

EPHEMERIDES

3 28.9

3 29.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
63150	2000 <i>XH</i> ₂₃		3 28.9 222°33		3°3/25.1 17		362614	2011 <i>RW</i> ₁₂		3 29.0 71°73		1°3/29.9 18	
2 21	12 55.19	+ 7 10.2	2.688	3.504	10.4	19.6	2 21	13 0.17	- 8 23.7	1.381	2.190	18.8	21.3
3 2	12 50.47	+ 7 42.8	2.601	3.499	8.0	19.5	3 2	12 55.44	- 8 15.8	1.323	2.213	14.7	21.1
3 12	12 44.16	+ 8 17.3	2.540	3.493	5.4	19.3	3 12	12 47.88	- 7 49.0	1.286	2.236	9.8	20.8
3 22	12 36.72	+ 8 49.5	2.507	3.487	3.5	19.1	3 22	12 38.37	- 7 6.8	1.271	2.259	4.6	20.6
4 1	12 28.78	+ 9 15.1	2.503	3.481	4.0	19.2	4 1	12 28.16	- 6 15.5	1.283	2.281	1.7	20.4
4 11	12 21.06	+ 9 30.5	2.529	3.474	6.4	19.3	4 11	12 18.67	- 5 23.5	1.322	2.304	6.5	20.8
4 21	12 14.20	+ 9 33.4	2.582	3.468	9.1	19.5	4 21	12 11.04	- 4 38.4	1.385	2.326	11.3	21.1
5 1	12 8.72	+ 9 22.9	2.659	3.461	11.5	19.6	5 1	12 6.01	- 4 6.0	1.470	2.348	15.3	21.4
221253	2005 <i>UG</i> ₂₆₇		3 28.9 295°24		0°3/28.7 17		455679	2005 <i>EC</i> ₂₆		3 29.0 6°64		0°1/29.1 17	
2 21	12 53.71	- 5 41.0	1.794	2.605	15.0	21.2	2 21	12 54.49	- 5 28.5	1.294	2.126	18.5	21.0
3 2	12 50.14	- 5 5.1	1.709	2.603	11.6	21.0	3 2	12 51.53	- 5 17.2	1.221	2.126	14.4	20.8
3 12	12 44.34	- 4 14.0	1.646	2.601	7.6	20.7	3 12	12 45.64	- 4 48.5	1.168	2.127	9.5	20.5
3 22	12 36.90	- 3 11.9	1.609	2.599	3.1	20.4	3 22	12 37.55	- 4 6.2	1.138	2.128	4.1	20.2
4 1	12 28.70	- 2 4.9	1.600	2.598	1.6	20.3	4 1	12 28.46	- 3 17.3	1.132	2.130	1.7	20.0
4 11	12 20.80	- 1 0.8	1.618	2.596	6.2	20.6	4 11	12 19.82	- 2 30.4	1.151	2.133	7.3	20.4
4 21	12 14.14	- 0 6.2	1.662	2.594	10.4	20.8	4 21	12 12.89	- 1 53.6	1.194	2.137	12.5	20.7
5 1	12 9.43	+ 0 33.6	1.730	2.592	14.1	21.1	5 1	12 8.58	- 1 32.3	1.257	2.141	16.9	20.9
275490	5088 <i>T</i> ₋₃		3 28.9 188°71		5°1/23.6 18		306277	2011 <i>SF</i> ₈		3 29.0 200°88		0°6/29.8 17	
2 21	12 57.20	+10 21.5	2.225	3.050	12.0	20.6	2 21	12 53.07	- 7 49.5	2.985	3.762	10.5	22.0
3 2	12 52.31	+11 16.4	2.150	3.049	9.3	20.4	3 2	12 48.76	- 7 30.3	2.885	3.758	8.2	21.8
3 12	12 45.49	+12 11.9	2.099	3.048	6.7	20.2	3 12	12 43.02	- 7 1.1	2.810	3.754	5.5	21.7
3 22	12 37.30	+13 1.8	2.076	3.047	5.1	20.1	3 22	12 36.26	- 6 24.0	2.762	3.749	2.5	21.5
4 1	12 28.54	+13 40.1	2.081	3.045	6.0	20.2	4 1	12 29.02	- 5 41.9	2.745	3.743	0.9	21.3
4 11	12 20.11	+14 2.1	2.114	3.043	8.5	20.3	4 11	12 21.95	- 4 58.8	2.759	3.737	3.8	21.5
4 21	12 12.77	+14 5.5	2.172	3.040	11.3	20.5	4 21	12 15.59	- 4 18.4	2.801	3.731	6.8	21.7
5 1	12 7.15	+13 50.3	2.253	3.037	13.9	20.7	5 1	12 10.44	- 3 44.1	2.870	3.724	9.4	21.9
111976	2002 <i>GX</i> ₉₂		3 29.0 223°64		0°4/29.3 16		300343	2007 <i>RF</i> ₄₁		3 29.0 127°08		0°3/28.8 18	
2 21	12 59.75	- 5 45.1	1.809	2.609	15.4	20.4	2 21	13 0.54	- 4 6.1	1.645	2.454	16.3	20.7
3 2	12 54.89	- 5 40.1	1.716	2.602	12.0	20.2	3 2	12 55.50	- 3 56.6	1.570	2.462	12.6	20.5
3 12	12 47.54	- 5 22.1	1.644	2.595	8.0	19.9	3 12	12 47.88	- 3 34.4	1.516	2.470	8.2	20.2
3 22	12 38.29	- 4 53.5	1.598	2.587	3.5	19.6	3 22	12 38.40	- 3 3.1	1.487	2.477	3.4	20.0
4 1	12 28.10	- 4 18.5	1.580	2.578	1.4	19.4	4 1	12 28.11	- 2 28.1	1.487	2.484	1.6	19.8
4 11	12 18.13	- 3 43.3	1.590	2.569	6.1	19.7	4 11	12 18.29	- 1 55.7	1.513	2.491	6.5	20.2
4 21	12 9.46	- 3 13.4	1.627	2.560	10.5	20.0	4 21	12 9.99	- 1 31.6	1.566	2.497	11.0	20.4
5 1	12 2.93	- 2 53.7	1.688	2.550	14.4	20.2	5 1	12 4.01	- 1 19.6	1.642	2.504	14.8	20.7
377446	2004 <i>TR</i> ₃₄₅		3 29.0 151°97		2°1/26.8 17		242909	2006 <i>LR</i> ₄		3 29.0 257°34		5°8/22.3 17	
2 21	12 57.32	+ 1 34.4	2.268	3.079	12.3	21.5	2 21	12 57.59	+14 20.4	2.425	3.246	11.3	20.3
3 2	12 52.31	+ 2 5.0	2.189	3.085	9.3	21.3	3 2	12 52.61	+15 12.4	2.336	3.228	9.0	20.1
3 12	12 45.44	+ 2 41.7	2.135	3.091	6.0	21.1	3 12	12 45.72	+16 2.7	2.271	3.210	6.9	19.9
3 22	12 37.28	+ 3 20.4	2.109	3.097	2.8	20.9	3 22	12 37.45	+16 45.1	2.233	3.192	5.8	19.8
4 1	12 28.57	+ 3 56.0	2.112	3.102	2.9	20.9	4 1	12 28.51	+17 14.0	2.224	3.173	6.8	19.9
4 11	12 20.19	+ 4 23.9	2.144	3.107	6.1	21.1	4 11	12 19.77	+17 24.9	2.243	3.154	9.0	20.0
4 21	12 12.88	+ 4 40.8	2.204	3.112	9.4	21.3	4 21	12 12.01	+17 16.2	2.287	3.134	11.6	20.1
5 1	12 7.24	+ 4 44.7	2.287	3.116	12.3	21.5	5 1	12 5.87	+16 48.1	2.353	3.114	14.0	20.2
473765	2016 <i>EV</i> ₅₇		3 29.0 325°70		1°5/27.9 17		457636	2009 <i>BN</i> ₁₅₅		3 29.0 342°34		3°1/31.0 18	
2 21	12 54.12	- 2 10.6	1.365	2.203	17.4	20.8	2 21	12 55.84	-10 26.8	1.302	2.116	19.5	20.9
3 2	12 51.24	- 1 46.9	1.281	2.190	13.5	20.5	3 2	12 52.76	-10 50.7	1.221	2.110	15.6	20.6
3 12	12 45.50	- 1 8.6	1.217	2.179	8.8	20.2	3 12	12 46.61	-10 54.7	1.158	2.105	11.1	20.3
3 22	12 37.53	- 0 20.8	1.176	2.168	3.7	19.9	3 22	12 38.03	-10 38.9	1.117	2.100	6.1	20.0
4 1	12 28.42	+ 0 29.1	1.161	2.157	2.8	19.8	4 1	12 28.23	-10 6.9	1.100	2.096	3.1	19.8
4 11	12 19.59	+ 1 12.3	1.170	2.147	8.1	20.1	4 11	12 18.73	- 9 25.8	1.108	2.093	7.1	20.0
4 21	12 12.33	+ 1 41.6	1.203	2.138	13.2	20.3	4 21	12 10.95	- 8 44.1	1.140	2.090	12.1	20.3
5 1	12 7.60	+ 1 52.2	1.256	2.130	17.7	20.6	5 1	12 5.92	- 8 10.1	1.192	2.088	16.8	20.6
42166	2001 <i>CL</i> ₁₁		3 29.0 167°40		0°5/28.5 18		439129	2011 <i>SG</i> ₂₂₅		3 29.0 220°61		2°6/ 1.5 18	
2 21	12 58.44	- 4 31.8	2.037	2.836	13.9	20.2	2 21	12 50.73	-15 49.8	2.503	3.258	12.8	21.3
3 2	12 53.44	- 4 1.0	1.953	2.841	10.7	20.0	3 2	12 47.30	-15 23.7	2.405	3.256	10.4	21.1
3 12	12 46.32	- 3 18.0	1.893	2.845	7.0	19.8	3 12	12 42.22	-14 40.2	2.329	3.254	7.6	20.9
3 22	12 37.69	- 2 26.7	1.859	2.849	2.9	19.5	3 22	12 35.95	-13 40.8	2.279	3.252	4.6	20.7
4 1	12 28.40	- 1 32.3	1.855	2.852	1.6	19.4	4 1	12 29.15	-12 29.0	2.258	3.250	2.6	20.6
4 11	12 19.43	- 0 41.2	1.879	2.854	5.8	19.7	4 11	12 22.56	-11 10.2	2.267	3.248	4.3	20.7
4 21	12 11.65	+ 0 1.4	1.932	2.856	9.6	19.9	4 21	12 16.83	- 9 50.6	2.304	3.246	7.3	20.9
5 1	12 5.75	+ 0 31.4	2.008	2.857	13.0	20.2	5 1	12 12.53	- 8 36.1	2.367	3.243	10.3	21.1
146847	2002 <i>AV</i> ₈₄		3 29.0 271°60		3°8/24.0 18		469354	2001 <i>CA</i> ₄		3 29.0 59°15		13°4/ 8.2 18	
2 21	12 51.02	+ 5 49.0	2.360	3.189	11.3	19.7	2 21	13 12.56	-30 58.3	1.463	2.138	23.6	20.5
3 2	12 47.53	+ 6 59.4	2.280	3.186	8.6	19.5	3 2	13 5.80	-33 24.5	1.410	2.170	21.0	20.4
3 12	12 42.36	+ 8 14.6	2.226	3.183	5.8	19.3	3 12	12 55.20	-35 19.6	1.372	2.201	18.1	20.2
3 22	12 36.00	+ 9 28.8	2.200	3.180	3.9	19.2	3 22	12 41.63	-36 34.7	1.355	2.233	15.5	20.2
4 1	12 29.12	+10 35.5	2.203	3.177	4.8	19.2	4 1	12 26.71	-37 4.2	1.359	2.265	13.8	20.1
4 11	12 22.49	+11 29.1	2.233	3.174	7.4	19.4	4 11	12 12.48	-36 50.5	1.386	2.297	13.5	20.2
4 21	12 16.76	+12 6.1	2.290	3.171	10.3	19.6	4 21	12 0.67	-36 3.1	1.436	2.329	14.5	20.3
5 1	12 12.49	+12 24.7	2.369	3.168	12.9	19.7	5 1	11 52.41	-34 55.5	1.506	2.360	16.3	20.5
400282	2007 <i>RV</i> ₃₁₄		3 29.0 152°71		1°9/30.9 18		21412	Sinchanban		3 29.0 116°20			

EPHEMERIDES

3 29.0

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
122016	2000 <i>GP</i> ₄₂		3 29.0 138°69	0°6/28.6	18		247990	2004 <i>CG</i> ₁₁₈		3 29.0 357°35	1°2/27.8	17	
2 21	13 2.24	- 3 0.0	1.541	2.354	17.0	19.6	2 21	12 51.64	- 2 52.1	1.813	2.636	14.4	20.5
3 2	12 57.01	- 2 55.5	1.465	2.360	13.1	19.4	3 2	12 48.52	- 2 16.4	1.732	2.634	11.0	20.3
3 12	12 48.98	- 2 39.1	1.410	2.365	8.6	19.1	3 12	12 43.27	- 1 28.3	1.674	2.633	7.1	20.0
3 22	12 38.90	- 2 14.3	1.380	2.370	3.5	18.8	3 22	12 36.48	- 0 32.7	1.641	2.632	2.9	19.8
4 1	12 27.91	- 1 46.8	1.378	2.375	1.9	18.7	4 1	12 28.99	+ 0 24.3	1.635	2.631	2.2	19.7
4 11	12 17.39	- 1 22.7	1.403	2.380	7.0	19.0	4 11	12 21.81	+ 1 15.6	1.657	2.631	6.4	20.0
4 21	12 8.54	- 1 7.5	1.453	2.384	11.7	19.3	4 21	12 15.81	+ 1 55.6	1.704	2.632	10.5	20.2
5 1	12 2.19	- 1 4.8	1.526	2.388	15.7	19.6	5 1	12 11.68	+ 2 20.3	1.774	2.633	14.0	20.4
205485	2001 <i>QP</i> ₂₃₈		3 29.0 221°55	1°2/30.3	18		366922	2005 <i>UU</i> ₂₇₄		3 29.0 155°05	3°9/ 3.0	16	
2 21	12 55.91	- 8 16.8	2.446	3.226	12.4	20.4	2 21	12 55.72	- 19 55.2	2.516	3.239	13.6	21.7
3 2	12 51.27	- 8 19.3	2.348	3.221	9.8	20.2	3 2	12 51.08	- 19 43.7	2.424	3.248	11.3	21.6
3 12	12 44.84	- 8 10.8	2.274	3.216	6.7	20.0	3 12	12 44.66	- 19 13.3	2.353	3.256	8.6	21.4
3 22	12 37.08	- 7 52.7	2.227	3.212	3.3	19.8	3 22	12 36.99	- 18 24.5	2.308	3.264	5.8	21.2
4 1	12 28.69	- 7 27.8	2.209	3.206	1.4	19.6	4 1	12 28.78	- 17 19.9	2.291	3.272	4.0	21.1
4 11	12 20.47	- 7 0.1	2.221	3.201	4.5	19.9	4 11	12 20.84	- 16 4.5	2.303	3.278	4.9	21.2
4 21	12 13.17	- 6 33.6	2.261	3.195	7.9	20.1	4 21	12 13.89	- 14 44.7	2.345	3.284	7.4	21.4
5 1	12 7.41	- 6 12.4	2.326	3.190	10.9	20.2	5 1	12 8.50	- 13 26.8	2.413	3.289	10.2	21.6
166560	2002 <i>RP</i> ₁₀₂		3 29.0 105°04	1°5/27.5	18		100896	1998 <i>JT</i> ₃		3 29.0 345°93	2°9/25.8	18	
2 21	12 56.96	+ 0 4.7	2.347	3.153	12.1	20.0	2 21	12 51.14	+ 2 12.8	2.038	2.867	12.8	19.3
3 2	12 51.92	+ 0 24.1	2.274	3.167	9.2	19.8	3 2	12 47.90	+ 3 6.0	1.957	2.863	9.7	19.1
3 12	12 45.13	+ 0 49.8	2.226	3.181	5.9	19.6	3 12	12 42.75	+ 4 6.9	1.900	2.860	6.3	18.9
3 22	12 37.14	+ 1 18.3	2.205	3.195	2.5	19.4	3 22	12 36.23	+ 5 10.1	1.869	2.857	3.3	18.7
4 1	12 28.70	+ 1 45.4	2.214	3.208	2.2	19.4	4 1	12 29.11	+ 6 8.8	1.867	2.854	3.9	18.7
4 11	12 20.60	+ 2 7.0	2.253	3.221	5.5	19.6	4 11	12 22.25	+ 6 57.0	1.892	2.852	7.2	18.9
4 21	12 13.57	+ 2 19.9	2.319	3.234	8.7	19.9	4 21	12 16.44	+ 7 30.1	1.943	2.850	10.6	19.1
5 1	12 8.13	+ 2 22.1	2.410	3.247	11.5	20.1	5 1	12 12.29	+ 7 45.7	2.016	2.848	13.6	19.3
276301	2002 <i>TQ</i> ₁₂₀		3 29.0 61°88	4°1/ 1.7	18		306908	2001 <i>TG</i> ₁₈₁		3 29.0 202°89	2°3/31.8	18	
2 21	12 57.90	- 16 1.7	1.525	2.301	18.8	20.6	2 21	12 51.98	- 13 43.7	2.409	3.174	13.0	20.5
3 2	12 53.52	- 16 5.5	1.466	2.329	15.2	20.4	3 2	12 48.32	- 13 24.8	2.313	3.173	10.4	20.3
3 12	12 46.55	- 15 45.0	1.428	2.356	11.0	20.2	3 12	12 42.92	- 12 49.8	2.240	3.172	7.4	20.1
3 22	12 37.80	- 15 1.7	1.412	2.384	6.8	20.0	3 22	12 36.29	- 12 0.3	2.194	3.170	4.3	19.9
4 1	12 28.43	- 14 0.4	1.422	2.412	4.1	20.0	4 1	12 29.08	- 10 59.6	2.175	3.169	2.3	19.7
4 11	12 19.73	- 12 49.2	1.458	2.440	6.2	20.1	4 11	12 22.08	- 9 53.1	2.186	3.167	4.4	19.9
4 21	12 12.72	- 11 37.4	1.521	2.467	10.0	20.4	4 21	12 15.99	- 8 46.6	2.225	3.165	7.6	20.1
5 1	12 8.09	- 10 33.1	1.606	2.495	13.6	20.7	5 1	12 11.40	- 7 45.6	2.289	3.163	10.7	20.3
354870	2006 <i>BJ</i> ₁₁		3 29.0 332°31	5°5/ 1.0	17		8628	Davidtsaltzberg		3 29.0 182°73	1°1/27.6	18	
2 21	12 54.45	- 12 40.3	1.150	1.968	21.3	19.7	2 21	12 53.86	- 3 57.8	2.375	3.176	12.1	19.1
3 2	12 52.30	- 13 40.9	1.063	1.951	17.6	19.4	3 2	12 49.69	- 2 57.3	2.286	3.177	9.3	18.9
3 12	12 46.73	- 14 21.6	0.993	1.935	13.1	19.1	3 12	12 43.78	- 1 44.9	2.222	3.177	5.9	18.7
3 22	12 38.26	- 14 39.3	0.943	1.921	8.3	18.8	3 22	12 36.64	- 0 25.1	2.186	3.176	2.4	18.5
4 1	12 28.11	- 14 33.9	0.916	1.907	5.5	18.6	4 1	12 28.94	+ 0 56.1	2.180	3.175	2.0	18.4
4 11	12 18.04	- 14 10.1	0.911	1.894	8.4	18.7	4 11	12 21.49	+ 2 12.3	2.205	3.174	5.5	18.7
4 21	12 9.77	- 13 36.6	0.927	1.883	13.5	18.9	4 21	12 14.98	+ 3 17.9	2.257	3.172	8.9	18.9
5 1	12 4.62	- 13 3.5	0.963	1.873	18.5	19.1	5 1	12 9.98	+ 4 9.2	2.334	3.169	11.9	19.1
505321	2012 <i>XR</i> ₁₄₁		3 29.0 152°36	1°0/30.3	17		134675	1999 <i>WR</i> ₆		3 29.0 191°08	4°1/25.1	18	
2 21	12 52.63	- 9 38.8	2.751	3.525	11.3	22.1	2 21	12 57.68	+ 4 57.3	1.895	2.721	13.8	20.3
3 2	12 48.50	- 9 14.3	2.662	3.532	8.9	22.0	3 2	12 53.04	+ 5 55.3	1.816	2.720	10.5	20.0
3 12	12 42.88	- 8 37.9	2.597	3.538	6.0	21.8	3 12	12 46.17	+ 6 59.5	1.762	2.718	7.0	19.8
3 22	12 36.21	- 7 51.8	2.559	3.543	2.9	21.6	3 22	12 37.69	+ 8 3.0	1.733	2.717	4.3	19.6
4 1	12 29.10	- 6 59.5	2.551	3.549	1.1	21.5	4 1	12 28.50	+ 8 58.5	1.734	2.714	5.1	19.7
4 11	12 22.21	- 6 5.6	2.574	3.554	4.0	21.7	4 11	12 19.64	+ 9 39.5	1.762	2.712	8.4	19.9
4 21	12 16.14	- 5 14.3	2.625	3.558	7.0	21.9	4 21	12 12.04	+ 10 2.0	1.815	2.708	11.9	20.1
5 1	12 11.37	- 4 29.9	2.702	3.562	9.7	22.1	5 1	12 6.42	+ 10 4.5	1.890	2.705	15.1	20.3
415944	2001 <i>WY</i> ₅₆		3 29.0 79°22	1°9/27.4	18		157689	2005 <i>YM</i> ₂₅₆		3 29.0 292°56	1°6/30.5	18	
2 21	12 58.38	- 0 33.7	1.765	2.583	15.0	21.3	2 21	12 52.90	- 10 20.0	1.851	2.646	15.3	20.1
3 2	12 53.46	- 0 0.6	1.705	2.605	11.3	21.1	3 2	12 49.64	- 10 1.5	1.752	2.633	12.1	19.9
3 12	12 46.31	+ 0 41.8	1.669	2.626	7.2	20.9	3 12	12 44.13	- 9 24.9	1.674	2.620	8.4	19.6
3 22	12 37.67	+ 1 28.1	1.658	2.648	3.1	20.7	3 22	12 36.91	- 8 32.2	1.622	2.606	4.2	19.3
4 1	12 28.51	+ 2 12.0	1.676	2.670	2.8	20.7	4 1	12 28.80	- 7 28.0	1.596	2.593	1.7	19.1
4 11	12 19.91	+ 2 47.4	1.721	2.691	6.7	21.0	4 11	12 20.86	- 6 19.3	1.598	2.580	5.6	19.3
4 21	12 12.76	+ 3 10.3	1.793	2.712	10.6	21.3	4 21	12 14.06	- 5 13.7	1.626	2.567	9.9	19.5
5 1	12 7.66	+ 3 18.1	1.887	2.733	13.9	21.6	5 1	12 9.18	- 4 17.9	1.678	2.555	13.8	19.7
285618	2000 <i>RN</i> ₈		3 29.0 72°23	8°2/ 4.1	18		29465	1997 <i>TX</i> ₁₀		3 29.0 81°54	1°0/27.9	18	
2 21	13 14.27	- 22 27.9	1.620	2.330	20.4	20.1	2 21	12 53.82	- 5 25.5	1.708	2.523	15.5	19.9
3 2	13 6.04	- 23 54.0	1.568	2.374	17.2	20.0	3 2	12 50.17	- 4 21.7	1.640	2.538	11.8	19.7
3 12	12 54.70	- 24 54.3	1.536	2.418	13.7	19.8	3 12	12 44.30	- 3 1.7	1.595	2.552	7.6	19.5
3 22	12 41.21	- 25 24.6	1.527	2.460	10.3	19.7	3 22	12 36.89	- 1 31.6	1.576	2.567	3.0	19.2
4 1	12 27.03	- 25 24.2	1.544	2.502	8.3	19.7	4 1	12 28.87	+ 0 0.2	1.585	2.581	2.2	19.2
4 11	12 13.76	- 24 57.9	1.589	2.543	8.8	19.8	4 11	12 21.32	+ 1 24.6	1.621	2.595	6.6	19.5
4 21	12 2.68	- 24 14.4	1.661	2.583	11.0	20.1	4 21	12 15.13	+ 2 34.6	1.684	2.609	10.7	19.8
5 1	11 54.59	- 23 23.9	1.756	2.622	13.8	20.3	5 1	12 10.93	+ 3 25.5	1.769	2.623	14.2	20.0
215463	Jobse												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
494225	2016 <i>NB</i> ₂₁		3 29.0 244°11	3°8/ 2.1 17			380895	2006 <i>DT</i> ₉₉		3 29.0 359°20	2°4/26.7 17		
2 21	12 54.89	-16 46.1	2.445	3.188	13.4	21.0	2 21	12 53.54	+ 0 0.6	1.858	2.683	14.0	21.4
3 2	12 50.64	-17 2.8	2.341	3.180	11.1	20.8	3 2	12 49.91	+ 0 48.7	1.779	2.683	10.7	21.2
3 12	12 44.52	-17 3.8	2.258	3.173	8.3	20.7	3 12	12 44.16	+ 1 46.9	1.723	2.683	6.9	20.9
3 22	12 37.01	-16 48.9	2.202	3.165	5.6	20.5	3 22	12 36.86	+ 2 49.7	1.693	2.683	3.2	20.7
4 1	12 28.79	-16 19.7	2.173	3.157	3.8	20.3	4 1	12 28.89	+ 3 50.0	1.691	2.683	3.3	20.7
4 11	12 20.70	-15 39.7	2.173	3.149	5.0	20.4	4 11	12 21.24	+ 4 41.1	1.717	2.683	7.1	20.9
4 21	12 13.52	-14 53.9	2.201	3.140	7.8	20.6	4 21	12 14.78	+ 5 17.7	1.768	2.683	10.9	21.2
5 1	12 7.90	-14 7.7	2.254	3.132	10.7	20.7	5 1	12 10.20	+ 5 36.8	1.841	2.683	14.3	21.4
378775	2008 <i>SH</i> ₉		3 29.0 223°08	2°0/30.9 17			376285	2011 <i>FH</i> ₇₉		3 29.0 185°57	2°5/26.3 17		
2 21	12 56.04	-10 20.4	2.021	2.804	14.6	20.9	2 21	12 53.67	+ 0 18.0	2.006	2.827	13.3	21.1
3 2	12 51.77	-10 22.3	1.929	2.802	11.6	20.7	3 2	12 49.86	+ 1 15.9	1.925	2.827	10.1	20.9
3 12	12 45.37	-10 9.2	1.860	2.800	8.1	20.4	3 12	12 44.05	+ 2 23.6	1.868	2.827	6.5	20.7
3 22	12 37.38	-9 42.7	1.815	2.798	4.3	20.2	3 22	12 36.81	+ 3 35.5	1.838	2.827	3.1	20.5
4 1	12 28.63	-9 5.9	1.799	2.795	2.0	20.0	4 1	12 28.94	+ 4 44.4	1.837	2.826	3.5	20.5
4 11	12 20.12	-8 24.1	1.811	2.793	5.2	20.2	4 11	12 21.36	+ 5 43.7	1.863	2.826	7.0	20.7
4 21	12 12.75	-7 43.0	1.850	2.790	9.0	20.5	4 21	12 14.89	+ 6 28.2	1.916	2.825	10.6	20.9
5 1	12 7.21	-7 8.0	1.914	2.787	12.5	20.7	5 1	12 10.17	+ 6 54.9	1.992	2.824	13.8	21.1
491818	2013 <i>AF</i> ₃		3 29.0 105°82	3°3/ 2.1 17			502766	2015 <i>DG</i> ₇₆		3 29.0 259°30	0°2/28.8 17		
2 21	12 53.04	-16 34.3	2.538	3.284	12.9	21.1	2 21	12 55.21	- 4 47.2	2.151	2.952	13.2	21.9
3 2	12 49.01	-16 34.4	2.450	3.292	10.5	20.9	3 2	12 51.07	- 4 25.7	2.049	2.938	10.3	21.7
3 12	12 43.32	-16 18.5	2.384	3.301	7.8	20.7	3 12	12 44.91	- 3 52.5	1.970	2.923	6.8	21.4
3 22	12 36.44	-15 47.5	2.343	3.309	5.0	20.6	3 22	12 37.22	- 3 10.6	1.918	2.908	2.8	21.1
4 1	12 29.06	-15 3.8	2.331	3.317	3.3	20.5	4 1	12 28.75	- 2 24.4	1.895	2.892	1.4	21.0
4 11	12 21.91	-14 11.6	2.347	3.325	4.5	20.6	4 11	12 20.42	- 1 39.5	1.900	2.877	5.5	21.2
4 21	12 15.68	-13 16.2	2.392	3.333	7.2	20.7	4 21	12 13.08	- 1 1.1	1.933	2.861	9.4	21.4
5 1	12 10.90	-12 22.8	2.463	3.341	9.9	20.9	5 1	12 7.44	- 0 33.6	1.989	2.845	12.8	21.6
209637	2005 <i>BU</i> ₄		3 29.0 24°96	0°3/29.2 18			229567	2006 <i>AR</i> ₃₃		3 29.0 208°62	5°5/22.4 17 R		
2 21	12 55.65	- 5 37.2	1.231	2.064	19.2	19.9	2 21	12 56.92	+12 23.9	2.397	3.219	11.3	21.0
3 2	12 52.48	- 5 31.9	1.165	2.070	15.0	19.6	3 2	12 52.06	+13 31.5	2.317	3.213	8.9	20.9
3 12	12 46.28	- 5 8.9	1.119	2.078	9.9	19.4	3 12	12 45.36	+14 39.1	2.263	3.206	6.6	20.7
3 22	12 37.85	- 4 32.2	1.096	2.086	4.3	19.1	3 22	12 37.34	+15 40.1	2.236	3.199	5.5	20.6
4 1	12 28.46	- 3 48.5	1.096	2.095	1.7	18.9	4 1	12 28.73	+16 28.3	2.239	3.190	6.5	20.7
4 11	12 19.65	- 3 6.7	1.122	2.104	7.3	19.3	4 11	12 20.37	+16 59.0	2.269	3.182	8.8	20.8
4 21	12 12.68	- 2 34.4	1.170	2.115	12.5	19.6	4 21	12 13.01	+17 9.9	2.324	3.172	11.4	20.9
5 1	12 8.44	- 2 16.9	1.239	2.126	17.0	19.9	5 1	12 7.26	+17 0.9	2.401	3.162	13.8	21.1
241140	2007 <i>QA</i> ₁₇		3 29.0 237°94	0°4/28.7 17			291244	2006 <i>BZ</i> ₄₄		3 29.0 202°85	2°9/25.6 18		
2 21	12 57.28	- 5 44.1	1.776	2.581	15.4	21.7	2 21	12 52.91	+ 1 19.7	2.129	2.951	12.6	20.9
3 2	12 53.11	- 5 9.0	1.678	2.569	12.0	21.4	3 2	12 49.19	+ 2 30.5	2.046	2.949	9.5	20.7
3 12	12 46.46	- 4 17.7	1.602	2.555	7.9	21.1	3 12	12 43.58	+ 3 50.5	1.988	2.947	6.2	20.5
3 22	12 37.92	- 3 13.9	1.552	2.541	3.3	20.8	3 22	12 36.61	+ 5 13.7	1.957	2.944	3.3	20.3
4 1	12 28.39	- 2 3.9	1.529	2.527	1.7	20.6	4 1	12 29.04	+ 6 32.9	1.956	2.942	3.9	20.4
4 11	12 19.04	- 0 55.7	1.535	2.512	6.5	20.9	4 11	12 21.73	+ 7 41.2	1.983	2.939	7.1	20.6
4 21	12 10.93	+ 0 3.3	1.567	2.496	11.1	21.2	4 21	12 15.45	+ 8 33.6	2.036	2.935	10.5	20.7
5 1	12 4.92	+ 0 47.2	1.622	2.480	15.1	21.4	5 1	12 10.81	+ 9 7.1	2.112	2.932	13.5	20.9
32350	2000 <i>QP</i> ₁₁₅		3 29.0 224°55	3°5/ 1.9 18			211805	2004 <i>DK</i> ₁₉		3 29.0 233°83	3°9/24.3 17		
2 21	12 54.58	-16 0.3	2.485	3.232	13.1	19.2	2 21	12 51.99	+ 5 18.3	2.263	3.092	11.7	20.7
3 2	12 50.33	-16 14.0	2.385	3.228	10.8	19.0	3 2	12 48.37	+ 6 29.8	2.183	3.088	8.9	20.5
3 12	12 44.27	-16 12.7	2.307	3.224	8.0	18.8	3 12	12 42.99	+ 7 46.8	2.128	3.085	6.0	20.4
3 22	12 36.89	-15 56.3	2.255	3.221	5.2	18.6	3 22	12 36.36	+ 9 3.3	2.101	3.082	4.0	20.2
4 1	12 28.85	-15 26.5	2.231	3.217	3.5	18.5	4 1	12 29.16	+10 12.3	2.102	3.078	4.8	20.3
4 11	12 20.98	-14 47.2	2.236	3.213	4.8	18.6	4 11	12 22.21	+11 8.1	2.132	3.074	7.6	20.4
4 21	12 14.02	-14 3.1	2.269	3.208	7.6	18.8	4 21	12 16.21	+11 46.7	2.187	3.071	10.6	20.6
5 1	12 8.57	-13 19.5	2.327	3.204	10.4	18.9	5 1	12 11.76	+12 6.2	2.265	3.067	13.3	20.8
415300	2013 <i>GD</i> ₈₁		3 29.0 313°81	1°9/27.6 17			150536	2000 <i>SG</i> ₇₇		3 29.0 308°83	0°1/29.0 18		
2 21	12 53.68	- 2 6.4	1.319	2.159	17.8	21.2	2 21	12 49.59	- 8 41.8	1.580	2.397	16.4	19.5
3 2	12 51.09	- 1 32.3	1.231	2.143	13.8	20.9	3 2	12 47.56	- 7 43.7	1.475	2.372	12.9	19.2
3 12	12 45.55	- 0 41.9	1.163	2.126	9.0	20.6	3 12	12 43.06	- 6 21.0	1.391	2.346	8.7	18.9
3 22	12 37.65	+ 0 19.4	1.119	2.110	3.8	20.2	3 22	12 36.59	- 4 37.6	1.331	2.321	3.7	18.5
4 1	12 28.50	+ 1 23.0	1.099	2.094	3.2	20.1	4 1	12 29.03	- 2 41.5	1.298	2.297	1.6	18.3
4 11	12 19.56	+ 2 18.8	1.104	2.079	8.6	20.4	4 11	12 21.56	- 0 44.1	1.292	2.272	7.0	18.6
4 21	12 12.19	+ 2 58.4	1.131	2.065	14.0	20.6	4 21	12 15.30	+ 1 3.0	1.311	2.248	12.1	18.8
5 1	12 7.43	+ 3 16.5	1.178	2.051	18.6	20.9	5 1	12 11.18	+ 2 30.4	1.352	2.225	16.7	19.0
108540	2001 <i>LQ</i> ₈		3 29.0 179°63	1°6/31.0 16			429112	2009 <i>SE</i> ₁₉₂		3 29.0 182°20	1°1/30.2 17		
2 21	12 56.49	-11 43.8	2.634	3.394	12.1	21.3	2 21	12 56.44	- 9 16.4	2.331	3.109	13.0	22.7
3 2	12 51.57	-11 22.9	2.537	3.397	9.6	21.1	3 2	12 51.76	- 8 58.0	2.237	3.109	10.2	22.5
3 12	12 44.96	-10 48.2	2.464	3.398	6.7	20.9	3 12	12 45.21	- 8 26.1	2.168	3.110	7.0	22.3
3 22	12 37.14	-10 1.5	2.418	3.399	3.6	20.7	3 22	12 37.30	- 7 42.7	2.125	3.110	3.4	22.0
4 1	12 28.77	- 9 6.1	2.402	3.398	1.7	20.6	4 1	12 28.78	- 6 51.9	2.111	3.109	1.3	21.9
4 11	12 20.62	- 8 6.7	2.417	3.397	4.2	20.7	4 11	12 20.48	- 5 58.7	2.127	3.107	4.7	22.1
4 21	12 13.35	- 7 8.5	2.461	3.395	7.4	20.9	4 21	12 13.18	- 5 8.6	2.172	3.105	8.2	22.3
5 1	12 7.54	- 6 16.2	2.532	3.392	10.3	21.1	5 1	12 7.50	- 4 26.1	2.242	3.102	11.4	22.5
24662	<i>Gryll</i>		3 29.0 327°70	1°4/28.1 18			331969	2004 <i>XS</i> ₁₁₈		3 29.0 209°80	3°7/ 2.		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
352000	2006 <i>UL</i> ₂₁₀		3 29.0 138°39'	3°1/2.0	17		470125	2006 <i>UW</i> ₁₅		3 29.0 227°23'	4°1/23.1	16	
2 21	12 52.66	-16 34.4	2.614	3.359	12.6	21.0	2 21	12 55.42	+11 29.8	3.118	3.931	9.2	22.5
3 2	12 48.71	-16 28.7	2.522	3.364	10.3	20.8	3 2	12 50.54	+12 18.1	3.025	3.917	7.2	22.3
3 12	12 43.13	-16 7.2	2.452	3.369	7.6	20.6	3 12	12 44.22	+13 6.4	2.959	3.903	5.2	22.1
3 22	12 36.41	-15 30.7	2.408	3.374	4.9	20.5	3 22	12 36.87	+13 50.3	2.922	3.888	4.1	22.1
4 1	12 29.17	-14 41.8	2.392	3.379	3.1	20.4	4 1	12 29.04	+14 25.5	2.914	3.872	4.9	22.1
4 11	12 22.15	-13 44.9	2.405	3.383	4.4	20.4	4 11	12 21.35	+14 48.5	2.936	3.855	6.8	22.2
4 21	12 16.01	-12 45.0	2.447	3.388	7.0	20.6	4 21	12 14.38	+14 57.3	2.986	3.838	9.0	22.3
5 1	12 11.27	-11 47.5	2.515	3.392	9.7	20.8	5 1	12 8.62	+14 51.4	3.058	3.821	11.1	22.4
327387	2005 <i>UG</i> ₄₁₂		3 29.0 176°81'	4°1/2.9	17		281972	2011 <i>GF</i> ₇₀		3 29.0 56°99'	1°9/31.0	17	
2 21	12 54.31	-19 44.1	2.218	2.953	14.8	20.7	2 21	12 52.38	-12 24.7	1.826	2.614	15.7	20.4
3 2	12 50.33	-19 26.9	2.122	2.955	12.3	20.5	3 2	12 49.08	-11 52.2	1.748	2.623	12.4	20.1
3 12	12 44.37	-18 48.1	2.047	2.956	9.3	20.3	3 12	12 43.65	-10 59.6	1.691	2.633	8.6	19.9
3 22	12 36.98	-17 48.2	1.996	2.957	6.2	20.1	3 22	12 36.70	-9 49.8	1.660	2.643	4.5	19.7
4 1	12 28.93	-16 30.2	1.974	2.958	4.2	20.0	4 1	12 29.11	-8 28.6	1.656	2.652	1.9	19.5
4 11	12 21.14	-15 0.3	1.980	2.957	5.2	20.1	4 11	12 21.90	-7 3.9	1.679	2.662	5.3	19.8
4 21	12 14.41	-13 26.0	2.014	2.957	8.2	20.2	4 21	12 15.92	-5 43.9	1.730	2.673	9.3	20.0
5 1	12 9.41	-11 55.3	2.075	2.956	11.3	20.4	5 1	12 11.84	-4 35.3	1.804	2.683	12.9	20.3
433014	2012 <i>RO</i> ₂₁		3 29.0 257°90'	1°6/30.7	17		313013	1999 <i>VB</i> ₁₃₉		3 29.0 43°06'	1°5/27.9	18	
2 21	12 54.86	-10 14.9	2.256	3.035	13.4	21.6	2 21	12 54.99	-3 10.3	1.385	2.217	17.5	20.7
3 2	12 50.78	-10 4.2	2.148	3.019	10.6	21.3	3 2	12 51.61	-2 30.8	1.321	2.228	13.4	20.4
3 12	12 44.73	-9 38.9	2.062	3.002	7.4	21.1	3 12	12 45.54	-1 35.9	1.278	2.238	8.6	20.2
3 22	12 37.17	-9 0.6	2.002	2.985	3.8	20.8	3 22	12 37.54	-0 31.9	1.258	2.249	3.5	19.9
4 1	12 28.83	-8 12.5	1.970	2.967	1.7	20.6	4 1	12 28.77	+0 32.8	1.265	2.261	2.7	19.9
4 11	12 20.58	-7 19.9	1.968	2.949	4.9	20.8	4 11	12 20.56	+1 29.0	1.297	2.273	7.6	20.2
4 21	12 13.26	-6 28.4	1.994	2.931	8.6	21.0	4 21	12 13.99	+2 10.0	1.353	2.285	12.3	20.5
5 1	12 7.58	-5 43.4	2.044	2.912	12.0	21.2	5 1	12 9.84	+2 31.8	1.430	2.298	16.3	20.8
47129	1999 <i>CR</i> ₁₁₈		3 29.0 114°90'	0°3/28.7	18		248509	2005 <i>UT</i> ₅₁₄		3 29.1 280°85'	1°3/27.4	16	
2 21	12 56.87	-3 30.1	2.317	3.114	12.5	19.0	2 21	12 51.25	-2 58.5	2.431	3.239	11.7	21.6
3 2	12 51.98	-3 20.5	2.237	3.124	9.6	18.9	3 2	12 47.86	-2 4.4	2.321	3.216	9.0	21.4
3 12	12 45.28	-3 2.2	2.181	3.133	6.2	18.7	3 12	12 42.75	-0 58.7	2.236	3.192	5.8	21.1
3 22	12 37.32	-2 38.0	2.152	3.142	2.6	18.4	3 22	12 36.33	+0 14.9	2.178	3.168	2.4	20.9
4 1	12 28.83	-2 11.6	2.153	3.151	1.3	18.3	4 1	12 29.25	+1 30.7	2.150	3.144	2.2	20.8
4 11	12 20.64	-1 47.3	2.183	3.159	5.0	18.6	4 11	12 22.25	+2 42.5	2.151	3.120	5.7	21.0
4 21	12 13.50	-1 28.8	2.242	3.168	8.4	18.8	4 21	12 16.05	+3 44.7	2.180	3.096	9.1	21.2
5 1	12 7.97	-1 19.0	2.325	3.176	11.4	19.0	5 1	12 11.26	+4 33.1	2.234	3.072	12.3	21.3
146951	2002 <i>EP</i> ₆₉		3 29.0 57°42'	0°8/29.9	17		108120	2001 <i>GT</i> ₄		3 29.1 85°27'	7°5/23.7	18	
2 21	12 52.64	-8 0.5	2.270	3.062	12.9	20.4	2 21	13 6.79	+14 55.6	1.639	2.463	15.6	18.1
3 2	12 48.80	-7 42.2	2.193	3.074	10.0	20.2	3 2	12 59.92	+15 46.6	1.596	2.490	12.3	17.9
3 12	12 43.23	-7 11.3	2.140	3.087	6.7	20.0	3 12	12 50.50	+16 31.7	1.577	2.518	9.2	17.8
3 22	12 36.46	-6 30.8	2.113	3.099	3.1	19.8	3 22	12 39.46	+17 2.6	1.584	2.545	7.5	17.8
4 1	12 29.19	-5 44.5	2.114	3.112	1.1	19.7	4 1	12 28.04	+17 12.6	1.618	2.572	8.4	17.9
4 11	12 22.24	-4 57.7	2.144	3.125	4.6	19.9	4 11	12 17.52	+16 58.7	1.678	2.598	10.9	18.1
4 21	12 16.28	-4 15.2	2.202	3.138	8.0	20.2	4 21	12 8.88	+16 21.9	1.762	2.623	13.8	18.3
5 1	12 11.87	-3 41.1	2.285	3.151	11.0	20.4	5 1	12 2.72	+15 25.3	1.867	2.648	16.5	18.6
278741	2008 <i>SM</i> ₉₄		3 29.0 95°38'	0°5/29.5	17		189792	2002 <i>EG</i> ₁₄₁		3 29.1 167°77'	3°5/24.9	17	
2 21	12 54.06	-7 35.3	1.990	2.788	14.2	21.1	2 21	12 53.04	+2 22.8	2.094	2.919	12.7	20.5
3 2	12 50.17	-7 6.4	1.910	2.795	11.1	20.9	3 2	12 49.30	+3 47.4	2.016	2.921	9.6	20.3
3 12	12 44.27	-6 22.9	1.853	2.803	7.3	20.7	3 12	12 43.67	+5 20.8	1.964	2.923	6.3	20.1
3 22	12 36.94	-5 28.2	1.821	2.810	3.2	20.5	3 22	12 36.69	+6 56.2	1.940	2.925	3.7	19.9
4 1	12 28.99	-4 27.4	1.818	2.817	1.2	20.3	4 1	12 29.13	+8 25.5	1.945	2.926	4.5	20.0
4 11	12 21.38	-3 27.3	1.844	2.824	5.3	20.6	4 11	12 21.87	+9 41.5	1.978	2.927	7.7	20.2
4 21	12 14.91	-2 33.8	1.896	2.830	9.2	20.9	4 21	12 15.66	+10 39.2	2.037	2.928	10.9	20.4
5 1	12 10.23	-1 51.7	1.972	2.837	12.6	21.1	5 1	12 11.12	+11 16.0	2.119	2.929	13.8	20.6
26375	1999 <i>DE</i> ₉		3 29.0 29°83'	0°1/31.5	17		25526	1999 <i>XV</i> ₁₁₅		3 29.1 48°11'	2°0/30.5	18	
2 21	12 34.05	-9 57.2	38.939	39.695	0.9	21.0	2 21	12 57.79	-9 10.3	1.486	2.291	17.9	18.9
3 2	12 33.41	-9 54.3	38.848	39.705	0.7	21.0	3 2	12 53.76	-9 18.9	1.412	2.298	14.1	18.7
3 12	12 32.69	-9 50.7	38.783	39.715	0.5	20.9	3 12	12 46.99	-9 9.6	1.358	2.305	9.7	18.4
3 22	12 31.91	-9 46.5	38.747	39.725	0.3	20.9	3 22	12 38.19	-8 44.3	1.328	2.313	4.9	18.2
4 1	12 31.12	-9 41.9	38.740	39.734	0.1	20.9	4 1	12 28.50	-8 7.5	1.324	2.321	2.1	18.0
4 11	12 30.34	-9 37.0	38.764	39.744	0.3	20.9	4 11	12 19.27	-7 26.1	1.346	2.329	6.3	18.3
4 21	12 29.59	-9 32.0	38.816	39.754	0.5	20.9	4 21	12 11.64	-6 47.4	1.393	2.337	10.9	18.5
5 1	12 28.91	-9 27.2	38.896	39.764	0.7	21.0	5 1	12 6.46	-6 17.8	1.462	2.345	15.0	18.8
274481	2008 <i>SH</i> ₁₀₁		3 29.0 236°44'	2°7/26.2	17		206912	2004 <i>PK</i> ₁₇		3 29.1 224°69'	1°6/30.4	17	
2 21	12 55.68	+2 24.0	2.242	3.058	12.2	21.5	2 21	12 59.18	-9 36.1	1.799	2.587	15.9	21.4
3 2	12 51.29	+3 6.6	2.149	3.048	9.3	21.3	3 2	12 54.60	-9 27.4	1.701	2.578	12.7	21.2
3 12	12 44.98	+3 56.0	2.080	3.037	6.1	21.1	3 12	12 47.49	-9 1.6	1.624	2.568	8.7	20.9
3 22	12 37.26	+4 47.6	2.038	3.026	3.1	20.9	3 22	12 38.44	-8 20.3	1.572	2.557	4.4	20.6
4 1	12 28.86	+5 35.7	2.026	3.014	3.5	20.9	4 1	12 28.37	-7 27.8	1.548	2.546	1.8	20.4
4 11	12 20.65	+6 14.8	2.042	3.002	6.7	21.0	4 11	12 18.48	-6 30.8	1.553	2.534	5.9	20.6
4 21	12 13.42	+6 40.9	2.086	2.989	10.1	21.2	4 21	12 9.86	-5 36.4	1.583	2.521	10.4	20.9
5 1	12 7.83	+6 51.5	2.152	2.976	13.2	21.4	5 1	12 3.40	-4 51.3	1.638	2.508	14.4	21.1
336656	2009 <i>XW</i> ₁₈		3 29.0 189°47'	2°8/25.8	18		388271	2006 <i>RD</i> ₁₇					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
388840	2008 <i>EF</i> ₁₉		3 29.1 104°72	1°1/30.2 17			134298	2006 <i>DX</i> ₆₈		3 29.1 346°53	6°9/22.5 18		
2 21	12 55.59	- 8 7.8	2.496	3.276	12.2	21.2	2 21	12 56.20	+13 2.6	1.790	2.629	13.9	19.6
3 2	12 50.92	- 8 6.0	2.414	3.287	9.5	21.0	3 2	12 52.08	+14 8.6	1.723	2.627	11.0	19.4
3 12	12 44.56	- 7 53.4	2.356	3.298	6.5	20.8	3 12	12 45.67	+15 13.2	1.678	2.625	8.3	19.2
3 22	12 37.03	- 7 31.8	2.325	3.309	3.1	20.6	3 22	12 37.61	+16 8.4	1.659	2.623	6.9	19.1
4 1	12 29.01	- 7 4.2	2.323	3.320	1.2	20.5	4 1	12 28.86	+16 46.1	1.667	2.622	8.0	19.2
4 11	12 21.27	- 6 34.6	2.351	3.331	4.3	20.8	4 11	12 20.52	+17 1.0	1.700	2.621	10.7	19.3
4 21	12 14.48	- 6 7.0	2.407	3.342	7.5	21.0	4 21	12 13.53	+16 51.5	1.756	2.620	13.7	19.5
5 1	12 9.18	- 5 45.0	2.489	3.352	10.3	21.2	5 1	12 8.59	+16 18.6	1.832	2.619	16.5	19.7
118132	3505 <i>T</i> ₋₃		3 29.1 116°59	0°3/28.8 18			68168	2001 <i>BN</i> ₃₀		3 29.1 106°31	2°9/26.1 18		
2 21	12 59.75	- 5 5.9	1.861	2.661	15.0	20.6	2 21	12 58.20	+ 0 15.6	1.827	2.645	14.5	19.4
3 2	12 54.54	- 4 37.6	1.792	2.679	11.5	20.4	3 2	12 53.30	+ 1 33.5	1.770	2.670	10.9	19.3
3 12	12 47.10	- 3 56.3	1.745	2.697	7.5	20.2	3 12	12 46.25	+ 3 1.1	1.736	2.694	7.0	19.1
3 22	12 38.13	- 3 6.3	1.725	2.715	3.1	20.0	3 22	12 37.78	+ 4 31.0	1.730	2.717	3.5	18.9
4 1	12 28.58	- 2 13.1	1.734	2.732	1.5	19.9	4 1	12 28.82	+ 5 54.8	1.752	2.740	4.0	19.0
4 11	12 19.51	- 1 23.4	1.772	2.748	5.9	20.2	4 11	12 20.41	+ 7 5.0	1.804	2.762	7.5	19.2
4 21	12 11.83	- 0 42.6	1.836	2.763	9.9	20.5	4 21	12 13.39	+ 7 56.5	1.881	2.783	11.1	19.5
5 1	12 6.18	- 0 14.7	1.924	2.778	13.3	20.7	5 1	12 8.35	+ 8 27.4	1.981	2.803	14.2	19.7
161226	2002 <i>XC</i> ₆₃		3 29.1 86°47	3°7/25.7 18			473057	2015 <i>HU</i> ₈₈		3 29.1 230°43	2°1/31.9 18		
2 21	12 57.14	+ 3 13.4	1.711	2.541	14.8	19.8	2 21	12 51.44	-14 37.3	2.731	3.486	11.9	21.9
3 2	12 52.68	+ 4 13.1	1.652	2.558	11.2	19.6	3 2	12 47.79	-14 5.8	2.624	3.477	9.6	21.7
3 12	12 45.94	+ 5 19.8	1.616	2.575	7.3	19.4	3 12	12 42.60	-13 18.3	2.540	3.468	6.9	21.5
3 22	12 37.65	+ 6 26.4	1.606	2.592	4.1	19.3	3 22	12 36.27	-12 16.5	2.482	3.458	4.0	21.3
4 1	12 28.80	+ 7 24.9	1.624	2.609	4.7	19.3	4 1	12 29.41	-11 3.8	2.454	3.448	2.1	21.2
4 11	12 20.49	+ 8 8.7	1.669	2.625	8.2	19.6	4 11	12 22.70	- 9 45.2	2.457	3.438	4.0	21.3
4 21	12 13.62	+ 8 33.8	1.738	2.641	11.8	19.8	4 21	12 16.76	- 8 26.4	2.488	3.427	7.0	21.5
5 1	12 8.82	+ 8 39.1	1.830	2.657	15.0	20.1	5 1	12 12.12	- 7 12.8	2.546	3.416	9.9	21.6
420	Bertholda		3 29.1 68°13	2°2/31.9 18			88761	2001 <i>SZ</i> ₆₅		3 29.1 246°47	4°3/25.2 18		
2 21	12 51.19	-13 26.7	2.607	3.371	12.2	13.9	2 21	12 58.40	+ 6 28.0	1.939	2.765	13.5	19.9
3 2	12 47.60	-13 13.5	2.515	3.373	9.8	13.7	3 2	12 53.71	+ 7 12.2	1.852	2.754	10.4	19.7
3 12	12 42.44	-12 46.0	2.445	3.376	7.0	13.5	3 12	12 46.75	+ 8 0.8	1.787	2.743	7.1	19.5
3 22	12 36.17	-12 5.6	2.402	3.378	4.0	13.3	3 22	12 38.10	+ 8 47.5	1.750	2.731	4.5	19.3
4 1	12 29.40	-11 15.4	2.388	3.381	2.2	13.2	4 1	12 28.65	+ 9 25.7	1.740	2.719	5.2	19.3
4 11	12 22.83	-10 19.9	2.402	3.384	4.1	13.3	4 11	12 19.44	+ 9 49.5	1.758	2.707	8.4	19.5
4 21	12 17.10	- 9 24.0	2.445	3.386	7.0	13.5	4 21	12 11.43	+ 9 55.5	1.802	2.695	12.0	19.7
5 1	12 12.73	- 8 32.5	2.514	3.389	9.8	13.7	5 1	12 5.38	+ 9 42.5	1.867	2.682	15.2	19.8
153858	2001 <i>XE</i> ₆₄		3 29.1 126°61	0°9/28.0 18			461427	2001 <i>UW</i> ₂₂₅		3 29.1 90°92	4°0/25.6 18		
2 21	12 56.50	- 3 28.5	2.227	3.028	12.8	20.6	2 21	12 59.58	+ 5 41.7	1.799	2.625	14.4	21.6
3 2	12 51.73	- 2 46.7	2.154	3.044	9.8	20.4	3 2	12 54.46	+ 6 22.6	1.737	2.640	10.9	21.4
3 12	12 45.13	- 1 54.4	2.105	3.059	6.3	20.2	3 12	12 47.07	+ 7 7.1	1.699	2.656	7.3	21.2
3 22	12 37.28	- 0 56.0	2.084	3.074	2.6	20.0	3 22	12 38.15	+ 7 49.1	1.688	2.671	4.3	21.1
4 1	12 28.95	+ 0 3.1	2.092	3.088	1.8	20.0	4 1	12 28.68	+ 8 22.0	1.704	2.686	4.9	21.1
4 11	12 20.99	+ 0 57.2	2.130	3.102	5.5	20.2	4 11	12 19.74	+ 8 40.6	1.748	2.701	8.1	21.3
4 21	12 14.12	+ 1 41.6	2.195	3.115	8.9	20.5	4 21	12 12.24	+ 8 42.4	1.817	2.716	11.6	21.6
5 1	12 8.90	+ 2 13.1	2.285	3.127	11.9	20.7	5 1	12 6.81	+ 8 26.8	1.908	2.731	14.7	21.8
190247	2007 <i>EG</i> ₁₇₃		3 29.1 321°58	0°6/29.7 17			435977	2009 <i>DB</i> ₉₃		3 29.1 232°04	2°3/26.4 17		
2 21	12 53.62	- 8 8.3	1.824	2.627	15.2	20.3	2 21	12 53.72	+ 2 11.4	2.548	3.362	11.0	21.6
3 2	12 50.13	- 7 39.8	1.738	2.625	11.9	20.1	3 2	12 49.55	+ 2 49.3	2.457	3.355	8.4	21.4
3 12	12 44.42	- 6 54.5	1.674	2.624	7.9	19.9	3 12	12 43.74	+ 3 33.0	2.391	3.348	5.4	21.2
3 22	12 37.09	- 5 55.9	1.635	2.623	3.6	19.6	3 22	12 36.75	+ 4 18.5	2.353	3.341	2.7	21.0
4 1	12 29.01	- 4 49.5	1.623	2.621	1.2	19.4	4 1	12 29.23	+ 5 1.1	2.344	3.333	3.0	21.0
4 11	12 21.21	- 3 42.7	1.639	2.620	5.7	19.7	4 11	12 21.89	+ 5 36.2	2.365	3.325	5.9	21.1
4 21	12 14.62	- 2 42.6	1.682	2.619	9.9	20.0	4 21	12 15.40	+ 6 0.3	2.413	3.317	8.9	21.3
5 1	12 9.96	- 1 55.0	1.748	2.618	13.6	20.2	5 1	12 10.31	+ 6 11.4	2.485	3.309	11.6	21.5
56883	2000 <i>QH</i> ₁₂₅		3 29.1 245°63	4°1/ 2.7 18			52323	1992 <i>DP</i> ₉		3 29.1 127°03	0°8/30.2 18		
2 21	12 54.01	-18 17.2	2.490	3.225	13.4	19.6	2 21	12 53.80	- 8 56.7	2.860	3.633	11.0	19.9
3 2	12 49.98	-18 30.7	2.386	3.219	11.1	19.4	3 2	12 49.33	- 8 34.1	2.779	3.649	8.6	19.7
3 12	12 44.13	-18 27.7	2.304	3.212	8.5	19.2	3 12	12 43.44	- 8 0.6	2.722	3.664	5.8	19.6
3 22	12 36.94	-18 7.9	2.247	3.205	5.8	19.0	3 22	12 36.58	- 7 18.6	2.693	3.678	2.7	19.4
4 1	12 29.07	-17 32.8	2.217	3.197	4.2	18.9	4 1	12 29.33	- 6 31.4	2.694	3.692	1.0	19.2
4 11	12 21.33	-16 46.1	2.216	3.190	5.1	19.0	4 11	12 22.33	- 5 43.3	2.726	3.705	3.8	19.5
4 21	12 14.49	-15 53.0	2.243	3.183	7.6	19.1	4 21	12 16.16	- 4 58.1	2.787	3.719	6.7	19.7
5 1	12 9.16	-14 59.1	2.295	3.175	10.4	19.3	5 1	12 11.25	- 4 19.4	2.874	3.731	9.3	19.9
351927	2006 <i>SO</i> ₄₁₁		3 29.1 217°66	5°2/ 4.2 16			164564	2006 <i>KY</i> ₅₂		3 29.1 166°75	2°0/26.7 17		
2 21	12 56.67	-22 45.3	2.878	3.572	12.6	22.1	2 21	12 53.83	+ 0 6.0	2.296	3.110	12.1	20.9
3 2	12 51.85	-23 16.3	2.768	3.564	10.8	21.9	3 2	12 49.76	+ 0 53.7	2.214	3.112	9.2	20.7
3 12	12 45.29	-23 31.7	2.678	3.556	8.7	21.8	3 12	12 43.92	+ 1 49.7	2.157	3.114	5.9	20.5
3 22	12 37.42	-23 30.1	2.614	3.547	6.6	21.6	3 22	12 36.84	+ 2 49.1	2.127	3.116	2.7	20.3
4 1	12 28.86	-23 11.9	2.578	3.538	5.3	21.5	4 1	12 29.21	+ 3 46.6	2.126	3.117	2.8	20.3
4 11	12 20.39	-22 39.3	2.570	3.529	5.6	21.5	4 11	12 21.85	+ 4 36.4	2.155	3.119	6.1	20.5
4 21	12 12.71	-21 56.3	2.591	3.519	7.3	21.6	4 21	12 15.47	+ 5 14.3	2.210	3.120	9.3	20.7
5 1	12 6.44	-21 8.2	2.638	3.508	9.6	21.8	5 1	12 10.63	+ 5 37.7	2.289	3.120	12.2	20.9
127043	2002 <i>GW</i> ₃₉		3 29.1 257°97	2°8/31.6 18			420783	2013 <i>GM</i> ₈₇		3 29.1 308°94	5°1/24.8 16	</	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
275354	2011 <i>AL</i> ₂₈		3 29.1 64°29'	3°4/31.9	18		293312	2007 <i>DU</i> ₄₂		3 29.1 18°81'	8°8/5.7	17	
2 21	12 58.92	-13 22.5	1.638	2.418	17.6	20.9	2 21	12 54.76	-24 30.1	1.519	2.259	20.4	19.9
3 2	12 54.24	-13 34.6	1.576	2.443	14.1	20.7	3 2	12 51.77	-25 29.1	1.441	2.263	17.6	19.7
3 12	12 47.08	-13 26.7	1.533	2.467	10.0	20.5	3 12	12 45.94	-26 0.3	1.380	2.268	14.5	19.5
3 22	12 38.19	-13 0.2	1.515	2.492	5.9	20.3	3 22	12 37.91	-26 0.0	1.338	2.274	11.3	19.3
4 1	12 28.68	-12 18.7	1.523	2.516	3.4	20.2	4 1	12 28.81	-25 27.5	1.320	2.280	9.1	19.2
4 11	12 19.74	-11 29.2	1.559	2.540	5.8	20.4	4 11	12 20.04	-24 27.7	1.325	2.287	9.2	19.2
4 21	12 12.37	-10 38.8	1.620	2.565	9.7	20.7	4 21	12 12.88	-23 9.7	1.354	2.295	11.4	19.4
5 1	12 7.28	-9 54.5	1.705	2.589	13.2	21.0	5 1	12 8.26	-21 44.9	1.405	2.304	14.5	19.6
386303	2008 <i>SF</i> ₂₉		3 29.1 219°55'	1°2/30.2	17		204375	2004 <i>TY</i> ₉₄		3 29.1 347°18'	0°8/28.6	18	
2 21	12 58.46	-7 44.1	2.240	3.022	13.4	21.1	2 21	12 57.64	-3 16.0	1.324	2.155	18.3	19.5
3 2	12 53.50	-7 50.1	2.142	3.016	10.5	20.9	3 2	12 54.06	-3 6.4	1.247	2.152	14.2	19.2
3 12	12 46.50	-7 44.6	2.067	3.010	7.2	20.7	3 12	12 47.46	-2 42.3	1.190	2.149	9.3	19.0
3 22	12 37.99	-7 29.1	2.018	3.003	3.5	20.4	3 22	12 38.56	-2 7.9	1.156	2.147	3.9	18.6
4 1	12 28.73	-7 6.6	1.999	2.997	1.4	20.3	4 1	12 28.55	-1 29.8	1.148	2.146	2.1	18.5
4 11	12 19.65	-6 41.2	2.010	2.990	4.9	20.5	4 11	12 18.96	-0 56.1	1.165	2.144	7.7	18.8
4 21	12 11.59	-6 17.3	2.048	2.982	8.6	20.7	4 21	12 11.08	-0 33.5	1.205	2.143	12.9	19.1
5 1	12 5.25	-5 59.1	2.111	2.974	11.9	20.9	5 1	12 5.88	-0 26.7	1.266	2.143	17.3	19.4
406417	2007 <i>TP</i> ₁₆₀		3 29.1 188°81'	0°6/29.6	18		377362	2004 <i>RG</i> ₁₀₅		3 29.1 260°71'	2°6/31.9	18	
2 21	12 59.67	-7 20.7	2.199	2.981	13.6	22.0	2 21	12 53.75	-14 27.2	2.111	2.878	14.6	21.1
3 2	12 54.40	-7 2.0	2.104	2.980	10.6	21.8	3 2	12 50.17	-14 3.1	1.999	2.859	11.8	20.9
3 12	12 47.07	-6 30.3	2.033	2.979	7.1	21.5	3 12	12 44.50	-13 18.9	1.909	2.841	8.5	20.7
3 22	12 38.22	-5 48.1	1.989	2.976	3.2	21.3	3 22	12 37.22	-12 15.8	1.845	2.822	4.9	20.4
4 1	12 28.65	-4 59.6	1.975	2.973	1.1	21.1	4 1	12 29.09	-10 57.4	1.808	2.803	2.6	20.2
4 11	12 19.31	-4 10.2	1.990	2.969	5.1	21.4	4 11	12 21.06	-9 30.4	1.801	2.783	5.1	20.3
4 21	12 11.06	-3 25.5	2.034	2.964	8.9	21.6	4 21	12 14.02	-8 2.5	1.821	2.763	9.0	20.5
5 1	12 4.59	-2 49.9	2.103	2.958	12.3	21.8	5 1	12 8.72	-6 41.3	1.866	2.742	12.6	20.7
436730	2011 <i>UL</i> ₁₉₃		3 29.1 232°84'	2°8/1.9	17		464561	2016 <i>CC</i> ₄₇		3 29.1 119°44'	4°8/24.8	18	
2 21	12 51.70	-16 41.5	2.739	3.482	12.1	21.5	2 21	12 58.38	+5 29.8	1.635	2.468	15.2	21.4
3 2	12 48.03	-16 18.7	2.630	3.473	9.9	21.3	3 2	12 53.86	+6 37.6	1.571	2.478	11.6	21.2
3 12	12 42.78	-15 39.3	2.544	3.463	7.3	21.2	3 12	12 46.88	+7 51.2	1.530	2.488	7.8	21.0
3 22	12 36.38	-14 44.4	2.484	3.453	4.6	21.0	3 22	12 38.16	+9 2.6	1.515	2.497	5.0	20.8
4 1	12 29.43	-13 36.9	2.453	3.442	2.8	20.8	4 1	12 28.77	+10 2.9	1.527	2.506	5.9	20.9
4 11	12 22.61	-12 21.5	2.452	3.432	4.2	20.9	4 11	12 19.89	+10 44.9	1.566	2.515	9.3	21.1
4 21	12 16.58	-11 3.7	2.480	3.421	6.9	21.1	4 21	12 12.52	+11 5.1	1.629	2.523	13.0	21.3
5 1	12 11.87	-9 49.2	2.534	3.409	9.7	21.2	5 1	12 7.36	+11 2.6	1.713	2.531	16.2	21.6
174059	2002 <i>CJ</i> ₁₆₃		3 29.1 219°14'	6°0/20.5	18		366536	2002 <i>QV</i> ₇₇		3 29.1 229°42'	1°5/27.6	17	
2 21	12 52.28	+15 9.8	2.602	3.430	10.4	19.8	2 21	12 57.04	-2 17.2	2.074	2.881	13.4	22.8
3 2	12 48.44	+16 30.9	2.531	3.426	8.3	19.7	3 2	12 52.60	-1 32.8	1.975	2.869	10.3	22.5
3 12	12 43.01	+17 50.1	2.487	3.423	6.6	19.5	3 12	12 46.03	-0 36.6	1.900	2.856	6.7	22.3
3 22	12 36.45	+19 1.2	2.470	3.418	6.0	19.5	3 22	12 37.85	+0 27.0	1.852	2.842	2.8	22.0
4 1	12 29.41	+19 58.1	2.481	3.414	7.0	19.6	4 1	12 28.87	+1 32.0	1.833	2.828	2.4	21.9
4 11	12 22.59	+20 36.6	2.519	3.410	9.0	19.7	4 11	12 20.05	+2 31.6	1.843	2.813	6.4	22.2
4 21	12 16.65	+20 54.7	2.581	3.405	11.1	19.8	4 21	12 12.29	+3 19.9	1.880	2.797	10.3	22.4
5 1	12 12.09	+20 52.6	2.664	3.401	13.1	20.0	5 1	12 6.32	+3 53.0	1.941	2.781	13.8	22.6
236948	2007 <i>TP</i> ₃₈₅		3 29.1 249°25'	1°2/27.9	17		310186	2011 <i>SE</i> ₈₁		3 29.1 237°83'	1°4/30.5	17	
2 21	12 58.06	-0 32.8	2.261	3.066	12.5	20.9	2 21	12 55.50	-8 47.6	2.452	3.231	12.4	20.8
3 2	12 53.14	-0 24.6	2.165	3.057	9.6	20.7	3 2	12 51.06	-8 50.8	2.355	3.226	9.8	20.6
3 12	12 46.24	-0 9.6	2.094	3.048	6.3	20.5	3 12	12 44.84	-8 42.6	2.280	3.222	6.7	20.4
3 22	12 37.88	+0 9.3	2.049	3.039	2.6	20.3	3 22	12 37.30	-8 24.6	2.233	3.217	3.4	20.2
4 1	12 28.82	+0 28.1	2.034	3.030	2.0	20.2	4 1	12 29.14	-7 59.4	2.215	3.212	1.5	20.1
4 11	12 19.95	+0 42.6	2.049	3.021	5.6	20.4	4 11	12 21.15	-7 30.9	2.226	3.207	4.4	20.3
4 21	12 12.08	+0 49.4	2.091	3.011	9.2	20.6	4 21	12 14.05	-7 3.2	2.265	3.202	7.8	20.5
5 1	12 5.89	+0 46.2	2.157	3.001	12.4	20.8	5 1	12 8.47	-6 40.5	2.330	3.196	10.8	20.6
83591	2001 <i>SA</i> ₂₄₈		3 29.1 91°24'	1°6/27.3	17		54602	2000 <i>RB</i> ₁₅		3 29.1 323°02'	5°9/3.7	17	
2 21	12 53.81	-0 29.0	2.280	3.092	12.2	20.0	2 21	12 53.95	-20 35.7	2.056	2.792	15.8	18.8
3 2	12 49.72	+0 6.9	2.203	3.100	9.2	19.8	3 2	12 50.47	-21 12.2	1.954	2.782	13.4	18.6
3 12	12 43.88	+0 50.7	2.151	3.108	5.9	19.6	3 12	12 44.78	-21 29.1	1.872	2.772	10.6	18.3
3 22	12 36.83	+1 38.1	2.127	3.116	2.6	19.4	3 22	12 37.38	-21 24.8	1.813	2.762	7.8	18.2
4 1	12 29.28	+2 24.1	2.131	3.124	2.4	19.4	4 1	12 29.09	-20 59.6	1.780	2.752	6.0	18.0
4 11	12 22.03	+3 3.6	2.164	3.132	5.7	19.6	4 11	12 20.90	-20 16.9	1.774	2.743	6.6	18.0
4 21	12 15.78	+3 32.7	2.224	3.140	9.0	19.8	4 21	12 13.79	-19 22.7	1.793	2.734	9.2	18.2
5 1	12 11.08	+3 49.0	2.309	3.148	11.9	20.0	5 1	12 8.53	-18 24.4	1.837	2.726	12.2	18.3
41667	2000 <i>TE</i> ₁₉		3 29.1 99°59'	3°7/25.8	18		2934	Aristophanes		3 29.1 261°43'	0°9/30.2	18	
2 21	12 59.75	+2 49.4	1.640	2.467	15.5	19.2	2 21	12 51.17	-9 38.1	2.431	3.215	12.4	16.8
3 2	12 54.74	+3 53.1	1.584	2.489	11.7	19.0	3 2	12 47.76	-9 4.5	2.334	3.210	9.7	16.6
3 12	12 47.32	+5 4.4	1.551	2.510	7.6	18.8	3 12	12 42.67	-8 16.8	2.261	3.206	6.6	16.4
3 22	12 38.29	+6 15.6	1.545	2.531	4.2	18.6	3 22	12 36.38	-7 17.4	2.215	3.201	3.1	16.2
4 1	12 28.70	+7 18.3	1.566	2.551	4.8	18.7	4 1	12 29.54	-6 10.7	2.198	3.196	1.1	16.0
4 11	12 19.74	+8 5.4	1.614	2.571	8.4	19.0	4 11	12 22.87	-5 2.3	2.210	3.191	4.4	16.2
4 21	12 12.34	+8 32.9	1.688	2.590	12.1	19.2	4 21	12 17.07	-3 57.8	2.250	3.186	7.8	16.4
5 1	12 7.17	+8 39.7	1.783	2.609	15.4	19.5	5 1	12 12.70	-3 2.2	2.316	3.181	10.9	16.6
237604	2001 <i>PN</i> ₂₅		3 29.1 297°74'	1°6/27.7	16		119398	2001 <i>TV</i> ₄₆		3 29.1 107°27'	1°0/30.1	18	
2 21	12 56.68	-0 43.9	2.050	2.862									

EPHEMERIDES

3 29.1

3 29.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
497045	2003 SQ ₂₈₁	3 29.1 215°80		1°7/31.0 17			170895	2004 TL ₃₄₃	3 29.1 188°73		0°9/29.9 18		
2 21	12 55.38	-11 7.3	2.421	3.191	12.8	22.2	2 21	12 57.49	-8 56.1	1.772	2.566	15.9	21.0
3 2	12 51.03	-10 57.0	2.320	3.185	10.2	22.0	3 2	12 53.24	-8 27.3	1.684	2.566	12.5	20.7
3 12	12 44.86	-10 32.6	2.241	3.178	7.1	21.8	3 12	12 46.59	-7 40.4	1.618	2.565	8.4	20.5
3 22	12 37.33	-9 55.8	2.189	3.170	3.8	21.6	3 22	12 38.15	-6 38.6	1.577	2.564	3.9	20.2
4 1	12 29.15	-9 9.5	2.166	3.162	1.8	21.4	4 1	12 28.87	-5 27.6	1.564	2.562	1.3	20.0
4 11	12 21.13	-8 18.7	2.173	3.154	4.5	21.6	4 11	12 19.88	-4 15.2	1.579	2.559	5.9	20.3
4 21	12 14.01	-7 28.5	2.208	3.145	7.9	21.8	4 21	12 12.20	-3 9.3	1.620	2.556	10.3	20.5
5 1	12 8.43	-6 43.8	2.268	3.136	11.0	21.9	5 1	12 6.62	-2 16.1	1.685	2.553	14.2	20.8
52451	1994 VU	3 29.1 122°25		6°2/23.7 18			104546	2000 GS ₆₀	3 29.1 312°09		0°4/29.5 17		
2 21	13 1.09	+11 59.3	1.847	2.674	14.0	19.0	2 21	12 52.50	-7 27.5	1.529	2.347	16.8	20.0
3 2	12 55.66	+12 53.2	1.785	2.684	10.9	18.8	3 2	12 49.90	-7 1.7	1.434	2.330	13.3	19.7
3 12	12 47.92	+13 45.7	1.747	2.694	8.0	18.6	3 12	12 44.70	-6 16.4	1.359	2.314	8.9	19.4
3 22	12 38.59	+14 29.2	1.735	2.703	6.2	18.5	3 22	12 37.46	-5 14.9	1.308	2.298	4.0	19.1
4 1	12 28.68	+14 56.8	1.751	2.712	7.2	18.6	4 1	12 29.12	-4 3.5	1.283	2.282	1.4	18.8
4 11	12 19.30	+15 4.1	1.793	2.721	9.8	18.8	4 11	12 20.95	-2 51.1	1.284	2.266	6.7	19.1
4 21	12 11.36	+14 49.8	1.860	2.729	12.8	19.0	4 21	12 14.10	-1 46.7	1.310	2.251	11.7	19.4
5 1	12 5.54	+14 15.1	1.948	2.737	15.6	19.2	5 1	12 9.51	-0 57.7	1.357	2.237	16.2	19.6
86140	1999 RA ₁₈₃	3 29.1 205°19		2°4/31.4 18			254701	2005 MA ₄₂	3 29.1 294°73		1°4/30.6 17		
2 21	12 58.87	-11 0.2	2.578	3.337	12.4	18.4	2 21	12 51.54	-10 33.1	2.197	2.983	13.5	20.6
3 2	12 53.57	-11 28.6	2.479	3.336	9.9	18.2	3 2	12 48.30	-10 8.2	2.095	2.971	10.7	20.3
3 12	12 46.46	-11 46.4	2.405	3.335	7.1	18.0	3 12	12 43.19	-9 27.2	2.015	2.958	7.4	20.1
3 22	12 38.00	-11 53.7	2.357	3.333	4.1	17.8	3 22	12 36.68	-8 32.3	1.962	2.946	3.7	19.9
4 1	12 28.89	-11 51.8	2.340	3.332	2.4	17.7	4 1	12 29.47	-7 27.7	1.936	2.934	1.5	19.7
4 11	12 19.94	-11 43.6	2.352	3.330	4.4	17.9	4 11	12 22.41	-6 19.5	1.939	2.921	4.8	19.9
4 21	12 11.89	-11 32.4	2.393	3.329	7.4	18.0	4 21	12 16.28	-5 13.9	1.970	2.909	8.5	20.1
5 1	12 5.36	-11 22.1	2.460	3.327	10.3	18.2	5 1	12 11.74	-4 16.8	2.025	2.897	11.9	20.3
139478	2001 OP ₁₀₄	3 29.1 4°85		3°1/ 1.8 17			64351	2001 UU ₈₃	3 29.1 163°19		3°6/ 1.3 18		
2 21	12 48.68	-17 14.9	1.904	2.674	15.8	19.6	2 21	12 55.82	-15 32.1	1.558	2.338	18.3	19.1
3 2	12 46.34	-16 35.0	1.815	2.674	12.9	19.4	3 2	12 52.34	-15 19.8	1.473	2.340	14.9	18.8
3 12	12 41.97	-15 30.5	1.747	2.675	9.4	19.2	3 12	12 46.19	-14 42.2	1.408	2.341	10.8	18.6
3 22	12 36.15	-14 3.6	1.703	2.676	5.7	18.9	3 22	12 38.03	-13 40.3	1.366	2.342	6.5	18.3
4 1	12 29.66	-12 19.6	1.686	2.678	3.1	18.8	4 1	12 28.93	-12 18.9	1.350	2.343	3.6	18.1
4 11	12 23.46	-10 27.1	1.697	2.681	5.1	18.9	4 11	12 20.16	-10 46.8	1.361	2.344	6.2	18.3
4 21	12 18.38	-8 35.6	1.735	2.684	8.8	19.1	4 21	12 12.89	-9 14.5	1.397	2.344	10.6	18.5
5 1	12 15.07	-6 53.9	1.798	2.687	12.4	19.4	5 1	12 7.98	-7 51.7	1.456	2.345	14.8	18.8
501607	2014 QL ₃₈₂	3 29.1 234°39		0°3/28.8 17			419222	2009 UV ₁₅₂	3 29.1 49°10		4°1/25.6 16		
2 21	12 57.05	-6 18.7	1.818	2.620	15.2	22.5	2 21	12 57.72	+5 40.6	1.764	2.594	14.4	21.1
3 2	12 52.95	-5 36.9	1.719	2.608	11.9	22.3	3 2	12 53.26	+6 18.7	1.693	2.599	11.0	20.9
3 12	12 46.46	-4 38.1	1.642	2.595	7.8	22.0	3 12	12 46.48	+7 1.0	1.646	2.603	7.4	20.7
3 22	12 38.12	-3 26.2	1.592	2.581	3.3	21.7	3 22	12 38.05	+7 41.3	1.624	2.608	4.4	20.5
4 1	12 28.83	-2 7.5	1.569	2.567	1.6	21.5	4 1	12 28.95	+8 13.0	1.629	2.612	5.0	20.6
4 11	12 19.70	+0 50.4	1.575	2.552	6.4	21.8	4 11	12 20.27	+8 30.3	1.662	2.617	8.3	20.8
4 21	12 11.78	+0 17.2	1.607	2.536	10.9	22.0	4 21	12 12.96	+8 30.5	1.719	2.622	11.9	21.0
5 1	12 5.90	+1 9.4	1.663	2.520	14.9	22.2	5 1	12 7.72	+8 12.7	1.798	2.627	15.2	21.2
506729	2006 UN ₂₇₄	3 29.1 166°76		0°5/29.7 17			89902	2002 CA ₃₀₆	3 29.1 303°20		3°1/25.6 18		
2 21	12 51.97	-8 26.1	2.729	3.510	11.2	23.0	2 21	12 52.44	+3 48.3	2.296	3.120	11.7	19.5
3 2	12 48.12	-7 47.5	2.638	3.514	8.7	22.8	3 2	12 48.80	+4 35.4	2.209	3.112	8.9	19.3
3 12	12 42.78	-6 56.9	2.571	3.516	5.8	22.6	3 12	12 43.40	+5 28.3	2.147	3.105	5.9	19.1
3 22	12 36.41	-5 57.0	2.532	3.519	2.6	22.4	3 22	12 36.73	+6 21.8	2.112	3.097	3.3	18.9
4 1	12 29.57	-4 52.0	2.523	3.521	0.9	22.3	4 1	12 29.47	+7 10.4	2.105	3.089	3.9	18.9
4 11	12 22.94	-3 46.8	2.544	3.523	4.1	22.5	4 11	12 22.42	+7 48.8	2.127	3.082	6.8	19.1
4 21	12 17.11	-2 46.4	2.594	3.525	7.2	22.7	4 21	12 16.30	+8 13.4	2.175	3.075	9.9	19.3
5 1	12 12.56	-1 54.6	2.670	3.526	9.9	22.9	5 1	12 11.70	+8 22.2	2.246	3.068	12.8	19.4
89427	2001 WC ₃₉	3 29.1 245°40		7°5/21.0 17			169953	2002 TY ₇₉	3 29.1 219°87		2°8/25.5 17		
2 21	12 56.28	+14 37.6	1.897	2.732	13.3	19.1	2 21	12 54.88	+4 24.7	2.834	3.645	10.1	21.5
3 2	12 52.15	+16 3.6	1.826	2.726	10.7	19.0	3 2	12 50.33	+5 11.6	2.738	3.634	7.7	21.3
3 12	12 45.77	+17 28.2	1.779	2.719	8.4	18.8	3 12	12 44.25	+6 3.0	2.668	3.623	5.1	21.2
3 22	12 37.76	+18 42.6	1.757	2.712	7.5	18.7	3 22	12 37.06	+6 54.6	2.627	3.611	3.0	21.0
4 1	12 29.02	+19 38.1	1.763	2.704	8.8	18.8	4 1	12 29.35	+7 41.9	2.617	3.598	3.5	21.0
4 11	12 20.61	+20 9.0	1.793	2.697	11.3	18.9	4 11	12 21.78	+8 20.6	2.636	3.585	6.0	21.1
4 21	12 13.46	+20 13.1	1.847	2.690	14.1	19.1	4 21	12 14.98	+8 47.4	2.683	3.572	8.7	21.3
5 1	12 8.28	+19 51.4	1.920	2.682	16.7	19.3	5 1	12 9.46	+9 0.7	2.754	3.557	11.2	21.4
467667	2008 UY ₉₈	3 29.1 253°40		0°4/29.5 17			377621	2005 SY ₁₅₄	3 29.1 232°51		0°4/29.5 17		
2 21	12 59.39	-5 27.1	2.327	3.113	12.8	21.9	2 21	12 53.57	-9 27.2	2.058	2.849	14.1	22.2
3 2	12 54.29	-5 26.1	2.214	3.093	10.1	21.6	3 2	12 49.97	-8 29.5	1.958	2.839	11.1	22.0
3 12	12 47.12	-5 15.2	2.125	3.072	6.7	21.4	3 12	12 44.34	-7 12.9	1.881	2.829	7.4	21.8
3 22	12 38.37	-4 56.1	2.063	3.051	3.0	21.1	3 22	12 37.18	-5 41.2	1.830	2.818	3.3	21.5
4 1	12 28.74	-4 32.0	2.031	3.029	1.1	20.9	4 1	12 29.28	-4 0.7	1.809	2.807	1.2	21.3
4 11	12 19.17	-4 7.1	2.028	3.006	5.1	21.2	4 11	12 21.57	-2 19.7	1.817	2.796	5.5	21.6
4 21	12 10.50	-3 45.6	2.054	2.984	8.9	21.3	4 21	12 14.89	-0 46.4	1.853	2.784	9.6	21.8
5 1	12 3.50	-3 31.4	2.106	2.960	12.3	21.5	5 1	12 9.95	+0 32.6	1.913	2.772	13.2	22.0
102586	1999 UR ₄₉	3 29.1 173°20		1°1/28.2 18			95504	2002 EC ₄₅	3 29.1 169°32		2°4/31.4 17		
2 21	12 59.39	-4 27.5	1.728	2.535	15.7	21.5	2 21	12 55.95	-12				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
37259	2000 <i>XF</i> ₄		3 29.1 164°39	3°6/ 2.6	18		239873	2000 <i>JO</i> ₆₇		3 29.1 220°07	4°2/23.3	18	
2 21	12 54.19	-17 48.4	2.805	3.535	12.2	19.7	2 21	12 53.17	+ 8 33.0	2.661	3.483	10.3	20.9
3 2	12 49.89	-17 57.6	2.708	3.538	10.0	19.6	3 2	12 49.14	+ 9 43.7	2.575	3.475	8.0	20.7
3 12	12 43.99	-17 52.1	2.633	3.541	7.6	19.4	3 12	12 43.53	+10 57.2	2.516	3.467	5.6	20.6
3 22	12 36.96	-17 32.1	2.585	3.543	5.1	19.2	3 22	12 36.79	+12 8.0	2.485	3.458	4.3	20.5
4 1	12 29.40	-16 59.2	2.564	3.546	3.6	19.1	4 1	12 29.53	+13 10.3	2.484	3.448	5.1	20.5
4 11	12 22.01	-16 16.9	2.573	3.547	4.5	19.2	4 11	12 22.44	+13 59.1	2.511	3.439	7.4	20.6
4 21	12 15.43	-15 29.6	2.611	3.549	6.8	19.3	4 21	12 16.17	+14 31.5	2.565	3.428	9.9	20.8
5 1	12 10.20	-14 42.0	2.675	3.551	9.3	19.5	5 1	12 11.25	+14 46.2	2.641	3.418	12.3	20.9
140133	2001 <i>ST</i> ₁₄₆		3 29.1 281°25	0°3/29.5	17		23478	1991 <i>BZ</i>		3 29.1 110°05	2°7/ 1.2	18	
2 21	12 53.23	- 6 44.9	2.201	2.998	13.1	20.5	2 21	12 56.89	-14 28.9	2.358	3.111	13.6	18.8
3 2	12 49.59	- 6 22.4	2.099	2.984	10.2	20.2	3 2	12 52.07	-14 23.2	2.280	3.131	10.9	18.7
3 12	12 44.04	- 5 47.0	2.021	2.971	6.8	20.0	3 12	12 45.44	-14 1.6	2.226	3.151	7.9	18.5
3 22	12 37.06	- 5 1.3	1.969	2.957	3.0	19.7	3 22	12 37.58	-13 25.4	2.197	3.170	4.7	18.3
4 1	12 29.35	- 4 9.6	1.945	2.944	1.1	19.6	4 1	12 29.23	-12 37.8	2.197	3.188	2.7	18.2
4 11	12 21.78	- 3 17.5	1.950	2.930	5.1	19.8	4 11	12 21.22	-11 43.8	2.227	3.207	4.5	18.4
4 21	12 15.15	- 2 30.5	1.983	2.916	8.9	20.0	4 21	12 14.28	-10 48.8	2.285	3.224	7.5	18.6
5 1	12 10.14	- 1 53.4	2.039	2.902	12.3	20.2	5 1	12 9.95	- 9 58.1	2.369	3.241	10.4	18.8
92846	2000 <i>QW</i> ₁₉₅		3 29.1 52°76	4°3/25.4	18		76754	2000 <i>JQ</i> ₈₃		3 29.1 229°36	4°6/23.9	18	
2 21	12 54.51	+ 1 25.1	1.309	2.156	17.5	18.3	2 21	12 55.56	+ 9 28.9	2.342	3.166	11.5	19.4
3 2	12 51.41	+ 2 49.2	1.251	2.167	13.2	18.0	3 2	12 51.14	+10 19.9	2.261	3.161	8.9	19.2
3 12	12 45.55	+ 4 25.9	1.215	2.178	8.6	17.8	3 12	12 44.91	+11 12.2	2.205	3.156	6.3	19.0
3 22	12 37.72	+ 6 5.3	1.203	2.190	4.7	17.6	3 22	12 37.39	+12 0.1	2.177	3.150	4.7	18.9
4 1	12 29.12	+ 7 35.3	1.216	2.202	5.7	17.7	4 1	12 29.30	+12 38.1	2.177	3.145	5.5	18.9
4 11	12 21.13	+ 8 45.5	1.254	2.215	9.9	18.0	4 11	12 21.46	+13 1.5	2.205	3.139	7.9	19.1
4 21	12 14.86	+ 9 29.9	1.316	2.227	14.2	18.2	4 21	12 14.60	+13 7.9	2.259	3.133	10.7	19.2
5 1	12 11.04	+ 9 46.7	1.396	2.240	17.9	18.5	5 1	12 9.32	+12 56.7	2.336	3.127	13.3	19.4
343130	2009 <i>EU</i> ₂₉		3 29.1 50°83	1°2/28.1	17		399710	2004 <i>TL</i> ₃₇₀		3 29.1 196°16	1°4/27.9	17	
2 21	12 59.06	+ 0 0.6	2.035	2.845	13.5	20.0	2 21	12 59.57	- 2 19.7	1.891	2.698	14.5	22.4
3 2	12 53.91	- 0 0.5	1.964	2.858	10.4	19.8	3 2	12 54.69	- 1 43.3	1.803	2.696	11.2	22.1
3 12	12 46.72	+ 0 4.8	1.917	2.872	6.7	19.6	3 12	12 47.49	- 0 55.0	1.737	2.693	7.3	21.9
3 22	12 38.11	+ 0 13.2	1.896	2.886	2.8	19.4	3 22	12 38.57	+ 0 0.4	1.699	2.689	3.0	21.6
4 1	12 28.96	+ 0 20.9	1.904	2.900	2.0	19.3	4 1	12 28.83	+ 0 56.9	1.689	2.684	2.4	21.5
4 11	12 20.22	+ 0 24.1	1.941	2.914	5.8	19.6	4 11	12 19.36	+ 1 47.6	1.707	2.679	6.6	21.8
4 21	12 12.72	+ 0 19.9	2.005	2.929	9.4	19.9	4 21	12 11.15	+ 2 26.8	1.753	2.673	10.7	22.0
5 1	12 7.07	+ 0 6.2	2.093	2.943	12.5	20.1	5 1	12 4.95	+ 2 50.7	1.822	2.666	14.3	22.2
410077	2007 <i>DK</i> ₃		3 29.1 33°36	6°1/23.9	18		284366	2006 <i>SM</i> ₁₅₄		3 29.1 136°63	1°9/26.3	18	
2 21	12 53.66	+ 6 57.5	1.378	2.231	16.4	20.1	2 21	12 53.78	+ 2 15.6	3.107	3.912	9.5	21.8
3 2	12 50.60	+ 8 19.1	1.326	2.243	12.5	19.9	3 2	12 49.23	+ 2 56.9	3.033	3.926	7.1	21.7
3 12	12 44.92	+ 9 45.4	1.296	2.256	8.6	19.7	3 12	12 43.39	+ 3 42.7	2.985	3.939	4.6	21.6
3 22	12 37.42	+11 6.3	1.290	2.269	6.2	19.6	3 22	12 36.68	+ 4 29.1	2.966	3.953	2.3	21.4
4 1	12 29.25	+12 11.2	1.309	2.284	7.4	19.7	4 1	12 29.63	+ 5 12.5	2.978	3.965	2.6	21.4
4 11	12 21.70	+12 52.5	1.353	2.299	10.8	19.9	4 11	12 22.82	+ 5 49.2	3.020	3.977	4.9	21.6
4 21	12 15.77	+13 6.8	1.419	2.314	14.5	20.2	4 21	12 16.76	+ 6 16.5	3.091	3.989	7.4	21.8
5 1	12 12.18	+12 54.8	1.504	2.330	17.7	20.5	5 1	12 11.86	+ 6 32.9	3.187	4.000	9.6	22.0
433396	2013 <i>TP</i> ₁₄		3 29.1 191°82	2°1/26.8	17		208414	2001 <i>SO</i> ₂₇₄		3 29.1 58°12	0°1/29.1	17	
2 21	12 56.67	+ 0 52.2	2.258	3.069	12.3	22.1	2 21	12 53.89	- 5 41.7	2.081	2.883	13.5	20.8
3 2	12 52.03	+ 1 31.9	2.172	3.068	9.4	21.9	3 2	12 50.00	- 5 18.5	2.006	2.895	10.4	20.6
3 12	12 45.51	+ 2 19.0	2.110	3.066	6.1	21.7	3 12	12 44.21	- 4 43.4	1.955	2.907	6.8	20.4
3 22	12 37.63	+ 3 9.2	2.075	3.064	2.9	21.5	3 22	12 37.10	- 3 59.6	1.930	2.919	2.9	20.2
4 1	12 29.14	+ 3 57.1	2.070	3.061	3.0	21.5	4 1	12 29.45	- 3 12.2	1.933	2.931	1.2	20.0
4 11	12 20.90	+ 4 37.2	2.094	3.058	6.2	21.7	4 11	12 22.15	- 2 26.5	1.964	2.943	5.1	20.3
4 21	12 13.67	+ 5 5.6	2.145	3.054	9.6	21.9	4 21	12 15.93	- 1 47.7	2.023	2.955	8.8	20.6
5 1	12 8.09	+ 5 19.9	2.220	3.050	12.6	22.1	5 1	12 11.41	- 1 19.6	2.106	2.968	12.0	20.8
415039	2011 <i>YN</i> ₄₅		3 29.1 339°99	1°6/27.8	17		236865	2007 <i>RA</i> ₂₁₁		3 29.1 222°58	0°9/30.0	17	
2 21	12 52.27	- 3 14.5	1.318	2.158	17.8	20.7	2 21	12 54.41	- 8 14.7	2.136	2.927	13.6	21.3
3 2	12 49.96	- 2 34.6	1.239	2.150	13.7	20.4	3 2	12 50.49	- 7 58.2	2.045	2.925	10.7	21.1
3 12	12 44.83	- 1 37.2	1.180	2.142	8.9	20.1	3 12	12 44.61	- 7 27.9	1.977	2.924	7.2	20.8
3 22	12 37.52	- 0 28.1	1.144	2.135	3.7	19.8	3 22	12 37.31	- 6 46.3	1.936	2.922	3.4	20.6
4 1	12 29.16	+ 0 43.8	1.133	2.129	2.9	19.7	4 1	12 29.35	- 5 57.6	1.922	2.920	1.2	20.4
4 11	12 21.13	+ 1 48.0	1.147	2.124	8.2	20.0	4 11	12 21.62	- 5 7.4	1.938	2.919	4.9	20.7
4 21	12 14.68	+ 2 36.2	1.184	2.120	13.3	20.3	4 21	12 14.92	- 4 21.1	1.980	2.917	8.7	20.9
5 1	12 10.73	+ 3 2.9	1.241	2.116	17.7	20.5	5 1	12 9.91	- 3 43.6	2.047	2.915	12.0	21.1
141931	2002 <i>PN</i> ₉₂		3 29.1 178°74	2°1/31.1	18		196623	2003 <i>RX</i> ₅		3 29.1 129°78	4°1/23.8	17	
2 21	12 58.92	-11 1.4	1.977	2.754	15.1	20.6	2 21	12 53.55	+ 5 56.5	2.309	3.134	11.6	19.9
3 2	12 54.13	-11 1.8	1.887	2.755	12.0	20.4	3 2	12 49.54	+ 7 21.2	2.242	3.145	8.8	19.7
3 12	12 47.08	-10 46.3	1.818	2.756	8.4	20.2	3 12	12 43.81	+ 8 50.4	2.200	3.155	6.0	19.6
3 22	12 38.37	-10 16.3	1.776	2.757	4.5	19.9	3 22	12 36.91	+10 17.5	2.187	3.165	4.2	19.5
4 1	12 28.86	- 9 35.0	1.761	2.757	2.2	19.8	4 1	12 29.54	+11 35.5	2.203	3.174	5.1	19.5
4 11	12 19.61	- 8 48.0	1.775	2.756	5.3	20.0	4 11	12 22.48	+12 38.5	2.248	3.184	7.7	19.7
4 21	12 11.57	- 8 1.5	1.816	2.755	9.2	20.2	4 21	12 16.41	+13 23.0	2.319	3.193	10.5	19.9
5 1	12 5.49	- 7 21.3	1.882	2.754	12.7	20.4	5 1	12 11.87	+13 47.7	2.412	3.201	13.0	20.1
433551	2013 <i>XA</i> ₅		3 29.1 142°13	4°7/ 3.8	17		98389	2000 <i>TP</i> ₅₈		3 29.1 90°12			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
361141	2006 <i>HQ</i> ₆₅		3 29.1 253°41	4°0/25.8	16		251720	1997 <i>SE</i> ₃₂		3 29.1 140°83	0°7/29.9	18	
2 21	12 59.84	+ 4 30.6	1.729	2.555	14.9	21.8	2 21	12 57.45	- 8 4.9	2.101	2.888	14.0	22.1
3 2	12 55.24	+ 5 14.3	1.637	2.540	11.5	21.5	3 2	12 52.75	- 7 43.6	2.020	2.898	10.9	21.9
3 12	12 48.06	+ 6 5.0	1.567	2.525	7.7	21.2	3 12	12 46.05	- 7 8.5	1.961	2.907	7.3	21.7
3 22	12 38.89	+ 6 56.4	1.524	2.509	4.4	21.0	3 22	12 37.92	- 6 22.3	1.929	2.916	3.4	21.5
4 1	12 28.70	+ 7 40.9	1.508	2.493	5.0	21.0	4 1	12 29.18	- 5 29.6	1.926	2.924	1.1	21.3
4 11	12 18.70	+ 8 11.3	1.519	2.476	8.8	21.2	4 11	12 20.78	- 4 36.3	1.952	2.932	5.0	21.6
4 21	12 10.03	+ 8 23.1	1.556	2.459	12.9	21.4	4 21	12 13.51	- 3 48.0	2.006	2.940	8.8	21.9
5 1	12 3.57	+ 8 14.5	1.613	2.442	16.6	21.6	5 1	12 8.03	- 3 9.4	2.085	2.946	12.1	22.1
268333	2005 <i>SD</i> ₉₉		3 29.1 122°70	1°9/31.1	15		161534	2004 <i>TZ</i> ₃₅₉		3 29.1 263°94	3°7/1.0	17	
2 21	12 57.78	-11 25.0	2.190	2.961	14.0	22.0	2 21	12 57.53	-14 6.2	1.634	2.414	17.6	20.2
3 2	12 52.89	-11 13.0	2.112	2.977	11.1	21.8	3 2	12 53.83	-14 13.9	1.531	2.397	14.4	19.9
3 12	12 46.06	-10 45.7	2.056	2.993	7.7	21.6	3 12	12 47.38	-14 0.1	1.447	2.381	10.5	19.7
3 22	12 37.88	-10 5.3	2.027	3.008	4.1	21.4	3 22	12 38.72	-13 24.6	1.387	2.363	6.3	19.4
4 1	12 29.15	- 9 15.4	2.027	3.022	1.9	21.3	4 1	12 28.80	-12 29.8	1.353	2.346	3.7	19.2
4 11	12 20.78	- 8 21.7	2.056	3.037	4.7	21.5	4 11	12 18.95	-11 22.3	1.346	2.328	6.4	19.3
4 21	12 13.54	- 7 29.7	2.113	3.050	8.2	21.7	4 21	12 10.42	-10 11.1	1.364	2.310	11.0	19.5
5 1	12 8.04	- 6 44.5	2.195	3.063	11.3	21.9	5 1	12 4.23	- 9 5.3	1.404	2.291	15.3	19.7
345701	2006 <i>UZ</i> ₃₃₁		3 29.1 108°03	0°4/28.6	17		421141	2013 <i>RY</i> ₁₇		3 29.1 220°72	2°2/31.2	17	
2 21	12 51.48	- 6 9.2	2.420	3.217	12.0	21.8	2 21	12 55.94	-11 45.2	1.954	2.734	15.1	21.5
3 2	12 47.93	- 5 15.4	2.338	3.225	9.2	21.6	3 2	12 51.94	-11 36.4	1.860	2.730	12.1	21.3
3 12	12 42.76	- 4 9.2	2.281	3.233	6.0	21.4	3 12	12 45.73	-11 10.2	1.788	2.726	8.5	21.0
3 22	12 36.47	- 2 54.8	2.251	3.241	2.5	21.2	3 22	12 37.87	-10 28.2	1.741	2.722	4.6	20.8
4 1	12 29.72	- 1 37.4	2.251	3.249	1.3	21.1	4 1	12 29.20	- 9 34.0	1.721	2.717	2.2	20.6
4 11	12 23.22	- 0 23.1	2.281	3.256	4.8	21.4	4 11	12 20.75	- 8 33.9	1.730	2.712	5.2	20.8
4 21	12 17.63	+ 0 42.6	2.339	3.264	8.1	21.6	4 21	12 13.44	- 7 34.6	1.765	2.707	9.2	21.0
5 1	12 13.45	+ 1 35.8	2.421	3.271	11.0	21.8	5 1	12 8.03	- 6 42.6	1.825	2.701	12.9	21.2
212717	2007 <i>RH</i> ₁₁₈		3 29.1 37°18	0°7/28.7	18		410170	2007 <i>PZ</i> ₂₈		3 29.1 260°57	4°6/31.4	16	
2 21	12 59.72	- 2 37.4	1.362	2.189	18.1	19.8	2 21	13 10.44	-11 39.5	1.758	2.518	17.3	21.2
3 2	12 55.50	- 2 35.9	1.292	2.195	14.0	19.6	3 2	13 3.96	-12 50.8	1.643	2.497	14.3	21.0
3 12	12 48.33	- 2 21.8	1.243	2.201	9.1	19.3	3 12	12 54.24	-13 51.6	1.550	2.476	10.6	20.7
3 22	12 38.98	- 1 59.2	1.217	2.208	3.8	19.0	3 22	12 41.76	-14 38.8	1.483	2.454	6.7	20.4
4 1	12 28.70	- 1 34.1	1.217	2.215	2.0	18.9	4 1	12 27.55	-15 10.7	1.444	2.432	4.6	20.2
4 11	12 18.93	- 1 13.3	1.243	2.222	7.3	19.2	4 11	12 13.10	-15 28.1	1.434	2.409	7.2	20.3
4 21	12 10.93	- 1 2.2	1.293	2.230	12.3	19.5	4 21	11 59.95	-15 34.9	1.453	2.385	11.5	20.5
5 1	12 5.57	- 1 4.8	1.364	2.238	16.5	19.8	5 1	11 49.38	-15 36.9	1.495	2.361	15.8	20.7
291952	2006 <i>QL</i> ₄₂		3 29.1 201°11	1°3/27.9	16		377902	2006 <i>DR</i> ₁₁₇		3 29.1 223°03	0°8/28.4	17	
2 21	12 58.13	- 2 23.6	2.062	2.866	13.6	22.3	2 21	12 56.81	- 2 31.9	2.005	2.813	13.8	20.8
3 2	12 53.41	- 1 47.5	1.971	2.862	10.4	22.1	3 2	12 52.42	- 2 16.3	1.919	2.812	10.6	20.6
3 12	12 46.57	- 1 0.5	1.903	2.858	6.8	21.9	3 12	12 45.94	- 1 51.0	1.857	2.812	6.9	20.4
3 22	12 38.16	- 0 6.7	1.863	2.853	2.8	21.6	3 22	12 37.92	- 1 19.4	1.821	2.811	2.9	20.1
4 1	12 29.03	+ 0 48.1	1.852	2.847	2.2	21.6	4 1	12 29.20	- 0 46.2	1.814	2.811	1.8	20.1
4 11	12 20.12	+ 1 37.8	1.870	2.841	6.1	21.8	4 11	12 20.76	- 0 16.8	1.835	2.810	5.8	20.3
4 21	12 12.34	+ 2 17.2	1.915	2.834	10.0	22.0	4 21	12 13.46	+ 0 4.5	1.882	2.809	9.7	20.6
5 1	12 6.38	+ 2 42.5	1.984	2.827	13.4	22.2	5 1	12 8.00	+ 0 14.4	1.954	2.809	13.1	20.8
82150	2001 <i>FM</i> ₁₆₂		3 29.1 277°64	1°2/28.2	18		107070	2001 <i>AH</i> ₁₆		3 29.1 22°74	3°8/1.1	18	
2 21	12 57.33	- 2 52.9	1.764	2.579	15.1	19.7	2 21	12 54.16	-13 31.9	1.282	2.089	20.1	19.0
3 2	12 53.40	- 2 26.2	1.658	2.555	11.8	19.5	3 2	12 51.49	-13 43.4	1.212	2.094	16.3	18.8
3 12	12 46.94	- 1 46.2	1.574	2.531	7.8	19.2	3 12	12 45.87	-13 30.0	1.160	2.101	11.7	18.5
3 22	12 38.47	- 0 56.8	1.516	2.506	3.3	18.8	3 22	12 38.02	-12 52.4	1.129	2.108	6.9	18.3
4 1	12 28.87	- 0 3.8	1.485	2.481	2.2	18.7	4 1	12 29.17	-11 55.2	1.122	2.116	3.8	18.1
4 11	12 19.30	+ 0 45.3	1.481	2.456	7.0	18.9	4 11	12 20.79	-10 47.6	1.140	2.125	6.8	18.3
4 21	12 10.90	+ 1 23.9	1.503	2.430	11.6	19.1	4 21	12 14.16	- 9 39.7	1.181	2.135	11.5	18.6
5 1	12 4.59	+ 1 47.2	1.548	2.405	15.8	19.3	5 1	12 10.17	- 8 41.1	1.244	2.145	15.9	18.9
8881	Prialnik		3 29.1 107°65	0°9/28.2	18		269986	2000 <i>UD</i> ₅₉		3 29.1 173°22	1°1/28.1	17	
2 21	12 53.90	- 4 12.1	1.936	2.747	14.1	18.3	2 21	12 59.73	- 1 7.2	2.404	3.200	12.1	21.7
3 2	12 50.22	- 3 27.3	1.855	2.750	10.8	18.1	3 2	12 54.26	- 0 52.2	2.316	3.203	9.3	21.5
3 12	12 44.48	- 2 29.2	1.798	2.754	7.0	17.9	3 12	12 46.94	- 0 30.0	2.253	3.206	6.0	21.3
3 22	12 37.27	- 1 22.6	1.766	2.757	2.9	17.6	3 22	12 38.30	- 0 3.8	2.219	3.208	2.5	21.0
4 1	12 29.41	- 0 13.8	1.763	2.760	1.9	17.6	4 1	12 29.07	+ 0 22.5	2.214	3.209	1.8	21.0
4 11	12 21.86	+ 0 50.0	1.789	2.763	6.0	17.8	4 11	12 20.10	+ 0 44.7	2.239	3.210	5.3	21.2
4 21	12 15.46	+ 1 42.9	1.840	2.766	9.9	18.1	4 21	12 12.15	+ 0 59.4	2.293	3.211	8.7	21.4
5 1	12 10.87	+ 2 20.6	1.915	2.769	13.3	18.3	5 1	12 5.81	+ 1 4.2	2.372	3.210	11.6	21.6
178472	1999 <i>RA</i> ₁₆₆		3 29.1 248°36	1°2/27.6	17		72014	2000 <i>XD</i> ₁₂		3 29.1 88°02	0°4/28.9	18	
2 21	12 52.21	- 2 5.8	2.711	3.514	10.7	20.9	2 21	13 0.98	- 3 36.3	1.541	2.355	16.9	19.9
3 2	12 48.43	- 1 23.2	2.609	3.501	8.2	20.7	3 2	12 56.13	- 3 30.7	1.470	2.365	13.1	19.7
3 12	12 43.11	- 0 31.7	2.532	3.487	5.3	20.5	3 12	12 48.58	- 3 12.7	1.420	2.375	8.6	19.4
3 22	12 36.66	+ 0 25.2	2.483	3.473	2.2	20.2	3 22	12 39.08	- 2 45.8	1.395	2.385	3.6	19.2
4 1	12 29.67	+ 1 22.9	2.464	3.458	1.9	20.2	4 1	12 28.77	- 2 15.6	1.397	2.395	1.7	19.0
4 11	12 22.79	+ 2 16.5	2.475	3.443	5.0	20.4	4 11	12 18.95	- 1 48.5	1.426	2.404	6.7	19.4
4 21	12 16.67	+ 3 1.9	2.513	3.428	8.1	20.5	4 21	12 10.76	- 1 29.9	1.480	2.414	11.3	19.7
5 1	12 11.82	+ 3 35.8	2.577	3.413	10.9	20.7	5 1	12 4.99	- 1 23.7	1.557	2.424	15.2	19.9
105949	2000 <i>SE</i> ₂₄₂		3 29.1 288°00	0°4/28.8	17		143556	2003 <i>ED</i> ₄₀		3 29.1 82°13			

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3 29.1

3 29.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
425996	2011 <i>HS</i> ₁₀₀		3 29.1 273°31	2°9/26.1	17		41027	1999 <i>UP</i> ₄₄		3 29.2 173°17	0°6/28.4	18	
2 21	12 53.84	+ 1 49.7	2.022	2.847	13.1	21.3	2 21	12 53.62	- 5 27.7	2.336	3.133	12.4	20.3
3 2	12 50.18	+ 2 42.6	1.934	2.838	10.0	21.0	3 2	12 49.68	- 4 33.6	2.248	3.135	9.5	20.1
3 12	12 44.51	+ 3 44.2	1.870	2.829	6.5	20.8	3 12	12 44.00	- 3 26.9	2.185	3.137	6.2	19.9
3 22	12 37.34	+ 4 48.8	1.833	2.820	3.4	20.6	3 22	12 37.08	- 2 11.6	2.149	3.139	2.5	19.6
4 1	12 29.46	+ 5 49.8	1.824	2.811	3.8	20.6	4 1	12 29.61	- 0 53.4	2.143	3.140	1.5	19.5
4 11	12 21.80	+ 6 40.5	1.842	2.803	7.2	20.8	4 11	12 22.38	+ 0 21.2	2.167	3.141	5.2	19.8
4 21	12 15.21	+ 7 16.2	1.887	2.794	10.8	21.0	4 21	12 16.09	+ 1 26.7	2.219	3.141	8.7	20.0
5 1	12 10.35	+ 7 34.1	1.954	2.785	14.0	21.2	5 1	12 11.32	+ 2 18.9	2.295	3.141	11.7	20.2
391730	2008 <i>CV</i> ₁₄₆		3 29.1 52°78	1°4/30.7	14 C		210317	2007 <i>TM</i> ₂₁₇		3 29.2 59°84	0°6/29.8	17	
2 21	12 52.75	-10 8.1	2.231	3.015	13.3	21.7	2 21	12 54.50	- 7 10.9	2.169	2.963	13.4	20.5
3 2	12 49.08	- 9 52.4	2.150	3.024	10.5	21.5	3 2	12 50.51	- 6 57.9	2.083	2.965	10.4	20.3
3 12	12 43.62	- 9 22.4	2.091	3.033	7.2	21.3	3 12	12 44.62	- 6 32.4	2.020	2.968	7.0	20.1
3 22	12 36.90	- 8 40.5	2.059	3.043	3.6	21.1	3 22	12 37.37	- 5 57.0	1.983	2.971	3.2	19.9
4 1	12 29.65	- 7 50.7	2.055	3.052	1.5	21.0	4 1	12 29.50	- 5 15.9	1.975	2.973	1.1	19.7
4 11	12 22.68	- 6 58.2	2.080	3.062	4.5	21.2	4 11	12 21.89	- 4 34.0	1.995	2.976	4.9	20.0
4 21	12 16.71	- 6 8.6	2.132	3.072	8.0	21.4	4 21	12 15.31	- 3 56.5	2.043	2.979	8.5	20.2
5 1	12 12.32	- 5 26.4	2.209	3.082	11.1	21.7	5 1	12 10.38	- 3 27.5	2.115	2.981	11.8	20.4
386193	2007 <i>VO</i> ₁₅₄		3 29.1 67°06	2°5/31.8	17		328346	2008 <i>KX</i> ₁₅		3 29.2 47°06	1°0/28.1	18	
2 21	12 54.48	-12 59.8	2.141	2.912	14.2	21.3	2 21	12 51.77	- 6 42.2	1.551	2.372	16.5	19.9
3 2	12 50.48	-12 56.9	2.063	2.926	11.4	21.1	3 2	12 49.02	- 5 25.5	1.481	2.382	12.7	19.7
3 12	12 44.57	-12 37.8	2.006	2.939	8.1	20.9	3 12	12 43.91	- 4 48.7	1.434	2.392	8.2	19.4
3 22	12 37.31	-12 4.1	1.975	2.952	4.6	20.7	3 22	12 37.11	- 1 58.7	1.411	2.402	3.3	19.2
4 1	12 29.49	-11 19.2	1.972	2.965	2.5	20.6	4 1	12 29.62	- 0 5.7	1.416	2.413	2.2	19.1
4 11	12 21.99	-10 28.3	1.997	2.979	4.7	20.8	4 11	12 22.58	+ 1 39.4	1.448	2.424	7.0	19.4
4 21	12 15.59	- 9 37.2	2.050	2.992	8.1	21.0	4 21	12 16.93	+ 3 7.5	1.505	2.435	11.5	19.7
5 1	12 10.88	- 8 51.4	2.127	3.006	11.2	21.2	5 1	12 13.37	+ 4 13.0	1.585	2.446	15.3	20.0
110757	2001 <i>UA</i> ₁₆		3 29.1 226°94	2°1/27.3	17		10992	Veryslaviya		3 29.2 186°11	0°1/29.1	18	
2 21	12 59.78	- 0 52.6	1.904	2.714	14.3	21.1	2 21	12 57.68	- 6 49.4	2.146	2.936	13.6	20.0
3 2	12 54.98	- 0 8.1	1.806	2.701	11.1	20.8	3 2	12 52.99	- 6 8.2	2.054	2.936	10.6	19.8
3 12	12 47.81	+ 0 47.9	1.732	2.688	7.2	20.6	3 12	12 46.28	- 5 12.8	1.986	2.935	7.0	19.5
3 22	12 38.80	+ 1 50.5	1.684	2.673	3.2	20.3	3 22	12 38.09	- 4 6.5	1.945	2.934	3.0	19.3
4 1	12 28.86	+ 2 53.1	1.665	2.658	3.0	20.2	4 1	12 29.22	- 2 55.1	1.934	2.931	1.2	19.1
4 11	12 19.08	+ 3 48.1	1.675	2.642	7.2	20.5	4 11	12 20.59	- 1 45.0	1.952	2.928	5.4	19.4
4 21	12 10.49	+ 4 29.8	1.711	2.625	11.3	20.7	4 21	12 13.04	- 0 42.7	1.998	2.924	9.2	19.6
5 1	12 3.90	+ 4 54.4	1.771	2.607	15.0	20.9	5 1	12 7.25	+ 0 7.2	2.069	2.920	12.6	19.9
115222	2003 <i>SK</i> ₁₄₂		3 29.2 333°79	11°1/ 6.6	17 R		145304	2005 <i>KZ</i> ₉		3 29.2 287°65	9°6/ 6.5	18	
2 21	12 53.69	-26 35.0	1.355	2.095	22.4	18.7	2 21	12 55.57	-28 0.0	1.739	2.443	19.4	19.7
3 2	12 51.64	-27 55.1	1.266	2.084	19.8	18.5	3 2	12 52.54	-28 52.4	1.630	2.424	17.2	19.5
3 12	12 46.38	-28 45.9	1.193	2.074	16.8	18.3	3 12	12 46.70	-29 18.3	1.538	2.403	14.6	19.3
3 22	12 38.44	-29 0.7	1.138	2.064	13.7	18.0	3 22	12 38.52	-29 12.4	1.466	2.383	11.9	19.0
4 1	12 28.96	-28 35.6	1.103	2.056	11.5	17.9	4 1	12 28.97	-28 31.8	1.416	2.363	10.0	18.9
4 11	12 19.58	-27 33.5	1.091	2.048	11.4	17.8	4 11	12 19.39	-27 19.2	1.390	2.343	9.9	18.8
4 21	12 11.88	-26 3.6	1.099	2.041	13.5	17.9	4 21	12 11.10	-25 42.0	1.389	2.323	11.8	18.9
5 1	12 7.10	-24 19.8	1.129	2.035	16.7	18.1	5 1	12 5.22	-23 52.0	1.410	2.303	14.9	19.0
313764	2003 <i>WY</i> ₁₂₈		3 29.2 62°45	0°2/29.3	18		200618	2001 <i>SG</i> ₆₇		3 29.2 176°95	0°8/28.4	18	
2 21	12 58.74	- 5 41.4	1.450	2.266	17.7	20.8	2 21	12 59.50	- 4 21.7	1.921	2.721	14.6	21.7
3 2	12 54.48	- 5 29.1	1.386	2.282	13.7	20.6	3 2	12 54.59	- 3 41.7	1.835	2.724	11.3	21.5
3 12	12 47.52	- 5 1.1	1.343	2.297	9.0	20.4	3 12	12 47.42	- 2 48.2	1.773	2.726	7.3	21.3
3 22	12 38.63	- 4 21.4	1.324	2.313	3.9	20.1	3 22	12 38.60	- 1 45.6	1.738	2.728	3.0	21.0
4 1	12 28.99	- 3 36.3	1.331	2.329	1.5	20.0	4 1	12 29.03	- 0 40.2	1.731	2.728	1.9	20.9
4 11	12 19.94	- 2 53.4	1.365	2.345	6.6	20.3	4 11	12 19.78	+ 0 21.0	1.754	2.728	6.2	21.2
4 21	12 12.56	- 2 19.2	1.423	2.362	11.2	20.6	4 21	12 11.77	+ 1 11.7	1.803	2.727	10.3	21.4
5 1	12 7.62	- 1 58.6	1.504	2.378	15.2	20.9	5 1	12 5.74	+ 1 47.6	1.877	2.724	13.8	21.6
252635	2001 <i>XM</i> ₂₁₉		3 29.2 214°10	3°4/ 2.4	18		305515	2008 <i>FF</i> ₄		3 29.2 321°38	1°4/30.6	17	
2 21	12 53.53	-17 25.2	2.675	3.412	12.5	20.5	2 21	12 54.45	- 8 52.7	2.383	3.165	12.6	20.9
3 2	12 49.54	-17 22.6	2.571	3.407	10.3	20.4	3 2	12 50.37	- 8 53.9	2.289	3.163	10.0	20.7
3 12	12 43.90	-17 4.2	2.489	3.401	7.8	20.2	3 12	12 44.50	- 8 43.4	2.218	3.160	6.9	20.5
3 22	12 37.04	-16 30.3	2.433	3.396	5.1	20.0	3 22	12 37.33	- 8 22.7	2.174	3.157	3.5	20.3
4 1	12 29.60	-15 42.9	2.405	3.390	3.4	19.9	4 1	12 29.55	- 7 54.7	2.158	3.155	1.5	20.2
4 11	12 22.30	-14 46.2	2.406	3.384	4.5	19.9	4 11	12 21.95	- 7 23.5	2.171	3.153	4.4	20.4
4 21	12 15.82	-13 45.2	2.436	3.377	7.1	20.1	4 21	12 15.26	- 6 53.6	2.212	3.151	7.8	20.6
5 1	12 10.73	-12 45.4	2.493	3.370	9.8	20.3	5 1	12 10.10	- 6 28.9	2.279	3.148	10.9	20.8
345695	2006 <i>UT</i> ₁₈₈		3 29.2 95°27	6°0/ 7.5	17		203415	2001 <i>XR</i> ₁₉₂		3 29.2 99°39	1°0/30.0	18	
2 21	12 53.42	-29 45.4	2.645	3.302	14.4	20.6	2 21	13 0.82	- 8 52.4	1.635	2.429	17.0	21.2
3 2	12 49.45	-29 31.1	2.557	3.320	12.5	20.5	3 2	12 55.74	- 8 29.4	1.572	2.453	13.3	21.0
3 12	12 43.78	-28 53.6	2.489	3.338	10.3	20.4	3 12	12 48.17	- 7 48.7	1.529	2.476	8.9	20.8
3 22	12 36.95	-27 52.5	2.444	3.355	8.1	20.2	3 22	12 38.88	- 6 53.9	1.511	2.498	4.1	20.6
4 1	12 29.67	-26 29.7	2.426	3.372	6.4	20.2	4 1	12 28.97	- 5 51.3	1.522	2.520	1.4	20.4
4 11	12 22.72	-24 50.2	2.435	3.389	6.2	20.2	4 11	12 19.65	- 4 48.7	1.560	2.541	5.9	20.8
4 21	12 16.78	-23 0.8	2.474	3.406	7.4	20.3	4 21	12 11.91	- 3 53.3	1.624	2.561	10.2	21.1
5 1	12 12.37	-21 9.0	2.540	3.422	9.5	20.4	5 1	12 6.46	- 3 10.6	1.712	2.581	13.9	21.3
228365	2000 <i>VB</i> ₅₆		3 29.2 92°45	5°2/ 3.8	18		10769	Minas Gerais		3 29.2 218			

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3 29.2

3 29.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
501413	2013 YN ₁₂₄		3 29.2 81°02	3°3/25.5	17		368179	2000 QM ₁₆₃		3 29.2 152°05	1°4/30.8	16	
2 21	12 54.31	+ 4 21.0	2.237	3.060	12.0	21.5	2 21	12 55.69	-11 16.8	2.416	3.184	12.9	21.7
3 2	12 50.17	+ 5 12.4	2.171	3.073	9.1	21.3	3 2	12 51.22	-10 47.2	2.328	3.193	10.2	21.5
3 12	12 44.27	+ 6 8.4	2.130	3.087	6.0	21.2	3 12	12 44.99	-10 2.7	2.264	3.202	7.0	21.3
3 22	12 37.19	+ 7 3.6	2.116	3.100	3.5	21.0	3 22	12 37.53	- 9 5.7	2.227	3.209	3.6	21.1
4 1	12 29.65	+ 7 52.2	2.131	3.114	4.1	21.1	4 1	12 29.53	- 8 0.4	2.219	3.216	1.5	21.0
4 11	12 22.46	+ 8 29.3	2.175	3.127	6.9	21.3	4 11	12 21.81	- 6 52.3	2.242	3.223	4.4	21.2
4 21	12 16.31	+ 8 51.7	2.244	3.140	9.8	21.5	4 21	12 15.06	- 5 47.2	2.293	3.229	7.7	21.4
5 1	12 11.74	+ 8 58.2	2.337	3.153	12.5	21.7	5 1	12 9.84	- 4 50.1	2.370	3.234	10.7	21.6
108957	2001 PC ₃₁		3 29.2 156°30	6°5/ 5.3	17		402987	2007 VX ₈₅		3 29.2 183°06	1°2/30.3	16	
2 21	12 56.32	-24 47.5	2.050	2.758	16.7	20.5	2 21	13 0.44	- 8 32.6	1.953	2.736	15.0	22.2
3 2	12 52.28	-25 1.4	1.958	2.762	14.3	20.3	3 2	12 55.37	- 8 26.9	1.862	2.737	11.8	22.0
3 12	12 45.99	-24 50.9	1.885	2.766	11.5	20.1	3 12	12 47.99	- 8 6.6	1.794	2.737	8.1	21.7
3 22	12 38.03	-24 14.4	1.834	2.770	8.7	19.9	3 22	12 38.89	- 7 33.8	1.752	2.737	3.9	21.5
4 1	12 29.29	-23 13.2	1.809	2.773	6.7	19.8	4 1	12 28.98	- 6 52.3	1.738	2.736	1.5	21.3
4 11	12 20.81	-21 52.4	1.811	2.776	6.9	19.8	4 11	12 19.33	- 6 8.0	1.754	2.734	5.4	21.5
4 21	12 13.55	-20 19.8	1.840	2.779	9.1	20.0	4 21	12 10.91	- 5 26.8	1.796	2.732	9.5	21.8
5 1	12 8.25	-18 44.7	1.894	2.781	12.0	20.1	5 1	12 4.49	- 4 53.8	1.863	2.729	13.1	22.0
286092	2001 TR ₃₁		3 29.2 145°45	1°4/30.3	18		162020	1995 DK ₇		3 29.2 175°66	0°5/28.6	18	
2 21	13 1.58	- 8 42.9	1.737	2.526	16.4	21.4	2 21	12 55.02	- 4 2.2	2.234	3.036	12.8	20.4
3 2	12 56.42	- 8 40.3	1.657	2.534	12.9	21.2	3 2	12 50.86	- 3 37.4	2.147	3.036	9.8	20.2
3 12	12 48.73	- 8 21.8	1.598	2.543	8.8	20.9	3 12	12 44.85	- 3 2.2	2.084	3.037	6.4	20.0
3 22	12 39.20	- 7 49.6	1.565	2.550	4.3	20.7	3 22	12 37.50	- 2 19.9	2.048	3.037	2.7	19.8
4 1	12 28.84	- 7 7.9	1.560	2.557	1.6	20.5	4 1	12 29.54	- 1 35.1	2.040	3.038	1.4	19.7
4 11	12 18.88	- 6 23.1	1.583	2.564	5.8	20.8	4 11	12 21.83	- 0 52.9	2.062	3.038	5.2	19.9
4 21	12 10.37	- 5 41.9	1.632	2.570	10.1	21.1	4 21	12 15.12	- 0 18.1	2.111	3.038	8.8	20.1
5 1	12 4.10	- 5 9.8	1.705	2.575	13.9	21.3	5 1	12 10.02	+ 0 5.9	2.184	3.037	11.9	20.3
333134	2011 WY ₁₂₃		3 29.2 47°82	4°0/26.0	18		73084	2002 GX ₁₆		3 29.2 306°85	1°1/28.3	18	
2 21	12 56.91	+ 2 35.3	1.380	2.222	17.0	21.0	2 21	12 54.66	- 3 54.2	1.408	2.238	17.4	19.2
3 2	12 53.26	+ 3 30.3	1.317	2.229	13.0	20.8	3 2	12 51.84	- 3 24.3	1.318	2.223	13.6	18.9
3 12	12 46.83	+ 4 35.0	1.275	2.236	8.5	20.6	3 12	12 46.19	- 2 37.2	1.248	2.208	8.9	18.6
3 22	12 38.41	+ 5 41.3	1.256	2.244	4.6	20.3	3 22	12 38.29	- 1 37.6	1.202	2.193	3.7	18.3
4 1	12 29.17	+ 6 39.7	1.264	2.252	5.1	20.4	4 1	12 29.20	- 0 33.0	1.182	2.179	2.3	18.1
4 11	12 20.47	+ 7 21.7	1.297	2.260	9.3	20.7	4 11	12 20.30	+ 0 27.0	1.187	2.165	7.8	18.4
4 21	12 13.46	+ 7 42.4	1.353	2.268	13.6	20.9	4 21	12 12.87	+ 1 14.0	1.215	2.151	13.0	18.6
5 1	12 8.92	+ 7 40.2	1.429	2.277	17.4	21.2	5 1	12 7.92	+ 1 42.1	1.264	2.138	17.5	18.9
127199	2002 HL ₂		3 29.2 63°83	2°2/26.9	18		177657	2005 CN ₂₁		3 29.2 58°26	0°1/29.2	18	
2 21	12 53.25	- 2 1.6	1.763	2.587	14.7	19.6	2 21	12 58.60	- 5 23.7	1.395	2.215	18.1	20.2
3 2	12 49.85	- 0 54.0	1.696	2.599	11.1	19.4	3 2	12 54.52	- 5 10.6	1.350	2.228	14.0	20.0
3 12	12 44.30	+ 0 26.4	1.651	2.611	7.1	19.2	3 12	12 47.64	- 4 41.5	1.287	2.242	9.2	19.7
3 22	12 37.26	+ 1 52.9	1.633	2.623	3.1	19.0	3 22	12 38.76	- 4 0.6	1.267	2.256	3.9	19.4
4 1	12 29.63	+ 3 17.2	1.643	2.635	3.2	19.0	4 1	12 29.08	- 3 14.4	1.272	2.271	1.5	19.3
4 11	12 22.41	+ 4 31.1	1.680	2.648	7.1	19.3	4 11	12 19.98	- 2 31.0	1.304	2.285	6.8	19.7
4 21	12 16.46	+ 5 28.6	1.743	2.660	10.9	19.5	4 21	12 12.61	- 1 57.0	1.361	2.300	11.6	20.0
5 1	12 12.40	+ 6 6.2	1.828	2.672	14.3	19.8	5 1	12 7.74	- 1 37.4	1.439	2.315	15.7	20.3
358052	2006 HV ₁₉		3 29.2 297°19	2°0/27.9	17		405364	2003 WR ₁₂₄		3 29.2 56°81	2°0/27.7	18	
2 21	12 58.63	- 0 32.1	1.420	2.251	17.2	21.2	2 21	12 59.54	- 0 33.0	1.415	2.245	17.4	20.3
3 2	12 54.93	- 0 16.5	1.329	2.235	13.4	20.9	3 2	12 55.12	- 0 10.2	1.356	2.261	13.3	20.1
3 12	12 48.25	+ 0 10.6	1.259	2.219	8.8	20.6	3 12	12 47.95	+ 0 23.5	1.318	2.277	8.5	19.9
3 22	12 39.17	+ 0 44.7	1.212	2.203	3.8	20.3	3 22	12 38.87	+ 1 2.3	1.303	2.294	3.7	19.6
4 1	12 28.81	+ 1 18.9	1.191	2.187	3.1	20.2	4 1	12 29.07	+ 1 39.0	1.315	2.310	3.0	19.6
4 11	12 18.62	+ 1 45.5	1.196	2.171	8.2	20.4	4 11	12 19.91	+ 2 6.7	1.354	2.328	7.6	19.9
4 21	12 9.96	+ 1 58.3	1.224	2.156	13.4	20.7	4 21	12 12.48	+ 2 20.5	1.416	2.345	12.1	20.2
5 1	12 3.89	+ 1 53.6	1.274	2.141	17.9	20.9	5 1	12 7.53	+ 2 18.0	1.500	2.362	15.9	20.5
274523	2008 SK ₁₈₉		3 29.2 263°83	0°9/30.1	17		498653	2008 SJ ₉₀		3 29.2 167°30	0°8/30.1	17	
2 21	12 55.28	- 8 20.9	2.088	2.879	13.9	21.5	2 21	12 56.46	- 8 7.4	2.443	3.223	12.4	22.3
3 2	12 51.38	- 8 4.0	1.983	2.863	11.0	21.3	3 2	12 51.81	- 7 53.1	2.353	3.227	9.7	22.1
3 12	12 45.40	- 7 32.5	1.901	2.847	7.5	21.0	3 12	12 45.40	- 7 26.8	2.287	3.230	6.6	21.9
3 22	12 37.81	- 6 48.5	1.845	2.831	3.5	20.7	3 22	12 37.73	- 6 51.0	2.248	3.233	3.1	21.7
4 1	12 29.38	- 5 56.2	1.816	2.815	1.2	20.5	4 1	12 29.49	- 6 9.0	2.238	3.236	1.1	21.6
4 11	12 21.06	- 5 1.4	1.817	2.798	5.2	20.8	4 11	12 21.48	- 5 25.6	2.258	3.238	4.4	21.8
4 21	12 13.74	- 4 10.1	1.845	2.781	9.2	21.0	4 21	12 14.42	- 4 45.3	2.306	3.239	7.8	22.0
5 1	12 8.16	- 3 27.8	1.897	2.764	12.9	21.2	5 1	12 8.87	- 4 12.3	2.380	3.241	10.8	22.2
204663	2006 CM ₆₂		3 29.2 3°69	7°0/25.8	18		315173	2007 HS ₄		3 29.2 56°29	7°9/ 6.2	18	
2 21	12 58.97	+ 9 48.3	0.983	1.850	20.3	18.7	2 21	12 50.76	-29 36.7	1.035	1.793	27.0	20.1
3 2	12 55.91	+10 3.7	0.925	1.848	15.9	18.4	3 2	12 49.73	-28 45.3	0.964	1.801	23.2	19.8
3 12	12 49.11	+10 17.9	0.885	1.847	11.1	18.2	3 12	12 45.13	-26 56.3	0.906	1.810	18.5	19.5
3 22	12 39.52	+10 21.3	0.866	1.849	7.4	18.0	3 22	12 37.86	-24 6.5	0.866	1.819	13.3	19.3
4 1	12 28.74	+10 4.9	0.869	1.852	8.0	18.0	4 1	12 29.45	-20 23.4	0.847	1.829	8.7	19.0
4 11	12 18.72	+ 9 23.5	0.893	1.857	12.3	18.2	4 11	12 21.76	-16 8.8	0.854	1.838	8.6	19.1
4 21	12 11.03	+ 8 17.4	0.938	1.863	17.0	18.5	4 21	12 16.26	-11 52.0	0.886	1.848	12.9	19.3
5 1	12 6.67	+ 6 50.0	1.000	1.871	21.3	18.8	5 1	12 13.91	- 8 0.2	0.940	1.858	18.1	19.6
419790	2010 VX ₂₀₈		3 29.2 235°41	1°1/28.3	17		153783	2001 VQ ₆₀		3 29.2 77°10	3°0/31.9	18	
2 21	12 59.61	- 2 11.6	1.881</										

EPHEMERIDES

3 29.2

3 29.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
107599	2001 DC ₁₀₉		3 29.2 296°31	2°0/30.7	17		333649	2008 RG ₁₁₇		3 29.2 248°05	6°4/ 4.7	18	
2 21	12 56.57	- 9 47.6	1.569	2.370	17.3	19.9	2 21	12 56.93	-23 50.2	2.270	2.974	15.4	21.1
3 2	12 53.07	- 9 50.7	1.477	2.360	13.8	19.6	3 2	12 52.75	-24 20.6	2.158	2.960	13.2	20.9
3 12	12 46.87	- 9 35.6	1.405	2.351	9.6	19.3	3 12	12 46.38	-24 30.7	2.066	2.946	10.8	20.7
3 22	12 38.56	- 9 3.5	1.357	2.341	5.0	19.0	3 22	12 38.30	-24 18.3	1.998	2.931	8.2	20.5
4 1	12 29.15	- 8 18.6	1.334	2.332	2.1	18.8	4 1	12 29.29	-23 43.4	1.955	2.916	6.5	20.4
4 11	12 19.93	- 7 27.8	1.339	2.322	6.2	19.0	4 11	12 20.32	-22 49.0	1.940	2.901	6.8	20.4
4 21	12 12.10	- 6 38.8	1.368	2.313	11.0	19.3	4 21	12 12.35	-21 40.9	1.951	2.885	9.0	20.5
5 1	12 6.61	- 5 58.9	1.419	2.304	15.3	19.5	5 1	12 6.17	-20 26.8	1.988	2.869	11.7	20.6
239884	2000 QX ₁₁₉		3 29.2 231°90	0°3/29.4	17		301848	1994 PQ ₃		3 29.2 238°91	0°8/28.2	18	
2 21	12 57.87	- 7 52.2	2.022	2.811	14.4	21.9	2 21	12 53.13	- 3 14.5	2.856	3.651	10.4	22.1
3 2	12 53.47	- 7 13.5	1.916	2.797	11.3	21.6	3 2	12 49.11	- 2 38.1	2.750	3.637	8.0	21.9
3 12	12 46.83	- 6 18.0	1.833	2.781	7.6	21.4	3 12	12 43.60	- 1 52.8	2.669	3.622	5.2	21.7
3 22	12 38.47	- 5 8.9	1.776	2.764	3.4	21.1	3 22	12 36.99	- 1 1.8	2.617	3.607	2.2	21.4
4 1	12 29.20	- 3 51.5	1.749	2.747	1.2	20.9	4 1	12 29.84	- 0 8.9	2.595	3.591	1.5	21.3
4 11	12 20.04	- 2 33.3	1.750	2.728	5.7	21.2	4 11	12 22.79	+ 0 41.3	2.603	3.575	4.6	21.5
4 21	12 11.94	- 1 21.7	1.779	2.709	10.0	21.4	4 21	12 16.45	+ 1 24.8	2.640	3.558	7.6	21.7
5 1	12 5.70	- 0 22.8	1.833	2.689	13.7	21.6	5 1	12 11.34	+ 1 58.4	2.702	3.541	10.3	21.9
467881	2011 DQ ₂₀		3 29.2 228°68	3°9/24.8	17		171315	2006 HD ₅₂		3 29.2 326°29	20°6/14.3	18	
2 21	12 54.25	+ 3 40.1	2.004	2.831	13.1	21.7	2 21	13 15.78	+39 2.5	1.155	1.952	22.5	19.7
3 2	12 50.54	+ 4 56.3	1.920	2.825	10.0	21.5	3 2	13 9.15	+40 50.8	1.120	1.949	21.2	19.6
3 12	12 44.79	+ 6 20.9	1.861	2.819	6.6	21.3	3 12	12 57.80	+42 5.6	1.101	1.946	20.6	19.6
3 22	12 37.54	+ 7 46.8	1.829	2.812	4.1	21.1	3 22	12 43.15	+42 29.7	1.099	1.943	20.8	19.6
4 1	12 29.60	+ 9 6.3	1.825	2.806	4.9	21.2	4 1	12 27.53	+41 52.3	1.113	1.941	21.9	19.6
4 11	12 21.89	+10 11.7	1.850	2.798	8.1	21.3	4 11	12 13.48	+40 13.8	1.143	1.939	23.6	19.7
4 21	12 15.28	+10 58.3	1.900	2.791	11.6	21.5	4 21	12 2.79	+37 43.9	1.188	1.937	25.5	19.9
5 1	12 10.42	+11 23.6	1.971	2.784	14.6	21.7	5 1	11 56.31	+34 36.2	1.247	1.935	27.4	20.0
325267	2008 GC ₁₁₅		3 29.2 17°00	3°9/25.9	18		137287	1999 RM ₁₈₈		3 29.2 138°69	2°6/27.1	18	
2 21	12 53.35	+ 1 46.2	1.372	2.219	16.8	20.3	2 21	13 1.98	+ 0 7.0	1.589	2.408	16.3	20.5
3 2	12 50.57	+ 2 47.3	1.307	2.222	12.8	20.1	3 2	12 56.83	+ 0 52.8	1.520	2.420	12.4	20.3
3 12	12 45.13	+ 3 59.8	1.263	2.227	8.3	19.8	3 12	12 49.04	+ 1 49.4	1.473	2.431	8.0	20.0
3 22	12 37.74	+ 5 15.3	1.243	2.232	4.4	19.6	3 22	12 39.37	+ 2 50.4	1.452	2.441	3.7	19.8
4 1	12 29.53	+ 6 23.7	1.249	2.237	5.1	19.7	4 1	12 28.93	+ 3 47.9	1.458	2.450	3.6	19.8
4 11	12 21.80	+ 7 16.0	1.279	2.244	9.2	19.9	4 11	12 19.02	+ 4 34.1	1.492	2.459	7.9	20.1
4 21	12 15.66	+ 7 46.5	1.333	2.251	13.6	20.2	4 21	12 10.71	+ 5 3.8	1.552	2.467	12.2	20.3
5 1	12 11.87	+ 7 52.9	1.406	2.258	17.4	20.4	5 1	12 4.77	+ 5 14.5	1.633	2.475	15.8	20.6
20050	1993 FO ₂₁		3 29.2 147°31	0°2/29.3	18		160707	2000 QP ₁₀		3 29.2 207°29	1°5/30.6	17	
2 21	12 57.09	- 5 32.4	2.057	2.854	13.9	19.3	2 21	13 0.01	-10 13.0	2.180	2.951	14.0	21.4
3 2	12 52.62	- 5 19.0	1.972	2.857	10.8	19.1	3 2	12 54.92	- 9 58.7	2.077	2.943	11.2	21.2
3 12	12 46.09	- 4 53.9	1.910	2.861	7.1	18.9	3 12	12 47.68	- 9 29.1	1.997	2.935	7.7	21.0
3 22	12 38.08	- 4 19.9	1.875	2.864	3.1	18.7	3 22	12 38.81	- 8 46.0	1.944	2.927	3.9	20.7
4 1	12 29.40	- 3 41.3	1.868	2.866	1.1	18.5	4 1	12 29.12	- 7 53.1	1.919	2.917	1.6	20.5
4 11	12 21.00	- 3 3.6	1.890	2.869	5.3	18.8	4 11	12 19.59	- 6 55.9	1.925	2.906	5.0	20.8
4 21	12 13.72	- 2 31.7	1.939	2.872	9.1	19.0	4 21	12 11.11	- 6 0.7	1.959	2.894	8.9	21.0
5 1	12 8.25	- 2 9.5	2.013	2.874	12.5	19.3	5 1	12 4.43	- 5 12.9	2.019	2.881	12.4	21.2
497050	2003 SV ₃₂₇		3 29.2 288°70	4°6/ 1.6	17		464667	2001 SR ₂₈₄		3 29.2 200°69	0°5/29.8	17	
2 21	12 56.97	-15 3.0	1.554	2.335	18.3	21.0	2 21	12 56.85	- 7 43.5	2.225	3.011	13.3	22.9
3 2	12 53.67	-15 28.3	1.449	2.314	15.2	20.8	3 2	12 52.37	- 7 18.2	2.129	3.007	10.4	22.7
3 12	12 47.50	-15 32.4	1.364	2.293	11.4	20.5	3 12	12 45.92	- 6 39.4	2.057	3.003	7.0	22.5
3 22	12 38.94	-15 13.7	1.300	2.273	7.3	20.2	3 22	12 38.03	- 5 49.6	2.011	2.998	3.2	22.2
4 1	12 28.99	-14 33.4	1.262	2.252	4.7	20.0	4 1	12 29.44	- 4 53.3	1.994	2.993	1.1	22.0
4 11	12 19.01	-13 37.0	1.250	2.231	6.9	20.0	4 11	12 21.05	- 3 56.3	2.007	2.987	5.0	22.3
4 21	12 10.37	-12 33.1	1.262	2.211	11.4	20.2	4 21	12 13.67	- 3 4.2	2.048	2.980	8.7	22.5
5 1	12 4.19	-11 31.3	1.297	2.190	15.9	20.4	5 1	12 7.97	- 2 21.7	2.114	2.973	12.1	22.7
173343	1999 XU ₅₆		3 29.2 104°40	0°5/29.7	18		217	Eudora		3 29.2 259°23	1°9/26.8	18	
2 21	12 58.24	- 7 49.6	1.776	2.573	15.7	20.6	2 21	12 53.76	- 0 50.3	2.530	3.337	11.3	15.2
3 2	12 53.67	- 7 20.2	1.706	2.590	12.2	20.4	3 2	12 49.87	+ 0 7.8	2.420	3.314	8.7	15.0
3 12	12 46.82	- 6 34.7	1.658	2.607	8.1	20.1	3 12	12 44.24	+ 1 16.1	2.334	3.290	5.6	14.8
3 22	12 38.38	- 5 37.0	1.636	2.623	3.6	19.9	3 22	12 37.32	+ 2 30.3	2.277	3.266	2.6	14.5
4 1	12 29.30	- 4 33.1	1.641	2.640	1.2	19.8	4 1	12 29.71	+ 3 44.8	2.250	3.241	2.7	14.5
4 11	12 20.70	- 3 30.3	1.675	2.655	5.7	20.1	4 11	12 22.16	+ 4 53.4	2.252	3.215	5.9	14.7
4 21	12 13.48	- 2 35.4	1.736	2.671	9.8	20.4	4 21	12 15.39	+ 5 51.2	2.283	3.189	9.2	14.8
5 1	12 8.32	- 1 53.4	1.820	2.685	13.4	20.6	5 1	12 10.00	+ 6 34.3	2.337	3.162	12.2	15.0
114666	2003 FW ₃₆		3 29.2 220°54	0°3/28.8	18		140167	2001 SA ₁₇₉		3 29.2 218°16	1°0/30.6	18	
2 21	12 51.71	- 5 52.5	2.784	3.574	10.8	20.6	2 21	12 52.48	-10 54.0	2.948	3.714	10.8	21.2
3 2	12 48.03	- 5 8.9	2.685	3.568	8.3	20.4	3 2	12 48.57	-10 14.5	2.840	3.705	8.6	21.0
3 12	12 42.87	- 4 14.4	2.610	3.561	5.5	20.2	3 12	12 43.22	- 9 21.7	2.757	3.695	5.9	20.8
3 22	12 36.66	- 3 12.1	2.564	3.553	2.3	20.0	3 22	12 36.82	- 8 18.0	2.701	3.685	2.9	20.6
4 1	12 29.96	- 2 6.4	2.548	3.546	1.1	19.8	4 1	12 29.93	- 7 6.9	2.676	3.674	1.1	20.4
4 11	12 23.40	- 1 2.3	2.562	3.538	4.4	20.1	4 11	12 23.15	- 5 53.3	2.682	3.662	3.8	20.6
4 21	12 17.58	- 0 4.2	2.605	3.530	7.4	20.3	4 21	12 17.08	- 4 42.2	2.717	3.650	6.8	20.8
5 1	12 13.00	+ 0 43.9	2.674	3.521	10.2	20.4	5 1	12 12.21	- 3 38.0	2.779	3.638	9.5	21.0
21327	Yabuzuka		3 29.2 114°10	2°0/30.7	18		166948	2003 JL ₉		3 29.2 310°77	2°8/27.1	16	
2 21	13 1.07	- 9 16.4	1.703	2									

EPHEMERIDES

3 29.2

3 29.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
502847	2015 <i>DZ</i> ₁₆₉		3 29.2 40°36'	8°3'	7.4	18	229801	2008 <i>SN</i> ₃₇		3 29.2 304°56'	1°0'	28.2	17
2 21	12 53.63	-28 26.6	1.840	2.539	18.6	20.1	2 21	12 55.67	-2 37.6	1.932	2.744	14.1	20.7
3 2	12 50.55	-28 52.6	1.756	2.546	16.3	19.9	3 2	12 51.70	-2 12.1	1.847	2.742	10.8	20.5
3 12	12 45.04	-28 50.1	1.688	2.553	13.5	19.8	3 12	12 45.60	-1 35.8	1.785	2.741	7.0	20.3
3 22	12 37.72	-28 16.5	1.641	2.560	10.8	19.6	3 22	12 37.93	-0 52.6	1.749	2.739	2.9	20.0
4 1	12 29.57	-27 12.3	1.617	2.568	8.7	19.5	4 1	12 29.54	-0 7.9	1.741	2.737	2.0	19.9
4 11	12 21.75	-25 42.8	1.619	2.576	8.4	19.5	4 11	12 21.42	+0 32.2	1.761	2.735	6.1	20.2
4 21	12 15.28	-23 57.1	1.646	2.584	10.1	19.6	4 21	12 14.45	+1 2.7	1.807	2.734	10.0	20.4
5 1	12 10.95	-22 5.9	1.697	2.592	12.7	19.8	5 1	12 9.34	+1 20.0	1.876	2.732	13.5	20.6
331437	2012 <i>GR</i> ₂₀		3 29.2 249°12'	5°9'	22.9	17	338356	2002 <i>XJ</i> ₃₅		3 29.2 141°44'	0°7'	28.3	17
2 21	12 55.97	+9 38.5	1.921	2.754	13.3	20.8	2 21	12 55.28	-3 2.5	2.867	3.658	10.5	22.1
3 2	12 52.00	+10 56.5	1.840	2.744	10.3	20.6	3 2	12 50.58	-2 32.7	2.786	3.671	8.0	21.9
3 12	12 45.83	+12 17.8	1.783	2.734	7.5	20.4	3 12	12 44.44	-1 55.3	2.731	3.683	5.2	21.7
3 22	12 38.03	+13 34.6	1.753	2.724	5.9	20.3	3 22	12 37.32	-1 13.3	2.705	3.694	2.1	21.5
4 1	12 29.46	+14 38.2	1.751	2.713	7.0	20.3	4 1	12 29.80	-0 30.5	2.709	3.705	1.4	21.5
4 11	12 21.14	+15 22.1	1.774	2.702	9.9	20.4	4 11	12 22.52	+0 9.1	2.743	3.715	4.4	21.7
4 21	12 13.99	+15 42.6	1.822	2.691	13.1	20.6	4 21	12 16.06	+0 42.3	2.806	3.725	7.2	21.9
5 1	12 8.75	+15 39.2	1.891	2.680	16.0	20.8	5 1	12 10.87	+1 6.3	2.895	3.734	9.7	22.1
436018	2009 <i>HN</i> ₃₄		3 29.2 48°71'	2°1'	31.7	17	179835	2002 <i>TX</i> ₁₈₃		3 29.2 197°17'	2°0'	31.1	17
2 21	12 51.19	-14 27.4	1.985	2.761	15.0	20.8	2 21	12 56.98	-11 46.2	2.009	2.785	14.9	20.3
3 2	12 48.10	-13 40.9	1.913	2.780	12.0	20.7	3 2	12 52.73	-11 29.9	1.914	2.782	11.9	20.1
3 12	12 43.10	-12 33.8	1.863	2.798	8.4	20.5	3 12	12 46.29	-10 55.9	1.842	2.780	8.3	19.8
3 22	12 36.79	-11 9.5	1.838	2.817	4.6	20.3	3 22	12 38.24	-10 6.2	1.795	2.777	4.4	19.6
4 1	12 29.98	-9 33.9	1.841	2.836	2.1	20.1	4 1	12 29.41	-9 4.8	1.777	2.773	2.0	19.4
4 11	12 23.55	-7 55.2	1.872	2.856	4.8	20.3	4 11	12 20.80	-7 58.2	1.787	2.769	5.1	19.6
4 21	12 18.25	-6 21.3	1.932	2.876	8.4	20.6	4 21	12 13.33	-6 53.2	1.824	2.764	9.1	19.8
5 1	12 14.65	-4 58.9	2.016	2.895	11.7	20.8	5 1	12 7.72	-5 56.2	1.887	2.759	12.7	20.0
118500	2000 <i>DH</i> ₆₄		3 29.2 61°74'	2°1'	30.7	18	293355	2007 <i>DM</i> ₁₁₀		3 29.2 78°81'	0°6'	28.6	18
2 21	12 58.90	-9 47.0	1.298	2.109	19.7	19.5	2 21	12 56.28	-5 48.7	1.771	2.579	15.4	21.1
3 2	12 55.10	-9 49.4	1.230	2.119	15.6	19.2	3 2	12 52.09	-4 57.2	1.710	2.602	11.7	21.0
3 12	12 48.25	-9 30.6	1.181	2.129	10.7	19.0	3 12	12 45.74	-3 50.8	1.672	2.626	7.6	20.8
3 22	12 39.14	-8 52.9	1.154	2.139	5.4	18.7	3 22	12 37.92	-2 35.0	1.659	2.649	3.1	20.5
4 1	12 29.04	-8 1.9	1.152	2.149	2.2	18.5	4 1	12 29.59	-1 17.2	1.675	2.672	1.7	20.5
4 11	12 19.50	-7 6.4	1.176	2.160	6.8	18.8	4 11	12 21.77	-0 5.2	1.719	2.695	6.0	20.8
4 21	12 11.78	-6 15.2	1.223	2.171	11.8	19.1	4 21	12 15.31	+0 54.6	1.789	2.717	10.0	21.1
5 1	12 6.80	-5 36.0	1.292	2.181	16.2	19.4	5 1	12 10.82	+1 38.0	1.883	2.740	13.4	21.3
244165	2001 <i>XR</i> ₄₄		3 29.2 154°12'	4°2'	25.5	18	296820	2009 <i>WT</i> ₇		3 29.2 160°23'	0°1'	29.2	17
2 21	13 2.91	+6 5.0	1.883	2.701	14.2	21.1	2 21	12 57.02	-5 50.9	2.208	3.001	13.2	21.7
3 2	12 57.15	+6 51.8	1.812	2.710	10.9	20.9	3 2	12 52.42	-5 26.7	2.123	3.006	10.2	21.5
3 12	12 49.07	+7 42.5	1.765	2.718	7.3	20.7	3 12	12 45.91	-4 50.7	2.061	3.011	6.7	21.3
3 22	12 39.35	+8 30.8	1.744	2.726	4.5	20.6	3 22	12 38.02	-4 5.9	2.026	3.015	2.9	21.0
4 1	12 28.97	+9 9.7	1.753	2.733	5.1	20.6	4 1	12 29.53	-3 16.8	2.020	3.019	1.1	20.9
4 11	12 19.05	+9 33.8	1.789	2.739	8.3	20.8	4 11	12 21.31	-2 29.1	2.044	3.022	5.1	21.2
4 21	12 10.52	+9 40.1	1.852	2.744	11.8	21.0	4 21	12 14.14	-1 47.6	2.095	3.025	8.7	21.4
5 1	12 4.09	+9 28.1	1.937	2.749	14.9	21.3	5 1	12 8.65	-1 16.4	2.171	3.027	11.9	21.6
331914	2004 <i>RH</i> ₁₆₇		3 29.2 263°07'	1°9'	27.4	17	470862	2008 <i>YW</i> ₁₄₂		3 29.2 190°50'	4°1'	23.9	17
2 21	12 58.44	+0 18.3	2.072	2.883	13.3	21.3	2 21	12 54.53	+7 54.3	2.558	3.379	10.8	22.0
3 2	12 53.87	+0 44.4	1.967	2.863	10.3	21.0	3 2	12 50.28	+8 57.4	2.478	3.378	8.3	21.8
3 12	12 47.09	+1 19.1	1.886	2.842	6.7	20.8	3 12	12 44.39	+10 3.2	2.425	3.376	5.7	21.6
3 22	12 38.61	+1 58.2	1.832	2.821	3.0	20.5	3 22	12 37.35	+11 6.2	2.399	3.374	4.1	21.5
4 1	12 29.22	+2 36.5	1.806	2.799	2.8	20.4	4 1	12 29.80	+12 0.8	2.403	3.372	4.9	21.6
4 11	12 19.92	+3 8.3	1.809	2.777	6.6	20.6	4 11	12 22.48	+12 42.2	2.435	3.369	7.3	21.7
4 21	12 11.64	+3 29.1	1.839	2.755	10.5	20.8	4 21	12 16.04	+13 7.7	2.494	3.366	9.9	21.9
5 1	12 5.17	+3 35.6	1.892	2.732	14.1	21.0	5 1	12 11.00	+13 16.0	2.576	3.362	12.3	22.0
141321	2001 <i>YL</i> ₁₃₀		3 29.2 63°48'	0°4'	29.7	17	435309	2007 <i>UZ</i> ₅₇		3 29.2 90°16'	1°7'	31.3	17
2 21	12 55.15	-6 19.2	2.221	3.015	13.1	20.5	2 21	12 54.02	-12 8.9	2.367	3.136	13.1	21.7
3 2	12 50.91	-6 9.1	2.145	3.028	10.1	20.3	3 2	12 49.94	-11 42.9	2.292	3.156	10.3	21.6
3 12	12 44.85	-5 47.8	2.093	3.041	6.7	20.1	3 12	12 44.16	-11 1.9	2.239	3.175	7.2	21.4
3 22	12 37.53	-5 18.1	2.067	3.055	3.0	19.9	3 22	12 37.23	-10 8.2	2.214	3.194	3.8	21.2
4 1	12 29.70	-4 43.8	2.070	3.068	1.0	19.8	4 1	12 29.86	-9 5.9	2.217	3.213	1.7	21.1
4 11	12 22.18	-4 9.6	2.102	3.082	4.7	20.1	4 11	12 22.81	-8 0.8	2.250	3.232	4.3	21.3
4 21	12 15.71	-3 40.0	2.161	3.096	8.2	20.3	4 21	12 16.76	-6 58.2	2.311	3.250	7.5	21.5
5 1	12 10.86	-3 18.5	2.245	3.109	11.3	20.5	5 1	12 12.22	-6 3.2	2.398	3.268	10.4	21.7
52831	1998 <i>RA</i> ₄₇		3 29.2 65°29'	2°0'	30.9	18	506037	2015 <i>KD</i> ₃₃		3 29.2 244°29'	1°9'	27.1	17
2 21	12 55.27	-12 31.2	1.312	2.119	19.7	19.3	2 21	12 55.68	+1 30.8	2.492	3.302	11.4	21.8
3 2	12 52.24	-11 57.7	1.244	2.130	15.7	19.1	3 2	12 51.23	+1 54.6	2.399	3.294	8.7	21.6
3 12	12 46.32	-10 57.3	1.195	2.141	10.9	18.8	3 12	12 45.07	+2 24.1	2.331	3.287	5.6	21.4
3 22	12 38.30	-9 33.7	1.168	2.153	5.6	18.6	3 22	12 37.67	+2 55.6	2.291	3.279	2.6	21.2
4 1	12 29.39	-7 55.0	1.167	2.164	2.1	18.4	4 1	12 29.68	+3 25.1	2.280	3.272	2.6	21.1
4 11	12 21.03	-6 13.2	1.191	2.176	6.6	18.7	4 11	12 21.87	+3 48.2	2.299	3.264	5.6	21.3
4 21	12 14.41	-4 39.9	1.240	2.188	11.6	19.0	4 21	12 14.95	+4 1.8	2.345	3.256	8.8	21.5
5 1	12 10.35	-3 24.1	1.311	2.200	16.1	19.3	5 1	12 9.48	+4 3.7	2.415	3.248	11.6	21.7
192694	1999 <i>TM</i> ₄₄		3 29.2 153°06'	0°9'	30.1	17	333088	2011 <i>UM</i> ₁₆₆		3 29.2 74°78'	0°2'	29.0	18
2 21	12 56.17	-8 17.3	2.220										

EPHEMERIDES

3 29.2

3 29.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
371279	2006 <i>DP</i> ₁₁₃		3 29.2 136°31	4.5/1.7	17		477965	2011 <i>SH</i> ₄₂		3 29.2 186°43	0.1/29.2	17	
2 21	13 5.35	-15 11.7	2.195	2.932	14.9	20.8	2 21	12 53.60	-5 33.6	2.692	3.481	11.2	22.3
3 2	12 59.04	-16 8.8	2.102	2.938	12.3	20.6	3 2	12 49.51	-5 8.4	2.599	3.481	8.6	22.1
3 12	12 50.41	-16 52.2	2.033	2.945	9.3	20.4	3 12	12 43.89	-4 33.4	2.531	3.481	5.7	21.9
3 22	12 40.03	-17 20.1	1.989	2.950	6.2	20.2	3 22	12 37.16	-3 51.4	2.491	3.480	2.4	21.7
4 1	12 28.77	-17 32.4	1.975	2.956	4.5	20.1	4 1	12 29.94	-3 5.9	2.481	3.479	1.0	21.5
4 11	12 17.72	-17 31.4	1.990	2.961	5.8	20.2	4 11	12 22.90	-2 21.5	2.500	3.477	4.3	21.8
4 21	12 7.85	-17 21.2	2.034	2.966	8.7	20.4	4 21	12 16.66	-1 42.2	2.548	3.476	7.4	22.0
5 1	11 59.97	-17 7.1	2.103	2.971	11.7	20.6	5 1	12 11.74	-1 11.3	2.621	3.474	10.2	22.2
378868	2008 <i>TE</i> ₁₀₃		3 29.2 328°55	2.9/26.9	17		105731	2000 <i>SU</i> ₈₃		3 29.2 188°45	0.5/28.8	18	
2 21	12 57.79	+2 52.4	1.714	2.542	14.9	20.2	2 21	12 59.92	-4 31.0	1.954	2.752	14.5	20.9
3 2	12 53.65	+3 9.9	1.630	2.534	11.5	20.0	3 2	12 54.98	-4 4.3	1.865	2.752	11.2	20.6
3 12	12 47.07	+3 33.6	1.567	2.526	7.5	19.7	3 12	12 47.78	-3 24.9	1.799	2.751	7.4	20.4
3 22	12 38.63	+3 58.7	1.530	2.519	3.7	19.5	3 22	12 38.91	-2 36.5	1.759	2.749	3.1	20.1
4 1	12 29.32	+4 19.2	1.520	2.511	3.7	19.5	4 1	12 29.25	-1 44.5	1.749	2.746	1.5	20.0
4 11	12 20.29	+4 29.6	1.537	2.505	7.6	19.7	4 11	12 19.86	-0 55.3	1.767	2.743	5.9	20.3
4 21	12 12.58	+4 26.3	1.579	2.499	11.7	19.9	4 21	12 11.68	-0 14.5	1.812	2.739	10.0	20.5
5 1	12 7.00	+4 7.3	1.644	2.493	15.4	20.1	5 1	12 5.46	+0 13.6	1.882	2.734	13.6	20.7
522695	2016 <i>LR</i> ₂		3 29.2 41°25	4.9/24.0	18		245793	2006 <i>HQ</i> ₃₈		3 29.2 262°82	1.2/28.1	16	
2 21	12 52.33	+4 5.8	1.669	2.510	14.6	20.4	2 21	12 55.98	-4 11.8	1.644	2.462	15.9	21.2
3 2	12 49.35	+5 44.2	1.604	2.516	11.1	20.2	3 2	12 52.50	-3 25.8	1.549	2.448	12.3	20.9
3 12	12 44.14	+7 31.4	1.562	2.522	7.4	20.0	3 12	12 46.47	-2 23.0	1.476	2.433	8.1	20.6
3 22	12 37.33	+9 18.2	1.547	2.529	5.0	19.9	3 22	12 38.46	-1 8.1	1.428	2.418	3.4	20.3
4 1	12 29.86	+10 54.2	1.559	2.535	6.1	20.0	4 1	12 29.41	+0 11.2	1.407	2.403	2.4	20.2
4 11	12 22.78	+12 10.7	1.597	2.542	9.5	20.2	4 11	12 20.52	+1 25.7	1.413	2.388	7.2	20.5
4 21	12 17.00	+13 2.4	1.659	2.549	13.0	20.4	4 21	12 12.92	+2 27.4	1.445	2.373	12.0	20.7
5 1	12 13.19	+13 27.7	1.742	2.556	16.2	20.6	5 1	12 7.50	+3 10.4	1.498	2.357	16.1	20.9
74668	1999 <i>RJ</i> ₉₆		3 29.2 229°71	1.0/28.2	17		156562	2002 <i>EB</i> ₆₄		3 29.2 213°73	0.2/29.0	17	
2 21	12 57.85	-3 41.6	1.973	2.777	14.1	20.8	2 21	12 54.37	-6 27.1	2.161	2.958	13.3	20.4
3 2	12 53.47	-3 2.7	1.875	2.766	10.9	20.6	3 2	12 50.53	-5 46.6	2.068	2.954	10.3	20.2
3 12	12 46.86	-2 10.7	1.799	2.754	7.2	20.3	3 12	12 44.78	-4 52.0	1.998	2.949	6.8	20.0
3 22	12 38.54	-1 9.6	1.751	2.741	3.0	20.0	3 22	12 37.61	-3 47.1	1.955	2.944	2.9	19.7
4 1	12 29.36	-0 5.4	1.731	2.727	2.0	19.9	4 1	12 29.77	-2 37.3	1.941	2.939	1.2	19.6
4 11	12 20.33	+0 54.9	1.740	2.713	6.3	20.2	4 11	12 22.14	-1 29.0	1.956	2.934	5.3	19.8
4 21	12 12.42	+1 45.0	1.775	2.698	10.4	20.4	4 21	12 15.52	-0 28.3	1.999	2.928	9.1	20.0
5 1	12 6.39	+2 20.4	1.835	2.683	14.1	20.6	5 1	12 10.53	+0 19.9	2.066	2.922	12.4	20.2
66470	1999 <i>RP</i> ₁₈		3 29.2 270°20	0.8/28.3	18		425245	2009 <i>WJ</i> ₄₅		3 29.2 127°37	6.9/22.1	18	
2 21	12 53.69	-5 47.7	2.138	2.939	13.3	20.0	2 21	12 59.82	+15 47.6	2.097	2.920	12.7	21.4
3 2	12 50.20	-4 48.0	2.026	2.915	10.3	19.7	3 2	12 54.58	+16 51.5	2.039	2.930	10.2	21.2
3 12	12 44.69	-3 32.0	1.937	2.890	6.8	19.4	3 12	12 47.29	+17 51.3	2.004	2.940	7.9	21.1
3 22	12 37.62	-2 3.5	1.874	2.864	2.8	19.1	3 22	12 38.61	+18 39.6	1.997	2.949	6.9	21.1
4 1	12 29.70	-0 29.0	1.842	2.838	1.8	19.0	4 1	12 29.42	+19 10.1	2.017	2.958	7.9	21.1
4 11	12 21.83	+1 3.7	1.838	2.812	6.0	19.2	4 11	12 20.68	+19 19.0	2.063	2.967	10.0	21.3
4 21	12 14.87	+2 26.9	1.862	2.785	10.0	19.4	4 21	12 13.22	+19 5.5	2.134	2.975	12.5	21.5
5 1	12 9.56	+3 34.7	1.911	2.758	13.6	19.6	5 1	12 7.62	+18 31.1	2.226	2.983	14.8	21.6
453842	2011 <i>SK</i> ₂₇₂		3 29.2 148°22	3.1/26.4	18		58384	1995 <i>SR</i> ₅₁		3 29.2 8°54	0.2/29.4	17	
2 21	12 57.74	+0 1.6	1.634	2.459	15.6	21.7	2 21	12 53.21	-6 8.3	2.066	2.868	13.6	20.2
3 2	12 53.58	+1 10.9	1.562	2.466	11.9	21.4	3 2	12 49.69	-5 48.1	1.981	2.869	10.6	20.0
3 12	12 46.96	+2 32.6	1.512	2.472	7.7	21.2	3 12	12 44.23	-5 15.3	1.919	2.870	7.0	19.8
3 22	12 38.55	+3 59.2	1.489	2.477	3.8	21.0	3 22	12 37.37	-4 33.0	1.883	2.871	3.1	19.6
4 1	12 29.39	+5 21.5	1.493	2.482	4.2	21.0	4 1	12 29.87	-3 45.8	1.875	2.873	1.1	19.4
4 11	12 20.64	+6 30.7	1.524	2.487	8.2	21.3	4 11	12 22.63	-2 59.4	1.895	2.875	5.1	19.7
4 21	12 13.34	+7 20.6	1.580	2.491	12.3	21.5	4 21	12 16.44	-2 19.1	1.942	2.877	8.9	19.9
5 1	12 8.22	+7 48.2	1.658	2.495	15.9	21.7	5 1	12 11.92	-1 49.2	2.012	2.879	12.3	20.1
95268	2002 <i>CB</i> ₆₈		3 29.2 177°36	1.8/27.5	18		328825	2009 <i>VV</i> ₁₁₅		3 29.2 192°53	5.1/22.8	17	
2 21	12 59.01	-1 57.0	1.973	2.779	14.0	20.7	2 21	12 56.28	+10 13.5	2.405	3.227	11.3	21.6
3 2	12 54.20	-1 6.2	1.889	2.782	10.7	20.5	3 2	12 51.75	+11 30.3	2.327	3.225	8.8	21.5
3 12	12 47.21	-0 3.8	1.829	2.784	6.9	20.3	3 12	12 45.44	+12 48.8	2.276	3.223	6.4	21.3
3 22	12 38.64	+1 5.2	1.796	2.785	3.0	20.0	3 22	12 37.85	+14 2.5	2.252	3.220	5.1	21.2
4 1	12 29.35	+2 13.8	1.792	2.786	2.7	20.0	4 1	12 29.70	+15 4.9	2.258	3.216	6.1	21.3
4 11	12 20.37	+3 15.2	1.817	2.785	6.6	20.2	4 11	12 21.79	+15 50.7	2.292	3.212	8.4	21.4
4 21	12 12.60	+4 3.5	1.869	2.784	10.5	20.4	4 21	12 14.85	+16 17.1	2.351	3.207	11.0	21.6
5 1	12 6.73	+4 35.4	1.945	2.782	13.8	20.7	5 1	12 9.45	+16 23.4	2.433	3.201	13.4	21.7
387164	2012 <i>TR</i> ₂₄₅		3 29.2 119°77	0.3/28.9	17		308011	2004 <i>RQ</i> ₁₈₆		3 29.2 70°13	0.1/29.2	18	
2 21	12 59.12	-2 53.9	2.366	3.159	12.4	21.0	2 21	13 2.44	-4 5.3	1.372	2.190	18.4	20.5
3 2	12 53.87	-2 54.6	2.283	3.167	9.6	20.8	3 2	12 57.59	-4 8.5	1.307	2.204	14.3	20.3
3 12	12 46.78	-2 47.6	2.224	3.174	6.2	20.6	3 12	12 49.77	-3 58.0	1.263	2.217	9.4	20.1
3 22	12 38.40	-2 35.5	2.193	3.182	2.6	20.4	3 22	12 39.80	-3 37.4	1.242	2.231	4.0	19.8
4 1	12 29.46	-2 21.3	2.191	3.189	1.2	20.3	4 1	12 28.96	-3 12.1	1.247	2.245	1.6	19.6
4 11	12 20.80	-2 8.9	2.220	3.196	4.9	20.6	4 11	12 18.74	-2 48.8	1.278	2.259	7.0	20.0
4 21	12 13.17	-2 1.3	2.276	3.203	8.3	20.8	4 21	12 10.36	-2 33.6	1.335	2.273	11.9	20.3
5 1	12 7.15	-2 1.3	2.358	3.209	11.2	21.0	5 1	12 4.67	-2 30.3	1.412	2.287	16.0	20.6
138651	2000 <i>RQ</i> ₅₉		3 29.2 106°92	1.5/31.0	18		352618	2008 <i>FQ</i> ₁		3 29.2 217°25	1.5/30.9	17	
2 21	12 54.69	-10 31.0	2.594	3.364									

EPHEMERIDES

3 29.2

3 29.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
333499	2005 <i>CC</i> ₁₈		3 29.2 120°55	3.4/	1.1 18		416077	2002 <i>NF</i> ₆₃		3 29.2 281°37	1.0/28.4 17		
2 21	12 59.65	-13 50.4	1.706	2.480	17.2	20.9	2 21	12 57.05	-3 30.8	1.629	2.447	16.0	22.0
3 2	12 55.09	-13 59.1	1.627	2.489	13.9	20.7	3 2	12 53.43	-3 5.1	1.530	2.428	12.5	21.7
3 12	12 48.00	-13 47.8	1.568	2.499	10.0	20.5	3 12	12 47.18	-2 24.8	1.452	2.409	8.2	21.4
3 22	12 39.04	-13 17.2	1.533	2.508	5.9	20.3	3 22	12 38.83	-1 33.9	1.399	2.389	3.5	21.1
4 1	12 29.24	-12 30.7	1.524	2.517	3.4	20.2	4 1	12 29.32	-0 38.7	1.373	2.370	2.1	20.9
4 11	12 19.82	-11 34.8	1.544	2.525	5.8	20.3	4 11	12 19.92	+0 12.8	1.374	2.350	7.1	21.2
4 21	12 11.86	-10 37.2	1.589	2.533	9.8	20.6	4 21	12 11.79	+0 53.5	1.399	2.331	12.0	21.4
5 1	12 6.14	-9 45.2	1.658	2.541	13.6	20.8	5 1	12 5.90	+1 18.2	1.447	2.311	16.3	21.6
170803	2004 <i>DY</i> ₂₉		3 29.2 120°43	4.0/	2.2 17		180085	2003 <i>EW</i> ₁		3 29.2 69°78	0.2/29.4 18		
2 21	12 58.54	-16 15.5	2.331	3.073	14.0	20.2	2 21	12 57.12	-4 49.2	2.268	3.062	12.8	20.1
3 2	12 53.66	-16 47.1	2.239	3.078	11.6	20.0	3 2	12 52.48	-4 49.9	2.183	3.067	10.0	19.9
3 12	12 46.80	-17 3.6	2.170	3.083	8.7	19.8	3 12	12 45.97	-4 41.3	2.122	3.071	6.6	19.7
3 22	12 38.48	-17 4.5	2.126	3.088	5.8	19.6	3 22	12 38.11	-4 25.6	2.088	3.076	2.9	19.4
4 1	12 29.46	-16 50.7	2.110	3.093	4.1	19.5	4 1	12 29.65	-4 6.1	2.083	3.081	1.0	19.3
4 11	12 20.64	-16 25.7	2.123	3.098	5.2	19.6	4 11	12 21.46	-3 46.8	2.107	3.086	4.8	19.6
4 21	12 12.85	-15 54.1	2.164	3.103	8.0	19.8	4 21	12 14.29	-3 31.6	2.158	3.091	8.3	19.8
5 1	12 6.76	-15 21.3	2.230	3.107	10.8	20.0	5 1	12 8.75	-3 23.6	2.235	3.096	11.4	20.0
303770	2005 <i>QR</i> ₁₇₂		3 29.2 232°65	1.8/31.5 18			313733	2003 <i>UJ</i> ₁₉₂		3 29.2 97°29	0.2/29.0 18		
2 21	12 53.85	-11 48.8	2.797	3.559	11.5	21.6	2 21	12 59.75	-5 18.2	1.683	2.489	16.1	21.3
3 2	12 49.76	-11 41.1	2.690	3.549	9.2	21.4	3 2	12 54.97	-4 53.8	1.616	2.507	12.4	21.1
3 12	12 44.10	-11 21.0	2.607	3.539	6.5	21.2	3 12	12 47.78	-4 15.2	1.571	2.524	8.1	20.9
3 22	12 37.29	-10 49.7	2.550	3.529	3.6	21.0	3 22	12 38.90	-3 26.8	1.552	2.541	3.4	20.6
4 1	12 29.91	-10 9.8	2.523	3.518	1.8	20.9	4 1	12 29.37	-2 34.7	1.560	2.558	1.5	20.5
4 11	12 22.64	-9 25.1	2.526	3.507	3.9	21.0	4 11	12 20.35	-1 45.8	1.596	2.574	6.1	20.8
4 21	12 16.12	-8 39.9	2.558	3.496	6.9	21.2	4 21	12 12.81	-1 6.3	1.658	2.590	10.4	21.1
5 1	12 10.89	-7 58.5	2.616	3.485	9.7	21.3	5 1	12 7.45	-0 40.2	1.743	2.606	14.0	21.4
409938	2006 <i>UF</i> ₇₈		3 29.2 95°84	0.1/29.2 18			347741	2002 <i>AP</i> ₅₃		3 29.2 126°95	7.3/18.5 18		
2 21	13 0.09	-5 4.8	1.783	2.585	15.5	22.2	2 21	12 54.20	+20 35.4	2.580	3.401	10.7	20.8
3 2	12 55.09	-4 49.6	1.715	2.603	12.0	22.0	3 2	12 50.04	+22 4.7	2.528	3.409	8.9	20.7
3 12	12 47.79	-4 21.7	1.669	2.620	7.8	21.8	3 12	12 44.25	+23 27.8	2.503	3.417	7.6	20.6
3 22	12 38.88	-3 44.6	1.648	2.637	3.3	21.5	3 22	12 37.33	+24 37.8	2.504	3.425	7.4	20.6
4 1	12 29.34	-3 3.8	1.656	2.654	1.3	21.4	4 1	12 29.98	+25 29.1	2.532	3.433	8.4	20.7
4 11	12 20.28	-2 25.2	1.692	2.671	5.8	21.7	4 11	12 22.94	+25 58.4	2.585	3.440	10.1	20.8
4 21	12 12.64	-1 54.3	1.755	2.687	9.9	22.0	4 21	12 16.86	+26 4.8	2.662	3.447	11.9	20.9
5 1	12 7.09	-1 34.8	1.841	2.703	13.4	22.3	5 1	12 12.24	+25 49.5	2.758	3.454	13.5	21.1
312114	2007 <i>TG</i> ₁₇₇		3 29.2 131°84	0.7/28.5 18			498089	2007 <i>RV</i> ₂₄₄		3 29.2 139°36	1.6/27.5 17		
2 21	12 58.73	-4 59.4	1.907	2.707	14.7	22.1	2 21	12 57.08	+0 17.0	2.470	3.274	11.6	22.0
3 2	12 53.95	-4 15.2	1.833	2.722	11.3	21.9	3 2	12 52.24	+0 40.7	2.390	3.282	8.9	21.9
3 12	12 47.01	-3 17.5	1.783	2.735	7.3	21.7	3 12	12 45.70	+1 10.6	2.335	3.289	5.7	21.7
3 22	12 38.55	-2 10.8	1.759	2.749	3.0	21.4	3 22	12 37.98	+1 43.2	2.308	3.297	2.5	21.5
4 1	12 29.48	-1 1.7	1.764	2.761	1.7	21.4	4 1	12 29.76	+2 14.3	2.310	3.304	2.2	21.5
4 11	12 20.82	+0 2.6	1.798	2.773	5.9	21.7	4 11	12 21.82	+2 39.8	2.343	3.310	5.3	21.7
4 21	12 13.45	+0 56.2	1.859	2.784	9.9	21.9	4 21	12 14.83	+2 56.4	2.403	3.317	8.5	21.9
5 1	12 8.01	+1 34.9	1.944	2.794	13.3	22.1	5 1	12 9.35	+3 2.2	2.487	3.323	11.2	22.1
493480	2014 <i>YZ</i> ₄₉		3 29.2 357°83	0.3/23.1 17			155768	2000 <i>SC</i> ₂₃₂		3 29.2 200°21	10.0/25.1 17		
2 21	12 34.72	+11 25.4	38.687	39.507	0.8	21.4	2 21	13 19.20	+17 31.3	1.215	2.037	20.2	20.2
3 2	12 34.08	+11 32.0	38.610	39.507	0.6	21.3	3 2	13 11.34	+17 59.0	1.145	2.035	16.5	19.9
3 12	12 33.36	+11 38.4	38.560	39.507	0.4	21.3	3 12	12 59.27	+18 16.5	1.095	2.033	12.7	19.7
3 22	12 32.58	+11 44.4	38.539	39.507	0.4	21.3	3 22	12 44.03	+18 11.7	1.069	2.030	10.1	19.5
4 1	12 31.79	+11 49.9	38.548	39.507	0.4	21.3	4 1	12 27.45	+17 35.0	1.067	2.027	10.8	19.6
4 11	12 31.00	+11 54.7	38.585	39.507	0.6	21.3	4 11	12 11.76	+16 23.3	1.091	2.024	14.2	19.7
4 21	12 30.25	+11 58.5	38.650	39.507	0.8	21.3	4 21	11 58.78	+14 41.1	1.139	2.019	18.4	20.0
5 1	12 29.56	+12 1.3	38.740	39.506	1.0	21.4	5 1	11 49.63	+12 36.3	1.206	2.015	22.2	20.2
409416	2005 <i>GR</i> ₂₀₀		3 29.2 62°05	1.7/27.7 18			294689	2008 <i>AG</i> ₁₁₅		3 29.2 254°12	4.8/3.3 18		
2 21	12 54.69	-3 54.8	1.485	2.312	16.8	21.5	2 21	12 57.00	-19 20.0	2.525	3.248	13.5	20.4
3 2	12 51.48	-2 53.7	1.414	2.318	12.9	21.2	3 2	12 52.48	-19 55.7	2.422	3.243	11.4	20.2
3 12	12 45.71	-1 35.6	1.365	2.325	8.3	21.0	3 12	12 46.07	-20 16.0	2.340	3.238	8.9	20.0
3 22	12 38.08	-0 7.1	1.340	2.331	3.5	20.7	3 22	12 38.23	-20 19.7	2.284	3.233	6.4	19.8
4 1	12 29.65	+1 22.4	1.342	2.338	2.8	20.7	4 1	12 29.65	-20 7.4	2.255	3.227	4.9	19.7
4 11	12 21.67	+2 42.7	1.371	2.345	7.6	21.0	4 11	12 21.16	-19 41.7	2.254	3.222	5.5	19.8
4 21	12 15.18	+3 45.9	1.424	2.352	12.1	21.3	4 21	12 13.57	-19 6.9	2.281	3.217	7.8	19.9
5 1	12 10.95	+4 27.3	1.499	2.359	16.1	21.5	5 1	12 7.53	-18 28.4	2.334	3.211	10.4	20.0
497367	2005 <i>UN</i> ₂₈₁		3 29.2 220°73	2.9/26.4 17			251654	1993 <i>RB</i> ₁₅		3 29.2 105°51	3.0/1.7 18		
2 21	12 59.12	+3 22.7	2.173	2.986	12.7	22.4	2 21	12 56.70	-16 53.0	2.055	2.806	15.4	20.3
3 2	12 54.18	+3 58.5	2.081	2.977	9.7	22.2	3 2	12 52.29	-16 20.2	1.980	2.828	12.4	20.1
3 12	12 47.18	+4 40.2	2.013	2.968	6.4	22.0	3 12	12 45.87	-15 26.1	1.927	2.850	9.0	19.9
3 22	12 38.67	+5 22.9	1.973	2.959	3.4	21.8	3 22	12 38.07	-14 12.9	1.899	2.870	5.4	19.7
4 1	12 29.42	+6 1.1	1.962	2.949	3.7	21.8	4 1	12 29.75	-12 45.6	1.899	2.891	3.0	19.6
4 11	12 20.38	+6 29.5	1.980	2.939	6.9	21.9	4 11	12 21.85	-11 11.6	1.929	2.911	4.9	19.8
4 21	12 12.39	+6 44.5	2.025	2.928	10.4	22.1	4 21	12 15.17	-9 38.9	1.987	2.930	8.3	20.0
5 1	12 6.16	+6 44.1	2.093	2.916	13.5	22.3	5 1	12 10.31	-8 14.6	2.071	2.948	11.5	20.2
76777	2000 <i>KR</i> ₅₉		3 29.2 199°80	4.4/24.3 18			41928	2000 <i>WQ</i> ₁₇₂		3 29.2 62°01	4.4/24.5 18		

EPHEMERIDES

3 29.2

3 29.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
70440	1999 TV ₇		3 29.2 234°80	3°5/25.9	18		217418	2005 QG ₃₉		3 29.2 171°66	4°5/23.9	16	
2 21	13 1.13	+ 4 29.2	2.114	2.926	13.0	20.0	2 21	12 55.86	+ 6 10.0	2.169	2.993	12.3	21.5
3 2	12 55.90	+ 5 12.5	2.015	2.910	10.1	19.8	3 2	12 51.61	+ 7 36.1	2.095	2.997	9.4	21.3
3 12	12 48.44	+ 6 1.8	1.939	2.893	6.7	19.6	3 12	12 45.45	+ 9 7.6	2.046	2.999	6.5	21.1
3 22	12 39.28	+ 6 51.8	1.891	2.875	3.9	19.3	3 22	12 37.94	+10 37.4	2.025	3.002	4.5	21.0
4 1	12 29.25	+ 7 36.1	1.873	2.856	4.4	19.3	4 1	12 29.83	+11 57.7	2.033	3.003	5.5	21.1
4 11	12 19.35	+ 8 8.8	1.883	2.837	7.6	19.5	4 11	12 22.02	+13 1.9	2.069	3.005	8.3	21.2
4 21	12 10.52	+ 8 25.9	1.920	2.816	11.2	19.7	4 21	12 15.27	+13 46.2	2.131	3.005	11.3	21.4
5 1	12 3.54	+ 8 25.6	1.981	2.795	14.5	19.8	5 1	12 10.18	+14 9.1	2.216	3.005	13.9	21.6
402863	2007 RW ₁₂₆		3 29.2 98°91	0°1/29.2	18		322231	2011 BE ₆₅		3 29.2 326°21	0°8/29.9	17	
2 21	12 59.78	- 6 39.8	1.728	2.527	16.0	22.0	2 21	12 53.98	- 7 14.4	1.560	2.375	16.7	20.9
3 2	12 54.88	- 6 2.2	1.664	2.551	12.3	21.8	3 2	12 51.10	- 7 5.1	1.469	2.363	13.2	20.7
3 12	12 47.66	- 5 9.1	1.623	2.574	8.1	21.6	3 12	12 45.65	- 6 38.8	1.398	2.351	8.9	20.4
3 22	12 38.85	- 4 5.2	1.608	2.597	3.4	21.3	3 22	12 38.20	- 5 58.2	1.352	2.340	4.1	20.1
4 1	12 29.47	- 2 57.2	1.621	2.619	1.3	21.2	4 1	12 29.70	- 5 8.5	1.331	2.329	1.4	19.8
4 11	12 20.64	- 1 52.8	1.662	2.640	5.9	21.6	4 11	12 21.40	- 4 17.2	1.336	2.319	6.3	20.1
4 21	12 13.28	- 0 58.6	1.730	2.661	10.1	21.9	4 21	12 14.43	- 3 31.7	1.366	2.310	11.2	20.4
5 1	12 8.03	- 0 18.9	1.821	2.682	13.6	22.1	5 1	12 9.69	- 2 58.5	1.418	2.301	15.4	20.6
205233	2000 QO ₁₁₈		3 29.2 239°54	2°8/31.6	18		96408	1998 EV ₉		3 29.2 47°49	1°2/28.3	18	
2 21	12 59.13	-12 48.5	1.849	2.622	16.1	20.7	2 21	12 55.49	- 4 41.7	1.294	2.126	18.5	19.2
3 2	12 54.81	-12 48.4	1.744	2.609	13.1	20.5	3 2	12 52.36	- 3 55.9	1.234	2.140	14.2	19.0
3 12	12 47.98	-12 29.5	1.660	2.594	9.4	20.2	3 12	12 46.41	- 2 51.9	1.194	2.154	9.2	18.8
3 22	12 39.17	-11 52.3	1.601	2.579	5.4	19.9	3 22	12 38.44	- 1 36.4	1.177	2.168	3.8	18.5
4 1	12 29.28	-10 59.8	1.569	2.563	2.8	19.7	4 1	12 29.68	- 0 18.9	1.186	2.183	2.4	18.4
4 11	12 19.47	- 9 58.1	1.565	2.547	5.7	19.9	4 11	12 21.52	+ 0 50.3	1.220	2.198	7.6	18.8
4 21	12 10.85	- 8 54.7	1.588	2.530	10.0	20.1	4 21	12 15.09	+ 1 43.2	1.278	2.214	12.5	19.1
5 1	12 4.32	- 7 57.4	1.635	2.513	14.0	20.3	5 1	12 11.17	+ 2 15.2	1.356	2.230	16.6	19.4
490188	2008 UT ₃₀₃		3 29.2 59°93	3°9/ 2.4	18		499021	2009 CR ₆₂		3 29.3 67°34	1°7/30.7	17	
2 21	12 54.80	-17 21.1	1.926	2.683	16.1	21.6	2 21	13 1.07	- 7 52.6	2.168	2.946	13.9	21.1
3 2	12 51.02	-17 16.4	1.855	2.703	13.1	21.5	3 2	12 55.66	- 8 21.2	2.082	2.953	11.0	20.9
3 12	12 45.13	-16 50.6	1.804	2.724	9.7	21.3	3 12	12 48.16	- 8 39.3	2.019	2.959	7.6	20.7
3 22	12 37.79	-16 4.8	1.778	2.745	6.2	21.1	3 22	12 39.13	- 8 47.7	1.983	2.966	3.9	20.5
4 1	12 29.87	-15 2.7	1.778	2.766	3.9	21.0	4 1	12 29.41	- 8 48.3	1.976	2.972	1.8	20.4
4 11	12 22.37	-13 51.0	1.807	2.787	5.3	21.1	4 11	12 19.95	- 8 44.5	1.998	2.979	4.8	20.6
4 21	12 16.12	-12 37.1	1.862	2.808	8.5	21.4	4 21	12 11.63	- 8 39.9	2.049	2.986	8.4	20.8
5 1	12 11.74	-11 28.3	1.942	2.829	11.7	21.6	5 1	12 5.12	- 8 38.2	2.125	2.993	11.6	21.0
343054	2009 BJ ₁₈₇		3 29.2 64°21	0°2/29.4	17		215968	2005 QO ₅₃		3 29.3 199°10	0°2/29.0	17	
2 21	12 57.96	- 4 27.0	2.125	2.922	13.5	20.5	2 21	12 53.69	- 4 59.0	2.923	3.710	10.4	21.6
3 2	12 53.23	- 4 28.8	2.045	2.930	10.4	20.4	3 2	12 49.51	- 4 33.8	2.826	3.707	8.0	21.5
3 12	12 46.51	- 4 21.1	1.989	2.939	6.9	20.1	3 12	12 43.89	- 3 59.8	2.754	3.703	5.3	21.3
3 22	12 38.38	- 4 6.2	1.959	2.947	3.0	19.9	3 22	12 37.25	- 3 19.6	2.711	3.699	2.2	21.1
4 1	12 29.64	- 3 47.7	1.958	2.956	1.1	19.8	4 1	12 30.13	- 2 36.6	2.697	3.695	1.0	20.9
4 11	12 21.22	- 3 29.8	1.986	2.965	5.0	20.1	4 11	12 23.16	- 1 54.7	2.714	3.690	4.1	21.2
4 21	12 13.91	- 3 16.4	2.041	2.974	8.7	20.3	4 21	12 16.92	- 1 17.7	2.760	3.685	7.0	21.4
5 1	12 8.35	- 3 10.8	2.121	2.983	11.9	20.5	5 1	12 11.89	- 0 48.7	2.831	3.680	9.7	21.5
292276	2006 SK ₁₂₁		3 29.2 157°47	0°6/29.9	17		225501	2000 NB ₁₉		3 29.3 245°61	1°9/27.3	18	
2 21	12 54.73	- 7 27.3	2.805	3.583	11.0	21.1	2 21	12 56.56	- 0 47.8	2.087	2.898	13.2	21.1
3 2	12 50.32	- 7 11.6	2.715	3.588	8.6	20.9	3 2	12 52.40	- 0 6.1	1.989	2.885	10.2	20.8
3 12	12 44.41	- 6 45.9	2.650	3.593	5.8	20.8	3 12	12 46.15	+ 0 45.9	1.914	2.871	6.6	20.6
3 22	12 37.44	- 6 12.4	2.612	3.598	2.7	20.5	3 22	12 38.33	+ 1 43.6	1.867	2.856	3.0	20.3
4 1	12 30.00	- 5 34.1	2.604	3.603	0.9	20.4	4 1	12 29.71	+ 2 41.2	1.848	2.841	2.8	20.3
4 11	12 22.77	- 4 55.1	2.627	3.607	3.9	20.6	4 11	12 21.23	+ 3 32.2	1.858	2.826	6.5	20.5
4 21	12 16.33	- 4 19.2	2.678	3.610	6.9	20.8	4 21	12 13.78	+ 4 11.4	1.894	2.810	10.3	20.7
5 1	12 11.18	- 3 49.7	2.756	3.614	9.6	21.0	5 1	12 8.06	+ 4 35.2	1.954	2.794	13.7	20.9
98595	2000 WO ₅₇		3 29.2 123°80	2°0/27.4	18		437247	2012 XN ₄₉		3 29.3 359°90	13°0/14.8	17	
2 21	12 59.95	- 1 12.0	1.841	2.651	14.7	20.0	2 21	13 3.51	+35 23.2	1.973	2.758	14.8	20.4
3 2	12 54.93	- 0 25.0	1.773	2.668	11.2	19.8	3 2	12 57.87	+36 35.4	1.931	2.757	13.6	20.3
3 12	12 47.68	+ 0 32.5	1.728	2.684	7.2	19.6	3 12	12 49.65	+37 27.4	1.910	2.756	13.1	20.3
3 22	12 38.88	+ 1 35.0	1.710	2.699	3.2	19.3	3 22	12 39.72	+37 50.7	1.911	2.756	13.2	20.3
4 1	12 29.47	+ 2 35.5	1.720	2.714	2.9	19.3	4 1	12 29.24	+37 39.3	1.934	2.756	14.1	20.3
4 11	12 20.54	+ 3 27.1	1.759	2.727	6.8	19.6	4 11	12 19.49	+36 52.3	1.977	2.757	15.5	20.4
4 21	12 12.96	+ 4 5.0	1.825	2.741	10.6	19.9	4 21	12 11.45	+35 32.8	2.038	2.758	17.0	20.6
5 1	12 7.41	+ 4 26.3	1.913	2.753	13.9	20.1	5 1	12 5.79	+33 46.5	2.117	2.760	18.5	20.7
346089	2007 VQ ₇		3 29.2 252°91	0°3/28.9	17		155094	2005 SB ₁₉₂		3 29.3 20°16	1°9/27.8	18	
2 21	12 55.70	- 4 38.4	2.442	3.236	12.1	22.1	2 21	12 57.28	- 0 17.7	1.494	2.325	16.5	20.2
3 2	12 51.46	- 4 13.3	2.333	3.218	9.4	21.9	3 2	12 53.50	- 0 0.5	1.423	2.329	12.7	20.0
3 12	12 45.40	- 3 37.6	2.248	3.199	6.2	21.7	3 12	12 47.09	+ 0 26.9	1.374	2.333	8.2	19.7
3 22	12 37.96	- 2 53.9	2.191	3.180	2.6	21.4	3 22	12 38.75	+ 0 59.4	1.348	2.339	3.6	19.4
4 1	12 29.80	- 2 6.5	2.163	3.161	1.2	21.2	4 1	12 29.58	+ 1 30.5	1.349	2.344	2.9	19.4
4 11	12 21.72	- 1 20.4	2.164	3.141	5.0	21.5	4 11	12 20.85	+ 1 53.6	1.376	2.351	7.4	19.7
4 21	12 14.47	- 0 40.1	2.194	3.120	8.6	21.7	4 21	12 13.67	+ 2 3.8	1.427	2.358	11.9	20.0
5 1	12 8.70	- 0 9.8	2.249	3.099	11.7	21.8	5 1	12 8.81	+ 1 58.5	1.500	2.365	15.8	20.2
73658	1981 EU ₁₄		3 29.2 317°60	2°5/30.9	18		346868	2009 FC ₁₉		3 29.3 21°40	1°0/28.2	17	
2 21	12 56.81	- 9 42.2											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
212933	2008 <i>DQ</i> ₈		3 29.3 304°13	0°8/28.4	17	R	334941	2004 <i>BF</i> ₁₀₅		3 29.3 74°27	3°6/25.1	18	
2 21	12 53.40	- 3 12.2	2.200	3.008	12.7	20.8	2 21	12 54.01	+ 3 52.1	2.057	2.884	12.8	20.6
3 2	12 49.84	- 2 46.8	2.104	2.997	9.8	20.5	3 2	12 50.18	+ 5 2.4	1.997	2.901	9.7	20.4
3 12	12 44.40	- 2 11.0	2.031	2.985	6.4	20.3	3 12	12 44.48	+ 6 18.6	1.960	2.918	6.4	20.3
3 22	12 37.56	- 1 28.3	1.984	2.974	2.7	20.0	3 22	12 37.53	+ 7 33.9	1.951	2.935	3.8	20.1
4 1	12 30.03	- 0 43.3	1.966	2.963	1.6	19.9	4 1	12 30.10	+ 8 41.4	1.971	2.952	4.6	20.2
4 11	12 22.65	- 0 1.5	1.976	2.952	5.4	20.2	4 11	12 23.06	+ 9 35.1	2.018	2.968	7.5	20.4
4 21	12 16.22	+ 0 32.5	2.014	2.941	9.1	20.4	4 21	12 17.14	+10 11.2	2.091	2.985	10.6	20.6
5 1	12 11.36	+ 0 54.9	2.075	2.930	12.4	20.6	5 1	12 12.88	+10 28.4	2.187	3.001	13.3	20.9
400581	2008 <i>YS</i> ₇₉		3 29.3 134°67	1°2/28.2	18		49675	1999 <i>SW</i> ₂₇		3 29.3 54°12	17°2/14.5	18	R
2 21	12 58.95	- 4 1.0	1.752	2.561	15.5	22.2	2 21	12 58.19	-38 27.0	1.152	1.832	28.6	17.6
3 2	12 54.36	- 3 13.1	1.679	2.572	11.9	22.0	3 2	12 56.15	-40 20.5	1.089	1.841	26.3	17.4
3 12	12 47.44	- 2 11.1	1.629	2.584	7.7	21.8	3 12	12 49.96	-41 31.6	1.036	1.851	23.7	17.2
3 22	12 38.85	- 1 0.3	1.604	2.594	3.2	21.5	3 22	12 40.35	-41 49.5	0.996	1.860	21.0	17.1
4 1	12 29.57	+ 0 11.9	1.608	2.604	2.2	21.5	4 1	12 28.96	-41 6.6	0.971	1.870	18.6	17.0
4 11	12 20.71	+ 1 17.6	1.640	2.613	6.6	21.8	4 11	12 18.07	-39 25.1	0.964	1.881	17.3	16.9
4 21	12 13.24	+ 2 10.4	1.698	2.622	10.7	22.0	4 21	12 9.73	-36 57.7	0.976	1.891	17.6	17.0
5 1	12 7.85	+ 2 46.4	1.779	2.630	14.3	22.3	5 1	12 5.27	-34 4.0	1.006	1.902	19.2	17.1
16223	2000 <i>DR</i> ₆₉		3 29.3 229°53	0°4/29.7	18		399556	2003 <i>ST</i> ₃₂		3 29.3 145°54	5°1/3.2	18	
2 21	12 55.03	- 6 49.8	2.214	3.006	13.2	18.6	2 21	13 2.28	-19 42.2	2.158	2.880	15.6	21.8
3 2	12 51.04	- 6 31.6	2.121	3.003	10.3	18.4	3 2	12 56.73	-20 7.6	2.071	2.892	13.0	21.6
3 12	12 45.15	- 6 1.0	2.052	3.000	6.9	18.2	3 12	12 48.94	-20 13.7	2.004	2.904	10.0	21.5
3 22	12 37.87	- 5 20.7	2.009	2.996	3.1	17.9	3 22	12 39.51	-19 59.5	1.963	2.915	7.1	21.3
4 1	12 29.92	- 4 34.7	1.994	2.993	1.0	17.7	4 1	12 29.33	-19 26.3	1.949	2.925	5.1	21.2
4 11	12 22.18	- 3 48.5	2.009	2.989	4.9	18.0	4 11	12 19.44	-18 38.3	1.964	2.934	6.0	21.3
4 21	12 15.42	- 3 7.1	2.051	2.985	8.6	18.2	4 21	12 10.79	-17 41.8	2.006	2.943	8.6	21.4
5 1	12 10.28	- 2 34.8	2.118	2.981	11.9	18.4	5 1	12 4.08	-16 43.9	2.075	2.950	11.6	21.6
387825	2004 <i>GY</i> ₁₆		3 29.3 326°16	7°4/21.0	16		455727	2005 <i>GK</i> ₁₃₁		3 29.3 38°88	2°1/27.7	18	
2 21	12 49.34	+10 2.3	1.616	2.470	14.3	19.8	2 21	12 57.20	- 1 12.8	1.311	2.148	18.0	21.2
3 2	12 47.57	+11 46.3	1.521	2.437	11.3	19.5	3 2	12 53.68	- 0 42.1	1.250	2.158	13.8	20.9
3 12	12 43.39	+13 38.5	1.449	2.403	8.5	19.3	3 12	12 47.30	+ 0 1.7	1.209	2.170	8.9	20.7
3 22	12 37.28	+15 28.4	1.403	2.371	7.4	19.1	3 22	12 38.86	+ 0 52.1	1.191	2.182	3.8	20.4
4 1	12 30.11	+17 4.2	1.382	2.339	9.1	19.2	4 1	12 29.60	+ 1 41.0	1.199	2.194	3.2	20.4
4 11	12 23.00	+18 15.2	1.385	2.308	12.5	19.3	4 11	12 20.92	+ 2 19.9	1.232	2.207	8.0	20.7
4 21	12 17.04	+18 55.3	1.410	2.279	16.2	19.4	4 21	12 14.00	+ 2 43.0	1.288	2.220	12.8	21.0
5 1	12 13.16	+19 2.5	1.452	2.250	19.6	19.6	5 1	12 9.62	+ 2 47.2	1.365	2.234	16.8	21.3
235936	2005 <i>EJ</i> ₁₂₇		3 29.3 268°04	1°3/27.9	17		264968	2003 <i>AA</i> ₃₆		3 29.3 32°98	8°3/6.2	18	
2 21	12 54.33	- 2 22.3	2.053	2.866	13.3	21.2	2 21	12 52.88	-25 9.0	1.357	2.107	22.0	19.4
3 2	12 50.61	- 1 43.8	1.967	2.864	10.2	21.0	3 2	12 50.61	-25 37.7	1.292	2.122	18.8	19.3
3 12	12 44.91	- 0 54.4	1.905	2.861	6.6	20.8	3 12	12 45.42	-25 32.2	1.242	2.138	15.2	19.1
3 22	12 37.77	+ 0 1.5	1.869	2.859	2.8	20.5	3 22	12 38.10	-24 50.5	1.213	2.155	11.5	18.9
4 1	12 29.97	+ 0 58.2	1.862	2.857	2.2	20.5	4 1	12 29.88	-23 34.7	1.205	2.173	8.7	18.8
4 11	12 22.41	+ 1 49.4	1.882	2.855	6.0	20.7	4 11	12 22.19	-21 53.5	1.221	2.192	8.7	18.8
4 21	12 15.91	+ 2 29.9	1.930	2.852	9.7	20.9	4 21	12 16.26	-19 59.6	1.261	2.212	11.2	19.0
5 1	12 11.11	+ 2 56.3	2.000	2.850	13.0	21.1	5 1	12 12.90	-18 6.3	1.323	2.232	14.5	19.3
384869	2012 <i>SY</i> ₃₇		3 29.3 142°80	0°1/29.3	17		358061	2006 <i>HA</i> ₆₃		3 29.3 307°14	2°6/27.4	17	
2 21	12 55.24	- 5 44.3	2.329	3.122	12.6	22.1	2 21	12 55.83	- 0 32.4	1.346	2.185	17.5	21.1
3 2	12 51.03	- 5 21.3	2.244	3.127	9.7	21.9	3 2	12 53.06	- 0 0.1	1.254	2.164	13.6	20.8
3 12	12 45.04	- 4 47.3	2.182	3.132	6.4	21.7	3 12	12 47.27	+ 0 46.6	1.182	2.143	9.0	20.4
3 22	12 37.79	- 4 5.2	2.148	3.136	2.8	21.4	3 22	12 39.05	+ 1 41.9	1.133	2.123	4.0	20.1
4 1	12 29.98	- 3 19.2	2.143	3.141	1.0	21.3	4 1	12 29.46	+ 2 37.6	1.108	2.103	3.7	20.0
4 11	12 22.41	- 2 34.4	2.166	3.145	4.8	21.6	4 11	12 19.97	+ 3 23.8	1.109	2.083	8.9	20.2
4 21	12 15.81	- 1 55.3	2.218	3.149	8.2	21.8	4 21	12 11.99	+ 3 52.9	1.133	2.064	14.2	20.4
5 1	12 10.76	- 1 25.9	2.295	3.152	11.3	22.0	5 1	12 6.62	+ 4 0.2	1.176	2.046	18.9	20.7
327029	2004 <i>RY</i> ₂₅₃		3 29.3 159°11	4°2/24.2	17		426504	2013 <i>RO</i> ₃₇		3 29.3 74°98	1°8/27.3	18	
2 21	12 57.59	+ 8 20.5	2.450	3.267	11.3	21.3	2 21	12 52.88	- 4 0.0	1.847	2.663	14.4	20.5
3 2	12 52.67	+ 9 18.5	2.377	3.274	8.7	21.1	3 2	12 49.59	- 2 40.2	1.776	2.675	11.0	20.3
3 12	12 46.02	+10 18.4	2.330	3.280	6.0	21.0	3 12	12 44.25	- 1 5.4	1.729	2.687	7.0	20.1
3 22	12 38.18	+11 14.7	2.312	3.287	4.3	20.9	3 22	12 37.48	+ 0 37.5	1.708	2.699	3.0	19.8
4 1	12 29.84	+12 1.6	2.323	3.292	5.0	20.9	4 1	12 30.13	+ 2 19.9	1.717	2.711	2.8	19.8
4 11	12 21.81	+12 34.6	2.362	3.297	7.4	21.1	4 11	12 23.15	+ 3 52.9	1.753	2.722	6.7	20.1
4 21	12 14.76	+12 51.4	2.428	3.301	10.1	21.3	4 21	12 17.37	+ 5 9.6	1.816	2.734	10.5	20.3
5 1	12 9.25	+12 51.1	2.518	3.305	12.5	21.4	5 1	12 13.39	+ 6 5.9	1.902	2.746	13.8	20.6
431578	2007 <i>VW</i> ₃₂		3 29.3 238°07	1°7/27.5	17		16504	1990 <i>TR</i> ₅		3 29.3 235°14	2°4/31.6	18	
2 21	12 57.35	+ 0 34.4	2.417	3.222	11.8	21.6	2 21	12 58.62	-13 11.0	1.959	2.727	15.5	19.5
3 2	12 52.67	+ 0 55.5	2.320	3.212	9.1	21.4	3 2	12 54.30	-12 54.6	1.850	2.712	12.5	19.2
3 12	12 46.15	+ 1 23.0	2.248	3.202	5.9	21.2	3 12	12 47.61	-12 18.4	1.763	2.696	9.0	19.0
3 22	12 38.29	+ 1 53.6	2.203	3.192	2.7	20.9	3 22	12 39.05	-11 23.4	1.700	2.679	5.0	18.7
4 1	12 29.78	+ 2 22.9	2.187	3.181	2.4	20.9	4 1	12 29.49	-10 13.4	1.666	2.661	2.4	18.5
4 11	12 21.42	+ 2 46.7	2.202	3.170	5.6	21.1	4 11	12 20.00	- 8 54.9	1.661	2.643	5.5	18.7
4 21	12 13.97	+ 3 1.3	2.244	3.158	9.0	21.3	4 21	12 11.61	- 7 36.1	1.683	2.623	9.7	18.9
5 1	12 8.06	+ 3 4.6	2.310	3.146	12.0	21.4	5 1	12 5.19	- 6 24.7	1.729	2.603	13.6	19.1
501210	2013 <i>TF</i> ₁₄₂		3 29.3 225°85	1°3/27.9	17		209382	2004 <i>EO</i> ₄₁					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
457521	2008 WL ₂₂		3 29.3 141°20	0°5/29.7	18		153972	2002 AD ₈₁		3 29.3 28°92	5°4/3.8	18	
2 21	13 1.75	- 6 52.8	1.719	2.515	16.2	22.2	2 21	12 53.09	-20 40.8	1.674	2.428	18.2	19.6
3 2	12 56.64	- 6 37.1	1.642	2.526	12.7	21.9	3 2	12 50.27	-20 41.2	1.591	2.433	15.3	19.4
3 12	12 49.02	- 6 6.1	1.587	2.536	8.5	21.7	3 12	12 45.01	-20 14.7	1.526	2.438	11.8	19.2
3 22	12 39.58	- 5 23.2	1.557	2.545	3.8	21.4	3 22	12 37.93	-19 20.8	1.484	2.443	8.1	19.0
4 1	12 29.35	- 4 33.6	1.555	2.554	1.2	21.3	4 1	12 30.01	-18 2.8	1.466	2.448	5.6	18.8
4 11	12 19.54	- 3 44.4	1.582	2.562	6.0	21.6	4 11	12 22.43	-16 28.3	1.475	2.454	6.5	18.9
4 21	12 11.19	- 3 1.9	1.635	2.569	10.4	21.9	4 21	12 16.20	-14 47.3	1.510	2.460	9.7	19.1
5 1	12 5.08	- 2 31.1	1.711	2.576	14.1	22.1	5 1	12 12.12	-13 10.1	1.568	2.467	13.3	19.3
28661	Jimdickens		3 29.3 225°71	0°2/29.1	17		127139	2002 GG ₁₁₂		3 29.3 90°79	2°5/26.7	18	
2 21	12 54.17	- 5 32.3	2.363	3.158	12.3	19.5	2 21	12 55.80	+ 0 25.1	1.956	2.775	13.7	19.8
3 2	12 50.28	- 5 2.0	2.268	3.153	9.6	19.3	3 2	12 51.68	+ 1 20.9	1.890	2.790	10.3	19.6
3 12	12 44.61	- 4 20.2	2.197	3.147	6.3	19.1	3 12	12 45.56	+ 2 25.6	1.847	2.805	6.7	19.4
3 22	12 37.65	- 3 29.9	2.153	3.142	2.7	18.8	3 22	12 38.06	+ 3 33.2	1.831	2.820	3.2	19.2
4 1	12 30.07	- 2 35.7	2.138	3.136	1.1	18.7	4 1	12 30.03	+ 4 36.9	1.844	2.834	3.4	19.2
4 11	12 22.67	- 1 42.8	2.152	3.129	4.9	19.0	4 11	12 22.40	+ 5 30.2	1.885	2.849	6.8	19.5
4 21	12 16.17	- 0 56.4	2.194	3.123	8.4	19.2	4 21	12 15.96	+ 6 8.6	1.952	2.863	10.3	19.7
5 1	12 11.16	- 0 20.3	2.261	3.116	11.5	19.3	5 1	12 11.31	+ 6 29.8	2.042	2.877	13.4	19.9
180195	2003 SF ₁₁₀		3 29.3 248°57	1°0/30.1	17		102265	1999 TK ₃₈		3 29.3 51°99	0°2/29.1	18	
2 21	12 59.95	- 7 51.3	1.880	2.669	15.3	20.7	2 21	12 54.58	- 7 19.5	1.495	2.312	17.2	19.3
3 2	12 55.41	- 7 44.8	1.773	2.652	12.1	20.5	3 2	12 51.49	- 6 32.8	1.421	2.317	13.4	19.1
3 12	12 48.39	- 7 23.4	1.689	2.635	8.3	20.2	3 12	12 45.83	- 5 26.1	1.368	2.323	8.8	18.8
3 22	12 39.42	- 6 49.0	1.631	2.617	4.0	19.9	3 22	12 38.29	- 4 4.7	1.339	2.328	3.8	18.5
4 1	12 29.36	- 6 5.4	1.600	2.598	1.4	19.7	4 1	12 29.93	- 2 36.8	1.336	2.334	1.5	18.4
4 11	12 19.36	- 5 18.7	1.598	2.578	5.8	19.9	4 11	12 21.97	- 1 12.4	1.360	2.340	6.7	18.7
4 21	12 10.51	- 4 35.2	1.622	2.558	10.3	20.1	4 21	12 15.49	- 0 0.5	1.409	2.347	11.4	19.0
5 1	12 3.70	- 4 0.9	1.671	2.538	14.3	20.3	5 1	12 11.26	+ 0 52.8	1.480	2.353	15.5	19.3
218022	2001 YK ₄₂		3 29.3 144°25	1°4/30.9	18		88443	2001 QG ₇₇		3 29.3 136°81	1°0/30.2	18	
2 21	12 58.15	-10 26.6	2.407	3.174	13.0	21.8	2 21	12 57.53	-10 11.8	1.645	2.440	16.9	19.4
3 2	12 53.18	-10 10.5	2.322	3.187	10.2	21.6	3 2	12 53.55	- 9 32.8	1.567	2.448	13.3	19.2
3 12	12 46.41	- 9 40.8	2.261	3.198	7.0	21.4	3 12	12 47.08	- 8 33.0	1.510	2.456	9.0	19.0
3 22	12 38.38	- 8 59.6	2.227	3.209	3.6	21.2	3 22	12 38.81	- 7 16.2	1.477	2.464	4.3	18.7
4 1	12 29.82	- 8 10.4	2.223	3.220	1.5	21.1	4 1	12 29.74	- 5 49.3	1.472	2.471	1.4	18.5
4 11	12 21.53	- 7 18.4	2.249	3.230	4.4	21.3	4 11	12 21.06	- 4 21.7	1.495	2.477	6.0	18.8
4 21	12 14.26	- 6 28.6	2.303	3.239	7.7	21.5	4 21	12 13.81	- 3 2.0	1.544	2.483	10.5	19.1
5 1	12 8.56	- 5 45.5	2.383	3.247	10.7	21.7	5 1	12 8.76	- 1 57.4	1.616	2.489	14.4	19.3
461925	2006 SM ₁₀₀		3 29.3 351°20	0°3/29.1	17		376379	2012 DU ₂₄		3 29.3 261°45	2°9/26.6	17	
2 21	12 53.32	- 6 33.8	1.417	2.242	17.6	21.1	2 21	12 56.99	+ 1 23.5	1.840	2.662	14.2	21.4
3 2	12 50.73	- 5 57.4	1.338	2.239	13.7	20.9	3 2	12 53.04	+ 2 10.2	1.747	2.649	11.0	21.1
3 12	12 45.45	- 5 1.2	1.280	2.237	9.1	20.6	3 12	12 46.76	+ 3 6.8	1.677	2.635	7.2	20.9
3 22	12 38.15	- 3 50.0	1.244	2.234	3.9	20.3	3 22	12 38.71	+ 4 7.6	1.632	2.620	3.6	20.6
4 1	12 29.88	- 2 31.7	1.235	2.233	1.6	20.1	4 1	12 29.75	+ 5 5.4	1.616	2.606	3.9	20.6
4 11	12 21.95	- 1 16.3	1.251	2.232	7.0	20.4	4 11	12 20.97	+ 5 53.1	1.627	2.591	7.7	20.8
4 21	12 15.51	- 0 12.7	1.291	2.231	12.0	20.7	4 21	12 13.35	+ 6 25.2	1.664	2.576	11.7	21.0
5 1	12 11.42	+ 0 32.4	1.353	2.231	16.3	21.0	5 1	12 7.71	+ 6 38.6	1.723	2.561	15.3	21.2
463816	2014 TW ₁₅		3 29.3 89°94	2°1/31.1	18		494109	2016 CH ₄₈		3 29.3 199°58	4°4/25.2	17	
2 21	13 0.35	-10 51.4	1.810	2.590	16.1	21.4	2 21	12 59.63	+ 5 11.9	1.837	2.661	14.2	21.4
3 2	12 55.34	-10 50.0	1.742	2.612	12.8	21.2	3 2	12 54.96	+ 6 14.4	1.757	2.658	10.9	21.1
3 12	12 48.02	-10 31.7	1.695	2.634	8.8	21.0	3 12	12 47.93	+ 7 23.6	1.700	2.655	7.4	20.9
3 22	12 39.10	- 9 58.6	1.674	2.656	4.7	20.8	3 22	12 39.17	+ 8 32.1	1.669	2.651	4.6	20.7
4 1	12 29.56	- 9 14.9	1.681	2.677	2.1	20.7	4 1	12 29.61	+ 9 32.1	1.667	2.646	5.4	20.8
4 11	12 20.52	- 8 26.8	1.716	2.698	5.3	21.0	4 11	12 20.35	+10 16.5	1.692	2.641	8.7	20.9
4 21	12 12.89	- 7 40.8	1.777	2.718	9.2	21.2	4 21	12 12.37	+10 41.0	1.742	2.635	12.4	21.1
5 1	12 7.35	- 7 2.4	1.863	2.738	12.7	21.5	5 1	12 6.44	+10 44.2	1.814	2.628	15.6	21.3
115156	2003 SR ₇₁		3 29.3 92°81	3°5/1.4	18		463387	2013 CT ₈₂		3 29.3 203°20	0°8/30.1	18	
2 21	12 57.01	-14 52.5	1.598	2.377	18.0	19.8	2 21	13 3.46	- 9 15.6	2.617	3.373	12.3	23.7
3 2	12 53.29	-14 48.9	1.519	2.385	14.6	19.6	3 2	12 57.29	- 8 43.7	2.505	3.365	9.7	23.5
3 12	12 46.99	-14 22.3	1.460	2.392	10.6	19.4	3 12	12 49.20	- 7 58.1	2.419	3.356	6.6	23.2
3 22	12 38.76	-13 33.7	1.424	2.399	6.3	19.2	3 22	12 39.67	- 7 1.1	2.361	3.346	3.1	23.0
4 1	12 29.67	-12 27.3	1.414	2.407	3.5	19.0	4 1	12 29.42	- 5 56.5	2.335	3.333	1.0	22.8
4 11	12 20.96	-11 11.3	1.431	2.414	6.0	19.2	4 11	12 19.29	- 4 49.7	2.342	3.319	4.5	23.0
4 21	12 13.73	- 9 54.6	1.473	2.421	10.1	19.4	4 21	12 10.07	- 3 46.2	2.379	3.304	8.0	23.2
5 1	12 8.78	- 8 45.9	1.539	2.428	14.1	19.7	5 1	12 2.42	- 2 50.9	2.443	3.286	11.2	23.4
198625	2005 AA ₄₆		3 29.3 64°25	4°3/25.6	18		214457	2005 SZ ₈₉		3 29.3 215°62	1°3/31.4	18	
2 21	12 59.35	+ 7 24.0	1.928	2.753	13.6	20.0	2 21	12 52.09	-12 28.5	3.190	3.945	10.3	21.2
3 2	12 54.46	+ 7 55.6	1.859	2.760	10.4	19.8	3 2	12 48.27	-11 52.8	3.080	3.936	8.2	21.0
3 12	12 47.41	+ 8 29.1	1.813	2.767	7.1	19.6	3 12	12 43.11	-11 4.2	2.995	3.927	5.8	20.8
3 22	12 38.85	+ 8 58.9	1.793	2.774	4.5	19.5	3 22	12 37.00	-10 4.7	2.938	3.918	3.1	20.6
4 1	12 29.67	+ 9 19.1	1.801	2.781	5.1	19.5	4 1	12 30.44	- 8 57.3	2.912	3.908	1.4	20.5
4 11	12 20.91	+ 9 25.3	1.837	2.788	8.0	19.7	4 11	12 23.99	- 7 46.4	2.916	3.897	3.5	20.6
4 21	12 13.44	+ 9 15.5	1.899	2.795	11.3	19.9	4 21	12 18.18	- 6 36.5	2.950	3.886	6.2	20.8
5 1	12 7.91	+ 8 49.2	1.983	2.803	14.3	20.1	5 1	12 13.47	- 5 32.0	3.012	3.875	8.7	20.9
118115	3118 T-3		3 29.3 73°94	0°1/29.3	18		215375	2002 AV ₇₃		3 29.3 122°30	1°0/27.9	17	
2 21	12 56.02	- 6 55.2	1.657	2.4									

EPHEMERIDES

3 29.3

3 29.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
443708	2015 <i>KY</i> ₁₂₂		3 29.3 257°83	6°1/20.2	18		297463	2000 <i>SD</i> ₃₁₈		3 29.3 118°56	5°8/6.2	17	
2 21	12 54.10	+16 14.1	2.744	3.566	10.1	20.9	2 21	12 54.74	-26 19.2	2.725	3.402	13.6	20.6
3 2	12 50.09	+17 33.5	2.657	3.547	8.2	20.7	3 2	12 50.63	-26 35.8	2.633	3.413	11.7	20.5
3 12	12 44.45	+18 51.3	2.596	3.527	6.6	20.6	3 12	12 44.82	-26 33.3	2.561	3.423	9.6	20.3
3 22	12 37.63	+20 1.4	2.563	3.507	6.1	20.5	3 22	12 37.80	-26 10.6	2.513	3.432	7.5	20.2
4 1	12 30.21	+20 57.9	2.559	3.486	7.1	20.6	4 1	12 30.22	-25 28.7	2.491	3.442	6.0	20.1
4 11	12 22.92	+21 36.2	2.581	3.465	9.0	20.7	4 11	12 22.85	-24 31.0	2.497	3.451	6.0	20.1
4 21	12 16.41	+21 54.2	2.628	3.444	11.2	20.8	4 21	12 16.39	-23 22.6	2.530	3.460	7.4	20.2
5 1	12 11.24	+21 51.7	2.695	3.423	13.2	20.9	5 1	12 11.39	-22 9.6	2.590	3.469	9.4	20.4
85873	1999 <i>CE</i> ₁		3 29.3 356°26	4°2/26.1	18		124125	2001 <i>KB</i> ₆		3 29.3 251°66	0°2/29.2	17	
2 21	12 56.57	+ 2 21.2	1.292	2.138	17.7	18.5	2 21	13 0.50	- 5 25.5	1.646	2.451	16.4	20.4
3 2	12 53.45	+ 3 15.7	1.222	2.136	13.6	18.3	3 2	12 56.22	- 5 5.0	1.544	2.434	12.9	20.1
3 12	12 47.36	+ 4 21.6	1.173	2.135	9.0	18.0	3 12	12 49.17	- 4 28.6	1.463	2.415	8.7	19.8
3 22	12 39.04	+ 5 30.5	1.147	2.134	4.8	17.8	3 22	12 39.90	- 3 39.4	1.407	2.396	3.8	19.5
4 1	12 29.70	+ 6 32.2	1.145	2.134	5.4	17.8	4 1	12 29.39	- 2 43.1	1.379	2.377	1.5	19.3
4 11	12 20.80	+ 7 17.0	1.169	2.134	9.8	18.0	4 11	12 18.93	- 1 47.5	1.377	2.356	6.8	19.6
4 21	12 13.62	+ 7 39.1	1.215	2.135	14.5	18.3	4 21	12 9.77	- 1 0.2	1.402	2.335	11.8	19.8
5 1	12 9.06	+ 7 36.4	1.280	2.135	18.5	18.5	5 1	12 2.93	- 0 27.2	1.449	2.314	16.2	20.0
193848	2001 <i>QL</i> ₁₀₉		3 29.3 213°77	2°9/26.9	18		266341	2007 <i>DK</i> ₈₀		3 29.3 353°33	2°8/26.7	17	
2 21	13 2.52	+ 2 3.2	1.784	2.599	14.9	21.6	2 21	12 52.76	- 0 36.1	1.524	2.361	16.0	20.5
3 2	12 57.35	+ 2 38.1	1.695	2.592	11.5	21.3	3 2	12 50.10	+ 0 23.2	1.448	2.358	12.2	20.3
3 12	12 49.62	+ 3 21.4	1.629	2.584	7.6	21.1	3 12	12 44.96	+ 1 36.1	1.394	2.356	7.9	20.0
3 22	12 39.96	+ 4 7.5	1.589	2.576	3.8	20.8	3 22	12 37.98	+ 2 55.8	1.364	2.354	3.7	19.8
4 1	12 29.35	+ 4 49.7	1.577	2.567	3.8	20.8	4 1	12 30.16	+ 4 13.0	1.360	2.352	3.9	19.8
4 11	12 18.98	+ 5 21.2	1.594	2.557	7.8	21.0	4 11	12 22.67	+ 5 18.4	1.383	2.351	8.2	20.0
4 21	12 9.96	+ 5 37.7	1.636	2.547	11.9	21.2	4 21	12 16.55	+ 6 5.3	1.429	2.351	12.5	20.3
5 1	12 3.13	+ 5 36.6	1.701	2.536	15.6	21.4	5 1	12 12.60	+ 6 30.1	1.497	2.352	16.3	20.5
208231	2000 <i>SR</i> ₂₆₀		3 29.3 189°72	0°8/30.0	17		439111	2011 <i>SA</i> ₈₉		3 29.3 204°27	0°9/30.3	17	
2 21	12 58.17	- 8 42.5	1.814	2.607	15.6	21.4	2 21	12 55.39	- 7 52.2	2.568	3.348	11.9	21.5
3 2	12 53.93	- 8 14.8	1.725	2.606	12.3	21.2	3 2	12 51.09	- 7 48.0	2.473	3.346	9.3	21.3
3 12	12 47.32	- 7 29.6	1.658	2.605	8.3	21.0	3 12	12 45.12	- 7 33.2	2.402	3.345	6.4	21.1
3 22	12 38.95	- 6 30.1	1.617	2.604	3.9	20.7	3 22	12 37.94	- 7 9.6	2.358	3.343	3.1	20.9
4 1	12 29.74	- 5 21.8	1.603	2.601	1.2	20.5	4 1	12 30.18	- 6 40.1	2.343	3.341	1.1	20.7
4 11	12 20.79	- 4 12.2	1.618	2.599	5.7	20.8	4 11	12 22.60	- 6 8.7	2.358	3.339	4.2	21.0
4 21	12 13.10	- 3 8.9	1.659	2.596	10.1	21.0	4 21	12 15.86	- 5 39.3	2.401	3.337	7.4	21.2
5 1	12 7.46	- 2 17.9	1.724	2.592	13.9	21.2	5 1	12 10.53	- 5 15.6	2.470	3.334	10.3	21.3
341711	2007 <i>VO</i> ₁₈₅		3 29.3 49°21	2°4/1.2	18		37820	1998 <i>BL</i> ₈		3 29.3 243°85	4°8/1.9	18	
2 21	12 51.79	-15 31.7	1.960	2.730	15.4	20.2	2 21	13 2.94	-16 7.8	1.944	2.691	16.3	18.4
3 2	12 48.70	-14 47.3	1.888	2.750	12.3	20.0	3 2	12 57.87	-16 46.5	1.834	2.676	13.6	18.1
3 12	12 43.66	-13 41.4	1.838	2.770	8.8	19.8	3 12	12 50.17	-17 8.3	1.744	2.659	10.3	17.9
3 22	12 37.28	-12 17.1	1.813	2.790	5.0	19.6	3 22	12 40.32	-17 11.5	1.678	2.642	6.9	17.6
4 1	12 30.40	-10 40.4	1.816	2.811	2.4	19.5	4 1	12 29.24	-16 56.1	1.640	2.624	4.8	17.5
4 11	12 23.90	- 8 59.4	1.847	2.831	4.8	19.7	4 11	12 18.12	-16 25.3	1.630	2.605	6.4	17.5
4 21	12 18.56	- 7 22.4	1.907	2.852	8.4	20.0	4 21	12 8.14	-15 45.1	1.647	2.586	9.9	17.7
5 1	12 14.94	- 5 56.5	1.991	2.873	11.7	20.2	5 1	12 0.29	-15 2.7	1.689	2.566	13.7	17.9
386211	2007 <i>VC</i> ₃₂₉		3 29.3 109°43	1°9/27.4	17		439099	2011 <i>SM</i> ₂₄		3 29.3 234°80	0°1/29.4	17	
2 21	12 57.55	+ 1 22.3	2.307	3.116	12.2	21.1	2 21	12 56.17	- 4 52.6	2.693	3.480	11.2	22.1
3 2	12 52.79	+ 1 42.4	2.229	3.123	9.3	20.9	3 2	12 51.64	- 4 43.3	2.590	3.470	8.7	21.9
3 12	12 46.21	+ 2 8.2	2.175	3.130	6.0	20.7	3 12	12 45.48	- 4 25.2	2.512	3.460	5.8	21.7
3 22	12 38.37	+ 2 36.0	2.148	3.137	2.8	20.5	3 22	12 38.10	- 4 0.7	2.461	3.449	2.5	21.4
4 1	12 29.99	+ 3 1.4	2.151	3.144	2.6	20.5	4 1	12 30.13	- 3 32.7	2.440	3.439	0.9	21.3
4 11	12 21.90	+ 3 20.1	2.183	3.150	5.7	20.7	4 11	12 22.27	- 3 5.1	2.450	3.428	4.3	21.5
4 21	12 14.84	+ 3 29.2	2.242	3.157	9.0	21.0	4 21	12 15.20	- 2 41.4	2.488	3.416	7.6	21.7
5 1	12 9.38	+ 3 26.8	2.326	3.163	11.9	21.2	5 1	12 9.48	- 2 24.8	2.551	3.405	10.4	21.9
165408	2000 <i>YV</i> ₁₀		3 29.3 111°99	1°8/30.9	18		480777	2016 <i>PL</i> ₁₃		3 29.3 254°79	3°7/25.2	17	
2 21	13 0.82	-10 21.8	1.766	2.549	16.4	20.5	2 21	12 56.34	+ 7 21.4	2.404	3.224	11.4	20.9
3 2	12 55.85	-10 15.0	1.693	2.566	12.9	20.3	3 2	12 51.88	+ 7 57.5	2.321	3.219	8.8	20.8
3 12	12 48.48	- 9 50.9	1.641	2.582	8.9	20.1	3 12	12 45.66	+ 8 35.7	2.262	3.215	6.0	20.6
3 22	12 39.39	- 9 11.8	1.615	2.598	4.6	19.9	3 22	12 38.17	+ 9 11.3	2.230	3.210	3.9	20.4
4 1	12 29.61	- 8 22.3	1.616	2.613	1.9	19.8	4 1	12 30.11	+ 9 39.4	2.228	3.205	4.5	20.5
4 11	12 20.28	- 7 29.1	1.646	2.628	5.5	20.0	4 11	12 22.29	+ 9 55.7	2.254	3.200	7.0	20.6
4 21	12 12.39	- 6 39.0	1.702	2.643	9.6	20.3	4 21	12 15.41	+ 9 57.9	2.306	3.196	9.9	20.8
5 1	12 6.65	- 5 57.7	1.783	2.656	13.3	20.5	5 1	12 10.05	+ 9 45.0	2.382	3.191	12.5	20.9
105448	2000 <i>QZ</i> ₁₉₀		3 29.3 139°09	5°9/22.4	18		435962	2009 <i>DQ</i> ₅₃		3 29.3 289°61	3°9/24.6	17	
2 21	12 55.45	+ 9 49.1	2.026	2.858	12.8	20.3	2 21	12 52.44	+ 4 52.1	2.176	3.005	12.1	21.3
3 2	12 51.46	+11 24.1	1.962	2.865	9.9	20.1	3 2	12 49.13	+ 6 3.2	2.091	2.996	9.3	21.1
3 12	12 45.47	+13 1.3	1.923	2.872	7.2	19.9	3 12	12 43.98	+ 7 20.7	2.031	2.988	6.2	20.9
3 22	12 38.08	+14 32.5	1.911	2.878	5.9	19.9	3 22	12 37.49	+ 8 38.5	1.999	2.980	4.0	20.7
4 1	12 30.11	+15 49.4	1.927	2.884	7.0	19.9	4 1	12 30.36	+ 9 49.4	1.994	2.972	4.9	20.8
4 11	12 22.49	+16 45.8	1.970	2.890	9.6	20.1	4 11	12 23.43	+10 47.1	2.018	2.964	7.8	20.9
4 21	12 16.01	+17 18.5	2.038	2.895	12.4	20.3	4 21	12 17.46	+11 27.1	2.067	2.956	10.9	21.1
5 1	12 11.29	+17 27.4	2.126	2.900	14.9	20.5	5 1	12 13.06	+11 47.5	2.139	2.948	13.7	21.3
218991	2008 <i>HB</i> ₁₇												

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
170113	2002 <i>XV</i> ₁₀₃		3 29.3 124°56'	4.6/23.9	18		374078	2004 <i>RB</i> ₁₅₁		3 29.3 185°18'	0.8/30.0	17	
2 21	12 55.97	+ 9 41.4	2.390	3.213	11.4	20.2	2 21	12 58.81	- 6 57.9	2.130	2.917	13.8	21.6
3 2	12 51.52	+10 36.5	2.322	3.221	8.8	20.1	3 2	12 54.07	- 6 54.3	2.039	2.917	10.8	21.4
3 12	12 45.36	+11 32.3	2.280	3.229	6.2	19.9	3 12	12 47.27	- 6 38.8	1.971	2.917	7.3	21.1
3 22	12 38.01	+12 23.2	2.264	3.236	4.7	19.8	3 22	12 38.94	- 6 13.4	1.930	2.916	3.4	20.9
4 1	12 30.20	+13 3.6	2.278	3.244	5.4	19.9	4 1	12 29.88	- 5 41.7	1.917	2.916	1.1	20.7
4 11	12 22.69	+13 29.4	2.319	3.251	7.7	20.0	4 11	12 21.05	- 5 8.6	1.934	2.914	5.0	21.0
4 21	12 16.18	+13 38.3	2.386	3.257	10.3	20.2	4 21	12 13.31	- 4 39.0	1.978	2.913	8.8	21.2
5 1	12 11.19	+13 30.1	2.476	3.264	12.7	20.4	5 1	12 7.33	- 4 16.9	2.047	2.911	12.2	21.4
116663	2004 <i>CJ</i> ₄₀		3 29.3 315°51'	4.4/25.1	18		463623	2013 <i>TX</i> ₂₄		3 29.3 252°56'	2.8/27.1	17	
2 21	12 58.00	+ 8 27.7	2.115	2.939	12.6	19.5	2 21	13 1.74	+ 3 43.5	1.956	2.770	13.8	21.0
3 2	12 53.38	+ 9 2.0	2.036	2.936	9.7	19.3	3 2	12 56.52	+ 3 56.1	1.867	2.763	10.7	20.7
3 12	12 46.75	+ 9 37.7	1.981	2.933	6.7	19.1	3 12	12 48.97	+ 4 13.2	1.801	2.756	7.1	20.5
3 22	12 38.67	+10 9.3	1.952	2.930	4.6	19.0	3 22	12 39.70	+ 4 30.4	1.762	2.749	3.6	20.3
4 1	12 29.95	+10 31.2	1.952	2.928	5.2	19.0	4 1	12 29.60	+ 4 42.7	1.751	2.741	3.5	20.2
4 11	12 21.52	+10 39.2	1.980	2.925	7.9	19.2	4 11	12 19.75	+ 4 45.6	1.769	2.734	7.1	20.4
4 21	12 14.21	+10 30.9	2.033	2.923	11.0	19.4	4 21	12 11.12	+ 4 36.2	1.814	2.726	10.9	20.7
5 1	12 8.66	+10 6.1	2.109	2.920	13.8	19.5	5 1	12 4.48	+ 4 13.1	1.882	2.718	14.3	20.9
299570	2006 <i>DV</i> ₂₁₄		3 29.3 118°76'	2.4/31.1	18		24444	2000 <i>OP</i> ₃₂		3 29.3 271°57'	1.6/1.5	18	
2 21	13 1.87	-10 25.7	1.569	2.358	17.8	21.3	2 21	12 47.98	-13 40.8	4.435	5.178	7.8	18.8
3 2	12 57.10	-10 37.0	1.492	2.367	14.2	21.0	3 2	12 44.80	-13 34.9	4.329	5.174	6.3	18.6
3 12	12 49.56	-10 30.2	1.435	2.376	9.9	20.8	3 12	12 40.71	-13 20.6	4.248	5.170	4.5	18.5
3 22	12 39.97	-10 6.7	1.403	2.385	5.3	20.6	3 22	12 35.99	-12 58.9	4.194	5.165	2.8	18.4
4 1	12 29.46	- 9 30.2	1.397	2.393	2.5	20.4	4 1	12 30.98	-12 31.2	4.171	5.161	1.6	18.3
4 11	12 19.36	- 8 47.2	1.418	2.401	6.1	20.6	4 11	12 26.05	-11 59.7	4.177	5.157	2.6	18.3
4 21	12 10.84	- 8 5.2	1.465	2.408	10.6	20.9	4 21	12 21.55	-11 26.8	4.213	5.153	4.4	18.5
5 1	12 4.77	- 7 30.7	1.535	2.415	14.6	21.2	5 1	12 17.79	-10 55.0	4.276	5.148	6.2	18.6
121927	2000 <i>DX</i> ₁₀₃		3 29.3 127°34'	1.7/28.0	18		37761	1997 <i>EN</i> ₅₁		3 29.3 343°43'	0.2/29.2	18	
2 21	13 3.08	- 1 26.0	1.596	2.409	16.5	20.0	2 21	12 52.91	- 5 13.5	2.052	2.859	13.6	18.9
3 2	12 57.81	- 0 58.8	1.526	2.422	12.7	19.8	3 2	12 49.63	- 4 52.8	1.963	2.854	10.5	18.7
3 12	12 49.88	- 0 20.3	1.478	2.434	8.2	19.6	3 12	12 44.38	- 4 20.1	1.896	2.849	6.9	18.5
3 22	12 40.05	+ 0 24.2	1.456	2.446	3.5	19.3	3 22	12 37.70	- 3 38.4	1.856	2.845	3.0	18.2
4 1	12 29.45	+ 1 8.2	1.461	2.457	2.6	19.3	4 1	12 30.34	- 2 52.4	1.843	2.841	1.2	18.1
4 11	12 19.36	+ 1 44.5	1.494	2.467	7.2	19.6	4 11	12 23.18	- 2 7.9	1.858	2.837	5.3	18.3
4 21	12 10.88	+ 2 8.1	1.553	2.477	11.6	19.8	4 21	12 17.04	- 1 30.1	1.900	2.834	9.1	18.6
5 1	12 4.78	+ 2 15.9	1.634	2.486	15.3	20.1	5 1	12 12.57	- 1 3.2	1.965	2.832	12.5	18.8
501499	2014 <i>DB</i> ₂₉		3 29.3 47°58'	1.6/27.5	17		140669	2001 <i>UV</i> ₄₈		3 29.3 142°17'	4.5/23.8	18	
2 21	12 52.67	- 1 50.7	2.108	2.924	12.9	21.3	2 21	12 55.52	+ 9 52.6	2.511	3.333	10.9	19.7
3 2	12 49.29	- 1 1.7	2.033	2.931	9.8	21.1	3 2	12 51.13	+10 46.9	2.441	3.338	8.4	19.5
3 12	12 44.02	- 0 2.5	1.981	2.938	6.3	20.9	3 12	12 45.09	+11 41.8	2.395	3.344	6.0	19.4
3 22	12 37.48	+ 1 2.0	1.956	2.946	2.7	20.7	3 22	12 37.92	+12 32.0	2.378	3.349	4.5	19.3
4 1	12 30.39	+ 2 5.8	1.960	2.954	2.4	20.7	4 1	12 30.28	+13 12.1	2.389	3.354	5.3	19.4
4 11	12 23.60	+ 3 2.6	1.992	2.962	5.9	20.9	4 11	12 22.92	+13 38.2	2.429	3.359	7.5	19.5
4 21	12 17.84	+ 3 47.5	2.050	2.970	9.4	21.1	4 21	12 16.50	+13 48.1	2.494	3.363	10.0	19.7
5 1	12 13.68	+ 4 17.4	2.132	2.978	12.5	21.4	5 1	12 11.52	+13 41.3	2.582	3.367	12.3	19.8
30300	2000 <i>HF</i> ₈₆		3 29.3 254°64'	4.9/23.9	18		338337	2002 <i>WP</i> ₃		3 29.3 121°98'	5.8/22.4	17	
2 21	12 56.20	+ 9 39.4	2.205	3.031	12.1	19.2	2 21	12 57.70	+14 39.0	2.476	3.295	11.1	21.3
3 2	12 51.95	+10 32.0	2.126	3.027	9.4	19.0	3 2	12 52.76	+15 37.4	2.416	3.307	8.8	21.2
3 12	12 45.78	+11 26.0	2.072	3.022	6.7	18.8	3 12	12 46.12	+16 32.6	2.382	3.319	6.7	21.1
3 22	12 38.25	+12 15.2	2.045	3.018	5.0	18.7	3 22	12 38.34	+17 19.0	2.376	3.331	5.8	21.1
4 1	12 30.10	+12 53.7	2.046	3.013	5.8	18.7	4 1	12 30.14	+17 51.3	2.398	3.342	6.6	21.1
4 11	12 22.22	+13 16.5	2.074	3.008	8.3	18.9	4 11	12 22.29	+18 6.0	2.447	3.353	8.6	21.3
4 21	12 15.37	+13 21.2	2.128	3.004	11.2	19.0	4 21	12 15.48	+18 2.1	2.521	3.364	10.8	21.4
5 1	12 10.18	+13 7.4	2.204	2.999	13.8	19.2	5 1	12 10.21	+17 40.1	2.618	3.374	12.9	21.6
506009	2015 <i>HT</i> ₃₂		3 29.3 16°54'	6.3/23.8	17		286488	2002 <i>AO</i> ₂₀₀		3 29.3 21°25'	6.9/22.2	18	
2 21	12 59.69	+13 29.0	1.928	2.756	13.5	20.9	2 21	12 52.06	+ 8 23.3	1.515	2.367	15.2	19.5
3 2	12 54.81	+14 6.5	1.861	2.758	10.6	20.7	3 2	12 49.50	+10 14.8	1.456	2.371	11.8	19.3
3 12	12 47.71	+14 41.0	1.817	2.761	7.9	20.6	3 12	12 44.51	+12 11.4	1.420	2.376	8.5	19.1
3 22	12 39.08	+15 5.9	1.798	2.764	6.3	20.5	3 22	12 37.79	+14 1.8	1.410	2.382	6.9	19.0
4 1	12 29.82	+15 15.1	1.807	2.768	7.1	20.5	4 1	12 30.34	+15 34.3	1.425	2.388	8.4	19.1
4 11	12 21.00	+15 4.9	1.843	2.771	9.6	20.7	4 11	12 23.32	+16 40.4	1.465	2.394	11.5	19.3
4 21	12 13.50	+14 34.5	1.903	2.775	12.5	20.9	4 21	12 17.72	+17 16.0	1.528	2.402	14.9	19.6
5 1	12 7.97	+13 45.4	1.985	2.780	15.1	21.0	5 1	12 14.24	+17 21.4	1.609	2.409	17.9	19.8
132083	2002 <i>CG</i> ₁₆₇		3 29.3 126°35'	0.7/28.7	18	R	313613	2003 <i>QP</i> ₆₂		3 29.3 156°37'	2.6/26.4	18	
2 21	13 2.97	- 3 40.8	1.892	2.688	14.9	20.4	2 21	12 57.70	- 0 10.1	2.131	2.940	13.0	20.9
3 2	12 57.27	- 3 16.4	1.821	2.707	11.5	20.2	3 2	12 53.08	+ 1 4.5	2.054	2.950	9.9	20.8
3 12	12 49.30	- 2 40.6	1.774	2.725	7.5	20.0	3 12	12 46.51	+ 2 29.3	2.002	2.958	6.4	20.6
3 22	12 39.75	- 1 57.5	1.753	2.742	3.1	19.7	3 22	12 38.57	+ 3 58.0	1.979	2.966	3.1	20.4
4 1	12 29.59	- 1 12.5	1.761	2.758	1.7	19.6	4 1	12 30.05	+ 5 23.4	1.985	2.973	3.5	20.4
4 11	12 19.90	- 0 31.7	1.799	2.774	5.9	20.0	4 11	12 21.85	+ 6 38.2	2.020	2.979	6.8	20.6
4 21	12 11.60	- 0 0.1	1.863	2.788	9.9	20.2	4 21	12 14.76	+ 7 37.2	2.083	2.984	10.2	20.8
5 1	12 5.36	+ 0 19.0	1.952	2.802	13.3	20.5	5 1	12 9.38	+ 8 17.5	2.169	2.989	13.2	21.0
333214	2012 <i>HH</i> ₁₉		3 29.3 247°77'	2.8/26.4	17		238640	2005 <i>EM</i> ₆		3 29.3 30			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
246471	2007 <i>WP</i> ₇		3 29.3 76°25'	4.1/25.1	17		281040	2006 <i>HY</i> ₃₉		3 29.3 157°37'	4.4/24.1	18	
2 21	12 57.46	+ 7 55.4	2.195	3.018	12.2	20.3	2 21	12 56.65	+ 8 58.5	2.408	3.229	11.4	21.3
3 2	12 52.83	+ 8 32.4	2.124	3.023	9.4	20.2	3 2	12 52.07	+ 9 54.3	2.336	3.233	8.8	21.1
3 12	12 46.31	+ 9 11.1	2.076	3.029	6.5	20.0	3 12	12 45.76	+10 51.7	2.288	3.238	6.1	20.9
3 22	12 38.47	+ 9 46.1	2.056	3.035	4.3	19.9	3 22	12 38.24	+11 44.9	2.269	3.242	4.5	20.8
4 1	12 30.10	+10 12.0	2.065	3.041	4.9	19.9	4 1	12 30.21	+12 28.3	2.278	3.246	5.2	20.9
4 11	12 22.07	+10 24.7	2.101	3.047	7.5	20.1	4 11	12 22.47	+12 57.5	2.316	3.250	7.6	21.0
4 21	12 15.13	+10 22.1	2.163	3.053	10.5	20.3	4 21	12 15.71	+13 10.1	2.380	3.253	10.3	21.2
5 1	12 9.86	+10 3.6	2.249	3.059	13.1	20.5	5 1	12 10.48	+13 5.5	2.467	3.256	12.7	21.4
121726	1999 <i>XU</i> ₁₄₈		3 29.3 234°25'	0°9/30.3	18		209067	2003 <i>QW</i> ₈₆		3 29.3 134°07'	0°1/29.3	18	
2 21	12 55.05	- 8 58.2	2.178	2.964	13.6	20.7	2 21	12 58.97	- 6 49.3	1.872	2.667	15.1	21.1
3 2	12 51.21	- 8 35.6	2.081	2.957	10.7	20.5	3 2	12 54.33	- 6 13.1	1.796	2.680	11.7	20.9
3 12	12 45.41	- 7 58.5	2.006	2.951	7.3	20.3	3 12	12 47.47	- 5 21.7	1.742	2.692	7.7	20.7
3 22	12 38.16	- 7 9.0	1.958	2.943	3.5	20.0	3 22	12 39.02	- 4 19.2	1.715	2.703	3.3	20.5
4 1	12 30.19	- 6 11.6	1.938	2.936	1.2	19.8	4 1	12 29.92	- 3 11.6	1.716	2.714	1.2	20.3
4 11	12 22.40	- 5 12.1	1.947	2.929	4.9	20.1	4 11	12 21.20	- 2 6.4	1.745	2.724	5.7	20.6
4 21	12 15.58	- 4 16.3	1.984	2.921	8.6	20.3	4 21	12 13.77	- 1 9.9	1.802	2.733	9.8	20.9
5 1	12 10.42	- 3 29.6	2.045	2.913	12.0	20.5	5 1	12 8.32	- 0 26.9	1.883	2.742	13.3	21.1
488783	2004 <i>VP</i> ₅₅		3 29.3 155°15'	2°2/26.7	17		385439	2003 <i>HS</i> ₂₅		3 29.3 344°43'	0°2/29.2	17	
2 21	12 58.38	+ 2 25.4	2.703	3.504	10.8	22.5	2 21	12 53.48	- 5 3.8	2.158	2.961	13.1	21.3
3 2	12 53.16	+ 3 1.5	2.624	3.514	8.2	22.3	3 2	12 49.96	- 4 43.4	2.069	2.958	10.2	21.1
3 12	12 46.36	+ 3 42.4	2.570	3.523	5.3	22.1	3 12	12 44.55	- 4 11.6	2.003	2.955	6.7	20.9
3 22	12 38.46	+ 4 24.3	2.545	3.532	2.7	22.0	3 22	12 37.78	- 3 31.5	1.963	2.953	2.9	20.6
4 1	12 30.11	+ 5 2.8	2.551	3.539	2.8	22.0	4 1	12 30.36	- 2 47.6	1.952	2.950	1.2	20.5
4 11	12 22.02	+ 5 33.9	2.587	3.546	5.5	22.2	4 11	12 23.15	- 2 5.2	1.969	2.948	5.1	20.7
4 21	12 14.83	+ 5 54.7	2.652	3.553	8.3	22.3	4 21	12 16.93	- 1 29.3	2.013	2.946	8.8	21.0
5 1	12 9.04	+ 6 3.4	2.741	3.558	10.8	22.5	5 1	12 12.30	- 1 3.6	2.081	2.945	12.0	21.2
375428	2008 <i>TM</i> ₂₇		3 29.3 128°78'	0°3/29.1	17		79504	1998 <i>GZ</i> ₅		3 29.3 29°58'	6°7/22.9	18	
2 21	12 57.73	- 4 18.8	2.120	2.918	13.5	21.0	2 21	12 59.54	+15 46.0	2.061	2.886	12.8	18.7
3 2	12 53.17	- 4 4.2	2.038	2.924	10.4	20.8	3 2	12 54.56	+16 29.1	1.997	2.890	10.3	18.6
3 12	12 46.62	- 3 39.1	1.979	2.930	6.8	20.6	3 12	12 47.49	+17 7.5	1.957	2.895	7.9	18.4
3 22	12 38.64	- 3 6.6	1.946	2.936	2.9	20.4	3 22	12 38.99	+17 34.7	1.943	2.899	6.7	18.4
4 1	12 30.04	- 2 31.1	1.943	2.941	1.2	20.3	4 1	12 29.94	+17 45.0	1.956	2.904	7.6	18.4
4 11	12 21.72	- 1 57.5	1.968	2.946	5.2	20.5	4 11	12 21.32	+17 35.0	1.995	2.909	9.8	18.6
4 21	12 14.50	- 1 30.4	2.021	2.951	8.9	20.8	4 21	12 13.96	+17 4.2	2.059	2.915	12.3	18.7
5 1	12 9.01	- 1 13.2	2.098	2.956	12.2	21.0	5 1	12 8.47	+16 14.4	2.144	2.920	14.8	18.9
496020	2008 <i>PP</i> ₁₅		3 29.3 188°72'	4°6/23.2	18		521275	2015 <i>HK</i> ₁₉₄		3 29.3 328°77'	4°2/23.9	17	
2 21	12 57.18	+10 51.7	2.774	3.588	10.2	22.6	2 21	12 51.85	+ 6 24.9	2.261	3.091	11.7	21.4
3 2	12 52.30	+11 54.9	2.694	3.587	7.9	22.5	3 2	12 48.59	+ 7 39.1	2.183	3.088	8.9	21.2
3 12	12 45.83	+12 58.7	2.641	3.585	5.8	22.3	3 12	12 43.59	+ 8 58.0	2.130	3.085	6.1	21.1
3 22	12 38.25	+13 57.7	2.617	3.583	4.6	22.3	3 22	12 37.34	+10 15.4	2.104	3.082	4.3	20.9
4 1	12 30.18	+14 46.8	2.622	3.579	5.4	22.3	4 1	12 30.53	+11 24.3	2.107	3.080	5.2	21.0
4 11	12 22.32	+15 21.7	2.656	3.575	7.4	22.4	4 11	12 23.95	+12 19.0	2.138	3.077	7.8	21.1
4 21	12 15.30	+15 40.2	2.717	3.571	9.8	22.6	4 21	12 18.30	+12 55.6	2.194	3.075	10.7	21.3
5 1	12 9.65	+15 41.7	2.801	3.565	11.9	22.7	5 1	12 14.14	+13 12.7	2.272	3.072	13.3	21.5
270995	2002 <i>XP</i> ₄₇		3 29.3 172°45'	16°2/18.1	17		139715	2001 <i>QF</i> ₂₃₈		3 29.3 166°21'	0°3/29.6	18	
2 21	13 16.20	+31 46.1	1.333	2.136	19.7	20.7	2 21	12 58.50	- 6 36.4	2.248	3.034	13.2	20.9
3 2	13 8.83	+33 25.4	1.290	2.139	17.7	20.5	3 2	12 53.68	- 6 15.5	2.160	3.039	10.3	20.7
3 12	12 57.50	+34 41.5	1.265	2.141	16.4	20.4	3 12	12 46.93	- 5 42.6	2.096	3.043	6.9	20.5
3 22	12 43.38	+35 19.3	1.261	2.142	16.3	20.4	3 22	12 38.78	- 5 0.4	2.059	3.047	3.0	20.3
4 1	12 28.36	+35 8.6	1.278	2.143	17.4	20.5	4 1	12 30.01	- 4 13.1	2.052	3.050	1.0	20.1
4 11	12 14.51	+34 7.6	1.315	2.144	19.3	20.6	4 11	12 21.49	- 3 26.1	2.074	3.053	4.9	20.4
4 21	12 3.43	+32 23.1	1.371	2.144	21.6	20.8	4 21	12 14.01	- 2 44.4	2.124	3.055	8.5	20.6
5 1	11 55.98	+30 5.4	1.442	2.143	23.8	21.0	5 1	12 8.21	- 2 12.1	2.199	3.056	11.7	20.9
521307	2015 <i>KQ</i> ₁₆₉		3 29.3 229°12'	1°4/27.8	17		464084	2014 <i>WJ</i> ₃₁₄		3 29.3 168°32'	3°9/25.5	18	
2 21	12 56.54	- 0 2.8	2.522	3.325	11.4	21.8	2 21	12 58.53	+ 3 58.6	1.929	2.750	13.7	21.5
3 2	12 52.00	+ 0 14.7	2.429	3.320	8.8	21.6	3 2	12 53.97	+ 5 2.6	1.853	2.754	10.5	21.3
3 12	12 45.74	+ 0 38.5	2.361	3.315	5.7	21.4	3 12	12 47.24	+ 6 13.5	1.802	2.758	7.0	21.1
3 22	12 38.25	+ 1 5.4	2.321	3.310	2.5	21.2	3 22	12 38.94	+ 7 24.6	1.777	2.760	4.1	20.9
4 1	12 30.18	+ 1 31.7	2.310	3.305	2.0	21.2	4 1	12 29.96	+ 8 28.4	1.781	2.763	4.8	21.0
4 11	12 22.28	+ 1 53.2	2.329	3.299	5.2	21.4	4 11	12 21.32	+ 9 18.2	1.812	2.764	8.0	21.2
4 21	12 15.26	+ 2 6.7	2.375	3.293	8.4	21.5	4 21	12 13.90	+ 9 49.7	1.870	2.765	11.5	21.4
5 1	12 9.69	+ 2 10.1	2.447	3.287	11.3	21.7	5 1	12 8.39	+10 1.2	1.950	2.766	14.6	21.6
209457	2004 <i>GK</i> ₁₈		3 29.3 327°13'	5°3/22.8	17		216539	2001 <i>RX</i> ₁₄₈		3 29.3 191°33'	6°1/22.1	16	
2 21	12 49.88	+ 6 9.0	1.896	2.738	13.1	19.5	2 21	12 57.66	+12 15.5	2.219	3.044	12.1	21.7
3 2	12 47.49	+ 7 52.2	1.814	2.726	10.0	19.3	3 2	12 53.09	+13 40.1	2.146	3.042	9.5	21.5
3 12	12 43.09	+ 9 43.8	1.757	2.714	7.0	19.1	3 12	12 46.56	+15 5.2	2.098	3.040	7.2	21.3
3 22	12 37.19	+11 34.9	1.727	2.703	5.3	19.0	3 22	12 38.63	+16 23.2	2.077	3.038	6.1	21.3
4 1	12 30.56	+13 15.9	1.724	2.692	6.6	19.0	4 1	12 30.07	+17 26.8	2.085	3.034	7.1	21.3
4 11	12 24.13	+14 38.2	1.748	2.681	9.6	19.2	4 11	12 21.79	+18 10.5	2.121	3.030	9.5	21.5
4 21	12 18.74	+15 36.3	1.796	2.671	12.9	19.4	4 21	12 14.58	+18 31.7	2.181	3.026	12.1	21.6
5 1	12 15.08	+16 8.0	1.864	2.662	15.9	19.5	5 1	12 9.06	+18 30.4	2.262	3.021	14.6	21.8
93839	2000 <i>WW</i> ₈₄		3 29.3 149°31'	2°5/27.1	18		13190	1997 <i>BN</i> ₁		3 29			

EPHEMERIDES

3 29.3

3 29.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
225896	2001 YG ₁₅₄		3 29.3 153°74	7°6/20.9	18		14382	Woszczyk		3 29.3 142°02	0°2/29.5	18	
2 21	12 59.92	+17 54.7	2.126	2.948	12.6	20.3	2 21	12 54.97	- 6 39.6	2.236	3.029	13.0	18.2
3 2	12 54.83	+19 9.6	2.067	2.954	10.3	20.2	3 2	12 51.00	- 6 12.8	2.150	3.033	10.1	18.0
3 12	12 47.67	+20 19.2	2.032	2.959	8.3	20.1	3 12	12 45.19	- 5 33.6	2.088	3.037	6.7	17.8
3 22	12 39.08	+21 15.8	2.023	2.964	7.7	20.0	3 22	12 38.07	- 4 44.9	2.052	3.040	3.0	17.6
4 1	12 29.93	+21 52.6	2.041	2.969	8.7	20.1	4 1	12 30.35	- 3 51.5	2.045	3.043	1.0	17.4
4 11	12 21.19	+22 5.6	2.085	2.973	10.7	20.2	4 11	12 22.87	- 2 58.8	2.067	3.046	4.8	17.7
4 21	12 13.70	+21 54.3	2.153	2.977	13.1	20.4	4 21	12 16.39	- 2 12.0	2.117	3.049	8.4	17.9
5 1	12 8.06	+21 20.3	2.241	2.980	15.2	20.6	5 1	12 11.49	- 1 35.3	2.191	3.052	11.6	18.1
434860	2006 SH ₂₃₁		3 29.3 196°08	1°0/30.4	18		95819	2003 FB ₈₀		3 29.3 292°07	3°6/26.1	18	
2 21	12 56.58	- 7 48.5	2.533	3.312	12.1	21.2	2 21	12 56.41	+ 3 18.3	1.773	2.602	14.4	19.7
3 2	12 52.06	- 7 46.6	2.438	3.310	9.5	21.1	3 2	12 52.64	+ 4 6.2	1.690	2.596	11.1	19.5
3 12	12 45.81	- 7 34.1	2.367	3.309	6.5	20.9	3 12	12 46.56	+ 5 1.9	1.630	2.589	7.3	19.3
3 22	12 38.30	- 7 12.8	2.322	3.307	3.1	20.6	3 22	12 38.74	+ 5 59.2	1.596	2.582	4.1	19.0
4 1	12 30.20	- 6 45.4	2.307	3.305	1.1	20.5	4 1	12 30.09	+ 6 50.6	1.589	2.576	4.5	19.1
4 11	12 22.27	- 6 16.0	2.322	3.303	4.3	20.7	4 11	12 21.72	+ 7 29.3	1.609	2.569	8.1	19.3
4 21	12 15.21	- 5 48.5	2.365	3.300	7.5	20.9	4 21	12 14.58	+ 7 50.6	1.654	2.563	12.0	19.5
5 1	12 9.60	- 5 26.5	2.434	3.298	10.5	21.1	5 1	12 9.45	+ 7 52.4	1.721	2.556	15.4	19.7
268158	2004 TR ₃₅₅		3 29.3 253°32	3°4/25.2	18		508611	2017 SP ₂₆		3 29.3 208°76	0°2/29.1	17	
2 21	12 55.11	+ 2 36.8	2.223	3.042	12.3	21.2	2 21	12 55.45	- 6 7.4	2.369	3.159	12.5	22.1
3 2	12 51.28	+ 3 52.4	2.122	3.022	9.4	21.0	3 2	12 51.34	- 5 29.8	2.272	3.154	9.7	21.9
3 12	12 45.50	+ 5 17.7	2.045	3.002	6.2	20.7	3 12	12 45.42	- 4 39.6	2.199	3.148	6.4	21.7
3 22	12 38.24	+ 6 46.7	1.997	2.981	3.7	20.5	3 22	12 38.18	- 3 40.3	2.153	3.142	2.7	21.4
4 1	12 30.21	+ 8 12.0	1.978	2.960	4.4	20.5	4 1	12 30.30	- 2 36.4	2.137	3.135	1.1	21.3
4 11	12 22.26	+ 9 26.1	1.987	2.938	7.5	20.7	4 11	12 22.60	- 1 34.0	2.150	3.128	4.9	21.6
4 21	12 15.23	+10 23.7	2.024	2.915	11.0	20.8	4 21	12 15.80	- 0 38.2	2.192	3.120	8.5	21.8
5 1	12 9.79	+11 1.5	2.083	2.892	14.0	21.0	5 1	12 10.51	+ 0 6.5	2.259	3.112	11.6	21.9
437195	2012 WV		3 29.3 132°32	4°0/24.7	17		518869	2010 DL ₈₉		3 29.3 49°41	2°0/31.3	17	
2 21	12 56.36	+ 8 21.3	2.470	3.289	11.1	21.4	2 21	12 55.42	-11 18.0	1.868	2.654	15.5	21.6
3 2	12 51.79	+ 9 5.5	2.398	3.296	8.6	21.3	3 2	12 51.77	-11 8.1	1.783	2.657	12.3	21.4
3 12	12 45.55	+ 9 51.1	2.351	3.302	5.9	21.1	3 12	12 45.92	-10 40.7	1.719	2.659	8.6	21.2
3 22	12 38.15	+10 33.0	2.331	3.307	4.1	21.0	3 22	12 38.45	- 9 57.6	1.680	2.662	4.6	21.0
4 1	12 30.28	+11 6.3	2.341	3.313	4.7	21.1	4 1	12 30.21	- 9 3.0	1.668	2.665	2.0	20.8
4 11	12 22.69	+11 27.0	2.379	3.318	7.1	21.2	4 11	12 22.25	- 8 3.6	1.684	2.668	5.2	21.0
4 21	12 16.05	+11 32.9	2.443	3.323	9.7	21.4	4 21	12 15.49	- 7 6.0	1.727	2.671	9.2	21.2
5 1	12 10.90	+11 23.3	2.531	3.328	12.2	21.6	5 1	12 10.63	- 6 16.7	1.793	2.674	12.8	21.5
33135	Davidrisoldi		3 29.3 235°59	4°8/25.1	18		76201	2000 EM ₅₃		3 29.3 102°34	0°2/29.6	18	
2 21	12 59.14	+ 5 30.7	1.718	2.547	14.8	18.1	2 21	12 55.73	- 6 27.2	2.172	2.966	13.3	19.8
3 2	12 54.87	+ 6 33.2	1.634	2.538	11.4	17.9	3 2	12 51.60	- 6 6.3	2.092	2.975	10.4	19.6
3 12	12 48.09	+ 7 42.9	1.572	2.528	7.8	17.7	3 12	12 45.58	- 5 33.1	2.034	2.983	6.9	19.4
3 22	12 39.41	+ 8 52.2	1.537	2.518	5.0	17.5	3 22	12 38.23	- 4 50.9	2.003	2.991	3.0	19.2
4 1	12 29.79	+ 9 52.5	1.529	2.508	5.8	17.5	4 1	12 30.30	- 4 3.9	2.001	2.999	1.0	19.0
4 11	12 20.43	+10 35.9	1.547	2.497	9.3	17.7	4 11	12 22.66	- 3 17.7	2.027	3.007	4.9	19.3
4 21	12 12.40	+10 58.0	1.590	2.486	13.2	17.9	4 21	12 16.06	- 2 37.3	2.081	3.015	8.5	19.6
5 1	12 6.52	+10 57.1	1.655	2.474	16.7	18.1	5 1	12 11.10	- 2 6.5	2.160	3.022	11.7	19.8
386804	2010 EL ₁₄₇		3 29.3 347°59	5°4/23.6	17		313009	1999 VO ₆₂		3 29.3 127°65	1°0/28.5	18	
2 21	12 54.19	+ 9 29.4	2.011	2.846	12.7	20.6	2 21	12 59.87	- 3 32.5	1.916	2.718	14.5	21.5
3 2	12 50.60	+10 33.5	1.938	2.843	9.9	20.4	3 2	12 54.95	- 2 58.2	1.843	2.733	11.2	21.3
3 12	12 45.02	+11 39.5	1.889	2.841	7.1	20.3	3 12	12 47.84	- 2 12.3	1.793	2.746	7.3	21.1
3 22	12 38.00	+12 40.5	1.866	2.839	5.4	20.2	3 22	12 39.21	- 1 19.0	1.770	2.759	3.0	20.9
4 1	12 30.35	+13 29.4	1.871	2.837	6.3	20.2	4 1	12 29.96	- 0 24.4	1.775	2.772	1.8	20.8
4 11	12 22.99	+14 0.8	1.902	2.836	9.0	20.4	4 11	12 21.11	+ 0 25.2	1.809	2.784	6.0	21.1
4 21	12 16.74	+14 11.7	1.958	2.835	12.0	20.5	4 21	12 13.55	+ 1 4.5	1.871	2.795	9.9	21.3
5 1	12 12.22	+14 1.8	2.035	2.834	14.7	20.7	5 1	12 7.92	+ 1 29.9	1.956	2.806	13.2	21.6
15333	1993 TS ₃₆		3 29.3 92°93	7°1/23.0	18		502201	2015 BQ ₇₂		3 29.3 194°64	2°2/26.8	17	
2 21	13 2.87	+14 30.5	1.855	2.679	14.1	18.0	2 21	12 55.11	- 0 41.7	2.197	3.009	12.6	21.7
3 2	12 57.13	+15 34.7	1.809	2.702	11.1	17.8	3 2	12 51.16	+ 0 21.6	2.111	3.007	9.6	21.5
3 12	12 49.14	+16 34.5	1.786	2.725	8.4	17.7	3 12	12 45.33	+ 1 35.2	2.049	3.005	6.2	21.3
3 22	12 39.68	+17 22.2	1.790	2.748	7.1	17.7	3 22	12 38.15	+ 2 54.0	2.014	3.003	2.9	21.1
4 1	12 29.78	+17 50.8	1.821	2.770	8.0	17.8	4 1	12 30.33	+ 4 11.1	2.009	3.000	3.1	21.1
4 11	12 20.52	+17 56.8	1.878	2.792	10.3	18.0	4 11	12 22.74	+ 5 19.9	2.033	2.996	6.4	21.3
4 21	12 12.77	+17 39.8	1.959	2.813	13.0	18.2	4 21	12 16.14	+ 6 15.1	2.084	2.992	9.9	21.5
5 1	12 7.13	+17 1.8	2.062	2.833	15.4	18.4	5 1	12 11.14	+ 6 53.4	2.158	2.988	12.9	21.7
32228	2000 OH ₂₆		3 29.3 198°15	3°2/ 1.4	18		457534	2008 WS ₉₁		3 29.3 66°47	2°7/31.5	18	
2 21	13 0.00	-14 11.4	2.289	3.039	14.0	18.9	2 21	12 59.46	-12 8.0	1.377	2.175	19.4	21.2
3 2	12 55.00	-14 28.3	2.189	3.037	11.4	18.7	3 2	12 55.41	-12 3.7	1.316	2.196	15.5	21.0
3 12	12 47.92	-14 30.2	2.111	3.033	8.4	18.5	3 12	12 48.50	-11 36.5	1.275	2.216	10.8	20.7
3 22	12 39.29	-14 17.2	2.059	3.029	5.2	18.3	3 22	12 39.57	-10 48.9	1.256	2.237	5.8	20.5
4 1	12 29.86	-13 51.1	2.036	3.025	3.2	18.2	4 1	12 29.87	- 9 46.8	1.262	2.258	2.7	20.4
4 11	12 20.59	-13 15.7	2.041	3.020	5.0	18.3	4 11	12 20.79	- 8 39.1	1.295	2.279	6.2	20.6
4 21	12 12.32	-12 36.1	2.075	3.015	8.2	18.5	4 21	12 13.49	- 7 35.2	1.352	2.300	10.9	20.9
5 1	12 5.78	-11 57.9	2.135	3.009	11.4	18.6	5 1	12 8.75	- 6 42.7	1.432	2.321	14.9	21.2
12591	1999 RT ₁₃₃		3 29.3 245°65	3°1/ 1.1	18		292223	2006 SN ₅₁		3 29.3 160°60	4°		

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3 29.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
78719	2002 <i>TB</i> ₂₁₅		3 29.3 136°43	4.2/24.6	18		122594	2000 <i>RT</i> ₃₁		3 29.4 241°68	2.2/31.3	17	
2 21	12 57.45	+ 8 40.6	2.374	3.194	11.5	19.8	2 21	12 58.69	-11 51.0	1.843	2.621	16.0	20.3
3 2	12 52.71	+ 9 26.3	2.303	3.201	8.9	19.6	3 2	12 54.58	-11 39.3	1.738	2.607	12.9	20.0
3 12	12 46.21	+10 13.2	2.257	3.207	6.2	19.5	3 12	12 48.00	-11 8.5	1.654	2.592	9.1	19.8
3 22	12 38.48	+10 56.0	2.238	3.214	4.3	19.4	3 22	12 39.47	-10 19.7	1.595	2.576	4.9	19.5
4 1	12 30.26	+11 29.5	2.249	3.220	5.0	19.4	4 1	12 29.88	- 9 16.8	1.563	2.560	2.2	19.3
4 11	12 22.35	+11 49.4	2.287	3.226	7.4	19.6	4 11	12 20.37	- 8 6.5	1.560	2.543	5.6	19.4
4 21	12 15.46	+11 53.8	2.352	3.232	10.1	19.8	4 21	12 12.02	- 6 56.8	1.583	2.525	10.1	19.7
5 1	12 10.12	+11 42.1	2.440	3.237	12.6	19.9	5 1	12 5.73	- 5 55.3	1.631	2.507	14.1	19.9
303925	2005 <i>UW</i> ₂₉₈		3 29.3 72°63	2.3/26.7	18		326704	2003 <i>BP</i> ₅₅		3 29.4 39°19	4.1/25.6	18	
2 21	12 54.40	+ 2 24.0	2.498	3.312	11.2	20.3	2 21	12 53.55	+ 1 28.2	1.443	2.286	16.4	20.2
3 2	12 50.33	+ 2 56.4	2.418	3.315	8.5	20.1	3 2	12 50.72	+ 2 49.6	1.384	2.297	12.4	20.0
3 12	12 44.65	+ 3 33.9	2.362	3.318	5.6	19.9	3 12	12 45.36	+ 4 22.6	1.347	2.309	8.1	19.7
3 22	12 37.82	+ 4 12.7	2.334	3.321	2.8	19.7	3 22	12 38.24	+ 5 57.8	1.334	2.321	4.5	19.5
4 1	12 30.50	+ 4 48.1	2.335	3.324	2.9	19.8	4 1	12 30.40	+ 7 24.7	1.348	2.334	5.2	19.6
4 11	12 23.41	+ 5 16.0	2.365	3.327	5.7	19.9	4 11	12 23.07	+ 8 33.7	1.387	2.348	9.1	19.9
4 21	12 17.21	+ 5 33.2	2.422	3.330	8.7	20.1	4 21	12 17.25	+ 9 19.2	1.450	2.361	13.2	20.1
5 1	12 12.41	+ 5 37.9	2.504	3.334	11.4	20.3	5 1	12 13.63	+ 9 39.1	1.534	2.376	16.7	20.4
244633	2003 <i>BJ</i> ₇₄		3 29.3 117°13	5.6/22.6	17		111398	2001 <i>XC</i> ₁₇₁		3 29.4 267°72	4.4/3.5	18	
2 21	12 55.96	+13 14.4	2.382	3.206	11.3	20.4	2 21	12 54.16	-19 49.4	2.474	3.201	13.7	20.2
3 2	12 51.59	+14 16.3	2.317	3.213	8.9	20.3	3 2	12 50.49	-19 58.7	2.364	3.189	11.5	20.0
3 12	12 45.47	+15 16.5	2.278	3.219	6.7	20.1	3 12	12 44.98	-19 50.2	2.274	3.176	8.9	19.8
3 22	12 38.17	+16 8.9	2.266	3.226	5.6	20.1	3 22	12 38.07	-19 23.4	2.209	3.163	6.3	19.6
4 1	12 30.38	+16 47.8	2.281	3.232	6.5	20.1	4 1	12 30.43	-18 39.6	2.172	3.149	4.5	19.5
4 11	12 22.91	+17 9.2	2.325	3.238	8.6	20.3	4 11	12 22.86	-17 42.6	2.162	3.136	5.2	19.5
4 21	12 16.45	+17 11.6	2.393	3.244	11.0	20.4	4 21	12 16.15	-16 38.0	2.181	3.123	7.7	19.6
5 1	12 11.53	+16 55.2	2.482	3.250	13.2	20.6	5 1	12 10.95	-15 32.0	2.225	3.109	10.5	19.8
255706	2006 <i>QL</i> ₉₄		3 29.3 241°59	0.3/29.6	17		384587	2010 <i>JJ</i> ₁₂₂		3 29.4 35°20	2.8/26.1	17	
2 21	12 58.02	- 7 13.2	1.961	2.754	14.6	21.9	2 21	12 52.87	+ 1 11.4	2.089	2.912	12.8	20.7
3 2	12 53.84	- 6 45.6	1.857	2.739	11.5	21.6	3 2	12 49.52	+ 2 16.0	2.011	2.914	9.7	20.5
3 12	12 47.38	- 6 2.4	1.775	2.724	7.7	21.4	3 12	12 44.29	+ 3 29.4	1.957	2.916	6.3	20.3
3 22	12 39.15	- 5 6.4	1.720	2.708	3.5	21.1	3 22	12 37.73	+ 4 45.9	1.930	2.917	3.3	20.1
4 1	12 29.98	- 4 2.8	1.693	2.691	1.1	20.9	4 1	12 30.57	+ 5 58.4	1.932	2.919	3.7	20.1
4 11	12 20.91	- 2 58.3	1.694	2.674	5.7	21.1	4 11	12 23.68	+ 7 0.3	1.962	2.921	6.9	20.3
4 21	12 12.91	- 2 0.0	1.723	2.656	10.0	21.3	4 21	12 17.81	+ 7 46.8	2.017	2.923	10.3	20.5
5 1	12 6.81	- 1 13.5	1.775	2.638	13.8	21.5	5 1	12 13.56	+ 8 15.2	2.096	2.925	13.3	20.7
358494	2007 <i>RB</i> ₁₀₅		3 29.3 262°34	1.7/28.0	16		434402	2005 <i>GH</i> ₁₂₉		3 29.4 291°32	5.4/24.0	17	
2 21	13 0.62	- 1 15.6	1.660	2.476	15.8	21.3	2 21	12 57.91	+10 54.3	2.091	2.917	12.6	21.4
3 2	12 56.30	- 0 52.3	1.561	2.458	12.3	21.1	3 2	12 53.46	+11 39.0	2.009	2.908	9.9	21.2
3 12	12 49.25	- 0 17.3	1.484	2.440	8.1	20.8	3 12	12 46.93	+12 23.9	1.951	2.899	7.1	21.0
3 22	12 40.04	+ 0 25.2	1.431	2.421	3.5	20.4	3 22	12 38.89	+13 2.7	1.919	2.890	5.4	20.9
4 1	12 29.64	+ 1 8.8	1.407	2.402	2.7	20.3	4 1	12 30.16	+13 29.3	1.916	2.882	6.2	20.9
4 11	12 19.33	+ 1 46.2	1.409	2.383	7.4	20.6	4 11	12 21.68	+13 38.9	1.939	2.873	8.8	21.0
4 21	12 10.31	+ 2 11.5	1.437	2.363	12.2	20.8	4 21	12 14.31	+13 29.5	1.987	2.864	11.8	21.2
5 1	12 3.58	+ 2 20.3	1.487	2.343	16.4	21.0	5 1	12 8.73	+13 1.0	2.058	2.856	14.6	21.4
162637	2000 <i>SM</i> ₁₇₃		3 29.3 313°62	9.9/5.7	17		1179	Mally		3 29.4 320°47	0.3/29.5	18	
2 21	12 53.15	-24 35.1	1.347	2.100	22.0	19.1	2 21	12 58.60	- 4 6.3	1.540	2.357	16.8	16.4
3 2	12 51.52	-25 36.5	1.247	2.078	19.3	18.8	3 2	12 54.93	- 4 20.9	1.445	2.341	13.2	16.1
3 12	12 46.71	-26 8.8	1.162	2.056	16.1	18.6	3 12	12 48.47	- 4 23.9	1.371	2.325	8.9	15.8
3 22	12 39.16	-26 5.8	1.095	2.035	12.7	18.3	3 22	12 39.76	- 4 17.7	1.321	2.310	4.0	15.5
4 1	12 29.92	-25 23.8	1.050	2.014	10.3	18.1	4 1	12 29.83	- 4 6.0	1.297	2.295	1.3	15.3
4 11	12 20.58	-24 6.0	1.026	1.994	10.4	18.0	4 11	12 20.00	- 3 54.2	1.299	2.281	6.6	15.6
4 21	12 12.75	-22 22.1	1.025	1.975	13.2	18.1	4 21	12 11.55	- 3 47.8	1.326	2.268	11.6	15.8
5 1	12 7.79	-20 26.7	1.044	1.957	17.2	18.3	5 1	12 5.48	- 3 51.3	1.375	2.255	16.0	16.0
145599	2006 <i>QV</i> ₈		3 29.3 264°27	0.3/29.6	17		74539	1999 <i>JD</i> ₁₅		3 29.4 220°50	10.7/15.7	18	
2 21	12 57.64	- 7 0.8	1.771	2.572	15.6	20.9	2 21	13 3.86	+27 46.5	2.175	2.974	13.1	19.7
3 2	12 53.84	- 6 38.7	1.668	2.554	12.3	20.7	3 2	12 58.21	+29 30.7	2.111	2.963	11.6	19.6
3 12	12 47.55	- 6 0.2	1.586	2.536	8.3	20.4	3 12	12 50.15	+31 4.0	2.072	2.951	10.8	19.5
3 22	12 39.28	- 5 7.9	1.529	2.517	3.8	20.1	3 22	12 40.31	+32 16.6	2.057	2.937	10.9	19.5
4 1	12 29.93	- 4 7.1	1.499	2.498	1.2	19.8	4 1	12 29.67	+33 0.7	2.067	2.923	12.1	19.5
4 11	12 20.65	- 3 5.1	1.497	2.478	6.1	20.1	4 11	12 19.36	+33 12.3	2.101	2.908	13.8	19.6
4 21	12 12.54	- 2 9.5	1.522	2.458	10.8	20.3	4 21	12 10.37	+32 51.8	2.155	2.892	15.7	19.7
5 1	12 6.50	- 1 26.6	1.569	2.438	15.0	20.5	5 1	12 3.48	+32 2.5	2.226	2.875	17.5	19.9
316698	1996 <i>TF</i> ₃₀		3 29.4 233°01	1.1/28.4	15		330649	2008 <i>FX</i> ₆₀		3 29.4 327°10	6.4/25.2	17	
2 21	13 0.22	- 2 58.4	1.992	2.793	14.1	22.2	2 21	12 59.55	+ 9 43.2	1.371	2.217	16.9	20.4
3 2	12 55.48	- 2 29.1	1.890	2.779	11.0	22.0	3 2	12 55.93	+10 14.7	1.288	2.199	13.3	20.1
3 12	12 48.43	- 1 48.0	1.812	2.764	7.2	21.7	3 12	12 49.23	+10 47.3	1.225	2.181	9.5	19.9
3 22	12 39.60	- 0 58.8	1.759	2.749	3.1	21.4	3 22	12 40.11	+11 12.8	1.186	2.165	6.7	19.6
4 1	12 29.84	- 0 7.0	1.736	2.733	2.0	21.3	4 1	12 29.73	+11 22.2	1.171	2.149	7.5	19.6
4 11	12 20.19	+ 0 41.0	1.742	2.716	6.2	21.6	4 11	12 19.62	+11 9.1	1.181	2.134	11.2	19.8
4 21	12 11.64	+ 1 19.5	1.775	2.698	10.4	21.8	4 21	12 11.14	+10 31.1	1.213	2.120	15.5	20.0
5 1	12 4.99	+ 1 44.4	1.832	2.680	14.1	22.0	5 1	12 5.33	+ 9 29.3	1.265	2.108	19.5	20.2
412082	2013 <i>FG</i> ₄		3 29.4 273°46	6.2/24.2	16		58535	Pattillo		3 29.4 135°09	0.5/29.9</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
427957	2005 <i>XV</i> ₅₄		3 29.4 134°49	0°2/29.6	15		523533	2017 <i>PA</i> ₆		3 29.4 170°14	1°5/27.7	17	
2 21	12 58.25	- 6 44.5	2.323	3.107	12.9	23.3	2 21	12 55.62	- 1 45.1	2.257	3.064	12.5	21.9
3 2	12 53.38	- 6 18.6	2.244	3.121	10.0	23.2	3 2	12 51.50	- 1 0.6	2.173	3.066	9.6	21.7
3 12	12 46.70	- 5 40.9	2.188	3.135	6.6	23.0	3 12	12 45.56	- 0 6.4	2.113	3.068	6.2	21.5
3 22	12 38.75	- 4 54.4	2.160	3.148	2.9	22.8	3 22	12 38.30	+ 0 53.1	2.080	3.070	2.7	21.3
4 1	12 30.28	- 4 3.5	2.162	3.160	0.9	22.6	4 1	12 30.47	+ 1 52.3	2.077	3.071	2.3	21.3
4 11	12 22.12	- 3 13.5	2.193	3.172	4.7	22.9	4 11	12 22.87	+ 2 45.6	2.103	3.072	5.7	21.5
4 21	12 14.99	- 2 29.2	2.253	3.183	8.1	23.1	4 21	12 16.25	+ 3 28.1	2.156	3.073	9.1	21.7
5 1	12 9.47	- 1 54.5	2.338	3.194	11.2	23.4	5 1	12 11.21	+ 3 56.8	2.233	3.073	12.2	21.9
279703	2011 <i>FO</i> ₉₂		3 29.4 210°08	0°9/30.1	18		332607	2008 <i>SO</i> ₂₉₁		3 29.4 210°70	2°6/1.1	17	
2 21	13 2.18	- 6 4.7	2.106	2.890	14.0	20.6	2 21	12 55.82	-13 30.7	2.148	2.914	14.4	21.3
3 2	12 56.79	- 6 21.9	2.012	2.888	11.0	20.4	3 2	12 51.91	-13 23.0	2.052	2.911	11.6	21.1
3 12	12 49.19	- 6 29.0	1.940	2.885	7.5	20.2	3 12	12 45.98	-12 58.2	1.977	2.908	8.3	20.9
3 22	12 39.92	- 6 27.5	1.896	2.881	3.6	19.9	3 22	12 38.54	-12 17.3	1.928	2.905	4.8	20.7
4 1	12 29.84	- 6 20.0	1.880	2.878	1.2	19.7	4 1	12 30.37	-11 23.8	1.907	2.901	2.6	20.5
4 11	12 19.94	- 6 10.2	1.894	2.874	5.1	20.0	4 11	12 22.39	-10 23.1	1.915	2.897	4.8	20.6
4 21	12 11.16	- 6 2.1	1.936	2.870	9.0	20.2	4 21	12 15.43	- 9 21.5	1.950	2.893	8.4	20.8
5 1	12 4.25	- 5 59.3	2.002	2.866	12.4	20.4	5 1	12 10.18	- 8 25.2	2.010	2.889	11.7	21.0
456822	2007 <i>TN</i> ₄₁₂		3 29.4 229°17	4°3/2.0	16		517587	2014 <i>WD</i> ₇₁		3 29.4 191°79	1°4/27.9	15	
2 21	12 59.51	-16 11.8	1.801	2.560	17.0	21.6	2 21	12 57.88	- 3 6.1	2.068	2.871	13.6	22.5
3 2	12 55.31	-16 27.1	1.701	2.552	14.0	21.4	3 2	12 53.46	- 2 16.2	1.979	2.870	10.5	22.2
3 12	12 48.54	-16 21.9	1.622	2.543	10.5	21.1	3 12	12 46.97	- 1 14.0	1.913	2.867	6.8	22.0
3 22	12 39.75	-15 55.4	1.566	2.534	6.8	20.9	3 22	12 38.96	- 0 4.2	1.875	2.865	2.9	21.7
4 1	12 29.88	-15 9.5	1.537	2.525	4.3	20.7	4 1	12 30.23	+ 1 7.0	1.866	2.861	2.2	21.7
4 11	12 20.13	-14 9.7	1.535	2.515	6.1	20.8	4 11	12 21.74	+ 2 12.5	1.886	2.857	6.1	21.9
4 21	12 11.64	-13 3.7	1.559	2.504	9.9	21.0	4 21	12 14.33	+ 3 6.5	1.934	2.853	9.9	22.2
5 1	12 5.32	-12 0.0	1.608	2.493	13.8	21.2	5 1	12 8.70	+ 3 45.1	2.005	2.847	13.3	22.4
7031	Kazumiyoshioka		3 29.4 63°96	0°4/29.6	18		204289	2004 <i>PP</i> ₃		3 29.4 176°27	2°7/26.9	18	
2 21	13 1.47	- 5 29.4	1.355	2.172	18.7	17.3	2 21	13 0.03	+ 0 15.2	1.796	2.612	14.8	21.1
3 2	12 57.13	- 5 31.4	1.287	2.182	14.6	17.1	3 2	12 55.38	+ 1 9.6	1.716	2.614	11.4	20.9
3 12	12 49.79	- 5 17.9	1.239	2.193	9.7	16.8	3 12	12 48.35	+ 2 14.9	1.659	2.616	7.4	20.6
3 22	12 40.24	- 4 52.1	1.215	2.203	4.3	16.5	3 22	12 39.58	+ 3 24.7	1.629	2.617	3.6	20.4
4 1	12 29.75	- 4 19.5	1.216	2.214	1.4	16.3	4 1	12 30.02	+ 4 31.6	1.627	2.618	3.6	20.4
4 11	12 19.79	- 3 47.6	1.243	2.225	6.8	16.7	4 11	12 20.80	+ 5 27.8	1.653	2.618	7.5	20.6
4 21	12 11.62	- 3 22.9	1.294	2.236	11.8	17.0	4 21	12 12.89	+ 6 7.9	1.705	2.617	11.5	20.9
5 1	12 6.13	- 3 10.4	1.367	2.247	16.1	17.3	5 1	12 7.05	+ 6 28.9	1.780	2.615	15.0	21.1
13830	ARLT		3 29.4 122°38	2°7/26.5	18		157837	1998 <i>FC</i> ₁₂₅		3 29.4 315°46	4°0/26.5	18	
2 21	12 56.55	+ 2 8.5	2.138	2.954	12.7	18.4	2 21	13 1.03	+ 6 3.5	1.658	2.487	15.3	19.7
3 2	12 52.24	+ 2 54.9	2.064	2.963	9.7	18.2	3 2	12 56.52	+ 6 17.9	1.569	2.473	11.9	19.5
3 12	12 46.03	+ 3 48.0	2.014	2.971	6.3	18.0	3 12	12 49.34	+ 6 35.4	1.503	2.459	8.0	19.2
3 22	12 38.49	+ 4 42.6	1.992	2.979	3.3	17.8	3 22	12 40.09	+ 6 50.6	1.461	2.446	4.6	19.0
4 1	12 30.39	+ 5 32.8	1.998	2.986	3.5	17.8	4 1	12 29.82	+ 6 57.1	1.447	2.433	4.9	18.9
4 11	12 22.60	+ 6 13.1	2.033	2.994	6.6	18.0	4 11	12 19.77	+ 6 49.9	1.459	2.421	8.6	19.1
4 21	12 15.90	+ 6 39.8	2.094	3.001	9.9	18.2	4 21	12 11.10	+ 6 26.2	1.496	2.409	12.7	19.3
5 1	12 10.87	+ 6 50.9	2.179	3.008	12.8	18.4	5 1	12 4.73	+ 5 45.4	1.555	2.397	16.4	19.5
172074	2002 <i>AQ</i> ₉₃		3 29.4 114°79	0°1/29.5	17		506512	2004 <i>PV</i> ₇₇		3 29.4 225°92	5°7/4.2	17	
2 21	12 54.69	- 6 8.0	2.642	3.428	11.4	21.2	2 21	12 58.83	-22 11.1	2.362	3.069	14.7	22.0
3 2	12 50.46	- 5 43.2	2.562	3.441	8.8	21.0	3 2	12 54.28	-22 38.7	2.252	3.059	12.6	21.8
3 12	12 44.70	- 5 8.4	2.507	3.454	5.8	20.8	3 12	12 47.60	-22 47.4	2.162	3.048	10.1	21.6
3 22	12 37.87	- 4 26.5	2.479	3.467	2.5	20.6	3 22	12 39.29	-22 35.8	2.097	3.037	7.5	21.5
4 1	12 30.61	- 3 41.1	2.480	3.479	0.9	20.5	4 1	12 30.10	-22 3.9	2.058	3.025	5.8	21.3
4 11	12 23.60	- 2 56.8	2.512	3.491	4.2	20.8	4 11	12 20.96	-21 15.0	2.048	3.013	6.2	21.3
4 21	12 17.44	- 2 17.5	2.572	3.502	7.3	21.0	4 21	12 12.78	-20 14.5	2.065	3.000	8.5	21.4
5 1	12 12.62	- 1 46.5	2.658	3.514	10.0	21.2	5 1	12 6.31	-19 9.5	2.108	2.987	11.3	21.6
136903	1998 <i>HR</i> ₅₈		3 29.4 314°44	0°9/28.7	17		345609	2006 <i>SN</i> ₁₈₂		3 29.4 135°91	0°1/29.3	18	
2 21	12 53.80	- 4 12.0	1.307	2.143	18.2	20.6	2 21	12 52.86	- 6 56.3	2.622	3.410	11.5	21.2
3 2	12 51.81	- 3 50.6	1.205	2.113	14.3	20.2	3 2	12 49.12	- 6 8.9	2.537	3.418	8.9	21.0
3 12	12 46.79	- 3 10.7	1.123	2.083	9.6	19.9	3 12	12 43.86	- 5 9.7	2.477	3.425	5.8	20.8
3 22	12 39.20	- 2 15.7	1.063	2.054	4.1	19.5	3 22	12 37.54	- 4 2.2	2.444	3.433	2.5	20.6
4 1	12 30.04	- 1 12.9	1.028	2.026	2.2	19.2	4 1	12 30.77	- 2 51.1	2.442	3.440	1.0	20.5
4 11	12 20.80	- 0 12.2	1.017	1.998	8.2	19.5	4 11	12 24.21	- 1 41.8	2.469	3.447	4.3	20.7
4 21	12 12.95	+ 0 36.4	1.028	1.971	14.0	19.7	4 21	12 18.48	- 0 39.2	2.525	3.453	7.5	20.9
5 1	12 7.75	+ 1 5.5	1.059	1.945	19.2	19.9	5 1	12 14.06	+ 0 12.8	2.607	3.459	10.3	21.1
509194	2006 <i>QQ</i> ₁₀₈		3 29.4 119°76	0°9/28.1	17		467426	2005 <i>VA</i> ₈₅		3 29.4 110°34	2°2/27.3	16	
2 21	12 53.51	- 3 53.0	2.948	3.739	10.3	22.3	2 21	12 58.35	+ 0 24.3	1.947	2.761	13.9	22.3
3 2	12 49.35	- 2 58.1	2.874	3.758	7.8	22.1	3 2	12 53.78	+ 1 2.8	1.875	2.773	10.6	22.2
3 12	12 43.87	- 1 54.8	2.825	3.777	5.0	22.0	3 12	12 47.12	+ 1 49.7	1.828	2.784	6.9	21.9
3 22	12 37.49	- 0 46.5	2.805	3.795	2.1	21.8	3 22	12 38.99	+ 2 39.7	1.806	2.795	3.2	21.7
4 1	12 30.76	+ 0 22.1	2.817	3.812	1.5	21.8	4 1	12 30.26	+ 3 26.9	1.814	2.806	3.0	21.7
4 11	12 24.27	+ 1 26.3	2.859	3.829	4.3	22.0	4 11	12 21.91	+ 4 5.4	1.849	2.817	6.6	22.0
4 21	12 18.56	+ 2 22.4	2.930	3.846	7.1	22.2	4 21	12 14.79	+ 4 31.0	1.911	2.827	10.2	22.2
5 1	12 14.03	+ 3 7.4	3.027	3.862	9.5	22.4	5 1	12 9.52	+ 4 41.3	1.996	2.837	13.4	22.4
190326	1998 <i>QD</i> ₆₉		3 29.4 183°18	0°3/29.7	18		242418	2004 <i>GV</i> ₇₃		3 29.4 259°20	1°9/27.0	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
125190	2001 <i>UP</i> ₁₂₁		3 29.4 17 ^o 55	5 ^o 7/25.5	18		341302	2007 <i>RA</i> ₃₂₂		3 29.4 143 ^o 69	0 ^o 1/29.4	17	
2 21	12 58.82	+ 6 5.1	1.241	2.091	18.1	19.0	2 21	12 55.12	- 6 6.8	2.285	3.079	12.8	21.8
3 2	12 55.33	+ 6 57.2	1.178	2.093	13.9	18.8	3 2	12 51.11	- 5 37.5	2.200	3.083	9.9	21.6
3 12	12 48.74	+ 7 55.6	1.135	2.095	9.5	18.5	3 12	12 45.31	- 4 56.2	2.138	3.087	6.5	21.4
3 22	12 39.84	+ 8 50.9	1.115	2.098	6.0	18.3	3 22	12 38.23	- 4 6.2	2.103	3.092	2.8	21.2
4 1	12 29.95	+ 9 32.9	1.120	2.102	6.8	18.4	4 1	12 30.57	- 3 12.1	2.097	3.095	1.0	21.0
4 11	12 20.62	+ 9 53.3	1.148	2.106	10.8	18.6	4 11	12 23.15	- 2 19.4	2.120	3.099	4.8	21.3
4 21	12 13.15	+ 9 48.7	1.199	2.111	15.2	18.9	4 21	12 16.70	- 1 33.0	2.171	3.103	8.3	21.5
5 1	12 8.42	+ 9 19.2	1.268	2.116	19.1	19.1	5 1	12 11.79	- 0 57.0	2.247	3.106	11.5	21.7
499887	2011 <i>FM</i> ₉₀		3 29.4 155 ^o 97	0 ^o 9/30.2	17		312128	2007 <i>TX</i> ₂₄₈		3 29.4 179 ^o 64	1 ^o 6/30.8	16	
2 21	12 58.60	- 7 13.7	2.031	2.820	14.3	21.6	2 21	13 1.34	- 9 23.3	1.890	2.671	15.5	21.6
3 2	12 54.07	- 7 11.0	1.944	2.823	11.2	21.4	3 2	12 56.40	- 9 22.9	1.801	2.673	12.3	21.3
3 12	12 47.39	- 6 55.8	1.879	2.825	7.6	21.2	3 12	12 49.06	- 9 7.3	1.733	2.674	8.5	21.1
3 22	12 39.16	- 6 30.0	1.841	2.827	3.6	20.9	3 22	12 39.94	- 8 38.2	1.691	2.674	4.3	20.9
4 1	12 30.19	- 5 57.6	1.830	2.829	1.2	20.7	4 1	12 29.95	- 7 59.0	1.677	2.674	1.7	20.7
4 11	12 21.47	- 5 23.6	1.849	2.830	5.1	21.0	4 11	12 20.21	- 7 15.7	1.691	2.673	5.4	20.9
4 21	12 13.89	- 4 53.0	1.895	2.832	9.0	21.3	4 21	12 11.73	- 6 34.3	1.733	2.672	9.6	21.2
5 1	12 8.14	- 4 30.3	1.965	2.833	12.4	21.5	5 1	12 5.30	- 6 0.4	1.799	2.670	13.3	21.4
55077	2001 <i>QP</i> ₉₈		3 29.4 78 ^o 52	2 ^o 5/26.3	18		222710	2002 <i>AN</i> ₉₁		3 29.4 85 ^o 44	1 ^o 3/28.1	18	
2 21	12 54.50	+ 0 22.2	2.211	3.026	12.4	19.1	2 21	12 55.19	- 3 43.3	1.850	2.663	14.6	20.4
3 2	12 50.50	+ 1 32.5	2.152	3.051	9.4	18.9	3 2	12 51.52	- 2 52.0	1.776	2.672	11.2	20.2
3 12	12 44.78	+ 2 50.7	2.118	3.075	6.0	18.7	3 12	12 45.73	- 1 47.4	1.726	2.682	7.2	20.0
3 22	12 37.92	+ 4 10.8	2.112	3.100	3.0	18.6	3 22	12 38.44	- 0 34.9	1.701	2.691	3.0	19.7
4 1	12 30.66	+ 5 26.1	2.136	3.124	3.3	18.6	4 1	12 30.51	+ 0 38.6	1.705	2.701	2.2	19.7
4 11	12 23.78	+ 6 30.7	2.188	3.148	6.3	18.9	4 11	12 22.94	+ 1 45.5	1.737	2.710	6.3	19.9
4 21	12 17.95	+ 7 20.5	2.267	3.171	9.4	19.1	4 21	12 16.58	+ 2 39.7	1.794	2.720	10.2	20.2
5 1	12 13.67	+ 7 53.2	2.370	3.194	12.1	19.3	5 1	12 12.08	+ 3 17.2	1.875	2.729	13.6	20.4
198026	2004 <i>RB</i> ₂₃₀		3 29.4 98 ^o 08	0 ^o 5/29.9	17		380576	2004 <i>RE</i> ₁₆₃		3 29.4 214 ^o 47	1 ^o 2/28.1	17	
2 21	12 56.32	- 7 21.4	1.932	2.729	14.7	21.1	2 21	12 55.34	- 3 36.1	2.094	2.900	13.4	21.7
3 2	12 52.38	- 7 2.1	1.849	2.733	11.5	20.9	3 2	12 51.52	- 2 48.2	2.003	2.895	10.3	21.5
3 12	12 46.31	- 6 28.5	1.789	2.737	7.7	20.7	3 12	12 45.72	- 1 47.7	1.936	2.891	6.7	21.2
3 22	12 38.69	- 5 43.6	1.754	2.742	3.5	20.4	3 22	12 38.46	- 0 39.1	1.896	2.886	2.8	21.0
4 1	12 30.36	- 4 52.2	1.747	2.746	1.1	20.3	4 1	12 30.50	+ 0 31.4	1.885	2.881	2.0	20.9
4 11	12 22.33	- 4 0.7	1.769	2.750	5.3	20.6	4 11	12 22.75	+ 1 37.1	1.902	2.875	5.9	21.2
4 21	12 15.46	- 3 14.8	1.817	2.754	9.3	20.8	4 21	12 16.02	+ 2 32.1	1.947	2.870	9.7	21.4
5 1	12 10.43	- 2 39.6	1.889	2.758	12.8	21.0	5 1	12 10.98	+ 3 12.3	2.015	2.864	13.0	21.6
78554	2002 <i>RH</i> ₁₃₆		3 29.4 228 ^o 10	2 ^o 9/26.5	17		125432	2001 <i>VV</i> ₁₁₄		3 29.4 190 ^o 54	2 ^o 6/31.7	18	
2 21	12 57.61	+ 1 7.5	1.897	2.716	14.0	20.2	2 21	12 59.95	- 12 59.5	1.833	2.605	16.3	20.2
3 2	12 53.50	+ 2 2.6	1.808	2.708	10.8	19.9	3 2	12 55.47	- 12 51.9	1.741	2.604	13.1	19.9
3 12	12 47.15	+ 3 7.7	1.742	2.699	7.0	19.7	3 12	12 48.53	- 12 24.8	1.669	2.603	9.4	19.7
3 22	12 39.10	+ 4 17.2	1.703	2.690	3.6	19.4	3 22	12 39.75	- 11 39.4	1.622	2.601	5.3	19.5
4 1	12 30.22	+ 5 23.5	1.692	2.681	3.8	19.4	4 1	12 30.04	- 10 39.5	1.603	2.598	2.6	19.3
4 11	12 21.55	+ 6 19.4	1.709	2.671	7.5	19.6	4 11	12 20.56	- 9 31.9	1.612	2.594	5.5	19.5
4 21	12 14.04	+ 6 59.3	1.751	2.660	11.4	19.8	4 21	12 12.35	- 8 24.3	1.648	2.590	9.7	19.7
5 1	12 8.44	+ 7 20.2	1.817	2.650	14.8	20.0	5 1	12 6.24	- 7 24.2	1.708	2.586	13.5	19.9
465150	2007 <i>CW</i> ₃₂		3 29.4 268 ^o 49	4 ^o 4/ 2.1	17		368721	2005 <i>UK</i> ₂₉		3 29.4 167 ^o 30	1 ^o 2/28.1	16	
2 21	12 58.45	- 15 45.3	1.896	2.655	16.2	21.5	2 21	12 58.87	- 1 51.0	2.496	3.290	11.8	22.4
3 2	12 54.41	- 16 11.6	1.793	2.644	13.4	21.0	3 2	12 53.80	- 1 19.3	2.410	3.295	9.1	22.2
3 12	12 47.92	- 16 19.8	1.711	2.632	10.1	21.0	3 12	12 46.99	- 0 39.3	2.349	3.300	5.9	22.0
3 22	12 39.51	- 16 8.8	1.653	2.620	6.6	20.8	3 22	12 38.94	+ 0 5.3	2.316	3.305	2.5	21.8
4 1	12 30.05	- 15 40.0	1.621	2.608	4.4	20.6	4 1	12 30.35	+ 0 50.1	2.313	3.308	1.8	21.7
4 11	12 20.66	- 14 57.6	1.617	2.596	6.0	20.7	4 11	12 22.00	+ 1 30.4	2.341	3.311	5.1	22.0
4 21	12 12.42	- 14 8.1	1.639	2.584	9.6	20.9	4 21	12 14.59	+ 2 2.2	2.397	3.313	8.4	22.2
5 1	12 6.21	- 13 18.8	1.685	2.572	13.2	21.1	5 1	12 8.69	+ 2 22.9	2.478	3.315	11.2	22.4
134297	2006 <i>DE</i> ₅₉		3 29.4 306 ^o 24	0 ^o 8/29.9	18		273042	2006 <i>DG</i> ₁₃₇		3 29.4 259 ^o 36	0 ^o 2/29.2	17	
2 21	12 55.71	- 7 21.1	1.347	2.169	18.5	19.7	2 21	12 58.23	- 4 14.9	2.134	2.931	13.4	21.4
3 2	12 53.17	- 7 14.8	1.251	2.148	14.7	19.4	3 2	12 53.82	- 4 5.3	2.032	2.918	10.5	21.1
3 12	12 47.60	- 6 48.9	1.174	2.127	10.1	19.0	3 12	12 47.30	- 3 45.2	1.954	2.904	7.0	20.9
3 22	12 39.53	- 6 5.6	1.119	2.107	4.7	18.7	3 22	12 39.19	- 3 17.3	1.901	2.890	3.0	20.6
4 1	12 30.02	- 5 10.4	1.088	2.087	1.5	18.4	4 1	12 30.24	- 2 45.5	1.878	2.876	1.2	20.4
4 11	12 20.53	- 4 11.9	1.083	2.067	7.2	18.7	4 11	12 21.40	- 2 14.9	1.883	2.862	5.4	20.7
4 21	12 12.50	- 3 19.7	1.101	2.048	12.8	18.9	4 21	12 13.56	- 1 50.0	1.916	2.847	9.3	20.9
5 1	12 7.10	- 2 41.8	1.139	2.029	17.9	19.1	5 1	12 7.46	- 1 34.8	1.973	2.832	12.8	21.1
148376	2000 <i>SX</i> ₁₉₅		3 29.4 143 ^o 88	0 ^o 1/29.3	18		299967	2006 <i>TS</i> ₉₀		3 29.4 73 ^o 93	0 ^o 6/30.0	17	
2 21	12 54.25	- 5 43.6	2.867	3.652	10.7	21.4	2 21	12 54.69	- 7 17.5	2.339	3.128	12.7	21.1
3 2	12 50.04	- 5 15.0	2.782	3.661	8.2	21.2	3 2	12 50.75	- 7 2.4	2.256	3.135	9.9	20.9
3 12	12 44.41	- 4 37.2	2.722	3.669	5.4	21.0	3 12	12 45.06	- 6 35.6	2.197	3.143	6.6	20.7
3 22	12 37.78	- 3 52.9	2.690	3.678	2.3	20.8	3 22	12 38.13	- 5 59.7	2.163	3.150	3.1	20.5
4 1	12 30.73	- 3 5.7	2.687	3.686	0.9	20.7	4 1	12 30.66	- 5 18.5	2.159	3.157	0.9	20.3
4 11	12 23.88	- 2 19.7	2.716	3.693	4.0	21.0	4 11	12 23.44	- 4 36.9	2.184	3.165	4.5	20.6
4 21	12 17.80	- 1 38.7	2.773	3.700	6.9	21.2	4 21	12 17.16	- 3 59.3	2.236	3.172	7.9	20.8
5 1	12 12.96	- 1 5.9	2.856	3.707	9.5	21.4	5 1	12					

EPHEMERIDES

3 29.4

3 29.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
229086	2004 NG ₁₄		3 29.4 243°02	1°2/30.7	17		503636	2016 GX ₁₇₀		3 29.4 339°19	3°9/26.1	17	
2 21	12 57.06	- 9 55.0	2.266	3.042	13.4	22.2	2 21	12 51.93	+ 1 19.9	1.359	2.208	16.8	20.4
3 2	12 52.86	- 9 35.8	2.156	3.026	10.7	21.9	3 2	12 49.93	+ 2 21.2	1.281	2.197	12.9	20.1
3 12	12 46.66	- 9 1.5	2.069	3.009	7.4	21.7	3 12	12 45.22	+ 3 36.0	1.223	2.187	8.5	19.8
3 22	12 38.92	- 8 14.2	2.008	2.991	3.7	21.4	3 22	12 38.42	+ 4 56.5	1.189	2.177	4.5	19.6
4 1	12 30.37	- 7 17.3	1.976	2.973	1.3	21.2	4 1	12 30.57	+ 6 12.2	1.179	2.169	5.1	19.6
4 11	12 21.88	- 6 16.6	1.973	2.955	4.8	21.4	4 11	12 23.01	+ 7 12.7	1.195	2.161	9.5	19.8
4 21	12 14.30	- 5 17.9	1.999	2.936	8.6	21.6	4 21	12 16.92	+ 7 50.9	1.232	2.154	14.1	20.0
5 1	12 8.34	- 4 26.9	2.050	2.916	12.1	21.8	5 1	12 13.20	+ 8 3.3	1.290	2.149	18.2	20.3
86271	1999 TR ₂₈₀		3 29.4 90°44	1°8/27.5	18		171890	2001 RL ₄₂		3 29.4 158°24	4°1/23.8	17	
2 21	12 56.58	- 1 18.4	1.994	2.806	13.7	19.4	2 21	12 54.24	+ 7 54.5	2.597	3.418	10.6	20.8
3 2	12 52.36	- 0 30.9	1.927	2.823	10.4	19.2	3 2	12 50.21	+ 9 4.5	2.524	3.423	8.1	20.7
3 12	12 46.17	+ 0 26.3	1.883	2.840	6.7	19.0	3 12	12 44.62	+10 17.2	2.477	3.427	5.7	20.5
3 22	12 38.61	+ 1 28.0	1.867	2.856	3.0	18.8	3 22	12 37.93	+11 26.8	2.458	3.432	4.2	20.4
4 1	12 30.52	+ 2 27.9	1.879	2.872	2.6	18.8	4 1	12 30.78	+12 27.8	2.468	3.435	4.9	20.5
4 11	12 22.83	+ 3 19.8	1.919	2.888	6.2	19.1	4 11	12 23.86	+13 15.3	2.507	3.439	7.2	20.6
4 21	12 16.30	+ 3 59.0	1.986	2.904	9.8	19.3	4 21	12 17.80	+13 46.4	2.573	3.442	9.7	20.8
5 1	12 11.54	+ 4 22.7	2.076	2.919	12.9	19.6	5 1	12 13.10	+14 0.2	2.661	3.445	12.0	20.9
172447	2003 QX ₅₉		3 29.4 238°42	1°6/28.1	17		104654	2000 GS ₁₃₄		3 29.4 289°16	4°8/24.2	18	
2 21	13 1.00	- 1 14.3	1.782	2.593	15.1	20.5	2 21	12 52.75	+ 2 37.3	1.666	2.504	14.8	19.5
3 2	12 56.36	- 0 51.7	1.688	2.582	11.7	20.2	3 2	12 50.10	+ 4 22.6	1.580	2.491	11.3	19.3
3 12	12 49.19	- 0 18.5	1.616	2.571	7.7	19.9	3 12	12 45.10	+ 6 21.7	1.519	2.479	7.6	19.0
3 22	12 40.08	+ 0 21.2	1.570	2.559	3.4	19.6	3 22	12 38.31	+ 8 25.3	1.484	2.467	4.9	18.8
4 1	12 29.96	+ 1 1.5	1.552	2.547	2.5	19.6	4 1	12 30.62	+10 21.9	1.476	2.455	6.1	18.9
4 11	12 20.02	+ 1 35.8	1.561	2.535	6.9	19.8	4 11	12 23.14	+12 0.6	1.495	2.442	9.8	19.1
4 21	12 11.33	+ 1 59.0	1.597	2.522	11.3	20.0	4 21	12 16.86	+13 13.9	1.538	2.430	13.7	19.3
5 1	12 4.77	+ 2 7.3	1.656	2.508	15.2	20.2	5 1	12 12.59	+13 58.4	1.602	2.419	17.2	19.5
433880	2015 BG ₃₄₁		3 29.4 9°60	3°3/26.6	17		155586	2000 AU ₁₈₂		3 29.4 340°09	2°7/31.6	18	
2 21	12 54.93	+ 2 10.5	1.582	2.418	15.5	20.4	2 21	12 52.76	-13 1.9	1.209	2.024	20.6	19.4
3 2	12 51.72	+ 2 52.3	1.511	2.420	11.9	20.1	3 2	12 51.00	-12 45.4	1.129	2.018	16.6	19.1
3 12	12 46.09	+ 3 42.9	1.461	2.422	7.8	19.9	3 12	12 46.17	-11 59.7	1.066	2.013	11.8	18.8
3 22	12 38.68	+ 4 35.8	1.437	2.425	4.0	19.7	3 22	12 38.91	-10 46.7	1.025	2.008	6.5	18.5
4 1	12 30.49	+ 5 23.3	1.438	2.428	4.2	19.7	4 1	12 30.40	- 9 12.9	1.007	2.004	2.7	18.2
4 11	12 22.67	+ 5 58.2	1.466	2.432	8.1	19.9	4 11	12 22.20	- 7 30.3	1.013	2.000	7.0	18.5
4 21	12 16.24	+ 6 16.1	1.518	2.437	12.1	20.2	4 21	12 15.69	- 5 52.2	1.043	1.997	12.5	18.7
5 1	12 11.93	+ 6 14.6	1.591	2.442	15.7	20.4	5 1	12 11.91	- 4 30.1	1.092	1.995	17.4	19.0
348716	2006 DK ₃₉		3 29.4 326°25	0°1/29.4	17		277492	2005 WB ₈₇		3 29.4 66°22	6°0/4.2	17	
2 21	12 57.13	- 4 58.1	1.284	2.113	18.8	20.9	2 21	12 56.64	-21 22.6	1.916	2.649	16.9	20.6
3 2	12 54.25	- 4 56.2	1.200	2.103	14.8	20.6	3 2	12 52.93	-21 48.0	1.826	2.651	14.3	20.4
3 12	12 48.27	- 4 37.9	1.135	2.093	9.9	20.3	3 12	12 46.88	-21 50.8	1.755	2.653	11.3	20.2
3 22	12 39.81	- 4 6.2	1.093	2.083	4.4	20.0	3 22	12 39.06	-21 29.7	1.707	2.655	8.2	20.1
4 1	12 30.04	- 3 27.2	1.076	2.074	1.5	19.7	4 1	12 30.37	-20 45.8	1.684	2.657	6.1	19.9
4 11	12 20.50	- 2 49.2	1.083	2.066	7.4	20.1	4 11	12 21.89	-19 44.0	1.688	2.660	6.6	20.0
4 21	12 12.61	- 2 19.9	1.113	2.058	12.9	20.4	4 21	12 14.64	-18 31.6	1.718	2.662	9.3	20.1
5 1	12 7.44	- 2 5.4	1.163	2.051	17.7	20.6	5 1	12 9.40	-17 17.2	1.772	2.664	12.4	20.3
496439	2014 OC ₃₆		3 29.4 302°52	4°3/26.1	17		463183	2012 BL ₁₀₉		3 29.4 96°44	0°3/29.2	18	
2 21	12 55.86	+ 1 46.3	1.272	2.119	17.9	21.4	2 21	13 0.19	- 5 24.2	1.688	2.492	16.1	22.6
3 2	12 53.29	+ 2 47.6	1.189	2.104	13.8	21.1	3 2	12 55.51	- 4 58.7	1.621	2.510	12.5	22.4
3 12	12 47.65	+ 4 3.5	1.125	2.088	9.2	20.8	3 12	12 48.43	- 4 19.0	1.575	2.527	8.2	22.2
3 22	12 39.55	+ 5 25.8	1.085	2.073	5.0	20.5	3 22	12 39.65	- 3 29.4	1.555	2.544	3.5	21.9
4 1	12 30.14	+ 6 43.0	1.070	2.058	5.6	20.5	4 1	12 30.20	- 2 35.9	1.563	2.561	1.4	21.8
4 11	12 20.94	+ 7 43.7	1.079	2.044	10.4	20.7	4 11	12 21.24	- 1 45.6	1.598	2.577	6.0	22.1
4 21	12 13.35	+ 8 19.9	1.109	2.030	15.4	20.9	4 21	12 13.74	- 1 4.8	1.660	2.593	10.3	22.4
5 1	12 8.44	+ 8 28.0	1.159	2.017	19.9	21.1	5 1	12 8.40	- 0 37.5	1.745	2.609	14.0	22.7
423570	2005 UE ₅₁₁		3 29.4 161°78	1°0/30.5	15		125465	2001 WY ₉		3 29.4 201°70	2°0/27.4	18	
2 21	12 57.74	- 9 30.5	2.490	3.261	12.5	23.4	2 21	12 55.86	- 1 26.1	1.910	2.726	14.1	20.0
3 2	12 52.98	- 9 5.5	2.401	3.268	9.8	23.2	3 2	12 52.09	- 0 35.2	1.827	2.725	10.8	19.8
3 12	12 46.49	- 8 27.5	2.335	3.275	6.7	23.0	3 12	12 46.18	+ 0 27.3	1.766	2.724	7.0	19.5
3 22	12 38.76	- 7 38.7	2.297	3.281	3.3	22.8	3 22	12 38.71	+ 1 36.0	1.733	2.722	3.1	19.3
4 1	12 30.47	- 6 43.0	2.288	3.286	1.1	22.6	4 1	12 30.51	+ 2 44.1	1.727	2.720	2.9	19.3
4 11	12 22.42	- 5 45.6	2.310	3.291	4.3	22.9	4 11	12 22.57	+ 3 44.3	1.749	2.718	6.7	19.5
4 21	12 15.30	- 4 51.5	2.360	3.294	7.6	23.1	4 21	12 15.77	+ 4 30.9	1.798	2.716	10.6	19.7
5 1	12 9.68	- 4 5.2	2.437	3.297	10.6	23.3	5 1	12 10.81	+ 5 0.4	1.869	2.714	14.0	19.9
297672	2001 UL ₉₅		3 29.4 219°63	2°2/31.4	17		497953	2006 WW ₂₀₅		3 29.4 54°56	7°4/5.3	17	
2 21	12 59.13	-12 22.5	1.823	2.599	16.2	22.0	2 21	12 57.52	-23 33.8	1.707	2.436	18.9	21.1
3 2	12 54.93	-12 5.5	1.724	2.591	13.0	21.7	3 2	12 53.90	-24 14.6	1.626	2.444	16.1	20.9
3 12	12 48.27	-11 28.5	1.645	2.582	9.2	21.5	3 12	12 47.65	-24 29.8	1.564	2.453	13.0	20.7
3 22	12 39.69	-10 32.8	1.592	2.572	5.0	21.2	3 22	12 39.42	-24 16.9	1.522	2.462	9.9	20.5
4 1	12 30.11	- 9 22.7	1.566	2.562	2.2	21.0	4 1	12 30.25	-23 36.2	1.505	2.471	7.7	20.4
4 11	12 20.69	- 8 5.6	1.568	2.551	5.6	21.2	4 11	12 21.39	-22 33.0	1.514	2.480	7.9	20.4
4 21	12 12.48	- 6 49.7	1.597	2.539	10.0	21.4	4 21	12 13.97	-21 15.7	1.547	2.489	10.2	20.6
5 1	12 6.36	- 5 42.8	1.651	2.527	14.0	21.6	5 1	12 8.84	-19 54.2	1.604	2.499	13.3	20.8
272860	2006 BN ₅₆		3 29.4 119°93	6°5/22.1	18		437127	2012 UL ₁₄₉		3 29.4 104°08	0°1/29.5	17	
2 21	12 56.80												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
439793	2015 <i>HP</i> ₄₉		3 29.4 280°11	5°4/23.1	17		417497	2006 <i>SW</i> ₆₆		3 29.4 243°24	0°4/29.0	17	
2 21	12 54.94	+10 27.5	2.166	2.996	12.1	21.3	2 21	12 57.90	- 5 27.4	1.898	2.699	14.7	22.1
3 2	12 51.14	+11 35.0	2.089	2.991	9.4	21.1	3 2	12 53.86	- 4 55.1	1.798	2.686	11.5	21.8
3 12	12 45.44	+12 44.0	2.037	2.985	6.9	20.9	3 12	12 47.51	- 4 8.1	1.721	2.672	7.6	21.6
3 22	12 38.36	+13 47.7	2.011	2.980	5.5	20.8	3 22	12 39.38	- 3 9.9	1.669	2.658	3.3	21.3
4 1	12 30.65	+14 39.3	2.013	2.974	6.4	20.9	4 1	12 30.30	- 2 6.1	1.646	2.644	1.4	21.1
4 11	12 23.18	+15 13.4	2.042	2.969	8.9	21.0	4 11	12 21.35	- 1 4.0	1.651	2.629	6.0	21.4
4 21	12 16.74	+15 27.3	2.096	2.963	11.7	21.2	4 21	12 13.52	- 0 10.2	1.682	2.613	10.4	21.6
5 1	12 11.93	+15 20.4	2.171	2.958	14.3	21.3	5 1	12 7.62	+ 0 29.9	1.738	2.597	14.2	21.8
402146	2004 <i>RQ</i> ₄₉		3 29.4 196°16	1°1/30.2	18		432442	2010 <i>CH</i> ₂₃		3 29.4 148°24	1°9/31.3	17	
2 21	13 2.25	- 7 31.7	1.733	2.525	16.3	21.5	2 21	12 56.98	-10 58.4	2.161	2.935	14.0	21.4
3 2	12 57.37	- 7 31.4	1.644	2.523	12.9	21.2	3 2	12 52.75	-10 54.3	2.072	2.939	11.2	21.2
3 12	12 49.88	- 7 16.3	1.575	2.521	8.8	21.0	3 12	12 46.53	-10 35.4	2.005	2.942	7.8	21.0
3 22	12 40.40	- 6 48.4	1.532	2.518	4.2	20.7	3 22	12 38.86	-10 3.3	1.965	2.945	4.2	20.8
4 1	12 29.92	- 6 11.8	1.517	2.515	1.4	20.5	4 1	12 30.51	- 9 21.4	1.952	2.948	1.9	20.6
4 11	12 19.69	- 5 32.7	1.530	2.511	5.9	20.8	4 11	12 22.39	- 8 34.8	1.968	2.951	4.7	20.8
4 21	12 10.82	- 4 57.3	1.569	2.507	10.4	21.0	4 21	12 15.32	- 7 49.0	2.012	2.953	8.3	21.0
5 1	12 4.19	- 4 31.2	1.632	2.502	14.4	21.3	5 1	12 9.95	- 7 9.1	2.081	2.956	11.6	21.3
463652	2013 <i>TG</i> ₁₄₅		3 29.4 186°15	0°6/28.9	17		373221	2012 <i>FT</i> ₅₄		3 29.4 320°73	2°5/27.4	18	
2 21	13 2.05	- 2 16.5	2.053	2.850	13.9	20.9	2 21	12 57.92	+ 0 41.2	1.653	2.478	15.5	20.9
3 2	12 56.72	- 2 18.7	1.964	2.850	10.8	20.7	3 2	12 54.05	+ 1 11.8	1.572	2.475	11.9	20.7
3 12	12 49.18	- 2 12.6	1.899	2.850	7.1	20.5	3 12	12 47.67	+ 1 52.1	1.513	2.471	7.8	20.4
3 22	12 40.01	- 2 1.1	1.860	2.849	3.0	20.2	3 22	12 39.43	+ 2 36.5	1.478	2.468	3.6	20.2
4 1	12 30.07	- 1 47.7	1.851	2.849	1.4	20.1	4 1	12 30.31	+ 3 18.4	1.471	2.464	3.4	20.1
4 11	12 20.38	- 1 36.8	1.871	2.848	5.6	20.4	4 11	12 21.48	+ 3 51.0	1.491	2.461	7.5	20.4
4 21	12 11.86	- 1 31.9	1.918	2.846	9.5	20.6	4 21	12 14.00	+ 4 9.1	1.535	2.458	11.8	20.6
5 1	12 5.24	- 1 36.0	1.990	2.845	12.9	20.8	5 1	12 8.68	+ 4 10.1	1.602	2.455	15.5	20.8
383761	2007 <i>VJ</i> ₂₂₇		3 29.4 112°52	2°8/26.0	17		278626	2008 <i>QK</i> ₄₀		3 29.4 137°99	2°1/31.5	17	
2 21	12 56.44	+ 4 6.8	2.511	3.323	11.2	21.5	2 21	12 56.90	-11 38.0	2.057	2.832	14.6	20.9
3 2	12 51.85	+ 4 50.6	2.443	3.339	8.5	21.3	3 2	12 52.80	-11 34.2	1.969	2.836	11.7	20.7
3 12	12 45.66	+ 5 38.3	2.400	3.354	5.6	21.2	3 12	12 46.62	-11 14.4	1.903	2.839	8.2	20.5
3 22	12 38.38	+ 6 25.5	2.385	3.369	3.2	21.0	3 22	12 38.92	-10 40.1	1.862	2.842	4.5	20.3
4 1	12 30.67	+ 7 7.3	2.399	3.383	3.5	21.1	4 1	12 30.50	- 9 54.9	1.849	2.845	2.1	20.2
4 11	12 23.27	+ 7 39.4	2.443	3.397	6.1	21.3	4 11	12 22.33	- 9 4.1	1.865	2.848	4.9	20.3
4 21	12 16.81	+ 7 59.1	2.514	3.411	8.9	21.5	4 21	12 15.25	- 8 13.9	1.908	2.851	8.6	20.6
5 1	12 11.80	+ 8 4.9	2.609	3.425	11.4	21.7	5 1	12 9.96	- 7 29.7	1.976	2.853	12.0	20.8
79038	3144 <i>T</i> ₂		3 29.4 185°62	1°3/28.1	16		167552	2004 <i>BU</i> ₉		3 29.4 72°81	4°8/23.9	18	
2 21	12 58.74	- 2 59.7	2.011	2.814	13.9	21.5	2 21	12 54.26	+ 7 33.3	2.075	2.906	12.5	19.8
3 2	12 54.20	- 2 16.2	1.924	2.814	10.7	21.2	3 2	12 50.60	+ 8 48.8	2.010	2.915	9.6	19.7
3 12	12 47.54	- 1 20.8	1.860	2.814	7.0	21.0	3 12	12 45.06	+10 7.7	1.970	2.923	6.7	19.5
3 22	12 39.30	- 0 17.9	1.823	2.813	3.0	20.8	3 22	12 38.19	+11 22.9	1.956	2.932	4.9	19.4
4 1	12 30.33	+ 0 46.4	1.816	2.811	2.2	20.7	4 1	12 30.79	+12 27.1	1.971	2.940	5.8	19.5
4 11	12 21.61	+ 1 45.2	1.837	2.809	6.1	20.9	4 11	12 23.71	+13 14.6	2.013	2.949	8.4	19.6
4 21	12 14.03	+ 2 32.8	1.885	2.806	10.0	21.2	4 21	12 17.72	+13 42.2	2.079	2.957	11.3	19.8
5 1	12 8.28	+ 3 5.4	1.957	2.802	13.4	21.4	5 1	12 13.38	+13 49.2	2.168	2.966	13.9	20.0
406512	2007 <i>VD</i> ₁₅₄		3 29.4 179°87	1°0/30.4	14	C	333927	1999 <i>TK</i> ₃₁₅		3 29.4 282°01	3°1/27.0	17	
2 21	12 58.74	- 9 53.1	2.115	2.892	14.2	22.9	2 21	13 3.64	+ 4 42.8	1.999	2.810	13.7	21.1
3 2	12 54.14	- 9 20.1	2.023	2.894	11.2	22.7	3 2	12 58.31	+ 4 54.2	1.889	2.783	10.7	20.9
3 12	12 47.46	- 8 30.8	1.953	2.895	7.7	22.5	3 12	12 50.50	+ 5 9.5	1.803	2.757	7.2	20.6
3 22	12 39.26	- 7 27.8	1.910	2.895	3.7	22.3	3 22	12 40.73	+ 5 24.1	1.744	2.729	3.9	20.3
4 1	12 30.35	- 6 16.2	1.897	2.895	1.2	22.1	4 1	12 29.85	+ 5 33.0	1.713	2.702	3.9	20.3
4 11	12 21.67	- 5 2.6	1.913	2.894	5.0	22.3	4 11	12 18.97	+ 5 31.4	1.712	2.674	7.5	20.4
4 21	12 14.09	- 3 53.8	1.957	2.892	8.9	22.6	4 21	12 9.18	+ 5 16.2	1.737	2.646	11.5	20.6
5 1	12 8.28	- 2 55.5	2.026	2.889	12.3	22.8	5 1	12 1.37	+ 4 46.0	1.786	2.618	15.1	20.8
296218	2009 <i>CM</i> ₂₇		3 29.4 271°77	1°8/31.1	18		16010	1999 <i>CG</i> ₁₄		3 29.4 268°90	1°0/28.2	18	
2 21	12 57.57	- 9 37.7	2.270	3.045	13.4	20.9	2 21	12 52.57	- 4 24.1	2.273	3.078	12.5	18.0
3 2	12 53.18	- 9 49.1	2.172	3.040	10.7	20.7	3 2	12 49.30	- 3 31.4	2.178	3.069	9.6	17.8
3 12	12 46.83	- 9 48.3	2.096	3.034	7.5	20.5	3 12	12 44.24	- 2 25.9	2.106	3.060	6.3	17.5
3 22	12 39.00	- 9 36.4	2.047	3.028	4.0	20.2	3 22	12 37.88	- 1 12.0	2.062	3.052	2.6	17.3
4 1	12 30.44	- 9 15.7	2.027	3.023	1.8	20.1	4 1	12 30.88	+ 0 4.7	2.046	3.043	1.8	17.2
4 11	12 22.01	- 8 50.3	2.035	3.017	4.6	20.2	4 11	12 24.03	+ 1 17.6	2.060	3.034	5.4	17.4
4 21	12 14.55	- 8 24.5	2.071	3.012	8.1	20.4	4 21	12 18.08	+ 2 20.9	2.101	3.025	9.0	17.6
5 1	12 8.72	- 8 2.8	2.133	3.006	11.4	20.6	5 1	12 13.62	+ 3 10.2	2.167	3.016	12.2	17.8
314171	2005 <i>GT</i> ₇₃		3 29.4 306°47	5°5/24.6	17		405185	2003 <i>AQ</i> ₂₁		3 29.4 130°87	1°1/28.2	18	
2 21	12 54.55	+ 4 53.7	1.438	2.285	16.2	20.3	2 21	13 0.35	- 2 21.1	2.312	3.106	12.6	21.9
3 2	12 51.99	+ 6 8.0	1.350	2.264	12.6	20.0	3 2	12 54.99	- 1 46.3	2.239	3.124	9.7	21.8
3 12	12 46.66	+ 7 33.6	1.282	2.243	8.6	19.7	3 12	12 47.79	- 1 2.5	2.190	3.142	6.2	21.6
3 22	12 39.12	+ 9 1.5	1.239	2.222	5.7	19.5	3 22	12 39.34	- 0 13.9	2.170	3.159	2.6	21.4
4 1	12 30.37	+10 20.4	1.222	2.202	6.8	19.5	4 1	12 30.40	+ 0 34.8	2.180	3.175	1.9	21.3
4 11	12 21.76	+11 19.9	1.228	2.182	10.9	19.6	4 11	12 21.81	+ 1 18.4	2.219	3.191	5.3	21.6
4 21	12 14.55	+11 53.1	1.258	2.162	15.3	19.8	4 21	12 14.31	+ 1 52.7	2.287	3.205	8.7	21.8
5 1	12 9.72	+11 57.2	1.306	2.143	19.3	20.0	5 1	12 8.46	+ 2 15.0	2.380	3.219	11.6	22.0
191241	2002 <i>VN</i> ₁₀₃		3 29.4 102°50	2°9/31.6	18		63566	2001 <i>QT</i> ₁₈		3 29.4			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
366455	2002 AZ ₁₂₆		3 29.4 167°86	1°6/31.5	15		204418	2004 VR ₅₇		3 29.4 93°67	1°4/28.2	18	
2 21	12 58.07	-12 3.1	2.785	3.537	11.7	22.4	2 21	13 2.24	-3 9.6	1.642	2.451	16.3	20.9
3 2	12 53.10	-11 44.6	2.690	3.544	9.4	22.2	3 2	12 57.02	-2 24.9	1.585	2.478	12.5	20.7
3 12	12 46.52	-11 13.2	2.619	3.549	6.6	22.0	3 12	12 49.36	-1 27.5	1.551	2.505	8.0	20.5
3 22	12 38.81	-10 30.3	2.576	3.554	3.6	21.8	3 22	12 40.07	+0 23.2	1.542	2.532	3.4	20.3
4 1	12 30.57	-9 39.0	2.563	3.558	1.6	21.7	4 1	12 30.22	+0 40.5	1.561	2.557	2.3	20.3
4 11	12 22.54	-8 43.8	2.580	3.561	3.9	21.9	4 11	12 20.99	+1 36.0	1.609	2.583	6.7	20.6
4 21	12 15.34	-7 49.2	2.628	3.564	6.9	22.1	4 21	12 13.35	+2 17.8	1.683	2.607	10.8	20.9
5 1	12 9.51	-6 59.6	2.702	3.565	9.6	22.3	5 1	12 7.93	+2 42.6	1.779	2.631	14.3	21.2
18326	1985 CV ₁		3 29.4 27°94	0°6/28.8	18		160442	2005 SE ₂₅₃		3 29.4 226°40	2°4/26.1	18	
2 21	12 54.21	-3 49.9	2.079	2.887	13.4	18.3	2 21	12 53.87	+2 57.5	2.893	3.702	10.0	20.8
3 2	12 50.60	-3 27.2	2.001	2.893	10.3	18.1	3 2	12 49.87	+3 43.8	2.798	3.693	7.6	20.6
3 12	12 45.10	-2 53.9	1.945	2.899	6.7	17.9	3 12	12 44.42	+4 35.4	2.729	3.683	5.0	20.4
3 22	12 38.23	-2 13.5	1.915	2.905	2.8	17.6	3 22	12 37.93	+5 28.3	2.688	3.673	2.7	20.3
4 1	12 30.77	-1 30.9	1.914	2.912	1.4	17.5	4 1	12 30.93	+6 18.0	2.677	3.662	3.0	20.3
4 11	12 23.59	-0 51.4	1.941	2.919	5.3	17.8	4 11	12 24.06	+7 0.3	2.696	3.651	5.5	20.4
4 21	12 17.46	-0 19.8	1.995	2.926	9.0	18.0	4 21	12 17.89	+7 31.8	2.742	3.640	8.2	20.6
5 1	12 12.97	+0 0.5	2.072	2.933	12.2	18.3	5 1	12 12.93	+7 50.6	2.814	3.628	10.6	20.7
406231	2007 BR ₅₂		3 29.4 98°30	4°1/25.1	18		208178	2000 QX ₇₃		3 29.4 159°10	0°8/30.2	18	
2 21	12 59.79	+5 12.0	2.008	2.827	13.4	21.1	2 21	13 0.85	-8 31.6	2.044	2.824	14.5	21.9
3 2	12 54.70	+6 23.3	1.955	2.854	10.1	21.0	3 2	12 55.78	-8 9.1	1.959	2.833	11.4	21.7
3 12	12 47.63	+7 38.7	1.928	2.881	6.8	20.8	3 12	12 48.56	-7 31.8	1.897	2.840	7.7	21.5
3 22	12 39.26	+8 51.3	1.927	2.908	4.3	20.7	3 22	12 39.78	-6 42.5	1.861	2.847	3.6	21.3
4 1	12 30.46	+9 54.0	1.956	2.934	5.0	20.8	4 1	12 30.29	-5 45.8	1.854	2.853	1.1	21.1
4 11	12 22.17	+10 41.1	2.013	2.959	7.8	21.0	4 11	12 21.11	-4 47.9	1.877	2.858	5.1	21.4
4 21	12 15.15	+11 9.6	2.096	2.983	10.8	21.3	4 21	12 13.12	-3 55.1	1.928	2.862	9.0	21.6
5 1	12 9.96	+11 18.8	2.202	3.007	13.5	21.5	5 1	12 7.00	-3 12.2	2.003	2.865	12.5	21.8
264680	2001 YW ₁₀₅		3 29.4 95°94	5°1/24.2	18		497345	2005 UL ₁₂₁		3 29.4 228°84	0°8/30.2	17	
2 21	12 57.59	+7 33.0	1.890	2.719	13.6	21.2	2 21	12 57.26	-8 32.9	2.188	2.971	13.6	22.9
3 2	12 53.25	+8 48.8	1.832	2.735	10.4	21.1	3 2	12 53.07	-8 8.7	2.085	2.960	10.7	22.7
3 12	12 46.83	+10 7.6	1.798	2.751	7.2	20.9	3 12	12 46.84	-7 29.9	2.005	2.949	7.3	22.5
3 22	12 38.96	+11 21.8	1.791	2.767	5.2	20.8	3 22	12 39.07	-6 38.9	1.951	2.937	3.5	22.2
4 1	12 30.56	+12 23.5	1.812	2.783	6.1	20.9	4 1	12 30.52	-5 39.9	1.927	2.925	1.1	22.0
4 11	12 22.60	+13 6.8	1.860	2.798	8.9	21.1	4 11	12 22.08	-4 38.9	1.931	2.912	5.0	22.3
4 21	12 15.92	+13 28.9	1.933	2.813	11.9	21.3	4 21	12 14.62	-3 41.9	1.963	2.899	8.8	22.5
5 1	12 11.12	+13 29.4	2.027	2.828	14.7	21.5	5 1	12 8.83	-2 54.3	2.021	2.885	12.3	22.7
429077	2009 PP ₁₆		3 29.4 168°82	1°0/30.4	17		435255	2007 TC ₉₉		3 29.4 211°45	0°5/28.9	17	
2 21	12 59.80	-8 7.4	2.283	3.059	13.3	22.4	2 21	12 55.16	-4 35.0	2.391	3.187	12.2	21.9
3 2	12 54.79	-8 0.9	2.193	3.064	10.5	22.2	3 2	12 51.18	-4 3.8	2.297	3.183	9.4	21.7
3 12	12 47.82	-7 42.2	2.126	3.067	7.1	22.0	3 12	12 45.43	-3 21.9	2.228	3.179	6.2	21.5
3 22	12 39.42	-7 13.2	2.085	3.070	3.5	21.8	3 22	12 38.41	-2 32.6	2.186	3.175	2.6	21.3
4 1	12 30.37	-6 37.4	2.075	3.073	1.2	21.6	4 1	12 30.77	-1 40.2	2.173	3.170	1.3	21.2
4 11	12 21.55	-5 59.6	2.093	3.074	4.6	21.8	4 11	12 23.31	-0 50.1	2.189	3.165	4.9	21.4
4 21	12 13.75	-5 24.4	2.141	3.076	8.2	22.1	4 21	12 16.74	-0 7.0	2.233	3.160	8.4	21.6
5 1	12 7.62	-4 56.0	2.213	3.076	11.4	22.3	5 1	12 11.65	+0 25.4	2.302	3.155	11.4	21.8
520168	2014 CW ₂₆		3 29.4 89°87	2°4/27.0	17		376762	1999 WW ₂₃		3 29.4 121°61	1°3/30.8	17	
2 21	12 57.91	+2 49.8	2.303	3.114	12.1	21.4	2 21	12 55.62	-10 1.1	2.086	2.870	14.2	21.6
3 2	12 53.19	+3 12.5	2.228	3.123	9.2	21.2	3 2	12 51.76	-9 40.8	2.001	2.875	11.2	21.4
3 12	12 46.67	+3 40.0	2.177	3.132	6.0	21.0	3 12	12 45.91	-9 5.0	1.938	2.880	7.7	21.2
3 22	12 38.88	+4 8.0	2.154	3.141	3.0	20.9	3 22	12 38.63	-8 16.3	1.900	2.884	3.9	21.0
4 1	12 30.58	+4 32.3	2.160	3.150	3.0	20.9	4 1	12 30.70	-7 18.8	1.891	2.889	1.4	20.8
4 11	12 22.58	+4 48.7	2.195	3.158	6.0	21.1	4 11	12 23.02	-6 18.8	1.911	2.893	4.8	21.0
4 21	12 15.61	+4 54.4	2.257	3.167	9.1	21.3	4 21	12 16.41	-5 22.3	1.958	2.898	8.5	21.3
5 1	12 10.24	+4 47.9	2.343	3.176	11.9	21.5	5 1	12 11.51	-4 34.6	2.029	2.902	11.9	21.5
135973	2002 TQ ₂₉₂		3 29.4 165°82	0°4/29.0	18		56377	2000 EU ₃₅		3 29.4 21°59	2°9/27.6	18	
2 21	12 57.59	-3 37.1	2.523	3.314	11.8	20.0	2 21	13 1.29	+1 21.8	1.267	2.105	18.5	19.0
3 2	12 52.88	-3 23.6	2.434	3.317	9.1	19.8	3 2	12 57.31	+1 41.2	1.198	2.107	14.3	18.7
3 12	12 46.45	-3 1.8	2.370	3.320	6.0	19.6	3 12	12 50.16	+2 10.6	1.148	2.109	9.4	18.4
3 22	12 38.80	-2 34.2	2.333	3.322	2.5	19.4	3 22	12 40.63	+2 43.7	1.122	2.111	4.4	18.2
4 1	12 30.60	-2 4.4	2.327	3.324	1.1	19.3	4 1	12 30.01	+3 12.6	1.121	2.114	3.9	18.1
4 11	12 22.61	-1 36.6	2.350	3.326	4.6	19.6	4 11	12 19.88	+3 29.7	1.144	2.118	8.8	18.4
4 21	12 15.52	-1 14.2	2.401	3.328	7.9	19.8	4 21	12 11.61	+3 30.3	1.191	2.121	13.7	18.7
5 1	12 9.89	-1 0.3	2.478	3.329	10.8	20.0	5 1	12 6.14	+3 12.1	1.258	2.125	18.0	19.0
8099	1993 TE		3 29.4 202°28	0°2/29.7	18		107472	2001 DB ₃₂		3 29.4 12°57	2°5/27.6	18	
2 21	12 56.82	-7 53.1	2.451	3.230	12.4	19.6	2 21	12 56.57	-0 17.1	1.284	2.126	18.1	19.2
3 2	12 52.43	-7 10.7	2.350	3.225	9.7	19.4	3 2	12 53.58	+0 12.9	1.216	2.128	13.9	19.0
3 12	12 46.25	-6 14.6	2.274	3.219	6.5	19.2	3 12	12 47.64	+0 55.5	1.168	2.130	9.1	18.7
3 22	12 38.75	-5 7.8	2.225	3.213	2.9	19.0	3 22	12 39.51	+1 44.2	1.144	2.134	4.1	18.4
4 1	12 30.62	-3 55.1	2.207	3.205	0.9	18.8	4 1	12 30.40	+2 30.7	1.143	2.138	3.6	18.4
4 11	12 22.64	-2 42.3	2.218	3.197	4.7	19.1	4 11	12 21.75	+3 6.2	1.168	2.143	8.4	18.7
4 21	12 15.54	-1 35.3	2.259	3.188	8.2	19.3	4 21	12 14.81	+3 24.9	1.215	2.149	13.3	19.0
5 1	12 9.94	-0 38.9	2.325	3.178	11.3	19.4	5 1	12 10.45	+3 23.8	1.283	2.155	17.5	19.2
190106	2004 TV ₃₀₈		3 29.4 72°03	3°0/1.6	18		120699	1997 HM ₁₄		3 29.4 213°03	0°2/29.3	18	
2 21	12 56.46	-15 3.6	1.889	2.655	16.0	20.1	2 21	12 57.15	-5 2.0	2.227	3.022	13.0	20.7
3 2													

EPHEMERIDES

3 29.4

3 29.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
315511	2008 AY ₄₇		3 29.4 182°00	1°3/30.7	16		302292	2001 YV ₃₁		3 29.4 128°28	5°2/23.2	18	
2 21	12 59.26	- 9 43.2	2.002	2.782	14.8	22.4	2 21	12 56.65	+12 22.0	2.485	3.306	11.0	20.4
3 2	12 54.70	- 9 25.6	1.911	2.783	11.7	22.1	3 2	12 52.14	+13 16.4	2.417	3.312	8.6	20.2
3 12	12 47.95	- 8 52.0	1.842	2.783	8.1	21.9	3 12	12 45.95	+14 9.8	2.376	3.319	6.4	20.1
3 22	12 39.56	- 8 4.7	1.799	2.783	4.0	21.7	3 22	12 38.60	+14 56.3	2.361	3.325	5.2	20.0
4 1	12 30.39	- 7 8.1	1.785	2.782	1.4	21.5	4 1	12 30.78	+15 30.8	2.375	3.331	6.0	20.1
4 11	12 21.45	- 6 8.4	1.799	2.781	5.1	21.7	4 11	12 23.26	+15 49.4	2.417	3.337	8.0	20.2
4 21	12 13.66	- 5 12.2	1.841	2.779	9.1	22.0	4 21	12 16.71	+15 50.6	2.484	3.342	10.4	20.4
5 1	12 7.76	- 4 25.2	1.908	2.776	12.7	22.2	5 1	12 11.63	+15 34.5	2.574	3.348	12.6	20.5
246383	2007 US ₁₁		3 29.4 197°76	3°0/26.4	18		349357	2007 VC ₁₇₀		3 29.4 151°16	4°4/24.2	17	
2 21	13 0.83	+ 2 36.3	2.163	2.972	12.9	21.3	2 21	12 56.68	+ 9 18.0	2.489	3.309	11.1	21.1
3 2	12 55.71	+ 3 26.4	2.074	2.968	9.9	21.1	3 2	12 52.16	+10 9.8	2.417	3.314	8.6	20.9
3 12	12 48.51	+ 4 23.9	2.009	2.963	6.5	20.9	3 12	12 45.97	+11 2.7	2.370	3.319	6.0	20.8
3 22	12 39.79	+ 5 23.2	1.973	2.958	3.5	20.7	3 22	12 38.62	+11 51.3	2.350	3.323	4.4	20.7
4 1	12 30.33	+ 6 18.3	1.965	2.952	3.8	20.7	4 1	12 30.77	+12 30.3	2.360	3.327	5.1	20.7
4 11	12 21.09	+ 7 3.1	1.987	2.944	7.0	20.9	4 11	12 23.20	+12 55.6	2.398	3.331	7.4	20.8
4 21	12 12.93	+ 7 33.3	2.036	2.936	10.5	21.0	4 21	12 16.57	+13 5.1	2.462	3.335	10.0	21.0
5 1	12 6.53	+ 7 46.7	2.109	2.927	13.6	21.2	5 1	12 11.40	+12 58.0	2.549	3.339	12.3	21.2
406020	2006 TM ₄₇		3 29.4 95°51	2°0/27.7	18		234226	2000 SW ₁₇₃		3 29.4 134°55	4°1/4.8	18	
2 21	13 0.20	- 0 15.7	1.737	2.553	15.2	21.5	2 21	12 53.44	-23 28.6	2.815	3.512	12.8	20.6
3 2	12 55.51	+ 0 14.5	1.668	2.566	11.7	21.3	3 2	12 49.64	-22 57.9	2.719	3.521	10.8	20.5
3 12	12 48.46	+ 0 54.2	1.622	2.579	7.6	21.1	3 12	12 44.30	-22 7.4	2.644	3.530	8.4	20.3
3 22	12 39.75	+ 1 38.0	1.602	2.591	3.4	20.8	3 22	12 37.89	-20 57.8	2.594	3.538	6.0	20.2
4 1	12 30.36	+ 2 19.7	1.610	2.604	2.9	20.8	4 1	12 31.02	-19 31.9	2.573	3.547	4.2	20.1
4 11	12 21.42	+ 2 53.1	1.645	2.616	6.8	21.1	4 11	12 24.39	-17 54.7	2.582	3.554	4.5	20.1
4 21	12 13.89	+ 3 13.7	1.706	2.628	10.8	21.3	4 21	12 18.60	-16 12.5	2.620	3.562	6.6	20.2
5 1	12 8.45	+ 3 19.0	1.790	2.640	14.3	21.6	5 1	12 14.15	-14 32.0	2.687	3.569	9.0	20.4
384893	2012 TQ ₁₈		3 29.4 84°00	0°7/30.3	18		385950	2006 UY ₂₉₆		3 29.4 207°95	3°0/1.8	18	
2 21	12 53.48	- 9 27.9	2.277	3.061	13.1	21.1	2 21	12 56.74	-14 48.4	2.544	3.291	12.9	21.2
3 2	12 49.87	- 8 46.9	2.199	3.075	10.2	20.9	3 2	12 52.39	-14 59.0	2.443	3.288	10.5	21.0
3 12	12 44.53	- 7 51.2	2.145	3.089	6.9	20.7	3 12	12 46.26	-14 55.4	2.365	3.284	7.7	20.8
3 22	12 38.00	- 6 44.3	2.117	3.103	3.2	20.5	3 22	12 38.80	-14 37.8	2.312	3.281	4.9	20.6
4 1	12 30.97	- 5 31.2	2.118	3.116	0.9	20.3	4 1	12 30.69	-14 8.3	2.288	3.277	3.0	20.5
4 11	12 24.22	- 4 18.2	2.148	3.130	4.5	20.6	4 11	12 22.71	-13 30.3	2.293	3.273	4.5	20.6
4 21	12 18.45	- 3 11.1	2.207	3.143	7.9	20.9	4 21	12 15.59	-12 48.6	2.327	3.268	7.3	20.7
5 1	12 14.19	- 2 14.6	2.290	3.156	11.0	21.1	5 1	12 9.94	-12 8.1	2.386	3.263	10.2	20.9
212003	2005 BL ₁₁		3 29.4 122°03	1°3/28.3	18		417672	2007 AJ ₇		3 29.4 86°57	2°2/31.6	18	
2 21	13 0.34	- 3 13.7	1.797	2.603	15.2	21.1	2 21	12 58.70	-12 4.9	1.796	2.575	16.3	21.2
3 2	12 55.54	- 2 31.8	1.727	2.619	11.7	20.9	3 2	12 54.34	-11 54.9	1.726	2.594	12.9	21.0
3 12	12 48.44	- 1 37.3	1.680	2.634	7.6	20.7	3 12	12 47.69	-11 26.3	1.676	2.613	9.1	20.8
3 22	12 39.73	- 0 35.6	1.659	2.648	3.2	20.4	3 22	12 39.43	-10 41.5	1.651	2.631	4.9	20.6
4 1	12 30.38	+ 0 26.8	1.666	2.662	2.2	20.4	4 1	12 30.51	- 9 44.9	1.654	2.650	2.2	20.5
4 11	12 21.46	+ 1 22.5	1.702	2.675	6.4	20.7	4 11	12 22.02	- 8 43.5	1.684	2.668	5.2	20.7
4 21	12 13.90	+ 2 6.1	1.764	2.688	10.4	20.9	4 21	12 14.89	- 7 44.5	1.741	2.685	9.2	21.0
5 1	12 8.39	+ 2 33.8	1.849	2.700	13.9	21.2	5 1	12 9.80	- 6 54.0	1.823	2.703	12.7	21.2
325645	2009 SR ₃₂₃		3 29.4 40°90	0°5/28.8	17		68063	2000 YJ ₆₆		3 29.4 206°39	2°2/31.9	17	
2 21	12 52.12	- 3 54.4	2.625	3.425	11.1	20.6	2 21	13 1.21	-13 15.7	2.632	3.375	12.6	21.0
3 2	12 48.58	- 3 29.0	2.549	3.437	8.5	20.4	3 2	12 55.78	-13 4.7	2.521	3.367	10.2	20.8
3 12	12 43.58	- 2 55.2	2.497	3.449	5.6	20.2	3 12	12 48.48	-12 39.2	2.433	3.357	7.3	20.6
3 22	12 37.56	- 2 15.8	2.473	3.462	2.3	20.0	3 22	12 39.78	-12 0.1	2.372	3.347	4.2	20.4
4 1	12 31.12	- 1 34.9	2.478	3.475	1.2	19.9	4 1	12 30.36	-11 10.0	2.341	3.335	2.2	20.2
4 11	12 24.92	- 0 56.7	2.512	3.489	4.3	20.2	4 11	12 21.03	-10 13.4	2.342	3.322	4.3	20.3
4 21	12 19.54	- 0 24.7	2.574	3.502	7.3	20.4	4 21	12 12.55	- 9 15.4	2.372	3.308	7.5	20.5
5 1	12 15.44	- 0 1.8	2.661	3.516	10.0	20.6	5 1	12 5.59	- 8 21.3	2.430	3.292	10.6	20.7
410419	2008 AA ₃₆		3 29.4 160°03	1°0/30.5	18		459890	2014 KG ₉₂		3 29.4 192°79	3°8/25.6	18	
2 21	12 59.78	- 9 7.0	2.108	2.886	14.2	22.3	2 21	12 59.52	+ 3 16.8	1.957	2.774	13.7	22.1
3 2	12 54.93	- 8 46.9	2.021	2.893	11.2	22.1	3 2	12 54.91	+ 4 26.3	1.874	2.773	10.5	21.8
3 12	12 47.99	- 8 12.0	1.958	2.899	7.6	21.9	3 12	12 48.08	+ 5 44.2	1.815	2.770	7.0	21.6
3 22	12 39.55	- 7 24.9	1.920	2.905	3.7	21.7	3 22	12 39.63	+ 7 3.7	1.783	2.767	4.1	21.4
4 1	12 30.43	- 6 30.0	1.912	2.910	1.2	21.5	4 1	12 30.42	+ 8 16.9	1.781	2.763	4.7	21.5
4 11	12 21.59	- 5 33.2	1.934	2.915	4.9	21.8	4 11	12 21.47	+ 9 16.5	1.806	2.758	8.0	21.7
4 21	12 13.87	- 4 40.4	1.983	2.918	8.7	22.0	4 21	12 13.70	+ 9 57.5	1.858	2.753	11.6	21.9
5 1	12 7.96	- 3 56.8	2.057	2.921	12.1	22.2	5 1	12 7.82	+10 17.8	1.932	2.746	14.8	22.1
286307	2001 WU ₄₂		3 29.4 83°23	2°3/26.9	18		352034	2006 VN ₇₃		3 29.4 221°03	8°2/16.5	18	
2 21	12 55.95	+ 1 44.2	2.284	3.097	12.1	20.8	2 21	13 0.42	+29 1.7	3.028	3.814	10.1	21.7
3 2	12 51.71	+ 2 20.3	2.212	3.109	9.2	20.6	3 2	12 54.92	+30 8.4	2.964	3.804	9.0	21.6
3 12	12 45.71	+ 3 2.4	2.166	3.121	6.0	20.4	3 12	12 47.74	+31 5.2	2.924	3.793	8.3	21.5
3 22	12 38.51	+ 3 46.1	2.146	3.133	2.9	20.2	3 22	12 39.38	+31 46.3	2.910	3.782	8.3	21.5
4 1	12 30.81	+ 4 26.3	2.155	3.145	3.0	20.3	4 1	12 30.53	+32 6.9	2.922	3.771	9.1	21.5
4 11	12 23.42	+ 4 58.4	2.193	3.157	6.0	20.5	4 11	12 21.93	+32 4.9	2.959	3.759	10.4	21.6
4 21	12 17.04	+ 5 18.9	2.258	3.169	9.1	20.7	4 21	12 14.27	+31 40.3	3.019	3.746	11.8	21.7
5 1	12 12.20	+ 5 26.0	2.347	3.181	11.9	20.9	5 1	12 8.08	+30 55.1	3.097	3.733	13.2	21.8
30647	6642 P-L		3 29.4 201°32	1°2/28.4	18		115046	2003 RV ₃		3 29.4 56°84	1		

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3 29.4

3 29.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
360756	2004 <i>XF</i> ₁₂₃		3 29.4 106°67	3°7/ 1.8	18		512266	2016 <i>EY</i> ₁₈₁		3 29.5 268°54	1°6/31.1	17	
2 21	12 58.33	-15 50.4	1.621	2.392	18.1	20.8	2 21	12 54.87	-11 41.4	1.947	2.729	15.1	21.5
3 2	12 54.45	-15 42.9	1.543	2.403	14.7	20.6	3 2	12 51.58	-11 9.9	1.839	2.712	12.1	21.2
3 12	12 47.99	-15 11.5	1.485	2.414	10.7	20.3	3 12	12 46.09	-10 18.4	1.754	2.694	8.5	21.0
3 22	12 39.64	-14 17.2	1.451	2.424	6.5	20.1	3 22	12 38.87	-9 9.0	1.693	2.676	4.4	20.7
4 1	12 30.43	-13 4.5	1.442	2.434	3.7	20.0	4 1	12 30.72	-7 46.5	1.660	2.658	1.6	20.4
4 11	12 21.63	-11 41.7	1.461	2.444	5.9	20.1	4 11	12 22.65	-6 18.3	1.656	2.639	5.3	20.6
4 21	12 14.30	-10 18.2	1.505	2.453	9.9	20.4	4 21	12 15.62	-4 52.7	1.678	2.620	9.6	20.8
5 1	12 9.23	-9 2.8	1.574	2.463	13.8	20.6	5 1	12 10.42	-3 37.5	1.725	2.601	13.5	21.0
114309	2002 <i>XN</i> ₅₂		3 29.4 151°33	0°9/30.2	18		160100	2000 <i>RD</i>		3 29.5 177°56	9°9/ 8.0	18	
2 21	13 0.77	-8 54.7	1.682	2.474	16.7	20.7	2 21	13 8.16	-32 59.5	2.311	2.929	17.1	20.6
3 2	12 56.19	-8 27.8	1.602	2.482	13.1	20.5	3 2	13 1.98	-34 19.0	2.212	2.932	15.4	20.4
3 12	12 49.08	-7 42.7	1.543	2.489	8.9	20.2	3 12	12 53.06	-35 16.6	2.131	2.934	13.4	20.3
3 22	12 40.10	-6 42.4	1.510	2.496	4.2	20.0	3 22	12 41.97	-35 47.1	2.071	2.935	11.6	20.1
4 1	12 30.28	-5 33.2	1.504	2.502	1.2	19.8	4 1	12 29.64	-35 47.1	2.036	2.936	10.2	20.0
4 11	12 20.82	-4 23.1	1.526	2.508	5.9	20.1	4 11	12 17.35	-35 17.4	2.027	2.935	10.0	20.0
4 21	12 12.80	-3 20.0	1.575	2.513	10.4	20.4	4 21	12 6.31	-34 23.0	2.043	2.934	10.9	20.1
5 1	12 7.01	-2 30.1	1.647	2.517	14.3	20.6	5 1	11 57.49	-33 12.2	2.084	2.931	12.7	20.2
466561	2014 <i>TJ</i> ₁₅		3 29.4 147°67	3°2/ 2.2	18		258271	2001 <i>TM</i> ₂₅₇		3 29.5 149°55	2°6/26.9	18	
2 21	12 57.59	-17 31.4	2.092	2.837	15.3	22.2	2 21	12 57.38	+ 0 33.4	1.942	2.759	13.8	21.4
3 2	12 53.31	-17 2.4	2.004	2.847	12.5	22.0	3 2	12 53.21	+ 1 24.7	1.865	2.763	10.6	21.2
3 12	12 46.96	-16 11.7	1.937	2.856	9.2	21.8	3 12	12 46.93	+ 2 25.4	1.811	2.768	6.9	21.0
3 22	12 39.12	-15 0.6	1.896	2.865	5.7	21.6	3 22	12 39.13	+ 3 29.6	1.784	2.772	3.3	20.8
4 1	12 30.62	-13 33.5	1.882	2.873	3.3	21.5	4 1	12 30.67	+ 4 30.7	1.785	2.775	3.4	20.8
4 11	12 22.43	-11 57.6	1.898	2.880	4.9	21.6	4 11	12 22.51	+ 5 22.0	1.814	2.779	6.9	21.0
4 21	12 15.39	-10 20.9	1.943	2.887	8.4	21.8	4 21	12 15.53	+ 5 58.6	1.870	2.782	10.6	21.3
5 1	12 10.16	-8 51.4	2.013	2.893	11.7	22.0	5 1	12 10.38	+ 6 17.9	1.948	2.785	13.8	21.5
177071	2003 <i>FS</i> ₂₉		3 29.4 33°73	2°5/27.3	17		225571	2000 <i>UV</i> ₁		3 29.5 134°74	3°2/26.6	17	
2 21	12 59.50	+ 3 23.3	1.979	2.797	13.6	19.7	2 21	13 2.31	+ 5 1.9	2.079	2.891	13.2	20.7
3 2	12 54.71	+ 3 31.7	1.908	2.806	10.4	19.5	3 2	12 56.80	+ 5 24.2	2.004	2.899	10.2	20.5
3 12	12 47.83	+ 3 44.3	1.859	2.815	6.8	19.3	3 12	12 49.18	+ 5 50.0	1.953	2.906	6.7	20.3
3 22	12 39.47	+ 3 57.0	1.838	2.825	3.4	19.1	3 22	12 40.08	+ 6 14.4	1.929	2.913	3.7	20.1
4 1	12 30.52	+ 4 5.2	1.844	2.835	3.2	19.1	4 1	12 30.36	+ 6 32.4	1.934	2.920	3.9	20.1
4 11	12 21.95	+ 4 5.2	1.879	2.846	6.5	19.3	4 11	12 21.00	+ 6 39.8	1.967	2.926	7.0	20.3
4 21	12 14.59	+ 3 54.3	1.940	2.857	10.0	19.6	4 21	12 12.86	+ 6 34.3	2.028	2.932	10.3	20.5
5 1	12 9.10	+ 3 31.5	2.025	2.868	13.1	19.8	5 1	12 6.59	+ 6 14.8	2.113	2.938	13.3	20.7
287110	2002 <i>RC</i> ₁₆₀		3 29.4 168°99	0°3/29.7	16		227245	2005 <i>SG</i> ₄₂		3 29.5 72°65	0°9/30.1	18	
2 21	12 59.61	-6 49.5	2.146	2.931	13.8	22.1	2 21	13 2.10	-6 6.3	1.732	2.529	16.1	20.4
3 2	12 54.77	-6 27.0	2.058	2.936	10.7	21.9	3 2	12 57.06	-6 18.3	1.659	2.542	12.6	20.2
3 12	12 47.89	-5 51.7	1.994	2.940	7.2	21.7	3 12	12 49.56	-6 17.8	1.609	2.556	8.5	20.0
3 22	12 39.53	-5 6.3	1.956	2.943	3.2	21.4	3 22	12 40.30	-6 7.0	1.583	2.570	4.0	19.7
4 1	12 30.49	-4 15.4	1.947	2.946	1.0	21.2	4 1	12 30.29	-5 49.5	1.586	2.584	1.2	19.5
4 11	12 21.70	-3 24.8	1.968	2.947	5.0	21.5	4 11	12 20.70	-5 30.5	1.616	2.598	5.6	19.9
4 21	12 14.00	-2 39.8	2.017	2.949	8.8	21.8	4 21	12 12.56	-5 14.9	1.673	2.612	9.8	20.1
5 1	12 8.06	-2 4.8	2.090	2.949	12.2	22.0	5 1	12 6.61	-5 7.0	1.753	2.626	13.5	20.4
102238	1999 <i>TH</i> ₂₂		3 29.4 76°56	1°4/28.4	18		523592	2001 <i>SK</i> ₂₇₆		3 29.5 77°88	6°7/ 9.4	18 C	
2 21	13 0.59	-2 31.9	1.534	2.352	16.8	20.2	2 21	13 3.14	-33 14.4	3.094	3.693	13.4	23.6
3 2	12 56.04	-2 3.3	1.473	2.370	12.9	20.0	3 2	12 56.87	-33 43.4	3.031	3.740	11.8	23.5
3 12	12 48.92	-1 22.3	1.433	2.389	8.4	19.8	3 12	12 48.93	-33 52.3	2.986	3.786	10.1	23.4
3 22	12 39.98	-0 34.1	1.417	2.407	3.5	19.5	3 22	12 39.88	-33 39.8	2.965	3.831	8.4	23.4
4 1	12 30.36	+ 0 14.3	1.429	2.425	2.3	19.5	4 1	12 30.46	-33 6.4	2.969	3.876	7.1	23.3
4 11	12 21.30	+ 0 55.5	1.468	2.443	6.9	19.8	4 11	12 21.44	-32 14.9	3.002	3.919	6.8	23.4
4 21	12 13.83	+ 1 24.2	1.531	2.461	11.3	20.1	4 21	12 13.50	-31 10.4	3.063	3.961	7.4	23.5
5 1	12 8.69	+ 1 37.0	1.618	2.479	15.0	20.3	5 1	12 7.12	-29 58.5	3.150	4.003	8.7	23.6
347668	2001 <i>UR</i> ₈		3 29.4 99°87	3°2/25.9	18		362051	2009 <i>BJ</i> ₃₉		3 29.5 26°07	0°2/29.6	16	
2 21	12 57.47	+ 5 35.1	2.417	3.231	11.5	20.8	2 21	12 58.48	-5 45.5	1.349	2.171	18.5	21.1
3 2	12 52.74	+ 6 12.5	2.349	3.246	8.8	20.6	3 2	12 55.02	-5 37.6	1.276	2.174	14.5	20.8
3 12	12 46.34	+ 6 52.7	2.307	3.260	5.9	20.4	3 12	12 48.62	-5 12.9	1.223	2.178	9.7	20.6
3 22	12 38.78	+ 7 31.2	2.292	3.274	3.5	20.3	3 22	12 40.02	-4 34.9	1.192	2.182	4.3	20.3
4 1	12 30.78	+ 8 3.2	2.307	3.288	3.9	20.4	4 1	12 30.38	-3 49.9	1.188	2.186	1.4	20.1
4 11	12 23.11	+ 8 24.7	2.350	3.302	6.4	20.5	4 11	12 21.16	-3 6.2	1.208	2.191	6.9	20.4
4 21	12 16.43	+ 8 33.2	2.421	3.316	9.2	20.7	4 21	12 13.62	-2 31.1	1.253	2.196	12.0	20.7
5 1	12 11.27	+ 8 27.8	2.515	3.329	11.8	20.9	5 1	12 8.65	-2 10.3	1.318	2.202	16.4	21.0
367797	2011 <i>AR</i> ₂₂		3 29.5 148°42	6°5/21.7	18		287909	2003 <i>TR</i> ₁₂		3 29.5 238°67	0°8/30.3	16	
2 21	12 58.70	+13 58.6	2.214	3.037	12.1	21.3	2 21	12 56.79	-9 34.4	1.780	2.574	15.9	21.1
3 2	12 53.93	+15 23.9	2.153	3.046	9.6	21.1	3 2	12 53.20	-8 59.4	1.683	2.564	12.6	20.8
3 12	12 47.23	+16 47.4	2.118	3.055	7.4	21.0	3 12	12 47.21	-8 4.9	1.608	2.554	8.6	20.6
3 22	12 39.20	+18 1.5	2.110	3.064	6.5	20.9	3 22	12 39.37	-6 53.7	1.558	2.544	4.1	20.3
4 1	12 30.64	+18 59.3	2.130	3.072	7.5	21.0	4 1	12 30.59	-5 31.8	1.535	2.533	1.2	20.0
4 11	12 22.42	+19 35.8	2.177	3.079	9.7	21.2	4 11	12 21.96	-4 7.4	1.540	2.522	5.8	20.3
4 21	12 15.34	+19 49.4	2.249	3.086	12.1	21.3	4 21	12 14.52	-2 49.2	1.571	2.510	10.3	20.5
5 1	12 9.96	+19 40.8	2.341	3.092	14.4	21.5	5 1	12 9.11	-1 44.3	1.627	2.499	14.4	20.8
99957	1978 <i>VM</i> ₄		3 29.5 123°23	2°0/27.6	18 R		224838	2006 <i>WN</i> ₂₀₄		3 29.5 270°93	0°2/29.4	17	
2 21													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
94697	2001 XV ₄₀		3 29.5 203°14	1.7°/30.8	18		308115	2004 XQ ₅₁		3 29.5 128°96	3°5'/1.6	18	
2 21	13 2.71	- 9 19.7	1.845	2.625	15.9	20.3	2 21	12 58.57	-15 19.8	1.670	2.441	17.6	20.8
3 2	12 57.69	- 9 23.9	1.750	2.621	12.7	20.1	3 2	12 54.63	-15 12.1	1.588	2.448	14.3	20.6
3 12	12 50.14	- 9 12.8	1.677	2.617	8.8	19.8	3 12	12 48.14	-14 41.5	1.527	2.456	10.4	20.3
3 22	12 40.65	- 8 47.8	1.629	2.612	4.5	19.5	3 22	12 39.76	-13 48.9	1.489	2.463	6.3	20.1
4 1	12 30.16	- 8 12.2	1.609	2.606	1.8	19.3	4 1	12 30.51	-12 38.7	1.477	2.470	3.5	19.9
4 11	12 19.85	- 7 31.7	1.617	2.599	5.6	19.6	4 11	12 21.61	-11 18.7	1.493	2.476	5.8	20.1
4 21	12 10.81	- 6 52.4	1.653	2.592	9.9	19.8	4 21	12 14.12	- 9 58.0	1.535	2.482	9.9	20.3
5 1	12 3.90	- 6 20.3	1.713	2.585	13.8	20.0	5 1	12 8.86	- 8 45.1	1.601	2.488	13.7	20.6
434441	2005 NS ₄₇		3 29.5 274°37	4°9'/3.6	16		98419	2000 UV ₂₂		3 29.5 79°22	5°0'/25.6	18	
2 21	12 56.98	-19 59.5	2.485	3.205	13.8	21.3	2 21	13 1.00	+ 5 29.9	1.469	2.304	16.6	19.2
3 2	12 52.88	-20 26.6	2.365	3.184	11.7	21.1	3 2	12 56.46	+ 6 29.0	1.413	2.320	12.7	19.0
3 12	12 46.81	-20 37.3	2.266	3.162	9.2	20.9	3 12	12 49.25	+ 7 33.5	1.379	2.336	8.5	18.8
3 22	12 39.17	-20 30.2	2.192	3.141	6.7	20.7	3 22	12 40.17	+ 8 34.9	1.370	2.353	5.3	18.7
4 1	12 30.65	-20 5.7	2.146	3.119	5.0	20.5	4 1	12 30.41	+ 9 24.4	1.388	2.369	6.0	18.8
4 11	12 22.11	-19 26.6	2.127	3.097	5.6	20.5	4 11	12 21.27	+ 9 55.0	1.431	2.385	9.5	19.0
4 21	12 14.37	-18 37.6	2.136	3.075	8.0	20.7	4 21	12 13.81	+10 3.4	1.498	2.401	13.4	19.3
5 1	12 8.17	-17 44.6	2.171	3.052	10.9	20.8	5 1	12 8.75	+ 9 49.7	1.586	2.417	16.7	19.5
327820	2006 VF ₁₅₅		3 29.5 94°27	3°1'/26.4	18		2264	Sabrina		3 29.5 245°49	0°1'/29.5	18	
2 21	12 58.57	+ 1 14.2	1.782	2.603	14.7	21.4	2 21	12 54.50	- 6 1.0	2.679	3.465	11.3	16.3
3 2	12 54.14	+ 2 19.1	1.722	2.623	11.2	21.2	3 2	12 50.57	- 5 36.6	2.573	3.453	8.8	16.1
3 12	12 47.50	+ 3 32.9	1.686	2.643	7.2	21.0	3 12	12 45.04	- 5 1.9	2.492	3.440	5.9	15.9
3 22	12 39.36	+ 4 48.6	1.676	2.663	3.7	20.8	3 22	12 38.32	- 4 19.2	2.439	3.427	2.6	15.7
4 1	12 30.66	+ 5 58.1	1.694	2.682	4.0	20.9	4 1	12 31.00	- 3 32.2	2.415	3.413	0.9	15.5
4 11	12 22.44	+ 6 54.4	1.741	2.701	7.5	21.1	4 11	12 23.78	- 2 45.4	2.421	3.400	4.3	15.8
4 21	12 15.59	+ 7 33.1	1.812	2.720	11.2	21.4	4 21	12 17.31	- 2 3.1	2.455	3.386	7.6	15.9
5 1	12 10.71	+ 7 52.0	1.907	2.738	14.3	21.6	5 1	12 12.14	- 1 29.0	2.515	3.372	10.5	16.1
236215	2005 WQ ₁₆₆		3 29.5 90°17	0°4'/29.2	18		337480	2001 SN ₅₉		3 29.5 146°22	0°9'/30.8	18	
2 21	12 59.08	- 5 41.1	1.395	2.213	18.2	21.7	2 21	12 53.89	-10 38.6	2.999	3.762	10.7	21.8
3 2	12 55.37	- 5 13.2	1.322	2.219	14.1	21.4	3 2	12 49.81	-10 1.1	2.910	3.772	8.4	21.7
3 12	12 48.79	- 4 27.5	1.269	2.224	9.4	21.2	3 12	12 44.35	- 9 11.5	2.846	3.783	5.8	21.5
3 22	12 40.08	- 3 28.6	1.240	2.229	4.0	20.9	3 22	12 37.95	- 8 12.3	2.809	3.792	2.9	21.3
4 1	12 30.39	- 2 23.9	1.237	2.235	1.6	20.7	4 1	12 31.15	- 7 7.1	2.804	3.801	1.0	21.2
4 11	12 21.13	- 1 22.9	1.259	2.240	7.0	21.1	4 11	12 24.54	- 6 0.5	2.829	3.810	3.6	21.4
4 21	12 13.52	- 0 33.5	1.307	2.245	12.0	21.4	4 21	12 18.67	- 4 56.9	2.884	3.818	6.4	21.6
5 1	12 8.42	- 0 1.3	1.375	2.250	16.3	21.6	5 1	12 13.99	- 4 0.2	2.965	3.826	8.9	21.8
127987	2003 HE ₄₅		3 29.5 293°91	2°3'/26.9	17		48083	2001 FO ₃₆		3 29.5 1°15	0°7'/30.0	18	
2 21	12 54.90	+ 1 45.8	2.317	3.132	11.9	20.0	2 21	12 53.97	- 7 50.1	1.296	2.121	18.9	19.3
3 2	12 51.11	+ 2 18.2	2.221	3.119	9.2	19.8	3 2	12 51.69	- 7 32.9	1.220	2.120	14.9	19.0
3 12	12 45.50	+ 2 57.2	2.150	3.106	6.0	19.6	3 12	12 46.53	- 6 54.9	1.164	2.119	10.1	18.7
3 22	12 38.54	+ 3 38.8	2.105	3.093	3.0	19.4	3 22	12 39.15	- 5 59.5	1.130	2.119	4.7	18.4
4 1	12 30.91	+ 4 17.8	2.089	3.080	3.0	19.3	4 1	12 30.72	- 4 53.9	1.121	2.120	1.3	18.2
4 11	12 23.41	+ 4 49.5	2.102	3.067	6.1	19.5	4 11	12 22.64	- 3 47.9	1.136	2.121	6.9	18.5
4 21	12 16.80	+ 5 9.9	2.141	3.054	9.4	19.7	4 21	12 16.16	- 2 50.9	1.175	2.124	12.1	18.8
5 1	12 11.70	+ 5 16.7	2.204	3.041	12.5	19.9	5 1	12 12.22	- 2 10.0	1.235	2.127	16.6	19.1
141378	2002 AV ₆₅		3 29.5 155°04	4°4'/22.9	18		468476	2004 RW ₂₁₈		3 29.5 238°16	5°0'/3.4	18	
2 21	12 54.09	+10 26.7	2.823	3.643	9.9	20.9	2 21	13 0.58	-19 52.1	2.457	3.172	14.1	21.8
3 2	12 50.03	+11 35.9	2.752	3.648	7.7	20.8	3 2	12 55.68	-20 22.7	2.341	3.156	11.9	21.6
3 12	12 44.53	+12 45.8	2.708	3.654	5.6	20.6	3 12	12 48.67	-20 36.8	2.245	3.140	9.3	21.4
3 22	12 38.03	+13 51.2	2.693	3.659	4.4	20.6	3 22	12 40.01	-20 33.1	2.175	3.123	6.8	21.2
4 1	12 31.11	+14 46.7	2.707	3.664	5.2	20.6	4 1	12 30.41	-20 11.6	2.132	3.105	5.1	21.0
4 11	12 24.40	+15 28.3	2.749	3.669	7.2	20.7	4 11	12 20.80	-19 35.1	2.118	3.087	5.8	21.0
4 21	12 18.48	+15 53.8	2.818	3.673	9.4	20.9	4 21	12 12.06	-18 48.4	2.132	3.068	8.2	21.2
5 1	12 13.82	+16 2.4	2.909	3.677	11.5	21.1	5 1	12 4.96	-17 57.6	2.173	3.048	11.1	21.3
243976	2001 RD ₂₆		3 29.5 265°66	1°4'/30.8	18		325278	2008 GQ ₁₃₂		3 29.5 162°15	4°3'/25.4	18	
2 21	12 57.97	- 8 29.5	2.264	3.044	13.3	20.5	2 21	13 0.57	+ 6 59.2	2.006	2.826	13.3	20.8
3 2	12 53.57	- 8 37.0	2.163	3.035	10.6	20.3	3 2	12 55.60	+ 7 43.4	1.931	2.829	10.3	20.6
3 12	12 47.19	- 8 32.8	2.084	3.025	7.3	20.0	3 12	12 48.49	+ 8 30.8	1.880	2.832	7.0	20.5
3 22	12 39.31	- 8 18.2	2.032	3.016	3.7	19.8	3 22	12 39.83	+ 9 15.2	1.856	2.835	4.5	20.3
4 1	12 30.64	- 7 55.8	2.009	3.006	1.5	19.6	4 1	12 30.52	+ 9 50.3	1.860	2.838	5.1	20.3
4 11	12 22.10	- 7 29.8	2.014	2.996	4.7	19.8	4 11	12 21.55	+10 11.0	1.892	2.840	8.0	20.5
4 21	12 14.49	- 7 4.5	2.047	2.986	8.3	20.0	4 21	12 13.79	+10 14.6	1.950	2.842	11.3	20.7
5 1	12 8.52	- 6 44.3	2.106	2.977	11.6	20.2	5 1	12 7.91	+10 0.5	2.030	2.843	14.2	20.9
389780	2011 TP ₁₃		3 29.5 203°50	2°3'/26.2	17		244185	2001 XG ₂₀₆		3 29.5 145°94	4°2'/4.3	18	
2 21	12 54.50	+ 2 55.2	2.938	3.746	9.9	22.3	2 21	12 54.38	-21 44.3	2.788	3.495	12.7	20.8
3 2	12 50.34	+ 3 40.0	2.847	3.741	7.5	22.1	3 2	12 50.44	-21 38.4	2.692	3.502	10.7	20.6
3 12	12 44.75	+ 4 29.7	2.782	3.736	4.9	21.9	3 12	12 44.90	-21 14.8	2.618	3.509	8.3	20.5
3 22	12 38.14	+ 5 20.4	2.745	3.731	2.7	21.7	3 22	12 38.24	-20 33.8	2.569	3.515	6.0	20.3
4 1	12 31.06	+ 6 8.0	2.739	3.725	2.9	21.7	4 1	12 31.07	-19 37.3	2.548	3.521	4.3	20.2
4 11	12 24.13	+ 6 48.2	2.763	3.719	5.4	21.9	4 11	12 24.09	-18 29.4	2.556	3.527	4.7	20.3
4 21	12 17.92	+ 7 18.0	2.814	3.712	8.0	22.1	4 21	12 17.94	-17 15.5	2.592	3.533	6.7	20.4
5 1	12 12.89	+ 7 35.4	2.890	3.705	10.4	22.2	5 1	12 13.14	-16 1.2	2.656	3.538	9.1	20.6
44186	1998 KX ₅₅		3 29.5 307°90	1°8'/31.1	18		456026	2005 YN ₁₀₂		3 29.5 1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
404471	2013 <i>GB</i> ₁₃₁		3 29.5	21°92'	6°2'/24.7	18	518396	2017 <i>UW</i> ₁₅		3 29.5	200°57'	0°8'/28.5	17
2 21	12 57.71	+ 6 40.3	1.299	2.148	17.4	20.5	2 21	12 54.84	- 4 25.9	2.275	3.074	12.6	21.7
3 2	12 54.45	+ 7 51.5	1.236	2.151	13.5	20.3	3 2	12 51.06	- 3 41.5	2.184	3.072	9.7	21.5
3 12	12 48.24	+ 9 9.2	1.195	2.154	9.3	20.1	3 12	12 45.46	- 2 45.2	2.118	3.070	6.4	21.3
3 22	12 39.85	+10 23.1	1.176	2.157	6.4	19.9	3 22	12 38.54	- 1 41.0	2.078	3.067	2.7	21.0
4 1	12 30.53	+11 22.2	1.183	2.161	7.4	20.0	4 1	12 30.99	- 0 34.1	2.068	3.065	1.6	20.9
4 11	12 21.71	+11 57.7	1.214	2.165	11.2	20.2	4 11	12 23.65	+ 0 29.1	2.087	3.061	5.3	21.2
4 21	12 14.64	+12 5.7	1.266	2.169	15.3	20.4	4 21	12 17.24	+ 1 23.5	2.133	3.058	8.8	21.4
5 1	12 10.15	+11 46.3	1.338	2.174	19.0	20.7	5 1	12 12.36	+ 2 5.0	2.204	3.054	12.0	21.6
423668	2005 <i>YG</i> ₁₄₄		3 29.5	95°92'	4°1'/2.5	17	131610	2001 <i>XN</i> ₂₂		3 29.5	101°20'	2°0'/27.8	18
2 21	12 58.67	-16 35.1	1.986	2.737	15.8	21.5	2 21	13 4.23	- 0 44.0	1.654	2.464	16.1	20.6
3 2	12 54.32	-16 52.7	1.903	2.748	13.0	21.4	3 2	12 58.61	- 0 8.6	1.595	2.489	12.3	20.4
3 12	12 47.75	-16 51.5	1.841	2.758	9.7	21.2	3 12	12 50.50	+ 0 36.9	1.558	2.513	8.0	20.2
3 22	12 39.56	-16 31.4	1.804	2.769	6.4	21.0	3 22	12 40.70	+ 1 26.7	1.548	2.537	3.5	20.0
4 1	12 30.63	-15 54.7	1.793	2.779	4.2	20.9	4 1	12 30.30	+ 2 14.0	1.566	2.560	2.9	20.0
4 11	12 21.99	-15 6.2	1.811	2.789	5.5	21.0	4 11	12 20.52	+ 2 52.1	1.611	2.582	7.0	20.3
4 21	12 14.56	-14 12.6	1.855	2.799	8.6	21.2	4 21	12 12.34	+ 3 16.4	1.683	2.603	11.1	20.6
5 1	12 9.05	-13 20.5	1.924	2.809	11.9	21.4	5 1	12 6.44	+ 3 24.8	1.778	2.624	14.5	20.9
519249	2010 <i>XV</i> ₉₂		3 29.5	41°95'	3°1'/26.9	18	237754	2001 <i>YE</i> ₁₉		3 29.5	268°55'	6°4'/6.0	18
2 21	12 58.05	+ 1 59.7	1.586	2.416	15.8	21.5	2 21	12 55.57	-25 43.4	2.492	3.178	14.5	20.0
3 2	12 54.15	+ 2 36.0	1.518	2.424	12.1	21.3	3 2	12 51.78	-26 14.9	2.386	3.171	12.6	19.8
3 12	12 47.75	+ 3 20.6	1.473	2.432	7.9	21.0	3 12	12 46.06	-26 27.0	2.300	3.164	10.4	19.7
3 22	12 39.57	+ 4 7.3	1.452	2.440	3.9	20.8	3 22	12 38.85	-26 17.7	2.236	3.157	8.2	19.5
4 1	12 30.64	+ 4 48.8	1.458	2.449	4.0	20.8	4 1	12 30.87	-25 47.1	2.199	3.150	6.7	19.4
4 11	12 22.15	+ 5 18.4	1.491	2.458	7.9	21.1	4 11	12 22.98	-24 58.0	2.189	3.143	6.7	19.4
4 21	12 15.12	+ 5 31.8	1.548	2.468	11.9	21.3	4 21	12 15.99	-23 55.5	2.205	3.136	8.2	19.5
5 1	12 10.28	+ 5 27.3	1.627	2.477	15.5	21.6	5 1	12 10.59	-22 46.1	2.247	3.129	10.5	19.6
410232	2007 <i>TR</i> ₁₅		3 29.5	224°70'	1°1'/28.4	17	500403	2012 <i>TX</i> ₉₇		3 29.5	133°01'	0°2'/29.7	17
2 21	13 0.57	- 3 3.7	1.923	2.725	14.5	22.0	2 21	12 55.71	- 6 15.8	2.437	3.225	12.2	22.2
3 2	12 55.94	- 2 31.7	1.826	2.715	11.3	21.8	3 2	12 51.54	- 5 53.7	2.352	3.232	9.5	22.0
3 12	12 48.94	- 1 47.3	1.751	2.704	7.4	21.5	3 12	12 45.67	- 5 20.7	2.291	3.238	6.3	21.8
3 22	12 40.15	- 0 54.5	1.702	2.692	3.2	21.2	3 22	12 38.60	- 4 39.6	2.257	3.245	2.8	21.6
4 1	12 30.41	+ 0 0.8	1.683	2.679	2.0	21.1	4 1	12 30.99	- 3 54.4	2.253	3.251	0.9	21.5
4 11	12 20.82	+ 0 51.9	1.691	2.666	6.3	21.4	4 11	12 23.61	- 3 9.9	2.277	3.257	4.5	21.7
4 21	12 12.38	+ 1 32.9	1.727	2.651	10.6	21.6	4 21	12 17.15	- 2 30.5	2.330	3.263	7.8	22.0
5 1	12 5.89	+ 1 59.4	1.786	2.637	14.3	21.8	5 1	12 12.14	- 1 59.9	2.409	3.268	10.8	22.2
386191	2007 <i>VY</i> ₁₄₂		3 29.5	121°67'	1°1'/30.8	17	317358	2002 <i>NW</i> ₁		3 29.5	263°77'	3°1'/26.5	17
2 21	12 54.75	-10 3.9	2.521	3.294	12.3	21.7	2 21	12 57.50	+ 0 48.1	1.778	2.600	14.7	21.3
3 2	12 50.74	- 9 37.3	2.437	3.305	9.7	21.6	3 2	12 53.80	+ 1 46.9	1.680	2.581	11.3	21.1
3 12	12 45.10	- 8 57.6	2.377	3.316	6.6	21.4	3 12	12 47.68	+ 2 57.9	1.604	2.562	7.5	20.8
3 22	12 38.33	- 8 7.2	2.343	3.327	3.3	21.2	3 22	12 39.66	+ 4 15.0	1.555	2.543	3.8	20.5
4 1	12 31.06	- 7 10.0	2.339	3.337	1.1	21.0	4 1	12 30.60	+ 5 30.1	1.533	2.523	4.1	20.5
4 11	12 24.04	- 6 11.0	2.365	3.347	4.1	21.3	4 11	12 21.64	+ 6 34.6	1.539	2.502	8.1	20.7
4 21	12 17.90	- 5 15.3	2.419	3.357	7.3	21.5	4 21	12 13.83	+ 7 21.9	1.570	2.482	12.3	20.9
5 1	12 13.18	- 4 27.2	2.500	3.366	10.2	21.7	5 1	12 8.04	+ 7 48.1	1.623	2.460	16.1	21.1
26385	1999 <i>RN</i> ₂₀		3 29.5	169°83'	3°5'/25.3	18	271693	2004 <i>RX</i> ₁₁₄		3 29.5	221°66'	0°7'/30.2	18
2 21	12 59.52	- 1 15.6	1.900	2.710	14.4	19.5	2 21	13 0.68	- 7 4.7	2.575	3.346	12.1	21.7
3 2	12 54.95	+ 0 50.7	1.820	2.716	10.9	19.3	3 2	12 55.43	- 7 1.0	2.466	3.335	9.5	21.5
3 12	12 48.16	+ 3 12.8	1.765	2.721	7.1	19.0	3 12	12 48.32	- 6 47.1	2.381	3.322	6.5	21.3
3 22	12 39.74	+ 5 41.6	1.739	2.725	3.9	18.8	3 22	12 39.81	- 6 24.5	2.324	3.309	3.1	21.0
4 1	12 30.58	+ 8 5.5	1.745	2.728	4.7	18.9	4 1	12 30.57	- 5 56.3	2.297	3.295	1.0	20.8
4 11	12 21.74	+10 13.5	1.780	2.730	8.4	19.1	4 11	12 21.40	- 5 26.1	2.300	3.280	4.4	21.1
4 21	12 14.12	+11 57.6	1.844	2.730	12.1	19.3	4 21	12 13.07	- 4 58.2	2.333	3.265	7.8	21.3
5 1	12 8.44	+13 14.1	1.930	2.730	15.3	19.6	5 1	12 6.23	- 4 36.2	2.392	3.249	10.9	21.4
140467	2001 <i>TN</i> ₁₃₁		3 29.5	204°00'	4°3'/24.1	18	203365	2001 <i>VC</i> ₁₂₅		3 29.5	128°02'	0°7'/28.9	18
2 21	12 55.28	+ 8 19.8	2.512	3.332	10.9	20.2	2 21	13 3.28	- 3 34.8	1.708	2.511	16.0	20.7
3 2	12 51.19	+ 9 20.9	2.431	3.329	8.4	20.0	3 2	12 58.02	- 3 16.9	1.635	2.524	12.4	20.5
3 12	12 45.44	+10 24.5	2.376	3.326	5.9	19.9	3 12	12 50.24	- 2 46.8	1.584	2.536	8.1	20.3
3 22	12 38.49	+11 25.0	2.348	3.322	4.3	19.7	3 22	12 40.66	- 2 8.6	1.559	2.548	3.5	20.0
4 1	12 31.01	+12 16.9	2.350	3.319	5.1	19.8	4 1	12 30.31	- 1 27.9	1.562	2.560	1.7	19.9
4 11	12 23.73	+12 55.2	2.380	3.314	7.4	19.9	4 11	12 20.41	- 0 51.2	1.593	2.570	6.3	20.2
4 21	12 17.32	+13 17.3	2.436	3.310	10.0	20.1	4 21	12 11.98	- 0 23.8	1.650	2.580	10.6	20.5
5 1	12 12.32	+13 22.0	2.515	3.305	12.5	20.2	5 1	12 5.79	- 0 9.4	1.731	2.590	14.3	20.8
235115	2003 <i>PW</i> ₄		3 29.5	221°20'	2°1'/31.9	18	226039	2002 <i>GB</i> ₁₃		3 29.5	111°20'	2°8'/2.4	18
2 21	12 58.09	-12 51.4	2.879	3.625	11.5	21.8	2 21	12 56.10	-20 24.5	2.170	2.899	15.3	19.9
3 2	12 53.28	-12 46.2	2.765	3.613	9.3	21.6	3 2	12 52.06	-19 3.1	2.081	2.914	12.5	19.8
3 12	12 46.82	-12 28.5	2.674	3.599	6.7	21.4	3 12	12 46.08	-17 15.3	2.014	2.928	9.2	19.6
3 22	12 39.12	-11 58.9	2.610	3.585	3.9	21.2	3 22	12 38.78	-15 4.0	1.974	2.942	5.6	19.4
4 1	12 30.78	-11 19.7	2.577	3.570	2.1	21.1	4 1	12 30.95	-12 36.0	1.964	2.956	2.9	19.2
4 11	12 22.50	-10 34.6	2.574	3.554	3.9	21.2	4 11	12 23.50	-10 1.4	1.986	2.969	4.6	19.4
4 21	12 14.94	- 9 47.9	2.600	3.538	6.9	21.3	4 21	12 17.18	- 7 30.6	2.039	2.982	8.1	19.6
5 1	12 8.69	- 9 3.9	2.654	3.520	9.7	21.5	5 1	12 12.57	- 5 13.1	2.120	2.995	11.4	19.8
296417	2009 <i>HT</i> ₃		3 29.5	301°80'	3°0'/25.8	18	221102	2005 <i>SE</i> ₁₀₉		3 2			

EPHEMERIDES

3 29.5

3 29.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
297617	2001 TZ ₁₆		3 29.5 118°03	2°3/31.4	18		62881	2000 UA ₉₂		3 29.5 258°39	0°5/28.9	18	
2 21	13 2.43	-11 23.3	1.651	2.432	17.4	21.2	2 21	12 58.24	-2 37.6	2.549	3.341	11.6	19.9
3 2	12 57.53	-11 23.0	1.577	2.447	13.9	21.0	3 2	12 53.56	-2 32.3	2.444	3.327	9.0	19.7
3 12	12 50.00	-11 3.8	1.523	2.461	9.7	20.8	3 12	12 47.10	-2 19.5	2.364	3.314	6.0	19.4
3 22	12 40.58	-10 27.4	1.494	2.475	5.2	20.6	3 22	12 39.30	-2 1.7	2.311	3.300	2.6	19.2
4 1	12 30.34	-9 38.3	1.492	2.488	2.4	20.4	4 1	12 30.82	-1 42.1	2.288	3.285	1.2	19.1
4 11	12 20.54	-8 43.3	1.517	2.501	5.7	20.7	4 11	12 22.43	-1 24.4	2.295	3.271	4.7	19.3
4 21	12 12.26	-7 50.1	1.570	2.513	10.0	20.9	4 21	12 14.86	-1 11.9	2.330	3.256	8.1	19.5
5 1	12 6.30	-7 5.3	1.645	2.524	13.9	21.2	5 1	12 8.73	-1 7.4	2.391	3.242	11.1	19.6
499310	2009 WC ₇₁		3 29.5 176°03	3°1/26.2	17		407814	2012 AP ₈		3 29.5 171°24	4°6/24.6	17	
2 21	12 58.47	+3 35.0	2.252	3.065	12.3	22.4	2 21	12 59.92	+6 33.7	2.087	2.905	12.9	22.2
3 2	12 53.79	+4 20.7	2.171	3.067	9.4	22.2	3 2	12 55.06	+7 47.2	2.012	2.910	9.9	22.0
3 12	12 47.23	+5 12.0	2.114	3.069	6.2	22.0	3 12	12 48.14	+9 5.4	1.962	2.914	6.8	21.8
3 22	12 39.30	+6 3.8	2.085	3.070	3.5	21.9	3 22	12 39.74	+10 21.3	1.940	2.917	4.7	21.7
4 1	12 30.77	+6 50.5	2.085	3.070	3.8	21.9	4 1	12 30.69	+11 27.5	1.946	2.919	5.5	21.7
4 11	12 22.50	+7 26.8	2.114	3.071	6.7	22.1	4 11	12 21.95	+12 17.7	1.981	2.920	8.3	21.9
4 21	12 15.24	+7 49.2	2.170	3.070	9.9	22.3	4 21	12 14.36	+12 48.4	2.042	2.921	11.4	22.1
5 1	12 9.63	+7 55.9	2.250	3.069	12.8	22.5	5 1	12 8.56	+12 58.3	2.125	2.921	14.3	22.3
280142	2002 PQ ₂₉		3 29.5 203°76	2°3/1.0	17		65944	1998 FZ ₉₉		3 29.5 302°01	4°7/1.8	18	
2 21	12 56.44	-12 47.0	2.329	3.092	13.5	21.0	2 21	12 59.81	-14 30.4	1.538	2.316	18.6	17.8
3 2	12 52.33	-12 43.9	2.232	3.090	10.8	20.8	3 2	12 56.10	-15 7.8	1.446	2.309	15.3	17.6
3 12	12 46.34	-12 25.9	2.157	3.087	7.8	20.6	3 12	12 49.48	-15 25.4	1.374	2.302	11.4	17.3
3 22	12 38.95	-11 53.9	2.108	3.084	4.5	20.4	3 22	12 40.56	-15 21.9	1.324	2.295	7.3	17.0
4 1	12 30.88	-11 10.8	2.087	3.081	2.3	20.2	4 1	12 30.37	-14 58.2	1.299	2.289	4.7	16.9
4 11	12 22.97	-10 21.3	2.096	3.078	4.5	20.3	4 11	12 20.32	-14 19.6	1.301	2.282	6.7	17.0
4 21	12 16.00	-9 30.8	2.132	3.074	7.8	20.5	4 21	12 11.71	-13 33.6	1.327	2.276	10.9	17.2
5 1	12 10.60	-8 44.6	2.194	3.070	11.0	20.7	5 1	12 5.59	-12 48.8	1.375	2.270	15.1	17.4
54995	2001 QS ₁₃		3 29.5 176°10	1°1/28.1	18		285052	2011 GX ₈₅		3 29.5 222°63	3°0/26.0	18	
2 21	12 54.99	-2 27.5	2.469	3.270	11.7	19.5	2 21	12 55.65	+2 29.1	2.229	3.046	12.3	20.9
3 2	12 51.00	-1 50.5	2.382	3.271	9.0	19.4	3 2	12 51.75	+3 26.9	2.141	3.040	9.4	20.7
3 12	12 45.33	-1 4.5	2.319	3.272	5.8	19.2	3 12	12 45.96	+4 32.4	2.077	3.033	6.2	20.5
3 22	12 38.47	-0 13.0	2.283	3.273	2.5	18.9	3 22	12 38.81	+5 40.0	2.041	3.027	3.4	20.3
4 1	12 31.06	+0 39.1	2.277	3.273	1.8	18.9	4 1	12 31.00	+6 43.4	2.034	3.020	3.8	20.3
4 11	12 23.86	+1 26.8	2.301	3.273	5.1	19.1	4 11	12 23.38	+7 36.7	2.056	3.013	6.9	20.5
4 21	12 17.53	+2 5.9	2.352	3.273	8.3	19.3	4 21	12 16.72	+8 15.2	2.104	3.005	10.1	20.7
5 1	12 12.61	+2 33.4	2.428	3.273	11.2	19.5	5 1	12 11.63	+8 36.7	2.175	2.998	13.1	20.8
344857	2004 HO ₁₂		3 29.5 329°99	5°2/25.3	17		43898	1995 VN		3 29.5 163°85	0°2/29.3	18	
2 21	12 59.88	+9 59.8	1.851	2.680	13.9	20.5	2 21	12 59.10	-6 10.2	2.138	2.927	13.7	20.1
3 2	12 55.44	+10 23.0	1.765	2.667	10.9	20.2	3 2	12 54.41	-5 34.5	2.053	2.933	10.6	19.9
3 12	12 48.61	+10 46.1	1.702	2.654	7.7	20.0	3 12	12 47.71	-4 45.6	1.991	2.939	7.0	19.7
3 22	12 40.00	+11 2.9	1.665	2.642	5.4	19.9	3 22	12 39.56	-3 47.0	1.956	2.944	3.0	19.4
4 1	12 30.54	+11 7.5	1.655	2.630	6.0	19.9	4 1	12 30.76	-2 44.1	1.950	2.948	1.1	19.3
4 11	12 21.32	+10 55.5	1.671	2.619	8.9	20.0	4 11	12 22.22	-1 43.2	1.974	2.951	5.2	19.6
4 21	12 13.35	+10 25.0	1.713	2.609	12.4	20.2	4 21	12 14.78	-0 49.9	2.025	2.954	9.0	19.8
5 1	12 7.42	+9 36.5	1.777	2.599	15.6	20.4	5 1	12 9.06	-0 8.7	2.102	2.956	12.3	20.0
348807	2006 QM ₁₂₈		3 29.5 204°97	4°5/3.9	18		208437	2001 TQ ₁₀₈		3 29.5 234°05	0°7/30.2	18	
2 21	12 56.53	-20 32.2	2.694	3.406	13.0	21.5	2 21	12 57.27	-6 54.5	2.438	3.220	12.4	20.8
3 2	12 52.25	-20 47.9	2.589	3.403	10.9	21.1	3 2	12 52.88	-6 50.8	2.339	3.214	9.7	20.6
3 12	12 46.23	-20 47.3	2.506	3.399	8.6	21.3	3 12	12 46.67	-6 36.5	2.263	3.207	6.6	20.4
3 22	12 38.90	-20 29.7	2.447	3.394	6.2	21.0	3 22	12 39.12	-6 13.6	2.215	3.201	3.1	20.2
4 1	12 30.92	-19 56.3	2.416	3.389	4.6	20.9	4 1	12 30.91	-5 45.1	2.195	3.194	1.0	20.0
4 11	12 23.05	-19 10.3	2.414	3.384	5.1	20.9	4 11	12 22.83	-5 15.2	2.206	3.187	4.4	20.2
4 21	12 16.00	-18 16.4	2.441	3.379	7.2	21.0	4 21	12 15.62	-4 48.0	2.244	3.180	7.9	20.4
5 1	12 10.37	-17 20.0	2.493	3.373	9.7	21.2	5 1	12 9.92	-4 27.3	2.308	3.172	11.0	20.6
176589	2002 CB ₁₅₉		3 29.5 173°42	2°4/1.1	18		502572	2015 BA ₅₀₂		3 29.5 335°61	2°2/27.3	17	
2 21	12 56.88	-12 19.9	2.580	3.338	12.4	19.9	2 21	12 54.41	-1 23.5	1.874	2.693	14.1	21.8
3 2	12 52.46	-12 32.6	2.484	3.338	10.0	19.7	3 2	12 51.11	-0 27.0	1.792	2.692	10.8	21.6
3 12	12 46.33	-12 32.9	2.411	3.339	7.2	19.6	3 12	12 45.70	+0 41.4	1.733	2.691	7.0	21.4
3 22	12 38.93	-12 21.5	2.364	3.339	4.2	19.4	3 22	12 38.74	+1 56.3	1.701	2.690	3.2	21.1
4 1	12 30.92	-12 0.4	2.347	3.339	2.4	19.2	4 1	12 31.05	+3 10.1	1.696	2.689	3.0	21.1
4 11	12 23.07	-11 33.0	2.358	3.339	4.2	19.4	4 11	12 23.63	+4 15.4	1.719	2.688	6.8	21.3
4 21	12 16.06	-11 3.4	2.399	3.340	7.2	19.5	4 21	12 17.33	+5 6.2	1.768	2.687	10.7	21.6
5 1	12 10.49	-10 35.8	2.465	3.340	10.0	19.7	5 1	12 12.85	+5 38.8	1.839	2.686	14.1	21.8
111116	2001 VA ₈₇		3 29.5 96°09	2°1/27.2	18		207632	2006 SE ₂₉₉		3 29.5 251°62	2°7/26.3	17	
2 21	12 53.76	-3 39.6	1.802	2.619	14.7	19.4	2 21	12 54.70	+2 21.7	2.402	3.217	11.6	20.4
3 2	12 50.64	-2 15.9	1.724	2.623	11.2	19.2	3 2	12 50.91	+3 11.0	2.309	3.207	8.8	20.2
3 12	12 45.38	-0 36.3	1.669	2.627	7.2	18.9	3 12	12 45.37	+4 7.1	2.241	3.197	5.8	20.0
3 22	12 38.56	+1 12.4	1.641	2.631	3.2	18.7	3 22	12 38.55	+5 5.4	2.200	3.186	3.1	19.8
4 1	12 31.05	+3 1.0	1.641	2.635	3.0	18.7	4 1	12 31.12	+6 0.4	2.188	3.175	3.4	19.8
4 11	12 23.85	+4 39.9	1.670	2.638	7.0	18.9	4 11	12 23.82	+6 46.6	2.205	3.164	6.3	20.0
4 21	12 17.83	+6 1.6	1.725	2.642	11.0	19.2	4 21	12 17.39	+7 20.1	2.249	3.153	9.5	20.2
5 1	12 13.66	+7 1.4	1.802	2.646	14.5	19.4	5 1	12 12.41	+7 38.5	2.317	3.142	12.3	20.3
87556	2000 RL ₁		3 29.5 278°58	1°0/28.4	18		15510	Phoeberebunds		3 29.5 67°72	1°0/28.7	18	
2 21	12 53.82	-6 43.0	1.925	2.728</									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
268979	2007 <i>EG</i> ₅₄		3 29.5 348°46	2°1/27.7	17		9824	Marylea		3 29.5 212°81	1°4/28.1	18	
2 21	12 58.45	+ 0 19.4	1.819	2.637	14.6	20.8	2 21	12 56.19	- 1 45.8	2.240	3.045	12.6	18.5
3 2	12 54.29	+ 0 44.9	1.738	2.636	11.2	20.6	3 2	12 52.15	- 1 12.5	2.150	3.042	9.7	18.3
3 12	12 47.83	+ 1 19.0	1.679	2.636	7.3	20.4	3 12	12 46.24	- 0 29.9	2.085	3.039	6.3	18.1
3 22	12 39.69	+ 1 57.1	1.646	2.635	3.3	20.1	3 22	12 38.96	+ 0 18.1	2.047	3.036	2.7	17.9
4 1	12 30.76	+ 2 33.4	1.641	2.635	2.9	20.1	4 1	12 31.03	+ 1 6.6	2.038	3.033	2.1	17.8
4 11	12 22.12	+ 3 1.9	1.664	2.635	6.8	20.3	4 11	12 23.30	+ 1 49.9	2.057	3.029	5.6	18.0
4 21	12 14.72	+ 3 18.2	1.712	2.635	10.8	20.5	4 21	12 16.54	+ 2 23.7	2.104	3.026	9.1	18.2
5 1	12 9.30	+ 3 19.6	1.783	2.634	14.3	20.8	5 1	12 11.36	+ 2 44.8	2.175	3.022	12.2	18.4
334653	2002 <i>XP</i> ₃₂		3 29.5 115°01	0°7/29.0	18		156326	2001 <i>XG</i> ₁₀₁		3 29.5 99°57	1°4/28.1	18	
2 21	13 3.61	- 3 53.4	1.511	2.320	17.4	20.9	2 21	13 0.42	- 1 58.4	2.080	2.880	13.6	20.8
3 2	12 58.60	- 3 35.6	1.441	2.334	13.5	20.7	3 2	12 55.26	- 1 22.1	2.017	2.906	10.4	20.6
3 12	12 50.81	- 3 4.1	1.393	2.347	8.9	20.5	3 12	12 48.14	- 0 36.5	1.978	2.931	6.7	20.4
3 22	12 41.00	- 2 23.1	1.370	2.359	3.8	20.2	3 22	12 39.71	+ 0 13.7	1.966	2.955	2.9	20.2
4 1	12 30.34	- 1 39.1	1.373	2.371	1.7	20.1	4 1	12 30.81	+ 1 3.1	1.984	2.979	2.1	20.2
4 11	12 20.20	- 0 59.4	1.404	2.383	6.8	20.4	4 11	12 22.36	+ 1 46.0	2.030	3.002	5.7	20.5
4 21	12 11.72	- 0 30.1	1.461	2.394	11.4	20.7	4 21	12 15.12	+ 2 18.4	2.105	3.025	9.2	20.7
5 1	12 5.72	- 0 15.3	1.539	2.405	15.4	21.0	5 1	12 9.66	+ 2 37.6	2.203	3.047	12.2	21.0
62029	2000 <i>RD</i> ₅₅		3 29.5 216°27	3°5/3.1	18		159612	2002 <i>AV</i> ₁₇		3 29.5 199°38	4°2/24.9	17	
2 21	12 55.91	- 18 30.5	3.054	3.771	11.5	19.5	2 21	13 0.73	+ 5 31.2	2.164	2.977	12.7	21.0
3 2	12 51.57	- 18 38.9	2.942	3.763	9.6	19.4	3 2	12 55.73	+ 6 43.8	2.077	2.973	9.8	20.8
3 12	12 45.69	- 18 33.4	2.854	3.754	7.3	19.2	3 12	12 48.65	+ 8 2.6	2.015	2.967	6.7	20.6
3 22	12 38.68	- 18 13.9	2.791	3.745	5.1	19.0	3 22	12 40.03	+ 9 21.0	1.982	2.961	4.4	20.4
4 1	12 31.09	- 17 41.8	2.757	3.736	3.6	18.9	4 1	12 30.67	+ 10 31.5	1.978	2.953	5.1	20.5
4 11	12 23.58	- 16 59.9	2.753	3.726	4.3	18.9	4 11	12 21.53	+ 11 27.6	2.003	2.945	8.1	20.6
4 21	12 16.76	- 16 12.3	2.777	3.716	6.4	19.1	4 21	12 13.45	+ 12 5.0	2.054	2.935	11.3	20.8
5 1	12 11.16	- 15 23.4	2.829	3.705	8.8	19.2	5 1	12 7.14	+ 12 22.1	2.128	2.924	14.2	21.0
131960	2002 <i>CB</i> ₄₃		3 29.5 57°88	1°6/28.4	18		291011	2005 <i>YM</i> ₁		3 29.5 106°48	1°2/28.4	18	
2 21	13 2.09	- 1 52.2	1.278	2.107	18.9	19.0	2 21	13 0.61	- 1 44.9	2.032	2.834	13.8	21.2
3 2	12 57.67	- 1 32.8	1.224	2.127	14.5	18.8	3 2	12 55.54	- 1 22.7	1.961	2.851	10.6	21.0
3 12	12 50.25	- 1 0.5	1.190	2.148	9.4	18.6	3 12	12 48.42	- 0 51.6	1.914	2.867	6.9	20.8
3 22	12 40.74	- 0 21.0	1.179	2.169	4.0	18.3	3 22	12 39.87	- 0 15.6	1.894	2.883	2.9	20.6
4 1	12 30.46	+ 0 18.1	1.194	2.190	2.6	18.3	4 1	12 30.75	+ 0 20.4	1.903	2.899	1.9	20.5
4 11	12 20.91	+ 0 49.1	1.234	2.212	7.6	18.6	4 11	12 22.03	+ 0 51.2	1.941	2.914	5.7	20.8
4 21	12 13.27	+ 1 6.4	1.298	2.233	12.4	19.0	4 21	12 14.52	+ 1 12.7	2.005	2.929	9.4	21.1
5 1	12 8.32	+ 1 7.2	1.384	2.255	16.5	19.3	5 1	12 8.85	+ 1 22.3	2.094	2.944	12.5	21.3
296762	2009 <i>UH</i> ₄₅		3 29.5 125°04	0°1/29.3	17		332127	2005 <i>WO</i> ₃₃		3 29.5 138°03	5°6/4.9	17	
2 21	12 51.65	- 5 16.8	3.312	4.097	9.4	21.7	2 21	12 57.84	- 23 22.0	2.215	2.922	15.6	20.9
3 2	12 48.01	- 4 49.3	3.225	4.104	7.2	21.5	3 2	12 53.60	- 23 32.8	2.125	2.931	13.3	20.7
3 12	12 43.18	- 4 14.0	3.164	4.111	4.7	21.4	3 12	12 47.28	- 23 21.6	2.055	2.940	10.5	20.6
3 22	12 37.52	- 3 33.3	3.130	4.119	2.0	21.2	3 22	12 39.43	- 22 47.6	2.008	2.948	7.8	20.4
4 1	12 31.51	- 2 50.4	3.127	4.125	0.8	21.1	4 1	12 30.88	- 21 52.3	1.988	2.956	5.9	20.3
4 11	12 25.65	- 2 8.7	3.155	4.132	3.5	21.3	4 11	12 22.58	- 20 40.6	1.995	2.963	6.1	20.3
4 21	12 20.41	- 1 31.3	3.211	4.139	6.1	21.5	4 21	12 15.39	- 19 19.3	2.030	2.970	8.3	20.5
5 1	12 16.19	- 1 0.9	3.294	4.145	8.4	21.7	5 1	12 10.00	- 17 56.3	2.091	2.977	11.0	20.7
330681	2008 <i>HF</i> ₃₇		3 29.5 316°39	3°1/1.3	17		65099	2002 <i>CH</i> ₁₃		3 29.5 312°33	5°0/25.4	18	
2 21	12 54.31	- 13 59.1	1.622	2.409	17.4	20.4	2 21	12 54.65	+ 3 13.0	1.318	2.168	17.2	18.4
3 2	12 51.60	- 13 52.9	1.528	2.399	14.2	20.1	3 2	12 52.38	+ 4 22.0	1.234	2.150	13.3	18.1
3 12	12 46.37	- 13 24.1	1.454	2.390	10.3	19.9	3 12	12 47.17	+ 5 44.4	1.170	2.132	9.0	17.8
3 22	12 39.16	- 12 33.5	1.403	2.381	6.0	19.6	3 22	12 39.62	+ 7 11.2	1.129	2.115	5.4	17.5
4 1	12 30.92	- 11 25.1	1.378	2.373	3.1	19.4	4 1	12 30.80	+ 8 30.9	1.113	2.098	6.3	17.5
4 11	12 22.85	- 10 6.5	1.379	2.364	5.8	19.5	4 11	12 22.16	+ 9 32.0	1.122	2.082	10.7	17.7
4 21	12 16.06	- 8 47.1	1.406	2.357	10.3	19.8	4 21	12 15.02	+ 10 7.1	1.152	2.067	15.5	17.9
5 1	12 11.44	- 7 35.7	1.455	2.349	14.5	20.0	5 1	12 10.43	+ 10 13.0	1.201	2.052	19.8	18.1
443669	2015 <i>HA</i> ₄₃		3 29.5 305°14	0°6/28.8	17		298768	2004 <i>NO</i> ₄		3 29.5 230°47	9°1/22.6	18	
2 21	12 51.01	- 7 13.0	2.098	2.900	13.5	20.6	2 21	13 13.86	+ 20 45.4	1.904	2.703	14.8	20.5
3 2	12 48.41	- 6 6.5	1.995	2.884	10.5	20.4	3 2	13 6.33	+ 21 34.7	1.820	2.690	12.3	20.3
3 12	12 43.92	- 4 42.4	1.915	2.868	6.9	20.1	3 12	12 55.88	+ 22 15.6	1.759	2.676	10.1	20.1
3 22	12 37.99	- 3 4.9	1.863	2.852	2.9	19.8	3 22	12 43.26	+ 22 39.0	1.724	2.661	9.1	20.0
4 1	12 31.33	- 1 21.0	1.839	2.836	1.5	19.7	4 1	12 29.63	+ 22 36.8	1.717	2.645	10.0	20.0
4 11	12 24.78	+ 0 21.1	1.844	2.821	5.6	19.9	4 11	12 16.38	+ 22 5.2	1.737	2.628	12.3	20.1
4 21	12 19.15	+ 1 53.5	1.876	2.805	9.6	20.1	4 21	12 4.77	+ 21 5.1	1.782	2.611	15.1	20.3
5 1	12 15.09	+ 3 9.9	1.933	2.790	13.1	20.3	5 1	11 55.68	+ 19 40.4	1.849	2.593	17.9	20.4
502550	2015 <i>BG</i> ₄₆₈		3 29.5 68°70	1°9/27.6	17		31988	Jasonfiacco		3 29.5 265°46	1°6/30.8	17	
2 21	12 56.44	- 0 34.0	1.956	2.772	13.8	21.2	2 21	12 59.22	- 9 37.6	1.578	2.375	17.4	19.3
3 2	12 52.56	+ 0 3.2	1.876	2.773	10.6	21.0	3 2	12 55.60	- 9 31.6	1.478	2.359	14.0	19.0
3 12	12 46.60	+ 0 50.0	1.818	2.775	6.9	20.7	3 12	12 49.18	- 9 6.4	1.397	2.342	9.7	18.7
3 22	12 39.13	+ 1 41.6	1.787	2.777	3.1	20.5	3 22	12 40.48	- 8 23.5	1.341	2.325	5.0	18.4
4 1	12 30.97	+ 2 31.8	1.785	2.778	2.7	20.5	4 1	12 30.51	- 7 27.1	1.310	2.308	1.8	18.1
4 11	12 23.09	+ 3 14.6	1.810	2.780	6.4	20.7	4 11	12 20.58	- 6 25.0	1.306	2.290	6.3	18.4
4 21	12 16.33	+ 3 45.2	1.861	2.782	10.2	20.9	4 21	12 11.96	- 5 25.5	1.328	2.272	11.4	18.6
5 1	12 11.37	+ 4 0.7	1.936	2.784	13.5	21.1	5 1	12 5.70	- 4 36.6	1.372	2.254	15.9	18.8
202303	2005 <i>CM</i> ₆₃		3 29.5 99°38	6°2/4.9	17		303355	2004 <i>TU</i> ₃₃₀		3 29			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
334394	2002 <i>CF</i> ₁₅₇		3 29.5 353°35	8°0/21.4	17		463418	2013 <i>HU</i> ₁₁₁		3 29.5 99°00	0°5/29.1	18	
2 21	12 52.85	+11 21.4	1.507	2.360	15.2	19.6	2 21	13 2.73	- 4 29.5	1.623	2.428	16.6	22.6
3 2	12 50.44	+13 8.6	1.444	2.356	12.0	19.4	3 2	12 57.67	- 4 7.0	1.559	2.448	12.8	22.4
3 12	12 45.52	+14 58.4	1.403	2.353	9.2	19.2	3 12	12 50.06	- 3 31.0	1.515	2.468	8.4	22.1
3 22	12 38.75	+16 39.4	1.387	2.351	8.0	19.1	3 22	12 40.68	- 2 45.8	1.498	2.487	3.6	21.9
4 1	12 31.14	+18 0.1	1.396	2.349	9.4	19.2	4 1	12 30.60	- 1 57.7	1.508	2.505	1.5	21.8
4 11	12 23.90	+18 52.2	1.428	2.348	12.5	19.4	4 11	12 21.06	- 1 13.6	1.545	2.524	6.3	22.1
4 21	12 18.06	+19 12.4	1.482	2.348	15.7	19.6	4 21	12 13.09	- 0 39.5	1.609	2.541	10.6	22.4
5 1	12 14.39	+19 1.5	1.554	2.348	18.7	19.8	5 1	12 7.39	- 0 19.2	1.696	2.559	14.3	22.7
158914	2004 <i>RV</i> ₂₆		3 29.5 201°07	0°1/29.4	17 R		364192	Qianruhu		3 29.5 259°60	1°6/30.9	17	
2 21	12 58.28	- 5 19.5	2.122	2.916	13.6	20.9	2 21	12 58.00	-10 36.5	1.841	2.625	15.7	21.5
3 2	12 53.90	- 5 0.8	2.030	2.914	10.6	20.7	3 2	12 54.26	-10 19.4	1.733	2.607	12.6	21.2
3 12	12 47.48	- 4 30.4	1.962	2.911	7.1	20.5	3 12	12 48.09	- 9 43.5	1.647	2.588	8.8	20.9
3 22	12 39.55	- 3 51.1	1.920	2.908	3.1	20.2	3 22	12 39.97	- 8 50.5	1.585	2.568	4.6	20.6
4 1	12 30.88	- 3 7.5	1.907	2.905	1.1	20.1	4 1	12 30.77	- 7 44.6	1.551	2.548	1.7	20.4
4 11	12 22.42	- 2 25.0	1.922	2.901	5.2	20.4	4 11	12 21.60	- 6 32.9	1.545	2.528	5.6	20.6
4 21	12 14.99	- 1 48.7	1.965	2.897	9.0	20.6	4 21	12 13.52	- 5 23.3	1.565	2.507	10.1	20.8
5 1	12 9.30	- 1 22.6	2.033	2.893	12.4	20.8	5 1	12 7.46	- 4 23.2	1.609	2.486	14.3	21.0
332362	2007 <i>EG</i> ₆₈		3 29.5 227°68	1°1/28.4	17		425128	2009 <i>SJ</i> ₂₁₆		3 29.5 157°55	0°1/29.4	17	
2 21	12 56.14	- 3 40.1	1.963	2.771	14.0	21.2	2 21	12 59.51	- 5 18.7	2.280	3.068	13.0	22.7
3 2	12 52.41	- 2 58.6	1.874	2.767	10.8	21.0	3 2	12 54.62	- 4 58.7	2.195	3.074	10.1	22.5
3 12	12 46.57	- 2 4.3	1.809	2.763	7.1	20.7	3 12	12 47.84	- 4 27.8	2.133	3.081	6.7	22.3
3 22	12 39.17	- 1 1.5	1.769	2.759	3.0	20.4	3 22	12 39.68	- 3 48.9	2.099	3.087	2.9	22.1
4 1	12 31.01	+ 0 3.6	1.758	2.754	1.9	20.4	4 1	12 30.91	- 3 6.4	2.094	3.092	1.0	21.9
4 11	12 23.06	+ 1 4.0	1.775	2.749	6.0	20.6	4 11	12 22.40	- 2 25.3	2.118	3.097	4.9	22.2
4 21	12 16.20	+ 1 53.9	1.818	2.745	10.0	20.8	4 21	12 14.91	- 1 50.0	2.171	3.101	8.4	22.4
5 1	12 11.13	+ 2 28.9	1.885	2.740	13.5	21.0	5 1	12 9.06	- 1 24.4	2.249	3.104	11.6	22.6
114585	2003 <i>BL</i> ₈₀		3 29.5 100°61	7°0/ 3.3	18		86669	2000 <i>FV</i> ₁₄		3 29.5 24°33	2°9/28.0	18 R	
2 21	13 7.02	-19 24.7	1.868	2.594	17.5	19.2	2 21	13 7.07	+ 4 18.6	1.400	2.226	17.7	18.9
3 2	13 1.33	-20 48.6	1.776	2.596	14.9	19.0	3 2	13 1.56	+ 3 59.9	1.330	2.231	13.8	18.7
3 12	12 52.81	-21 55.7	1.704	2.598	11.9	18.9	3 12	12 52.95	+ 3 44.1	1.281	2.237	9.1	18.4
3 22	12 42.04	-22 41.9	1.657	2.600	8.9	18.7	3 22	12 42.04	+ 3 26.7	1.256	2.244	4.4	18.1
4 1	12 30.04	-23 4.9	1.635	2.601	7.1	18.6	4 1	12 30.15	+ 3 3.4	1.258	2.251	3.6	18.1
4 11	12 18.13	-23 6.4	1.642	2.603	7.8	18.6	4 11	12 18.81	+ 2 30.6	1.286	2.259	8.1	18.4
4 21	12 7.57	-22 51.0	1.675	2.605	10.4	18.8	4 21	12 9.34	+ 1 46.7	1.340	2.268	12.7	18.7
5 1	11 59.36	-22 26.2	1.731	2.607	13.5	19.0	5 1	12 2.63	+ 0 51.7	1.415	2.277	16.7	18.9
456937	2007 <i>YX</i> ₅₃		3 29.5 126°81	4°1/ 2.4	18		413249	2003 <i>SS</i> ₃₁₁		3 29.5 190°24	0°1/29.5	17	
2 21	13 2.05	-16 48.1	1.955	2.700	16.3	21.5	2 21	12 59.43	- 6 48.5	2.084	2.872	14.0	23.1
3 2	12 56.96	-16 59.2	1.875	2.716	13.3	21.3	3 2	12 54.84	- 6 14.3	1.992	2.871	11.0	22.9
3 12	12 49.54	-16 50.5	1.816	2.731	9.9	21.1	3 12	12 48.14	- 5 25.8	1.922	2.869	7.3	22.6
3 22	12 40.45	-16 22.1	1.781	2.746	6.4	20.9	3 22	12 39.88	- 4 26.3	1.879	2.867	3.2	22.4
4 1	12 30.61	-15 36.6	1.773	2.760	4.1	20.8	4 1	12 30.85	- 3 21.0	1.865	2.864	1.1	22.2
4 11	12 21.13	-14 39.6	1.794	2.773	5.5	20.9	4 11	12 22.03	- 2 16.7	1.881	2.859	5.3	22.5
4 21	12 12.96	-13 38.1	1.843	2.786	8.8	21.2	4 21	12 14.30	- 1 19.5	1.924	2.855	9.3	22.7
5 1	12 6.83	-12 39.4	1.917	2.798	12.1	21.4	5 1	12 8.35	- 0 34.3	1.992	2.849	12.8	22.9
172090	Davidmcomas		3 29.5 336°33	0°6/28.9	17		343646	2010 <i>JN</i> ₇₂		3 29.5 132°61	4°7/24.1	17	
2 21	12 53.28	- 4 15.7	2.115	2.922	13.2	20.3	2 21	12 55.37	+ 8 20.3	2.229	3.055	12.0	20.8
3 2	12 50.07	- 3 46.7	2.024	2.916	10.2	20.1	3 2	12 51.50	+ 9 23.7	2.155	3.057	9.2	20.6
3 12	12 44.96	- 3 6.2	1.957	2.910	6.7	19.9	3 12	12 45.79	+10 29.7	2.107	3.058	6.5	20.4
3 22	12 38.45	- 2 17.6	1.916	2.905	2.9	19.6	3 22	12 38.79	+11 32.1	2.085	3.060	4.7	20.3
4 1	12 31.27	- 1 25.9	1.903	2.900	1.4	19.5	4 1	12 31.23	+12 24.4	2.092	3.061	5.5	20.4
4 11	12 24.26	- 0 37.0	1.918	2.896	5.3	19.8	4 11	12 23.92	+13 1.4	2.126	3.063	8.0	20.5
4 21	12 18.23	+ 0 3.9	1.960	2.891	9.1	20.0	4 21	12 17.62	+13 20.3	2.186	3.064	10.8	20.7
5 1	12 13.79	+ 0 32.8	2.025	2.887	12.4	20.2	5 1	12 12.89	+13 20.3	2.268	3.065	13.4	20.9
369382	2009 <i>UX</i> ₁₅₁		3 29.5 156°19	4°7/ 3.9	16		213621	2002 <i>QH</i> ₄₉		3 29.5 162°64	3°7/25.5	18	
2 21	12 58.69	-20 46.3	2.407	3.121	14.3	22.7	2 21	12 59.35	+ 4 26.5	2.189	3.003	12.6	21.0
3 2	12 54.07	-20 55.3	2.313	3.129	12.0	22.5	3 2	12 54.55	+ 5 31.2	2.113	3.010	9.6	21.2
3 12	12 47.52	-20 45.3	2.241	3.136	9.3	22.4	3 12	12 47.80	+ 6 41.7	2.063	3.016	6.4	20.9
3 22	12 39.56	-20 16.1	2.193	3.142	6.6	22.2	3 22	12 39.67	+ 7 51.9	2.040	3.022	3.9	20.7
4 1	12 30.93	-19 29.3	2.173	3.148	4.8	22.1	4 1	12 30.94	+ 8 54.9	2.046	3.026	4.5	20.8
4 11	12 22.52	-18 29.1	2.181	3.153	5.3	22.1	4 11	12 22.52	+ 9 45.0	2.082	3.030	7.4	20.9
4 21	12 15.10	-17 21.5	2.218	3.158	7.7	22.3	4 21	12 15.17	+10 18.3	2.144	3.033	10.5	21.1
5 1	12 9.34	-16 13.2	2.281	3.162	10.5	22.5	5 1	12 9.52	+10 33.3	2.229	3.036	13.3	21.3
502062	2015 <i>AD</i> ₁₇₉		3 29.5 126°21	0°3/29.2	17		405531	2005 <i>EK</i> ₁₆₈		3 29.5 88°58	0°8/28.8	18	
2 21	12 57.94	- 4 39.6	1.941	2.743	14.4	22.0	2 21	12 57.75	- 6 51.8	1.611	2.418	16.6	21.3
3 2	12 53.77	- 4 19.6	1.858	2.746	11.2	21.8	3 2	12 53.84	- 5 45.0	1.548	2.439	12.8	21.1
3 12	12 47.45	- 3 47.6	1.798	2.750	7.4	21.6	3 12	12 47.54	- 4 19.9	1.507	2.460	8.3	20.9
3 22	12 39.55	- 3 7.0	1.764	2.753	3.2	21.3	3 22	12 39.58	- 2 43.0	1.491	2.480	3.5	20.7
4 1	12 30.93	- 2 22.7	1.758	2.756	1.3	21.2	4 1	12 30.99	- 1 3.3	1.503	2.500	1.8	20.6
4 11	12 22.59	- 1 40.8	1.780	2.758	5.6	21.5	4 11	12 22.91	+ 0 29.3	1.543	2.520	6.5	20.9
4 21	12 15.41	- 1 6.4	1.828	2.761	9.5	21.7	4 21	12 16.28	+ 1 46.8	1.609	2.539	10.8	21.2
5 1	12 10.08	- 0 43.6	1.901	2.764	13.0	22.0	5 1	12 11.78	+ 2 44.3	1.698	2.558	14.5	21.5
379330	2009 <i>WP</i> ₇₁		3 29.5 191°01	3°5/ 2.5	17		162069	1997 <i>TC</i> ₃		3 29.5 87°95	0°5		

EPHEMERIDES

3 29.5

3 29.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
210175	2006 <i>UL</i> ₁₃		3 29.5 251°13	0°3/29.2	17		261884	2006 <i>HQ</i> ₁₀		3 29.5 330°26	2°7/27.3	16	
2 21	12 54.76	- 5 10.2	2.557	3.348	11.6	21.3	2 21	12 53.35	- 2 21.9	1.276	2.119	18.1	21.1
3 2	12 50.93	- 4 40.7	2.452	3.335	9.0	21.1	3 2	12 51.37	- 1 21.8	1.197	2.109	14.0	20.8
3 12	12 45.42	- 4 0.6	2.372	3.321	6.0	20.9	3 12	12 46.50	- 0 2.6	1.138	2.100	9.1	20.5
3 22	12 38.66	- 3 12.6	2.318	3.307	2.6	20.6	3 22	12 39.35	+ 1 28.4	1.102	2.092	4.1	20.2
4 1	12 31.26	- 2 20.8	2.295	3.293	1.1	20.5	4 1	12 31.05	+ 3 0.3	1.090	2.084	3.8	20.1
4 11	12 23.96	- 1 30.1	2.301	3.278	4.6	20.7	4 11	12 23.02	+ 4 21.0	1.103	2.077	8.9	20.4
4 21	12 17.43	- 0 45.2	2.335	3.263	8.0	20.9	4 21	12 16.56	+ 5 21.0	1.139	2.071	14.1	20.7
5 1	12 12.27	- 0 10.0	2.394	3.248	11.0	21.0	5 1	12 12.62	+ 5 54.9	1.194	2.065	18.6	20.9
381830	2009 <i>VM</i> ₁₁₆		3 29.5 140°77	6°2/21.9	18		240014	2001 <i>TF</i> ₁₅₄		3 29.5 125°18	3°2/25.7	17	
2 21	12 58.69	+14 45.6	2.398	3.217	11.4	21.7	2 21	12 57.81	+ 6 6.2	2.590	3.402	10.9	20.8
3 2	12 53.85	+15 59.4	2.339	3.228	9.1	21.6	3 2	12 53.01	+ 6 44.8	2.520	3.414	8.3	20.7
3 12	12 47.22	+17 10.6	2.304	3.239	7.1	21.5	3 12	12 46.61	+ 7 25.9	2.474	3.426	5.6	20.5
3 22	12 39.38	+18 12.5	2.297	3.249	6.2	21.4	3 22	12 39.11	+ 8 5.0	2.457	3.437	3.5	20.4
4 1	12 31.05	+18 59.1	2.319	3.259	7.1	21.5	4 1	12 31.17	+ 8 37.6	2.469	3.449	3.9	20.4
4 11	12 23.06	+19 26.3	2.368	3.268	9.1	21.7	4 11	12 23.52	+ 8 59.9	2.510	3.459	6.3	20.6
4 21	12 16.12	+19 32.7	2.441	3.277	11.3	21.8	4 21	12 16.79	+ 9 9.6	2.579	3.470	8.9	20.8
5 1	12 10.76	+19 19.1	2.536	3.285	13.4	22.0	5 1	12 11.48	+ 9 5.7	2.672	3.480	11.3	20.9
268480	2005 <i>XN</i> ₆₃		3 29.5 66°51	1°3/28.3	18		4861	Nemirovskij		3 29.5 233°34	1°5/27.7	18	
2 21	12 57.75	- 2 13.6	1.812	2.625	14.8	20.9	2 21	12 56.16	- 0 59.7	2.597	3.397	11.2	18.3
3 2	12 53.76	- 1 46.1	1.733	2.628	11.4	20.7	3 2	12 51.95	- 0 21.5	2.495	3.384	8.6	18.1
3 12	12 47.52	- 1 7.5	1.676	2.632	7.5	20.5	3 12	12 46.08	+ 0 25.0	2.418	3.371	5.6	17.9
3 22	12 39.61	- 0 22.2	1.645	2.635	3.2	20.2	3 22	12 38.95	+ 1 16.1	2.369	3.357	2.5	17.7
4 1	12 30.96	+ 0 23.9	1.642	2.638	2.1	20.1	4 1	12 31.20	+ 2 7.2	2.350	3.343	2.1	17.6
4 11	12 22.61	+ 1 4.3	1.666	2.641	6.3	20.4	4 11	12 23.56	+ 2 53.5	2.360	3.329	5.3	17.8
4 21	12 15.50	+ 1 33.9	1.716	2.644	10.4	20.6	4 21	12 16.70	+ 3 30.8	2.399	3.314	8.5	18.0
5 1	12 10.35	+ 1 49.3	1.789	2.648	13.9	20.9	5 1	12 11.21	+ 3 56.1	2.463	3.298	11.3	18.1
115981	2003 <i>WT</i> ₅₈		3 29.5 2°76	4°6/26.1	18		466358	2013 <i>RV</i> ₆₀		3 29.5 262°46	4°7/2.9	17	
2 21	12 59.85	+ 5 1.1	1.486	2.322	16.4	19.7	2 21	12 57.23	-18 1.1	1.903	2.654	16.5	21.1
3 2	12 55.88	+ 5 44.1	1.414	2.321	12.6	19.4	3 2	12 53.60	-18 16.9	1.803	2.645	13.7	20.9
3 12	12 49.16	+ 6 33.5	1.363	2.321	8.5	19.2	3 12	12 47.60	-18 11.8	1.723	2.637	10.5	20.7
3 22	12 40.40	+ 7 21.8	1.337	2.321	5.0	19.0	3 22	12 39.75	-17 45.0	1.666	2.628	7.1	20.4
4 1	12 30.71	+ 8 0.7	1.337	2.322	5.5	19.0	4 1	12 30.92	-16 58.1	1.635	2.619	4.8	20.3
4 11	12 21.42	+ 8 23.1	1.362	2.322	9.3	19.2	4 11	12 22.20	-15 56.3	1.631	2.610	6.0	20.3
4 21	12 13.69	+ 8 25.2	1.412	2.323	13.4	19.5	4 21	12 14.62	-14 46.7	1.654	2.601	9.3	20.5
5 1	12 8.36	+ 8 5.9	1.482	2.324	17.1	19.7	5 1	12 9.02	-13 37.8	1.701	2.592	12.9	20.7
439290	2012 <i>UB</i> ₁₄₀		3 29.5 74°53	4°4/3.7	17		359825	2011 <i>UT</i> ₃₀₅		3 29.5 135°52	1°3/28.4	18	
2 21	12 55.42	-19 49.5	2.245	2.977	14.8	21.5	2 21	12 59.22	- 3 42.1	1.594	2.408	16.4	21.6
3 2	12 51.63	-19 54.5	2.162	2.990	12.3	21.3	3 2	12 55.20	- 2 58.8	1.518	2.414	12.7	21.4
3 12	12 45.94	-19 39.9	2.100	3.003	9.4	21.1	3 12	12 48.61	- 2 0.4	1.464	2.420	8.3	21.1
3 22	12 38.88	-19 5.9	2.062	3.017	6.5	21.0	3 22	12 40.14	- 0 52.5	1.436	2.425	3.5	20.8
4 1	12 31.22	-18 14.8	2.051	3.030	4.6	20.9	4 1	12 30.82	+ 0 17.3	1.434	2.431	2.3	20.8
4 11	12 23.83	-17 11.5	2.068	3.043	5.2	20.9	4 11	12 21.89	+ 1 20.4	1.460	2.435	7.0	21.1
4 21	12 17.48	-16 2.5	2.112	3.057	7.7	21.1	4 21	12 14.40	+ 2 9.9	1.511	2.440	11.5	21.3
5 1	12 12.79	-14 54.4	2.182	3.070	10.6	21.3	5 1	12 9.14	+ 2 41.3	1.584	2.444	15.3	21.6
377907	2006 <i>DL</i> ₁₆₇		3 29.5 147°06	1°3/28.2	17		275674	2000 <i>QH</i> ₁₆₈		3 29.5 240°38	3°3/1.8	17	
2 21	12 58.19	- 1 38.1	2.240	3.042	12.7	21.4	2 21	12 59.00	-14 53.8	2.224	2.975	14.4	21.2
3 2	12 53.63	- 1 9.0	2.159	3.048	9.8	21.2	3 2	12 54.62	-15 3.4	2.114	2.961	11.8	21.0
3 12	12 47.19	- 0 31.3	2.101	3.054	6.4	21.0	3 12	12 48.10	-14 56.7	2.026	2.947	8.7	20.8
3 22	12 39.41	+ 0 11.3	2.071	3.060	2.7	20.8	3 22	12 39.94	-14 33.5	1.963	2.933	5.5	20.5
4 1	12 31.05	+ 0 53.9	2.070	3.065	2.0	20.7	4 1	12 30.86	-13 55.7	1.928	2.918	3.3	20.4
4 11	12 22.94	+ 1 31.4	2.098	3.070	5.5	21.0	4 11	12 21.83	-13 7.7	1.922	2.902	5.1	20.5
4 21	12 15.87	+ 1 59.7	2.154	3.075	8.9	21.2	4 21	12 13.75	-12 15.0	1.944	2.886	8.4	20.6
5 1	12 10.41	+ 2 15.9	2.234	3.079	12.0	21.4	5 1	12 7.39	-11 24.1	1.991	2.870	11.8	20.8
39098	2000 <i>WR</i> ₁₂		3 29.5 129°52	1°9/27.4	18		200302	2000 <i>CW</i> ₇₈		3 29.5 95°00	2°0/31.6	17	
2 21	12 56.04	- 1 52.7	2.160	2.968	12.9	20.0	2 21	12 57.29	-11 33.0	2.132	2.904	14.3	20.5
3 2	12 52.02	- 0 51.6	2.085	2.979	9.9	19.8	3 2	12 53.09	-11 28.6	2.050	2.915	11.4	20.3
3 12	12 46.13	+ 0 20.2	2.034	2.989	6.4	19.6	3 12	12 46.91	-11 9.0	1.991	2.926	8.0	20.1
3 22	12 38.95	+ 1 37.1	2.010	2.999	2.9	19.4	3 22	12 39.32	-10 35.7	1.958	2.937	4.4	19.9
4 1	12 31.21	+ 2 52.9	2.016	3.008	2.6	19.4	4 1	12 31.11	- 9 52.4	1.952	2.948	2.0	19.7
4 11	12 23.76	+ 4 0.7	2.050	3.018	6.0	19.6	4 11	12 23.17	- 9 4.2	1.976	2.959	4.6	19.9
4 21	12 17.36	+ 4 55.6	2.112	3.026	9.5	19.9	4 21	12 16.32	- 8 16.7	2.026	2.969	8.1	20.2
5 1	12 12.58	+ 5 34.2	2.198	3.035	12.5	20.1	5 1	12 11.18	- 7 35.3	2.102	2.980	11.4	20.4
496883	2000 <i>SF</i> ₃₆₉		3 29.5 132°09	7°0/9.1	18		254633	2005 <i>JV</i> ₆₇		3 29.5 280°43	2°3/27.8	17	
2 21	13 0.79	-33 21.8	3.272	3.870	12.7	22.3	2 21	13 0.24	+ 0 31.1	1.630	2.451	15.8	20.4
3 2	12 55.38	-34 9.1	3.180	3.885	11.4	22.2	3 2	12 56.08	+ 0 53.8	1.544	2.445	12.2	20.1
3 12	12 48.25	-34 38.6	3.107	3.900	9.9	22.1	3 12	12 49.29	+ 1 26.0	1.481	2.438	8.1	19.9
3 22	12 39.88	-34 48.3	3.057	3.914	8.4	22.0	3 22	12 40.49	+ 2 2.6	1.442	2.431	3.7	19.6
4 1	12 30.89	-34 37.3	3.032	3.928	7.4	21.9	4 1	12 30.70	+ 2 37.4	1.431	2.425	3.2	19.5
4 11	12 22.05	-34 7.4	3.034	3.941	7.1	21.9	4 11	12 21.16	+ 3 3.5	1.447	2.418	7.5	19.8
4 21	12 14.04	-33 22.0	3.064	3.954	7.7	22.0	4 21	12 13.00	+ 3 16.2	1.487	2.412	11.9	20.0
5 1	12 7.46	-32 26.3	3.119	3.967	8.9	22.1	5 1	12 7.09	+ 3 12.5	1.550	2.406	15.8	20.2
192768	1999 <i>TB</i> ₃₂₀		3 29.5 221°08	3°3/2.3	18		109474	2001 <i>QH</i> ₂₁₉		3 29.5 164°91	0°9/2		

EPHEMERIDES

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3 29.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
370433	2002 VP ₅₉		3 29.5 82°40'	5°5'/23.8	17		116253	2003 YV ₂₅		3 29.5 23°57'	8°6'/20.2	18	
2 21	12 58.30	+11 42.0	2.144	2.969	12.4	20.5	2 21	12 57.01	+18 42.2	1.902	2.734	13.4	19.1
3 2	12 53.75	+12 34.4	2.080	2.977	9.7	20.3	3 2	12 53.11	+20 5.4	1.846	2.737	11.1	18.9
3 12	12 47.27	+13 25.9	2.040	2.985	7.1	20.1	3 12	12 47.02	+21 22.5	1.813	2.740	9.2	18.8
3 22	12 39.44	+14 10.1	2.026	2.993	5.6	20.1	3 22	12 39.39	+22 24.6	1.806	2.744	8.6	18.8
4 1	12 31.08	+14 41.1	2.040	3.001	6.4	20.1	4 1	12 31.13	+23 4.2	1.824	2.748	9.7	18.8
4 11	12 23.08	+14 54.7	2.082	3.009	8.7	20.3	4 11	12 23.29	+23 17.0	1.866	2.752	11.9	19.0
4 21	12 16.21	+14 49.3	2.148	3.017	11.4	20.5	4 21	12 16.72	+23 2.5	1.931	2.757	14.3	19.1
5 1	12 11.06	+14 25.2	2.237	3.025	13.8	20.6	5 1	12 12.08	+22 22.8	2.014	2.762	16.5	19.3
271875	2004 TO ₃₄₃		3 29.5 183°59'	3°8'/25.4	17		290323	2005 SO ₂₁₁		3 29.5 45°89'	0°6'/30.1	17	
2 21	12 59.56	+ 6 49.4	2.375	3.188	11.7	21.1	2 21	12 56.33	- 7 56.2	1.720	2.522	16.0	21.2
3 2	12 54.60	+ 7 32.7	2.294	3.189	9.0	20.9	3 2	12 52.85	- 7 32.8	1.639	2.525	12.5	20.9
3 12	12 47.80	+ 8 18.9	2.237	3.189	6.2	20.7	3 12	12 47.02	- 6 52.6	1.579	2.528	8.4	20.7
3 22	12 39.69	+ 9 2.8	2.209	3.188	4.0	20.6	3 22	12 39.46	- 5 58.9	1.545	2.532	3.9	20.4
4 1	12 30.99	+ 9 39.1	2.210	3.187	4.5	20.6	4 1	12 31.10	- 4 57.5	1.537	2.536	1.1	20.2
4 11	12 22.54	+10 3.3	2.239	3.185	7.1	20.8	4 11	12 23.03	- 3 55.8	1.557	2.539	5.7	20.5
4 21	12 15.07	+10 12.8	2.296	3.183	10.0	21.0	4 21	12 16.24	- 3 0.9	1.602	2.543	10.0	20.8
5 1	12 9.19	+10 6.5	2.376	3.181	12.6	21.1	5 1	12 11.48	- 2 18.6	1.671	2.547	13.9	21.0
303316	2004 TB ₆₂		3 29.5 215°58'	1°3'/28.4	17		124406	2001 QO ₂₀₆		3 29.5 144°10'	1°1'/28.5	18	
2 21	13 0.20	- 3 19.4	1.771	2.578	15.4	21.7	2 21	13 0.95	- 4 11.8	1.734	2.539	15.7	21.3
3 2	12 55.87	- 2 41.0	1.680	2.572	11.9	21.5	3 2	12 56.30	- 3 27.2	1.659	2.549	12.1	21.1
3 12	12 49.07	- 1 48.7	1.611	2.565	7.8	21.2	3 12	12 49.22	- 2 28.3	1.606	2.559	7.9	20.8
3 22	12 40.38	- 0 47.2	1.567	2.557	3.4	20.9	3 22	12 40.40	- 1 20.2	1.579	2.568	3.4	20.6
4 1	12 30.74	+ 0 17.0	1.552	2.549	2.2	20.8	4 1	12 30.82	+ 0 9.9	1.579	2.576	2.0	20.5
4 11	12 21.30	+ 1 16.1	1.565	2.540	6.7	21.1	4 11	12 21.62	+ 0 54.4	1.609	2.584	6.5	20.8
4 21	12 13.11	+ 2 3.4	1.604	2.530	11.1	21.3	4 21	12 13.81	+ 1 46.3	1.664	2.591	10.8	21.1
5 1	12 7.02	+ 2 34.3	1.666	2.520	15.0	21.5	5 1	12 8.13	+ 2 21.5	1.743	2.597	14.4	21.3
330088	2005 WL ₉₀		3 29.5 135°95'	4°9'/24.3	18		301712	2010 GZ ₇₁		3 29.5 59°99'	0°2'/29.4	18	
2 21	13 1.78	+10 42.9	2.328	3.141	11.9	21.7	2 21	13 3.58	- 2 8.8	2.259	3.048	13.0	19.9
3 2	12 56.20	+11 34.0	2.263	3.155	9.3	21.6	3 2	12 57.77	- 2 29.8	2.175	3.055	10.1	19.7
3 12	12 48.77	+12 24.6	2.224	3.169	6.7	21.4	3 12	12 49.94	- 2 44.5	2.115	3.063	6.7	19.5
3 22	12 40.07	+13 9.1	2.213	3.182	5.0	21.4	3 22	12 40.66	- 2 54.7	2.083	3.071	2.9	19.2
4 1	12 30.89	+13 41.8	2.230	3.194	5.7	21.4	4 1	12 30.74	- 3 2.8	2.081	3.079	1.0	19.1
4 11	12 22.09	+13 58.8	2.277	3.206	8.0	21.6	4 11	12 21.09	- 3 11.7	2.108	3.087	4.9	19.4
4 21	12 14.41	+13 58.5	2.349	3.217	10.6	21.8	4 21	12 12.56	- 3 24.1	2.165	3.095	8.5	19.6
5 1	12 8.41	+13 41.0	2.445	3.227	13.0	21.9	5 1	12 5.77	- 3 42.0	2.247	3.103	11.6	19.8
335728	2007 DX ₃₂		3 29.5 340°80'	0°2'/29.4	17		34280	Victoradler		3 29.5 167°43'	0°5'/28.9	18	
2 21	12 55.14	- 4 21.5	1.389	2.218	17.7	20.5	2 21	12 56.78	- 5 4.9	2.050	2.849	13.8	19.3
3 2	12 52.62	- 4 20.8	1.303	2.206	13.9	20.2	3 2	12 52.80	- 4 28.2	1.964	2.852	10.7	19.1
3 12	12 47.27	- 4 5.5	1.238	2.195	9.3	19.9	3 12	12 46.80	- 3 38.6	1.902	2.853	7.0	18.9
3 22	12 39.70	- 3 38.8	1.195	2.185	4.1	19.6	3 22	12 39.33	- 2 39.9	1.866	2.855	3.0	18.6
4 1	12 30.96	- 3 6.3	1.177	2.176	1.4	19.3	4 1	12 31.17	- 1 37.8	1.859	2.856	1.4	18.5
4 11	12 22.41	- 2 35.3	1.184	2.168	6.9	19.7	4 11	12 23.25	- 0 38.8	1.880	2.858	5.5	18.8
4 21	12 15.33	- 2 12.6	1.215	2.161	12.1	19.9	4 21	12 16.41	+ 0 11.6	1.929	2.858	9.3	19.0
5 1	12 10.69	- 2 3.4	1.267	2.155	16.6	20.2	5 1	12 11.30	+ 0 48.8	2.001	2.859	12.7	19.2
138612	2000 QM ₁₉₄		3 29.5 195°65'	3°3'/2.8	18		431589	2007 VJ ₁₁₄		3 29.5 207°38'	1°5'/27.7	17	
2 21	12 54.66	-17 46.4	2.710	3.441	12.5	20.5	2 21	12 55.40	- 1 1.1	2.423	3.228	11.8	21.6
3 2	12 50.79	-17 39.9	2.608	3.439	10.3	20.3	3 2	12 51.44	+ 0 23.4	2.334	3.226	9.0	21.4
3 12	12 45.30	-17 17.4	2.528	3.437	7.8	20.1	3 12	12 45.76	+ 0 22.6	2.269	3.223	5.9	21.2
3 22	12 38.61	-16 39.3	2.473	3.435	5.1	20.0	3 22	12 38.83	+ 1 13.1	2.231	3.220	2.6	21.0
4 1	12 31.35	-15 47.8	2.447	3.432	3.3	19.8	4 1	12 31.33	+ 2 3.1	2.223	3.217	2.2	20.9
4 11	12 24.23	-14 47.2	2.451	3.429	4.3	19.9	4 11	12 24.00	+ 2 47.7	2.244	3.213	5.4	21.1
4 21	12 17.90	-13 42.5	2.483	3.426	6.8	20.1	4 21	12 17.55	+ 3 22.6	2.292	3.210	8.7	21.3
5 1	12 12.92	-12 39.1	2.542	3.422	9.5	20.2	5 1	12 12.54	+ 3 45.1	2.365	3.206	11.6	21.5
413193	2002 VL ₁₀₅		3 29.5 60°05'	3°3'/1.4	18		177841	2005 ND ₈₀		3 29.5 169°18'	0°3'/29.2	18	
2 21	12 59.01	-14 5.9	1.531	2.313	18.5	20.4	2 21	12 57.05	- 3 44.8	2.655	3.444	11.3	20.6
3 2	12 55.03	-14 6.2	1.469	2.336	14.9	20.2	3 2	12 52.52	- 3 31.2	2.565	3.447	8.7	20.4
3 12	12 48.45	-13 44.0	1.426	2.359	10.7	20.0	3 12	12 46.38	- 3 9.4	2.500	3.449	5.8	20.2
3 22	12 40.04	-13 1.1	1.406	2.383	6.2	19.8	3 22	12 39.08	- 2 42.1	2.462	3.450	2.5	20.0
4 1	12 30.91	-12 2.4	1.412	2.406	3.3	19.7	4 1	12 31.25	- 2 12.6	2.454	3.452	1.0	19.9
4 11	12 22.33	-10 55.8	1.445	2.430	5.8	19.9	4 11	12 23.61	- 1 44.8	2.476	3.453	4.4	20.1
4 21	12 15.34	- 9 50.0	1.504	2.453	9.9	20.2	4 21	12 16.80	- 1 22.2	2.526	3.454	7.5	20.3
5 1	12 10.66	- 8 52.6	1.586	2.477	13.6	20.5	5 1	12 11.34	- 1 7.5	2.602	3.455	10.3	20.5
24064	1999 TK ₁₁₉		3 29.5 272°31'	0°4'/29.9	18		375839	2009 UO ₁₃₀		3 29.6 200°01'	5°5'/23.1	17	
2 21	12 57.30	- 8 10.2	1.360	2.176	18.7	19.6	2 21	13 1.37	+13 32.1	2.568	3.378	11.0	22.1
3 2	12 54.41	- 7 39.7	1.273	2.167	14.8	19.3	3 2	12 55.91	+14 28.4	2.487	3.374	8.8	21.9
3 12	12 48.53	- 6 46.6	1.205	2.157	10.0	19.0	3 12	12 48.65	+15 23.4	2.431	3.368	6.6	21.8
3 22	12 40.28	- 5 34.5	1.159	2.148	4.6	18.7	3 22	12 40.09	+16 11.2	2.404	3.362	5.5	21.7
4 1	12 30.78	- 4 10.7	1.139	2.138	1.3	18.4	4 1	12 30.94	+16 46.3	2.405	3.355	6.3	21.7
4 11	12 21.48	- 2 46.1	1.145	2.128	7.1	18.8	4 11	12 22.02	+17 4.8	2.436	3.348	8.3	21.8
4 21	12 13.71	- 1 31.3	1.175	2.119	12.6	19.0	4 21	12 14.05	+17 4.7	2.492	3.339	10.8	22.0
5 1	12 8.53	- 0 34.6	1.226	2.109	17.4	19.3	5 1	12 7.62	+16 46.4	2.571	3.330	13.0	22.1
114688	2003 FK ₈₁		3 29.5 303°05'	1°2'/30.4	17		3716	Petzval		3 29.6 281°75'	1°4'/28.4	18	
2 21	12 57.74	- 7 23.1	1.702	2.504									

EPHEMERIDES

3 29.6

3 29.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
57541	2001 TV ₁₈		3 29.6 309°26	9°8/20.0	18		241484	2009 BC ₉₂		3 29.6 261°73	3°3/25.5	18	
2 21	12 58.12	+18 6.7	1.616	2.455	15.1	18.0	2 21	12 54.20	+3 18.8	2.361	3.179	11.6	21.0
3 2	12 54.55	+19 39.5	1.547	2.444	12.5	17.8	3 2	12 50.66	+4 23.9	2.265	3.164	8.9	20.8
3 12	12 48.31	+21 7.8	1.501	2.433	10.4	17.7	3 12	12 45.35	+5 36.4	2.194	3.149	5.9	20.6
3 22	12 40.09	+22 20.7	1.479	2.422	9.8	17.6	3 22	12 38.72	+6 51.1	2.151	3.134	3.5	20.4
4 1	12 30.94	+23 8.1	1.481	2.411	11.1	17.7	4 1	12 31.42	+8 1.3	2.137	3.119	4.1	20.4
4 11	12 22.12	+23 23.6	1.507	2.400	13.7	17.8	4 11	12 24.24	+9 1.1	2.151	3.103	6.9	20.5
4 21	12 14.75	+23 6.0	1.553	2.390	16.6	17.9	4 21	12 17.90	+9 46.0	2.192	3.087	10.1	20.7
5 1	12 9.67	+22 17.7	1.618	2.381	19.3	18.1	5 1	12 13.02	+10 13.2	2.257	3.071	12.9	20.9
62924	2000 VU ₁₃		3 29.6 98°58	0°2/29.4	18		246808	2009 FC ₄₄		3 29.6 100°93	2°4/26.7	17	
2 21	12 53.80	-5 56.4	2.463	3.255	12.0	19.5	2 21	12 55.19	+1 20.8	2.416	3.227	11.6	20.9
3 2	12 50.14	-5 22.1	2.379	3.262	9.3	19.4	3 2	12 51.16	+2 12.7	2.346	3.242	8.8	20.7
3 12	12 44.86	-4 36.7	2.320	3.269	6.1	19.2	3 12	12 45.49	+3 11.1	2.301	3.256	5.7	20.5
3 22	12 38.43	-3 43.4	2.287	3.276	2.7	19.0	3 22	12 38.70	+4 11.3	2.283	3.270	2.9	20.4
4 1	12 31.49	-2 46.7	2.284	3.282	1.0	18.8	4 1	12 31.46	+5 7.8	2.295	3.284	3.0	20.4
4 11	12 24.78	-1 51.8	2.310	3.289	4.5	19.1	4 11	12 24.50	+5 55.6	2.337	3.298	5.9	20.6
4 21	12 18.93	-1 3.4	2.365	3.296	7.8	19.3	4 21	12 18.47	+6 31.0	2.405	3.311	8.8	20.8
5 1	12 14.47	-0 25.1	2.444	3.302	10.7	19.5	5 1	12 13.88	+6 52.1	2.497	3.324	11.5	21.0
390878	2004 TQ ₂₆₃		3 29.6 154°55	1°5/31.3	17		520052	2013 VE ₃₀		3 29.6 71°64	1°5/31.1	17	
2 21	12 57.25	-11 7.6	2.382	3.150	13.1	22.2	2 21	12 56.29	-10 17.9	1.965	2.750	14.9	21.4
3 2	12 52.89	-10 48.3	2.293	3.157	10.4	22.1	3 2	12 52.54	-10 5.2	1.882	2.756	11.8	21.2
3 12	12 46.72	-10 14.7	2.227	3.163	7.2	21.9	3 12	12 46.70	-9 36.5	1.821	2.762	8.2	21.0
3 22	12 39.27	-9 28.6	2.188	3.169	3.8	21.7	3 22	12 39.32	-8 53.9	1.785	2.768	4.2	20.7
4 1	12 31.22	-8 33.8	2.178	3.175	1.5	21.5	4 1	12 31.25	-8 1.8	1.777	2.774	1.6	20.6
4 11	12 23.40	-7 35.6	2.197	3.180	4.3	21.7	4 11	12 23.44	-7 6.2	1.796	2.780	4.9	20.8
4 21	12 16.53	-6 39.4	2.245	3.184	7.7	21.9	4 21	12 16.77	-6 13.4	1.843	2.786	8.8	21.1
5 1	12 11.20	-5 50.0	2.319	3.188	10.7	22.1	5 1	12 11.90	-5 29.1	1.914	2.792	12.3	21.3
497857	2006 UB ₁₂₂		3 29.6 154°77	1°1/28.1	17		245999	2006 SA ₃₁₉		3 29.6 273°93	1°0/28.3	17	
2 21	12 55.33	-1 49.7	2.645	3.444	11.1	22.3	2 21	12 52.97	-4 11.5	2.282	3.086	12.5	20.8
3 2	12 51.19	-1 17.3	2.560	3.448	8.5	22.1	3 2	12 49.75	-3 18.8	2.187	3.078	9.6	20.6
3 12	12 45.50	-0 37.0	2.500	3.452	5.5	21.9	3 12	12 44.76	-2 13.6	2.116	3.070	6.3	20.3
3 22	12 38.70	+0 7.5	2.467	3.456	2.4	21.7	3 22	12 38.46	-1 0.2	2.072	3.062	2.7	20.1
4 1	12 31.41	+0 52.2	2.465	3.460	1.7	21.7	4 1	12 31.53	+0 15.7	2.057	3.053	1.8	20.0
4 11	12 24.32	+1 32.6	2.492	3.463	4.8	21.9	4 11	12 24.74	+1 27.6	2.072	3.045	5.4	20.2
4 21	12 18.06	+2 5.0	2.547	3.467	7.8	22.1	4 21	12 18.84	+2 29.8	2.113	3.037	8.9	20.4
5 1	12 13.12	+2 26.9	2.627	3.470	10.5	22.3	5 1	12 14.41	+3 18.0	2.179	3.029	12.1	20.6
45179	1999 XQ ₁₄₄		3 29.6 268°78	9°0/6.6	18 R		118137	3813 T ₋₃		3 29.6 212°92	0°3/29.3	17	
2 21	12 58.58	-26 59.7	1.755	2.459	19.2	18.5	2 21	12 58.81	-5 19.4	2.108	2.901	13.7	21.4
3 2	12 55.13	-27 52.7	1.659	2.453	16.9	18.2	3 2	12 54.42	-4 54.0	2.013	2.896	10.7	21.2
3 12	12 48.91	-28 19.8	1.579	2.447	14.2	18.0	3 12	12 47.94	-4 16.1	1.940	2.889	7.1	21.0
3 22	12 40.46	-28 16.6	1.520	2.441	11.4	17.8	3 22	12 39.89	-3 28.9	1.894	2.882	3.1	20.7
4 1	12 30.79	-27 41.3	1.485	2.435	9.3	17.7	4 1	12 31.06	-2 37.2	1.877	2.875	1.2	20.5
4 11	12 21.21	-26 37.3	1.474	2.429	9.2	17.7	4 11	12 22.40	-1 47.0	1.889	2.867	5.3	20.8
4 21	12 12.98	-25 12.2	1.487	2.422	11.1	17.8	4 21	12 14.77	-1 3.6	1.928	2.859	9.3	21.0
5 1	12 7.11	-23 37.0	1.524	2.416	14.0	17.9	5 1	12 8.88	-0 31.5	1.992	2.850	12.7	21.2
83915	2001 VF ₇		3 29.6 261°36	2°4/1.4	18		289257	2004 XQ ₉₉		3 29.6 74°23	0°5/29.9	18	
2 21	12 53.69	-14 15.8	2.363	3.123	13.4	19.7	2 21	13 0.21	-7 17.7	1.460	2.268	18.0	20.8
3 2	12 50.30	-13 57.2	2.261	3.116	10.8	19.5	3 2	12 56.10	-6 59.4	1.395	2.285	14.1	20.6
3 12	12 45.12	-13 21.7	2.181	3.109	7.8	19.3	3 12	12 49.27	-6 23.5	1.350	2.301	9.4	20.4
3 22	12 38.61	-12 30.6	2.127	3.102	4.6	19.1	3 22	12 40.48	-5 33.8	1.329	2.317	4.3	20.1
4 1	12 31.43	-11 27.3	2.101	3.095	2.4	18.9	4 1	12 30.90	-4 36.9	1.335	2.333	1.2	19.9
4 11	12 24.39	-10 17.0	2.104	3.087	4.4	19.0	4 11	12 21.85	-3 41.1	1.367	2.350	6.3	20.3
4 21	12 18.22	-9 6.0	2.135	3.080	7.7	19.2	4 21	12 14.43	-2 53.8	1.424	2.366	11.0	20.6
5 1	12 13.54	-8 0.2	2.192	3.072	10.8	19.4	5 1	12 9.41	-2 20.7	1.504	2.382	15.0	20.9
506263	2016 QU ₄₇		3 29.6 297°33	1°1/30.5	17		7840	Hendrika		3 29.6 152°98	3°1/1.5	18	
2 21	12 59.68	-6 33.4	2.248	3.032	13.3	20.4	2 21	12 58.60	-15 33.9	1.727	2.495	17.3	19.2
3 2	12 55.03	-6 51.4	2.145	3.020	10.5	20.2	3 2	12 54.69	-15 10.8	1.642	2.501	14.0	19.0
3 12	12 48.33	-6 59.8	2.065	3.008	7.2	20.0	3 12	12 48.31	-14 23.9	1.577	2.506	10.2	18.7
3 22	12 40.05	-6 59.9	2.012	2.997	3.5	19.7	3 22	12 40.10	-13 14.7	1.536	2.511	6.0	18.5
4 1	12 30.96	-6 53.9	1.987	2.985	1.2	19.5	4 1	12 31.02	-11 48.2	1.522	2.516	3.1	18.3
4 11	12 21.94	-6 45.1	1.992	2.974	4.7	19.8	4 11	12 22.26	-10 12.9	1.536	2.520	5.5	18.5
4 21	12 13.87	-6 37.5	2.024	2.962	8.4	20.0	4 21	12 14.85	-8 38.5	1.577	2.524	9.7	18.7
5 1	12 7.46	-6 34.4	2.082	2.951	11.8	20.2	5 1	12 9.58	-7 13.7	1.642	2.527	13.6	19.0
402948	2007 TT ₃₆₂		3 29.6 2°85	5°1/25.8	18		453362	2009 BO ₁₁		3 29.6 84°37	2°8/1.1	18	
2 21	12 59.94	+6 1.1	1.415	2.254	16.8	20.3	2 21	12 59.91	-13 50.9	1.505	2.288	18.7	21.7
3 2	12 56.10	+6 46.2	1.345	2.254	13.0	20.1	3 2	12 55.84	-13 35.8	1.439	2.308	15.0	21.5
3 12	12 49.41	+7 36.9	1.296	2.254	8.9	19.8	3 12	12 49.07	-12 57.0	1.392	2.328	10.7	21.3
3 22	12 40.59	+8 25.2	1.271	2.254	5.5	19.6	3 22	12 40.40	-11 57.0	1.369	2.347	6.0	21.1
4 1	12 30.80	+9 2.1	1.272	2.255	6.1	19.7	4 1	12 30.95	-10 41.4	1.371	2.367	2.8	21.0
4 11	12 21.45	+9 20.5	1.297	2.255	9.9	19.9	4 11	12 22.03	-9 19.5	1.401	2.386	5.8	21.2
4 21	12 13.73	+9 16.9	1.346	2.257	14.0	20.1	4 21	12 14.73	-8 0.9	1.457	2.405	10.2	21.5
5 1	12 8.50	+8 50.8	1.416	2.258	17.8	20.4	5 1	12 9.82	-6 53.6	1.535	2.423	14.2	21.8
261157	2005 TU ₉₁		3 29.6 207°17	1°3/31.4	18		294324	2007 VQ ₅₇		3 29.6 300°33	1°1/30.9	18	
2 21	12 53.17	-11 37.9	2.688	3.454	11.8	21.0	2 21	12 53.19	-10 34.0	2.153	2.937		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
386247	2008 AS ₁₃₄		3 29.6	79°02'	4.5/3.7	17	455086	2015 UG ₆₂		3 29.6	137°01'	2.8/27.4	18
2 21	12 59.72	-19 26.8	2.434	3.153	14.1	21.3	2 21	13 2.64	-0 21.1	1.497	2.318	17.0	22.1
3 2	12 54.74	-19 53.1	2.359	3.178	11.7	21.2	3 2	12 57.98	+0 29.6	1.428	2.328	13.1	21.9
3 12	12 47.92	-20 2.4	2.306	3.203	9.0	21.0	3 12	12 50.55	+1 32.7	1.380	2.337	8.5	21.6
3 22	12 39.80	-19 54.3	2.278	3.228	6.4	20.9	3 22	12 41.10	+2 41.2	1.358	2.346	4.0	21.4
4 1	12 31.15	-19 30.4	2.277	3.252	4.6	20.8	4 1	12 30.78	+3 46.5	1.362	2.354	3.7	21.4
4 11	12 22.80	-18 54.3	2.305	3.276	5.2	20.9	4 11	12 20.94	+4 39.9	1.393	2.362	8.1	21.7
4 21	12 15.51	-18 11.0	2.361	3.300	7.4	21.1	4 21	12 12.73	+5 15.4	1.450	2.369	12.5	21.9
5 1	12 9.84	-17 26.1	2.444	3.323	9.9	21.3	5 1	12 6.96	+5 30.1	1.527	2.376	16.4	22.2
341699	2007 VE ₁₅₄		3 29.6	141°86'	1.6/27.6	18	186103	2001 TQ ₃₈		3 29.6	145°04'	11.7/14.6	18
2 21	12 56.25	-0 10.6	2.733	3.532	10.7	21.7	2 21	13 12.20	+38 34.2	2.502	3.246	13.1	20.6
3 2	12 51.82	+0 26.9	2.653	3.542	8.2	21.5	3 2	13 4.34	+39 50.9	2.472	3.258	12.2	20.6
3 12	12 45.87	+1 10.8	2.599	3.552	5.3	21.4	3 12	12 54.15	+40 48.2	2.464	3.270	11.7	20.5
3 22	12 38.89	+1 57.6	2.573	3.562	2.4	21.2	3 22	12 42.47	+41 18.8	2.480	3.282	11.9	20.6
4 1	12 31.46	+2 42.9	2.578	3.571	2.2	21.2	4 1	12 30.39	+41 18.1	2.518	3.292	12.6	20.6
4 11	12 24.25	+3 22.6	2.612	3.579	4.9	21.4	4 11	12 19.04	+40 45.6	2.578	3.302	13.6	20.7
4 21	12 17.87	+3 53.3	2.675	3.587	7.8	21.6	4 21	12 9.35	+39 44.3	2.658	3.312	14.8	20.8
5 1	12 12.80	+4 12.7	2.763	3.595	10.3	21.7	5 1	12 1.91	+38 19.0	2.754	3.320	15.8	21.0
335528	2006 AV ₃₁		3 29.6	5°71'	8.0/5.8	17	362119	2009 CP ₆₅		3 29.6	82°02'	0.9/28.9	18
2 21	12 58.52	-24 37.8	1.831	2.545	18.2	20.3	2 21	13 2.36	-3 59.2	1.487	2.300	17.5	21.6
3 2	12 54.85	-25 34.6	1.740	2.545	15.8	20.1	3 2	12 57.62	-3 32.8	1.427	2.321	13.5	21.4
3 12	12 48.60	-26 8.1	1.668	2.546	13.0	19.9	3 12	12 50.19	-2 52.3	1.389	2.343	8.8	21.2
3 22	12 40.31	-26 15.0	1.618	2.546	10.2	19.7	3 22	12 40.88	-2 2.7	1.375	2.364	3.7	20.9
4 1	12 30.96	-25 54.3	1.591	2.547	8.3	19.6	4 1	12 30.87	-1 11.1	1.387	2.385	1.8	20.8
4 11	12 21.76	-25 9.1	1.590	2.548	8.3	19.6	4 11	12 21.47	-0 25.3	1.427	2.406	6.7	21.2
4 21	12 13.85	-24 6.5	1.613	2.549	10.3	19.7	4 21	12 13.74	+0 8.9	1.492	2.426	11.2	21.5
5 1	12 8.14	-22 55.4	1.660	2.551	13.1	19.9	5 1	12 8.42	+0 27.4	1.580	2.446	15.1	21.8
109372	2001 QS ₁₆₀		3 29.6	111°64'	1.0/30.6	18	104279	2000 EE ₁₅₃		3 29.6	259°61'	0.2/29.7	18
2 21	12 58.86	-8 56.9	1.880	2.668	15.3	20.1	2 21	12 55.33	-6 36.1	2.158	2.953	13.4	19.4
3 2	12 54.56	-8 39.7	1.802	2.679	12.1	19.9	3 2	12 51.69	-6 10.2	2.065	2.948	10.5	19.2
3 12	12 48.05	-8 6.7	1.746	2.690	8.2	19.7	3 12	12 46.12	-5 31.1	1.995	2.943	7.0	19.0
3 22	12 39.94	-7 20.8	1.716	2.701	4.0	19.5	3 22	12 39.11	-4 42.0	1.951	2.939	3.1	18.7
4 1	12 31.12	-6 26.7	1.713	2.712	1.2	19.3	4 1	12 31.41	-3 47.5	1.935	2.934	0.9	18.5
4 11	12 22.65	-5 31.1	1.739	2.722	5.2	19.6	4 11	12 23.89	-2 53.4	1.949	2.929	5.0	18.8
4 21	12 15.41	-4 40.2	1.792	2.732	9.2	19.9	4 21	12 17.33	-2 5.2	1.989	2.924	8.8	19.0
5 1	12 10.11	-3 59.4	1.868	2.741	12.8	20.1	5 1	12 12.39	-1 27.5	2.054	2.919	12.1	19.2
154814	2004 QM ₂		3 29.6	274°12'	2.2/27.1	17	331488	1998 YT ₃₃		3 29.6	348°56'	3.9/1.6	17
2 21	12 53.93	-3 5.1	1.915	2.730	14.1	20.4	2 21	12 54.70	-13 30.2	1.418	2.216	19.0	20.5
3 2	12 50.95	-1 45.1	1.814	2.712	10.8	20.1	3 2	12 52.32	-13 49.5	1.333	2.210	15.5	20.2
3 12	12 45.83	-0 8.4	1.737	2.694	7.1	19.9	3 12	12 47.13	-13 46.6	1.267	2.204	11.3	19.9
3 22	12 39.04	+1 39.2	1.687	2.676	3.2	19.6	3 22	12 39.74	-13 21.5	1.223	2.200	6.9	19.7
4 1	12 31.38	+3 29.1	1.665	2.657	3.2	19.5	4 1	12 31.19	-12 37.1	1.202	2.196	3.9	19.5
4 11	12 23.81	+5 11.7	1.672	2.639	7.2	19.7	4 11	12 22.86	-11 40.6	1.207	2.193	6.4	19.6
4 21	12 17.26	+6 38.7	1.705	2.620	11.3	19.9	4 21	12 16.00	-10 40.9	1.236	2.191	11.0	19.8
5 1	12 12.48	+7 44.5	1.761	2.601	14.9	20.1	5 1	12 11.57	-9 47.1	1.287	2.190	15.3	20.1
107693	2001 FE ₁₅		3 29.6	288°44'	0.3/29.8	17	278823	2008 SZ ₂₆₃		3 29.6	213°66'	1.3/28.2	17
2 21	12 57.41	-6 39.3	1.618	2.426	16.5	19.7	2 21	12 56.83	-2 4.6	2.180	2.985	12.9	21.3
3 2	12 54.16	-6 22.9	1.517	2.407	13.1	19.4	3 2	12 52.79	-1 30.4	2.090	2.981	10.0	21.1
3 12	12 48.26	-5 49.6	1.437	2.388	8.9	19.1	3 12	12 46.81	-0 46.3	2.024	2.978	6.5	20.9
3 22	12 40.22	-5 2.1	1.381	2.369	4.1	18.7	3 22	12 39.41	+0 3.7	1.985	2.974	2.8	20.7
4 1	12 30.99	-4 5.8	1.351	2.350	1.2	18.5	4 1	12 31.33	+0 54.4	1.975	2.970	2.0	20.6
4 11	12 21.80	-3 8.4	1.349	2.331	6.4	18.8	4 11	12 23.44	+1 40.2	1.993	2.966	5.7	20.8
4 21	12 13.84	-2 17.6	1.371	2.312	11.4	19.0	4 21	12 16.54	+2 16.2	2.039	2.962	9.3	21.0
5 1	12 8.10	-1 40.2	1.416	2.293	15.8	19.2	5 1	12 11.27	+2 39.2	2.108	2.957	12.5	21.2
217855	2001 QO ₈₀		3 29.6	189°73'	2.3/1.3	18	260767	2005 MC ₄₉		3 29.6	180°00'	6.8/5.9	18
2 21	12 58.89	-13 51.1	2.621	3.366	12.6	21.9	2 21	13 0.32	-25 58.3	2.304	2.986	15.7	21.2
3 2	12 54.10	-13 38.4	2.518	3.365	10.2	21.7	3 2	12 55.69	-26 29.3	2.204	2.988	13.6	21.1
3 12	12 47.54	-13 10.9	2.439	3.363	7.3	21.5	3 12	12 48.86	-26 38.8	2.124	2.989	11.2	20.9
3 22	12 39.69	-12 29.8	2.386	3.360	4.3	21.3	3 22	12 40.37	-26 24.9	2.067	2.989	8.7	20.7
4 1	12 31.21	-11 37.7	2.363	3.356	2.3	21.2	4 1	12 31.02	-25 47.3	2.036	2.989	7.0	20.6
4 11	12 22.86	-10 39.3	2.370	3.351	4.1	21.3	4 11	12 21.82	-24 49.5	2.032	2.988	7.0	20.6
4 21	12 15.38	-9 39.7	2.407	3.346	7.2	21.5	4 21	12 13.70	-23 37.5	2.055	2.986	8.8	20.7
5 1	12 9.35	-8 44.2	2.470	3.340	10.2	21.6	5 1	12 7.39	-22 19.1	2.104	2.984	11.2	20.9
185323	2006 VD ₆		3 29.6	69°42'	4.8/4.9	18	436696	2011 SF ₂₅₆		3 29.6	204°13'	1.1/28.1	17
2 21	12 53.45	-22 42.3	2.391	3.105	14.4	20.4	2 21	12 55.48	-1 19.6	2.940	3.735	10.2	22.3
3 2	12 50.11	-22 33.8	2.301	3.114	12.2	20.2	3 2	12 51.23	-0 51.2	2.844	3.730	7.8	22.1
3 12	12 44.97	-22 4.2	2.232	3.123	9.6	20.0	3 12	12 45.53	-0 16.0	2.774	3.726	5.1	21.9
3 22	12 38.56	-21 13.8	2.186	3.132	6.9	19.9	3 22	12 38.78	+0 23.0	2.732	3.720	2.2	21.7
4 1	12 31.58	-20 4.8	2.167	3.141	5.0	19.8	4 1	12 31.55	+1 2.2	2.720	3.715	1.7	21.6
4 11	12 24.83	-18 42.5	2.177	3.150	5.2	19.8	4 11	12 24.45	+1 37.6	2.738	3.709	4.5	21.8
4 21	12 19.04	-17 13.6	2.214	3.159	7.4	20.0	4 21	12 18.05	+2 6.0	2.785	3.703	7.3	22.0
5 1	12 14.78	-15 45.2	2.278	3.168	10.1	20.1	5 1	12 12.85	+2 24.9	2.858	3.696	9.9	22.2
135695	2002 PK		3 29.6	296°24'	4.8/2.3	17	341706	2007 VU ₁₇₃		3 29.6	132°30'	3.4/2.7	17
2 21	12 58.59												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
182636	2001 <i>UJ</i> ₁₅₁		3 29.6 212°75	5°0/24.5	17		463281	2012 <i>HN</i> ₁₄		3 29.6 274°11	4°2/25.0	17	
2 21	13 0.11	+ 8 54.4	2.063	2.884	13.0	20.3	2 21	12 55.02	+ 2 34.7	1.830	2.659	14.0	20.8
3 2	12 55.42	+ 9 49.3	1.982	2.880	10.1	20.1	3 2	12 51.92	+ 4 1.2	1.735	2.641	10.8	20.6
3 12	12 48.60	+10 46.6	1.925	2.874	7.1	19.9	3 12	12 46.55	+ 5 40.1	1.664	2.622	7.2	20.3
3 22	12 40.21	+11 39.7	1.894	2.869	5.1	19.8	3 22	12 39.43	+ 7 23.6	1.620	2.603	4.4	20.1
4 1	12 31.09	+12 21.8	1.892	2.863	5.9	19.8	4 1	12 31.37	+ 9 2.4	1.603	2.585	5.3	20.1
4 11	12 22.23	+12 47.5	1.918	2.856	8.6	20.0	4 11	12 23.42	+10 26.8	1.614	2.565	8.9	20.3
4 21	12 14.49	+12 54.0	1.969	2.849	11.7	20.2	4 21	12 16.54	+11 30.1	1.650	2.546	12.7	20.5
5 1	12 8.57	+12 40.7	2.042	2.842	14.6	20.3	5 1	12 11.55	+12 8.6	1.707	2.527	16.2	20.6
59507	1999 <i>JW</i> ₁₂		3 29.6 186°72	0°5/29.1	17		166846	2002 <i>VL</i> ₁₂₇		3 29.6 77°45	3°1/27.1	18	
2 21	12 55.37	- 7 11.6	2.188	2.979	13.3	19.5	2 21	13 6.84	+ 6 29.6	2.245	3.045	12.8	19.8
3 2	12 51.66	- 6 8.1	2.096	2.979	10.3	19.3	3 2	13 0.06	+ 6 32.4	2.182	3.070	9.8	19.7
3 12	12 46.06	- 4 49.0	2.029	2.978	6.8	19.1	3 12	12 51.32	+ 6 36.1	2.145	3.094	6.5	19.5
3 22	12 39.09	- 3 18.5	1.989	2.977	2.9	18.9	3 22	12 41.30	+ 6 37.0	2.135	3.118	3.6	19.4
4 1	12 31.47	- 1 43.2	1.978	2.976	1.3	18.7	4 1	12 30.85	+ 6 31.4	2.156	3.142	3.6	19.4
4 11	12 24.05	- 0 10.6	1.997	2.974	5.3	19.0	4 11	12 20.90	+ 6 16.7	2.208	3.166	6.4	19.6
4 21	12 17.61	+ 1 12.3	2.045	2.972	9.0	19.2	4 21	12 12.24	+ 5 51.6	2.287	3.189	9.4	19.8
5 1	12 12.77	+ 2 20.3	2.117	2.969	12.3	19.4	5 1	12 5.42	+ 5 16.1	2.392	3.212	12.1	20.1
358991	2008 <i>SS</i> ₂₅₅		3 29.6 113°26	3°5/26.8	18		15658	1265 <i>T</i> ₋₂		3 29.6 43°26	0°3/29.9	18	R
2 21	13 2.79	+ 2 13.2	1.539	2.363	16.5	21.6	2 21	12 56.74	- 7 9.4	1.486	2.300	17.5	18.6
3 2	12 57.96	+ 3 0.9	1.474	2.376	12.6	21.4	3 2	12 53.47	- 6 45.6	1.417	2.310	13.6	18.4
3 12	12 50.45	+ 3 57.2	1.432	2.389	8.3	21.1	3 12	12 47.61	- 6 4.0	1.368	2.321	9.1	18.1
3 22	12 41.05	+ 4 55.2	1.415	2.401	4.3	20.9	3 22	12 39.86	- 5 8.6	1.343	2.332	4.1	17.9
4 1	12 30.87	+ 5 46.7	1.425	2.414	4.4	21.0	4 1	12 31.28	- 4 6.4	1.344	2.343	1.2	17.7
4 11	12 21.22	+ 6 24.2	1.461	2.425	8.3	21.2	4 11	12 23.14	- 3 5.7	1.372	2.355	6.2	18.0
4 21	12 13.18	+ 6 43.4	1.523	2.437	12.5	21.5	4 21	12 16.49	- 2 14.2	1.424	2.367	10.9	18.3
5 1	12 7.51	+ 6 42.7	1.606	2.448	16.1	21.7	5 1	12 12.11	- 1 37.5	1.499	2.379	14.9	18.6
412117	2013 <i>GB</i> ₂₁		3 29.6 253°42	1°3/28.4	16		20329	Manfro		3 29.6 72°76	2°8/27.5	18	
2 21	12 58.33	- 3 50.8	1.708	2.519	15.7	21.7	2 21	13 0.78	+ 0 58.7	1.519	2.345	16.6	18.3
3 2	12 54.66	- 3 7.2	1.611	2.505	12.2	21.5	3 2	12 56.58	+ 1 29.9	1.447	2.349	12.7	18.1
3 12	12 48.47	- 2 7.9	1.536	2.490	8.1	21.2	3 12	12 49.67	+ 2 10.7	1.396	2.354	8.4	17.9
3 22	12 40.30	- 0 57.3	1.486	2.475	3.5	20.9	3 22	12 40.77	+ 2 55.3	1.370	2.359	4.0	17.6
4 1	12 31.07	+ 0 17.2	1.463	2.460	2.3	20.7	4 1	12 30.99	+ 3 36.2	1.371	2.363	3.6	17.6
4 11	12 21.95	+ 1 27.1	1.468	2.444	7.0	21.0	4 11	12 21.62	+ 4 6.3	1.398	2.368	7.9	17.9
4 21	12 14.04	+ 2 24.7	1.499	2.427	11.6	21.2	4 21	12 13.79	+ 4 20.9	1.449	2.373	12.3	18.1
5 1	12 8.24	+ 3 4.4	1.552	2.411	15.7	21.4	5 1	12 8.31	+ 4 17.5	1.523	2.378	16.1	18.4
278308	2007 <i>HZ</i> ₁₂		3 29.6 290°03	1°6/27.9	17		500695	2012 <i>VD</i> ₁₀₇		3 29.6 121°45	0°2/29.9	17	
2 21	12 53.22	- 4 30.1	1.828	2.643	14.6	20.5	2 21	12 55.93	- 6 43.5	2.820	3.598	11.0	23.1
3 2	12 50.50	- 3 20.5	1.730	2.628	11.3	20.3	3 2	12 51.54	- 6 17.6	2.741	3.614	8.5	23.0
3 12	12 45.59	- 1 53.3	1.656	2.612	7.4	20.0	3 12	12 45.70	- 5 42.0	2.686	3.630	5.7	22.8
3 22	12 38.99	- 0 13.8	1.607	2.597	3.2	19.7	3 22	12 38.86	- 4 59.3	2.659	3.646	2.5	22.6
4 1	12 31.50	+ 1 29.7	1.586	2.581	2.5	19.6	4 1	12 31.61	- 4 13.1	2.662	3.661	0.7	22.5
4 11	12 24.13	+ 3 7.7	1.593	2.565	6.8	19.9	4 11	12 24.59	- 3 27.6	2.696	3.675	3.9	22.7
4 21	12 17.83	+ 4 31.6	1.626	2.550	11.1	20.1	4 21	12 18.38	- 2 46.5	2.759	3.690	6.8	22.9
5 1	12 13.36	+ 5 35.5	1.682	2.535	14.9	20.3	5 1	12 13.43	- 2 13.1	2.848	3.703	9.4	23.1
126819	2002 <i>ET</i> ₅₂		3 29.6 219°12	1°2/28.3	17		104898	2000 <i>JX</i> ₅		3 29.6 283°32	7°3/22.1	18	
2 21	12 56.86	- 2 46.0	2.118	2.922	13.3	20.2	2 21	13 7.60	+19 12.7	2.410	3.209	12.0	18.9
3 2	12 52.90	- 2 7.9	2.027	2.918	10.2	20.0	3 2	13 1.23	+19 57.2	2.301	3.173	10.0	18.7
3 12	12 46.94	- 1 18.7	1.959	2.913	6.7	19.8	3 12	12 52.54	+20 36.7	2.217	3.137	8.2	18.5
3 22	12 39.51	- 0 22.5	1.918	2.907	2.9	19.5	3 22	12 42.04	+21 4.1	2.161	3.100	7.3	18.4
4 1	12 31.35	+ 0 35.1	1.906	2.902	2.0	19.5	4 1	12 30.56	+21 13.0	2.133	3.063	8.2	18.3
4 11	12 23.39	+ 1 27.9	1.923	2.896	5.8	19.7	4 11	12 19.10	+20 59.1	2.133	3.025	10.3	18.4
4 21	12 16.43	+ 2 10.8	1.966	2.890	9.5	19.9	4 21	12 8.65	+20 21.3	2.159	2.986	12.9	18.5
5 1	12 11.14	+ 2 39.9	2.034	2.884	12.8	20.1	5 1	12 0.03	+19 21.1	2.207	2.946	15.4	18.6
61183	2000 <i>NB</i> ₂₆		3 29.6 186°14	2°1/27.6	18		497066	2003 <i>UL</i> ₁₀₂		3 29.6 206°19	1°5/27.5	18	
2 21	12 59.81	- 1 41.6	1.855	2.664	14.7	20.3	2 21	12 55.81	- 1 25.0	2.803	3.599	10.6	22.5
3 2	12 55.42	- 0 48.2	1.770	2.664	11.3	20.1	3 2	12 51.59	- 0 31.4	2.705	3.593	8.1	22.3
3 12	12 48.72	+ 0 17.5	1.709	2.664	7.4	19.8	3 12	12 45.84	+ 0 30.7	2.633	3.585	5.3	22.1
3 22	12 40.32	+ 1 30.1	1.674	2.663	3.3	19.6	3 22	12 38.97	+ 1 37.5	2.589	3.577	2.4	21.9
4 1	12 31.10	+ 2 42.4	1.668	2.661	2.9	19.5	4 1	12 31.57	+ 2 44.3	2.576	3.569	2.2	21.9
4 11	12 22.14	+ 3 46.4	1.689	2.659	6.9	19.8	4 11	12 24.30	+ 3 45.9	2.593	3.559	5.0	22.0
4 21	12 14.41	+ 4 36.2	1.738	2.656	10.9	20.0	4 21	12 17.75	+ 4 38.0	2.640	3.549	8.0	22.2
5 1	12 8.65	+ 5 8.1	1.809	2.652	14.5	20.2	5 1	12 12.47	+ 5 17.7	2.711	3.539	10.6	22.4
54430	2000 <i>LZ</i> ₂₉		3 29.6 181°57	5°6/4.9	18		298713	2004 <i>FC</i> ₂₄		3 29.6 304°32	0°6/30.3	17	
2 21	12 57.92	-23 7.2	2.183	2.892	15.8	18.9	2 21	12 53.11	- 8 40.2	2.072	2.866	13.9	20.6
3 2	12 53.86	-23 15.4	2.085	2.893	13.4	18.7	3 2	12 50.19	- 8 9.9	1.968	2.849	11.0	20.3
3 12	12 47.66	-23 1.3	2.006	2.893	10.7	18.5	3 12	12 45.27	- 7 23.6	1.886	2.833	7.5	20.1
3 22	12 39.85	-22 23.7	1.951	2.893	7.8	18.3	3 22	12 38.84	- 6 23.9	1.831	2.817	3.6	19.8
4 1	12 31.24	-21 24.1	1.923	2.893	5.8	18.2	4 1	12 31.60	- 5 15.6	1.803	2.801	1.0	19.6
4 11	12 22.82	-20 7.4	1.922	2.892	6.1	18.2	4 11	12 24.45	- 4 5.3	1.803	2.785	5.0	19.8
4 21	12 15.48	-18 40.7	1.949	2.890	8.5	18.3	4 21	12 18.24	- 2 59.8	1.830	2.770	9.1	20.0
5 1	12 9.95	-17 12.3	2.001	2.889	11.4	18.5	5 1	12 13.66	- 2 4.9	1.881	2.755	12.7	20.2
14797	1977 <i>XZ</i> ₂		3 29.6 258°11	0°3/29.9									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
198443	2004 <i>WC</i> ₉		3 29.6 72°71'	4.8/3.4	18		483413	1999 <i>VD</i> ₄₆		3 29.6 88°50'	2.8/28.5	17	
2 21	12 58.37	-18 43.7	1.930	2.673	16.5	19.7	2 21	13 21.16	+ 4 3.8	1.175	1.987	21.3	21.0
3 2	12 54.27	-19 1.8	1.852	2.689	13.7	19.6	3 2	13 12.70	+ 3 38.3	1.122	2.015	16.5	20.8
3 12	12 47.93	-18 59.1	1.795	2.705	10.4	19.4	3 12	13 0.39	+ 3 16.4	1.089	2.041	10.9	20.5
3 22	12 39.96	-18 35.2	1.762	2.720	7.1	19.2	3 22	12 45.44	+ 2 53.4	1.080	2.068	5.1	20.3
4 1	12 31.27	-17 52.4	1.755	2.736	4.9	19.1	4 1	12 29.66	+ 2 24.9	1.098	2.093	3.6	20.3
4 11	12 22.92	-16 56.0	1.775	2.752	5.8	19.2	4 11	12 15.10	+ 1 47.8	1.144	2.118	8.8	20.6
4 21	12 15.83	-15 53.1	1.822	2.768	8.7	19.4	4 21	12 3.27	+ 1 1.0	1.216	2.142	13.9	21.0
5 1	12 10.68	-14 51.2	1.894	2.783	11.8	19.6	5 1	11 55.06	+ 0 4.9	1.309	2.165	18.1	21.3
181648	2007 <i>EE</i> ₁		3 29.6 208°70'	0.3/30.2	18		475558	2006 <i>TU</i> ₈₈		3 29.6 340°45'	0.7/28.8	17	
2 21	12 48.39	- 6 51.1	4.511	5.285	7.2	20.7	2 21	12 56.65	- 2 41.6	2.276	3.077	12.6	21.5
3 2	12 45.36	- 6 30.9	4.413	5.284	5.6	20.6	3 2	12 52.58	- 2 26.2	2.187	3.076	9.7	21.3
3 12	12 41.47	- 6 4.6	4.340	5.283	3.8	20.5	3 12	12 46.66	- 2 2.0	2.123	3.075	6.4	21.1
3 22	12 36.98	- 5 33.7	4.296	5.282	1.7	20.3	3 22	12 39.39	- 1 32.1	2.085	3.074	2.7	20.8
4 1	12 32.23	- 5 0.2	4.282	5.281	0.5	20.2	4 1	12 31.50	- 1 0.7	2.076	3.073	1.4	20.7
4 11	12 27.56	- 4 26.5	4.300	5.280	2.5	20.4	4 11	12 23.80	- 0 32.4	2.096	3.073	5.1	21.0
4 21	12 23.29	- 4 34.7	4.346	5.279	4.5	20.5	4 21	12 17.05	- 0 10.9	2.143	3.072	8.6	21.2
5 1	12 19.73	- 3 26.9	4.420	5.278	6.3	20.6	5 1	12 11.85	+ 0 0.5	2.215	3.071	11.7	21.4
435933	2009 <i>BV</i> ₁₆₄		3 29.6 335°32'	2.4/31.8	17		142172	2002 <i>RK</i> ₃₉		3 29.6 234°10'	0.8/28.8	17	
2 21	12 57.83	-10 52.9	2.035	2.812	14.7	21.1	2 21	12 59.96	- 3 48.3	2.031	2.829	14.0	20.5
3 2	12 53.84	-11 12.1	1.940	2.807	11.8	20.9	3 2	12 55.52	- 3 19.1	1.930	2.816	10.9	20.3
3 12	12 47.69	-11 17.4	1.867	2.802	8.4	20.7	3 12	12 48.84	- 2 37.8	1.851	2.803	7.2	20.0
3 22	12 39.90	-11 9.4	1.820	2.798	4.8	20.4	3 22	12 40.45	- 1 47.7	1.799	2.788	3.1	19.7
4 1	12 31.28	-10 50.4	1.800	2.794	2.4	20.3	4 1	12 31.15	- 0 54.1	1.776	2.774	1.6	19.6
4 11	12 22.80	-10 24.6	1.808	2.791	5.0	20.4	4 11	12 21.95	- 0 3.5	1.782	2.758	5.9	19.8
4 21	12 15.38	- 9 57.0	1.843	2.787	8.7	20.6	4 21	12 13.79	+ 0 38.5	1.815	2.742	10.0	20.0
5 1	12 9.76	- 9 32.7	1.902	2.784	12.1	20.8	5 1	12 7.46	+ 1 7.5	1.872	2.725	13.6	20.2
142986	2002 <i>VP</i> ₈₉		3 29.6 69°92'	14.2/21.0	18		361995	2008 <i>SQ</i> ₂₂₆		3 29.6 70°45'	4.5/26.4	18	
2 21	13 21.19	+35 13.0	1.665	2.433	17.8	19.2	2 21	13 2.23	+ 3 54.1	1.325	2.162	17.9	21.0
3 2	13 11.71	+36 7.7	1.638	2.458	16.0	19.1	3 2	12 57.89	+ 4 42.2	1.268	2.177	13.7	20.8
3 12	12 59.08	+36 37.2	1.631	2.482	14.7	19.1	3 12	12 50.59	+ 5 37.9	1.232	2.191	9.1	20.6
3 22	12 44.60	+36 31.4	1.647	2.507	14.2	19.1	3 22	12 41.18	+ 6 32.8	1.220	2.206	5.1	20.4
4 1	12 29.94	+35 45.4	1.686	2.531	14.8	19.2	4 1	12 30.97	+ 7 17.8	1.233	2.220	5.4	20.4
4 11	12 16.74	+34 20.9	1.748	2.556	16.1	19.3	4 11	12 21.39	+ 7 45.1	1.272	2.235	9.5	20.7
4 21	12 6.13	+32 24.9	1.831	2.580	17.7	19.5	4 21	12 13.65	+ 7 51.0	1.334	2.249	13.7	21.0
5 1	11 58.67	+30 6.4	1.932	2.604	19.3	19.7	5 1	12 8.54	+ 7 35.1	1.416	2.264	17.5	21.2
186240	2001 <i>XS</i> ₁₄₃		3 29.6 220°36'	1.1/28.4	18		86345	1999 <i>XE</i> ₈₄		3 29.6 115°52'	4.0/26.4	18	
2 21	12 57.90	- 3 12.7	2.215	3.013	13.0	21.2	2 21	13 1.66	+ 2 7.0	1.464	2.293	16.9	19.8
3 2	12 53.67	- 2 33.4	2.117	3.005	10.0	21.0	3 2	12 57.26	+ 3 9.9	1.400	2.305	13.0	19.6
3 12	12 47.46	- 1 42.8	2.044	2.996	6.6	20.7	3 12	12 50.11	+ 4 22.9	1.358	2.316	8.5	19.4
3 22	12 39.77	- 0 44.8	1.997	2.986	2.8	20.5	3 22	12 40.98	+ 5 37.9	1.341	2.327	4.6	19.2
4 1	12 31.34	+ 0 15.2	1.980	2.976	1.8	20.4	4 1	12 31.03	+ 6 45.2	1.351	2.338	4.9	19.2
4 11	12 23.06	+ 1 11.3	1.992	2.966	5.6	20.6	4 11	12 21.61	+ 7 36.3	1.387	2.349	8.9	19.5
4 21	12 15.73	+ 1 58.0	2.032	2.954	9.3	20.8	4 21	12 13.83	+ 8 6.2	1.447	2.359	13.1	19.7
5 1	12 10.02	+ 2 31.5	2.096	2.943	12.6	21.0	5 1	12 8.48	+ 8 12.9	1.528	2.368	16.8	20.0
472647	2015 <i>DA</i> ₂₁₃		3 29.6 336°16'	1.9/27.6	17		157528	2005 <i>SX</i> ₂₇₀		3 29.6 318°61'	9.6/27.3	18	
2 21	12 52.34	- 2 18.6	1.860	2.682	14.1	20.6	2 21	13 21.43	+16 32.7	0.972	1.807	23.1	19.4
3 2	12 49.70	- 1 22.4	1.773	2.675	10.9	20.4	3 2	13 14.76	+16 20.3	0.898	1.797	18.9	19.1
3 12	12 44.98	- 0 12.8	1.709	2.667	7.1	20.1	3 12	13 3.01	+15 53.2	0.842	1.788	14.2	18.8
3 22	12 38.71	+ 1 4.6	1.671	2.661	3.1	19.9	3 22	12 47.09	+14 59.1	0.806	1.779	10.3	18.5
4 1	12 31.68	+ 2 22.6	1.661	2.655	2.8	19.8	4 1	12 29.05	+13 28.9	0.794	1.770	10.2	18.5
4 11	12 24.86	+ 3 33.2	1.677	2.649	6.7	20.0	4 11	12 11.71	+11 21.8	0.806	1.763	14.3	18.7
4 21	12 19.09	+ 4 30.0	1.720	2.644	10.6	20.3	4 21	11 57.45	+ 8 46.7	0.840	1.756	19.6	18.9
5 1	12 15.07	+ 5 8.6	1.785	2.639	14.1	20.5	5 1	11 47.74	+ 5 54.9	0.893	1.749	24.5	19.2
10482	Dangrieser		3 29.6 176°91'	3.2/26.6	18		252787	2002 <i>EN</i> ₁₄₃		3 29.6 307°06'	1.4/28.6	17	
2 21	13 2.18	+ 2 35.3	1.938	2.750	14.1	18.8	2 21	12 56.23	- 3 18.5	1.371	2.202	17.7	20.5
3 2	12 57.12	+ 3 25.0	1.857	2.753	10.8	18.6	3 2	12 53.72	- 2 50.5	1.276	2.181	13.9	20.2
3 12	12 49.78	+ 4 22.3	1.800	2.755	7.1	18.4	3 12	12 48.27	- 2 5.6	1.202	2.160	9.3	19.9
3 22	12 40.79	+ 5 21.4	1.770	2.756	3.8	18.2	3 22	12 40.40	- 1 8.1	1.150	2.140	4.0	19.5
4 1	12 31.04	+ 6 15.3	1.769	2.756	4.0	18.2	4 1	12 31.15	- 0 5.7	1.123	2.120	2.5	19.4
4 11	12 21.59	+ 6 57.7	1.796	2.756	7.4	18.4	4 11	12 21.94	+ 0 52.0	1.121	2.101	8.0	19.6
4 21	12 13.37	+ 7 24.2	1.850	2.755	11.1	18.6	4 21	12 14.14	+ 1 36.1	1.143	2.081	13.4	19.9
5 1	12 7.11	+ 7 32.7	1.927	2.753	14.4	18.8	5 1	12 8.87	+ 2 0.5	1.185	2.063	18.2	20.1
10562	1993 <i>UB</i> ₁		3 29.6 183°61'	0.2/29.8	18		57053	2001 <i>MA</i> ₁₃		3 29.6 167°32'	5.2/3.9	18	
2 21	13 10.31	- 3 23.1	1.902	2.684	15.4	17.4	2 21	13 0.83	-20 40.7	2.224	2.941	15.3	19.1
3 2	13 3.59	- 3 46.9	1.809	2.685	12.1	17.2	3 2	12 56.05	-21 5.8	2.129	2.945	12.9	18.9
3 12	12 54.20	- 4 2.4	1.740	2.685	8.1	16.9	3 12	12 49.11	-21 11.7	2.055	2.949	10.1	18.8
3 22	12 42.80	- 4 11.4	1.697	2.684	3.7	16.6	3 22	12 40.54	-20 57.2	2.005	2.952	7.3	18.6
4 1	12 30.39	- 4 16.4	1.685	2.683	1.1	16.4	4 1	12 31.15	-20 23.2	1.981	2.955	5.4	18.5
4 11	12 18.23	- 4 21.0	1.703	2.682	5.7	16.8	4 11	12 21.94	-19 33.8	1.986	2.957	5.9	18.5
4 21	12 7.44	- 4 28.7	1.749	2.679	10.1	17.0	4 21	12 13.81	-18 34.8	2.019	2.958	8.4	18.7
5 1	11 58.90	- 4 42.5	1.820	2.676	13.8	17.2	5 1	12 7.50	-17 33.2	2.077	2.959	11.3	18.8
381956	2010 <i>EE</i> ₆₆		3 29.6 90°63'	1									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
116445	2003 YM ₁₇₅		3 29.6 207°69	0°4/29.2	18		157908	1999 TO ₁₅₆		3 29.6 205°51	1°2/30.9	17	
2 21	12 59.97	- 5 0.1	2.096	2.888	13.8	21.3	2 21	12 56.25	-10 12.9	2.146	2.925	13.9	20.8
3 2	12 55.38	- 4 31.9	2.000	2.882	10.8	21.1	3 2	12 52.46	- 9 49.4	2.052	2.923	11.1	20.6
3 12	12 48.66	- 3 51.2	1.927	2.876	7.2	20.8	3 12	12 46.70	- 9 10.2	1.980	2.920	7.6	20.4
3 22	12 40.34	- 3 1.4	1.881	2.869	3.1	20.6	3 22	12 39.47	- 8 17.5	1.934	2.917	3.9	20.1
4 1	12 31.22	- 2 7.3	1.864	2.862	1.3	20.4	4 1	12 31.52	- 7 15.8	1.917	2.914	1.3	19.9
4 11	12 22.25	- 1 15.1	1.876	2.853	5.5	20.7	4 11	12 23.75	- 6 11.0	1.928	2.911	4.7	20.2
4 21	12 14.33	- 0 30.5	1.915	2.844	9.4	20.9	4 21	12 16.98	- 5 9.4	1.967	2.908	8.5	20.4
5 1	12 8.19	+ 0 2.3	1.980	2.835	12.9	21.1	5 1	12 11.87	- 4 16.7	2.031	2.904	11.9	20.6
414891	2010 XO ₁₂		3 29.6 78°53	4°5/25.6	18		212029	2005 CW ₂₇		3 29.6 77°75	0°2/29.4	18	
2 21	13 2.17	+ 5 46.9	1.767	2.589	14.8	21.5	2 21	12 56.30	- 8 32.1	1.499	2.309	17.6	20.6
3 2	12 56.93	+ 6 47.1	1.720	2.620	11.2	21.4	3 2	12 53.11	- 7 29.2	1.431	2.322	13.6	20.4
3 12	12 49.48	+ 7 50.7	1.697	2.651	7.5	21.2	3 12	12 47.36	- 6 4.6	1.383	2.336	9.0	20.2
3 22	12 40.56	+ 8 50.5	1.700	2.681	4.7	21.1	3 22	12 39.79	- 4 24.3	1.360	2.349	3.9	19.9
4 1	12 31.20	+ 9 39.2	1.731	2.710	5.3	21.2	4 1	12 31.45	- 2 37.7	1.364	2.362	1.4	19.7
4 11	12 22.46	+10 11.3	1.790	2.739	8.3	21.4	4 11	12 23.56	- 0 55.9	1.395	2.376	6.5	20.1
4 21	12 15.19	+10 24.3	1.874	2.768	11.5	21.7	4 21	12 17.16	+ 0 31.6	1.452	2.389	11.2	20.4
5 1	12 9.98	+10 18.2	1.980	2.796	14.4	21.9	5 1	12 12.98	+ 1 38.4	1.531	2.402	15.2	20.7
464457	2016 BJ ₄₁		3 29.6 316°87	5°0/ 1.5	17		210380	2007 VB ₈₅		3 29.6 127°85	0°1/29.6	17	
2 21	12 59.37	-12 44.9	1.349	2.146	19.8	20.8	2 21	12 58.50	- 4 38.9	2.374	3.163	12.5	20.6
3 2	12 56.45	-13 39.5	1.251	2.127	16.4	20.5	3 2	12 53.88	- 4 29.4	2.289	3.170	9.7	20.4
3 12	12 50.30	-14 16.5	1.173	2.108	12.2	20.2	3 12	12 47.45	- 4 10.5	2.229	3.177	6.4	20.2
3 22	12 41.40	-14 33.5	1.115	2.090	7.8	19.9	3 22	12 39.75	- 3 44.8	2.195	3.183	2.8	20.0
4 1	12 30.82	-14 30.0	1.082	2.072	5.0	19.7	4 1	12 31.46	- 3 16.0	2.191	3.190	0.9	19.9
4 11	12 20.14	-14 10.3	1.072	2.056	7.5	19.8	4 11	12 23.41	- 2 48.2	2.217	3.196	4.6	20.2
4 21	12 10.94	-13 41.2	1.087	2.040	12.3	20.0	4 21	12 16.31	- 2 25.3	2.271	3.202	8.0	20.4
5 1	12 4.52	-13 11.8	1.122	2.024	17.1	20.2	5 1	12 10.76	- 2 10.6	2.349	3.208	11.0	20.6
423763	2006 DR ₉₉		3 29.6 213°33	1°6/31.1	17		237874	2002 JM ₁₀₆		3 29.6 288°11	0°3/29.8	18	
2 21	13 0.76	- 9 20.4	2.426	3.192	12.9	21.5	2 21	13 0.75	- 4 36.9	1.944	2.741	14.6	20.0
3 2	12 55.75	- 9 27.8	2.323	3.186	10.3	21.3	3 2	12 56.34	- 4 44.8	1.837	2.721	11.5	19.7
3 12	12 48.79	- 9 23.7	2.243	3.179	7.2	21.1	3 12	12 49.55	- 4 42.4	1.752	2.701	7.8	19.4
3 22	12 40.38	- 9 9.1	2.190	3.171	3.8	20.9	3 22	12 40.84	- 4 31.7	1.693	2.680	3.6	19.1
4 1	12 31.21	- 8 46.5	2.167	3.163	1.6	20.7	4 1	12 31.07	- 4 16.0	1.662	2.660	1.0	18.9
4 11	12 22.14	- 8 19.5	2.173	3.155	4.4	20.9	4 11	12 21.30	- 3 59.9	1.659	2.640	5.6	19.2
4 21	12 13.98	- 7 52.5	2.208	3.146	7.9	21.1	4 21	12 12.58	- 3 47.9	1.683	2.620	9.9	19.4
5 1	12 7.39	- 7 29.7	2.269	3.136	11.0	21.2	5 1	12 5.79	- 3 44.1	1.731	2.599	13.8	19.6
162049	1996 SZ ₇		3 29.6 66°51	0°5/29.2	18		155523	1999 TJ ₃₆		3 29.6 279°67	5°3/ 3.9	18	
2 21	13 4.16	- 2 27.1	2.120	2.910	13.7	19.4	2 21	12 57.23	-21 3.6	2.171	2.895	15.4	19.7
3 2	12 58.13	- 2 31.1	2.061	2.943	10.5	19.3	3 2	12 53.64	-21 12.4	2.043	2.864	13.2	19.5
3 12	12 50.14	- 2 27.2	2.026	2.975	6.9	19.1	3 12	12 47.80	-21 0.0	1.935	2.833	10.4	19.3
3 22	12 40.84	- 2 18.1	2.018	3.007	3.0	18.9	3 22	12 40.10	-20 24.5	1.850	2.801	7.5	19.0
4 1	12 31.11	- 2 7.5	2.040	3.038	1.2	18.8	4 1	12 31.29	-19 26.3	1.792	2.769	5.4	18.8
4 11	12 21.89	- 1 59.1	2.092	3.070	5.0	19.2	4 11	12 22.36	-18 9.5	1.762	2.737	6.1	18.8
4 21	12 13.95	- 1 55.9	2.172	3.101	8.5	19.4	4 21	12 14.31	-16 40.9	1.759	2.703	9.0	18.9
5 1	12 7.85	- 2 0.4	2.278	3.132	11.5	19.7	5 1	12 8.02	-15 9.3	1.782	2.670	12.5	19.0
146193	2000 TO ₄₅		3 29.6 230°58	3°3/25.3	17		387885	2004 TJ ₆₇		3 29.6 210°50	2°5/26.4	18	
2 21	12 55.58	+ 5 42.3	2.729	3.542	10.4	20.7	2 21	12 57.76	+ 2 24.1	2.781	3.583	10.5	22.4
3 2	12 51.48	+ 6 32.2	2.637	3.532	8.0	20.5	3 2	12 53.13	+ 3 16.6	2.684	3.574	8.1	22.2
3 12	12 45.82	+ 7 26.1	2.570	3.522	5.4	20.3	3 12	12 46.90	+ 4 15.3	2.612	3.564	5.3	22.0
3 22	12 39.01	+ 8 19.3	2.531	3.511	3.4	20.2	3 22	12 39.50	+ 5 15.9	2.569	3.554	2.9	21.8
4 1	12 31.65	+ 9 7.0	2.522	3.500	3.9	20.2	4 1	12 31.53	+ 6 13.6	2.557	3.542	3.1	21.8
4 11	12 24.43	+ 9 44.7	2.542	3.488	6.3	20.3	4 11	12 23.68	+ 7 3.5	2.575	3.530	5.7	22.0
4 21	12 17.96	+10 9.3	2.589	3.477	9.0	20.5	4 21	12 16.58	+ 7 41.9	2.621	3.517	8.6	22.1
5 1	12 12.78	+10 19.2	2.660	3.464	11.5	20.6	5 1	12 10.79	+ 8 6.5	2.692	3.504	11.2	22.3
502372	2015 BH ₂₄₁		3 29.6 348°93	0°1/29.7	17		57416	2001 SL ₁		3 29.6 127°99	0°4/30.2	18	
2 21	12 56.08	- 6 21.8	1.794	2.599	15.3	21.6	2 21	12 55.36	- 7 59.7	2.633	3.412	11.7	20.7
3 2	12 52.68	- 5 58.4	1.709	2.598	11.9	21.4	3 2	12 51.28	- 7 29.9	2.550	3.423	9.1	20.5
3 12	12 47.00	- 5 20.2	1.646	2.597	8.0	21.1	3 12	12 45.65	- 6 48.5	2.491	3.434	6.1	20.3
3 22	12 39.64	- 4 30.5	1.607	2.595	3.6	20.8	3 22	12 38.92	- 5 58.5	2.459	3.445	2.8	20.1
4 1	12 31.46	- 3 34.8	1.596	2.595	1.1	20.6	4 1	12 31.73	- 5 3.6	2.457	3.456	0.8	20.0
4 11	12 23.51	- 2 40.1	1.612	2.594	5.7	21.0	4 11	12 24.76	- 4 8.7	2.485	3.466	4.0	20.2
4 21	12 16.76	- 1 52.9	1.655	2.593	10.0	21.2	4 21	12 18.63	- 3 18.3	2.542	3.476	7.2	20.5
5 1	12 11.94	- 1 18.2	1.720	2.593	13.7	21.4	5 1	12 13.83	- 2 36.1	2.624	3.485	9.9	20.7
171446	2007 RL ₁₄₂		3 29.6 177°56	0°8/28.9	18		218033	2002 AB ₁₅		3 29.6 239°85	1°1/28.7	18	
2 21	13 1.87	- 3 31.0	1.943	2.740	14.6	20.7	2 21	13 2.42	- 1 19.2	2.211	3.006	13.1	19.9
3 2	12 56.93	- 3 6.6	1.856	2.742	11.3	20.5	3 2	12 57.24	- 1 9.1	2.107	2.992	10.2	19.7
3 12	12 49.71	- 2 30.6	1.793	2.744	7.4	20.3	3 12	12 49.91	- 0 51.1	2.026	2.977	6.7	19.4
3 22	12 40.81	- 1 46.9	1.756	2.745	3.2	20.0	3 22	12 40.93	- 0 28.1	1.973	2.961	3.0	19.1
4 1	12 31.10	- 1 0.6	1.748	2.745	1.6	19.9	4 1	12 31.07	- 0 4.3	1.949	2.945	1.8	19.0
4 11	12 21.66	- 0 18.1	1.768	2.745	5.9	20.2	4 11	12 21.29	+ 0 15.8	1.954	2.928	5.6	19.2
4 21	12 13.42	+ 0 15.6	1.816	2.744	9.9	20.4	4 21	12 12.49	+ 0 28.3	1.988	2.911	9.5	19.4
5 1	12 7.13	+ 0 36.5	1.888	2.742	13.5	20.7	5 1	12 5.42	+ 0 30.2	2.046	2.893	12.9	19.6
173743	2001 QS ₃₂₈		3 29.6 109°17	5°7/22.3	17		267386	2001 XD ₂₄₀		3 29.6 116°58	6°1/ 5.4	18	
2 21	12 55.57	+12 29.2	2.361										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
368578	2004 <i>PH</i> ₅₆		3 29.6 113°78	4.6/3.4	17		242165	2003 <i>FJ</i> ₁₀₂		3 29.6 293°86	5.3/25.5	16	
2 21	13 0.74	-18 45.9	2.185	2.914	15.2	20.8	2 21	12 58.55	+ 4 47.7	1.393	2.235	16.9	20.4
3 2	12 55.89	-19 8.7	2.103	2.930	12.6	20.6	3 2	12 55.51	+ 5 47.9	1.302	2.213	13.2	20.1
3 12	12 48.92	-19 13.0	2.041	2.944	9.7	20.4	3 12	12 49.46	+ 6 58.7	1.233	2.192	9.1	19.8
3 22	12 40.44	-18 58.4	2.004	2.959	6.7	20.3	3 22	12 40.97	+ 8 11.6	1.186	2.170	5.7	19.5
4 1	12 31.26	-18 26.5	1.994	2.973	4.7	20.2	4 1	12 31.10	+ 9 15.9	1.165	2.149	6.5	19.5
4 11	12 22.36	-17 41.4	2.012	2.986	5.5	20.2	4 11	12 21.31	+10 1.5	1.169	2.127	10.7	19.7
4 21	12 14.60	-16 49.2	2.058	2.999	8.1	20.4	4 21	12 12.98	+10 21.7	1.196	2.106	15.4	19.9
5 1	12 8.65	-15 56.3	2.130	3.012	11.0	20.6	5 1	12 7.20	+10 14.1	1.241	2.085	19.7	20.1
95631	2002 <i>GR</i> ₃₇		3 29.6 130°10	0°3/29.9	17		422747	2001 <i>SJ</i> ₂₀₃		3 29.6 212°82	0°5/29.2	17	
2 21	12 57.57	- 7 5.2	2.055	2.846	14.1	20.7	2 21	12 58.93	- 4 50.1	2.208	3.000	13.2	22.5
3 2	12 53.48	- 6 42.6	1.972	2.852	11.0	20.5	3 2	12 54.50	- 4 20.2	2.111	2.993	10.3	22.3
3 12	12 47.35	- 6 6.5	1.911	2.858	7.4	20.3	3 12	12 48.06	- 3 38.4	2.037	2.986	6.8	22.0
3 22	12 39.75	- 5 19.9	1.877	2.864	3.4	20.1	3 22	12 40.12	- 2 48.0	1.990	2.978	3.0	21.8
4 1	12 31.48	- 4 27.7	1.871	2.869	0.9	19.9	4 1	12 31.42	- 1 53.7	1.972	2.969	1.3	21.6
4 11	12 23.47	- 3 35.7	1.893	2.874	5.0	20.2	4 11	12 22.86	- 1 1.5	1.983	2.960	5.3	21.9
4 21	12 16.55	- 2 49.5	1.943	2.879	8.9	20.4	4 21	12 15.28	- 0 16.5	2.022	2.950	9.0	22.1
5 1	12 11.37	- 2 13.8	2.018	2.884	12.2	20.7	5 1	12 9.36	+ 0 16.9	2.086	2.940	12.4	22.3
374470	2005 <i>XN</i> ₈₈		3 29.6 107°24	0°1/29.6	17		86012	1999 <i>JG</i> ₉₇		3 29.6 240°17	1°6/27.8	17	
2 21	12 56.73	- 6 23.8	1.886	2.686	14.8	21.9	2 21	12 55.41	- 3 35.9	2.160	2.964	13.1	20.4
3 2	12 53.04	- 5 55.8	1.802	2.688	11.6	21.6	3 2	12 51.86	- 2 29.1	2.061	2.952	10.1	20.2
3 12	12 47.18	- 5 13.4	1.740	2.690	7.7	21.4	3 12	12 46.35	- 1 8.4	1.985	2.939	6.6	19.9
3 22	12 39.71	- 4 20.0	1.703	2.691	3.4	21.1	3 22	12 39.38	+ 0 21.6	1.937	2.926	2.9	19.7
4 1	12 31.49	- 3 21.1	1.695	2.693	1.1	21.0	4 1	12 31.65	+ 1 53.8	1.918	2.913	2.4	19.6
4 11	12 23.52	- 2 23.6	1.714	2.695	5.5	21.3	4 11	12 24.04	+ 3 20.5	1.929	2.899	6.1	19.8
4 21	12 16.71	- 1 33.7	1.760	2.696	9.6	21.5	4 21	12 17.36	+ 4 35.1	1.967	2.885	9.9	20.0
5 1	12 11.75	- 0 56.4	1.830	2.698	13.2	21.7	5 1	12 12.28	+ 5 32.8	2.029	2.870	13.2	20.2
298730	2004 <i>FA</i> ₁₄₀		3 29.6 360°00	0°1/29.6	17		247800	2003 <i>SF</i> ₇₂		3 29.6 215°20	1°6/31.4	17	
2 21	13 14.45	+ 1 24.0	1.600	2.397	17.2	18.6	2 21	12 56.87	-10 49.6	2.193	2.967	13.8	21.1
3 2	13 7.32	+ 0 6.0	1.510	2.394	13.5	18.4	3 2	12 52.94	-10 37.7	2.097	2.964	11.1	20.9
3 12	12 56.99	- 1 12.2	1.444	2.393	9.1	18.1	3 12	12 47.04	-10 10.7	2.023	2.960	7.7	20.6
3 22	12 44.16	- 2 30.9	1.404	2.392	4.1	17.8	3 22	12 39.67	- 9 30.4	1.975	2.956	4.1	20.4
4 1	12 30.08	- 3 49.5	1.394	2.393	1.3	17.6	4 1	12 31.56	- 8 40.3	1.955	2.952	1.7	20.2
4 11	12 16.31	- 5 7.7	1.414	2.394	6.5	17.9	4 11	12 23.62	- 7 45.7	1.964	2.948	4.6	20.4
4 21	12 4.26	- 6 24.9	1.463	2.397	11.4	18.2	4 21	12 16.65	- 6 52.5	2.001	2.943	8.3	20.6
5 1	11 54.99	- 7 41.6	1.536	2.401	15.5	18.5	5 1	12 11.32	- 6 6.1	2.063	2.939	11.6	20.8
156006	2001 <i>RJ</i> ₄₅		3 29.6 271°73	0°4/29.9	17		57456	2001 <i>SK</i> ₇₁		3 29.6 127°36	3°3/25.4	18	
2 21	12 56.83	- 8 51.5	1.507	2.314	17.6	19.9	2 21	12 55.70	+ 5 27.0	2.582	3.397	10.9	19.7
3 2	12 53.68	- 8 10.9	1.408	2.297	14.0	19.6	3 2	12 51.55	+ 6 21.1	2.510	3.407	8.3	19.5
3 12	12 48.21	- 7 7.3	1.330	2.280	9.5	19.3	3 12	12 45.84	+ 7 18.7	2.463	3.416	5.6	19.4
3 22	12 40.35	- 5 43.7	1.275	2.263	4.4	19.0	3 22	12 39.04	+ 8 15.0	2.445	3.425	3.5	19.3
4 1	12 31.25	- 4 7.4	1.246	2.245	1.2	18.7	4 1	12 31.79	+ 9 4.9	2.456	3.434	4.0	19.3
4 11	12 22.22	- 2 28.9	1.244	2.227	6.8	19.0	4 11	12 24.78	+ 9 43.8	2.496	3.443	6.4	19.5
4 21	12 14.51	- 0 59.3	1.267	2.209	12.1	19.3	4 21	12 18.64	+10 9.0	2.563	3.452	9.0	19.6
5 1	12 9.14	+ 0 12.6	1.312	2.191	16.8	19.5	5 1	12 13.87	+10 19.1	2.653	3.460	11.4	19.8
297670	2001 <i>UO</i> ₈₁		3 29.6 182°44	1°9/27.9	18		286138	2001 <i>TN</i> ₁₈₈		3 29.6 202°46	0°3/29.2	17	
2 21	13 1.70	- 1 31.3	1.841	2.647	14.9	21.8	2 21	12 56.60	- 4 19.7	3.099	3.879	10.0	22.0
3 2	12 56.93	- 0 48.8	1.756	2.649	11.5	21.5	3 2	12 52.08	- 3 57.4	2.997	3.874	7.8	21.9
3 12	12 49.79	+ 0 5.2	1.695	2.649	7.5	21.3	3 12	12 46.15	- 3 27.1	2.921	3.868	5.1	21.7
3 22	12 40.88	+ 1 5.8	1.660	2.649	3.4	21.0	3 22	12 39.19	- 2 51.4	2.874	3.862	2.2	21.5
4 1	12 31.13	+ 2 6.1	1.653	2.648	2.7	21.0	4 1	12 31.74	- 2 13.3	2.857	3.855	0.9	21.4
4 11	12 21.66	+ 2 58.9	1.675	2.646	6.8	21.2	4 11	12 24.40	- 1 36.4	2.871	3.847	3.9	21.6
4 21	12 13.46	+ 3 38.6	1.724	2.644	10.9	21.5	4 21	12 17.73	- 1 4.2	2.914	3.839	6.7	21.7
5 1	12 7.29	+ 4 1.6	1.795	2.640	14.5	21.7	5 1	12 12.21	- 0 39.3	2.983	3.830	9.3	21.9
29569	1998 <i>FA</i> ₂₃		3 29.6 355°39	2°7/26.4	18		505737	2015 <i>BX</i> ₃₁		3 29.6 226°69	6°8/21.5	17	
2 21	12 52.77	+ 0 22.4	2.137	2.958	12.6	18.0	2 21	12 56.26	+12 2.8	1.996	2.828	12.9	21.0
3 2	12 49.72	+ 1 32.5	2.056	2.957	9.6	17.8	3 2	12 52.62	+13 43.2	1.923	2.823	10.2	20.8
3 12	12 44.84	+ 2 52.4	1.999	2.956	6.3	17.5	3 12	12 46.89	+15 25.2	1.875	2.818	7.8	20.7
3 22	12 38.65	+ 4 16.4	1.969	2.956	3.2	17.3	3 22	12 39.61	+17 0.2	1.854	2.813	6.8	20.6
4 1	12 31.85	+ 5 37.3	1.967	2.955	3.5	17.4	4 1	12 31.61	+18 19.1	1.860	2.807	8.0	20.7
4 11	12 25.26	+ 6 48.2	1.994	2.955	6.7	17.6	4 11	12 23.85	+19 15.2	1.892	2.801	10.5	20.8
4 21	12 19.63	+ 7 43.9	2.048	2.955	10.1	17.8	4 21	12 17.19	+19 45.4	1.948	2.795	13.3	21.0
5 1	12 15.54	+ 8 21.3	2.124	2.955	13.0	18.0	5 1	12 12.31	+19 49.6	2.024	2.788	15.9	21.1
184068	2004 <i>GX</i> ₇		3 29.6 289°70	1°3/30.7	17		423480	2005 <i>TK</i> ₂		3 29.6 189°27	0°5/30.2	17	
2 21	12 56.45	- 9 20.2	1.709	2.506	16.2	20.9	2 21	12 59.56	- 7 23.4	2.317	3.095	13.1	23.1
3 2	12 53.32	- 9 6.0	1.608	2.490	13.0	20.7	3 2	12 54.86	- 7 4.8	2.221	3.095	10.3	22.9
3 12	12 47.69	- 8 33.5	1.527	2.473	9.0	20.4	3 12	12 48.23	- 6 34.0	2.150	3.093	6.9	22.7
3 22	12 40.08	- 7 44.6	1.471	2.456	4.5	20.1	3 22	12 40.18	- 5 53.2	2.105	3.091	3.2	22.5
4 1	12 31.37	- 6 44.0	1.441	2.439	1.4	19.8	4 1	12 31.44	- 5 6.4	2.090	3.088	0.9	22.3
4 11	12 22.72	- 5 39.0	1.438	2.422	5.8	20.1	4 11	12 22.87	- 4 18.8	2.104	3.085	4.6	22.6
4 21	12 15.24	- 4 37.5	1.461	2.405	10.5	20.3	4 21	12 15.26	- 3 35.3	2.147	3.081	8.3	22.8
5 1	12 9.83	- 3 46.9	1.507	2.389	14.7	20.5	5 1	12 9.27	- 3 0.4	2.215	3.076	11.5	23.0
288636	2004 <i>PU</i> ₂₇		3 29.6 221°89	5°7/22.7	18		346232	2008 <i>AF</i> ₃₇		3 29			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
344238	2001 SW ₁₃₈		3 29.6 161°19	0°8/30.7	18		65772	1995 MM ₁		3 29.7 34°92	3°6/26.1	18	
2 21	12 56.67	- 8 27.5	2.712	3.483	11.5	21.8	2 21	12 53.06	- 0 29.0	1.478	2.316	16.3	18.9
3 2	12 52.32	- 8 13.6	2.620	3.488	9.1	21.6	3 2	12 50.63	+ 1 1.4	1.416	2.327	12.4	18.7
3 12	12 46.38	- 7 48.8	2.552	3.492	6.2	21.4	3 12	12 45.76	+ 2 45.9	1.377	2.339	8.0	18.5
3 22	12 39.32	- 7 15.1	2.512	3.496	3.0	21.2	3 22	12 39.16	+ 4 35.3	1.363	2.351	4.2	18.3
4 1	12 31.73	- 6 35.7	2.502	3.500	0.9	21.1	4 1	12 31.84	+ 6 18.4	1.375	2.364	4.7	18.4
4 11	12 24.32	- 5 54.7	2.521	3.503	3.9	21.3	4 11	12 24.95	+ 7 44.9	1.414	2.377	8.7	18.6
4 21	12 17.72	- 5 16.1	2.570	3.506	7.0	21.5	4 21	12 19.47	+ 8 48.0	1.476	2.391	12.7	18.9
5 1	12 12.44	- 4 43.7	2.644	3.508	9.8	21.7	5 1	12 16.09	+ 9 24.7	1.560	2.405	16.3	19.1
57117	2001 OU ₉₃		3 29.6 146°04	2°0/28.1	18		433261	2012 XD ₆₆		3 29.7 225°73	1°0/28.4	17	
2 21	13 2.93	- 1 10.0	1.609	2.422	16.4	20.0	2 21	12 54.45	- 3 29.3	2.565	3.362	11.4	21.9
3 2	12 58.16	- 0 37.3	1.534	2.429	12.6	19.8	3 2	12 50.77	- 2 43.5	2.468	3.355	8.8	21.7
3 12	12 50.73	+ 0 6.8	1.481	2.436	8.3	19.6	3 12	12 45.46	- 1 47.5	2.396	3.348	5.8	21.5
3 22	12 41.35	+ 0 57.2	1.453	2.442	3.7	19.3	3 22	12 38.96	- 0 44.8	2.351	3.340	2.5	21.2
4 1	12 31.11	+ 1 46.7	1.453	2.448	2.8	19.2	4 1	12 31.88	+ 0 19.7	2.336	3.332	1.6	21.2
4 11	12 21.26	+ 2 28.0	1.480	2.453	7.2	19.5	4 11	12 24.94	+ 1 20.5	2.350	3.323	4.9	21.4
4 21	12 12.91	+ 2 55.5	1.533	2.458	11.6	19.8	4 21	12 18.77	+ 2 13.0	2.393	3.315	8.2	21.6
5 1	12 6.87	+ 3 6.2	1.608	2.462	15.4	20.0	5 1	12 13.95	+ 2 53.5	2.461	3.306	11.0	21.7
299426	2005 YX ₂₅₀		3 29.6 211°54	3°8/1.9	17		381684	2009 BV ₁₈₁		3 29.7 26°95	9°9/20.2	18	
2 21	13 1.20	-15 39.9	1.789	2.548	17.1	21.8	2 21	12 58.99	+21 44.9	1.754	2.584	14.5	19.8
3 2	12 56.92	-15 45.8	1.691	2.542	14.0	21.6	3 2	12 54.86	+23 0.7	1.709	2.594	12.2	19.7
3 12	12 50.04	-15 30.6	1.613	2.536	10.4	21.3	3 12	12 48.35	+24 6.3	1.686	2.604	10.4	19.6
3 22	12 41.13	-14 54.1	1.559	2.529	6.5	21.1	3 22	12 40.23	+24 52.4	1.687	2.615	9.9	19.6
4 1	12 31.14	-13 58.7	1.531	2.522	3.9	20.9	4 1	12 31.53	+25 12.0	1.713	2.627	10.9	19.6
4 11	12 21.28	-12 50.8	1.532	2.514	5.9	21.0	4 11	12 23.39	+25 2.0	1.761	2.639	12.9	19.8
4 21	12 12.69	-11 38.4	1.559	2.505	9.8	21.2	4 21	12 16.72	+24 23.4	1.831	2.652	15.1	20.0
5 1	12 6.27	-10 30.1	1.610	2.495	13.8	21.4	5 1	12 12.15	+23 19.7	1.920	2.665	17.3	20.2
436971	2012 TH ₁₇₅		3 29.6 173°50	0°1/29.6	17		120995	1998 XQ ₆₂		3 29.7 18°93	17°9/5.4	18	
2 21	12 56.06	- 6 6.6	2.428	3.216	12.3	22.0	2 21	13 16.28	-27 52.0	1.142	1.859	27.0	17.9
3 2	12 52.04	- 5 37.3	2.338	3.218	9.5	21.8	3 2	13 11.29	-31 50.1	1.077	1.865	24.5	17.8
3 12	12 46.30	- 4 56.6	2.272	3.219	6.3	21.6	3 12	13 1.35	-35 26.5	1.030	1.873	21.8	17.6
3 22	12 39.32	- 4 7.6	2.233	3.220	2.8	21.4	3 22	12 46.83	-38 24.0	1.001	1.883	19.4	17.5
4 1	12 31.75	- 3 14.5	2.223	3.221	0.9	21.2	4 1	12 29.31	-40 26.8	0.992	1.894	18.1	17.4
4 11	12 24.37	- 2 22.5	2.243	3.222	4.5	21.5	4 11	12 11.50	-41 28.6	1.004	1.906	18.2	17.4
4 21	12 17.87	- 1 36.3	2.290	3.222	8.0	21.7	4 21	11 56.23	-41 35.7	1.035	1.919	19.5	17.6
5 1	12 12.82	- 0 59.8	2.363	3.222	11.0	21.9	5 1	11 45.59	-41 4.2	1.083	1.934	21.5	17.8
346163	2007 VZ ₃₀₇		3 29.6 24°90	0°3/29.4	17		504432	2008 AP ₈₀		3 29.7 115°28	3°5/2.8	17	
2 21	12 54.86	- 5 11.6	1.960	2.766	14.1	21.0	2 21	12 56.37	-17 6.2	2.557	3.293	13.1	21.8
3 2	12 51.50	- 4 46.7	1.880	2.770	11.0	20.8	3 2	12 52.27	-17 13.8	2.467	3.301	10.8	21.6
3 12	12 46.12	- 4 9.2	1.823	2.775	7.2	20.6	3 12	12 46.46	-17 5.7	2.398	3.309	8.1	21.5
3 22	12 39.27	- 3 22.7	1.792	2.781	3.2	20.3	3 22	12 39.40	-16 42.3	2.355	3.316	5.4	21.3
4 1	12 31.77	- 2 32.5	1.788	2.787	1.2	20.2	4 1	12 31.77	-16 5.7	2.339	3.324	3.5	21.2
4 11	12 24.53	- 1 44.7	1.813	2.793	5.3	20.5	4 11	12 24.32	-15 19.7	2.353	3.331	4.5	21.3
4 21	12 18.37	- 1 4.5	1.864	2.799	9.2	20.7	4 21	12 17.75	-14 29.2	2.395	3.338	7.0	21.4
5 1	12 13.95	- 0 36.3	1.938	2.806	12.6	20.9	5 1	12 12.63	-13 39.5	2.463	3.346	9.7	21.6
156332	2001 XY ₁₁₇		3 29.7 60°02	10°4/19.0	18		172312	2002 TO ₂₈₄		3 29.7 141°32	3°9/3.4	17	
2 21	12 59.60	+21 45.0	1.701	2.532	14.8	19.6	2 21	12 56.90	-18 46.0	2.504	3.231	13.5	20.2
3 2	12 55.44	+23 25.8	1.658	2.542	12.5	19.5	3 2	12 52.74	-18 52.2	2.411	3.238	11.2	20.1
3 12	12 48.79	+24 56.4	1.637	2.553	10.8	19.4	3 12	12 46.80	-18 41.3	2.340	3.244	8.6	19.9
3 22	12 40.44	+26 6.5	1.640	2.563	10.5	19.4	3 22	12 39.56	-18 13.5	2.294	3.250	5.9	19.7
4 1	12 31.44	+26 47.6	1.668	2.574	11.7	19.5	4 1	12 31.71	-17 30.6	2.275	3.256	4.0	19.6
4 11	12 23.00	+26 56.0	1.718	2.584	13.7	19.6	4 11	12 24.05	-16 36.9	2.286	3.262	4.8	19.7
4 21	12 16.09	+26 32.4	1.789	2.595	16.0	19.8	4 21	12 17.30	-15 37.6	2.324	3.267	7.2	19.8
5 1	12 11.37	+25 40.6	1.878	2.606	18.1	20.0	5 1	12 12.04	-14 38.4	2.389	3.272	10.0	20.0
379613	2011 CE ₈₃		3 29.7 162°93	4°6/3.6	16 R		253191	2002 XM ₄₂		3 29.7 86°70	5°1/3.5	18	
2 21	13 1.44	-19 42.4	2.454	3.168	14.1	22.5	2 21	12 59.83	-19 12.9	1.791	2.535	17.6	20.0
3 2	12 56.32	-20 3.3	2.359	3.174	11.8	22.3	3 2	12 55.64	-19 30.5	1.715	2.551	14.6	19.8
3 12	12 49.21	-20 7.0	2.285	3.180	9.2	22.1	3 12	12 49.01	-19 25.3	1.658	2.567	11.2	19.6
3 22	12 40.64	-19 52.8	2.236	3.186	6.5	22.0	3 22	12 40.60	-18 56.7	1.625	2.583	7.7	19.5
4 1	12 31.36	-19 21.8	2.215	3.190	4.7	21.8	4 1	12 31.40	-18 7.2	1.617	2.598	5.3	19.4
4 11	12 22.25	-18 37.6	2.223	3.194	5.3	21.9	4 11	12 22.57	-17 2.9	1.637	2.614	6.2	19.4
4 21	12 14.12	-17 45.4	2.259	3.197	7.7	22.0	4 21	12 15.11	-15 51.7	1.682	2.629	9.2	19.6
5 1	12 7.65	-16 51.3	2.322	3.200	10.4	22.2	5 1	12 9.78	-14 42.0	1.753	2.644	12.5	19.9
412961	2014 QS ₂₉₀		3 29.7 261°22	5°7/24.3	17		200955	2002 BT ₂₆		3 29.7 97°76	5°2/25.5	18	
2 21	13 0.66	+ 6 37.4	1.691	2.519	15.0	21.5	2 21	13 1.87	+ 6 4.7	1.490	2.323	16.4	20.2
3 2	12 56.67	+ 7 56.7	1.593	2.496	11.8	21.2	3 2	12 57.43	+ 7 4.5	1.428	2.333	12.7	20.0
3 12	12 50.01	+ 9 25.0	1.519	2.473	8.3	20.9	3 12	12 50.27	+ 8 9.6	1.388	2.343	8.6	19.8
3 22	12 41.19	+10 53.7	1.471	2.448	5.9	20.7	3 22	12 41.16	+ 9 11.7	1.372	2.353	5.5	19.6
4 1	12 31.16	+12 12.7	1.449	2.423	6.9	20.7	4 1	12 31.25	+10 1.5	1.383	2.363	6.2	19.7
4 11	12 21.15	+13 12.5	1.455	2.397	10.5	20.9	4 11	12 21.86	+10 32.0	1.420	2.373	9.7	19.9
4 21	12 12.37	+13 47.0	1.484	2.370	14.5	21.0	4 21	12 14.09	+10 39.7	1.481	2.382	13.6	20.1
5 1	12 5.79	+13 54.0	1.533	2.343	18.2	21.2	5 1	12 8.74	+10 24.4	1.562	2.391	17.0	20.4
205728	2002 AQ ₁₄₂		3 29.7 326°60	4°9/25.7	17		52235	1979 MW ₂		3 29.7 178°52	0°5/28.9	18 R	
2 21	12 52.04	+ 1 38.											

EPHEMERIDES

3 29.7

3 29.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
378819	2008 <i>SE</i> ₂₅₉		3 29.7 105°06	0°8/30.6	17		271642	2004 <i>PZ</i> ₁₀₀		3 29.7 198°95	2°3/26.7	18	
2 21	12 56.54	- 8 58.3	2.076	2.862	14.1	21.7	2 21	12 55.65	- 1 10.3	2.314	3.121	12.2	20.6
3 2	12 52.69	- 8 33.8	1.994	2.870	11.1	21.5	3 2	12 51.85	+ 0 8.5	2.224	3.118	9.3	20.4
3 12	12 46.87	- 7 54.4	1.934	2.878	7.6	21.3	3 12	12 46.27	+ 1 38.6	2.159	3.114	6.1	20.2
3 22	12 39.61	- 7 2.9	1.900	2.886	3.6	21.0	3 22	12 39.37	+ 3 14.4	2.122	3.110	3.0	20.0
4 1	12 31.72	- 6 4.2	1.895	2.893	1.0	20.9	4 1	12 31.85	+ 4 49.0	2.116	3.105	3.1	20.0
4 11	12 24.09	- 5 4.3	1.918	2.901	4.8	21.1	4 11	12 24.49	+ 6 14.9	2.139	3.100	6.3	20.2
4 21	12 17.53	- 4 9.3	1.969	2.908	8.6	21.4	4 21	12 18.04	+ 7 26.6	2.190	3.095	9.6	20.4
5 1	12 12.67	- 3 24.0	2.044	2.916	11.9	21.6	5 1	12 13.09	+ 8 20.4	2.265	3.089	12.6	20.6
384201	2009 <i>BW</i> ₁₅₅		3 29.7 142°91	3°7/ 2.5	17		469235	2016 <i>JD</i> ₇		3 29.7 48°25	9°0/21.3	18	
2 21	12 58.60	-16 12.7	2.392	3.132	13.8	21.8	2 21	12 59.01	+16 39.4	1.613	2.452	15.1	20.3
3 2	12 54.15	-16 32.1	2.299	3.137	11.3	21.6	3 2	12 55.06	+18 7.6	1.564	2.462	12.3	20.2
3 12	12 47.79	-16 36.1	2.227	3.140	8.5	21.4	3 12	12 48.60	+19 30.3	1.538	2.473	9.9	20.0
3 22	12 40.03	-16 24.6	2.181	3.144	5.6	21.2	3 22	12 40.41	+20 37.3	1.536	2.484	9.0	20.0
4 1	12 31.58	-15 59.2	2.163	3.148	3.7	21.1	4 1	12 31.56	+21 19.9	1.559	2.496	10.1	20.1
4 11	12 23.30	-15 23.6	2.174	3.151	4.8	21.2	4 11	12 23.24	+21 33.2	1.606	2.507	12.5	20.3
4 21	12 15.97	-14 42.6	2.212	3.155	7.6	21.4	4 21	12 16.45	+21 16.9	1.674	2.519	15.2	20.5
5 1	12 10.22	-14 1.6	2.276	3.158	10.5	21.5	5 1	12 11.87	+20 33.8	1.761	2.531	17.7	20.7
31097	Nucciomula		3 29.7 13°89	1°1/28.3	18	R	167824	2005 <i>CJ</i> ₁₇		3 29.7 180°99	1°6/31.2	18	
2 21	12 52.35	- 1 49.1	2.733	3.536	10.6	18.5	2 21	13 0.86	-10 38.2	2.019	2.791	14.9	21.4
3 2	12 49.00	- 1 19.9	2.648	3.538	8.1	18.3	3 2	12 56.20	-10 22.7	1.927	2.793	11.9	21.2
3 12	12 44.20	- 0 43.5	2.587	3.541	5.3	18.1	3 12	12 49.32	- 9 50.8	1.856	2.794	8.3	21.0
3 22	12 38.39	- 0 2.9	2.554	3.543	2.3	17.9	3 22	12 40.78	- 9 4.4	1.812	2.794	4.3	20.7
4 1	12 32.11	+ 0 38.0	2.551	3.546	1.6	17.9	4 1	12 31.42	- 8 7.7	1.796	2.793	1.6	20.5
4 11	12 26.01	+ 1 14.9	2.576	3.549	4.5	18.1	4 11	12 22.28	- 7 6.8	1.809	2.792	5.0	20.7
4 21	12 20.65	+ 1 44.6	2.629	3.553	7.4	18.3	4 21	12 14.27	- 6 8.3	1.850	2.790	9.0	21.0
5 1	12 16.50	+ 2 4.3	2.708	3.556	10.0	18.5	5 1	12 8.14	- 5 18.2	1.916	2.787	12.6	21.2
258088	2001 <i>QC</i> ₈₂		3 29.7 210°63	5°5/ 4.1	18		431432	2007 <i>OV</i> ₅		3 29.7 258°99	4°5/ 2.7	18	
2 21	13 1.22	-21 1.7	2.259	2.972	15.2	20.9	2 21	13 1.06	-17 14.5	2.342	3.073	14.3	21.5
3 2	12 56.50	-21 32.6	2.154	2.966	12.9	20.7	3 2	12 56.37	-17 48.8	2.225	3.055	11.9	21.3
3 12	12 49.57	-21 44.9	2.069	2.959	10.2	20.5	3 12	12 49.51	-18 8.1	2.130	3.036	9.2	21.1
3 22	12 40.90	-21 37.0	2.008	2.952	7.5	20.3	3 22	12 40.93	-18 11.1	2.060	3.017	6.4	20.9
4 1	12 31.31	-21 9.0	1.974	2.945	5.6	20.2	4 1	12 31.35	-17 57.9	2.018	2.998	4.5	20.7
4 11	12 21.78	-20 24.4	1.968	2.936	6.2	20.2	4 11	12 21.71	-17 31.4	2.004	2.978	5.5	20.7
4 21	12 13.26	-19 28.6	1.990	2.928	8.6	20.3	4 21	12 12.93	-16 55.9	2.019	2.958	8.4	20.9
5 1	12 6.53	-18 28.8	2.037	2.918	11.5	20.5	5 1	12 5.83	-16 17.4	2.059	2.938	11.5	21.0
243568	1995 <i>SX</i> ₈₅		3 29.7 177°83	0°6/28.9	18		148718	2001 <i>TK</i> ₅₁		3 29.7 200°37	2°0/27.4	17	
2 21	12 54.05	- 5 7.7	2.667	3.457	11.2	21.4	2 21	12 59.17	+ 0 1.4	2.433	3.233	11.9	21.7
3 2	12 50.35	- 4 20.3	2.576	3.459	8.7	21.2	3 2	12 54.48	+ 0 46.1	2.340	3.229	9.1	21.5
3 12	12 45.13	- 3 22.2	2.509	3.459	5.7	21.0	3 12	12 47.97	+ 1 39.0	2.271	3.223	6.0	21.3
3 22	12 38.81	- 2 16.9	2.471	3.460	2.4	20.8	3 22	12 40.12	+ 2 35.7	2.230	3.217	2.8	21.1
4 1	12 31.99	- 1 9.0	2.463	3.460	1.2	20.7	4 1	12 31.63	+ 3 31.2	2.219	3.211	2.6	21.0
4 11	12 25.33	- 0 3.9	2.484	3.460	4.5	21.0	4 11	12 23.29	+ 4 19.9	2.238	3.203	5.8	21.2
4 21	12 19.45	+ 0 53.9	2.535	3.460	7.6	21.2	4 21	12 15.85	+ 4 57.7	2.285	3.195	9.0	21.4
5 1	12 14.85	+ 1 40.6	2.610	3.459	10.4	21.3	5 1	12 9.92	+ 5 21.8	2.356	3.186	12.0	21.6
269791	1999 <i>TF</i> ₃₁₃		3 29.7 183°15	0°2/29.9	17		52544	1996 <i>VC</i> ₁₁		3 29.7 110°39	0°3/29.4	18	
2 21	12 57.29	- 6 58.4	2.221	3.008	13.3	21.8	2 21	13 1.17	- 3 8.6	2.373	3.161	12.5	18.8
3 2	12 53.20	- 6 32.4	2.130	3.008	10.4	21.6	3 2	12 55.95	- 3 11.2	2.290	3.170	9.7	18.6
3 12	12 47.19	- 5 53.5	2.062	3.009	7.0	21.4	3 12	12 48.89	- 3 6.1	2.231	3.179	6.4	18.4
3 22	12 39.78	- 5 4.6	2.021	3.008	3.2	21.1	3 22	12 40.50	- 2 55.7	2.200	3.188	2.8	18.2
4 1	12 31.70	- 4 10.3	2.009	3.008	0.9	20.9	4 1	12 31.53	- 2 43.1	2.199	3.197	1.0	18.1
4 11	12 23.82	- 3 16.2	2.026	3.007	4.8	21.2	4 11	12 22.82	- 2 31.8	2.227	3.205	4.7	18.4
4 21	12 16.91	- 2 27.6	2.071	3.005	8.5	21.5	4 21	12 15.11	- 2 25.0	2.284	3.214	8.1	18.6
5 1	12 11.61	- 1 49.1	2.141	3.004	11.8	21.7	5 1	12 9.00	- 2 25.5	2.366	3.222	11.1	18.8
423448	2005 <i>SJ</i> ₇₁		3 29.7 124°98	3°1/ 1.9	15		375668	2009 <i>FW</i> ₁		3 29.7 67°71	2°8/30.5	17	
2 21	13 2.71	-14 46.2	2.345	3.085	14.0	21.9	2 21	13 19.55	- 3 41.3	1.047	1.858	23.4	20.7
3 2	12 57.20	-14 59.6	2.263	3.104	11.4	21.7	3 2	13 12.68	- 5 18.2	0.980	1.868	18.7	20.4
3 12	12 49.73	-14 57.6	2.204	3.121	8.3	21.6	3 12	13 1.32	- 6 47.9	0.931	1.879	13.0	20.1
3 22	12 40.86	-14 40.8	2.170	3.139	5.2	21.4	3 22	12 46.38	- 8 7.5	0.905	1.890	6.6	19.8
4 1	12 31.38	-14 11.4	2.166	3.155	3.2	21.3	4 1	12 29.73	- 9 14.6	0.904	1.901	3.0	19.6
4 11	12 22.20	-13 33.4	2.192	3.171	4.6	21.4	4 11	12 13.79	-10 9.8	0.929	1.912	8.4	19.9
4 21	12 14.10	-12 51.9	2.246	3.186	7.6	21.6	4 21	12 0.63	-10 56.1	0.978	1.924	14.3	20.3
5 1	12 7.70	-12 12.3	2.326	3.200	10.5	21.8	5 1	11 51.54	-11 38.9	1.048	1.935	19.3	20.6
335780	2007 <i>ED</i> ₂₁₆		3 29.7 329°99	6°4/ 2.3	17		427892	2005 <i>TQ</i> ₇₇		3 29.7 165°34	1°8/27.9	17	
2 21	12 59.54	-14 57.1	1.449	2.232	19.4	20.1	2 21	13 3.09	+ 0 56.3	2.290	3.087	12.6	21.8
3 2	12 56.50	-16 14.8	1.349	2.211	16.3	19.9	3 2	12 57.52	+ 1 14.0	2.205	3.092	9.7	21.6
3 12	12 50.35	-17 16.6	1.268	2.192	12.6	19.6	3 12	12 49.97	+ 1 37.8	2.145	3.096	6.4	21.4
3 22	12 41.54	-17 58.8	1.209	2.174	8.8	19.3	3 22	12 41.00	+ 2 3.9	2.113	3.100	3.0	21.2
4 1	12 31.09	-18 19.2	1.173	2.156	6.5	19.1	4 1	12 31.40	+ 2 28.2	2.110	3.104	2.4	21.1
4 11	12 20.49	-18 19.6	1.163	2.140	8.0	19.1	4 11	12 22.05	+ 2 46.2	2.138	3.107	5.7	21.4
4 21	12 11.24	-18 5.4	1.175	2.125	12.0	19.3	4 21	12 13.77	+ 2 54.9	2.193	3.109	9.1	21.6
5 1	12 4.63	-17 44.7	1.209	2.111	16.2	19.5	5 1	12 7.18	+ 2 52.3	2.274	3.110	12.1	21.8
117217	2004 <i>RA</i> ₂₅₄		3 29.7 185°40	5°2/23.8	17		499109	2009 <i>HU</i> ₁₅		3 29.7 51°23	4°2/25.2		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
247823	2003 SG ₁₈₅		3 29.7 40°85	0°2/29.5	17		497676	2006 SR ₂		3 29.7 282°75	2°7/	1.5	17
2 21	12 56.23	- 4 3.4	2.647	3.437	11.3	20.0	2 21	12 56.59	-16 53.6	1.804	2.565	16.9	21.8
3 2	12 52.05	- 3 55.8	2.557	3.439	8.8	19.8	3 2	12 53.63	-16 4.1	1.675	2.531	14.0	21.5
3 12	12 46.28	- 3 40.1	2.492	3.440	5.8	19.6	3 12	12 48.13	-14 44.6	1.567	2.495	10.3	21.2
3 22	12 39.36	- 3 18.7	2.453	3.441	2.5	19.4	3 22	12 40.50	-12 54.9	1.483	2.459	6.0	20.9
4 1	12 31.91	- 2 54.8	2.444	3.443	0.9	19.3	4 1	12 31.55	-10 39.2	1.426	2.422	2.7	20.6
4 11	12 24.63	- 2 32.0	2.465	3.444	4.2	19.5	4 11	12 22.44	- 8 7.3	1.399	2.384	5.8	20.7
4 21	12 18.16	- 2 13.7	2.514	3.445	7.4	19.7	4 21	12 14.34	- 5 32.2	1.400	2.346	10.8	20.9
5 1	12 13.02	- 2 2.6	2.589	3.447	10.1	19.9	5 1	12 8.28	- 3 7.5	1.426	2.307	15.5	21.0
72206	2000 YL ₁₃₉		3 29.7 26°44	3°6/	1.5	18	473337	2015 TS ₁₁₀		3 29.7 81°79	6°2/25.1	18	
2 21	12 54.98	-13 54.1	1.233	2.040	20.7	18.5	2 21	13 3.45	+ 7 46.3	1.375	2.212	17.3	21.1
3 2	12 52.79	-13 57.4	1.167	2.049	16.8	18.3	3 2	12 58.76	+ 8 52.9	1.323	2.230	13.4	20.9
3 12	12 47.60	-13 34.0	1.118	2.059	12.1	18.0	3 12	12 51.19	+10 2.7	1.293	2.247	9.3	20.7
3 22	12 40.15	-12 45.1	1.091	2.070	7.1	17.8	3 22	12 41.62	+11 5.9	1.287	2.265	6.4	20.6
4 1	12 31.67	-11 36.5	1.087	2.082	3.6	17.6	4 1	12 31.31	+11 52.9	1.306	2.282	7.2	20.7
4 11	12 23.67	-10 18.1	1.107	2.094	6.5	17.8	4 11	12 21.70	+12 16.9	1.351	2.299	10.6	20.9
4 21	12 17.40	- 9 1.1	1.151	2.108	11.3	18.1	4 21	12 13.90	+12 15.5	1.419	2.316	14.4	21.2
5 1	12 13.76	- 7 55.4	1.216	2.122	15.8	18.4	5 1	12 8.69	+11 50.0	1.507	2.333	17.7	21.5
238975	2006 BE ₁₆₃		3 29.7 251°72	3°5/26.5	17		292344	2006 SO ₁₉₉		3 29.7 282°45	0°2/29.9	17	
2 21	12 58.76	+ 0 48.6	1.626	2.451	15.7	20.8	2 21	12 54.47	- 7 15.8	2.239	3.031	13.1	21.3
3 2	12 55.19	+ 1 54.8	1.535	2.438	12.1	20.5	3 2	12 51.10	- 6 46.1	2.142	3.023	10.2	21.1
3 12	12 49.01	+ 3 14.5	1.466	2.424	8.0	20.2	3 12	12 45.88	- 6 2.9	2.068	3.016	6.9	20.9
3 22	12 40.78	+ 4 40.7	1.423	2.410	4.2	20.0	3 22	12 39.29	- 5 9.3	2.021	3.008	3.1	20.6
4 1	12 31.46	+ 6 4.1	1.406	2.395	4.5	19.9	4 1	12 32.00	- 4 9.6	2.002	3.001	0.8	20.4
4 11	12 22.29	+ 7 14.9	1.417	2.380	8.7	20.1	4 11	12 24.86	- 3 9.8	2.012	2.993	4.8	20.7
4 21	12 14.40	+ 8 5.9	1.452	2.364	13.1	20.3	4 21	12 18.62	- 2 15.5	2.050	2.986	8.5	20.9
5 1	12 8.70	+ 8 33.2	1.508	2.348	17.0	20.5	5 1	12 13.90	- 1 31.5	2.112	2.979	11.7	21.1
21613	Schlecht		3 29.7 128°58	4°1/25.9	18		165406	2000 X7 ₅₃		3 29.7 82°85	0°1/29.8	18	
2 21	13 2.14	+ 4 7.0	1.819	2.637	14.6	19.0	2 21	13 0.33	- 6 48.8	1.533	2.340	17.4	20.8
3 2	12 57.15	+ 5 11.9	1.754	2.653	11.1	18.8	3 2	12 56.20	- 6 20.6	1.467	2.357	13.5	20.6
3 12	12 49.87	+ 6 23.2	1.714	2.668	7.4	18.6	3 12	12 49.48	- 5 35.4	1.422	2.373	9.0	20.3
3 22	12 40.98	+ 7 33.8	1.699	2.682	4.4	18.5	3 22	12 40.89	- 4 37.5	1.402	2.390	4.0	20.1
4 1	12 31.45	+ 8 35.6	1.714	2.696	4.9	18.5	4 1	12 31.55	- 3 33.9	1.408	2.407	1.2	19.9
4 11	12 22.38	+ 9 22.2	1.756	2.708	8.2	18.8	4 11	12 22.69	- 2 32.9	1.441	2.423	6.2	20.3
4 21	12 14.66	+ 9 49.6	1.823	2.721	11.7	19.0	4 21	12 15.38	- 1 41.7	1.500	2.439	10.7	20.6
5 1	12 8.98	+ 9 56.5	1.913	2.732	14.8	19.2	5 1	12 10.36	- 1 5.6	1.582	2.455	14.6	20.9
209689	2005 EH ₂₂		3 29.7 96°58	2°4/27.3	18		467430	2005 X7 ₇₄		3 29.7 249°87	7°5/	5.9	17
2 21	12 58.92	- 2 10.8	1.636	2.453	16.0	20.7	2 21	12 59.26	-25 12.4	2.032	2.733	17.0	21.0
3 2	12 54.88	- 0 58.2	1.573	2.472	12.2	20.5	3 2	12 55.36	-25 58.7	1.932	2.728	14.8	20.8
3 12	12 48.47	+ 0 27.9	1.533	2.490	7.9	20.3	3 12	12 49.04	-26 22.9	1.851	2.722	12.2	20.6
3 22	12 40.38	+ 2 0.4	1.519	2.508	3.6	20.0	3 22	12 40.81	-26 22.2	1.792	2.717	9.6	20.5
4 1	12 31.65	+ 3 29.9	1.533	2.526	3.3	20.1	4 1	12 31.53	-25 55.5	1.757	2.711	7.8	20.3
4 11	12 23.39	+ 4 47.4	1.574	2.543	7.4	20.3	4 11	12 22.33	-25 5.8	1.748	2.706	7.8	20.3
4 21	12 16.55	+ 5 46.7	1.641	2.560	11.4	20.6	4 21	12 14.26	-23 59.5	1.766	2.700	9.7	20.4
5 1	12 11.82	+ 6 24.3	1.730	2.576	14.9	20.9	5 1	12 8.19	-22 45.0	1.807	2.694	12.4	20.6
496993	2002 RL ₂₈₁		3 29.7 210°68	0°5/29.2	17		10319	Toshiharu		3 29.7 261°57	1°0/30.4	18	
2 21	12 57.10	- 4 19.8	2.292	3.087	12.7	22.1	2 21	13 2.96	- 6 46.2	1.619	2.417	17.0	18.0
3 2	12 53.02	- 3 55.7	2.200	3.084	9.9	21.9	3 2	12 58.63	- 6 55.0	1.520	2.403	13.5	17.7
3 12	12 47.08	- 3 21.2	2.131	3.081	6.5	21.7	3 12	12 51.45	- 6 49.6	1.441	2.388	9.3	17.4
3 22	12 39.78	- 2 39.2	2.089	3.078	2.8	21.4	3 22	12 41.97	- 6 31.4	1.387	2.373	4.5	17.1
4 1	12 31.81	- 1 54.2	2.076	3.074	1.2	21.3	4 1	12 31.18	- 6 4.3	1.360	2.358	1.3	16.8
4 11	12 24.02	- 1 11.4	2.092	3.070	5.0	21.6	4 11	12 20.42	- 5 34.0	1.359	2.342	6.2	17.1
4 21	12 17.15	- 0 35.4	2.136	3.066	8.5	21.8	4 21	12 10.99	- 5 7.0	1.385	2.327	11.2	17.3
5 1	12 11.82	- 0 9.8	2.205	3.062	11.7	22.0	5 1	12 3.92	- 4 49.1	1.433	2.311	15.6	17.6
87053	2000 KZ ₂₉		3 29.7 213°83	6°2/22.7	18		499332	2009 WE ₁₇₈		3 29.7 111°27	1°7/28.0	17	
2 21	13 1.00	+13 44.1	2.275	3.092	12.1	19.7	2 21	12 58.22	- 1 21.2	1.944	2.755	14.1	21.5
3 2	12 56.06	+14 51.0	2.195	3.085	9.6	19.5	3 2	12 54.12	- 0 43.9	1.867	2.762	10.8	21.3
3 12	12 49.11	+15 57.1	2.139	3.077	7.4	19.3	3 12	12 47.91	+ 0 3.4	1.814	2.769	7.0	21.1
3 22	12 40.68	+16 55.3	2.111	3.068	6.2	19.2	3 22	12 40.18	+ 0 56.0	1.786	2.775	3.1	20.9
4 1	12 31.55	+17 39.0	2.111	3.058	7.1	19.3	4 1	12 31.78	+ 1 47.9	1.787	2.782	2.5	20.9
4 11	12 22.64	+18 3.2	2.138	3.049	9.4	19.4	4 11	12 23.69	+ 2 32.9	1.816	2.788	6.2	21.1
4 21	12 14.78	+18 5.9	2.190	3.038	12.0	19.5	4 21	12 16.74	+ 3 6.2	1.871	2.794	10.0	21.3
5 1	12 8.61	+17 47.4	2.264	3.027	14.4	19.7	5 1	12 11.62	+ 3 24.5	1.950	2.800	13.3	21.6
65068	2002 AK ₁₈₆		3 29.7 212°90	3°5/26.7	18	R	225139	2008 FY ₉₉		3 29.7 93°00	2°9/26.7	18	
2 21	13 2.89	+ 3 12.9	1.822	2.637	14.7	19.7	2 21	12 56.69	- 0 29.8	1.742	2.564	14.9	20.3
3 2	12 58.02	+ 3 55.2	1.734	2.631	11.4	19.5	3 2	12 53.13	+ 0 44.9	1.673	2.575	11.4	20.1
3 12	12 50.67	+ 4 45.1	1.670	2.624	7.6	19.3	3 12	12 47.33	+ 2 11.6	1.628	2.586	7.4	19.9
3 22	12 41.46	+ 5 36.6	1.631	2.617	4.1	19.0	3 22	12 39.94	+ 3 43.0	1.609	2.596	3.7	19.7
4 1	12 31.31	+ 6 22.7	1.621	2.609	4.3	19.0	4 1	12 31.87	+ 5 10.4	1.617	2.607	3.8	19.7
4 11	12 21.38	+ 6 56.7	1.639	2.600	7.9	19.2	4 11	12 24.18	+ 6 25.2	1.654	2.618	7.5	19.9
4 21	12 12.71	+ 7 14.1	1.683	2.591	11.8	19.4	4 21	12 17.76	+ 7 21.4	1.715	2.628	11.4	20.2
5 1	12 6.14	+ 7 13.0	1.749	2.581	15.4	19.6	5 1	12 13.27	+ 7 56.1	1.799	2.638	14.7	20.4
5203	Pavarotti		3 29.7 262°96	2°0/31.3	18		97271	1999 XJ ₁₃₉		3 29.7 205°94	1°2/28.6	18	
2 21	13 0.31	-10 35.8	1.622	2.412	17.3								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
500456	2012 <i>TO</i> ₂₀₆		3 29.7 159°22	1°4/31.2 17			31601	1999 <i>GF</i>		3 29.7 251°96	1°9/31.2 18		
2 21	12 58.58	- 9 15.6	2.450	3.220	12.7	21.7	2 21	13 3.53	- 8 35.9	1.993	2.769	15.0	18.0
3 2	12 54.05	- 9 17.4	2.358	3.223	10.0	21.6	3 2	12 58.52	- 9 0.1	1.889	2.758	12.0	17.8
3 12	12 47.73	- 9 7.6	2.289	3.226	7.0	21.4	3 12	12 51.08	- 9 12.4	1.808	2.746	8.5	17.6
3 22	12 40.09	- 8 47.6	2.247	3.228	3.6	21.1	3 22	12 41.74	- 9 13.4	1.753	2.734	4.5	17.3
4 1	12 31.83	- 8 20.2	2.234	3.231	1.4	21.0	4 1	12 31.34	- 9 5.0	1.726	2.722	1.9	17.1
4 11	12 23.74	- 7 49.3	2.250	3.233	4.2	21.2	4 11	12 21.00	- 8 51.0	1.728	2.710	5.2	17.3
4 21	12 16.56	- 7 19.3	2.295	3.235	7.5	21.4	4 21	12 11.75	- 8 36.0	1.757	2.698	9.3	17.5
5 1	12 10.87	- 6 54.1	2.366	3.236	10.5	21.6	5 1	12 4.46	- 8 24.8	1.811	2.685	13.1	17.7
201565	2003 <i>SQ</i> ₂₈		3 29.7 214°73	1°2/31.0 17			82963	2001 <i>QT</i> ₁₃₀		3 29.7 117°16	3°8/ 3.1 18		
2 21	12 56.02	-10 18.8	2.175	2.954	13.8	20.4	2 21	12 57.07	-17 37.8	2.363	3.100	14.0	19.8
3 2	12 52.36	- 9 54.5	2.080	2.951	11.0	20.2	3 2	12 53.04	-17 47.7	2.272	3.106	11.6	19.7
3 12	12 46.75	- 9 14.5	2.008	2.948	7.6	20.0	3 12	12 47.14	-17 40.5	2.202	3.112	8.8	19.5
3 22	12 39.70	- 8 21.1	1.961	2.945	3.9	19.8	3 22	12 39.86	-17 16.4	2.157	3.118	5.9	19.3
4 1	12 31.94	- 7 18.7	1.943	2.941	1.3	19.6	4 1	12 31.93	-16 37.4	2.140	3.123	3.9	19.2
4 11	12 24.35	- 6 13.2	1.954	2.937	4.6	19.8	4 11	12 24.19	-15 47.6	2.151	3.129	4.8	19.3
4 21	12 17.73	- 5 10.8	1.992	2.934	8.4	20.0	4 21	12 17.40	-14 52.6	2.190	3.135	7.5	19.4
5 1	12 12.72	- 4 17.1	2.056	2.930	11.7	20.2	5 1	12 12.19	-13 58.2	2.255	3.140	10.4	19.6
51990	2001 <i>SX</i> ₂₈₆		3 29.7 204°24	4°7/23.9 18			29420	Ikoo		3 29.7 131°80	1°4/31.1 18		
2 21	12 56.81	+10 2.9	2.508	3.327	11.0	18.7	2 21	12 58.11	- 9 0.6	2.403	3.176	12.8	18.5
3 2	12 52.62	+11 0.8	2.429	3.324	8.6	18.5	3 2	12 53.74	- 9 4.5	2.311	3.179	10.1	18.3
3 12	12 46.73	+11 59.9	2.375	3.321	6.2	18.4	3 12	12 47.55	- 8 56.9	2.243	3.181	7.0	18.1
3 22	12 39.63	+12 54.5	2.348	3.318	4.7	18.3	3 22	12 40.04	- 8 39.1	2.201	3.184	3.6	17.9
4 1	12 31.98	+13 39.2	2.351	3.314	5.4	18.3	4 1	12 31.89	- 8 14.0	2.189	3.186	1.4	17.7
4 11	12 24.53	+14 9.4	2.382	3.311	7.7	18.4	4 11	12 23.91	- 7 45.6	2.205	3.188	4.2	17.9
4 21	12 17.95	+14 22.7	2.438	3.307	10.2	18.6	4 21	12 16.85	- 7 17.9	2.250	3.190	7.6	18.1
5 1	12 12.81	+14 18.4	2.517	3.302	12.6	18.7	5 1	12 11.31	- 6 55.1	2.320	3.192	10.6	18.3
244292	2002 <i>EZ</i> ₁₄₁		3 29.7 245°16	0°5/30.2 17			285908	2001 <i>QD</i> ₁₃₁		3 29.7 169°70	3°0/ 1.4 18		
2 21	12 58.99	- 6 31.8	1.981	2.774	14.5	20.8	2 21	13 2.14	-14 3.2	1.841	2.603	16.5	21.1
3 2	12 54.85	- 6 24.8	1.889	2.770	11.4	20.6	3 2	12 57.49	-13 59.8	1.751	2.607	13.4	20.9
3 12	12 48.51	- 6 5.0	1.819	2.766	7.7	20.4	3 12	12 50.36	-13 36.5	1.683	2.611	9.7	20.7
3 22	12 40.52	- 5 34.9	1.775	2.761	3.6	20.1	3 22	12 41.38	-12 54.3	1.639	2.614	5.7	20.4
4 1	12 31.70	- 4 58.5	1.758	2.757	1.0	19.9	4 1	12 31.49	-11 56.6	1.623	2.616	3.0	20.2
4 11	12 23.05	- 4 21.3	1.770	2.752	5.2	20.2	4 11	12 21.84	-10 50.0	1.635	2.618	5.4	20.4
4 21	12 15.49	- 3 48.5	1.809	2.748	9.3	20.4	4 21	12 13.48	- 9 42.2	1.674	2.618	9.4	20.6
5 1	12 9.77	- 3 24.7	1.872	2.743	12.9	20.6	5 1	12 7.22	- 8 40.8	1.738	2.618	13.2	20.9
29816	1999 <i>CS</i> ₁₁₃		3 29.7 118°93	2°6/ 1.7 18			277719	2006 <i>DF</i> ₄₅		3 29.7 179°31	0°8/30.5 17		
2 21	12 54.60	-14 49.8	2.219	2.979	14.1	18.9	2 21	12 58.87	- 7 41.5	2.157	2.940	13.8	21.4
3 2	12 51.24	-14 32.2	2.125	2.979	11.5	18.7	3 2	12 54.54	- 7 32.9	2.066	2.941	10.8	21.2
3 12	12 46.00	-13 56.4	2.052	2.979	8.3	18.5	3 12	12 48.20	- 7 11.5	1.998	2.941	7.4	21.0
3 22	12 39.36	-13 4.1	2.005	2.979	5.0	18.3	3 22	12 40.36	- 6 39.7	1.956	2.942	3.6	20.7
4 1	12 32.06	-11 58.6	1.986	2.979	2.6	18.1	4 1	12 31.80	- 6 1.2	1.943	2.942	1.0	20.5
4 11	12 24.94	-10 45.9	1.996	2.979	4.5	18.3	4 11	12 23.44	- 5 21.0	1.959	2.941	4.7	20.8
4 21	12 18.77	- 9 32.4	2.033	2.980	7.9	18.5	4 21	12 16.09	- 4 44.2	2.002	2.941	8.5	21.0
5 1	12 14.19	- 8 24.6	2.096	2.980	11.1	18.7	5 1	12 10.44	- 4 15.3	2.071	2.940	11.9	21.2
400529	2008 <i>TZ</i> ₆		3 29.7 225°89	0°2/29.9 17			69470	1996 <i>XH</i>		3 29.7 101°80	1°0/28.8 18		
2 21	13 2.18	- 6 55.9	1.814	2.605	15.7	23.1	2 21	13 0.45	- 4 21.1	1.671	2.479	16.1	20.0
3 2	12 57.66	- 6 30.7	1.713	2.593	12.4	22.9	3 2	12 56.11	- 3 40.1	1.603	2.495	12.4	19.8
3 12	12 50.60	- 5 49.3	1.634	2.581	8.4	22.6	3 12	12 49.34	- 2 44.7	1.558	2.511	8.1	19.5
3 22	12 41.54	- 4 54.6	1.580	2.568	3.8	22.3	3 22	12 40.86	- 1 40.4	1.537	2.527	3.5	19.3
4 1	12 31.38	- 3 51.9	1.555	2.553	1.1	22.1	4 1	12 31.67	- 0 34.1	1.545	2.542	1.9	19.2
4 11	12 21.31	- 2 48.7	1.558	2.538	6.0	22.4	4 11	12 22.94	+ 0 26.1	1.580	2.557	6.4	19.5
4 21	12 12.44	- 1 52.2	1.588	2.522	10.6	22.6	4 21	12 15.62	+ 1 14.1	1.641	2.571	10.6	19.8
5 1	12 5.65	- 1 8.6	1.641	2.505	14.7	22.8	5 1	12 10.42	+ 1 45.7	1.725	2.585	14.3	20.1
27971	1997 <i>TO</i> ₁₂		3 29.7 202°11	0°5/30.2 18			81990	2000 <i>QC</i> ₁₅₅		3 29.7 163°32	2°5/ 1.9 18		
2 21	12 59.36	- 7 27.0	2.221	3.003	13.5	20.4	2 21	12 54.69	-15 17.7	2.588	3.335	12.6	19.6
3 2	12 54.89	- 7 6.4	2.124	2.999	10.6	20.2	3 2	12 51.02	-14 59.7	2.492	3.338	10.3	19.5
3 12	12 48.42	- 6 32.6	2.050	2.994	7.2	20.0	3 12	12 45.71	-14 25.9	2.418	3.340	7.5	19.3
3 22	12 40.45	- 5 48.2	2.003	2.989	3.4	19.7	3 22	12 39.21	-13 37.4	2.371	3.342	4.5	19.1
4 1	12 31.73	- 4 57.5	1.985	2.984	0.9	19.5	4 1	12 32.16	-12 37.5	2.352	3.344	2.5	19.0
4 11	12 23.17	- 4 5.8	1.997	2.978	4.8	19.8	4 11	12 25.27	-11 30.8	2.363	3.346	4.0	19.1
4 21	12 15.58	- 3 18.7	2.036	2.971	8.6	20.0	4 21	12 19.20	-10 22.9	2.402	3.347	6.9	19.2
5 1	12 9.65	- 2 40.8	2.100	2.964	12.0	20.2	5 1	12 14.51	- 9 19.2	2.468	3.348	9.8	19.4
372700	2009 <i>WQ</i> ₂₃₀		3 29.7 97°81	1°4/31.1 17			104072	2000 <i>EU</i> ₂₃		3 29.7 152°28	0°2/29.9 18		
2 21	12 57.44	-10 7.3	1.961	2.745	14.9	20.9	2 21	12 56.50	- 6 54.9	2.317	3.104	12.8	20.6
3 2	12 53.58	- 9 51.0	1.879	2.752	11.8	20.7	3 2	12 52.53	- 6 29.2	2.230	3.108	10.0	20.5
3 12	12 47.60	- 9 18.6	1.819	2.760	8.2	20.5	3 12	12 46.76	- 5 51.3	2.165	3.111	6.7	20.2
3 22	12 40.08	- 8 32.5	1.784	2.767	4.2	20.2	3 22	12 39.69	- 5 4.0	2.128	3.115	3.1	20.0
4 1	12 31.85	- 7 37.2	1.777	2.775	1.4	20.1	4 1	12 32.02	- 4 11.9	2.119	3.118	0.8	19.8
4 11	12 23.90	- 6 38.9	1.798	2.782	4.9	20.3	4 11	12 24.55	- 3 20.0	2.140	3.120	4.6	20.1
4 21	12 17.09	- 5 44.0	1.846	2.789	8.8	20.6	4 21	12 18.01	- 2 33.5	2.188	3.123	8.1	20.3
5 1	12 12.09	- 4 58.1	1.919	2.796	12.3	20.8	5 1	12 12.99	- 1 56.5	2.262	3.125	11.2	20.5
455230	2001 <i>SU</i> ₁₄		3 29.7 171°79	0°7/30.3 18			69306	1992 <i>EN</i> ₂₉		3 29.7 13°40	2°3/31.8		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
25235	1998 <i>UC</i> ₃		3 29.7 160°12	0°4/30.2	18		428306	2007 <i>FN</i> ₁₆		3 29.7 107°64	5°6/22.9	18	
2 21	12 57.26	- 7 12.5	2.258	3.044	13.1	19.2	2 21	12 55.73	+ 5 56.5	1.865	2.697	13.7	21.0
3 2	12 53.18	- 6 52.7	2.169	3.046	10.3	19.0	3 2	12 52.29	+ 8 2.5	1.802	2.708	10.5	20.8
3 12	12 47.23	- 6 20.6	2.104	3.049	6.9	18.8	3 12	12 46.75	+10 15.6	1.765	2.718	7.3	20.6
3 22	12 39.92	- 5 38.7	2.065	3.051	3.2	18.5	3 22	12 39.73	+12 25.7	1.756	2.729	5.6	20.6
4 1	12 31.96	- 4 51.2	2.055	3.053	0.8	18.3	4 1	12 32.06	+14 22.1	1.775	2.739	6.8	20.6
4 11	12 24.21	- 4 3.4	2.074	3.055	4.6	18.6	4 11	12 24.74	+15 56.0	1.822	2.750	9.7	20.8
4 21	12 17.42	- 3 20.3	2.120	3.057	8.2	18.8	4 21	12 18.59	+17 3.0	1.894	2.759	12.8	21.0
5 1	12 12.20	- 2 46.2	2.192	3.058	11.4	19.0	5 1	12 14.25	+17 41.9	1.886	2.769	15.6	21.3
135209	2001 <i>RB</i> ₆₉		3 29.7 243°15	2°6/31.7	17		10697	Othonwinter		3 29.7 231°32	1°9/27.4	18	
2 21	13 2.80	-11 31.3	1.762	2.537	16.7	20.9	2 21	12 55.59	- 2 49.2	2.167	2.972	13.0	19.2
3 2	12 58.38	-11 39.2	1.656	2.521	13.6	20.7	3 2	12 52.06	- 1 37.1	2.070	2.963	10.0	19.0
3 12	12 51.24	-11 29.5	1.571	2.505	9.7	20.4	3 12	12 46.60	- 0 11.5	1.998	2.953	6.5	18.7
3 22	12 41.92	-11 2.4	1.510	2.489	5.5	20.1	3 22	12 39.69	+ 1 22.3	1.954	2.943	2.9	18.5
4 1	12 31.33	-10 20.7	1.476	2.471	2.6	19.9	4 1	12 32.06	+ 2 57.2	1.939	2.932	2.7	18.5
4 11	12 20.72	- 9 30.2	1.470	2.453	5.8	20.0	4 11	12 24.56	+ 4 25.4	1.954	2.921	6.3	18.7
4 21	12 11.32	- 8 38.0	1.491	2.435	10.4	20.3	4 21	12 17.99	+ 5 40.3	1.995	2.910	9.9	18.9
5 1	12 4.12	- 7 51.6	1.535	2.415	14.6	20.5	5 1	12 13.01	+ 6 37.4	2.061	2.898	13.2	19.0
339446	2005 <i>EF</i> ₁₆₈		3 29.7 136°35	1°7/31.3	17		319701	2006 <i>UQ</i> ₆		3 29.7 268°69	1°6/28.3	17	
2 21	13 0.65	- 9 11.6	2.229	3.001	13.7	21.8	2 21	12 58.75	- 2 56.0	1.823	2.632	14.9	21.6
3 2	12 55.85	- 9 25.6	2.139	3.004	10.9	21.6	3 2	12 55.07	- 2 13.3	1.716	2.609	11.6	21.4
3 12	12 49.04	- 9 27.7	2.071	3.008	7.6	21.4	3 12	12 48.95	- 1 16.2	1.632	2.586	7.7	21.1
3 22	12 40.74	- 9 18.9	2.030	3.011	4.0	21.2	3 22	12 40.88	- 0 8.9	1.573	2.562	3.4	20.8
4 1	12 31.72	- 9 1.8	2.018	3.014	1.7	21.0	4 1	12 31.69	+ 1 1.8	1.542	2.538	2.4	20.6
4 11	12 22.89	- 8 40.2	2.034	3.017	4.5	21.2	4 11	12 22.49	+ 2 7.9	1.539	2.513	6.9	20.8
4 21	12 15.08	- 8 18.4	2.079	3.020	8.1	21.5	4 21	12 14.36	+ 3 2.2	1.562	2.488	11.4	21.0
5 1	12 8.97	- 8 0.7	2.149	3.023	11.3	21.7	5 1	12 8.20	+ 3 39.2	1.608	2.462	15.4	21.2
361602	2007 <i>RX</i> ₃₂₄		3 29.7 156°00	1°4/30.9	18		135307	2001 <i>SC</i> ₂₅₄		3 29.7 203°05	1°7/27.5	18	
2 21	12 59.33	-10 38.1	1.746	2.532	16.4	21.5	2 21	12 57.17	+ 0 46.5	2.957	3.753	10.1	21.6
3 2	12 55.36	-10 11.6	1.662	2.537	13.0	21.3	3 2	12 52.66	+ 1 18.3	2.861	3.748	7.7	21.4
3 12	12 48.97	- 9 25.7	1.599	2.541	9.0	21.1	3 12	12 46.68	+ 1 55.7	2.791	3.743	5.1	21.2
3 22	12 40.77	- 8 23.3	1.561	2.545	4.6	20.8	3 22	12 39.64	+ 2 35.6	2.749	3.737	2.4	21.0
4 1	12 31.71	- 7 9.7	1.551	2.549	1.4	20.6	4 1	12 32.10	+ 3 14.1	2.738	3.730	2.2	21.0
4 11	12 22.95	- 5 53.2	1.568	2.552	5.5	20.9	4 11	12 24.67	+ 3 47.3	2.757	3.723	4.8	21.2
4 21	12 15.48	- 4 41.7	1.612	2.554	9.9	21.1	4 21	12 17.96	+ 4 12.2	2.805	3.715	7.6	21.3
5 1	12 10.09	- 3 42.2	1.680	2.557	13.7	21.4	5 1	12 12.45	+ 4 26.7	2.879	3.707	10.1	21.5
84523	2002 <i>UF</i> ₂		3 29.7 59°34	6°7/23.9	18		262198	2006 <i>SS</i> ₁₆₇		3 29.7 197°15	1°1/30.8	14 C	
2 21	13 4.79	+15 2.3	1.920	2.739	13.9	19.2	2 21	12 59.60	- 9 31.3	2.054	2.833	14.5	22.6
3 2	12 58.82	+15 49.7	1.883	2.773	11.0	19.1	3 2	12 55.28	- 9 10.3	1.959	2.830	11.5	22.4
3 12	12 50.75	+16 31.7	1.869	2.806	8.3	19.0	3 12	12 48.79	- 8 33.5	1.887	2.827	7.9	22.2
3 22	12 41.34	+17 1.4	1.882	2.840	6.8	18.9	3 22	12 40.69	- 7 43.3	1.840	2.824	3.9	21.9
4 1	12 31.61	+17 13.4	1.922	2.874	7.5	19.1	4 1	12 31.78	- 6 44.0	1.821	2.819	1.2	21.7
4 11	12 22.56	+17 5.0	1.989	2.907	9.6	19.2	4 11	12 23.03	- 5 41.9	1.832	2.815	5.0	22.0
4 21	12 15.00	+16 36.5	2.081	2.940	12.1	19.5	4 21	12 15.36	- 4 43.5	1.870	2.809	9.0	22.2
5 1	12 9.46	+15 50.1	2.194	2.973	14.4	19.7	5 1	12 9.49	- 3 54.4	1.933	2.803	12.5	22.4
244170	2001 <i>XV</i> ₈₄		3 29.7 356°72	0°7/29.3	18		204338	2004 <i>RF</i> ₂₅₃		3 29.7 136°28	5°1/24.9	18	
2 21	13 0.01	- 3 24.2	1.271	2.100	19.0	19.7	2 21	13 2.25	+ 6 35.0	1.812	2.634	14.5	21.4
3 2	12 56.75	- 3 19.7	1.195	2.098	14.8	19.4	3 2	12 57.32	+ 7 49.3	1.748	2.647	11.1	21.2
3 12	12 50.36	- 3 0.4	1.139	2.096	9.9	19.1	3 12	12 50.08	+ 9 8.3	1.708	2.660	7.7	21.0
3 22	12 41.52	- 2 30.5	1.106	2.096	4.3	18.8	3 22	12 41.20	+10 23.9	1.694	2.672	5.2	20.9
4 1	12 31.48	- 1 56.4	1.097	2.095	1.8	18.6	4 1	12 31.66	+11 27.7	1.709	2.683	6.0	21.0
4 11	12 21.78	- 1 26.1	1.113	2.095	7.5	19.0	4 11	12 22.55	+12 13.2	1.751	2.693	9.0	21.2
4 21	12 13.80	- 1 6.4	1.153	2.096	12.8	19.3	4 21	12 14.80	+12 37.0	1.818	2.703	12.3	21.4
5 1	12 8.55	- 1 2.1	1.212	2.097	17.4	19.5	5 1	12 9.11	+12 38.5	1.907	2.712	15.3	21.6
80060	1999 <i>JG</i> ₈₂		3 29.7 0°72	5°4/23.9	17		286297	2001 <i>WH</i> ₁₀		3 29.7 148°42	1°9/31.9	17	
2 21	12 55.44	+ 9 6.2	1.983	2.815	13.0	18.9	2 21	12 58.28	-11 30.1	2.703	3.459	12.0	21.1
3 2	12 52.01	+10 12.8	1.911	2.815	10.1	18.7	3 2	12 53.67	-11 34.3	2.611	3.465	9.6	20.9
3 12	12 46.55	+11 21.7	1.863	2.814	7.2	18.5	3 12	12 47.42	-11 26.6	2.542	3.471	6.8	20.7
3 22	12 39.64	+12 26.0	1.841	2.814	5.4	18.4	3 22	12 39.99	-11 8.3	2.500	3.477	3.8	20.6
4 1	12 32.06	+13 18.3	1.847	2.814	6.3	18.5	4 1	12 32.00	-10 41.5	2.488	3.482	1.9	20.4
4 11	12 24.77	+13 52.8	1.879	2.815	8.9	18.6	4 11	12 24.18	-10 9.8	2.506	3.488	3.9	20.6
4 21	12 18.56	+14 6.7	1.936	2.816	11.9	18.8	4 21	12 17.19	- 9 37.2	2.552	3.492	6.8	20.8
5 1	12 14.09	+13 59.4	2.014	2.817	14.7	19.0	5 1	12 11.57	- 9 7.6	2.625	3.497	9.6	20.9
313660	2003 <i>SO</i> ₁₈₄		3 29.7 174°10	0°2/29.6	17		199571	2006 <i>EK</i> ₆₂		3 29.7 335°55	1°0/30.7	17	
2 21	13 0.08	- 6 33.5	2.044	2.832	14.2	22.3	2 21	12 52.22	-10 9.9	1.636	2.441	16.5	19.6
3 2	12 55.56	- 5 56.8	1.956	2.835	11.1	22.1	3 2	12 50.13	- 9 36.9	1.545	2.431	13.1	19.3
3 12	12 48.91	- 5 5.8	1.891	2.838	7.4	21.9	3 12	12 45.67	- 8 42.7	1.474	2.421	9.1	19.1
3 22	12 40.70	- 4 4.2	1.852	2.840	3.3	21.6	3 22	12 39.38	- 7 30.2	1.426	2.412	4.5	18.8
4 1	12 31.75	- 2 57.4	1.843	2.841	1.1	21.5	4 1	12 32.16	- 6 5.7	1.405	2.404	1.2	18.5
4 11	12 23.03	- 1 52.2	1.863	2.842	5.3	21.8	4 11	12 25.11	- 4 38.2	1.411	2.396	5.7	18.8
4 21	12 15.43	- 0 54.8	1.910	2.841	9.3	22.0	4 21	12 19.24	- 3 16.9	1.442	2.389	10.4	19.0
5 1	12 9.63	- 0 10.0	1.982	2.840	12.8	22.2	5 1	12 15.38	- 2 9.7	1.495	2.383	14.5	19.3
459067	2012 <i>BT</i> ₂₇		3 29.7 19°27	2°9/31.9	18		206880	2004 <i>FU</i> ₁₅₁		3 29.7 45°24	0°5/29.2		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
470513	2008 CV ₁₂₉	3 29.7 137°66		0°7/28.8 17			415517	2014 QC ₁₈	3 29.7 111°84		0°8/30.4 18		
2 21	12 54.47	- 4 4.8	2.582	3.377	11.4	21.6	2 21	13 0.46	- 8 21.0	1.733	2.526	16.2	22.1
3 2	12 50.77	- 3 25.1	2.496	3.382	8.8	21.4	3 2	12 56.15	- 7 59.8	1.658	2.538	12.8	21.9
3 12	12 45.51	- 2 35.7	2.435	3.386	5.8	21.2	3 12	12 49.44	- 7 22.1	1.605	2.550	8.7	21.7
3 22	12 39.14	- 1 40.0	2.402	3.391	2.5	21.0	3 22	12 40.99	- 6 31.0	1.576	2.562	4.1	21.4
4 1	12 32.26	- 0 42.6	2.398	3.395	1.3	20.9	4 1	12 31.77	- 5 32.1	1.575	2.573	1.1	21.2
4 11	12 25.58	+ 0 11.5	2.424	3.399	4.6	21.2	4 11	12 22.92	- 4 32.6	1.602	2.585	5.5	21.5
4 21	12 19.71	+ 0 58.1	2.477	3.403	7.7	21.4	4 21	12 15.43	- 3 39.6	1.655	2.595	9.8	21.8
5 1	12 15.15	+ 1 33.8	2.556	3.407	10.5	21.6	5 1	12 10.03	- 2 58.4	1.732	2.606	13.6	22.1
461395	2001 SB ₆₄	3 29.7 110°37		0°8/30.7 18			76507	2000 GX ₂₈	3 29.7 74°60		0°3/30.1 18		
2 21	12 58.47	-10 39.1	2.173	2.945	14.0	21.4	2 21	12 56.91	- 6 53.0	2.072	2.865	13.9	19.9
3 2	12 54.04	- 9 52.2	2.099	2.967	11.0	21.3	3 2	12 53.06	- 6 33.6	1.991	2.873	10.9	19.7
3 12	12 47.73	- 8 49.0	2.049	2.989	7.5	21.1	3 12	12 47.23	- 6 1.2	1.933	2.880	7.3	19.5
3 22	12 40.12	- 7 33.2	2.026	3.010	3.6	20.9	3 22	12 39.97	- 5 18.9	1.901	2.888	3.4	19.2
4 1	12 32.00	- 6 10.4	2.032	3.031	1.0	20.7	4 1	12 32.07	- 4 31.2	1.897	2.896	0.9	19.0
4 11	12 24.24	- 4 47.6	2.068	3.050	4.5	21.0	4 11	12 24.43	- 3 43.8	1.922	2.904	4.9	19.3
4 21	12 17.57	- 3 31.2	2.133	3.070	8.2	21.3	4 21	12 17.85	- 3 1.9	1.974	2.911	8.6	19.6
5 1	12 12.57	- 2 26.6	2.223	3.088	11.3	21.5	5 1	12 12.96	- 2 29.9	2.050	2.919	11.9	19.8
338069	2002 PR ₁₆	3 29.7 285°21		3°9/ 2.5 17			218784	2005 YQ ₁	3 29.7 182°51		0°2/29.5 17		
2 21	12 57.04	-16 11.9	2.065	2.819	15.2	21.1	2 21	13 1.91	- 4 22.0	2.695	3.471	11.5	21.2
3 2	12 53.55	-16 24.9	1.953	2.800	12.7	20.8	3 2	12 56.45	- 4 9.8	2.599	3.472	9.0	21.0
3 12	12 47.84	-16 19.8	1.862	2.781	9.5	20.6	3 12	12 49.27	- 3 49.2	2.528	3.472	6.0	20.8
3 22	12 40.36	-15 55.9	1.795	2.762	6.2	20.4	3 22	12 40.85	- 3 22.5	2.485	3.472	2.6	20.6
4 1	12 31.88	-15 14.8	1.755	2.743	4.0	20.2	4 1	12 31.82	- 2 53.0	2.473	3.471	0.9	20.4
4 11	12 23.38	-14 21.1	1.742	2.723	5.4	20.2	4 11	12 22.95	- 2 24.5	2.491	3.469	4.3	20.7
4 21	12 15.85	-13 21.0	1.757	2.704	8.8	20.4	4 21	12 14.93	- 2 0.5	2.540	3.466	7.5	20.9
5 1	12 10.09	-12 21.7	1.796	2.685	12.4	20.6	5 1	12 8.34	- 1 44.1	2.614	3.462	10.4	21.0
214077	2004 GQ ₈₈	3 29.7 205°54		4°4/24.7 17			254838	2005 QX ₁₇₄	3 29.7 246°93		2°3/ 1.8 17		
2 21	12 58.94	+10 3.3	2.508	3.323	11.1	20.3	2 21	12 55.18	-14 44.7	2.917	3.659	11.5	21.3
3 2	12 54.26	+10 42.0	2.428	3.321	8.7	20.1	3 2	12 51.35	-14 29.6	2.799	3.642	9.4	21.2
3 12	12 47.84	+11 21.1	2.372	3.319	6.2	20.0	3 12	12 45.96	-14 0.4	2.703	3.624	6.8	21.0
3 22	12 40.18	+11 55.4	2.345	3.317	4.5	19.8	3 22	12 39.40	-13 17.9	2.635	3.606	4.1	20.8
4 1	12 31.97	+12 20.3	2.346	3.314	5.1	19.9	4 1	12 32.23	-12 24.5	2.595	3.587	2.3	20.6
4 11	12 23.99	+12 31.7	2.376	3.312	7.3	20.0	4 11	12 25.09	-11 24.2	2.586	3.568	3.8	20.7
4 21	12 16.91	+12 28.0	2.432	3.309	9.9	20.2	4 21	12 18.62	-10 21.7	2.606	3.548	6.6	20.8
5 1	12 11.32	+12 8.6	2.511	3.306	12.3	20.3	5 1	12 13.35	- 9 21.8	2.653	3.528	9.4	21.0
253010	2002 RQ ₁₀₈	3 29.7 205°47		0°3/29.4 16			109461	2001 QR ₂₁₂	3 29.7 258°78		2°0/31.7 18		
2 21	12 59.61	- 5 38.0	2.121	2.911	13.7	21.9	2 21	12 58.80	-10 30.1	2.300	3.069	13.4	19.5
3 2	12 55.21	- 5 5.1	2.025	2.906	10.7	21.7	3 2	12 54.50	-10 41.2	2.199	3.061	10.8	19.3
3 12	12 48.72	- 4 18.9	1.952	2.900	7.1	21.5	3 12	12 48.23	-10 39.6	2.120	3.054	7.6	19.1
3 22	12 40.66	- 3 23.0	1.906	2.894	3.1	21.2	3 22	12 40.47	-10 26.2	2.068	3.047	4.2	18.9
4 1	12 31.82	- 2 22.4	1.889	2.887	1.2	21.1	4 1	12 31.93	-10 3.4	2.044	3.039	2.0	18.7
4 11	12 23.13	- 1 23.4	1.901	2.880	5.3	21.3	4 11	12 23.49	- 9 35.0	2.049	3.032	4.5	18.9
4 21	12 15.46	- 0 31.9	1.941	2.871	9.2	21.5	4 21	12 15.96	- 9 5.5	2.082	3.024	8.0	19.1
5 1	12 9.52	+ 0 7.5	2.006	2.862	12.7	21.7	5 1	12 10.03	- 8 39.7	2.140	3.017	11.2	19.2
269988	2000 XO ₄₁	3 29.7 145°99		3°3/ 1.9 18			73210	2002 JA ₂₀	3 29.7 297°07		4°1/26.5 18		
2 21	13 2.27	-14 28.2	2.326	3.069	14.0	20.9	2 21	12 58.71	+ 2 48.2	1.477	2.311	16.5	19.7
3 2	12 57.06	-14 49.9	2.235	3.077	11.4	20.7	3 2	12 55.44	+ 3 36.9	1.392	2.299	12.8	19.4
3 12	12 49.84	-14 56.8	2.167	3.085	8.4	20.5	3 12	12 49.38	+ 4 36.0	1.328	2.287	8.6	19.1
3 22	12 41.12	-14 49.2	2.125	3.093	5.3	20.3	3 22	12 41.12	+ 5 38.3	1.288	2.275	4.7	18.8
4 1	12 31.70	-14 28.7	2.112	3.100	3.3	20.2	4 1	12 31.73	+ 6 34.8	1.275	2.263	5.0	18.8
4 11	12 22.47	-13 58.9	2.128	3.107	4.8	20.3	4 11	12 22.52	+ 7 16.8	1.287	2.251	9.2	19.0
4 21	12 14.27	-13 24.6	2.172	3.113	7.8	20.5	4 21	12 14.73	+ 7 38.4	1.322	2.240	13.7	19.2
5 1	12 7.77	-12 50.9	2.242	3.119	10.8	20.7	5 1	12 9.32	+ 7 36.8	1.378	2.229	17.7	19.5
371058	2005 UE ₂₃₅	3 29.7 205°98		1°0/28.7 17			241724	2000 UU ₁₁₄	3 29.7 248°74		4°1/25.2 18		
2 21	12 58.15	- 3 48.9	2.253	3.048	12.9	22.6	2 21	13 0.63	+ 9 40.4	2.611	3.420	10.9	20.2
3 2	12 53.94	- 3 7.3	2.158	3.043	10.0	22.4	3 2	12 55.57	+10 9.7	2.518	3.408	8.5	20.1
3 12	12 47.80	- 2 14.1	2.087	3.038	6.6	22.2	3 12	12 48.75	+10 39.3	2.450	3.396	6.0	19.9
3 22	12 40.23	- 1 13.2	2.043	3.032	2.8	22.0	3 22	12 40.64	+11 4.8	2.410	3.384	4.2	19.7
4 1	12 31.96	- 0 10.0	2.028	3.025	1.7	21.9	4 1	12 31.90	+11 21.6	2.399	3.371	4.7	19.7
4 11	12 23.84	+ 0 49.6	2.043	3.018	5.4	22.1	4 11	12 23.31	+11 26.2	2.418	3.358	7.0	19.9
4 21	12 16.66	+ 1 40.1	2.086	3.010	9.0	22.3	4 21	12 15.58	+11 16.6	2.464	3.345	9.7	20.0
5 1	12 11.08	+ 2 17.6	2.153	3.002	12.3	22.5	5 1	12 9.31	+10 52.4	2.533	3.331	12.2	20.2
413183	2002 RH ₂₄₃	3 29.7 153°13		3°7/26.4 18			85935	1999 CG ₁₄₉	3 29.7 295°16		0°3/30.0 17		
2 21	13 1.26	+ 4 2.1	1.857	2.675	14.3	21.4	2 21	12 56.85	- 6 53.9	1.722	2.527	15.8	20.5
3 2	12 56.61	+ 4 48.4	1.782	2.680	11.0	21.2	3 2	12 53.71	- 6 35.6	1.621	2.509	12.5	20.2
3 12	12 49.67	+ 5 40.8	1.730	2.685	7.3	21.0	3 12	12 48.11	- 6 0.9	1.542	2.492	8.5	19.9
3 22	12 41.07	+ 6 33.2	1.705	2.689	4.2	20.8	3 22	12 40.54	- 5 12.7	1.487	2.475	3.9	19.6
4 1	12 31.72	+ 7 18.8	1.707	2.692	4.5	20.8	4 1	12 31.90	- 4 16.1	1.459	2.457	1.0	19.3
4 11	12 22.72	+ 7 51.3	1.738	2.696	7.8	21.0	4 11	12 23.31	- 3 18.3	1.458	2.440	6.0	19.6
4 21	12 14.98	+ 8 7.1	1.794	2.699	11.4	21.2	4 21	12 15.86	- 2 26.9	1.482	2.424	10.7	19.8
5 1	12 9.22	+ 8 4.6	1.873	2.702	14.6	21.4	5 1	12 10.46	- 1 47.8	1.529	2.407	14.8	20.1
87064	2000 KW ₅₄	3 29.7 249°88		5°0/24.7 18			500945	2013 QC ₆	3 29.7 201°13		1°1/31.1 17		
2 21	12 59.64	+ 7 42.0	1.990	2.812	13.3	20.0	2 21	12 58.60	-10 25.				

EPHEMERIDES

3 29.7

3 29.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
240384	2003 <i>SJ</i> ₃₂₇		3 29.7 53°09	0°1/29.8	17		35746	1999 <i>GX</i> ₃₁		3 29.8 242°43	3°0/27.2	18	
2 21	13 3.57	- 3 32.0	1.874	2.670	15.1	20.4	2 21	13 1.22	+ 1 17.8	1.742	2.559	15.1	19.1
3 2	12 58.41	- 3 49.2	1.794	2.678	11.8	20.2	3 2	12 57.00	+ 2 1.8	1.649	2.547	11.7	18.8
3 12	12 50.90	- 3 57.4	1.738	2.686	7.9	20.0	3 12	12 50.24	+ 2 56.1	1.579	2.535	7.8	18.6
3 22	12 41.66	- 3 58.7	1.707	2.695	3.5	19.8	3 22	12 41.50	+ 3 54.8	1.535	2.522	3.9	18.3
4 1	12 31.64	- 3 56.2	1.705	2.703	1.0	19.6	4 1	12 31.71	+ 4 50.7	1.518	2.508	3.9	18.3
4 11	12 21.94	- 3 54.0	1.731	2.712	5.4	19.9	4 11	12 22.07	+ 5 36.0	1.528	2.494	7.8	18.5
4 21	12 13.53	- 3 55.7	1.784	2.721	9.5	20.2	4 21	12 13.66	+ 6 5.3	1.564	2.480	12.1	18.7
5 1	12 7.17	- 4 4.4	1.862	2.730	13.0	20.4	5 1	12 7.37	+ 6 15.2	1.623	2.465	15.9	18.9
435365	2007 <i>VD</i> ₂₈₇		3 29.7 137°18	0°7/30.7	17		54369	2000 <i>KS</i> ₅₀		3 29.8 250°09	5°5/23.0	18	
2 21	12 55.25	- 9 39.0	2.546	3.320	12.2	21.5	2 21	12 56.40	+ 11 16.3	2.293	3.118	11.7	18.4
3 2	12 51.42	- 9 3.6	2.459	3.328	9.6	21.3	3 2	12 52.57	+ 12 26.7	2.214	3.111	9.2	18.2
3 12	12 45.98	- 8 14.8	2.396	3.336	6.5	21.1	3 12	12 46.90	+ 13 38.1	2.159	3.104	6.8	18.0
3 22	12 39.40	- 7 15.5	2.360	3.344	3.2	20.9	3 22	12 39.88	+ 14 44.1	2.132	3.096	5.6	17.9
4 1	12 32.31	- 6 9.8	2.353	3.351	0.9	20.7	4 1	12 32.22	+ 15 37.9	2.132	3.089	6.4	18.0
4 11	12 25.42	- 5 3.1	2.376	3.358	4.0	21.0	4 11	12 24.75	+ 16 14.3	2.160	3.081	8.8	18.1
4 21	12 19.38	- 4 0.6	2.428	3.365	7.3	21.2	4 21	12 18.22	+ 16 30.7	2.212	3.073	11.4	18.3
5 1	12 14.70	- 3 6.7	2.506	3.372	10.2	21.4	5 1	12 13.24	+ 16 26.4	2.287	3.066	13.9	18.4
429512	2011 <i>BM</i> ₂₅		3 29.8 83°73	11°6/15.3	17		322851	2001 <i>TO</i> ₂₅₈		3 29.8 205°89	7°0/22.9	18	
2 21	12 58.45	+ 25 45.8	1.810	2.634	14.4	20.1	2 21	13 2.93	+ 14 57.2	2.047	2.866	13.1	21.0
3 2	12 54.73	+ 27 55.5	1.768	2.637	12.6	20.0	3 2	12 57.81	+ 15 58.2	1.973	2.863	10.6	20.8
3 12	12 48.55	+ 29 52.8	1.748	2.641	11.7	19.9	3 12	12 50.46	+ 16 56.5	1.923	2.859	8.2	20.7
3 22	12 40.63	+ 31 26.7	1.753	2.644	11.9	20.0	3 22	12 41.48	+ 17 44.6	1.899	2.854	7.0	20.6
4 1	12 31.97	+ 32 28.3	1.780	2.647	13.2	20.0	4 1	12 31.76	+ 18 15.6	1.902	2.849	7.9	20.6
4 11	12 23.74	+ 32 53.6	1.830	2.650	15.0	20.2	4 11	12 22.36	+ 18 24.8	1.933	2.844	10.2	20.8
4 21	12 16.93	+ 32 43.4	1.898	2.654	17.0	20.3	4 21	12 14.17	+ 18 10.8	1.987	2.839	12.9	20.9
5 1	12 12.24	+ 32 1.7	1.982	2.657	18.8	20.5	5 1	12 7.90	+ 17 34.7	2.063	2.833	15.5	21.1
129373	6318 <i>P-L</i>		3 29.8 79°72	2°3/31.6	18		8067	Helfenstein		3 29.8 175°95	3°8/ 2.1	18	
2 21	13 2.95	- 10 10.5	1.862	2.638	15.9	20.2	2 21	13 3.90	- 14 57.5	2.200	2.941	14.8	17.6
3 2	12 57.93	- 10 30.2	1.788	2.654	12.7	20.0	3 2	12 58.57	- 15 28.6	2.103	2.943	12.1	17.4
3 12	12 50.57	- 10 35.3	1.735	2.671	8.9	19.8	3 12	12 51.02	- 15 44.7	2.029	2.945	9.1	17.2
3 22	12 41.51	- 10 26.8	1.708	2.687	4.9	19.6	3 22	12 41.78	- 15 45.2	1.980	2.946	5.9	17.0
4 1	12 31.72	- 10 7.4	1.708	2.704	2.3	19.5	4 1	12 31.66	- 15 31.0	1.960	2.946	3.8	16.9
4 11	12 22.30	- 9 42.0	1.737	2.720	5.1	19.7	4 11	12 21.69	- 15 5.6	1.969	2.946	5.2	16.9
4 21	12 14.20	- 9 15.9	1.792	2.736	9.0	20.0	4 21	12 12.79	- 14 34.0	2.005	2.946	8.3	17.1
5 1	12 8.16	- 8 54.2	1.872	2.752	12.4	20.2	5 1	12 5.73	- 14 1.8	2.068	2.945	11.5	17.3
62219	2000 <i>SY</i> ₆₅		3 29.8 151°06	0°2/29.5	18		105277	2000 <i>QE</i> ₃₃		3 29.8 90°58	1°8/27.9	18	
2 21	12 56.50	- 4 50.0	2.700	3.486	11.2	20.5	2 21	13 1.15	+ 1 38.5	2.393	3.193	12.1	19.1
3 2	12 52.29	- 4 28.7	2.612	3.491	8.7	20.3	3 2	12 55.95	+ 1 48.6	2.319	3.207	9.2	19.0
3 12	12 46.52	- 3 58.4	2.549	3.496	5.8	20.1	3 12	12 48.96	+ 2 3.4	2.269	3.221	6.0	18.8
3 22	12 39.64	- 3 21.8	2.513	3.501	2.5	19.9	3 22	12 40.73	+ 2 19.7	2.247	3.234	2.8	18.6
4 1	12 32.27	- 2 42.5	2.507	3.505	0.9	19.8	4 1	12 32.00	+ 2 33.7	2.255	3.248	2.3	18.6
4 11	12 25.07	- 2 4.5	2.531	3.510	4.2	20.0	4 11	12 23.57	+ 2 41.8	2.292	3.261	5.3	18.8
4 21	12 18.67	- 1 31.8	2.584	3.514	7.3	20.2	4 21	12 16.15	+ 2 41.6	2.357	3.274	8.5	19.0
5 1	12 13.58	- 1 7.2	2.662	3.517	10.0	20.4	5 1	12 10.30	+ 2 31.4	2.447	3.287	11.3	19.2
310055	2010 <i>JW</i> ₄₀		3 29.8 247°91	3°1/27.2	16		198678	2005 <i>CN</i> ₅		3 29.8 100°14	2°7/26.8	18	
2 21	13 2.28	+ 1 41.0	1.721	2.538	15.3	21.4	2 21	12 55.98	+ 1 8.0	2.083	2.899	13.0	20.3
3 2	12 57.91	+ 2 21.2	1.626	2.523	11.9	21.2	3 2	12 52.34	+ 2 4.2	2.006	2.904	9.9	20.1
3 12	12 50.90	+ 3 11.2	1.552	2.508	7.9	20.9	3 12	12 46.77	+ 3 8.7	1.952	2.909	6.5	19.9
3 22	12 41.81	+ 4 5.4	1.505	2.492	4.1	20.6	3 22	12 39.82	+ 4 16.2	1.926	2.913	3.3	19.7
4 1	12 31.60	+ 4 56.5	1.484	2.475	4.0	20.6	4 1	12 32.25	+ 5 20.0	1.929	2.918	3.5	19.7
4 11	12 21.49	+ 5 36.9	1.492	2.458	8.0	20.8	4 11	12 24.94	+ 6 13.8	1.959	2.922	6.7	19.9
4 21	12 12.63	+ 6 1.1	1.525	2.440	12.3	21.0	4 21	12 18.66	+ 6 53.1	2.016	2.926	10.1	20.1
5 1	12 5.95	+ 6 6.0	1.579	2.422	16.2	21.2	5 1	12 14.03	+ 7 15.3	2.096	2.931	13.1	20.3
358964	2008 <i>QD</i> ₁₄		3 29.8 133°40	0°3/29.5	18		150820	2001 <i>RV</i> ₁₂₇		3 29.8 285°40	2°0/28.3	17	
2 21	13 2.57	- 6 20.1	1.745	2.540	16.1	22.6	2 21	12 59.68	- 1 52.5	1.393	2.220	17.7	20.3
3 2	12 57.74	- 5 40.8	1.672	2.555	12.5	22.4	3 2	12 56.49	- 1 21.5	1.303	2.205	13.9	20.0
3 12	12 50.48	- 4 45.7	1.620	2.569	8.3	22.2	3 12	12 50.28	- 0 35.4	1.233	2.191	9.2	19.7
3 22	12 41.49	- 3 39.4	1.594	2.582	3.6	21.9	3 22	12 41.66	+ 0 20.6	1.186	2.176	4.1	19.3
4 1	12 31.74	- 2 28.5	1.597	2.595	1.3	21.8	4 1	12 31.69	+ 1 18.5	1.165	2.161	3.0	19.2
4 11	12 22.41	- 1 20.9	1.628	2.607	6.0	22.1	4 11	12 21.83	+ 2 9.1	1.170	2.146	8.1	19.5
4 21	12 14.47	- 0 23.7	1.686	2.618	10.3	22.4	4 21	12 13.44	+ 2 44.5	1.198	2.132	13.3	19.7
5 1	12 8.66	+ 0 18.4	1.767	2.628	14.0	22.6	5 1	12 7.60	+ 2 59.8	1.247	2.117	18.0	19.9
99306	2001 <i>SC</i> ₁₀₁		3 29.8 292°57	1°1/27.6	18		143510	2003 <i>EN</i> ₄		3 29.8 38°00	3°8/ 1.6	18	
2 21	12 49.09	+ 0 10.9	4.307	5.105	7.1	19.6	2 21	12 59.62	- 13 13.9	1.292	2.090	20.5	18.9
3 2	12 46.08	+ 0 41.3	4.215	5.103	5.4	19.5	3 2	12 56.16	- 13 36.2	1.238	2.114	16.5	18.7
3 12	12 42.18	+ 1 15.7	4.149	5.102	3.5	19.4	3 12	12 49.74	- 13 35.0	1.202	2.139	11.8	18.5
3 22	12 37.66	+ 1 51.9	4.112	5.100	1.6	19.2	3 22	12 41.22	- 13 11.4	1.187	2.165	7.0	18.3
4 1	12 32.86	+ 2 27.3	4.106	5.098	1.4	19.2	4 1	12 31.88	- 12 29.9	1.197	2.191	3.8	18.1
4 11	12 28.14	+ 2 59.6	4.130	5.097	3.3	19.3	4 11	12 23.18	- 11 38.5	1.232	2.218	6.3	18.4
4 21	12 23.85	+ 3 26.5	4.183	5.095	5.2	19.5	4 21	12 16.30	- 10 46.4	1.292	2.246	10.7	18.7
5 1	12 20.28	+ 3 46.5	4.262	5.094	7.0	19.6	5 1	12 12.01	- 10 1.6	1.373	2.274	14.7	19.0
227490	2005 <i>XO</i> ₃₄		3 29.8 182°95	0°1/29.7	17		224590	2005 <i>XO</i> ₇₄					

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3 29.8

3 29.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
460159	2014 QN ₂₀		3 29.8 198°50	1°3/31.1	17		49880	1999 XP ₁₃₅		3 29.8 193°57	1°4/28.5	18	
2 21	12 58.60	-11 24.3	1.836	2.617	15.9	22.3	2 21	13 2.40	-3 31.8	1.831	2.631	15.2	19.9
3 2	12 54.82	-10 46.9	1.743	2.615	12.7	22.0	3 2	12 57.72	-2 46.3	1.741	2.629	11.8	19.6
3 12	12 48.68	-9 48.9	1.672	2.612	8.8	21.8	3 12	12 50.61	-1 46.7	1.674	2.626	7.8	19.4
3 22	12 40.78	-8 33.2	1.625	2.608	4.5	21.5	3 22	12 41.66	-0 37.9	1.634	2.623	3.4	19.1
4 1	12 31.98	-7 5.5	1.606	2.604	1.4	21.3	4 1	12 31.79	+0 33.2	1.622	2.618	2.2	19.0
4 11	12 23.38	-5 34.1	1.616	2.600	5.3	21.6	4 11	12 22.13	+1 38.8	1.639	2.613	6.5	19.3
4 21	12 15.97	-4 7.8	1.653	2.595	9.7	21.8	4 21	12 13.72	+2 32.3	1.683	2.607	10.8	19.5
5 1	12 10.53	-2 54.0	1.715	2.589	13.6	22.0	5 1	12 7.36	+3 8.9	1.750	2.599	14.6	19.7
472049	2013 YS ₄₆		3 29.8 283°75	5°6/23.7	17		58217	Peterhebel		3 29.8 180°89	0°5/30.3	18	
2 21	12 57.75	+11 7.9	2.140	2.966	12.4	20.7	2 21	12 59.73	-7 27.8	2.383	3.160	12.8	20.2
3 2	12 53.69	+12 8.2	2.067	2.965	9.7	20.5	3 2	12 55.07	-7 8.1	2.290	3.161	10.1	20.0
3 12	12 47.66	+13 8.9	2.018	2.964	7.1	20.3	3 12	12 48.54	-6 36.3	2.219	3.162	6.8	19.8
3 22	12 40.23	+14 3.3	1.996	2.963	5.6	20.2	3 22	12 40.65	-5 54.9	2.176	3.162	3.2	19.6
4 1	12 32.16	+14 45.0	2.001	2.963	6.4	20.3	4 1	12 32.09	-5 7.7	2.163	3.161	0.8	19.4
4 11	12 24.37	+15 9.0	2.034	2.962	8.8	20.4	4 11	12 23.72	-4 19.7	2.179	3.160	4.5	19.7
4 21	12 17.62	+15 13.0	2.091	2.961	11.6	20.6	4 21	12 16.27	-3 35.9	2.224	3.158	8.0	19.9
5 1	12 12.56	+14 56.9	2.170	2.960	14.2	20.7	5 1	12 10.37	-3 0.4	2.295	3.156	11.1	20.1
303870	2005 SG ₂₉₃		3 29.8 204°12	1°4/31.6	17		243428	2009 CL ₅₈		3 29.8 258°70	2°6/26.2	18	
2 21	12 55.93	-10 41.6	2.861	3.622	11.3	21.8	2 21	12 53.49	+0 3.2	2.406	3.218	11.6	20.7
3 2	12 51.87	-10 31.0	2.759	3.618	9.0	21.6	3 2	12 50.30	+1 22.7	2.310	3.206	8.9	20.4
3 12	12 46.29	-10 8.9	2.681	3.614	6.3	21.4	3 12	12 45.41	+2 52.8	2.239	3.195	5.8	20.2
3 22	12 39.60	-9 36.7	2.630	3.610	3.4	21.2	3 22	12 39.27	+4 27.8	2.196	3.183	3.1	20.0
4 1	12 32.36	-8 57.1	2.609	3.605	1.4	21.1	4 1	12 32.48	+6 1.2	2.184	3.171	3.4	20.0
4 11	12 25.22	-8 13.9	2.618	3.600	3.7	21.2	4 11	12 25.81	+7 25.8	2.200	3.158	6.4	20.2
4 21	12 18.80	-7 31.2	2.655	3.595	6.6	21.4	4 21	12 19.94	+8 36.2	2.244	3.146	9.6	20.4
5 1	12 13.62	-6 53.0	2.720	3.590	9.3	21.6	5 1	12 15.46	+9 28.7	2.312	3.133	12.5	20.5
390192	2012 WD ₂₃		3 29.8 82°38	3°2/26.4	17		401098	2011 UO ₁₈₉		3 29.8 172°12	3°7/26.3	17	
2 21	12 58.08	+5 4.1	2.321	3.136	11.9	21.0	2 21	13 1.84	+3 8.0	1.830	2.646	14.6	22.0
3 2	12 53.71	+5 37.8	2.247	3.143	9.1	20.9	3 2	12 57.18	+4 6.4	1.752	2.650	11.2	21.8
3 12	12 47.56	+6 14.9	2.196	3.150	6.1	20.7	3 12	12 50.16	+5 12.8	1.698	2.652	7.5	21.6
3 22	12 40.16	+6 51.0	2.173	3.156	3.6	20.5	3 22	12 41.42	+6 20.6	1.670	2.655	4.2	21.4
4 1	12 32.21	+7 21.0	2.179	3.163	3.8	20.5	4 1	12 31.89	+7 21.9	1.671	2.656	4.5	21.4
4 11	12 24.53	+7 40.9	2.214	3.170	6.5	20.7	4 11	12 22.66	+8 9.7	1.699	2.657	8.0	21.6
4 21	12 17.83	+7 47.8	2.275	3.177	9.5	20.9	4 21	12 14.71	+8 39.5	1.754	2.657	11.7	21.9
5 1	12 12.67	+7 40.6	2.360	3.184	12.1	21.1	5 1	12 8.78	+8 49.2	1.830	2.657	15.0	22.1
183247	2002 TB ₁₂₄		3 29.8 259°90	6°7/3.4	17		274570	2008 SE ₂₉₈		3 29.8 252°94	0°5/29.3	18	
2 21	13 5.04	-18 47.4	1.779	2.516	17.9	20.6	2 21	12 55.65	-6 7.1	2.105	2.902	13.6	20.9
3 2	13 0.29	-19 55.9	1.680	2.509	15.2	20.4	3 2	12 52.25	-5 22.2	2.007	2.892	10.6	20.7
3 12	12 52.68	-20 46.6	1.600	2.501	12.0	20.1	3 12	12 46.85	-4 22.6	1.932	2.882	7.1	20.4
3 22	12 42.73	-21 16.2	1.544	2.493	8.8	19.9	3 22	12 39.96	-3 12.2	1.883	2.872	3.1	20.2
4 1	12 31.42	-21 22.7	1.513	2.486	6.8	19.8	4 1	12 32.29	-1 56.5	1.863	2.861	1.2	20.0
4 11	12 20.09	-21 8.3	1.509	2.478	7.6	19.8	4 11	12 24.75	-0 42.7	1.872	2.850	5.4	20.3
4 21	12 10.03	-20 38.7	1.531	2.470	10.6	20.0	4 21	12 18.16	+0 22.8	1.908	2.840	9.3	20.5
5 1	12 2.32	-20 1.5	1.576	2.462	14.0	20.1	5 1	12 13.21	+1 14.8	1.968	2.828	12.8	20.7
522352	2016 CJ ₂₉₈		3 29.8 317°79	1°8/28.4	17		49963	1999 XH ₂₂₈		3 29.8 242°83	3°3/26.6	17	
2 21	12 56.84	-2 2.2	1.407	2.238	17.4	21.4	2 21	13 0.09	+2 18.4	1.969	2.783	13.8	20.1
3 2	12 54.20	-1 34.3	1.318	2.223	13.6	21.1	3 2	12 55.86	+3 10.3	1.872	2.769	10.6	19.8
3 12	12 48.71	-0 51.8	1.249	2.208	9.0	20.8	3 12	12 49.37	+4 11.1	1.799	2.754	7.1	19.6
3 22	12 40.95	+0 0.5	1.204	2.194	4.0	20.5	3 22	12 41.12	+5 15.4	1.752	2.738	3.8	19.4
4 1	12 31.95	+0 54.9	1.184	2.181	2.7	20.3	4 1	12 31.95	+6 15.9	1.734	2.721	4.0	19.3
4 11	12 23.08	+1 42.4	1.190	2.168	7.8	20.6	4 11	12 22.88	+7 5.7	1.744	2.705	7.5	19.5
4 21	12 15.62	+2 15.6	1.218	2.155	12.9	20.9	4 21	12 14.88	+7 39.5	1.780	2.687	11.4	19.7
5 1	12 10.59	+2 29.6	1.268	2.143	17.4	21.1	5 1	12 8.72	+7 54.6	1.839	2.669	14.8	19.9
416962	2005 ST ₂₂₂		3 29.8 215°72	7°1/6.4	17		265611	2005 SE ₄₈		3 29.8 106°77	0°9/30.7	18	
2 21	12 59.98	-26 34.4	2.254	2.935	16.0	21.0	2 21	12 59.86	-8 42.9	1.985	2.768	14.8	21.7
3 2	12 55.77	-27 5.9	2.148	2.929	14.0	20.8	3 2	12 55.40	-8 24.1	1.910	2.784	11.6	21.5
3 12	12 49.31	-27 15.4	2.060	2.922	11.6	20.6	3 12	12 48.84	-7 50.6	1.857	2.799	7.9	21.3
3 22	12 41.10	-27 0.4	1.995	2.914	9.2	20.4	3 22	12 40.78	-7 5.1	1.829	2.814	3.8	21.1
4 1	12 31.92	-26 20.4	1.955	2.906	7.4	20.3	4 1	12 32.08	-6 12.5	1.830	2.829	1.1	20.9
4 11	12 22.81	-25 18.6	1.942	2.897	7.3	20.3	4 11	12 23.72	-5 18.7	1.860	2.843	4.9	21.2
4 21	12 14.73	-24 1.0	1.956	2.888	9.0	20.4	4 21	12 16.55	-4 29.8	1.918	2.857	8.7	21.5
5 1	12 8.48	-22 35.9	1.995	2.879	11.6	20.5	5 1	12 11.20	-3 50.5	2.000	2.871	12.1	21.7
334628	2002 VV ₇₆		3 29.8 145°18	0°7/30.7	17		506341	2017 OQ ₄₈		3 29.8 257°58	5°4/3.1	17	
2 21	12 56.39	-9 11.0	2.936	3.701	10.9	22.5	2 21	13 3.17	-18 41.0	2.016	2.747	16.3	22.0
3 2	12 52.07	-8 40.7	2.848	3.713	8.6	22.3	3 2	12 58.63	-19 14.2	1.895	2.723	13.8	21.8
3 12	12 46.32	-7 59.3	2.786	3.724	5.8	22.1	3 12	12 51.51	-19 29.1	1.795	2.699	10.8	21.5
3 22	12 39.58	-7 9.2	2.751	3.735	2.8	22.0	3 22	12 42.23	-19 23.2	1.719	2.674	7.6	21.3
4 1	12 32.40	-6 13.8	2.746	3.745	0.8	21.8	4 1	12 31.62	-18 56.2	1.669	2.648	5.5	21.1
4 11	12 25.41	-5 17.5	2.773	3.754	3.6	22.0	4 11	12 20.84	-18 11.3	1.648	2.622	6.5	21.1
4 21	12 19.18	-4 24.4	2.829	3.763	6.5	22.2	4 21	12 11.03	-17 14.5	1.653	2.595	9.7	21.2
5 1	12 14.15	-3 38.3	2.911	3.772	9.1	22.4	5 1	12 3.22	-16 13.8	1.683	2.567	13.4	21.4
307186	2002 EQ ₁₀₄		3 29.8 4°66	3°1/27.6	18		276543	2003 SA ₈₈		3 29.8 223°26	1°3/31.1	17	
2 21	12 55.42	-0 15.5	1.145	1.996	19.2	19.7	2 21	12 57.49	-9 53.6	2.217	2.993	13.7	

EPHEMERIDES

3 29.8

3 29.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
309868	2009 <i>DU</i> ₈₀		3 29.8 75°21'	1.8°/28.3	18		15640	2632 <i>P-L</i>		3 29.8 204°58'	0.1°/29.7	18	
2 21	13 1.03	- 2 21.4	1.452	2.273	17.4	21.5	2 21	12 56.79	- 5 40.5	2.808	3.588	11.0	20.3
3 2	12 56.93	- 1 41.1	1.391	2.290	13.4	21.3	3 2	12 52.56	- 5 15.4	2.708	3.583	8.6	20.1
3 12	12 50.14	- 0 47.4	1.351	2.308	8.7	21.1	3 12	12 46.77	- 4 40.7	2.633	3.578	5.7	19.9
3 22	12 41.42	+ 0 13.8	1.335	2.325	3.8	20.8	3 22	12 39.86	- 3 58.9	2.585	3.572	2.5	19.7
4 1	12 31.94	+ 1 14.2	1.346	2.342	2.7	20.8	4 1	12 32.39	- 3 13.4	2.567	3.566	0.8	19.5
4 11	12 22.99	+ 2 5.4	1.383	2.359	7.3	21.1	4 11	12 25.03	- 2 28.6	2.580	3.559	4.1	19.8
4 21	12 15.67	+ 2 41.5	1.445	2.376	11.8	21.4	4 21	12 18.41	- 1 48.5	2.622	3.552	7.2	20.0
5 1	12 10.72	+ 2 59.1	1.529	2.392	15.6	21.7	5 1	12 13.04	- 1 16.3	2.689	3.544	9.9	20.1
275733	2001 <i>DU</i> ₁₀₂		3 29.8 51°28'	5.7°/23.8	18		178684	2000 <i>RP</i> ₈₇		3 29.8 213°19'	0.9°/31.0	18	
2 21	12 56.88	+ 8 55.4	1.857	2.690	13.7	20.0	2 21	12 56.87	- 9 1.0	3.050	3.813	10.6	21.5
3 2	12 53.28	+ 10 10.8	1.791	2.695	10.6	19.8	3 2	12 52.53	- 8 49.2	2.943	3.805	8.4	21.3
3 12	12 47.53	+ 11 29.0	1.748	2.699	7.6	19.6	3 12	12 46.72	- 8 27.4	2.860	3.796	5.8	21.1
3 22	12 40.23	+ 12 42.0	1.732	2.704	5.8	19.5	3 22	12 39.83	- 7 57.0	2.805	3.788	2.9	20.9
4 1	12 32.27	+ 13 41.7	1.743	2.709	6.7	19.6	4 1	12 32.40	- 7 20.7	2.781	3.778	1.0	20.8
4 11	12 24.63	+ 14 21.9	1.780	2.714	9.4	19.7	4 11	12 25.05	- 6 42.0	2.787	3.769	3.5	20.9
4 21	12 18.19	+ 14 39.6	1.841	2.720	12.5	19.9	4 21	12 18.36	- 6 4.6	2.822	3.758	6.4	21.1
5 1	12 13.61	+ 14 34.4	1.923	2.725	15.3	20.1	5 1	12 12.84	- 5 31.9	2.884	3.748	9.1	21.3
20366	<i>Bonev</i>		3 29.8 163°78'	3.0°/26.1	18		239288	2007 <i>PW</i> ₁₁		3 29.8 274°61'	5.1°/25.4	16	
2 21	12 57.31	+ 2 42.0	2.418	3.228	11.7	18.7	2 21	12 59.50	+ 4 23.8	1.543	2.376	16.0	20.4
3 2	12 53.10	+ 3 45.0	2.338	3.233	8.9	18.5	3 2	12 56.12	+ 5 33.6	1.449	2.356	12.5	20.1
3 12	12 47.18	+ 4 54.6	2.284	3.237	5.9	18.3	3 12	12 49.96	+ 6 54.4	1.378	2.335	8.5	19.8
3 22	12 40.03	+ 6 5.5	2.257	3.241	3.3	18.1	3 22	12 41.55	+ 8 18.1	1.331	2.314	5.4	19.6
4 1	12 32.33	+ 7 11.6	2.261	3.245	3.7	18.2	4 1	12 31.88	+ 9 34.4	1.311	2.292	6.2	19.6
4 11	12 24.85	+ 8 7.5	2.294	3.248	6.4	18.4	4 11	12 22.26	+ 10 33.2	1.316	2.271	10.1	19.7
4 21	12 18.28	+ 8 49.1	2.354	3.251	9.4	18.5	4 21	12 13.96	+ 11 7.9	1.345	2.249	14.5	19.9
5 1	12 13.16	+ 9 14.4	2.437	3.253	12.1	18.7	5 1	12 7.98	+ 11 15.6	1.394	2.227	18.5	20.1
66283	1999 <i>JU</i> ₁₃		3 29.8 299°72'	4.5°/26.9	18		25753	2000 <i>BC</i> ₁₄		3 29.8 220°76'	3.4°/26.5	18	
2 21	13 3.16	+ 4 56.9	1.417	2.249	17.2	17.9	2 21	12 58.73	+ 1 58.0	1.882	2.701	14.1	18.4
3 2	12 59.43	+ 5 21.8	1.315	2.221	13.6	17.6	3 2	12 54.82	+ 2 57.5	1.796	2.695	10.9	18.2
3 12	12 52.47	+ 5 53.6	1.234	2.191	9.3	17.3	3 12	12 48.65	+ 4 6.7	1.734	2.690	7.2	18.0
3 22	12 42.80	+ 6 25.7	1.177	2.162	5.3	17.0	3 22	12 40.80	+ 5 19.0	1.698	2.683	3.9	17.8
4 1	12 31.46	+ 6 49.8	1.145	2.133	5.4	16.9	4 1	12 32.12	+ 6 27.1	1.690	2.677	4.2	17.8
4 11	12 19.99	+ 6 57.8	1.139	2.104	9.9	17.0	4 11	12 23.64	+ 7 23.3	1.710	2.670	7.7	17.9
4 21	12 9.92	+ 6 44.7	1.155	2.076	15.0	17.2	4 21	12 16.30	+ 8 2.4	1.755	2.663	11.4	18.2
5 1	12 2.51	+ 6 8.6	1.192	2.047	19.6	17.4	5 1	12 10.85	+ 8 21.7	1.823	2.655	14.8	18.4
521189	2015 <i>FY</i> ₄₁₁		3 29.8 2°12'	6.5°/22.4	17		205753	2002 <i>CR</i> ₂₂		3 29.8 63°41'	1.5°/28.5	18	
2 21	12 56.72	+ 13 48.2	2.105	2.934	12.4	20.6	2 21	12 58.21	- 4 10.0	1.393	2.217	17.9	19.9
3 2	12 52.96	+ 14 57.7	2.037	2.934	9.9	20.4	3 2	12 54.97	- 3 19.6	1.326	2.227	13.8	19.6
3 12	12 47.22	+ 16 5.7	1.994	2.934	7.6	20.3	3 12	12 48.98	- 2 12.0	1.280	2.237	9.0	19.4
3 22	12 40.08	+ 17 4.8	1.976	2.934	6.5	20.2	3 22	12 40.97	- 0 53.5	1.258	2.247	3.9	19.1
4 1	12 32.32	+ 17 48.3	1.986	2.934	7.5	20.3	4 1	12 32.09	+ 0 26.7	1.261	2.258	2.5	19.0
4 11	12 24.84	+ 18 11.3	2.022	2.935	9.7	20.4	4 11	12 23.66	+ 1 38.4	1.291	2.269	7.4	19.4
4 21	12 18.43	+ 18 12.0	2.081	2.936	12.3	20.6	4 21	12 16.81	+ 2 33.8	1.345	2.279	12.1	19.7
5 1	12 13.71	+ 17 51.0	2.162	2.937	14.7	20.7	5 1	12 12.35	+ 3 8.2	1.421	2.290	16.2	19.9
51892	2001 <i>QB</i> ₂₅		3 29.8 204°36'	0.3°/30.1	18		377338	2004 <i>PO</i> ₇₂		3 29.8 262°69'	1.9°/27.9	17	
2 21	12 59.29	- 5 39.5	2.532	3.313	12.0	18.6	2 21	12 58.25	- 1 22.8	2.008	2.817	13.7	21.5
3 2	12 54.65	- 5 35.6	2.435	3.310	9.4	18.5	3 2	12 54.44	- 0 41.7	1.906	2.799	10.7	21.2
3 12	12 48.24	- 5 22.4	2.362	3.306	6.3	18.3	3 12	12 48.45	+ 0 10.8	1.827	2.781	7.0	20.9
3 22	12 40.53	- 5 1.9	2.317	3.303	2.9	18.0	3 22	12 40.75	+ 1 10.3	1.774	2.763	3.2	20.7
4 1	12 32.18	- 4 37.2	2.300	3.299	0.8	17.8	4 1	12 32.14	+ 2 10.6	1.750	2.744	2.6	20.6
4 11	12 23.96	- 4 12.0	2.314	3.295	4.3	18.1	4 11	12 23.59	+ 3 5.0	1.754	2.725	6.5	20.8
4 21	12 16.59	- 3 50.2	2.357	3.291	7.6	18.3	4 21	12 16.03	+ 3 47.5	1.784	2.706	10.5	21.0
5 1	12 10.67	- 3 35.1	2.425	3.286	10.6	18.5	5 1	12 10.24	+ 4 14.3	1.838	2.686	14.1	21.2
101012	1998 <i>QJ</i> ₅₀		3 29.8 149°76'	0.4°/30.1	18		318581	2005 <i>GE</i> ₁₆₈		3 29.8 309°44'	0.7°/30.3	17	
2 21	13 4.48	- 6 27.6	1.662	2.456	16.8	19.6	2 21	12 55.84	- 7 54.4	1.455	2.270	17.7	20.6
3 2	12 59.50	- 6 19.0	1.582	2.463	13.2	19.4	3 2	12 53.47	- 7 38.9	1.357	2.250	14.2	20.3
3 12	12 51.87	- 5 55.7	1.524	2.470	8.9	19.2	3 12	12 48.30	- 7 3.6	1.279	2.231	9.7	20.0
3 22	12 42.25	- 5 20.4	1.490	2.477	4.1	18.9	3 22	12 40.85	- 6 10.9	1.224	2.212	4.7	19.7
4 1	12 31.70	- 4 38.3	1.484	2.483	1.0	18.7	4 1	12 32.09	- 5 6.4	1.194	2.193	1.2	19.4
4 11	12 21.49	- 3 56.0	1.506	2.488	5.9	19.0	4 11	12 23.35	- 3 59.0	1.190	2.175	6.6	19.7
4 21	12 12.73	- 3 19.9	1.554	2.493	10.5	19.3	4 21	12 15.92	- 2 57.8	1.210	2.157	11.9	19.9
5 1	12 6.27	- 2 55.2	1.626	2.497	14.5	19.6	5 1	12 10.85	- 2 11.0	1.251	2.140	16.6	20.1
452553	2004 <i>XC</i> ₇₃		3 29.8 78°01'	4.8°/ 3.2	18		419592	2010 <i>RX</i> ₁₁₀		3 29.8 195°13'	0.5°/29.3	15	
2 21	13 0.55	- 18 49.5	1.513	2.273	19.7	20.9	2 21	13 0.18	- 5 22.4	2.071	2.862	14.0	22.9
3 2	12 56.63	- 18 45.9	1.448	2.296	16.2	20.7	3 2	12 55.74	- 4 48.3	1.978	2.860	10.9	22.6
3 12	12 49.97	- 18 14.8	1.401	2.318	12.1	20.5	3 12	12 49.18	- 4 1.0	1.908	2.857	7.3	22.4
3 22	12 41.37	- 17 17.0	1.376	2.341	7.9	20.3	3 22	12 41.02	- 3 4.0	1.865	2.853	3.2	22.1
4 1	12 31.97	- 15 57.1	1.376	2.363	4.9	20.2	4 1	12 32.08	- 2 2.7	1.851	2.849	1.2	22.0
4 11	12 23.11	- 14 24.2	1.403	2.386	6.2	20.3	4 11	12 23.32	- 1 3.6	1.866	2.844	5.4	22.3
4 21	12 15.88	- 12 49.0	1.456	2.408	9.9	20.6	4 21	12 15.62	- 0 12.6	1.909	2.839	9.4	22.5
5 1	12 11.05	- 11 21.5	1.533	2.429	13.7	20.8	5 1	12 9.69	+ 0 25.8	1.976	2.833	12.9	22.7
511724	2015 <i>CP</i> ₆₄		3 29.8 247°33'	1.7°/31.4	17		367182	2006					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
140530	2001 TY ₁₇₆		3 29.8 55°67	0°4/30.2	17		209495	2004 JS ₁₀		3 29.8 349°84	10°4/18.9	17	R
2 21	12 59.45	- 5 31.4	2.158	2.948	13.5	20.3	2 21	12 57.77	+22 41.2	1.764	2.595	14.4	19.3
3 2	12 55.02	- 5 33.8	2.074	2.953	10.6	20.1	3 2	12 54.29	+24 4.9	1.706	2.589	12.3	19.2
3 12	12 48.60	- 5 26.0	2.012	2.959	7.1	19.9	3 12	12 48.37	+25 18.9	1.669	2.583	10.8	19.1
3 22	12 40.73	- 5 10.2	1.978	2.964	3.3	19.7	3 22	12 40.69	+26 13.6	1.657	2.579	10.5	19.0
4 1	12 32.19	- 4 49.7	1.971	2.970	0.8	19.5	4 1	12 32.26	+26 40.8	1.668	2.575	11.6	19.1
4 11	12 23.88	- 4 28.7	1.994	2.976	4.7	19.8	4 11	12 24.21	+26 36.5	1.702	2.571	13.7	19.2
4 21	12 16.60	- 4 11.5	2.044	2.981	8.4	20.0	4 21	12 17.53	+26 0.7	1.756	2.569	16.0	19.3
5 1	12 11.01	- 4 1.4	2.119	2.987	11.6	20.2	5 1	12 12.95	+24 56.8	1.828	2.567	18.2	19.5
136936	1998 QO ₂₀		3 29.8 227°39	0°2/29.6	17		219577	2001 ST ₂₂₁		3 29.8 214°36	1°0/28.7	17	
2 21	12 59.30	- 6 20.5	2.113	2.902	13.8	21.2	2 21	12 58.87	- 3 37.9	2.158	2.955	13.3	22.1
3 2	12 55.12	- 5 44.6	2.011	2.891	10.9	21.0	3 2	12 54.68	- 2 58.5	2.063	2.949	10.3	21.9
3 12	12 48.82	- 4 54.3	1.931	2.878	7.3	20.8	3 12	12 48.46	- 2 7.2	1.990	2.941	6.8	21.6
3 22	12 40.90	- 3 52.8	1.878	2.866	3.2	20.5	3 22	12 40.73	- 1 8.0	1.945	2.934	3.0	21.4
4 1	12 32.13	- 2 45.5	1.854	2.852	1.1	20.3	4 1	12 32.23	- 0 6.3	1.929	2.925	1.7	21.3
4 11	12 23.44	- 1 39.0	1.859	2.838	5.3	20.5	4 11	12 23.87	+ 0 51.6	1.942	2.917	5.6	21.5
4 21	12 15.73	- 0 39.5	1.892	2.823	9.4	20.8	4 21	12 16.49	+ 1 40.1	1.982	2.907	9.4	21.7
5 1	12 9.74	+ 0 7.6	1.949	2.807	13.0	21.0	5 1	12 10.78	+ 2 15.2	2.047	2.897	12.7	21.9
407767	2011 WU ₈₈		3 29.8 171°87	2°0/28.1	17		505474	2013 TB ₁₃₅		3 29.8 242°10	11°7/11.9	18	
2 21	13 2.25	- 1 0.0	1.821	2.628	15.0	22.0	2 21	13 8.88	+36 46.9	2.516	3.271	12.8	22.1
3 2	12 57.55	- 0 23.9	1.739	2.631	11.6	21.8	3 2	13 2.51	+38 20.1	2.454	3.251	12.0	22.0
3 12	12 50.47	+ 0 22.9	1.680	2.634	7.6	21.6	3 12	12 53.69	+39 37.7	2.415	3.231	11.7	22.0
3 22	12 41.62	+ 1 15.3	1.647	2.636	3.5	21.3	3 22	12 43.06	+40 31.2	2.398	3.209	12.0	22.0
4 1	12 31.94	+ 2 6.9	1.643	2.637	2.7	21.3	4 1	12 31.59	+40 54.2	2.405	3.186	12.9	22.0
4 11	12 22.54	+ 2 51.0	1.666	2.638	6.7	21.5	4 11	12 20.42	+40 43.9	2.433	3.163	14.2	22.0
4 21	12 14.42	+ 3 22.4	1.716	2.638	10.8	21.8	4 21	12 10.57	+40 1.5	2.480	3.139	15.6	22.1
5 1	12 8.34	+ 3 37.7	1.789	2.638	14.4	22.0	5 1	12 2.83	+38 50.8	2.543	3.114	17.0	22.2
295454	2008 PW ₁		3 29.8 214°66	0°8/28.9	17		166222	2002 FY ₃		3 29.8 357°90	5°6/25.5	18	
2 21	12 59.18	- 3 16.8	2.481	3.270	12.0	22.2	2 21	12 59.90	+ 6 7.9	1.378	2.219	17.1	19.5
3 2	12 54.64	- 2 48.8	2.380	3.262	9.3	22.0	3 2	12 56.45	+ 7 5.6	1.308	2.218	13.2	19.3
3 12	12 48.29	- 2 11.4	2.304	3.254	6.2	21.8	3 12	12 50.10	+ 8 9.9	1.260	2.217	9.1	19.0
3 22	12 40.60	- 1 27.6	2.256	3.244	2.7	21.5	3 22	12 41.56	+ 9 11.8	1.235	2.217	5.9	18.9
4 1	12 32.22	- 0 41.6	2.237	3.234	1.4	21.4	4 1	12 32.01	+10 1.4	1.236	2.217	6.6	18.9
4 11	12 23.96	+ 0 1.5	2.249	3.224	4.9	21.6	4 11	12 22.85	+10 30.5	1.261	2.217	10.3	19.1
4 21	12 16.54	+ 0 37.5	2.288	3.213	8.3	21.8	4 21	12 15.31	+10 35.1	1.310	2.218	14.5	19.3
5 1	12 10.59	+ 1 3.0	2.353	3.201	11.4	22.0	5 1	12 10.28	+10 14.7	1.377	2.219	18.2	19.6
7162	Sidwell		3 29.8 181°70	1°8/31.6	18		2785	Sedov		3 29.8 114°64	0°4/30.3	18	R
2 21	12 59.76	-12 0.3	1.892	2.666	15.8	18.8	2 21	12 57.54	- 7 8.8	2.128	2.917	13.7	17.2
3 2	12 55.66	-11 36.5	1.801	2.667	12.6	18.6	3 2	12 53.61	- 6 50.8	2.043	2.921	10.8	17.0
3 12	12 49.24	-10 53.5	1.731	2.667	8.9	18.3	3 12	12 47.70	- 6 20.1	1.980	2.925	7.3	16.7
3 22	12 41.09	- 9 53.3	1.687	2.667	4.7	18.1	3 22	12 40.36	- 5 39.2	1.943	2.929	3.4	16.5
4 1	12 32.08	- 8 40.8	1.670	2.667	1.8	17.9	4 1	12 32.35	- 4 52.5	1.935	2.933	0.8	16.3
4 11	12 23.29	- 7 23.3	1.681	2.666	5.1	18.1	4 11	12 24.56	- 4 5.5	1.955	2.937	4.8	16.6
4 21	12 15.68	- 6 8.5	1.721	2.664	9.3	18.3	4 21	12 17.79	- 3 23.4	2.003	2.941	8.5	16.8
5 1	12 10.01	- 5 3.6	1.784	2.661	13.1	18.5	5 1	12 12.68	- 2 50.8	2.075	2.944	11.8	17.0
452754	2006 BV ₂₃₀		3 29.8 6°55	3°7/27.4	16		312195	2007 VJ ₁₆₁		3 29.8 65°20	2°0/31.4	18	
2 21	12 56.22	+ 1 1.0	1.072	1.928	19.8	21.3	2 21	13 0.75	-10 28.0	1.472	2.268	18.5	20.9
3 2	12 54.24	+ 1 38.3	1.009	1.928	15.3	21.0	3 2	12 56.84	-10 26.0	1.405	2.284	14.7	20.7
3 12	12 48.94	+ 2 28.9	0.965	1.929	10.1	20.7	3 12	12 50.18	-10 4.2	1.357	2.300	10.2	20.4
3 22	12 41.11	+ 3 24.8	0.942	1.931	5.0	20.4	3 22	12 41.54	- 9 24.9	1.333	2.316	5.4	20.2
4 1	12 32.09	+ 4 15.4	0.941	1.934	4.7	20.4	4 1	12 32.04	- 8 33.3	1.335	2.333	2.0	20.0
4 11	12 23.54	+ 4 50.4	0.964	1.939	9.7	20.7	4 11	12 23.01	- 7 37.4	1.364	2.349	5.8	20.3
4 21	12 16.90	+ 5 3.4	1.008	1.945	14.9	21.0	4 21	12 15.57	- 6 45.1	1.417	2.366	10.4	20.6
5 1	12 13.13	+ 4 52.2	1.070	1.952	19.4	21.3	5 1	12 10.53	- 6 3.2	1.494	2.382	14.5	20.9
434813	2006 RT ₈₉		3 29.8 177°38	0°5/30.4	18		382224	2012 QZ ₅₁		3 29.8 246°63	3°9/6.8	18	
2 21	12 55.53	- 8 9.7	2.778	3.552	11.2	22.0	2 21	12 52.92	-26 40.7	4.853	5.495	8.4	21.1
3 2	12 51.59	- 7 41.6	2.683	3.553	8.8	21.8	3 2	12 49.10	-27 5.9	4.737	5.488	7.3	21.0
3 12	12 46.13	- 7 2.2	2.613	3.554	6.0	21.6	3 12	12 44.28	-27 20.6	4.643	5.481	6.1	20.9
3 22	12 39.59	- 6 14.0	2.570	3.555	2.8	21.4	3 22	12 38.74	-27 24.2	4.574	5.474	4.9	20.8
4 1	12 32.53	- 5 20.7	2.557	3.555	0.7	21.2	4 1	12 32.82	-27 17.0	4.532	5.467	4.1	20.7
4 11	12 25.62	- 4 26.6	2.574	3.555	3.8	21.5	4 11	12 26.92	-27 0.2	4.520	5.460	4.0	20.7
4 21	12 19.46	- 3 36.2	2.620	3.555	6.9	21.7	4 21	12 21.42	-26 35.6	4.535	5.452	4.7	20.8
5 1	12 14.55	- 2 53.3	2.692	3.554	9.7	21.8	5 1	12 16.68	-26 5.9	4.578	5.445	5.9	20.8
114722	2003 GN ₃₃		3 29.8 348°84	0°2/29.6	17		299481	2006 BZ ₁₇₀		3 29.8 179°54	3°0/27.0	18	
2 21	12 54.66	- 5 47.3	2.260	3.056	12.8	20.8	2 21	13 0.58	- 0 4.9	1.724	2.540	15.3	21.2
3 2	12 51.29	- 5 19.2	2.170	3.055	10.0	20.6	3 2	12 56.42	+ 0 59.4	1.644	2.541	11.8	20.9
3 12	12 46.12	- 4 39.2	2.104	3.053	6.6	20.3	3 12	12 49.80	+ 2 15.9	1.586	2.542	7.7	20.7
3 22	12 39.63	- 3 50.5	2.064	3.052	2.9	20.1	3 22	12 41.37	+ 3 38.0	1.555	2.543	3.9	20.4
4 1	12 32.52	- 2 57.6	2.053	3.051	0.9	19.9	4 1	12 32.07	+ 4 57.1	1.552	2.542	3.8	20.4
4 11	12 25.58	- 2 6.2	2.070	3.051	4.7	20.2	4 11	12 23.06	+ 6 4.5	1.577	2.542	7.7	20.7
4 21	12 19.54	- 1 21.1	2.115	3.050	8.3	20.4	4 21	12 15.35	+ 6 54.2	1.627	2.540	11.8	20.9
5 1	12 14.99	- 0 46.4	2.185	3.050	11.5	20.6	5 1	12 9.72	+ 7 22.7	1.699	2.538	15.4	21.1
87814	2000 SG ₁₅₄		3 29.8 214°66	0°5/29.2	18		379335	2009 WT ₇₇		3 29.8 220°41	2°8/1.6	17	
2 21	12 56.68	- 3 38.8	2.945	3.730									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
389242	2009 <i>FW</i> ₁₂		3 29.8 245°55	1°1/30.9	17		409405	2005 <i>GL</i> ₁₄		3 29.8 37°64	1°1/30.5	18	
2 21	12 58.82	- 8 2.9	2.458	3.232	12.5	21.2	2 21	13 2.29	- 6 19.4	1.347	2.161	19.0	20.8
3 2	12 54.43	- 8 6.9	2.357	3.225	9.9	21.0	3 2	12 58.36	- 6 35.7	1.277	2.169	15.0	20.5
3 12	12 48.20	- 8 0.2	2.279	3.218	6.9	20.8	3 12	12 51.40	- 6 36.6	1.227	2.178	10.2	20.3
3 22	12 40.60	- 7 44.2	2.228	3.211	3.5	20.6	3 22	12 42.17	- 6 24.2	1.200	2.187	4.9	20.0
4 1	12 32.29	- 7 21.5	2.206	3.204	1.2	20.4	4 1	12 31.89	- 6 3.0	1.198	2.197	1.3	19.8
4 11	12 24.08	- 6 56.0	2.214	3.196	4.2	20.6	4 11	12 22.05	- 5 39.7	1.222	2.207	6.4	20.1
4 21	12 16.72	- 6 31.7	2.249	3.189	7.7	20.8	4 21	12 13.94	- 5 20.6	1.270	2.218	11.4	20.5
5 1	12 10.84	- 6 12.3	2.311	3.181	10.8	21.0	5 1	12 8.46	- 5 11.2	1.340	2.229	15.8	20.7
365894	2011 <i>WJ</i> ₁₀		3 29.8 34°87	1°9/28.5	16		219615	2001 <i>TH</i> ₁₁₉		3 29.8 92°87	6°5/4.9	18 R	
2 21	12 58.92	- 2 5.0	1.270	2.105	18.7	21.3	2 21	13 2.43	-22 9.3	1.916	2.634	17.4	20.3
3 2	12 55.79	- 1 35.5	1.207	2.113	14.4	21.0	3 2	12 57.79	-22 51.5	1.837	2.649	14.8	20.2
3 12	12 49.67	- 0 51.4	1.163	2.123	9.5	20.8	3 12	12 50.70	-23 11.6	1.777	2.665	11.8	20.0
3 22	12 41.36	+ 0 1.0	1.143	2.132	4.2	20.5	3 22	12 41.78	-23 7.7	1.740	2.680	8.8	19.8
4 1	12 32.09	+ 0 53.4	1.147	2.143	2.8	20.4	4 1	12 32.00	-22 40.4	1.728	2.695	6.7	19.7
4 11	12 23.33	+ 1 36.8	1.176	2.154	7.8	20.8	4 11	12 22.51	-21 53.7	1.743	2.710	7.0	19.8
4 21	12 16.29	+ 2 4.6	1.228	2.166	12.7	21.1	4 21	12 14.35	-20 54.8	1.785	2.724	9.3	20.0
5 1	12 11.84	+ 2 13.1	1.301	2.178	17.0	21.4	5 1	12 8.30	-19 51.7	1.851	2.738	12.2	20.2
470317	2007 <i>PJ</i> ₂₁		3 29.8 316°79	6°1/1.9	16		428745	2008 <i>SL</i> ₃		3 29.8 250°56	1°8/27.9	17	
2 21	13 2.29	-14 47.4	1.612	2.381	18.2	20.9	2 21	12 57.68	- 1 31.6	2.195	2.999	12.9	21.6
3 2	12 59.02	-15 53.1	1.476	2.331	15.5	20.5	3 2	12 53.81	- 0 46.6	2.092	2.983	10.0	21.4
3 12	12 52.57	-16 45.9	1.359	2.281	12.1	20.2	3 12	12 47.94	+ 0 9.2	2.014	2.967	6.6	21.2
3 22	12 43.13	-17 22.1	1.265	2.230	8.4	19.8	3 22	12 40.54	+ 1 11.6	1.962	2.951	3.0	20.9
4 1	12 31.44	-17 38.8	1.195	2.180	6.1	19.6	4 1	12 32.34	+ 2 14.6	1.940	2.934	2.4	20.8
4 11	12 18.86	-17 36.3	1.151	2.129	8.0	19.5	4 11	12 24.21	+ 3 12.1	1.946	2.917	6.0	21.0
4 21	12 7.01	-17 18.6	1.132	2.079	12.6	19.6	4 21	12 16.99	+ 3 58.5	1.980	2.899	9.7	21.2
5 1	11 57.48	-16 53.4	1.134	2.029	17.6	19.7	5 1	12 11.37	+ 4 30.1	2.037	2.881	13.1	21.4
69465	1996 <i>VR</i> ₅		3 29.8 67°72	0°3/29.5	18		469094	2015 <i>BN</i> ₄₈₉		3 29.8 128°07	3°5/2.2	17	
2 21	13 0.10	- 6 17.7	1.441	2.254	18.0	18.4	2 21	12 58.42	-15 2.0	1.969	2.729	15.7	21.1
3 2	12 56.25	- 5 42.2	1.381	2.274	13.9	18.2	3 2	12 54.60	-15 11.6	1.878	2.730	12.8	20.9
3 12	12 49.73	- 4 49.3	1.341	2.294	9.2	18.0	3 12	12 48.56	-15 2.9	1.808	2.731	9.5	20.7
3 22	12 41.30	- 3 44.0	1.326	2.315	4.0	17.7	3 22	12 40.84	-14 36.1	1.761	2.732	5.9	20.5
4 1	12 32.13	- 2 34.4	1.337	2.335	1.4	17.6	4 1	12 32.27	-13 53.9	1.742	2.732	3.5	20.3
4 11	12 23.51	- 1 29.4	1.374	2.355	6.5	17.9	4 11	12 23.88	-13 1.4	1.751	2.733	5.2	20.4
4 21	12 16.51	- 0 36.5	1.436	2.376	11.1	18.3	4 21	12 16.61	-12 5.2	1.786	2.734	8.7	20.6
5 1	12 11.86	- 0 0.6	1.521	2.396	15.0	18.5	5 1	12 11.20	-11 12.1	1.846	2.735	12.1	20.8
52912	1998 <i>SN</i> ₁₀₀		3 29.8 227°18	1°8/31.3	17		100217	1994 <i>PL</i> ₇		3 29.8 173°90	1°6/31.9	18	
2 21	13 2.53	-10 28.8	1.780	2.559	16.4	20.0	2 21	12 57.01	-11 22.4	3.005	3.758	10.9	20.9
3 2	12 58.15	-10 22.5	1.678	2.548	13.2	19.7	3 2	12 52.64	-11 16.6	2.907	3.760	8.7	20.8
3 12	12 51.15	- 9 58.4	1.598	2.537	9.3	19.5	3 12	12 46.81	-10 59.6	2.833	3.762	6.2	20.6
3 22	12 42.08	- 9 17.7	1.543	2.525	4.9	19.2	3 22	12 39.93	-10 32.9	2.787	3.764	3.4	20.4
4 1	12 31.87	- 8 24.2	1.515	2.512	1.8	18.9	4 1	12 32.54	- 9 58.7	2.770	3.765	1.6	20.3
4 11	12 21.72	- 7 24.6	1.515	2.498	5.6	19.1	4 11	12 25.28	- 9 20.6	2.783	3.766	3.5	20.4
4 21	12 12.78	- 6 26.4	1.541	2.484	10.2	19.4	4 21	12 18.72	- 8 42.1	2.826	3.766	6.2	20.6
5 1	12 5.98	- 5 36.7	1.592	2.469	14.4	19.6	5 1	12 13.36	- 8 7.2	2.896	3.766	8.8	20.8
57872	2001 <i>YU</i> ₈₇		3 29.8 242°54	10°3/12.5	18		190575	2000 <i>SC</i> ₂₄₃		3 29.8 182°20	1°9/27.9	18	
2 21	12 59.00	+32 46.6	2.597	3.382	11.6	19.2	2 21	13 1.90	- 1 14.6	1.948	2.751	14.3	21.3
3 2	12 54.65	+34 25.7	2.548	3.374	10.7	19.1	3 2	12 57.17	- 0 31.5	1.862	2.753	11.0	21.0
3 12	12 48.34	+35 51.5	2.521	3.366	10.3	19.1	3 12	12 50.19	+ 0 22.4	1.800	2.753	7.3	20.8
3 22	12 40.64	+36 57.0	2.519	3.357	10.6	19.1	3 22	12 41.54	+ 1 22.2	1.765	2.753	3.3	20.6
4 1	12 32.31	+37 36.2	2.540	3.349	11.6	19.2	4 1	12 32.09	+ 2 21.5	1.758	2.752	2.7	20.5
4 11	12 24.24	+37 46.7	2.583	3.340	12.8	19.2	4 11	12 22.88	+ 3 13.4	1.780	2.750	6.5	20.7
4 21	12 17.23	+37 28.9	2.645	3.331	14.2	19.3	4 21	12 14.84	+ 3 52.7	1.829	2.748	10.4	21.0
5 1	12 11.88	+36 45.5	2.722	3.321	15.5	19.4	5 1	12 8.70	+ 4 15.9	1.901	2.745	13.9	21.2
289938	2005 <i>NQ</i> ₃₇		3 29.8 136°00	3°5/3.2	17		419325	2009 <i>WY</i> ₁₁₀		3 29.8 322°77	8°8/21.6	17	
2 21	12 56.87	-17 53.0	2.733	3.459	12.5	21.3	2 21	13 1.37	+17 52.8	1.773	2.601	14.4	20.3
3 2	12 52.73	-17 58.8	2.640	3.467	10.4	21.2	3 2	12 57.01	+19 4.4	1.707	2.598	11.8	20.2
3 12	12 46.95	-17 49.4	2.569	3.474	7.9	21.0	3 12	12 50.17	+20 10.6	1.664	2.594	9.7	20.0
3 22	12 40.00	-17 25.1	2.523	3.481	5.3	20.9	3 22	12 41.53	+21 2.2	1.646	2.591	8.8	19.9
4 1	12 32.49	-16 47.7	2.506	3.488	3.6	20.7	4 1	12 32.10	+21 31.0	1.654	2.588	9.8	20.0
4 11	12 25.15	-16 1.0	2.518	3.495	4.3	20.8	4 11	12 23.05	+21 32.4	1.686	2.585	12.1	20.1
4 21	12 18.62	-15 9.5	2.559	3.501	6.7	21.0	4 21	12 15.39	+21 5.6	1.740	2.583	14.8	20.3
5 1	12 13.44	-14 18.2	2.626	3.508	9.2	21.1	5 1	12 9.87	+20 13.0	1.813	2.580	17.4	20.5
2967	Vladisvyat		3 29.8 143°22	3°3/26.1	18		15979	1998 <i>QW</i> ₃₄		3 29.8 261°63	1°7/27.8	18 R	
2 21	13 0.18	+ 7 15.8	2.736	3.541	10.6	16.7	2 21	12 55.14	- 3 31.0	2.204	3.008	12.8	18.1
3 2	12 55.07	+ 7 42.2	2.658	3.548	8.1	16.5	3 2	12 51.85	- 2 21.8	2.099	2.990	9.9	17.8
3 12	12 48.39	+ 8 9.9	2.606	3.555	5.6	16.4	3 12	12 46.64	- 0 58.3	2.019	2.973	6.5	17.6
3 22	12 40.60	+ 8 35.0	2.582	3.561	3.5	16.3	3 22	12 39.97	+ 0 34.7	1.965	2.954	2.9	17.3
4 1	12 32.34	+ 8 53.6	2.588	3.567	3.8	16.3	4 1	12 32.52	+ 2 10.3	1.942	2.936	2.4	17.2
4 11	12 24.32	+ 9 2.4	2.624	3.573	6.0	16.4	4 11	12 25.14	+ 3 40.7	1.947	2.917	6.1	17.4
4 21	12 17.17	+ 8 59.5	2.688	3.579	8.6	16.6	4 21	12 18.62	+ 4 59.2	1.980	2.898	9.8	17.6
5 1	12 11.39	+ 8 44.3	2.776	3.584	11.0	16.8	5 1	12 13.64	+ 6 0.6	2.037	2.878	13.2	17.8
403729	2010 <i>XU</i> ₈		3 29.8 130°53	0°2/29.7	18		162572	2000 <i>RT</i> ₆₀		3 29.8 216°22			

EPHEMERIDES

3 29.8

3 29.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
503376	2016 <i>CR</i> ₃₅		3 29.8 334°59	6°8/ 2.3 17			380940	2006 <i>JX</i> ₄₃		3 29.8 81°63	0°9/28.9 17		
2 21	13 1.72	-14 36.2	1.277	2.068	21.1	20.2	2 21	12 56.62	-3 58.0	2.030	2.834	13.8	21.5
3 2	12 58.71	-16 1.6	1.188	2.055	17.7	20.0	3 2	12 53.00	-3 22.4	1.946	2.836	10.7	21.3
3 12	12 52.25	-17 9.8	1.117	2.043	13.6	19.7	3 12	12 47.38	-2 34.8	1.886	2.838	7.0	21.1
3 22	12 42.85	-17 56.5	1.066	2.032	9.5	19.4	3 22	12 40.29	-1 39.4	1.851	2.840	3.0	20.8
4 1	12 31.44	-18 18.9	1.038	2.022	6.9	19.2	4 1	12 32.50	-0 41.6	1.845	2.842	1.6	20.7
4 11	12 20.68	-18 19.1	1.034	2.013	8.5	19.3	4 11	12 24.94	+0 12.2	1.867	2.844	5.5	21.0
4 21	12 10.82	-18 3.3	1.053	2.005	12.7	19.5	4 21	12 18.42	+0 56.6	1.915	2.846	9.3	21.2
5 1	12 4.19	-17 40.8	1.093	1.998	17.2	19.7	5 1	12 13.60	+1 27.7	1.988	2.848	12.7	21.4
32834	1992 <i>EO</i> ₄		3 29.8 148°13	3°8/26.5 18			436020	2009 <i>HF</i> ₅₃		3 29.8 235°10	0°3/30.2 17		
2 21	13 0.16	+1 52.4	1.552	2.379	16.2	18.6	2 21	12 54.05	-8 21.3	2.487	3.270	12.2	21.7
3 2	12 56.33	+2 55.3	1.479	2.382	12.5	18.4	3 2	12 50.71	-7 41.0	2.390	3.265	9.5	21.5
3 12	12 49.86	+4 8.9	1.428	2.385	8.3	18.1	3 12	12 45.71	-6 47.3	2.317	3.261	6.4	21.3
3 22	12 41.45	+5 25.7	1.402	2.388	4.5	17.9	3 22	12 39.51	-5 43.1	2.270	3.257	3.0	21.1
4 1	12 32.14	+6 36.4	1.403	2.391	4.7	17.9	4 1	12 32.72	-4 32.8	2.253	3.252	0.7	20.9
4 11	12 23.19	+7 32.3	1.431	2.393	8.6	18.2	4 11	12 26.07	-3 22.2	2.266	3.248	4.3	21.1
4 21	12 15.68	+8 7.7	1.483	2.395	12.8	18.4	4 21	12 20.22	-2 16.8	2.307	3.243	7.7	21.3
5 1	12 10.43	+8 20.2	1.556	2.397	16.5	18.6	5 1	12 15.72	-1 21.3	2.373	3.238	10.7	21.5
500709	2012 <i>WS</i> ₂₈		3 29.8 123°37	0°8/30.9 17			240603	2004 <i>VW</i> ₄₆		3 29.8 171°60	0°1/29.9 18		
2 21	12 55.87	-9 26.3	2.596	3.368	12.0	22.0	2 21	13 0.71	-7 29.3	1.916	2.704	15.1	21.3
3 2	12 51.93	-8 59.5	2.511	3.379	9.4	21.9	3 2	12 56.32	-6 49.9	1.829	2.708	11.8	21.1
3 12	12 46.41	-8 20.4	2.450	3.389	6.4	21.7	3 12	12 49.67	-5 54.4	1.765	2.712	7.9	20.9
3 22	12 39.77	-7 31.3	2.416	3.399	3.2	21.5	3 22	12 41.34	-4 46.4	1.727	2.714	3.6	20.6
4 1	12 32.63	-6 36.0	2.411	3.409	0.9	21.3	4 1	12 32.22	-3 32.1	1.717	2.716	1.0	20.4
4 11	12 25.69	-5 39.4	2.436	3.419	3.9	21.6	4 11	12 23.34	-2 18.9	1.737	2.717	5.5	20.7
4 21	12 19.59	-4 46.3	2.490	3.428	7.1	21.8	4 21	12 15.65	-1 13.8	1.783	2.717	9.7	21.0
5 1	12 14.84	-4 0.7	2.570	3.437	9.9	22.0	5 1	12 9.87	-0 22.4	1.854	2.717	13.3	21.2
317910	2003 <i>UN</i> ₂₆₉		3 29.8 183°46	0°6/30.5 17			500859	2013 <i>JG</i> ₆		3 29.8 290°48	1°2/28.9 17		
2 21	13 1.04	-8 29.2	2.168	2.944	13.9	22.6	2 21	12 58.07	-3 54.9	1.513	2.333	16.9	21.8
3 2	12 56.34	-8 3.4	2.074	2.945	11.0	22.4	3 2	12 55.14	-3 22.4	1.414	2.312	13.3	21.5
3 12	12 49.57	-7 23.3	2.003	2.945	7.5	22.2	3 12	12 49.43	-2 33.1	1.336	2.292	8.9	21.2
3 22	12 41.26	-6 31.2	1.959	2.944	3.6	21.9	3 22	12 41.44	-1 31.1	1.281	2.271	3.9	20.9
4 1	12 32.20	-5 31.9	1.944	2.943	0.9	21.7	4 1	12 32.15	-0 23.7	1.253	2.250	2.1	20.7
4 11	12 23.32	-4 31.2	1.959	2.941	4.8	22.0	4 11	12 22.86	+0 40.0	1.251	2.230	7.4	21.0
4 21	12 15.48	-3 35.2	2.002	2.937	8.7	22.2	4 21	12 14.85	+1 31.5	1.273	2.209	12.5	21.2
5 1	12 9.37	-2 48.9	2.070	2.934	12.1	22.4	5 1	12 9.16	+2 4.5	1.316	2.189	17.1	21.4
253088	2002 <i>TG</i> ₂₄₇		3 29.8 221°65	1°1/28.6 17			53560	2000 <i>CT</i> ₂₁		3 29.8 28°85	1°4/30.9 18		
2 21	12 59.57	-3 36.7	2.124	2.920	13.5	21.6	2 21	12 56.97	-9 43.3	1.153	1.977	20.9	19.4
3 2	12 55.32	-2 54.5	2.025	2.911	10.5	21.4	3 2	12 54.69	-9 28.8	1.087	1.983	16.6	19.2
3 12	12 48.97	-1 59.9	1.949	2.900	6.9	21.2	3 12	12 49.21	-8 49.5	1.038	1.990	11.4	18.9
3 22	12 41.03	-0 56.9	1.900	2.889	3.0	20.9	3 22	12 41.30	-7 48.9	1.011	1.998	5.7	18.6
4 1	12 32.26	+0 8.8	1.881	2.877	1.8	20.8	4 1	12 32.24	-6 34.6	1.007	2.006	1.6	18.3
4 11	12 23.61	+1 10.6	1.890	2.865	5.8	21.0	4 11	12 23.64	-5 18.0	1.028	2.015	6.9	18.7
4 21	12 15.94	+2 2.6	1.928	2.852	9.7	21.2	4 21	12 16.88	-4 10.1	1.071	2.024	12.4	19.0
5 1	12 9.97	+2 40.5	1.989	2.838	13.1	21.4	5 1	12 12.89	-3 19.3	1.134	2.034	17.2	19.3
5095	Escalante		3 29.8 224°19	4°8/24.2 18			387811	2004 <i>EH</i> ₄₆		3 29.8 343°04	3°3/27.4 17		
2 21	12 58.46	+5 35.4	2.067	2.887	13.0	17.9	2 21	12 59.38	+4 10.8	1.719	2.545	14.9	19.8
3 2	12 54.50	+7 7.2	1.978	2.877	10.0	17.7	3 2	12 55.60	+4 22.6	1.633	2.536	11.6	19.6
3 12	12 48.44	+8 47.1	1.914	2.866	7.0	17.5	3 12	12 49.36	+4 38.9	1.570	2.527	7.7	19.3
3 22	12 40.79	+10 27.3	1.877	2.854	4.9	17.4	3 22	12 41.27	+4 54.9	1.532	2.519	4.1	19.1
4 1	12 32.33	+11 59.3	1.870	2.841	5.8	17.4	4 1	12 32.24	+5 5.1	1.521	2.512	3.9	19.1
4 11	12 24.00	+13 15.0	1.890	2.828	8.8	17.5	4 11	12 23.43	+5 4.4	1.537	2.505	7.6	19.3
4 21	12 16.68	+14 9.2	1.937	2.814	12.0	17.7	4 21	12 15.87	+4 49.6	1.577	2.499	11.6	19.5
5 1	12 11.09	+14 39.8	2.005	2.800	15.0	17.9	5 1	12 10.38	+4 19.6	1.640	2.494	15.2	19.7
392830	2012 <i>TD</i> ₃₀₈		3 29.8 95°82	1°7/31.7 17			246973	1999 <i>TA</i> ₁₅₅		3 29.8 174°11	0°7/29.1 18		
2 21	13 1.06	-10 9.3	2.581	3.339	12.4	22.0	2 21	13 1.71	-4 5.9	2.094	2.885	13.8	21.9
3 2	12 55.87	-10 19.7	2.503	3.360	9.9	21.9	3 2	12 56.88	-3 36.0	2.006	2.889	10.8	21.7
3 12	12 48.98	-10 18.8	2.449	3.380	6.9	21.7	3 12	12 49.94	-2 54.4	1.942	2.891	7.1	21.5
3 22	12 40.90	-10 8.1	2.422	3.400	3.8	21.5	3 22	12 41.44	-2 5.0	1.905	2.893	3.1	21.2
4 1	12 32.33	-9 49.6	2.424	3.420	1.7	21.4	4 1	12 32.21	-1 12.8	1.897	2.894	1.4	21.1
4 11	12 24.02	-9 27.0	2.457	3.439	3.9	21.6	4 11	12 23.20	-0 24.0	1.918	2.895	5.4	21.4
4 21	12 16.65	-9 3.9	2.519	3.459	6.9	21.8	4 21	12 15.29	+0 16.5	1.967	2.895	9.3	21.6
5 1	12 10.76	-8 44.1	2.607	3.477	9.7	22.0	5 1	12 9.16	+0 44.6	2.041	2.894	12.7	21.8
327457	2005 <i>WG</i> ₁₆₇		3 29.8 227°04	1°9/27.9 17			258528	2002 <i>BT</i> ₂		3 29.8 322°44	12°4/ 9.9 16		
2 21	12 59.63	-0 25.7	2.189	2.992	12.9	21.7	2 21	13 3.07	-36 54.8	2.223	2.824	18.0	20.0
3 2	12 55.27	+0 11.7	2.092	2.982	10.0	21.5	3 2	12 59.00	-38 49.4	2.117	2.809	16.7	19.9
3 12	12 48.89	+0 58.2	2.019	2.972	6.6	21.3	3 12	12 52.09	-40 23.5	2.027	2.794	15.2	19.7
3 22	12 40.98	+1 49.6	1.973	2.961	3.1	21.0	3 22	12 42.73	-41 30.6	1.956	2.780	13.8	19.6
4 1	12 32.29	+2 40.4	1.956	2.950	2.6	21.0	4 1	12 31.77	-42 5.3	1.906	2.766	12.7	19.5
4 11	12 23.71	+3 24.8	1.969	2.938	6.1	21.2	4 11	12 20.47	-42 6.0	1.879	2.752	12.4	19.4
4 21	12 16.10	+3 58.2	2.008	2.926	9.7	21.4	4 21	12 10.19	-41 35.4	1.874	2.739	12.9	19.4
5 1	12 10.15	+4 17.2	2.072	2.913	13.0	21.6	5 1	12 2.13	-40 40.4	1.890	2.727	14.2	19.5
296159	2009 <i>BX</i> ₁₂₂		3 29.8 273°74	2°8/ 1.7 17			103021	1999 <i>XM</i> ₁₀₉		3 29.8 79°26	2°7/27.5 18		
2 21	12 57.93	-13 17.0	2.285	3.044	13.8								

EPHEMERIDES

3 29.8

3 29.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
164378	2005 <i>EY</i> ₁₂₄		3 29.8 101°50	0°3/29.6	17		150740	2001 <i>QF</i> ₆₉		3 29.8 164°61	2°5/1.6	18	
2 21	12 56.69	- 5 38.1	2.154	2.949	13.4	20.5	2 21	12 59.72	-14 5.7	2.290	3.041	14.0	20.8
3 2	12 52.93	- 5 8.1	2.071	2.955	10.4	20.3	3 2	12 55.24	-13 54.1	2.197	3.047	11.3	20.6
3 12	12 47.27	- 4 25.9	2.011	2.960	6.9	20.1	3 12	12 48.82	-13 25.9	2.127	3.052	8.2	20.4
3 22	12 40.23	- 3 35.0	1.978	2.966	3.1	19.9	3 22	12 40.96	-12 42.4	2.082	3.056	4.8	20.2
4 1	12 32.57	- 2 40.2	1.973	2.971	1.0	19.7	4 1	12 32.41	-11 46.6	2.066	3.060	2.5	20.1
4 11	12 25.13	- 1 47.4	1.996	2.976	4.9	20.0	4 11	12 24.06	-10 43.9	2.080	3.063	4.4	20.2
4 21	12 18.69	- 1 1.8	2.048	2.981	8.6	20.2	4 21	12 16.70	- 9 40.4	2.122	3.065	7.8	20.4
5 1	12 13.86	- 0 27.6	2.123	2.987	11.8	20.4	5 1	12 10.98	- 8 42.0	2.190	3.067	11.0	20.6
433246	2012 <i>VG</i> ₉₆		3 29.8 238°65	0°7/29.0	17		430481	2001 <i>SQ</i> ₁₉₈		3 29.8 230°73	1°8/27.3	18	
2 21	12 57.28	- 3 22.1	2.410	3.205	12.1	21.7	2 21	12 55.15	- 1 16.6	2.776	3.574	10.6	21.9
3 2	12 53.26	- 2 58.4	2.313	3.198	9.4	21.5	3 2	12 51.41	- 0 13.0	2.673	3.562	8.2	21.7
3 12	12 47.46	- 2 25.3	2.240	3.191	6.2	21.3	3 12	12 46.14	+ 1 0.0	2.596	3.549	5.3	21.5
3 22	12 40.33	- 1 45.8	2.194	3.183	2.7	21.0	3 22	12 39.73	+ 2 18.3	2.547	3.535	2.5	21.2
4 1	12 32.53	- 1 4.2	2.178	3.175	1.3	20.9	4 1	12 32.75	+ 3 36.5	2.529	3.521	2.4	21.2
4 11	12 24.86	- 0 25.1	2.190	3.167	4.9	21.1	4 11	12 25.84	+ 4 49.1	2.541	3.506	5.2	21.4
4 21	12 18.04	+ 0 7.1	2.231	3.159	8.3	21.3	4 21	12 19.63	+ 5 51.4	2.582	3.491	8.2	21.5
5 1	12 12.68	+ 0 29.0	2.296	3.150	11.4	21.5	5 1	12 14.64	+ 6 40.1	2.648	3.475	10.9	21.7
505152	2012 <i>PT</i> ₂₀		3 29.8 192°33	0°3/30.2	17		436704	2011 <i>TO</i> ₁₀		3 29.8 301°07	0°1/29.9	17	
2 21	12 57.18	- 7 13.8	2.301	3.085	13.0	22.3	2 21	12 52.48	-10 51.8	2.174	2.958	13.7	20.8
3 2	12 53.25	- 6 49.5	2.208	3.084	10.2	22.1	3 2	12 49.83	- 9 28.2	2.069	2.946	10.8	20.6
3 12	12 47.47	- 6 12.7	2.138	3.083	6.9	21.9	3 12	12 45.32	- 7 43.3	1.988	2.933	7.3	20.4
3 22	12 40.33	- 5 26.1	2.096	3.082	3.2	21.7	3 22	12 39.43	- 5 41.5	1.935	2.922	3.3	20.1
4 1	12 32.54	- 4 33.9	2.082	3.080	0.8	21.5	4 1	12 32.83	- 3 29.9	1.911	2.910	0.9	19.9
4 11	12 24.90	- 3 41.4	2.097	3.078	4.6	21.7	4 11	12 26.35	- 1 18.0	1.918	2.898	5.1	20.1
4 21	12 18.18	- 2 53.8	2.140	3.076	8.2	22.0	4 21	12 20.75	+ 0 45.1	1.953	2.886	9.0	20.4
5 1	12 12.99	- 2 15.5	2.208	3.074	11.4	22.2	5 1	12 16.68	+ 2 31.9	2.015	2.875	12.5	20.6
435336	2007 <i>VS</i> ₅₀		3 29.8 132°52	1°5/28.3	17		371653	2007 <i>BZ</i> ₇₇		3 29.8 220°18	1°9/31.5	18	
2 21	12 59.30	- 0 11.2	2.402	3.202	12.0	21.9	2 21	13 1.69	- 9 53.0	2.035	2.808	14.8	20.9
3 2	12 54.69	+ 0 9.3	2.320	3.208	9.3	21.7	3 2	12 57.11	-10 4.7	1.938	2.804	11.9	20.7
3 12	12 48.31	+ 0 36.4	2.263	3.214	6.1	21.5	3 12	12 50.27	-10 2.6	1.863	2.799	8.4	20.5
3 22	12 40.67	+ 1 6.7	2.232	3.220	2.7	21.3	3 22	12 41.69	- 9 47.8	1.814	2.794	4.5	20.2
4 1	12 32.47	+ 1 36.1	2.232	3.226	2.0	21.2	4 1	12 32.21	- 9 22.8	1.792	2.789	1.9	20.0
4 11	12 24.49	+ 2 0.2	2.260	3.232	5.2	21.4	4 11	12 22.85	- 8 52.3	1.800	2.783	4.9	20.2
4 21	12 17.45	+ 2 15.9	2.317	3.237	8.4	21.7	4 21	12 14.56	- 8 21.3	1.835	2.778	8.8	20.4
5 1	12 11.92	+ 2 20.8	2.398	3.243	11.3	21.9	5 1	12 8.13	- 7 55.2	1.894	2.772	12.4	20.6
28494	<i>Jasmine</i>		3 29.8 242°58	2°3/31.7	18		327333	2005 <i>UB</i> ₁₂₈		3 29.9 208°56	0°9/28.9	17	
2 21	13 1.32	-11 43.3	1.685	2.465	17.1	19.2	2 21	13 0.01	- 3 9.0	2.112	2.910	13.5	21.8
3 2	12 57.43	-11 38.5	1.583	2.452	13.9	18.9	3 2	12 55.63	- 2 42.3	2.020	2.905	10.5	21.6
3 12	12 50.83	-11 13.9	1.502	2.439	9.9	18.7	3 12	12 49.18	- 2 5.1	1.950	2.901	7.0	21.4
3 22	12 42.05	-10 30.4	1.445	2.425	5.5	18.4	3 22	12 41.17	- 1 20.7	1.907	2.896	3.1	21.1
4 1	12 32.04	- 9 31.6	1.414	2.410	2.3	18.1	4 1	12 32.38	- 0 34.1	1.893	2.890	1.6	21.0
4 11	12 22.07	- 8 24.5	1.411	2.395	5.8	18.3	4 11	12 23.75	+ 0 8.9	1.908	2.884	5.5	21.3
4 21	12 13.34	- 7 17.7	1.433	2.380	10.5	18.5	4 21	12 16.14	+ 0 43.3	1.950	2.878	9.4	21.5
5 1	12 6.85	- 6 19.2	1.480	2.363	14.9	18.7	5 1	12 10.26	+ 1 5.6	2.017	2.871	12.7	21.7
41225	1999 <i>XY</i> ₁₇		3 29.8 194°96	0°9/30.9	18		240260	2002 <i>VD</i> ₉₃		3 29.9 58°29	3°0/26.9	18	
2 21	12 57.66	- 9 35.7	2.442	3.214	12.7	20.3	2 21	12 57.68	+ 2 33.8	1.984	2.803	13.5	20.2
3 2	12 53.54	- 9 9.6	2.344	3.211	10.0	20.1	3 2	12 53.73	+ 3 17.2	1.918	2.817	10.3	20.0
3 12	12 47.63	- 8 29.7	2.270	3.209	6.9	19.9	3 12	12 47.80	+ 4 7.1	1.877	2.832	6.8	19.8
3 22	12 40.40	- 7 38.5	2.222	3.206	3.4	19.7	3 22	12 40.48	+ 4 57.7	1.861	2.847	3.6	19.7
4 1	12 32.53	- 6 39.7	2.204	3.202	1.0	19.5	4 1	12 32.59	+ 5 43.1	1.874	2.862	3.7	19.7
4 11	12 24.80	- 5 38.7	2.215	3.198	4.2	19.7	4 11	12 25.06	+ 6 17.8	1.915	2.878	6.8	19.9
4 21	12 17.93	- 4 40.8	2.255	3.193	7.7	19.9	4 21	12 18.67	+ 6 38.2	1.981	2.893	10.1	20.1
5 1	12 12.53	- 3 50.9	2.321	3.188	10.8	20.1	5 1	12 14.01	+ 6 42.5	2.071	2.909	13.1	20.4
462300	2008 <i>FE</i> ₁₃₅		3 29.8 199°50	1°4/28.5	17		499269	2009 <i>VN</i> ₄₉		3 29.9 151°40	1°8/28.1	17	
2 21	13 0.13	- 2 20.4	2.024	2.825	13.9	21.7	2 21	13 0.22	- 0 38.2	2.113	2.917	13.3	22.2
3 2	12 55.78	- 1 47.7	1.934	2.823	10.8	21.5	3 2	12 55.68	- 0 5.7	2.032	2.923	10.3	22.0
3 12	12 49.29	- 1 4.2	1.868	2.820	7.1	21.2	3 12	12 49.12	+ 0 35.5	1.975	2.928	6.7	21.8
3 22	12 41.20	- 0 14.0	1.828	2.817	3.1	21.0	3 22	12 41.10	+ 1 20.9	1.945	2.933	3.1	21.6
4 1	12 32.32	+ 0 37.2	1.817	2.813	2.0	20.9	4 1	12 32.43	+ 2 5.3	1.943	2.938	2.4	21.5
4 11	12 23.63	+ 1 23.5	1.835	2.809	5.9	21.1	4 11	12 24.01	+ 2 43.2	1.971	2.942	5.9	21.8
4 21	12 16.02	+ 1 59.5	1.879	2.804	9.8	21.3	4 21	12 16.66	+ 3 10.3	2.025	2.946	9.5	22.0
5 1	12 10.20	+ 2 21.8	1.948	2.799	13.2	21.6	5 1	12 11.03	+ 3 23.9	2.104	2.949	12.6	22.2
126619	2002 <i>CX</i> ₁₅₄		3 29.8 15°35	0°2/1.9	18		10627	<i>Ookuninushi</i>		3 29.9 164°17	3°5/25.5	18	
2 21	12 36.92	-11 40.6	41.116	41.855	0.9	23.5	2 21	12 56.67	+ 5 36.8	2.552	3.366	11.0	18.4
3 2	12 36.30	-11 38.6	41.020	41.863	0.7	23.5	3 2	12 52.60	+ 6 32.2	2.474	3.369	8.4	18.2
3 12	12 35.61	-11 35.8	40.949	41.870	0.5	23.5	3 12	12 46.91	+ 7 31.5	2.420	3.372	5.7	18.0
3 22	12 34.87	-11 32.4	40.907	41.878	0.3	23.4	3 22	12 40.07	+ 8 29.7	2.395	3.375	3.7	17.9
4 1	12 34.10	-11 28.5	40.894	41.885	0.2	23.4	4 1	12 32.71	+ 9 21.5	2.399	3.377	4.1	17.9
4 11	12 33.34	-11 24.2	40.911	41.893	0.3	23.4	4 11	12 25.55	+10 2.1	2.432	3.379	6.5	18.1
4 21	12 32.62	-11 19.9	40.957	41.900	0.5	23.5	4 21	12 19.24	+10 28.5	2.492	3.381	9.3	18.2
5 1	12 31.96	-11 15.6	41.031	41.908	0.7	23.5	5 1	12 14.30	+10 39.2	2.575	3.383	11.7	18.4
99606	2002 <i>GZ</i> ₅₂		3 29.8 18°66	2°1/28.2	18		65067	2002 <i>AE</i> ₁₈₆		3 29.9 143°42			

EPHEMERIDES

3 29.9

3 29.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
206232	2002 VC ₁₂₄		3 29.9 224°51	0°7/30.7	18		400545	2008 UE ₂₄₃		3 29.9 282°92	5°3/2.4	16	
2 21	12 57.39	- 8 9.0	2.579	3.353	12.0	21.2	2 21	13 1.40	-15 30.5	1.460	2.236	19.5	21.5
3 2	12 53.29	- 7 51.3	2.475	3.345	9.5	21.0	3 2	12 58.14	-16 10.0	1.358	2.218	16.3	21.2
3 12	12 47.47	- 7 21.9	2.395	3.336	6.5	20.8	3 12	12 51.75	-16 28.5	1.274	2.200	12.4	20.9
3 22	12 40.38	- 6 42.9	2.342	3.327	3.2	20.6	3 22	12 42.69	-16 23.5	1.212	2.181	8.2	20.6
4 1	12 32.63	- 5 57.6	2.318	3.317	0.8	20.4	4 1	12 31.99	-15 55.0	1.174	2.162	5.4	20.4
4 11	12 24.97	- 5 10.5	2.325	3.307	4.1	20.6	4 11	12 21.15	-15 7.7	1.161	2.144	7.2	20.4
4 21	12 18.09	- 4 26.3	2.359	3.296	7.5	20.8	4 21	12 11.68	-14 10.1	1.173	2.125	11.7	20.6
5 1	12 12.59	- 3 49.1	2.420	3.285	10.5	21.0	5 1	12 4.83	-13 12.4	1.206	2.106	16.4	20.8
92746	2000 QK ₁₁₀		3 29.9 77°66	1°2/28.8	18		99461	2002 CM ₆₆		3 29.9 218°64	4°9/25.1	18	
2 21	12 58.75	- 5 3.8	1.446	2.264	17.6	19.3	2 21	13 1.58	+ 5 53.8	1.856	2.677	14.2	20.6
3 2	12 55.38	- 4 12.3	1.378	2.275	13.7	19.1	3 2	12 57.19	+ 7 4.6	1.770	2.669	11.0	20.4
3 12	12 49.32	- 3 2.9	1.331	2.286	9.0	18.8	3 12	12 50.41	+ 8 22.3	1.708	2.660	7.6	20.1
3 22	12 41.29	- 1 41.9	1.308	2.297	3.9	18.5	3 22	12 41.81	+ 9 39.5	1.672	2.650	5.1	20.0
4 1	12 32.41	- 0 18.0	1.311	2.308	2.1	18.4	4 1	12 32.29	+10 47.6	1.664	2.640	5.8	20.0
4 11	12 23.96	+ 0 58.5	1.341	2.319	7.0	18.8	4 11	12 22.95	+11 39.0	1.683	2.629	9.0	20.1
4 21	12 17.04	+ 1 59.7	1.395	2.330	11.7	19.1	4 21	12 14.80	+12 9.1	1.728	2.617	12.6	20.3
5 1	12 12.45	+ 2 40.6	1.472	2.341	15.8	19.3	5 1	12 8.64	+12 16.2	1.794	2.605	15.9	20.5
159038	2004 TD ₈₅		3 29.9 211°05	0°3/30.2	17		435400	2007 YS ₇₄		3 29.9 164°66	3°7/24.9	18	
2 21	12 58.01	- 7 13.5	2.105	2.893	13.9	21.3	2 21	12 54.95	+ 5 47.6	2.552	3.370	10.9	20.9
3 2	12 54.12	- 6 48.2	2.012	2.890	10.9	21.1	3 2	12 51.32	+ 6 53.0	2.474	3.372	8.3	20.7
3 12	12 48.20	- 6 9.1	1.941	2.887	7.4	20.9	3 12	12 46.10	+ 8 2.5	2.421	3.373	5.7	20.5
3 22	12 40.75	- 5 19.0	1.896	2.883	3.4	20.6	3 22	12 39.75	+ 9 11.0	2.396	3.375	3.8	20.4
4 1	12 32.55	- 4 22.7	1.880	2.879	0.8	20.4	4 1	12 32.88	+10 12.6	2.401	3.376	4.4	20.4
4 11	12 24.51	- 3 26.2	1.893	2.875	4.9	20.7	4 11	12 26.19	+11 2.3	2.434	3.377	6.8	20.6
4 21	12 17.46	- 2 35.2	1.933	2.870	8.8	20.9	4 21	12 20.33	+11 36.9	2.493	3.378	9.4	20.8
5 1	12 12.11	- 1 54.7	1.998	2.865	12.3	21.1	5 1	12 15.79	+11 54.8	2.576	3.379	11.8	20.9
410323	2007 UK ₂		3 29.9 189°43	3°0/26.9	17		399055	2013 TL ₄₅		3 29.9 262°66	0°5/30.4	17	
2 21	13 2.82	+ 2 22.7	2.151	2.955	13.1	22.5	2 21	12 58.12	- 7 41.2	1.914	2.706	14.9	21.5
3 2	12 57.73	+ 3 11.1	2.063	2.954	10.1	22.3	3 2	12 54.51	- 7 21.5	1.815	2.696	11.8	21.3
3 12	12 50.53	+ 4 6.7	2.000	2.952	6.7	22.1	3 12	12 48.65	- 6 46.4	1.739	2.685	8.1	21.0
3 22	12 41.78	+ 5 4.5	1.964	2.949	3.6	21.9	3 22	12 41.04	- 5 58.5	1.688	2.674	3.8	20.7
4 1	12 32.28	+ 5 58.1	1.958	2.946	3.6	21.9	4 1	12 32.51	- 5 2.6	1.664	2.663	0.9	20.5
4 11	12 22.99	+ 6 41.6	1.982	2.941	6.8	22.0	4 11	12 24.08	- 4 5.2	1.669	2.652	5.3	20.8
4 21	12 14.76	+ 7 10.8	2.032	2.936	10.3	22.2	4 21	12 16.71	- 3 13.0	1.700	2.641	9.6	21.0
5 1	12 8.30	+ 7 23.4	2.106	2.930	13.4	22.4	5 1	12 11.20	- 2 31.5	1.755	2.629	13.4	21.2
244137	2001 VW ₁₁₈		3 29.9 189°96	3°1/2.8	18		509694	2008 RE ₈₄		3 29.9 257°31	1°7/31.5	17	
2 21	12 56.47	-16 52.1	2.678	3.412	12.6	21.1	2 21	12 58.62	-10 35.7	2.052	2.828	14.6	21.6
3 2	12 52.55	-16 50.5	2.577	3.411	10.4	20.9	3 2	12 54.79	-10 30.4	1.949	2.816	11.7	21.4
3 12	12 46.96	-16 33.6	2.498	3.410	7.8	20.7	3 12	12 48.79	-10 9.5	1.867	2.804	8.3	21.2
3 22	12 40.14	-16 1.8	2.445	3.408	5.1	20.5	3 22	12 41.10	- 9 34.4	1.811	2.792	4.5	20.9
4 1	12 32.72	-15 17.2	2.420	3.407	3.2	20.4	4 1	12 32.49	- 8 48.5	1.783	2.780	1.8	20.7
4 11	12 25.42	-14 23.7	2.425	3.405	4.2	20.5	4 11	12 23.96	- 7 57.1	1.783	2.767	4.9	20.9
4 21	12 18.91	-13 26.4	2.458	3.403	6.8	20.6	4 21	12 16.41	- 7 6.4	1.810	2.754	8.9	21.1
5 1	12 13.76	-12 30.3	2.518	3.400	9.5	20.8	5 1	12 10.63	- 6 22.2	1.862	2.741	12.5	21.3
430506	2001 UF ₂₁₃		3 29.9 203°95	2°3/27.2	17		107387	2001 CU ₄₂		3 29.9 49°22	1°0/29.1	18	
2 21	12 59.10	+ 2 50.9	2.601	3.404	11.1	21.6	2 21	12 59.23	- 4 24.5	1.330	2.155	18.5	19.9
3 2	12 54.49	+ 3 19.3	2.511	3.401	8.6	21.4	3 2	12 55.89	- 3 52.0	1.270	2.170	14.3	19.7
3 12	12 48.20	+ 3 52.5	2.445	3.397	5.7	21.3	3 12	12 49.72	- 3 2.8	1.229	2.186	9.4	19.5
3 22	12 40.68	+ 4 26.7	2.407	3.393	3.0	21.1	3 22	12 41.49	- 2 2.9	1.212	2.202	4.1	19.2
4 1	12 32.59	+ 4 57.6	2.399	3.388	2.9	21.0	4 1	12 32.43	- 1 0.4	1.221	2.219	1.9	19.1
4 11	12 24.65	+ 5 21.2	2.421	3.383	5.6	21.2	4 11	12 23.89	- 0 4.6	1.255	2.236	7.1	19.5
4 21	12 17.54	+ 5 34.5	2.470	3.378	8.6	21.4	4 21	12 17.04	+ 0 37.3	1.313	2.253	11.9	19.8
5 1	12 11.82	+ 5 35.7	2.544	3.372	11.2	21.6	5 1	12 12.66	+ 1 1.0	1.393	2.271	16.0	20.1
36818	2000 SG ₇₉		3 29.9 101°70	0°4/29.3	18		331796	2003 OJ ₃		3 29.9 199°32	6°1/5.9	17	
2 21	12 56.48	- 4 41.9	2.567	3.356	11.7	20.3	2 21	12 59.05	-24 58.1	2.429	3.117	14.8	20.7
3 2	12 52.40	- 4 11.1	2.491	3.372	9.0	20.1	3 2	12 54.91	-25 21.1	2.326	3.114	12.8	20.6
3 12	12 46.75	- 3 30.8	2.438	3.387	5.9	20.0	3 12	12 48.74	-25 24.0	2.241	3.111	10.5	20.4
3 22	12 40.00	- 2 44.3	2.414	3.402	2.6	19.8	3 22	12 41.03	-25 5.1	2.181	3.107	8.1	20.2
4 1	12 32.79	- 1 55.7	2.419	3.417	1.0	19.6	4 1	12 32.52	-24 24.7	2.146	3.104	6.3	20.1
4 11	12 25.82	- 1 9.6	2.453	3.431	4.3	19.9	4 11	12 24.10	-23 26.3	2.139	3.099	6.3	20.1
4 21	12 19.71	- 0 30.1	2.516	3.445	7.5	20.1	4 21	12 16.63	-22 15.3	2.159	3.095	8.1	20.2
5 1	12 14.95	- 0 0.4	2.604	3.459	10.2	20.3	5 1	12 10.79	-20 59.0	2.205	3.090	10.6	20.3
277804	2006 FJ ₈		3 29.9 279°10	0°3/29.6	17		192780	1999 UY ₂₄		3 29.9 128°86	0°7/29.2	17	
2 21	12 57.33	- 5 15.8	2.011	2.810	14.1	21.3	2 21	13 2.70	- 2 27.3	2.361	3.149	12.6	21.0
3 2	12 53.67	- 4 51.3	1.921	2.807	11.0	21.0	3 2	12 57.33	- 2 17.8	2.282	3.162	9.7	20.8
3 12	12 47.94	- 4 14.1	1.854	2.804	7.3	20.8	3 12	12 50.09	- 2 0.5	2.227	3.175	6.4	20.6
3 22	12 40.65	- 3 27.6	1.813	2.801	3.3	20.6	3 22	12 41.53	- 1 38.2	2.199	3.187	2.8	20.4
4 1	12 32.59	- 2 36.7	1.800	2.798	1.1	20.4	4 1	12 32.41	- 1 14.8	2.202	3.199	1.3	20.3
4 11	12 24.72	- 1 47.5	1.815	2.795	5.3	20.7	4 11	12 23.57	- 0 54.2	2.234	3.211	4.8	20.6
4 21	12 17.89	- 1 5.7	1.857	2.792	9.3	20.9	4 21	12 15.75	- 0 39.8	2.295	3.222	8.2	20.8
5 1	12 12.78	- 0 35.5	1.923	2.790	12.7	21.1	5 1	12 9.54	- 0 34.2	2.382	3.232	11.2	21.0
45952	2001 AS ₃₁		3 29.9 79°12	3°6/1.7	18		318125	2004 LZ ₂₀		3 29.9 189°09	2°5/27.0	17	
2 21	13 1.66	-13 31.0	1.560										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
366416	2001 TV ₂₀₉		3 29.9 190°56	4°0/ 3.5 17			462550	2009 CB ₃		3 29.9 90°16	17°0/24.2 17		
2 21	13 07	-19 18.1	2.476	3.194	13.9	22.2	2 21	14 48.28	- 1 55.5	0.484	1.245	48.0	20.1
3 2	12 55.52	-19 18.4	2.373	3.193	11.6	22.0	3 2	14 19.01	+ 6 38.6	0.475	1.340	35.3	19.9
3 12	12 49.05	-19 0.6	2.290	3.191	8.9	21.8	3 12	13 42.39	+15 3.9	0.491	1.424	23.5	19.7
3 22	12 41.14	-18 24.6	2.233	3.188	6.1	21.6	3 22	13 2.99	+21 45.2	0.540	1.500	17.2	19.8
4 1	12 32.50	-17 32.1	2.204	3.185	4.1	21.5	4 1	12 27.44	+25 51.0	0.621	1.566	18.9	20.3
4 11	12 23.98	-16 27.5	2.204	3.180	4.9	21.5	4 11	12 0.33	+27 39.4	0.727	1.624	23.7	20.9
4 21	12 16.37	-15 16.8	2.233	3.175	7.5	21.7	4 21	11 42.46	+27 56.3	0.851	1.675	27.9	21.4
5 1	12 10.32	-14 6.3	2.288	3.169	10.4	21.9	5 1	11 32.55	+27 19.0	0.986	1.718	30.9	21.9
141250	2001 YP ₆		3 29.9 68°73	1°8/27.7 18			170189	2003 OF ₄		3 29.9 165°18	1°1/30.9 18		
2 21	12 54.60	- 1 51.1	2.218	3.027	12.6	20.2	2 21	13 1.46	- 9 50.0	2.006	2.781	14.9	21.0
3 2	12 51.23	- 0 51.7	2.145	3.039	9.6	20.0	3 2	12 56.86	- 9 27.4	1.918	2.787	11.8	20.8
3 12	12 46.11	+ 0 17.8	2.096	3.051	6.2	19.8	3 12	12 50.06	- 8 48.6	1.853	2.792	8.2	20.5
3 22	12 39.77	+ 1 32.2	2.075	3.063	2.8	19.6	3 22	12 41.64	- 7 56.1	1.813	2.796	4.1	20.3
4 1	12 32.89	+ 2 45.2	2.082	3.076	2.5	19.6	4 1	12 32.43	- 6 54.5	1.802	2.800	1.2	20.1
4 11	12 26.29	+ 3 50.7	2.119	3.088	5.7	19.8	4 11	12 23.47	- 5 50.4	1.820	2.803	4.9	20.4
4 21	12 20.63	+ 4 43.7	2.182	3.100	9.0	20.1	4 21	12 15.64	- 4 50.3	1.865	2.805	8.9	20.6
5 1	12 16.47	+ 5 21.2	2.270	3.113	11.9	20.3	5 1	12 9.68	- 4 0.0	1.936	2.806	12.5	20.8
305736	2009 CJ ₄₇		3 29.9 117°39	1°0/29.1 18			102438	1999 TJ ₂₁₃		3 29.9 205°88	1°2/31.0 16		
2 21	13 3.30	- 3 24.4	1.674	2.479	16.2	21.5	2 21	13 0.82	- 9 45.5	2.046	2.822	14.7	21.2
3 2	12 58.55	- 3 1.2	1.602	2.491	12.6	21.3	3 2	12 56.44	- 9 26.8	1.948	2.817	11.7	21.0
3 12	12 51.27	- 2 25.5	1.551	2.503	8.3	21.0	3 12	12 49.85	- 8 52.0	1.872	2.811	8.1	20.8
3 22	12 42.16	- 1 41.6	1.526	2.515	3.6	20.8	3 22	12 41.58	- 8 3.4	1.822	2.805	4.1	20.5
4 1	12 32.25	- 0 55.7	1.528	2.526	1.7	20.6	4 1	12 32.44	- 7 5.2	1.800	2.798	1.3	20.3
4 11	12 22.73	- 0 14.5	1.559	2.537	6.3	21.0	4 11	12 23.42	- 6 3.5	1.807	2.790	4.9	20.5
4 21	12 14.65	+ 0 16.3	1.615	2.547	10.6	21.2	4 21	12 15.46	- 5 4.9	1.842	2.782	9.0	20.8
5 1	12 8.77	+ 0 32.9	1.694	2.557	14.4	21.5	5 1	12 9.32	- 4 15.2	1.902	2.773	12.7	21.0
400311	2007 TD ₂₄₄		3 29.9 172°31	2°2/ 1.1 17			75555	Wonaszek		3 29.9 163°89	0°1/29.9 18		
2 21	13 1.78	-12 58.7	2.099	2.857	14.9	22.8	2 21	13 2.42	- 5 12.4	1.883	2.676	15.1	20.5
3 2	12 57.06	-12 45.9	2.007	2.862	12.0	22.6	3 2	12 57.74	- 5 2.0	1.798	2.680	11.8	20.3
3 12	12 50.17	-12 15.7	1.936	2.865	8.6	22.4	3 12	12 50.72	- 4 39.3	1.735	2.682	7.9	20.1
3 22	12 41.66	-11 29.6	1.891	2.868	4.8	22.2	3 22	12 41.96	- 4 7.2	1.698	2.685	3.6	19.8
4 1	12 32.37	-10 31.1	1.874	2.869	2.2	22.0	4 1	12 32.35	- 3 30.2	1.689	2.687	1.0	19.6
4 11	12 23.28	- 9 26.1	1.887	2.871	4.8	22.2	4 11	12 22.99	- 2 54.3	1.708	2.689	5.5	20.0
4 21	12 15.29	- 8 21.5	1.928	2.871	8.5	22.4	4 21	12 14.85	- 2 24.6	1.754	2.690	9.7	20.2
5 1	12 9.11	- 7 23.4	1.995	2.870	12.0	22.6	5 1	12 8.69	- 2 5.4	1.825	2.691	13.3	20.4
408953	2002 EM ₁₅₁		3 29.9 2°11	0°6/29.5 17			178222	2006 VV ₁₄₃		3 29.9 164°92	3°0/ 2.6 18		
2 21	12 57.47	- 3 38.2	1.144	1.984	19.9	20.6	2 21	12 57.48	-15 59.9	2.761	3.495	12.2	21.0
3 2	12 55.21	- 3 36.6	1.073	1.982	15.6	20.3	3 2	12 53.26	-16 4.3	2.663	3.498	10.0	20.8
3 12	12 49.70	- 3 19.0	1.022	1.981	10.5	20.0	3 12	12 47.42	-15 54.6	2.588	3.501	7.5	20.6
3 22	12 41.66	- 2 49.7	0.991	1.981	4.6	19.7	3 22	12 40.39	-15 31.4	2.539	3.504	4.8	20.5
4 1	12 32.36	- 2 15.4	0.984	1.983	1.7	19.5	4 1	12 32.79	-14 56.4	2.519	3.506	3.0	20.3
4 11	12 23.43	- 1 44.8	1.001	1.985	7.6	19.8	4 11	12 25.32	-14 13.3	2.529	3.508	4.1	20.4
4 21	12 16.29	- 1 25.5	1.040	1.989	13.2	20.1	4 21	12 18.62	-13 26.6	2.567	3.510	6.6	20.6
5 1	12 11.98	- 1 22.3	1.098	1.994	17.9	20.4	5 1	12 13.26	-12 40.7	2.632	3.512	9.3	20.7
184277	2005 AB ₂₂		3 29.9 26°85	3°8/ 1.8 18			277491	2005 WU ₈₄		3 29.9 298°74	8°6/22.4 17		
2 21	12 57.21	-13 43.4	1.258	2.060	20.7	19.6	2 21	13 3.03	+16 58.7	1.728	2.555	14.8	20.1
3 2	12 54.74	-13 57.3	1.189	2.068	16.8	19.3	3 2	12 58.53	+18 0.7	1.653	2.545	12.1	19.8
3 12	12 49.22	-13 46.0	1.138	2.076	12.2	19.1	3 12	12 51.40	+18 58.2	1.601	2.535	9.7	19.7
3 22	12 41.38	-13 10.1	1.108	2.086	7.3	18.8	3 22	12 42.30	+19 42.0	1.574	2.524	8.6	19.6
4 1	12 32.45	-12 14.1	1.102	2.096	3.8	18.7	4 1	12 32.27	+20 3.9	1.572	2.514	9.6	19.6
4 11	12 23.92	-11 6.9	1.120	2.107	6.5	18.9	4 11	12 22.55	+19 58.5	1.595	2.505	12.1	19.7
4 21	12 17.11	- 9 59.0	1.161	2.118	11.3	19.2	4 21	12 14.24	+19 25.0	1.640	2.495	15.0	19.9
5 1	12 12.95	- 9 0.1	1.224	2.130	15.7	19.4	5 1	12 8.17	+18 25.7	1.705	2.485	17.8	20.1
23321	2001 BY ₁₆		3 29.9 336°35	2°7/31.8 18			135746	2002 QR ₇		3 29.9 147°22	1°9/27.9 18		
2 21	13 2.50	- 9 48.6	1.786	2.567	16.3	18.1	2 21	13 1.72	- 0 46.4	2.080	2.881	13.6	20.8
3 2	12 58.12	-10 27.3	1.693	2.562	13.1	17.9	3 2	12 56.86	- 0 5.4	2.002	2.891	10.5	20.6
3 12	12 51.17	-10 53.0	1.621	2.557	9.4	17.6	3 12	12 49.94	+ 0 44.8	1.948	2.901	6.8	20.4
3 22	12 42.22	-11 5.5	1.574	2.553	5.4	17.4	3 22	12 41.55	+ 1 39.5	1.922	2.910	3.2	20.2
4 1	12 32.20	-11 6.3	1.554	2.548	2.7	17.2	4 1	12 32.50	+ 2 32.7	1.924	2.918	2.6	20.1
4 11	12 22.29	-10 58.9	1.561	2.545	5.5	17.3	4 11	12 23.75	+ 3 18.5	1.956	2.926	6.1	20.4
4 21	12 13.61	-10 48.1	1.595	2.541	9.6	17.6	4 21	12 16.13	+ 3 52.5	2.015	2.933	9.7	20.6
5 1	12 7.05	-10 39.3	1.652	2.538	13.5	17.8	5 1	12 10.29	+ 4 11.8	2.098	2.939	12.8	20.8
471842	2012 XH ₁₀₅		3 29.9 179°83	6°2/ 7.8 18			421446	2014 MV ₂₂		3 29.9 273°54	3°7/26.8 17		
2 21	12 58.56	-29 30.8	3.112	3.749	12.7	22.0	2 21	12 59.07	+ 0 55.0	1.484	2.314	16.7	20.9
3 2	12 54.11	-30 1.2	3.007	3.750	11.2	21.9	3 2	12 55.93	+ 1 55.9	1.394	2.299	12.9	20.6
3 12	12 48.00	-30 14.0	2.921	3.750	9.5	21.7	3 12	12 49.99	+ 3 10.8	1.326	2.284	8.6	20.3
3 22	12 40.64	-30 7.9	2.859	3.751	7.8	21.6	3 22	12 41.80	+ 4 32.5	1.282	2.269	4.5	20.0
4 1	12 32.65	-29 42.4	2.823	3.751	6.5	21.5	4 1	12 32.40	+ 5 51.3	1.264	2.254	4.7	20.0
4 11	12 24.74	-28 59.7	2.814	3.750	6.3	21.5	4 11	12 23.11	+ 6 56.8	1.273	2.238	9.1	20.2
4 21	12 17.58	-28 3.6	2.832	3.749	7.3	21.6	4 21	12 15.18	+ 7 41.6	1.305	2.223	13.8	20.4
5 1	12 11.75	-26 59.5	2.878	3.748	8.9	21.7	5 1	12 9.61	+ 8 1.5	1.357	2.207	18.0	20.6
110422	2001 TZ ₂₀		3 29.9 286°25	4°3/ 1.8 18			466200	2012 LZ ₁₅		3 29.9 321°67	4°4/25.9 17		
2 21	13 3.66	-13 19.6	1.788	2.553</									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
16712	1995 SW ₂₉		3 29.9 113°01'	8°7/10.5 18			456885	2007 VZ ₁₀₈		3 29.9 84°68'	1°4/28.8 18		
2 21	13 4.10	-35 39.5	2.859	3.443	14.6	18.5	2 21	13 2.54	-2 49.1	1.580	2.392	16.7	22.2
3 2	12 58.72	-36 47.1	2.771	3.458	13.2	18.4	3 2	12 58.01	-2 18.2	1.517	2.410	12.9	22.0
3 12	12 51.24	-37 34.7	2.701	3.474	11.7	18.3	3 12	12 50.93	-1 34.7	1.475	2.429	8.4	21.8
3 22	12 42.19	-37 58.9	2.652	3.489	10.2	18.2	3 22	12 42.04	-0 43.8	1.459	2.448	3.7	21.5
4 1	12 32.32	-37 58.1	2.627	3.504	9.1	18.1	4 1	12 32.42	+0 7.6	1.469	2.466	2.1	21.4
4 11	12 22.55	-37 33.4	2.628	3.518	8.7	18.1	4 11	12 23.31	+0 52.1	1.507	2.484	6.6	21.8
4 21	12 13.77	-36 48.8	2.653	3.533	9.1	18.2	4 21	12 15.71	+1 24.2	1.571	2.502	10.9	22.1
5 1	12 6.68	-35 50.1	2.704	3.546	10.2	18.3	5 1	12 10.37	+1 40.5	1.657	2.519	14.6	22.3
55853	1996 TF ₅₂		3 29.9 41°34'	2°7/31.7 18			497901	2006 UR ₃₅₉		3 29.9 225°00'	2°2/ 1.1 17		
2 21	13 4.84	-9 7.7	1.620	2.406	17.5	17.7	2 21	12 58.68	-13 0.4	1.946	2.715	15.5	22.1
3 2	13 0.02	-9 50.1	1.542	2.414	14.0	17.5	3 2	12 54.97	-12 43.1	1.846	2.708	12.6	21.8
3 12	12 52.46	-10 18.5	1.485	2.423	9.9	17.2	3 12	12 48.98	-12 6.7	1.768	2.701	9.0	21.6
3 22	12 42.81	-10 33.2	1.452	2.432	5.5	17.0	3 22	12 41.25	-11 12.3	1.715	2.693	5.1	21.3
4 1	12 32.16	-10 35.6	1.445	2.441	2.7	16.8	4 1	12 32.61	-10 4.0	1.690	2.685	2.2	21.1
4 11	12 21.82	-10 30.1	1.467	2.450	5.8	17.0	4 11	12 24.08	-8 48.6	1.692	2.677	5.0	21.3
4 21	12 12.97	-10 21.7	1.514	2.460	10.0	17.3	4 21	12 16.64	-7 33.7	1.722	2.668	9.1	21.5
5 1	12 6.49	-10 15.7	1.584	2.471	13.9	17.6	5 1	12 11.06	-6 26.5	1.777	2.659	12.9	21.7
98244	2000 SH ₁₆₆		3 29.9 73°74'	4°5/ 2.4 18			294285	2007 UK ₁₁₄		3 29.9 145°06'	0°1/29.8 18		
2 21	13 1.20	-15 35.3	1.514	2.287	19.1	19.8	2 21	13 2.57	-5 55.5	1.927	2.716	15.0	21.5
3 2	12 57.48	-15 58.8	1.435	2.293	15.7	19.5	3 2	12 57.74	-5 31.6	1.846	2.726	11.7	21.3
3 12	12 50.92	-15 59.8	1.374	2.300	11.7	19.3	3 12	12 50.66	-4 54.3	1.789	2.736	7.8	21.1
3 22	12 42.16	-15 37.6	1.336	2.306	7.5	19.1	3 22	12 41.93	-4 7.1	1.757	2.744	3.5	20.9
4 1	12 32.33	-14 54.9	1.323	2.312	4.6	18.9	4 1	12 32.45	-3 15.1	1.754	2.753	1.0	20.7
4 11	12 22.79	-13 58.1	1.336	2.319	6.4	19.0	4 11	12 23.28	-2 24.8	1.780	2.760	5.4	21.0
4 21	12 14.77	-12 56.0	1.374	2.325	10.4	19.3	4 21	12 15.33	-1 41.8	1.833	2.767	9.5	21.3
5 1	12 9.20	-11 57.6	1.435	2.332	14.4	19.5	5 1	12 9.32	-1 10.6	1.911	2.774	13.0	21.5
368772	2005 WW ₂₆		3 29.9 137°69'	2°2/ 1.3 16			502967	2015 FJ ₆		3 29.9 292°68'	7°2/ 4.3 17		
2 21	12 59.67	-13 10.9	2.264	3.020	14.0	22.1	2 21	13 2.39	-21 6.1	1.869	2.595	17.5	20.9
3 2	12 55.21	-12 58.0	2.178	3.032	11.2	21.9	3 2	12 58.30	-22 12.0	1.765	2.583	15.1	20.7
3 12	12 48.83	-12 29.0	2.115	3.043	8.0	21.7	3 12	12 51.52	-22 59.2	1.681	2.571	12.2	20.5
3 22	12 41.05	-11 45.5	2.077	3.053	4.6	21.5	3 22	12 42.53	-23 24.2	1.619	2.560	9.3	20.3
4 1	12 32.65	-10 51.1	2.069	3.063	2.2	21.4	4 1	12 32.24	-23 25.1	1.583	2.548	7.4	20.2
4 11	12 24.48	-9 51.0	2.089	3.073	4.4	21.5	4 11	12 21.86	-23 3.9	1.572	2.537	7.8	20.2
4 21	12 17.33	-8 51.1	2.138	3.082	7.7	21.7	4 21	12 12.63	-22 26.0	1.587	2.525	10.3	20.3
5 1	12 11.83	-7 57.1	2.213	3.090	10.9	22.0	5 1	12 5.56	-21 39.2	1.626	2.514	13.5	20.4
437146	2012 VS ₁₇		3 29.9 254°80'	1°8/ 1.1 17			92688	2000 QE ₇₄		3 29.9 101°33'	4°8/ 3.3 18		
2 21	12 54.83	-12 45.8	2.306	3.073	13.5	21.5	2 21	13 3.41	-17 50.3	2.034	2.768	16.0	18.6
3 2	12 51.54	-12 21.2	2.210	3.071	10.8	21.3	3 2	12 58.41	-18 24.2	1.954	2.784	13.3	18.5
3 12	12 46.44	-11 40.0	2.137	3.070	7.7	21.1	3 12	12 51.13	-18 39.8	1.894	2.800	10.2	18.3
3 22	12 40.00	-10 44.3	2.090	3.068	4.3	20.9	3 22	12 42.16	-18 36.1	1.858	2.815	7.0	18.1
4 1	12 32.92	-9 37.9	2.071	3.067	1.8	20.7	4 1	12 32.40	-18 14.3	1.850	2.830	4.9	18.0
4 11	12 25.99	-8 26.5	2.081	3.066	4.2	20.9	4 11	12 22.92	-17 38.7	1.869	2.845	5.7	18.1
4 21	12 19.95	-7 16.4	2.119	3.064	7.7	21.1	4 21	12 14.66	-16 55.1	1.916	2.859	8.5	18.3
5 1	12 15.40	-6 13.3	2.182	3.063	10.9	21.3	5 1	12 8.37	-16 10.2	1.988	2.873	11.6	18.5
432016	2008 VK ₇		3 29.9 271°28'	1°8/31.3 17			180265	2003 WC ₂₇		3 29.9 217°58'	1°4/ 1.8 18		
2 21	13 3.54	-8 18.7	1.955	2.733	15.2	20.7	2 21	12 50.26	-13 0.7	4.563	5.303	7.6	20.8
3 2	12 58.79	-8 44.3	1.852	2.721	12.2	20.4	3 2	12 47.10	-12 53.8	4.458	5.301	6.1	20.6
3 12	12 51.59	-8 58.3	1.771	2.709	8.6	20.2	3 12	12 43.06	-12 39.1	4.378	5.299	4.4	20.5
3 22	12 42.45	-9 1.1	1.715	2.697	4.6	19.9	3 22	12 38.39	-12 17.4	4.326	5.297	2.6	20.4
4 1	12 32.24	-8 54.7	1.687	2.684	1.9	19.7	4 1	12 33.42	-11 50.2	4.303	5.295	1.4	20.3
4 11	12 22.05	-8 42.9	1.688	2.672	5.2	19.9	4 11	12 28.51	-11 19.7	4.311	5.293	2.4	20.4
4 21	12 12.95	-8 30.2	1.717	2.659	9.4	20.1	4 21	12 24.01	-10 48.1	4.349	5.291	4.2	20.5
5 1	12 5.81	-8 21.3	1.770	2.647	13.2	20.3	5 1	12 20.21	-10 17.8	4.414	5.289	5.9	20.6
66682	1999 TR ₃₅		3 29.9 339°83'	8°9/26.7 18			244700	2003 QJ ₂₁		3 29.9 239°30'	2°1/27.9 16		
2 21	13 17.68	+17 24.8	1.271	2.092	19.5	17.1	2 21	13 1.52	-1 8.0	1.942	2.747	14.3	21.6
3 2	13 10.96	+17 16.1	1.192	2.081	16.0	16.8	3 2	12 57.18	-0 25.4	1.841	2.731	11.1	21.4
3 12	13 0.27	+16 54.9	1.133	2.072	12.2	16.6	3 12	12 50.49	+0 28.9	1.762	2.715	7.4	21.1
3 22	12 46.47	+16 11.4	1.097	2.063	9.3	16.4	3 22	12 41.96	+1 30.1	1.710	2.698	3.4	20.9
4 1	12 31.18	+14 58.5	1.087	2.056	9.4	16.4	4 1	12 32.43	+2 31.9	1.687	2.681	2.8	20.8
4 11	12 16.47	+13 15.0	1.103	2.049	12.6	16.5	4 11	12 22.96	+3 27.1	1.692	2.662	6.8	21.0
4 21	12 4.09	+11 6.1	1.143	2.044	16.8	16.7	4 21	12 14.54	+4 9.6	1.724	2.643	10.9	21.2
5 1	11 55.20	+8 39.6	1.205	2.039	20.8	17.0	5 1	12 8.02	+4 35.4	1.779	2.623	14.6	21.4
370214	2002 GS ₁₇₇		3 29.9 98°64'	2°9/27.2 18			471399	2011 SN ₁₆₆		3 29.9 199°64'	1°7/31.9 17		
2 21	13 1.19	+2 48.0	1.968	2.781	13.8	20.7	2 21	12 58.33	-10 51.6	2.646	3.406	12.1	21.9
3 2	12 56.54	+3 20.1	1.897	2.792	10.6	20.5	3 2	12 54.00	-10 55.2	2.547	3.404	9.7	21.7
3 12	12 49.76	+3 58.2	1.849	2.803	7.0	20.3	3 12	12 47.97	-10 47.1	2.471	3.402	6.9	21.5
3 22	12 41.47	+4 37.1	1.827	2.813	3.7	20.1	3 22	12 40.70	-10 28.4	2.422	3.400	3.8	21.3
4 1	12 32.55	+5 11.1	1.834	2.823	3.5	20.1	4 1	12 32.80	-10 1.4	2.402	3.397	1.8	21.2
4 11	12 23.96	+5 35.1	1.869	2.834	6.8	20.3	4 11	12 25.01	-9 29.7	2.411	3.394	3.9	21.3
4 21	12 16.57	+5 45.7	1.931	2.844	10.3	20.6	4 21	12 18.01	-8 57.4	2.449	3.391	7.0	21.5
5 1	12 11.03	+5 41.3	2.015	2.854	13.4	20.8	5 1	12 12.38	-8 28.5	2.514	3.388	9.9	21.7
454490	2014 OB ₁₃₉		3 29.9 332°20'	3°9/26.9 17			91506	1999 RC ₁₆₀		3 29.9 176°85'	0°9/30.9 18		
2 21	12 53.92	-0 27.8	1.104	1.959	19.5	20.9	2 21	13 2					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
144638	2004 <i>FB</i> ₉₃		3 29.9 293°15	1°0/28.9	17		84829	2003 <i>AN</i>		3 29.9 49°04	6°0/22.6	18	
2 21	12 56.63	- 2 50.8	2.176	2.979	13.0	20.2	2 21	12 54.25	+ 8 49.3	1.941	2.777	13.1	18.9
3 2	12 53.12	- 2 25.1	2.072	2.961	10.1	20.0	3 2	12 51.25	+10 37.7	1.886	2.791	10.1	18.8
3 12	12 47.64	- 1 48.8	1.991	2.944	6.7	19.7	3 12	12 46.30	+12 28.9	1.857	2.806	7.3	18.6
3 22	12 40.63	- 1 5.5	1.937	2.926	3.0	19.5	3 22	12 39.98	+14 13.9	1.854	2.821	6.0	18.6
4 1	12 32.81	- 0 19.9	1.911	2.908	1.6	19.3	4 1	12 33.10	+15 43.8	1.878	2.837	7.0	18.7
4 11	12 25.04	+ 0 22.6	1.914	2.891	5.5	19.6	4 11	12 26.56	+16 52.0	1.930	2.852	9.6	18.8
4 21	12 18.16	+ 0 56.8	1.944	2.873	9.3	19.8	4 21	12 21.11	+17 35.1	2.005	2.868	12.3	19.0
5 1	12 12.85	+ 1 19.0	1.997	2.856	12.7	19.9	5 1	12 17.34	+17 52.9	2.101	2.884	14.8	19.2
176765	2002 <i>RL</i> ₁₈₉		3 29.9 209°05	0°2/30.1	16		294695	2008 <i>AP</i> ₁₃₇		3 29.9 305°40	0°9/30.6	17	
2 21	13 0.49	- 7 1.6	2.124	2.908	13.9	22.1	2 21	12 59.61	- 7 2.7	1.561	2.367	17.2	20.7
3 2	12 56.11	- 6 34.5	2.026	2.902	11.0	21.8	3 2	12 56.30	- 7 4.7	1.467	2.354	13.7	20.5
3 12	12 49.62	- 5 53.5	1.950	2.895	7.4	21.6	3 12	12 50.24	- 6 51.0	1.394	2.342	9.4	20.2
3 22	12 41.52	- 5 1.4	1.901	2.888	3.4	21.3	3 22	12 41.99	- 6 23.6	1.344	2.330	4.6	19.9
4 1	12 32.60	- 4 3.0	1.881	2.880	0.8	21.1	4 1	12 32.53	- 5 47.0	1.320	2.319	1.2	19.6
4 11	12 23.81	- 3 4.4	1.891	2.871	5.1	21.4	4 11	12 23.16	- 5 7.8	1.323	2.307	6.1	19.9
4 21	12 16.01	- 2 11.5	1.928	2.862	9.0	21.6	4 21	12 15.08	- 4 32.9	1.350	2.296	11.0	20.1
5 1	12 9.94	- 1 29.4	1.989	2.852	12.5	21.8	5 1	12 9.30	- 4 8.4	1.400	2.286	15.4	20.4
134303	2701 <i>P-L</i>		3 29.9 174°69	1°0/28.7	18		422478	2014 <i>SE</i> ₃₂₈		3 29.9 261°10	2°2/27.9	16	
2 21	12 59.32	- 4 58.5	2.321	3.108	12.8	20.7	2 21	12 59.13	- 2 7.9	1.672	2.488	15.7	22.0
3 2	12 54.91	- 3 59.0	2.231	3.112	9.9	20.6	3 2	12 55.71	- 1 16.0	1.575	2.472	12.3	21.7
3 12	12 48.63	- 2 46.6	2.166	3.115	6.5	20.3	3 12	12 49.74	- 0 8.8	1.501	2.457	8.1	21.4
3 22	12 41.02	- 1 25.7	2.129	3.117	2.8	20.1	3 22	12 41.73	+ 1 8.1	1.451	2.440	3.7	21.1
4 1	12 32.76	- 0 2.3	2.122	3.119	1.6	20.0	4 1	12 32.61	+ 2 26.8	1.429	2.424	3.0	21.0
4 11	12 24.71	+ 1 16.8	2.145	3.119	5.2	20.3	4 11	12 23.56	+ 3 38.1	1.434	2.407	7.5	21.2
4 21	12 17.60	+ 2 25.7	2.197	3.119	8.8	20.5	4 21	12 15.70	+ 4 34.4	1.465	2.389	12.1	21.4
5 1	12 12.04	+ 3 20.3	2.274	3.118	11.9	20.7	5 1	12 9.96	+ 5 10.4	1.517	2.372	16.2	21.7
469920	2005 <i>YC</i> ₁₆₅		3 29.9 32°43	10°2/20.6	18		210095	2006 <i>QW</i> ₈₇		3 29.9 255°48	2°1/27.3	17	
2 21	12 59.90	+19 27.1	1.551	2.388	15.7	20.3	2 21	12 54.74	- 1 0.0	2.244	3.055	12.4	20.7
3 2	12 56.16	+20 57.9	1.504	2.397	13.0	20.1	3 2	12 51.49	+ 0 1.5	2.156	3.051	9.5	20.5
3 12	12 49.79	+22 20.2	1.480	2.406	10.9	20.0	3 12	12 46.44	+ 1 13.4	2.093	3.048	6.2	20.3
3 22	12 41.57	+23 23.2	1.479	2.416	10.2	20.0	3 22	12 40.07	+ 2 30.5	2.056	3.044	3.0	20.1
4 1	12 32.65	+23 58.1	1.502	2.427	11.4	20.1	4 1	12 33.07	+ 3 46.6	2.049	3.041	2.8	20.1
4 11	12 24.28	+24 0.5	1.548	2.438	13.6	20.3	4 11	12 26.23	+ 4 55.1	2.070	3.037	6.0	20.3
4 21	12 17.49	+23 31.1	1.614	2.449	16.2	20.5	4 21	12 20.28	+ 5 50.8	2.119	3.033	9.4	20.5
5 1	12 13.00	+22 33.5	1.699	2.461	18.5	20.7	5 1	12 15.82	+ 6 30.1	2.191	3.030	12.4	20.7
201634	2003 <i>SQ</i> ₂₈₄		3 29.9 209°51	1°5/31.6	18		203404	2001 <i>XM</i> ₁₇₁		3 29.9 11°23	1°1/30.7	18	
2 21	12 58.68	-10 43.8	2.498	3.261	12.7	21.6	2 21	12 55.45	- 8 7.9	1.099	1.934	21.0	19.7
3 2	12 54.41	-10 32.4	2.396	3.256	10.1	21.4	3 2	12 53.76	- 8 3.6	1.033	1.936	16.6	19.4
3 12	12 48.34	-10 7.6	2.316	3.250	7.1	21.2	3 12	12 48.83	- 7 36.6	0.984	1.939	11.4	19.1
3 22	12 40.91	- 9 31.0	2.263	3.243	3.8	21.0	3 22	12 41.39	- 6 50.1	0.955	1.943	5.5	18.8
4 1	12 32.80	- 8 45.7	2.239	3.236	1.5	20.8	4 1	12 32.72	- 5 51.3	0.950	1.949	1.4	18.5
4 11	12 24.79	- 7 56.2	2.245	3.228	4.1	21.0	4 11	12 24.47	- 4 50.9	0.968	1.956	7.1	18.9
4 21	12 17.61	- 7 7.5	2.279	3.220	7.5	21.2	4 21	12 18.04	- 3 59.1	1.008	1.964	12.7	19.2
5 1	12 11.88	- 6 24.3	2.340	3.211	10.6	21.3	5 1	12 14.42	- 3 23.5	1.068	1.973	17.6	19.5
120432	2614 <i>T-3</i>		3 29.9 283°13	0°7/30.7	17		277774	2006 <i>DG</i> ₁₈₇		3 29.9 157°81	1°3/28.5	18	
2 21	12 58.15	- 7 4.1	2.369	3.151	12.7	20.0	2 21	12 58.04	- 2 27.2	2.186	2.987	13.0	20.9
3 2	12 54.12	- 7 3.8	2.267	3.140	10.1	19.8	3 2	12 54.03	- 1 48.3	2.102	2.991	10.0	20.7
3 12	12 48.21	- 6 52.9	2.187	3.130	6.9	19.6	3 12	12 48.12	- 0 59.1	2.042	2.994	6.6	20.5
3 22	12 40.88	- 6 33.0	2.134	3.119	3.4	19.3	3 22	12 40.82	- 0 4.0	2.008	2.997	2.9	20.3
4 1	12 32.81	- 6 7.0	2.110	3.108	0.9	19.1	4 1	12 32.88	+ 0 51.8	2.003	2.999	2.0	20.2
4 11	12 24.81	- 5 39.2	2.115	3.098	4.4	19.4	4 11	12 25.15	+ 1 42.4	2.028	3.002	5.5	20.5
4 21	12 17.66	- 5 13.6	2.147	3.087	7.9	19.6	4 21	12 18.41	+ 2 23.0	2.080	3.004	9.1	20.7
5 1	12 12.01	- 4 54.3	2.205	3.076	11.2	19.8	5 1	12 13.26	+ 2 50.3	2.155	3.006	12.2	20.9
34934	6689 <i>P-L</i>		3 29.9 14°46	0°5/29.4	18		254528	2005 <i>EM</i> ₁₂₂		3 29.9 313°61	1°0/30.7	17	
2 21	12 54.01	- 5 26.8	1.970	2.776	14.1	18.3	2 21	12 57.01	- 7 56.4	1.387	2.202	18.4	20.5
3 2	12 51.14	- 4 49.7	1.889	2.779	10.9	18.1	3 2	12 54.67	- 7 52.6	1.291	2.184	14.7	20.2
3 12	12 46.30	- 3 59.1	1.830	2.782	7.2	17.9	3 12	12 49.40	- 7 29.6	1.215	2.165	10.2	19.9
3 22	12 40.02	- 2 59.1	1.797	2.786	3.2	17.6	3 22	12 41.71	- 6 49.3	1.161	2.147	5.0	19.5
4 1	12 33.06	- 1 55.4	1.793	2.791	1.2	17.5	4 1	12 32.61	- 5 56.6	1.131	2.130	1.3	19.2
4 11	12 26.34	- 0 54.7	1.815	2.796	5.3	17.8	4 11	12 23.51	- 5 0.0	1.127	2.113	6.6	19.5
4 21	12 20.64	- 0 2.9	1.865	2.801	9.2	18.0	4 21	12 15.78	- 4 8.3	1.147	2.097	12.1	19.7
5 1	12 16.60	+ 0 35.5	1.938	2.807	12.6	18.2	5 1	12 10.54	- 3 29.6	1.187	2.082	17.0	20.0
304783	2007 <i>MN</i> ₇		3 29.9 241°92	5°7/24.9	17		45046	1999 <i>XN</i> ₂₀		3 29.9 59°89	0°7/29.4	18	
2 21	13 2.74	+ 7 14.0	1.690	2.515	15.2	21.1	2 21	12 58.80	- 5 38.5	1.464	2.279	17.6	19.0
3 2	12 58.46	+ 8 21.5	1.602	2.502	11.9	20.8	3 2	12 55.43	- 5 0.1	1.398	2.293	13.7	18.8
3 12	12 51.52	+ 9 35.5	1.536	2.488	8.4	20.6	3 12	12 49.41	- 4 4.6	1.352	2.306	9.0	18.6
3 22	12 42.50	+10 47.7	1.497	2.474	5.8	20.4	3 22	12 41.48	- 2 57.2	1.331	2.320	4.0	18.3
4 1	12 32.38	+11 48.7	1.484	2.459	6.6	20.4	4 1	12 32.72	- 1 45.8	1.335	2.334	1.6	18.2
4 11	12 22.41	+12 30.5	1.498	2.443	10.0	20.6	4 11	12 24.41	- 0 39.5	1.367	2.348	6.6	18.5
4 21	12 13.74	+12 48.4	1.536	2.427	13.9	20.8	4 21	12 17.61	+ 0 14.1	1.423	2.362	11.2	18.8
5 1	12 7.27	+12 41.3	1.595	2.410	17.4	20.9	5 1	12 13.10	+ 0 49.9	1.501	2.376	15.2	19.1
72182	2000 <i>YZ</i> ₁₁₅		3 29.9 85°76	2°2/28.2	18		162592	2000 <i>SO</i> ₄₃		3 29.9 215°23	2°		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
270136	2001 RR ₁₂₉		3 29.9 147°95	0°9/29.0	16		224332	2005 UW ₅₉		3 29.9 217°93	3°4/26.9	18	
2 21	13 1.01	- 3 32.5	2.267	3.057	13.0	22.4	2 21	13 4.20	+ 5 10.9	2.119	2.926	13.2	20.3
3 2	12 56.20	- 3 0.9	2.186	3.068	10.0	22.2	3 2	12 58.95	+ 5 36.9	2.028	2.919	10.2	20.1
3 12	12 49.49	- 2 19.1	2.128	3.077	6.6	22.0	3 12	12 51.50	+ 6 6.6	1.962	2.913	6.9	19.9
3 22	12 41.42	- 1 30.9	2.098	3.086	2.9	21.8	3 22	12 42.42	+ 6 35.5	1.922	2.905	4.0	19.7
4 1	12 32.74	- 0 41.1	2.098	3.095	1.5	21.7	4 1	12 32.52	+ 6 58.1	1.912	2.897	4.0	19.7
4 11	12 24.32	+ 0 5.0	2.127	3.103	5.1	21.9	4 11	12 22.81	+ 7 9.7	1.930	2.889	7.1	19.9
4 21	12 16.92	+ 0 42.7	2.184	3.110	8.6	22.1	4 21	12 14.18	+ 7 7.5	1.976	2.880	10.5	20.0
5 1	12 11.14	+ 1 8.9	2.266	3.116	11.7	22.4	5 1	12 7.37	+ 6 50.1	2.045	2.871	13.7	20.2
128666	2004 RE ₅₉		3 29.9 149°47	2°9/27.1	18		295247	2008 GX ₃₆		3 29.9 319°49	2°7/27.4	18	
2 21	13 0.94	- 0 17.1	1.755	2.569	15.2	20.3	2 21	12 57.23	- 0 34.9	1.677	2.500	15.4	20.3
3 2	12 56.70	+ 0 51.1	1.681	2.578	11.7	20.1	3 2	12 54.05	+ 0 20.6	1.596	2.498	11.9	20.0
3 12	12 50.10	+ 2 11.3	1.630	2.585	7.6	19.9	3 12	12 48.48	+ 1 28.6	1.538	2.495	7.8	19.8
3 22	12 41.78	+ 3 36.5	1.605	2.592	3.8	19.7	3 22	12 41.11	+ 2 42.9	1.504	2.492	3.8	19.5
4 1	12 32.68	+ 4 58.2	1.608	2.599	3.7	19.7	4 1	12 32.86	+ 3 55.4	1.498	2.490	3.5	19.5
4 11	12 23.91	+ 6 8.0	1.640	2.604	7.5	19.9	4 11	12 24.85	+ 4 57.7	1.518	2.488	7.5	19.7
4 21	12 16.44	+ 7 0.0	1.697	2.610	11.5	20.1	4 21	12 18.08	+ 5 43.3	1.564	2.486	11.7	20.0
5 1	12 11.00	+ 7 31.0	1.776	2.614	14.9	20.4	5 1	12 13.32	+ 6 8.8	1.631	2.484	15.3	20.2
145257	2005 JQ ₁₂₇		3 29.9 241°12	5°0/23.9	18		341642	2007 VL ₃₃		3 29.9 110°02	0°3/29.7	17	
2 21	12 57.82	+10 11.2	2.358	3.178	11.6	20.3	2 21	12 58.44	- 4 39.8	2.300	3.091	12.8	21.6
3 2	12 53.80	+11 10.6	2.276	3.171	9.1	20.1	3 2	12 54.24	- 4 22.3	2.217	3.098	9.9	21.4
3 12	12 47.94	+12 11.5	2.218	3.164	6.6	19.9	3 12	12 48.22	- 3 54.6	2.157	3.105	6.6	21.2
3 22	12 40.76	+13 7.8	2.188	3.157	5.1	19.8	3 22	12 40.88	- 3 19.9	2.124	3.112	2.9	21.0
4 1	12 32.94	+13 53.5	2.186	3.150	5.8	19.9	4 1	12 32.94	- 2 42.1	2.120	3.119	0.9	20.9
4 11	12 25.30	+14 23.7	2.212	3.142	8.1	20.0	4 11	12 25.23	- 2 6.0	2.146	3.126	4.7	21.1
4 21	12 18.56	+14 35.8	2.263	3.134	10.8	20.1	4 21	12 18.46	- 1 35.9	2.199	3.132	8.1	21.4
5 1	12 13.33	+14 29.0	2.337	3.126	13.3	20.3	5 1	12 13.24	- 1 15.1	2.277	3.139	11.2	21.6
381556	2008 TE ₉₈		3 29.9 110°40	2°6/ 1.5	17		497780	2006 SL ₃₄₂		3 29.9 144°04	1°8/ 1.5	18	
2 21	12 58.94	-12 54.3	2.054	2.820	14.9	21.5	2 21	12 55.89	-13 39.2	2.983	3.728	11.2	22.4
3 2	12 54.97	-12 57.5	1.966	2.824	12.1	21.3	3 2	12 51.89	-13 15.4	2.891	3.738	9.0	22.3
3 12	12 48.89	-12 44.2	1.899	2.828	8.7	21.1	3 12	12 46.47	-12 38.6	2.823	3.747	6.4	22.1
3 22	12 41.24	-12 15.5	1.857	2.832	5.1	20.9	3 22	12 40.04	-11 50.3	2.782	3.757	3.7	21.9
4 1	12 32.82	-11 34.4	1.842	2.836	2.6	20.8	4 1	12 33.17	-10 53.5	2.771	3.765	1.8	21.8
4 11	12 24.59	-10 46.1	1.856	2.840	4.7	20.9	4 11	12 26.46	- 9 52.4	2.791	3.774	3.4	21.9
4 21	12 17.44	- 9 56.5	1.897	2.844	8.3	21.1	4 21	12 20.48	- 8 51.5	2.840	3.782	6.1	22.1
5 1	12 12.06	- 9 11.5	1.963	2.848	11.7	21.4	5 1	12 15.68	- 7 55.1	2.916	3.789	8.7	22.3
96463	1998 HW ₅₁		3 29.9 10°38	4°2/27.3	18		34241	Skylærjones		3 29.9 271°71	2°4/27.2	18	
2 21	12 58.98	+ 3 17.7	1.134	1.985	19.3	18.4	2 21	12 57.12	+ 1 45.2	2.382	3.191	11.8	19.5
3 2	12 56.36	+ 3 43.8	1.071	1.987	14.9	18.2	3 2	12 53.32	+ 2 24.3	2.281	3.175	9.1	19.3
3 12	12 50.46	+ 4 18.5	1.028	1.990	10.0	17.9	3 12	12 47.70	+ 3 10.6	2.204	3.158	6.1	19.1
3 22	12 42.10	+ 4 54.1	1.007	1.994	5.3	17.6	3 22	12 40.70	+ 3 59.7	2.155	3.141	3.1	18.9
4 1	12 32.60	+ 5 21.7	1.008	2.000	5.1	17.6	4 1	12 32.98	+ 4 46.5	2.134	3.124	3.1	18.8
4 11	12 23.60	+ 5 33.1	1.034	2.006	9.6	17.9	4 11	12 25.33	+ 5 25.8	2.142	3.107	6.1	19.0
4 21	12 16.48	+ 5 24.0	1.081	2.014	14.5	18.2	4 21	12 18.50	+ 5 53.5	2.178	3.089	12.4	19.2
5 1	12 12.18	+ 4 53.6	1.147	2.023	18.8	18.5	5 1	12 13.12	+ 6 6.9	2.237	3.072	19.4	19.3
147332	2003 BB ₄₀		3 29.9 321°72	4°8/25.8	18		119747	6301 P-L		3 29.9 74°01	0°4/30.2	18	
2 21	12 54.07	+ 3 1.9	1.378	2.225	16.7	19.1	2 21	13 3.03	- 6 51.7	1.452	2.257	18.2	19.9
3 2	12 52.36	+ 4 5.0	1.284	2.198	13.1	18.8	3 2	12 58.68	- 6 37.5	1.390	2.277	14.3	19.7
3 12	12 47.84	+ 5 21.8	1.211	2.172	8.9	18.5	3 12	12 51.56	- 6 6.4	1.348	2.297	9.6	19.5
3 22	12 41.01	+ 6 44.1	1.161	2.147	5.3	18.2	3 22	12 42.46	- 5 22.3	1.330	2.317	4.4	19.2
4 1	12 32.84	+ 8 1.2	1.136	2.122	6.0	18.2	4 1	12 32.56	- 4 31.4	1.338	2.337	1.0	19.0
4 11	12 24.67	+ 9 1.9	1.135	2.098	10.3	18.3	4 11	12 23.19	- 3 41.9	1.373	2.357	6.1	19.4
4 21	12 17.81	+ 9 38.3	1.156	2.075	15.1	18.5	4 21	12 15.49	- 3 0.6	1.434	2.377	10.8	19.7
5 1	12 13.32	+ 9 46.3	1.196	2.053	19.4	18.7	5 1	12 10.22	- 2 32.8	1.517	2.396	14.8	20.0
268443	2005 WY ₂₆		3 29.9 183°01	1°5/31.6	17		292940	2006 VY ₈₃		3 29.9 343°93	2°4/27.5	18	
2 21	12 59.37	-10 53.7	2.213	2.982	13.9	21.3	2 21	12 59.23	+ 2 39.1	2.302	3.110	12.2	20.6
3 2	12 55.15	-10 38.6	2.119	2.982	11.1	21.1	3 2	12 54.87	+ 3 1.9	2.217	3.110	9.4	20.4
3 12	12 48.94	-10 8.2	2.047	2.982	7.8	20.9	3 12	12 48.65	+ 3 29.9	2.156	3.109	6.2	20.2
3 22	12 41.24	- 9 24.6	2.001	2.982	4.1	20.7	3 22	12 41.09	+ 3 58.9	2.123	3.109	3.2	20.0
4 1	12 32.82	- 8 31.3	1.984	2.981	1.5	20.5	4 1	12 32.90	+ 4 24.5	2.119	3.109	3.0	20.0
4 11	12 24.55	- 7 33.8	1.996	2.980	4.5	20.7	4 11	12 24.91	+ 4 42.4	2.143	3.109	5.9	20.2
4 21	12 17.27	- 6 38.1	2.036	2.978	8.2	20.9	4 21	12 17.87	+ 4 49.5	2.195	3.109	9.2	20.4
5 1	12 11.63	- 5 49.5	2.101	2.976	11.5	21.1	5 1	12 12.38	+ 4 44.1	2.270	3.109	12.1	20.6
72106	2000 YD ₅₄		3 29.9 84°09	3°6/ 1.9	18		109886	2001 SX ₈		3 29.9 139°71	1°7/31.9	18	
2 21	13 1.51	-14 17.9	1.582	2.356	18.3	19.3	2 21	13 0.57	-12 18.3	2.465	3.217	13.1	20.6
3 2	12 57.53	-14 27.9	1.507	2.368	14.9	19.1	3 2	12 55.75	-11 57.6	2.380	3.233	10.4	20.4
3 12	12 50.85	-14 16.2	1.452	2.381	10.9	18.9	3 12	12 49.14	-11 22.2	2.318	3.247	7.4	20.2
3 22	12 42.18	-13 43.7	1.420	2.393	6.6	18.7	3 22	12 41.28	-10 34.0	2.283	3.261	4.0	20.0
4 1	12 32.58	-12 53.9	1.413	2.406	3.6	18.5	4 1	12 32.86	- 9 36.8	2.278	3.274	1.7	19.9
4 11	12 23.35	-11 53.9	1.434	2.418	5.8	18.7	4 11	12 24.68	- 8 35.5	2.303	3.286	4.0	20.1
4 21	12 15.61	-10 52.0	1.480	2.430	9.9	18.9	4 21	12 17.46	- 7 35.6	2.357	3.298	7.3	20.3
5 1	12 10.18	- 9 56.3	1.550	2.442	13.8	19.2	5 1	12 11.77	- 6 42.2	2.438	3.308	10.2	20.5
184695	2005 ST ₁₀₄		3 29.9 217°82	0°5/29.2	17		376782	2000 QC ₇₀		3 29.9 243°88	13°2/ 3.4	18	
2 21	12 54.88	- 4 47.8	2.762										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
73039	2002 <i>EO</i> ₉₁		3 29.9 306°50	2°3/28.3	17		287704	2003 <i>QE</i> ₄₉		3 29.9 179°51	1°4/31.3	17	
2 21	12 58.83	- 1 1.6	1.382	2.214	17.6	19.4	2 21	12 59.84	- 9 14.3	2.128	2.904	14.1	21.2
3 2	12 56.11	- 0 35.6	1.288	2.193	13.8	19.0	3 2	12 55.61	- 9 13.1	2.036	2.905	11.3	21.0
3 12	12 50.39	+ 0 4.4	1.213	2.172	9.2	18.7	3 12	12 49.31	- 8 58.3	1.967	2.905	7.8	20.7
3 22	12 42.20	+ 0 53.2	1.162	2.151	4.3	18.4	3 22	12 41.46	- 8 31.8	1.923	2.905	4.1	20.5
4 1	12 32.57	+ 1 43.3	1.135	2.131	3.1	18.2	4 1	12 32.85	- 7 56.7	1.908	2.905	1.4	20.3
4 11	12 22.93	+ 2 25.6	1.134	2.111	8.2	18.5	4 11	12 24.40	- 7 18.0	1.921	2.905	4.6	20.5
4 21	12 14.69	+ 2 52.6	1.156	2.092	13.5	18.7	4 21	12 16.97	- 6 40.8	1.962	2.905	8.4	20.8
5 1	12 8.97	+ 2 59.4	1.198	2.073	18.2	18.9	5 1	12 11.25	- 6 10.1	2.028	2.904	11.8	21.0
434989	2006 <i>UO</i> ₁₈₅		3 29.9 203°18	4°4/24.4	17		140566	2001 <i>TR</i> ₂₁₁		3 29.9 107°57	4°4/ 3.6	17	
2 21	13 0.05	+11 10.5	2.784	3.592	10.3	21.7	2 21	12 58.75	-18 30.5	2.338	3.067	14.3	20.1
3 2	12 55.18	+11 52.3	2.700	3.588	8.1	21.5	3 2	12 54.67	-18 52.9	2.244	3.071	12.0	19.9
3 12	12 48.70	+12 33.8	2.642	3.584	5.9	21.3	3 12	12 48.64	-18 58.3	2.172	3.075	9.2	19.7
3 22	12 41.08	+13 10.4	2.612	3.579	4.5	21.2	3 22	12 41.15	-18 46.3	2.123	3.078	6.4	19.6
4 1	12 32.92	+13 37.5	2.611	3.574	5.0	21.3	4 1	12 32.93	-18 18.1	2.103	3.082	4.5	19.5
4 11	12 24.93	+13 51.6	2.639	3.568	7.0	21.4	4 11	12 24.85	-17 37.5	2.110	3.085	5.2	19.5
4 21	12 17.76	+13 50.8	2.695	3.562	9.4	21.5	4 21	12 17.72	-16 49.5	2.145	3.089	7.7	19.7
5 1	12 11.92	+13 34.8	2.773	3.556	11.6	21.7	5 1	12 12.19	-16 0.2	2.205	3.092	10.5	19.8
336906	2011 <i>HG</i> ₁₂		3 29.9 258°24	2°3/27.3	17		496989	2002 <i>RC</i> ₂₁₁		3 29.9 147°93	3°0/ 2.7	17	
2 21	12 55.95	- 0 56.2	2.154	2.965	12.9	21.1	2 21	13 0.87	-16 5.5	2.916	3.639	11.9	23.0
3 2	12 52.60	+ 0 6.4	2.057	2.952	9.9	20.9	3 2	12 55.79	-16 17.8	2.822	3.649	9.8	22.9
3 12	12 47.32	+ 1 20.5	1.984	2.939	6.5	20.6	3 12	12 49.12	-16 17.0	2.752	3.660	7.3	22.7
3 22	12 40.56	+ 2 41.0	1.939	2.926	3.2	20.4	3 22	12 41.29	-16 3.3	2.708	3.670	4.8	22.6
4 1	12 33.04	+ 4 1.0	1.922	2.913	3.0	20.3	4 1	12 32.91	-15 38.4	2.694	3.679	3.1	22.5
4 11	12 25.63	+ 5 13.5	1.933	2.900	6.4	20.5	4 11	12 24.68	-15 5.4	2.710	3.687	4.0	22.6
4 21	12 19.11	+ 6 12.5	1.972	2.886	10.0	20.7	4 21	12 17.25	-14 28.0	2.755	3.695	6.4	22.7
5 1	12 14.18	+ 6 54.1	2.034	2.872	13.3	20.9	5 1	12 11.15	-13 50.6	2.828	3.703	8.9	22.9
192168	2007 <i>DT</i> ₅₃		3 29.9 309°43	0°1/29.9	18		483037	2015 <i>FE</i> ₃₄₁		3 29.9 178°52	17°1/13.6	18	
2 21	12 56.99	- 7 25.7	1.280	2.103	19.2	20.6	2 21	13 6.21	-39 16.4	1.319	1.963	27.0	21.7
3 2	12 54.76	- 6 54.3	1.195	2.093	15.2	20.3	3 2	13 3.23	-41 10.9	1.240	1.965	25.0	21.5
3 12	12 49.48	- 6 0.0	1.130	2.084	10.3	20.0	3 12	12 55.99	-42 29.3	1.173	1.966	22.7	21.3
3 22	12 41.76	- 4 46.8	1.086	2.075	4.7	19.7	3 22	12 45.04	-42 59.9	1.118	1.966	20.3	21.1
4 1	12 32.71	- 3 22.8	1.067	2.066	1.3	19.4	4 1	12 31.85	-42 33.3	1.081	1.966	18.3	21.0
4 11	12 23.83	- 1 59.2	1.073	2.058	7.3	19.8	4 11	12 18.70	-41 8.4	1.061	1.966	17.2	20.9
4 21	12 16.50	- 0 47.1	1.103	2.050	12.9	20.0	4 21	12 7.82	-38 54.1	1.061	1.964	17.6	20.9
5 1	12 11.78	+ 0 5.2	1.153	2.042	17.8	20.3	5 1	12 0.81	-36 8.2	1.081	1.962	19.3	21.0
21868	1999 <i>TK</i> ₂₉₁		3 29.9 233°15	0°3/29.6	18		351767	2006 <i>EK</i> ₅		3 29.9 349°29	3°9/26.7	18	
2 21	12 56.87	- 6 29.0	2.313	3.100	12.8	18.9	2 21	12 56.19	- 0 6.0	1.303	2.144	17.9	20.3
3 2	12 53.18	- 5 47.1	2.211	3.090	10.0	18.7	3 2	12 53.90	+ 1 8.5	1.230	2.142	13.8	20.0
3 12	12 47.63	- 4 51.7	2.133	3.080	6.7	18.5	3 12	12 48.73	+ 2 39.4	1.178	2.139	9.1	19.7
3 22	12 40.68	- 3 46.1	2.082	3.069	3.0	18.2	3 22	12 41.35	+ 4 17.8	1.149	2.138	4.7	19.5
4 1	12 33.01	- 2 35.2	2.060	3.058	1.0	18.0	4 1	12 32.89	+ 5 51.8	1.146	2.136	5.0	19.5
4 11	12 25.44	- 1 25.3	2.067	3.046	4.9	18.3	4 11	12 24.75	+ 7 9.8	1.167	2.135	9.5	19.7
4 21	12 18.72	- 0 22.4	2.103	3.034	8.5	18.5	4 21	12 18.15	+ 8 3.6	1.211	2.134	14.2	20.0
5 1	12 13.51	+ 0 28.9	2.163	3.022	11.8	18.7	5 1	12 14.02	+ 8 29.3	1.275	2.134	18.4	20.2
283743	2003 <i>AP</i> ₄₀		3 29.9 52°01	4°0/ 3.2	18		97417	2000 <i>AT</i> ₁₆₁		3 29.9 195°01	1°4/28.3	18	
2 21	12 57.10	-17 31.1	2.028	2.776	15.7	20.0	2 21	13 0.56	- 0 30.4	2.719	3.509	11.1	20.2
3 2	12 53.52	-17 36.9	1.952	2.794	12.9	19.8	3 2	12 55.65	- 0 3.2	2.623	3.506	8.5	20.0
3 12	12 47.89	-17 22.9	1.897	2.811	9.7	19.7	3 12	12 49.08	+ 0 30.8	2.553	3.502	5.6	19.8
3 22	12 40.78	-16 49.9	1.866	2.829	6.4	19.5	3 22	12 41.29	+ 1 8.3	2.510	3.498	2.6	19.6
4 1	12 33.02	-16 0.6	1.861	2.847	4.1	19.4	4 1	12 32.92	+ 1 45.3	2.498	3.493	1.9	19.5
4 11	12 25.56	-15 0.7	1.885	2.866	5.1	19.5	4 11	12 24.68	+ 2 17.7	2.517	3.487	4.9	19.7
4 21	12 19.23	-13 56.7	1.935	2.884	8.0	19.7	4 21	12 17.23	+ 2 42.2	2.564	3.481	7.9	19.9
5 1	12 14.66	-12 55.5	2.010	2.903	11.1	19.9	5 1	12 11.13	+ 2 56.2	2.637	3.474	10.6	20.1
383880	2008 <i>RQ</i> ₁₀₈		3 29.9 222°36	0°1/29.9	17		435264	2007 <i>TV</i> ₂₁₄		3 29.9 114°96	1°9/28.1	17	
2 21	12 57.04	- 7 9.7	2.134	2.924	13.7	21.5	2 21	13 1.22	+ 1 21.8	2.364	3.164	12.2	21.8
3 2	12 53.44	- 6 34.4	2.040	2.920	10.7	21.3	3 2	12 56.28	+ 1 38.1	2.285	3.173	9.4	21.6
3 12	12 47.86	- 5 44.7	1.968	2.915	7.2	21.0	3 12	12 49.53	+ 1 59.7	2.231	3.182	6.2	21.4
3 22	12 40.81	- 4 44.0	1.923	2.910	3.3	20.8	3 22	12 41.49	+ 2 23.2	2.204	3.191	2.9	21.2
4 1	12 33.01	- 3 37.3	1.907	2.905	0.8	20.6	4 1	12 32.88	+ 2 44.5	2.206	3.200	2.4	21.2
4 11	12 25.36	- 2 31.1	1.919	2.900	5.0	20.8	4 11	12 24.53	+ 2 59.5	2.239	3.208	5.4	21.4
4 21	12 18.67	- 1 31.4	1.959	2.894	8.8	21.1	4 21	12 17.17	+ 3 5.6	2.299	3.217	8.6	21.6
5 1	12 13.61	- 0 43.4	2.023	2.889	12.2	21.3	5 1	12 11.36	+ 3 0.8	2.383	3.225	11.5	21.8
259466	2003 <i>SP</i> ₁₂₃		3 29.9 132°79	0°5/30.4	18		206414	2003 <i>SZ</i> ₁₁₃		3 29.9 287°28	2°0/31.4	17	
2 21	13 1.70	- 8 3.4	1.891	2.676	15.4	21.2	2 21	12 59.61	-10 4.4	1.533	2.330	17.8	20.6
3 2	12 57.16	- 7 36.5	1.812	2.688	12.1	21.0	3 2	12 56.52	-10 6.3	1.432	2.311	14.4	20.3
3 12	12 50.35	- 6 54.2	1.756	2.700	8.2	20.7	3 12	12 50.58	- 9 49.0	1.349	2.292	10.2	20.0
3 22	12 41.91	- 5 59.6	1.726	2.711	3.8	20.5	3 22	12 42.29	- 9 13.4	1.290	2.273	5.5	19.7
4 1	12 32.74	- 4 58.1	1.723	2.722	0.9	20.3	4 1	12 32.62	- 8 23.3	1.257	2.255	2.0	19.4
4 11	12 23.88	- 3 56.7	1.750	2.732	5.2	20.6	4 11	12 22.89	- 7 25.7	1.250	2.236	6.2	19.6
4 21	12 16.27	- 3 1.9	1.804	2.742	9.3	20.9	4 21	12 14.44	- 6 29.2	1.267	2.217	11.3	19.8
5 1	12 10.59	- 2 18.7	1.882	2.751	12.9	21.1	5 1	12 8.34	- 5 42.0	1.307	2.198	16.0	20.1
112328	Klinkerfues		3 29.9 324°27	0°1/29.9	17		497580	2006 <i>GD</i> ₃₄		3 29.9 336			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
460034	2014 <i>OG</i> ₁₇₇		3 29.9 137°63	0°1/29.9 18			51153	2000 <i>HA</i> ₅₆		3 29.9 137°44	3°4/26.3 18		
2 21	13 4.02	- 5 56.9	1.884	2.672	15.3	22.6	2 21	12 59.93	+ 5 33.7	2.343	3.154	11.9	19.6
3 2	12 58.95	- 5 37.5	1.807	2.685	12.0	22.4	3 2	12 55.35	+ 6 10.3	2.266	3.160	9.2	19.4
3 12	12 51.55	- 5 4.8	1.751	2.697	8.0	22.1	3 12	12 48.94	+ 6 50.2	2.214	3.165	6.2	19.2
3 22	12 42.47	- 4 22.2	1.721	2.708	3.6	21.9	3 22	12 41.25	+ 7 28.7	2.189	3.171	3.7	19.1
4 1	12 32.63	- 3 34.6	1.721	2.719	0.9	21.7	4 1	12 32.99	+ 8 0.7	2.193	3.176	4.0	19.1
4 11	12 23.13	- 2 48.4	1.749	2.729	5.4	22.0	4 11	12 24.98	+ 8 22.0	2.226	3.180	6.6	19.2
4 21	12 14.91	- 2 9.1	1.804	2.739	9.5	22.3	4 21	12 17.93	+ 8 29.9	2.286	3.185	9.5	19.4
5 1	12 8.70	- 1 41.3	1.883	2.747	13.1	22.5	5 1	12 12.44	+ 8 23.1	2.370	3.190	12.2	19.6
350495	1999 <i>VC</i> ₁₁₁		3 29.9 161°68	2°2/31.9 18			39372	2002 <i>CS</i> ₅₁		3 29.9 305°06	0°8/29.0 18		
2 21	13 2.49	-12 36.8	1.689	2.463	17.3	21.7	2 21	12 54.66	- 4 9.4	2.385	3.184	12.2	19.1
3 2	12 58.20	-12 18.3	1.604	2.469	14.0	21.5	3 2	12 51.38	- 3 32.3	2.293	3.179	9.4	18.9
3 12	12 51.31	-11 38.4	1.539	2.474	9.9	21.2	3 12	12 46.38	- 2 44.4	2.224	3.175	6.2	18.7
3 22	12 42.45	-10 39.3	1.499	2.479	5.4	21.0	3 22	12 40.13	- 1 49.3	2.182	3.170	2.7	18.5
4 1	12 32.64	- 9 25.8	1.486	2.483	2.2	20.8	4 1	12 33.27	- 0 51.7	2.169	3.166	1.4	18.4
4 11	12 23.10	- 8 6.1	1.501	2.486	5.5	21.0	4 11	12 26.54	+ 0 2.9	2.184	3.162	4.8	18.6
4 21	12 14.93	- 6 49.1	1.543	2.488	10.0	21.3	4 21	12 20.64	+ 0 49.8	2.228	3.157	8.3	18.8
5 1	12 8.97	- 5 42.5	1.608	2.490	14.0	21.5	5 1	12 16.13	+ 1 25.1	2.296	3.153	11.3	19.0
495882	2004 <i>RX</i> ₂₁₉		3 29.9 193°95	4°3/ 4.6 17			211543	2003 <i>SV</i> ₁₅		3 29.9 61°84	1°1/29.0 18		
2 21	12 59.83	-21 45.4	2.892	3.585	12.6	23.1	2 21	12 58.60	- 5 16.1	1.418	2.238	17.9	19.9
3 2	12 55.18	-21 48.9	2.782	3.582	10.6	23.0	3 2	12 55.38	- 4 26.4	1.354	2.252	13.8	19.7
3 12	12 48.83	-21 35.7	2.694	3.578	8.4	22.8	3 12	12 49.47	- 3 18.8	1.310	2.266	9.1	19.5
3 22	12 41.22	-21 5.4	2.632	3.574	6.1	22.6	3 22	12 41.61	- 1 59.5	1.291	2.280	4.0	19.2
4 1	12 32.96	-20 19.2	2.597	3.569	4.4	22.5	4 1	12 32.92	- 0 37.4	1.297	2.295	2.0	19.1
4 11	12 24.79	-19 20.5	2.593	3.563	4.7	22.5	4 11	12 24.69	+ 0 37.4	1.330	2.309	6.9	19.5
4 21	12 17.38	-18 14.1	2.617	3.556	6.7	22.7	4 21	12 18.01	+ 1 37.0	1.387	2.324	11.6	19.8
5 1	12 11.33	-17 5.6	2.669	3.548	9.2	22.8	5 1	12 13.65	+ 2 16.5	1.466	2.339	15.6	20.0
272932	2006 <i>BJ</i> ₂₂₃		3 29.9 125°44	2°5/ 1.3 17			87656	2000 <i>RO</i> ₉₀		3 29.9 256°99	3°1/ 2.7 18		
2 21	12 59.46	-12 8.1	1.980	2.751	15.3	20.4	2 21	12 55.57	-16 20.5	2.415	3.160	13.5	19.7
3 2	12 55.51	-12 13.9	1.890	2.752	12.3	20.2	3 2	12 52.16	-16 13.3	2.315	3.157	11.1	19.5
3 12	12 49.35	-12 3.5	1.821	2.753	8.8	20.0	3 12	12 46.96	-15 49.1	2.236	3.153	8.3	19.3
3 22	12 41.53	-11 37.8	1.777	2.754	5.1	19.8	3 22	12 40.42	-15 8.5	2.183	3.150	5.3	19.1
4 1	12 32.88	-10 59.8	1.761	2.756	2.5	19.6	4 1	12 33.21	-14 14.2	2.157	3.146	3.1	19.0
4 11	12 24.40	-10 14.8	1.772	2.757	4.9	19.8	4 11	12 26.12	-13 11.0	2.160	3.143	4.4	19.0
4 21	12 17.02	- 9 28.8	1.811	2.758	8.6	20.0	4 21	12 19.87	-12 4.5	2.191	3.139	7.3	19.2
5 1	12 11.47	- 8 47.6	1.874	2.759	12.2	20.2	5 1	12 15.09	-11 0.8	2.249	3.135	10.3	19.4
96160	1978 <i>VW</i> ₇		3 29.9 112°73	0°8/30.7 18			334732	2003 <i>OZ</i> ₁₁		3 29.9 230°65	1°3/31.6 18		
2 21	13 3.01	- 8 44.8	1.818	2.600	16.0	20.6	2 21	12 56.77	-12 22.0	2.489	3.249	12.8	21.5
3 2	12 58.18	- 8 20.9	1.746	2.620	12.6	20.4	3 2	12 53.04	-11 38.8	2.378	3.237	10.2	21.3
3 12	12 51.03	- 7 40.7	1.697	2.639	8.5	20.2	3 12	12 47.53	-10 38.6	2.291	3.224	7.2	21.1
3 22	12 42.22	- 6 47.6	1.673	2.658	4.1	20.0	3 22	12 40.69	- 9 23.6	2.230	3.210	3.8	20.8
4 1	12 32.72	- 5 47.0	1.677	2.676	1.0	19.8	4 1	12 33.14	- 7 58.1	2.199	3.196	1.3	20.6
4 11	12 23.63	- 4 46.1	1.710	2.693	5.2	20.1	4 11	12 25.67	- 6 28.2	2.198	3.182	4.1	20.8
4 21	12 15.88	- 3 51.4	1.770	2.710	9.3	20.4	4 21	12 18.99	- 5 0.6	2.226	3.166	7.7	21.0
5 1	12 10.17	- 3 8.2	1.855	2.726	12.9	20.7	5 1	12 13.73	- 3 41.3	2.281	3.151	10.9	21.2
19250	Poullain		3 29.9 32°24	1°9/28.0 18			358466	2007 <i>LX</i> ₁		3 29.9 263°00	1°2/28.9 17		
2 21	12 56.13	- 0 47.6	1.996	2.811	13.6	18.5	2 21	12 59.52	- 5 9.7	1.629	2.437	16.4	21.8
3 2	12 52.73	- 0 10.7	1.922	2.818	10.4	18.3	3 2	12 56.24	- 4 20.8	1.526	2.417	12.9	21.5
3 12	12 47.35	+ 0 35.4	1.870	2.826	6.8	18.1	3 12	12 50.27	- 3 12.9	1.444	2.397	8.7	21.2
3 22	12 40.56	+ 1 26.0	1.845	2.834	3.1	17.9	3 22	12 42.14	- 1 50.4	1.387	2.376	3.8	20.8
4 1	12 33.14	+ 2 15.2	1.848	2.842	2.5	17.9	4 1	12 32.75	- 0 20.9	1.357	2.355	2.0	20.7
4 11	12 25.99	+ 2 57.3	1.878	2.851	6.0	18.1	4 11	12 23.35	+ 1 5.5	1.355	2.333	7.1	20.9
4 21	12 19.90	+ 3 27.7	1.935	2.860	9.6	18.3	4 21	12 15.13	+ 2 19.7	1.378	2.310	12.1	21.1
5 1	12 15.48	+ 3 43.6	2.015	2.869	12.8	18.6	5 1	12 9.09	+ 3 14.6	1.423	2.287	16.5	21.3
355783	2008 <i>RZ</i> ₁₃₇		3 29.9 259°15	4°0/ 1.9 17			284310	2006 <i>QO</i> ₄₉		3 29.9 212°60	4°7/ 5.0 18		
2 21	13 2.13	-14 35.6	1.580	2.352	18.4	22.2	2 21	12 59.67	-22 42.6	3.063	3.746	12.1	22.2
3 2	12 58.52	-14 51.7	1.475	2.335	15.3	21.9	3 2	12 55.04	-23 4.9	2.948	3.738	10.4	22.1
3 12	12 51.97	-14 46.3	1.390	2.318	11.4	21.6	3 12	12 48.76	-23 12.1	2.856	3.729	8.3	21.9
3 22	12 42.96	-14 18.3	1.327	2.300	7.1	21.3	3 22	12 41.23	-23 3.3	2.788	3.720	6.3	21.8
4 1	12 32.48	-13 29.5	1.289	2.281	4.0	21.1	4 1	12 33.02	-22 38.9	2.748	3.710	4.8	21.7
4 11	12 21.91	-12 26.0	1.278	2.262	6.4	21.2	4 11	12 24.83	-22 1.1	2.738	3.700	5.0	21.6
4 21	12 12.62	-11 16.5	1.292	2.243	11.0	21.4	4 21	12 17.33	-21 13.9	2.756	3.689	6.7	21.7
5 1	12 5.75	-10 10.8	1.330	2.223	15.6	21.6	5 1	12 11.11	-20 22.1	2.801	3.678	8.9	21.9
278913	2008 <i>TQ</i> ₁₅₀		3 29.9 234°60	1°4/28.7 17			91237	1999 <i>CY</i> ₇		3 29.9 3°01 16°9/ 2.2 18			
2 21	12 59.80	- 1 40.1	2.060	2.863	13.6	21.4	2 21	13 20.58	-22 27.1	1.108	1.847	26.5	17.3
3 2	12 55.64	- 1 17.0	1.969	2.859	10.6	21.2	3 2	13 15.37	-26 40.0	1.032	1.845	23.7	17.0
3 12	12 49.37	- 0 44.6	1.902	2.854	7.0	21.0	3 12	13 5.00	-30 43.0	0.975	1.844	20.7	16.8
3 22	12 41.53	- 0 6.5	1.861	2.849	3.1	20.7	3 22	12 49.63	-34 17.5	0.939	1.845	18.1	16.6
4 1	12 32.90	+ 0 32.3	1.848	2.844	2.0	20.6	4 1	12 30.69	-37 3.4	0.926	1.848	17.0	16.6
4 11	12 24.44	+ 1 6.4	1.864	2.839	5.7	20.9	4 11	12 10.93	-38 49.1	0.935	1.852	17.7	16.6
4 21	12 17.01	+ 1 31.1	1.907	2.834	9.6	21.1	4 21	11 53.45	-39 37.3	0.965	1.858	19.8	16.8
5 1	12 11.32	+ 1 43.2	1.974	2.829	12.9	21.3	5 1	11 40.71	-39 42.7	1.012	1.866	22.4	17.0
124134	2001 <i>KA</i> ₇₂		3 29.9 254°91	0°9/29.3 18			422472	2014 <i>SZ</i> ₃₁₉		3 29.9 158°81			

EPHEMERIDES

3 29.9

3 29.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
79971	1999 <i>CP</i> ₁₃₅		3 29.9 309°98	0°2/30.2	18		468338	2016 <i>EW</i> ₅₃		3 29.9 274°44	3°4/1.8	17	
2 21	12 56.71	- 6 40.1	2.163	2.955	13.5	20.0	2 21	13 1.13	-13 38.5	1.905	2.669	16.0	21.2
3 2	12 53.16	- 6 18.3	2.072	2.953	10.6	19.8	3 2	12 57.25	-13 57.6	1.792	2.648	13.2	21.0
3 12	12 47.68	- 5 43.8	2.004	2.951	7.1	19.6	3 12	12 50.85	-13 59.8	1.700	2.626	9.8	20.7
3 22	12 40.77	- 4 59.4	1.962	2.949	3.3	19.3	3 22	12 42.41	-13 44.6	1.632	2.605	6.0	20.4
4 1	12 33.15	- 4 9.6	1.948	2.947	0.8	19.1	4 1	12 32.75	-13 13.4	1.591	2.583	3.5	20.2
4 11	12 25.70	- 3 19.9	1.963	2.945	4.7	19.4	4 11	12 22.98	-12 30.6	1.578	2.561	5.6	20.3
4 21	12 19.19	- 2 35.7	2.005	2.943	8.5	19.6	4 21	12 14.23	-11 42.5	1.591	2.538	9.6	20.5
5 1	12 14.28	- 2 1.4	2.071	2.941	11.8	19.8	5 1	12 7.44	-10 56.4	1.628	2.515	13.5	20.6
498155	2007 <i>TX</i> ₁₁₄		3 29.9 187°92	0°2/30.2	17		151832	2003 <i>FN</i> ₁₁₇		3 29.9 25°23	4°0/26.4	18	
2 21	12 55.93	- 7 42.5	2.494	3.275	12.2	21.8	2 21	12 58.38	+ 3 19.7	1.642	2.472	15.3	20.3
3 2	12 52.28	- 7 3.2	2.400	3.275	9.5	21.6	3 2	12 54.97	+ 4 15.4	1.570	2.474	11.8	20.1
3 12	12 46.95	- 6 11.0	2.330	3.274	6.4	21.4	3 12	12 49.13	+ 5 19.5	1.520	2.477	7.9	19.8
3 22	12 40.40	- 5 9.0	2.286	3.273	3.0	21.2	3 22	12 41.50	+ 6 24.6	1.495	2.480	4.5	19.6
4 1	12 33.27	- 4 1.7	2.273	3.271	0.7	21.0	4 1	12 33.04	+ 7 22.5	1.497	2.483	4.8	19.7
4 11	12 26.28	- 2 54.7	2.289	3.270	4.3	21.3	4 11	12 24.89	+ 8 5.8	1.525	2.486	8.4	19.9
4 21	12 20.11	- 1 53.3	2.333	3.268	7.7	21.5	4 21	12 18.06	+ 8 29.8	1.578	2.489	12.2	20.1
5 1	12 15.32	- 1 1.8	2.403	3.266	10.7	21.6	5 1	12 13.30	+ 8 32.7	1.651	2.493	15.7	20.3
1823	Gliese		3 29.9 313°46	2°5/31.6	18		384101	2008 <i>WW</i> ₄₅		3 29.9 139°95	0°1/29.9	17	
2 21	12 58.59	-10 2.5	1.273	2.086	19.9	15.7	2 21	12 58.57	- 5 49.8	2.236	3.025	13.2	22.0
3 2	12 56.24	-10 16.4	1.183	2.071	16.1	15.4	3 2	12 54.48	- 5 28.6	2.150	3.030	10.3	21.8
3 12	12 50.68	-10 9.4	1.111	2.057	11.5	15.1	3 12	12 48.50	- 4 55.9	2.088	3.034	6.9	21.6
3 22	12 42.47	- 9 41.8	1.060	2.043	6.2	14.8	3 22	12 41.14	- 4 14.7	2.051	3.039	3.1	21.4
4 1	12 32.70	- 8 57.6	1.033	2.030	2.5	14.5	4 1	12 33.13	- 3 29.2	2.044	3.043	0.8	21.2
4 11	12 22.96	- 8 4.5	1.030	2.017	6.8	14.7	4 11	12 25.33	- 2 44.8	2.066	3.047	4.7	21.5
4 21	12 14.75	- 7 12.1	1.050	2.005	12.4	15.0	4 21	12 18.49	- 2 6.1	2.115	3.051	8.3	21.7
5 1	12 9.29	- 6 29.7	1.091	1.994	17.5	15.2	5 1	12 13.24	- 1 37.2	2.190	3.054	11.5	21.9
171575	1999 <i>VM</i> ₅		3 29.9 162°63	0°8/30.8	18		429135	2009 <i>TW</i> ₆		3 29.9 191°97	0°1/29.9	17	
2 21	13 2.22	- 8 33.8	2.087	2.863	14.4	20.4	2 21	13 2.62	- 4 52.6	2.383	3.163	12.7	21.7
3 2	12 57.46	- 8 16.1	1.999	2.869	11.4	20.2	3 2	12 57.54	- 4 42.1	2.287	3.161	10.0	21.5
3 12	12 50.55	- 7 44.0	1.934	2.875	7.8	20.0	3 12	12 50.53	- 4 21.8	2.215	3.159	6.7	21.3
3 22	12 42.08	- 7 0.2	1.895	2.880	3.8	19.7	3 22	12 42.08	- 3 54.2	2.169	3.156	3.0	21.1
4 1	12 32.86	- 6 8.8	1.885	2.884	1.0	19.5	4 1	12 32.90	- 3 22.7	2.154	3.153	0.8	20.9
4 11	12 23.86	- 5 15.7	1.905	2.887	4.8	19.8	4 11	12 23.87	- 2 52.0	2.169	3.148	4.6	21.2
4 21	12 15.96	- 4 26.7	1.952	2.890	8.7	20.1	4 21	12 15.76	- 2 26.0	2.212	3.144	8.2	21.4
5 1	12 9.85	- 3 46.8	2.024	2.892	12.1	20.3	5 1	12 9.23	- 2 8.3	2.281	3.138	11.4	21.6
18233	4068 <i>T</i> ₋₁		3 29.9 140°82	2°0/27.3	18		238639	2005 <i>EK</i> ₆		3 29.9 58°75	0°1/30.1	17	
2 21	12 55.25	- 0 43.2	2.485	3.290	11.5	19.2	2 21	12 58.65	- 5 57.7	1.944	2.740	14.6	21.0
3 2	12 51.70	+ 0 17.4	2.404	3.295	8.8	19.0	3 2	12 54.78	- 5 42.4	1.866	2.750	11.4	20.8
3 12	12 46.52	+ 1 26.8	2.347	3.300	5.7	18.8	3 12	12 48.81	- 5 14.4	1.812	2.759	7.6	20.5
3 22	12 40.20	+ 2 40.1	2.318	3.305	2.8	18.6	3 22	12 41.31	- 4 36.9	1.782	2.769	3.5	20.3
4 1	12 33.35	+ 3 51.9	2.319	3.310	2.6	18.6	4 1	12 33.11	- 3 54.6	1.781	2.779	0.8	20.1
4 11	12 26.68	+ 4 56.2	2.349	3.314	5.5	18.8	4 11	12 25.20	- 3 13.3	1.807	2.790	5.1	20.4
4 21	12 20.85	+ 5 48.8	2.406	3.318	8.6	19.0	4 21	12 18.42	- 2 38.2	1.861	2.800	9.0	20.7
5 1	12 16.36	+ 6 26.7	2.489	3.322	11.3	19.2	5 1	12 13.43	- 2 13.4	1.938	2.810	12.4	20.9
127798	2003 <i>FQ</i> ₇₅		3 29.9 282°58	4°5/2.6	16		87755	2000 <i>SU</i> ₈₀		3 29.9 120°51	1°4/28.1	18	
2 21	12 58.54	-16 25.3	1.478	2.254	19.3	20.3	2 21	12 54.94	- 2 46.3	2.557	3.355	11.4	20.0
3 2	12 55.81	-16 35.3	1.382	2.242	16.1	20.0	3 2	12 51.40	- 1 49.7	2.476	3.364	8.8	19.8
3 12	12 50.17	-16 20.0	1.304	2.231	12.1	19.7	3 12	12 46.31	- 0 43.4	2.420	3.372	5.7	19.6
3 22	12 42.16	-15 38.3	1.249	2.219	7.8	19.5	3 22	12 40.11	+ 0 28.1	2.391	3.380	2.5	19.4
4 1	12 32.80	-14 32.6	1.217	2.208	4.6	19.2	4 1	12 33.42	+ 1 39.7	2.393	3.388	1.9	19.4
4 11	12 23.49	-13 10.5	1.212	2.196	6.5	19.3	4 11	12 26.93	+ 2 45.8	2.424	3.395	5.0	19.6
4 21	12 15.57	-11 42.2	1.231	2.185	11.0	19.5	4 21	12 21.24	+ 3 41.8	2.484	3.403	8.0	19.8
5 1	12 10.10	-10 19.0	1.272	2.174	15.5	19.8	5 1	12 16.86	+ 4 24.6	2.568	3.410	10.7	20.0
348902	2006 <i>SD</i> ₃₆₅		3 29.9 133°27	1°4/31.6	18		84087	2002 <i>QR</i> ₂₈		3 29.9 123°37	4°9/24.9	18	
2 21	12 59.03	- 9 46.0	2.586	3.350	12.2	21.3	2 21	13 1.73	+ 6 50.6	1.975	2.793	13.6	20.2
3 2	12 54.58	- 9 46.8	2.496	3.357	9.7	21.2	3 2	12 57.00	+ 8 6.3	1.913	2.810	10.5	20.0
3 12	12 48.44	- 9 36.2	2.430	3.364	6.8	21.0	3 12	12 50.17	+ 9 25.9	1.876	2.826	7.2	19.9
3 22	12 41.07	- 9 15.6	2.391	3.371	3.6	20.8	3 22	12 41.87	+10 41.8	1.866	2.842	5.0	19.7
4 1	12 33.13	- 8 47.8	2.380	3.377	1.4	20.6	4 1	12 32.99	+11 46.5	1.884	2.857	5.7	19.8
4 11	12 25.36	- 8 16.4	2.400	3.383	3.9	20.8	4 11	12 24.49	+12 33.8	1.931	2.871	8.4	20.0
4 21	12 18.43	- 7 45.5	2.448	3.389	7.0	21.0	4 21	12 17.21	+13 0.7	2.002	2.885	11.5	20.2
5 1	12 12.90	- 7 19.0	2.522	3.395	9.9	21.2	5 1	12 11.78	+13 6.4	2.096	2.898	14.2	20.4
328336	2008 <i>JZ</i> ₃₅		3 29.9 85°22	2°8/27.5	17		113492	2002 <i>TW</i> ₃		3 29.9 111°77	0°9/28.9	18	
2 21	13 0.31	+ 1 1.8	1.738	2.557	15.1	21.1	2 21	12 58.82	- 2 49.4	2.323	3.118	12.5	20.1
3 2	12 56.25	+ 1 45.0	1.668	2.567	11.6	20.9	3 2	12 54.52	- 2 23.1	2.244	3.129	9.7	20.0
3 12	12 49.86	+ 2 37.2	1.620	2.576	7.6	20.7	3 12	12 48.44	- 1 47.9	2.190	3.140	6.4	19.8
3 22	12 41.78	+ 3 32.4	1.598	2.585	3.8	20.4	3 22	12 41.09	- 1 7.2	2.162	3.150	2.8	19.6
4 1	12 32.96	+ 4 23.7	1.604	2.595	3.5	20.4	4 1	12 33.18	- 0 25.4	2.164	3.161	1.5	19.5
4 11	12 24.49	+ 5 4.2	1.636	2.604	7.2	20.7	4 11	12 25.51	+ 0 12.5	2.195	3.171	4.9	19.7
4 21	12 17.33	+ 5 29.5	1.695	2.614	11.1	20.9	4 21	12 18.80	+ 0 42.4	2.253	3.181	8.3	20.0
5 1	12 12.18	+ 5 37.1	1.775	2.623	14.5	21.2	5 1	12 13.61	+ 1 1.6	2.337	3.190	11.3	20.2
39832	1998 <i>BJ</i> ₉		3 29.9 34°28	5°0/2.8	18		40690	1999 <i>RV</i> ₂₂₅		3 29.9 151°19	0°1/30.1		

EPHEMERIDES

3 29.9

3 30.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
199755	2006 <i>JD</i> ₃₉		3 29.9 58°46'	1.6°/28.4	17		207467	2006 <i>GL</i> ₄₃		3 29.9 273°18'	3.5°/27.4	17	
2 21	12 57.37	- 1 55.2	2.039	2.847	13.6	20.5	2 21	13 2.49	+ 2 28.7	1.537	2.362	16.5	20.3
3 2	12 53.75	- 1 17.0	1.955	2.848	10.5	20.3	3 2	12 58.58	+ 3 2.9	1.449	2.351	12.8	20.0
3 12	12 48.11	- 0 28.3	1.895	2.849	6.9	20.1	3 12	12 51.84	+ 3 46.2	1.383	2.339	8.6	19.7
3 22	12 41.00	+ 0 26.3	1.861	2.850	3.1	19.8	3 22	12 42.87	+ 4 32.5	1.341	2.328	4.5	19.5
4 1	12 33.19	+ 1 21.1	1.856	2.851	2.2	19.8	4 1	12 32.72	+ 5 14.1	1.326	2.317	4.3	19.4
4 11	12 25.59	+ 2 10.0	1.879	2.852	5.9	20.0	4 11	12 22.73	+ 5 43.3	1.337	2.305	8.5	19.6
4 21	12 19.02	+ 2 47.9	1.928	2.854	9.6	20.2	4 21	12 14.13	+ 5 54.8	1.373	2.294	13.0	19.9
5 1	12 14.13	+ 3 11.4	2.001	2.855	12.8	20.4	5 1	12 7.90	+ 5 46.2	1.429	2.282	17.1	20.1
306882	2001 <i>TB</i> ₃₄		3 29.9 88°92'	5.4°/ 5.0	18		275681	2000 <i>SQ</i> ₃₃		3 29.9 287°21'	1.9°/ 2.2	18 R	
2 21	13 0.04	-22 32.1	1.959	2.677	17.1	20.6	2 21	12 54.27	-13 45.8	4.390	5.118	8.1	19.8
3 2	12 55.95	-22 33.3	1.884	2.699	14.4	20.4	3 2	12 50.33	-14 0.7	4.274	5.107	6.6	19.7
3 12	12 49.61	-22 10.2	1.828	2.720	11.2	20.3	3 12	12 45.37	-14 7.9	4.183	5.097	4.9	19.6
3 22	12 41.66	-21 22.6	1.795	2.742	8.0	20.1	3 22	12 39.66	-14 7.8	4.120	5.086	3.1	19.4
4 1	12 33.04	-20 13.3	1.788	2.763	5.7	20.0	4 1	12 33.57	-14 1.5	4.087	5.075	1.9	19.3
4 11	12 24.78	-18 48.6	1.809	2.784	6.0	20.1	4 11	12 27.50	-13 50.4	4.085	5.064	2.7	19.4
4 21	12 17.80	-17 16.9	1.858	2.804	8.5	20.3	4 21	12 21.83	-13 36.7	4.112	5.053	4.5	19.5
5 1	12 12.75	-15 46.9	1.931	2.824	11.5	20.5	5 1	12 16.94	-13 22.5	4.168	5.042	6.3	19.6
347908	2002 <i>XW</i> ₁		3 29.9 166°05'	4.0°/26.6	18		464971	2005 <i>XF</i> ₈₉		3 29.9 48°49'	6.1°/25.0	18	
2 21	13 2.21	+ 2 0.8	1.537	2.361	16.5	20.8	2 21	13 1.14	+ 8 44.4	1.507	2.344	16.1	20.5
3 2	12 58.15	+ 3 5.2	1.463	2.364	12.7	20.5	3 2	12 57.04	+ 9 46.5	1.460	2.366	12.5	20.3
3 12	12 51.37	+ 4 20.5	1.411	2.367	8.5	20.3	3 12	12 50.39	+10 49.9	1.436	2.388	8.8	20.2
3 22	12 42.56	+ 5 39.0	1.384	2.369	4.7	20.1	3 22	12 42.01	+11 46.0	1.436	2.411	6.3	20.1
4 1	12 32.80	+ 6 51.2	1.384	2.371	4.9	20.1	4 1	12 33.02	+12 26.2	1.461	2.434	6.9	20.2
4 11	12 23.37	+ 7 48.0	1.410	2.372	8.8	20.3	4 11	12 24.64	+12 45.1	1.513	2.458	9.9	20.4
4 21	12 15.42	+ 8 23.8	1.461	2.373	13.0	20.6	4 21	12 17.85	+12 40.9	1.587	2.482	13.3	20.6
5 1	12 9.79	+ 8 36.1	1.533	2.374	16.8	20.8	5 1	12 13.29	+12 14.6	1.683	2.506	16.3	20.9
102574	1999 <i>UH</i> ₄₁		3 29.9 144°60'	0°2°/30.2	18		498138	2007 <i>TS</i> ₅₁		3 29.9 151°84'	1°2°/28.6	17	
2 21	13 0.37	- 8 43.8	2.169	2.945	13.9	20.8	2 21	13 0.44	- 0 53.3	2.714	3.503	11.1	22.5
3 2	12 55.87	- 7 53.5	2.086	2.958	10.9	20.6	3 2	12 55.52	- 0 34.4	2.629	3.511	8.5	22.3
3 12	12 49.42	- 6 47.5	2.028	2.970	7.3	20.4	3 12	12 49.00	- 0 9.1	2.569	3.518	5.6	22.1
3 22	12 41.55	- 5 29.8	1.996	2.982	3.4	20.2	3 22	12 41.34	+ 0 19.5	2.537	3.525	2.5	21.9
4 1	12 33.08	- 4 6.2	1.994	2.992	0.8	20.0	4 1	12 33.17	+ 0 47.8	2.536	3.531	1.6	21.9
4 11	12 24.87	- 2 43.7	2.022	3.002	4.8	20.3	4 11	12 25.19	+ 1 12.1	2.565	3.538	4.6	22.1
4 21	12 17.73	- 1 29.0	2.078	3.011	8.5	20.6	4 21	12 18.05	+ 1 29.4	2.622	3.543	7.6	22.3
5 1	12 12.26	- 0 27.1	2.160	3.020	11.8	20.8	5 1	12 12.25	+ 1 37.5	2.706	3.548	10.2	22.5
351498	2005 <i>QC</i> ₁₆₆		3 29.9 160°69'	3°1°/27.2	18		65656	1981 <i>RR</i> ₁		3 29.9 204°72'	1°9°/27.4	18	
2 21	13 3.10	+ 0 29.7	1.694	2.508	15.7	21.3	2 21	12 57.94	- 0 19.9	2.748	3.543	10.8	21.1
3 2	12 58.56	+ 1 29.4	1.618	2.514	12.1	21.1	3 2	12 53.69	+ 0 37.1	2.651	3.537	8.3	20.9
3 12	12 51.51	+ 2 40.2	1.565	2.520	8.0	20.8	3 12	12 47.86	+ 1 42.4	2.579	3.530	5.5	20.7
3 22	12 42.59	+ 3 45.5	1.538	2.525	4.0	20.6	3 22	12 40.86	+ 2 51.8	2.535	3.522	2.7	20.5
4 1	12 32.81	+ 5 6.9	1.539	2.529	3.9	20.6	4 1	12 33.28	+ 4 0.1	2.523	3.514	2.5	20.5
4 11	12 23.87	+ 6 6.1	1.567	2.532	7.8	20.8	4 11	12 25.81	+ 5 2.3	2.541	3.504	5.3	20.7
4 21	12 15.29	+ 6 47.5	1.621	2.535	11.8	21.1	4 21	12 19.07	+ 5 53.9	2.587	3.494	8.2	20.9
5 1	12 9.37	+ 7 8.2	1.698	2.537	15.4	21.3	5 1	12 13.61	+ 6 32.1	2.659	3.484	10.9	21.0
422635	2604 <i>T</i> ₋₃		3 29.9 126°28'	1°5°/31.7	18		62929	2000 <i>VO</i> ₁₅		3 29.9 148°71'	0°1°/29.9	17	
2 21	13 2.03	-11 14.0	2.293	3.052	13.8	22.4	2 21	12 58.76	- 6 29.1	2.123	2.912	13.8	20.1
3 2	12 57.02	-10 57.0	2.214	3.071	10.9	22.2	3 2	12 54.74	- 5 58.4	2.038	2.917	10.8	19.9
3 12	12 50.10	-10 25.4	2.158	3.090	7.6	22.1	3 12	12 48.74	- 5 14.6	1.975	2.922	7.2	19.7
3 22	12 41.84	- 9 41.2	2.128	3.108	4.1	21.9	3 22	12 41.30	- 4 20.9	1.939	2.927	3.3	19.5
4 1	12 33.01	- 8 48.3	2.128	3.125	1.5	21.7	4 1	12 33.18	- 3 22.4	1.932	2.931	0.9	19.3
4 11	12 24.48	- 7 52.1	2.158	3.141	4.2	21.9	4 11	12 25.27	- 2 25.2	1.954	2.935	4.9	19.6
4 21	12 16.99	- 6 58.0	2.216	3.157	7.7	22.2	4 21	12 18.38	- 1 34.9	2.003	2.939	8.7	19.8
5 1	12 11.16	- 6 11.0	2.301	3.172	10.8	22.4	5 1	12 13.16	- 0 55.8	2.078	2.942	12.0	20.1
389817	2011 <i>WW</i> ₃₇		3 29.9 259°73'	4°0°/25.3	17		475914	2007 <i>DR</i> ₁₁₀		3 29.9 219°64'	1°3°/31.6	16	
2 21	12 59.39	+ 8 43.9	2.615	3.426	10.9	21.0	2 21	12 57.26	- 9 38.1	2.832	3.596	11.3	21.4
3 2	12 54.91	+ 9 19.9	2.521	3.412	8.5	20.9	3 2	12 53.15	- 9 38.1	2.732	3.592	9.0	21.3
3 12	12 48.71	+ 9 57.4	2.451	3.399	6.0	20.7	3 12	12 47.49	- 9 27.7	2.655	3.589	6.3	21.1
3 22	12 41.25	+10 31.7	2.410	3.385	4.1	20.5	3 22	12 40.69	- 9 8.2	2.605	3.586	3.4	20.9
4 1	12 33.15	+10 58.1	2.398	3.371	4.6	20.5	4 1	12 33.32	- 8 41.9	2.585	3.582	1.3	20.7
4 11	12 25.16	+11 12.7	2.414	3.357	6.9	20.7	4 11	12 26.05	- 8 12.2	2.595	3.578	3.6	20.9
4 21	12 17.98	+11 13.1	2.458	3.342	9.5	20.8	4 21	12 19.48	- 7 42.8	2.633	3.574	6.6	21.1
5 1	12 12.19	+10 58.5	2.525	3.328	12.1	20.9	5 1	12 14.16	- 7 17.3	2.698	3.570	9.3	21.2
309452	2007 <i>UM</i> ₁₀₄		3 29.9 103°83'	1°0°/29.1	18		39524	1989 <i>SM</i> ₃		3 29.9 270°05'	2°6°/27.5	18	
2 21	13 1.87	- 4 16.5	1.717	2.521	15.9	21.2	2 21	13 0.44	+ 2 5.9	2.140	2.949	13.0	19.5
3 2	12 57.45	- 3 37.4	1.649	2.538	12.3	21.0	3 2	12 56.22	+ 2 36.9	2.037	2.930	10.1	19.2
3 12	12 50.65	- 2 44.5	1.603	2.554	8.1	20.8	3 12	12 49.89	+ 3 15.1	1.957	2.910	6.8	19.0
3 22	12 42.15	- 1 43.0	1.582	2.571	3.5	20.6	3 22	12 41.90	+ 3 56.0	1.903	2.890	3.5	18.7
4 1	12 32.94	- 0 39.6	1.589	2.587	1.7	20.5	4 1	12 33.01	+ 4 34.3	1.879	2.869	3.3	18.7
4 11	12 24.14	+ 0 18.2	1.625	2.602	6.1	20.8	4 11	12 24.16	+ 5 4.3	1.883	2.849	6.6	18.8
4 21	12 16.72	+ 1 4.2	1.686	2.617	10.3	21.1	4 21	12 16.24	+ 5 21.9	1.913	2.828	10.3	19.0
5 1	12 11.37	+ 1 34.6	1.771	2.632	13.9	21.3	5 1	12 9.99	+ 5 24.4	1.967	2.806	13.6	19.2
382378	2013 <i>TW</i> ₁₁₃		3 29.9 118°90'	2°4°/27.8	17		110812	2001 <i>UR</i> ₄₇					