maillol		4 9.5 5°71	2°4/ 8.2 18			231189	2005 <i>UH</i> ₃₆₀		4 9.5 144°07	3°7/12.9 18		
3 2	13 39.97	-3 17.3	1.125	1.968	20.2	16.4	3 2	13 38.90	-19 27.2	2.028	2.781	15.6	20.2
3 12	13 37.18	-3 18.8	1.057	1.968	15.8	16.2	3 12	13 34.96	-19 43.0	1.936	2.783	12.9	20.0
3 22	13 30.93	-3 10.8	1.007	1.968	10.7	15.9	3 22	13 28.73	-19 41.7	1.864	2.785	9.6	19.8
4 1	13 21.96	-2 58.2	0.978	1.970	5.1	15.5	4 1	13 20.76	-19 22.8	1.817	2.786	6.2	19.6
4 11	13 11.64	-2 47.4	0.973	1.972	2.9	15.4	4 11	13 11.90	-18 48.2	1.797	2.788	3.8	19.5
4 21	13 1.63	-2 44.9	0.991	1.976	8.2	15.7	4 21	13 3.16	-18 2.1	1.804	2.790	5.0	19.5
5 1	12 53.48	-2 55.8	1.031	1.981	13.6	16.0	5 1	12 55.49	-17 10.4	1.839	2.791	8.3	19.7
5 11	12 48.25	-3 22.7	1.091	1.986	18.3	16.3	5 11	12 49.68	-16 20.0	1.898	2.793	11.7	19.9
11948	Justinehénin		4 9.5 330°04	0°6/ 8.8 18			381560	2008 <i>TT</i> ₁₁₆		4 9.5 227°50	3°9/13.1 17		
3 2	13 33.81	-8 17.8	2.100	2.903	13.5	17.9	3 2	13 40.52	-20 14.4	2.330	3.066	14.3	21.7
3 12	13 30.80	-7 50.9	2.007	2.896	10.6	17.7	3 12	13 36.04	-20 38.2	2.222	3.057	11.9	21.5
3 22	13 25.82	-7 12.7	1.936	2.888	7.1	17.5	3 22	13 29.41	-20 47.0	2.136	3.048	9.0	21.3
4 1	13 19.34	-6 26.3	1.890	2.881	3.3	17.2	4 1	13 21.09	-20 39.8	2.075	3.038	6.1	21.1
4 11	13 12.12	-5 36.4	1.873	2.874	1.1	17.0	4 11	13 11.84	-20 17.5	2.041	3.029	4.0	20.9
4 21	13 4.98	-4 48.3	1.883	2.867	5.0	17.3	4 21	13 2.56	-19 43.1	2.036	3.018	4.9	21.0
5 1	12 58.74	-4 7.3	1.920	2.861	8.8	17.5	5 1	12 54.18	-19 1.2	2.059	3.008	7.8	21.1
5 11	12 54.09	-3 37.8	1.981	2.855	12.2	17.7	5 11	12 47.47	-18 17.9	2.108	2.996	11.0	21.3
343482	2010 <i>EX</i> ₈₄		4 9.5 23°29	0°7/10.1 17			278578	2008 <i>HD</i> ₆₂		4 9.5 235°94	3°2/ 6.4 17		
3 2	13 37.30	-11 1.6	1.931	2.724	14.9	21.2	3 2	13 38.19	-1 41.6	2.082	2.892	13.4	21.4
3 12	13 33.66	-10 57.1	1.846	2.726	11.8	21.0	3 12	13 34.24	-0 50.7	1.987	2.882	10.4	21.2
3 22	13 27.80	-10 39.9	1.782	2.728	8.1	20.8	3 22	13 28.16	+0 8.3	1.916	2.870	7.0	20.9
4 1	13 20.28	-10 12.0	1.744	2.731	4.0	20.6	4 1	13 20.47	+1 10.4	1.871	2.858	3.9	20.7
4 11	13 11.96	-9 37.2	1.732	2.734	0.8	20.3	4 11	13 11.95	+2 9.1	1.855	2.846	3.7	20.7
4 21	13 3.79	-9 0.6	1.749	2.737	4.8	20.6	4 21	13 3.49	+2 58.5	1.867	2.833	6.9	20.8
5 1	12 56.71	-8 27.4	1.792	2.740	8.8	20.9	5 1	12 55.99	+3 33.5	1.905	2.820	10.4	21.0
5 11	12 51.43	-8 2.3	1.859	2.744	12.4	21.1	5 11	12 50.16	+3 51.3	1.966	2.806	13.7	21.2
35659	1998 <i>QU</i> ₁₀		4 9.5 283°70	2°2/11.9 18			75367	1999 <i>XV</i> ₈₂		4 9.5 187°91	4°7/14.5 18		
3 2	13 35.71	-16 18.4	2.458	3.218	13.0	18.7	3 2	13 41.01	-24 38.0	2.310	3.023	15.0	19.6
3 12	13 32.05	-16 21.7	2.356	3.212	10.5	18.5	3 12	13 36.41	-24 43.5	2.207	3.022	12.6	19.4
3 22	13 26.56	-16 11.8	2.276	3.205	7.6	18.3	3 22	13 29.62	-24 29.6	2.125	3.021	9.9	19.2
4 1	13 19.67	-15 49.4	2.222	3.199	4.5	18.1	4 1	13 21.15	-23 55.3	2.067	3.019	7.0	19.0
4 11	13 12.07	-15 16.7	2.196	3.193	2.2	17.9	4 11	13 11.84	-23 1.8	2.036	3.016	4.9	18.9
4 21	13 4.51	-14 37.2	2.199	3.186	4.0	18.0	4 21	13 2.61	-21 53.3	2.034	3.012	5.3	18.9
5 1	12 57.76	-13 55.6	2.229	3.180	7.2	18.2	5 1	12 54.40	-20 36.1	2.060	3.008	7.9	19.0
5 11	12 52.44	-13 16.9	2.285	3.174	10.2	18.4	5 11	12 47.93	-19 17.7	2.113	3.003	10.9	19.2
18380	1991 <i>VZ</i> ₈		4 9.5 181°13	2°2/ 7.3 18			199348	2006 <i>BW</i> ₁₆₂		4 9.5 256°38	2°7/ 6.9 18		
3 2	13 39.37	-2 57.0	2.298	3.097	12.6	19.5	3 2	13 36.46	-3 19.6	1.995	2.808	13.8	20.4
3 12	13 34.82	-2 24.7	2.210	3.098	9.8	19.3	3 12	13 32.96	-2 31.1	1.904	2.800	10.7	20.2
3 22	13 28.36	-1 45.8	2.147	3.099	6.5	19.1	3 22	13 27.33	-1 33.1	1.836	2.792	7.2	20.0
4 1	13 20.48	-1 3.9	2.110	3.099	3.3	18.9	4 1	13 20.09	-0 30.7	1.794	2.783	3.7	19.7
4 11	13 11.93	-0 24.1	2.103	3.098	2.6	18.9	4 11	13 12.03	+0 29.8	1.781	2.775	3.2	19.7
4 21	13 3.53	+0 9.3	2.125	3.097	5.7	19.0	4 21	13 4.08	+1 22.1	1.795	2.766	6.6	19.9
5 1	12 56.06	+0 32.3	2.174	3.096	9.0	19.2	5 1	12 57.11	+2 0.9	1.835	2.758	10.3	20.1
5 11	12 50.14	+0 42.4	2.248	3.094	12.0	19.4	5 11	12 51.84	+2 22.9	1.898	2.749	13.7	20.3
259122	2002 <i>XH</i> ₂₉		4 9.5 64°73	13°5/25.7 18			15117	2000 <i>DA</i> ₇₉		4 9.5 232°16	0°7/ 8.7 18		
3 2	13 39.45	+25 22.0	1.659	2.471	16.1</								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
275320	2010 <i>UY</i> ₃₆		4 9.5 180°52	4.7/16.4	17		284896	2009 <i>SY</i> ₃₃₇		4 9.5 159°65	2°0/11.8	17	
3 2	13 34.07	-28 37.1	3.098	3.779	12.1	20.8	3 2	13 37.08	-17 56.7	2.181	2.940	14.5	20.9
3 12	13 30.48	-28 42.2	2.994	3.779	10.4	20.6	3 12	13 33.27	-17 25.1	2.090	2.945	11.7	20.7
3 22	13 25.34	-28 31.0	2.910	3.779	8.4	20.5	3 22	13 27.43	-16 35.2	2.019	2.949	8.4	20.5
4 1	13 19.06	-28 2.8	2.851	3.779	6.4	20.4	4 1	13 20.11	-15 28.8	1.975	2.953	4.8	20.2
4 11	13 12.23	-27 18.5	2.818	3.779	5.0	20.3	4 11	13 12.08	-14 10.1	1.958	2.957	2.1	20.1
4 21	13 5.48	-26 21.0	2.813	3.779	4.9	20.2	4 21	13 4.23	-12 45.2	1.971	2.960	4.3	20.2
5 1	12 59.44	-25 14.5	2.837	3.779	6.3	20.3	5 1	12 57.38	-11 21.3	2.012	2.963	7.9	20.4
5 11	12 54.62	-24 4.1	2.888	3.778	8.3	20.5	5 11	12 52.19	-10 5.1	2.079	2.965	11.2	20.6
111220	2001 <i>WP</i> ₄₀		4 9.5 166°41	4.3/4.7	18		61822	2000 <i>QF</i> ₁₉₂		4 9.5 178°44	1°7/7.6	18	
3 2	13 38.84	+3 4.7	2.340	3.149	12.1	19.7	3 2	13 37.52	-3 4.1	2.742	3.536	10.9	20.0
3 12	13 34.32	+4 7.3	2.263	3.155	9.4	19.5	3 12	13 33.08	-2 40.8	2.652	3.537	8.5	19.8
3 22	13 27.97	+5 13.4	2.210	3.159	6.6	19.3	3 22	13 27.05	-2 12.2	2.587	3.538	5.6	19.7
4 1	13 20.29	+6 17.2	2.186	3.163	4.5	19.2	4 1	13 19.87	-1 41.4	2.550	3.539	2.8	19.5
4 11	13 12.02	+7 12.6	2.190	3.167	4.9	19.2	4 11	13 12.14	-1 11.9	2.542	3.539	2.1	19.4
4 21	13 3.94	+7 54.9	2.223	3.169	7.3	19.4	4 21	13 4.53	-0 47.2	2.565	3.539	4.7	19.6
5 1	12 56.79	+8 20.8	2.282	3.172	10.1	19.5	5 1	12 57.68	-0 30.4	2.615	3.538	7.6	19.8
5 11	12 51.16	+8 28.8	2.365	3.173	12.7	19.7	5 11	12 52.10	-0 23.5	2.691	3.537	10.3	20.0
507577	2013 <i>AE</i> ₁₅₂		4 9.5 203°89	2°2/12.3	17		165260	2000 <i>SH</i> ₂₂₀		4 9.5 191°25	4°5/5.5	18	
3 2	13 33.98	-18 19.1	2.601	3.353	12.6	21.9	3 2	13 40.83	+1 5.8	1.855	2.671	14.5	20.6
3 12	13 30.57	-17 59.6	2.502	3.351	10.2	21.8	3 12	13 36.46	+2 7.2	1.774	2.670	11.3	20.4
3 22	13 25.48	-17 25.1	2.425	3.350	7.4	21.6	3 22	13 29.73	+3 15.0	1.716	2.669	7.8	20.2
4 1	13 19.15	-16 36.6	2.374	3.349	4.5	21.4	4 1	13 21.24	+4 22.6	1.684	2.667	4.9	20.0
4 11	13 12.22	-15 37.1	2.351	3.347	2.2	21.2	4 11	13 11.90	+5 22.4	1.680	2.664	5.1	20.0
4 21	13 5.39	-14 31.2	2.357	3.345	3.7	21.3	4 21	13 2.74	+6 7.8	1.703	2.660	8.2	20.2
5 1	12 59.34	-13 24.0	2.392	3.344	6.7	21.5	5 1	12 54.76	+6 34.2	1.752	2.656	11.8	20.4
5 11	12 54.63	-12 21.0	2.453	3.342	9.6	21.7	5 11	12 48.70	+6 39.9	1.823	2.652	15.1	20.6
298802	2004 <i>QR</i> ₂₆		4 9.5 182°08	0°1/9.4	18		240777	2005 <i>SJ</i> ₉₅		4 9.5 265°10	0°5/8.9	18	
3 2	13 43.49	-8 59.4	1.788	2.580	15.9	21.6	3 2	13 35.60	-7 59.3	2.470	3.261	12.1	21.1
3 12	13 38.72	-8 48.6	1.700	2.581	12.6	21.4	3 12	13 31.92	-7 37.7	2.368	3.250	9.5	20.9
3 22	13 31.36	-8 25.4	1.634	2.582	8.6	21.1	3 22	13 26.46	-7 6.7	2.290	3.239	6.4	20.6
4 1	13 22.03	-7 52.2	1.592	2.582	4.0	20.8	4 1	13 19.67	-6 28.9	2.238	3.228	2.9	20.4
4 11	13 11.72	-7 13.7	1.579	2.581	0.8	20.6	4 11	13 12.19	-5 48.0	2.215	3.217	0.9	20.2
4 21	13 1.55	-6 35.5	1.594	2.579	5.5	20.9	4 21	13 4.74	-5 8.3	2.222	3.205	4.4	20.5
5 1	12 52.64	-6 3.3	1.635	2.577	10.0	21.2	5 1	12 58.07	-4 34.2	2.256	3.194	7.9	20.6
5 11	12 45.84	-5 42.0	1.701	2.575	13.9	21.4	5 11	12 52.78	-4 9.2	2.315	3.183	10.9	20.8
340236	2006 <i>BE</i> ₈₅		4 9.5 293°10	0°4/10.2	18		375286	2008 <i>KG</i> ₃₇		4 9.5 241°00	1°2/10.8	18	
3 2	13 29.52	-11 2.0	4.284	5.052	7.7	20.8	3 2	13 36.49	-15 39.2	2.145	2.916	14.3	21.4
3 12	13 26.42	-10 50.1	4.176	5.042	6.1	20.7	3 12	13 32.99	-14 58.5	2.037	2.903	11.5	21.2
3 22	13 22.35	-10 32.0	4.093	5.033	4.2	20.5	3 22	13 27.39	-13 59.4	1.951	2.889	8.1	20.9
4 1	13 17.60	-10 9.0	4.038	5.024	2.1	20.4	4 1	13 20.17	-12 43.9	1.891	2.875	4.3	20.7
4 11	13 12.50	-9 42.8	4.013	5.015	0.4	20.2	4 11	13 12.09	-11 16.4	1.859	2.860	1.2	20.4
4 21	13 7.44	-9 15.6	4.019	5.006	2.4	20.4	4 21	13 4.05	-9 43.9	1.857	2.845	4.5	20.6
5 1	13 2.77	-8 49.6	4.054	4.996	4.5	20.5	5 1	12 56.92	-8 13.9	1.883	2.830	8.5	20.8
5 11	12 58.84	-8 27.0	4.116	4.987	6.5	20.7	5 11	12 51.45	-6 53.7	1.934	2.814	12.2	21.0
456094	2006 <i>BH</i> ₁₆₄		4 9.5 273°02	5°0/19.1	18		300989	2008 <i>FK</i> ₁₆		4 9.5 145°34	1°0/8.2	18	
3 2	13 33.04	-35 14.4	4.553	5.161	9.3	21.3	3 2	13 34.83	-6 44.0	2.849	3.638	10.7	21.7
3 12	13 29.30	-35 44.9	4.440	5.156	8.3	21.2	3 12	13 30.92	-6 6.8	2.764	3.646	8.3	21.5
3 22	13 24.38	-36 3.4	4.347	5.151	7.1	21.1	3 22	13 25.56	-5 21.8	2.703	3.653	5.5	21.3
4 1	13 18.58	-36 8.7	4.277	5.147	6.0	21.0	4 1	13 19.16	-4 32.2	2.671	3.660	2.5	21.1
4 11	13 12.32	-36 0.7	4.234	5.142	5.2	20.9	4 11	13 12.29	-3 41.8	2.668	3.667	1.3	21.0
4 21	13 6.07	-35 40.3	4.217	5.137	5.0	20.9	4 21	13 5.56	-2 54.5	2.695	3.673	4.1	21.3
5 1	13 0.27	-35 9.5	4.227	5.132	5.5	20.9	5 1	12 59.55	-2 14.1	2.750	3.679	7.0	21.4
5 11	12 55.34	-34 31.3	4.264	5.127	6.4	21.0	5 11	12 54.73	-1 43.4	2.831	3.685	9.6	21.6
173090	2007 <i>RJ</i> ₂₀₇		4 9.5 143°48	2°2/7.5	18		37617	1993 <i>NN</i> ₁		4 9.5 247°57	2°7/11.8	17	
3 2	13 39.55	-5 58.6	1.781	2.589	15.4	21.0	3 2	13 41.54	-17 0.6	1.915	2.678	16.1	20.2
3 12	13 35.48	-5 1.6	1.704	2.597	11.9	20.8	3 12	13 37.42	-17 0.3	1.802	2.659	13.2	20.0
3 22	13 29.04	-3 52.1	1.651	2.605	7.9	20.5	3 22	13 30.70	-16 42.1	1.709	2.639	9.7	19.7
4 1	13 20.88	-2 35.7	1.622	2.613	3.8	20.3	4 1	13 21.87	-16 5.6	1.640	2.618	5.7	19.4
4 11	13 11.93	-1 19.9	1.622	2.620	2.7	20.2	4 11	13 11.79	-15 13.4	1.599	2.596	2.7	19.2
4 21	13 3.26	-0 12.2	1.650	2.626	6.6	20.5	4 21	13 1.57	-14 10.3	1.586	2.574	5.2	19.3
5 1	12 55.82	+0 41.1	1.704	2.632	10.6	20.7	5 1	12 52.39	-13 3.8	1.600	2.550	9.5	19.5
5 11	12 50.35	+1 16.0	1.781	2.637	14.2	21.0	5 11	12 45.19	-12 1.7	1.638	2.526	13.6	19.7
52733	1998 <i>HP</i> ₂₁		4 9.5 50°57	0°0/9.5	18		419674	2010 <i>TD</i> ₁₇₂		4 9.5 176°79	1°2/10.6	16	
3 2	13 33.14	-13 12.8	1.986	2.777	14.6	19.2	3 2	13 41.84	-13 7.0	2.203	2.970	14.1	23.1
3 12	13 30.23	-12 10.2	1.913	2.793	11.4	19.0	3 12	13 36.96	-12 59.0	2.109	2.973	11.2	22.9
3 22	13 25.35	-10 50.7	1.862	2.809	7.7	18.8	3 22	13 29.94	-12 37.8	2.038	2.975	7.9	22.7
4 1	13 19.09	-9 18.7	1.837	2.826	3.6	18.6	4 1	13 21.32	-12 4.9	1.993	2.977	4.1	22.4
4 11	13 12.25	-7 40.9	1.841	2.842	0.6	18.4	4 11	13 11.91	-11 23.6	1.976	2.977	1.2	22.2
4 21	13 5.69	-6 5.1	1.873	2.859	4.8	18.8	4 21	13 2.63	-10 38.4	1.989	2.977	4.4	22.4
5 1	13 0.17	-4 38.7	1.933	2.876	8.6	19.0	5 1	12 54.35	-9 54.8	2.031	2.976	8.1	22.7
5 11	12 56.29	-3 27.4	2.017	2.894	11.9	19.3	5 11	12 47.81	-9 17.6	2.098	2.974	11.5	22.9
156473	2002 <i>CK</i> ₄₆		4 9.5 350°61	12°0/25.1	17		346307	2008 <i>QK</i> ₁₀		4 9.5 239°93	1°2/8.3	17	
3 2	13 28.40	+12 40.8	1.375	2.235	16.1	18.							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
450435	2005 <i>UN</i> ₂₃₁		4 9.5 60°95	0°9/10.2	18		422355	2014 <i>SN</i> ₂₂₉		4 9.5 150°10	0°5/ 9.0	16	
3 2	13 38.73	-13 10.4	1.275	2.088	20.0	21.1	3 2	13 38.91	-10 0.8	1.795	2.593	15.7	21.5
3 12	13 35.78	-12 46.9	1.208	2.099	15.9	20.9	3 12	13 35.06	-9 19.7	1.713	2.598	12.3	21.3
3 22	13 29.72	-12 1.4	1.160	2.111	11.0	20.6	3 22	13 28.83	-8 23.3	1.653	2.603	8.3	21.0
4 1	13 21.34	-10 57.4	1.135	2.123	5.5	20.4	4 1	13 20.84	-7 15.5	1.618	2.608	3.8	20.8
4 11	13 11.92	-9 42.1	1.134	2.135	1.0	20.1	4 11	13 12.03	-6 2.7	1.611	2.613	1.1	20.6
4 21	13 2.90	-8 25.5	1.158	2.148	6.2	20.5	4 21	13 3.44	-4 52.3	1.632	2.617	5.6	20.9
5 1	12 55.59	-7 17.6	1.206	2.160	11.5	20.8	5 1	12 56.05	-3 51.4	1.680	2.620	9.9	21.2
5 11	12 50.90	-6 26.0	1.275	2.173	16.0	21.1	5 11	12 50.63	-3 5.2	1.751	2.624	13.6	21.4
284184	2006 <i>AX</i> ₈₀		4 9.5 264°90	3°9/17.1	18		169132	2001 <i>PP</i> ₅₂		4 9.5 181°32	0°9/ 8.6	17	
3 2	13 31.26	-29 58.7	4.534	5.187	8.8	20.7	3 2	13 39.00	-5 43.0	2.556	3.345	11.8	20.6
3 12	13 27.85	-30 15.2	4.421	5.183	7.6	20.5	3 12	13 34.39	-5 30.8	2.464	3.345	9.2	20.4
3 22	13 23.38	-30 20.6	4.330	5.178	6.3	20.4	3 22	13 28.03	-5 11.8	2.396	3.346	6.1	20.2
4 1	13 18.12	-30 14.3	4.264	5.173	5.0	20.3	4 1	13 20.38	-4 48.3	2.356	3.345	2.8	20.0
4 11	13 12.48	-29 56.8	4.224	5.169	4.1	20.3	4 11	13 12.11	-4 23.9	2.345	3.345	1.3	19.9
4 21	13 6.85	-29 29.5	4.213	5.164	4.0	20.3	4 21	13 3.95	-4 2.1	2.364	3.344	4.5	20.1
5 1	13 1.66	-28 54.4	4.231	5.159	4.8	20.3	5 1	12 56.62	-3 46.1	2.411	3.343	7.7	20.3
5 11	12 57.27	-28 14.6	4.275	5.155	6.1	20.4	5 11	12 50.68	-3 38.7	2.483	3.342	10.6	20.5
361150	2006 <i>HL</i> ₁₀₅		4 9.5 294°44	16°0/20.7	17		214578	2006 <i>QB</i> ₄₆		4 9.5 251°53	1°8/ 8.2	18	
3 2	13 38.17	+27 25.4	1.465	2.283	17.6	20.0	3 2	13 41.72	-4 44.6	1.769	2.576	15.5	20.4
3 12	13 35.44	+30 6.9	1.416	2.268	16.4	19.9	3 12	13 37.50	-4 27.0	1.673	2.564	12.2	20.2
3 22	13 29.60	+32 31.5	1.387	2.254	16.0	19.8	3 22	13 30.68	-4 0.0	1.598	2.552	8.2	19.9
4 1	13 21.35	+34 23.7	1.379	2.239	16.7	19.8	4 1	13 21.82	-3 27.0	1.549	2.539	3.9	19.6
4 11	13 11.91	+35 31.9	1.391	2.224	18.2	19.9	4 11	13 11.85	-2 53.4	1.527	2.526	2.2	19.5
4 21	13 2.71	+35 51.0	1.419	2.210	20.2	20.0	4 21	13 1.90	-2 25.0	1.533	2.513	6.5	19.7
5 1	12 55.12	+35 21.7	1.463	2.196	22.2	20.1	5 1	12 53.10	-2 6.9	1.565	2.500	10.9	19.9
5 11	12 50.11	+34 10.3	1.518	2.182	24.1	20.2	5 11	12 46.36	-2 2.8	1.620	2.486	14.8	20.2
211887	2004 <i>JQ</i> ₁₃		4 9.5 310°38	0°2/ 9.3	17		242941	2006 <i>QE</i> ₁₆₈		4 9.5 300°58	3°8/12.2	16	
3 2	13 33.97	-10 5.5	2.141	2.937	13.5	20.4	3 2	13 41.72	-16 45.2	2.018	2.777	15.5	20.7
3 12	13 30.93	-9 34.0	2.045	2.929	10.6	20.2	3 12	13 37.52	-17 32.1	1.903	2.755	12.8	20.5
3 22	13 25.93	-8 49.6	1.972	2.922	7.2	19.9	3 22	13 30.79	-18 7.0	1.808	2.733	9.6	20.2
4 1	13 19.46	-7 55.2	1.924	2.914	3.4	19.7	4 1	13 21.94	-18 28.2	1.739	2.710	6.2	19.9
4 11	13 12.24	-6 55.5	1.905	2.906	0.7	19.4	4 11	13 11.81	-18 35.6	1.696	2.688	3.9	19.8
4 21	13 5.10	-5 56.3	1.913	2.899	4.8	19.7	4 21	13 1.44	-18 31.0	1.682	2.666	5.5	19.8
5 1	12 58.85	-5 3.3	1.949	2.892	8.6	19.9	5 1	12 51.97	-18 18.3	1.694	2.644	9.1	20.0
5 11	12 54.15	-4 21.4	2.009	2.885	12.0	20.1	5 11	12 44.40	-18 3.2	1.731	2.623	12.8	20.1
386171	2007 <i>UK</i> ₇₉		4 9.5 153°90	1°9/ 7.3	18		427729	2004 <i>PL</i> ₁₈		4 9.5 211°10	2°3/ 6.9	17	
3 2	13 36.29	-3 55.6	2.587	3.385	11.4	21.6	3 2	13 37.24	-4 1.9	2.363	3.164	12.3	22.0
3 12	13 32.21	-3 13.9	2.504	3.391	8.8	21.4	3 12	13 33.22	-3 5.9	2.268	3.157	9.5	21.8
3 22	13 26.50	-2 25.4	2.445	3.397	5.8	21.3	3 22	13 27.35	-2 0.8	2.197	3.150	6.3	21.6
4 1	13 19.63	-1 33.7	2.414	3.403	2.9	21.1	4 1	13 20.10	-0 51.1	2.153	3.142	3.2	21.4
4 11	13 12.23	-0 43.3	2.412	3.408	2.3	21.0	4 11	13 12.17	+0 17.5	2.139	3.133	2.8	21.3
4 21	13 4.99	+0 1.2	2.440	3.412	5.0	21.2	4 21	13 4.31	+1 19.4	2.154	3.124	5.8	21.5
5 1	12 58.54	+0 36.2	2.495	3.416	8.0	21.4	5 1	12 57.30	+2 9.4	2.197	3.115	9.1	21.7
5 11	12 53.43	+0 59.1	2.576	3.420	10.7	21.6	5 11	12 51.75	+2 44.4	2.264	3.104	12.1	21.9
167464	2003 <i>YF</i> ₂₁		4 9.5 188°20	3°0/ 6.8	18		62385	2000 <i>ST</i> ₁₅₇		4 9.5 295°36	8°9/17.8	18	
3 2	13 40.46	-2 1.0	1.915	2.725	14.4	20.9	3 2	13 36.64	-32 3.5	1.846	2.543	18.7	19.2
3 12	13 36.12	-1 17.5	1.831	2.724	11.2	20.7	3 12	13 34.02	-32 44.5	1.738	2.526	16.6	19.0
3 22	13 29.48	-0 26.1	1.770	2.724	7.5	20.5	3 22	13 28.64	-33 0.2	1.646	2.509	14.1	18.8
4 1	13 21.14	+0 28.1	1.735	2.722	4.0	20.2	4 1	13 20.98	-32 45.5	1.575	2.493	11.4	18.6
4 11	13 11.97	+1 18.5	1.728	2.721	3.6	20.2	4 11	13 11.99	-31 58.6	1.525	2.476	9.4	18.4
4 21	13 2.96	+1 59.4	1.749	2.718	6.9	20.4	4 21	13 2.90	-30 41.6	1.501	2.460	9.0	18.3
5 1	12 55.08	+2 25.8	1.796	2.716	10.7	20.6	5 1	12 55.00	-29 1.9	1.501	2.443	10.7	18.4
5 11	12 49.08	+2 35.4	1.866	2.713	14.1	20.8	5 11	12 49.33	-27 10.4	1.524	2.427	13.5	18.5
508696	2017 <i>UL</i> ₁₉		4 9.5 272°11	0°9/ 8.9	17		55078	2001 <i>QB</i> ₁₀₁		4 9.5 143°60	6°6/ 2.5	18 R	
3 2	13 44.01	-5 22.1	1.831	2.630	15.4	21.9	3 2	13 40.02	+9 32.6	2.127	2.943	12.9	19.2
3 12	13 39.30	-5 30.8	1.728	2.613	12.2	21.6	3 12	13 35.41	+10 50.9	2.065	2.953	10.3	19.1
3 22	13 31.94	-5 32.1	1.647	2.597	8.3	21.3	3 22	13 28.78	+12 7.7	2.026	2.963	7.9	19.0
4 1	13 22.44	-5 28.2	1.591	2.581	3.9	21.0	4 1	13 20.74	+13 15.6	2.014	2.972	6.7	18.9
4 11	13 11.72	-5 22.5	1.563	2.564	1.3	20.8	4 11	13 12.10	+14 7.8	2.030	2.980	7.4	18.9
4 21	13 0.94	-5 19.1	1.563	2.547	5.9	21.1	4 21	13 3.73	+14 39.6	2.072	2.988	9.5	19.1
5 1	12 51.25	-5 22.0	1.590	2.530	10.4	21.3	5 1	12 56.45	+14 48.8	2.139	2.996	12.0	19.3
5 11	12 43.63	-5 34.5	1.641	2.513	14.4	21.5	5 11	12 50.87	+14 36.2	2.228	3.003	14.4	19.4
272763	2005 <i>YD</i> ₁₆₂		4 9.5 84°80	1°4/10.9	18		328715	2009 <i>TH</i> ₁₇		4 9.5 212°40	2°0/ 7.4	17	
3 2	13 39.73	-15 0.1	1.978	2.750	15.3	21.0	3 2	13 38.71	-4 28.6	2.364	3.160	12.4	22.0
3 12	13 35.29	-14 34.6	1.911	2.777	12.1	20.9	3 12	13 34.38	-3 44.7	2.266	3.152	9.6	21.8
3 22	13 28.72	-13 52.9	1.867	2.804	8.5	20.7	3 22	13 28.16	-2 52.2	2.192	3.144	6.4	21.6
4 1	13 20.67	-12 57.6	1.848	2.831	4.5	20.5	4 1	13 20.50	-1 54.8	2.146	3.135	3.2	21.4
4 11	13 12.07	-11 53.5	1.857	2.857	1.4	20.3	4 11	13 12.12	-0 57.7	2.129	3.125	2.4	21.3
4 21	13 3.84	-10 46.9	1.895	2.883	4.4	20.6	4 21	13 3.81	-0 6.2	2.141	3.115	5.5	21.5
5 1	12 56.82	-9 44.2	1.960	2.909	8.2	20.9	5 1	12 56.35	+0 34.9	2.182	3.104	9.0	21.7
5 11	12 51.63	-8 51.0	2.051	2.934	11.5	21.1	5 11	12 50.39	+1 2.6	2.247	3.092	12.0	21.8
502390	2015 <i>BP</i> ₂₄₆		4 9.5 301°22	2°2/11.4	17		201437	2003 <i>DN</i> ₁₉		4 9.5 340°23	1°4/10.5	18	
3 2	13 36.28	-15 15.0	1.744										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
500491	2012 <i>TK</i> ₂₆₄		4 9.6 131°04	1.2°/ 8.4	17		227013	2004 <i>XP</i> ₁₃₂		4 9.6 139°29	4.6°/ 4.5	17	
3 2	13 38.73	- 5 19.5	2.407	3.200	12.3	22.1	3 2	13 39.53	+ 5 8.7	2.384	3.193	11.9	20.7
3 12	13 34.24	- 5 2.5	2.324	3.208	9.5	21.9	3 12	13 34.80	+ 6 3.8	2.315	3.205	9.3	20.6
3 22	13 27.95	- 4 38.4	2.265	3.215	6.4	21.7	3 22	13 28.27	+ 7 0.2	2.271	3.216	6.7	20.4
4 1	13 20.36	- 4 10.2	2.232	3.222	2.9	21.5	4 1	13 20.49	+ 7 52.1	2.254	3.227	4.8	20.3
4 11	13 12.18	- 3 41.6	2.229	3.229	1.5	21.4	4 11	13 12.18	+ 8 34.3	2.266	3.237	5.2	20.4
4 21	13 4.16	- 3 16.4	2.256	3.236	4.7	21.6	4 21	13 4.11	+ 9 2.7	2.306	3.247	7.4	20.5
5 1	12 57.04	- 2 58.3	2.310	3.242	8.0	21.8	5 1	12 57.00	+ 9 14.7	2.372	3.256	10.0	20.7
5 11	12 51.40	- 2 49.7	2.389	3.248	10.9	22.0	5 11	12 51.39	+ 9 9.7	2.462	3.265	12.4	20.9
118822	2000 <i>SP</i> ₁₃₇		4 9.6 140°62	2.6°/12.3	18		406823	2008 <i>YN</i> ₁₆		4 9.6 254°05	4.7°/ 5.7	17	
3 2	13 38.54	-17 24.2	2.650	3.395	12.5	20.3	3 2	13 40.75	+ 0 28.2	1.663	2.485	15.7	21.5
3 12	13 34.08	-17 37.8	2.557	3.401	10.2	20.2	3 12	13 36.93	+ 1 27.0	1.569	2.468	12.3	21.3
3 22	13 27.85	-17 39.1	2.485	3.407	7.5	20.0	3 22	13 30.42	+ 2 34.5	1.497	2.452	8.5	21.0
4 1	13 20.33	-17 28.3	2.441	3.412	4.6	19.8	4 1	13 21.77	+ 3 44.0	1.450	2.434	5.3	20.8
4 11	13 12.18	-17 7.1	2.424	3.418	2.6	19.7	4 11	13 11.94	+ 4 46.9	1.430	2.416	5.4	20.7
4 21	13 4.12	-16 38.5	2.437	3.423	3.9	19.8	4 21	13 2.11	+ 5 35.1	1.436	2.398	9.0	20.9
5 1	12 56.88	-16 6.4	2.479	3.427	6.7	19.9	5 1	12 53.48	+ 6 2.7	1.467	2.379	13.2	21.1
5 11	12 51.04	-15 35.2	2.547	3.432	9.4	20.1	5 11	12 46.98	+ 6 7.1	1.520	2.360	17.0	21.3
310500	2000 <i>VM</i> ₂₁		4 9.6 189°20	1.5°/ 8.2	16		88555	2001 <i>QG</i> ₂₀₀		4 9.6 146°44	0.3°/ 9.2	18	
3 2	13 41.90	- 5 58.4	1.928	2.726	14.7	21.2	3 2	13 38.35	- 7 48.8	2.633	3.415	11.6	19.9
3 12	13 37.28	- 5 27.6	1.839	2.726	11.5	21.0	3 12	13 33.83	- 7 38.3	2.545	3.422	9.1	19.7
3 22	13 30.32	- 4 46.2	1.773	2.725	7.7	20.8	3 22	13 27.63	- 7 20.1	2.481	3.428	6.1	19.5
4 1	13 21.58	- 3 58.1	1.733	2.723	3.6	20.5	4 1	13 20.22	- 6 56.2	2.445	3.434	2.8	19.3
4 11	13 11.96	- 3 8.8	1.721	2.720	2.0	20.4	4 11	13 12.25	- 6 29.8	2.438	3.439	0.7	19.1
4 21	13 2.48	- 2 24.2	1.737	2.717	5.9	20.6	4 21	13 4.41	- 6 4.3	2.460	3.444	4.0	19.4
5 1	12 54.13	- 1 49.8	1.781	2.713	10.0	20.9	5 1	12 57.39	- 5 43.3	2.512	3.449	7.2	19.6
5 11	12 47.69	- 1 29.2	1.848	2.708	13.6	21.1	5 11	12 51.71	- 5 29.5	2.589	3.454	10.0	19.8
37787	1997 <i>SX</i> ₂₄		4 9.6 114°10	0.4°/ 9.9	18		251013	2006 <i>PF</i> ₄₁		4 9.6 206°05	0.9°/10.4	16	
3 2	13 40.48	-12 25.4	1.635	2.428	17.1	19.7	3 2	13 39.29	-13 27.2	1.978	2.757	15.1	22.1
3 12	13 36.47	-11 53.4	1.561	2.442	13.5	19.5	3 12	13 35.31	-13 1.0	1.882	2.753	12.0	21.9
3 22	13 29.86	-11 3.5	1.508	2.455	9.3	19.3	3 22	13 29.04	-12 18.4	1.806	2.748	8.4	21.7
4 1	13 21.35	- 9 59.3	1.479	2.467	4.5	19.0	4 1	13 21.02	-11 21.6	1.757	2.743	4.3	21.4
4 11	13 12.01	- 8 46.9	1.477	2.479	0.7	18.7	4 11	13 12.10	-10 15.1	1.735	2.737	0.9	21.1
4 21	13 2.99	- 7 34.3	1.503	2.491	5.5	19.1	4 21	13 3.27	- 9 5.2	1.742	2.730	4.8	21.4
5 1	12 55.36	- 6 29.5	1.555	2.502	10.0	19.4	5 1	12 55.50	- 7 59.0	1.776	2.723	9.0	21.6
5 11	12 49.92	- 5 38.6	1.631	2.513	13.9	19.7	5 11	12 49.57	- 7 2.8	1.835	2.715	12.7	21.8
437672	2014 <i>CC</i> ₁₆		4 9.6 21°93	4.2°/13.6	18		294559	2007 <i>YR</i> ₃₄		4 9.6 36°68	6.1°/ 5.1	18	
3 2	13 37.57	-20 48.3	2.127	2.873	15.2	20.4	3 2	13 39.93	+ 3 45.3	1.446	2.282	16.9	20.5
3 12	13 33.89	-21 14.5	2.035	2.875	12.6	20.2	3 12	13 36.33	+ 4 41.7	1.381	2.286	13.2	20.3
3 22	13 28.02	-21 24.2	1.965	2.878	9.6	20.0	3 22	13 29.93	+ 5 41.9	1.335	2.290	9.4	20.0
4 1	13 20.50	-21 16.3	1.918	2.880	6.5	19.8	4 1	13 21.45	+ 6 37.5	1.314	2.294	6.4	19.9
4 11	13 12.15	-20 52.4	1.897	2.883	4.4	19.7	4 11	13 12.04	+ 7 19.5	1.318	2.299	6.8	19.9
4 21	13 3.88	-20 15.6	1.904	2.887	5.2	19.7	4 21	13 2.97	+ 7 41.4	1.347	2.304	10.0	20.1
5 1	12 56.63	-19 31.5	1.938	2.890	8.0	19.9	5 1	12 55.40	+ 7 39.6	1.400	2.309	13.9	20.3
5 11	12 51.12	-18 46.3	1.997	2.894	11.1	20.1	5 11	12 50.16	+ 7 14.2	1.472	2.314	17.4	20.6
265332	2004 <i>PA</i> ₁₈		4 9.6 266°56	7.0°/ 2.3	17		117177	2004 <i>RR</i> ₆₁		4 9.6 276°81	0.9°/10.3	17	
3 2	13 36.44	+ 7 22.4	1.811	2.642	14.2	20.3	3 2	13 37.42	-12 18.7	1.871	2.661	15.4	20.4
3 12	13 33.10	+ 8 53.6	1.742	2.642	11.3	20.1	3 12	13 34.04	-12 6.3	1.773	2.651	12.3	20.2
3 22	13 27.50	+10 26.5	1.695	2.641	8.5	19.9	3 22	13 28.30	-11 38.8	1.697	2.642	8.6	19.9
4 1	13 20.24	+11 52.2	1.675	2.640	7.1	19.8	4 1	13 20.71	-10 57.9	1.645	2.632	4.3	19.7
4 11	13 12.20	+13 1.8	1.680	2.639	8.0	19.9	4 11	13 12.16	-10 7.9	1.621	2.622	0.9	19.4
4 21	13 4.38	+13 48.9	1.712	2.638	10.5	20.0	4 21	13 3.64	- 9 14.5	1.623	2.612	5.0	19.7
5 1	12 57.71	+14 9.8	1.767	2.637	13.5	20.2	5 1	12 56.17	- 8 24.3	1.653	2.603	9.3	19.9
5 11	12 52.89	+14 4.8	1.841	2.636	16.2	20.4	5 11	12 50.59	- 7 43.3	1.706	2.593	13.2	20.1
274424	2008 <i>SY</i> ₂₀		4 9.6 261°77	1.0°/ 8.6	17		2078	Nanking		4 9.6 180°07	8.3°/19.6	18	R
3 2	13 36.92	- 7 53.6	1.933	2.736	14.5	21.6	3 2	13 45.90	-37 45.3	2.647	3.251	15.4	18.5
3 12	13 33.46	- 7 21.6	1.840	2.729	11.4	21.4	3 12	13 40.35	-38 25.7	2.542	3.254	13.8	18.4
3 22	13 27.78	- 6 37.3	1.770	2.723	7.7	21.2	3 22	13 32.41	-38 44.9	2.455	3.256	12.0	18.2
4 1	13 20.40	- 5 44.1	1.726	2.716	3.5	20.9	4 1	13 22.61	-38 38.7	2.389	3.256	10.2	18.1
4 11	13 12.17	- 4 47.6	1.709	2.710	1.4	20.7	4 11	13 11.84	-38 5.7	2.348	3.256	8.8	18.0
4 21	13 4.03	- 3 54.0	1.720	2.703	5.5	21.0	4 21	13 1.14	-37 7.3	2.333	3.254	8.4	18.0
5 1	12 56.92	- 3 9.1	1.757	2.696	9.6	21.2	5 1	12 51.52	-35 48.4	2.345	3.251	9.1	18.0
5 11	12 51.59	- 2 37.5	1.818	2.689	13.3	21.4	5 11	12 43.81	-34 16.7	2.382	3.248	10.8	18.1
229117	2004 <i>RH</i> ₁₀₂		4 9.6 273°51	2.0°/11.3	17		190366	1999 <i>RW</i> ₃₉		4 9.6 214°49	1.0°/10.7	18	
3 2	13 37.31	-15 19.1	1.897	2.676	15.6	21.0	3 2	13 39.13	-13 14.3	2.672	3.433	12.0	21.4
3 12	13 33.97	-15 13.4	1.797	2.665	12.7	20.8	3 12	13 34.58	-13 3.2	2.563	3.424	9.6	21.2
3 22	13 28.26	-14 50.8	1.717	2.654	9.1	20.5	3 22	13 28.25	-12 40.7	2.478	3.414	6.8	21.0
4 1	13 20.69	-14 12.2	1.661	2.643	5.1	20.2	4 1	13 20.58	-12 8.1	2.420	3.404	3.5	20.8
4 11	13 12.12	-13 21.0	1.632	2.632	2.0	20.0	4 11	13 12.20	-11 28.1	2.392	3.392	1.0	20.6
4 21	13 3.55	-12 22.5	1.631	2.620	4.9	20.2	4 21	13 3.84	-10 44.4	2.393	3.381	3.0	20.8
5 1	12 56.04	-11 23.7	1.656	2.609	9.0	20.4	5 1	12 56.23	-10 1.5	2.424	3.368	7.1	21.0
5 11	12 50.40	-10 31.5	1.706	2.598	12.9	20.6	5 11	12 49.99	- 9 23.7	2.481	3.355	10.1	21.2
27897	1996 <i>NF</i> ₄		4 9.6 179°14	3.3°/13.3	18		243069	2007 <i>GD</i> ₃₇		4 9.6 88°46	2.7°/ 7.7		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
249074	2007 <i>UE</i> ₈₈		4 9.6 131°05'	2.4°/ 7.1 17			434397	2005 <i>EK</i> ₃₁₂		4 9.6 31°83'	0.8°/10.3 17		
3 2	13 38.53	- 1 29.8	2.342	3.145	12.3	21.4	3 2	13 38.54	-11 13.8	2.065	2.851	14.3	21.6
3 12	13 34.15	- 1 4.2	2.260	3.150	9.5	21.2	3 12	13 34.58	-11 13.4	1.976	2.851	11.4	21.4
3 22	13 27.94	- 0 33.5	2.203	3.155	6.4	21.0	3 22	13 28.48	-11 1.0	1.908	2.852	7.9	21.1
4 1	13 20.39	- 0 1.7	2.173	3.160	3.3	20.8	4 1	13 20.77	-10 38.5	1.866	2.852	4.0	20.9
4 11	13 12.25	+ 0 27.1	2.171	3.165	2.8	20.8	4 11	13 12.26	-10 9.1	1.851	2.853	0.9	20.7
4 21	13 4.28	+ 0 48.7	2.198	3.170	5.6	21.0	4 21	13 3.86	- 9 37.2	1.865	2.854	4.5	20.9
5 1	12 57.22	+ 1 0.1	2.253	3.174	8.8	21.2	5 1	12 56.47	- 9 7.6	1.907	2.854	8.4	21.2
5 11	12 51.66	+ 0 59.2	2.332	3.178	11.6	21.4	5 11	12 50.81	- 8 45.0	1.972	2.855	11.9	21.4
472632	2015 <i>DW</i> ₂₀₆		4 9.6 21°24'	3°1/ 6.1 17			483737	2005 <i>TS</i> ₁₉₆		4 9.6 207°32'	4°5/ 8.1 17		
3 2	13 33.98	- 2 43.2	2.055	2.872	13.2	20.8	3 2	13 59.70	+ 3 42.5	1.212	2.024	20.9	21.4
3 12	13 30.92	- 1 36.2	1.975	2.873	10.2	20.6	3 12	13 52.91	+ 3 16.8	1.131	2.021	16.7	21.1
3 22	13 25.92	- 0 20.2	1.918	2.874	6.8	20.4	3 22	13 41.91	+ 2 48.5	1.069	2.019	11.7	20.8
4 1	13 19.50	+ 0 59.0	1.888	2.876	3.7	20.2	4 1	13 27.44	+ 2 12.0	1.030	2.016	6.5	20.5
4 11	13 12.42	+ 2 14.5	1.886	2.877	3.7	20.2	4 11	13 11.13	+ 1 22.9	1.018	2.012	4.9	20.4
4 21	13 5.50	+ 3 19.7	1.913	2.879	6.7	20.4	4 21	12 55.05	+ 0 19.1	1.032	2.008	9.6	20.6
5 1	12 59.54	+ 4 9.5	1.965	2.881	10.1	20.6	5 1	12 41.20	- 0 58.8	1.073	2.004	15.1	20.9
5 11	12 55.15	+ 4 40.7	2.040	2.882	13.2	20.8	5 11	12 30.93	- 2 28.4	1.134	1.999	19.9	21.2
391372	2006 <i>VQ</i> ₁₇₁		4 9.6 212°67'	1°0/10.8 17			270362	2001 <i>YL</i> ₉₁		4 9.6 80°09'	7°4/16.9 18		
3 2	13 34.59	-14 21.9	2.580	3.348	12.2	21.5	3 2	13 42.01	-29 37.4	1.916	2.614	18.1	20.3
3 12	13 31.08	-13 54.1	2.480	3.344	9.8	21.3	3 12	13 37.65	-30 16.7	1.842	2.636	15.6	20.2
3 22	13 25.89	-13 12.9	2.403	3.341	6.8	21.1	3 22	13 30.70	-30 31.9	1.787	2.658	12.8	20.0
4 1	13 19.46	-12 20.4	2.353	3.337	3.6	20.9	4 1	13 21.83	-30 20.3	1.753	2.679	9.9	19.9
4 11	13 12.42	-11 20.0	2.332	3.333	1.0	20.7	4 11	13 12.10	-29 42.3	1.743	2.701	7.8	19.8
4 21	13 5.47	-10 16.4	2.340	3.329	3.7	20.9	4 21	13 2.66	-28 42.0	1.759	2.722	7.6	19.8
5 1	12 59.28	- 9 14.8	2.377	3.324	7.0	21.1	5 1	12 54.62	-27 26.9	1.802	2.743	9.3	20.0
5 11	12 54.42	- 8 20.0	2.440	3.320	10.0	21.3	5 11	12 48.77	-26 6.1	1.869	2.763	11.8	20.2
97022	1999 <i>TT</i> ₂₇₉		4 9.6 261°41'	0°7/ 8.7 18			65015	2002 <i>AX</i> ₈₈		4 9.6 316°59'	0°7/ 8.8 17		
3 2	13 35.22	- 7 41.8	2.582	3.372	11.6	20.1	3 2	13 33.75	- 8 50.8	2.214	3.013	13.1	19.5
3 12	13 31.60	- 7 13.8	2.476	3.358	9.1	19.9	3 12	13 30.72	- 8 14.4	2.120	3.006	10.2	19.3
3 22	13 26.28	- 6 36.5	2.395	3.344	6.1	19.7	3 22	13 25.80	- 7 26.1	2.049	3.000	6.9	19.1
4 1	13 19.67	- 5 52.6	2.340	3.330	2.8	19.5	4 1	13 19.49	- 6 29.3	2.004	2.994	3.2	18.8
4 11	13 12.40	- 5 5.9	2.314	3.315	1.1	19.3	4 11	13 12.48	- 5 28.8	1.987	2.988	1.1	18.6
4 21	13 5.14	- 4 20.8	2.318	3.300	4.4	19.5	4 21	13 5.56	- 4 30.2	1.999	2.982	4.8	18.9
5 1	12 58.60	- 3 41.7	2.350	3.285	7.7	19.7	5 1	12 59.49	- 3 39.0	2.037	2.977	8.5	19.1
5 11	12 53.37	- 3 12.1	2.407	3.270	10.7	19.9	5 11	12 54.92	- 2 59.5	2.101	2.972	11.7	19.3
178841	2001 <i>HZ</i> ₄₃		4 9.6 300°42'	0°7/ 9.1 17			422072	2014 <i>QW</i> ₃₈₀		4 9.6 283°90'	2°8/11.5 16		
3 2	13 37.72	- 8 12.9	1.531	2.347	17.1	20.4	3 2	13 39.72	-15 13.6	1.478	2.271	18.7	21.3
3 12	13 34.91	- 7 57.0	1.433	2.328	13.6	20.1	3 12	13 36.78	-15 26.5	1.376	2.252	15.3	21.0
3 22	13 29.28	- 7 26.5	1.354	2.309	9.3	19.8	3 22	13 30.76	-15 20.4	1.293	2.234	11.1	20.7
4 1	13 21.35	- 6 44.5	1.299	2.290	4.3	19.5	4 1	13 22.16	-14 54.7	1.232	2.215	6.4	20.4
4 11	13 12.10	- 5 56.4	1.270	2.271	1.3	19.2	4 11	13 12.00	-14 12.0	1.197	2.196	2.8	20.1
4 21	13 2.75	- 5 9.4	1.266	2.253	6.5	19.5	4 21	13 1.66	-13 17.9	1.186	2.176	6.1	20.2
5 1	12 54.62	- 4 31.1	1.287	2.235	11.6	19.7	5 1	12 52.61	-12 21.1	1.200	2.157	11.2	20.5
5 11	12 48.75	- 4 7.4	1.330	2.217	16.2	19.9	5 11	12 46.04	-11 30.8	1.236	2.138	16.1	20.7
878	Mildred		4 9.6 202°95'	0°5/ 9.1 18			317779	2003 <i>SE</i> ₁₃₈		4 9.6 178°40'	2°0/ 7.2 17		
3 2	13 40.59	- 9 24.4	2.097	2.883	14.1	19.4	3 2	13 38.11	- 3 2.2	2.627	3.422	11.3	21.5
3 12	13 36.16	- 8 50.6	2.000	2.878	11.1	19.2	3 12	13 33.67	- 2 24.5	2.538	3.424	8.8	21.3
3 22	13 29.55	- 8 3.7	1.925	2.873	7.5	19.0	3 22	13 27.56	- 1 40.4	2.474	3.425	5.8	21.1
4 1	13 21.27	- 7 7.0	1.877	2.867	3.5	18.7	4 1	13 20.25	- 0 53.8	2.438	3.426	3.0	20.9
4 11	13 12.14	- 6 5.4	1.858	2.860	1.0	18.5	4 11	13 12.37	- 0 9.0	2.431	3.426	2.4	20.9
4 21	13 3.09	- 5 4.8	1.868	2.852	5.1	18.8	4 21	13 4.61	+ 0 30.0	2.455	3.426	5.1	21.1
5 1	12 55.04	- 4 11.4	1.906	2.843	9.1	19.0	5 1	12 57.65	+ 0 59.3	2.506	3.425	8.1	21.2
5 11	12 48.73	- 3 30.0	1.968	2.833	12.7	19.2	5 11	12 52.02	+ 1 16.8	2.583	3.423	10.8	21.4
56369	2000 <i>EW</i> ₆		4 9.6 258°01'	0°2/ 9.7 18			521201	2015 <i>FM</i> ₄₁₃		4 9.6 222°69'	6°1/31.8 18		
3 2	13 42.94	- 9 36.0	1.621	2.419	17.1	19.4	3 2	13 36.72	+14 5.1	2.976	3.781	9.9	22.1
3 12	13 38.92	- 9 34.4	1.518	2.402	13.7	19.1	3 12	13 32.46	+15 8.9	2.896	3.771	8.2	22.0
3 22	13 31.98	- 9 19.1	1.436	2.385	9.5	18.8	3 22	13 26.69	+16 9.5	2.841	3.761	6.7	21.8
4 1	13 22.64	- 8 51.9	1.379	2.367	4.6	18.5	4 1	13 19.82	+17 1.4	2.813	3.751	6.1	21.8
4 11	13 11.89	- 8 16.7	1.347	2.349	0.7	18.1	4 11	13 12.44	+17 40.0	2.813	3.740	6.7	21.8
4 21	13 1.02	- 7 39.5	1.343	2.330	6.0	18.5	4 21	13 5.15	+18 2.0	2.841	3.728	8.3	21.9
5 1	12 51.37	- 7 7.1	1.364	2.311	11.1	18.7	5 1	12 58.56	+18 5.7	2.893	3.717	10.2	22.0
5 11	12 44.02	- 6 45.4	1.409	2.292	15.7	18.9	5 11	12 53.15	+17 51.3	2.968	3.705	12.0	22.1
45496	2000 <i>AO</i> ₂₄₅		4 9.6 23°49'	4°5/13.9 18			248355	2005 <i>QD</i> ₁₄₂		4 9.6 223°55'	3°2/13.0 18		
3 2	13 35.30	-21 54.0	1.816	2.573	17.0	17.6	3 2	13 38.49	-19 21.4	2.672	3.407	12.6	20.7
3 12	13 32.47	-22 3.0	1.732	2.578	14.2	17.4	3 12	13 34.19	-19 41.7	2.567	3.402	10.4	20.6
3 22	13 27.25	-21 50.7	1.667	2.584	10.8	17.1	3 22	13 28.06	-19 49.2	2.484	3.397	7.9	20.4
4 1	13 20.23	-21 16.4	1.624	2.589	7.3	16.9	4 1	13 20.55	-19 43.4	2.427	3.392	5.2	20.2
4 11	13 12.33	-20 22.9	1.607	2.596	4.7	16.8	4 11	13 12.31	-19 25.5	2.398	3.386	3.3	20.1
4 21	13 4.60	-19 15.4	1.617	2.602	5.5	16.9	4 21	13 4.09	-18 58.1	2.398	3.381	4.2	20.1
5 1	12 58.05	-18 1.7	1.652	2.609	8.7	17.1	5 1	12 56.63	-18 25.0	2.426	3.375	6.8	20.3
5 11	12 53.47	-16 50.2	1.712	2.617	12.2	17.3	5 11	12 50.56	-17 51.0	2.481	3.369	9.6	20.4
408311	2013 <i>GN</i> ₃₇		4 9.6 7°44'	5°0/ 5.8 18			30						

EPHEMERIDES

4 9.6

4 9.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
177060	2003 EG ₅₈	4	9.6 320°33	1.3/10.7	17		299274	2005 NO ₁₂₂	4	9.6 266°89	0.5/9.0	16	
3 2	13 38.03	-11 39.7	2.097	2.881	14.2	19.6	3 2	13 36.05	-8 31.9	2.499	3.286	12.0	21.7
3 12	13 34.29	-11 54.2	1.996	2.870	11.3	19.4	3 12	13 32.38	-8 5.3	2.387	3.267	9.5	21.5
3 22	13 28.39	-11 57.8	1.917	2.859	8.0	19.2	3 22	13 26.90	-7 28.5	2.299	3.248	6.4	21.3
4 1	13 20.78	-11 51.3	1.864	2.849	4.2	18.9	4 1	13 20.04	-6 43.9	2.238	3.228	3.0	21.0
4 11	13 12.27	-11 37.1	1.838	2.839	1.3	18.7	4 11	13 12.43	-5 55.4	2.206	3.208	0.9	20.8
4 21	13 3.76	-11 18.8	1.840	2.829	4.5	18.9	4 21	13 4.79	-5 7.6	2.204	3.187	4.5	21.0
5 1	12 56.17	-11 0.6	1.869	2.820	8.4	19.1	5 1	12 57.88	-4 25.2	2.229	3.167	8.0	21.2
5 11	12 50.28	-10 47.0	1.923	2.811	11.9	19.3	5 11	12 52.33	-3 52.1	2.280	3.146	11.1	21.4
95754	2003 EV ₂₉	4	9.6 276°92	4.6/5.6	18		140546	2001 TZ ₁₉₄	4	9.6 109°27	4.5/3.5	17	R
3 2	13 37.10	-2 3.5	1.492	2.324	16.6	19.3	3 2	13 35.50	+4 33.7	2.611	3.423	10.9	20.3
3 12	13 34.39	-0 47.3	1.401	2.307	13.0	19.0	3 12	13 31.54	+5 55.7	2.550	3.442	8.5	20.2
3 22	13 28.90	+0 43.1	1.331	2.290	8.9	18.7	3 22	13 26.05	+7 19.5	2.515	3.461	6.1	20.1
4 1	13 21.17	+2 20.0	1.285	2.273	5.2	18.5	4 1	13 19.51	+8 39.2	2.508	3.479	4.6	20.0
4 11	13 12.21	+3 52.8	1.266	2.255	5.4	18.4	4 11	13 12.54	+9 49.0	2.531	3.497	5.1	20.1
4 21	13 3.24	+5 11.1	1.272	2.238	9.5	18.6	4 21	13 5.79	+10 44.5	2.582	3.514	7.1	20.2
5 1	12 55.54	+6 6.4	1.302	2.220	14.0	18.8	5 1	12 59.86	+11 22.8	2.659	3.531	9.5	20.4
5 11	12 50.09	+6 34.5	1.351	2.202	18.1	19.0	5 11	12 55.23	+11 43.1	2.760	3.547	11.6	20.6
133024	2002 VP ₁₂₀	4	9.6 164°54	4.0/14.1	18		278165	2007 DE ₄₁	4	9.6 81°81	10.6/30.3	18	
3 2	13 37.78	-22 48.7	2.514	3.236	13.7	20.2	3 2	13 35.28	+0 56.6	0.975	1.841	20.8	19.7
3 12	13 33.73	-22 59.2	2.416	3.239	11.4	20.1	3 12	13 33.75	+4 55.5	0.928	1.851	16.1	19.4
3 22	13 27.78	-22 53.3	2.340	3.242	8.8	19.9	3 22	13 28.71	+9 12.2	0.902	1.861	12.0	19.3
4 1	13 20.42	-22 30.6	2.288	3.244	6.1	19.7	4 1	13 21.05	+13 20.5	0.902	1.872	10.7	19.2
4 11	13 12.35	-21 52.6	2.264	3.246	4.2	19.6	4 11	13 12.29	+16 52.9	0.926	1.882	13.1	19.4
4 21	13 4.37	-21 2.6	2.268	3.248	4.7	19.6	4 21	13 4.05	+19 31.3	0.973	1.892	17.2	19.6
5 1	12 57.26	-20 5.7	2.300	3.249	7.1	19.8	5 1	12 57.80	+21 9.3	1.038	1.902	21.3	19.9
5 11	12 51.67	-19 7.9	2.359	3.251	9.8	20.0	5 11	12 54.43	+21 51.3	1.118	1.912	24.6	20.2
100514	1997 AB ₂₄	4	9.6 198°19	0.4/10.0	16		270308	2001 WS ₅₃	4	9.6 324°33	4.1/6.9	17	
3 2	13 40.97	-11 48.4	2.167	2.942	14.0	21.6	3 2	13 41.56	+1 15.3	1.550	2.375	16.4	19.8
3 12	13 36.42	-11 24.6	2.068	2.939	11.2	21.4	3 12	13 37.70	+1 30.3	1.465	2.366	12.9	19.6
3 22	13 29.71	-10 47.1	1.992	2.934	7.7	21.2	3 22	13 31.02	+1 49.3	1.401	2.356	8.9	19.3
4 1	13 21.37	-9 58.1	1.942	2.929	3.8	20.9	4 1	13 22.13	+2 6.9	1.361	2.347	5.1	19.0
4 11	13 12.19	-9 1.9	1.921	2.923	0.6	20.7	4 11	13 12.09	+2 16.8	1.347	2.339	4.6	19.0
4 21	13 3.09	-8 3.7	1.930	2.917	4.6	21.0	4 21	13 2.16	+2 14.1	1.359	2.331	8.2	19.2
5 1	12 54.98	-7 9.6	1.967	2.909	8.5	21.2	5 1	12 53.57	+1 55.1	1.395	2.323	12.5	19.4
5 11	12 48.57	-6 24.8	2.029	2.901	12.0	21.4	5 11	12 47.28	+1 18.9	1.453	2.316	16.4	19.6
474591	2004 NN ₂₉	4	9.6 276°12	5.3/15.6	16		232508	2003 QW ₇₄	4	9.6 161°92	0.4/9.1	17	
3 2	13 36.35	-26 43.0	2.568	3.270	13.9	21.4	3 2	13 37.06	-9 32.1	2.325	3.112	12.9	20.8
3 12	13 32.82	-27 2.8	2.451	3.253	11.9	21.2	3 12	13 33.12	-8 55.7	2.237	3.116	10.1	20.6
3 22	13 27.32	-27 5.1	2.353	3.235	9.6	21.0	3 22	13 27.33	-8 7.7	2.172	3.120	6.8	20.4
4 1	13 20.27	-26 48.4	2.279	3.217	7.3	20.9	4 1	13 20.19	-7 11.3	2.134	3.123	3.1	20.1
4 11	13 12.37	-26 12.7	2.231	3.199	5.5	20.7	4 11	13 12.43	-6 11.2	2.125	3.126	0.8	19.9
4 21	13 4.40	-25 20.7	2.210	3.181	5.6	20.7	4 21	13 4.81	-5 12.7	2.145	3.129	4.5	20.2
5 1	12 57.21	-24 17.0	2.218	3.163	7.6	20.8	5 1	12 58.08	-4 20.9	2.193	3.131	8.1	20.4
5 11	12 51.50	-23 8.2	2.251	3.144	10.2	20.9	5 11	12 52.86	-3 39.9	2.267	3.133	11.2	20.6
369976	1997 AB ₁₀	4	9.6 81°92	2.9/6.8	17		126140	2001 YG ₁₂₈	4	9.6 252°92	4.7/12.9	18	
3 2	13 37.43	-3 5.3	1.862	2.678	14.5	21.2	3 2	13 42.71	-19 50.5	1.727	2.483	17.8	19.9
3 12	13 33.73	-2 11.9	1.793	2.690	11.2	21.0	3 12	13 38.79	-20 19.1	1.619	2.467	14.9	19.6
3 22	13 27.86	-1 9.7	1.746	2.702	7.4	20.8	3 22	13 31.96	-20 28.9	1.531	2.450	11.4	19.4
4 1	13 20.45	-0 4.5	1.725	2.714	3.9	20.6	4 1	13 22.70	-20 17.7	1.465	2.433	7.5	19.1
4 11	13 12.36	+0 56.8	1.732	2.726	3.4	20.6	4 11	13 11.98	-19 45.8	1.425	2.415	4.8	18.9
4 21	13 4.56	+1 47.9	1.767	2.738	6.7	20.8	4 21	13 1.08	-18 57.1	1.412	2.397	6.2	18.9
5 1	12 57.90	+2 23.9	1.827	2.750	10.4	21.1	5 1	12 51.35	-17 58.6	1.425	2.378	10.2	19.1
5 11	12 53.06	+2 42.4	1.910	2.761	13.6	21.3	5 11	12 43.90	-16 59.4	1.461	2.358	14.3	19.3
432450	2010 CY ₆₇	4	9.6 173°84	2.5/12.2	17		246026	2006 UF ₅₄	4	9.6 243°89	1.9/12.2	18	
3 2	13 38.61	-17 20.6	2.350	3.103	13.7	22.1	3 2	13 35.52	-19 1.7	2.848	3.587	11.9	21.7
3 12	13 34.43	-17 20.8	2.254	3.104	11.2	21.9	3 12	13 31.78	-18 25.6	2.727	3.569	9.7	21.5
3 22	13 28.29	-17 6.4	2.180	3.106	8.1	21.7	3 22	13 26.39	-17 33.6	2.629	3.551	7.1	21.3
4 1	13 20.67	-16 38.0	2.132	3.107	4.9	21.5	4 1	13 19.77	-16 26.8	2.558	3.532	4.2	21.1
4 11	13 12.32	-15 57.9	2.112	3.108	2.5	21.4	4 11	13 12.50	-15 8.0	2.516	3.513	2.0	20.9
4 21	13 4.08	-15 10.3	2.121	3.109	4.2	21.5	4 21	13 5.23	-13 42.1	2.505	3.493	3.6	20.9
5 1	12 56.74	-14 20.3	2.158	3.109	7.4	21.7	5 1	12 58.65	-12 14.6	2.524	3.472	6.6	21.1
5 11	12 50.97	-13 33.5	2.221	3.108	10.5	21.9	5 11	12 53.30	-10 51.4	2.570	3.451	9.5	21.3
443678	2015 KJ ₁₃	4	9.6 253°66	3.4/5.3	18		234782	2002 PX ₁₈₄	4	9.6 274°28	1.7/7.8	17	
3 2	13 33.67	-0 14.6	2.465	3.279	11.4	21.2	3 2	13 35.25	-6 30.6	2.042	2.849	13.7	20.8
3 12	13 30.42	+0 53.0	2.375	3.271	8.8	21.1	3 12	13 32.00	-5 40.9	1.956	2.848	10.6	20.6
3 22	13 25.49	+2 7.2	2.310	3.263	6.0	20.9	3 22	13 26.72	-4 39.7	1.893	2.847	7.1	20.4
4 1	13 19.32	+3 22.7	2.272	3.255	3.7	20.7	4 1	13 19.95	-3 31.5	1.856	2.847	3.3	20.1
4 11	13 12.55	+4 33.5	2.263	3.247	4.0	20.7	4 11	13 12.47	-2 22.5	1.848	2.846	2.2	20.1
4 21	13 5.87	+5 34.3	2.283	3.239	6.5	20.8	4 21	13 5.13	-1 19.0	1.867	2.845	5.7	20.3
5 1	12 59.94	+6 20.6	2.329	3.231	9.4	21.0	5 1	12 58.76	-0 26.8	1.913	2.845	9.4	20.5
5 11	12 55.34	+6 50.1	2.399	3.223	12.1	21.2	5 11	12 54.02	+0 10.2	1.983	2.844	12.8	20.7
354707	2005 RJ ₃₄	4	9.6 215°00	0.1/9.5	17		22192	Vivienreuter	4	9.6 190°71	0.9/8.6	18	
3 2	13 41.87	-10 47.0	1.767	2.558									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
426185	2012 <i>JF</i> ₃₄		4 9.6 320°80	1°1/ 8.9 17			13873	2657 <i>P-L</i>		4 9.6 337°41	0°7/ 9.1 18		
3 2	13 38.14	- 6 10.3	1.464	2.287	17.4	20.7	3 2	13 38.79	- 7 37.1	1.452	2.270	17.7	18.2
3 12	13 35.36	- 6 8.6	1.370	2.269	13.8	20.5	3 12	13 35.73	- 7 28.8	1.368	2.265	14.0	18.0
3 22	13 29.67	- 5 55.8	1.295	2.252	9.4	20.1	3 22	13 29.80	- 7 7.3	1.305	2.260	9.5	17.7
4 1	13 21.60	- 5 34.8	1.244	2.235	4.4	19.8	4 1	13 21.60	- 6 35.8	1.265	2.256	4.4	17.4
4 11	13 12.18	- 5 10.8	1.218	2.219	1.6	19.6	4 11	13 12.22	- 5 59.9	1.250	2.252	1.2	17.1
4 21	13 2.68	- 4 49.8	1.217	2.203	6.7	19.8	4 21	13 2.97	- 5 26.1	1.261	2.248	6.4	17.5
5 1	12 54.46	- 4 37.7	1.240	2.189	11.9	20.1	5 1	12 55.11	- 5 1.1	1.297	2.245	11.4	17.7
5 11	12 48.59	- 4 39.4	1.285	2.174	16.4	20.3	5 11	12 49.61	- 4 49.9	1.353	2.243	15.8	18.0
348795	2006 <i>QL</i> ₁₀		4 9.6 212°07	1°0/ 8.7 16			155971	2001 <i>QK</i> ₂₂₄		4 9.6 266°66	1°8/ 8.2 17		
3 2	13 43.25	- 6 22.5	2.190	2.977	13.6	21.4	3 2	13 39.58	- 7 7.7	1.508	2.324	17.3	21.0
3 12	13 38.19	- 6 6.7	2.090	2.969	10.7	21.1	3 12	13 36.42	- 6 28.8	1.410	2.307	13.7	20.7
3 22	13 30.93	- 5 42.1	2.012	2.960	7.2	20.9	3 22	13 30.37	- 5 33.7	1.333	2.289	9.3	20.4
4 1	13 21.98	- 5 11.2	1.961	2.951	3.4	20.6	4 1	13 21.94	- 4 26.8	1.280	2.271	4.3	20.1
4 11	13 12.14	- 4 38.2	1.940	2.941	1.4	20.5	4 11	13 12.16	- 3 15.5	1.253	2.253	2.4	19.9
4 21	13 2.33	- 4 7.6	1.948	2.930	5.2	20.7	4 21	13 2.31	- 2 8.6	1.253	2.235	7.3	20.2
5 1	12 53.49	- 3 43.8	1.985	2.918	9.1	20.9	5 1	12 53.73	- 1 14.9	1.276	2.216	12.4	20.4
5 11	12 46.37	- 3 30.5	2.046	2.905	12.5	21.1	5 11	12 47.48	- 0 40.4	1.322	2.197	17.0	20.6
428873	2008 <i>UJ</i> ₁₉₇		4 9.6 195°86	2°3/ 7.2 17			455295	2002 <i>CM</i> ₂₆₆		4 9.6 85°76	1°9/ 8.1 18		
3 2	13 38.17	- 2 52.9	2.215	3.019	12.9	22.1	3 2	13 41.63	- 6 25.9	1.484	2.299	17.6	22.2
3 12	13 34.09	- 2 17.2	2.127	3.018	10.0	21.9	3 12	13 37.49	- 5 42.5	1.423	2.318	13.6	22.0
3 22	13 28.05	- 1 34.3	2.063	3.016	6.7	21.7	3 22	13 30.63	- 4 46.0	1.382	2.337	9.0	21.8
4 1	13 20.56	- 0 48.4	2.026	3.014	3.4	21.5	4 1	13 21.82	- 3 42.2	1.366	2.356	4.2	21.5
4 11	13 12.38	- 0 4.7	2.017	3.012	2.8	21.4	4 11	13 12.23	- 2 38.8	1.376	2.375	2.5	21.4
4 21	13 4.32	+ 0 32.0	2.037	3.010	5.9	21.6	4 21	13 3.08	- 1 43.7	1.413	2.394	6.9	21.8
5 1	12 57.20	+ 0 57.6	2.084	3.007	9.3	21.8	5 1	12 55.49	- 1 3.3	1.475	2.412	11.3	22.1
5 11	12 51.64	+ 1 9.4	2.155	3.004	12.3	22.0	5 11	12 50.21	- 0 41.3	1.559	2.429	15.1	22.3
284338	2006 <i>RA</i> ₄₁		4 9.6 112°28	4°2/ 14.3 17			44786	1999 <i>TQ</i> ₁₇₁		4 9.6 0°77	0°9/ 8.9 18		
3 2	13 36.35	-23 12.1	2.312	3.041	14.5	20.9	3 2	13 36.85	- 8 44.4	1.438	2.259	17.8	19.0
3 12	13 32.80	-23 17.0	2.217	3.045	12.2	20.7	3 12	13 34.16	- 8 12.5	1.360	2.258	14.0	18.7
3 22	13 27.25	-23 3.7	2.143	3.048	9.4	20.5	3 22	13 28.67	- 7 24.1	1.301	2.257	9.4	18.5
4 1	13 20.21	-22 31.8	2.093	3.051	6.5	20.3	4 1	13 21.04	- 6 23.6	1.266	2.257	4.3	18.2
4 11	13 12.44	-21 43.0	2.070	3.054	4.4	20.2	4 11	13 12.35	- 5 18.2	1.256	2.258	1.5	18.0
4 21	13 4.78	-20 41.6	2.075	3.057	4.9	20.2	4 21	13 3.84	- 4 16.4	1.272	2.258	6.6	18.3
5 1	12 58.07	-19 33.5	2.108	3.060	7.5	20.4	5 1	12 56.75	- 3 26.3	1.312	2.259	11.5	18.6
5 11	12 52.96	-18 25.3	2.166	3.063	10.4	20.6	5 11	12 51.95	- 2 53.5	1.374	2.261	15.8	18.8
20148	1996 <i>TR</i>		4 9.6 174°62	1°7/ 7.9 18			376370	2011 <i>OX</i> ₂₆		4 9.6 236°63	2°0/ 5.6 18		
3 2	13 39.17	- 7 23.4	1.852	2.654	15.1	19.5	3 2	13 28.97	+ 1 47.0	4.678	5.480	6.6	21.1
3 12	13 35.26	- 6 28.1	1.767	2.657	11.7	19.3	3 12	13 25.95	+ 2 18.6	4.586	5.475	5.1	21.0
3 22	13 29.03	- 5 19.1	1.706	2.659	7.8	19.0	3 22	13 22.09	+ 2 51.9	4.521	5.471	3.5	20.9
4 1	13 21.08	- 4 1.2	1.670	2.660	3.6	18.8	4 1	13 17.64	+ 3 24.5	4.484	5.466	2.2	20.8
4 11	13 12.30	- 2 41.6	1.662	2.661	2.2	18.7	4 11	13 12.91	+ 3 54.2	4.478	5.461	2.2	20.8
4 21	13 3.70	- 1 27.9	1.682	2.661	6.2	18.9	4 21	13 8.23	+ 4 19.1	4.501	5.456	3.6	20.9
5 1	12 56.25	- 0 26.8	1.729	2.661	10.3	19.2	5 1	13 3.92	+ 4 37.3	4.553	5.452	5.2	21.0
5 11	12 50.70	+ 0 16.9	1.800	2.660	13.9	19.4	5 11	13 0.26	+ 4 47.9	4.631	5.447	6.8	21.1
125222	2001 <i>UW</i> ₁₅₆		4 9.6 243°81	0°3/ 9.3 18			422136	2014 <i>QQ</i> ₄₂₅		4 9.6 178°96	1°9/ 7.9 17		
3 2	13 38.31	-10 13.9	2.178	2.963	13.7	20.9	3 2	13 41.36	- 5 40.7	1.826	2.629	15.2	21.7
3 12	13 34.44	- 9 37.4	2.069	2.947	10.8	20.7	3 12	13 37.02	- 5 2.0	1.742	2.631	11.9	21.5
3 22	13 28.46	- 8 47.1	1.983	2.930	7.4	20.5	3 22	13 30.27	- 4 11.9	1.679	2.632	7.9	21.3
4 1	13 20.85	- 7 45.8	1.923	2.912	3.5	20.2	4 1	13 21.70	- 3 15.2	1.643	2.633	3.8	21.0
4 11	13 12.33	- 6 38.1	1.892	2.894	0.8	19.9	4 11	13 12.25	- 2 18.0	1.634	2.633	2.4	20.9
4 21	13 3.79	- 5 30.2	1.890	2.875	5.0	20.2	4 21	13 2.96	- 1 26.9	1.654	2.632	6.3	21.2
5 1	12 56.13	- 4 28.3	1.916	2.855	9.0	20.4	5 1	12 54.88	- 0 47.8	1.699	2.631	10.4	21.4
5 11	12 50.09	- 3 38.0	1.967	2.835	12.6	20.6	5 11	12 48.76	- 0 24.4	1.769	2.629	14.1	21.6
124403	2001 <i>QZ</i> ₂₀₄		4 9.6 187°05	3°2/ 12.2 18			61722	2000 <i>QY</i> ₁₄₄		4 9.6 121°17	0°2/ 9.8 18		
3 2	13 41.48	-18 7.3	1.678	2.447	17.8	20.3	3 2	13 38.60	- 9 33.0	2.572	3.349	12.0	19.6
3 12	13 37.57	-18 7.9	1.588	2.447	14.6	20.1	3 12	13 34.11	- 9 28.5	2.486	3.359	9.4	19.4
3 22	13 30.90	-17 47.9	1.517	2.446	10.7	19.8	3 22	13 27.91	- 9 15.2	2.424	3.368	6.4	19.3
4 1	13 22.07	-17 7.2	1.469	2.446	6.4	19.6	4 1	13 20.47	- 8 55.0	2.389	3.376	3.1	19.0
4 11	13 12.14	-16 9.0	1.448	2.444	3.3	19.4	4 11	13 12.46	- 8 30.8	2.383	3.385	0.5	18.8
4 21	13 2.31	-14 59.6	1.453	2.442	5.5	19.5	4 21	13 4.60	- 8 6.0	2.407	3.393	3.9	19.1
5 1	12 53.82	-13 47.5	1.485	2.440	9.7	19.7	5 1	12 57.57	- 7 44.2	2.459	3.401	7.1	19.3
5 11	12 47.58	-12 41.4	1.541	2.437	13.8	20.0	5 11	12 51.93	- 7 28.6	2.537	3.409	10.0	19.5
14951	1996 <i>BS</i> ₂		4 9.6 225°00	4°4/ 5.6 18			34187	Tomaino		4 9.6 207°06	0°3/ 9.2 18		
3 2	13 40.99	- 0 4.9	1.816	2.631	14.8	18.0	3 2	13 36.06	- 8 54.4	2.863	3.642	10.9	20.5
3 12	13 36.85	+ 1 2.2	1.724	2.621	11.6	17.8	3 12	13 32.05	- 8 28.4	2.762	3.637	8.5	20.3
3 22	13 30.25	+ 2 18.2	1.656	2.609	8.0	17.5	3 22	13 26.50	- 7 53.6	2.685	3.631	5.7	20.1
4 1	13 21.72	+ 3 36.4	1.614	2.597	4.9	17.3	4 1	13 19.81	- 7 12.3	2.637	3.625	2.7	19.9
4 11	13 12.20	+ 4 48.6	1.599	2.585	5.1	17.3	4 11	13 12.56	- 6 27.8	2.617	3.619	0.7	19.7
4 21	13 2.73	+ 5 47.1	1.612	2.571	8.4	17.5	4 21	13 5.37	- 5 44.0	2.628	3.612	3.8	19.9
5 1	12 54.40	+ 6 26.0	1.650	2.557	12.3	17.7	5 1	12 58.86	- 5 4.7	2.668	3.605	6.9	20.1
5 11	12 48.03	+ 6 42.7	1.711	2.542	15.8	17.9	5 11	12 53.55	- 4 33.3	2.734	3.597	9.6	20.3
384981	2012 <i>TZ</i> ₁₇₈		4 9.6 11°24	3°1/ 12.7 17			437739	2014 <i>EF</i> ₂₈		4 9.6 52°61	4°7/ 4.2 17		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
100200	1994 <i>EL</i> ₄		4 9.6 79°08	0.7/ 9.0 18			229881	2009 <i>US</i> ₇₁		4 9.6 130°83	3.5/ 6.1 18		
3 2	13 40.55	- 9 34.2	1.511	2.319	17.7	20.0	3 2	13 41.50	+ 1 34.4	2.271	3.075	12.6	21.4
3 12	13 36.64	- 8 56.2	1.448	2.339	13.8	19.8	3 12	13 36.46	+ 2 13.3	2.200	3.089	9.8	21.2
3 22	13 30.06	- 8 2.3	1.406	2.359	9.2	19.6	3 22	13 29.52	+ 2 55.4	2.153	3.103	6.7	21.0
4 1	13 21.57	- 6 57.3	1.388	2.379	4.2	19.4	4 1	13 21.24	+ 3 36.1	2.133	3.116	4.0	20.9
4 11	13 12.30	- 5 48.6	1.397	2.398	1.2	19.2	4 11	13 12.40	+ 4 10.1	2.142	3.128	4.0	20.9
4 21	13 3.47	- 4 44.3	1.432	2.418	6.1	19.6	4 21	13 3.81	+ 4 33.4	2.180	3.140	6.5	21.1
5 1	12 56.15	- 3 51.6	1.493	2.437	10.6	19.9	5 1	12 56.25	+ 4 43.1	2.246	3.151	9.5	21.3
5 11	12 51.10	- 3 15.4	1.577	2.456	14.5	20.2	5 11	12 50.29	+ 4 38.2	2.335	3.162	12.2	21.5
332069	2005 <i>SX</i> ₁₉₃		4 9.6 44°11	1.4/11.0 16			22575	Jayallen		4 9.6 68°05	0.4/ 9.3 18		
3 2	13 34.56	-16 28.6	1.614	2.405	17.4	20.5	3 2	13 37.21	-11 16.8	1.483	2.293	17.8	18.6
3 12	13 32.03	-15 43.1	1.537	2.414	14.0	20.2	3 12	13 34.25	-10 29.1	1.411	2.302	14.0	18.4
3 22	13 27.02	-14 34.5	1.480	2.422	9.8	20.0	3 22	13 28.61	- 9 22.0	1.358	2.311	9.5	18.1
4 1	13 20.19	-13 6.2	1.447	2.431	5.2	19.8	4 1	13 20.97	- 8 0.2	1.330	2.320	4.4	17.8
4 11	13 12.54	-11 25.1	1.440	2.441	1.4	19.5	4 11	13 12.44	- 6 32.0	1.328	2.330	1.0	17.6
4 21	13 5.15	- 9 40.6	1.460	2.451	5.1	19.8	4 21	13 4.20	- 5 6.7	1.352	2.339	6.1	18.0
5 1	12 59.05	- 8 2.9	1.506	2.461	9.7	20.1	5 1	12 57.39	- 3 53.5	1.402	2.349	10.9	18.3
5 11	12 54.99	- 6 40.1	1.576	2.471	13.7	20.3	5 11	12 52.81	- 2 58.7	1.474	2.358	15.0	18.5
212826	2007 <i>UZ</i> ₃₁		4 9.6 160°23	1.3/ 8.4 18			221176	2005 <i>UN</i> ₉		4 9.6 132°42	1.7/ 7.7 18		
3 2	13 42.19	- 6 45.1	2.028	2.820	14.3	21.4	3 2	13 38.40	- 6 15.4	2.155	2.953	13.4	21.6
3 12	13 37.38	- 6 12.5	1.944	2.827	11.2	21.2	3 12	13 34.23	- 5 21.0	2.078	2.965	10.3	21.4
3 22	13 30.35	- 5 29.3	1.884	2.834	7.5	21.0	3 22	13 28.11	- 4 16.1	2.025	2.978	6.9	21.2
4 1	13 21.70	- 4 39.4	1.850	2.840	3.5	20.7	4 1	13 20.61	- 3 5.5	1.999	2.989	3.2	21.0
4 11	13 12.30	- 3 48.0	1.845	2.845	1.7	20.6	4 11	13 12.50	- 1 55.3	2.003	3.000	2.2	20.9
4 21	13 3.10	- 3 0.8	1.869	2.849	5.5	20.9	4 21	13 4.62	- 0 51.3	2.035	3.011	5.5	21.2
5 1	12 55.01	- 2 22.9	1.920	2.853	9.4	21.1	5 1	12 57.76	+ 0 1.0	2.094	3.021	9.0	21.4
5 11	12 48.74	- 1 58.0	1.996	2.856	12.8	21.3	5 11	12 52.52	+ 0 38.4	2.178	3.030	12.1	21.6
228341	2000 <i>SK</i> ₁₃₆		4 9.6 148°79	1.4/11.2 17			470943	2009 <i>HY</i> ₁₀₀		4 9.6 345°96	8.4/ 1.8 17		
3 2	13 39.49	-14 53.5	2.472	3.230	13.0	21.8	3 2	13 42.22	+17 22.1	2.148	2.954	13.1	20.8
3 12	13 34.92	-14 36.7	2.384	3.241	10.4	21.6	3 12	13 37.28	+18 6.8	2.079	2.951	11.0	20.6
3 22	13 28.51	-14 6.7	2.318	3.251	7.3	21.4	3 22	13 30.21	+18 43.2	2.033	2.948	9.2	20.5
4 1	13 20.78	-13 25.0	2.279	3.260	4.0	21.2	4 1	13 21.61	+19 4.5	2.012	2.946	8.4	20.4
4 11	13 12.45	-12 34.8	2.269	3.269	1.4	21.0	4 11	13 12.36	+19 5.1	2.018	2.944	9.0	20.5
4 21	13 4.28	-11 40.7	2.289	3.277	3.8	21.2	4 21	13 3.37	+18 42.4	2.049	2.942	10.8	20.6
5 1	12 57.02	-10 47.8	2.338	3.284	7.1	21.5	5 1	12 55.52	+17 56.2	2.104	2.940	13.0	20.7
5 11	12 51.25	-10 0.7	2.412	3.291	10.1	21.7	5 11	12 49.46	+16 49.1	2.180	2.939	15.1	20.9
166868	2002 <i>XN</i> ₄₃		4 9.6 58°92	5.5/ 4.3 18			353134	2009 <i>FP</i> ₇₁		4 9.6 65°67	3.1/12.7 18		
3 2	13 38.31	+ 6 37.8	2.085	2.905	13.0	19.9	3 2	13 38.52	-18 3.1	2.270	3.022	14.2	20.7
3 12	13 34.23	+ 7 27.3	2.015	2.910	10.2	19.7	3 12	13 34.49	-18 22.1	2.179	3.026	11.6	20.5
3 22	13 28.15	+ 8 16.9	1.969	2.915	7.5	19.5	3 22	13 28.43	-18 26.8	2.109	3.030	8.6	20.3
4 1	13 20.63	+ 9 0.4	1.949	2.920	5.6	19.4	4 1	13 20.83	-18 17.1	2.064	3.034	5.4	20.1
4 11	13 12.48	+ 9 32.0	1.956	2.926	6.0	19.5	4 11	13 12.47	-17 54.7	2.046	3.038	3.2	20.0
4 21	13 4.56	+ 9 47.3	1.990	2.931	8.4	19.6	4 21	13 4.21	-17 22.9	2.057	3.043	4.5	20.1
5 1	12 57.69	+ 9 44.2	2.050	2.937	11.2	19.8	5 1	12 56.90	-16 46.7	2.095	3.047	7.5	20.3
5 11	12 52.48	+ 9 22.7	2.131	2.943	13.8	20.0	5 11	12 51.20	-16 11.2	2.159	3.051	10.6	20.5
406546	2007 <i>WN</i> ₃₂		4 9.6 148°69	2.1/11.4 16			383769	2007 <i>VF</i> ₂₄₂		4 9.6 108°47	5.3/ 3.6 17		
3 2	13 41.64	-15 37.5	1.871	2.640	16.1	22.1	3 2	13 37.42	+ 7 15.5	2.368	3.183	11.8	21.0
3 12	13 37.27	-15 31.9	1.785	2.648	13.0	21.9	3 12	13 33.26	+ 8 17.2	2.304	3.195	9.3	20.9
3 22	13 30.46	-15 9.4	1.721	2.655	9.3	21.7	3 22	13 27.35	+ 9 18.6	2.264	3.207	6.9	20.7
4 1	13 21.81	-14 30.9	1.681	2.662	5.2	21.5	4 1	13 20.22	+10 13.9	2.251	3.218	5.4	20.6
4 11	13 12.28	-13 40.1	1.668	2.668	2.1	21.3	4 11	13 12.59	+10 57.5	2.267	3.230	5.9	20.7
4 21	13 2.94	-12 42.8	1.684	2.673	4.8	21.5	4 21	13 5.19	+11 25.3	2.310	3.241	7.9	20.8
5 1	12 54.83	-11 45.8	1.727	2.678	8.9	21.7	5 1	12 58.72	+11 35.3	2.379	3.252	10.4	21.0
5 11	12 48.71	-10 55.7	1.794	2.682	12.6	22.0	5 11	12 53.71	+11 27.1	2.470	3.263	12.7	21.2
178399	1998 <i>MT</i> ₃₀		4 9.6 331°85	3.2/12.8 17			62395	2000 <i>SZ</i> ₁₆₉		4 9.6 326°41	1.7/11.4 18		
3 2	13 35.18	-18 38.0	2.168	2.927	14.5	20.3	3 2	13 34.13	-17 26.3	1.793	2.573	16.4	18.8
3 12	13 32.06	-18 46.4	2.069	2.920	11.9	20.1	3 12	13 31.59	-16 40.9	1.700	2.570	13.2	18.6
3 22	13 26.89	-18 38.8	1.990	2.914	8.9	19.9	3 22	13 26.72	-15 32.8	1.628	2.567	9.4	18.3
4 1	13 20.13	-18 15.2	1.936	2.908	5.6	19.7	4 1	13 20.10	-14 4.1	1.581	2.564	5.2	18.1
4 11	13 12.55	-17 37.7	1.909	2.902	3.2	19.5	4 11	13 12.60	-12 20.9	1.560	2.561	1.7	17.8
4 21	13 5.00	-16 50.3	1.909	2.896	4.6	19.6	4 21	13 5.24	-10 31.7	1.568	2.558	4.9	18.0
5 1	12 58.37	-15 58.7	1.936	2.891	7.8	19.8	5 1	12 59.01	- 8 46.4	1.602	2.556	9.2	18.3
5 11	12 53.36	-15 8.9	1.988	2.886	11.1	20.0	5 11	12 54.65	- 7 13.7	1.661	2.553	13.2	18.5
454756	2014 <i>WV</i> ₆		4 9.6 232°81	0.3/ 8.9 18			290916	2005 <i>WN</i> ₁₁₄		4 9.6 174°60	0.6/10.2 17		
3 2	13 29.01	- 7 21.6	4.769	5.548	6.8	21.6	3 2	13 40.30	-11 45.0	2.396	3.166	13.0	22.1
3 12	13 26.00	- 7 1.0	4.666	5.542	5.3	21.5	3 12	13 35.65	-11 30.0	2.302	3.169	10.3	21.9
3 22	13 22.14	- 6 36.0	4.590	5.537	3.5	21.4	3 22	13 29.10	-11 3.4	2.232	3.172	7.1	21.7
4 1	13 17.69	- 6 7.8	4.542	5.531	1.6	21.2	4 1	13 21.12	-10 27.0	2.188	3.174	3.5	21.4
4 11	13 12.96	- 5 38.6	4.525	5.526	0.5	21.1	4 11	13 12.45	- 9 44.3	2.173	3.175	0.7	21.2
4 21	13 8.26	- 5 10.2	4.538	5.520	2.4	21.3	4 21	13 3.89	- 8 59.7	2.188	3.175	4.1	21.5
5 1	13 3.92	- 4 44.6	4.581	5.514	4.3	21.4	5 1	12 56.24	- 8 17.9	2.232	3.175	7.6	21.7
5 11	13 0.22	- 4 23.5	4.650	5.508	6.0	21.5	5 11	12 50.12	- 7 43.3	2.302	3.174	10.8	21.9
267071	1999 <i>TP</i> ₆₆		4 9.6 331°66	0.4/ 9.8 17			504620	2008 <i>UK</i> ₃₁₇		4 9.6 218°08	6.2/16.9 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
470863	2008 YX ₁₄₄		4 9.6 284°00	5°3/14.9	17		145314	2005 LE ₅		4 9.6 283°16	1°9/ 8.0	17	
3 2	13 37.16	-24 48.2	2.190	2.914	15.4	21.4	3 2	13 37.55	-6 24.0	1.660	2.475	16.0	20.6
3 12	13 33.74	-25 10.6	2.087	2.907	13.1	21.2	3 12	13 34.56	-5 43.2	1.561	2.457	12.6	20.4
3 22	13 28.11	-25 14.1	2.004	2.899	10.4	21.0	3 22	13 28.98	-4 48.1	1.482	2.438	8.5	20.1
4 1	13 20.77	-24 57.1	1.943	2.892	7.6	20.8	4 1	13 21.29	-3 43.2	1.429	2.419	4.0	19.8
4 11	13 12.50	-24 20.1	1.908	2.885	5.5	20.7	4 11	13 12.44	-2 35.2	1.401	2.400	2.5	19.6
4 21	13 4.23	-23 26.6	1.901	2.877	5.8	20.7	4 21	13 3.54	-1 32.4	1.401	2.382	6.9	19.8
5 1	12 56.92	-22 22.3	1.920	2.870	8.2	20.8	5 1	12 55.75	-0 42.1	1.426	2.363	11.6	20.0
5 11	12 51.35	-21 14.6	1.965	2.863	11.2	20.9	5 11	12 50.03	-0 9.9	1.472	2.344	15.8	20.3
346698	2008 YN ₁₃₄		4 9.6 290°23	5°5/ 4.4	18		178032	2006 RY ₅₂		4 9.6 98°74	0°5/ 8.9	17	
3 2	13 38.25	+ 5 42.7	2.010	2.831	13.4	20.5	3 2	13 35.65	- 9 1.0	2.504	3.291	12.0	21.1
3 12	13 34.37	+ 6 35.6	1.932	2.828	10.5	20.3	3 12	13 31.84	- 8 22.5	2.427	3.307	9.4	20.9
3 22	13 28.38	+ 7 30.0	1.876	2.824	7.6	20.1	3 22	13 26.39	- 7 34.0	2.374	3.322	6.2	20.8
4 1	13 20.81	+ 8 19.5	1.847	2.821	5.6	19.9	4 1	13 19.80	- 6 38.7	2.348	3.337	2.9	20.6
4 11	13 12.51	+ 8 57.6	1.845	2.817	6.1	20.0	4 11	13 12.71	- 5 41.1	2.351	3.352	0.9	20.4
4 21	13 4.36	+ 9 19.3	1.870	2.814	8.6	20.1	4 21	13 5.82	- 4 45.9	2.384	3.367	4.2	20.7
5 1	12 57.26	+ 9 21.7	1.919	2.811	11.6	20.3	5 1	12 59.77	- 3 57.6	2.445	3.381	7.4	20.9
5 11	12 51.88	+ 9 4.3	1.991	2.807	14.4	20.5	5 11	12 55.08	- 3 19.7	2.531	3.396	10.2	21.1
247768	2003 QB ₅₄		4 9.6 229°39	0°8/ 8.9	16		342892	2008 YG ₉₉		4 9.6 193°59	2°5/12.3	17	
3 2	13 41.83	- 8 0.5	1.978	2.769	14.6	21.8	3 2	13 37.56	-17 42.8	2.408	3.159	13.4	21.9
3 12	13 37.42	- 7 35.3	1.875	2.757	11.6	21.6	3 12	13 33.64	-17 40.4	2.309	3.158	11.0	21.7
3 22	13 30.64	- 6 57.9	1.795	2.744	7.9	21.3	3 22	13 27.82	-17 23.2	2.232	3.157	8.0	21.5
4 1	13 21.98	- 6 11.4	1.741	2.730	3.7	21.0	4 1	13 20.56	-16 52.0	2.181	3.155	4.9	21.3
4 11	13 12.31	- 5 20.7	1.715	2.716	1.2	20.8	4 11	13 12.59	-16 9.0	2.158	3.153	2.5	21.1
4 21	13 2.62	- 4 31.5	1.717	2.700	5.5	21.1	4 21	13 4.68	-15 18.5	2.163	3.151	4.1	21.2
5 1	12 53.96	- 3 49.9	1.747	2.684	9.8	21.3	5 1	12 57.64	-14 25.5	2.197	3.149	7.2	21.4
5 11	12 47.14	- 3 20.5	1.801	2.668	13.6	21.5	5 11	12 52.11	-13 35.5	2.257	3.146	10.3	21.6
72486	2001 DT ₄₁		4 9.6 147°57	0°4/ 9.3	18		419738	2010 VW ₆₆		4 9.6 246°70	3°9/ 6.1	17	
3 2	13 41.19	- 9 29.3	1.880	2.672	15.3	20.2	3 2	13 39.41	- 1 6.1	1.824	2.641	14.7	21.5
3 12	13 36.80	- 9 1.2	1.799	2.680	12.0	20.0	3 12	13 35.67	- 0 8.7	1.731	2.628	11.5	21.3
3 22	13 30.08	- 8 19.9	1.739	2.687	8.1	19.8	3 22	13 29.51	+ 0 58.0	1.660	2.615	7.9	21.0
4 1	13 21.64	- 7 28.5	1.705	2.694	3.8	19.6	4 1	13 21.47	+ 2 7.9	1.615	2.601	4.5	20.8
4 11	13 12.39	- 6 32.6	1.699	2.701	0.9	19.4	4 11	13 12.43	+ 3 13.3	1.597	2.587	4.5	20.8
4 21	13 3.35	- 5 38.3	1.722	2.707	5.3	19.7	4 21	13 3.43	+ 4 7.1	1.607	2.572	7.9	20.9
5 1	12 55.51	- 4 51.6	1.771	2.712	9.4	19.9	5 1	12 55.51	+ 4 43.2	1.642	2.557	11.8	21.1
5 11	12 49.59	- 4 17.4	1.845	2.717	13.1	20.2	5 11	12 49.50	+ 4 58.9	1.699	2.541	15.4	21.3
502876	2015 DY ₂₀₉		4 9.6 34°53	5°5/ 3.3	17		299594	2006 HL ₃₄		4 9.6 32°73	2°0/ 8.4	18	
3 2	13 34.11	+ 4 0.6	2.026	2.854	13.0	21.6	3 2	13 40.16	- 5 2.2	1.151	1.989	20.1	20.4
3 12	13 31.09	+ 5 28.9	1.956	2.857	10.2	21.4	3 12	13 37.20	- 4 49.7	1.092	2.000	15.7	20.2
3 22	13 26.12	+ 7 1.4	1.909	2.860	7.3	21.2	3 22	13 30.93	- 4 24.7	1.051	2.011	10.5	19.9
4 1	13 19.73	+ 8 30.3	1.889	2.863	5.5	21.1	4 1	13 22.18	- 3 52.7	1.032	2.024	4.9	19.6
4 11	13 12.69	+ 9 47.8	1.897	2.866	6.3	21.2	4 11	13 12.35	- 3 21.0	1.037	2.037	2.6	19.5
4 21	13 5.85	+10 47.6	1.932	2.870	8.8	21.3	4 21	13 2.97	- 2 57.0	1.066	2.051	7.7	19.8
5 1	12 59.98	+11 25.8	1.991	2.874	11.7	21.5	5 1	12 55.45	- 2 46.9	1.118	2.066	12.8	20.2
5 11	12 55.71	+11 41.1	2.071	2.877	14.3	21.7	5 11	12 50.72	- 2 54.0	1.189	2.082	17.3	20.5
407745	2011 VQ ₂₀		4 9.6 114°26	0°7/ 9.1	16		181846	1998 UG ₂		4 9.6 225°41	0°5/10.1	17	
3 2	13 40.80	- 8 17.8	1.503	2.314	17.6	22.0	3 2	13 41.23	-11 33.6	2.266	3.039	13.6	21.7
3 12	13 37.17	- 7 59.5	1.423	2.316	13.8	21.8	3 12	13 36.67	-11 17.8	2.158	3.026	10.8	21.5
3 22	13 30.70	- 7 27.1	1.364	2.317	9.4	21.5	3 22	13 29.99	-10 49.5	2.072	3.013	7.5	21.2
4 1	13 22.05	- 6 43.8	1.328	2.319	4.4	21.2	4 1	13 21.65	-10 10.2	2.013	2.999	3.7	21.0
4 11	13 12.32	- 5 56.0	1.319	2.320	1.2	21.0	4 11	13 12.41	- 9 23.7	1.982	2.984	0.6	20.7
4 21	13 2.79	- 5 10.6	1.335	2.322	6.3	21.3	4 21	13 3.16	- 8 34.5	1.981	2.968	4.5	20.9
5 1	12 54.69	- 4 34.6	1.377	2.323	11.1	21.6	5 1	12 54.78	- 7 48.1	2.009	2.952	8.4	21.1
5 11	12 48.92	- 4 13.1	1.441	2.324	15.4	21.9	5 11	12 48.03	- 7 9.6	2.062	2.935	11.9	21.3
210053	2006 PG ₂₁		4 9.6 261°44	1°3/10.9	17		66788	1999 TL ₂₃₀		4 9.6 163°13	0°8/ 8.6	18	
3 2	13 37.73	-13 17.0	2.268	3.042	13.5	20.8	3 2	13 37.09	- 8 26.1	2.499	3.285	12.1	20.2
3 12	13 33.92	-13 16.0	2.165	3.033	10.9	20.6	3 12	13 33.03	- 7 40.9	2.411	3.290	9.4	20.0
3 22	13 28.10	-13 1.7	2.085	3.023	7.7	20.3	3 22	13 27.26	- 6 45.2	2.347	3.295	6.3	19.8
4 1	13 20.72	-12 35.9	2.030	3.013	4.1	20.1	4 1	13 20.24	- 5 42.5	2.310	3.300	2.9	19.6
4 11	13 12.53	-12 1.6	2.003	3.004	1.3	19.9	4 11	13 12.65	- 4 37.5	2.303	3.304	1.2	19.5
4 21	13 4.36	-11 22.8	2.005	2.994	4.2	20.1	4 21	13 5.21	- 3 35.2	2.326	3.307	4.5	19.7
5 1	12 57.04	-10 44.4	2.035	2.984	7.9	20.3	5 1	12 58.60	- 2 40.7	2.377	3.310	7.8	19.9
5 11	12 51.29	-10 11.3	2.089	2.974	11.2	20.5	5 11	12 53.37	- 1 57.6	2.454	3.312	10.7	20.1
208183	2000 QD ₁₂₉		4 9.6 247°17	0°3/ 9.9	18		419877	2011 AY ₃₃		4 9.6 69°19	3°0/ 6.8	18	
3 2	13 35.51	-11 38.7	2.540	3.318	12.2	21.0	3 2	13 37.28	- 4 9.5	1.665	2.485	15.7	21.4
3 12	13 31.93	-11 10.9	2.434	3.306	9.6	20.8	3 12	13 33.88	- 3 3.3	1.601	2.501	12.1	21.2
3 22	13 26.61	-10 31.1	2.350	3.294	6.6	20.5	3 22	13 28.13	- 1 46.1	1.559	2.517	8.0	21.0
4 1	13 19.98	- 9 41.4	2.294	3.281	3.2	20.3	4 1	13 20.71	- 0 24.7	1.543	2.532	4.1	20.8
4 11	13 12.66	- 8 45.6	2.267	3.269	0.5	20.0	4 11	13 12.59	+ 0 52.4	1.554	2.548	3.6	20.8
4 21	13 5.36	- 7 48.3	2.269	3.256	4.0	20.3	4 21	13 4.81	+ 1 57.7	1.592	2.564	7.2	21.1
5 1	12 58.81	- 6 54.5	2.299	3.242	7.4	20.5	5 1	12 58.32	+ 2 45.4	1.655	2.580	11.1	21.3
5 11	12 53.60	- 6 8.7	2.355	3.229	10.5	20.7	5 11	12 53.79	+ 3 12.5	1.741	2.596	14.5	21.6
5080	Oja		4 9.6 112°93	2°4/11.3	18		47276	1999 VN ₁₅₁		4 9.6 282°89	1°1/ 8.6	17	
3 2	13 44.46	-14 42.6	1.559	2.341	18.3	16.4							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
262697	2006 <i>WS</i> ₁₉₄		4 9.6 169°60	3°1/ 6.6 18			84886	2003 <i>FE</i> ₁₀₂		4 9.6 304°20	4°8/ 5.6 17		
3 2	13 39.86	- 1 51.2	2.066	2.873	13.6	20.7	3 2	13 38.71	+ 2 5.2	1.727	2.553	15.0	19.8
3 12	13 35.54	- 1 0.4	1.985	2.877	10.5	20.5	3 12	13 35.16	+ 2 52.7	1.645	2.546	11.8	19.5
3 22	13 29.13	- 0 2.0	1.927	2.880	7.1	20.2	3 22	13 29.17	+ 3 45.4	1.585	2.539	8.2	19.3
4 1	13 21.18	+ 0 58.6	1.896	2.882	3.9	20.0	4 1	13 21.31	+ 4 36.7	1.550	2.532	5.2	19.1
4 11	13 12.51	+ 1 55.2	1.893	2.884	3.6	20.0	4 11	13 12.51	+ 5 19.2	1.541	2.526	5.4	19.1
4 21	13 4.02	+ 2 42.1	1.919	2.886	6.6	20.2	4 21	13 3.85	+ 5 46.7	1.559	2.519	8.5	19.3
5 1	12 56.57	+ 3 14.7	1.971	2.887	10.1	20.4	5 1	12 56.37	+ 5 55.2	1.601	2.513	12.2	19.5
5 11	12 50.83	+ 3 30.6	2.047	2.887	13.2	20.6	5 11	12 50.88	+ 5 43.2	1.665	2.507	15.7	19.7
124238	2001 <i>PN</i> ₄₅		4 9.6 201°93	3°5/ 6.0 17			64844	2001 <i>YB</i> ₁₂		4 9.6 37°30	0°6/ 9.0 18		
3 2	13 40.53	+ 0 32.7	2.312	3.116	12.4	20.7	3 2	13 36.18	- 8 0.8	2.030	2.831	14.0	19.5
3 12	13 35.90	+ 1 21.7	2.222	3.111	9.7	20.5	3 12	13 32.73	- 7 39.5	1.951	2.838	10.9	19.3
3 22	13 29.31	+ 2 16.0	2.155	3.106	6.6	20.3	3 22	13 27.26	- 7 7.6	1.895	2.846	7.3	19.1
4 1	13 21.26	+ 3 10.6	2.116	3.100	4.0	20.1	4 1	13 20.31	- 6 28.3	1.864	2.854	3.4	18.9
4 11	13 12.50	+ 4 0.0	2.107	3.093	4.0	20.1	4 11	13 12.68	- 5 46.2	1.861	2.863	1.0	18.7
4 21	13 3.83	+ 4 39.0	2.126	3.085	6.7	20.3	4 21	13 5.25	- 5 6.5	1.886	2.871	4.9	19.0
5 1	12 56.07	+ 5 4.0	2.172	3.077	9.8	20.5	5 1	12 58.83	- 4 34.0	1.938	2.880	8.7	19.2
5 11	12 49.86	+ 5 12.8	2.242	3.068	12.7	20.6	5 11	12 54.06	- 4 12.4	2.014	2.889	12.0	19.4
98946	2001 <i>CB</i> ₂₂		4 9.6 285°10	1°7/ 8.1 18			236417	2006 <i>DA</i> ₉₃		4 9.6 169°62	0°0/ 9.5 17		
3 2	13 37.47	- 5 37.8	1.932	2.740	14.3	19.6	3 2	13 38.42	- 9 52.0	2.201	2.987	13.5	21.6
3 12	13 33.93	- 5 6.1	1.845	2.737	11.2	19.4	3 12	13 34.38	- 9 31.7	2.111	2.989	10.6	21.4
3 22	13 28.19	- 4 24.2	1.779	2.733	7.5	19.2	3 22	13 28.35	- 8 59.9	2.044	2.990	7.2	21.2
4 1	13 20.79	- 3 36.1	1.740	2.730	3.5	18.9	4 1	13 20.83	- 8 19.2	2.003	2.992	3.4	20.9
4 11	13 12.57	- 2 47.3	1.727	2.726	2.1	18.8	4 11	13 12.60	- 7 33.8	1.991	2.993	0.6	20.7
4 21	13 4.47	- 2 3.6	1.743	2.723	5.9	19.0	4 21	13 4.49	- 6 48.5	2.008	2.994	4.5	21.0
5 1	12 57.40	- 1 30.4	1.785	2.720	9.8	19.3	5 1	12 57.33	- 6 8.3	2.052	2.995	8.2	21.2
5 11	12 52.10	- 1 11.2	1.850	2.716	13.3	19.5	5 11	12 51.78	- 5 37.6	2.121	2.995	11.5	21.4
140774	2001 <i>UC</i> ₁₃₁		4 9.6 43°11	0°8/ 8.9 17			434885	2006 <i>SY</i> ₃₆₀		4 9.6 322°92	7°7/ 3.9 17		
3 2	13 36.29	- 7 37.3	2.154	2.953	13.4	20.2	3 2	13 47.50	+ 15 26.7	2.105	2.904	13.6	20.6
3 12	13 32.72	- 7 13.7	2.070	2.957	10.4	20.0	3 12	13 41.50	+ 15 48.2	2.025	2.896	11.3	20.4
3 22	13 27.21	- 6 40.1	2.009	2.960	7.0	19.8	3 22	13 33.15	+ 16 1.8	1.967	2.889	9.1	20.3
4 1	13 20.27	- 5 59.6	1.974	2.964	3.2	19.6	4 1	13 23.09	+ 16 1.0	1.935	2.882	7.8	20.2
4 11	13 12.66	- 5 16.7	1.967	2.968	1.1	19.4	4 11	13 12.25	+ 15 40.8	1.931	2.875	8.2	20.2
4 21	13 5.20	- 4 36.4	1.989	2.973	4.8	19.7	4 21	13 1.66	+ 14 58.7	1.954	2.868	10.1	20.3
5 1	12 58.69	- 4 3.2	2.037	2.977	8.5	19.9	5 1	12 52.28	+ 13 55.2	2.002	2.862	12.6	20.4
5 11	12 53.75	- 3 40.8	2.110	2.981	11.7	20.1	5 11	12 44.84	+ 12 33.0	2.074	2.856	15.1	20.6
498730	2008 <i>TY</i> ₁₂₆		4 9.6 190°97	2°7/ 12.2 17			90276	2003 <i>DE</i> ₂		4 9.7 318°29	8°6/ 16.3 17		
3 2	13 39.29	- 17 7.6	2.169	2.927	14.6	22.0	3 2	13 38.33	- 28 1.8	1.662	2.389	19.5	19.6
3 12	13 35.23	- 17 15.1	2.073	2.926	11.9	21.8	3 12	13 35.66	- 29 2.8	1.564	2.378	17.0	19.4
3 22	13 29.02	- 17 7.6	1.999	2.926	8.7	21.6	3 22	13 30.03	- 29 40.9	1.482	2.367	14.1	19.1
4 1	13 21.19	- 16 45.2	1.949	2.924	5.2	21.4	4 1	13 21.94	- 29 51.2	1.422	2.356	11.1	18.9
4 11	13 12.51	- 16 10.3	1.928	2.923	2.7	21.2	4 11	13 12.40	- 29 31.4	1.383	2.346	8.9	18.8
4 21	13 3.92	- 15 26.9	1.934	2.922	4.5	21.4	4 21	13 2.74	- 28 43.7	1.369	2.336	8.8	18.7
5 1	12 56.29	- 14 40.5	1.968	2.920	7.9	21.6	5 1	12 54.35	- 27 34.9	1.379	2.326	11.0	18.8
5 11	12 50.38	- 13 57.0	2.028	2.918	11.2	21.8	5 11	12 48.37	- 26 15.4	1.412	2.317	14.2	19.0
303388	2004 <i>XO</i> ₄₉		4 9.6 165°07	0°2/ 9.8 18			293027	2006 <i>WM</i> ₆₂		4 9.7 118°77	1°5/ 11.4 17		
3 2	13 43.13	- 10 39.5	2.027	2.806	14.8	21.9	3 2	13 36.93	- 14 54.2	2.718	3.476	11.9	21.8
3 12	13 38.20	- 10 19.1	1.939	2.812	11.7	21.7	3 12	13 32.80	- 14 45.0	2.632	3.489	9.5	21.6
3 22	13 30.99	- 9 45.7	1.874	2.818	8.0	21.5	3 22	13 27.05	- 14 24.2	2.569	3.501	6.7	21.5
4 1	13 22.09	- 9 1.7	1.835	2.823	3.8	21.2	4 1	13 20.15	- 13 53.0	2.532	3.512	3.7	21.3
4 11	13 12.38	- 8 11.7	1.825	2.827	0.6	21.0	4 11	13 12.73	- 13 14.3	2.525	3.524	1.5	21.1
4 21	13 2.84	- 7 21.2	1.844	2.830	4.9	21.3	4 21	13 5.46	- 12 31.7	2.547	3.535	3.5	21.3
5 1	12 54.43	- 6 35.8	1.891	2.833	8.9	21.5	5 1	12 58.98	- 11 49.3	2.598	3.546	6.4	21.5
5 11	12 47.88	- 6 0.5	1.963	2.834	12.4	21.8	5 11	12 53.80	- 11 11.3	2.675	3.557	9.2	21.7
503998	2004 <i>XD</i> ₇₈		4 9.6 222°42	5°0/ 15.7 18			212447	2006 <i>PU</i> ₃₉		4 9.7 172°13	4°4/ 4.3 18		
3 2	13 39.47	- 27 38.1	2.715	3.401	13.5	22.3	3 2	13 36.31	+ 4 15.1	2.485	3.298	11.4	20.9
3 12	13 35.14	- 27 43.6	2.597	3.389	11.6	22.1	3 12	13 32.43	+ 5 17.7	2.407	3.300	8.9	20.7
3 22	13 28.87	- 27 30.9	2.500	3.376	9.4	22.0	3 22	13 26.86	+ 6 22.8	2.354	3.302	6.3	20.5
4 1	13 21.10	- 26 58.5	2.426	3.362	7.0	21.8	4 1	13 20.08	+ 7 24.9	2.329	3.303	4.6	20.4
4 11	13 12.53	- 26 7.1	2.380	3.348	5.3	21.6	4 11	13 12.75	+ 8 18.4	2.332	3.304	5.0	20.5
4 21	13 3.95	- 24 59.7	2.363	3.333	5.3	21.6	4 21	13 5.55	+ 8 58.9	2.363	3.305	7.2	20.6
5 1	12 56.18	- 23 41.4	2.374	3.318	7.2	21.7	5 1	12 59.18	+ 9 23.2	2.421	3.305	9.8	20.8
5 11	12 49.88	- 22 19.0	2.413	3.301	9.8	21.8	5 11	12 54.17	+ 9 30.2	2.501	3.306	12.2	20.9
112861	2002 <i>QE</i> ₃₁		4 9.6 334°67	1°1/ 8.9 17			300078	2006 <i>UV</i> ₂₁₄		4 9.7 271°84	0°6/ 9.1 17		
3 2	13 36.86	- 6 18.3	1.233	2.069	19.2	19.3	3 2	13 39.06	- 6 48.9	2.345	3.135	12.7	20.5
3 12	13 34.87	- 6 19.5	1.148	2.054	15.2	19.0	3 12	13 34.86	- 6 44.9	2.243	3.124	10.0	20.3
3 22	13 29.66	- 6 7.9	1.081	2.041	10.4	18.7	3 22	13 28.69	- 6 33.1	2.164	3.113	6.7	20.0
4 1	13 21.78	- 5 46.9	1.036	2.028	4.9	18.3	4 1	13 21.03	- 6 15.6	2.112	3.102	3.2	19.8
4 11	13 12.41	- 5 22.4	1.015	2.016	1.6	18.1	4 11	13 12.59	- 5 55.7	2.089	3.090	0.9	19.6
4 21	13 3.01	- 5 1.2	1.017	2.005	7.3	18.4	4 21	13 4.15	- 5 37.1	2.094	3.079	4.6	19.8
5 1	12 55.12	- 4 50.3	1.042	1.996	12.9	18.6	5 1	12 56.54	- 5 23.4	2.128	3.067	8.2	20.0
5 11	12 49.92	- 4 54.8	1.087	1.988	17.8	18.9	5 11	12 50.44	- 5 17.9	2.187	3.056	11.4	20.2
24674	1989 <i>SZ</i> ₄		4 9.6 110°78	1°8/ 8.4 18			196340	2003 <i>FH</i>					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
365185	2009 <i>FT</i> ₂₅		4 9.7 339°55	3°2/ 7.3 17			74928	1999 <i>TE</i> ₁₅₄		4 9.7 274°26	2°2/ 7.9 18		
3 2	13 38.05	- 3 30.1	1.399	2.230	17.6	20.8	3 2	13 41.22	- 4 31.8	1.705	2.516	15.8	19.7
3 12	13 35.22	- 2 50.3	1.321	2.226	13.7	20.5	3 12	13 37.50	- 4 5.0	1.600	2.493	12.5	19.4
3 22	13 29.52	- 1 58.8	1.263	2.222	9.2	20.3	3 22	13 31.06	- 3 27.3	1.515	2.470	8.5	19.2
4 1	13 21.57	- 1 1.6	1.229	2.219	4.7	20.0	4 1	13 22.39	- 2 42.6	1.456	2.446	4.2	18.8
4 11	13 12.50	- 0 7.0	1.220	2.216	3.8	19.9	4 11	13 12.42	- 1 56.9	1.424	2.422	2.7	18.7
4 21	13 3.60	+ 0 36.8	1.236	2.213	8.1	20.2	4 21	13 2.30	- 1 17.1	1.418	2.398	7.0	18.9
5 1	12 56.14	+ 1 3.2	1.275	2.211	12.8	20.4	5 1	12 53.26	- 0 49.4	1.439	2.373	11.7	19.1
5 11	12 51.05	+ 1 8.9	1.335	2.210	16.9	20.6	5 11	12 46.31	- 0 38.3	1.481	2.348	16.0	19.3
68488	2001 <i>TK</i> ₂₀₉		4 9.7 191°30	3°7/13.8 18			496475	2014 <i>SO</i> ₂₁₁		4 9.7 259°01	5°0/ 5.2 17		
3 2	13 37.34	-21 49.1	2.534	3.263	13.4	20.5	3 2	13 39.38	+ 1 17.8	1.703	2.528	15.2	21.1
3 12	13 33.45	-21 57.1	2.433	3.262	11.2	20.3	3 12	13 35.86	+ 2 23.7	1.613	2.514	12.0	20.9
3 22	13 27.70	-21 49.4	2.354	3.261	8.6	20.1	3 22	13 29.78	+ 3 37.7	1.545	2.499	8.4	20.6
4 1	13 20.54	-21 25.6	2.300	3.260	5.8	19.9	4 1	13 21.70	+ 4 52.6	1.502	2.484	5.4	20.4
4 11	13 12.67	-20 47.3	2.273	3.258	3.8	19.8	4 11	13 12.54	+ 5 59.6	1.486	2.469	5.8	20.4
4 21	13 4.87	-19 57.9	2.274	3.257	4.5	19.8	4 21	13 3.42	+ 6 50.9	1.496	2.453	9.1	20.5
5 1	12 57.90	-19 2.3	2.304	3.255	7.0	20.0	5 1	12 55.44	+ 7 20.6	1.531	2.438	13.0	20.7
5 11	12 52.39	-18 6.3	2.360	3.253	9.8	20.2	5 11	12 49.50	+ 7 26.6	1.586	2.422	16.6	20.9
34591	2000 <i>TB</i> ₁₅		4 9.7 358°16	0°2/ 9.4 18 R			101701	1999 <i>CU</i> ₁₄₉		4 9.7 205°38	0°7/10.3 18		
3 2	13 35.37	- 8 59.0	2.010	2.811	14.1	18.7	3 2	13 40.09	-11 56.6	2.217	2.992	13.8	20.6
3 12	13 32.23	- 8 42.3	1.923	2.809	11.1	18.5	3 12	13 35.78	-11 42.4	2.118	2.987	11.0	20.4
3 22	13 27.02	- 8 14.2	1.858	2.808	7.5	18.2	3 22	13 29.38	-11 15.5	2.041	2.982	7.6	20.2
4 1	13 20.25	- 7 37.4	1.818	2.808	3.5	18.0	4 1	13 21.40	-10 37.6	1.991	2.977	3.8	19.9
4 11	13 12.73	- 6 56.4	1.806	2.807	0.7	17.7	4 11	13 12.60	- 9 52.5	1.969	2.971	0.7	19.7
4 21	13 5.32	- 6 16.2	1.821	2.808	4.8	18.1	4 21	13 3.85	- 9 4.7	1.977	2.964	4.4	19.9
5 1	12 58.89	- 5 42.0	1.863	2.808	8.7	18.3	5 1	12 56.04	- 8 19.8	2.012	2.957	8.2	20.1
5 11	12 54.13	- 5 18.0	1.929	2.809	12.2	18.5	5 11	12 49.87	- 7 42.6	2.073	2.949	11.6	20.3
325285	2008 <i>GX</i> ₁₄₄		4 9.7 181°43	3°6/ 6.4 17			274925	2009 <i>SY</i> ₁₆₄		4 9.7 61°00	3°0/ 7.6 18		
3 2	13 43.38	+ 1 50.9	2.217	3.018	12.9	21.1	3 2	13 44.18	- 0 23.1	1.699	2.512	15.8	20.5
3 12	13 38.16	+ 2 21.5	2.132	3.019	10.1	20.9	3 12	13 39.24	- 0 14.9	1.633	2.526	12.3	20.3
3 22	13 30.86	+ 2 55.2	2.071	3.020	7.0	20.7	3 22	13 31.77	- 0 2.4	1.588	2.541	8.3	20.1
4 1	13 22.02	+ 3 27.5	2.037	3.020	4.2	20.5	4 1	13 22.49	+ 0 10.1	1.568	2.556	4.3	19.9
4 11	13 12.47	+ 3 53.4	2.032	3.019	4.1	20.5	4 11	13 12.45	+ 0 17.6	1.576	2.571	3.4	19.9
4 21	13 3.08	+ 4 8.7	2.057	3.018	6.8	20.7	4 21	13 2.77	+ 0 16.1	1.612	2.586	6.9	20.1
5 1	12 54.70	+ 4 10.5	2.108	3.016	9.9	20.9	5 1	12 54.50	+ 0 2.9	1.673	2.602	10.7	20.4
5 11	12 48.02	+ 3 57.7	2.184	3.014	12.9	21.0	5 11	12 48.36	- 0 23.3	1.757	2.617	14.2	20.6
370156	2001 <i>YY</i> ₁₁		4 9.7 167°83	9°5/21.5 17			260787	2005 <i>NR</i> ₄₀		4 9.7 132°45	1°2/10.8 18		
3 2	13 50.78	-42 43.5	2.955	3.500	14.8	22.3	3 2	13 40.72	-14 1.0	2.130	2.899	14.5	21.8
3 12	13 44.37	-43 58.6	2.855	3.507	13.6	22.2	3 12	13 36.19	-13 42.5	2.048	2.912	11.5	21.6
3 22	13 35.38	-44 54.2	2.772	3.512	12.3	22.1	3 22	13 29.57	-13 9.3	1.988	2.925	8.0	21.4
4 1	13 24.33	-45 25.6	2.710	3.517	10.9	22.0	4 1	13 21.43	-12 23.5	1.954	2.938	4.2	21.2
4 11	13 12.09	-45 29.8	2.671	3.521	9.9	21.9	4 11	13 12.61	-11 29.1	1.949	2.950	1.2	21.0
4 21	12 59.78	-45 6.7	2.656	3.524	9.5	21.9	4 21	13 4.00	-10 31.6	1.973	2.961	4.3	21.2
5 1	12 48.51	-44 19.4	2.668	3.527	9.8	21.9	5 1	12 56.48	- 9 36.7	2.024	2.972	8.0	21.5
5 11	12 39.20	-43 14.4	2.703	3.528	10.8	22.0	5 11	12 50.68	- 8 49.8	2.102	2.982	11.3	21.7
424067	2007 <i>CJ</i> ₆₅		4 9.7 275°91	4°8/ 4.7 17			310499	2000 <i>UV</i> ₁₁₄		4 9.7 156°98	2°6/12.1 18		
3 2	13 36.29	+ 0 34.5	1.838	2.662	14.3	21.2	3 2	13 42.91	-17 34.7	2.097	2.848	15.2	21.6
3 12	13 33.26	+ 1 53.7	1.743	2.645	11.2	20.9	3 12	13 38.05	-17 29.4	2.008	2.857	12.4	21.4
3 22	13 27.92	+ 3 22.4	1.672	2.627	7.8	20.7	3 22	13 30.93	-17 7.4	1.940	2.865	9.0	21.2
4 1	13 20.78	+ 4 53.4	1.627	2.609	5.1	20.5	4 1	13 22.12	-16 29.2	1.897	2.872	5.3	21.0
4 11	13 12.66	+ 6 17.9	1.609	2.591	5.6	20.5	4 11	13 12.50	-15 37.8	1.882	2.879	2.6	20.8
4 21	13 4.55	+ 7 27.7	1.617	2.572	8.8	20.6	4 21	13 3.05	-14 38.4	1.897	2.885	4.5	21.0
5 1	12 57.46	+ 8 16.4	1.651	2.554	12.5	20.8	5 1	12 54.72	-13 37.3	1.940	2.890	8.1	21.2
5 11	12 52.17	+ 8 41.1	1.706	2.535	15.9	20.9	5 11	12 48.24	-12 41.1	2.008	2.894	11.6	21.4
39704	1996 <i>TG</i> ₁₅		4 9.7 148°73	1°3/ 8.5 18 R			522641	2016 <i>GH</i> ₂₆₁		4 9.7 291°34	0°4/ 9.9 17		
3 2	13 42.56	- 6 36.8	1.971	2.764	14.6	19.6	3 2	13 36.94	-11 23.9	1.760	2.559	15.9	21.5
3 12	13 37.74	- 6 4.2	1.891	2.774	11.4	19.4	3 12	13 34.02	-11 4.4	1.656	2.540	12.7	21.3
3 22	13 30.67	- 5 21.0	1.834	2.784	7.6	19.2	3 22	13 28.60	-10 28.7	1.573	2.521	8.8	21.0
4 1	13 21.96	- 4 31.2	1.803	2.793	3.5	18.9	4 1	13 21.18	- 9 39.1	1.515	2.503	4.4	20.7
4 11	13 12.50	- 3 40.2	1.801	2.801	1.7	18.8	4 11	13 12.62	- 8 40.1	1.482	2.484	0.6	20.3
4 21	13 3.27	- 2 53.7	1.828	2.808	5.6	19.1	4 21	13 4.00	- 7 38.5	1.477	2.466	5.4	20.6
5 1	12 55.20	- 2 17.0	1.882	2.815	9.5	19.3	5 1	12 56.42	- 6 41.7	1.498	2.447	10.1	20.9
5 11	12 48.99	- 1 53.6	1.960	2.821	12.9	19.6	5 11	12 50.80	- 5 56.5	1.541	2.429	14.3	21.1
99888	2002 <i>PK</i> ₁₆₄		4 9.7 249°99	0°1/ 9.5 17			425206	2009 <i>VR</i> ₂₃		4 9.7 10°28	5°1/14.6 17		
3 2	13 37.80	- 9 23.4	2.141	2.931	13.7	20.6	3 2	13 37.21	-23 55.9	1.884	2.624	17.0	21.0
3 12	13 34.05	- 9 6.3	2.045	2.925	10.8	20.4	3 12	13 34.08	-24 6.8	1.792	2.625	14.4	20.8
3 22	13 28.23	- 8 37.8	1.971	2.919	7.4	20.1	3 22	13 28.51	-23 55.6	1.719	2.625	11.2	20.6
4 1	13 20.85	- 8 0.4	1.924	2.913	3.5	19.9	4 1	13 21.06	-23 20.9	1.668	2.625	7.9	20.4
4 11	13 12.66	- 7 18.2	1.904	2.906	0.6	19.6	4 11	13 12.65	-22 24.7	1.643	2.626	5.4	20.2
4 21	13 4.54	- 6 36.1	1.913	2.900	4.7	19.9	4 21	13 4.35	-21 11.9	1.644	2.626	5.9	20.2
5 1	12 57.34	- 5 59.1	1.950	2.893	8.6	20.1	5 1	12 57.21	-19 50.2	1.672	2.627	8.8	20.4
5 11	12 51.77	- 5 31.7	2.011	2.886	12.0	20.3	5 11	12 52.05	-18 28.7	1.724	2.627	12.2	20.6
71239	2000 <i>AM</i> ₇		4 9.7 287°75	4°1/ 6.2 18			465318	2007 <i>UT</i> ₁₃₉		4 9.7 144°92			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
145146	2005 GC ₁₇₂		4 9.7 230°55	1.2/ 8.6	17		113437	2002 SY ₄₀		4 9.7 109°71	1.6/ 8.0	18	
3 2	13 41.28	- 6 39.4	1.991	2.787	14.4	21.0	3 2	13 37.80	- 5 6.1	2.241	3.041	12.9	20.0
3 12	13 36.98	- 6 13.0	1.891	2.776	11.3	20.8	3 12	13 33.77	- 4 33.7	2.162	3.050	10.0	19.8
3 22	13 30.36	- 5 35.8	1.814	2.764	7.7	20.5	3 22	13 27.87	- 3 53.1	2.107	3.059	6.6	19.6
4 1	13 21.93	- 4 50.9	1.762	2.752	3.6	20.3	4 1	13 20.63	- 3 8.1	2.079	3.068	3.1	19.4
4 11	13 12.52	- 4 3.5	1.739	2.739	1.6	20.1	4 11	13 12.78	- 2 23.6	2.079	3.077	2.0	19.4
4 21	13 3.12	- 3 19.3	1.744	2.726	5.7	20.3	4 21	13 5.11	- 1 44.3	2.108	3.086	5.2	19.6
5 1	12 54.73	- 2 43.6	1.777	2.712	9.8	20.6	5 1	12 58.40	- 1 14.2	2.164	3.094	8.6	19.8
5 11	12 48.16	- 2 20.9	1.833	2.697	13.5	20.8	5 11	12 53.22	- 0 56.4	2.245	3.103	11.6	20.0
338935	2004 EY ₅₂		4 9.7 65°19	0.6/10.2	17		337867	2001 WE ₁₉		4 9.7 132°69	1.1/ 8.5	18	
3 2	13 39.91	-10 9.6	2.166	2.949	13.8	20.4	3 2	13 38.48	- 5 33.0	2.666	3.454	11.4	21.5
3 12	13 35.59	-10 16.4	2.079	2.954	10.9	20.2	3 12	13 33.98	- 5 13.2	2.583	3.464	8.8	21.4
3 22	13 29.21	-10 13.1	2.015	2.958	7.5	20.0	3 22	13 27.86	- 4 46.6	2.525	3.474	5.9	21.2
4 1	13 21.30	-10 1.2	1.976	2.963	3.7	19.8	4 1	13 20.58	- 4 16.2	2.495	3.484	2.7	21.0
4 11	13 12.63	- 9 43.7	1.965	2.967	0.7	19.6	4 11	13 12.79	- 3 45.3	2.494	3.494	1.4	20.9
4 21	13 4.10	- 9 24.2	1.984	2.972	4.3	19.8	4 21	13 5.15	- 3 17.7	2.523	3.503	4.3	21.1
5 1	12 56.55	- 9 6.9	2.030	2.976	8.0	20.1	5 1	12 58.32	- 2 56.4	2.580	3.511	7.3	21.3
5 11	12 50.67	- 8 55.5	2.101	2.981	11.3	20.3	5 11	12 52.81	- 2 44.0	2.663	3.520	10.0	21.5
182021	2000 AU ₅		4 9.7 142°38	1.6/ 8.1	16		72170	2000 YU ₁₀₈		4 9.7 175°71	1.5/ 8.2	18	
3 2	13 41.62	- 5 51.3	2.079	2.873	13.9	21.8	3 2	13 42.43	- 5 57.0	2.119	2.910	13.8	20.4
3 12	13 36.86	- 5 12.8	2.001	2.885	10.8	21.6	3 12	13 37.56	- 5 22.2	2.031	2.914	10.8	20.2
3 22	13 30.01	- 4 24.6	1.946	2.897	7.2	21.4	3 22	13 30.55	- 4 37.6	1.966	2.916	7.2	20.0
4 1	13 21.63	- 3 30.9	1.918	2.908	3.4	21.2	4 1	13 21.95	- 3 47.0	1.929	2.918	3.4	19.8
4 11	13 12.59	- 2 37.1	1.919	2.918	2.0	21.1	4 11	13 12.57	- 2 55.6	1.920	2.919	1.9	19.7
4 21	13 3.78	- 1 48.8	1.949	2.927	5.5	21.3	4 21	13 3.35	- 2 8.8	1.940	2.919	5.5	19.9
5 1	12 56.07	- 1 10.9	2.007	2.936	9.2	21.6	5 1	12 55.17	- 1 31.7	1.989	2.918	9.3	20.1
5 11	12 50.10	- 0 46.6	2.089	2.944	12.4	21.8	5 11	12 48.73	- 1 7.7	2.062	2.917	12.6	20.3
109394	2001 QX ₁₇₃		4 9.7 207°77	2.5/ 6.9	18		470918	2009 DA ₁₀₁		4 9.7 280°15	0.1/ 9.5	17	
3 2	13 38.89	- 3 25.0	2.372	3.170	12.3	20.8	3 2	13 39.89	- 7 46.0	2.266	3.054	13.1	21.5
3 12	13 34.64	- 2 30.0	2.276	3.164	9.6	20.6	3 12	13 35.59	- 7 49.7	2.167	3.046	10.4	21.3
3 22	13 28.50	- 1 26.5	2.204	3.156	6.4	20.4	3 22	13 29.25	- 7 45.2	2.091	3.038	7.1	21.0
4 1	13 20.95	- 0 18.8	2.161	3.148	3.3	20.2	4 1	13 21.36	- 7 34.3	2.041	3.030	3.4	20.8
4 11	13 12.69	+ 0 47.4	2.146	3.139	2.9	20.1	4 11	13 12.66	- 7 20.1	2.020	3.022	0.6	20.5
4 21	13 4.51	+ 0 46.3	2.161	3.130	5.9	20.3	4 21	13 3.98	- 7 5.8	2.027	3.013	4.5	20.8
5 1	12 57.16	+ 2 33.3	2.204	3.119	9.2	20.5	5 1	12 56.18	- 6 55.4	2.063	3.005	8.2	21.0
5 11	12 51.29	+ 3 5.0	2.271	3.108	12.2	20.7	5 11	12 49.96	- 6 52.0	2.124	2.997	11.5	21.2
225311	1996 VP ₁₇		4 9.7 357°74	4.9/ 6.4	17		152874	2000 AQ ₄₅		4 9.7 131°34	2.1/ 11.4	18	
3 2	13 41.44	+ 3 14.5	1.554	2.382	16.3	20.0	3 2	13 43.60	-15 46.7	1.636	2.411	17.9	20.9
3 12	13 37.54	+ 3 37.0	1.479	2.380	12.8	19.8	3 12	13 39.14	-15 35.1	1.558	2.425	14.4	20.7
3 22	13 30.90	+ 4 1.8	1.425	2.379	8.9	19.6	3 22	13 31.93	-15 3.8	1.501	2.437	10.2	20.5
4 1	13 22.20	+ 4 22.7	1.395	2.378	5.6	19.4	4 1	13 22.67	-14 14.4	1.467	2.449	5.6	20.2
4 11	13 12.50	+ 4 33.3	1.391	2.378	5.4	19.3	4 11	13 12.47	-13 11.5	1.461	2.460	2.1	20.0
4 21	13 3.04	+ 4 28.5	1.412	2.378	8.7	19.5	4 21	13 2.56	-12 2.3	1.481	2.471	5.3	20.3
5 1	12 54.96	+ 4 5.9	1.458	2.379	12.6	19.7	5 1	12 54.10	-10 55.1	1.529	2.481	9.7	20.5
5 11	12 49.13	+ 3 25.1	1.526	2.380	16.2	20.0	5 11	12 47.94	- 9 57.6	1.600	2.490	13.7	20.8
64618	2001 XQ ₂₈		4 9.7 148°00	3.6/ 6.4	18		503138	2015 GB ₁₅		4 9.7 132°91	0.4/ 10.1	17	
3 2	13 41.86	- 1 55.0	1.804	2.615	15.1	19.8	3 2	13 37.93	-11 8.6	2.188	2.971	13.7	22.0
3 12	13 37.38	- 0 51.6	1.731	2.625	11.7	19.6	3 12	13 34.03	-10 52.6	2.101	2.976	10.8	21.8
3 22	13 30.51	+ 0 20.5	1.681	2.634	7.9	19.4	3 22	13 28.15	-10 24.5	2.036	2.980	7.4	21.6
4 1	13 21.92	+ 1 35.0	1.656	2.643	4.4	19.2	4 1	13 20.80	- 9 46.5	1.997	2.984	3.6	21.3
4 11	13 12.56	+ 2 44.0	1.660	2.650	4.2	19.2	4 11	13 12.75	- 9 2.7	1.986	2.988	0.6	21.1
4 21	13 3.48	+ 3 40.6	1.692	2.658	7.5	19.4	4 21	13 4.84	- 8 17.6	2.004	2.991	4.3	21.4
5 1	12 55.64	+ 4 19.5	1.749	2.664	11.2	19.6	5 1	12 57.88	- 7 36.5	2.049	2.995	8.0	21.6
5 11	12 49.78	+ 4 38.4	1.830	2.669	14.6	19.9	5 11	12 52.52	- 7 3.8	2.119	2.998	11.3	21.8
35497	1998 FT ₃₃		4 9.7 267°58	2.2/ 7.4	18		201532	2003 QM ₄₉		4 9.7 271°99	2.3/ 7.3	17	
3 2	13 35.41	- 6 27.0	1.857	2.669	14.7	19.1	3 2	13 37.43	- 4 47.7	2.183	2.985	13.1	21.8
3 12	13 32.41	- 5 20.2	1.774	2.669	11.4	18.9	3 12	13 33.88	- 3 55.3	2.069	2.959	10.3	21.6
3 22	13 27.22	- 3 59.8	1.713	2.668	7.6	18.6	3 22	13 28.24	- 2 51.6	1.978	2.932	6.9	21.3
4 1	13 20.39	- 2 31.4	1.678	2.668	3.6	18.4	4 1	13 20.95	- 1 40.7	1.915	2.904	3.5	21.1
4 11	13 12.79	- 1 2.8	1.671	2.668	2.8	18.3	4 11	13 12.71	- 0 28.6	1.880	2.875	2.8	21.0
4 21	13 5.35	+ 0 18.0	1.691	2.667	6.5	18.6	4 21	13 4.38	+ 0 38.1	1.873	2.847	6.2	21.1
5 1	12 58.97	+ 1 24.2	1.738	2.667	10.4	18.8	5 1	12 56.84	+ 1 33.3	1.894	2.817	10.0	21.3
5 11	12 54.35	+ 2 11.4	1.808	2.666	13.9	19.0	5 11	12 50.86	+ 2 12.6	1.939	2.788	13.5	21.4
140654	2001 UQ ₃₆		4 9.7 208°43	1.3/ 7.9	18		310260	2011 UV ₃₁		4 9.7 181°60	4.2/ 14.4	18	
3 2	13 34.88	- 7 8.5	2.726	3.516	11.1	20.8	3 2	13 36.64	-23 8.4	2.500	3.224	13.7	20.6
3 12	13 31.27	- 6 13.4	2.628	3.511	8.6	20.6	3 12	13 32.98	-23 20.7	2.401	3.224	11.5	20.5
3 22	13 26.09	- 5 8.5	2.555	3.505	5.7	20.4	3 22	13 27.44	-23 16.7	2.323	3.224	8.9	20.3
4 1	13 19.77	- 3 57.4	2.510	3.500	2.7	20.2	4 1	13 20.48	-22 55.7	2.270	3.224	6.3	20.1
4 11	13 12.89	- 2 44.8	2.495	3.493	1.6	20.1	4 11	13 12.80	-22 19.0	2.243	3.224	4.3	20.0
4 21	13 6.09	- 1 35.9	2.510	3.487	4.6	20.3	4 21	13 5.19	-21 30.0	2.244	3.224	4.8	20.0
5 1	12 59.98	- 0 35.3	2.553	3.480	7.6	20.5	5 1	12 58.42	-20 33.6	2.274	3.224	7.1	20.1
5 11	12 55.10	+ 0 13.4	2.622	3.472	10.4	20.7	5 11	12 53.14	-19 35.8	2.329	3.224	9.8	20.3
226288	2003 BB ₃₅		4 9.7 72°63	1.8/ 7.2	18		213005	1993 RC		4 9.7 257°39	1.5/ 7.7	18	
3 2	13 33.22	- 3 7.1	3.044	3.843	9.8								

EPHEMERIDES

4 9.7

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
206294	2003 BH ₈₃		4 9.7 347°19	9°7/30.6	18		219768	2001 YZ ₁₀₈		4 9.7 173°05	1°1/ 8.6	18	
3 2	13 33.40	+14 7.7	1.669	2.509	14.8	18.8	3 2	13 40.46	- 6 38.6	2.278	3.067	13.0	20.6
3 12	13 31.15	+15 42.2	1.604	2.500	12.3	18.7	3 12	13 35.90	- 6 11.5	2.189	3.070	10.2	20.4
3 22	13 26.53	+17 12.2	1.560	2.491	10.4	18.5	3 22	13 29.37	- 5 35.2	2.123	3.072	6.8	20.2
4 1	13 20.12	+18 27.5	1.540	2.483	9.7	18.4	4 1	13 21.39	- 4 52.8	2.085	3.074	3.2	20.0
4 11	13 12.87	+19 18.8	1.544	2.476	10.8	18.5	4 11	13 12.72	- 4 9.0	2.076	3.076	1.4	19.8
4 21	13 5.80	+19 40.4	1.571	2.470	13.1	18.6	4 21	13 4.18	- 3 28.3	2.096	3.077	4.9	20.1
5 1	12 59.92	+19 30.2	1.618	2.465	15.7	18.8	5 1	12 56.58	- 2 55.4	2.144	3.077	8.5	20.3
5 11	12 55.96	+18 50.3	1.684	2.461	18.2	18.9	5 11	12 50.57	- 2 33.4	2.217	3.077	11.6	20.5
276947	2004 TL ₂₇₂		4 9.7 190°30	1°3/10.9	17		114677	2003 FD ₅₂		4 9.7 83°38	5°4/ 3.2	18	
3 2	13 38.33	-14 8.9	2.219	2.989	13.9	21.5	3 2	13 35.08	+ 6 15.5	2.307	3.128	11.9	19.3
3 12	13 34.41	-13 53.7	2.124	2.989	11.1	21.3	3 12	13 31.64	+ 7 29.6	2.237	3.133	9.3	19.1
3 22	13 28.46	-13 24.1	2.051	2.988	7.8	21.1	3 22	13 26.43	+ 8 45.0	2.192	3.137	6.9	19.0
4 1	13 20.98	-12 41.9	2.003	2.986	4.2	20.9	4 1	13 19.97	+ 9 55.3	2.173	3.142	5.4	18.9
4 11	13 12.74	-11 50.7	1.984	2.985	1.3	20.6	4 11	13 12.95	+10 54.2	2.183	3.146	6.0	19.0
4 21	13 4.60	-10 55.2	1.994	2.982	4.2	20.8	4 21	13 6.10	+11 36.9	2.219	3.151	8.2	19.1
5 1	12 57.39	-10 1.3	2.031	2.980	7.9	21.1	5 1	13 0.13	+12 0.5	2.281	3.155	10.7	19.3
5 11	12 51.79	- 9 14.3	2.094	2.977	11.3	21.3	5 11	12 55.59	+12 4.2	2.364	3.159	13.1	19.4
51040	2000 GC ₁₃₄		4 9.7 36°11	10°3/ 3.5	18 R		119863	2002 CU ₁₂₃		4 9.7 187°88	4°9/ 2.1	18	
3 2	13 43.44	+13 30.7	1.249	2.090	18.7	17.9	3 2	13 34.69	+ 8 21.6	2.992	3.803	9.7	20.7
3 12	13 39.31	+14 31.5	1.209	2.107	15.3	17.8	3 12	13 30.95	+ 9 40.4	2.915	3.802	7.7	20.6
3 22	13 32.06	+15 22.9	1.188	2.126	12.1	17.6	3 22	13 25.80	+10 59.5	2.864	3.801	5.9	20.4
4 1	13 22.66	+15 54.2	1.189	2.145	10.4	17.6	4 1	13 19.64	+12 13.5	2.841	3.799	5.0	20.4
4 11	13 12.53	+15 57.1	1.213	2.166	11.0	17.7	4 11	13 13.00	+13 17.4	2.848	3.797	5.6	20.4
4 21	13 3.10	+15 28.7	1.260	2.187	13.4	17.9	4 21	13 6.47	+14 7.1	2.883	3.795	7.3	20.5
5 1	12 55.60	+14 30.7	1.327	2.209	16.4	18.1	5 1	13 0.59	+14 40.1	2.943	3.792	9.3	20.7
5 11	12 50.75	+13 8.2	1.414	2.231	19.2	18.4	5 11	12 55.83	+14 55.6	3.027	3.789	11.2	20.8
292671	2006 UK ₇₅		4 9.7 238°61	0°7/ 8.8	17		56553	2000 HL ₇₉		4 9.7 321°10	3°7/11.9	18	
3 2	13 34.88	- 9 4.3	2.464	3.253	12.2	21.8	3 2	13 42.61	-15 27.7	1.372	2.165	19.9	19.3
3 12	13 31.50	- 8 20.5	2.365	3.246	9.5	21.6	3 12	13 39.25	-16 6.7	1.286	2.160	16.3	19.0
3 22	13 26.38	- 7 25.3	2.289	3.238	6.4	21.3	3 22	13 32.61	-16 28.3	1.219	2.156	12.0	18.7
4 1	13 19.97	- 6 21.7	2.240	3.230	3.0	21.1	4 1	13 23.27	-16 30.7	1.173	2.152	7.2	18.4
4 11	13 12.91	- 5 14.6	2.221	3.222	1.1	20.9	4 11	13 12.43	-16 15.3	1.152	2.148	3.8	18.2
4 21	13 5.92	- 4 9.1	2.231	3.214	4.5	21.2	4 21	13 1.60	-15 46.7	1.155	2.145	6.4	18.4
5 1	12 59.69	- 3 10.7	2.269	3.205	7.9	21.4	5 1	12 52.32	-15 12.5	1.183	2.142	11.2	18.6
5 11	12 54.82	- 2 23.5	2.332	3.196	11.0	21.5	5 11	12 45.75	-14 41.1	1.233	2.139	15.8	18.9
401994	2003 BS ₂₇		4 9.7 90°53	4°1/ 5.3	18		468537	2006 GN ₁₇		4 9.7 292°24	1°1/ 8.8	16	
3 2	13 42.25	+ 0 24.5	2.048	2.854	13.7	21.2	3 2	13 40.24	- 6 3.6	1.991	2.790	14.3	21.7
3 12	13 37.08	+ 1 46.4	2.000	2.891	10.5	21.1	3 12	13 36.40	- 5 54.8	1.875	2.761	11.3	21.5
3 22	13 29.95	+ 3 12.7	1.976	2.927	7.1	20.9	3 22	13 30.17	- 5 36.7	1.782	2.733	7.7	21.2
4 1	13 21.53	+ 4 36.6	1.980	2.962	4.5	20.8	4 1	13 21.99	- 5 12.0	1.714	2.703	3.7	20.9
4 11	13 12.70	+ 5 50.7	2.014	2.996	4.7	20.9	4 11	13 12.63	- 4 44.7	1.673	2.674	1.4	20.6
4 21	13 4.32	+ 6 49.6	2.076	3.029	7.3	21.1	4 21	13 3.08	- 4 19.5	1.661	2.645	5.7	20.9
5 1	12 57.15	+ 7 29.8	2.165	3.061	10.3	21.4	5 1	12 54.40	- 4 1.5	1.676	2.615	10.0	21.1
5 11	12 51.72	+ 7 50.2	2.278	3.092	12.9	21.6	5 11	12 47.48	- 3 54.7	1.714	2.586	13.9	21.2
176500	2001 YL ₂		4 9.7 126°92	4°1/14.3	18		392165	2009 JH ₃		4 9.7 259°62	6°2/ 1.8	17	
3 2	13 42.33	-22 59.1	2.929	3.631	12.3	20.7	3 2	13 35.68	+10 37.0	2.497	3.314	11.2	21.3
3 12	13 37.02	-23 32.0	2.838	3.646	10.3	20.5	3 12	13 32.06	+11 47.0	2.419	3.306	9.1	21.1
3 22	13 29.97	-23 51.5	2.769	3.660	8.0	20.4	3 22	13 26.72	+12 55.6	2.364	3.298	7.1	21.0
4 1	13 21.63	-23 56.9	2.726	3.673	5.8	20.3	4 1	13 20.13	+13 56.8	2.337	3.290	6.2	20.9
4 11	13 12.67	-23 48.5	2.712	3.687	4.2	20.2	4 11	13 12.94	+14 44.6	2.337	3.282	6.9	20.9
4 21	13 3.80	-23 28.6	2.727	3.700	4.5	20.2	4 21	13 5.85	+15 14.9	2.364	3.274	8.8	21.0
5 1	12 55.75	-23 0.5	2.771	3.712	6.4	20.4	5 1	12 59.56	+15 25.3	2.415	3.266	11.0	21.2
5 11	12 49.08	-22 28.8	2.842	3.724	8.7	20.5	5 11	12 54.63	+15 15.6	2.488	3.258	13.2	21.3
352615	2008 EA ₁₅₂		4 9.7 265°88	0°8/ 8.7	17		335810	2007 JR ₄		4 9.7 261°64	5°0/ 4.9	17	
3 2	13 33.53	- 8 58.5	2.489	3.281	12.0	21.4	3 2	13 41.15	+ 5 12.6	2.222	3.031	12.7	21.1
3 12	13 30.40	- 8 10.5	2.394	3.277	9.3	21.2	3 12	13 36.68	+ 5 58.2	2.120	3.010	10.0	20.9
3 22	13 25.61	- 7 11.3	2.324	3.273	6.3	21.0	3 22	13 30.08	+ 6 46.1	2.042	2.988	7.3	20.7
4 1	13 19.59	- 6 4.2	2.280	3.270	2.9	20.8	4 1	13 21.83	+ 7 30.8	1.991	2.966	5.2	20.5
4 11	13 12.98	- 4 54.0	2.266	3.266	1.1	20.6	4 11	13 12.67	+ 8 6.2	1.968	2.943	5.5	20.5
4 21	13 6.46	- 3 46.1	2.280	3.263	4.5	20.8	4 21	13 3.50	+ 8 27.3	1.974	2.920	8.1	20.6
5 1	13 0.70	- 2 45.7	2.323	3.259	7.8	21.0	5 1	12 55.20	+ 8 30.8	2.005	2.896	11.2	20.7
5 11	12 56.26	- 1 56.8	2.391	3.255	10.7	21.2	5 11	12 48.51	+ 8 15.6	2.059	2.872	14.2	20.9
428295	2007 ED ₁₄₉		4 9.7 337°71	0°8/ 9.1	17		501519	2014 DR ₁₃₄		4 9.7 230°17	3°2/ 5.6	18	
3 2	13 40.43	- 6 18.4	1.622	2.434	16.5	21.2	3 2	13 34.70	- 0 4.8	2.541	3.351	11.2	21.4
3 12	13 36.80	- 6 20.3	1.536	2.428	13.0	20.9	3 12	13 31.25	+ 0 53.9	2.452	3.346	8.7	21.3
3 22	13 30.49	- 6 12.4	1.470	2.423	8.8	20.7	3 22	13 26.16	+ 1 58.2	2.388	3.340	5.9	21.1
4 1	13 22.09	- 5 57.3	1.429	2.419	4.1	20.4	4 1	13 19.87	+ 3 3.4	2.351	3.335	3.6	20.9
4 11	13 12.60	- 5 39.7	1.413	2.415	1.3	20.1	4 11	13 12.99	+ 4 4.1	2.344	3.330	3.7	20.9
4 21	13 3.19	- 5 24.3	1.425	2.411	6.0	20.5	4 21	13 6.20	+ 4 55.3	2.365	3.324	6.2	21.1
5 1	12 55.06	- 5 16.3	1.462	2.408	10.6	20.7	5 1	13 0.16	+ 5 33.2	2.414	3.318	9.0	21.2
5 11	12 49.09	- 5 19.5	1.521	2.405	14.7	20.9	5 11	12 55.41	+ 5 55.6	2.486	3.312	11.6	21.4
512487	2016 QR ₈₂		4 9.7 226°11	1°1/ 8.3	17		465418	2008 MZ ₁		4 9.7 309°20	2°5/ 7.2	17	
3 2	13 35.40	- 6 54.1	2.651	3.442									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
410172	2007 <i>PR</i> ₃₇		4 9.7 282°14	4.3/12.6	17		128019	2003 <i>JB</i> ₁₅		4 9.7 89°26	0°5/10.2	18	
3 2	13 40.34	-18 23.4	1.521	2.298	18.9	20.9	3 2	13 37.69	-12 26.0	1.820	2.611	15.7	20.6
3 12	13 37.39	-18 48.8	1.418	2.280	15.8	20.6	3 12	13 34.29	-11 58.4	1.738	2.617	12.5	20.4
3 22	13 31.36	-18 54.1	1.333	2.262	11.9	20.3	3 22	13 28.56	-11 14.7	1.677	2.623	8.6	20.2
4 1	13 22.74	-18 37.3	1.270	2.244	7.6	20.0	4 1	13 21.12	-10 17.6	1.641	2.629	4.3	20.0
4 11	13 12.54	-17 59.5	1.231	2.225	4.4	19.8	4 11	13 12.86	-9 12.6	1.633	2.635	0.6	19.7
4 21	13 2.13	-17 5.3	1.218	2.207	6.3	19.8	4 21	13 4.79	-8 6.4	1.652	2.640	4.9	20.0
5 1	12 52.98	-16 3.0	1.230	2.188	10.9	20.0	5 1	12 57.88	-7 6.0	1.697	2.646	9.2	20.3
5 11	12 46.28	-15 2.6	1.264	2.170	15.5	20.2	5 11	12 52.86	-6 17.2	1.767	2.652	12.9	20.5
419878	2011 <i>AF</i> ₃₅		4 9.7 199°72	5°9/ 3.2	17		229912	4378 <i>T</i> ₋₃		4 9.7 165°37	2°6/ 7.1	17	
3 2	13 40.97	+ 8 9.9	2.310	3.119	12.2	21.2	3 2	13 39.58	- 2 11.7	2.238	3.040	12.8	21.0
3 12	13 36.29	+ 9 19.4	2.228	3.115	9.8	21.0	3 12	13 35.23	- 1 34.2	2.155	3.044	9.9	20.8
3 22	13 29.65	+10 29.3	2.172	3.110	7.4	20.9	3 22	13 28.94	- 0 50.3	2.095	3.047	6.7	20.6
4 1	13 21.55	+11 33.2	2.142	3.105	6.0	20.8	4 1	13 21.23	- 0 4.2	2.063	3.050	3.5	20.4
4 11	13 12.76	+12 24.3	2.141	3.098	6.6	20.8	4 11	13 12.85	+ 0 39.0	2.059	3.053	3.0	20.4
4 21	13 4.09	+12 58.0	2.167	3.091	8.8	20.9	4 21	13 4.63	+ 1 14.4	2.084	3.055	5.9	20.6
5 1	12 56.36	+13 11.4	2.220	3.084	11.4	21.1	5 1	12 57.36	+ 1 38.3	2.136	3.056	9.2	20.8
5 11	12 50.21	+13 4.2	2.294	3.075	13.8	21.2	5 11	12 51.66	+ 1 48.2	2.212	3.057	12.2	21.0
126744	2002 <i>CW</i> ₃₀₈		4 9.7 209°57	2°1/ 7.0	18		176064	2000 <i>UM</i> ₆₇		4 9.7 172°09	2°2/12.4	18	
3 2	13 35.76	- 2 29.8	2.834	3.632	10.5	20.5	3 2	13 35.79	-18 5.1	2.733	3.479	12.2	21.0
3 12	13 31.89	- 1 50.4	2.740	3.627	8.1	20.4	3 12	13 32.07	-17 51.7	2.635	3.481	9.9	20.9
3 22	13 26.51	- 1 5.3	2.671	3.622	5.5	20.2	3 22	13 26.71	-17 24.4	2.559	3.482	7.2	20.7
4 1	13 20.02	- 0 18.0	2.629	3.617	2.8	20.0	4 1	13 20.15	-16 44.3	2.510	3.483	4.4	20.5
4 11	13 12.99	+ 0 27.4	2.618	3.611	2.5	19.9	4 11	13 13.02	-15 54.0	2.489	3.484	2.2	20.3
4 21	13 6.04	+ 1 7.0	2.635	3.605	4.9	20.1	4 21	13 5.96	-14 57.3	2.497	3.485	3.6	20.4
5 1	12 59.75	+ 1 37.5	2.681	3.599	7.7	20.3	5 1	12 59.66	-13 59.0	2.534	3.486	6.4	20.6
5 11	12 54.65	+ 1 56.4	2.752	3.592	10.2	20.4	5 11	12 54.65	-13 3.9	2.598	3.486	9.2	20.8
316871	2000 <i>QD</i> ₁₈₀		4 9.7 152°71	11°1/15.0	18		480748	2016 <i>NQ</i> ₂₆		4 9.7 243°26	5°8/16.7	17	
3 2	13 58.01	-26 56.7	1.368	2.086	23.3	20.7	3 2	13 36.33	-29 5.5	2.357	3.050	15.2	21.4
3 12	13 52.17	-29 3.5	1.288	2.094	20.4	20.5	3 12	13 33.02	-29 13.0	2.254	3.047	13.1	21.2
3 22	13 41.98	-30 50.2	1.224	2.101	16.9	20.2	3 22	13 27.64	-28 59.3	2.170	3.044	10.7	21.1
4 1	13 28.01	-32 6.6	1.180	2.107	13.5	20.1	4 1	13 20.68	-28 22.6	2.108	3.041	8.1	20.9
4 11	13 11.74	-32 44.8	1.160	2.113	11.3	19.9	4 11	13 12.93	-27 23.9	2.073	3.037	6.2	20.8
4 21	12 55.31	-32 43.6	1.164	2.118	11.6	20.0	4 21	13 5.25	-26 6.9	2.064	3.034	6.1	20.8
5 1	12 40.94	-32 9.7	1.192	2.122	14.1	20.1	5 1	12 58.51	-24 37.9	2.083	3.030	7.9	20.9
5 11	12 30.26	-31 16.9	1.242	2.125	17.4	20.3	5 11	12 53.41	-23 4.9	2.128	3.027	10.4	21.0
466867	2015 <i>BV</i> ₄₇₂		4 9.7 293°50	2°8/ 7.1	17		303810	2005 <i>SE</i> ₆₆		4 9.7 200°86	1°1/11.3	18	
3 2	13 35.70	- 4 37.0	1.770	2.589	15.0	21.0	3 2	13 34.51	-15 42.1	2.874	3.630	11.4	20.8
3 12	13 32.98	- 3 40.8	1.670	2.569	11.7	20.8	3 12	13 30.98	-15 6.1	2.771	3.627	9.1	20.6
3 22	13 27.88	- 2 31.4	1.593	2.550	7.9	20.5	3 22	13 25.93	-14 17.0	2.691	3.624	6.4	20.4
4 1	13 20.88	- 1 14.1	1.541	2.530	4.0	20.2	4 1	13 19.77	-13 16.4	2.639	3.620	3.5	20.2
4 11	13 12.85	+ 0 3.6	1.515	2.511	3.4	20.1	4 11	13 13.07	-12 7.9	2.616	3.616	1.1	20.0
4 21	13 4.78	+ 1 13.4	1.517	2.491	7.2	20.3	4 21	13 6.45	-10 55.8	2.623	3.612	3.3	20.2
5 1	12 57.73	+ 2 8.2	1.544	2.472	11.5	20.5	5 1	13 0.52	- 9 45.2	2.660	3.607	6.3	20.4
5 11	12 52.55	+ 2 43.0	1.593	2.453	15.4	20.7	5 11	12 55.77	- 8 40.7	2.723	3.602	9.1	20.6
343088	2009 <i>DK</i> ₁₇		4 9.7 16°27	2°6/12.2	17		253601	2003 <i>UU</i> ₁₃		4 9.7 222°20	2°8/12.0	17	
3 2	13 37.65	-16 48.8	2.157	2.920	14.5	20.8	3 2	13 39.94	-17 8.2	1.726	2.499	17.2	20.5
3 12	13 34.00	-16 58.0	2.065	2.921	11.8	20.6	3 12	13 36.42	-17 7.2	1.633	2.495	14.0	20.2
3 22	13 28.27	-16 52.5	1.993	2.922	8.6	20.4	3 22	13 30.26	-16 46.9	1.559	2.492	10.2	20.0
4 1	13 20.96	-16 32.6	1.947	2.923	5.2	20.2	4 1	13 22.04	-16 7.4	1.509	2.487	6.0	19.7
4 11	13 12.85	-16 0.7	1.928	2.924	2.7	20.0	4 11	13 12.73	-15 12.0	1.485	2.483	2.8	19.5
4 21	13 4.83	-15 20.7	1.937	2.925	4.4	20.2	4 21	13 3.48	-14 6.9	1.489	2.478	5.2	19.7
5 1	12 57.77	-14 38.0	1.973	2.926	7.8	20.4	5 1	12 55.45	-12 59.8	1.518	2.474	9.5	19.9
5 11	12 52.36	-13 58.2	2.034	2.928	11.1	20.6	5 11	12 49.54	-11 59.0	1.572	2.469	13.5	20.1
270532	2002 <i>GL</i> ₈₂		4 9.7 44°10	2°4/ 7.0	17		504472	2008 <i>DA</i> ₈₆		4 9.7 56°46	1°1/10.9	17	
3 2	13 34.45	- 6 44.6	1.851	2.665	14.6	20.1	3 2	13 36.58	-13 9.4	2.263	3.040	13.5	21.5
3 12	13 31.67	- 5 22.6	1.770	2.667	11.3	19.9	3 12	13 32.94	-13 1.5	2.179	3.049	10.7	21.3
3 22	13 26.74	- 3 46.1	1.713	2.669	7.5	19.6	3 22	13 27.41	-12 41.1	2.118	3.058	7.5	21.1
4 1	13 20.22	- 2 1.3	1.681	2.671	3.7	19.4	4 1	13 20.51	-12 9.9	2.083	3.067	3.9	20.9
4 11	13 12.97	- 0 16.8	1.678	2.674	3.0	19.4	4 11	13 12.97	-11 31.2	2.075	3.076	1.1	20.7
4 21	13 5.89	+ 1 18.7	1.702	2.676	6.7	19.6	4 21	13 5.59	-10 49.4	2.096	3.085	4.0	20.9
5 1	12 59.87	+ 2 37.6	1.753	2.679	10.6	19.8	5 1	12 59.13	-10 9.4	2.145	3.095	7.5	21.1
5 11	12 55.59	+ 3 35.4	1.827	2.681	14.0	20.0	5 11	12 54.19	- 9 35.6	2.218	3.104	10.6	21.4
497729	2006 <i>SW</i> ₁₇₅		4 9.7 185°97	0°5/10.4	18		80492	2000 <i>AT</i> ₄₆		4 9.7 119°91	1°7/ 8.1	18	
3 2	13 36.15	-12 27.5	2.844	3.611	11.2	22.3	3 2	13 41.31	- 6 9.6	1.895	2.695	14.9	20.6
3 12	13 32.22	-12 1.9	2.746	3.611	8.9	22.1	3 12	13 36.84	- 5 27.9	1.823	2.710	11.5	20.4
3 22	13 26.74	-11 25.5	2.671	3.610	6.1	21.9	3 22	13 30.12	- 4 35.4	1.773	2.725	7.7	20.2
4 1	13 20.14	-10 40.2	2.624	3.609	3.1	21.7	4 1	13 21.80	- 3 36.9	1.750	2.739	3.6	19.9
4 11	13 12.98	- 9 49.3	2.606	3.608	0.6	21.5	4 11	13 12.79	- 2 38.4	1.755	2.753	2.1	19.9
4 21	13 5.91	- 8 56.7	2.618	3.606	3.5	21.7	4 21	13 4.07	- 1 46.2	1.788	2.767	5.9	20.1
5 1	12 59.53	- 8 6.7	2.660	3.603	6.5	21.9	5 1	12 56.54	- 1 5.6	1.848	2.780	9.7	20.4
5 11	12 54.37	- 7 23.1	2.727	3.600	9.3	22.1	5 11	12 50.90	- 0 40.0	1.932	2.792	13.1	20.6
110838	2001 <i>UK</i> ₆₈		4 9.7 119°97	0°4/ 9.4	18		416163	2002 <i>RE</i> ₂₂₈		4 9.7 152°58	0°6/ 9.1	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
385102	2012 <i>VJ</i> ₆₇		4 9.7 49°41'	0°7'	9.1	17	363033	1999 <i>QN</i> ₂		4 9.7 273°39'	3°6'	12.6	17
3 2	13 37.34	- 7 43.8	2.201	2.996	13.2	21.6	3 2	13 40.44	-18 47.9	1.782	2.545	17.1	21.4
3 12	13 33.61	- 7 23.7	2.112	2.996	10.4	21.4	3 12	13 37.09	-18 55.0	1.665	2.519	14.2	21.1
3 22	13 27.92	- 6 53.8	2.046	2.996	7.0	21.2	3 22	13 30.98	-18 42.2	1.567	2.493	10.7	20.8
4 1	13 20.78	- 6 16.9	2.007	2.996	3.2	20.9	4 1	13 22.54	-18 8.3	1.492	2.466	6.7	20.5
4 11	13 12.94	- 5 37.3	1.995	2.997	1.0	20.7	4 11	13 12.67	-17 14.6	1.443	2.438	3.7	20.3
4 21	13 5.21	- 4 59.7	2.013	2.997	4.7	21.0	4 21	13 2.53	-16 6.1	1.421	2.410	5.6	20.3
5 1	12 58.40	- 4 28.6	2.057	2.997	8.4	21.2	5 1	12 53.40	-14 50.7	1.426	2.381	10.0	20.5
5 11	12 53.15	- 4 7.6	2.126	2.997	11.6	21.4	5 11	12 46.38	-13 37.8	1.454	2.352	14.4	20.7
499525	2010 <i>PH</i> ₇₇		4 9.7 248°52'	1°0'	8.8	17	771113	2001 <i>DU</i> ₇₄		4 9.7 336°09'	1°0'	9.2	18
3 2	13 40.26	- 8 29.7	1.871	2.668	15.2	22.2	3 2	13 46.85	- 3 44.6	1.439	2.252	18.1	18.0
3 12	13 36.48	- 7 53.2	1.766	2.651	12.0	22.0	3 12	13 42.31	- 4 16.0	1.353	2.246	14.4	17.7
3 22	13 30.24	- 7 2.3	1.683	2.633	8.2	21.7	3 22	13 34.56	- 4 42.2	1.287	2.240	9.8	17.4
4 1	13 22.04	- 6 0.4	1.625	2.615	3.8	21.4	4 1	13 24.21	- 5 5.2	1.245	2.235	4.7	17.1
4 11	13 12.74	- 4 53.1	1.595	2.596	1.4	21.2	4 11	13 12.45	- 5 28.1	1.229	2.230	1.5	16.9
4 21	13 3.38	- 3 47.5	1.594	2.577	5.9	21.4	4 21	13 0.75	- 5 53.8	1.239	2.226	6.6	17.2
5 1	12 55.04	- 2 50.8	1.619	2.557	10.4	21.6	5 1	12 50.57	- 6 25.3	1.275	2.222	11.8	17.5
5 11	12 48.59	- 2 8.6	1.667	2.536	14.4	21.8	5 11	12 43.01	- 7 5.1	1.333	2.219	16.2	17.7
105854	2000 <i>SB</i> ₁₆₇		4 9.7 115°33'	2°7'	12.5	18	163523	2002 <i>TU</i> ₂₃		4 9.7 198°22'	0°6'	9.1	17
3 2	13 38.45	-17 35.7	2.503	3.251	13.1	19.5	3 2	13 37.00	- 8 37.7	2.388	3.176	12.5	20.4
3 12	13 34.30	-17 47.3	2.411	3.257	10.7	19.3	3 12	13 33.20	- 8 7.3	2.295	3.175	9.8	20.3
3 22	13 28.30	-17 45.8	2.341	3.263	7.9	19.2	3 22	13 27.59	- 7 26.4	2.224	3.173	6.6	20.0
4 1	13 20.94	-17 31.3	2.297	3.269	4.9	19.0	4 1	13 20.63	- 6 38.1	2.181	3.170	3.1	19.8
4 11	13 12.92	-17 5.9	2.281	3.275	2.7	18.9	4 11	13 13.00	- 5 46.4	2.166	3.168	0.9	19.6
4 21	13 5.00	-16 32.7	2.294	3.280	4.0	18.9	4 21	13 5.47	- 4 56.3	2.181	3.165	4.5	19.9
5 1	12 57.92	-15 56.1	2.335	3.286	6.9	19.1	5 1	12 58.77	- 4 12.6	2.223	3.162	8.0	20.1
5 11	12 52.31	-15 20.8	2.402	3.291	9.8	19.3	5 11	12 53.50	- 3 39.1	2.291	3.158	11.0	20.3
379421	2010 <i>AF</i> ₇₇		4 9.7 97°38'	8°4'	19.0	17	335211	1999 <i>GK</i> ₄₀		4 9.7 195°92'	5°2'	3.6	18
3 2	13 40.43	-34 2.8	2.133	2.795	17.4	20.9	3 2	13 38.36	+ 4 51.3	2.300	3.114	12.1	18.9
3 12	13 36.57	-34 45.0	2.045	2.805	15.4	20.7	3 12	13 34.29	+ 6 12.4	2.219	3.111	9.6	18.7
3 22	13 30.22	-35 3.4	1.975	2.815	13.1	20.6	3 22	13 28.33	+ 7 36.8	2.162	3.108	7.0	18.6
4 1	13 21.97	-34 54.5	1.925	2.824	10.7	20.5	4 1	13 20.98	+ 8 58.1	2.133	3.104	5.3	18.4
4 11	13 12.76	-34 17.4	1.899	2.834	8.9	20.4	4 11	13 12.96	+10 9.2	2.133	3.100	5.9	18.5
4 21	13 3.70	-33 14.9	1.898	2.844	8.4	20.3	4 21	13 5.05	+11 4.4	2.161	3.095	8.2	18.6
5 1	12 55.85	-31 53.5	1.923	2.853	9.5	20.4	5 1	12 58.04	+11 40.0	2.214	3.089	11.0	18.8
5 11	12 50.04	-30 22.0	1.972	2.862	11.6	20.6	5 11	12 52.54	+11 54.9	2.290	3.083	13.5	18.9
354020	2001 <i>QV</i> ₅₂		4 9.7 201°72'	3°2'	12.3	17	175325	2005 <i>NP</i> ₃		4 9.7 137°23'	2°2'	7.2	18
3 2	13 45.36	-17 33.9	1.947	2.699	16.2	21.6	3 2	13 35.69	- 3 25.0	2.466	3.269	11.7	20.5
3 12	13 40.43	-17 49.3	1.846	2.695	13.3	21.4	3 12	13 32.05	- 2 40.0	2.383	3.273	9.1	20.4
3 22	13 32.90	-17 48.2	1.766	2.690	9.8	21.1	3 22	13 26.72	- 1 48.0	2.324	3.277	6.1	20.2
4 1	13 23.30	-17 29.9	1.710	2.684	6.0	20.9	4 1	13 20.18	- 0 53.1	2.292	3.280	3.1	20.0
4 11	13 12.56	-16 56.3	1.682	2.677	3.3	20.7	4 11	13 13.08	- 0 0.1	2.289	3.284	2.6	20.0
4 21	13 1.82	-16 11.4	1.682	2.669	5.1	20.8	4 21	13 6.11	+ 0 46.3	2.316	3.288	5.3	20.1
5 1	12 52.21	-15 21.6	1.710	2.660	9.0	21.0	5 1	12 59.96	+ 1 22.1	2.369	3.291	8.4	20.3
5 11	12 44.65	-14 33.9	1.763	2.651	12.8	21.2	5 11	12 55.15	+ 1 44.8	2.448	3.294	11.1	20.5
18905	Weigan		4 9.7 195°88'	0°4'	9.3	18	131226	2001 <i>DM</i> ₀₃		4 9.7 18°54'	4°7'	13.7	18
3 2	13 41.04	- 9 45.6	1.730	2.527	16.2	19.3	3 2	13 36.28	-20 36.5	1.585	2.357	18.5	19.1
3 12	13 37.12	- 9 14.9	1.642	2.526	12.8	19.0	3 12	13 33.73	-20 58.6	1.506	2.362	15.4	18.9
3 22	13 30.64	- 8 29.0	1.574	2.524	8.7	18.8	3 22	13 28.51	-20 58.9	1.445	2.368	11.7	18.7
4 1	13 22.19	- 7 31.3	1.532	2.521	4.1	18.5	4 1	13 21.22	-20 36.4	1.407	2.375	7.7	18.5
4 11	13 12.74	- 6 27.6	1.516	2.518	0.9	18.3	4 11	13 12.92	-19 53.4	1.393	2.383	4.9	18.3
4 21	13 3.41	- 5 25.1	1.529	2.515	5.7	18.6	4 21	13 4.79	-18 55.5	1.404	2.391	5.9	18.4
5 1	12 55.30	- 4 31.0	1.568	2.511	10.3	18.8	5 1	12 58.00	-17 50.8	1.440	2.400	9.5	18.6
5 11	12 49.25	- 3 50.9	1.630	2.506	14.3	19.1	5 11	12 53.42	-16 48.4	1.499	2.410	13.2	18.9
470124	2006 <i>UB</i> ₇		4 9.7 221°72'	2°3'	7.1	17	123523	2000 <i>XY</i> ₇		4 9.7 123°21'	0°6'	10.3	18
3 2	13 38.25	- 1 22.2	2.730	3.526	10.9	21.9	3 2	13 42.01	-11 28.3	2.542	3.306	12.5	20.6
3 12	13 33.92	- 0 53.9	2.632	3.518	8.5	21.7	3 12	13 36.80	-11 16.4	2.463	3.327	9.9	20.4
3 22	13 27.95	- 0 21.0	2.559	3.510	5.7	21.5	3 22	13 29.83	-10 54.2	2.408	3.347	6.8	20.2
4 1	13 20.76	+ 0 13.4	2.514	3.501	3.1	21.3	4 1	13 21.62	-10 23.5	2.381	3.366	3.4	20.0
4 11	13 12.96	+ 0 45.2	2.499	3.492	2.6	21.3	4 11	13 12.88	- 9 47.6	2.383	3.385	0.6	19.8
4 21	13 5.22	+ 1 10.9	2.513	3.482	5.1	21.4	4 21	13 4.36	- 9 10.3	2.416	3.403	3.8	20.1
5 1	12 58.19	+ 1 27.3	2.555	3.472	8.0	21.6	5 1	12 56.77	- 8 35.7	2.478	3.420	7.0	20.4
5 11	12 52.43	+ 1 32.4	2.623	3.462	10.7	21.8	5 11	12 50.66	- 8 7.5	2.566	3.437	9.9	20.6
142274	2002 <i>RO</i> ₁₁₅		4 9.7 46°49'	1°2'	10.6	17	211870	2004 <i>GZ</i> ₇₉		4 9.7 347°40'	0°2'	9.9	16
3 2	13 41.19	-11 40.4	1.555	2.354	17.7	19.7	3 2	13 36.65	- 9 33.1	1.841	2.643	15.2	20.1
3 12	13 37.50	-11 46.8	1.476	2.357	14.1	19.5	3 12	13 33.57	- 9 32.3	1.751	2.637	12.0	19.8
3 22	13 31.03	-11 38.1	1.416	2.362	9.8	19.3	3 22	13 28.18	- 9 19.7	1.682	2.632	8.3	19.6
4 1	13 22.40	-11 15.7	1.379	2.366	5.1	19.0	4 1	13 21.02	- 8 57.4	1.638	2.627	4.0	19.3
4 11	13 12.72	-10 43.8	1.369	2.370	1.2	18.7	4 11	13 12.95	- 8 29.3	1.621	2.623	0.5	19.0
4 21	13 3.21	-10 8.0	1.385	2.375	5.5	19.0	4 21	13 4.95	- 8 0.2	1.631	2.620	5.0	19.4
5 1	12 55.10	- 9 35.0	1.426	2.379	10.2	19.3	5 1	12 58.00	- 7 35.4	1.667	2.617	9.2	19.6
5 11	12 49.28	- 9 10.7	1.490	2.384	14.3	19.6	5 11	12 52.89	- 7 19.4	1.726	2.615	13.0	19.8
139359	2001 <i>ME</i> ₁		4 9.7 116°04'	1°5'	7.4	18	67659	2000 <i>SA</i> ₂₆₁		4 9.7 106°82'	0°9'	8.9	18
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
216022	2005 <i>UY</i> ₅₁₇		4 9.7 239°74	3°9/ 5.0	17		96551	1998 <i>SL</i> ₁₀₀		4 9.7 236°20	2°5/12.1	18	
3 2	13 35.72	+ 3 8.2	2.528	3.341	11.2	21.1	3 2	13 39.87	-16 20.3	2.294	3.050	13.9	19.8
3 12	13 32.06	+ 3 59.3	2.443	3.337	8.7	21.0	3 12	13 35.73	-16 30.6	2.189	3.042	11.3	19.6
3 22	13 26.74	+ 4 53.2	2.383	3.333	6.1	20.8	3 22	13 29.49	-16 27.3	2.106	3.033	8.3	19.4
4 1	13 20.20	+ 5 45.4	2.350	3.329	4.2	20.6	4 1	13 21.64	-16 10.5	2.049	3.024	5.0	19.2
4 11	13 13.09	+ 6 30.5	2.346	3.325	4.4	20.7	4 11	13 12.91	-15 42.3	2.019	3.015	2.5	19.0
4 21	13 6.08	+ 7 4.3	2.370	3.320	6.7	20.8	4 21	13 4.17	-15 6.1	2.018	3.006	4.3	19.1
5 1	12 59.83	+ 7 23.8	2.420	3.316	9.3	20.9	5 1	12 56.30	-14 26.8	2.045	2.996	7.7	19.3
5 11	12 54.91	+ 7 27.5	2.494	3.312	11.8	21.1	5 11	12 50.04	-13 49.7	2.097	2.986	11.0	19.5
500658	2012 <i>VX</i> ₁₉		4 9.7 148°46	0°9/ 8.6	17		466814	2015 <i>BA</i> ₁₂₉		4 9.7 281°80	2°5/ 7.4	17	
3 2	13 36.83	- 6 56.9	2.838	3.622	10.8	22.6	3 2	13 37.17	- 4 18.6	1.844	2.658	14.7	21.2
3 12	13 32.68	- 6 25.6	2.752	3.631	8.4	22.5	3 12	13 34.00	- 3 32.9	1.749	2.645	11.5	20.9
3 22	13 27.03	- 5 46.6	2.691	3.639	5.6	22.3	3 22	13 28.52	- 2 36.0	1.676	2.632	7.7	20.7
4 1	13 20.30	- 5 2.9	2.657	3.646	2.6	22.1	4 1	13 21.23	- 1 32.9	1.629	2.618	3.9	20.4
4 11	13 13.09	- 4 18.0	2.654	3.654	1.2	22.0	4 11	13 12.98	- 0 30.2	1.609	2.605	3.0	20.3
4 21	13 6.01	- 3 35.7	2.680	3.660	4.0	22.2	4 21	13 4.75	+ 0 25.0	1.616	2.592	6.7	20.5
5 1	12 59.65	- 2 59.8	2.735	3.667	6.9	22.4	5 1	12 57.54	+ 1 6.8	1.649	2.578	10.8	20.7
5 11	12 54.50	- 2 32.9	2.816	3.673	9.5	22.6	5 11	12 52.17	+ 1 31.0	1.704	2.565	14.5	20.9
346125	2007 <i>VA</i> ₁₆₇		4 9.7 252°72	4°7/15.3	17		306116	2010 <i>JZ</i> ₆₁		4 9.7 226°49	0°1/ 9.6	18	
3 2	13 36.43	-26 6.1	2.442	3.151	14.3	21.0	3 2	13 35.81	- 9 47.8	2.923	3.699	10.8	21.8
3 12	13 33.04	-26 2.2	2.329	3.139	12.2	20.9	3 12	13 31.99	- 9 23.4	2.817	3.690	8.5	21.7
3 22	13 27.66	-25 38.4	2.235	3.126	9.7	20.7	3 22	13 26.65	- 8 49.9	2.736	3.680	5.8	21.5
4 1	13 20.74	-24 53.6	2.166	3.113	7.0	20.5	4 1	13 20.18	- 8 9.3	2.682	3.670	2.7	21.3
4 11	13 13.01	-23 49.3	2.123	3.100	5.0	20.3	4 11	13 13.14	- 7 24.8	2.658	3.660	0.4	21.0
4 21	13 5.29	-22 29.4	2.108	3.087	5.2	20.3	4 21	13 6.13	- 6 40.1	2.664	3.649	3.6	21.3
5 1	12 58.41	-21 0.1	2.122	3.073	7.5	20.4	5 1	12 59.76	- 5 59.2	2.698	3.638	6.7	21.5
5 11	12 53.08	-19 29.0	2.162	3.059	10.3	20.6	5 11	12 54.54	- 5 25.4	2.759	3.627	9.4	21.6
303738	2005 <i>QJ</i> ₆₈		4 9.7 250°97	1°1/10.9	16		132422	1998 <i>KR</i> ₄₄		4 9.7 266°38	2°0/ 7.9	18	
3 2	13 38.83	-12 39.2	2.696	3.460	11.9	21.5	3 2	13 39.55	- 5 55.2	1.789	2.597	15.3	18.9
3 12	13 34.57	-12 40.3	2.583	3.444	9.5	21.3	3 12	13 36.07	- 5 14.2	1.685	2.577	12.1	18.6
3 22	13 28.53	-12 31.2	2.492	3.428	6.7	21.1	3 22	13 30.08	- 4 20.1	1.603	2.556	8.2	18.3
4 1	13 21.12	-12 13.0	2.429	3.411	3.6	20.8	4 1	13 22.04	- 3 17.1	1.545	2.535	3.9	18.0
4 11	13 12.96	-11 47.9	2.394	3.395	1.1	20.6	4 11	13 12.85	- 2 11.7	1.515	2.514	2.5	17.9
4 21	13 4.76	-11 19.0	2.389	3.377	3.7	20.8	4 21	13 3.57	- 1 11.2	1.512	2.492	6.7	18.1
5 1	12 57.24	-10 50.0	2.413	3.360	7.0	21.0	5 1	12 55.32	- 0 22.8	1.536	2.469	11.2	18.3
5 11	12 51.03	-10 24.9	2.464	3.342	10.0	21.1	5 11	12 49.02	+ 0 8.5	1.582	2.447	15.2	18.5
330706	2008 <i>MY</i>		4 9.7 274°67	9°8/30.8	17		500582	2012 <i>UO</i> ₈₈		4 9.7 133°42	0°4/ 9.3	17	
3 2	13 43.15	+17 33.1	1.974	2.783	14.0	20.9	3 2	13 37.41	- 8 43.4	2.685	3.466	11.5	22.5
3 12	13 38.65	+18 51.3	1.887	2.759	12.0	20.7	3 12	13 33.23	- 8 18.7	2.601	3.477	9.0	22.4
3 22	13 31.65	+20 3.7	1.823	2.735	10.3	20.5	3 22	13 27.45	- 7 45.2	2.541	3.487	6.0	22.2
4 1	13 22.71	+21 1.0	1.784	2.710	9.8	20.5	4 1	13 20.53	- 7 5.4	2.508	3.497	2.8	22.0
4 11	13 12.73	+21 34.7	1.770	2.685	10.7	20.5	4 11	13 13.10	- 6 23.0	2.505	3.507	0.7	21.8
4 21	13 2.77	+21 39.5	1.780	2.660	12.8	20.5	4 21	13 5.82	- 5 41.9	2.532	3.516	3.9	22.1
5 1	12 53.91	+21 13.8	1.812	2.634	15.3	20.6	5 1	12 59.31	- 5 5.9	2.587	3.525	7.0	22.3
5 11	12 46.99	+20 19.5	1.864	2.608	17.8	20.8	5 11	12 54.11	- 4 38.2	2.668	3.533	9.7	22.5
467237	2016 <i>ED</i> ₁₆₆		4 9.7 78°18	0°4/10.1	18		496842	1999 <i>RB</i> ₃₀		4 9.7 197°13	4°7/15.2	17	
3 2	13 38.37	-12 21.1	1.614	2.413	17.1	21.6	3 2	13 42.41	-25 57.2	2.946	3.629	12.6	22.9
3 12	13 35.11	-11 50.3	1.538	2.421	13.5	21.3	3 12	13 37.32	-26 21.9	2.834	3.625	10.8	22.7
3 22	13 29.28	-11 1.5	1.482	2.429	9.3	21.1	3 22	13 30.37	-26 31.7	2.744	3.621	8.6	22.6
4 1	13 21.54	- 9 57.9	1.449	2.437	4.6	20.8	4 1	13 22.00	-26 25.3	2.679	3.615	6.4	22.4
4 11	13 12.91	- 8 46.1	1.444	2.446	0.6	20.6	4 11	13 12.88	-26 2.9	2.642	3.609	4.9	22.3
4 21	13 4.53	- 7 33.7	1.465	2.454	5.4	20.9	4 21	13 3.73	-25 26.4	2.634	3.602	5.0	22.3
5 1	12 57.47	- 6 28.8	1.512	2.462	10.0	21.2	5 1	12 55.34	-24 39.9	2.655	3.594	6.8	22.4
5 11	12 52.52	- 5 38.0	1.582	2.470	14.0	21.5	5 11	12 48.33	-23 48.4	2.704	3.585	9.1	22.5
429142	2009 <i>UP</i> ₃₃		4 9.7 187°94	3°1/ 6.8	16		258131	2001 <i>RH</i> ₃₁		4 9.7 123°53	2°0/ 7.6	18	
3 2	13 42.42	+ 0 15.8	2.301	3.100	12.6	22.5	3 2	13 38.99	- 6 10.4	2.072	2.871	13.8	21.3
3 12	13 37.43	+ 0 45.0	2.213	3.100	9.8	22.3	3 12	13 34.87	- 5 8.5	1.999	2.887	10.7	21.1
3 22	13 30.46	+ 1 18.4	2.149	3.099	6.7	22.1	3 22	13 28.74	- 3 55.8	1.949	2.901	7.1	20.9
4 1	13 22.01	+ 1 51.9	2.112	3.097	3.8	21.9	4 1	13 21.19	- 2 37.3	1.926	2.915	3.4	20.7
4 11	13 12.85	+ 2 20.7	2.105	3.095	3.5	21.9	4 11	13 13.02	- 1 19.7	1.932	2.929	2.4	20.6
4 21	13 3.81	+ 2 40.7	2.126	3.092	6.2	22.1	4 21	13 5.11	- 0 9.5	1.967	2.942	5.8	20.9
5 1	12 55.72	+ 2 48.6	2.175	3.089	9.4	22.3	5 1	12 58.26	+ 0 47.6	2.029	2.955	9.3	21.1
5 11	12 49.23	+ 2 42.9	2.249	3.085	12.4	22.4	5 11	12 53.07	+ 1 28.3	2.116	2.967	12.5	21.3
305299	2008 <i>AG</i> ₂₀		4 9.7 59°10	3°7/13.5	18		57310	2001 <i>QE</i> ₂₁₁		4 9.7 93°19	0°3/ 9.9	18	
3 2	13 38.14	-20 6.6	2.305	3.047	14.2	20.8	3 2	13 39.14	-11 40.0	1.789	2.582	15.9	20.0
3 12	13 34.29	-20 25.7	2.215	3.053	11.8	20.7	3 12	13 35.42	-11 12.2	1.713	2.593	12.6	19.8
3 22	13 28.43	-20 29.5	2.146	3.060	8.9	20.5	3 22	13 29.34	-10 28.9	1.659	2.605	8.6	19.6
4 1	13 21.08	-20 17.5	2.101	3.066	5.9	20.3	4 1	13 21.54	- 9 33.3	1.629	2.617	4.2	19.3
4 11	13 12.99	-19 51.4	2.084	3.072	3.8	20.2	4 11	13 12.97	- 8 30.9	1.626	2.628	0.5	19.1
4 21	13 5.00	-19 14.5	2.095	3.079	4.6	20.2	4 21	13 4.65	- 7 28.4	1.652	2.640	5.0	19.4
5 1	12 57.94	-18 31.8	2.133	3.085	7.4	20.4	5 1	12 57.55	- 6 32.7	1.704	2.651	9.3	19.7
5 11	12 52.48	-17 48.9	2.197	3.092	10.3	20.6	5 11	12 52.38	- 5 49.1	1.779	2.662	12.9	19.9
361115	2006 <i>EZ</i> ₂₃		4 9.7 50°96	2°9/ 7.5	18		143609	2003 <i>FL</i> ₁₁₄		4 9.7 16°21	2°4/12.4	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
241672	2000 QT ₆₂		4 9.7 199°03	1.7/ 8.2	17		175735	1998 HA ₁		4 9.8 258°03	2.7/ 7.3	18	
3 2	13 42.63	- 5 46.0	2.104	2.895	13.9	22.2	3 2	13 40.09	- 4 8.1	1.846	2.654	14.9	21.3
3 12	13 37.90	- 5 8.2	2.009	2.892	10.9	22.0	3 12	13 36.40	- 3 19.9	1.742	2.635	11.7	21.0
3 22	13 30.96	- 4 20.1	1.937	2.887	7.3	21.8	3 22	13 30.26	- 2 19.9	1.661	2.615	7.9	20.7
4 1	13 22.34	- 3 25.6	1.892	2.881	3.5	21.5	4 1	13 22.15	- 1 13.0	1.606	2.595	4.0	20.5
4 11	13 12.86	- 2 30.1	1.876	2.875	2.1	21.4	4 11	13 12.93	- 0 6.0	1.578	2.574	3.2	20.4
4 21	13 3.46	- 1 39.4	1.889	2.867	5.7	21.6	4 21	13 3.64	+ 0 53.5	1.578	2.552	7.0	20.5
5 1	12 55.07	- 0 58.8	1.930	2.859	9.6	21.8	5 1	12 55.36	+ 1 39.2	1.604	2.530	11.3	20.7
5 11	12 48.42	- 0 32.1	1.996	2.849	13.0	22.0	5 11	12 48.97	+ 2 6.4	1.653	2.508	15.2	20.9
348864	2006 SG ₁₃₉		4 9.7 154°57	2.7/ 6.4	18		459599	2013 HG ₂₂		4 9.8 308°29	2.9/ 11.9	17	
3 2	13 37.57	+ 0 20.4	2.892	3.690	10.3	21.3	3 2	13 34.65	- 16 56.0	1.354	2.156	19.6	21.0
3 12	13 33.21	+ 0 57.9	2.811	3.697	8.0	21.1	3 12	13 33.29	- 16 53.0	1.247	2.129	16.2	20.7
3 22	13 27.38	+ 1 38.7	2.754	3.704	5.4	21.0	3 22	13 28.85	- 16 25.1	1.159	2.101	11.9	20.4
4 1	13 20.50	+ 2 19.5	2.726	3.710	3.2	20.8	4 1	13 21.75	- 15 31.2	1.092	2.074	7.0	20.0
4 11	13 13.15	+ 2 56.1	2.728	3.716	3.0	20.8	4 11	13 12.97	- 14 14.5	1.048	2.047	3.0	19.7
4 21	13 5.93	+ 3 25.1	2.760	3.721	5.2	21.0	4 21	13 3.90	- 12 42.8	1.028	2.021	6.3	19.8
5 1	12 59.44	+ 3 43.9	2.819	3.726	7.8	21.2	5 1	12 56.07	- 11 7.7	1.032	1.995	11.9	20.0
5 11	12 54.13	+ 3 50.8	2.904	3.731	10.1	21.3	5 11	12 50.76	- 9 41.8	1.057	1.970	17.2	20.2
215199	2000 SB ₁₃₀		4 9.7 228°61	1.4/ 12.9	18		179902	2002 VO ₄		4 9.8 258°17	0.4/ 9.0	18	
3 2	13 28.82	- 18 36.6	5.361	6.086	6.8	20.4	3 2	13 30.14	- 7 10.3	4.531	5.310	7.2	20.7
3 12	13 25.92	- 18 19.0	5.245	6.077	5.5	20.3	3 12	13 27.05	- 6 53.0	4.429	5.304	5.6	20.6
3 22	13 22.24	- 17 53.8	5.154	6.068	4.1	20.1	3 22	13 23.06	- 6 31.2	4.352	5.299	3.7	20.5
4 1	13 18.01	- 17 22.0	5.091	6.060	2.5	20.0	4 1	13 18.43	- 6 6.3	4.305	5.293	1.7	20.3
4 11	13 13.51	- 16 44.9	5.058	6.050	1.4	19.9	4 11	13 13.50	- 5 40.2	4.287	5.288	0.6	20.2
4 21	13 9.04	- 16 4.2	5.055	6.041	2.0	20.0	4 21	13 8.60	- 5 15.0	4.300	5.282	2.5	20.4
5 1	13 4.89	- 15 22.1	5.082	6.032	3.5	20.1	5 1	13 4.07	- 4 52.7	4.342	5.277	4.5	20.5
5 11	13 1.32	- 14 40.6	5.138	6.022	5.0	20.2	5 11	13 0.23	- 4 35.0	4.411	5.271	6.3	20.6
423655	2005 YA ₇₃		4 9.7 222°69	5.7/ 3.7	17		415626	2014 QF ₃₇₁		4 9.8 135°32	1.1/ 8.8	18	
3 2	13 40.61	+ 7 21.0	2.264	3.075	12.4	22.0	3 2	13 41.15	- 7 56.4	1.763	2.564	15.8	22.0
3 12	13 36.15	+ 8 22.3	2.177	3.066	9.9	21.8	3 12	13 37.04	- 7 20.2	1.686	2.572	12.4	21.8
3 22	13 29.68	+ 9 24.6	2.114	3.056	7.4	21.6	3 22	13 30.49	- 6 30.9	1.629	2.581	8.3	21.6
4 1	13 21.70	+ 10 21.6	2.079	3.045	5.8	21.5	4 1	13 22.15	- 5 32.6	1.599	2.588	3.9	21.3
4 11	13 12.97	+ 11 6.8	2.071	3.034	6.3	21.5	4 11	13 12.97	- 4 31.8	1.595	2.596	1.6	21.2
4 21	13 4.33	+ 11 35.4	2.091	3.023	8.6	21.6	4 21	13 4.02	- 3 35.1	1.620	2.603	5.8	21.5
5 1	12 56.60	+ 11 44.5	2.136	3.011	11.3	21.7	5 1	12 56.32	- 2 48.9	1.671	2.610	10.1	21.7
5 11	12 50.46	+ 11 33.5	2.204	2.998	14.0	21.9	5 11	12 50.62	- 2 17.7	1.745	2.616	13.8	22.0
456975	2008 BB ₁₂		4 9.7 80°90	4.2/ 6.1	18		363838	2005 QP ₁₄		4 9.8 192°03	0.6/ 10.3	17	
3 2	13 39.32	- 1 16.9	1.581	2.406	16.2	21.1	3 2	13 40.29	- 11 55.3	2.099	2.878	14.3	22.1
3 12	13 35.73	- 0 9.1	1.518	2.420	12.5	20.9	3 12	13 36.12	- 11 38.2	2.005	2.877	11.4	21.9
3 22	13 29.61	+ 1 7.5	1.477	2.433	8.5	20.7	3 22	13 29.79	- 11 7.5	1.933	2.875	7.9	21.7
4 1	13 21.69	+ 2 25.3	1.460	2.446	4.9	20.5	4 1	13 21.82	- 10 25.4	1.887	2.873	4.0	21.4
4 11	13 12.99	+ 3 35.2	1.471	2.460	4.8	20.5	4 11	13 13.01	- 9 35.9	1.868	2.870	0.7	21.2
4 21	13 4.63	+ 4 30.0	1.507	2.473	8.3	20.7	4 21	13 4.29	- 8 44.2	1.879	2.867	4.5	21.5
5 1	12 57.65	+ 5 4.3	1.568	2.486	12.1	21.0	5 1	12 56.57	- 7 56.0	1.918	2.864	8.5	21.7
5 11	12 52.76	+ 5 16.3	1.651	2.499	15.5	21.2	5 11	12 50.56	- 7 16.5	1.981	2.860	12.0	21.9
287145	2002 RM ₂₂₀		4 9.7 236°59	1.0/ 8.9	17		308180	2005 CQ ₂₉		4 9.8 114°11	0.5/ 9.3	18	
3 2	13 41.39	- 7 22.7	1.983	2.777	14.5	22.0	3 2	13 43.13	- 8 56.1	1.743	2.537	16.2	21.7
3 12	13 37.20	- 6 58.2	1.881	2.764	11.5	21.8	3 12	13 38.54	- 8 31.8	1.671	2.553	12.7	21.5
3 22	13 30.66	- 6 22.2	1.801	2.751	7.8	21.5	3 22	13 31.46	- 7 54.4	1.620	2.569	8.6	21.3
4 1	13 22.28	- 5 37.9	1.748	2.737	3.7	21.2	4 1	13 22.58	- 7 7.5	1.595	2.584	4.0	21.0
4 11	13 12.89	- 4 50.0	1.722	2.723	1.4	21.0	4 11	13 12.92	- 6 16.7	1.597	2.598	1.0	20.8
4 21	13 3.49	- 4 4.4	1.725	2.708	5.5	21.3	4 21	13 3.56	- 5 28.2	1.627	2.612	5.5	21.2
5 1	12 55.08	- 3 26.7	1.755	2.692	9.7	21.5	5 1	12 55.54	- 4 48.2	1.684	2.626	9.8	21.5
5 11	12 48.49	- 3 1.4	1.809	2.676	13.5	21.7	5 11	12 49.59	- 4 21.0	1.764	2.639	13.4	21.7
503311	2016 AU ₁₂₄		4 9.7 340°67	1.3/ 10.6	17		164222	2004 RN ₉		4 9.8 106°57	12.9/ 12.3	17	
3 2	13 37.37	- 11 54.7	1.304	2.121	19.4	20.6	3 2	14 34.50	- 16 15.8	0.563	1.364	38.9	21.8
3 12	13 35.19	- 12 0.3	1.221	2.114	15.6	20.3	3 12	14 24.23	- 19 59.1	0.527	1.398	32.4	21.5
3 22	13 29.90	- 11 47.7	1.156	2.107	11.0	20.0	3 22	14 5.63	- 23 25.3	0.502	1.430	24.8	21.2
4 1	13 22.10	- 11 18.5	1.113	2.101	5.7	19.7	4 1	13 39.71	- 26 6.9	0.494	1.460	17.2	21.0
4 11	13 12.92	- 10 37.2	1.094	2.095	1.3	19.4	4 11	13 10.50	- 27 39.6	0.505	1.488	13.0	20.9
4 21	13 3.80	- 9 51.0	1.099	2.091	6.2	19.7	4 21	12 43.55	- 28 1.3	0.538	1.514	15.3	21.2
5 1	12 56.17	- 9 8.5	1.128	2.087	11.6	20.0	5 1	12 23.23	- 27 34.6	0.589	1.537	20.7	21.6
5 11	12 51.10	- 8 37.3	1.177	2.084	16.3	20.2	5 11	12 11.04	- 26 50.6	0.656	1.558	26.0	22.0
229668	2006 SQ ₄₀₈		4 9.8 281°73	2.1/ 8.2	17		470204	2006 VV ₇₈		4 9.8 236°71	2.0/ 12.3	16	
3 2	13 40.54	- 5 4.6	1.695	2.506	15.9	21.8	3 2	13 35.69	- 18 12.3	2.748	3.493	12.1	22.8
3 12	13 37.09	- 4 37.5	1.589	2.482	12.6	21.5	3 12	13 32.12	- 17 48.0	2.636	3.482	9.9	22.7
3 22	13 30.94	- 3 58.8	1.503	2.457	8.6	21.2	3 22	13 26.88	- 17 8.9	2.546	3.469	7.2	22.5
4 1	13 22.55	- 3 12.2	1.442	2.432	4.2	20.9	4 1	13 20.38	- 16 15.9	2.482	3.457	4.3	22.3
4 11	13 12.85	- 2 23.9	1.408	2.407	2.5	20.7	4 11	13 13.23	- 15 12.0	2.447	3.444	2.0	22.1
4 21	13 2.97	- 1 40.7	1.401	2.382	6.9	20.9	4 21	13 6.10	- 14 1.2	2.442	3.431	3.6	22.2
5 1	12 54.15	- 1 9.3	1.419	2.356	11.7	21.1	5 1	12 59.66	- 12 49.0	2.466	3.417	6.6	22.3
5 11	12 47.41	- 0 54.4	1.460	2.330	16.0	21.3	5 11	12 54.50	- 11 40.7	2.517	3.403	9.5	22.5
316093	2009 LB ₁		4 9.8 345°92	5.6/ 5.2	17		109313	2001 QR ₁₃₄		4 9.8 259°22	3.0/ 13.1	18	
3 2													

EPHEMERIDES

4 9.8

4 9.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
337049	1996 VX ₂	4 9.8 92°87'	0°0'	9.7	17		466939	2016 AR ₁₁₇	4 9.8 36°92'	5°7'	13.9	18	
3 2	13 37.50	-11 10.4	2.501	3.277	12.4	22.0	3 2	13 39.99	-21 26.4	1.405	2.177	20.5	21.0
3 12	13 33.35	-10 34.4	2.430	3.302	9.7	21.9	3 12	13 37.10	-22 2.0	1.328	2.183	17.1	20.8
3 22	13 27.55	-9 47.3	2.382	3.325	6.5	21.7	3 22	13 31.10	-22 13.8	1.270	2.190	13.1	20.6
4 1	13 20.61	-8 52.1	2.362	3.349	3.1	21.5	4 1	13 22.64	-21 59.4	1.232	2.197	9.0	20.4
4 11	13 13.21	-7 53.1	2.370	3.372	0.4	21.3	4 11	13 12.94	-21 20.3	1.217	2.205	5.9	20.2
4 21	13 6.05	-6 55.1	2.409	3.395	3.9	21.6	4 21	13 3.43	-20 22.1	1.228	2.213	6.8	20.3
5 1	12 59.79	-6 2.6	2.476	3.417	7.1	21.9	5 1	12 55.51	-19 14.3	1.262	2.222	10.5	20.5
5 11	12 54.91	-5 19.6	2.569	3.439	9.9	22.1	5 11	12 50.19	-18 7.4	1.319	2.231	14.6	20.8
203388	2001 XX ₁₀₄	4 9.8 225°38'	2°2'	11.6	16		464916	2005 TO ₁₃₃	4 9.8 121°51'	2°1'	7.5	18	
3 2	13 41.47	-15 57.7	1.777	2.550	16.8	21.3	3 2	13 37.94	-6 16.9	1.973	2.777	14.2	21.7
3 12	13 37.65	-15 51.6	1.677	2.541	13.6	21.0	3 12	13 34.23	-5 10.5	1.898	2.788	11.0	21.5
3 22	13 31.18	-15 27.1	1.598	2.533	9.9	20.8	3 22	13 28.43	-3 52.3	1.846	2.799	7.3	21.3
4 1	13 22.62	-14 44.6	1.543	2.524	5.6	20.5	4 1	13 21.13	-2 27.6	1.820	2.810	3.5	21.1
4 11	13 12.91	-13 47.5	1.515	2.514	2.3	20.3	4 11	13 13.17	-1 3.8	1.823	2.820	2.6	21.0
4 21	13 3.19	-12 41.8	1.514	2.504	5.1	20.4	4 21	13 5.44	+0 12.1	1.855	2.830	6.1	21.3
5 1	12 54.63	-11 35.4	1.540	2.493	9.6	20.7	5 1	12 58.78	+1 13.9	1.913	2.839	9.8	21.5
5 11	12 48.17	-10 36.2	1.590	2.482	13.7	20.9	5 11	12 53.84	+1 57.9	1.995	2.848	13.0	21.7
419637	2010 TY ₁₃	4 9.8 142°40'	1°7'	11.3	16		4694	Festou	4 9.8 269°48'	2°4'	11.9	18	
3 2	13 40.47	-15 5.2	1.835	2.611	16.2	22.4	3 2	13 39.74	-15 54.3	2.111	2.875	14.7	17.4
3 12	13 36.55	-14 51.8	1.750	2.617	13.0	22.2	3 12	13 35.96	-16 2.5	1.999	2.857	12.0	17.2
3 22	13 30.21	-14 21.0	1.686	2.623	9.2	21.9	3 22	13 29.89	-15 56.2	1.908	2.838	8.8	17.0
4 1	13 22.05	-13 34.4	1.646	2.628	5.0	21.7	4 1	13 21.99	-15 35.3	1.842	2.820	5.2	16.7
4 11	13 13.01	-12 36.2	1.633	2.634	1.7	21.5	4 11	13 13.04	-15 1.9	1.803	2.801	2.5	16.5
4 21	13 4.13	-11 32.6	1.649	2.638	4.8	21.7	4 21	13 3.97	-14 19.9	1.792	2.781	4.6	16.6
5 1	12 56.46	-10 30.8	1.691	2.643	9.0	22.0	5 1	12 55.79	-13 34.9	1.809	2.762	8.4	16.8
5 11	12 50.75	-9 37.5	1.757	2.647	12.7	22.2	5 11	12 49.33	-12 52.9	1.851	2.742	12.1	17.0
102594	1999 VC ₃	4 9.8 281°27'	3°8'	6.9	17		479146	2013 BF ₆₇	4 9.8 277°56'	3°5'	13.4	17	
3 2	13 41.19	-0 50.5	1.603	2.425	16.2	20.0	3 2	13 38.17	-19 58.9	2.499	3.236	13.4	21.1
3 12	13 37.60	-0 16.7	1.511	2.410	12.7	19.8	3 12	13 34.26	-20 19.5	2.398	3.234	11.1	20.9
3 22	13 31.24	+0 25.1	1.440	2.395	8.7	19.5	3 22	13 28.45	-20 26.0	2.319	3.231	8.4	20.8
4 1	13 22.68	+1 9.2	1.393	2.380	4.8	19.2	4 1	13 21.19	-20 18.0	2.265	3.229	5.6	20.6
4 11	13 12.91	+1 48.6	1.372	2.365	4.3	19.1	4 11	13 13.17	-19 56.8	2.239	3.227	3.6	20.4
4 21	13 3.12	+2 16.4	1.378	2.350	8.1	19.3	4 21	13 5.18	-19 25.2	2.241	3.224	4.4	20.5
5 1	12 54.56	+2 27.2	1.408	2.335	12.5	19.5	5 1	12 58.00	-18 47.4	2.271	3.222	7.1	20.6
5 11	12 48.18	+2 18.5	1.460	2.320	16.5	19.7	5 11	12 52.29	-18 8.7	2.327	3.219	9.9	20.8
198982	2005 VL ₄₄	4 9.8 295°63'	2°9'	11.8	17		62657	2000 SK ₃₆₅	4 9.8 124°40'	0°6'	9.1	18	
3 2	13 38.16	-16 32.9	1.335	2.134	20.0	20.9	3 2	13 38.26	-7 15.0	2.561	3.347	11.8	20.0
3 12	13 35.92	-16 33.5	1.244	2.123	16.4	20.6	3 12	13 34.01	-6 58.3	2.477	3.355	9.2	19.8
3 22	13 30.50	-16 10.6	1.171	2.112	12.0	20.3	3 22	13 28.08	-6 33.7	2.416	3.364	6.2	19.6
4 1	13 22.46	-15 23.8	1.120	2.102	6.9	20.0	4 1	13 20.93	-6 3.8	2.383	3.372	2.9	19.4
4 11	13 12.93	-14 17.0	1.092	2.091	2.9	19.7	4 11	13 13.22	-5 32.0	2.379	3.380	0.9	19.3
4 21	13 3.37	-12 58.3	1.089	2.081	6.2	19.9	4 21	13 5.65	-5 2.1	2.404	3.388	4.2	19.5
5 1	12 55.27	-11 38.5	1.111	2.071	11.5	20.1	5 1	12 58.90	-4 37.6	2.458	3.395	7.3	19.7
5 11	12 49.79	-10 28.7	1.153	2.062	16.4	20.4	5 11	12 53.51	-4 21.5	2.537	3.402	10.2	19.9
170962	2005 CH ₃	4 9.8 17°91'	2°1'	10.9	18		267281	2001 SM ₁₁	4 9.8 141°25'	3°7'	13.5	17	
3 2	13 39.76	-11 49.1	1.176	1.997	20.8	19.5	3 2	13 43.66	-20 49.5	2.400	3.124	14.2	21.8
3 12	13 37.22	-12 20.3	1.108	2.002	16.7	19.2	3 12	13 38.49	-21 5.2	2.311	3.138	11.7	21.6
3 22	13 31.31	-12 34.4	1.058	2.009	11.8	19.0	3 22	13 31.25	-21 5.4	2.244	3.151	8.9	21.4
4 1	13 22.76	-12 32.0	1.030	2.016	6.3	18.7	4 1	13 22.50	-20 49.4	2.202	3.163	5.9	21.3
4 11	13 12.90	-12 16.6	1.024	2.025	2.1	18.4	4 11	13 13.01	-20 18.9	2.188	3.175	3.8	21.2
4 21	13 3.32	-11 54.2	1.042	2.034	6.3	18.7	4 21	13 3.67	-19 37.2	2.203	3.185	4.6	21.2
5 1	12 55.52	-11 32.3	1.084	2.045	11.6	19.0	5 1	12 55.34	-18 49.5	2.247	3.196	7.3	21.4
5 11	12 50.54	-11 18.0	1.145	2.057	16.3	19.3	5 11	12 48.68	-18 1.6	2.318	3.205	10.2	21.6
83725	2001 TW ₁₀₃	4 9.8 22°73'	2°6'	12.5	18		316192	2010 LO ₅₃	4 9.8 232°01'	2°3'	11.6	17	
3 2	13 35.15	-18 23.7	2.075	2.838	15.0	19.3	3 2	13 42.46	-14 54.9	1.805	2.578	16.5	21.3
3 12	13 32.18	-18 11.5	1.985	2.841	12.2	19.1	3 12	13 38.40	-15 4.9	1.706	2.571	13.4	21.1
3 22	13 27.14	-17 41.4	1.916	2.844	8.9	18.9	3 22	13 31.70	-14 59.1	1.628	2.563	9.7	20.8
4 1	13 20.56	-16 54.3	1.872	2.847	5.4	18.7	4 1	13 22.90	-14 37.7	1.574	2.554	5.5	20.6
4 11	13 13.23	-15 53.8	1.855	2.851	2.7	18.5	4 11	13 12.94	-14 3.1	1.547	2.546	2.3	20.3
4 21	13 6.03	-14 45.4	1.865	2.855	4.4	18.6	4 21	13 2.96	-13 20.3	1.547	2.536	5.1	20.5
5 1	12 59.80	-13 35.6	1.903	2.859	7.8	18.8	5 1	12 54.12	-12 35.6	1.574	2.527	9.4	20.7
5 11	12 55.24	-12 31.2	1.965	2.863	11.2	19.0	5 11	12 47.36	-11 56.0	1.625	2.517	13.5	20.9
187504	2006 SO ₃₆₅	4 9.8 77°40'	3°3'	6.8	18		105465	2000 QO ₂₀₇	4 9.8 155°82'	0°6'	10.6	18	
3 2	13 41.03	-2 59.4	1.651	2.467	16.0	20.8	3 2	13 37.20	-12 10.5	2.899	3.664	11.1	20.6
3 12	13 36.81	-1 56.4	1.596	2.493	12.3	20.6	3 12	13 33.04	-11 54.9	2.807	3.670	8.8	20.5
3 22	13 30.20	-0 44.6	1.564	2.519	8.2	20.4	3 22	13 27.36	-11 29.5	2.738	3.676	6.1	20.3
4 1	13 21.94	+0 29.3	1.557	2.545	4.4	20.3	4 1	13 20.59	-10 56.0	2.697	3.682	3.1	20.1
4 11	13 13.06	+1 37.1	1.577	2.570	3.9	20.3	4 11	13 13.29	-10 17.3	2.685	3.687	0.6	19.9
4 21	13 4.63	+2 32.0	1.625	2.595	7.3	20.6	4 21	13 6.10	-9 36.7	2.704	3.691	3.4	20.1
5 1	12 57.59	+3 9.0	1.698	2.620	11.1	20.8	5 1	12 59.62	-8 58.1	2.751	3.696	6.3	20.3
5 11	12 52.60	+3 26.1	1.793	2.644	14.4	21.1	5 11	12 54.34	-8 25.0	2.825	3.700	9.0	20.5
502329	2015 BD ₁₆₉	4 9.8 251°87'	4°2'	5.7	17		165478	2001 AQ ₄₆	4 9.8 90°45'	5°9'	13.5	18	
3 2	13 38.19	+0 47.8	1.905	2.725	14.1	21.8	3 2	13 55.09	-20 33.1	1.732			

EPHEMERIDES

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
68787	2002 <i>FJ</i> ₁₃		4 9.8 246°59	2.5/ 7.5	18		285205	1996 <i>XD</i> ₁₈		4 9.8 133°76	1.3/11.1	17	
3 2	13 38.60	- 5 54.6	1.732	2.544	15.6	19.2	3 2	13 39.52	-14 10.8	2.105	2.877	14.5	21.5
3 12	13 35.33	- 4 53.9	1.638	2.532	12.2	18.9	3 12	13 35.46	-13 55.0	2.020	2.885	11.6	21.3
3 22	13 29.58	- 3 38.5	1.565	2.520	8.2	18.7	3 22	13 29.31	-13 24.4	1.956	2.893	8.2	21.1
4 1	13 21.86	- 2 13.9	1.518	2.508	4.0	18.4	4 1	13 21.61	-12 40.8	1.918	2.901	4.3	20.9
4 11	13 13.11	- 0 48.0	1.499	2.495	3.1	18.3	4 11	13 13.18	-11 48.2	1.908	2.909	1.3	20.7
4 21	13 4.38	+ 0 30.5	1.506	2.482	7.1	18.5	4 21	13 4.91	-10 51.9	1.926	2.916	4.3	20.9
5 1	12 56.76	+ 1 33.9	1.540	2.469	11.5	18.7	5 1	12 57.68	- 9 57.7	1.973	2.923	8.0	21.2
5 11	12 51.12	+ 2 17.0	1.596	2.455	15.4	18.9	5 11	12 52.15	- 9 11.0	2.044	2.929	11.4	21.4
53144	1999 <i>BN</i> ₉		4 9.8 93°72	2.4/ 7.8	18		464538	2016 <i>CH</i> ₂₃		4 9.8 58°81	4.1/12.8	18	
3 2	13 40.50	- 3 47.7	1.740	2.552	15.5	19.6	3 2	13 41.91	-18 10.5	1.505	2.282	19.1	21.0
3 12	13 36.57	- 3 15.1	1.664	2.558	12.1	19.4	3 12	13 38.34	-18 38.8	1.427	2.289	15.7	20.7
3 22	13 30.23	- 2 33.3	1.610	2.564	8.1	19.1	3 22	13 31.82	-18 47.0	1.368	2.296	11.7	20.5
4 1	13 22.08	- 1 47.3	1.581	2.570	4.0	18.9	4 1	13 22.98	-18 34.0	1.330	2.304	7.4	20.3
4 11	13 13.09	- 1 3.2	1.579	2.576	2.9	18.8	4 11	13 12.99	-18 2.1	1.318	2.312	4.2	20.1
4 21	13 4.33	- 0 27.1	1.604	2.582	6.6	19.1	4 21	13 3.19	-17 16.5	1.331	2.320	5.9	20.2
5 1	12 56.80	- 0 3.9	1.656	2.588	10.6	19.3	5 1	12 54.88	-16 25.2	1.370	2.328	10.0	20.5
5 11	12 51.27	+ 0 3.5	1.730	2.594	14.2	19.6	5 11	12 49.02	-15 36.8	1.431	2.336	14.1	20.7
296342	2009 <i>FV</i> ₃		4 9.8 80°90	2.9/ 6.6	17		135080	2001 <i>PP</i> ₆₅		4 9.8 214°63	0.0/ 9.6	17	
3 2	13 37.06	- 1 6.6	2.252	3.062	12.5	20.8	3 2	13 38.44	- 9 25.0	2.440	3.222	12.5	20.3
3 12	13 33.26	- 0 22.2	2.180	3.073	9.7	20.7	3 12	13 34.39	- 9 11.5	2.343	3.218	9.8	20.1
3 22	13 27.65	+ 0 27.8	2.131	3.084	6.5	20.5	3 22	13 28.49	- 8 48.3	2.268	3.213	6.7	19.9
4 1	13 20.75	+ 1 18.5	2.109	3.096	3.6	20.3	4 1	13 21.22	- 8 17.4	2.221	3.209	3.2	19.7
4 11	13 13.29	+ 2 4.8	2.116	3.107	3.4	20.3	4 11	13 13.24	- 7 42.3	2.202	3.204	0.5	19.4
4 21	13 6.02	+ 2 41.9	2.151	3.118	6.1	20.5	4 21	13 5.33	- 7 6.9	2.213	3.199	4.1	19.7
5 1	12 59.69	+ 3 6.3	2.212	3.129	9.1	20.7	5 1	12 58.22	- 6 35.4	2.251	3.194	7.6	19.9
5 11	12 54.84	+ 3 16.1	2.298	3.140	11.9	20.9	5 11	12 52.54	- 6 11.7	2.315	3.188	10.7	20.1
505760	2015 <i>BH</i> ₁₂₈		4 9.8 328°24	3°3/ 6.9	17		98548	2000 <i>VR</i> ₅₆		4 9.8 145°51	3°8/13.1	18	
3 2	13 36.72	- 2 22.8	1.678	2.502	15.4	21.6	3 2	13 41.54	-19 54.5	1.758	2.516	17.5	20.0
3 12	13 33.85	- 1 38.0	1.593	2.495	12.0	21.3	3 12	13 37.64	-19 59.0	1.672	2.521	14.4	19.8
3 22	13 28.54	- 0 43.6	1.530	2.488	8.1	21.1	3 22	13 31.12	-19 42.7	1.605	2.527	10.8	19.6
4 1	13 21.34	+ 0 14.6	1.492	2.481	4.4	20.8	4 1	13 22.59	-19 5.2	1.562	2.532	6.8	19.4
4 11	13 13.19	+ 1 9.3	1.480	2.474	3.9	20.8	4 11	13 13.06	-18 9.4	1.544	2.537	3.9	19.2
4 21	13 5.14	+ 1 53.5	1.495	2.468	7.5	21.0	4 21	13 3.68	-17 1.2	1.554	2.541	5.3	19.3
5 1	12 58.24	+ 2 21.6	1.534	2.463	11.6	21.2	5 1	12 55.59	-15 48.6	1.590	2.545	9.1	19.5
5 11	12 53.29	+ 2 30.6	1.595	2.457	15.3	21.4	5 11	12 49.64	-14 40.1	1.651	2.549	12.9	19.8
224537	2005 <i>WK</i> ₁₁₉		4 9.8 129°39	5°1/15.4	17		239837	1999 <i>FX</i> ₉₀		4 9.8 85°91	1°4/ 8.3	17	
3 2	13 40.80	-25 48.7	2.234	2.943	15.5	20.9	3 2	13 37.53	- 5 38.0	2.193	2.993	13.1	21.2
3 12	13 36.51	-26 0.0	2.146	2.956	13.1	20.8	3 12	13 33.79	- 5 9.9	2.109	2.997	10.2	21.0
3 22	13 30.05	-25 51.2	2.078	2.968	10.4	20.6	3 22	13 28.12	- 4 33.3	2.048	3.000	6.8	20.8
4 1	13 21.96	-25 21.3	2.033	2.979	7.5	20.5	4 1	13 21.03	- 3 51.5	2.014	3.003	3.2	20.5
4 11	13 13.11	-24 31.7	2.015	2.990	5.4	20.3	4 11	13 13.28	- 3 9.3	2.008	3.007	1.8	20.4
4 21	13 4.44	-23 26.6	2.024	3.000	5.6	20.4	4 21	13 5.66	- 2 31.5	2.030	3.010	5.1	20.7
5 1	12 56.84	-22 12.3	2.062	3.010	7.8	20.5	5 1	12 58.97	- 2 2.4	2.079	3.014	8.6	20.9
5 11	12 51.01	-20 56.4	2.125	3.020	10.6	20.7	5 11	12 53.83	- 1 45.2	2.153	3.017	11.8	21.1
420143	2011 <i>FQ</i> ₈₈		4 9.8 27°64	1°6/10.8	17		285306	1998 <i>VQ</i> ₄₆		4 9.8 167°52	0°6/ 9.3	18	
3 2	13 44.39	-10 45.1	1.670	2.459	17.0	20.4	3 2	13 43.35	- 8 57.4	1.737	2.531	16.3	22.3
3 12	13 39.92	-11 21.1	1.587	2.463	13.6	20.1	3 12	13 38.93	- 8 30.5	1.653	2.536	12.8	22.1
3 22	13 32.70	-11 46.0	1.525	2.468	9.6	19.9	3 22	13 31.92	- 7 49.7	1.591	2.540	8.7	21.8
4 1	13 23.35	-12 0.0	1.488	2.473	5.1	19.7	4 1	13 22.94	- 6 58.5	1.553	2.543	4.1	21.6
4 11	13 12.91	-12 5.2	1.477	2.478	1.6	19.4	4 11	13 13.01	- 6 2.5	1.544	2.545	1.0	21.3
4 21	13 2.61	-12 4.6	1.494	2.484	5.2	19.7	4 21	13 3.26	- 5 8.5	1.562	2.547	5.7	21.7
5 1	12 53.65	-12 2.9	1.537	2.489	9.6	19.9	5 1	12 54.78	- 4 23.1	1.606	2.548	10.2	21.9
5 11	12 46.92	-12 4.8	1.604	2.496	13.6	20.2	5 11	12 48.41	- 3 51.3	1.675	2.548	14.1	22.2
205034	1998 <i>QD</i> ₇₁		4 9.8 201°63	0°9/10.8	18		11655	1997 <i>CC</i> ₂₉		4 9.8 42°41	0°0/ 9.6	18	R
3 2	13 37.69	-13 58.3	2.695	3.455	12.0	21.0	3 2	13 36.32	- 9 55.1	2.161	2.952	13.6	18.2
3 12	13 33.64	-13 30.2	2.591	3.451	9.5	20.8	3 12	13 32.89	- 9 35.2	2.078	2.958	10.7	18.0
3 22	13 27.89	-12 49.5	2.510	3.446	6.7	20.6	3 22	13 27.53	- 9 3.9	2.018	2.965	7.2	17.8
4 1	13 20.89	-11 57.9	2.457	3.440	3.5	20.4	4 1	13 20.76	- 8 23.8	1.983	2.971	3.5	17.6
4 11	13 13.26	-10 58.8	2.432	3.434	0.9	20.2	4 11	13 13.32	- 7 39.3	1.976	2.978	0.5	17.3
4 21	13 5.69	- 9 56.7	2.438	3.427	3.6	20.4	4 21	13 6.03	- 6 55.1	1.998	2.985	4.4	17.7
5 1	12 58.85	- 8 56.4	2.474	3.419	6.9	20.5	5 1	12 59.68	- 6 16.2	2.047	2.992	8.1	17.9
5 11	12 53.32	- 8 2.8	2.535	3.411	9.8	20.7	5 11	12 54.89	- 5 46.7	2.120	2.999	11.3	18.1
226697	2004 <i>JR</i> ₄₃		4 9.8 283°59	4°1/ 6.2	18		213677	2002 <i>TX</i> ₆₆		4 9.8 113°50	13°5/ 4.5	18	
3 2	13 38.68	- 0 27.1	1.753	2.574	15.0	20.4	3 2	14 1.62	+20 28.5	1.198	2.004	21.4	19.9
3 12	13 35.42	+ 0 24.2	1.656	2.556	11.8	20.2	3 12	13 54.12	+21 16.6	1.147	2.015	18.3	19.8
3 22	13 29.67	+ 1 24.2	1.582	2.537	8.1	19.9	3 22	13 42.53	+21 46.9	1.113	2.025	15.4	19.6
4 1	13 21.94	+ 2 26.9	1.532	2.518	4.8	19.6	4 1	13 27.98	+21 46.1	1.100	2.035	13.6	19.5
4 11	13 13.11	+ 3 24.8	1.509	2.499	4.7	19.6	4 11	13 12.35	+21 4.9	1.111	2.044	13.9	19.6
4 21	13 4.25	+ 4 10.4	1.513	2.479	8.2	19.7	4 21	12 57.68	+19 42.4	1.145	2.053	16.2	19.7
5 1	12 56.44	+ 4 38.1	1.542	2.460	12.2	19.9	5 1	12 45.65	+17 44.5	1.201	2.062	19.2	19.9
5 11	12 50.58	+ 4 44.8	1.592	2.441	15.9	20.1	5 11	12 37.22	+15 21.5	1.276	2.070	22.2	20.2
312072	2007 <i>TG</i> ₂₄		4 9.8 136°64	0°2/10.0	18		90067	2002 <i>VS</i> ₇₆		4 9.8 171°79	4°4/ 4.9</		

EPHEMERIDES

4 9.8

4 9.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
427758	2004 <i>TF</i> ₄₀		4 9.8 256°62	0°1/ 9.9 17			351613	2005 <i>WR</i> ₁₁		4 9.8 26°17	2°8/ 7.9 18		
3 2	13 38.83	-10 49.0	2.135	2.919	14.0	22.1	3 2	13 41.44	- 4 5.7	1.286	2.116	18.9	21.3
3 12	13 35.12	-10 24.8	2.025	2.901	11.1	21.8	3 12	13 38.24	- 3 37.6	1.214	2.118	14.8	21.1
3 22	13 29.26	- 9 47.2	1.938	2.883	7.7	21.6	3 22	13 31.87	- 2 57.5	1.162	2.120	10.0	20.8
4 1	13 21.70	- 8 58.3	1.877	2.865	3.7	21.3	4 1	13 23.05	- 2 11.3	1.132	2.123	4.9	20.5
4 11	13 13.18	- 8 2.3	1.844	2.846	0.5	21.0	4 11	13 13.04	- 1 26.8	1.127	2.125	3.3	20.4
4 21	13 4.61	- 7 4.8	1.840	2.827	4.8	21.3	4 21	13 3.27	- 0 52.1	1.147	2.128	7.9	20.7
5 1	12 56.91	- 6 11.6	1.863	2.807	8.8	21.5	5 1	12 55.14	- 0 33.6	1.190	2.131	13.0	21.0
5 11	12 50.85	- 5 28.4	1.911	2.787	12.5	21.7	5 11	12 49.62	- 0 34.6	1.254	2.135	17.3	21.3
221372	2005 <i>XN</i> ₆		4 9.8 239°06	0°8/ 9.0 18			299719	2006 <i>RU</i> ₁₅		4 9.8 170°72	3°5/ 14.1 18		
3 2	13 41.60	- 7 29.2	2.365	3.147	12.8	21.0	3 2	13 37.74	-22 12.5	2.709	3.430	12.8	21.4
3 12	13 37.04	- 7 7.0	2.253	3.129	10.1	20.8	3 12	13 33.76	-22 15.1	2.609	3.433	10.7	21.2
3 22	13 30.43	- 6 35.1	2.164	3.111	6.9	20.6	3 22	13 28.03	-22 2.4	2.531	3.435	8.2	21.1
4 1	13 22.22	- 5 55.9	2.103	3.091	3.2	20.3	4 1	13 21.00	-21 34.2	2.478	3.437	5.6	20.9
4 11	13 13.11	- 5 13.3	2.070	3.071	1.1	20.1	4 11	13 13.33	-20 52.3	2.453	3.438	3.7	20.8
4 21	13 3.95	- 4 32.1	2.068	3.050	4.8	20.3	4 21	13 5.74	-20 0.1	2.457	3.439	4.2	20.8
5 1	12 55.58	- 3 56.9	2.094	3.029	8.6	20.5	5 1	12 58.92	-19 2.2	2.490	3.440	6.6	21.0
5 11	12 48.73	- 3 31.6	2.145	3.006	11.9	20.7	5 11	12 53.48	-18 4.1	2.549	3.440	9.2	21.1
140752	2001 <i>UH</i> ₁₁₅		4 9.8 137°61	0°6/ 10.5 18			375884	2009 <i>VD</i> ₆₃		4 9.8 97°12	2°5/ 7.5 18		
3 2	13 35.67	-13 27.6	2.546	3.316	12.3	20.5	3 2	13 40.39	- 2 51.0	1.943	2.751	14.3	20.8
3 12	13 32.09	-12 51.5	2.456	3.323	9.8	20.3	3 12	13 36.18	- 2 17.5	1.870	2.762	11.1	20.7
3 22	13 26.85	-12 2.3	2.390	3.329	6.8	20.1	3 22	13 29.81	- 1 36.7	1.820	2.773	7.4	20.5
4 1	13 20.39	-11 2.6	2.350	3.335	3.4	19.9	4 1	13 21.86	- 0 53.3	1.795	2.784	3.8	20.2
4 11	13 13.39	- 9 56.4	2.340	3.341	0.6	19.7	4 11	13 13.22	- 0 12.7	1.799	2.795	2.9	20.2
4 21	13 6.51	- 8 48.7	2.359	3.347	3.7	19.9	4 21	13 4.82	+ 0 19.8	1.831	2.805	6.2	20.4
5 1	13 0.43	- 7 44.7	2.406	3.352	7.0	20.2	5 1	12 57.55	+ 0 39.9	1.889	2.816	9.8	20.7
5 11	12 55.69	- 6 49.0	2.480	3.357	9.9	20.3	5 11	12 52.07	+ 0 45.5	1.970	2.826	13.1	20.9
32984	1996 <i>XX</i>		4 9.8 237°16	6°7/ 3.6 18			174719	2003 <i>UP</i> ₁₄₉		4 9.8 119°97	2°4/ 7.7 18		
3 2	13 42.66	+ 9 58.8	2.058	2.870	13.4	19.2	3 2	13 43.20	- 3 51.5	1.820	2.624	15.2	21.2
3 12	13 37.99	+10 51.5	1.975	2.861	10.8	19.0	3 12	13 38.48	- 3 13.4	1.749	2.639	11.8	21.0
3 22	13 31.09	+11 42.5	1.916	2.853	8.3	18.9	3 22	13 31.41	- 2 26.4	1.701	2.654	7.9	20.8
4 1	13 22.50	+12 24.8	1.883	2.843	6.8	18.8	4 1	13 22.63	- 1 35.6	1.679	2.668	3.9	20.6
4 11	13 13.09	+12 51.9	1.877	2.834	7.4	18.8	4 11	13 13.12	- 0 47.1	1.685	2.682	2.8	20.6
4 21	13 3.80	+12 59.3	1.897	2.824	9.6	18.9	4 21	13 3.91	- 0 6.9	1.719	2.695	6.4	20.8
5 1	12 55.58	+12 44.8	1.943	2.814	12.4	19.0	5 1	12 55.98	+ 0 20.2	1.780	2.708	10.3	21.1
5 11	12 49.15	+12 9.2	2.010	2.804	15.1	19.2	5 11	12 50.02	+ 0 31.7	1.863	2.720	13.7	21.3
162625	2000 <i>SR</i> ₁₂₇		4 9.8 132°08	1°9/ 7.9 18			510183	2011 <i>BG</i> ₁₀₃		4 9.8 47°72	0°3/ 9.3 17		
3 2	13 39.57	- 8 15.8	1.791	2.592	15.5	20.1	3 2	13 34.62	- 8 4.0	2.825	3.611	10.8	21.4
3 12	13 35.75	- 7 1.1	1.716	2.604	12.1	19.9	3 12	13 31.05	- 7 48.0	2.744	3.623	8.4	21.3
3 22	13 29.60	- 5 31.1	1.663	2.616	8.0	19.7	3 22	13 26.04	- 7 24.4	2.687	3.635	5.7	21.1
4 1	13 21.77	- 3 51.6	1.636	2.626	3.8	19.4	4 1	13 19.99	- 6 55.7	2.658	3.646	2.7	20.9
4 11	13 13.20	- 2 11.1	1.638	2.637	2.4	19.3	4 11	13 13.48	- 6 24.8	2.657	3.658	0.6	20.8
4 21	13 4.89	- 0 38.4	1.668	2.646	6.3	19.6	4 21	13 7.11	- 5 55.1	2.686	3.671	3.6	21.0
5 1	12 57.79	+ 0 38.9	1.726	2.655	10.4	19.9	5 1	13 1.43	- 5 29.9	2.743	3.683	6.5	21.2
5 11	12 52.61	+ 1 36.1	1.806	2.664	14.0	20.1	5 11	12 56.93	- 5 11.8	2.825	3.695	9.1	21.4
300100	2006 <i>UY</i> ₂₆₄		4 9.8 99°83	0°0/ 9.6 17			32802	1990 <i>SK</i>		4 9.8 172°54	7°8/ 3.5 18		
3 2	13 37.23	- 9 53.0	2.400	3.184	12.6	21.5	3 2	13 52.09	+14 28.1	2.098	2.887	14.0	18.7
3 12	13 33.37	- 9 33.2	2.317	3.193	9.9	21.3	3 12	13 45.14	+15 15.8	2.025	2.892	11.5	18.5
3 22	13 27.74	- 9 3.0	2.256	3.202	6.7	21.1	3 22	13 35.79	+15 57.2	1.977	2.896	9.2	18.4
4 1	13 20.83	- 8 25.0	2.222	3.210	3.2	20.9	4 1	13 24.69	+16 25.1	1.955	2.899	7.9	18.3
4 11	13 13.33	- 7 43.0	2.217	3.219	0.5	20.7	4 11	13 12.85	+16 33.2	1.961	2.901	8.4	18.4
4 21	13 5.98	- 7 1.2	2.241	3.228	4.1	21.0	4 21	13 1.33	+16 18.5	1.995	2.902	10.3	18.5
5 1	12 59.49	- 6 24.2	2.293	3.236	7.5	21.2	5 1	12 51.14	+15 40.6	2.056	2.902	12.8	18.6
5 11	12 54.43	- 5 55.5	2.370	3.244	10.5	21.4	5 11	12 43.00	+14 42.0	2.138	2.901	15.3	18.8
344655	2003 <i>SE</i> ₂₅		4 9.8 171°97	2°2/ 12.5 17			349478	2008 <i>DK</i> ₂₅		4 9.8 124°36	0°5/ 9.3 17		
3 2	13 38.82	-18 12.1	2.691	3.431	12.5	21.9	3 2	13 38.56	- 7 18.1	2.445	3.232	12.3	21.0
3 12	13 34.52	-18 0.0	2.593	3.434	10.2	21.7	3 12	13 34.42	- 7 9.5	2.355	3.234	9.6	20.8
3 22	13 28.49	-17 33.8	2.517	3.437	7.4	21.5	3 22	13 28.49	- 6 53.0	2.288	3.236	6.5	20.6
4 1	13 21.20	-16 54.3	2.467	3.440	4.5	21.3	4 1	13 21.23	- 6 30.8	2.249	3.238	3.1	20.4
4 11	13 13.28	-16 4.2	2.447	3.442	2.3	21.2	4 11	13 13.32	- 6 6.2	2.238	3.239	0.8	20.2
4 21	13 5.46	-15 7.3	2.456	3.443	3.7	21.3	4 21	13 5.52	- 5 43.0	2.256	3.241	4.3	20.5
5 1	12 58.42	-14 8.6	2.494	3.444	6.6	21.5	5 1	12 58.54	- 5 24.7	2.303	3.243	7.6	20.7
5 11	12 52.76	-13 13.1	2.559	3.444	9.4	21.6	5 11	12 52.99	- 5 14.2	2.375	3.244	10.6	20.9
413929	2006 <i>XE</i> ₁₀		4 9.8 46°27	6°3/ 15.3 18			138734	2000 <i>SG</i> ₁₉₅		4 9.8 116°96	1°9/ 7.4 18		
3 2	13 38.87	-24 50.4	1.513	2.265	20.1	20.4	3 2	13 35.10	- 5 6.8	2.472	3.273	11.8	20.3
3 12	13 35.96	-25 16.9	1.442	2.280	17.0	20.2	3 12	13 31.65	- 4 9.8	2.392	3.280	9.1	20.1
3 22	13 30.15	-25 17.1	1.389	2.296	13.3	20.0	3 22	13 26.55	- 3 4.1	2.335	3.288	6.0	19.9
4 1	13 22.16	-24 49.0	1.357	2.312	9.5	19.8	4 1	13 20.27	- 1 54.2	2.306	3.295	3.0	19.7
4 11	13 13.15	-23 54.8	1.348	2.329	6.7	19.7	4 11	13 13.46	- 0 45.3	2.306	3.302	2.3	19.7
4 21	13 4.44	-22 40.6	1.365	2.346	6.9	19.7	4 21	13 6.79	+ 0 17.3	2.336	3.309	5.1	19.9
5 1	12 57.28	-21 16.2	1.406	2.364	9.9	19.9	5 1	13 0.93	+ 1 9.0	2.393	3.316	8.2	20.1
5 11	12 52.52	-19 52.3	1.470	2.382	13.4	20.2	5 11	12 56.40	+ 1 46.8	2.475	3.323	11.0	20.3
384558	2010 <i>FF</i> ₂₈		4 9.8 246°81	3°4/ 6.5 17			155755	2000 <i>SK</i> ₁₂₄		4 9.8 197°97	0°3/ 9.4 17		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
45302	2000 AX ₄₆		4 9.8 184°63	0°1/ 9.9 18			194906	2002 AM ₁₀₆		4 9.8 134°05	2°4/ 7.8 18		
3 2	13 41.99	-10 26.3	2.162	2.940	14.0	20.0	3 2	13 42.30	-4 55.1	1.682	2.491	16.1	21.0
3 12	13 37.40	-10 7.2	2.069	2.941	11.1	19.8	3 12	13 38.07	-4 8.8	1.608	2.500	12.5	20.8
3 22	13 30.68	-9 35.9	1.997	2.941	7.6	19.6	3 22	13 31.30	-3 11.3	1.556	2.510	8.4	20.5
4 1	13 22.33	-8 54.7	1.952	2.940	3.7	19.3	4 1	13 22.67	-2 7.9	1.529	2.519	4.1	20.3
4 11	13 13.18	-8 7.9	1.936	2.938	0.5	19.1	4 11	13 13.18	-1 6.0	1.530	2.527	2.9	20.2
4 21	13 4.12	-7 20.2	1.949	2.936	4.6	19.4	4 21	13 3.96	-0 12.6	1.558	2.535	6.8	20.5
5 1	12 56.04	-6 37.3	1.990	2.933	8.5	19.6	5 1	12 56.07	+0 26.2	1.612	2.543	11.0	20.7
5 11	12 49.66	-6 3.5	2.057	2.929	11.9	19.8	5 11	12 50.27	+0 47.2	1.689	2.549	14.6	21.0
28053	1998 KE ₄		4 9.8 44°03	0°2/ 9.6 18			496403	2013 TW ₁₂₅		4 9.8 209°77	0°3/10.2 17		
3 2	13 37.08	-10 25.2	1.813	2.612	15.5	18.4	3 2	13 37.71	-13 14.6	2.228	3.003	13.7	22.1
3 12	13 33.92	-9 53.4	1.731	2.616	12.2	18.2	3 12	13 34.06	-12 27.2	2.128	2.998	10.9	21.9
3 22	13 28.47	-9 6.9	1.670	2.619	8.3	18.0	3 22	13 28.41	-11 23.9	2.050	2.992	7.5	21.7
4 1	13 21.31	-8 9.0	1.634	2.623	3.9	17.7	4 1	13 21.27	-10 7.2	1.999	2.986	3.7	21.4
4 11	13 13.32	-7 5.4	1.625	2.626	0.7	17.5	4 11	13 13.37	-8 42.4	1.977	2.979	0.5	21.1
4 21	13 5.50	-6 2.8	1.643	2.630	5.2	17.8	4 21	13 5.53	-7 16.0	1.984	2.971	4.4	21.4
5 1	12 58.79	-5 8.0	1.688	2.634	9.4	18.1	5 1	12 58.59	-5 54.9	2.020	2.964	8.3	21.7
5 11	12 53.94	-4 26.3	1.756	2.638	13.1	18.3	5 11	12 53.21	-4 45.2	2.081	2.955	11.7	21.9
253165	2002 WV ₁₄		4 9.8 86°39	3°2/ 6.9 18			510377	2011 UK ₃₉		4 9.8 305°93	8°2/ 1.7 17		
3 2	13 41.98	-2 33.3	1.771	2.582	15.3	21.1	3 2	13 39.94	+13 56.6	2.032	2.849	13.4	20.6
3 12	13 37.44	-1 37.8	1.714	2.608	11.8	21.0	3 12	13 36.06	+14 56.4	1.945	2.828	11.1	20.4
3 22	13 30.62	-0 34.4	1.680	2.633	7.9	20.8	3 22	13 29.92	+15 52.2	1.880	2.807	9.1	20.2
4 1	13 22.22	+0 30.6	1.671	2.658	4.2	20.6	4 1	13 22.04	+16 36.1	1.840	2.786	8.2	20.1
4 11	13 13.22	+1 30.1	1.690	2.683	3.7	20.6	4 11	13 13.26	+17 1.2	1.826	2.765	8.9	20.1
4 21	13 4.63	+2 17.9	1.737	2.707	6.9	20.9	4 21	13 4.51	+17 2.5	1.837	2.745	11.0	20.2
5 1	12 57.37	+2 49.5	1.811	2.731	10.6	21.1	5 1	12 56.77	+16 38.3	1.872	2.724	13.7	20.3
5 11	12 52.06	+3 3.1	1.906	2.755	13.7	21.4	5 11	12 50.80	+15 49.6	1.927	2.704	16.2	20.5
34175	Joshuadong		4 9.8 283°39	2°6/11.9 18			118668	2000 KS ₄₃		4 9.8 235°63	1°1/10.9 18		
3 2	13 38.97	-16 10.4	1.821	2.596	16.3	19.2	3 2	13 38.04	-14 32.6	2.078	2.852	14.6	19.5
3 12	13 35.73	-16 17.1	1.718	2.582	13.4	18.9	3 12	13 34.54	-14 4.3	1.975	2.842	11.7	19.3
3 22	13 29.96	-16 6.7	1.634	2.567	9.8	18.7	3 22	13 28.88	-13 19.2	1.894	2.833	8.3	19.0
4 1	13 22.15	-15 39.3	1.574	2.553	5.8	18.4	4 1	13 21.55	-12 19.1	1.838	2.822	4.4	18.8
4 11	13 13.19	-14 57.4	1.541	2.538	2.7	18.1	4 11	13 13.33	-11 8.4	1.811	2.812	1.1	18.5
4 21	13 4.15	-14 5.8	1.534	2.524	5.0	18.3	4 21	13 5.13	-9 53.2	1.812	2.801	4.5	18.7
5 1	12 56.16	-13 11.5	1.554	2.509	9.3	18.5	5 1	12 57.87	-8 40.4	1.840	2.790	8.5	18.9
5 11	12 50.14	-12 21.7	1.597	2.495	13.3	18.7	5 11	12 52.31	-7 36.7	1.894	2.778	12.2	19.1
466286	2013 PB ₂₉		4 9.8 265°42	0°2/ 9.9 17			520076	2013 WM ₁₁₃		4 9.8 176°42	5°6/ 3.4 17		
3 2	13 39.77	-10 56.5	1.851	2.642	15.5	22.1	3 2	13 39.51	+7 58.0	2.369	3.180	11.9	21.8
3 12	13 36.27	-10 36.5	1.744	2.623	12.4	21.8	3 12	13 35.17	+9 2.1	2.294	3.181	9.5	21.6
3 22	13 30.29	-10 1.4	1.658	2.604	8.6	21.6	3 22	13 28.99	+10 6.1	2.243	3.183	7.1	21.5
4 1	13 22.31	-9 13.2	1.597	2.585	4.2	21.3	4 1	13 21.48	+11 3.9	2.220	3.184	5.7	21.4
4 11	13 13.18	-8 16.5	1.563	2.565	0.5	20.9	4 11	13 13.36	+11 49.7	2.225	3.184	6.2	21.4
4 21	13 3.95	-7 17.6	1.557	2.545	5.3	21.2	4 21	13 5.39	+12 18.9	2.257	3.184	8.3	21.6
5 1	12 55.71	-6 23.4	1.577	2.524	9.9	21.4	5 1	12 58.34	+12 29.3	2.315	3.184	10.8	21.7
5 11	12 49.39	-5 40.4	1.621	2.504	14.0	21.6	5 11	12 52.76	+12 20.5	2.395	3.183	13.1	21.9
53162	1999 CG ₇		4 9.8 92°12	12°0/27.1 18			422553	2014 TY ₃₅		4 9.8 141°36	5°5/15.5 16		
3 2	13 39.61	+21 26.8	1.758	2.575	15.2	18.2	3 2	13 42.84	-26 22.7	2.119	2.826	16.3	21.7
3 12	13 35.90	+23 40.2	1.721	2.586	13.3	18.1	3 12	13 38.30	-26 36.3	2.031	2.838	13.9	21.5
3 22	13 29.75	+25 40.8	1.706	2.597	12.1	18.1	3 22	13 31.39	-26 28.5	1.962	2.849	11.0	21.3
4 1	13 21.86	+27 17.3	1.715	2.609	12.1	18.1	4 1	13 22.72	-25 57.9	1.915	2.860	8.0	21.2
4 11	13 13.27	+28 21.1	1.746	2.619	13.2	18.2	4 11	13 13.19	-25 5.6	1.896	2.870	5.8	21.0
4 21	13 5.06	+28 48.4	1.800	2.630	14.9	18.3	4 21	13 3.85	-23 56.1	1.904	2.879	5.9	21.1
5 1	12 58.19	+28 39.9	1.872	2.641	16.8	18.5	5 1	12 55.67	-22 36.4	1.939	2.887	8.3	21.2
5 11	12 53.37	+27 59.8	1.961	2.651	18.6	18.6	5 11	12 49.41	-21 14.7	2.001	2.895	11.2	21.4
65383	2002 PN ₁₂₉		4 9.8 190°34	0°3/10.1 18			117890	2748 P-L		4 9.8 143°70	1°7/ 7.9 18		
3 2	13 37.86	-11 7.2	2.315	3.095	13.1	20.7	3 2	13 39.45	-6 20.8	2.155	2.950	13.5	20.4
3 12	13 34.05	-10 45.0	2.222	3.095	10.4	20.5	3 12	13 35.28	-5 27.4	2.075	2.960	10.4	20.2
3 22	13 28.33	-10 10.9	2.150	3.094	7.1	20.3	3 22	13 29.14	-4 23.3	2.019	2.970	7.0	20.0
4 1	13 21.20	-9 27.0	2.106	3.093	3.5	20.1	4 1	13 21.57	-3 13.2	1.990	2.979	3.3	19.8
4 11	13 13.36	-8 37.5	2.089	3.091	0.4	19.8	4 11	13 13.36	-2 3.0	1.990	2.988	2.1	19.7
4 21	13 5.61	-7 46.9	2.102	3.090	4.2	20.1	4 21	13 5.34	-0 59.0	2.019	2.996	5.5	20.0
5 1	12 58.72	-7 0.5	2.143	3.088	7.8	20.4	5 1	12 58.31	-0 6.2	2.075	3.003	9.0	20.2
5 11	12 53.34	-6 22.7	2.209	3.085	11.0	20.6	5 11	12 52.91	+0 31.5	2.156	3.010	12.2	20.4
274939	2009 SK ₂₂₂		4 9.8 61°70	3°6/12.6 17			309941	2009 FG ₇₃		4 9.8 96°40	0°6/ 9.4 18		
3 2	13 42.18	-17 19.9	1.745	2.513	17.2	21.3	3 2	13 45.47	-7 40.9	1.602	2.402	17.2	21.4
3 12	13 38.19	-17 50.0	1.661	2.518	14.1	21.1	3 12	13 40.62	-7 32.9	1.534	2.419	13.5	21.2
3 22	13 31.55	-18 3.4	1.597	2.524	10.5	20.9	3 22	13 33.06	-7 13.2	1.486	2.436	9.1	21.0
4 1	13 22.86	-17 59.4	1.556	2.530	6.5	20.7	4 1	13 23.52	-6 44.9	1.464	2.453	4.3	20.8
4 11	13 13.13	-17 39.4	1.542	2.536	3.7	20.5	4 11	13 13.11	-6 13.2	1.468	2.469	1.0	20.6
4 21	13 3.52	-17 7.8	1.554	2.542	5.4	20.6	4 21	13 3.05	-5 43.8	1.499	2.485	5.8	20.9
5 1	12 55.19	-16 30.6	1.593	2.548	9.1	20.9	5 1	12 54.49	-5 22.0	1.557	2.501	10.2	21.2
5 11	12 49.00	-15 54.9	1.655	2.554	12.9	21.1	5 11	12 48.22	-5 12.0	1.638	2.517	14.1	21.5
197648	2004 LT ₂₉		4 9.8 139°10	4°4/ 6.1 18			311175	2004 TT ₃₄₀		4 9.8 202°45	4°5/ 5.3 17		
3 2	13 41.17	-1 17.9	1.549	2.372	16.6	20.7	3 2	13 41.95	+1 5.1	2.014	2.823	13.8	21.

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
165516	2001 CA ₁₄		4 9.8 94°36	0°1/ 9.7 18			73382	2002 LE ₈		4 9.8 243°23	2°5/ 7.2 18		
3 2	13 43.62	- 9 0.4	1.614	2.413	17.1	20.1	3 2	13 37.69	- 3 21.8	2.122	2.929	13.3	19.9
3 12	13 39.23	- 8 51.6	1.542	2.426	13.5	19.8	3 12	13 34.11	- 2 35.5	2.029	2.921	10.3	19.7
3 22	13 32.16	- 8 29.8	1.491	2.440	9.2	19.6	3 22	13 28.51	- 1 40.4	1.960	2.914	7.0	19.5
4 1	13 23.11	- 7 57.8	1.464	2.453	4.4	19.4	4 1	13 21.36	- 0 41.1	1.918	2.906	3.6	19.3
4 11	13 13.16	- 7 20.8	1.464	2.466	0.7	19.1	4 11	13 13.44	+ 0 16.5	1.903	2.898	3.0	19.2
4 21	13 3.51	- 6 44.6	1.492	2.479	5.6	19.5	4 21	13 5.58	+ 1 6.6	1.917	2.889	6.2	19.4
5 1	12 55.28	- 6 15.3	1.545	2.492	10.1	19.8	5 1	12 58.63	+ 1 44.3	1.957	2.881	9.7	19.6
5 11	12 49.29	- 5 57.5	1.622	2.504	14.0	20.0	5 11	12 53.27	+ 2 6.3	2.021	2.872	13.0	19.8
299729	2006 RA ₄₉		4 9.8 9°68	0°6/10.3 17			86214	1999 TC ₂₉		4 9.8 156°63	1°3/11.3 18		
3 2	13 38.13	-10 25.5	1.990	2.781	14.6	20.3	3 2	13 38.53	-13 27.8	2.693	3.454	12.0	19.5
3 12	13 34.59	-10 26.8	1.903	2.782	11.6	20.1	3 12	13 34.31	-13 30.8	2.598	3.457	9.6	19.3
3 22	13 28.88	-10 16.7	1.838	2.784	8.0	19.9	3 22	13 28.40	-13 23.5	2.526	3.460	6.8	19.1
4 1	13 21.53	- 9 57.0	1.798	2.785	4.0	19.7	4 1	13 21.24	-13 6.7	2.481	3.462	3.7	18.9
4 11	13 13.37	- 9 31.0	1.786	2.788	0.6	19.4	4 11	13 13.46	-12 43.0	2.465	3.464	1.3	18.7
4 21	13 5.31	- 9 3.3	1.801	2.790	4.5	19.7	4 21	13 5.76	-12 15.3	2.478	3.467	3.5	18.9
5 1	12 58.27	- 8 38.5	1.843	2.793	8.5	19.9	5 1	12 58.81	-11 47.3	2.520	3.469	6.6	19.1
5 11	12 52.97	- 8 21.0	1.910	2.796	12.0	20.2	5 11	12 53.18	-11 22.9	2.588	3.470	9.4	19.3
64668	2001 XR ₆₃		4 9.8 209°66	2°7/ 7.5 18			417491	2006 SH ₁		4 9.8 199°58	0°5/ 9.4 16		
3 2	13 41.73	- 4 9.8	1.773	2.581	15.4	19.4	3 2	13 39.45	-10 26.0	1.976	2.765	14.7	22.2
3 12	13 37.69	- 3 21.0	1.684	2.576	12.1	19.1	3 12	13 35.67	- 9 43.0	1.883	2.762	11.6	22.0
3 22	13 31.15	- 2 20.8	1.617	2.571	8.1	18.9	3 22	13 29.65	- 8 45.1	1.812	2.759	7.9	21.8
4 1	13 22.68	- 1 14.7	1.576	2.565	4.1	18.6	4 1	13 21.94	- 7 35.5	1.766	2.755	3.7	21.5
4 11	13 13.21	- 0 9.7	1.562	2.558	3.2	18.5	4 11	13 13.37	- 6 20.1	1.749	2.751	0.9	21.3
4 21	13 3.83	+ 0 46.9	1.576	2.551	7.0	18.7	4 21	13 4.89	- 5 5.8	1.761	2.746	5.2	21.6
5 1	12 55.61	+ 1 28.7	1.616	2.543	11.2	19.0	5 1	12 57.44	- 3 59.6	1.800	2.741	9.3	21.8
5 11	12 49.40	+ 1 52.1	1.679	2.534	14.9	19.2	5 11	12 51.76	- 3 6.9	1.863	2.735	13.0	22.0
81884	2000 LL ₁₇		4 9.8 199°92	8°5/21.3 18			173064	2006 SD ₁₂₂		4 9.8 204°95	6°3/17.7 18		
3 2	13 39.58	-39 13.9	2.676	3.280	15.2	19.0	3 2	13 39.11	-31 26.5	2.756	3.416	13.8	20.7
3 12	13 35.71	-39 48.5	2.571	3.278	13.8	18.8	3 12	13 35.08	-31 53.9	2.648	3.412	12.1	20.5
3 22	13 29.66	-40 1.3	2.483	3.276	12.2	18.7	3 22	13 29.11	-32 3.2	2.560	3.409	10.2	20.4
4 1	13 21.92	-39 48.8	2.415	3.273	10.4	18.6	4 1	13 21.65	-31 52.2	2.495	3.404	8.1	20.2
4 11	13 13.31	-39 10.0	2.370	3.271	9.0	18.5	4 11	13 13.40	-31 20.6	2.455	3.400	6.6	20.1
4 21	13 4.75	-38 6.3	2.350	3.268	8.5	18.4	4 21	13 5.16	-30 30.7	2.443	3.395	6.4	20.1
5 1	12 57.16	-36 42.3	2.356	3.265	9.0	18.4	5 1	12 57.74	-29 26.7	2.458	3.390	7.6	20.1
5 11	12 51.29	-35 5.3	2.387	3.261	10.4	18.5	5 11	12 51.80	-28 14.8	2.499	3.385	9.5	20.3
159447	2000 AT ₁₀₇		4 9.8 196°25	3°3/ 5.4 18			508283	2015 HU ₁₈₅		4 9.8 218°42	3°8/ 5.2 17		
3 2	13 38.51	+ 1 57.1	2.917	3.715	10.2	21.0	3 2	13 36.34	+ 1 48.1	2.477	3.288	11.5	22.0
3 12	13 34.08	+ 2 52.9	2.825	3.711	8.0	20.9	3 12	13 32.70	+ 2 47.8	2.390	3.283	8.9	21.8
3 22	13 28.13	+ 3 52.3	2.759	3.706	5.5	20.7	3 22	13 27.36	+ 3 52.0	2.328	3.278	6.2	21.6
4 1	13 21.06	+ 4 51.2	2.722	3.701	3.6	20.6	4 1	13 20.75	+ 4 55.6	2.293	3.273	4.1	21.4
4 11	13 13.45	+ 5 44.6	2.715	3.695	3.8	20.6	4 11	13 13.53	+ 5 53.0	2.287	3.267	4.3	21.5
4 21	13 5.91	+ 6 28.7	2.738	3.689	5.9	20.7	4 21	13 6.40	+ 6 39.3	2.309	3.262	6.7	21.6
5 1	12 59.05	+ 7 0.3	2.789	3.681	8.4	20.8	5 1	13 0.04	+ 7 10.8	2.358	3.256	9.5	21.8
5 11	12 53.38	+ 7 17.6	2.864	3.673	10.7	21.0	5 11	12 55.02	+ 7 25.7	2.430	3.250	12.1	21.9
417685	2007 BK ₅		4 9.8 94°41	0°4/10.2 18			482465	2012 KH ₄₇		4 9.8 219°90	1°3/12.4 18		
3 2	13 41.08	-12 15.9	1.891	2.673	15.5	21.6	3 2	13 29.82	-16 48.4	4.876	5.612	7.3	21.5
3 12	13 36.76	-11 44.6	1.822	2.696	12.2	21.4	3 12	13 26.85	-16 37.2	4.767	5.608	5.9	21.4
3 22	13 30.22	-10 58.3	1.775	2.718	8.4	21.2	3 22	13 23.01	-16 18.6	4.683	5.604	4.3	21.3
4 1	13 22.09	-10 0.1	1.753	2.740	4.1	21.0	4 1	13 18.57	-15 53.5	4.627	5.600	2.6	21.1
4 11	13 13.32	- 8 55.7	1.760	2.762	0.5	20.7	4 11	13 13.83	-15 23.4	4.601	5.596	1.3	21.0
4 21	13 4.87	- 7 51.3	1.795	2.783	4.7	21.1	4 21	13 9.12	-14 50.0	4.605	5.592	2.1	21.1
5 1	12 57.65	- 6 53.6	1.857	2.803	8.7	21.4	5 1	13 4.77	-14 15.6	4.638	5.588	3.8	21.2
5 11	12 52.31	- 6 7.4	1.944	2.823	12.2	21.6	5 11	13 1.06	-13 42.3	4.700	5.584	5.5	21.3
383879	2008 RE ₁₀₈		4 9.8 269°23	3°1/12.7 17			458988	2011 WP ₉₃		4 9.8 87°21	1°8/ 8.4 18		
3 2	13 38.33	-18 22.9	1.984	2.745	15.6	21.5	3 2	13 42.10	- 6 27.3	1.532	2.344	17.3	21.9
3 12	13 34.91	-18 26.5	1.889	2.742	12.8	21.3	3 12	13 38.10	- 5 51.1	1.466	2.360	13.4	21.7
3 22	13 29.21	-18 12.4	1.814	2.739	9.5	21.1	3 22	13 31.41	- 5 2.2	1.421	2.375	9.0	21.4
4 1	13 21.74	-17 40.8	1.763	2.736	5.9	20.9	4 1	13 22.77	- 4 5.7	1.400	2.391	4.2	21.2
4 11	13 13.35	-16 54.3	1.739	2.733	3.2	20.7	4 11	13 13.28	- 3 9.0	1.406	2.406	2.2	21.1
4 21	13 5.01	-15 57.7	1.742	2.731	4.7	20.8	4 21	13 4.15	- 2 19.2	1.439	2.421	6.5	21.4
5 1	12 57.71	-14 57.6	1.772	2.728	8.3	21.0	5 1	12 56.49	- 1 42.6	1.497	2.436	11.0	21.7
5 11	12 52.23	-14 0.9	1.827	2.725	11.9	21.2	5 11	12 51.07	- 1 23.0	1.577	2.450	14.8	22.0
503410	2016 CH ₂₆₁		4 9.8 296°33	0°8/10.4 17			316670	1995 QE ₁₄		4 9.8 177°25	1°7/11.5 17		
3 2	13 43.51	- 9 20.0	1.727	2.520	16.4	20.6	3 2	13 38.35	-15 33.5	2.037	2.807	15.0	21.4
3 12	13 39.47	- 9 44.2	1.624	2.504	13.2	20.3	3 12	13 34.78	-15 16.5	1.944	2.808	12.1	21.2
3 22	13 32.65	- 9 58.4	1.541	2.487	9.2	20.0	3 22	13 29.03	-14 42.9	1.873	2.808	8.6	21.0
4 1	13 23.55	-10 3.5	1.483	2.470	4.7	19.7	4 1	13 21.64	-13 54.3	1.827	2.809	4.8	20.8
4 11	13 13.11	-10 1.7	1.452	2.454	0.9	19.4	4 11	13 13.42	-12 54.5	1.809	2.809	1.7	20.5
4 21	13 2.52	- 9 56.7	1.448	2.437	5.4	19.7	4 21	13 5.31	-11 49.1	1.819	2.809	4.4	20.7
5 1	12 53.03	- 9 52.9	1.471	2.421	10.2	19.9	5 1	12 58.21	-10 45.0	1.856	2.809	8.3	21.0
5 11	12 45.67	- 9 55.1	1.516	2.405	14.4	20.1	5 11	12 52.85	- 9 48.3	1.918	2.808	11.8	21.2
369391	2009 VB ₆₄		4 9.8 209°73	0°5/10.4 17			475640	2006 UV ₂₅₄		4 9.8 236°15	2°1/ 7.6 17		
3 2	13 39.94	-12 7.9	2.467	3.235	12.7	22.3							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
501918	2014 WY ₄₇₉		4 9.8 223°73	1°3/11.2	17		18427	1994 AY		4 9.8 123°97	0°6/10.3	18	
3 2	13 37.89	-14 43.4	2.028	2.804	14.9	21.4	3 2	13 42.86	-12 20.9	1.839	2.620	16.0	19.4
3 12	13 34.46	-14 22.0	1.933	2.800	12.0	21.2	3 12	13 38.34	-11 56.4	1.763	2.636	12.7	19.2
3 22	13 28.85	-13 44.2	1.858	2.796	8.5	21.0	3 22	13 31.42	-11 16.3	1.708	2.651	8.7	19.0
4 1	13 21.57	-12 51.6	1.809	2.792	4.6	20.7	4 1	13 22.75	-10 23.4	1.679	2.665	4.3	18.7
4 11	13 13.44	-11 48.5	1.787	2.787	1.3	20.5	4 11	13 13.31	-9 23.0	1.677	2.679	0.6	18.5
4 21	13 5.37	-10 40.7	1.793	2.783	4.5	20.7	4 21	13 4.14	-8 21.5	1.704	2.692	4.9	18.8
5 1	12 58.30	-9 34.9	1.827	2.778	8.4	20.9	5 1	12 56.23	-7 25.7	1.758	2.705	9.1	19.1
5 11	12 52.95	-8 37.5	1.885	2.773	12.1	21.1	5 11	12 50.31	-6 40.9	1.837	2.717	12.7	19.3
348924	2006 TL ₂₈		4 9.8 85°49	1°4/ 8.4	17		196784	2003 SN ₁₈₅		4 9.8 147°24	4°6/14.5	18	
3 2	13 38.36	-5 6.5	2.391	3.186	12.3	21.0	3 2	13 41.74	-23 10.8	2.377	3.094	14.5	20.5
3 12	13 34.21	-4 42.4	2.317	3.201	9.5	20.9	3 12	13 37.20	-23 35.6	2.284	3.101	12.2	20.4
3 22	13 28.32	-4 11.2	2.266	3.216	6.4	20.7	3 22	13 30.57	-23 43.9	2.211	3.108	9.5	20.2
4 1	13 21.18	-3 36.2	2.242	3.231	3.0	20.5	4 1	13 22.36	-23 34.4	2.162	3.114	6.7	20.0
4 11	13 13.50	-3 1.4	2.246	3.246	1.7	20.4	4 11	13 13.35	-23 8.2	2.141	3.120	4.7	19.9
4 21	13 6.02	-2 31.0	2.280	3.260	4.7	20.7	4 21	13 4.42	-22 28.3	2.148	3.126	5.1	20.0
5 1	12 59.44	-2 8.4	2.342	3.274	7.9	20.9	5 1	12 56.45	-21 39.7	2.183	3.131	7.5	20.1
5 11	12 54.29	-1 56.3	2.429	3.289	10.7	21.1	5 11	12 50.14	-20 48.5	2.244	3.136	10.3	20.3
461374	2000 WS ₂₁		4 9.8 112°82	3°4/ 6.6	18		503872	2000 SK ₅₂		4 9.8 258°10	3°6/13.6	17	
3 2	13 45.38	-1 3.0	2.072	2.869	13.9	22.6	3 2	13 39.44	-21 50.1	2.298	3.029	14.6	21.7
3 12	13 39.74	-0 4.4	2.013	2.898	10.7	22.4	3 12	13 35.70	-21 41.9	2.175	3.006	12.2	21.5
3 22	13 32.03	+1 0.1	1.977	2.927	7.2	22.2	3 22	13 29.77	-21 14.6	2.072	2.982	9.3	21.3
4 1	13 22.91	+2 4.6	1.970	2.954	4.1	22.1	4 1	13 22.08	-20 27.5	1.993	2.957	6.2	21.0
4 11	13 13.28	+3 2.8	1.991	2.980	3.8	22.1	4 11	13 13.38	-19 22.3	1.942	2.932	3.8	20.8
4 21	13 4.05	+3 49.2	2.042	3.005	6.7	22.3	4 21	13 4.55	-18 3.2	1.920	2.906	4.7	20.8
5 1	12 56.03	+4 20.3	2.121	3.029	9.9	22.6	5 1	12 56.53	-16 37.0	1.926	2.879	8.0	21.0
5 11	12 49.82	+4 34.5	2.223	3.052	12.7	22.8	5 11	12 50.14	-15 11.6	1.958	2.851	11.5	21.1
346207	2007 XB ₅₈		4 9.8 236°63	5°6/ 3.6	17		167854	2005 ES		4 9.8 256°22	0°7/10.5	18	
3 2	13 39.05	+8 53.1	2.466	3.276	11.5	21.2	3 2	13 39.59	-11 5.6	2.137	2.918	14.0	20.1
3 12	13 34.83	+9 44.7	2.383	3.269	9.2	21.1	3 12	13 35.67	-11 4.0	2.040	2.913	11.2	19.9
3 22	13 28.81	+10 35.4	2.323	3.261	7.0	20.9	3 22	13 29.62	-10 51.0	1.966	2.908	7.8	19.6
4 1	13 21.46	+11 19.8	2.291	3.253	5.6	20.8	4 1	13 21.94	-10 28.0	1.917	2.903	3.9	19.4
4 11	13 13.46	+11 52.3	2.286	3.245	6.1	20.8	4 11	13 13.42	-9 58.2	1.896	2.898	0.7	19.1
4 21	13 5.57	+12 9.2	2.310	3.237	8.1	20.9	4 21	13 4.93	-9 25.9	1.904	2.893	4.4	19.4
5 1	12 58.51	+12 8.3	2.358	3.229	10.6	21.1	5 1	12 57.38	-8 56.0	1.939	2.887	8.3	19.6
5 11	12 52.87	+11 49.2	2.430	3.220	12.9	21.2	5 11	12 51.48	-8 32.8	1.999	2.882	11.7	19.8
164428	2006 BK ₂₄₁		4 9.8 328°54	1°9/ 8.6	17		28640	Cathywong		4 9.8 38°56	4°1/13.9	18	
3 2	13 36.72	-6 12.8	1.187	2.026	19.6	20.0	3 2	13 36.72	-21 36.7	1.932	2.682	16.3	18.4
3 12	13 35.06	-5 53.9	1.103	2.012	15.5	19.7	3 12	13 33.69	-21 40.8	1.847	2.689	13.6	18.2
3 22	13 30.13	-5 19.6	1.038	1.998	10.6	19.4	3 22	13 28.37	-21 24.6	1.781	2.697	10.3	18.0
4 1	13 22.48	-4 34.3	0.994	1.986	5.0	19.0	4 1	13 21.35	-20 48.0	1.739	2.704	6.9	17.8
4 11	13 13.30	-3 45.7	0.973	1.974	2.4	18.8	4 11	13 13.50	-19 53.5	1.723	2.712	4.3	17.6
4 21	13 4.09	-3 3.0	0.976	1.963	7.9	19.1	4 21	13 5.80	-18 46.6	1.734	2.720	5.1	17.7
5 1	12 56.41	-2 34.5	1.001	1.953	13.5	19.3	5 1	12 59.22	-17 34.2	1.771	2.729	8.2	17.9
5 11	12 51.44	-2 26.0	1.045	1.944	18.6	19.6	5 11	12 54.47	-16 24.3	1.834	2.737	11.6	18.1
423701	2006 AW ₅₆		4 9.8 107°54	1°4/ 8.5	17		366447	2001 YU ₅₁		4 9.8 180°22	6°5/17.9	17	
3 2	13 40.16	-6 11.2	1.997	2.796	14.3	22.1	3 2	13 42.69	-32 24.7	2.678	3.327	14.4	21.3
3 12	13 36.00	-5 38.9	1.921	2.808	11.1	22.0	3 12	13 37.92	-32 47.6	2.573	3.329	12.7	21.1
3 22	13 29.72	-4 56.8	1.869	2.820	7.4	21.7	3 22	13 31.06	-32 50.9	2.487	3.330	10.6	21.0
4 1	13 21.91	-4 8.9	1.842	2.832	3.5	21.5	4 1	13 22.61	-32 32.1	2.424	3.330	8.5	20.8
4 11	13 13.41	-3 20.5	1.844	2.844	1.8	21.4	4 11	13 13.33	-31 51.1	2.387	3.330	6.9	20.7
4 21	13 5.14	-2 37.0	1.874	2.855	5.4	21.7	4 21	13 4.12	-30 50.3	2.377	3.329	6.6	20.7
5 1	12 57.96	-2 3.4	1.931	2.866	9.2	21.9	5 1	12 55.83	-29 34.6	2.396	3.327	7.8	20.8
5 11	12 52.53	-1 42.8	2.012	2.877	12.4	22.2	5 11	12 49.18	-28 11.1	2.441	3.324	9.9	20.9
106238	2000 UW ₄₅		4 9.8 159°33	0°6/ 9.0	18		366255	2012 YB ₄		4 9.8 152°28	1°2/ 8.5	18	
3 2	13 36.51	-7 49.0	3.032	3.811	10.3	21.5	3 2	13 40.43	-3 59.9	2.953	3.735	10.5	21.4
3 12	13 32.47	-7 19.7	2.942	3.817	8.1	21.3	3 12	13 35.51	-3 49.9	2.865	3.742	8.2	21.2
3 22	13 27.01	-6 42.7	2.876	3.823	5.4	21.1	3 22	13 29.07	-3 35.1	2.801	3.748	5.5	21.1
4 1	13 20.54	-6 0.6	2.839	3.828	2.5	21.0	4 1	13 21.53	-3 17.9	2.767	3.755	2.6	20.9
4 11	13 13.59	-5 16.6	2.832	3.833	0.9	20.8	4 11	13 13.49	-3 0.9	2.762	3.761	1.4	20.8
4 21	13 6.75	-4 34.5	2.855	3.837	3.7	21.0	4 21	13 5.56	-2 47.2	2.788	3.766	4.1	21.0
5 1	13 0.57	-3 57.5	2.906	3.841	6.5	21.2	5 1	12 58.35	-2 39.1	2.843	3.772	6.9	21.2
5 11	12 55.50	-3 28.6	2.985	3.844	9.0	21.4	5 11	12 52.36	-2 38.7	2.925	3.776	9.4	21.3
154915	2004 SB ₁₄		4 9.8 204°53	0°9/ 8.9	17		113028	2002 RL ₄₆		4 9.8 304°22	1°2/10.5	18	
3 2	13 39.07	-5 17.6	2.808	3.592	10.9	19.8	3 2	13 41.54	-10 21.3	1.466	2.272	18.2	19.4
3 12	13 34.62	-5 12.0	2.712	3.590	8.5	19.6	3 12	13 38.69	-10 41.4	1.353	2.240	14.8	19.0
3 22	13 28.56	-5 0.7	2.641	3.588	5.7	19.4	3 22	13 32.67	-10 48.6	1.259	2.208	10.5	18.7
4 1	13 21.32	-4 45.9	2.597	3.586	2.7	19.2	4 1	13 23.83	-10 43.2	1.189	2.176	5.5	18.3
4 11	13 13.49	-4 30.4	2.584	3.584	1.1	19.1	4 11	13 13.13	-10 27.8	1.142	2.144	1.2	17.9
4 21	13 5.73	-4 17.1	2.600	3.581	4.0	19.3	4 21	13 1.93	-10 6.9	1.122	2.112	6.3	18.2
5 1	12 58.67	-4 8.7	2.645	3.579	7.0	19.5	5 1	12 51.81	-9 47.1	1.125	2.081	12.0	18.4
5 11	12 52.86	-4 7.6	2.716	3.576	9.7	19.7	5 11	12 44.14	-9 35.4	1.150	2.050	17.2	18.6
59593	1999 JY ₅₈		4 9.8 286°18	2°6/ 7.5	17		503708	2016 JU ₁₆		4 9.8 266°26	1°7/ 8.3	17	
3 2	13 38.53	-3 36.2	1.807	2.621	14.9	19.4	3 2	13 39.30	-5 33.3	1.916	2.721	14.6	21.8
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
503090	2015 <i>FZ</i> ₂₉₅		4 9.8 216°11	5°5/ 4.3 17			215575	2003 <i>FU</i> ₇₄		4 9.9 314°83	4°7/ 5.8 17		
3 2	13 40.94	+ 8 44.8	2.330	3.139	12.1	21.2	3 2	13 41.44	+ 5 40.6	2.146	2.957	13.0	20.2
3 12	13 36.35	+ 9 24.2	2.252	3.138	9.7	21.0	3 12	13 37.03	+ 6 2.3	2.056	2.946	10.3	20.0
3 22	13 29.85	+10 2.1	2.197	3.136	7.3	20.8	3 22	13 30.51	+ 6 24.0	1.989	2.935	7.4	19.8
4 1	13 21.97	+10 32.9	2.169	3.135	5.7	20.7	4 1	13 22.38	+ 6 40.8	1.948	2.925	5.1	19.6
4 11	13 13.43	+10 51.6	2.169	3.133	6.0	20.7	4 11	13 13.44	+ 6 47.6	1.936	2.915	5.2	19.6
4 21	13 5.06	+10 54.7	2.197	3.131	8.1	20.9	4 21	13 4.58	+ 6 41.0	1.950	2.905	7.6	19.7
5 1	12 57.62	+10 40.4	2.250	3.129	10.7	21.0	5 1	12 56.68	+ 6 18.9	1.992	2.895	10.7	19.9
5 11	12 51.73	+10 9.0	2.327	3.127	13.1	21.2	5 11	12 50.44	+ 5 40.9	2.056	2.885	13.6	20.0
155832	2000 <i>XB</i> ₅₂		4 9.8 232°38	6°1/ 4.1 18			403024	2007 <i>XU</i> ₁₆		4 9.9 202°22	2°2/ 11.9 17		
3 2	13 42.77	+ 8 45.3	2.149	2.958	13.0	19.7	3 2	13 42.85	-16 43.4	2.193	2.945	14.6	22.3
3 12	13 38.03	+ 9 32.4	2.064	2.950	10.5	19.5	3 12	13 38.25	-16 35.0	2.089	2.940	11.9	22.1
3 22	13 31.14	+10 18.5	2.002	2.941	7.9	19.3	3 22	13 31.42	-16 10.5	2.007	2.934	8.6	21.8
4 1	13 22.64	+10 57.3	1.968	2.932	6.2	19.2	4 1	13 22.86	-15 30.6	1.950	2.927	5.0	21.6
4 11	13 13.35	+11 22.7	1.960	2.923	6.6	19.2	4 11	13 13.38	-14 38.2	1.922	2.920	2.2	21.4
4 21	13 4.16	+11 30.5	1.980	2.914	8.9	19.3	4 21	13 3.92	-13 37.9	1.922	2.911	4.4	21.5
5 1	12 55.98	+11 18.5	2.026	2.904	11.7	19.5	5 1	12 55.42	-12 36.1	1.952	2.902	8.1	21.7
5 11	12 49.51	+10 46.8	2.094	2.894	14.4	19.6	5 11	12 48.65	-11 39.1	2.007	2.891	11.6	21.9
32478	2000 <i>SV</i> ₂₈₉		4 9.8 318°38	1°8/ 12.7 18			501514	2014 <i>DT</i> ₁₂₁		4 9.9 137°91	2°9/ 13.1 18		
3 2	13 32.12	-17 13.7	3.936	4.674	8.8	18.8	3 2	13 38.87	-19 1.9	2.588	3.326	12.9	21.5
3 12	13 28.90	-17 18.4	3.823	4.663	7.2	18.7	3 12	13 34.73	-19 11.1	2.494	3.332	10.6	21.4
3 22	13 24.55	-17 14.6	3.734	4.652	5.3	18.5	3 22	13 28.78	-19 6.5	2.422	3.338	7.9	21.2
4 1	13 19.38	-17 2.8	3.671	4.642	3.3	18.4	4 1	13 21.50	-18 48.3	2.376	3.344	5.1	21.0
4 11	13 13.78	-16 44.2	3.638	4.631	1.8	18.3	4 11	13 13.57	-18 18.4	2.358	3.349	3.0	20.9
4 21	13 8.19	-16 20.8	3.634	4.621	2.7	18.3	4 21	13 5.72	-17 39.9	2.369	3.354	4.0	21.0
5 1	13 3.02	-15 55.1	3.660	4.610	4.7	18.4	5 1	12 58.68	-16 57.3	2.408	3.359	6.7	21.1
5 11	12 58.68	-15 29.7	3.712	4.600	6.7	18.6	5 11	12 53.07	-16 15.5	2.474	3.364	9.5	21.3
51779	2001 <i>MY</i> ₈		4 9.8 204°03	0°3/ 10.1 18			16575	1992 <i>EH</i> ₁₁		4 9.9 81°17	0°7/ 9.1 18		
3 2	13 38.20	-10 51.0	2.509	3.284	12.3	20.2	3 2	13 37.18	- 8 12.6	2.282	3.074	12.9	18.5
3 12	13 34.21	-10 33.6	2.411	3.281	9.8	20.0	3 12	13 33.44	- 7 41.6	2.206	3.088	10.1	18.3
3 22	13 28.43	-10 5.4	2.335	3.278	6.7	19.8	3 22	13 27.89	- 7 0.6	2.152	3.101	6.8	18.1
4 1	13 21.32	- 9 28.6	2.287	3.274	3.3	19.6	4 1	13 21.05	- 6 12.8	2.126	3.115	3.1	17.9
4 11	13 13.53	- 8 46.4	2.267	3.269	0.4	19.3	4 11	13 13.63	- 5 22.9	2.128	3.129	1.0	17.8
4 21	13 5.80	- 8 3.1	2.277	3.265	3.9	19.6	4 21	13 6.41	- 4 35.7	2.158	3.142	4.5	18.1
5 1	12 58.85	- 7 23.1	2.316	3.260	7.3	19.8	5 1	13 0.10	- 3 55.7	2.217	3.156	7.9	18.3
5 11	12 53.29	- 6 50.4	2.380	3.255	10.4	20.0	5 11	12 55.28	- 3 26.5	2.300	3.169	10.9	18.5
381544	2008 <i>TN</i> ₁		4 9.8 165°61	5°2/ 15.9 17			152883	2000 <i>BD</i> ₂₀		4 9.9 298°24	6°1/ 5.0 17		
3 2	13 40.88	-27 13.5	2.578	3.268	14.1	21.9	3 2	13 37.50	+ 0 21.0	1.302	2.145	17.9	19.8
3 12	13 36.44	-27 29.8	2.479	3.273	12.1	21.8	3 12	13 35.33	+ 1 43.0	1.222	2.133	14.1	19.5
3 22	13 30.02	-27 28.2	2.401	3.277	9.7	21.6	3 22	13 30.11	+ 3 17.7	1.161	2.120	9.9	19.2
4 1	13 22.10	-27 7.2	2.346	3.281	7.3	21.5	4 1	13 22.44	+ 4 55.4	1.123	2.107	6.5	19.0
4 11	13 13.43	-26 27.5	2.317	3.284	5.5	21.4	4 11	13 13.44	+ 6 23.6	1.110	2.095	7.0	19.0
4 21	13 4.84	-25 32.2	2.318	3.287	5.5	21.4	4 21	13 4.49	+ 7 31.2	1.121	2.083	11.0	19.1
5 1	12 57.15	-24 26.4	2.346	3.290	7.3	21.5	5 1	12 56.97	+ 8 10.3	1.154	2.071	15.5	19.3
5 11	12 51.02	-23 16.7	2.401	3.291	9.7	21.6	5 11	12 51.93	+ 8 18.1	1.205	2.060	19.7	19.6
421641	2014 <i>ON</i> ₃₁₅		4 9.8 190°18	2°3/ 7.6 17			382319	2013 <i>SL</i> ₃₉		4 9.9 213°46	0°8/ 10.6 17		
3 2	13 41.23	- 5 7.5	1.979	2.779	14.3	22.6	3 2	13 42.68	-11 16.0	2.167	2.940	14.1	21.2
3 12	13 37.05	- 4 12.4	1.888	2.775	11.2	22.4	3 12	13 38.10	-11 18.9	2.067	2.935	11.3	21.0
3 22	13 30.60	- 3 5.8	1.819	2.771	7.5	22.2	3 22	13 31.31	-11 10.6	1.989	2.929	7.9	20.8
4 1	13 22.44	- 2 52.6	1.778	2.766	3.7	21.9	4 1	13 22.81	-10 52.3	1.938	2.923	4.0	20.5
4 11	13 13.41	- 0 39.6	1.764	2.761	2.8	21.8	4 11	13 13.41	-10 26.9	1.914	2.916	0.9	20.3
4 21	13 4.46	+ 0 26.1	1.780	2.754	6.4	22.0	4 21	13 4.01	- 9 58.2	1.920	2.909	4.4	20.5
5 1	12 56.56	+ 1 18.7	1.822	2.747	10.3	22.3	5 1	12 55.57	- 9 31.1	1.954	2.901	8.3	20.7
5 11	12 50.45	+ 1 54.0	1.888	2.739	13.7	22.5	5 11	12 48.83	- 9 10.0	2.013	2.893	11.8	20.9
437705	2014 <i>DB</i> ₇₆		4 9.8 237°58	1°7/ 7.7 17			272679	2005 <i>XC</i> ₂₃		4 9.9 243°13	1°1/ 10.9 17		
3 2	13 34.97	- 5 28.2	2.553	3.351	11.5	21.8	3 2	13 39.22	-13 34.1	2.054	2.830	14.7	21.0
3 12	13 31.64	- 4 38.9	2.458	3.345	9.0	21.6	3 12	13 35.57	-13 18.0	1.951	2.819	11.8	20.8
3 22	13 26.66	- 3 40.7	2.387	3.339	6.0	21.4	3 22	13 29.69	-12 46.6	1.869	2.808	8.3	20.6
4 1	13 20.47	- 2 37.4	2.344	3.333	2.9	21.2	4 1	13 22.07	-12 1.6	1.813	2.797	4.4	20.3
4 11	13 13.67	- 1 33.9	2.330	3.327	2.1	21.1	4 11	13 13.50	-11 6.6	1.784	2.785	1.1	20.0
4 21	13 6.93	- 0 35.3	2.345	3.321	4.9	21.3	4 21	13 4.93	-10 7.2	1.783	2.773	4.5	20.3
5 1	13 0.92	+ 0 14.0	2.388	3.314	8.1	21.5	5 1	12 57.29	- 9 9.6	1.810	2.760	8.6	20.5
5 11	12 56.20	+ 0 50.6	2.455	3.307	10.9	21.6	5 11	12 51.38	- 8 20.1	1.862	2.748	12.3	20.7
351650	2005 <i>YG</i> ₁₂₇		4 9.8 103°62	1°9/ 11.2 18			8728	Mimatsu		4 9.9 169°36	1°6/ 8.3 18		
3 2	13 44.89	-14 12.4	1.537	2.321	18.5	21.6	3 2	13 42.40	- 6 13.7	2.081	2.873	14.0	19.2
3 12	13 40.45	-14 12.3	1.466	2.338	14.8	21.4	3 12	13 37.77	- 5 33.6	1.995	2.878	10.9	19.0
3 22	13 33.13	-13 54.1	1.414	2.354	10.5	21.2	3 22	13 30.99	- 4 42.9	1.932	2.882	7.3	18.8
4 1	13 23.68	-13 19.2	1.386	2.370	5.7	20.9	4 1	13 22.60	- 3 45.9	1.896	2.885	3.5	18.5
4 11	13 13.25	-12 32.0	1.384	2.385	1.9	20.7	4 11	13 13.45	- 2 48.0	1.889	2.888	2.0	18.4
4 21	13 3.16	-11 39.2	1.410	2.400	5.4	21.0	4 21	13 4.45	- 1 55.1	1.911	2.890	5.5	18.7
5 1	12 54.61	-10 48.5	1.461	2.414	10.0	21.3	5 1	12 56.49	- 1 12.5	1.961	2.891	9.3	18.9
5 11	12 48.47	-10 6.9	1.535	2.428	14.0	21.6	5 11	12 50.28	- 0 43.8	2.034	2.891	12.7	19.1
31832	2000 <i>AP</i> ₅₉		4 9.9 298°97	6°3/ 13.4 18 R			468634	2008 <i>SB</i> ₁₂		4 9.9 186°74	2°7/ 12.9 18	</	

EPHEMERIDES

4 9.9

4 9.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
457499	2008 <i>VD</i> ₄		4 9.9 221°52	0°2/ 9.7 17			15079	1999 <i>CO</i> ₁₆		4 9.9 238°19	0°1/ 9.7 18		
3 2	13 44.70	- 9 39.5	1.881	2.665	15.6	22.8	3 2	13 38.08	- 9 24.3	2.210	2.998	13.4	18.7
3 12	13 40.09	- 9 20.6	1.778	2.654	12.4	22.5	3 12	13 34.38	- 9 7.3	2.117	2.996	10.6	18.5
3 22	13 32.92	- 8 48.2	1.697	2.642	8.5	22.2	3 22	13 28.71	- 8 39.3	2.047	2.994	7.2	18.3
4 1	13 23.68	- 8 4.6	1.641	2.629	4.1	21.9	4 1	13 21.54	- 8 2.8	2.003	2.991	3.5	18.0
4 11	13 13.30	- 7 14.4	1.614	2.616	0.7	21.6	4 11	13 13.63	- 7 21.9	1.987	2.989	0.5	17.8
4 21	13 2.88	- 6 23.5	1.615	2.601	5.4	22.0	4 21	13 5.79	- 6 41.1	2.000	2.987	4.5	18.1
5 1	12 53.53	- 5 38.5	1.644	2.586	9.9	22.2	5 1	12 58.85	- 6 5.4	2.040	2.984	8.2	18.3
5 11	12 46.18	- 5 4.8	1.696	2.569	14.0	22.4	5 11	12 53.46	- 5 38.8	2.105	2.982	11.5	18.5
208427	2001 <i>TU</i> ₅		4 9.9 84°08	2°3/ 7.6 17			504414	2007 <i>YH</i> ₁₈		4 9.9 104°81	4°6/ 15.5 17		
3 2	13 40.17	- 1 58.8	2.211	3.013	12.9	19.8	3 2	13 37.86	-25 37.5	2.479	3.187	14.2	21.4
3 12	13 35.81	- 1 36.6	2.136	3.025	10.0	19.6	3 12	13 34.09	-25 41.6	2.390	3.198	12.0	21.2
3 22	13 29.52	- 1 9.1	2.084	3.036	6.7	19.4	3 22	13 28.42	-25 27.3	2.320	3.210	9.4	21.1
4 1	13 21.85	- 0 40.1	2.059	3.047	3.5	19.2	4 1	13 21.36	-24 54.0	2.275	3.221	6.8	20.9
4 11	13 13.56	- 0 14.0	2.062	3.058	2.7	19.2	4 11	13 13.66	-24 3.5	2.257	3.232	4.8	20.8
4 21	13 5.48	+ 0 5.2	2.094	3.069	5.6	19.4	4 21	13 6.09	-22 59.6	2.266	3.243	5.0	20.9
5 1	12 58.37	+ 0 14.3	2.154	3.080	8.9	19.6	5 1	12 59.45	-21 48.0	2.304	3.254	7.0	21.0
5 11	12 52.85	+ 0 11.4	2.237	3.090	11.8	19.8	5 11	12 54.32	-20 35.2	2.368	3.264	9.6	21.2
286081	2001 <i>TT</i> ₉		4 9.9 133°53	0°7/ 10.7 18			155011	2005 <i>PR</i> ₁₇		4 9.9 205°01	2°9/ 6.9 18		
3 2	13 36.07	-13 54.3	2.555	3.323	12.4	20.5	3 2	13 40.71	+ 1 1.1	2.574	3.372	11.4	20.4
3 12	13 32.47	-13 16.6	2.466	3.331	9.8	20.3	3 12	13 36.05	+ 1 21.4	2.484	3.369	8.9	20.2
3 22	13 27.20	-12 25.6	2.401	3.339	6.8	20.1	3 22	13 29.63	+ 1 44.7	2.418	3.367	6.1	20.0
4 1	13 20.73	-11 23.8	2.362	3.346	3.5	19.9	4 1	13 21.93	+ 2 7.2	2.380	3.364	3.5	19.9
4 11	13 13.71	-10 15.2	2.352	3.354	0.7	19.7	4 11	13 13.60	+ 2 25.2	2.371	3.360	3.2	19.8
4 21	13 6.83	- 9 4.9	2.372	3.361	3.7	20.0	4 21	13 5.36	+ 2 35.3	2.391	3.357	5.6	20.0
5 1	13 0.75	- 7 58.3	2.421	3.367	6.9	20.2	5 1	12 57.92	+ 2 35.0	2.440	3.353	8.5	20.1
5 11	12 56.00	- 7 0.0	2.496	3.374	9.9	20.4	5 11	12 51.86	+ 2 23.0	2.513	3.349	11.2	20.3
420830	2013 <i>JB</i> ₁		4 9.9 291°80	3°2/ 11.9 17			25905	<i>Clerico</i>		4 9.9 52°08	1°3/ 9.2 18		
3 2	13 42.31	-15 0.6	1.494	2.282	18.7	20.8	3 2	13 48.68	- 4 10.4	1.309	2.124	19.4	17.8
3 12	13 39.05	-15 31.0	1.398	2.270	15.4	20.6	3 12	13 43.65	- 4 29.7	1.251	2.145	15.2	17.6
3 22	13 32.69	-15 45.0	1.320	2.257	11.3	20.3	3 22	13 35.39	- 4 40.9	1.214	2.167	10.2	17.4
4 1	13 23.75	-15 41.3	1.265	2.245	6.7	20.0	4 1	13 24.80	- 4 47.1	1.199	2.189	4.8	17.1
4 11	13 13.30	-15 21.7	1.235	2.233	3.2	19.7	4 11	13 13.25	- 4 52.4	1.211	2.212	1.7	17.0
4 21	13 2.70	-14 50.5	1.231	2.221	6.0	19.9	4 21	13 2.26	- 5 1.2	1.248	2.234	6.6	17.3
5 1	12 53.42	-14 14.6	1.252	2.209	10.8	20.1	5 1	12 53.15	- 5 17.2	1.310	2.257	11.5	17.7
5 11	12 46.61	-13 42.2	1.294	2.198	15.4	20.3	5 11	12 46.79	- 5 42.8	1.395	2.280	15.6	18.0
423466	2005 <i>SO</i> ₁₇₅		4 9.9 220°09	3°5/ 12.4 17			324550	2006 <i>WB</i> ₆₈		4 9.9 113°69	0°1/ 9.7 18		
3 2	13 45.42	-16 40.0	1.995	2.748	15.8	21.2	3 2	13 41.39	-10 48.2	2.029	2.811	14.6	21.2
3 12	13 40.61	-17 18.3	1.895	2.744	13.0	20.9	3 12	13 36.93	-10 12.1	1.956	2.831	11.5	21.0
3 22	13 33.24	-17 43.2	1.816	2.739	9.7	20.7	3 22	13 30.36	- 9 22.6	1.905	2.850	7.8	20.8
4 1	13 23.84	-17 53.5	1.762	2.734	6.1	20.5	4 1	13 22.29	- 8 23.0	1.880	2.868	3.7	20.6
4 11	13 13.30	-17 49.8	1.735	2.728	3.5	20.3	4 11	13 13.57	- 7 18.9	1.884	2.886	0.6	20.4
4 21	13 2.71	-17 34.8	1.737	2.723	5.1	20.4	4 21	13 5.13	- 6 16.2	1.917	2.903	4.7	20.7
5 1	12 53.18	-17 13.1	1.766	2.717	8.7	20.6	5 1	12 57.82	- 5 20.9	1.978	2.920	8.5	21.0
5 11	12 45.62	-16 50.5	1.820	2.710	12.3	20.8	5 11	12 52.27	- 4 37.6	2.063	2.936	11.9	21.2
331918	2004 <i>RV</i> ₁₉₂		4 9.9 241°09	1°2/ 11.3 18			261116	2005 <i>TQ</i> ₅		4 9.9 103°47	3°5/ 13.1 18		
3 2	13 38.47	-15 44.6	2.423	3.181	13.2	21.5	3 2	13 42.55	-19 25.0	2.008	2.755	15.9	21.3
3 12	13 34.67	-15 9.0	2.306	3.163	10.7	21.3	3 12	13 38.06	-19 36.3	1.929	2.772	13.1	21.1
3 22	13 28.93	-14 17.1	2.212	3.145	7.6	21.1	3 22	13 31.27	-19 30.0	1.871	2.789	9.7	20.9
4 1	13 21.67	-13 10.3	2.145	3.126	4.1	20.8	4 1	13 22.78	-19 6.1	1.837	2.805	6.2	20.7
4 11	13 13.59	-11 52.5	2.106	3.107	1.2	20.6	4 11	13 13.50	-18 27.0	1.830	2.822	3.6	20.6
4 21	13 5.47	-10 29.2	2.098	3.087	4.0	20.7	4 21	13 4.46	-17 37.4	1.851	2.837	4.8	20.7
5 1	12 58.13	- 9 6.9	2.119	3.066	7.7	20.9	5 1	12 56.59	-16 43.5	1.900	2.853	8.0	20.9
5 11	12 52.25	- 7 52.0	2.165	3.045	11.1	21.1	5 11	12 50.62	-15 52.0	1.974	2.868	11.3	21.2
146818	2001 <i>YL</i> ₁₁₅		4 9.9 11°59	10°0/ 28.9 18			159386	1998 <i>KE</i> ₅₈		4 9.9 274°97	4°7/ 4.7 18		
3 2	13 37.91	+21 1.0	2.119	2.929	13.2	19.3	3 2	13 37.32	+ 1 42.5	2.065	2.883	13.2	19.7
3 12	13 34.28	+22 28.2	2.066	2.930	11.5	19.2	3 12	13 34.06	+ 2 56.1	1.964	2.860	10.4	19.5
3 22	13 28.59	+23 45.2	2.036	2.932	10.3	19.1	3 22	13 28.67	+ 4 17.3	1.886	2.838	7.3	19.3
4 1	13 21.43	+24 44.0	2.030	2.934	10.0	19.1	4 1	13 21.62	+ 5 39.7	1.836	2.815	5.0	19.1
4 11	13 13.64	+25 17.8	2.048	2.936	10.9	19.2	4 11	13 13.64	+ 6 55.6	1.813	2.792	5.4	19.1
4 21	13 6.10	+25 23.7	2.090	2.938	12.5	19.3	4 21	13 5.61	+ 7 57.9	1.817	2.769	8.3	19.2
5 1	12 59.63	+25 1.4	2.152	2.941	14.3	19.4	5 1	12 58.44	+ 8 41.2	1.847	2.745	11.7	19.3
5 11	12 54.85	+24 13.4	2.233	2.944	16.1	19.6	5 11	12 52.89	+ 9 2.6	1.900	2.721	14.9	19.5
205549	2001 <i>SN</i> ₂₀₅		4 9.9 79°17	0°7/ 9.1 18			270455	2002 <i>CR</i> ₂₂₉		4 9.9 27°62	1°8/ 8.3 16		
3 2	13 37.74	- 7 51.2	2.193	2.987	13.3	20.3	3 2	13 36.44	- 6 48.3	1.539	2.360	16.7	21.3
3 12	13 34.03	- 7 26.8	2.112	2.994	10.4	20.1	3 12	13 33.80	- 6 6.4	1.468	2.367	13.0	21.1
3 22	13 28.39	- 6 52.4	2.053	3.002	7.0	19.9	3 22	13 28.64	- 5 10.9	1.418	2.375	8.7	20.8
4 1	13 21.35	- 6 11.2	2.020	3.009	3.3	19.6	4 1	13 21.58	- 4 7.0	1.392	2.383	4.1	20.6
4 11	13 13.65	- 5 27.5	2.015	3.017	1.0	19.5	4 11	13 13.66	- 3 2.3	1.392	2.392	2.3	20.5
4 21	13 6.11	- 4 46.3	2.040	3.024	4.7	19.8	4 21	13 5.98	- 2 4.6	1.419	2.401	6.5	20.8
5 1	12 59.51	- 4 12.0	2.091	3.031	8.2	20.0	5 1	12 59.61	- 1 20.6	1.470	2.411	10.9	21.0
5 11	12 54.45	- 3 48.3	2.167	3.039	11.4	20.2	5 11	12 55.30	- 0 54.5	1.542	2.422	14.8	21.3
98587	2000 <i>WD</i> ₅₀		4 9.9 248°40	1°8/ 8.1 18			55922	1998 <i>FL</i> ₅₁		4 9.9 91°01	1°2/ 8.5 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
23088	1999 XR ₁₁₈		4 9.9 309°10	2°6/11.7	18		417707	2007 BT ₇₈		4 9.9 34°66	2°7/ 7.7	17	
3 2	13 37.56	-15 8.2	1.445	2.244	18.7	18.3	3 2	13 38.22	- 4 21.0	1.470	2.296	17.1	21.1
3 12	13 35.42	-15 17.2	1.345	2.225	15.4	18.0	3 12	13 35.30	- 3 39.9	1.403	2.305	13.3	20.9
3 22	13 30.29	-15 6.5	1.264	2.206	11.2	17.7	3 22	13 29.70	- 2 47.3	1.356	2.314	8.9	20.7
4 1	13 22.65	-14 35.8	1.204	2.187	6.4	17.4	4 1	13 22.13	- 1 49.3	1.334	2.323	4.4	20.4
4 11	13 13.52	-13 48.1	1.169	2.168	2.6	17.1	4 11	13 13.65	- 0 53.8	1.336	2.334	3.2	20.4
4 21	13 4.20	-12 49.6	1.159	2.151	5.9	17.2	4 21	13 5.47	- 0 8.2	1.365	2.344	7.2	20.7
5 1	12 56.12	-11 49.3	1.173	2.133	11.0	17.5	5 1	12 58.68	+ 0 21.5	1.418	2.355	11.6	20.9
5 11	12 50.44	-10 56.4	1.208	2.116	15.9	17.7	5 11	12 54.09	+ 0 32.2	1.492	2.367	15.4	21.2
282853	2007 AL ₃₀		4 9.9 220°83	0°5/10.3	18		64422	2001 UP ₂₀₆		4 9.9 152°55	3°7/ 5.9	18	
3 2	13 43.00	-12 10.6	1.624	2.414	17.4	21.5	3 2	13 39.13	+ 2 39.4	2.495	3.301	11.6	19.8
3 12	13 39.17	-11 49.1	1.529	2.407	13.9	21.2	3 12	13 34.84	+ 3 19.0	2.416	3.305	9.0	19.6
3 22	13 32.51	-11 9.6	1.454	2.398	9.7	20.9	3 22	13 28.83	+ 4 1.2	2.361	3.309	6.3	19.4
4 1	13 23.59	-10 14.2	1.402	2.389	4.9	20.6	4 1	13 21.57	+ 4 41.4	2.333	3.313	4.0	19.3
4 11	13 13.42	- 9 8.3	1.378	2.380	0.7	20.3	4 11	13 13.74	+ 5 15.0	2.335	3.317	4.1	19.3
4 21	13 3.24	- 7 59.1	1.381	2.369	5.7	20.6	4 21	13 6.05	+ 5 38.1	2.364	3.320	6.3	19.5
5 1	12 54.33	- 6 55.3	1.409	2.358	10.7	20.9	5 1	12 59.20	+ 5 48.0	2.421	3.324	9.1	19.6
5 11	12 47.67	- 6 4.3	1.461	2.347	15.1	21.1	5 11	12 53.74	+ 5 43.6	2.502	3.326	11.6	19.8
457483	2008 US ₂₉₄		4 9.9 204°72	0°0/ 9.7	17		150986	2001 TL ₂₃₉		4 9.9 184°43	4°7/ 5.9	17	
3 2	13 44.70	-10 6.2	1.878	2.661	15.6	22.6	3 2	13 41.84	+ 2 44.1	1.844	2.660	14.6	20.3
3 12	13 40.05	- 9 49.1	1.781	2.656	12.4	22.4	3 12	13 37.64	+ 3 28.1	1.766	2.661	11.4	20.1
3 22	13 32.85	- 9 18.4	1.705	2.650	8.6	22.2	3 22	13 31.08	+ 4 15.8	1.710	2.660	8.0	19.9
4 1	13 23.67	- 8 36.4	1.655	2.643	4.2	21.9	4 1	13 22.75	+ 5 1.2	1.679	2.660	5.2	19.7
4 11	13 13.41	- 7 47.7	1.633	2.635	0.5	21.6	4 11	13 13.58	+ 5 37.4	1.676	2.660	5.2	19.7
4 21	13 3.18	- 6 58.1	1.640	2.627	5.3	21.9	4 21	13 4.58	+ 5 59.3	1.700	2.659	8.1	19.8
5 1	12 54.08	- 6 13.9	1.674	2.618	9.7	22.1	5 1	12 56.74	+ 6 3.3	1.750	2.659	11.6	20.0
5 11	12 46.97	- 5 40.5	1.732	2.607	13.6	22.4	5 11	12 50.81	+ 5 48.4	1.821	2.658	14.8	20.3
508114	2015 DJ ₂₁₀		4 9.9 281°83	6°4/ 2.9	17		208463	2001 UH ₃₂		4 9.9 101°26	5°6/ 5.0	18	
3 2	13 38.09	+ 9 23.9	2.182	3.001	12.5	21.1	3 2	13 47.15	+10 52.8	2.410	3.204	12.3	20.1
3 12	13 34.38	+10 27.9	2.104	2.994	10.1	20.9	3 12	13 40.97	+11 13.6	2.343	3.218	9.8	19.9
3 22	13 28.70	+11 31.1	2.049	2.988	7.8	20.8	3 22	13 32.88	+11 30.2	2.299	3.231	7.4	19.8
4 1	13 21.55	+12 26.8	2.021	2.981	6.5	20.7	4 1	13 23.46	+11 37.7	2.283	3.244	5.8	19.7
4 11	13 13.70	+13 8.5	2.019	2.975	7.1	20.7	4 11	13 13.51	+11 32.2	2.296	3.257	6.0	19.7
4 21	13 5.96	+13 31.6	2.044	2.968	9.2	20.8	4 21	13 3.87	+11 11.4	2.339	3.269	7.9	19.9
5 1	12 59.16	+13 33.5	2.094	2.962	11.8	21.0	5 1	12 55.31	+10 34.8	2.408	3.282	10.2	20.0
5 11	12 53.92	+13 14.3	2.165	2.955	14.3	21.1	5 11	12 48.40	+ 9 43.8	2.501	3.294	12.5	20.2
142315	2002 RU ₁₆₅		4 9.9 12°63	1°9/11.1	18		63739	2001 QD ₂₅₁		4 9.9 158°21	2°6/12.3	18	
3 2	13 38.35	-12 44.2	1.270	2.085	19.9	19.1	3 2	13 41.93	-18 24.7	1.715	2.479	17.6	20.2
3 12	13 36.05	-13 0.2	1.197	2.087	16.0	18.9	3 12	13 38.08	-18 4.1	1.628	2.485	14.3	19.9
3 22	13 30.61	-12 57.8	1.143	2.091	11.3	18.6	3 22	13 31.58	-17 21.4	1.561	2.491	10.4	19.7
4 1	13 22.70	-12 38.2	1.109	2.095	6.1	18.3	4 1	13 23.06	-16 17.6	1.518	2.496	6.1	19.5
4 11	13 13.55	-12 5.5	1.100	2.101	1.9	18.0	4 11	13 13.55	-14 57.3	1.502	2.500	2.7	19.3
4 21	13 4.58	-11 26.5	1.115	2.107	5.9	18.3	4 21	13 4.22	-13 27.9	1.513	2.503	5.1	19.4
5 1	12 57.22	-10 49.4	1.153	2.115	11.1	18.6	5 1	12 56.20	-11 58.9	1.551	2.506	9.4	19.7
5 11	12 52.44	-10 21.5	1.213	2.123	15.7	18.9	5 11	12 50.33	-10 39.1	1.614	2.509	13.4	19.9
214549	2006 PB ₉		4 9.9 328°26	1°3/ 8.9	17		126135	2001 YR ₁₂₄		4 9.9 44°61	1°5/ 8.9	18	
3 2	13 35.76	- 7 56.4	1.287	2.119	18.8	20.2	3 2	13 43.37	- 5 40.7	1.320	2.141	19.0	18.8
3 12	13 34.09	- 7 30.1	1.201	2.105	14.9	19.9	3 12	13 39.74	- 5 34.3	1.250	2.148	14.9	18.6
3 22	13 29.38	- 6 46.3	1.134	2.092	10.2	19.6	3 22	13 32.98	- 5 16.3	1.200	2.155	10.1	18.3
4 1	13 22.19	- 5 49.4	1.089	2.080	4.8	19.3	4 1	13 23.80	- 4 50.8	1.172	2.163	4.8	18.0
4 11	13 13.60	- 4 46.8	1.068	2.069	1.8	19.0	4 11	13 13.47	- 4 23.9	1.170	2.170	1.9	17.9
4 21	13 5.01	- 3 47.8	1.071	2.058	7.2	19.3	4 21	13 3.43	- 4 2.1	1.192	2.178	6.9	18.2
5 1	12 57.82	- 3 1.5	1.096	2.048	12.7	19.6	5 1	12 55.04	- 3 51.1	1.239	2.187	12.0	18.5
5 11	12 53.11	- 2 34.5	1.142	2.039	17.5	19.9	5 11	12 49.25	- 3 54.8	1.307	2.195	16.3	18.8
130999	2000 WU ₁₇₂		4 9.9 240°48	12°7/25.1	17		245678	2006 BV ₅₁		4 9.9 78°89	3°5/ 6.6	17	
3 2	13 44.87	+25 42.8	1.947	2.738	14.9	19.9	3 2	13 38.42	- 1 25.9	1.876	2.692	14.4	20.7
3 12	13 40.28	+27 45.5	1.882	2.722	13.5	19.7	3 12	13 34.90	- 0 34.2	1.799	2.696	11.2	20.5
3 22	13 33.05	+29 36.5	1.839	2.705	12.7	19.6	3 22	13 29.18	+ 0 25.1	1.745	2.700	7.6	20.3
4 1	13 23.77	+31 4.3	1.820	2.687	12.9	19.6	4 1	13 21.83	+ 1 26.3	1.717	2.704	4.3	20.1
4 11	13 13.43	+31 59.6	1.824	2.668	14.1	19.6	4 11	13 13.73	+ 2 22.5	1.717	2.708	4.0	20.1
4 21	13 3.20	+32 17.6	1.849	2.648	15.8	19.7	4 21	13 5.80	+ 3 7.6	1.743	2.712	7.1	20.3
5 1	12 54.22	+31 57.9	1.892	2.628	17.8	19.8	5 1	12 58.96	+ 3 36.8	1.796	2.716	10.7	20.5
5 11	12 47.37	+31 4.4	1.951	2.607	19.6	19.9	5 11	12 53.90	+ 3 47.9	1.870	2.720	13.9	20.7
289720	2005 JE ₁₁		4 9.9 300°80	0°9/ 9.2	17		507433	2012 RA ₂₀		4 9.9 173°98	4°6/15.6	17	
3 2	13 39.78	- 7 25.6	1.510	2.325	17.3	21.3	3 2	13 38.67	-26 12.1	2.598	3.298	13.8	21.5
3 12	13 36.93	- 7 14.4	1.411	2.306	13.8	21.1	3 12	13 34.73	-26 13.0	2.497	3.300	11.7	21.3
3 22	13 31.18	- 6 49.9	1.333	2.287	9.5	20.7	3 22	13 28.90	-25 55.6	2.416	3.302	9.3	21.1
4 1	13 23.05	- 6 15.0	1.278	2.268	4.5	20.4	4 1	13 21.68	-25 19.2	2.359	3.303	6.7	21.0
4 11	13 13.51	- 5 35.1	1.248	2.249	1.3	20.1	4 11	13 13.75	-24 25.2	2.330	3.304	4.8	20.8
4 21	13 3.83	- 4 57.0	1.244	2.231	6.5	20.4	4 21	13 5.90	-23 17.3	2.329	3.305	4.9	20.8
5 1	12 55.35	- 4 27.7	1.265	2.213	11.7	20.6	5 1	12 58.91	-22 0.9	2.356	3.305	7.0	21.0
5 11	12 49.16	- 4 12.9	1.307	2.195	16.3	20.9	5 11	12 53.40	-20 42.6	2.410	3.305	9.5	21.1
248419	2005 SX ₂₀₅		4 9.9 134°35	3°1/13.9	18		455224	2001 RW ₄₇		4 9			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
203004	1999 <i>VD</i> ₂₁₀		4 9.9 161°65	2°0/ 8.1 17			402897	2007 <i>TW</i> ₁₁		4 9.9 207°73	0°3/10.1 17		
3 2	13 40.52	- 3 47.9	2.060	2.861	13.8	20.9	3 2	13 42.89	-11 20.7	2.081	2.856	14.5	22.8
3 12	13 36.38	- 3 24.1	1.975	2.863	10.7	20.7	3 12	13 38.40	-10 57.6	1.980	2.850	11.6	22.6
3 22	13 30.13	- 2 52.8	1.912	2.864	7.2	20.5	3 22	13 31.63	-10 20.6	1.901	2.843	8.0	22.3
4 1	13 22.29	- 2 17.6	1.877	2.865	3.6	20.3	4 1	13 23.10	- 9 31.9	1.848	2.835	4.0	22.1
4 11	13 13.68	- 1 43.7	1.869	2.866	2.3	20.2	4 11	13 13.62	- 8 35.8	1.824	2.826	0.5	21.8
4 21	13 5.20	- 1 15.6	1.889	2.867	5.7	20.4	4 21	13 4.15	- 7 37.9	1.829	2.816	4.7	22.1
5 1	12 57.73	- 0 57.5	1.937	2.868	9.3	20.6	5 1	12 55.67	- 6 44.5	1.861	2.805	8.9	22.3
5 11	12 51.95	- 0 52.2	2.008	2.869	12.6	20.9	5 11	12 48.96	- 6 0.9	1.919	2.794	12.5	22.5
305307	2008 <i>AN</i> ₃₇		4 9.9 335°87	4°4/ 5.2 17			229963	1999 <i>TX</i> ₁₄₆		4 9.9 105°03	1°3/ 8.6 18		
3 2	13 35.36	+ 2 2.5	2.106	2.927	12.8	21.1	3 2	13 42.85	- 5 20.2	2.321	3.107	12.9	20.6
3 12	13 32.34	+ 3 2.5	2.024	2.923	10.0	20.9	3 12	13 37.75	- 4 58.0	2.251	3.130	10.0	20.5
3 22	13 27.37	+ 4 7.5	1.966	2.918	7.0	20.7	3 22	13 30.78	- 4 28.5	2.206	3.153	6.7	20.3
4 1	13 20.96	+ 5 11.3	1.934	2.914	4.7	20.6	4 1	13 22.51	- 3 55.0	2.187	3.176	3.2	20.1
4 11	13 13.85	+ 6 7.6	1.929	2.910	4.9	20.6	4 11	13 13.71	- 3 21.7	2.198	3.198	1.6	20.0
4 21	13 6.85	+ 6 50.8	1.952	2.906	7.5	20.7	4 21	13 5.19	- 2 52.5	2.239	3.219	4.8	20.3
5 1	13 0.75	+ 7 16.7	1.999	2.903	10.6	20.9	5 1	12 57.67	- 2 31.2	2.308	3.240	8.0	20.5
5 11	12 56.18	+ 7 23.8	2.070	2.900	13.5	21.1	5 11	12 51.74	- 2 20.1	2.403	3.260	10.9	20.8
53233	1999 <i>CO</i> ₁₁₇		4 9.9 146°83	5°6/15.4 18			126418	2002 <i>BD</i> ₂₉		4 9.9 123°84	3°2/ 7.2 18		
3 2	13 44.50	-25 40.4	2.248	2.950	15.6	18.6	3 2	13 42.87	- 0 20.5	1.978	2.784	14.1	20.0
3 12	13 39.62	-26 14.9	2.156	2.959	13.3	18.4	3 12	13 38.22	+ 0 7.6	1.902	2.792	11.0	19.8
3 22	13 32.41	-26 31.1	2.084	2.968	10.6	18.2	3 22	13 31.36	+ 0 40.6	1.849	2.800	7.5	19.6
4 1	13 23.43	-26 26.8	2.036	2.976	7.9	18.1	4 1	13 22.88	+ 1 14.0	1.822	2.807	4.1	19.4
4 11	13 13.55	-26 2.3	2.014	2.984	5.9	18.0	4 11	13 13.67	+ 1 42.3	1.823	2.815	3.6	19.4
4 21	13 3.75	-25 20.4	2.020	2.991	6.0	18.0	4 21	13 4.66	+ 2 1.0	1.852	2.822	6.6	19.6
5 1	12 55.02	-24 26.7	2.054	2.998	8.2	18.1	5 1	12 56.78	+ 2 6.7	1.908	2.829	10.1	19.8
5 11	12 48.14	-23 28.1	2.114	3.004	10.9	18.3	5 11	12 50.72	+ 1 57.8	1.987	2.835	13.3	20.0
386447	2008 <i>WR</i> ₉₈		4 9.9	4°61 6°8/15.6 17			206361	2003 <i>QG</i> ₅₂		4 9.9 266°49	2°3/ 8.1 17		
3 2	13 37.70	-25 2.8	1.772	2.510	18.0	20.2	3 2	13 40.39	- 5 39.8	1.641	2.453	16.3	20.9
3 12	13 34.97	-25 55.3	1.684	2.510	15.4	20.0	3 12	13 37.12	- 4 58.9	1.543	2.437	12.8	20.6
3 22	13 29.64	-26 27.2	1.615	2.511	12.4	19.8	3 22	13 31.16	- 4 4.3	1.465	2.420	8.7	20.3
4 1	13 22.22	-26 35.4	1.567	2.513	9.3	19.6	4 1	13 23.01	- 3 0.7	1.413	2.402	4.3	20.0
4 11	13 13.69	-26 19.5	1.543	2.515	7.1	19.5	4 11	13 13.63	- 1 55.1	1.386	2.385	2.7	19.9
4 21	13 5.18	-25 42.6	1.545	2.519	7.2	19.5	4 21	13 4.17	- 0 55.5	1.387	2.367	7.1	20.1
5 1	12 57.87	-24 50.9	1.571	2.523	9.5	19.6	5 1	12 55.85	- 0 9.4	1.413	2.349	11.8	20.3
5 11	12 52.66	-23 52.9	1.620	2.528	12.6	19.8	5 11	12 49.64	+ 0 18.1	1.460	2.330	16.0	20.5
468281	2015 <i>DY</i> ₁₃		4 9.9 288°78	1°1/10.8 17			94205	2001 <i>BM</i> ₂₅		4 9.9 108°06	0°0/ 9.9 18		
3 2	13 38.41	-12 50.1	1.823	2.611	15.8	21.5	3 2	13 40.47	-10 47.2	2.217	2.996	13.7	20.6
3 12	13 35.27	-12 40.0	1.725	2.601	12.7	21.3	3 12	13 36.08	-10 19.9	2.143	3.015	10.7	20.4
3 22	13 29.70	-12 14.2	1.648	2.591	8.9	21.1	3 22	13 29.76	- 9 40.7	2.090	3.034	7.3	20.2
4 1	13 22.22	-11 34.3	1.595	2.581	4.7	20.8	4 1	13 22.06	- 8 52.4	2.065	3.052	3.5	20.0
4 11	13 13.69	-10 44.3	1.569	2.570	1.1	20.5	4 11	13 13.77	- 7 59.6	2.068	3.070	0.4	19.8
4 21	13 5.16	- 9 50.0	1.570	2.560	4.9	20.7	4 21	13 5.72	- 7 7.2	2.101	3.088	4.3	20.1
5 1	12 57.69	- 8 58.3	1.598	2.550	9.3	21.0	5 1	12 58.68	- 6 20.5	2.162	3.105	7.8	20.4
5 11	12 52.11	- 8 15.5	1.649	2.541	13.3	21.2	5 11	12 53.24	- 5 43.5	2.247	3.121	11.0	20.6
472199	2014 <i>EH</i> ₈		4 9.9 60°33	4°5/ 4.7 17			379757	2011 <i>GB</i> ₈₈		4 9.9 167°61	4°1/ 5.9 17		
3 2	13 35.50	+ 2 20.3	2.166	2.986	12.6	21.2	3 2	13 40.12	+ 1 47.0	2.085	2.897	13.3	20.9
3 12	13 32.29	+ 3 33.5	2.096	2.993	9.8	21.0	3 12	13 36.02	+ 2 36.9	2.006	2.899	10.4	20.7
3 22	13 27.23	+ 4 51.0	2.050	3.001	6.9	20.9	3 22	13 29.85	+ 3 31.1	1.951	2.901	7.2	20.5
4 1	13 20.85	+ 6 6.4	2.031	3.009	4.7	20.7	4 1	13 22.16	+ 4 24.1	1.921	2.903	4.6	20.3
4 11	13 13.88	+ 7 13.0	2.040	3.018	5.1	20.8	4 11	13 13.75	+ 5 9.8	1.920	2.904	4.6	20.3
4 21	13 7.10	+ 8 5.3	2.077	3.026	7.6	20.9	4 21	13 5.51	+ 5 42.9	1.947	2.905	7.3	20.5
5 1	13 1.23	+ 8 39.6	2.139	3.034	10.4	21.1	5 1	12 58.26	+ 5 59.9	2.000	2.906	10.5	20.7
5 11	12 56.85	+ 8 54.4	2.223	3.042	13.0	21.3	5 11	12 52.67	+ 5 59.3	2.075	2.906	13.4	20.9
386517	2009 <i>BK</i> ₁₃₁		4 9.9 343°18	1°3/ 8.7 17			199507	2006 <i>DQ</i> ₁₁₈		4 9.9 163°77	0°1/10.0 17		
3 2	13 37.58	- 5 47.6	1.978	2.784	14.1	21.1	3 2	13 39.56	-10 15.4	2.077	2.863	14.2	20.7
3 12	13 34.26	- 5 28.7	1.889	2.779	11.1	20.9	3 12	13 35.69	-10 0.5	1.987	2.864	11.3	20.5
3 22	13 28.79	- 5 0.7	1.823	2.776	7.5	20.7	3 22	13 29.71	- 9 33.6	1.920	2.865	7.7	20.3
4 1	13 21.69	- 4 26.7	1.782	2.772	3.5	20.4	4 1	13 22.13	- 8 57.0	1.879	2.867	3.8	20.0
4 11	13 13.77	- 3 51.7	1.769	2.769	1.7	20.3	4 11	13 13.76	- 8 14.8	1.866	2.868	0.4	19.7
4 21	13 5.94	- 3 20.5	1.783	2.766	5.4	20.5	4 21	13 5.48	- 7 32.1	1.881	2.868	4.6	20.1
5 1	12 59.08	- 2 57.9	1.824	2.764	9.3	20.7	5 1	12 58.20	- 6 54.0	1.923	2.869	8.5	20.3
5 11	12 53.92	- 2 47.2	1.888	2.762	12.7	20.9	5 11	12 52.60	- 6 25.1	1.990	2.870	11.9	20.5
372576	2009 <i>UG</i> ₈₂		4 9.9 178°86	1°0/11.0 17			215010	2008 <i>EU</i> ₁₈		4 9.9 101°54	2°6/ 6.8 18		
3 2	13 38.48	-14 39.1	2.175	2.945	14.2	21.4	3 2	13 35.66	- 2 51.2	2.386	3.192	12.0	20.7
3 12	13 34.78	-14 6.5	2.081	2.946	11.3	21.2	3 12	13 32.26	- 1 55.0	2.307	3.198	9.3	20.6
3 22	13 29.05	-13 18.0	2.010	2.947	8.0	21.0	3 22	13 27.16	- 0 51.6	2.251	3.204	6.2	20.4
4 1	13 21.79	-12 15.5	1.964	2.947	4.2	20.8	4 1	13 20.83	+ 0 14.4	2.223	3.210	3.3	20.2
4 11	13 13.78	-11 3.7	1.946	2.947	1.0	20.5	4 11	13 13.93	+ 1 17.5	2.224	3.216	3.0	20.2
4 21	13 5.87	- 9 48.5	1.957	2.947	4.2	20.8	4 21	13 7.17	+ 2 12.5	2.253	3.222	5.7	20.4
5 1	12 58.92	- 8 36.5	1.997	2.946	8.0	21.0	5 1	13 1.24	+ 2 55.1	2.310	3.228	8.7	20.6
5 11	12 53.57	- 7 33.6	2.062	2.945	11.4	21.2	5 11	12 56.67	+ 3 22.7	2.391	3.234	11.5	20.7
330237	2006 <i>MA</i> ₁₀		4 9.9 221°81	1°3/ 8.7 16			4626	Plisetskaya		4 9.9 10°72	0°0/ 9.8 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
474798	2005 <i>RD</i> ₂₈		4 9.9 281°24	5°5/14.8	18		383700	2007 <i>TV</i> ₄₂₁		4 9.9 125°68	5°3/16.7	17	
3 2	13 42.62	-24 44.0	2.529	3.231	14.1	20.9	3 2	13 41.01	-28 50.2	2.795	3.467	13.4	21.6
3 12	13 38.25	-25 31.6	2.402	3.205	12.1	20.7	3 12	13 36.41	-29 9.9	2.705	3.483	11.5	21.5
3 22	13 31.65	-26 5.3	2.295	3.178	9.8	20.5	3 22	13 29.97	-29 12.2	2.635	3.499	9.4	21.3
4 1	13 23.21	-26 22.4	2.212	3.151	7.4	20.3	4 1	13 22.20	-28 56.0	2.589	3.514	7.2	21.2
4 11	13 13.61	-26 21.8	2.156	3.124	5.7	20.1	4 11	13 13.80	-28 21.8	2.571	3.528	5.6	21.1
4 21	13 3.73	-26 4.4	2.128	3.097	6.0	20.1	4 21	13 5.54	-27 32.6	2.580	3.543	5.5	21.1
5 1	12 54.52	-25 33.6	2.128	3.069	8.1	20.1	5 1	12 58.14	-26 32.7	2.618	3.556	6.9	21.3
5 11	12 46.86	-24 55.0	2.154	3.041	10.8	20.3	5 11	12 52.22	-25 28.2	2.682	3.569	8.9	21.4
24766	1993 <i>FW</i> ₉		4 9.9 285°39	1°7/ 8.6	18		178338	1995 <i>UT</i> ₆		4 9.9 205°85	5°0/17.0	18	
3 2	13 39.99	- 6 10.8	1.653	2.464	16.2	18.5	3 2	13 40.61	-30 17.1	3.502	4.150	11.3	21.6
3 12	13 36.81	- 5 45.5	1.553	2.446	12.8	18.3	3 12	13 35.88	-30 40.9	3.385	4.143	9.9	21.5
3 22	13 30.96	- 5 7.8	1.475	2.428	8.7	18.0	3 22	13 29.56	-30 50.5	3.288	4.135	8.2	21.3
4 1	13 22.93	- 4 21.3	1.420	2.410	4.2	17.6	4 1	13 22.02	-30 44.4	3.216	4.126	6.5	21.2
4 11	13 13.65	- 3 32.1	1.392	2.392	2.1	17.5	4 11	13 13.83	-30 22.5	3.172	4.117	5.3	21.1
4 21	13 4.29	- 2 47.0	1.391	2.374	6.6	17.7	4 21	13 5.61	-29 46.5	3.155	4.108	5.1	21.1
5 1	12 56.03	- 2 12.7	1.415	2.356	11.3	17.9	5 1	12 58.00	-28 59.4	3.168	4.097	6.2	21.1
5 11	12 49.87	- 1 54.3	1.461	2.338	15.6	18.1	5 11	12 51.54	-28 5.5	3.208	4.086	7.9	21.2
249563	2233 <i>T</i> ₋₃		4 9.9 170°20	1°0/10.9	16		105327	2000 <i>QF</i> ₈₃		4 9.9 241°97	0°0/ 9.8	18	
3 2	13 42.97	-13 22.8	2.154	2.919	14.4	22.2	3 2	13 37.72	- 9 49.2	2.788	3.562	11.3	20.6
3 12	13 38.29	-13 6.7	2.062	2.924	11.5	22.0	3 12	13 33.80	- 9 27.6	2.677	3.547	8.9	20.4
3 22	13 31.44	-12 36.5	1.992	2.928	8.1	21.8	3 22	13 28.23	- 8 56.4	2.589	3.532	6.1	20.2
4 1	13 22.96	-11 53.9	1.948	2.932	4.2	21.6	4 1	13 21.40	- 8 17.6	2.529	3.516	3.0	19.9
4 11	13 13.67	-11 2.7	1.933	2.934	1.0	21.3	4 11	13 13.91	- 7 34.5	2.498	3.500	0.4	19.7
4 21	13 4.50	-10 8.0	1.947	2.936	4.3	21.6	4 21	13 6.39	- 6 50.7	2.497	3.483	3.8	19.9
5 1	12 56.35	- 9 15.7	1.990	2.937	8.2	21.8	5 1	12 59.52	- 6 10.5	2.525	3.466	7.0	20.1
5 11	12 49.93	- 8 31.0	2.058	2.937	11.6	22.0	5 11	12 53.87	- 5 37.6	2.579	3.449	9.9	20.3
293716	2007 <i>QD</i> ₁₇		4 9.9 193°06	1°0/10.9	18		434855	2006 <i>SM</i> ₂₀₃		4 9.9 190°41	1°4/11.4	17	
3 2	13 38.43	-13 16.6	2.355	3.125	13.2	21.1	3 2	13 40.19	-13 27.1	2.615	3.374	12.3	21.8
3 12	13 34.60	-13 0.4	2.259	3.124	10.6	20.9	3 12	13 35.79	-13 32.1	2.515	3.373	9.9	21.6
3 22	13 28.87	-12 31.4	2.185	3.123	7.4	20.7	3 22	13 29.60	-13 26.5	2.439	3.372	7.0	21.4
4 1	13 21.71	-11 51.2	2.137	3.121	3.9	20.5	4 1	13 22.06	-13 11.2	2.389	3.370	3.9	21.2
4 11	13 13.83	-11 3.2	2.118	3.119	1.0	20.3	4 11	13 13.83	-12 48.5	2.369	3.368	1.4	21.0
4 21	13 6.02	-10 12.0	2.128	3.117	3.9	20.5	4 21	13 5.65	-12 21.4	2.378	3.366	3.6	21.2
5 1	12 59.05	- 9 22.7	2.166	3.114	7.5	20.7	5 1	12 58.23	-11 53.9	2.415	3.364	6.8	21.4
5 11	12 53.57	- 8 40.3	2.229	3.112	10.7	20.9	5 11	12 52.19	-11 29.8	2.479	3.361	9.8	21.5
432821	2011 <i>GU</i> ₈₃		4 9.9 306°20	5°0/ 4.9	17		235003	2003 <i>CL</i> ₇		4 9.9 108°19	5°6/ 2.2	17	
3 2	13 35.79	+ 1 5.8	1.776	2.605	14.5	21.0	3 2	13 37.25	+ 8 57.4	2.627	3.437	10.9	20.3
3 12	13 33.16	+ 2 20.5	1.689	2.592	11.4	20.8	3 12	13 33.24	+10 22.6	2.571	3.457	8.7	20.1
3 22	13 28.22	+ 3 43.5	1.624	2.579	8.0	20.6	3 22	13 27.68	+11 46.7	2.541	3.476	6.7	20.0
4 1	13 21.50	+ 5 7.6	1.585	2.566	5.3	20.4	4 1	13 21.05	+13 3.3	2.539	3.495	5.6	20.0
4 11	13 13.85	+ 6 23.9	1.572	2.554	5.7	20.4	4 11	13 13.97	+14 7.0	2.566	3.513	6.3	20.1
4 21	13 6.24	+ 7 24.6	1.585	2.542	8.8	20.5	4 21	13 7.11	+14 53.6	2.620	3.531	8.0	20.2
5 1	12 59.66	+ 8 4.0	1.623	2.530	12.5	20.7	5 1	13 1.07	+15 21.1	2.700	3.548	10.1	20.4
5 11	12 54.90	+ 8 19.6	1.682	2.518	15.8	20.9	5 11	12 56.32	+15 29.4	2.802	3.565	12.0	20.5
233495	2007 <i>DF</i> ₄₈		4 9.9 238°98	6°3/14.9	18		378879	2008 <i>TF</i> ₁₄₇		4 9.9 12°37	0°8/ 9.3	17	
3 2	13 45.83	-25 5.5	2.189	2.894	15.9	20.2	3 2	13 40.83	- 6 1.7	1.556	2.371	16.9	20.3
3 12	13 41.06	-26 2.5	2.078	2.882	13.7	20.0	3 12	13 37.37	- 6 8.3	1.480	2.373	13.3	20.1
3 22	13 33.72	-26 43.5	1.986	2.870	11.1	19.8	3 22	13 31.21	- 6 5.4	1.423	2.376	9.0	19.9
4 1	13 24.25	-27 5.1	1.919	2.857	8.4	19.6	4 1	13 22.98	- 5 55.9	1.391	2.381	4.3	19.6
4 11	13 13.50	-27 5.7	1.877	2.844	6.5	19.4	4 11	13 13.73	- 5 44.1	1.384	2.385	1.2	19.4
4 21	13 2.54	-26 46.5	1.863	2.831	6.8	19.4	4 21	13 4.65	- 5 34.8	1.404	2.391	5.9	19.7
5 1	12 52.52	-26 11.7	1.877	2.817	9.0	19.5	5 1	12 56.91	- 5 32.6	1.448	2.397	10.5	20.0
5 11	12 44.41	-25 28.3	1.915	2.803	11.9	19.7	5 11	12 51.37	- 5 41.0	1.516	2.404	14.5	20.2
333183	2012 <i>DS</i> ₇₉		4 9.9 57°10	4°3/ 6.6	18		375873	2009 <i>VQ</i> ₅₀		4 9.9 237°36	1°9/11.8	17	
3 2	13 41.51	+ 0 23.9	1.567	2.391	16.3	20.3	3 2	13 39.07	-15 49.7	2.001	2.770	15.2	21.0
3 12	13 37.77	+ 1 6.5	1.496	2.396	12.8	20.1	3 12	13 35.57	-15 39.4	1.902	2.764	12.4	20.7
3 22	13 31.38	+ 1 55.4	1.446	2.401	8.8	19.9	3 22	13 29.80	-15 12.4	1.824	2.757	8.9	20.5
4 1	13 23.00	+ 2 44.0	1.420	2.406	5.2	19.7	4 1	13 22.27	-14 29.7	1.770	2.751	5.1	20.3
4 11	13 13.69	+ 3 24.7	1.421	2.411	4.9	19.7	4 11	13 13.81	-13 34.6	1.744	2.744	2.0	20.0
4 21	13 4.63	+ 3 51.4	1.448	2.416	8.3	19.9	4 21	13 5.37	-12 32.7	1.746	2.737	4.5	20.2
5 1	12 56.93	+ 3 59.6	1.499	2.421	12.2	20.1	5 1	12 57.92	-11 30.5	1.776	2.729	8.5	20.4
5 11	12 51.41	+ 3 47.9	1.572	2.427	15.8	20.4	5 11	12 52.25	-10 34.8	1.830	2.722	12.2	20.6
292107	2006 <i>RY</i> ₅₄		4 9.9 153°24	0°0/ 9.8	17		135476	2001 <i>WN</i> ₃₄		4 9.9 81°83	1°6/ 8.4	18	
3 2	13 39.86	- 8 58.7	2.572	3.349	12.0	21.4	3 2	13 38.73	- 7 29.0	1.773	2.579	15.5	20.2
3 12	13 35.46	- 8 53.1	2.481	3.353	9.5	21.2	3 12	13 35.25	- 6 39.3	1.701	2.592	12.1	19.9
3 22	13 29.31	- 8 39.1	2.414	3.357	6.5	21.0	3 22	13 29.47	- 5 36.7	1.652	2.605	8.1	19.7
4 1	13 21.88	- 8 18.4	2.373	3.361	3.1	20.8	4 1	13 22.03	- 4 26.1	1.628	2.618	3.8	19.5
4 11	13 13.83	- 7 54.1	2.362	3.364	0.4	20.6	4 11	13 13.86	- 3 14.6	1.631	2.631	2.0	19.4
4 21	13 5.86	- 7 29.5	2.380	3.367	3.9	20.9	4 21	13 5.94	- 2 9.2	1.662	2.643	5.9	19.7
5 1	12 58.70	- 7 8.3	2.428	3.370	7.1	21.1	5 1	12 59.21	- 1 16.5	1.719	2.656	9.9	19.9
5 11	12 52.91	- 6 53.6	2.500	3.373	10.1	21.3	5 11	12 54.36	- 0 40.4	1.799	2.669	13.5	20.2
203259	2001 <i>QE</i> ₁₆₅		4 9.9 221°72	5°5/ 3.3	18		329314	2000 <i>SV</i> ₂₀₄		4 9.9 258°69	1°0/ 8.9	17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
331148	2010 <i>WT</i> ₅₅		4 9.9 343°76	10°6/31.5	17		281167	2007 <i>EN</i> ₃₉		4 9.9 21°56	0°9/10.4	18	
3 2	13 38.74	+14 26.5	1.504	2.340	16.3	20.0	3 2	13 44.36	- 8 23.6	1.415	2.223	18.6	19.3
3 12	13 35.84	+16 1.2	1.442	2.335	13.6	19.8	3 12	13 40.44	- 9 1.8	1.342	2.230	14.8	19.1
3 22	13 30.20	+17 30.5	1.401	2.330	11.4	19.7	3 22	13 33.47	- 9 29.8	1.289	2.238	10.3	18.9
4 1	13 22.49	+18 43.0	1.383	2.326	10.6	19.6	4 1	13 24.13	- 9 48.2	1.259	2.247	5.2	18.6
4 11	13 13.80	+19 28.4	1.388	2.322	11.6	19.7	4 11	13 13.63	- 9 59.6	1.254	2.256	0.9	18.3
4 21	13 5.35	+19 40.8	1.416	2.319	14.0	19.8	4 21	13 3.35	-10 7.4	1.276	2.266	5.7	18.7
5 1	12 58.30	+19 18.9	1.464	2.316	16.8	19.9	5 1	12 54.63	-10 16.2	1.322	2.278	10.6	19.0
5 11	12 53.48	+18 25.6	1.530	2.314	19.5	20.1	5 11	12 48.44	-10 30.2	1.391	2.289	14.9	19.2
16733	1996 <i>HM</i> ₂₂		4 9.9 303°69	0°9/ 9.3	17		123933	2001 <i>EE</i> ₁₄		4 9.9 290°81	4°4/ 6.3	18	
3 2	13 39.71	- 7 42.5	1.351	2.173	18.6	18.5	3 2	13 41.90	+ 2 49.1	1.962	2.774	14.0	19.1
3 12	13 37.28	- 7 32.0	1.256	2.154	14.9	18.2	3 12	13 37.85	+ 3 18.7	1.859	2.752	11.1	18.8
3 22	13 31.70	- 7 6.5	1.180	2.135	10.2	17.9	3 22	13 31.44	+ 3 51.7	1.779	2.729	7.8	18.6
4 1	13 23.47	- 6 29.0	1.126	2.117	4.9	17.5	4 1	13 23.12	+ 4 23.0	1.725	2.707	5.0	18.4
4 11	13 13.66	- 5 45.5	1.097	2.098	1.4	17.2	4 11	13 13.74	+ 4 46.5	1.699	2.684	4.9	18.3
4 21	13 3.67	- 5 3.6	1.092	2.080	7.0	17.5	4 21	13 4.28	+ 4 57.3	1.699	2.661	7.8	18.4
5 1	12 55.02	- 4 31.3	1.111	2.063	12.6	17.7	5 1	12 55.76	+ 4 51.6	1.726	2.639	11.5	18.6
5 11	12 48.90	- 4 15.1	1.151	2.046	17.5	18.0	5 11	12 49.05	+ 4 28.1	1.775	2.616	14.9	18.8
251792	1999 <i>SY</i> ₂₀		4 9.9 197°67	1°3/11.1	16		290603	2005 <i>UC</i> ₁₉₅		4 9.9 166°82	1°3/ 8.7	17	
3 2	13 43.30	-13 23.9	2.002	2.772	15.2	22.3	3 2	13 40.24	- 6 39.7	2.017	2.814	14.2	22.0
3 12	13 38.84	-13 19.7	1.905	2.770	12.2	22.0	3 12	13 36.27	- 6 7.7	1.932	2.817	11.1	21.8
3 22	13 32.01	-13 1.2	1.830	2.766	8.7	21.8	3 22	13 30.13	- 5 25.2	1.868	2.819	7.5	21.5
4 1	13 23.34	-12 29.5	1.780	2.763	4.6	21.6	4 1	13 22.38	- 4 35.8	1.831	2.821	3.5	21.3
4 11	13 13.70	-11 47.9	1.757	2.758	1.3	21.3	4 11	13 13.84	- 3 44.9	1.822	2.822	1.7	21.2
4 21	13 4.09	-11 1.5	1.764	2.753	4.6	21.5	4 21	13 5.43	- 2 58.1	1.842	2.824	5.4	21.4
5 1	12 55.53	-10 16.0	1.798	2.747	8.7	21.8	5 1	12 58.05	- 2 20.6	1.888	2.824	9.2	21.7
5 11	12 48.83	- 9 37.3	1.857	2.741	12.4	22.0	5 11	12 52.39	- 1 56.2	1.959	2.825	12.7	21.9
269822	1999 <i>XO</i> ₂₅₁		4 9.9 195°09	4°8/ 4.8	18		136981	1998 <i>SF</i> ₃		4 9.9 254°37	1°6/ 8.7	17	
3 2	13 41.18	+ 5 52.5	2.443	3.248	11.8	21.4	3 2	13 42.80	- 5 22.3	1.841	2.641	15.2	20.6
3 12	13 36.56	+ 6 40.9	2.359	3.246	9.3	21.2	3 12	13 38.71	- 5 5.0	1.741	2.628	12.0	20.3
3 22	13 30.10	+ 7 30.3	2.300	3.243	6.8	21.1	3 22	13 32.09	- 4 38.0	1.663	2.614	8.2	20.1
4 1	13 22.29	+ 8 15.4	2.268	3.240	4.9	20.9	4 1	13 23.46	- 4 4.6	1.610	2.599	3.9	19.8
4 11	13 13.83	+ 8 51.1	2.265	3.236	5.3	21.0	4 11	13 13.70	- 3 29.7	1.585	2.585	1.9	19.6
4 21	13 5.49	+ 9 13.1	2.290	3.232	7.4	21.1	4 21	13 3.89	- 2 58.9	1.587	2.570	6.0	19.8
5 1	12 58.00	+ 9 19.0	2.342	3.227	10.1	21.2	5 1	12 55.14	- 2 37.5	1.617	2.554	10.4	20.0
5 11	12 51.98	+ 9 8.0	2.417	3.222	12.6	21.4	5 11	12 48.34	- 2 29.3	1.669	2.539	14.3	20.2
513125	1997 <i>GC</i> ₃₂		4 9.9 308°03	2°3/ 8.4	18 C		139565	2001 <i>QL</i> ₇₇		4 9.9 175°51	0°7/ 8.9	18	
3 2	13 50.22	- 9 10.9	1.449	2.242	19.0	21.9	3 2	13 38.00	- 6 56.0	3.289	4.063	9.7	21.6
3 12	13 46.87	- 8 16.9	1.288	2.170	15.7	21.5	3 12	13 33.61	- 6 29.8	3.193	4.066	7.6	21.4
3 22	13 39.58	- 6 54.2	1.146	2.095	11.3	21.0	3 22	13 27.87	- 5 57.1	3.123	4.068	5.1	21.2
4 1	13 28.14	- 5 0.8	1.028	2.018	5.7	20.4	4 1	13 21.17	- 5 20.1	3.082	4.070	2.4	21.1
4 11	13 12.98	- 2 40.4	0.937	1.937	3.0	20.0	4 11	13 14.00	- 4 41.8	3.071	4.071	0.9	20.9
4 21	12 55.33	- 0 3.8	0.873	1.852	10.2	20.1	4 21	13 6.90	- 4 5.3	3.091	4.072	3.5	21.1
5 1	12 37.26	+ 2 31.0	0.836	1.765	18.5	20.2	5 1	13 0.41	- 3 33.6	3.140	4.072	6.2	21.3
5 11	12 21.10	+ 4 45.4	0.820	1.675	26.6	20.3	5 11	12 54.96	- 3 9.4	3.216	4.071	8.5	21.5
320400	2007 <i>UY</i> ₁₀₈		4 9.9 290°30	0°0/ 9.9	17		175817	1999 <i>RV</i> ₂₃₆		4 9.9 284°38	4°9/ 3.6	17	
3 2	13 37.09	-10 33.5	2.102	2.892	14.0	21.4	3 2	13 35.29	+ 3 44.0	2.397	3.214	11.6	19.9
3 12	13 33.82	-10 12.0	2.008	2.887	11.1	21.2	3 12	13 32.22	+ 5 4.9	2.295	3.190	9.2	19.7
3 22	13 28.50	- 9 37.9	1.935	2.881	7.6	21.0	3 22	13 27.33	+ 6 31.5	2.217	3.165	6.7	19.5
4 1	13 21.61	- 8 53.6	1.889	2.876	3.7	20.7	4 1	13 21.05	+ 7 57.7	2.167	3.140	5.0	19.4
4 11	13 13.92	- 8 3.4	1.869	2.871	0.4	20.4	4 11	13 14.00	+ 9 16.5	2.145	3.115	5.6	19.4
4 21	13 6.29	- 7 12.6	1.878	2.866	4.5	20.8	4 21	13 6.91	+10 21.6	2.151	3.090	8.0	19.5
5 1	12 59.57	- 6 26.7	1.915	2.862	8.4	21.0	5 1	13 0.52	+11 8.5	2.183	3.064	10.8	19.6
5 11	12 54.45	- 5 50.6	1.975	2.857	11.9	21.2	5 11	12 55.48	+11 34.7	2.238	3.039	13.5	19.7
500958	2013 <i>QG</i> ₃₇		4 9.9 185°07	2°7/ 7.2	17		285683	2000 <i>SR</i> ₁₅₁		4 9.9 162°57	0°2/ 9.7	18	
3 2	13 39.59	- 3 27.9	2.112	2.916	13.4	22.8	3 2	13 35.79	-10 44.1	3.234	4.002	10.0	22.1
3 12	13 35.64	- 2 34.4	2.026	2.916	10.5	22.6	3 12	13 31.93	-10 0.0	3.141	4.008	7.8	22.0
3 22	13 29.65	- 1 32.0	1.963	2.915	7.0	22.4	3 22	13 26.74	- 9 6.6	3.072	4.014	5.3	21.8
4 1	13 22.13	- 0 25.4	1.927	2.915	3.7	22.2	4 1	13 20.62	- 8 6.3	3.032	4.019	2.5	21.6
4 11	13 13.86	+ 0 39.0	1.920	2.914	3.1	22.2	4 11	13 14.07	- 7 2.6	3.022	4.024	0.4	21.4
4 21	13 5.71	+ 1 35.1	1.941	2.912	6.2	22.3	4 21	13 7.61	- 5 59.6	3.043	4.028	3.3	21.7
5 1	12 58.53	+ 2 18.0	1.989	2.910	9.7	22.5	5 1	13 1.75	- 5 1.1	3.094	4.032	6.0	21.9
5 11	12 52.96	+ 2 44.6	2.060	2.907	12.9	22.7	5 11	12 56.94	- 4 10.5	3.172	4.035	8.4	22.0
483471	2002 <i>LS</i> ₃₂		4 9.9 139°29	2°8/12.6	17		173859	2001 <i>TL</i> ₁₈₂		4 9.9 165°79	0°9/10.9	18	
3 2	13 56.69	-20 21.5	2.129	2.838	16.2	23.1	3 2	13 39.85	-12 6.1	2.679	3.442	11.9	20.9
3 12	13 48.83	-19 54.0	2.045	2.866	13.3	22.9	3 12	13 35.44	-12 4.3	2.584	3.446	9.5	20.8
3 22	13 38.46	-19 6.1	1.982	2.892	9.7	22.7	3 22	13 29.31	-11 52.6	2.513	3.449	6.6	20.6
4 1	13 26.29	-17 58.4	1.947	2.916	5.8	22.5	4 1	13 21.92	-11 32.3	2.468	3.451	3.5	20.4
4 11	13 13.38	-16 35.0	1.943	2.938	2.8	22.4	4 11	13 13.91	-11 6.0	2.453	3.454	0.9	20.2
4 21	13 0.90	-15 2.6	1.971	2.957	4.6	22.5	4 21	13 5.97	-10 37.0	2.467	3.456	3.5	20.4
5 1	12 49.88	-13 29.6	2.030	2.973	8.3	22.8	5 1	12 58.79	-10 8.9	2.511	3.458	6.7	20.6
5 11	12 41.07	-12 4.0	2.118	2.988	11.7	23.0	5 11	12 52.94	- 9 45.4	2.581	3.459	9.6	20.8
55924	1998 <i>FE</i> ₅₅		4 9.9 66°74	1°0/10.8	18		425819	2011 <i>DV</i> ₃₉		4 9.9 310°75	1°8/11.4		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
112254	2002 <i>LD</i> ₁₂		4 9.9 325°88	3°6/ 7.2	18		520264	2014 <i>ER</i> ₁₀₉		4 9.9 198°58	2°5/12.8	17	
3 2	13 36.79	- 3 27.1	1.329	2.166	18.0	19.4	3 2	13 36.46	-18 50.8	2.416	3.165	13.5	21.8
3 12	13 34.78	- 2 38.7	1.247	2.155	14.1	19.1	3 12	13 33.10	-18 36.4	2.318	3.164	11.0	21.6
3 22	13 29.82	- 1 36.6	1.184	2.144	9.6	18.9	3 22	13 27.89	-18 5.9	2.241	3.163	8.1	21.4
4 1	13 22.47	- 0 27.5	1.144	2.134	5.1	18.6	4 1	13 21.30	-17 20.1	2.190	3.162	5.0	21.2
4 11	13 13.83	+ 0 39.2	1.128	2.124	4.3	18.5	4 11	13 14.01	-16 22.0	2.166	3.161	2.6	21.1
4 21	13 5.24	+ 1 33.9	1.137	2.115	8.6	18.7	4 21	13 6.80	-15 16.2	2.171	3.160	3.9	21.1
5 1	12 58.04	+ 2 8.9	1.169	2.106	13.5	18.9	5 1	13 0.42	-14 8.3	2.205	3.159	7.0	21.3
5 11	12 53.24	+ 2 19.9	1.220	2.099	17.9	19.2	5 11	12 55.48	-13 4.3	2.264	3.158	10.1	21.5
361119	2006 <i>FN</i> ₂₇		4 9.9 267°18	0°8/ 9.4	17		379768	2011 <i>HL</i> ₂₁		4 9.9 9°42	1°0/10.8	17	
3 2	13 43.94	- 6 54.0	1.597	2.401	17.0	21.8	3 2	13 38.27	-12 36.4	1.846	2.635	15.6	20.8
3 12	13 40.05	- 6 51.1	1.500	2.388	13.5	21.6	3 12	13 35.04	-12 25.4	1.759	2.635	12.5	20.6
3 22	13 33.27	- 6 36.9	1.424	2.375	9.3	21.3	3 22	13 29.48	-11 59.4	1.692	2.635	8.7	20.3
4 1	13 24.12	- 6 14.3	1.372	2.361	4.5	20.9	4 1	13 22.14	-11 20.2	1.651	2.636	4.5	20.1
4 11	13 13.63	- 5 47.7	1.346	2.348	1.2	20.7	4 11	13 13.91	-10 32.2	1.636	2.637	1.0	19.8
4 21	13 3.05	- 5 22.9	1.347	2.334	6.2	21.0	4 21	13 5.78	- 9 41.0	1.648	2.638	4.7	20.1
5 1	12 53.70	+ 5 5.7	1.374	2.320	11.2	21.2	5 1	12 58.74	- 8 53.1	1.687	2.640	8.9	20.3
5 11	12 46.63	- 5 0.8	1.423	2.306	15.6	21.4	5 11	12 53.56	- 8 14.1	1.750	2.641	12.7	20.6
471457	2011 <i>UW</i> ₁₉₄		4 9.9 196°76	3°1/13.8	17		391708	2008 <i>CJ</i> ₁₀		4 9.9 301°59	9°3/16.7	16	
3 2	13 37.02	-21 7.1	2.813	3.539	12.3	21.9	3 2	13 47.21	-32 28.4	2.356	3.006	16.1	20.8
3 12	13 33.28	-21 4.5	2.709	3.537	10.2	21.8	3 12	13 42.47	-34 7.5	2.237	2.986	14.5	20.6
3 22	13 27.89	-20 47.4	2.627	3.535	7.7	21.6	3 22	13 34.97	-35 31.8	2.137	2.965	12.6	20.5
4 1	13 21.26	-20 15.9	2.570	3.533	5.1	21.4	4 1	13 25.06	-36 35.5	2.059	2.944	10.8	20.3
4 11	13 14.00	-19 32.0	2.542	3.530	3.2	21.3	4 11	13 13.53	-37 14.3	2.006	2.924	9.6	20.2
4 21	13 6.78	-18 38.9	2.542	3.527	3.8	21.3	4 21	13 1.47	-37 26.6	1.979	2.903	9.5	20.1
5 1	13 0.28	-17 41.3	2.572	3.524	6.3	21.5	5 1	12 50.18	-37 14.3	1.978	2.883	10.6	20.2
5 11	12 55.05	-16 44.1	2.628	3.520	8.9	21.6	5 11	12 40.80	-36 43.6	2.000	2.863	12.6	20.2
416966	2005 <i>SX</i> ₂₇₇		4 9.9 98°99	4°4/14.2	17		41682	2000 <i>UP</i> ₁₀		4 9.9 187°32	1°7/12.1	18	
3 2	13 40.80	-22 11.0	2.040	2.776	16.0	21.1	3 2	13 36.28	-16 41.2	2.756	3.506	12.0	19.7
3 12	13 36.84	-22 25.1	1.956	2.788	13.4	21.0	3 12	13 32.67	-16 21.2	2.655	3.506	9.7	19.6
3 22	13 30.59	-22 20.2	1.892	2.799	10.2	20.8	3 22	13 27.45	-15 47.9	2.578	3.505	7.0	19.4
4 1	13 22.63	-21 55.6	1.851	2.811	7.0	20.6	4 1	13 21.04	-15 2.5	2.527	3.504	4.0	19.2
4 11	13 13.84	-21 13.2	1.837	2.823	4.6	20.5	4 11	13 14.05	-14 8.1	2.505	3.503	1.7	19.0
4 21	13 5.22	-20 17.4	1.851	2.834	5.2	20.5	4 21	13 7.12	-13 8.5	2.512	3.502	3.4	19.2
5 1	12 57.72	-19 14.8	1.891	2.845	8.0	20.7	5 1	13 0.90	-12 8.7	2.549	3.500	6.4	19.3
5 11	12 52.07	-18 12.6	1.957	2.856	11.2	20.9	5 11	12 55.93	-11 13.3	2.612	3.498	9.2	19.5
259399	2003 <i>QG</i> ₅		4 9.9 198°58	0°5/10.4	17		268475	2005 <i>XN</i> ₅₂		4 9.9 171°94	1°3/11.2	17	
3 2	13 42.63	-12 6.4	2.134	2.906	14.3	21.6	3 2	13 41.23	-13 39.1	2.257	3.022	13.8	21.6
3 12	13 38.15	-11 43.5	2.035	2.902	11.4	21.4	3 12	13 36.88	-13 31.0	2.163	3.025	11.1	21.4
3 22	13 31.46	-11 6.6	1.958	2.898	8.0	21.1	3 22	13 30.49	-13 9.8	2.092	3.027	7.8	21.2
4 1	13 23.07	-10 17.7	1.907	2.892	4.0	20.9	4 1	13 22.56	-12 36.8	2.047	3.029	4.2	20.9
4 11	13 13.79	- 9 21.0	1.885	2.886	0.6	20.6	4 11	13 13.87	-11 55.3	2.030	3.031	1.3	20.7
4 21	13 4.56	- 8 22.0	1.892	2.880	4.5	20.9	4 21	13 5.26	-11 9.6	2.042	3.032	4.1	20.9
5 1	12 56.30	- 7 26.8	1.927	2.872	8.5	21.1	5 1	12 57.58	-10 25.1	2.083	3.032	7.7	21.2
5 11	12 49.76	- 6 40.7	1.987	2.863	12.1	21.3	5 11	12 51.52	- 9 46.5	2.149	3.032	11.0	21.4
501111	2013 <i>TE</i> ₈		4 9.9 167°10	1°9/ 7.9	17		167596	2004 <i>BL</i> ₁₁₆		4 9.9 191°87	5°1/ 4.1	18	
3 2	13 43.42	- 2 40.4	2.537	3.323	11.9	22.3	3 2	13 38.80	+ 6 25.2	2.386	3.198	11.8	20.2
3 12	13 38.21	- 2 20.4	2.449	3.329	9.3	22.1	3 12	13 34.77	+ 7 23.7	2.307	3.197	9.4	20.1
3 22	13 31.18	- 1 55.2	2.386	3.333	6.3	21.9	3 22	13 28.93	+ 8 23.1	2.253	3.196	6.9	19.9
4 1	13 22.82	- 1 27.8	2.350	3.337	3.2	21.7	4 1	13 21.76	+ 9 17.9	2.225	3.194	5.2	19.8
4 11	13 13.83	- 1 2.2	2.344	3.341	2.2	21.6	4 11	13 13.97	+10 2.1	2.226	3.192	5.7	19.8
4 21	13 4.97	- 0 41.9	2.369	3.343	5.0	21.8	4 21	13 6.30	+10 31.5	2.254	3.190	7.8	19.9
5 1	12 56.97	- 0 30.0	2.422	3.346	8.1	22.0	5 1	12 59.49	+10 43.4	2.308	3.188	10.4	20.1
5 11	12 50.42	- 0 28.5	2.501	3.347	10.9	22.2	5 11	12 54.12	+10 37.1	2.385	3.186	12.8	20.3
513028	2017 <i>VV</i> ₃		4 9.9 174°19	3°4/14.0	18		246874	1994 <i>UE</i> ₇		4 9.9 245°86	0°4/10.4	17	
3 2	13 38.80	-21 30.1	2.749	3.470	12.6	21.6	3 2	13 37.80	-11 10.8	2.883	3.650	11.1	21.6
3 12	13 34.72	-21 39.4	2.648	3.472	10.5	21.5	3 12	13 33.84	-10 54.8	2.768	3.634	8.8	21.4
3 22	13 28.89	-21 34.3	2.569	3.474	8.0	21.3	3 22	13 28.27	-10 29.2	2.677	3.617	6.1	21.2
4 1	13 21.75	-21 14.8	2.516	3.475	5.5	21.2	4 1	13 21.47	- 9 55.4	2.614	3.599	3.1	21.0
4 11	13 13.96	-20 42.1	2.490	3.475	3.6	21.0	4 11	13 14.00	- 9 16.2	2.580	3.582	0.4	20.7
4 21	13 6.21	-19 59.4	2.494	3.476	4.1	21.1	4 21	13 6.49	- 8 35.2	2.576	3.563	3.5	21.0
5 1	12 59.21	-19 10.8	2.526	3.476	6.5	21.2	5 1	12 59.61	- 7 56.4	2.601	3.545	6.7	21.1
5 11	12 53.56	-18 21.6	2.585	3.476	9.1	21.4	5 11	12 53.90	- 7 23.3	2.652	3.526	9.5	21.3
322976	2002 <i>MJ</i> ₃		4 9.9 218°64	18°3/23.5	18		358967	2008 <i>RE</i> ₂₆		4 9.9 211°46	0°5/10.4	18	
3 2	13 48.09	+28 22.6	1.239	2.051	20.5	20.5	3 2	13 42.63	-12 44.4	1.770	2.552	16.5	22.2
3 12	13 44.16	+31 3.3	1.199	2.047	19.0	20.4	3 12	13 38.68	-12 16.1	1.673	2.546	13.2	21.9
3 22	13 36.38	+33 22.4	1.176	2.042	18.3	20.3	3 22	13 32.11	-11 30.0	1.597	2.539	9.2	21.7
4 1	13 25.62	+35 2.1	1.173	2.037	18.7	20.3	4 1	13 23.49	-10 28.4	1.545	2.532	4.6	21.4
4 11	13 13.50	+35 49.3	1.188	2.031	20.1	20.4	4 11	13 13.75	- 9 16.5	1.521	2.523	0.6	21.0
4 21	13 1.86	+35 39.9	1.219	2.024	22.1	20.5	4 21	13 4.04	- 8 1.6	1.525	2.514	5.3	21.4
5 1	12 52.39	+34 37.3	1.265	2.018	24.2	20.7	5 1	12 55.48	- 6 51.8	1.556	2.504	9.9	21.6
5 11	12 46.12	+32 50.7	1.323	2.010	26.2	20.8	5 11	12 48.99	- 5 54.3	1.611	2.493	14.1	21.8
423576	2005 <i>VX</i> ₅₀		4 9.9 172°32	2°0/ 7.8	17		456737	2007 <i>TU</i> ₁₅		4 9.9 122°94	1°4/11.3		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
336280	2008 SC ₂₄₉		4 9.9 228°71	4.9/ 3.9	18		506197	2016 GG ₁₉₀		4 9.9 328°27	0.5/ 9.5	17	
3 2	13 37.84	+ 3 42.3	2.362	3.174	11.9	20.9	3 2	13 34.02	-11 44.2	1.581	2.391	16.9	21.0
3 12	13 34.14	+ 5 4.2	2.271	3.163	9.4	20.7	3 12	13 32.16	-10 50.8	1.491	2.382	13.4	20.7
3 22	13 28.59	+ 6 31.1	2.205	3.152	6.8	20.5	3 22	13 27.79	- 9 36.4	1.420	2.373	9.2	20.5
4 1	13 21.65	+ 7 56.5	2.167	3.140	5.0	20.4	4 1	13 21.44	- 8 5.3	1.374	2.364	4.4	20.1
4 11	13 13.98	+ 9 13.6	2.157	3.128	5.6	20.4	4 11	13 14.06	- 6 25.3	1.354	2.356	0.9	19.9
4 21	13 6.36	+10 16.2	2.176	3.115	7.9	20.5	4 21	13 6.73	- 4 46.0	1.361	2.348	6.0	20.2
5 1	12 59.53	+11 0.2	2.221	3.101	10.7	20.7	5 1	13 0.56	- 3 17.5	1.392	2.341	10.8	20.4
5 11	12 54.12	+11 23.6	2.289	3.087	13.4	20.8	5 11	12 56.40	- 2 7.5	1.446	2.335	15.0	20.7
135113	2001 QH ₁₁₃		4 9.9 288°73	5.3/15.1	18		262040	2006 QS ₁₄₉		4 9.9 223°52	1.5/ 8.5	17	
3 2	13 38.67	-24 31.4	2.219	2.940	15.3	19.2	3 2	13 41.43	- 6 43.3	2.054	2.847	14.1	22.1
3 12	13 35.24	-24 58.0	2.115	2.932	13.0	19.0	3 12	13 37.32	- 6 4.8	1.954	2.837	11.1	21.9
3 22	13 29.60	-25 6.6	2.030	2.925	10.3	18.8	3 22	13 30.98	- 5 14.9	1.877	2.827	7.5	21.7
4 1	13 22.23	-24 55.3	1.969	2.917	7.5	18.6	4 1	13 22.91	- 4 17.0	1.826	2.815	3.6	21.4
4 11	13 13.91	-24 24.7	1.934	2.910	5.5	18.5	4 11	13 13.90	- 3 16.9	1.804	2.803	1.8	21.2
4 21	13 5.55	-23 37.8	1.926	2.903	5.7	18.5	4 21	13 4.90	- 2 20.4	1.810	2.791	5.6	21.5
5 1	12 58.10	-22 39.8	1.945	2.896	8.1	18.6	5 1	12 56.84	- 1 33.7	1.844	2.777	9.6	21.7
5 11	12 52.36	-21 38.0	1.989	2.889	11.0	18.8	5 11	12 50.51	- 1 1.0	1.902	2.763	13.2	21.9
54177	2000 HX ₆₁		4 9.9 63°00	0.0/ 9.8	18		457564	2008 YU ₁₀₇		4 9.9 124°75	4.3/13.3	18	
3 2	13 38.37	- 9 57.0	2.138	2.926	13.8	19.9	3 2	13 43.59	-19 45.1	1.628	2.389	18.6	21.8
3 12	13 34.74	- 9 41.2	2.049	2.927	10.9	19.7	3 12	13 39.67	-20 5.0	1.546	2.396	15.4	21.6
3 22	13 29.08	- 9 13.9	1.982	2.928	7.5	19.5	3 22	13 32.90	-20 4.1	1.482	2.403	11.5	21.4
4 1	13 21.90	- 8 37.6	1.941	2.929	3.6	19.2	4 1	13 23.91	-19 41.3	1.441	2.410	7.5	21.1
4 11	13 13.97	- 7 56.3	1.928	2.930	0.4	18.9	4 11	13 13.78	-18 58.8	1.425	2.416	4.4	21.0
4 21	13 6.13	- 7 14.7	1.944	2.932	4.4	19.3	4 21	13 3.81	-18 2.0	1.435	2.423	5.8	21.1
5 1	12 59.23	- 6 37.9	1.987	2.933	8.2	19.5	5 1	12 55.24	-16 58.9	1.472	2.429	9.6	21.3
5 11	12 53.94	- 6 10.2	2.054	2.934	11.6	19.7	5 11	12 48.99	-15 58.5	1.532	2.434	13.5	21.5
320560	2008 AO ₆₄		4 9.9 330°90	3°1/ 7.4	17		473145	2015 KQ ₈		4 9.9 246°52	9°5/29.1	17	
3 2	13 35.36	- 5 2.0	1.377	2.212	17.6	20.8	3 2	13 42.50	+23 36.9	2.489	3.275	12.1	20.7
3 12	13 33.54	- 4 7.4	1.294	2.201	13.8	20.6	3 12	13 37.70	+24 45.7	2.423	3.267	10.7	20.6
3 22	13 28.90	- 2 57.1	1.231	2.191	9.3	20.3	3 22	13 30.94	+25 44.3	2.380	3.258	9.7	20.5
4 1	13 22.02	- 1 37.7	1.192	2.182	4.7	20.0	4 1	13 22.76	+26 25.5	2.361	3.249	9.5	20.5
4 11	13 13.94	- 0 18.5	1.177	2.173	3.7	19.9	4 11	13 13.93	+26 43.9	2.368	3.239	10.2	20.5
4 21	13 5.93	+ 0 50.4	1.186	2.165	8.1	20.1	4 21	13 5.28	+26 36.6	2.398	3.230	11.6	20.6
5 1	12 59.23	+ 1 40.6	1.220	2.158	13.0	20.4	5 1	12 57.60	+26 3.4	2.451	3.221	13.3	20.7
5 11	12 54.81	+ 2 7.1	1.273	2.152	17.3	20.6	5 11	12 51.51	+25 6.8	2.523	3.211	14.9	20.8
340764	2006 SS ₃₂₄		4 9.9 66°88	1°2/ 8.7	17		340765	2006 SY ₃₂₄		4 9.9 124°02	8°3/30.7	18	
3 2	13 36.93	- 7 6.0	2.195	2.992	13.2	21.1	3 2	13 45.30	+23 50.7	2.838	3.611	11.1	20.5
3 12	13 33.41	- 6 28.4	2.121	3.006	10.2	20.9	3 12	13 39.38	+24 43.8	2.790	3.626	9.7	20.5
3 22	13 28.04	- 5 41.0	2.070	3.021	6.8	20.7	3 22	13 31.78	+25 26.2	2.766	3.640	8.7	20.4
4 1	13 21.34	- 4 47.6	2.045	3.035	3.2	20.5	4 1	13 23.05	+25 52.5	2.768	3.654	8.3	20.4
4 11	13 14.05	- 3 53.2	2.049	3.049	1.5	20.4	4 11	13 13.92	+25 58.6	2.796	3.667	8.9	20.5
4 21	13 6.97	- 3 3.2	2.082	3.064	4.9	20.6	4 21	13 5.11	+25 43.1	2.849	3.680	10.0	20.6
5 1	13 0.82	- 2 22.2	2.141	3.078	8.3	20.9	5 1	12 57.28	+25 6.3	2.927	3.693	11.4	20.7
5 11	12 56.18	- 1 53.4	2.226	3.093	11.3	21.1	5 11	12 50.94	+24 10.6	3.025	3.706	12.8	20.8
135143	2001 QX ₂₀₄		4 9.9 154°18	3°2/13.7	17		417525	2006 TE ₂₇		4 9.9 174°71	0°3/ 9.6	16	
3 2	13 39.02	-20 53.4	2.638	3.365	13.0	20.9	3 2	13 42.45	- 9 10.7	2.123	2.905	14.1	22.6
3 12	13 34.93	-20 57.3	2.541	3.370	10.7	20.7	3 12	13 37.94	- 8 48.2	2.033	2.908	11.1	22.3
3 22	13 29.05	-20 46.5	2.467	3.375	8.1	20.6	3 22	13 31.27	- 8 14.2	1.965	2.910	7.6	22.1
4 1	13 21.85	-20 20.7	2.418	3.380	5.4	20.4	4 1	13 23.00	- 7 31.4	1.924	2.912	3.6	21.9
4 11	13 13.99	-19 42.0	2.397	3.385	3.4	20.3	4 11	13 13.92	- 6 44.3	1.911	2.913	0.7	21.6
4 21	13 6.21	-18 53.8	2.405	3.389	4.1	20.3	4 21	13 4.94	- 5 58.0	1.928	2.913	4.7	22.0
5 1	12 59.24	-18 0.6	2.441	3.393	6.6	20.5	5 1	12 56.98	- 5 17.7	1.972	2.913	8.6	22.2
5 11	12 53.67	-17 7.9	2.504	3.396	9.3	20.7	5 11	12 50.71	- 4 47.8	2.041	2.912	12.0	22.4
93852	2000 WS ₉₆		4 9.9 149°09	2°2/ 7.6	18		474095	2016 LE ₄		4 9.9 295°62	3°0/12.8	17	
3 2	13 40.59	- 3 26.1	2.374	3.168	12.4	20.5	3 2	13 36.14	-19 21.6	1.805	2.573	16.7	21.2
3 12	13 36.12	- 2 46.8	2.293	3.178	9.6	20.3	3 12	13 33.71	-19 5.9	1.699	2.556	13.8	21.0
3 22	13 29.82	- 2 0.6	2.236	3.186	6.5	20.2	3 22	13 28.83	-18 27.9	1.612	2.540	10.3	20.7
4 1	13 22.19	- 1 11.5	2.206	3.194	3.3	20.0	4 1	13 21.98	-17 27.6	1.549	2.524	6.3	20.4
4 11	13 13.96	- 0 24.2	2.206	3.202	2.5	19.9	4 11	13 14.02	-16 8.6	1.512	2.508	3.2	20.2
4 21	13 5.89	+ 0 16.5	2.235	3.208	5.4	20.1	4 21	13 6.01	-14 37.3	1.501	2.492	5.0	20.3
5 1	12 58.72	+ 0 46.7	2.292	3.215	8.5	20.3	5 1	12 59.02	-13 2.7	1.517	2.476	9.1	20.5
5 11	12 53.03	+ 1 4.0	2.374	3.221	11.4	20.5	5 11	12 53.96	-11 34.4	1.558	2.461	13.3	20.7
13713	1998 QN ₃₀		4 9.9 256°45	0°8/ 9.3	17	R	138577	2000 QX ₁₂₂		4 9.9 147°90	1°5/ 7.7	18	
3 2	13 42.00	- 9 12.9	1.627	2.428	16.9	18.9	3 2	13 35.71	- 7 20.4	2.895	3.679	10.6	19.8
3 12	13 38.57	- 8 40.8	1.524	2.410	13.5	18.6	3 12	13 32.03	- 6 3.0	2.807	3.687	8.2	19.6
3 22	13 32.31	- 7 52.0	1.440	2.390	9.3	18.3	3 22	13 26.92	- 4 35.9	2.746	3.695	5.5	19.5
4 1	13 23.72	- 6 49.6	1.381	2.371	4.4	18.0	4 1	13 20.79	- 3 3.2	2.714	3.702	2.6	19.3
4 11	13 13.77	- 5 39.6	1.349	2.350	1.2	17.7	4 11	13 14.20	- 1 30.2	2.713	3.709	1.9	19.2
4 21	13 3.67	- 4 30.2	1.343	2.329	6.3	18.0	4 21	13 7.73	- 0 2.3	2.743	3.716	4.5	19.4
5 1	12 54.70	- 3 29.9	1.364	2.307	11.4	18.2	5 1	13 1.95	+ 1 15.5	2.802	3.722	7.3	19.6
5 11	12 47.91	- 2 45.5	1.406	2.285	16.0	18.4	5 11	12 57.30	+ 2 19.9	2.888	3.728	9.8	19.8
42094	2001 AO ₂₄		4 9.9 210°73	2°9/ 7.5	18		507465	2012 TE ₁₇₆		4 9.9 229°05	0°2/10.2	17	
3 2	13 41.78	- 3 11.6	1.760	2.570	15								

EPHEMERIDES

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
127740	2003 FS ₉		4 9.9 227°80	6°3/ 3.3 18			9004	Peekaydee		4 9.9 286°80	1°9/ 7.5 18		R
3 2	13 42.17	+ 9 8.3	2.235	3.044	12.6	19.9	3 2	13 33.89	- 7 32.0	2.378	3.176	12.3	17.8
3 12	13 37.66	+10 12.7	2.148	3.033	10.2	19.7	3 12	13 31.14	- 6 13.1	2.274	3.161	9.6	17.6
3 22	13 31.08	+11 17.0	2.085	3.021	7.8	19.6	3 22	13 26.63	- 4 40.5	2.193	3.146	6.4	17.4
4 1	13 22.92	+12 14.5	2.049	3.009	6.4	19.4	4 1	13 20.79	- 2 59.0	2.141	3.131	3.1	17.1
4 11	13 13.96	+12 58.5	2.040	2.996	7.0	19.4	4 11	13 14.25	- 1 15.0	2.119	3.115	2.3	17.1
4 21	13 5.06	+13 24.1	2.059	2.982	9.2	19.6	4 21	13 7.72	+ 0 24.1	2.126	3.100	5.5	17.2
5 1	12 57.08	+13 28.5	2.103	2.968	11.8	19.7	5 1	13 1.93	+ 1 51.8	2.161	3.085	8.9	17.4
5 11	12 50.72	+13 11.7	2.168	2.954	14.4	19.8	5 11	12 57.48	+ 3 3.0	2.221	3.070	12.0	17.6
16261	lidemachi		4 9.9 215°89	1°2/11.4 18			435580	2008 RW ₁₁₄		4 9.9 87°56	0°3/10.3 17		
3 2	13 36.31	-15 20.2	2.338	3.104	13.4	17.5	3 2	13 36.69	-13 44.1	2.051	2.832	14.6	21.0
3 12	13 33.04	-14 49.4	2.240	3.102	10.8	17.3	3 12	13 33.45	-12 48.1	1.971	2.844	11.5	20.8
3 22	13 27.91	-14 3.3	2.165	3.100	7.6	17.1	3 22	13 28.21	-11 35.2	1.913	2.856	7.9	20.6
4 1	13 21.38	-13 3.7	2.115	3.097	4.1	16.9	4 1	13 21.52	-10 9.1	1.882	2.868	3.9	20.4
4 11	13 14.15	-11 54.6	2.094	3.094	1.2	16.6	4 11	13 14.18	- 8 35.9	1.879	2.881	0.4	20.2
4 21	13 7.00	-10 41.4	2.101	3.091	3.9	16.8	4 21	13 7.04	- 7 3.0	1.904	2.893	4.5	20.5
5 1	13 0.68	- 9 30.3	2.137	3.088	7.4	17.0	5 1	13 0.92	- 5 37.8	1.958	2.904	8.3	20.8
5 11	12 55.81	- 8 26.9	2.199	3.085	10.7	17.2	5 11	12 56.42	- 4 26.0	2.037	2.916	11.7	21.0
423632	2005 WW ₁₉₆		4 9.9 120°42	2°4/12.7 18			269669	1995 SV ₅₁		4 9.9 68°23	0°1/10.1 17		
3 2	13 40.15	-19 29.9	2.258	3.001	14.5	22.2	3 2	13 39.88	-10 13.3	1.895	2.687	15.2	21.1
3 12	13 35.97	-18 58.4	2.175	3.018	11.8	22.0	3 12	13 36.24	-10 1.0	1.809	2.688	12.0	20.9
3 22	13 29.81	-18 8.7	2.114	3.036	8.6	21.8	3 22	13 30.29	- 9 35.9	1.744	2.690	8.3	20.6
4 1	13 22.25	-17 2.4	2.079	3.052	5.1	21.6	4 1	13 22.60	- 9 0.4	1.704	2.692	4.1	20.4
4 11	13 14.07	-15 43.6	2.072	3.068	2.4	21.5	4 11	13 14.05	- 8 18.9	1.692	2.694	0.4	20.1
4 21	13 6.11	-14 18.3	2.095	3.084	4.0	21.6	4 21	13 5.60	- 7 36.7	1.707	2.696	4.8	20.4
5 1	12 59.17	-12 53.3	2.146	3.099	7.3	21.8	5 1	12 58.23	- 6 59.6	1.749	2.698	9.0	20.7
5 11	12 53.86	-11 35.2	2.224	3.113	10.4	22.1	5 11	12 52.70	- 6 32.3	1.815	2.700	12.7	20.9
497884	2006 UD ₂₅₄		4 9.9 149°19	0°2/ 9.7 17			330113	2005 XB ₄₁		4 9.9 229°52	5°6/15.8 17		
3 2	13 37.67	- 9 17.0	2.872	3.646	11.0	22.7	3 2	13 39.88	-26 52.6	2.151	2.859	16.1	21.7
3 12	13 33.59	- 8 52.3	2.783	3.654	8.6	22.5	3 12	13 36.33	-27 0.0	2.043	2.850	13.8	21.5
3 22	13 28.01	- 8 19.0	2.718	3.661	5.8	22.4	3 22	13 30.45	-26 45.6	1.955	2.842	11.1	21.3
4 1	13 21.35	- 7 39.4	2.681	3.669	2.8	22.2	4 1	13 22.74	-26 7.4	1.889	2.832	8.1	21.1
4 11	13 14.17	- 6 56.8	2.673	3.675	0.5	22.0	4 11	13 14.03	-25 6.3	1.849	2.823	5.9	21.0
4 21	13 7.10	- 6 14.8	2.696	3.681	3.6	22.2	4 21	13 5.30	-23 46.3	1.836	2.813	6.0	20.9
5 1	13 0.74	- 5 37.3	2.748	3.687	6.6	22.4	5 1	12 57.57	-22 14.4	1.851	2.802	8.3	21.1
5 11	12 55.56	- 5 7.2	2.825	3.693	9.2	22.6	5 11	12 51.66	-20 39.6	1.891	2.791	11.4	21.2
149421	2003 BS ₁₈		4 9.9 126°66	7°1/16.9 17			349333	2007 VJ ₄₃		4 9.9 245°64	3°9/ 5.9 17		
3 2	13 45.19	-29 26.5	2.150	2.832	16.8	21.0	3 2	13 38.78	+ 2 36.5	2.321	3.131	12.2	21.0
3 12	13 40.42	-30 10.5	2.063	2.846	14.5	20.9	3 12	13 34.85	+ 3 15.7	2.238	3.130	9.5	20.9
3 22	13 33.17	-30 33.6	1.995	2.859	11.9	20.7	3 22	13 29.08	+ 3 57.9	2.179	3.128	6.7	20.7
4 1	13 24.00	-30 32.7	1.949	2.871	9.3	20.6	4 1	13 21.93	+ 4 38.2	2.147	3.127	4.3	20.5
4 11	13 13.86	-30 7.4	1.929	2.883	7.4	20.5	4 11	13 14.14	+ 5 11.6	2.143	3.126	4.3	20.5
4 21	13 3.84	-29 20.5	1.935	2.895	7.2	20.5	4 21	13 6.45	+ 5 33.8	2.166	3.124	6.7	20.7
5 1	12 55.02	-28 17.8	1.968	2.906	8.9	20.6	5 1	12 59.63	+ 5 42.0	2.217	3.123	9.6	20.8
5 11	12 48.19	-27 7.6	2.027	2.916	11.3	20.8	5 11	12 54.28	+ 5 34.8	2.291	3.121	12.3	21.0
505229	2012 UD ₂₄		4 9.9 119°11	3°4/13.7 17			471355	2011 QN ₀₁		4 9.9 185°62	0°5/ 9.3 17		
3 2	13 39.03	-20 32.0	2.389	3.124	14.0	22.0	3 2	13 35.94	- 9 29.5	2.650	3.432	11.6	22.1
3 12	13 35.14	-20 37.4	2.297	3.132	11.5	21.8	3 12	13 32.45	- 8 46.0	2.556	3.432	9.1	21.9
3 22	13 29.32	-20 26.9	2.228	3.140	8.7	21.6	3 22	13 27.35	- 7 51.7	2.485	3.431	6.1	21.7
4 1	13 22.06	-20 0.5	2.183	3.147	5.7	21.4	4 1	13 21.08	- 6 49.8	2.442	3.431	2.9	21.5
4 11	13 14.10	-19 20.2	2.165	3.154	3.5	21.3	4 11	13 14.24	- 5 44.6	2.428	3.430	0.8	21.3
4 21	13 6.24	-18 29.9	2.176	3.161	4.3	21.4	4 21	13 7.47	- 4 41.0	2.445	3.428	4.0	21.6
5 1	12 59.28	-17 34.8	2.215	3.168	7.1	21.6	5 1	13 1.43	- 3 43.6	2.489	3.427	7.2	21.8
5 11	12 53.85	-16 40.8	2.280	3.175	10.0	21.7	5 11	12 56.63	- 2 56.4	2.560	3.425	10.1	22.0
5040	Rabinowitz		4 9.9 253°61	5°2/ 3.8 18			300217	2006 WK ₁₈₂		4 9.9 205°68	3°9/ 5.4 17		
3 2	13 38.08	- 0 59.7	1.914	2.731	14.1	17.3	3 2	13 38.64	+ 4 6.3	2.659	3.464	10.9	21.1
3 12	13 34.93	+ 1 3.8	1.815	2.712	11.0	17.0	3 12	13 34.50	+ 4 48.1	2.573	3.461	8.6	20.9
3 22	13 29.51	+ 3 22.0	1.740	2.693	7.7	16.8	3 22	13 28.72	+ 5 31.6	2.512	3.458	6.1	20.8
4 1	13 22.28	+ 5 46.2	1.694	2.673	5.3	16.6	4 1	13 21.73	+ 6 12.5	2.478	3.454	4.2	20.6
4 11	13 14.06	+ 8 5.3	1.676	2.653	6.1	16.6	4 11	13 14.17	+ 6 46.3	2.473	3.450	4.3	20.6
4 21	13 5.79	+10 8.3	1.688	2.632	9.4	16.8	4 21	13 6.69	+ 7 9.1	2.496	3.446	6.4	20.8
5 1	12 58.45	+11 46.7	1.725	2.610	13.0	16.9	5 1	12 59.96	+ 7 18.4	2.547	3.442	9.0	20.9
5 11	12 52.86	+12 56.3	1.784	2.588	16.3	17.1	5 11	12 54.52	+ 7 13.2	2.622	3.437	11.4	21.1
129355	3004 P-L		4 9.9 204°73	4°6/14.6 17			369340	2009 SY ₃₂₂		4 9.9 166°88	0°7/ 9.2 16		
3 2	13 42.56	-23 32.7	2.466	3.177	14.2	20.8	3 2	13 40.84	- 8 7.5	2.732	3.506	11.5	23.0
3 12	13 38.04	-23 56.8	2.359	3.172	12.0	20.6	3 12	13 36.14	- 7 35.3	2.641	3.512	9.0	22.8
3 22	13 31.42	-24 4.9	2.273	3.167	9.4	20.4	3 22	13 29.79	- 6 54.2	2.574	3.518	6.1	22.7
4 1	13 23.14	-23 55.4	2.211	3.161	6.7	20.2	4 1	13 22.24	- 6 7.0	2.535	3.523	2.9	22.5
4 11	13 13.97	-23 29.0	2.177	3.154	4.8	20.1	4 11	13 14.12	- 5 17.5	2.526	3.527	0.9	22.3
4 21	13 4.77	-22 48.3	2.170	3.148	5.2	20.1	4 21	13 6.10	- 4 29.9	2.548	3.530	4.0	22.5
5 1	12 56.42	-21 57.9	2.193	3.140	7.5	20.2	5 1	12 58.86	- 3 48.2	2.599	3.533	7.2	22.7
5 11	12 49.66	-21 4.2	2.241	3.132	10.3	20.4	5 11	12 52.93	- 3 15.6	2.676	3.535	9.9	22.9
11166	Anatolefrance		4 9.9 217°79	2°9/ 7.3 18			299713	2006 QO ₁₈₃		4 9.9 232°67	3°6/14.2 17		
3 2	13 40.97	- 3 59.5	1.911	2.716	14.6	18.0	3 2	13 37.51	-22 14.0	2.525	3.252	13.5	20.7
3 12	13 37.10												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
83900	2001 UN ₁₅₇		4 9.9 109°71	0°6/ 9.1	18 R		320316	2007 TK ₂₀		4 9.9 112°91	0°6/10.5	18	
3 2	13 33.93	- 7 44.1	3.290	4.071	9.6	20.4	3 2	13 44.07	-11 51.0	1.741	2.524	16.6	21.3
3 12	13 30.51	- 7 15.3	3.203	4.079	7.4	20.2	3 12	13 39.60	-11 36.8	1.666	2.540	13.2	21.1
3 22	13 25.85	- 6 39.7	3.140	4.087	5.0	20.1	3 22	13 32.59	-11 7.6	1.613	2.555	9.1	20.9
4 1	13 20.30	- 5 59.5	3.106	4.094	2.3	19.9	4 1	13 23.72	-10 25.8	1.584	2.570	4.6	20.6
4 11	13 14.34	- 5 17.8	3.101	4.102	0.8	19.8	4 11	13 14.00	- 9 36.1	1.583	2.584	0.7	20.4
4 21	13 8.47	- 4 37.9	3.126	4.109	3.3	20.0	4 21	13 4.55	- 8 44.9	1.609	2.598	5.0	20.7
5 1	13 3.17	- 4 2.7	3.180	4.117	5.9	20.2	5 1	12 56.42	- 7 58.7	1.663	2.612	9.3	21.0
5 11	12 58.85	- 3 34.8	3.261	4.124	8.2	20.3	5 11	12 50.39	- 7 22.9	1.740	2.625	13.1	21.3
69879	1998 SN ₈₁		4 9.9 249°85	0°3/10.3	18		228371	2000 WB ₄₆		4 9.9 141°78	0°1/ 9.8	17	
3 2	13 39.46	-10 39.6	2.132	2.915	14.0	19.7	3 2	13 39.60	-10 40.7	2.292	3.070	13.3	21.2
3 12	13 35.73	-10 27.7	2.033	2.908	11.1	19.5	3 12	13 35.52	-10 4.8	2.207	3.080	10.4	21.0
3 22	13 29.89	-10 3.8	1.957	2.901	7.7	19.2	3 22	13 29.54	- 9 16.6	2.146	3.090	7.1	20.8
4 1	13 22.42	- 9 30.0	1.907	2.893	3.8	19.0	4 1	13 22.18	- 8 19.1	2.111	3.098	3.4	20.6
4 11	13 14.09	- 8 49.8	1.884	2.886	0.4	18.7	4 11	13 14.19	- 7 17.1	2.105	3.107	0.5	20.4
4 21	13 5.78	- 8 8.1	1.890	2.878	4.5	19.0	4 21	13 6.34	- 6 15.9	2.129	3.115	4.3	20.7
5 1	12 58.38	- 7 30.1	1.923	2.871	8.4	19.2	5 1	12 59.43	- 5 20.8	2.181	3.122	7.9	20.9
5 11	12 52.61	- 7 0.3	1.981	2.863	11.9	19.4	5 11	12 54.03	- 4 36.2	2.258	3.129	11.0	21.1
456802	2007 TH ₂₆₅		4 9.9 101°27	2°3/11.6	18		413136	2001 YJ ₆₆		4 9.9 122°52	8°1/ 1.8	18	
3 2	13 45.07	-14 20.9	1.622	2.400	17.9	21.3	3 2	13 43.46	+14 30.6	2.108	2.915	13.3	21.2
3 12	13 40.71	-14 37.2	1.544	2.412	14.4	21.1	3 12	13 38.56	+15 46.2	2.054	2.930	11.0	21.1
3 22	13 33.55	-14 37.1	1.486	2.423	10.3	20.8	3 22	13 31.57	+16 55.8	2.023	2.944	9.0	21.0
4 1	13 24.24	-14 21.2	1.452	2.433	5.8	20.6	4 1	13 23.12	+17 51.9	2.019	2.957	8.1	20.9
4 11	13 13.90	-13 52.4	1.445	2.444	2.3	20.4	4 11	13 14.09	+18 28.0	2.041	2.970	8.7	21.0
4 21	13 3.76	-13 16.1	1.464	2.454	5.2	20.6	4 21	13 5.38	+18 40.5	2.089	2.982	10.6	21.1
5 1	12 55.04	-12 38.7	1.510	2.465	9.6	20.9	5 1	12 57.81	+18 28.7	2.160	2.994	12.8	21.3
5 11	12 48.62	-12 7.1	1.579	2.474	13.6	21.1	5 11	12 52.01	+17 54.3	2.252	3.006	14.8	21.5
502966	2015 FV ₁		4 9.9 341°72	0°8/10.5	17		328296	2008 GJ ₁₃₂		4 9.9 208°82	3°1/ 6.9	18	
3 2	13 42.88	- 9 23.8	1.702	2.497	16.5	20.8	3 2	13 41.18	- 1 10.6	2.183	2.986	13.1	21.4
3 12	13 39.00	- 9 48.2	1.611	2.492	13.2	20.6	3 12	13 36.93	- 0 26.6	2.092	2.981	10.2	21.2
3 22	13 32.44	-10 2.4	1.542	2.487	9.2	20.3	3 22	13 30.63	+ 0 24.0	2.024	2.975	7.0	21.0
4 1	13 23.77	-10 7.1	1.497	2.483	4.7	20.1	4 1	13 22.77	+ 1 16.5	1.983	2.969	3.9	20.8
4 11	13 13.94	-10 5.1	1.478	2.480	0.9	19.8	4 11	13 14.12	+ 2 5.3	1.971	2.962	3.5	20.8
4 21	13 4.13	-10 0.0	1.486	2.476	5.2	20.1	4 21	13 5.54	+ 2 45.1	1.987	2.955	6.4	20.9
5 1	12 55.51	- 9 56.3	1.521	2.474	9.7	20.3	5 1	12 57.87	+ 3 11.6	2.030	2.947	9.8	21.1
5 11	12 49.01	- 9 58.4	1.579	2.471	13.8	20.5	5 11	12 51.81	+ 3 22.4	2.097	2.939	12.9	21.3
249490	2009 UV ₁₃₆		4 9.9 114°80	4°2/ 6.1	18		479	Caprera		4 9.9 135°93	3°4/ 6.1	18	
3 2	13 40.95	+ 1 37.7	1.958	2.772	14.0	20.7	3 2	13 39.86	- 0 5.3	2.357	3.160	12.2	14.9
3 12	13 36.81	+ 2 27.4	1.886	2.780	10.9	20.5	3 12	13 35.57	+ 0 54.9	2.284	3.173	9.5	14.7
3 22	13 30.52	+ 3 21.5	1.837	2.788	7.5	20.3	3 22	13 29.49	+ 2 0.3	2.236	3.186	6.5	14.6
4 1	13 22.66	+ 4 14.1	1.815	2.796	4.7	20.1	4 1	13 22.13	+ 3 5.7	2.215	3.197	3.9	14.4
4 11	13 14.09	+ 4 58.7	1.820	2.804	4.7	20.1	4 11	13 14.21	+ 4 5.5	2.223	3.209	3.9	14.4
4 21	13 5.73	+ 5 30.2	1.852	2.812	7.5	20.3	4 21	13 6.48	+ 4 54.5	2.260	3.219	6.4	14.6
5 1	12 58.48	+ 5 44.9	1.910	2.819	10.7	20.5	5 1	12 59.65	+ 5 29.0	2.324	3.230	9.3	14.8
5 11	12 52.98	+ 5 41.7	1.991	2.827	13.7	20.7	5 11	12 54.30	+ 5 47.3	2.412	3.239	11.9	15.0
374395	2005 VE ₄₁		4 9.9 9°16	1°5/ 8.7	17		267315	2001 TW ₁₆₇		4 9.9 107°83	0°7/10.5	18	
3 2	13 37.64	- 7 20.1	1.637	2.451	16.2	21.0	3 2	13 47.30	- 9 57.9	2.041	2.813	14.9	20.9
3 12	13 34.81	- 6 43.5	1.557	2.451	12.7	20.8	3 12	13 41.72	-10 11.7	1.964	2.831	11.8	20.7
3 22	13 29.49	- 5 53.2	1.498	2.452	8.6	20.5	3 22	13 33.84	-10 15.2	1.910	2.849	8.2	20.5
4 1	13 22.27	- 4 53.8	1.463	2.453	4.1	20.2	4 1	13 24.28	-10 10.0	1.881	2.867	4.1	20.3
4 11	13 14.12	- 3 52.1	1.455	2.455	1.9	20.1	4 11	13 13.96	- 9 58.6	1.882	2.884	0.7	20.1
4 21	13 6.12	- 2 55.4	1.473	2.457	6.2	20.4	4 21	13 3.89	- 9 44.8	1.912	2.900	4.4	20.4
5 1	12 59.31	- 2 10.4	1.516	2.459	10.6	20.6	5 1	12 55.00	- 9 32.6	1.970	2.916	8.3	20.7
5 11	12 54.51	- 1 41.8	1.582	2.462	14.4	20.9	5 11	12 48.01	- 9 25.8	2.054	2.932	11.7	20.9
336403	2008 UM ₁₅₁		4 9.9 190°57	1°0/11.1	17		292439	2006 SN ₃₄₈		4 9.9 10°35	1°3/ 8.8	17	
3 2	13 38.25	-14 7.1	2.274	3.043	13.6	21.7	3 2	13 39.61	- 5 10.8	2.129	2.927	13.5	21.0
3 12	13 34.61	-13 43.8	2.178	3.042	10.9	21.5	3 12	13 35.73	- 5 0.3	2.042	2.928	10.6	20.8
3 22	13 29.02	-13 6.2	2.105	3.041	7.7	21.3	3 22	13 29.82	- 4 42.1	1.978	2.929	7.1	20.5
4 1	13 21.97	-12 16.0	2.057	3.040	4.1	21.1	4 1	13 22.37	- 4 19.5	1.941	2.930	3.4	20.3
4 11	13 14.18	-11 17.1	2.038	3.039	1.0	20.8	4 11	13 14.17	- 3 56.2	1.931	2.931	1.5	20.2
4 21	13 6.46	-10 14.7	2.047	3.037	4.0	21.0	4 21	13 6.08	- 3 36.5	1.950	2.933	5.0	20.4
5 1	12 59.62	- 9 14.5	2.085	3.035	7.7	21.3	5 1	12 58.92	- 3 24.2	1.995	2.934	8.7	20.6
5 11	12 54.31	- 8 22.0	2.148	3.033	11.0	21.5	5 11	12 53.38	- 3 22.1	2.066	2.936	11.9	20.8
104632	2000 GC ₁₁₅		4 9.9 7°08	1°5/ 8.6	18		145219	2005 JQ ₅₅		4 9.9 200°45	5°9/ 2.6	18	
3 2	13 38.71	- 5 31.2	1.977	2.781	14.2	19.5	3 2	13 37.46	+ 8 54.8	2.435	3.249	11.5	20.0
3 12	13 35.19	- 5 6.8	1.892	2.781	11.1	19.3	3 12	13 33.77	+10 10.4	2.359	3.247	9.2	19.8
3 22	13 29.52	- 4 33.2	1.829	2.781	7.5	19.1	3 22	13 28.33	+11 25.8	2.308	3.245	7.1	19.7
4 1	13 22.24	- 3 54.0	1.793	2.782	3.6	18.8	4 1	13 21.60	+12 34.8	2.284	3.243	6.0	19.6
4 11	13 14.16	- 3 14.2	1.783	2.783	1.9	18.7	4 11	13 14.26	+13 31.1	2.288	3.240	6.6	19.7
4 21	13 6.19	- 2 39.0	1.802	2.783	5.5	18.9	4 21	13 7.04	+14 10.1	2.319	3.237	8.6	19.8
5 1	12 59.23	- 2 13.2	1.847	2.784	9.3	19.2	5 1	13 0.63	+14 29.2	2.375	3.234	10.9	19.9
5 11	12 53.97	- 2 0.1	1.915	2.786	12.7	19.4	5 11	12 55.61	+14 28.0	2.453	3.231	13.1	20.1
508746	2017 UP ₃₄		4 9.9 241°03	0°5/ 9.5	17		231278	Kárpáti		4 9.9 118°50	5°0/14.9	17	
3 2	13 41.92	- 8 12.4	2.336	3.116	13.0	22.5	3 2</						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
114953	2003 <i>QD</i> ₅₇		4 9.9 258°61	0°2/ 9.9 17			286499	2002 <i>BF</i> ₂₇		4 10.0 144°14	3°1/13.7 17		
3 2	13 42.98	- 9 42.9	1.828	2.617	15.8	20.9	3 2	13 39.37	-20 20.1	2.751	3.477	12.5	21.4
3 12	13 39.10	- 9 26.3	1.717	2.596	12.6	20.6	3 12	13 35.18	-20 30.5	2.655	3.484	10.3	21.3
3 22	13 32.60	- 8 55.7	1.628	2.574	8.8	20.3	3 22	13 29.26	-20 27.4	2.582	3.490	7.8	21.1
4 1	13 23.93	- 8 13.3	1.564	2.552	4.3	20.0	4 1	13 22.06	-20 10.6	2.534	3.496	5.2	21.0
4 11	13 13.98	- 7 23.4	1.527	2.529	0.6	19.6	4 11	13 14.24	-19 41.7	2.514	3.502	3.3	20.8
4 21	13 3.84	- 6 32.1	1.518	2.505	5.5	19.9	4 21	13 6.48	-19 3.8	2.524	3.507	3.9	20.9
5 1	12 54.69	- 5 46.2	1.536	2.481	10.3	20.2	5 1	12 59.49	-18 20.8	2.562	3.513	6.4	21.1
5 11	12 47.52	- 5 11.7	1.577	2.456	14.5	20.4	5 11	12 53.83	-17 37.7	2.627	3.518	9.0	21.2
140282	2001 <i>SO</i> ₂₈₁		4 9.9 169°00	1°4/11.6 18			232900	2004 <i>XG</i> ₅₁		4 10.0 123°28	2°5/12.7 18		
3 2	13 40.39	-13 56.3	2.720	3.474	12.0	20.1	3 2	13 40.63	-18 4.0	2.364	3.109	13.8	21.4
3 12	13 35.93	-13 59.6	2.623	3.477	9.6	19.9	3 12	13 36.33	-17 58.8	2.279	3.123	11.3	21.3
3 22	13 29.74	-13 52.3	2.549	3.479	6.9	19.8	3 22	13 30.11	-17 38.6	2.215	3.137	8.2	21.1
4 1	13 22.29	-13 35.4	2.502	3.482	3.8	19.6	4 1	13 22.48	-17 4.0	2.177	3.150	5.0	20.9
4 11	13 14.19	-13 11.1	2.484	3.484	1.4	19.4	4 11	13 14.19	-16 17.8	2.167	3.162	2.5	20.8
4 21	13 6.15	-12 42.3	2.496	3.485	3.5	19.5	4 21	13 6.06	-15 24.4	2.186	3.175	4.0	20.9
5 1	12 58.86	-12 13.0	2.537	3.486	6.5	19.7	5 1	12 58.88	-14 29.2	2.234	3.187	7.1	21.1
5 11	12 52.89	-11 46.8	2.605	3.487	9.4	19.9	5 11	12 53.25	-13 37.6	2.308	3.198	10.1	21.3
272782	2005 <i>YJ</i> ₂₀₉		4 9.9 52°55	9°1/17.9 18			457363	2008 <i>SY</i> ₂₈₈		4 10.0 212°12	2°4/11.9 17		
3 2	13 45.06	-30 20.3	1.670	2.372	20.2	20.1	3 2	13 45.16	-15 46.5	1.800	2.565	16.9	22.3
3 12	13 41.01	-31 34.6	1.604	2.395	17.6	19.9	3 12	13 40.80	-15 52.0	1.700	2.559	13.8	22.1
3 22	13 33.92	-32 23.5	1.554	2.418	14.7	19.8	3 22	13 33.72	-15 40.4	1.620	2.552	10.0	21.8
4 1	13 24.49	-32 42.4	1.524	2.442	11.8	19.7	4 1	13 24.45	-15 11.9	1.565	2.544	5.8	21.6
4 11	13 13.94	-32 29.9	1.517	2.465	9.6	19.6	4 11	13 13.96	-14 28.9	1.537	2.535	2.5	21.3
4 21	13 3.64	-31 49.1	1.534	2.489	9.2	19.6	4 21	13 3.42	-13 36.7	1.536	2.526	5.1	21.5
5 1	12 54.94	-30 47.6	1.576	2.513	10.7	19.8	5 1	12 54.05	-12 42.4	1.563	2.516	9.5	21.7
5 11	12 48.75	-29 35.8	1.641	2.537	13.1	20.0	5 11	12 46.80	-11 53.3	1.614	2.505	13.6	21.9
507578	2013 <i>AP</i> ₁₅₅		4 9.9 181°07	2°0/12.6 17			244634	2003 <i>CD</i> ₁₅		4 10.0 106°09	3°5/ 7.4 18		
3 2	13 36.36	-18 14.4	2.824	3.566	11.9	22.7	3 2	13 43.81	- 2 57.3	1.471	2.290	17.5	21.1
3 12	13 32.76	-17 54.7	2.723	3.566	9.7	22.6	3 12	13 39.76	- 2 6.8	1.405	2.303	13.6	20.8
3 22	13 27.58	-17 21.1	2.645	3.566	7.1	22.4	3 22	13 32.89	- 1 5.9	1.360	2.315	9.2	20.6
4 1	13 21.23	-16 34.8	2.593	3.566	4.3	22.2	4 1	13 23.94	- 0 1.4	1.339	2.327	4.9	20.4
4 11	13 14.31	-15 38.4	2.570	3.566	2.1	22.1	4 11	13 14.06	+ 0 58.4	1.345	2.339	4.0	20.4
4 21	13 7.45	-14 36.0	2.576	3.565	3.4	22.1	4 21	13 4.52	+ 1 45.6	1.377	2.351	7.9	20.6
5 1	13 1.30	-13 32.3	2.612	3.565	6.2	22.3	5 1	12 56.49	+ 2 14.6	1.433	2.362	12.2	20.9
5 11	12 56.37	-12 32.1	2.675	3.563	8.9	22.5	5 11	12 50.81	+ 2 22.8	1.511	2.373	16.0	21.1
415906	2001 <i>TW</i> ₂₆₂		4 9.9 90°82	1°9/11.8 18			386172	2007 <i>UK</i> ₈₂		4 10.0 185°30	0°1/ 9.9 17		
3 2	13 39.16	-16 37.9	1.810	2.583	16.5	20.7	3 2	13 38.91	- 9 41.0	2.546	3.323	12.1	22.2
3 12	13 35.76	-16 13.3	1.731	2.595	13.3	20.5	3 12	13 34.88	- 9 21.0	2.451	3.323	9.6	22.0
3 22	13 30.00	-15 29.2	1.671	2.606	9.5	20.3	3 22	13 29.09	- 8 51.1	2.379	3.322	6.5	21.8
4 1	13 22.49	-14 27.8	1.637	2.617	5.3	20.1	4 1	13 22.00	- 8 13.5	2.334	3.321	3.2	21.6
4 11	13 14.17	-13 13.8	1.629	2.628	1.9	19.9	4 11	13 14.27	- 7 31.9	2.318	3.320	0.4	21.3
4 21	13 6.06	-11 54.4	1.648	2.639	4.6	20.1	4 21	13 6.60	- 6 50.2	2.332	3.319	3.9	21.6
5 1	12 59.14	-10 37.5	1.695	2.650	8.7	20.4	5 1	12 59.70	- 6 12.8	2.375	3.317	7.3	21.8
5 11	12 54.14	- 9 30.3	1.766	2.661	12.4	20.6	5 11	12 54.17	- 5 43.4	2.443	3.315	10.3	22.0
429162	2009 <i>VW</i> ₂		4 9.9 174°31	3°7/13.2 17			278839	2008 <i>SL</i> ₃₀₁		4 10.0 151°70	2°4/ 7.6 17		
3 2	13 44.83	-18 56.8	2.237	2.973	14.8	21.6	3 2	13 39.04	- 3 36.4	2.018	2.825	13.9	20.5
3 12	13 39.94	-19 27.0	2.140	2.975	12.2	21.5	3 12	13 35.39	- 2 55.8	1.935	2.826	10.8	20.3
3 22	13 32.78	-19 42.9	2.064	2.977	9.2	21.3	3 22	13 29.64	- 2 6.7	1.875	2.828	7.3	20.1
4 1	13 23.86	-19 43.6	2.013	2.978	6.0	21.1	4 1	13 22.31	- 1 13.7	1.840	2.829	3.7	19.8
4 11	13 14.01	-19 29.8	1.990	2.979	3.8	20.9	4 11	13 14.23	- 0 22.5	1.834	2.830	2.8	19.8
4 21	13 4.17	-19 4.5	1.996	2.980	4.8	21.0	4 21	13 6.28	+ 0 21.1	1.856	2.831	6.1	20.0
5 1	12 55.31	-18 32.2	2.030	2.980	7.8	21.2	5 1	12 59.31	+ 0 52.5	1.904	2.832	9.7	20.2
5 11	12 48.21	-17 58.8	2.089	2.979	11.0	21.4	5 11	12 54.02	+ 1 8.7	1.975	2.833	13.0	20.4
90883	1996 <i>XB</i> ₂₆		4 9.9 80°52	2°3/12.2 18			206296	2003 <i>CJ</i> ₁₈		4 10.0 40°36	0°7/ 9.3 17		
3 2	13 39.84	-16 57.7	1.861	2.630	16.3	19.9	3 2	13 37.16	- 8 25.6	1.963	2.763	14.4	20.5
3 12	13 36.22	-16 47.3	1.784	2.644	13.2	19.7	3 12	13 33.93	- 7 58.8	1.888	2.774	11.3	20.3
3 22	13 30.27	-16 18.8	1.727	2.658	9.5	19.5	3 22	13 28.62	- 7 20.5	1.835	2.785	7.6	20.1
4 1	13 22.61	-15 33.5	1.694	2.672	5.5	19.3	4 1	13 21.80	- 6 34.2	1.807	2.796	3.6	19.9
4 11	13 14.16	-14 35.3	1.688	2.686	2.4	19.1	4 11	13 14.29	- 5 45.0	1.806	2.808	1.0	19.7
4 21	13 5.93	-13 30.5	1.710	2.700	4.5	19.3	4 21	13 6.97	- 4 58.6	1.834	2.820	4.9	20.0
5 1	12 58.88	-12 26.1	1.758	2.714	8.4	19.6	5 1	13 0.69	- 4 20.0	1.888	2.832	8.7	20.2
5 11	12 53.73	-11 28.8	1.832	2.728	12.0	19.8	5 11	12 56.07	- 3 53.3	1.966	2.845	12.1	20.5
83241	2001 <i>RH</i> ₅₂		4 10.0 74°60	1°3/11.4 18 R			298740	2004 <i>GT</i> ₄₂		4 10.0 335°15	0°5/ 9.6 17		
3 2	13 36.31	-15 29.0	2.180	2.950	14.1	19.5	3 2	13 40.18	- 6 57.1	2.027	2.823	14.2	20.6
3 12	13 33.14	-14 57.6	2.093	2.957	11.3	19.4	3 12	13 36.39	- 6 57.8	1.934	2.817	11.2	20.4
3 22	13 28.03	-14 10.0	2.028	2.964	8.0	19.2	3 22	13 30.40	- 6 49.9	1.864	2.812	7.6	20.1
4 1	13 21.50	-13 8.4	1.988	2.971	4.3	18.9	4 1	13 22.73	- 6 35.7	1.819	2.808	3.7	19.9
4 11	13 14.29	-11 57.4	1.977	2.978	1.3	18.7	4 11	13 14.18	- 6 18.7	1.802	2.803	0.8	19.7
4 21	13 7.23	-10 42.8	1.994	2.984	4.0	18.9	4 21	13 5.68	- 6 3.0	1.813	2.799	4.9	19.9
5 1	13 1.09	- 9 31.0	2.039	2.991	7.6	19.2	5 1	12 58.14	- 5 52.5	1.851	2.796	8.8	20.2
5 11	12 56.49	- 8 27.9	2.109	2.998	10.9	19.4	5 11	12 52.30	- 5 50.8	1.913	2.792	12.3	20.4
299872	2006 <i>SB</i> ₂₉₄		4 10.0 219°67	0°4/ 9.5 18			262428	2006 <i>UL</i> ₇₆		4 10.0 2			