

EPHEMERIDES

3 15.9

3 16.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
423111	2004 <i>BT</i> ₅₄		3 15.9 111°07'	1.6°/14.1	18		118649	2000 <i>JM</i> ₃₂		3 15.9 230°53'	5.7°/9.9	17	
2 11	12 6.26	+ 4 53.7	2.423	3.255	10.8	21.5	2 11	12 10.90	+17 41.0	2.192	3.035	11.4	20.4
2 21	12 1.13	+ 5 37.3	2.359	3.272	7.9	21.3	2 21	12 4.97	+18 41.9	2.113	3.023	8.8	20.2
3 2	11 54.47	+ 6 27.0	2.322	3.288	4.6	21.1	3 2	11 57.01	+19 40.9	2.060	3.010	6.5	20.1
3 12	11 46.88	+ 7 18.1	2.314	3.304	1.8	20.9	3 12	11 47.70	+20 30.6	2.035	2.997	5.8	20.0
3 22	11 39.09	+ 8 5.4	2.336	3.320	3.3	21.1	3 22	11 37.91	+21 4.6	2.039	2.983	7.4	20.1
4 1	11 31.83	+ 8 44.5	2.388	3.335	6.4	21.3	4 1	11 28.65	+21 18.6	2.070	2.968	10.1	20.2
4 11	11 25.76	+ 9 12.2	2.466	3.351	9.4	21.5	4 11	11 20.80	+21 11.3	2.125	2.953	12.9	20.3
4 21	11 21.30	+ 9 26.9	2.568	3.365	11.9	21.7	4 21	11 14.97	+20 43.7	2.202	2.937	15.5	20.5
492638	2014 <i>OB</i> ₃₃₆		3 15.9 218°92'	4.0°/12.3	17		333840	2012 <i>MT</i> ₆		3 15.9 291°42'	11.9°/26.5	17	
2 11	12 9.76	+ 8 57.6	1.737	2.586	13.6	21.7	2 11	12 7.30	-29 47.5	1.941	2.609	18.6	21.1
2 21	12 4.52	+10 6.6	1.659	2.579	10.1	21.5	2 21	12 3.19	-30 56.1	1.825	2.581	16.9	20.9
3 2	11 56.90	+11 22.9	1.605	2.571	6.3	21.3	3 2	11 56.46	-31 37.6	1.726	2.552	15.0	20.7
3 12	11 47.67	+12 38.0	1.579	2.562	4.0	21.1	3 12	11 47.68	-31 45.8	1.646	2.523	13.2	20.5
3 22	11 37.86	+13 43.2	1.581	2.553	6.1	21.2	3 22	11 37.77	-31 17.4	1.588	2.493	12.0	20.3
4 1	11 28.65	+14 31.2	1.609	2.544	10.0	21.4	4 1	11 28.01	-30 13.0	1.553	2.464	12.1	20.2
4 11	11 21.11	+14 57.6	1.663	2.534	13.9	21.6	4 11	11 19.72	-28 39.4	1.542	2.434	13.5	20.3
4 21	11 15.92	+15 1.8	1.736	2.523	17.2	21.8	4 21	11 13.89	-26 47.0	1.552	2.404	15.8	20.3
256189	2006 <i>VD</i> ₈₀		3 15.9 151°54'	2.2°/13.9	17		310924	2003 <i>SZ</i> ₁₆₆		3 15.9 167°85'	1.4°/14.6	18	
2 11	12 7.07	+ 4 34.7	1.719	2.565	13.9	20.9	2 11	12 10.76	+ 3 46.1	2.061	2.889	12.6	21.0
2 21	12 2.42	+ 5 27.2	1.647	2.566	10.2	20.7	2 21	12 4.80	+ 4 23.5	1.985	2.895	9.3	20.8
3 2	11 55.56	+ 6 30.0	1.599	2.567	6.0	20.4	3 2	11 56.86	+ 5 9.5	1.934	2.899	5.5	20.6
3 12	11 47.26	+ 7 36.0	1.578	2.568	2.4	20.2	3 12	11 47.64	+ 5 58.9	1.912	2.903	1.8	20.3
3 22	11 38.51	+ 8 37.6	1.584	2.569	4.4	20.3	3 22	11 38.04	+ 6 45.6	1.920	2.906	3.4	20.5
4 1	11 30.41	+ 9 27.4	1.618	2.569	8.6	20.6	4 1	11 29.03	+ 7 24.3	1.957	2.909	7.3	20.7
4 11	11 23.92	+10 0.6	1.677	2.570	12.6	20.8	4 11	11 21.48	+ 7 50.8	2.021	2.910	10.9	20.9
4 21	11 19.66	+10 15.0	1.757	2.571	15.9	21.0	4 21	11 15.94	+ 8 3.1	2.107	2.911	14.0	21.1
179854	2002 <i>TT</i> ₂₅₈		3 15.9 111°54'	0.9°/15.1	18		419174	2009 <i>TA</i> ₃₁		3 15.9 65°90'	3.1°/18.9	18	
2 11	12 7.23	+ 0 46.4	1.793	2.627	14.0	19.9	2 11	12 9.86	- 8 34.4	1.765	2.562	15.7	21.6
2 21	12 2.38	+ 1 36.6	1.726	2.638	10.3	19.6	2 21	12 4.19	- 8 32.3	1.712	2.594	12.2	21.5
3 2	11 55.45	+ 2 39.8	1.683	2.649	6.1	19.4	3 2	11 56.44	- 8 11.2	1.681	2.626	8.2	21.3
3 12	11 47.22	+ 3 49.6	1.668	2.659	1.7	19.1	3 12	11 47.49	- 7 33.8	1.677	2.657	4.4	21.1
3 22	11 38.64	+ 4 58.8	1.681	2.670	3.3	19.3	3 22	11 38.34	- 6 45.4	1.700	2.688	3.4	21.1
4 1	11 30.74	+ 6 0.1	1.722	2.680	7.6	19.6	4 1	11 30.06	- 5 52.5	1.751	2.719	6.5	21.4
4 11	11 24.40	+ 6 47.7	1.788	2.689	11.5	19.8	4 11	11 23.48	- 5 2.1	1.829	2.750	10.1	21.7
4 21	11 20.19	+ 7 18.6	1.877	2.699	14.8	20.0	4 21	11 19.10	- 4 19.5	1.930	2.780	13.3	21.9
19118	1981 <i>SD</i> ₂		3 15.9 143°68'	2.6°/13.8	18		472777	2015 <i>FS</i> ₁₄₂		3 15.9 274°32'	0.1°/16.1	17	
2 11	12 11.23	+ 6 30.6	1.784	2.625	13.7	17.7	2 11	12 4.66	- 0 51.9	2.363	3.183	11.5	22.0
2 21	12 5.36	+ 7 12.0	1.717	2.633	10.0	17.5	2 21	12 0.29	- 0 21.0	2.259	3.162	8.6	21.8
3 2	11 57.26	+ 8 0.5	1.675	2.641	6.0	17.3	3 2	11 54.20	+ 0 21.6	2.179	3.141	5.3	21.5
3 12	11 47.75	+ 8 49.3	1.660	2.648	2.7	17.1	3 12	11 46.90	+ 1 12.3	2.128	3.119	1.6	21.2
3 22	11 37.86	+ 9 31.8	1.673	2.655	4.6	17.2	3 22	11 39.09	+ 2 6.5	2.106	3.097	2.3	21.2
4 1	11 28.71	+10 2.1	1.714	2.661	8.6	17.5	4 1	11 31.58	+ 2 58.8	2.113	3.074	6.1	21.4
4 11	11 21.26	+10 16.7	1.781	2.667	12.3	17.7	4 11	11 25.13	+ 3 44.0	2.147	3.052	9.7	21.6
4 21	11 16.10	+10 14.5	1.869	2.672	15.5	17.9	4 21	11 20.33	+ 4 18.3	2.206	3.029	12.8	21.8
167373	2003 <i>WM</i> ₆₄		3 15.9 53°11'	0.1°/15.9	18		97513	2000 <i>CD</i> ₁₃₇		3 15.9 215°50'	1.3°/14.5	17	
2 11	12 5.30	- 0 29.7	1.926	2.756	13.3	20.0	2 11	12 5.37	+ 3 19.1	2.208	3.042	11.7	20.1
2 21	12 0.86	- 0 0.0	1.855	2.764	9.9	19.8	2 21	12 0.78	+ 4 2.6	2.126	3.039	8.6	19.9
3 2	11 54.51	+ 0 42.0	1.808	2.772	6.0	19.6	3 2	11 54.44	+ 4 55.1	2.069	3.035	5.1	19.7
3 12	11 46.95	+ 1 31.8	1.788	2.780	1.7	19.3	3 12	11 46.95	+ 5 51.5	2.041	3.032	1.7	19.5
3 22	11 39.05	+ 2 23.5	1.797	2.788	2.6	19.4	3 22	11 39.07	+ 6 46.3	2.041	3.028	3.3	19.6
4 1	11 31.73	+ 3 11.1	1.833	2.796	6.7	19.7	4 1	11 31.65	+ 7 33.7	2.071	3.024	6.9	19.8
4 11	11 25.83	+ 3 49.3	1.896	2.805	10.5	19.9	4 11	11 25.45	+ 8 9.4	2.127	3.019	10.3	20.0
4 21	11 21.88	+ 4 14.7	1.981	2.813	13.7	20.1	4 21	11 21.00	+ 8 31.0	2.206	3.015	13.3	20.2
362013	2008 <i>WX</i> ₁₂₀		3 15.9 53°01'	3.6°/18.7	18		255687	2006 <i>QS</i> ₅₈		3 15.9 169°43'	3.9°/12.1	18	
2 11	12 8.98	- 7 50.9	1.330	2.151	18.6	21.1	2 11	12 9.46	+10 6.3	1.938	2.783	12.6	21.1
2 21	12 4.34	- 7 59.3	1.266	2.162	14.5	20.9	2 21	12 3.96	+11 9.6	1.869	2.787	9.2	20.9
3 2	11 56.93	- 7 44.2	1.222	2.173	9.8	20.7	3 2	11 56.40	+12 17.4	1.826	2.790	5.8	20.7
3 12	11 47.69	- 7 8.0	1.201	2.184	5.2	20.4	3 12	11 47.52	+13 21.9	1.811	2.793	3.9	20.6
3 22	11 37.94	- 6 16.7	1.205	2.195	4.0	20.4	3 22	11 38.25	+14 16.0	1.824	2.795	5.8	20.7
4 1	11 29.08	- 5 18.7	1.235	2.207	8.1	20.6	4 1	11 29.62	+14 53.9	1.866	2.796	9.2	20.9
4 11	11 22.34	- 4 23.6	1.289	2.219	12.7	20.9	4 11	11 22.52	+15 12.6	1.932	2.797	12.5	21.1
4 21	11 18.39	- 3 38.7	1.364	2.231	16.8	21.2	4 21	11 17.52	+15 11.9	2.019	2.797	15.4	21.3
500623	2012 <i>UE</i> ₁₅₄		3 15.9 56°86'	0.4°/15.6	17		125496	2001 <i>WF</i> ₂₉		3 16.0 93°57'	8.6°/7.1	18	
2 11	12 5.25	+ 0 47.8	2.071	2.901	12.5	21.5	2 11	12 9.54	+23 31.9	1.798	2.650	13.1	20.2
2 21	12 0.63	+ 1 17.0	2.008	2.918	9.2	21.4	2 21	12 4.18	+25 3.4	1.753	2.658	10.6	20.0
3 2	11 54.27	+ 1 56.4	1.970	2.934	5.5	21.2	3 2	11 56.55	+26 26.1	1.734	2.667	8.9	19.9
3 12	11 46.86	+ 2 41.3	1.960	2.951	1.5	20.9	3 12	11 47.55	+27 29.9	1.740	2.676	8.9	19.9
3 22	11 39.21	+ 3 26.4	1.978	2.968	2.6	21.0	3 22	11 38.27	+28 7.8	1.772	2.685	10.5	20.1
4 1	11 32.15	+ 4 6.5	2.025	2.985	6.4	21.3	4 1	11 29.84	+28 16.4	1.828	2.693	12.9	20.2
4 11	11 26.44	+ 4 37.2	2.098	3.002	9.8	21.5	4 11	11 23.21	+27 56.7	1.905	2.701	15.4	20.4
4 21	11 22.53	+ 4 56.0	2.194	3.020	12.8	21.8	4 21	11 18.91	+27 12.3	2.000	2.710	17.6	20.6
366440	2001 <i>XM</i> ₉₆		3 15.9 129°46'	7.6°/25.2	16		429614	2011 <i></i>					

EPHEMERIDES

3 16.0

3 16.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
289874	2005 <i>MQ</i> ₂₁		3 16.0 325°22	3°4/19.5	17		164165	2004 <i>AC</i> ₄		3 16.0 114°82	4°1/11.0	18	
2 11	12 5.43	- 9 50.7	2.255	3.040	13.1	20.4	2 11	12 5.34	+12 14.9	2.249	3.098	10.9	20.1
2 21	12 0.86	-10 0.4	2.165	3.037	10.4	20.3	2 21	12 0.67	+13 24.4	2.189	3.107	8.1	19.9
3 2	11 54.52	- 9 54.2	2.099	3.035	7.4	20.1	3 2	11 54.31	+14 35.7	2.154	3.116	5.3	19.8
3 12	11 46.99	- 9 33.2	2.058	3.033	4.4	19.9	3 12	11 46.92	+15 42.0	2.148	3.124	4.1	19.7
3 22	11 39.03	- 9 0.3	2.046	3.031	3.5	19.8	3 22	11 39.26	+16 37.1	2.171	3.132	5.8	19.8
4 1	11 31.49	- 8 19.8	2.063	3.029	5.8	19.9	4 1	11 32.15	+17 16.3	2.221	3.140	8.5	20.0
4 11	11 25.13	- 7 37.4	2.106	3.027	9.0	20.1	4 11	11 26.30	+17 37.2	2.297	3.148	11.3	20.2
4 21	11 20.53	- 6 58.0	2.174	3.025	12.0	20.3	4 21	11 22.18	+17 39.9	2.394	3.155	13.7	20.4
137093	1998 <i>XW</i> ₇₀		3 16.0 71°62	3°6/12.9	18		120651	1996 <i>TA</i> ₁₀		3 16.0 242°76	0°8/16.9	18	
2 11	12 9.67	+ 8 22.8	1.579	2.432	14.6	19.6	2 11	12 6.22	- 3 32.6	2.136	2.948	12.8	20.5
2 21	12 4.29	+ 9 18.0	1.530	2.452	10.6	19.4	2 21	12 1.60	- 2 59.9	2.037	2.935	9.7	20.2
3 2	11 56.61	+10 18.5	1.505	2.472	6.4	19.2	3 2	11 55.05	- 2 12.1	1.963	2.921	6.1	20.0
3 12	11 47.57	+11 16.1	1.506	2.492	3.6	19.1	3 12	11 47.19	- 1 12.9	1.917	2.907	2.2	19.7
3 22	11 38.29	+12 2.9	1.534	2.512	5.7	19.3	3 22	11 38.79	- 0 7.4	1.900	2.892	2.3	19.7
4 1	11 29.95	+12 33.2	1.589	2.531	9.5	19.5	4 1	11 30.76	+ 0 57.8	1.912	2.876	6.4	19.9
4 11	11 23.48	+12 44.1	1.668	2.551	13.2	19.8	4 11	11 23.97	+ 1 56.5	1.951	2.861	10.2	20.1
4 21	11 19.40	+12 35.8	1.767	2.570	16.3	20.1	4 21	11 19.03	+ 2 43.9	2.014	2.844	13.6	20.3
376648	2013 <i>QS</i> ₂		3 16.0 323°84	2°5/18.1	17		2305	King		3 16.0 147°42	2°1/14.0	18	
2 11	12 6.87	- 6 14.6	1.656	2.472	15.8	20.6	2 11	12 8.29	+ 6 15.3	2.015	2.854	12.4	16.0
2 21	12 2.48	- 6 11.5	1.573	2.469	12.2	20.4	2 21	12 3.04	+ 6 46.0	1.941	2.856	9.1	15.8
3 2	11 55.74	- 5 49.6	1.512	2.465	8.1	20.1	3 2	11 55.84	+ 7 23.0	1.892	2.858	5.4	15.6
3 12	11 47.39	- 5 11.4	1.477	2.462	3.9	19.9	3 12	11 47.39	+ 8 0.8	1.870	2.860	2.3	15.4
3 22	11 38.45	- 4 22.0	1.468	2.459	3.1	19.8	3 22	11 38.56	+ 8 34.1	1.878	2.861	3.9	15.5
4 1	11 30.09	- 3 28.2	1.486	2.456	7.2	20.0	4 1	11 30.31	+ 8 57.8	1.914	2.863	7.6	15.7
4 11	11 23.37	- 2 37.8	1.530	2.453	11.5	20.3	4 11	11 23.49	+ 9 8.7	1.975	2.864	11.2	16.0
4 21	11 18.99	- 1 56.9	1.595	2.451	15.3	20.5	4 21	11 18.65	+ 9 5.3	2.059	2.866	14.2	16.2
173919	2001 <i>VR</i> ₅₈		3 16.0 120°66	2°4/13.3	18		503759	2016 <i>NB</i> ₂₀		3 16.0 233°55	6°9/6.9	17	
2 11	12 7.95	+ 9 4.4	2.529	3.364	10.3	20.4	2 11	12 6.59	+21 42.1	2.286	3.133	10.8	21.4
2 21	12 2.35	+ 9 32.9	2.462	3.375	7.5	20.2	2 21	12 1.76	+23 11.1	2.220	3.125	8.7	21.2
3 2	11 55.22	+10 4.0	2.421	3.385	4.6	20.1	3 2	11 55.07	+24 35.8	2.180	3.116	7.1	21.1
3 12	11 47.16	+10 33.2	2.410	3.396	2.5	19.9	3 12	11 47.17	+25 48.0	2.168	3.107	7.1	21.1
3 22	11 38.87	+10 56.5	2.429	3.406	3.9	20.0	3 22	11 38.87	+26 41.2	2.183	3.098	8.7	21.1
4 1	11 31.10	+11 10.3	2.477	3.416	6.7	20.2	4 1	11 31.06	+27 11.0	2.224	3.088	11.0	21.3
4 11	11 24.52	+11 12.7	2.552	3.425	9.5	20.4	4 11	11 24.57	+27 16.5	2.288	3.079	13.3	21.4
4 21	11 19.55	+11 3.0	2.650	3.435	12.0	20.6	4 21	11 19.92	+26 59.3	2.370	3.068	15.4	21.6
125426	2001 <i>VZ</i> ₁₁₃		3 16.0 141°63	2°1/17.8	18		392376	2010 <i>HK</i> ₉₁		3 16.0 229°63	0°6/16.7	17	
2 11	12 10.59	- 6 4.5	1.718	2.526	15.6	20.5	2 11	12 6.02	- 1 28.0	2.731	3.540	10.4	21.3
2 21	12 5.03	- 5 50.0	1.644	2.535	12.0	20.3	2 21	12 1.00	- 1 20.6	2.637	3.533	7.9	21.1
3 2	11 57.16	- 5 17.0	1.592	2.544	7.8	20.1	3 2	11 54.48	- 1 4.2	2.568	3.525	4.9	20.9
3 12	11 47.78	- 4 28.8	1.567	2.553	3.5	19.8	3 12	11 46.99	- 0 41.4	2.528	3.518	1.7	20.7
3 22	11 37.94	- 3 31.0	1.569	2.561	2.9	19.8	3 22	11 39.13	- 0 15.3	2.518	3.510	1.9	20.7
4 1	11 28.80	- 2 31.0	1.600	2.568	7.1	20.1	4 1	11 31.61	+ 0 10.5	2.539	3.502	5.1	20.9
4 11	11 21.39	- 1 36.2	1.657	2.575	11.2	20.3	4 11	11 25.07	+ 0 32.4	2.587	3.494	8.2	21.1
4 21	11 16.31	- 0 52.2	1.737	2.581	14.8	20.6	4 21	11 19.99	+ 0 47.7	2.661	3.485	10.8	21.2
417623	2006 <i>WW</i> ₁₄₃		3 16.0 74°03	1°6/14.5	18		508394	2016 <i>GO</i> ₁₃₃		3 16.0 302°21	6°7/10.4	17	
2 11	12 8.05	+ 3 6.4	1.622	2.466	14.7	21.3	2 11	12 10.16	+16 7.9	1.626	2.483	13.9	20.7
2 21	12 3.11	+ 3 53.4	1.564	2.482	10.7	21.1	2 21	12 5.27	+17 7.5	1.534	2.453	10.8	20.5
3 2	11 55.94	+ 4 51.3	1.530	2.498	6.3	20.9	3 2	11 57.65	+18 8.1	1.465	2.423	7.8	20.2
3 12	11 47.39	+ 5 53.2	1.523	2.514	2.1	20.7	3 12	11 48.02	+18 59.8	1.422	2.392	6.7	20.1
3 22	11 38.55	+ 6 51.4	1.543	2.530	4.0	20.8	3 22	11 37.50	+19 33.4	1.406	2.362	8.8	20.1
4 1	11 30.53	+ 7 38.8	1.591	2.546	8.3	21.1	4 1	11 27.44	+19 42.2	1.414	2.331	12.5	20.2
4 11	11 24.25	+ 8 10.6	1.663	2.562	12.3	21.4	4 11	11 19.14	+19 23.4	1.445	2.301	16.4	20.4
4 21	11 20.27	+ 8 24.8	1.756	2.578	15.6	21.6	4 21	11 13.47	+18 38.7	1.494	2.271	19.9	20.5
499351	2009 <i>WO</i> ₂₆₀		3 16.0 121°64	5°6/21.9	17		276987	2004 <i>XH</i> ₂₆		3 16.0 54°22	6°6/9.4	18	
2 11	12 7.08	-16 47.0	2.108	2.857	15.0	21.4	2 11	12 7.64	+17 54.9	1.823	2.680	12.7	19.7
2 21	12 2.20	-17 3.7	2.025	2.864	12.5	21.3	2 21	12 2.70	+19 7.5	1.772	2.688	9.7	19.5
3 2	11 55.37	-16 58.7	1.963	2.872	9.6	21.1	3 2	11 55.66	+20 16.7	1.745	2.697	7.3	19.4
3 12	11 47.25	-16 31.8	1.926	2.879	6.9	20.9	3 12	11 47.33	+21 13.6	1.745	2.706	6.7	19.4
3 22	11 38.70	-15 45.7	1.917	2.886	5.6	20.9	3 22	11 38.71	+21 51.2	1.771	2.714	8.4	19.5
4 1	11 30.67	-14 45.4	1.935	2.893	6.9	21.0	4 1	11 30.86	+22 5.5	1.823	2.723	11.2	19.7
4 11	11 24.01	-13 38.1	1.980	2.899	9.5	21.1	4 11	11 24.65	+21 55.9	1.897	2.733	14.0	19.9
4 21	11 19.30	-12 30.9	2.049	2.906	12.4	21.3	4 21	11 20.62	+21 24.4	1.991	2.742	16.4	20.1
339007	2004 <i>GH</i> ₅₂		3 16.0 40°17	0°7/16.7	17		465184	2007 <i>FG</i> ₂₂		3 16.0 294°22	2°3/14.2	17	
2 11	12 3.43	- 3 5.4	2.000	2.823	13.2	21.1	2 11	12 10.57	+ 6 48.7	1.806	2.648	13.5	21.4
2 21	11 59.45	- 2 31.2	1.927	2.830	9.9	20.9	2 21	12 5.29	+ 7 8.0	1.703	2.620	10.1	21.1
3 2	11 53.67	- 1 42.6	1.878	2.838	6.1	20.7	3 2	11 57.55	+ 7 34.0	1.625	2.591	6.1	20.8
3 12	11 46.74	- 0 43.9	1.856	2.846	2.1	20.5	3 12	11 47.99	+ 8 1.3	1.573	2.563	2.6	20.5
3 22	11 39.49	+ 0 19.1	1.863	2.855	2.3	20.5	3 22	11 37.59	+ 8 24.0	1.550	2.534	4.5	20.6
4 1	11 32.78	+ 1 19.9	1.897	2.863	6.3	20.8	4 1	11 27.56	+ 8 36.4	1.554	2.505	8.9	20.8
4 11	11 27.39	+ 2 12.6	1.958	2.872	9.9	21.0	4 11	11 19.03	+ 8 34.5	1.583	2.477	13.2	20.9
4 21	11 23.83	+ 2 53.2	2.042	2.881	13.1	21.2	4 21	11 12.84	+ 8 16.5	1.634	2.448	16.9	21.1
334875	2003 <i>UJ</i> ₂₂₆		3 16.0 168°43	2									

EPHEMERIDES

3 16.0

3 16.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
111682	2002 <i>BJ</i> ₂₃		3 16.0 257°32	5°4/21.3	18		503179	2015 <i>GA</i> ₄₄		3 16.0 193°10	1°9/18.9	17	
2 11	12 9.50	-15 32.5	2.521	3.260	13.1	19.7	2 11	12 2.34	-10 9.4	2.703	3.481	11.3	21.2
2 21	12 3.85	-16 19.0	2.419	3.253	10.9	19.6	2 21	11 58.32	-9 9.6	2.607	3.480	8.8	21.0
3 2	11 56.36	-16 49.8	2.341	3.245	8.5	19.4	3 2	11 52.88	-7 52.5	2.537	3.478	6.0	20.8
3 12	11 47.59	-17 3.8	2.289	3.237	6.3	19.2	3 12	11 46.55	-6 21.4	2.495	3.476	3.0	20.6
3 22	11 38.26	-17 1.4	2.266	3.229	5.4	19.2	3 22	11 39.90	-4 41.2	2.484	3.474	2.2	20.5
4 1	11 29.24	-16 45.1	2.271	3.221	6.6	19.2	4 1	11 33.61	-2 58.3	2.504	3.472	4.9	20.7
4 11	11 21.33	-16 19.5	2.304	3.213	8.9	19.3	4 11	11 28.28	-1 19.3	2.554	3.469	7.9	20.9
4 21	11 15.15	-15 49.6	2.362	3.205	11.4	19.5	4 21	11 24.36	+0 10.3	2.630	3.466	10.6	21.1
118323	1998 <i>XU</i> ₅₂		3 16.0 27°51	4°6/19.0	18		142995	2002 <i>VL</i> ₉₄		3 16.0 62°71	1°4/17.2	18	
2 11	12 6.80	-8 7.6	1.018	1.860	21.5	18.3	2 11	12 8.29	-3 49.0	1.573	2.399	16.0	19.7
2 21	12 3.28	-8 34.4	0.966	1.872	16.9	18.1	2 21	12 3.44	-3 36.3	1.509	2.411	12.1	19.4
3 2	11 56.52	-8 33.2	0.932	1.886	11.6	17.8	3 2	11 56.24	-3 6.4	1.466	2.425	7.7	19.2
3 12	11 47.67	-8 5.7	0.918	1.901	6.4	17.6	3 12	11 47.55	-2 23.4	1.449	2.438	3.0	18.9
3 22	11 38.27	-7 18.7	0.927	1.917	5.0	17.6	3 22	11 38.47	-1 33.4	1.459	2.451	2.8	19.0
4 1	11 30.03	-6 22.3	0.959	1.934	9.2	17.9	4 1	11 30.18	-0 43.7	1.497	2.465	7.3	19.3
4 11	11 24.32	-5 28.1	1.013	1.953	14.2	18.2	4 11	11 23.69	-0 1.3	1.559	2.479	11.6	19.5
4 21	11 21.82	-4 45.0	1.085	1.972	18.6	18.5	4 21	11 19.58	+0 29.1	1.643	2.493	15.2	19.8
239801	1994 <i>CA</i> ₁₁		3 16.0 5°40	2°9/13.7	18		5352	Fujita		3 16.0 95°94	2°8/18.5	18	
2 11	12 1.65	+5 57.3	1.306	2.177	15.8	19.1	2 11	12 9.51	-8 0.6	1.630	2.436	16.4	17.0
2 21	11 58.93	+6 39.8	1.246	2.178	11.6	18.9	2 21	12 4.26	-7 46.6	1.565	2.453	12.7	16.8
3 2	11 53.69	+7 32.5	1.208	2.180	6.9	18.6	3 2	11 56.70	-7 11.6	1.522	2.470	8.5	16.6
3 12	11 46.82	+8 26.9	1.194	2.184	3.1	18.4	3 12	11 47.68	-6 19.1	1.504	2.487	4.3	16.3
3 22	11 39.49	+9 14.3	1.205	2.190	5.3	18.5	3 22	11 38.29	-5 15.0	1.514	2.504	3.3	16.3
4 1	11 32.98	+9 46.7	1.240	2.197	10.0	18.8	4 1	11 29.71	-4 7.3	1.551	2.520	7.1	16.6
4 11	11 28.35	+9 59.4	1.297	2.206	14.3	19.1	4 11	11 22.91	-3 4.3	1.614	2.536	11.1	16.9
4 21	11 26.22	+9 51.2	1.373	2.216	18.0	19.4	4 21	11 18.49	-2 12.1	1.700	2.551	14.7	17.1
370746	2004 <i>RZ</i> ₁₆₂		3 16.0 142°02	3°9/21.4	17		27774	1991 <i>YB</i> ₁		3 16.0 101°97	1°1/16.9	18	
2 11	12 5.83	-15 51.1	2.670	3.411	12.4	21.7	2 11	12 11.96	-3 10.0	1.538	2.361	16.4	18.7
2 21	12 0.84	-15 26.8	2.585	3.425	10.1	21.6	2 21	12 6.14	-2 52.5	1.477	2.379	12.4	18.5
3 2	11 54.36	-14 43.7	2.524	3.438	7.5	21.4	3 2	11 57.85	-2 17.9	1.437	2.397	7.7	18.2
3 12	11 46.96	-13 43.4	2.490	3.450	5.0	21.3	3 12	11 48.02	-1 30.8	1.424	2.414	2.8	18.0
3 22	11 39.29	-12 29.6	2.486	3.462	3.9	21.2	3 22	11 37.82	-0 37.9	1.438	2.430	2.9	18.0
4 1	11 32.07	-11 7.4	2.511	3.473	5.3	21.3	4 1	11 28.52	+0 13.1	1.480	2.447	7.6	18.3
4 11	11 25.93	-9 43.3	2.566	3.484	7.7	21.5	4 11	11 21.18	+0 55.4	1.547	2.462	12.0	18.6
4 21	11 21.33	-8 22.9	2.647	3.493	10.2	21.7	4 21	11 16.39	+1 24.6	1.636	2.478	15.7	18.9
292164	2006 <i>SM</i> ₄		3 16.0 190°49	1°6/17.8	18		222249	2000 <i>PP</i> ₄		3 16.0 192°78	0°6/15.2	17	
2 11	12 6.30	-5 0.8	2.620	3.416	11.2	20.9	2 11	12 6.27	+0 40.3	2.514	3.333	10.9	21.7
2 21	12 1.25	-4 56.8	2.530	3.416	8.6	20.7	2 21	12 1.28	+1 30.6	2.427	3.331	8.1	21.5
3 2	11 54.66	-4 41.4	2.465	3.414	5.6	20.5	3 2	11 54.71	+2 31.3	2.365	3.328	4.8	21.3
3 12	11 47.06	-4 16.7	2.428	3.413	2.6	20.3	3 12	11 47.09	+3 37.7	2.333	3.325	1.3	21.0
3 22	11 39.11	-3 45.8	2.420	3.411	2.1	20.2	3 22	11 39.12	+4 44.7	2.332	3.320	2.6	21.1
4 1	11 31.54	-3 12.5	2.443	3.409	5.1	20.4	4 1	11 31.54	+5 46.7	2.360	3.315	6.0	21.3
4 11	11 25.01	-2 41.1	2.494	3.407	8.2	20.6	4 11	11 25.04	+6 39.0	2.417	3.310	9.2	21.5
4 21	11 20.00	-2 15.1	2.570	3.404	10.9	20.8	4 21	11 20.12	+7 18.7	2.498	3.303	12.0	21.7
144755	2004 <i>HO</i> ₃		3 16.0 309°95	2°9/13.4	18		502975	2015 <i>FZ</i> ₄₄		3 16.0 187°07	2°7/12.8	18	
2 11	12 10.18	+10 20.9	2.170	3.010	11.6	19.4	2 11	12 6.28	+9 40.6	2.620	3.458	9.9	21.3
2 21	12 4.36	+10 35.0	2.090	3.004	8.6	19.2	2 21	12 1.20	+10 16.6	2.543	3.457	7.3	21.2
3 2	11 56.63	+10 50.8	2.035	2.999	5.3	19.0	3 2	11 54.60	+10 55.3	2.493	3.457	4.5	21.0
3 12	11 47.65	+11 3.6	2.008	2.994	3.0	18.8	3 12	11 47.05	+11 32.0	2.472	3.456	2.7	20.8
3 22	11 38.27	+11 9.0	2.011	2.989	4.5	18.9	3 22	11 39.22	+12 2.5	2.481	3.455	4.1	20.9
4 1	11 29.44	+11 3.5	2.042	2.984	7.8	19.1	4 1	11 31.81	+12 23.1	2.519	3.454	6.8	21.1
4 11	11 21.99	+10 45.3	2.100	2.979	11.1	19.3	4 11	11 25.48	+12 31.3	2.583	3.452	9.6	21.3
4 21	11 16.47	+10 14.3	2.180	2.974	13.9	19.5	4 21	11 20.69	+12 26.6	2.671	3.451	12.0	21.4
466731	2014 <i>YX</i> ₂₃		3 16.0 59°59	6°0/21.4	18		173954	2001 <i>XP</i> ₁₁		3 16.0 75°60	5°7/22.1	18	
2 11	12 8.04	-15 4.6	1.764	2.533	16.8	20.8	2 11	12 7.60	-16 58.6	2.329	3.068	14.0	20.1
2 21	12 3.20	-15 34.6	1.690	2.545	13.8	20.7	2 21	12 2.44	-17 34.2	2.247	3.079	11.7	19.9
3 2	11 56.10	-15 41.2	1.637	2.556	10.4	20.5	3 2	11 55.48	-17 50.8	2.188	3.089	9.1	19.8
3 12	11 47.52	-15 24.3	1.609	2.567	7.3	20.3	3 12	11 47.33	-17 48.0	2.154	3.100	6.8	19.6
3 22	11 38.46	-14 46.4	1.606	2.579	6.0	20.3	3 22	11 38.79	-17 27.1	2.148	3.110	5.7	19.6
4 1	11 30.06	-13 53.4	1.630	2.591	7.6	20.4	4 1	11 30.72	-16 52.0	2.169	3.121	6.7	19.7
4 11	11 23.31	-12 53.2	1.679	2.603	10.7	20.6	4 11	11 23.90	-16 8.1	2.217	3.131	9.0	19.8
4 21	11 18.83	-11 54.0	1.751	2.615	13.8	20.8	4 21	11 18.89	-15 21.6	2.290	3.142	11.4	20.0
496288	2012 <i>VZ</i> ₁₀₇		3 16.0 97°99	6°6/ 7.9	17		297636	2001 <i>TE</i> ₁₃₀		3 16.0 42°36	0°1/16.1	18	
2 11	12 7.91	+23 20.4	2.424	3.265	10.5	21.2	2 11	12 4.55	-0 50.7	1.988	2.816	13.0	20.4
2 21	12 2.48	+24 22.0	2.374	3.274	8.4	21.0	2 21	12 0.27	-0 23.0	1.919	2.826	9.7	20.2
3 2	11 55.36	+25 16.5	2.350	3.283	6.9	21.0	3 2	11 54.18	+0 16.8	1.874	2.837	5.9	20.0
3 12	11 47.24	+25 57.3	2.354	3.291	6.8	21.0	3 12	11 46.95	+1 4.3	1.856	2.847	1.7	19.7
3 22	11 38.92	+26 19.9	2.385	3.300	8.1	21.0	3 22	11 39.40	+1 54.1	1.867	2.858	2.4	19.8
4 1	11 31.22	+26 21.6	2.442	3.308	10.1	21.2	4 1	11 32.43	+2 40.3	1.905	2.869	6.5	20.1
4 11	11 24.85	+26 2.7	2.522	3.316	12.1	21.3	4 11	11 26.82	+3 17.8	1.970	2.881	10.1	20.3
4 21	11 20.26	+25 25.2	2.623	3.324	14.0	21.5	4 21	11 23.07	+3 43.3	2.058	2.892	13.2	20.5
40445	1999 <i>RY</i> ₃₅		3 16.0 273°20	1°9/17.4	18		505829	2015 <i>BJ</i> ₄₉₀		3 16.0 186°17	0°3/15.7	17	
2 11	12 9.93	-3 56.3	1.595	2									

EPHEMERIDES

3 16.0

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
279238	2009 <i>UZ</i> ₁₅₀		3 16.0 230°22	2°8/13.2	17		93388	2000 <i>ST</i> ₂₇₉		3 16.0 110°49	7°1/8.5	18	
2 11	12 8.26	+ 7 46.5	2.139	2.978	11.8	21.6	2 11	12 9.43	+20 28.6	1.962	2.812	12.2	19.1
2 21	12 3.06	+ 8 33.7	2.053	2.969	8.7	21.4	2 21	12 3.93	+21 47.5	1.913	2.823	9.6	19.0
3 2	11 55.93	+ 9 26.9	1.993	2.958	5.3	21.2	3 2	11 56.38	+23 0.7	1.890	2.833	7.6	18.9
3 12	11 47.49	+10 20.3	1.961	2.947	2.8	21.0	3 12	11 47.60	+23 59.6	1.894	2.843	7.2	18.9
3 22	11 38.58	+11 7.6	1.958	2.936	4.6	21.1	3 22	11 38.55	+24 37.6	1.925	2.853	8.8	19.0
4 1	11 30.12	+11 43.4	1.984	2.924	8.0	21.3	4 1	11 30.27	+24 51.1	1.981	2.863	11.3	19.2
4 11	11 22.98	+12 4.1	2.036	2.912	11.5	21.5	4 11	11 23.61	+24 40.2	2.060	2.873	13.8	19.4
4 21	11 17.74	+12 8.4	2.110	2.900	14.4	21.6	4 21	11 19.08	+24 7.4	2.158	2.882	16.1	19.5
417139	2005 <i>VM</i> ₇₄		3 16.0 126°92	3°9/20.6	18		78378	2002 <i>PS</i> ₁₃₃		3 16.0 118°24	0°2/15.8	18	
2 11	12 6.39	-13 43.8	2.203	2.967	14.0	21.9	2 11	12 5.41	- 0 14.5	2.244	3.067	11.9	19.8
2 21	12 1.54	-13 25.2	2.124	2.981	11.3	21.7	2 21	12 0.74	+ 0 23.1	2.171	3.076	8.8	19.6
3 2	11 54.91	-12 45.9	2.068	2.994	8.1	21.5	3 2	11 54.41	+ 1 11.6	2.123	3.085	5.3	19.4
3 12	11 47.17	-11 48.1	2.038	3.006	5.2	21.4	3 12	11 47.03	+ 2 6.5	2.103	3.094	1.5	19.2
3 22	11 39.10	-10 35.8	2.037	3.018	3.9	21.3	3 22	11 39.35	+ 3 2.6	2.112	3.102	2.4	19.2
4 1	11 31.57	- 9 15.5	2.064	3.030	5.9	21.4	4 1	11 32.19	+ 3 54.4	2.150	3.111	6.1	19.5
4 11	11 25.34	- 7 54.5	2.120	3.041	8.9	21.6	4 11	11 26.24	+ 4 37.1	2.216	3.119	9.5	19.7
4 21	11 20.92	- 6 39.2	2.201	3.052	11.8	21.9	4 21	11 21.99	+ 5 7.8	2.305	3.127	12.4	19.9
432038	2008 <i>WK</i> ₇₁		3 16.0 158°07	0°3/16.4	17		235469	2004 <i>AH</i> ₁₄		3 16.0 89°44	1°6/14.1	17	
2 11	12 5.65	- 1 44.7	2.228	3.046	12.2	22.3	2 11	12 3.77	+ 2 45.5	2.146	2.983	11.9	20.3
2 21	12 0.98	- 1 12.5	2.148	3.049	9.1	22.1	2 21	11 59.59	+ 3 52.7	2.080	2.994	8.6	20.1
3 2	11 54.58	- 0 28.1	2.092	3.052	5.6	21.9	3 2	11 53.73	+ 5 9.8	2.038	3.005	5.0	19.9
3 12	11 47.08	+ 0 24.5	2.064	3.055	1.7	21.6	3 12	11 46.83	+ 6 30.5	2.026	3.016	1.8	19.7
3 22	11 39.22	+ 1 20.2	2.066	3.058	2.2	21.7	3 22	11 39.65	+ 7 48.1	2.042	3.027	3.5	19.8
4 1	11 31.85	+ 2 13.4	2.097	3.060	6.0	21.9	4 1	11 33.00	+ 8 56.2	2.087	3.038	7.0	20.0
4 11	11 25.69	+ 2 58.9	2.155	3.062	9.5	22.1	4 11	11 27.60	+ 9 49.9	2.159	3.048	10.3	20.3
4 21	11 21.26	+ 3 33.3	2.237	3.064	12.5	22.3	4 21	11 23.91	+10 26.8	2.254	3.059	13.1	20.5
501498	2014 <i>DP</i> ₂₈		3 16.0 162°18	3°6/20.2	17		111905	2002 <i>FQ</i> ₃₁		3 16.0 253°78	2°9/13.2	17	
2 11	12 7.19	-11 51.6	2.644	3.405	12.0	21.4	2 11	12 8.28	+ 5 53.5	1.775	2.620	13.6	20.4
2 21	12 1.94	-12 7.1	2.554	3.409	9.7	21.2	2 21	12 3.54	+ 6 58.6	1.684	2.603	10.0	20.2
3 2	11 55.10	-12 7.9	2.487	3.412	7.0	21.1	3 2	11 56.46	+ 8 14.8	1.618	2.585	6.1	19.9
3 12	11 47.23	-11 54.8	2.448	3.415	4.6	20.9	3 12	11 47.72	+ 9 34.7	1.579	2.567	3.0	19.6
3 22	11 39.00	-11 29.8	2.439	3.418	3.7	20.9	3 22	11 38.29	+10 49.6	1.568	2.548	5.2	19.7
4 1	11 31.15	-10 56.4	2.458	3.420	5.4	21.0	4 1	11 29.30	+11 51.2	1.584	2.528	9.4	19.9
4 11	11 24.36	-10 19.2	2.506	3.422	8.0	21.1	4 11	11 21.85	+12 33.8	1.626	2.508	13.5	20.1
4 21	11 19.12	- 9 42.9	2.580	3.424	10.5	21.3	4 21	11 16.65	+12 54.9	1.688	2.488	17.1	20.3
403841	2011 <i>UC</i> ₂₆₈		3 16.0 122°53	1°8/14.5	18		208329	2001 <i>QT</i> ₄₂		3 16.0 149°65	4°0/10.2	17	
2 11	12 10.62	+ 4 1.0	1.611	2.453	14.9	21.5	2 11	12 4.50	+13 24.1	2.740	3.584	9.4	20.8
2 21	12 5.16	+ 4 39.3	1.545	2.461	10.9	21.3	2 21	11 59.84	+14 43.4	2.678	3.593	6.9	20.6
3 2	11 57.29	+ 5 27.9	1.502	2.469	6.5	21.0	3 2	11 53.78	+16 3.6	2.644	3.601	4.7	20.5
3 12	11 47.89	+ 6 20.0	1.486	2.477	2.2	20.8	3 12	11 46.85	+17 18.7	2.639	3.609	4.0	20.5
3 22	11 38.07	+ 7 8.4	1.498	2.484	4.1	20.9	3 22	11 39.67	+18 23.3	2.664	3.616	5.4	20.6
4 1	11 29.04	+ 7 46.1	1.537	2.491	8.6	21.2	4 1	11 32.92	+19 13.1	2.718	3.623	7.7	20.7
4 11	11 21.84	+ 8 8.6	1.600	2.498	12.8	21.5	4 11	11 27.19	+19 45.9	2.798	3.629	10.1	20.9
4 21	11 17.07	+ 8 13.9	1.685	2.505	16.3	21.7	4 21	11 22.91	+20 1.5	2.899	3.635	12.1	21.0
125807	2001 <i>XB</i> ₁₆₀		3 16.0 237°50	3°5/19.1	18		147688	2004 <i>PD</i> ₇₀		3 16.0 304°45	5°3/10.9	17	
2 11	12 8.50	- 9 47.9	1.722	2.518	16.1	20.0	2 11	12 5.17	+11 3.5	1.579	2.443	14.0	19.3
2 21	12 3.78	- 9 40.1	1.627	2.507	12.8	19.7	2 21	12 1.51	+12 25.7	1.494	2.421	10.4	19.1
3 2	11 56.64	- 9 9.9	1.554	2.496	8.9	19.4	3 2	11 55.36	+13 55.9	1.432	2.398	6.9	18.8
3 12	11 47.76	- 8 19.1	1.506	2.485	5.0	19.2	3 12	11 47.42	+15 24.0	1.397	2.376	5.4	18.6
3 22	11 38.16	- 7 11.9	1.485	2.473	3.8	19.1	3 22	11 38.73	+16 39.6	1.388	2.354	7.7	18.7
4 1	11 29.03	- 5 56.1	1.492	2.461	7.3	19.3	4 1	11 30.53	+17 33.8	1.403	2.332	11.7	18.9
4 11	11 21.49	- 4 40.7	1.524	2.448	11.6	19.5	4 11	11 23.99	+18 1.3	1.442	2.311	15.7	19.1
4 21	11 16.31	- 3 33.5	1.580	2.435	15.5	19.7	4 21	11 19.89	+18 1.5	1.498	2.290	19.3	19.3
170223	2003 <i>QB</i> ₁₆		3 16.0 181°34	1°6/17.7	18		337923	2001 <i>XN</i> ₂₂₆		3 16.0 72°78	4°0/20.8	18	
2 11	12 8.61	- 5 58.0	2.053	2.855	13.7	21.3	2 11	12 5.82	-13 18.0	2.297	3.062	13.5	21.0
2 21	12 3.35	- 5 28.2	1.967	2.856	10.5	21.1	2 21	12 1.00	-13 19.2	2.228	3.084	10.8	20.9
3 2	11 56.11	- 4 41.5	1.905	2.857	6.8	20.9	3 2	11 54.54	-13 2.1	2.183	3.107	7.9	20.7
3 12	11 47.55	- 3 41.4	1.870	2.857	2.9	20.6	3 12	11 47.07	-12 28.2	2.163	3.129	5.1	20.6
3 22	11 38.54	- 2 33.2	1.865	2.856	2.5	20.6	3 22	11 39.36	-11 40.9	2.172	3.151	4.0	20.5
4 1	11 30.04	- 1 23.6	1.888	2.855	6.3	20.8	4 1	11 32.20	-10 45.3	2.209	3.173	5.7	20.7
4 11	11 22.91	- 0 19.5	1.940	2.852	10.1	21.1	4 11	11 26.28	- 9 47.4	2.274	3.195	8.4	20.9
4 21	11 17.76	+ 0 34.0	2.015	2.849	13.4	21.3	4 21	11 22.08	- 8 52.7	2.364	3.217	11.1	21.1
125538	2001 <i>WK</i> ₈₉		3 16.0 291°77	1°5/17.1	18		55777	1993 <i>FC</i> ₁₇		3 16.0 317°15	1°0/15.2	18	
2 11	12 9.38	- 3 1.5	1.410	2.243	17.1	19.1	2 11	12 5.15	- 0 38.8	1.337	2.187	16.9	19.3
2 21	12 4.82	- 3 0.1	1.326	2.233	13.1	18.8	2 21	12 1.67	+ 0 25.8	1.262	2.182	12.6	19.0
3 2	11 57.43	- 2 40.7	1.263	2.224	8.4	18.5	3 2	11 55.49	+ 1 51.5	1.209	2.177	7.5	18.7
3 12	11 48.02	- 2 6.4	1.225	2.214	3.2	18.2	3 12	11 47.46	+ 3 30.4	1.181	2.173	2.1	18.4
3 22	11 37.80	- 1 23.2	1.213	2.205	3.2	18.2	3 22	11 38.76	+ 5 11.5	1.179	2.169	4.1	18.5
4 1	11 28.20	- 0 38.8	1.227	2.196	8.5	18.4	4 1	11 30.77	+ 6 42.6	1.202	2.165	9.5	18.8
4 11	11 20.54	- 0 1.2	1.264	2.187	13.5	18.7	4 11	11 24.71	+ 7 54.3	1.249	2.161	14.5	19.1
4 21	11 15.67	+ 0 23.8	1.322	2.179	17.8	18.9	4 21	11 21.33	+ 8 41.6	1.315	2.157	18.7	19.3
210695	2000 <i>SY</i> ₇₄		3 16.0 160°08	0°3/16.5	18		382152	2011 <i>UW</i> ₄₀₄		3 1			

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3 16.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
87738	2000 <i>SG</i> ₆₁		3 16.0 200°75	1.7°/14.3	18		199514	2006 <i>DW</i> ₁₃₄		3 16.1 95°34	0.4°/16.4	18	
2 11	12 7.18	+ 4 14.0	2.046	2.882	12.4	19.9	2 11	12 7.86	- 1 1.1	1.943	2.767	13.5	20.5
2 21	12 2.28	+ 4 58.1	1.966	2.880	9.1	19.7	2 21	12 2.85	- 0 47.5	1.866	2.770	10.1	20.3
3 2	11 55.47	+ 5 51.0	1.912	2.878	5.4	19.4	3 2	11 55.84	- 0 21.9	1.813	2.774	6.2	20.1
3 12	11 47.39	+ 6 47.3	1.885	2.875	2.0	19.2	3 12	11 47.53	+ 0 12.1	1.786	2.777	2.0	19.8
3 22	11 38.89	+ 7 40.7	1.887	2.873	3.7	19.3	3 22	11 38.80	+ 0 49.6	1.789	2.781	2.5	19.9
4 1	11 30.90	+ 8 25.2	1.918	2.869	7.5	19.5	4 1	11 30.65	+ 1 25.0	1.819	2.784	6.6	20.1
4 11	11 24.27	+ 8 56.5	1.975	2.866	11.1	19.8	4 11	11 23.94	+ 1 53.3	1.876	2.787	10.5	20.4
4 21	11 19.56	+ 9 12.5	2.054	2.862	14.2	20.0	4 21	11 19.24	+ 2 11.2	1.956	2.791	13.8	20.6
317521	2002 <i>TM</i> ₁₄₈		3 16.0 258°91	7.1°/21.8	17		417559	2006 <i>UL</i> ₁₁₂		3 16.1 156°87	0.8°/16.9	14	C
2 11	12 9.97	-17 11.7	1.862	2.613	16.7	21.0	2 11	12 9.17	- 3 4.7	2.094	2.904	13.1	23.1
2 21	12 4.93	-17 54.7	1.759	2.598	14.1	20.8	2 21	12 3.68	- 2 38.6	2.016	2.912	9.9	22.9
3 2	11 57.41	-18 15.2	1.677	2.582	11.1	20.6	3 2	11 56.28	- 1 58.9	1.962	2.919	6.2	22.7
3 12	11 48.05	-18 11.1	1.618	2.566	8.3	20.4	3 12	11 47.65	- 1 9.3	1.935	2.925	2.2	22.4
3 22	11 37.82	-17 42.4	1.585	2.549	7.1	20.3	3 22	11 38.64	- 0 15.0	1.939	2.931	2.3	22.4
4 1	11 27.92	-16 53.3	1.578	2.533	8.5	20.3	4 1	11 30.19	+ 0 38.0	1.972	2.936	6.3	22.7
4 11	11 19.52	-15 51.2	1.598	2.516	11.5	20.4	4 11	11 23.11	+ 1 24.2	2.032	2.940	9.9	22.9
4 21	11 13.46	-14 45.0	1.640	2.498	14.8	20.6	4 21	11 17.97	+ 1 59.7	2.115	2.944	13.1	23.1
114784	2003 <i>MF</i> ₆		3 16.0 184°72	1.1°/17.2	18		496156	2010 <i>VO</i> ₁₁		3 16.1 92°74	15.7°/7.8	18	
2 11	12 9.38	- 4 22.5	2.123	2.927	13.2	20.8	2 11	12 17.24	-46 21.7	2.167	2.660	20.5	20.8
2 21	12 3.87	- 3 53.0	2.036	2.928	10.0	20.6	2 21	12 10.87	-48 21.0	2.101	2.678	19.5	20.7
3 2	11 56.42	- 3 8.5	1.973	2.928	6.4	20.4	3 2	12 1.27	-49 48.0	2.048	2.696	18.4	20.7
3 12	11 47.67	- 2 12.5	1.938	2.927	2.4	20.1	3 12	11 49.25	-50 35.9	2.009	2.713	17.3	20.6
3 22	11 38.48	- 1 10.2	1.933	2.925	2.3	20.1	3 22	11 36.16	-50 40.5	1.986	2.731	16.3	20.6
4 1	11 29.77	- 0 7.8	1.957	2.922	6.3	20.4	4 1	11 23.70	-50 2.4	1.981	2.748	15.8	20.5
4 11	11 22.41	+ 0 48.4	2.010	2.918	10.0	20.6	4 11	11 13.42	-48 47.9	1.994	2.764	15.7	20.6
4 21	11 16.97	+ 1 33.9	2.086	2.914	13.3	20.8	4 21	11 6.31	-47 7.0	2.026	2.781	16.1	20.6
48294	2002 <i>JG</i> ₁₃₁		3 16.0 126°03	0.7°/15.3	18		284641	2007 <i>VM</i> ₃₂₅		3 16.1 215°84	3.9°/20.6	18	
2 11	12 7.87	- 0 16.6	1.761	2.592	14.3	19.8	2 11	12 5.54	-13 9.7	2.511	3.272	12.6	21.3
2 21	12 2.96	+ 0 41.5	1.694	2.604	10.6	19.6	2 21	12 0.88	-13 15.0	2.414	3.267	10.2	21.1
3 2	11 55.91	+ 1 54.3	1.650	2.615	6.3	19.4	3 2	11 54.57	-13 3.5	2.340	3.263	7.5	21.0
3 12	11 47.53	+ 3 15.1	1.634	2.625	1.7	19.1	3 12	11 47.16	-12 35.9	2.293	3.258	5.0	20.8
3 22	11 38.77	+ 4 36.0	1.646	2.636	3.2	19.2	3 22	11 39.32	-11 54.6	2.274	3.252	4.0	20.7
4 1	11 30.70	+ 5 48.8	1.686	2.645	7.6	19.5	4 1	11 31.84	-11 3.9	2.284	3.247	5.6	20.8
4 11	11 24.24	+ 6 47.2	1.753	2.655	11.6	19.7	4 11	11 25.42	-10 9.3	2.322	3.241	8.3	21.0
4 21	11 19.94	+ 7 27.8	1.841	2.663	15.0	20.0	4 21	11 20.61	- 9 16.1	2.385	3.235	11.1	21.1
192909	1999 <i>XD</i> ₂₂₇		3 16.0 98°78	0.3°/16.3	18		19304	1996 <i>TQ</i> ₁		3 16.1 141°72	0.2°/16.3	18	
2 11	12 6.91	- 1 33.3	2.157	2.975	12.5	20.6	2 11	12 9.59	- 2 0.3	1.953	2.770	13.7	19.6
2 21	12 1.86	- 1 3.2	2.090	2.992	9.3	20.4	2 21	12 4.05	- 1 20.3	1.881	2.782	10.2	19.4
3 2	11 55.09	- 0 21.4	2.049	3.009	5.7	20.2	3 2	11 56.52	- 0 26.1	1.834	2.794	6.2	19.1
3 12	11 47.26	+ 0 28.0	2.035	3.025	1.8	20.0	3 12	11 47.72	+ 0 37.3	1.814	2.805	1.9	18.9
3 22	11 39.18	+ 1 19.8	2.050	3.042	2.3	20.0	3 22	11 38.56	+ 1 43.5	1.824	2.815	2.5	18.9
4 1	11 31.68	+ 2 8.4	2.095	3.058	6.1	20.3	4 1	11 30.05	+ 2 45.8	1.863	2.825	6.8	19.2
4 11	11 25.50	+ 2 49.1	2.167	3.074	9.5	20.5	4 11	11 23.04	+ 3 38.1	1.929	2.834	10.6	19.5
4 21	11 21.12	+ 3 18.7	2.262	3.089	12.4	20.8	4 21	11 18.07	+ 4 16.8	2.018	2.842	13.8	19.7
68001	2000 <i>XS</i> ₃₃		3 16.0 205°77	2.6°/13.8	18		457151	2008 <i>FE</i> ₁₃₃		3 16.1 4°97	3.7°/13.0	17	
2 11	12 11.29	+ 6 47.8	1.852	2.691	13.4	19.1	2 11	12 6.51	+ 7 53.2	1.408	2.271	15.4	20.5
2 21	12 5.55	+ 7 27.7	1.772	2.687	9.8	18.8	2 21	12 2.48	+ 8 44.3	1.344	2.271	11.3	20.2
3 2	11 57.55	+ 8 14.7	1.716	2.682	5.9	18.6	3 2	11 55.87	+ 9 43.4	1.302	2.271	6.9	20.0
3 12	11 48.03	+ 9 2.5	1.689	2.677	2.7	18.4	3 12	11 47.57	+10 41.8	1.285	2.272	3.8	19.8
3 22	11 38.00	+ 9 44.4	1.690	2.671	4.6	18.5	3 22	11 38.77	+11 30.4	1.294	2.274	6.0	19.9
4 1	11 28.57	+10 14.5	1.719	2.665	8.6	18.7	4 1	11 30.77	+12 1.9	1.328	2.276	10.4	20.2
4 11	11 20.73	+10 28.9	1.774	2.658	12.4	18.9	4 11	11 24.69	+12 12.1	1.385	2.279	14.6	20.4
4 21	11 15.13	+10 26.4	1.850	2.651	15.7	19.1	4 21	11 21.18	+12 0.6	1.460	2.283	18.2	20.7
280761	2005 <i>QH</i> ₁₆₆		3 16.0 129°28	0.6°/16.7	18		310475	2000 <i>SV</i> ₁₆₇		3 16.1 197°04	3.7°/19.3	18	
2 11	12 8.36	- 7 38.8	1.693	2.500	15.9	21.0	2 11	12 9.82	-10 8.9	1.857	2.644	15.4	20.9
2 21	12 3.38	- 5 50.0	1.622	2.516	12.0	20.8	2 21	12 4.55	-10 9.9	1.767	2.642	12.3	20.7
3 2	11 56.19	- 3 35.5	1.575	2.532	7.4	20.5	3 2	11 57.01	- 9 50.7	1.700	2.639	8.6	20.4
3 12	11 47.61	- 1 3.7	1.557	2.547	2.5	20.3	3 12	11 47.92	- 9 12.6	1.659	2.636	5.0	20.2
3 22	11 38.67	+ 1 33.5	1.569	2.561	2.8	20.3	3 22	11 38.22	- 8 19.6	1.646	2.632	3.9	20.1
4 1	11 30.48	+ 4 3.1	1.612	2.574	7.6	20.6	4 1	11 29.04	- 7 17.9	1.660	2.628	6.9	20.3
4 11	11 23.98	+ 6 14.0	1.682	2.587	11.9	20.9	4 11	11 21.41	- 6 15.4	1.702	2.623	10.7	20.5
4 21	11 19.74	+ 7 59.9	1.776	2.598	15.5	21.2	4 21	11 15.99	- 5 19.0	1.766	2.617	14.3	20.7
251572	2009 <i>FN</i> ₁		3 16.1 283°46	1.3°/15.1	17		12377	1994 <i>PP</i>		3 16.1 182°68	9.7°/28.6	18	R
2 11	12 10.31	+ 3 25.1	1.546	2.389	15.3	20.6	2 11	12 15.04	-35 28.1	3.021	3.584	14.1	18.9
2 21	12 5.34	+ 3 44.0	1.459	2.375	11.4	20.3	2 21	12 8.08	-36 43.9	2.921	3.585	13.0	18.8
3 2	11 57.69	+ 4 14.0	1.394	2.361	6.9	20.0	3 2	11 59.06	-37 38.5	2.840	3.585	11.8	18.7
3 12	11 48.15	+ 4 49.8	1.356	2.347	2.1	19.7	3 12	11 48.52	-38 8.0	2.781	3.585	10.6	18.6
3 22	11 37.82	+ 5 24.5	1.344	2.333	3.9	19.7	3 22	11 37.28	-38 10.5	2.746	3.583	9.9	18.5
4 1	11 28.07	+ 5 51.4	1.359	2.319	9.0	20.0	4 1	11 26.29	-37 46.9	2.737	3.581	9.8	18.5
4 11	11 20.11	+ 6 4.9	1.398	2.305	13.6	20.2	4 11	11 16.47	-37 1.4	2.752	3.579	10.3	18.5
4 21	11 14.77	+ 6 2.4	1.458	2.291	17.7	20.4	4 21	11 8.53	-36 0.2	2.791	3.576	11.4	18.6
270446	2002 <i>CD</i> ₁₅₆		3 16.1 331°00	0.4°/15.8	17		67324	2000 <i>HC</i> ₆₉					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
518899	2010 <i>FO</i> ₆₁		3 16.1 265°06	0°3/16.3	17		423243	2004 <i>TK</i> ₈₈		3 16.1 69°18	2°7/13.7	18	
2 11	12 8.47	+ 0 22.3	2.375	3.192	11.6	21.1	2 11	12 10.28	+ 7 42.7	1.783	2.627	13.5	20.9
2 21	12 3.06	+ 0 20.4	2.284	3.185	8.7	20.9	2 21	12 4.62	+ 8 14.0	1.727	2.645	9.9	20.7
3 2	11 55.89	+ 0 26.9	2.218	3.178	5.3	20.7	3 2	11 56.85	+ 8 50.3	1.696	2.662	5.9	20.5
3 12	11 47.56	+ 0 38.9	2.181	3.171	1.7	20.4	3 12	11 47.83	+ 9 25.3	1.692	2.680	2.8	20.4
3 22	11 38.80	+ 0 53.4	2.173	3.165	2.2	20.4	3 22	11 38.57	+ 9 53.0	1.716	2.698	4.6	20.5
4 1	11 30.44	+ 1 6.5	2.195	3.158	5.8	20.7	4 1	11 30.13	+10 8.8	1.768	2.716	8.3	20.8
4 11	11 23.26	+ 1 14.8	2.245	3.151	9.2	20.9	4 11	11 23.37	+10 10.0	1.845	2.733	11.9	21.0
4 21	11 17.79	+ 1 15.8	2.319	3.144	12.2	21.0	4 21	11 18.81	+ 9 56.2	1.944	2.751	14.9	21.3
259241	2003 <i>BG</i> ₆₄		3 16.1 344°53	3°5/12.9	17		496496	2014 <i>TU</i> ₇₄		3 16.1 131°70	2°3/18.8	18	
2 11	12 3.28	+ 6 2.3	1.373	2.239	15.5	19.8	2 11	12 7.40	- 9 41.4	2.252	3.034	13.2	22.7
2 21	12 0.22	+ 7 10.8	1.302	2.231	11.4	19.5	2 21	12 2.23	- 8 58.2	2.177	3.051	10.3	22.6
3 2	11 54.60	+ 8 31.7	1.254	2.224	6.9	19.2	3 2	11 55.34	- 7 56.6	2.126	3.068	6.9	22.4
3 12	11 47.24	+ 9 55.6	1.230	2.218	3.6	19.0	3 12	11 47.40	- 6 40.3	2.103	3.084	3.5	22.2
3 22	11 39.27	+11 11.6	1.232	2.213	6.0	19.1	3 22	11 39.18	- 5 14.7	2.109	3.099	2.6	22.2
4 1	11 31.99	+12 10.3	1.258	2.208	10.7	19.4	4 1	11 31.52	- 3 46.7	2.146	3.113	5.6	22.4
4 11	11 26.55	+12 45.3	1.307	2.204	15.1	19.6	4 11	11 25.14	- 2 23.4	2.211	3.127	8.9	22.6
4 21	11 23.67	+12 55.0	1.374	2.202	18.9	19.9	4 21	11 20.52	- 1 10.2	2.302	3.140	11.9	22.8
160716	2000 <i>QG</i> ₁₀₉		3 16.1 186°09	2°5/13.7	18		35402	1997 <i>YK</i> ₃		3 16.1 152°56	1°9/17.8	18	
2 11	12 10.28	+ 5 46.3	1.824	2.664	13.5	21.1	2 11	12 11.76	- 5 34.6	1.944	2.744	14.4	19.3
2 21	12 4.80	+ 6 39.5	1.749	2.665	9.9	20.9	2 21	12 5.75	- 5 23.7	1.867	2.754	11.0	19.1
3 2	11 57.10	+ 7 41.3	1.698	2.664	5.9	20.6	3 2	11 57.61	- 4 56.7	1.812	2.763	7.2	18.9
3 12	11 47.93	+ 8 45.1	1.674	2.663	2.7	20.4	3 12	11 48.09	- 4 16.8	1.786	2.771	3.2	18.7
3 22	11 38.28	+ 9 43.2	1.680	2.661	4.6	20.6	3 22	11 38.16	- 3 28.5	1.788	2.779	2.7	18.7
4 1	11 29.26	+10 29.1	1.713	2.659	8.6	20.8	4 1	11 28.85	- 2 38.1	1.819	2.785	6.5	18.9
4 11	11 21.83	+10 58.2	1.772	2.656	12.5	21.0	4 11	11 21.09	- 1 51.7	1.878	2.791	10.3	19.2
4 21	11 16.63	+11 8.8	1.852	2.653	15.7	21.2	4 21	11 15.47	- 1 14.3	1.960	2.796	13.7	19.4
192732	1999 <i>TF</i> ₁₉₂		3 16.1 146°16	1°8/18.2	18		67311	2000 <i>HF</i> ₁₂		3 16.1 214°60	3°5/12.8	18	
2 11	12 7.66	- 6 29.9	2.607	3.394	11.5	21.2	2 11	12 10.47	+10 9.2	1.995	2.838	12.4	19.5
2 21	12 2.23	- 6 17.2	2.526	3.406	8.8	21.1	2 21	12 4.82	+10 51.3	1.917	2.833	9.2	19.3
3 2	11 55.27	- 5 51.8	2.471	3.417	5.8	20.9	3 2	11 57.08	+11 37.1	1.864	2.827	5.8	19.1
3 12	11 47.35	- 5 16.1	2.443	3.427	2.8	20.7	3 12	11 47.95	+12 20.1	1.838	2.822	3.6	18.9
3 22	11 39.15	- 4 33.4	2.446	3.436	2.2	20.7	3 22	11 38.36	+12 54.2	1.842	2.816	5.3	19.0
4 1	11 31.39	- 3 48.3	2.480	3.445	5.0	20.9	4 1	11 29.34	+13 14.3	1.873	2.809	8.8	19.2
4 11	11 24.74	- 3 5.3	2.542	3.454	8.0	21.1	4 11	11 21.80	+13 17.7	1.930	2.802	12.2	19.4
4 21	11 19.64	- 2 28.3	2.629	3.461	10.7	21.3	4 21	11 16.36	+13 4.0	2.009	2.795	15.2	19.6
208613	2002 <i>CK</i> ₂₆₅		3 16.1 83°68	3°3/13.2	18		209560	2004 <i>XC</i> ₇		3 16.1 83°07	0°9/15.4	18	
2 11	12 9.25	+ 5 36.2	1.456	2.309	15.6	20.3	2 11	12 11.36	+ 1 25.3	1.477	2.317	16.1	20.5
2 21	12 4.23	+ 6 53.5	1.406	2.329	11.3	20.1	2 21	12 5.78	+ 1 57.6	1.422	2.336	11.9	20.3
3 2	11 56.76	+ 8 20.6	1.380	2.348	6.7	19.9	3 2	11 57.71	+ 2 42.9	1.389	2.355	7.0	20.1
3 12	11 47.80	+ 9 47.7	1.380	2.368	3.3	19.7	3 12	11 48.11	+ 3 34.8	1.382	2.373	2.0	19.8
3 22	11 38.57	+11 4.7	1.407	2.387	5.6	19.9	3 22	11 38.21	+ 4 25.5	1.402	2.392	3.5	20.0
4 1	11 30.29	+12 3.5	1.460	2.406	9.9	20.2	4 1	11 29.25	+ 5 7.8	1.449	2.410	8.4	20.3
4 11	11 23.98	+12 39.6	1.537	2.424	13.8	20.4	4 11	11 22.30	+ 5 36.2	1.521	2.428	12.7	20.6
4 21	11 20.17	+12 52.6	1.634	2.443	17.2	20.7	4 21	11 17.91	+ 5 48.4	1.613	2.446	16.3	20.9
386238	2008 <i>AC</i> ₃₇		3 16.1 325°92	11°6/26.7	17		390430	2013 <i>YZ</i> ₄₉		3 16.1 351°82	3°4/12.2	17	
2 11	12 10.43	-30 41.7	2.211	2.853	17.1	20.3	2 11	12 3.23	+ 8 28.3	1.993	2.846	12.0	20.5
2 21	12 5.27	-32 23.3	2.113	2.843	15.6	20.1	2 21	11 59.44	+ 9 37.6	1.921	2.844	8.7	20.3
3 2	11 57.66	-33 41.7	2.033	2.833	14.0	20.0	3 2	11 53.81	+10 53.2	1.875	2.842	5.4	20.1
3 12	11 48.19	-34 31.7	1.974	2.823	12.6	19.9	3 12	11 46.98	+12 7.8	1.856	2.841	3.4	19.9
3 22	11 37.77	-34 50.1	1.937	2.813	11.7	19.8	3 22	11 39.78	+13 14.2	1.866	2.839	5.3	20.1
4 1	11 27.56	-34 37.2	1.925	2.804	11.7	19.8	4 1	11 33.08	+14 6.0	1.903	2.838	8.7	20.3
4 11	11 18.75	-33 57.9	1.935	2.796	12.7	19.8	4 11	11 27.70	+14 39.3	1.964	2.838	11.9	20.5
4 21	11 12.19	-33 0.1	1.966	2.788	14.2	19.9	4 21	11 24.16	+14 53.1	2.047	2.837	14.8	20.6
253038	2002 <i>SD</i> ₂₃		3 16.1 204°87	0°4/16.5	16		297256	1995 <i>SA</i> ₅₂		3 16.1 108°89	2°6/19.4	18	
2 11	12 6.78	- 3 9.4	1.972	2.789	13.5	21.2	2 11	12 2.41	-10 42.1	2.367	3.150	12.6	20.4
2 21	12 2.13	- 2 23.7	1.885	2.785	10.2	21.0	2 21	11 58.59	-10 3.4	2.279	3.152	9.9	20.2
3 2	11 55.47	- 1 21.9	1.822	2.781	6.3	20.7	3 2	11 53.20	- 9 6.4	2.216	3.155	6.9	20.0
3 12	11 47.47	- 0 8.3	1.786	2.777	2.1	20.4	3 12	11 46.80	- 7 53.7	2.179	3.158	3.8	19.8
3 22	11 38.98	+ 1 10.3	1.780	2.772	2.5	20.4	3 22	11 40.06	- 6 30.2	2.172	3.160	2.7	19.8
4 1	11 30.97	+ 2 26.5	1.802	2.766	6.8	20.7	4 1	11 33.74	- 5 2.4	2.194	3.163	5.3	19.9
4 11	11 24.33	+ 3 33.3	1.851	2.760	10.7	20.9	4 11	11 28.52	- 3 37.0	2.244	3.165	8.5	20.1
4 21	11 19.67	+ 4 25.9	1.924	2.753	14.2	21.1	4 21	11 24.87	- 2 19.9	2.319	3.168	11.4	20.3
199190	2005 <i>YF</i> ₂₇₃		3 16.1 95°57	2°5/13.8	18		348828	2006 <i>RJ</i> ₅₉		3 16.1 163°73	0°3/16.5	17	
2 11	12 9.55	+ 3 30.8	1.469	2.317	15.7	21.0	2 11	12 4.54	- 1 43.6	2.919	3.726	9.9	22.4
2 21	12 4.45	+ 4 48.6	1.417	2.336	11.4	20.8	2 21	11 59.83	- 1 14.6	2.835	3.731	7.4	22.3
3 2	11 56.91	+ 6 18.9	1.387	2.356	6.7	20.6	3 2	11 53.80	- 0 36.4	2.778	3.736	4.5	22.1
3 12	11 47.86	+ 7 52.1	1.384	2.374	2.7	20.4	3 12	11 46.95	+ 0 8.0	2.749	3.740	1.5	21.9
3 22	11 38.52	+ 9 17.9	1.409	2.393	5.0	20.6	3 22	11 39.84	+ 0 54.9	2.752	3.743	1.8	21.9
4 1	11 30.11	+10 27.3	1.460	2.410	9.5	20.9	4 1	11 33.09	+ 1 40.2	2.785	3.747	4.8	22.1
4 11	11 23.65	+11 15.0	1.536	2.428	13.6	21.1	4 11	11 27.25	+ 2 20.2	2.846	3.750	7.6	22.3
4 21	11 19.69	+11 39.5	1.631	2.445	17.0	21.4	4 21	11 22.74	+ 2 52.0	2.933	3.752	10.1	22.5
461979	2006 <i>VH</i> ₇₁		3 16.1 134°00	2°3/13.9	18		413815	2006 <i>PO</i> ₈					

EPHEMERIDES

3 16.1

3 16.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
121184	1999 <i>NH</i>		3 16.1 127°16'	17°7'/28.1	18		329355	2001 <i>SZ</i> ₂₂₁		3 16.1 80°73'	1°2'/14.9	18	
2 11	12 17.80	-31 54.4	1.289	1.972	25.8	19.5	2 11	12 8.77	+ 1 41.1	1.780	2.614	14.0	21.2
2 21	12 12.28	-34 27.9	1.220	1.977	23.7	19.3	2 21	12 3.46	+ 2 36.0	1.729	2.641	10.2	21.1
3 2	12 2.68	-36 25.7	1.165	1.981	21.3	19.2	3 2	11 56.14	+ 3 42.0	1.703	2.668	6.0	20.9
3 12	11 49.84	-37 36.1	1.126	1.984	19.3	19.0	3 12	11 47.66	+ 4 52.3	1.704	2.695	1.8	20.6
3 22	11 35.42	-37 51.4	1.105	1.988	17.9	18.9	3 22	11 38.98	+ 5 59.5	1.733	2.721	3.4	20.8
4 1	11 21.67	-37 11.7	1.103	1.991	17.8	18.9	4 1	11 31.12	+ 6 56.8	1.791	2.747	7.5	21.1
4 11	11 10.73	-35 48.1	1.121	1.995	18.9	19.0	4 11	11 24.90	+ 7 39.3	1.875	2.772	11.2	21.4
4 21	11 3.89	-33 57.2	1.155	1.998	20.8	19.1	4 21	11 20.78	+ 8 5.0	1.980	2.797	14.3	21.6
492295	2013 <i>YY</i> ₁₂₃		3 16.1 96°24'	1°5'/17.7	17		522122	2016 <i>AB</i> ₂₄₂		3 16.1 338°57'	0°6'/16.5	16	
2 11	12 6.87	- 4 28.8	2.353	3.156	12.1	21.7	2 11	12 6.27	- 1 36.0	1.280	2.128	17.6	21.2
2 21	12 1.79	- 4 23.6	2.278	3.168	9.2	21.5	2 21	12 2.70	- 1 23.2	1.203	2.120	13.3	20.9
3 2	11 55.08	- 4 6.3	2.227	3.179	5.9	21.3	3 2	11 56.27	- 0 51.5	1.147	2.112	8.3	20.6
3 12	11 47.34	- 3 39.4	2.205	3.191	2.6	21.1	3 12	11 47.83	- 0 5.8	1.114	2.105	2.7	20.2
3 22	11 39.31	- 3 6.6	2.211	3.202	2.2	21.1	3 22	11 38.62	+ 0 46.6	1.107	2.099	3.3	20.3
4 1	11 31.77	- 2 32.3	2.247	3.214	5.4	21.3	4 1	11 30.12	+ 1 36.6	1.124	2.094	8.9	20.6
4 11	11 25.43	- 2 0.9	2.311	3.225	8.6	21.6	4 11	11 23.64	+ 2 15.7	1.164	2.090	14.1	20.8
4 21	11 20.77	- 1 36.0	2.399	3.236	11.5	21.8	4 21	11 20.00	+ 2 38.6	1.223	2.086	18.6	21.1
239495	2007 <i>VU</i> ₅₂		3 16.1 229°47'	2°1'/18.7	17		196543	2003 <i>PS</i> ₁		3 16.1 191°76'	1°6'/17.9	17	
2 11	12 3.94	- 8 18.6	2.460	3.250	12.0	20.9	2 11	12 7.58	- 5 34.0	2.625	3.417	11.3	21.5
2 21	11 59.72	- 7 52.3	2.363	3.243	9.4	20.7	2 21	12 2.28	- 5 23.5	2.532	3.415	8.7	21.3
3 2	11 53.90	- 7 10.2	2.291	3.235	6.3	20.5	3 2	11 55.40	- 5 0.7	2.464	3.412	5.7	21.1
3 12	11 47.02	- 6 14.8	2.246	3.228	3.2	20.3	3 12	11 47.48	- 4 28.1	2.425	3.409	2.6	20.9
3 22	11 39.73	- 5 10.0	2.230	3.220	2.4	20.3	3 22	11 39.18	- 3 48.8	2.415	3.406	2.1	20.8
4 1	11 32.80	- 4 1.3	2.244	3.212	5.3	20.4	4 1	11 31.25	- 3 7.1	2.436	3.402	5.1	21.0
4 11	11 26.91	- 2 54.7	2.286	3.204	8.5	20.6	4 11	11 24.37	- 2 27.5	2.486	3.397	8.2	21.2
4 21	11 22.59	- 1 55.2	2.353	3.195	11.5	20.8	4 21	11 19.04	- 1 53.9	2.561	3.392	11.0	21.4
104927	2000 <i>JU</i> ₂₃		3 16.1 300°12'	7°4'/22.9	18		4227	<i>Kaali</i>		3 16.1 14°86'	1°7'/14.8	18	
2 11	12 5.16	-18 57.2	1.706	2.462	17.8	19.3	2 11	12 4.70	+ 2 1.5	1.171	2.035	17.7	16.3
2 21	12 1.46	-19 19.4	1.611	2.451	15.1	19.1	2 21	12 1.52	+ 2 48.2	1.111	2.039	13.1	16.0
3 2	11 55.36	-19 13.8	1.535	2.440	12.0	18.9	3 2	11 55.48	+ 3 51.7	1.072	2.043	7.7	15.8
3 12	11 47.53	-18 38.6	1.481	2.429	9.0	18.7	3 12	11 47.56	+ 5 3.5	1.057	2.049	2.4	15.4
3 22	11 38.95	-17 35.4	1.452	2.419	7.4	18.6	3 22	11 39.10	+ 6 12.9	1.066	2.055	4.6	15.6
4 1	11 30.81	-16 10.3	1.449	2.408	8.6	18.6	4 1	11 31.55	+ 7 9.5	1.099	2.062	10.1	15.9
4 11	11 24.27	-14 33.3	1.470	2.398	11.6	18.7	4 11	11 26.16	+ 7 46.0	1.153	2.071	15.0	16.2
4 21	11 20.09	-12 55.3	1.515	2.388	15.0	18.9	4 21	11 23.60	+ 7 59.6	1.227	2.080	19.1	16.5
163039	2001 <i>XG</i> ₁₈₉		3 16.1 17°31'	0°5'/16.4	18		30553	2001 <i>OV</i> ₅₆		3 16.1 84°66'	0°8'/16.8	18	
2 11	12 5.84	- 1 41.1	1.140	1.996	18.8	20.1	2 11	12 9.13	- 2 24.4	1.708	2.532	15.0	18.7
2 21	12 2.44	- 1 20.2	1.079	2.000	14.1	19.9	2 21	12 3.97	- 2 7.0	1.642	2.546	11.3	18.5
3 2	11 56.07	+ 0 38.7	1.038	2.005	8.7	19.6	3 2	11 56.60	- 1 34.6	1.599	2.559	7.0	18.3
3 12	11 47.72	+ 0 17.4	1.019	2.010	2.7	19.2	3 12	11 47.84	- 0 51.7	1.582	2.572	2.4	18.0
3 22	11 38.77	+ 1 18.8	1.025	2.017	3.5	19.3	3 22	11 38.71	- 0 4.0	1.593	2.585	2.6	18.1
4 1	11 30.77	+ 2 15.4	1.054	2.025	9.3	19.7	4 1	11 30.31	+ 0 41.7	1.632	2.598	7.1	18.4
4 11	11 25.02	+ 2 58.2	1.106	2.034	14.5	20.0	4 11	11 23.60	+ 1 19.4	1.696	2.611	11.2	18.6
4 21	11 22.22	+ 3 22.2	1.176	2.043	18.9	20.3	4 21	11 19.14	+ 1 45.1	1.783	2.624	14.6	18.9
162561	2000 <i>RT</i> ₂₄		3 16.1 244°96'	3°2'/18.6	18		372968	2011 <i>BP</i> ₁₅₂		3 16.1 47°58'	1°5'/17.3	17	
2 11	12 9.53	- 7 52.6	1.654	2.460	16.3	20.2	2 11	12 8.37	- 3 28.3	1.704	2.526	15.1	21.1
2 21	12 4.66	- 7 55.1	1.563	2.450	12.8	20.0	2 21	12 3.49	- 3 26.7	1.632	2.533	11.5	20.9
3 2	11 57.27	- 7 37.5	1.494	2.441	8.8	19.7	3 2	11 56.37	- 3 9.9	1.582	2.540	7.3	20.7
3 12	11 48.08	- 7 1.2	1.449	2.431	4.6	19.4	3 12	11 47.79	- 2 41.0	1.559	2.547	3.0	20.4
3 22	11 38.15	- 6 10.6	1.432	2.421	3.6	19.3	3 22	11 38.76	- 2 5.0	1.562	2.554	2.7	20.4
4 1	11 28.72	- 5 12.7	1.441	2.411	7.5	19.5	4 1	11 30.41	- 1 28.0	1.594	2.562	7.0	20.7
4 11	11 20.96	- 4 15.7	1.476	2.400	11.9	19.8	4 11	11 23.70	- 0 56.2	1.650	2.570	11.1	20.9
4 21	11 15.65	- 3 26.7	1.534	2.389	15.9	20.0	4 21	11 19.25	- 0 33.9	1.729	2.578	14.6	21.2
150164	1997 <i>TP</i> ₅		3 16.1 161°94'	1°3'/14.7	15		195172	2002 <i>CN</i> ₂₄₂		3 16.1 318°81'	6°3'/20.9	17	
2 11	12 8.77	+ 3 22.5	2.360	3.185	11.3	21.9	2 11	12 8.40	-13 43.2	1.723	2.500	16.8	19.8
2 21	12 3.19	+ 4 4.3	2.284	3.192	8.3	21.7	2 21	12 3.86	-14 32.8	1.629	2.489	13.9	19.5
3 2	11 55.93	+ 4 54.0	2.234	3.199	4.9	21.5	3 2	11 56.83	-15 1.9	1.555	2.477	10.6	19.3
3 12	11 47.60	+ 5 46.8	2.214	3.204	1.6	21.3	3 12	11 48.00	-15 8.7	1.506	2.467	7.6	19.1
3 22	11 38.95	+ 6 37.6	2.223	3.209	3.0	21.4	3 22	11 38.37	-14 53.9	1.482	2.456	6.3	19.0
4 1	11 30.80	+ 7 21.3	2.263	3.214	6.5	21.6	4 1	11 29.15	-14 21.6	1.485	2.446	8.2	19.1
4 11	11 23.88	+ 7 54.0	2.330	3.218	9.7	21.8	4 11	11 21.51	-13 39.1	1.512	2.436	11.6	19.2
4 21	11 18.69	+ 8 13.7	2.420	3.220	12.5	22.0	4 21	11 16.28	-12 54.1	1.561	2.427	15.1	19.4
266675	2009 <i>BD</i> ₉₄		3 16.1 82°87'	2°7'/12.8	17		88134	2000 <i>WZ</i> ₁₆₀		3 16.1 160°89'	5°5'/9.2	18	
2 11	12 4.04	+ 6 30.5	2.173	3.018	11.4	21.0	2 11	12 8.29	+17 45.5	2.397	3.241	10.5	20.0
2 21	11 59.80	+ 7 45.3	2.113	3.032	8.3	20.8	2 21	12 2.88	+19 2.2	2.338	3.247	8.1	19.9
3 2	11 53.91	+ 9 6.7	2.079	3.045	5.0	20.6	3 2	11 55.76	+20 16.6	2.305	3.253	6.0	19.7
3 12	11 47.00	+10 27.8	2.073	3.059	2.7	20.5	3 12	11 47.58	+21 21.5	2.301	3.259	5.6	19.7
3 22	11 39.84	+11 41.9	2.097	3.073	4.5	20.6	3 22	11 39.11	+22 11.2	2.326	3.263	7.1	19.8
4 1	11 33.23	+12 43.0	2.149	3.087	7.7	20.9	4 1	11 31.19	+22 41.6	2.379	3.267	9.4	20.0
4 11	11 27.86	+13 27.4	2.227	3.101	10.7	21.1	4 11	11 24.54	+22 51.5	2.455	3.271	11.8	20.1
4 21	11 24.19	+13 53.7	2.327	3.114	13.3	21.3	4 21	11 19.64	+22 42.0	2.553	3.274	13.9	20.3
224487	2005 <i>VZ</i> ₁₂₃		3 16.1 141°13'	1°1'/14.9	17		373960	2003 <i>WN</i> ₁₁₀		3 16.1 65°27'			

EPHEMERIDES

3 16.1

3 16.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
507310	2011 <i>QF</i> ₉		3 16.1 208°38	1°0/14.5 18			382702	2002 <i>VU</i> ₁₃₇		3 16.1 115°02	1°4/14.4 17		
2 11	12 3.06	+ 1 24.4	3.040	3.860	9.2	21.9	2 11	12 6.18	+ 4 14.6	2.485	3.314	10.7	22.1
2 21	11 58.79	+ 2 37.9	2.947	3.853	6.7	21.7	2 21	12 1.19	+ 4 56.4	2.419	3.330	7.8	21.9
3 2	11 53.23	+ 4 0.8	2.882	3.846	4.0	21.5	3 2	11 54.69	+ 5 44.8	2.379	3.345	4.6	21.7
3 12	11 46.85	+ 5 28.4	2.847	3.838	1.3	21.3	3 12	11 47.28	+ 6 35.1	2.369	3.359	1.6	21.5
3 22	11 40.16	+ 6 55.5	2.845	3.830	2.6	21.4	3 22	11 39.65	+ 7 22.4	2.388	3.374	3.0	21.6
4 1	11 33.75	+ 8 17.1	2.873	3.821	5.5	21.5	4 1	11 32.51	+ 8 2.4	2.437	3.387	6.2	21.9
4 11	11 28.16	+ 9 28.5	2.931	3.812	8.2	21.7	4 11	11 26.51	+ 8 31.6	2.514	3.401	9.1	22.1
4 21	11 23.83	+ 10 26.9	3.013	3.802	10.5	21.9	4 21	11 22.08	+ 8 48.4	2.614	3.414	11.7	22.3
412717	2014 <i>OA</i> ₃₀₇		3 16.1 195°04	4°3/11.1 18			470861	2008 <i>YH</i> ₁₁₄		3 16.1 343°36	6°6/ 9.5 16		
2 11	12 8.41	+ 9 49.9	2.017	2.862	12.2	21.3	2 11	12 2.00	+ 14 35.8	1.517	2.390	13.9	20.5
2 21	12 3.33	+ 11 28.6	1.942	2.860	9.0	21.1	2 21	11 59.17	+ 16 2.1	1.448	2.376	10.5	20.3
3 2	11 56.22	+ 13 13.9	1.894	2.857	5.8	20.9	3 2	11 53.97	+ 17 31.1	1.402	2.363	7.6	20.0
3 12	11 47.76	+ 14 57.0	1.874	2.853	4.3	20.8	3 12	11 47.15	+ 18 51.9	1.381	2.352	6.7	20.0
3 22	11 38.83	+ 16 28.9	1.885	2.848	6.3	20.9	3 22	11 39.77	+ 19 54.5	1.385	2.341	9.0	20.1
4 1	11 30.42	+ 17 42.3	1.923	2.842	9.6	21.1	4 1	11 33.00	+ 20 31.4	1.413	2.331	12.5	20.2
4 11	11 23.41	+ 18 33.0	1.986	2.835	12.9	21.3	4 11	11 27.93	+ 20 39.4	1.462	2.323	16.0	20.4
4 21	11 18.41	+ 19 0.2	2.071	2.828	15.7	21.5	4 21	11 25.22	+ 20 19.6	1.529	2.316	19.1	20.6
319873	2006 <i>WC</i> ₁₀₁		3 16.1 104°00	1°3/14.9 18			62556	2000 <i>SB</i> ₂₆₆		3 16.1 167°23	0°1/16.2 18		
2 11	12 10.56	+ 3 14.1	1.877	2.709	13.5	21.1	2 11	12 4.75	- 2 46.8	2.001	2.823	13.2	20.2
2 21	12 4.78	+ 3 50.2	1.817	2.728	9.9	20.9	2 21	12 0.58	- 1 49.3	1.921	2.824	9.9	20.0
3 2	11 56.97	+ 4 35.4	1.782	2.747	5.8	20.7	3 2	11 54.54	- 0 35.9	1.865	2.826	6.0	19.8
3 12	11 47.95	+ 5 23.9	1.774	2.765	1.8	20.5	3 12	11 47.28	+ 0 48.2	1.836	2.827	1.8	19.5
3 22	11 38.66	+ 6 9.6	1.796	2.783	3.4	20.6	3 22	11 39.61	+ 2 15.9	1.837	2.828	2.5	19.6
4 1	11 30.13	+ 6 46.9	1.846	2.801	7.4	20.9	4 1	11 32.45	+ 3 39.5	1.866	2.829	6.7	19.8
4 11	11 23.19	+ 7 11.6	1.922	2.818	11.1	21.2	4 11	11 26.61	+ 4 52.0	1.922	2.830	10.5	20.0
4 21	11 18.37	+ 7 21.9	2.020	2.834	14.2	21.4	4 21	11 22.63	+ 5 49.0	2.002	2.830	13.7	20.3
423440	2005 <i>RU</i> ₄₄		3 16.1 162°03	4°3/21.2 16			453261	2008 <i>SP</i> ₁₉₀		3 16.1 92°96	1°9/17.6 18		
2 11	12 8.65	- 15 8.5	2.567	3.309	12.8	23.0	2 11	12 10.15	- 5 21.7	1.418	2.242	17.5	22.2
2 21	12 3.12	- 15 11.5	2.478	3.317	10.5	22.8	2 21	12 5.16	- 5 5.3	1.353	2.253	13.4	22.0
3 2	11 55.93	- 14 56.6	2.412	3.324	7.8	22.7	3 2	11 57.54	- 4 27.9	1.308	2.265	8.6	21.7
3 12	11 47.66	- 14 24.6	2.372	3.330	5.4	22.5	3 12	11 48.19	- 3 33.7	1.288	2.276	3.6	21.5
3 22	11 39.02	- 13 37.9	2.362	3.336	4.3	22.5	3 22	11 38.35	- 2 29.9	1.295	2.287	3.1	21.5
4 1	11 30.81	- 12 40.9	2.381	3.340	5.7	22.6	4 1	11 29.38	- 1 25.3	1.328	2.298	7.9	21.8
4 11	11 23.74	- 11 39.4	2.429	3.344	8.2	22.7	4 11	11 22.41	- 0 28.7	1.386	2.309	12.5	22.1
4 21	11 18.32	- 10 39.1	2.503	3.347	10.8	22.9	4 21	11 18.12	+ 0 14.1	1.465	2.319	16.5	22.3
234539	2001 <i>UO</i> ₂₁₇		3 16.1 263°06	4°7/12.4 17			424657	2008 <i>QU</i> ₃₉		3 16.1 188°86	0°6/16.7 17		
2 11	12 11.33	+ 10 10.7	1.494	2.350	15.1	20.6	2 11	12 4.99	- 3 17.2	2.102	2.919	12.8	21.5
2 21	12 6.22	+ 11 6.5	1.414	2.337	11.3	20.3	2 21	12 0.69	- 2 36.4	2.019	2.919	9.7	21.3
3 2	11 58.32	+ 12 8.8	1.357	2.323	7.2	20.0	3 2	11 54.59	- 1 40.8	1.959	2.918	6.0	21.1
3 12	11 48.46	+ 13 8.5	1.326	2.310	4.7	19.8	3 12	11 47.30	- 0 34.7	1.927	2.917	2.0	20.8
3 22	11 37.83	+ 13 56.2	1.322	2.296	6.9	19.9	3 22	11 39.60	+ 0 36.2	1.925	2.917	2.3	20.8
4 1	11 27.85	+ 14 24.2	1.343	2.281	11.2	20.1	4 1	11 32.36	+ 1 45.2	1.951	2.916	6.3	21.1
4 11	11 19.80	+ 14 28.8	1.387	2.267	15.5	20.3	4 11	11 26.39	+ 2 46.1	2.004	2.914	9.9	21.3
4 21	11 14.49	+ 14 9.7	1.450	2.253	19.3	20.5	4 21	11 22.22	+ 3 34.4	2.080	2.913	13.1	21.5
465939	2011 <i>AU</i> ₂₂		3 16.1 33°54	7°8/ 8.6 18			198295	2004 <i>TY</i> ₃₀₈		3 16.1 252°28	1°3/17.2 18		
2 11	12 5.87	+ 17 12.2	1.472	2.341	14.4	20.1	2 11	12 10.15	- 2 47.7	2.131	2.939	13.0	20.8
2 21	12 1.90	+ 18 55.2	1.427	2.350	11.1	19.9	2 21	12 4.65	- 2 50.1	2.031	2.925	9.9	20.6
3 2	11 55.48	+ 20 35.3	1.406	2.360	8.4	19.8	3 2	11 57.08	- 2 40.7	1.954	2.909	6.4	20.4
3 12	11 47.54	+ 22 0.6	1.410	2.371	7.9	19.8	3 12	11 48.07	- 2 21.6	1.906	2.894	2.5	20.1
3 22	11 39.26	+ 23 1.5	1.439	2.382	10.0	19.9	3 22	11 38.44	- 1 56.5	1.886	2.878	2.4	20.0
4 1	11 31.87	+ 23 32.3	1.492	2.393	13.1	20.1	4 1	11 29.18	- 1 29.7	1.896	2.861	6.3	20.3
4 11	11 26.38	+ 23 32.4	1.565	2.405	16.2	20.4	4 11	11 21.20	- 1 6.3	1.933	2.845	10.2	20.5
4 21	11 23.35	+ 23 5.0	1.656	2.418	18.9	20.6	4 21	11 15.17	- 0 50.1	1.994	2.828	13.6	20.6
522308	2016 <i>BJ</i> ₁₀₁		3 16.1 316°72	3°1/18.1 17			90117	2002 <i>XG</i> ₆₀		3 16.1 35°25	4°0/19.7 18		
2 11	12 13.17	- 4 55.7	1.641	2.452	16.1	21.0	2 11	12 5.90	- 10 48.8	1.593	2.394	17.0	19.6
2 21	12 7.37	- 5 37.3	1.555	2.446	12.6	20.7	2 21	12 1.90	- 10 43.9	1.517	2.398	13.5	19.4
3 2	11 58.93	- 6 5.0	1.491	2.441	8.5	20.5	3 2	11 55.54	- 10 15.1	1.461	2.403	9.5	19.2
3 12	11 48.63	- 6 19.0	1.452	2.435	4.4	20.2	3 12	11 47.61	- 9 24.3	1.430	2.407	5.5	18.9
3 22	11 37.58	- 6 21.6	1.441	2.430	3.7	20.2	3 22	11 39.15	- 8 16.8	1.425	2.412	4.2	18.9
4 1	11 27.11	- 6 16.8	1.458	2.425	7.6	20.4	4 1	11 31.34	- 7 0.6	1.446	2.417	7.3	19.0
4 11	11 18.41	- 6 10.0	1.500	2.421	11.9	20.6	4 11	11 25.23	- 5 45.2	1.493	2.423	11.3	19.3
4 21	11 12.29	- 6 6.4	1.564	2.416	15.7	20.8	4 21	11 21.47	- 4 38.6	1.562	2.428	15.0	19.5
499786	2011 <i>CE</i> ₅₃		3 16.1 290°79	1°1/17.0 17			224446	2005 <i>UV</i> ₅₁₀		3 16.1 188°29	0°8/16.9 17		
2 11	12 8.43	- 2 35.4	1.830	2.650	14.3	21.7	2 11	12 6.97	- 3 26.0	2.238	3.047	12.4	21.6
2 21	12 3.51	- 2 30.1	1.747	2.648	10.9	21.5	2 21	12 2.07	- 2 53.8	2.151	3.047	9.4	21.4
3 2	11 56.41	- 2 10.8	1.688	2.646	6.9	21.3	3 2	11 55.39	- 2 8.0	2.089	3.046	5.9	21.2
3 12	11 47.85	- 1 40.9	1.655	2.644	2.6	21.0	3 12	11 47.53	- 1 12.2	2.055	3.044	2.1	20.9
3 22	11 38.76	- 1 4.9	1.650	2.642	2.5	21.0	3 22	11 39.27	- 0 11.4	2.050	3.042	2.2	20.9
4 1	11 30.23	- 0 28.7	1.673	2.640	6.9	21.2	4 1	11 31.45	+ 0 48.6	2.075	3.039	6.0	21.2
4 11	11 23.21	+ 0 2.0	1.722	2.638	10.9	21.5	4 11	11 24.85	+ 1 42.0	2.127	3.036	9.5	21.4
4 21	11 18.35	+ 0 22.9	1.794	2.636	14.5	21.7	4 21	11 20.02	+ 2 24.7	2.204	3.033	12.6	21.6

EPHEMERIDES

3 16.1

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
325152	2008 <i>EC</i> ₁₆₉		3 16.1 148°97	0°1/16.3	18		432215	2009 <i>FE</i> ₂₈		3 16.1 12°93	5°9/ 9.6	17	
2 11	12 7.03	- 3 15.5	2.549	3.353	11.3	21.2	2 11	12 6.31	+17 31.2	2.079	2.933	11.5	20.6
2 21	12 1.82	- 2 9.6	2.472	3.366	8.4	21.0	2 21	12 1.69	+18 36.1	2.018	2.934	8.8	20.5
3 2	11 55.09	- 0 50.8	2.421	3.379	5.1	20.8	3 2	11 55.18	+19 38.5	1.983	2.935	6.5	20.3
3 12	11 47.42	+ 0 36.2	2.400	3.391	1.6	20.6	3 12	11 47.50	+20 31.0	1.974	2.936	5.9	20.3
3 22	11 39.49	+ 2 5.6	2.411	3.402	2.1	20.6	3 22	11 39.49	+21 7.3	1.993	2.938	7.5	20.4
4 1	11 32.02	+ 3 31.0	2.452	3.412	5.5	20.9	4 1	11 32.08	+21 23.5	2.039	2.940	10.1	20.5
4 11	11 25.66	+ 4 47.0	2.523	3.421	8.7	21.1	4 11	11 26.06	+21 18.3	2.107	2.942	12.8	20.7
4 21	11 20.86	+ 5 49.9	2.619	3.429	11.4	21.3	4 21	11 21.96	+20 53.1	2.196	2.944	15.2	20.9
335840	2007 <i>MM</i> ₂		3 16.1 285°58	3°4/12.2	17		382290	2012 <i>UJ</i> ₃₆		3 16.1 117°59	2°0/18.7	17	
2 11	12 3.74	+ 6 30.8	1.879	2.731	12.6	20.4	2 11	12 4.00	- 8 0.5	2.477	3.268	11.9	21.1
2 21	12 0.09	+ 8 0.2	1.793	2.716	9.3	20.2	2 21	11 59.70	- 7 36.8	2.395	3.275	9.2	20.9
3 2	11 54.39	+ 9 40.7	1.733	2.701	5.7	19.9	3 2	11 53.89	- 6 58.3	2.338	3.283	6.2	20.7
3 12	11 47.29	+ 11 24.1	1.700	2.686	3.4	19.7	3 12	11 47.11	- 6 7.5	2.308	3.290	3.1	20.5
3 22	11 39.63	+ 13 1.1	1.696	2.670	5.6	19.8	3 22	11 40.03	- 5 8.7	2.307	3.297	2.4	20.5
4 1	11 32.39	+ 14 23.0	1.719	2.655	9.4	20.0	4 1	11 33.37	- 4 6.8	2.336	3.304	5.1	20.7
4 11	11 26.51	+ 15 23.8	1.767	2.640	13.1	20.2	4 11	11 27.79	- 3 7.5	2.393	3.311	8.2	20.9
4 21	11 22.63	+ 16 1.2	1.835	2.625	16.3	20.4	4 21	11 23.74	- 2 15.2	2.474	3.317	11.0	21.1
289417	2005 <i>DF</i>		3 16.1 313°32	0°1/16.1	17		22919	Shuwan		3 16.1 62°96	2°8/13.5	18	
2 11	12 6.16	- 1 19.6	1.454	2.295	16.2	20.9	2 11	12 6.56	+ 4 15.1	1.451	2.306	15.5	18.7
2 21	12 2.36	- 0 45.7	1.373	2.287	12.2	20.6	2 21	12 2.42	+ 5 31.6	1.393	2.317	11.3	18.4
3 2	11 55.98	+ 0 6.6	1.314	2.279	7.5	20.3	3 2	11 55.84	+ 7 0.5	1.358	2.328	6.7	18.2
3 12	11 47.79	+ 1 11.7	1.279	2.271	2.2	20.0	3 12	11 47.72	+ 8 32.4	1.349	2.339	3.0	18.0
3 22	11 38.91	+ 2 21.7	1.271	2.263	3.2	20.0	3 22	11 39.20	+ 9 56.9	1.367	2.350	5.2	18.2
4 1	11 30.64	+ 3 27.4	1.289	2.256	8.5	20.3	4 1	11 31.51	+ 11 4.8	1.411	2.361	9.7	18.4
4 11	11 24.17	+ 4 20.3	1.331	2.248	13.4	20.6	4 11	11 25.68	+ 11 50.4	1.478	2.372	13.9	18.7
4 21	11 20.25	+ 4 55.3	1.393	2.242	17.5	20.8	4 21	11 22.29	+ 12 12.3	1.565	2.384	17.4	19.0
82548	2001 <i>OH</i> ₆₉		3 16.1 143°22	1°4/17.8	18		366969	2005 <i>WT</i> ₁₀₁		3 16.1 152°83	4°7/22.1	18	
2 11	12 8.78	- 5 42.2	2.484	3.276	11.9	20.2	2 11	12 7.81	- 17 18.0	2.567	3.298	13.1	21.2
2 21	12 3.14	- 5 16.7	2.407	3.290	9.1	20.0	2 21	12 2.53	- 17 16.0	2.479	3.308	10.8	21.0
3 2	11 55.90	- 4 43.0	2.355	3.304	5.8	19.8	3 2	11 55.60	- 16 54.6	2.414	3.318	8.3	20.9
3 12	11 47.67	- 3 49.0	2.332	3.318	2.5	19.6	3 12	11 47.63	- 16 14.5	2.376	3.327	5.9	20.8
3 22	11 39.16	- 2 54.0	2.339	3.330	2.1	19.6	3 22	11 39.31	- 15 18.3	2.366	3.335	4.7	20.7
4 1	11 31.15	- 1 58.2	2.377	3.342	5.3	19.8	4 1	11 31.44	- 14 10.6	2.385	3.342	5.8	20.8
4 11	11 24.31	- 1 6.6	2.443	3.352	8.4	20.0	4 11	11 24.71	- 12 57.8	2.433	3.349	8.2	20.9
4 21	11 19.12	- 0 23.0	2.534	3.362	11.2	20.2	4 21	11 19.62	- 11 45.8	2.507	3.355	10.7	21.1
132826	2002 <i>QR</i> ₈₇		3 16.1 276°80	0°5/15.6	17		469166	2015 <i>KP</i> ₆₇		3 16.1 219°49	5°3/ 9.0	17	
2 11	12 5.07	+ 0 26.9	2.057	2.887	12.6	20.7	2 11	12 5.42	+ 18 30.1	2.555	3.402	9.9	21.2
2 21	12 0.82	+ 1 5.1	1.973	2.883	9.3	20.5	2 21	12 0.77	+ 19 36.3	2.489	3.399	7.6	21.1
3 2	11 54.71	+ 1 55.2	1.915	2.879	5.6	20.3	3 2	11 54.54	+ 20 40.1	2.449	3.396	5.8	21.0
3 12	11 47.37	+ 2 52.5	1.883	2.875	1.6	20.0	3 12	11 47.31	+ 21 35.1	2.437	3.393	5.4	20.9
3 22	11 39.60	+ 3 51.0	1.881	2.871	2.7	20.1	3 22	11 39.78	+ 22 16.0	2.454	3.390	6.8	21.0
4 1	11 32.29	+ 4 44.7	1.907	2.867	6.8	20.3	4 1	11 32.70	+ 22 39.4	2.497	3.386	9.0	21.1
4 11	11 26.26	+ 5 28.1	1.959	2.863	10.5	20.5	4 11	11 26.74	+ 22 43.7	2.565	3.383	11.3	21.3
4 21	11 22.08	+ 5 57.9	2.034	2.859	13.6	20.7	4 21	11 22.37	+ 22 29.8	2.654	3.379	13.3	21.4
467019	2016 <i>CY</i> ₁₄₉		3 16.1 197°03	2°2/13.8	18		416137	2002 <i>QF</i> ₁₁₇		3 16.1 230°12	2°4/18.3	16	
2 11	12 8.49	+ 5 31.1	2.162	2.997	11.9	21.3	2 11	12 8.41	- 6 57.8	1.839	2.643	14.9	22.1
2 21	12 3.25	+ 6 23.5	2.081	2.994	8.7	21.1	2 21	12 3.61	- 6 47.2	1.748	2.636	11.6	21.8
3 2	11 56.14	+ 7 23.7	2.025	2.990	5.2	20.8	3 2	11 56.57	- 6 18.1	1.679	2.629	7.8	21.6
3 12	11 47.79	+ 8 25.9	1.998	2.986	2.3	20.6	3 12	11 47.99	- 5 33.0	1.637	2.621	3.8	21.3
3 22	11 39.01	+ 9 23.8	2.000	2.982	4.0	20.7	3 22	11 38.78	- 4 36.6	1.622	2.613	3.0	21.2
4 1	11 30.71	+ 10 11.7	2.031	2.977	7.6	21.0	4 1	11 30.06	- 3 35.5	1.635	2.604	6.8	21.5
4 11	11 23.71	+ 10 45.3	2.089	2.971	11.0	21.1	4 11	11 22.82	- 2 37.3	1.675	2.595	10.9	21.7
4 21	11 18.58	+ 11 2.8	2.169	2.964	13.9	21.3	4 21	11 17.75	- 1 48.1	1.738	2.586	14.6	21.9
351738	2006 <i>DD</i> ₂₃		3 16.1 354°23	2°9/13.5	18		59174	1999 <i>AT</i> ₅		3 16.1 275°72	3°5/18.6	18	
2 11	12 5.34	+ 3 20.9	1.354	2.213	16.2	20.4	2 11	12 12.34	- 6 45.4	1.786	2.586	15.5	18.2
2 21	12 1.80	+ 4 45.3	1.286	2.212	11.8	20.1	2 21	12 6.64	- 7 21.0	1.695	2.579	12.2	17.9
3 2	11 55.63	+ 6 26.2	1.241	2.211	7.0	19.8	3 2	11 58.47	- 7 41.6	1.627	2.572	8.4	17.7
3 12	11 47.69	+ 8 13.5	1.220	2.210	3.0	19.6	3 12	11 48.57	- 7 47.5	1.585	2.565	4.7	17.4
3 22	11 39.15	+ 9 54.9	1.226	2.210	5.6	19.7	3 22	11 37.95	- 7 40.8	1.570	2.558	3.8	17.4
4 1	11 31.37	+ 11 19.3	1.258	2.210	10.5	20.0	4 1	11 27.83	- 7 25.6	1.584	2.551	7.2	17.6
4 11	11 25.51	+ 12 18.9	1.312	2.210	15.0	20.2	4 11	11 19.31	- 7 7.8	1.624	2.544	11.2	17.8
4 21	11 22.26	+ 12 51.3	1.385	2.210	18.9	20.5	4 21	11 13.17	- 6 52.6	1.686	2.536	14.9	18.0
430674	2003 <i>UJ</i> ₃₃₂		3 16.1 273°25	2°0/18.4	17		317177	2001 <i>XU</i> ₁₂₃		3 16.1 65°47	1°3/14.7	18	
2 11	12 4.03	- 8 13.8	2.078	2.877	13.6	22.0	2 11	12 5.33	+ 3 14.2	2.153	2.988	11.9	20.7
2 21	12 0.19	- 7 32.5	1.973	2.858	10.6	21.7	2 21	12 0.79	+ 3 55.1	2.091	3.004	8.7	20.5
3 2	11 54.44	- 6 30.8	1.891	2.839	7.1	21.5	3 2	11 54.57	+ 4 44.2	2.053	3.019	5.1	20.3
3 12	11 47.33	- 5 11.7	1.835	2.820	3.4	21.2	3 12	11 47.33	+ 5 36.3	2.044	3.035	1.7	20.1
3 22	11 39.63	- 3 40.6	1.809	2.800	2.6	21.1	3 22	11 39.84	+ 6 26.0	2.064	3.051	3.1	20.2
4 1	11 32.27	- 2 5.2	1.811	2.780	6.2	21.3	4 1	11 32.93	+ 7 8.1	2.112	3.067	6.7	20.5
4 11	11 26.11	- 0 33.8	1.841	2.760	10.2	21.5	4 11	11 27.29	+ 7 38.6	2.187	3.083	9.9	20.7
4 21	11 21.79	+ 0 46.8	1.895	2.740	13.7	21.7	4 21	11 23.39	+ 7 55.5	2.285	3.099	12.7	20.9
385908	2006 <i>SU</i> ₃₉₆		3 16.1 44°23	1°9/18.1	17		384215	2009 <i>CX</i> ₃₈					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
503116	2015 <i>FF</i> ₃₂₉		3 16.1 250°97	5°1/ 9.9	17		209060	2003 <i>QU</i> ₅₀		3 16.1 56°05	2°7/14.2	18	R
2 11	12 6.02	+15 48.7	2.301	3.150	10.7	21.4	2 11	12 11.62	+ 6 39.2	1.451	2.302	15.7	19.6
2 21	12 1.38	+16 55.0	2.229	3.144	8.1	21.2	2 21	12 6.26	+ 7 7.7	1.387	2.308	11.6	19.3
3 2	11 55.00	+18 0.9	2.183	3.138	5.8	21.0	3 2	11 58.23	+ 7 43.9	1.345	2.313	6.9	19.1
3 12	11 47.48	+18 59.6	2.165	3.131	5.1	21.0	3 12	11 48.48	+ 8 20.6	1.329	2.319	3.0	18.8
3 22	11 39.60	+19 45.1	2.175	3.125	6.7	21.1	3 22	11 38.26	+ 8 50.5	1.340	2.324	5.0	19.0
4 1	11 32.18	+20 13.0	2.213	3.118	9.3	21.2	4 1	11 28.91	+ 9 7.2	1.376	2.330	9.6	19.3
4 11	11 26.00	+20 21.2	2.275	3.111	11.9	21.4	4 11	11 21.58	+ 9 7.3	1.437	2.336	13.9	19.5
4 21	11 21.55	+20 10.2	2.358	3.104	14.3	21.5	4 21	11 16.93	+ 8 49.9	1.518	2.342	17.5	19.8
177296	2003 <i>XK</i> ₁₉		3 16.1 140°16	2°6/13.8	18		47362	1999 <i>XG</i> ₇₅		3 16.1 182°94	1°6/14.5	18	
2 11	12 13.55	+ 7 51.1	2.059	2.890	12.5	20.8	2 11	12 9.01	+ 3 25.1	2.059	2.890	12.5	19.9
2 21	12 6.92	+ 8 23.9	1.993	2.904	9.2	20.6	2 21	12 3.72	+ 4 15.4	1.980	2.891	9.2	19.7
3 2	11 58.29	+ 9 1.0	1.952	2.916	5.5	20.4	3 2	11 56.47	+ 5 15.6	1.926	2.891	5.5	19.5
3 12	11 48.44	+ 9 36.9	1.941	2.928	2.7	20.3	3 12	11 47.94	+ 6 19.8	1.900	2.891	1.9	19.2
3 22	11 38.29	+10 6.2	1.959	2.939	4.3	20.4	3 22	11 38.99	+ 7 21.5	1.904	2.890	3.6	19.3
4 1	11 28.85	+10 24.4	2.007	2.950	7.8	20.6	4 1	11 30.56	+ 8 14.5	1.937	2.888	7.4	19.6
4 11	11 20.96	+10 29.0	2.081	2.960	11.1	20.8	4 11	11 23.51	+ 8 54.0	1.996	2.886	11.0	19.8
4 21	11 15.15	+10 19.4	2.178	2.969	14.0	21.1	4 21	11 18.41	+ 9 17.6	2.078	2.883	14.1	20.0
29418	1997 <i>AH</i> ₁₃		3 16.1 112°82	3°3/11.8	18		154483	2003 <i>EO</i> ₂₈		3 16.1 271°30	5°7/11.2	18	
2 11	12 6.65	+12 2.1	2.706	3.545	9.6	19.3	2 11	12 18.82	+18 24.2	2.208	3.036	11.9	19.3
2 21	12 1.43	+12 54.2	2.650	3.563	7.1	19.2	2 21	12 11.20	+18 55.9	2.104	3.005	9.3	19.0
3 2	11 54.82	+13 47.1	2.621	3.582	4.6	19.1	3 2	12 1.16	+19 24.1	2.027	2.974	6.8	18.8
3 12	11 47.39	+14 35.7	2.622	3.600	3.3	19.0	3 12	11 49.39	+19 41.5	1.978	2.942	5.7	18.7
3 22	11 39.79	+15 15.4	2.653	3.617	4.7	19.1	3 22	11 36.88	+19 42.4	1.960	2.910	7.2	18.7
4 1	11 32.68	+15 43.0	2.713	3.634	7.1	19.3	4 1	11 24.77	+19 22.9	1.971	2.876	10.2	18.8
4 11	11 26.66	+15 56.4	2.799	3.651	9.5	19.5	4 11	11 14.17	+18 42.6	2.008	2.842	13.3	19.0
4 21	11 22.14	+15 55.7	2.908	3.667	11.6	19.6	4 21	11 5.83	+17 43.3	2.067	2.807	16.2	19.1
271899	2004 <i>VQ</i> ₆₆		3 16.1 222°90	1°9/18.1	17		134629	1999 <i>TK</i> ₂₈₆		3 16.1 81°56	2°7/18.4	18	
2 11	12 6.04	- 6 21.3	2.096	2.899	13.4	21.0	2 11	12 10.21	- 7 0.2	1.582	2.392	16.6	19.8
2 21	12 1.57	- 6 0.9	2.006	2.895	10.3	20.8	2 21	12 4.98	- 6 56.3	1.518	2.409	12.9	19.6
3 2	11 55.20	- 5 24.0	1.940	2.890	6.8	20.6	3 2	11 57.35	- 6 32.5	1.475	2.426	8.5	19.4
3 12	11 47.57	- 4 33.7	1.900	2.886	3.1	20.3	3 12	11 48.21	- 5 51.9	1.458	2.442	4.2	19.1
3 22	11 39.47	- 3 34.6	1.890	2.881	2.5	20.3	3 22	11 38.68	- 5 0.0	1.468	2.459	3.3	19.1
4 1	11 31.80	- 2 32.7	1.908	2.876	6.0	20.5	4 1	11 29.96	- 4 4.5	1.506	2.475	7.2	19.4
4 11	11 25.41	- 1 34.6	1.953	2.871	9.7	20.7	4 11	11 23.08	- 3 13.0	1.568	2.491	11.3	19.7
4 21	11 20.86	- 0 45.4	2.021	2.865	13.0	20.9	4 21	11 18.63	- 2 31.3	1.653	2.507	14.9	19.9
341708	2007 <i>VV</i> ₁₈₀		3 16.1 86°43	5°0/10.8	18		331959	2004 <i>VG</i> ₇₅		3 16.1 205°60	5°2/ 9.3	17	
2 11	12 8.52	+15 53.8	2.197	3.043	11.2	20.7	2 11	12 7.20	+16 22.2	2.445	3.290	10.3	21.1
2 21	12 3.14	+16 44.0	2.140	3.054	8.5	20.6	2 21	12 2.19	+17 43.5	2.372	3.284	7.9	20.9
3 2	11 55.98	+17 32.3	2.109	3.064	5.9	20.4	3 2	11 55.48	+19 4.6	2.327	3.278	5.8	20.8
3 12	11 47.75	+18 12.3	2.105	3.074	5.0	20.4	3 12	11 47.65	+20 18.3	2.311	3.272	5.3	20.7
3 22	11 39.28	+18 38.6	2.130	3.084	6.4	20.5	3 22	11 39.44	+21 18.2	2.323	3.265	6.8	20.8
4 1	11 31.45	+18 47.9	2.183	3.094	9.0	20.7	4 1	11 31.66	+21 59.9	2.364	3.257	9.3	20.9
4 11	11 25.00	+18 39.1	2.260	3.104	11.7	20.8	4 11	11 25.06	+22 21.1	2.429	3.249	11.8	21.1
4 21	11 20.41	+18 13.2	2.358	3.114	14.0	21.0	4 21	11 20.16	+22 22.2	2.515	3.240	14.0	21.3
137020	1998 <i>TL</i>		3 16.1 107°90	0°5/15.7	18		31565	1999 <i>FO</i> ₉		3 16.1 94°63	1°4/14.8	18	
2 11	12 11.87	+ 1 8.3	1.944	2.766	13.5	20.5	2 11	12 9.95	+ 1 16.8	1.524	2.364	15.7	17.9
2 21	12 5.71	+ 1 33.3	1.883	2.788	10.0	20.3	2 21	12 4.75	+ 2 20.5	1.469	2.384	11.5	17.7
3 2	11 57.57	+ 2 8.5	1.846	2.809	5.9	20.1	3 2	11 57.17	+ 3 38.3	1.438	2.405	6.8	17.5
3 12	11 48.22	+ 2 49.1	1.838	2.829	1.7	19.9	3 12	11 48.14	+ 5 2.1	1.433	2.424	2.1	17.2
3 22	11 38.63	+ 3 29.6	1.859	2.849	2.8	20.0	3 22	11 38.82	+ 6 22.4	1.456	2.444	3.9	17.4
4 1	11 29.79	+ 4 4.7	1.909	2.868	6.8	20.3	4 1	11 30.39	+ 7 30.7	1.506	2.463	8.6	17.7
4 11	11 22.52	+ 4 30.1	1.986	2.887	10.5	20.6	4 11	11 23.85	+ 8 21.0	1.581	2.481	12.7	18.0
4 21	11 17.34	+ 4 43.3	2.086	2.905	13.6	20.8	4 21	11 19.75	+ 8 50.8	1.677	2.499	16.2	18.3
228363	2000 <i>UD</i> ₈₈		3 16.1 237°57	3°0/12.9	18		417666	2006 <i>YA</i> ₅₃		3 16.1 108°77	1°1/17.2	18	
2 11	12 8.86	+ 8 44.9	2.284	3.121	11.2	20.8	2 11	12 8.99	- 3 52.3	1.956	2.767	13.9	22.0
2 21	12 3.55	+ 9 32.9	2.193	3.107	8.3	20.5	2 21	12 3.67	- 3 28.4	1.888	2.783	10.5	21.8
3 2	11 56.38	+10 26.0	2.128	3.092	5.1	20.3	3 2	11 56.40	- 2 49.8	1.844	2.800	6.6	21.6
3 12	11 47.92	+11 18.6	2.091	3.076	3.0	20.1	3 12	11 47.92	- 2 0.4	1.827	2.816	2.5	21.3
3 22	11 38.97	+12 4.7	2.084	3.059	4.6	20.2	3 22	11 39.12	- 1 5.8	1.839	2.831	2.3	21.3
4 1	11 30.41	+12 39.3	2.106	3.042	7.9	20.4	4 1	11 30.98	- 0 12.2	1.880	2.846	6.3	21.6
4 11	11 23.06	+12 58.9	2.154	3.025	11.2	20.6	4 11	11 24.31	+ 0 34.6	1.948	2.861	10.0	21.9
4 21	11 17.52	+13 2.2	2.225	3.007	14.0	20.7	4 21	11 19.65	+ 1 10.6	2.039	2.875	13.2	22.1
500680	2012 <i>VD</i> ₇₃		3 16.1 67°10	2°3/18.9	17		466978	2016 <i>BV</i> ₁₆		3 16.1 58°44	0°4/16.4	18	
2 11	12 3.25	- 8 58.8	2.260	3.053	12.9	21.5	2 11	12 10.22	- 1 21.1	1.341	2.181	17.4	21.2
2 21	11 59.30	- 8 30.0	2.181	3.061	10.0	21.3	2 21	12 5.22	- 1 0.5	1.287	2.199	13.0	21.0
3 2	11 53.72	- 7 44.1	2.126	3.070	6.8	21.1	3 2	11 57.57	- 0 22.9	1.255	2.219	7.9	20.8
3 12	11 47.11	- 6 44.0	2.098	3.079	3.5	20.9	3 12	11 48.28	+ 0 25.8	1.247	2.238	2.5	20.5
3 22	11 40.18	- 5 34.5	2.098	3.088	2.6	20.8	3 22	11 38.65	+ 1 17.8	1.265	2.258	3.1	20.6
4 1	11 33.72	- 4 21.6	2.127	3.097	5.4	21.0	4 1	11 30.03	+ 2 4.9	1.310	2.278	8.3	20.9
4 11	11 28.43	- 3 11.8	2.184	3.106	8.7	21.2	4 11	11 23.52	+ 2 40.3	1.378	2.297	12.9	21.3
4 21	11 24.77	- 2 10.3	2.266	3.114	11.6	21.5	4 21	11 19.69	+ 3 0.2	1.467	2.317	16.7	21.5
298991	2004 <i>XN</i> ₂₄		3 16.1 67°95	2°4/14.2	18		66811	1999 <i>UA</i> ₆		3 16.1 194°75			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
436002	2009 <i>FF</i> ₅₁		3 16.1	3 ⁰⁰	6 ⁶ /11.0	17	425306	2009 <i>YX</i> ₁₂		3 16.1	74 ⁰⁶	3 ² /19.1	18
2 11	12 10.68	+18 38.7	1.689	2.544	13.6	20.2	2 11	12 7.83	- 8 42.9	1.920	2.715	14.7	20.9
2 21	12 5.29	+19 10.0	1.627	2.543	10.5	20.0	2 21	12 2.95	- 8 46.9	1.846	2.726	11.5	20.7
3 2	11 57.52	+19 36.0	1.590	2.543	7.7	19.8	3 2	11 56.05	- 8 33.2	1.795	2.737	7.9	20.5
3 12	11 48.28	+19 48.7	1.578	2.544	6.6	19.7	3 12	11 47.86	- 8 3.6	1.770	2.749	4.4	20.3
3 22	11 38.67	+19 42.5	1.592	2.546	8.2	19.8	3 22	11 39.27	- 7 22.0	1.772	2.760	3.4	20.3
4 1	11 29.91	+19 14.5	1.633	2.549	11.2	20.0	4 1	11 31.29	- 6 34.3	1.803	2.771	6.3	20.5
4 11	11 22.98	+18 25.1	1.696	2.553	14.3	20.2	4 11	11 24.77	- 5 46.9	1.860	2.783	9.9	20.7
4 21	11 18.45	+17 17.3	1.779	2.557	17.1	20.4	4 21	11 20.28	- 5 5.4	1.940	2.794	13.1	20.9
466655	2014 <i>WT</i> ₇₆		3 16.1	24 ³⁸	1 ⁰ /15.2	17	503222	2015 <i>HB</i> ₅₁		3 16.1	230 ⁰⁹	4 ⁸ / 9.9	17
2 11	12 6.24	+ 1 12.2	1.540	2.385	15.3	21.9	2 11	12 6.38	+16 28.2	2.537	3.382	10.0	20.9
2 21	12 2.18	+ 1 55.6	1.471	2.388	11.3	21.6	2 21	12 1.52	+17 28.3	2.463	3.375	7.6	20.7
3 2	11 55.76	+ 2 53.4	1.424	2.391	6.7	21.4	3 2	11 55.06	+18 27.4	2.415	3.368	5.5	20.6
3 12	11 47.79	+ 3 59.0	1.403	2.395	1.9	21.1	3 12	11 47.55	+19 19.3	2.396	3.360	4.8	20.5
3 22	11 39.33	+ 5 4.3	1.409	2.399	3.6	21.2	3 22	11 39.70	+19 58.9	2.406	3.353	6.3	20.6
4 1	11 31.57	+ 6 1.0	1.442	2.403	8.4	21.5	4 1	11 32.28	+20 22.3	2.444	3.345	8.7	20.8
4 11	11 25.54	+ 6 42.8	1.498	2.408	12.7	21.7	4 11	11 25.98	+20 27.7	2.506	3.337	11.1	20.9
4 21	11 21.87	+ 7 6.3	1.576	2.412	16.4	22.0	4 21	11 21.29	+20 15.5	2.590	3.329	13.3	21.1
296378	2009 <i>FU</i> ₄₆		3 16.1	286 ⁹⁶	0 ¹ /16.1	17	154507	2003 <i>FT</i> ₄₇		3 16.1	89 ¹⁸	0 ² /16.3	17
2 11	12 7.22	- 1 0.6	1.555	2.392	15.6	21.3	2 11	12 9.13	- 0 31.9	1.800	2.627	14.2	20.6
2 21	12 3.18	- 0 28.4	1.462	2.374	11.8	21.0	2 21	12 4.00	- 0 15.7	1.728	2.634	10.6	20.4
3 2	11 56.57	+ 0 21.4	1.391	2.356	7.3	20.7	3 2	11 56.72	+ 0 13.1	1.680	2.642	6.5	20.1
3 12	11 48.09	+ 1 23.8	1.346	2.337	2.2	20.3	3 12	11 48.07	+ 0 50.1	1.659	2.650	2.0	19.9
3 22	11 38.80	+ 2 31.6	1.327	2.319	3.2	20.4	3 22	11 39.00	+ 1 30.0	1.666	2.658	2.6	19.9
4 1	11 29.96	+ 3 35.9	1.335	2.300	8.4	20.6	4 1	11 30.60	+ 2 6.8	1.701	2.666	7.0	20.2
4 11	11 22.78	+ 4 28.6	1.367	2.282	13.3	20.8	4 11	11 23.77	+ 2 35.1	1.762	2.673	11.0	20.5
4 21	11 18.10	+ 5 4.2	1.420	2.264	17.5	21.1	4 21	11 19.11	+ 2 51.7	1.845	2.681	14.4	20.7
166729	2002 <i>TH</i> ₂₅₁		3 16.1	144 ⁵⁰	4 ³ /11.0	17	175366	2005 <i>QQ</i> ₁₄₇		3 16.1	225 ⁰⁴	3 ² /12.4	18
2 11	12 8.59	+15 8.6	2.520	3.361	10.2	20.3	2 11	12 6.60	+10 56.8	2.420	3.262	10.5	20.1
2 21	12 3.03	+15 57.7	2.457	3.369	7.6	20.1	2 21	12 1.70	+11 37.5	2.344	3.260	7.7	19.9
3 2	11 55.88	+16 45.7	2.421	3.377	5.3	20.0	3 2	11 55.16	+12 20.3	2.295	3.258	4.9	19.7
3 12	11 47.76	+17 27.0	2.414	3.384	4.3	19.9	3 12	11 47.58	+13 0.2	2.274	3.256	3.2	19.6
3 22	11 39.40	+17 56.8	2.436	3.391	5.7	20.0	3 22	11 39.68	+13 32.1	2.282	3.253	4.7	19.7
4 1	11 31.57	+18 11.8	2.487	3.398	8.1	20.2	4 1	11 32.23	+13 52.1	2.319	3.251	7.5	19.8
4 11	11 24.94	+18 10.7	2.563	3.404	10.6	20.4	4 11	11 25.94	+13 57.9	2.382	3.249	10.4	20.0
4 21	11 19.97	+17 54.0	2.661	3.410	12.8	20.5	4 21	11 21.30	+13 49.1	2.467	3.246	12.9	20.2
420301	2011 <i>WH</i> ₁₃₅		3 16.1	103 ³⁸	0 ¹ /16.1	18	336554	2009 <i>FP</i> ₃₉		3 16.1	53 ³⁶	0 ² /16.4	18
2 11	12 10.81	- 1 8.6	1.686	2.512	15.1	22.2	2 11	12 3.03	- 3 58.9	1.927	2.750	13.6	20.5
2 21	12 5.23	- 0 33.2	1.625	2.531	11.2	22.0	2 21	11 59.28	- 2 47.4	1.866	2.770	10.1	20.3
3 2	11 57.42	+ 0 16.6	1.588	2.550	6.8	21.7	3 2	11 53.76	- 1 19.3	1.829	2.790	6.2	20.1
3 12	11 48.24	+ 1 15.2	1.577	2.568	2.0	21.5	3 12	11 47.17	+ 0 19.0	1.820	2.811	1.9	19.9
3 22	11 38.74	+ 2 15.8	1.595	2.586	2.8	21.6	3 22	11 40.32	+ 1 59.6	1.840	2.832	2.4	20.0
4 1	11 30.06	+ 3 10.9	1.641	2.604	7.4	21.9	4 1	11 34.09	+ 3 34.2	1.888	2.853	6.5	20.3
4 11	11 23.12	+ 3 54.5	1.712	2.621	11.5	22.2	4 11	11 29.21	+ 4 55.7	1.964	2.874	10.1	20.5
4 21	11 18.49	+ 4 23.4	1.806	2.637	14.9	22.4	4 21	11 26.15	+ 6 0.0	2.063	2.895	13.2	20.8
471359	2011 <i>RE</i> ₁₄		3 16.1	229 ⁰⁵	0 ⁴ /16.7	17	464322	2016 <i>AK</i> ₁₀₈		3 16.1	351 ⁸⁹	0 ⁷ /15.7	16
2 11	12 2.54	- 3 57.2	2.442	3.253	11.4	21.7	2 11	12 9.91	+ 2 27.1	1.325	2.175	16.9	20.9
2 21	11 58.73	- 3 0.7	2.353	3.250	8.6	21.5	2 21	12 5.35	+ 2 30.5	1.252	2.172	12.7	20.6
3 2	11 53.40	- 1 49.9	2.288	3.246	5.3	21.3	3 2	11 57.91	+ 2 46.1	1.201	2.169	7.7	20.3
3 12	11 47.06	- 0 29.0	2.253	3.243	1.8	21.0	3 12	11 48.50	+ 3 8.8	1.175	2.166	2.2	20.0
3 22	11 40.37	+ 0 56.3	2.247	3.239	2.0	21.0	3 22	11 38.40	+ 3 31.9	1.173	2.165	3.7	20.1
4 1	11 34.04	+ 2 19.8	2.271	3.235	5.6	21.3	4 1	11 29.09	+ 3 48.8	1.197	2.163	9.1	20.4
4 11	11 28.75	+ 3 35.5	2.323	3.231	8.9	21.5	4 11	11 21.86	+ 3 53.8	1.245	2.163	14.0	20.7
4 21	11 24.97	+ 4 38.8	2.400	3.227	11.8	21.7	4 21	11 17.49	+ 3 44.3	1.312	2.163	18.2	20.9
221188	2005 <i>UJ</i> ₃₇		3 16.1	131 ⁸¹	0 ⁴ /16.6	18	447684	2007 <i>BA</i> ₁₁		3 16.1	4 ⁸⁸	0 ⁴ /15.9	18
2 11	12 7.64	- 2 41.3	2.263	3.073	12.3	21.4	2 11	12 11.10	+ 1 7.2	1.191	2.043	18.4	21.1
2 21	12 2.47	- 2 2.2	2.191	3.088	9.2	21.3	2 21	12 6.47	+ 1 15.3	1.123	2.043	13.8	20.8
3 2	11 55.61	- 1 10.4	2.144	3.102	5.6	21.1	3 2	11 58.69	+ 1 38.9	1.076	2.043	8.4	20.5
3 12	11 47.70	- 0 10.3	2.125	3.115	1.9	20.8	3 12	11 48.75	+ 2 12.4	1.052	2.043	2.4	20.1
3 22	11 39.50	+ 0 53.0	2.136	3.128	2.1	20.9	3 22	11 38.07	+ 2 48.1	1.052	2.044	3.7	20.2
4 1	11 31.84	+ 1 53.6	2.177	3.140	5.9	21.1	4 1	11 28.31	+ 3 17.8	1.078	2.045	9.6	20.5
4 11	11 25.44	+ 2 46.1	2.246	3.152	9.2	21.4	4 11	11 20.88	+ 3 34.5	1.125	2.047	14.9	20.8
4 21	11 20.77	+ 3 27.3	2.339	3.163	12.1	21.6	4 21	11 16.57	+ 3 34.7	1.192	2.049	19.3	21.1
308176	2005 <i>CY</i> ₂₀		3 16.1	30 ³⁸	3 ⁰ /13.9	18	244764	2003 <i>SO</i> ₁₀₈		3 16.1	205 ³³	2 ¹ /18.1	17
2 11	12 7.41	+ 5 20.6	1.251	2.114	16.9	20.1	2 11	12 8.93	- 6 47.7	1.930	2.731	14.4	20.8
2 21	12 3.41	+ 6 12.1	1.195	2.122	12.4	19.9	2 21	12 3.91	- 6 27.6	1.840	2.727	11.2	20.6
3 2	11 56.62	+ 7 15.0	1.160	2.130	7.4	19.6	3 2	11 56.75	- 5 49.4	1.773	2.722	7.4	20.4
3 12	11 48.05	+ 8 20.2	1.149	2.139	3.2	19.4	3 12	11 48.12	- 4 55.8	1.732	2.717	3.5	20.1
3 22	11 39.02	+ 9 17.6	1.164	2.149	5.5	19.5	3 22	11 38.94	- 3 52.0	1.720	2.711	2.7	20.0
4 1	11 30.94	+ 9 58.7	1.203	2.159	10.4	19.8	4 1	11 30.23	- 2 44.8	1.736	2.704	6.6	20.3
4 11	11 25.00	+10 18.3	1.265	2.170	14.9	20.1	4 11	11 22.95	- 1 41.5	1.780	2.697	10.6	20.5
4 21	11 21.82	+10 15.5	1.345	2.181	18.7	20.4	4 21	11 17.77	- 0 48.1	1.847	2.690	14.1	20.7

EPHEMERIDES

3 16.1

3 16.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
75747	2000 AX ₁₅₃		3 16.1 252°52	4°6/12.6 18			7230	Lutz		3 16.2 136°74	0°8/15.4 18		
2 11	12 12.45	+ 9 53.2	1.478	2.332	15.3	18.4	2 11	12 11.62	+ 1 24.1	1.974	2.796	13.3	18.3
2 21	12 7.16	+10 48.2	1.398	2.319	11.4	18.2	2 21	12 5.63	+ 2 1.2	1.906	2.811	9.8	18.1
3 2	11 59.02	+11 50.0	1.341	2.307	7.3	17.9	3 2	11 57.62	+ 2 49.0	1.863	2.826	5.9	17.9
3 12	11 48.86	+12 49.5	1.310	2.294	4.6	17.7	3 12	11 48.37	+ 3 42.2	1.848	2.839	1.7	17.6
3 22	11 37.91	+13 37.2	1.306	2.281	6.8	17.8	3 22	11 38.79	+ 4 34.7	1.862	2.852	3.0	17.7
4 1	11 27.63	+14 5.5	1.327	2.267	11.2	18.0	4 1	11 29.88	+ 5 20.6	1.906	2.863	7.0	18.0
4 11	11 19.31	+14 10.2	1.371	2.253	15.6	18.2	4 11	11 22.50	+ 5 55.2	1.977	2.874	10.7	18.2
4 21	11 13.78	+13 51.5	1.435	2.238	19.4	18.4	4 21	11 17.19	+ 6 16.0	2.070	2.885	13.8	18.5
286012	2001 SY ₁₂₈		3 16.1 135°69	1°0/17.1 18			194673	2001 XQ ₁₉₅		3 16.2 127°12	2°0/17.9 18		
2 11	12 9.22	- 4 42.4	1.625	2.444	15.9	21.1	2 11	12 10.71	- 6 5.9	1.693	2.501	15.8	20.4
2 21	12 4.29	- 3 59.9	1.553	2.453	12.1	20.8	2 21	12 5.31	- 5 47.9	1.621	2.513	12.1	20.2
3 2	11 57.01	- 2 57.5	1.504	2.462	7.6	20.6	3 2	11 57.61	- 5 11.0	1.573	2.525	7.9	20.0
3 12	11 48.19	- 1 40.5	1.481	2.470	2.8	20.3	3 12	11 48.40	- 4 18.8	1.550	2.536	3.5	19.7
3 22	11 38.92	- 0 16.8	1.486	2.478	2.7	20.3	3 22	11 38.76	- 3 17.3	1.555	2.546	2.8	19.7
4 1	11 30.36	+ 1 4.5	1.519	2.486	7.4	20.6	4 1	11 29.83	- 2 14.1	1.588	2.556	7.0	20.0
4 11	11 23.54	+ 2 15.1	1.578	2.493	11.8	20.9	4 11	11 22.63	- 1 16.8	1.647	2.566	11.2	20.2
4 21	11 19.08	+ 3 9.7	1.658	2.499	15.5	21.1	4 21	11 17.77	- 0 31.0	1.729	2.575	14.8	20.5
367130	2006 SF ₃₁₄		3 16.1 319°46	1°2/15.2 17			249822	2001 FY ₁₇₇		3 16.2 329°35	1°1/15.3 17		
2 11	12 5.67	+ 1 31.7	1.406	2.258	16.1	20.8	2 11	12 4.63	+ 0 47.4	1.337	2.191	16.6	20.0
2 21	12 2.17	+ 2 11.0	1.324	2.245	12.0	20.5	2 21	12 1.49	+ 1 30.0	1.258	2.179	12.4	19.7
3 2	11 56.01	+ 3 6.4	1.264	2.232	7.2	20.2	3 2	11 55.65	+ 2 30.6	1.199	2.168	7.5	19.4
3 12	11 47.97	+ 4 11.6	1.228	2.219	2.1	19.8	3 12	11 47.90	+ 3 42.5	1.166	2.157	2.2	19.1
3 22	11 39.17	+ 5 17.9	1.217	2.207	4.0	19.9	3 22	11 39.39	+ 4 56.2	1.157	2.147	4.0	19.1
4 1	11 30.95	+ 6 15.8	1.233	2.196	9.3	20.2	4 1	11 31.51	+ 6 1.6	1.173	2.138	9.4	19.4
4 11	11 24.56	+ 6 57.5	1.271	2.185	14.2	20.4	4 11	11 25.50	+ 6 50.2	1.213	2.130	14.4	19.7
4 21	11 20.78	+ 7 19.1	1.329	2.175	18.4	20.7	4 21	11 22.17	+ 7 17.4	1.271	2.122	18.7	19.9
452349	2001 TA ₁₀₉		3 16.1 143°00	6°8/11.7 18			427305	2014 WO ₂₆₇		3 16.2 285°28	0°5/16.6 17		
2 11	12 23.28	+19 28.7	1.709	2.542	14.6	21.1	2 11	12 5.45	- 3 16.5	1.635	2.465	15.3	21.1
2 21	12 14.52	+19 59.1	1.649	2.552	11.3	20.9	2 21	12 1.74	- 2 31.8	1.542	2.449	11.6	20.8
3 2	12 3.05	+20 22.3	1.614	2.561	8.2	20.8	3 2	11 55.66	- 1 27.0	1.472	2.433	7.3	20.5
3 12	11 49.95	+20 29.9	1.606	2.570	6.8	20.7	3 12	11 47.89	- 0 6.8	1.427	2.418	2.4	20.2
3 22	11 36.57	+20 16.3	1.627	2.578	8.4	20.8	3 22	11 39.40	+ 1 21.0	1.410	2.402	2.8	20.1
4 1	11 24.33	+19 39.6	1.676	2.585	11.4	21.0	4 1	11 31.36	+ 2 47.0	1.420	2.386	7.9	20.4
4 11	11 14.35	+18 41.5	1.750	2.592	14.6	21.2	4 11	11 24.87	+ 4 2.0	1.454	2.371	12.6	20.6
4 21	11 7.23	+17 26.3	1.845	2.598	17.5	21.4	4 21	11 20.70	+ 4 59.7	1.511	2.355	16.6	20.8
286436	2002 AO ₂₉		3 16.1 67°24	8°0/26.3 17			503361	2016 CG ₇		3 16.2 319°28	0°3/16.4 17		
2 11	12 6.24	-25 53.7	2.322	3.005	15.5	20.1	2 11	12 6.81	- 1 0.7	1.371	2.216	16.8	21.2
2 21	12 1.68	-26 29.5	2.243	3.019	13.5	19.9	2 21	12 3.12	- 0 43.2	1.287	2.202	12.8	20.9
3 2	11 55.28	-26 41.0	2.184	3.033	11.4	19.8	3 2	11 56.66	- 0 8.1	1.225	2.190	7.9	20.6
3 12	11 47.67	-26 26.6	2.147	3.047	9.4	19.7	3 12	11 48.22	+ 0 40.1	1.186	2.177	2.5	20.2
3 22	11 39.65	-25 47.3	2.134	3.062	8.2	19.6	3 22	11 38.95	+ 1 34.0	1.173	2.165	3.2	20.2
4 1	11 32.13	-24 47.0	2.148	3.076	8.3	19.7	4 1	11 30.27	+ 2 24.9	1.186	2.154	8.8	20.5
4 11	11 25.92	-23 32.4	2.188	3.090	9.6	19.8	4 11	11 23.47	+ 3 4.7	1.221	2.144	13.9	20.8
4 21	11 21.55	-22 11.1	2.252	3.105	11.5	19.9	4 21	11 19.40	+ 3 28.0	1.276	2.134	18.3	21.0
347469	2012 TG ₃₁₅		3 16.1 67°13	1°5/14.1 18			10293	Pribina		3 16.2 255°83	4°1/20.6 18		
2 11	12 2.54	+ 0 32.1	2.168	3.000	11.9	20.1	2 11	12 6.07	-12 42.5	2.323	3.090	13.3	17.3
2 21	11 58.81	+ 2 12.0	2.101	3.014	8.7	19.9	2 21	12 1.55	-12 52.9	2.227	3.084	10.8	17.1
3 2	11 53.46	+ 4 4.7	2.061	3.027	5.0	19.7	3 2	11 55.24	-12 46.0	2.153	3.077	7.9	16.9
3 12	11 47.10	+ 6 2.7	2.050	3.041	1.7	19.5	3 12	11 47.71	-12 22.2	2.105	3.071	5.2	16.7
3 22	11 40.47	+ 7 57.8	2.069	3.054	3.5	19.6	3 22	11 39.70	-11 43.9	2.085	3.064	4.1	16.6
4 1	11 34.34	+ 9 41.9	2.119	3.068	7.0	19.9	4 1	11 32.05	-10 55.5	2.093	3.057	5.9	16.7
4 11	11 29.40	+11 8.9	2.195	3.082	10.3	20.1	4 11	11 25.55	-10 2.8	2.129	3.051	8.9	16.9
4 21	11 26.10	+12 15.9	2.295	3.095	13.1	20.3	4 21	11 20.76	- 9 11.7	2.190	3.044	11.8	17.0
85600	1998 FU ₉₃		3 16.2 328°62	6°0/10.4 18			73366	2002 KO ₈		3 16.2 192°18	1°0/14.9 17		
2 11	12 8.83	+17 50.5	1.981	2.832	12.1	19.1	2 11	12 5.45	+ 1 42.3	2.341	3.168	11.4	20.2
2 21	12 3.75	+18 36.3	1.910	2.824	9.3	18.9	2 21	12 0.95	+ 2 36.3	2.258	3.167	8.4	20.0
3 2	11 56.59	+19 19.0	1.863	2.815	6.8	18.7	3 2	11 54.79	+ 3 40.5	2.200	3.165	5.0	19.7
3 12	11 48.07	+19 51.4	1.843	2.807	6.0	18.6	3 12	11 47.56	+ 4 50.0	2.172	3.163	1.5	19.5
3 22	11 39.13	+20 7.4	1.850	2.800	7.6	18.7	3 22	11 39.96	+ 5 58.9	2.173	3.160	2.9	19.6
4 1	11 30.79	+20 3.3	1.883	2.792	10.4	18.9	4 1	11 32.77	+ 7 1.3	2.204	3.158	6.5	19.8
4 11	11 23.95	+19 38.2	1.940	2.785	13.3	19.0	4 11	11 26.72	+ 7 52.4	2.261	3.154	9.8	20.0
4 21	11 19.21	+18 53.7	2.017	2.779	15.9	19.2	4 21	11 22.30	+ 8 29.3	2.343	3.151	12.6	20.2
472286	2014 WQ ₇₁		3 16.2 344°62	2°7/13.8 17			264696	2002 AD ₉₆		3 16.2 227°70	6°1/21.5 17		
2 11	12 5.89	+ 5 0.5	1.504	2.359	15.0	20.9	2 11	12 10.19	-15 25.2	1.991	2.746	15.6	20.5
2 21	12 2.06	+ 5 57.2	1.432	2.355	11.0	20.6	2 21	12 4.93	-16 6.5	1.899	2.743	13.0	20.3
3 2	11 55.79	+ 7 5.5	1.383	2.352	6.6	20.4	3 2	11 57.45	-16 27.8	1.829	2.740	10.0	20.1
3 12	11 47.88	+ 8 17.5	1.359	2.349	2.9	20.1	3 12	11 48.41	-16 27.7	1.783	2.737	7.3	20.0
3 22	11 39.40	+ 9 23.9	1.363	2.346	5.1	20.2	3 22	11 38.72	-16 7.3	1.765	2.734	6.1	19.9
4 1	11 31.60	+10 16.4	1.392	2.344	9.6	20.5	4 1	11 29.47	-15 30.5	1.773	2.730	7.5	20.0
4 11	11 25.55	+10 49.3	1.444	2.343	13.9	20.7	4 11	11 21.66	-14 44.1	1.808	2.726	10.4	20.1
4 21	11 21.92	+11 0.6	1.516	2.341	17.5	21.0	4 21	11 15.99	-13 55.1	1.867	2.723	13.4	20.3
292409	2006 ST ₂₈₇		3 16.2 179°66	3°5/20.5 18			236178	2005 VS ₆₀		3 16.2 230°91	1°8/17.7 17		
2 11	12 5.99	-12 22.9	2.754	3.5									

EPHEMERIDES

3 16.2

3 16.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
96367	1997 <i>WK</i> ₅₃		3 16.2 66°75	4°5/12.9	18		158208	2001 <i>SW</i> ₅₇		3 16.2 165°63	2°4/18.4	18	
2 11	12 11.82	+ 9 37.3	1.355	2.214	16.1	19.3	2 11	12 9.81	- 7 56.8	1.752	2.552	15.7	20.8
2 21	12 6.46	+10 30.4	1.304	2.228	11.9	19.0	2 21	12 4.70	- 7 32.5	1.671	2.557	12.2	20.6
3 2	11 58.39	+11 28.4	1.276	2.243	7.4	18.8	3 2	11 57.29	- 6 47.5	1.613	2.561	8.1	20.3
3 12	11 48.64	+12 21.9	1.272	2.257	4.5	18.7	3 12	11 48.36	- 5 44.8	1.581	2.564	4.0	20.1
3 22	11 38.55	+13 2.0	1.295	2.271	6.6	18.8	3 22	11 38.90	- 4 30.4	1.576	2.567	3.0	20.0
4 1	11 29.50	+13 22.4	1.343	2.286	10.8	19.1	4 1	11 30.06	- 3 12.3	1.601	2.569	6.9	20.3
4 11	11 22.62	+13 20.6	1.413	2.301	14.8	19.4	4 11	11 22.84	- 1 59.2	1.651	2.571	11.1	20.5
4 21	11 18.50	+12 57.7	1.503	2.315	18.3	19.7	4 21	11 17.90	- 0 57.5	1.725	2.572	14.7	20.8
469785	2005 <i>QF</i> ₁₆₈		3 16.2 229°89	4°2/21.2	16		2266	Tchaikovsky		3 16.2 83°05	4°0/21.8	18	
2 11	12 6.18	-14 33.5	2.778	3.524	11.9	21.8	2 11	12 3.60	-15 39.4	2.639	3.386	12.4	16.3
2 21	12 1.39	-14 47.4	2.674	3.515	9.7	21.6	2 21	11 59.40	-15 26.8	2.561	3.403	10.1	16.2
3 2	11 55.04	-14 45.7	2.594	3.506	7.4	21.4	3 2	11 53.76	-14 56.2	2.506	3.419	7.5	16.0
3 12	11 47.65	-14 28.7	2.540	3.497	5.1	21.3	3 12	11 47.25	-14 9.0	2.478	3.436	5.1	15.9
3 22	11 39.82	-13 58.1	2.515	3.487	4.2	21.2	3 22	11 40.49	-13 8.5	2.478	3.453	4.0	15.8
4 1	11 32.26	-13 17.1	2.519	3.477	5.5	21.3	4 1	11 34.15	-11 59.4	2.507	3.469	5.2	15.9
4 11	11 25.67	-12 30.6	2.551	3.467	7.8	21.4	4 11	11 28.86	-10 47.6	2.564	3.486	7.5	16.1
4 21	11 20.53	-11 43.3	2.609	3.457	10.3	21.5	4 21	11 25.03	- 9 38.5	2.647	3.502	10.0	16.3
413162	2002 <i>GW</i> ₁₈₈		3 16.2 289°17	0°5/16.6	17		161470	2004 <i>EV</i> ₈₀		3 16.2 85°58	3°2/14.1	18	
2 11	12 6.88	- 2 27.8	1.521	2.355	16.0	21.2	2 11	12 14.58	+ 7 11.3	1.286	2.140	17.1	20.3
2 21	12 3.02	- 1 56.7	1.428	2.337	12.2	20.9	2 21	12 8.74	+ 7 41.9	1.227	2.149	12.7	20.1
3 2	11 56.56	- 1 6.1	1.356	2.319	7.6	20.6	3 2	11 59.91	+ 8 20.2	1.190	2.158	7.6	19.8
3 12	11 48.20	- 0 0.5	1.309	2.300	2.5	20.3	3 12	11 49.14	+ 8 58.0	1.178	2.167	3.4	19.6
3 22	11 39.00	+ 1 12.7	1.289	2.282	3.0	20.3	3 22	11 37.89	+ 9 26.9	1.192	2.177	5.6	19.7
4 1	11 30.24	+ 2 24.4	1.296	2.263	8.4	20.5	4 1	11 27.72	+ 9 40.5	1.232	2.186	10.4	20.0
4 11	11 23.17	+ 3 25.5	1.327	2.245	13.3	20.7	4 11	11 19.89	+ 9 35.3	1.295	2.195	15.0	20.3
4 21	11 18.63	+ 4 9.8	1.378	2.227	17.7	21.0	4 21	11 15.08	+ 9 11.3	1.376	2.204	18.9	20.6
455807	2005 <i>SF</i> ₁₃₃		3 16.2 85°07	5°9/23.2	18		210743	2000 <i>UX</i> ₇₁		3 16.2 60°98	2°8/18.5	18	
2 11	12 4.11	-20 5.3	1.863	2.607	16.9	21.3	2 11	12 9.45	- 7 31.6	1.352	2.172	18.4	20.2
2 21	12 0.43	-19 32.3	1.777	2.611	14.1	21.1	2 21	12 4.72	- 7 18.9	1.297	2.193	14.2	20.0
3 2	11 54.68	-18 28.7	1.710	2.616	10.9	20.9	3 2	11 57.35	- 6 42.5	1.262	2.215	9.4	19.8
3 12	11 47.56	-16 55.4	1.668	2.621	7.7	20.8	3 12	11 48.36	- 5 46.6	1.251	2.236	4.6	19.5
3 22	11 39.99	-14 57.6	1.652	2.625	5.9	20.7	3 22	11 39.00	- 4 38.6	1.266	2.258	3.4	19.5
4 1	11 32.99	-12 44.3	1.665	2.630	7.1	20.7	4 1	11 30.63	- 3 28.1	1.308	2.279	7.7	19.8
4 11	11 27.47	-10 27.1	1.705	2.634	10.1	20.9	4 11	11 24.32	- 2 24.5	1.373	2.301	12.2	20.1
4 21	11 24.02	- 8 16.9	1.770	2.639	13.4	21.1	4 21	11 20.67	- 1 34.2	1.460	2.323	16.1	20.4
500651	2012 <i>VU</i> ₁₄		3 16.2 92°62	4°5/10.4	18		370081	2001 <i>SJ</i> ₁₃₆		3 16.2 220°68	0°2/16.0	17	
2 11	12 5.32	+14 4.8	2.365	3.213	10.5	21.5	2 11	12 11.73	+ 1 2.6	2.177	2.993	12.5	22.0
2 21	12 0.74	+15 19.5	2.312	3.228	7.8	21.3	2 21	12 5.79	+ 1 13.0	2.083	2.984	9.3	21.8
3 2	11 54.59	+16 34.3	2.285	3.243	5.4	21.2	3 2	11 57.85	+ 1 32.8	2.014	2.975	5.7	21.5
3 12	11 47.48	+17 42.3	2.287	3.257	4.5	21.2	3 12	11 48.53	+ 1 58.5	1.974	2.965	1.7	21.2
3 22	11 40.15	+18 37.8	2.318	3.271	6.1	21.3	3 22	11 38.67	+ 2 25.9	1.963	2.954	2.5	21.3
4 1	11 33.35	+19 16.5	2.376	3.285	8.5	21.4	4 1	11 29.23	+ 2 50.4	1.983	2.943	6.6	21.5
4 11	11 27.75	+19 36.5	2.460	3.299	11.0	21.6	4 11	11 21.11	+ 3 7.6	2.029	2.931	10.3	21.7
4 21	11 23.78	+19 38.3	2.564	3.313	13.2	21.8	4 21	11 14.93	+ 3 15.0	2.100	2.919	13.5	21.9
522595	2016 <i>ES</i> ₂₄₇		3 16.2 347°74	2°1/18.2	17		208903	2002 <i>TU</i> ₁₆₁		3 16.2 129°97	4°0/10.9	17	
2 11	12 2.88	- 7 30.6	1.514	2.337	16.6	21.4	2 11	12 5.46	+12 14.7	2.395	3.242	10.4	20.8
2 21	11 59.88	- 6 53.9	1.433	2.333	12.9	21.2	2 21	12 0.87	+13 30.5	2.334	3.251	7.7	20.7
3 2	11 54.52	- 5 52.7	1.374	2.328	8.5	20.9	3 2	11 54.70	+14 48.1	2.299	3.260	5.1	20.5
3 12	11 47.55	- 4 31.1	1.338	2.325	3.9	20.6	3 12	11 47.54	+16 1.0	2.294	3.268	4.1	20.4
3 22	11 39.99	- 2 56.8	1.330	2.322	2.9	20.5	3 22	11 40.11	+17 3.0	2.317	3.276	5.6	20.6
4 1	11 33.01	- 1 20.0	1.347	2.320	7.5	20.8	4 1	11 33.17	+17 49.4	2.369	3.284	8.2	20.7
4 11	11 27.69	+ 0 8.7	1.390	2.318	12.1	21.1	4 11	11 27.40	+18 17.8	2.446	3.292	10.9	20.9
4 21	11 24.70	+ 1 21.6	1.454	2.317	16.1	21.3	4 21	11 23.25	+18 27.9	2.545	3.300	13.1	21.1
18722	1998 <i>HF</i> ₁₄₈		3 16.2 199°73	0°1/16.4	18		299514	2006 <i>CT</i> ₂₇		3 16.2 174°80	1°0/17.0	18	
2 11	12 4.24	- 1 14.3	2.626	3.440	10.6	19.4	2 11	12 11.39	- 3 12.8	1.733	2.549	15.2	22.3
2 21	11 59.90	- 0 42.8	2.539	3.439	7.9	19.2	2 21	12 5.90	- 2 53.5	1.653	2.552	11.5	22.0
3 2	11 54.10	- 0 1.0	2.477	3.437	4.9	19.0	3 2	11 58.04	- 2 18.0	1.596	2.554	7.3	21.8
3 12	11 47.35	+ 0 47.5	2.444	3.434	1.5	18.7	3 12	11 48.60	- 1 30.2	1.566	2.555	2.7	21.5
3 22	11 40.28	+ 1 38.6	2.441	3.432	2.0	18.7	3 22	11 38.62	- 0 36.0	1.563	2.556	2.6	21.5
4 1	11 33.57	+ 2 27.5	2.467	3.430	5.3	19.0	4 1	11 29.25	+ 0 17.4	1.590	2.556	7.2	21.8
4 11	11 27.84	+ 3 10.0	2.522	3.427	8.4	19.2	4 11	11 21.56	+ 1 3.3	1.642	2.555	11.5	22.0
4 21	11 23.56	+ 3 42.9	2.601	3.424	11.1	19.3	4 21	11 16.20	+ 1 37.0	1.716	2.554	15.2	22.3
334528	2002 <i>RY</i> ₁₉₈		3 16.2 213°03	0°8/15.3	17		30960	1994 <i>UV</i> ₂		3 16.2 86°58	0°6/15.7	18	
2 11	12 8.79	+ 3 11.2	2.469	3.292	11.0	20.5	2 11	12 12.85	+ 0 43.8	1.451	2.287	16.5	19.1
2 21	12 3.36	+ 3 29.3	2.380	3.286	8.1	20.3	2 21	12 7.04	+ 1 14.4	1.397	2.309	12.2	18.9
3 2	11 56.24	+ 3 54.4	2.317	3.280	4.9	20.1	3 2	11 58.67	+ 1 59.0	1.366	2.330	7.3	18.6
3 12	11 48.01	+ 4 22.8	2.283	3.274	1.5	19.9	3 12	11 48.75	+ 2 51.0	1.360	2.351	2.1	18.4
3 22	11 39.38	+ 4 50.7	2.279	3.267	2.6	19.9	3 22	11 38.52	+ 3 42.7	1.381	2.372	3.4	18.5
4 1	11 31.15	+ 5 13.8	2.304	3.260	6.1	20.2	4 1	11 29.30	+ 4 26.5	1.430	2.392	8.3	18.8
4 11	11 24.05	+ 5 28.9	2.358	3.253	9.3	20.3	4 11	11 22.13	+ 4 56.9	1.503	2.412	12.7	19.1
4 21	11 18.60	+ 5 33.8	2.435	3.245	12.1	20.5	4 21	11 17.59	+ 5 11.2	1.597	2.432	16.3	19.4
133195	2003 <i>QE</i> ₅₉		3 16.2 238°81	2°9/13.3	17		100337	1995 <i>SY</i> ₃₆		3 16			

EPHEMERIDES

3 16.2

3 16.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
377415	2004 <i>TZ</i> ₁₁₂		3 16.2 179°98	3°6/20.2	17		503181	2015 <i>GH</i> ₄₄		3 16.2 208°73	6°3/8.6	17	
2 11	12 7.45	-11 47.5	2.339	3.107	13.2	21.3	2 11	12 8.35	+21 9.4	2.382	3.226	10.6	21.5
2 21	12 2.51	-11 45.8	2.248	3.108	10.6	21.1	2 21	12 3.11	+22 12.0	2.319	3.224	8.4	21.3
3 2	11 55.80	-11 26.7	2.180	3.109	7.6	20.9	3 2	11 56.12	+23 9.8	2.282	3.221	6.7	21.2
3 12	11 47.92	-10 51.3	2.139	3.109	4.7	20.7	3 12	11 48.02	+23 55.8	2.272	3.219	6.4	21.2
3 22	11 39.61	-10 2.9	2.126	3.109	3.6	20.6	3 22	11 39.60	+24 24.9	2.290	3.217	7.8	21.3
4 1	11 31.71	-9 6.2	2.143	3.108	5.7	20.8	4 1	11 31.71	+24 33.6	2.335	3.214	9.9	21.4
4 11	11 24.99	-8 7.4	2.187	3.107	8.7	21.0	4 11	11 25.12	+24 21.5	2.403	3.211	12.2	21.6
4 21	11 20.01	-7 12.1	2.257	3.106	11.7	21.1	4 21	11 20.31	+23 50.2	2.492	3.208	14.3	21.7
71 Niobe			3 16.2 332°90	12°7/23.6	18		326421	2001 <i>TU</i> ₇₆		3 16.2 113°48	1°3/14.8	18	
2 11	12 14.32	-24 47.3	1.684	2.390	19.8	11.0	2 11	12 10.18	+ 3 15.1	2.153	2.979	12.2	21.5
2 21	12 8.96	-27 2.1	1.590	2.377	17.7	10.9	2 21	12 4.39	+ 3 55.9	2.092	3.001	9.0	21.3
3 2	12 0.48	-28 54.8	1.516	2.364	15.5	10.7	3 2	11 56.84	+ 4 44.8	2.057	3.021	5.3	21.1
3 12	11 49.51	-30 17.5	1.462	2.353	13.7	10.5	3 12	11 48.22	+ 5 36.6	2.051	3.042	1.7	20.9
3 22	11 37.18	-31 4.5	1.432	2.342	12.7	10.5	3 22	11 39.37	+ 6 25.5	2.074	3.061	3.1	21.0
4 1	11 25.03	-31 14.9	1.425	2.332	13.2	10.5	4 1	11 31.17	+ 7 6.6	2.127	3.080	6.7	21.3
4 11	11 14.65	-30 54.3	1.440	2.322	14.9	10.5	4 11	11 24.36	+ 7 36.0	2.207	3.098	10.0	21.5
4 21	11 7.20	-30 12.4	1.476	2.314	17.3	10.6	4 21	11 19.42	+ 7 51.9	2.310	3.116	12.8	21.7
343503	2010 <i>EW</i> ₁₀₇		3 16.2 4°73	3°3/13.4	18		402107	2003 <i>YB</i> ₄₇		3 16.2 98°17	2°1/14.3	18	
2 11	12 9.01	+ 9 35.9	1.819	2.667	13.1	19.8	2 11	12 10.49	+ 4 15.1	1.698	2.538	14.3	21.6
2 21	12 3.98	+10 0.8	1.748	2.667	9.7	19.6	2 21	12 5.04	+ 5 8.2	1.642	2.557	10.5	21.4
3 2	11 56.79	+10 29.1	1.702	2.668	6.0	19.4	3 2	11 57.39	+ 6 10.7	1.610	2.576	6.2	21.2
3 12	11 48.22	+10 54.8	1.683	2.669	3.3	19.2	3 12	11 48.40	+ 7 15.5	1.605	2.595	2.4	21.0
3 22	11 39.25	+11 12.2	1.691	2.670	5.0	19.3	3 22	11 39.13	+ 8 14.8	1.628	2.613	4.2	21.1
4 1	11 30.92	+11 16.8	1.726	2.672	8.7	19.5	4 1	11 30.68	+ 9 2.0	1.679	2.631	8.3	21.4
4 11	11 24.17	+11 6.3	1.787	2.674	12.2	19.7	4 11	11 23.95	+ 9 32.8	1.755	2.648	12.1	21.7
4 21	11 19.58	+10 40.4	1.868	2.676	15.4	19.9	4 21	11 19.49	+ 9 45.6	1.853	2.665	15.3	21.9
373583	2002 <i>AJ</i> ₁₃₇		3 16.2 354°81	2°7/13.5	17		382359	2013 <i>TO</i> ₉₃		3 16.2 135°51	0°4/15.8	17	
2 11	12 5.61	+ 5 11.6	1.741	2.590	13.6	20.4	2 11	12 6.86	+ 0 9.0	2.112	2.937	12.5	21.4
2 21	12 1.57	+ 6 15.9	1.669	2.589	10.0	20.1	2 21	12 2.13	+ 0 44.6	2.036	2.942	9.3	21.2
3 2	11 55.40	+ 7 30.5	1.621	2.589	5.9	19.9	3 2	11 55.58	+ 1 31.6	1.985	2.948	5.6	21.0
3 12	11 47.82	+ 8 47.7	1.600	2.588	2.7	19.7	3 12	11 47.87	+ 2 25.2	1.962	2.953	1.6	20.7
3 22	11 39.79	+ 9 59.5	1.606	2.588	4.7	19.8	3 22	11 39.81	+ 3 20.0	1.967	2.958	2.5	20.8
4 1	11 32.34	+10 58.0	1.640	2.588	8.8	20.0	4 1	11 32.26	+ 4 10.1	2.002	2.963	6.5	21.1
4 11	11 26.41	+11 38.2	1.698	2.588	12.6	20.3	4 11	11 26.00	+ 4 50.6	2.063	2.967	10.0	21.3
4 21	11 22.62	+11 58.1	1.777	2.588	15.9	20.5	4 21	11 21.56	+ 5 18.5	2.148	2.972	13.1	21.5
512405	2016 <i>PM</i> ₆₇		3 16.2 236°22	1°7/18.6	17		247506	2002 <i>PQ</i> ₉₁		3 16.2 153°84	2°3/13.7	18	
2 11	12 3.29	- 8 17.4	2.914	3.697	10.5	22.1	2 11	12 9.77	+ 5 53.1	2.133	2.967	12.1	21.2
2 21	11 59.17	- 7 38.8	2.808	3.683	8.2	21.9	2 21	12 4.22	+ 6 48.5	2.063	2.976	8.8	21.0
3 2	11 53.68	- 6 46.0	2.726	3.669	5.5	21.7	3 2	11 56.82	+ 7 51.0	2.019	2.984	5.3	20.8
3 12	11 47.28	- 5 41.2	2.673	3.655	2.7	21.5	3 12	11 48.24	+ 8 54.4	2.004	2.992	2.4	20.7
3 22	11 40.52	- 4 28.4	2.650	3.641	2.0	21.5	3 22	11 39.32	+ 9 52.4	2.018	2.999	4.1	20.8
4 1	11 34.01	- 3 12.4	2.658	3.626	4.6	21.6	4 1	11 30.98	+10 39.3	2.062	3.006	7.6	21.0
4 11	11 28.35	- 1 58.5	2.696	3.610	7.5	21.8	4 11	11 24.01	+11 11.3	2.132	3.011	10.9	21.2
4 21	11 24.00	- 0 51.3	2.759	3.594	10.2	21.9	4 21	11 18.93	+11 27.1	2.224	3.016	13.7	21.4
149464	2003 <i>EP</i> ₇		3 16.2 223°45	3°8/19.6	18		409505	2005 <i>ST</i> ₂₅₈		3 16.2 80°03	0°5/16.8	18	
2 11	12 11.11	-10 11.7	2.187	2.961	13.8	19.9	2 11	12 7.77	- 5 3.5	1.873	2.684	14.4	21.5
2 21	12 5.44	-10 33.4	2.087	2.952	11.1	19.7	2 21	12 2.76	- 3 49.8	1.820	2.717	10.7	21.3
3 2	11 57.71	-10 39.2	2.011	2.943	7.9	19.5	3 2	11 55.89	- 2 18.9	1.791	2.749	6.6	21.2
3 12	11 48.54	-10 29.4	1.962	2.934	4.9	19.3	3 12	11 47.93	- 0 37.4	1.791	2.781	2.2	20.9
3 22	11 38.76	-10 6.0	1.941	2.924	3.9	19.2	3 22	11 39.80	+ 1 6.3	1.820	2.812	2.4	21.0
4 1	11 29.34	- 9 33.2	1.950	2.914	6.3	19.4	4 1	11 32.43	+ 2 43.6	1.878	2.843	6.5	21.3
4 11	11 21.20	- 8 56.4	1.986	2.903	9.6	19.5	4 11	11 26.58	+ 4 7.4	1.964	2.873	10.2	21.6
4 21	11 15.01	- 8 21.2	2.046	2.892	12.8	19.7	4 21	11 22.71	+ 5 13.6	2.074	2.902	13.3	21.9
318870	2005 <i>TX</i> ₈₁		3 16.2 346°76	3°2/19.1	17		313016	1999 <i>VD</i> ₂₂₃		3 16.2 104°93	2°1/14.1	18	
2 11	12 3.41	- 9 15.8	1.488	2.305	17.2	20.0	2 11	12 9.75	+ 4 0.6	1.754	2.593	14.0	20.9
2 21	12 0.36	- 8 57.4	1.406	2.299	13.6	19.7	2 21	12 4.45	+ 5 1.7	1.696	2.611	10.2	20.7
3 2	11 54.88	- 8 13.8	1.345	2.295	9.3	19.5	3 2	11 57.02	+ 6 12.6	1.663	2.630	6.0	20.5
3 12	11 47.72	- 7 7.6	1.308	2.290	4.9	19.2	3 12	11 48.30	+ 7 26.0	1.657	2.647	2.4	20.3
3 22	11 39.92	- 5 45.3	1.296	2.287	3.6	19.1	3 22	11 39.28	+ 8 33.9	1.680	2.665	4.2	20.4
4 1	11 32.71	- 4 16.3	1.311	2.284	7.5	19.3	4 1	11 31.04	+ 9 29.3	1.731	2.682	8.2	20.7
4 11	11 27.19	- 2 51.2	1.349	2.282	12.0	19.6	4 11	11 24.45	+10 7.7	1.807	2.698	12.0	21.0
4 21	11 24.08	- 1 38.6	1.410	2.281	16.1	19.8	4 21	11 20.04	+10 27.5	1.905	2.714	15.1	21.2
402382	2005 <i>YY</i> ₆₄		3 16.2 11°00	7°3/10.9	17		323833	2005 <i>SX</i> ₅₁		3 16.2 256°79	1°8/18.0	17	
2 11	12 5.15	+12 18.6	1.004	1.891	18.1	20.4	2 11	12 6.01	- 6 48.6	1.953	2.758	14.1	21.4
2 21	12 2.36	+13 45.3	0.956	1.892	13.5	20.2	2 21	12 1.84	- 6 15.0	1.854	2.744	11.0	21.1
3 2	11 56.32	+15 16.6	0.927	1.896	9.1	19.9	3 2	11 55.62	- 5 22.1	1.778	2.730	7.2	20.9
3 12	11 48.15	+16 37.9	0.921	1.900	7.3	19.8	3 12	11 47.94	- 4 13.0	1.729	2.715	3.2	20.6
3 22	11 39.42	+17 35.6	0.937	1.906	10.0	20.0	3 22	11 39.66	- 2 53.2	1.708	2.700	2.5	20.5
4 1	11 31.81	+18 1.0	0.975	1.913	14.4	20.3	4 1	11 31.75	- 1 30.2	1.716	2.685	6.5	20.7
4 11	11 26.69	+17 52.1	1.031	1.922	18.8	20.5	4 11	11 25.17	- 0 12.3	1.751	2.669	10.6	20.9
4 21	11 24.71	+17 12.2	1.103	1.932	22.5	20.8	4 21	11 20.57	+ 0 54.3	1.808	2.653	14.3	21.1
430196	2013 <i>TT</i> ₁₃₀		3 16.2 139°03	5°0/21.9	17		420085	2011 <i>EH</i> ₅₀		3 16.2 73°94			

EPHEMERIDES

3 16.2

3 16.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
338405	2003 <i>BB</i> ₁₉		3 16.2 66°67'	8:2/24.4	18		264174	2010 <i>CR</i> ₁₄₉		3 16.2 107°03'	0°5/15.7	17	
2 11	12 12.14	-22 59.3	2.246	2.942	15.7	20.1	2 11	12 5.63	+ 0 17.1	2.074	2.902	12.6	21.3
2 21	12 6.19	-24 10.8	2.169	2.957	13.6	19.9	2 21	12 1.28	+ 0 56.5	1.996	2.904	9.3	21.1
3 2	11 58.14	-25 0.5	2.112	2.972	11.3	19.8	3 2	11 55.11	+ 1 47.6	1.943	2.907	5.6	20.9
3 12	11 48.68	-25 25.7	2.080	2.987	9.3	19.7	3 12	11 47.76	+ 2 45.5	1.918	2.909	1.6	20.6
3 22	11 38.69	-25 26.1	2.073	3.002	8.3	19.6	3 22	11 40.04	+ 3 44.5	1.921	2.912	2.6	20.7
4 1	11 29.20	-25 4.4	2.093	3.017	8.6	19.7	4 1	11 32.80	+ 4 38.4	1.953	2.914	6.6	21.0
4 11	11 21.13	-24 26.4	2.138	3.033	10.2	19.8	4 11	11 26.86	+ 5 22.0	2.012	2.916	10.2	21.2
4 21	11 15.12	-23 39.3	2.208	3.048	12.2	20.0	4 21	11 22.72	+ 5 52.2	2.093	2.919	13.3	21.4
142621	2002 <i>TU</i> ₁₅₇		3 16.2 116°31'	6°2/10.2	18		81959	2000 <i>QQ</i> ₁₇		3 16.2 235°63'	1°6/14.1	18	
2 11	12 12.42	+17 22.5	1.892	2.739	12.8	20.0	2 11	12 4.31	+ 4 5.6	2.614	3.445	10.2	20.0
2 21	12 6.31	+18 32.6	1.843	2.755	9.7	19.9	2 21	12 0.04	+ 4 59.4	2.523	3.435	7.5	19.8
3 2	11 58.10	+19 39.3	1.820	2.771	7.1	19.7	3 2	11 54.28	+ 6 1.3	2.459	3.424	4.4	19.6
3 12	11 48.61	+20 34.1	1.823	2.786	6.3	19.7	3 12	11 47.51	+ 7 6.3	2.423	3.413	1.7	19.4
3 22	11 38.88	+21 10.4	1.855	2.800	7.9	19.8	3 22	11 40.37	+ 8 9.4	2.418	3.402	3.1	19.5
4 1	11 29.98	+21 24.3	1.913	2.814	10.7	20.0	4 1	11 33.55	+ 9 5.4	2.442	3.390	6.3	19.7
4 11	11 22.78	+21 15.3	1.994	2.828	13.5	20.2	4 11	11 27.71	+ 9 50.2	2.494	3.378	9.3	19.8
4 21	11 17.80	+20 45.8	2.096	2.841	15.9	20.4	4 21	11 23.32	+10 21.3	2.569	3.366	11.9	20.0
21052	1990 <i>UG</i> ₅		3 16.2 134°39'	0°5/16.8	18		169568	Baranauskas		3 16.2 339°00'	2°1/14.6	18	
2 11	12 5.88	- 3 36.3	2.267	3.077	12.2	20.1	2 11	12 5.65	+ 2 52.8	1.266	2.127	16.9	19.2
2 21	12 1.28	- 2 49.9	2.191	3.087	9.2	19.9	2 21	12 2.37	+ 3 43.0	1.194	2.120	12.5	18.9
3 2	11 55.01	- 1 49.7	2.140	3.097	5.7	19.7	3 2	11 56.26	+ 4 49.3	1.143	2.113	7.5	18.6
3 12	11 47.70	- 0 40.0	2.117	3.106	2.0	19.4	3 12	11 48.20	+ 6 3.7	1.116	2.107	2.6	18.2
3 22	11 40.08	+ 0 33.6	2.123	3.115	2.1	19.4	3 22	11 39.41	+ 7 15.7	1.113	2.101	4.8	18.4
4 1	11 32.94	+ 1 44.8	2.160	3.124	5.8	19.7	4 1	11 31.35	+ 8 15.0	1.136	2.097	10.2	18.6
4 11	11 27.01	+ 2 47.8	2.224	3.132	9.2	19.9	4 11	11 25.30	+ 8 53.9	1.180	2.093	15.1	18.9
4 21	11 22.75	+ 3 38.8	2.312	3.140	12.1	20.1	4 21	11 22.04	+ 9 9.2	1.243	2.090	19.4	19.2
200709	2001 <i>UO</i> ₁₄₉		3 16.2 111°10'	3°3/13.4	18		140046	2001 <i>SQ</i> ₈₁		3 16.2 17°27'	2°2/18.3	17	
2 11	12 12.22	+ 6 57.1	1.573	2.420	14.9	20.8	2 11	12 7.85	- 5 38.2	2.122	2.924	13.3	19.8
2 21	12 6.50	+ 7 55.5	1.517	2.436	10.9	20.6	2 21	12 2.94	- 5 45.6	2.037	2.925	10.3	19.6
3 2	11 58.36	+ 9 1.5	1.485	2.451	6.6	20.4	3 2	11 56.14	- 5 39.2	1.976	2.925	6.8	19.4
3 12	11 48.71	+10 6.7	1.479	2.466	3.4	20.2	3 12	11 48.09	- 5 21.0	1.942	2.926	3.3	19.2
3 22	11 38.74	+11 2.6	1.501	2.481	5.4	20.4	3 22	11 39.59	- 4 54.4	1.937	2.927	2.6	19.2
4 1	11 29.66	+11 42.5	1.550	2.495	9.5	20.7	4 1	11 31.56	- 4 23.8	1.960	2.928	5.9	19.4
4 11	11 22.48	+12 2.7	1.623	2.508	13.4	20.9	4 11	11 24.82	- 3 54.4	2.010	2.929	9.4	19.6
4 21	11 17.78	+12 2.9	1.716	2.521	16.6	21.2	4 21	11 19.94	- 3 30.5	2.084	2.930	12.6	19.8
410104	2007 <i>EJ</i> ₁₃₀		3 16.2 49°22'	5°5/10.8	18		364681	2007 <i>TA</i> ₃₇₂		3 16.2 148°65'	0°6/15.7	18	
2 11	12 5.63	+ 8 59.1	1.375	2.242	15.4	20.0	2 11	12 12.96	+ 1 48.4	1.740	2.569	14.6	21.6
2 21	12 1.76	+11 7.6	1.340	2.269	11.2	19.8	2 21	12 7.00	+ 2 5.3	1.667	2.575	10.8	21.3
3 2	11 55.50	+13 21.5	1.330	2.297	7.1	19.6	3 2	11 58.70	+ 2 33.0	1.617	2.581	6.5	21.1
3 12	11 47.85	+15 27.0	1.346	2.325	5.5	19.6	3 12	11 48.86	+ 3 6.8	1.595	2.586	1.9	20.8
3 22	11 39.98	+17 12.0	1.388	2.353	7.9	19.8	3 22	11 38.56	+ 3 40.8	1.601	2.591	3.1	20.9
4 1	11 33.10	+18 28.5	1.456	2.382	11.6	20.1	4 1	11 28.96	+ 4 9.1	1.635	2.596	7.6	21.2
4 11	11 28.14	+19 13.4	1.546	2.411	15.1	20.4	4 11	11 21.08	+ 4 27.2	1.695	2.600	11.8	21.4
4 21	11 25.57	+19 28.7	1.655	2.440	18.0	20.7	4 21	11 15.56	+ 4 32.4	1.778	2.604	15.3	21.7
522709	2016 <i>LO</i> ₆₀		3 16.2 267°65'	6°0/23.6	17		497269	2005 <i>JW</i> ₁₈₅		3 16.2 258°74'	0°5/16.7	17	
2 11	12 4.36	-20 20.2	2.462	3.182	13.8	21.4	2 11	12 6.77	- 3 35.9	1.909	2.727	13.9	21.3
2 21	12 0.30	-20 32.1	2.361	3.175	11.8	21.2	2 21	12 2.50	- 2 46.4	1.807	2.708	10.6	21.0
3 2	11 54.54	-20 22.9	2.280	3.168	9.4	21.0	3 2	11 56.09	- 1 38.4	1.729	2.688	6.6	20.7
3 12	11 47.60	-19 52.0	2.225	3.160	7.2	20.9	3 12	11 48.13	- 0 16.1	1.678	2.668	2.2	20.4
3 22	11 40.20	-19 1.0	2.196	3.153	6.0	20.8	3 22	11 39.49	+ 1 13.6	1.655	2.647	2.6	20.4
4 1	11 33.12	-17 54.0	2.194	3.145	6.7	20.8	4 1	11 31.19	+ 2 42.2	1.661	2.626	7.2	20.6
4 11	11 27.14	-16 37.4	2.220	3.138	8.7	20.9	4 11	11 24.22	+ 4 1.5	1.694	2.604	11.5	20.8
4 21	11 22.80	-15 18.0	2.271	3.130	11.2	21.1	4 21	11 19.30	+ 5 5.6	1.750	2.582	15.2	21.0
246984	1999 <i>TM</i> ₂₆₉		3 16.2 211°68'	4°3/20.3	16		329810	2004 <i>RY</i> ₈₇		3 16.2 241°08'	5°5/ 9.5	17	
2 11	12 9.76	-12 26.6	1.996	2.768	15.0	21.2	2 11	12 7.48	+15 20.1	2.153	3.002	11.3	20.9
2 21	12 4.61	-12 32.3	1.900	2.762	12.2	21.0	2 21	12 2.76	+16 47.4	2.074	2.989	8.6	20.7
3 2	11 57.29	-12 17.5	1.827	2.755	8.9	20.8	3 2	11 56.09	+18 16.2	2.021	2.975	6.3	20.5
3 12	11 48.46	-11 42.8	1.779	2.748	5.6	20.6	3 12	11 48.09	+19 38.4	1.997	2.961	5.6	20.4
3 22	11 39.00	-10 51.3	1.758	2.740	4.4	20.5	3 22	11 39.59	+20 46.3	2.000	2.947	7.4	20.5
4 1	11 29.97	- 9 48.6	1.767	2.732	6.7	20.6	4 1	11 31.52	+21 34.0	2.031	2.932	10.2	20.6
4 11	11 22.35	- 8 42.2	1.802	2.723	10.2	20.8	4 11	11 24.74	+21 58.7	2.086	2.916	13.1	20.8
4 21	11 16.80	- 7 39.4	1.861	2.714	13.6	21.0	4 21	11 19.86	+22 0.6	2.161	2.900	15.6	20.9
285782	2000 <i>WQ</i> ₁₁		3 16.2 209°17'	3°2/12.5	17		511887	2015 <i>GV</i> ₄₅		3 16.2 239°23'	0°6/17.0	17	
2 11	12 7.42	+11 10.6	2.491	3.331	10.3	20.5	2 11	12 3.46	- 4 21.6	2.799	3.601	10.4	22.0
2 21	12 2.33	+11 48.0	2.415	3.329	7.6	20.3	2 21	11 59.36	- 3 30.7	2.695	3.587	7.9	21.8
3 2	11 55.62	+12 27.3	2.365	3.327	4.9	20.1	3 2	11 53.85	- 2 26.6	2.617	3.572	5.0	21.6
3 12	11 47.90	+13 3.5	2.343	3.324	3.2	20.0	3 12	11 47.39	- 1 12.8	2.569	3.558	1.8	21.3
3 22	11 39.84	+13 31.8	2.351	3.322	4.6	20.1	3 22	11 40.56	+ 0 6.2	2.550	3.542	1.8	21.3
4 1	11 32.24	+13 48.6	2.388	3.319	7.4	20.2	4 1	11 33.99	+ 1 24.8	2.563	3.527	5.0	21.5
4 11	11 25.77	+13 51.6	2.451	3.316	10.2	20.4	4 11	11 28.31	+ 2 37.9	2.605	3.511	8.1	21.7
4 21	11 20.91	+13 40.6	2.536	3.313	12.6	20.6	4 21	11 23.96	+ 3 41.1	2.672	3.495	10.8	21.8
452086	2014 <i>PK</i> ₃₀		3 16.2 197°14'	2°1/14.3	18		223646	2004 <i>ME</i> ₄		3 16.2 20			

EPHEMERIDES

3 16.2

3 16.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
40473	1999 <i>RR</i> ₅₀		3 16.2 231°13	1°3/15.0	18		275689	2000 <i>SN</i> ₁₃₈		3 16.2 218°10	1°8/18.4	18	
2 11	12 10.32	+ 2 43.4	1.876	2.707	13.5	19.8	2 11	12 7.27	- 7 13.1	2.518	3.305	11.8	21.5
2 21	12 5.09	+ 3 21.6	1.786	2.697	10.1	19.6	2 21	12 2.34	- 6 48.1	2.416	3.295	9.2	21.3
3 2	11 57.62	+ 4 11.1	1.720	2.685	6.0	19.3	3 2	11 55.75	- 6 8.2	2.338	3.284	6.1	21.1
3 12	11 48.59	+ 5 6.6	1.682	2.673	1.9	19.0	3 12	11 48.01	- 5 15.7	2.289	3.272	3.0	20.9
3 22	11 38.93	+ 6 1.3	1.673	2.661	3.5	19.1	3 22	11 39.82	- 4 14.8	2.269	3.260	2.3	20.8
4 1	11 29.74	+ 6 48.6	1.692	2.648	7.9	19.3	4 1	11 31.94	- 3 10.5	2.280	3.247	5.3	21.0
4 11	11 22.03	+ 7 23.0	1.737	2.634	12.0	19.5	4 11	11 25.11	- 2 8.5	2.319	3.233	8.6	21.2
4 21	11 16.49	+ 7 41.5	1.804	2.620	15.5	19.7	4 21	11 19.86	- 1 13.8	2.384	3.219	11.6	21.3
321614	2009 <i>VS</i> ₉₂		3 16.2 142°56	1°9/14.1	18		336420	2008 <i>UM</i> ₂₀₇		3 16.2 302°30	4°0/20.4	17	
2 11	12 7.98	+ 4 45.1	2.233	3.065	11.6	21.6	2 11	12 4.85	-12 27.1	1.973	2.754	14.9	20.4
2 21	12 2.84	+ 5 37.3	2.163	3.075	8.5	21.4	2 21	12 0.96	-12 19.7	1.881	2.749	12.0	20.2
3 2	11 55.98	+ 6 37.0	2.119	3.085	5.0	21.2	3 2	11 55.08	-11 50.8	1.811	2.743	8.7	20.0
3 12	11 48.03	+ 7 38.7	2.104	3.094	2.0	21.0	3 12	11 47.83	-11 1.7	1.767	2.738	5.4	19.8
3 22	11 39.78	+ 8 36.3	2.119	3.102	3.6	21.1	3 22	11 40.07	- 9 56.3	1.749	2.733	4.1	19.7
4 1	11 32.05	+ 9 24.5	2.163	3.110	7.0	21.4	4 1	11 32.74	- 8 41.1	1.759	2.728	6.4	19.8
4 11	11 25.60	+ 9 59.3	2.233	3.118	10.2	21.6	4 11	11 26.73	- 7 24.0	1.796	2.724	9.9	20.0
4 21	11 20.91	+10 19.2	2.327	3.125	13.0	21.8	4 21	11 22.67	- 6 12.2	1.857	2.719	13.2	20.2
469015	2015 <i>AC</i> ₂₂₈		3 16.2 126°90	0°1/16.3	17		242855	2006 <i>FW</i> ₅₂		3 16.2 253°21	2°3/18.8	17	
2 11	12 5.10	- 2 55.3	2.089	2.907	12.9	21.2	2 11	12 6.84	-11 4.7	1.883	2.670	15.2	20.7
2 21	12 0.87	- 1 54.8	2.013	2.915	9.6	21.0	2 21	12 2.67	- 9 52.5	1.772	2.649	12.1	20.5
3 2	11 54.85	- 0 39.1	1.962	2.923	5.9	20.8	3 2	11 56.26	- 8 11.7	1.684	2.628	8.2	20.2
3 12	11 47.71	+ 0 46.5	1.939	2.930	1.8	20.5	3 12	11 48.24	- 6 5.5	1.623	2.606	4.0	19.9
3 22	11 40.22	+ 2 15.0	1.946	2.937	2.4	20.5	3 22	11 39.47	- 3 41.5	1.592	2.583	2.8	19.8
4 1	11 33.24	+ 3 39.2	1.981	2.944	6.4	20.8	4 1	11 31.04	- 1 11.0	1.591	2.560	7.0	20.0
4 11	11 27.52	+ 4 52.3	2.044	2.951	10.0	21.0	4 11	11 23.96	+ 1 13.5	1.618	2.535	11.4	20.2
4 21	11 23.59	+ 5 50.3	2.131	2.957	13.1	21.3	4 21	11 19.01	+ 3 21.9	1.670	2.510	15.5	20.4
424598	2008 <i>GS</i> ₁₄₄		3 16.2 298°12	2°6/14.4	17		192051	2006 <i>AT</i> ₉₅		3 16.2 183°21	2°5/13.3	18	
2 11	12 12.98	+ 7 18.3	1.638	2.482	14.6	20.8	2 11	12 5.62	+ 5 20.2	2.039	2.881	12.2	20.3
2 21	12 7.61	+ 7 30.9	1.536	2.453	11.0	20.5	2 21	12 1.34	+ 6 32.0	1.964	2.881	8.9	20.1
3 2	11 59.46	+ 7 49.7	1.458	2.424	6.8	20.1	3 2	11 55.20	+ 7 52.9	1.914	2.881	5.3	19.8
3 12	11 49.23	+ 8 9.0	1.405	2.395	2.9	19.8	3 12	11 47.85	+ 9 16.1	1.893	2.881	2.6	19.7
3 22	11 37.99	+ 8 22.7	1.380	2.365	4.8	19.9	3 22	11 40.10	+10 34.0	1.900	2.880	4.4	19.8
4 1	11 27.11	+ 8 24.8	1.383	2.336	9.5	20.1	4 1	11 32.83	+11 39.8	1.936	2.880	8.0	20.0
4 11	11 17.91	+ 8 11.4	1.409	2.307	14.2	20.3	4 11	11 26.88	+12 28.6	1.998	2.879	11.4	20.2
4 21	11 11.31	+ 7 41.5	1.457	2.278	18.3	20.4	4 21	11 22.78	+12 58.3	2.081	2.878	14.4	20.4
334776	2003 <i>SG</i> ₁₂₈		3 16.2 156°46	3°3/20.0	18		455405	2003 <i>BE</i> ₉₀		3 16.2 9°58 10°8	1.8	17	
2 11	12 7.45	-11 11.3	2.438	3.208	12.7	21.3	2 11	11 59.76	+15 44.0	1.217	2.103	15.6	19.3
2 21	12 2.44	-11 10.5	2.352	3.213	10.1	21.1	2 21	11 58.14	+20 33.0	1.175	2.105	12.2	19.1
3 2	11 55.76	-10 53.6	2.288	3.219	7.2	21.0	3 2	11 53.78	+25 24.9	1.162	2.109	10.8	19.0
3 12	11 47.99	-10 21.7	2.252	3.224	4.4	20.8	3 12	11 47.50	+29 51.5	1.179	2.113	12.3	19.1
3 22	11 39.84	- 9 38.0	2.244	3.228	3.4	20.7	3 22	11 40.55	+33 30.3	1.222	2.119	15.5	19.3
4 1	11 32.12	- 8 47.0	2.267	3.232	5.5	20.9	4 1	11 34.35	+36 9.4	1.289	2.126	18.9	19.6
4 11	11 25.53	- 7 54.3	2.317	3.236	8.4	21.1	4 11	11 30.17	+37 48.7	1.372	2.135	21.9	19.8
4 21	11 20.60	- 7 5.0	2.392	3.239	11.1	21.2	4 21	11 28.73	+38 35.3	1.469	2.144	24.2	20.0
142202	2002 <i>RY</i> ₅₇		3 16.2 184°76	1°3/17.6	18		206933	2004 <i>RS</i> ₄₉		3 16.2 97°64	1°2/15.2	18	
2 11	12 8.57	- 5 13.6	2.193	2.993	12.9	21.6	2 11	12 7.60	- 0 4.0	1.454	2.297	16.1	20.0
2 21	12 3.43	- 4 42.6	2.105	2.994	9.9	21.4	2 21	12 3.39	+ 1 2.8	1.388	2.304	12.0	19.7
3 2	11 56.44	- 3 56.3	2.041	2.993	6.4	21.2	3 2	11 56.68	+ 2 27.6	1.344	2.311	7.1	19.5
3 12	11 48.21	- 2 57.9	2.005	2.992	2.6	21.0	3 12	11 48.33	+ 4 2.1	1.326	2.318	2.1	19.2
3 22	11 39.54	- 1 52.7	1.999	2.991	2.2	20.9	3 22	11 39.48	+ 5 36.0	1.335	2.324	3.9	19.3
4 1	11 31.32	- 0 46.7	2.022	2.988	6.0	21.2	4 1	11 31.41	+ 6 59.2	1.371	2.331	8.9	19.6
4 11	11 24.36	+ 0 13.7	2.074	2.985	9.6	21.4	4 11	11 25.18	+ 8 3.5	1.431	2.338	13.4	19.9
4 21	11 19.24	+ 1 4.0	2.149	2.982	12.8	21.6	4 21	11 21.44	+ 8 45.5	1.511	2.344	17.2	20.2
500593	2012 <i>UN</i> ₁₀₆		3 16.2 118°32	3°1/20.1	17		452629	2005 <i>SJ</i> ₂₅₄		3 16.2 160°47	1°1/15.3	18	
2 11	12 4.37	-11 34.0	2.428	3.201	12.6	21.5	2 11	12 14.78	+ 2 37.8	1.755	2.582	14.5	22.3
2 21	12 0.15	-11 15.3	2.343	3.208	10.0	21.3	2 21	12 8.35	+ 3 5.4	1.682	2.590	10.8	22.1
3 2	11 54.36	-10 39.3	2.282	3.215	7.1	21.2	3 2	11 59.54	+ 3 43.5	1.633	2.596	6.5	21.8
3 12	11 47.56	- 9 47.8	2.248	3.221	4.3	21.0	3 12	11 49.17	+ 4 26.7	1.611	2.602	2.0	21.5
3 22	11 40.44	- 8 44.9	2.242	3.228	3.2	20.9	3 22	11 38.34	+ 5 8.6	1.618	2.607	3.4	21.7
4 1	11 33.73	- 7 35.8	2.266	3.234	5.3	21.1	4 1	11 28.22	+ 5 43.0	1.654	2.612	7.9	21.9
4 11	11 28.12	- 6 26.6	2.318	3.240	8.2	21.3	4 11	11 19.87	+ 6 5.1	1.716	2.615	12.0	22.2
4 21	11 24.08	- 5 22.8	2.395	3.246	11.0	21.4	4 21	11 13.91	+ 6 12.8	1.801	2.617	15.5	22.4
406394	2007 <i>TD</i> ₃₃		3 16.2 111°45	1°5/14.9	18		452555	2004 <i>XR</i> ₁₄₈		3 16.2 87°98	2°1/14.4	18	
2 11	12 10.85	+ 2 55.0	1.641	2.479	14.8	21.9	2 11	12 11.38	+ 3 37.0	1.514	2.357	15.6	21.3
2 21	12 5.49	+ 3 33.3	1.576	2.490	10.9	21.7	2 21	12 5.91	+ 4 33.0	1.462	2.379	11.4	21.1
3 2	11 57.80	+ 4 22.8	1.535	2.501	6.5	21.4	3 2	11 58.02	+ 5 40.2	1.434	2.401	6.7	20.9
3 12	11 48.62	+ 5 17.0	1.520	2.511	2.1	21.2	3 12	11 48.68	+ 6 50.2	1.432	2.422	2.5	20.7
3 22	11 39.03	+ 6 8.7	1.533	2.521	3.7	21.3	3 22	11 39.07	+ 7 54.6	1.457	2.443	4.4	20.8
4 1	11 30.22	+ 6 50.9	1.574	2.531	8.2	21.6	4 1	11 30.40	+ 8 45.6	1.510	2.464	8.8	21.2
4 11	11 23.18	+ 7 18.7	1.639	2.541	12.3	21.8	4 11	11 23.66	+ 9 18.5	1.587	2.484	12.9	21.4
4 21	11 18.50	+ 7 29.9	1.726	2.550	15.8	22.1	4 21	11 19.40	+ 9 31.9	1.685	2.504	16.3	21.7
38106	1999 <i>JG</i> ₂₃ </												

EPHEMERIDES

3 16.2

3 16.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
73888	1997 <i>EK</i> ₁₂		3 16.2 193°51	3°8/20.2	18		86982	2000 <i>JG</i> ₂₅		3 16.2 169°34	4°0/19.8	18	
2 11	12 10.45	-12 13.5	2.329	3.090	13.4	19.9	2 11	12 11.72	-10 57.1	1.816	2.597	15.9	19.4
2 21	12 4.83	-12 14.9	2.232	3.088	10.8	19.7	2 21	12 6.18	-11 0.7	1.732	2.602	12.7	19.2
3 2	11 57.32	-11 58.5	2.159	3.085	7.8	19.5	3 2	11 58.32	-10 43.2	1.670	2.605	9.0	19.0
3 12	11 48.52	-11 25.2	2.112	3.081	5.0	19.3	3 12	11 48.87	-10 5.9	1.634	2.608	5.4	18.8
3 22	11 39.21	-10 37.7	2.094	3.076	3.9	19.2	3 22	11 38.85	-9 12.6	1.625	2.610	4.1	18.7
4 1	11 30.30	-9 41.0	2.106	3.070	5.9	19.3	4 1	11 29.40	-8 10.0	1.644	2.612	6.9	18.9
4 11	11 22.61	-8 41.2	2.147	3.064	9.0	19.5	4 11	11 21.57	-7 5.9	1.691	2.612	10.7	19.1
4 21	11 16.74	-7 44.3	2.212	3.056	12.0	19.7	4 21	11 16.03	-6 7.7	1.760	2.613	14.3	19.3
466669	2014 <i>WW</i> ₁₈₃		3 16.2 348°64	4°9/19.3	17		46474	3109 <i>T</i> ₋₁		3 16.2 271°96	1°9/17.8	18	
2 11	12 10.90	-8 12.4	1.499	2.308	17.5	20.1	2 11	12 7.92	-5 26.8	1.680	2.497	15.6	19.5
2 21	12 6.08	-9 9.0	1.416	2.302	14.0	19.9	2 21	12 3.63	-5 10.8	1.586	2.483	12.1	19.2
3 2	11 58.50	-9 48.3	1.354	2.297	10.0	19.6	3 2	11 56.93	-4 35.7	1.514	2.469	7.9	18.9
3 12	11 48.95	-10 9.1	1.316	2.292	6.2	19.4	3 12	11 48.49	-3 44.1	1.468	2.455	3.5	18.6
3 22	11 38.59	-10 12.8	1.304	2.289	5.1	19.3	3 22	11 39.31	-2 41.7	1.448	2.440	2.8	18.5
4 1	11 28.80	-10 3.5	1.318	2.286	8.2	19.5	4 1	11 30.56	-1 36.2	1.456	2.426	7.4	18.8
4 11	11 20.87	-9 47.7	1.356	2.284	12.3	19.7	4 11	11 23.37	-0 35.7	1.489	2.411	11.9	19.0
4 21	11 15.63	-9 32.2	1.415	2.282	16.2	19.9	4 21	11 18.52	+0 13.1	1.544	2.396	15.9	19.2
289936	2005 <i>NC</i> ₃₆		3 16.2 332°73	0°6/16.6	18		202668	2006 <i>KP</i> ₁₀₆		3 16.2 80°98	2°8/18.5	18	
2 11	12 6.97	-2 6.1	1.129	1.982	19.1	20.5	2 11	12 10.45	-7 33.9	1.468	2.280	17.6	20.4
2 21	12 3.72	-1 44.7	1.055	1.974	14.5	20.2	2 21	12 5.44	-7 23.1	1.405	2.298	13.6	20.2
3 2	11 57.31	-1 0.7	1.001	1.967	9.1	19.9	3 2	11 57.89	-6 50.1	1.364	2.315	9.1	20.0
3 12	11 48.63	+0 0.3	0.969	1.960	3.0	19.5	3 12	11 48.72	-5 58.4	1.348	2.332	4.5	19.8
3 22	11 39.05	+1 9.2	0.961	1.954	3.5	19.5	3 22	11 39.13	-4 54.6	1.357	2.348	3.3	19.7
4 1	11 30.24	+2 14.8	0.977	1.949	9.7	19.8	4 1	11 30.41	-3 47.4	1.394	2.365	7.5	20.0
4 11	11 23.68	+3 6.6	1.015	1.944	15.3	20.1	4 11	11 23.63	-2 45.5	1.456	2.382	11.8	20.3
4 21	11 20.25	+3 38.3	1.071	1.940	20.1	20.4	4 21	11 19.42	-1 55.6	1.539	2.398	15.6	20.6
123458	2000 <i>WW</i> ₁₃₈		3 16.2 62°95	3°4/19.6	18		32946	1995 <i>WZ</i> ₁₇		3 16.2 77°35	3°1/19.9	18	
2 11	12 6.85	-10 31.7	1.743	2.538	16.0	20.1	2 11	12 4.29	-11 2.3	2.340	3.118	12.9	19.9
2 21	12 2.42	-10 16.2	1.679	2.557	12.6	19.9	2 21	12 0.20	-10 49.8	2.253	3.121	10.2	19.7
3 2	11 55.89	-9 38.7	1.636	2.577	8.7	19.7	3 2	11 54.47	-10 20.0	2.190	3.124	7.2	19.5
3 12	11 48.07	-8 42.3	1.619	2.597	4.9	19.5	3 12	11 47.67	-9 34.6	2.153	3.128	4.3	19.3
3 22	11 39.91	-7 32.7	1.629	2.617	3.6	19.5	3 22	11 40.51	-8 37.5	2.145	3.131	3.2	19.3
4 1	11 32.47	-6 17.5	1.667	2.637	6.5	19.7	4 1	11 33.76	-7 33.8	2.166	3.134	5.4	19.4
4 11	11 26.61	-5 5.0	1.731	2.657	10.2	20.0	4 11	11 28.13	-6 29.7	2.214	3.137	8.5	19.6
4 21	11 22.88	-4 1.9	1.818	2.677	13.5	20.2	4 21	11 24.12	-5 30.7	2.287	3.140	11.4	19.8
183848	2004 <i>BN</i> ₁₃₀		3 16.2 193°44	0°6/16.9	17		466384	2013 <i>SQ</i> ₃₃		3 16.2 231°27	2°7/12.9	17	
2 11	12 5.88	-2 38.1	2.438	3.248	11.5	21.3	2 11	12 6.18	+5 6.0	2.169	3.006	11.7	21.2
2 21	12 1.29	-2 11.5	2.351	3.247	8.7	21.1	2 21	12 1.79	+6 32.7	2.079	2.995	8.6	21.0
3 2	11 55.08	-1 33.3	2.288	3.245	5.4	20.9	3 2	11 55.54	+8 10.2	2.016	2.982	5.2	20.7
3 12	11 47.83	-0 46.5	2.254	3.244	1.9	20.7	3 12	11 48.02	+9 51.4	1.982	2.969	2.7	20.5
3 22	11 40.20	+0 4.2	2.249	3.242	2.0	20.6	3 22	11 40.00	+11 28.2	1.978	2.956	4.6	20.6
4 1	11 32.96	+0 54.0	2.274	3.239	5.5	20.9	4 1	11 32.35	+12 53.0	2.004	2.942	8.1	20.8
4 11	11 26.81	+1 38.1	2.327	3.237	8.8	21.1	4 11	11 25.89	+14 0.1	2.056	2.928	11.5	21.0
4 21	11 22.24	+2 12.9	2.404	3.234	11.7	21.3	4 21	11 21.23	+14 46.9	2.129	2.913	14.5	21.2
46371	2001 <i>VZ</i> ₄₅		3 16.2 160°25	2°8/18.8	18		145570	2006 <i>OM</i> ₁₁		3 16.2 188°70	0°2/16.4	18	
2 11	12 9.62	-8 48.0	1.752	2.550	15.8	18.9	2 11	12 10.05	-1 13.6	2.134	2.948	12.8	21.0
2 21	12 4.63	-8 26.2	1.672	2.555	12.4	18.7	2 21	12 4.60	-0 44.1	2.048	2.947	9.6	20.8
3 2	11 57.35	-7 42.9	1.614	2.560	8.4	18.5	3 2	11 57.20	-0 2.2	1.986	2.946	5.9	20.6
3 12	11 48.55	-6 41.1	1.582	2.564	4.3	18.2	3 12	11 48.51	+0 48.1	1.953	2.944	1.8	20.3
3 22	11 39.23	-5 26.6	1.577	2.568	3.2	18.2	3 22	11 39.37	+1 41.5	1.949	2.941	2.4	20.4
4 1	11 30.53	-4 7.4	1.601	2.571	6.8	18.4	4 1	11 30.69	+2 32.2	1.975	2.937	6.4	20.6
4 11	11 23.43	-2 52.2	1.651	2.573	10.9	18.6	4 11	11 23.33	+3 14.9	2.028	2.933	10.1	20.8
4 21	11 18.60	-1 47.7	1.725	2.575	14.6	18.9	4 21	11 17.88	+3 46.0	2.105	2.928	13.3	21.0
439781	2015 <i>GF</i> ₃₃		3 16.2 170°74	4°7/9.9	18		310221	2011 <i>SZ</i> ₂₁₁		3 16.2 123°95	0°5/16.7	18	
2 11	12 6.71	+16 51.5	2.627	3.470	9.7	21.3	2 11	12 11.26	-2 38.7	1.797	2.614	14.7	22.5
2 21	12 1.77	+17 50.9	2.561	3.472	7.4	21.2	2 21	12 5.62	-2 2.5	1.731	2.631	11.0	22.3
3 2	11 55.31	+18 48.7	2.523	3.474	5.4	21.1	3 2	11 57.83	-1 10.9	1.688	2.647	6.8	22.1
3 12	11 47.88	+19 38.9	2.513	3.475	4.8	21.0	3 12	11 48.68	-0 9.0	1.672	2.663	2.2	21.8
3 22	11 40.19	+20 16.8	2.531	3.476	6.1	21.1	3 22	11 39.19	+0 56.6	1.685	2.677	2.5	21.8
4 1	11 32.94	+20 38.8	2.578	3.477	8.4	21.2	4 1	11 30.42	+1 58.6	1.727	2.692	7.0	22.2
4 11	11 26.80	+20 43.5	2.650	3.478	10.7	21.4	4 11	11 23.29	+2 50.5	1.796	2.705	11.0	22.4
4 21	11 22.21	+20 31.3	2.743	3.478	12.7	21.6	4 21	11 18.37	+3 28.5	1.887	2.718	14.3	22.7
18445	1994 <i>PC</i> ₁₂		3 16.2 298°81	4°2/20.2	18		295232	2008 <i>GF</i> ₁₃		3 16.2 126°78	0°4/15.8	18	
2 11	12 7.92	-11 16.7	2.241	3.014	13.5	19.1	2 11	12 8.75	-0 17.4	2.140	2.959	12.6	21.1
2 21	12 3.10	-11 45.4	2.141	3.003	11.0	18.9	2 21	12 3.47	+0 30.5	2.072	2.976	9.3	20.9
3 2	11 56.36	-11 58.4	2.064	2.992	8.0	18.7	3 2	11 56.40	+1 30.1	2.030	2.992	5.6	20.7
3 12	11 48.27	-11 55.7	2.014	2.981	5.3	18.5	3 12	11 48.24	+2 36.1	2.016	3.007	1.6	20.4
3 22	11 39.60	-11 38.9	1.991	2.971	4.3	18.4	3 22	11 39.79	+3 42.6	2.031	3.022	2.6	20.5
4 1	11 31.26	-11 11.6	1.996	2.960	6.2	18.5	4 1	11 31.92	+4 43.3	2.077	3.036	6.4	20.8
4 11	11 24.11	-10 39.0	2.029	2.950	9.3	18.7	4 11	11 25.39	+5 33.2	2.149	3.049	9.9	21.0
4 21	11 18.77	-10 6.4	2.086	2.939	12.3	18.9	4 21	11 20.70	+6 9.3	2.245	3.062	12.8	21.2
212704	2007 <i>RA</i> ₁₄		3 16.2 170°91	0°6/16.8	18		147634	2004 <i>HH</i> ₅₈		3 16.2 133°09	1°9/14.4	18	
2 11	12 10.33	-3 0.5	2.127										

EPHEMERIDES

3 16.2

3 16.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
492496	2014 <i>NG</i> ₆₀		3 16.2 255°62		0°6/16.7 17		466530	2014 <i>SR</i>		3 16.2 113°39		0°3/16.6 18	
2 11	12 12.94	- 1 15.6	1.686	2.508	15.3	21.9	2 11	12 7.40	- 6 53.3	2.046	2.846	13.8	20.5
2 21	12 7.48	- 1 7.6	1.587	2.489	11.7	21.6	2 21	12 2.56	- 5 1.0	1.974	2.865	10.3	20.3
3 2	11 59.35	- 0 45.2	1.510	2.469	7.3	21.3	3 2	11 55.90	- 2 48.0	1.928	2.884	6.4	20.1
3 12	11 49.27	- 0 11.6	1.459	2.449	2.5	20.9	3 12	11 48.12	- 0 21.6	1.913	2.903	2.1	19.9
3 22	11 38.27	+ 0 27.8	1.436	2.428	2.8	20.9	3 22	11 40.05	+ 2 8.0	1.929	2.921	2.4	19.9
4 1	11 27.65	+ 1 6.4	1.442	2.407	7.9	21.2	4 1	11 32.60	+ 4 30.3	1.977	2.938	6.5	20.2
4 11	11 18.67	+ 1 37.7	1.473	2.385	12.7	21.4	4 11	11 26.51	+ 6 36.3	2.054	2.954	10.3	20.5
4 21	11 12.19	+ 1 56.9	1.525	2.362	16.8	21.6	4 21	11 22.29	+ 8 20.7	2.157	2.971	13.4	20.7
164100	2003 <i>WV</i> ₁₆₆		3 16.2 209°14		1°1/15.0 17		67907	2000 <i>WL</i> ₉₇		3 16.2 79°99		0°5/15.8 18	
2 11	12 6.24	+ 2 22.8	2.199	3.029	11.9	20.7	2 11	12 11.12	+ 0 18.9	1.495	2.332	16.1	19.3
2 21	12 1.72	+ 3 5.1	2.117	3.027	8.8	20.5	2 21	12 5.82	+ 0 52.0	1.439	2.350	11.9	19.1
3 2	11 55.43	+ 3 57.1	2.059	3.024	5.2	20.3	3 2	11 58.06	+ 1 39.4	1.405	2.369	7.2	18.8
3 12	11 47.98	+ 4 54.1	2.030	3.021	1.6	20.0	3 12	11 48.79	+ 2 34.8	1.396	2.388	2.1	18.6
3 22	11 40.12	+ 5 50.2	2.030	3.018	3.0	20.1	3 22	11 39.17	+ 3 30.4	1.415	2.406	3.2	18.7
4 1	11 32.71	+ 6 39.8	2.059	3.015	6.7	20.4	4 1	11 30.47	+ 4 18.6	1.461	2.424	8.1	19.0
4 11	11 26.50	+ 7 18.3	2.115	3.011	10.2	20.6	4 11	11 23.69	+ 4 53.5	1.531	2.442	12.4	19.3
4 21	11 22.04	+ 7 43.0	2.193	3.008	13.2	20.8	4 21	11 19.41	+ 5 12.2	1.623	2.460	16.0	19.6
417188	2005 <i>WA</i> ₁₆₃		3 16.2 134°25		6°4/23.6 16		77031	2001 <i>CT</i> ₂₉		3 16.2 238°46		5°0/10.0 18	
2 11	12 7.52	- 20 21.5	2.124	2.850	15.6	21.5	2 11	12 5.96	+ 13 32.8	2.144	2.995	11.3	19.6
2 21	12 2.82	- 20 30.3	2.039	2.858	13.2	21.3	2 21	12 1.65	+ 15 2.1	2.069	2.987	8.5	19.4
3 2	11 56.17	- 20 14.6	1.975	2.866	10.5	21.1	3 2	11 55.46	+ 16 34.4	2.020	2.978	5.9	19.3
3 12	11 48.21	- 19 34.0	1.935	2.874	7.9	21.0	3 12	11 48.02	+ 18 1.3	2.000	2.970	5.1	19.2
3 22	11 39.81	- 18 31.0	1.921	2.882	6.5	20.9	3 22	11 40.14	+ 19 15.2	2.008	2.961	6.9	19.3
4 1	11 31.92	- 17 11.1	1.935	2.889	7.2	21.0	4 1	11 32.70	+ 20 10.1	2.044	2.952	9.7	19.4
4 11	11 25.40	- 15 42.4	1.976	2.895	9.5	21.1	4 11	11 26.52	+ 20 42.9	2.104	2.942	12.7	19.6
4 21	11 20.83	- 14 13.2	2.041	2.902	12.2	21.3	4 21	11 22.17	+ 20 53.3	2.183	2.933	15.2	19.8
172722	2004 <i>BV</i> ₁₀₂		3 16.2 170°87		1°2/17.2 18		95406	2002 <i>CE</i> ₂₁₂		3 16.2 163°01		1°7/17.8 17	
2 11	12 28.04	- 5 10.4	1.814	2.589	16.2	21.7	2 11	12 8.70	- 4 40.7	1.977	2.785	13.9	21.0
2 21	12 18.29	- 4 30.5	1.726	2.602	12.4	21.5	2 21	12 3.74	- 4 34.5	1.894	2.786	10.6	20.8
3 2	12 5.67	- 3 31.3	1.663	2.612	7.9	21.2	3 2	11 56.75	- 4 13.6	1.835	2.788	6.9	20.6
3 12	11 51.11	- 2 16.9	1.631	2.618	3.0	21.0	3 12	11 48.42	- 3 40.7	1.802	2.789	3.0	20.3
3 22	11 35.90	- 0 54.7	1.631	2.622	2.8	21.0	3 22	11 39.62	- 3 0.1	1.798	2.790	2.5	20.3
4 1	11 21.50	+ 0 26.4	1.665	2.623	7.8	21.3	4 1	11 31.33	- 2 17.5	1.822	2.791	6.3	20.5
4 11	11 9.20	+ 1 38.1	1.728	2.621	12.3	21.5	4 11	11 24.44	- 1 38.6	1.874	2.791	10.1	20.7
4 21	10 59.76	+ 2 34.7	1.816	2.616	16.1	21.8	4 21	11 19.54	- 1 8.0	1.948	2.792	13.4	21.0
410209	2007 <i>RW</i> ₂₃₅		3 16.2 198°80		1°6/14.8 17		376309	2011 <i>GN</i> ₆		3 16.2 128°85		2°4/13.5 17	
2 11	12 10.79	+ 3 25.3	1.845	2.678	13.7	22.3	2 11	12 6.99	+ 6 1.3	2.147	2.985	11.8	21.2
2 21	12 5.42	+ 4 6.2	1.764	2.675	10.1	22.0	2 21	12 2.23	+ 7 2.6	2.079	2.995	8.6	21.0
3 2	11 57.83	+ 4 57.5	1.707	2.672	6.0	21.8	3 2	11 55.70	+ 8 10.9	2.038	3.004	5.2	20.8
3 12	11 48.73	+ 5 53.6	1.678	2.669	2.1	21.5	3 12	11 48.07	+ 9 20.0	2.025	3.013	2.5	20.6
3 22	11 39.11	+ 6 47.5	1.677	2.664	3.7	21.6	3 22	11 40.13	+ 10 23.3	2.042	3.022	4.2	20.7
4 1	11 30.05	+ 7 32.6	1.705	2.660	8.0	21.8	4 1	11 32.73	+ 11 15.1	2.087	3.030	7.5	20.9
4 11	11 22.53	+ 8 3.9	1.759	2.654	11.9	22.1	4 11	11 26.62	+ 11 51.5	2.158	3.038	10.7	21.2
4 21	11 17.20	+ 8 19.0	1.834	2.648	15.4	22.3	4 21	11 22.30	+ 12 11.2	2.251	3.046	13.5	21.4
42867	1999 <i>RO</i> ₁₁₃		3 16.2 74°90		3°9/20.8 18		129993	1999 <i>VN</i> ₁₈		3 16.2 231°56		1°0/17.1 18	
2 11	12 6.33	- 14 9.8	1.899	2.671	15.7	18.1	2 11	12 9.19	- 3 25.5	1.818	2.635	14.5	20.0
2 21	12 1.89	- 13 35.5	1.834	2.696	12.5	17.9	2 21	12 4.36	- 3 2.4	1.728	2.627	11.1	19.8
3 2	11 55.52	- 12 37.2	1.791	2.721	9.0	17.7	3 2	11 57.27	- 2 23.1	1.661	2.618	7.0	19.5
3 12	11 47.99	- 11 17.9	1.774	2.745	5.5	17.6	3 12	11 48.62	- 1 31.1	1.620	2.609	2.6	19.2
3 22	11 40.19	- 9 43.7	1.785	2.769	4.0	17.5	3 22	11 39.33	- 0 32.1	1.608	2.600	2.5	19.2
4 1	11 33.08	- 8 3.0	1.824	2.793	6.2	17.7	4 1	11 30.52	+ 0 26.8	1.624	2.590	7.1	19.4
4 11	11 27.44	- 6 24.9	1.891	2.817	9.5	18.0	4 11	11 23.19	+ 1 18.6	1.665	2.580	11.3	19.7
4 21	11 23.78	- 4 56.6	1.982	2.840	12.6	18.2	4 21	11 18.05	+ 1 58.2	1.730	2.570	15.0	19.9
405506	2005 <i>AB</i> ₆₅		3 16.2 343°84		3°0/13.8 16		362094	2009 <i>BA</i> ₁₈₁		3 16.2 359°06		3°0/14.2 18	
2 11	12 4.43	+ 4 18.4	1.225	2.092	16.9	20.6	2 11	12 9.10	+ 6 16.3	1.216	2.080	17.2	20.7
2 21	12 1.56	+ 5 21.6	1.155	2.084	12.5	20.4	2 21	12 5.03	+ 6 46.1	1.150	2.077	12.8	20.4
3 2	11 55.87	+ 6 40.5	1.106	2.077	7.5	20.0	3 2	11 57.96	+ 7 25.8	1.106	2.076	7.7	20.2
3 12	11 48.21	+ 8 5.5	1.081	2.071	3.2	19.8	3 12	11 48.85	+ 8 7.3	1.085	2.075	3.3	19.9
3 22	11 39.82	+ 9 25.0	1.081	2.066	5.7	19.9	3 22	11 39.07	+ 8 41.8	1.089	2.075	5.5	20.0
4 1	11 32.18	+ 10 27.9	1.104	2.062	10.9	20.2	4 1	11 30.18	+ 9 1.3	1.117	2.076	10.6	20.3
4 11	11 26.57	+ 11 6.9	1.150	2.058	15.8	20.4	4 11	11 23.51	+ 9 1.4	1.167	2.078	15.4	20.6
4 21	11 23.76	+ 11 19.4	1.213	2.056	20.0	20.7	4 21	11 19.79	+ 8 41.1	1.236	2.081	19.6	20.8
81569	2000 <i>HD</i> ₃₅		3 16.2 218°87		0°9/15.2 17		409949	2006 <i>UV</i> ₁₉₇		3 16.2 149°74		1°8/14.7 18	
2 11	12 6.37	- 0 4.4	2.155	2.979	12.3	20.0	2 11	12 9.67	+ 4 3.2	1.788	2.626	13.8	21.4
2 21	12 1.92	+ 1 5.3	2.064	2.971	9.1	19.7	2 21	12 4.58	+ 4 42.0	1.715	2.629	10.2	21.2
3 2	11 55.62	+ 2 29.2	1.999	2.962	5.5	19.5	3 2	11 57.30	+ 5 30.4	1.666	2.632	6.1	21.0
3 12	11 48.06	+ 4 1.5	1.962	2.953	1.6	19.2	3 12	11 48.59	+ 6 22.4	1.645	2.635	2.2	20.7
3 22	11 40.03	+ 5 35.1	1.955	2.943	3.0	19.3	3 22	11 39.43	+ 7 11.3	1.651	2.638	3.8	20.9
4 1	11 32.38	+ 7 2.2	1.977	2.933	7.0	19.5	4 1	11 30.90	+ 7 50.6	1.686	2.640	8.0	21.1
4 11	11 25.94	+ 8 16.4	2.027	2.922	10.7	19.7	4 11	11 23.95	+ 8 15.7	1.745	2.642	11.9	21.3
4 21	11 21.30	+ 9 13.6	2.100	2.910	13.8	19.9	4 21	11 19.19	+ 8 24.7	1.827	2.644	15.3	21.6
341474	2007 <i>TO</i> ₃₄₄		3 16.2 112°28		0°6/15.6 17		416911	2005					

EPHEMERIDES

3 16.2

3 16.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
242226	2003 SY ₇₅	3 16.2 259°86		0°4/15.9 17			37975	1998 HB ₁₁₈	3 16.3 223°08		4°0/11.6 18		
2 11	12 7.98	- 1 3.2	1.723	2.552	14.6	20.7	2 11	12 6.79	+10 35.1	2.178	3.023	11.4	19.4
2 21	12 3.66	- 0 13.9	1.627	2.535	11.0	20.5	2 21	12 2.22	+11 49.5	2.099	3.017	8.4	19.2
3 2	11 56.97	+ 0 53.2	1.554	2.517	6.7	20.2	3 2	11 55.81	+13 8.6	2.047	3.010	5.4	19.0
3 12	11 48.56	+ 2 12.5	1.507	2.498	2.0	19.8	3 12	11 48.17	+14 25.2	2.023	3.002	4.0	18.9
3 22	11 39.40	+ 3 36.4	1.489	2.480	3.1	19.9	3 22	11 40.10	+15 32.2	2.028	2.994	5.7	19.0
4 1	11 30.64	+ 4 55.8	1.498	2.460	8.1	20.1	4 1	11 32.47	+16 23.7	2.062	2.986	8.8	19.1
4 11	11 23.38	+ 6 2.6	1.533	2.440	12.6	20.3	4 11	11 26.08	+16 56.2	2.120	2.977	11.8	19.3
4 21	11 18.39	+ 6 51.5	1.589	2.420	16.6	20.5	4 21	11 21.50	+17 8.9	2.199	2.969	14.5	19.5
114115	2002 VK ₄₈	3 16.2 83°03		6°6/22.8 18			406552	2007 XN ₅₈	3 16.3 87°50		2°4/14.3 18		
2 11	12 7.11	-18 16.6	1.765	2.519	17.4	19.8	2 11	12 12.03	+ 5 23.1	1.588	2.431	15.0	21.3
2 21	12 2.87	-18 28.3	1.685	2.525	14.5	19.6	2 21	12 6.40	+ 6 3.1	1.532	2.449	11.0	21.1
3 2	11 56.37	-18 13.0	1.624	2.532	11.3	19.4	3 2	11 58.40	+ 6 51.5	1.499	2.466	6.5	20.8
3 12	11 48.34	-17 30.1	1.587	2.539	8.2	19.2	3 12	11 48.94	+ 7 41.2	1.493	2.483	2.6	20.6
3 22	11 39.78	-16 22.9	1.576	2.545	6.6	19.1	3 22	11 39.17	+ 8 24.8	1.515	2.500	4.4	20.8
4 1	11 31.82	-14 58.3	1.591	2.552	7.8	19.2	4 1	11 30.28	+ 8 56.2	1.563	2.516	8.7	21.1
4 11	11 25.45	-13 25.8	1.631	2.558	10.7	19.4	4 11	11 23.26	+ 9 11.4	1.637	2.532	12.7	21.3
4 21	11 21.33	-11 55.2	1.696	2.565	13.9	19.6	4 21	11 18.66	+ 9 9.5	1.731	2.549	16.0	21.6
105707	2000 SL ₇₀	3 16.2 201°67		2°2/13.3 18			82584	2001 OL ₈₇	3 16.3 167°22		1°0/17.2 18		
2 11	12 5.77	+ 7 53.5	2.808	3.641	9.5	20.5	2 11	12 12.57	- 2 26.1	2.218	3.021	12.7	19.6
2 21	12 1.04	+ 8 36.7	2.725	3.637	6.9	20.3	2 21	12 6.39	- 2 26.2	2.134	3.025	9.7	19.4
3 2	11 54.90	+ 9 24.1	2.669	3.634	4.2	20.1	3 2	11 58.29	- 2 15.2	2.075	3.029	6.1	19.2
3 12	11 47.84	+10 11.2	2.643	3.629	2.3	20.0	3 12	11 48.92	- 1 55.6	2.044	3.033	2.4	18.9
3 22	11 40.49	+10 53.6	2.647	3.625	3.6	20.1	3 22	11 39.13	- 1 31.0	2.044	3.036	2.2	18.9
4 1	11 33.47	+11 27.3	2.681	3.620	6.3	20.2	4 1	11 29.85	- 1 5.8	2.073	3.038	5.9	19.2
4 11	11 27.42	+11 49.7	2.742	3.615	9.0	20.4	4 11	11 21.90	- 0 44.5	2.130	3.039	9.5	19.4
4 21	11 22.75	+11 59.4	2.826	3.609	11.3	20.5	4 21	11 15.86	- 0 30.2	2.212	3.041	12.6	19.6
313611	2003 QK ₅₈	3 16.3 212°41		1°3/14.9 17			308197	Satrapa	3 16.3 31°55		0°7/16.8 18		
2 11	12 9.92	+ 2 7.4	2.032	2.859	12.8	21.8	2 11	12 8.55	- 1 46.9	1.254	2.099	18.1	20.7
2 21	12 4.67	+ 2 56.7	1.943	2.851	9.5	21.5	2 21	12 4.43	- 1 36.1	1.194	2.108	13.6	20.5
3 2	11 57.36	+ 3 57.7	1.879	2.843	5.7	21.3	3 2	11 57.50	- 1 6.9	1.154	2.118	8.5	20.2
3 12	11 48.65	+ 5 4.8	1.843	2.834	1.8	21.0	3 12	11 48.73	- 0 24.6	1.138	2.129	2.9	19.9
3 22	11 39.38	+ 6 11.4	1.836	2.824	3.3	21.1	3 22	11 39.44	+ 0 23.3	1.147	2.140	3.1	20.0
4 1	11 30.56	+ 7 10.7	1.859	2.813	7.4	21.3	4 1	11 31.08	+ 1 8.1	1.182	2.152	8.5	20.3
4 11	11 23.10	+ 7 57.2	1.908	2.802	11.3	21.5	4 11	11 24.84	+ 1 42.2	1.239	2.165	13.4	20.6
4 21	11 17.64	+ 8 27.7	1.980	2.789	14.6	21.7	4 21	11 21.40	+ 2 1.1	1.316	2.178	17.5	20.9
87473	2000 QK ₁₃₇	3 16.3 217°31		4°2/20.5 17			319192	2005 YA ₁₅₀	3 16.3 142°56		0°9/15.5 18		
2 11	12 8.06	-12 26.7	2.066	2.838	14.6	20.3	2 11	12 13.00	+ 1 34.8	1.745	2.572	14.6	21.8
2 21	12 3.32	-12 32.4	1.972	2.833	11.8	20.1	2 21	12 7.05	+ 2 10.8	1.676	2.584	10.8	21.6
3 2	11 56.56	-12 18.4	1.901	2.829	8.6	19.8	3 2	11 58.81	+ 2 58.8	1.631	2.594	6.5	21.3
3 12	11 48.41	-11 45.4	1.855	2.824	5.5	19.6	3 12	11 49.09	+ 3 52.8	1.613	2.605	1.9	21.0
3 22	11 39.70	-10 56.5	1.837	2.818	4.3	19.6	3 22	11 38.96	+ 4 46.2	1.624	2.614	3.3	21.2
4 1	11 31.41	- 9 57.0	1.847	2.813	6.4	19.7	4 1	11 29.55	+ 5 32.0	1.664	2.622	7.7	21.5
4 11	11 24.43	- 8 54.0	1.884	2.807	9.7	19.9	4 11	11 21.87	+ 6 5.0	1.729	2.630	11.8	21.7
4 21	11 19.42	- 7 54.1	1.945	2.801	13.0	20.0	4 21	11 16.52	+ 6 22.8	1.817	2.637	15.2	21.9
127760	2003 FM ₃₂	3 16.3 178°21		1°0/15.3 18			122546	2000 QT ₂₂₆	3 16.3 164°87		1°0/14.9 18		
2 11	12 8.78	+ 2 14.9	2.043	2.871	12.7	20.4	2 11	12 5.64	- 1 49.9	2.158	2.977	12.5	19.4
2 21	12 3.71	+ 2 48.7	1.963	2.872	9.4	20.2	2 21	12 1.32	- 0 3.9	2.076	2.981	9.2	19.2
3 2	11 56.71	+ 3 32.4	1.909	2.873	5.6	19.9	3 2	11 55.24	+ 1 58.8	2.021	2.985	5.4	18.9
3 12	11 48.43	+ 4 21.2	1.882	2.874	1.7	19.7	3 12	11 48.01	+ 4 10.8	1.996	2.988	1.6	18.7
3 22	11 39.72	+ 5 9.5	1.885	2.874	3.0	19.8	3 22	11 40.39	+ 6 23.1	2.003	2.990	3.1	18.8
4 1	11 31.53	+ 5 51.3	1.916	2.873	7.0	20.0	4 1	11 33.23	+ 8 26.3	2.041	2.993	7.0	19.0
4 11	11 24.70	+ 6 22.3	1.973	2.873	10.6	20.2	4 11	11 27.29	+10 12.9	2.106	2.994	10.6	19.3
4 21	11 19.81	+ 6 39.6	2.054	2.872	13.8	20.4	4 21	11 23.10	+11 38.5	2.196	2.996	13.6	19.5
156417	2002 AA ₇₇	3 16.3 157°16		0°7/17.1 16			255657	2006 QX ₂₇	3 16.3 272°91		1°2/15.3 17		
2 11	12 9.42	- 2 50.0	2.447	3.249	11.7	21.3	2 11	12 9.96	+ 2 15.9	1.700	2.536	14.5	21.5
2 21	12 3.86	- 2 28.7	2.366	3.258	8.8	21.1	2 21	12 5.24	+ 2 49.1	1.602	2.515	10.9	21.2
3 2	11 56.66	- 1 56.0	2.311	3.266	5.5	20.9	3 2	11 58.01	+ 3 35.4	1.528	2.493	6.6	20.9
3 12	11 48.39	- 1 15.2	2.284	3.273	2.0	20.7	3 12	11 48.95	+ 4 29.4	1.479	2.471	2.0	20.6
3 22	11 39.80	- 0 30.3	2.287	3.279	2.0	20.7	3 22	11 39.05	+ 5 24.3	1.459	2.448	3.6	20.6
4 1	11 31.67	+ 0 13.9	2.321	3.285	5.5	21.0	4 1	11 29.53	+ 6 12.4	1.466	2.425	8.5	20.8
4 11	11 24.70	+ 0 52.8	2.383	3.290	8.7	21.2	4 11	11 21.56	+ 6 47.1	1.498	2.402	13.1	21.0
4 21	11 19.40	+ 1 23.0	2.470	3.295	11.5	21.4	4 21	11 15.97	+ 7 4.9	1.551	2.378	17.1	21.2
406409	2007 TK ₁₂₅	3 16.3 91°38		2°1/14.5 18			269113	2007 JA ₃₈	3 16.3 228°56		2°8/13.4 17		
2 11	12 11.70	+ 4 6.0	1.612	2.453	14.9	21.7	2 11	12 8.35	+ 7 44.0	2.118	2.958	11.9	20.9
2 21	12 6.08	+ 4 55.0	1.559	2.474	10.9	21.5	2 21	12 3.41	+ 8 30.8	2.036	2.952	8.8	20.7
3 2	11 58.16	+ 5 53.9	1.529	2.495	6.5	21.3	3 2	11 56.56	+ 9 23.4	1.980	2.945	5.4	20.5
3 12	11 48.85	+ 6 55.1	1.526	2.516	2.4	21.1	3 12	11 48.42	+10 16.1	1.951	2.938	2.8	20.3
3 22	11 39.26	+ 7 51.0	1.550	2.536	4.2	21.3	3 22	11 39.84	+11 2.7	1.951	2.930	4.5	20.4
4 1	11 30.56	+ 8 34.7	1.603	2.556	8.5	21.5	4 1	11 31.71	+11 37.8	1.980	2.922	7.9	20.6
4 11	11 23.70	+ 9 2.0	1.680	2.576	12.4	21.8	4 11	11 24.89	+11 57.9	2.035	2.914	11.3	20.8
4 21	11 19.21	+ 9 11.4	1.778	2.595	15.7	22.1	4 21	11 19.95	+12 1.5	2.111	2.906	14.3	20.9
268157	2004 TD ₃₅₁	3 16.3 48°17		2°6/13.8 17			26889	1995 BM ₁	3 16.3 146°17		1°9/14.1 18		
2 11	12 7.67	+ 6 22.1	1.837	2.682	13.2	20.3	2 11	12 9.11	+ 4 36.4	2.23			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
192788	1999 <i>UH</i> ₃₄		3 16.3 74°62'	0°2/16.5	18		437768	2015 <i>AQ</i> ₁₆₇		3 16.3 145°02'	2°3/18.4	17	
2 11	12 6.64	- 1 34.9	1.937	2.761	13.5	20.8	2 11	12 8.40	- 6 15.7	1.949	2.752	14.2	21.5
2 21	12 2.24	- 1 5.1	1.860	2.764	10.1	20.6	2 21	12 3.59	- 6 14.1	1.866	2.753	11.0	21.2
3 2	11 55.87	- 0 21.7	1.806	2.767	6.2	20.4	3 2	11 56.74	- 5 56.5	1.805	2.755	7.3	21.0
3 12	11 48.22	+ 0 30.9	1.779	2.769	2.0	20.1	3 12	11 48.52	- 5 25.2	1.772	2.755	3.6	20.8
3 22	11 40.14	+ 1 27.0	1.780	2.772	2.4	20.1	3 22	11 39.81	- 4 44.3	1.766	2.756	2.8	20.7
4 1	11 32.59	+ 2 20.1	1.809	2.775	6.6	20.4	4 1	11 31.60	- 3 59.4	1.788	2.757	6.3	20.9
4 11	11 26.42	+ 3 4.5	1.865	2.777	10.5	20.6	4 11	11 24.80	- 3 16.8	1.837	2.758	10.1	21.2
4 21	11 22.20	+ 3 36.4	1.944	2.780	13.8	20.9	4 21	11 20.02	- 2 41.5	1.909	2.759	13.4	21.4
112181	2002 <i>JJ</i> ₉₈		3 16.3 16°38'	4°9/20.9	18		462648	2009 <i>SP</i> ₁₆₄		3 16.3 192°46'	5°0/11.4	17	
2 11	12 5.79	-13 3.8	1.725	2.511	16.5	19.4	2 11	12 12.45	+15 25.2	2.094	2.935	11.9	21.4
2 21	12 1.92	-13 12.2	1.645	2.513	13.4	19.2	2 21	12 6.43	+16 11.4	2.023	2.934	9.0	21.2
3 2	11 55.83	-12 57.1	1.585	2.515	9.8	18.9	3 2	11 58.36	+16 56.4	1.977	2.933	6.3	21.0
3 12	11 48.24	-12 19.4	1.549	2.518	6.4	18.7	3 12	11 48.99	+17 33.4	1.960	2.931	5.0	20.9
3 22	11 40.10	-11 22.9	1.540	2.522	4.9	18.7	3 22	11 39.22	+17 56.7	1.971	2.928	6.6	21.0
4 1	11 32.52	-10 14.4	1.557	2.525	7.1	18.8	4 1	11 30.06	+18 2.2	2.010	2.926	9.4	21.2
4 11	11 26.49	- 9 2.6	1.599	2.530	10.6	19.0	4 11	11 22.39	+17 48.7	2.074	2.923	12.4	21.4
4 21	11 22.66	- 7 55.4	1.664	2.534	14.1	19.2	4 21	11 16.78	+17 17.3	2.159	2.920	15.0	21.5
21867	1999 <i>TQ</i> ₂₅₁		3 16.3 75°98'	0°7/15.3	18		372415	2009 <i>RX</i> ₄₇		3 16.3 264°39'	1°1/15.3	17	
2 11	12 2.27	- 0 9.6	2.501	3.325	10.8	18.0	2 11	12 10.02	+ 3 10.2	1.829	2.663	13.7	20.5
2 21	11 58.60	+ 0 58.3	2.422	3.329	8.0	17.8	2 21	12 4.96	+ 3 31.4	1.743	2.655	10.2	20.3
3 2	11 53.50	+ 2 17.4	2.370	3.333	4.7	17.6	3 2	11 57.66	+ 4 2.2	1.682	2.647	6.1	20.0
3 12	11 47.48	+ 3 42.7	2.346	3.338	1.4	17.4	3 12	11 48.83	+ 4 38.0	1.647	2.638	1.9	19.7
3 22	11 41.16	+ 5 8.2	2.353	3.342	2.5	17.5	3 22	11 39.40	+ 5 12.9	1.641	2.630	3.3	19.8
4 1	11 35.22	+ 6 27.8	2.390	3.347	5.9	17.7	4 1	11 30.49	+ 5 41.1	1.662	2.621	7.7	20.0
4 11	11 30.29	+ 7 36.3	2.454	3.351	9.0	17.9	4 11	11 23.09	+ 5 58.1	1.709	2.613	11.8	20.3
4 21	11 26.80	+ 8 30.6	2.543	3.355	11.6	18.1	4 21	11 17.87	+ 6 1.2	1.778	2.604	15.3	20.5
194360	2001 <i>UB</i> ₁₇₂		3 16.3 83°40'	2°7/14.3	18		39587	1993 <i>FF</i> ₃₀		3 16.3 233°79'	1°9/18.3	18	
2 11	12 11.71	+ 5 43.5	1.401	2.252	16.1	20.6	2 11	12 7.23	- 6 17.0	2.137	2.937	13.2	19.7
2 21	12 6.65	+ 6 22.2	1.334	2.254	11.9	20.3	2 21	12 2.63	- 6 2.8	2.043	2.930	10.3	19.4
3 2	11 58.83	+ 7 10.9	1.289	2.256	7.2	20.0	3 2	11 56.14	- 5 33.0	1.973	2.923	6.8	19.2
3 12	11 49.17	+ 8 1.8	1.269	2.258	3.0	19.8	3 12	11 48.34	- 4 49.9	1.930	2.915	3.2	19.0
3 22	11 38.92	+ 8 46.4	1.275	2.261	5.0	19.9	3 22	11 40.04	- 3 57.9	1.916	2.907	2.5	18.9
4 1	11 29.50	+ 9 17.1	1.308	2.263	9.8	20.2	4 1	11 32.14	- 3 2.6	1.931	2.899	6.0	19.1
4 11	11 22.12	+ 9 29.3	1.364	2.265	14.3	20.5	4 11	11 25.47	- 2 10.2	1.973	2.891	9.6	19.3
4 21	11 17.48	+ 9 21.9	1.439	2.267	18.2	20.7	4 21	11 20.63	- 1 25.7	2.038	2.883	12.9	19.5
85570	1998 <i>BU</i> ₂₀		3 16.3 256°55'	2°9/13.2	18		347007	2010 <i>DM</i> ₂₃		3 16.3 178°04'	2°5/19.6	17	
2 11	12 7.00	+ 6 36.5	1.921	2.766	12.7	20.2	2 11	12 3.77	-10 37.8	2.525	3.302	12.1	21.3
2 21	12 2.63	+ 7 39.3	1.837	2.755	9.4	19.9	2 21	11 59.77	-10 3.6	2.433	3.303	9.5	21.2
3 2	11 56.20	+ 8 50.9	1.778	2.745	5.7	19.7	3 2	11 54.26	- 9 12.2	2.366	3.303	6.6	21.0
3 12	11 48.35	+10 4.3	1.747	2.734	3.0	19.5	3 12	11 47.75	- 8 6.2	2.326	3.303	3.7	20.8
3 22	11 39.97	+11 11.9	1.744	2.723	4.9	19.6	3 22	11 40.90	- 6 49.8	2.315	3.304	2.6	20.7
4 1	11 32.05	+12 6.6	1.769	2.712	8.6	19.8	4 1	11 34.42	- 5 28.7	2.335	3.303	5.0	20.9
4 11	11 25.51	+12 43.7	1.819	2.701	12.3	20.0	4 11	11 28.96	- 4 9.2	2.382	3.303	8.1	21.0
4 21	11 20.99	+13 1.2	1.890	2.690	15.5	20.2	4 21	11 25.00	- 2 56.6	2.455	3.303	10.9	21.2
506843	2007 <i>TD</i> ₃₈₅		3 16.3 184°93'	4°5/10.6	17		415271	2013 <i>EB</i> ₈		3 16.3 280°54'	1°5/17.5	14 C	
2 11	12 6.51	+14 35.7	2.456	3.301	10.3	21.6	2 11	12 9.11	- 4 20.4	1.545	2.369	16.3	22.1
2 21	12 1.79	+15 41.3	2.387	3.301	7.7	21.4	2 21	12 4.91	- 4 4.1	1.444	2.346	12.7	21.8
3 2	11 55.45	+16 47.1	2.345	3.301	5.4	21.3	3 2	11 58.00	- 3 27.7	1.365	2.322	8.2	21.5
3 12	11 48.08	+17 46.9	2.331	3.301	4.5	21.2	3 12	11 49.04	- 2 34.1	1.310	2.299	3.3	21.1
3 22	11 40.39	+18 35.1	2.347	3.300	6.0	21.3	3 22	11 39.08	- 1 29.1	1.282	2.274	2.9	21.0
4 1	11 33.14	+19 7.3	2.390	3.299	8.5	21.5	4 1	11 29.45	- 0 21.3	1.280	2.250	8.2	21.3
4 11	11 27.04	+19 21.7	2.458	3.297	11.0	21.6	4 11	11 21.48	+ 0 40.0	1.304	2.226	13.2	21.5
4 21	11 22.56	+19 18.2	2.547	3.296	13.3	21.8	4 21	11 16.09	+ 1 27.9	1.348	2.201	17.7	21.7
156576	2002 <i>EF</i> ₁₃₉		3 16.3 128°44'	1°1/15.1	18		297862	2002 <i>CY</i> ₆₈		3 16.3 45°77'	2°6/14.4	18	
2 11	12 7.35	+ 2 8.1	2.044	2.875	12.6	20.7	2 11	12 9.05	+ 3 59.9	1.196	2.057	17.7	21.0
2 21	12 2.62	+ 2 54.1	1.972	2.883	9.3	20.5	2 21	12 4.81	+ 4 52.5	1.146	2.072	13.0	20.7
3 2	11 56.04	+ 3 50.5	1.925	2.890	5.5	20.3	3 2	11 57.72	+ 5 58.4	1.117	2.087	7.7	20.5
3 12	11 48.27	+ 4 51.8	1.905	2.897	1.7	20.0	3 12	11 48.84	+ 7 7.8	1.112	2.103	2.9	20.2
3 22	11 40.14	+ 5 51.7	1.915	2.903	3.1	20.1	3 22	11 39.56	+ 8 10.3	1.133	2.120	5.1	20.4
4 1	11 32.56	+ 6 44.1	1.953	2.910	7.0	20.4	4 1	11 31.34	+ 8 56.8	1.178	2.137	10.2	20.8
4 11	11 26.32	+ 7 24.3	2.018	2.916	10.5	20.6	4 11	11 25.36	+ 9 22.1	1.245	2.154	14.8	21.1
4 21	11 21.95	+ 7 49.6	2.105	2.922	13.6	20.8	4 21	11 22.21	+ 9 25.0	1.331	2.172	18.6	21.4
28121	1998 <i>SY</i> ₇₂		3 16.3 328°79'	0°1/16.3	18		368180	2000 <i>RD</i> ₁₄		3 16.3 188°27'	4°4/20.9	17	
2 11	12 5.89	- 2 55.3	1.295	2.140	17.7	17.9	2 11	12 9.94	-13 46.7	2.388	3.140	13.4	22.1
2 21	12 2.59	- 2 1.8	1.220	2.135	13.3	17.7	2 21	12 4.50	-14 2.2	2.293	3.139	10.9	21.9
3 2	11 56.51	- 0 44.6	1.166	2.131	8.2	17.4	3 2	11 57.22	-14 0.1	2.221	3.138	8.1	21.7
3 12	11 48.51	+ 0 49.6	1.136	2.127	2.5	17.0	3 12	11 48.68	-13 40.8	2.175	3.136	5.5	21.5
3 22	11 39.78	+ 2 30.2	1.132	2.124	3.4	17.0	3 22	11 39.66	-13 6.4	2.158	3.134	4.4	21.4
4 1	11 31.76	+ 4 4.9	1.153	2.121	9.1	17.4	4 1	11 31.01	-12 20.8	2.170	3.131	6.0	21.5
4 11	11 25.69	+ 5 23.0	1.197	2.118	14.2	17.6	4 11	11 23.55	-11 29.9	2.210	3.128	8.8	21.7
4 21	11 22.35	+ 6 18.2	1.261	2.115	18.6	17.9	4 21	11 17.86	-10 39.5	2.275	3.124	11.6	21.9
376168	2011 <i>BN</i> ₁₄₅		3 16.3 291°93'	2°0/14.4	17		296229	2009 <i>CC</i> ₄₄		3 16.			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
213875	2003 SA ₂₂₅		3 16.3 81°94	1°5/15.0	18		424842	2008 UA ₂₇₅		3 16.3 276°47	2°3/14.0	17	
2 11	12 10.75	+ 2 27.3	1.553	2.393	15.4	20.1	2 11	12 8.17	+ 6 22.1	2.019	2.859	12.4	21.3
2 21	12 5.51	+ 3 13.8	1.498	2.413	11.3	19.9	2 21	12 3.45	+ 6 58.9	1.930	2.846	9.2	21.1
3 2	11 57.91	+ 4 12.2	1.466	2.432	6.7	19.7	3 2	11 56.71	+ 7 42.8	1.866	2.832	5.5	20.9
3 12	11 48.87	+ 5 15.3	1.461	2.452	2.1	19.4	3 12	11 48.58	+ 8 28.3	1.830	2.819	2.5	20.6
3 22	11 39.53	+ 6 15.1	1.483	2.471	3.8	19.6	3 22	11 39.91	+ 9 9.5	1.822	2.805	4.1	20.7
4 1	11 31.06	+ 7 4.2	1.532	2.490	8.3	19.9	4 1	11 31.66	+ 9 40.8	1.842	2.792	7.9	20.9
4 11	11 24.45	+ 7 37.4	1.606	2.509	12.4	20.2	4 11	11 24.74	+ 9 58.1	1.888	2.778	11.6	21.1
4 21	11 20.24	+ 7 52.8	1.701	2.528	15.9	20.4	4 21	11 19.78	+ 9 59.7	1.956	2.764	14.8	21.3
486652	2013 QM ₁		3 16.3 314°53	19°1/26.2	18		487576	2014 YN ₁₃		3 16.3 74°65	8°8/7.2	18	
2 11	12 18.44	-29 4.6	1.107	1.826	27.5	20.9	2 11	12 10.59	+23 30.5	1.749	2.601	13.4	20.7
2 21	12 13.61	-32 5.3	1.037	1.824	25.2	20.6	2 21	12 5.28	+25 8.7	1.715	2.619	10.8	20.5
3 2	12 4.29	-34 32.8	0.982	1.822	22.7	20.4	3 2	11 57.72	+26 37.0	1.705	2.637	9.1	20.5
3 12	11 51.21	-36 12.3	0.942	1.820	20.5	20.3	3 12	11 48.83	+27 45.2	1.721	2.655	9.1	20.5
3 22	11 36.06	-36 53.0	0.920	1.818	19.2	20.2	3 22	11 39.71	+28 26.4	1.762	2.673	10.6	20.6
4 1	11 21.39	-36 32.7	0.916	1.816	19.3	20.2	4 1	11 31.50	+28 37.6	1.827	2.692	13.0	20.8
4 11	11 9.73	-35 22.4	0.929	1.814	20.8	20.3	4 11	11 25.12	+28 20.1	1.914	2.710	15.4	21.0
4 21	11 2.65	-33 40.1	0.957	1.813	23.1	20.4	4 21	11 21.06	+27 37.8	2.017	2.727	17.4	21.2
230418	2002 NC ₅₂		3 16.3 199°37	2°1/17.9	18		59286	1999 CV ₅₁		3 16.3 36°67	2°6/14.4	18	
2 11	12 12.43	- 5 53.2	1.646	2.454	16.2	21.4	2 11	12 9.44	+ 5 41.9	1.373	2.229	16.1	18.4
2 21	12 7.03	- 5 41.1	1.560	2.451	12.6	21.2	2 21	12 4.84	+ 6 15.4	1.319	2.242	11.8	18.2
3 2	11 59.07	- 5 9.6	1.496	2.448	8.3	20.9	3 2	11 57.66	+ 6 57.8	1.287	2.255	7.1	17.9
3 12	11 49.31	- 4 21.6	1.458	2.444	3.7	20.6	3 12	11 48.85	+ 7 41.6	1.279	2.269	2.9	17.7
3 22	11 38.86	- 3 22.6	1.448	2.439	3.0	20.5	3 22	11 39.66	+ 8 18.9	1.298	2.284	4.8	17.9
4 1	11 28.98	- 2 20.3	1.465	2.434	7.4	20.8	4 1	11 31.41	+ 8 43.0	1.342	2.299	9.4	18.2
4 11	11 20.84	- 1 22.9	1.508	2.428	12.0	21.0	4 11	11 25.17	+ 8 49.9	1.410	2.315	13.7	18.5
4 21	11 15.18	- 0 36.7	1.574	2.421	15.9	21.3	4 21	11 21.53	+ 8 38.9	1.497	2.332	17.2	18.7
193021	2000 EU ₅₂		3 16.3 68°45	0°8/16.8	18		464138	2014 XC ₁		3 16.3 151°57	2°0/14.2	18	
2 11	12 14.29	- 1 6.1	1.267	2.104	18.4	19.8	2 11	12 12.04	+ 6 23.4	2.343	3.169	11.4	21.2
2 21	12 8.64	- 1 6.4	1.210	2.120	13.9	19.5	2 21	12 5.85	+ 6 58.9	2.272	3.180	8.3	21.0
3 2	12 0.05	- 0 50.1	1.174	2.137	8.6	19.3	3 2	11 57.92	+ 7 39.6	2.227	3.191	5.0	20.8
3 12	11 49.57	- 0 22.1	1.163	2.153	2.9	19.0	3 12	11 48.89	+ 8 20.6	2.212	3.200	2.2	20.6
3 22	11 38.64	+ 0 11.0	1.177	2.170	3.1	19.0	3 22	11 39.57	+ 8 57.1	2.226	3.209	3.6	20.7
4 1	11 28.79	+ 0 41.7	1.217	2.186	8.6	19.4	4 1	11 30.80	+ 9 24.5	2.271	3.217	6.9	20.9
4 11	11 21.25	+ 1 3.2	1.281	2.203	13.4	19.7	4 11	11 23.32	+ 9 40.1	2.343	3.224	10.0	21.1
4 21	11 16.69	+ 1 11.6	1.365	2.219	17.5	20.0	4 21	11 17.64	+ 9 42.6	2.439	3.230	12.7	21.3
9986	Hirokun		3 16.3 317°77	9°1/24.6	18		374362	2005 UR ₂₃₂		3 16.3 249°35	6°9/9.3	17	
2 11	12 8.01	-22 31.5	1.756	2.484	18.4	16.6	2 11	12 12.71	+20 6.7	2.047	2.890	12.1	22.0
2 21	12 3.86	-23 23.4	1.667	2.479	16.0	16.4	2 21	12 6.88	+21 11.6	1.969	2.875	9.6	21.8
3 2	11 57.21	-23 48.0	1.595	2.474	13.2	16.3	3 2	11 58.81	+22 12.9	1.916	2.859	7.5	21.6
3 12	11 48.77	-23 41.9	1.545	2.470	10.7	16.1	3 12	11 49.23	+23 2.0	1.890	2.843	7.0	21.6
3 22	11 39.56	-23 5.0	1.519	2.465	9.2	16.0	3 22	11 39.09	+23 32.1	1.892	2.826	8.6	21.6
4 1	11 30.80	-22 1.5	1.517	2.461	9.7	16.0	4 1	11 29.49	+23 38.7	1.920	2.809	11.3	21.8
4 11	11 23.66	-20 40.1	1.540	2.457	11.9	16.1	4 11	11 21.40	+23 20.9	1.971	2.792	14.1	21.9
4 21	11 18.93	-19 11.2	1.585	2.454	14.7	16.3	4 21	11 15.51	+22 40.7	2.042	2.774	16.7	22.1
187503	2006 SQ ₃₆₄		3 16.3 12°33	2°8/14.5	18		76147	2000 EY ₁₆		3 16.3 41°15	0°2/16.2	18	
2 11	12 7.91	+ 6 32.4	1.157	2.026	17.6	18.6	2 11	12 14.29	+ 2 13.1	1.431	2.270	16.6	18.5
2 21	12 4.17	+ 6 50.4	1.101	2.030	13.0	18.3	2 21	12 8.45	+ 1 58.6	1.367	2.279	12.4	18.3
3 2	11 57.46	+ 7 17.1	1.065	2.036	7.8	18.0	3 2	11 59.89	+ 1 54.5	1.325	2.289	7.6	18.1
3 12	11 48.82	+ 7 44.7	1.053	2.043	3.2	17.8	3 12	11 49.55	+ 1 56.7	1.309	2.300	2.3	17.8
3 22	11 39.64	+ 8 5.2	1.064	2.051	5.3	17.9	3 22	11 38.73	+ 2 0.5	1.319	2.311	3.1	17.8
4 1	11 31.47	+ 8 11.8	1.100	2.061	10.3	18.2	4 1	11 28.83	+ 2 0.7	1.356	2.322	8.2	18.2
4 11	11 25.56	+ 8 0.8	1.157	2.073	15.1	18.5	4 11	11 21.01	+ 1 53.3	1.418	2.334	12.8	18.5
4 21	11 22.57	+ 7 31.6	1.232	2.085	19.1	18.8	4 21	11 15.94	+ 1 35.9	1.500	2.346	16.6	18.7
296369	2009 FP ₃₇		3 16.3 252°05	2°6/13.9	17		108279	2001 HM ₅₉		3 16.3 261°89	1°8/14.7	17	
2 11	12 10.27	+ 5 53.2	1.865	2.704	13.3	21.4	2 11	12 9.63	+ 3 54.0	1.802	2.640	13.7	20.5
2 21	12 5.25	+ 6 43.9	1.771	2.686	9.9	21.1	2 21	12 4.83	+ 4 34.1	1.710	2.624	10.2	20.2
3 2	11 57.93	+ 7 44.3	1.702	2.668	6.0	20.9	3 2	11 57.70	+ 5 25.1	1.641	2.607	6.2	19.9
3 12	11 48.98	+ 8 47.7	1.661	2.649	2.8	20.6	3 12	11 48.93	+ 6 21.4	1.599	2.590	2.2	19.6
3 22	11 39.33	+ 9 46.8	1.648	2.630	4.6	20.7	3 22	11 39.46	+ 7 15.8	1.586	2.573	3.9	19.7
4 1	11 30.08	+10 34.5	1.663	2.610	8.8	20.9	4 1	11 30.41	+ 8 1.3	1.600	2.555	8.4	19.9
4 11	11 22.30	+11 5.5	1.703	2.590	12.8	21.1	4 11	11 22.85	+ 8 32.4	1.640	2.537	12.6	20.1
4 21	11 16.69	+11 17.7	1.765	2.569	16.3	21.3	4 21	11 17.51	+ 8 46.2	1.701	2.519	16.2	20.3
169652	2002 JU ₄₈		3 16.3 341°02	2°5/14.7	18		413103	2001 UT ₁₄₂		3 16.3 36°41	2°7/14.5	18	
2 11	12 7.32	+ 5 2.8	1.159	2.027	17.7	19.1	2 11	12 11.83	+ 5 14.9	1.118	1.981	18.5	20.5
2 21	12 4.01	+ 5 26.3	1.087	2.015	13.2	18.8	2 21	12 6.61	+ 5 53.6	1.092	2.018	13.4	20.3
3 2	11 57.58	+ 6 2.0	1.034	2.005	8.0	18.4	3 2	11 58.59	+ 6 41.6	1.086	2.056	7.9	20.1
3 12	11 48.93	+ 6 42.3	1.005	1.996	3.0	18.1	3 12	11 49.06	+ 7 29.6	1.105	2.095	3.1	19.9
3 22	11 39.42	+ 7 18.1	0.999	1.987	5.1	18.2	3 22	11 39.55	+ 8 8.5	1.148	2.135	5.1	20.2
4 1	11 30.66	+ 7 40.9	1.017	1.980	10.7	18.5	4 1	11 31.45	+ 8 31.8	1.216	2.175	9.9	20.6
4 11	11 24.12	+ 7 44.7	1.056	1.975	15.9	18.8	4 11	11 25.77	+ 8 36.4	1.306	2.216	14.2	20.9
4 21	11 20.64	+ 7 27.5	1.113	1.970	20.4	19.0	4 21	11 22.92	+ 8 22.5	1.415	2.257	17.7	21.2
42801	1999 FK ₄₁		3 16.3 64°12	3°4/18.7	18		36599	2000 QB ₁₃₈		3 16.3 277°46	1°6/14.8	18	
2 11	12 17.84	- 6 34.3											

EPHEMERIDES

3 16.3

3 16.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
172999	2006 <i>MF</i> ₂		3 16.3 212°21	1°9/14.4	17		372702	2009 <i>WJ</i> ₂₃₇		3 16.3 104°15	2°3/18.6	17	
2 11	12 8.56	+ 2 44.2	1.818	2.655	13.7	21.2	2 11	12 7.51	- 7 14.5	1.934	2.736	14.4	21.4
2 21	12 3.90	+ 3 48.4	1.736	2.650	10.1	21.0	2 21	12 2.95	- 7 2.7	1.855	2.741	11.2	21.2
3 2	11 57.05	+ 5 5.6	1.678	2.644	6.0	20.7	3 2	11 56.39	- 6 33.4	1.798	2.745	7.5	21.0
3 12	11 48.70	+ 6 28.9	1.648	2.638	2.2	20.4	3 12	11 48.50	- 5 49.2	1.767	2.750	3.7	20.8
3 22	11 39.80	+ 7 50.1	1.646	2.632	4.0	20.5	3 22	11 40.17	- 4 55.0	1.764	2.755	2.8	20.7
4 1	11 31.41	+ 9 1.1	1.672	2.625	8.3	20.8	4 1	11 32.37	- 3 56.9	1.790	2.760	6.2	20.9
4 11	11 24.51	+ 9 55.5	1.724	2.617	12.3	21.0	4 11	11 25.97	- 3 1.9	1.842	2.764	10.0	21.2
4 21	11 19.75	+10 30.4	1.797	2.609	15.7	21.2	4 21	11 21.56	- 2 15.3	1.917	2.769	13.3	21.4
27944	1997 <i>MA</i> ₃		3 16.3 181°58	3°0/13.6	18		331124	2010 <i>VD</i> ₁₃		3 16.3 66°29	7°2/10.5	18	
2 11	12 12.20	+ 6 51.1	1.821	2.660	13.6	18.7	2 11	12 13.39	+18 27.0	1.580	2.434	14.5	20.1
2 21	12 6.53	+ 7 46.6	1.747	2.661	10.0	18.5	2 21	12 7.49	+19 29.3	1.536	2.450	11.1	20.0
3 2	11 58.60	+ 8 49.9	1.697	2.662	6.1	18.2	3 2	11 59.13	+20 26.1	1.515	2.466	8.3	19.8
3 12	11 49.16	+ 9 53.7	1.675	2.662	3.1	18.1	3 12	11 49.30	+21 8.1	1.520	2.483	7.3	19.8
3 22	11 39.23	+10 50.6	1.681	2.661	4.9	18.2	3 22	11 39.23	+21 28.1	1.551	2.499	9.0	19.9
4 1	11 29.92	+11 33.9	1.716	2.659	8.8	18.4	4 1	11 30.18	+21 22.8	1.607	2.515	11.9	20.2
4 11	11 22.22	+11 59.4	1.776	2.657	12.6	18.6	4 11	11 23.14	+20 52.9	1.686	2.532	15.0	20.4
4 21	11 16.78	+12 6.0	1.857	2.654	15.8	18.8	4 21	11 18.65	+20 1.7	1.784	2.548	17.6	20.6
458769	2011 <i>SF</i> ₆₄		3 16.3 157°12	0°1/16.4	18		257167	2008 <i>HS</i> ₆₆		3 16.3 12°53	2°7/17.8	18	
2 11	12 11.18	- 1 49.6	1.928	2.743	13.9	22.6	2 11	12 12.92	- 2 33.6	1.273	2.109	18.5	19.3
2 21	12 5.61	- 1 7.8	1.852	2.752	10.4	22.4	2 21	12 7.87	- 3 24.7	1.206	2.112	14.2	19.0
3 2	11 57.96	- 0 11.5	1.801	2.760	6.4	22.2	3 2	11 59.78	- 4 1.1	1.158	2.116	9.3	18.8
3 12	11 48.96	+ 0 54.2	1.777	2.767	2.0	21.9	3 12	11 49.61	- 4 23.8	1.135	2.121	4.3	18.5
3 22	11 39.53	+ 2 2.9	1.782	2.774	2.5	21.9	3 22	11 38.74	- 4 35.5	1.136	2.128	3.7	18.5
4 1	11 30.70	+ 3 7.5	1.817	2.779	6.9	22.2	4 1	11 28.74	- 4 40.8	1.163	2.135	8.4	18.8
4 11	11 23.37	+ 4 1.7	1.878	2.784	10.8	22.5	4 11	11 20.98	- 4 45.7	1.214	2.144	13.3	19.0
4 21	11 18.13	+ 4 41.7	1.963	2.788	14.1	22.7	4 21	11 16.23	- 4 54.8	1.284	2.153	17.5	19.3
467647	2008 <i>SM</i> ₁₉₂		3 16.3 183°38	0°7/15.4	17		173829	2001 <i>TJ</i> ₃₄		3 16.3 123°63	2°2/13.8	18	
2 11	12 6.39	+ 0 56.5	2.375	3.197	11.4	22.1	2 11	12 8.67	+ 8 2.0	2.493	3.326	10.6	20.3
2 21	12 1.78	+ 1 43.5	2.292	3.197	8.4	21.9	2 21	12 3.31	+ 8 30.0	2.422	3.334	7.7	20.1
3 2	11 55.53	+ 2 40.8	2.234	3.197	5.0	21.7	3 2	11 56.37	+ 9 1.4	2.378	3.342	4.7	19.9
3 12	11 48.20	+ 3 43.9	2.205	3.197	1.5	21.4	3 12	11 48.46	+ 9 32.0	2.363	3.350	2.3	19.8
3 22	11 40.51	+ 4 47.2	2.207	3.196	2.6	21.5	3 22	11 40.28	+ 9 57.4	2.377	3.358	3.6	19.9
4 1	11 33.24	+ 5 45.2	2.237	3.195	6.2	21.7	4 1	11 32.58	+10 14.0	2.421	3.365	6.6	20.1
4 11	11 27.08	+ 6 33.1	2.296	3.193	9.4	21.9	4 11	11 26.04	+10 19.4	2.492	3.373	9.5	20.2
4 21	11 22.53	+ 7 8.1	2.377	3.191	12.3	22.1	4 21	11 21.12	+10 12.8	2.587	3.380	12.0	20.4
269450	2009 <i>SD</i> ₂₅₃		3 16.3 156°20	3°4/12.9	17		136726	1995 <i>UH</i> ₄₁		3 16.3 224°61	1°7/18.5	18	
2 11	12 8.63	+ 9 7.6	2.004	2.848	12.3	20.6	2 11	12 4.32	- 7 15.9	2.505	3.297	11.7	20.6
2 21	12 3.67	+10 0.0	1.934	2.851	9.0	20.4	2 21	12 0.24	- 6 46.6	2.411	3.293	9.1	20.4
3 2	11 56.76	+10 57.0	1.888	2.853	5.6	20.2	3 2	11 54.61	- 6 2.4	2.341	3.288	6.1	20.2
3 12	11 48.59	+11 52.2	1.871	2.855	3.4	20.1	3 12	11 47.95	- 5 6.0	2.299	3.283	2.9	20.0
3 22	11 40.02	+12 39.0	1.882	2.857	5.1	20.2	3 22	11 40.91	- 4 1.6	2.286	3.277	2.1	19.9
4 1	11 32.03	+13 12.0	1.921	2.859	8.4	20.4	4 1	11 34.21	- 2 54.4	2.303	3.272	5.1	20.1
4 11	11 25.44	+13 28.0	1.985	2.860	11.8	20.6	4 11	11 28.52	- 1 50.3	2.348	3.266	8.3	20.3
4 21	11 20.81	+13 26.5	2.071	2.862	14.6	20.8	4 21	11 24.34	- 0 53.8	2.418	3.260	11.2	20.5
473199	2015 <i>KF</i> ₉₀		3 16.3 320°10	3°6/12.3	17		134660	1999 <i>VR</i> ₁₁₂		3 16.3 146°16	0°1/16.4	18	
2 11	12 5.02	+ 9 47.7	2.071	2.921	11.7	20.8	2 11	12 10.07	- 1 33.5	1.988	2.805	13.5	21.2
2 21	12 1.05	+10 43.5	1.991	2.911	8.6	20.6	2 21	12 4.73	- 0 57.4	1.914	2.814	10.1	21.0
3 2	11 55.21	+11 44.2	1.936	2.901	5.5	20.4	3 2	11 57.41	- 0 8.0	1.864	2.824	6.2	20.8
3 12	11 48.13	+12 43.2	1.909	2.891	3.6	20.3	3 12	11 48.81	+ 0 50.3	1.841	2.832	1.9	20.5
3 22	11 40.61	+13 33.9	1.910	2.882	5.3	20.3	3 22	11 39.82	+ 1 51.3	1.848	2.840	2.4	20.6
4 1	11 33.52	+14 10.7	1.938	2.873	8.5	20.5	4 1	11 31.42	+ 2 48.5	1.884	2.847	6.6	20.8
4 11	11 27.70	+14 30.2	1.991	2.865	11.8	20.7	4 11	11 24.45	+ 3 36.3	1.947	2.854	10.4	21.1
4 21	11 23.70	+14 31.4	2.065	2.856	14.7	20.9	4 21	11 19.47	+ 4 11.1	2.034	2.860	13.6	21.3
32416	2000 <i>RS</i> ₃₁		3 16.3 149°79	2°1/19.1	18		491021	2011 <i>OF</i> ₁₂		3 16.3 97°72	3°2/13.5	18	
2 11	12 4.32	- 8 38.1	2.653	3.436	11.4	18.8	2 11	12 8.80	+ 4 16.2	1.396	2.250	16.1	21.0
2 21	12 0.11	- 8 12.2	2.566	3.441	8.9	18.6	2 21	12 4.44	+ 5 42.5	1.337	2.260	11.8	20.7
3 2	11 54.45	- 7 31.8	2.504	3.445	6.0	18.5	3 2	11 57.49	+ 7 22.4	1.301	2.269	7.0	20.5
3 12	11 47.87	- 6 39.3	2.469	3.449	3.2	18.3	3 12	11 48.87	+ 9 5.6	1.290	2.279	3.3	20.3
3 22	11 40.98	- 5 38.6	2.464	3.453	2.3	18.2	3 22	11 39.77	+10 40.4	1.307	2.288	5.6	20.4
4 1	11 34.46	- 4 34.5	2.489	3.457	4.8	18.4	4 1	11 31.52	+11 56.6	1.349	2.298	10.2	20.7
4 11	11 28.92	- 3 32.4	2.542	3.461	7.7	18.6	4 11	11 25.22	+12 48.2	1.415	2.307	14.5	21.0
4 21	11 24.81	- 2 36.7	2.621	3.464	10.4	18.8	4 21	11 21.49	+13 13.8	1.500	2.316	18.1	21.2
422751	2001 <i>SU</i> ₂₆₇		3 16.3 157°49	2°5/13.4	17		6582	Flagsymphony		3 16.3 94°75	2°0/18.7	18	
2 11	12 10.10	+ 7 43.6	2.474	3.304	10.7	22.2	2 11	12 7.97	- 8 24.0	2.187	2.975	13.4	17.6
2 21	12 4.38	+ 8 32.4	2.403	3.313	7.9	22.1	2 21	12 2.91	- 7 48.0	2.123	3.002	10.3	17.5
3 2	11 57.03	+ 9 25.8	2.358	3.322	4.8	21.9	3 2	11 56.16	- 6 55.0	2.083	3.028	6.8	17.3
3 12	11 48.65	+10 18.4	2.343	3.329	2.5	21.7	3 12	11 48.40	- 5 48.8	2.071	3.054	3.3	17.1
3 22	11 39.98	+11 5.0	2.359	3.336	3.9	21.8	3 22	11 40.41	- 4 34.8	2.088	3.079	2.4	17.1
4 1	11 31.81	+11 41.3	2.404	3.342	6.9	22.0	4 1	11 33.02	- 3 19.5	2.135	3.103	5.5	17.4
4 11	11 24.82	+12 4.3	2.476	3.348	9.9	22.2	4 11	11 26.94	- 2 9.3	2.210	3.127	8.8	17.6
4 21	11 19.50	+12 13.0	2.572	3.353	12.4	22.4	4 21	11 22.64	- 1 9.0	2.309	3.151	11.7	17.8
52001	2001 <i>UO</i> ₃₀		3 16.3 31°72	4°9/10.9	18		363906	2005 <i>SF</i> ₁₈₇		3 16.3 201°91	0°		

EPHEMERIDES

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3 16.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
379043	2008 <i>WM</i> ₂₅		3 16.3 104°53	0°4/16.7	17		94506	2001 <i>UX</i> ₇₄		3 16.3 291°62	2°6/14.2	18	
2 11	12 6.65	- 2 3.5	2.078	2.897	12.9	21.7	2 11	12 9.11	+ 4 21.9	1.398	2.251	16.1	19.8
2 21	12 2.16	- 1 34.3	2.001	2.902	9.7	21.5	2 21	12 4.86	+ 5 17.0	1.325	2.247	11.9	19.5
3 2	11 55.84	- 0 52.1	1.948	2.907	6.0	21.2	3 2	11 57.89	+ 6 25.4	1.275	2.243	7.1	19.2
3 12	11 48.34	- 0 0.9	1.922	2.913	2.0	21.0	3 12	11 49.06	+ 7 38.8	1.249	2.239	2.9	18.9
3 22	11 40.45	+ 0 53.9	1.925	2.918	2.2	21.0	3 22	11 39.54	+ 8 47.4	1.250	2.236	5.1	19.1
4 1	11 33.07	+ 1 46.4	1.957	2.923	6.2	21.3	4 1	11 30.74	+ 9 41.9	1.277	2.232	10.0	19.3
4 11	11 26.97	+ 2 31.1	2.016	2.928	9.8	21.5	4 11	11 23.86	+10 16.0	1.326	2.228	14.6	19.6
4 21	11 22.70	+ 3 4.4	2.098	2.933	13.0	21.7	4 21	11 19.66	+10 27.3	1.395	2.224	18.5	19.8
105656	2000 <i>SA</i> ₂₈		3 16.3 106°57	1°8/18.7	18		293909	Matterhorn		3 16.3 243°94	1°7/14.6	17	
2 11	12 5.17	- 7 25.8	2.570	3.359	11.6	19.9	2 11	12 9.59	+ 5 51.7	2.246	3.077	11.6	20.8
2 21	12 0.72	- 7 3.7	2.493	3.372	8.9	19.7	2 21	12 4.29	+ 6 13.0	2.159	3.070	8.6	20.6
3 2	11 54.82	- 6 27.9	2.440	3.385	6.0	19.6	3 2	11 57.14	+ 6 40.1	2.098	3.063	5.2	20.4
3 12	11 48.00	- 5 41.0	2.415	3.397	3.0	19.4	3 12	11 48.76	+ 7 8.5	2.065	3.055	2.0	20.1
3 22	11 40.91	- 4 46.9	2.419	3.410	2.2	19.3	3 22	11 39.94	+ 7 33.7	2.062	3.048	3.4	20.2
4 1	11 34.24	- 3 50.4	2.454	3.422	4.9	19.5	4 1	11 31.55	+ 7 51.4	2.088	3.040	6.9	20.4
4 11	11 28.61	- 2 56.6	2.516	3.434	7.8	19.7	4 11	11 24.40	+ 7 58.3	2.141	3.032	10.3	20.6
4 21	11 24.46	- 2 9.5	2.604	3.446	10.5	19.9	4 21	11 19.05	+ 7 52.9	2.216	3.024	13.3	20.8
470202	2006 <i>VD</i> ₆₀		3 16.3 195°89	3°6/21.3	17		284413	2006 <i>UH</i> ₂₂₈		3 16.3 161°99	2°0/18.9	18	
2 11	12 4.32	-14 26.7	2.768	3.518	11.8	22.0	2 11	12 6.12	- 7 45.0	2.944	3.722	10.5	21.5
2 21	12 0.13	-14 12.7	2.671	3.517	9.6	21.8	2 21	12 1.31	- 7 34.9	2.855	3.728	8.2	21.3
3 2	11 54.50	-13 41.7	2.597	3.514	7.1	21.6	3 2	11 55.15	- 7 13.0	2.792	3.732	5.5	21.1
3 12	11 47.92	-12 54.9	2.549	3.512	4.7	21.5	3 12	11 48.12	- 6 40.9	2.757	3.737	2.9	21.0
3 22	11 40.99	-11 55.1	2.531	3.509	3.6	21.4	3 22	11 40.80	- 6 1.6	2.752	3.741	2.2	20.9
4 1	11 34.38	-10 46.9	2.542	3.506	5.0	21.5	4 1	11 33.82	- 5 18.9	2.777	3.744	4.5	21.1
4 11	11 28.71	- 9 35.7	2.582	3.503	7.5	21.6	4 11	11 27.74	- 4 36.8	2.832	3.748	7.2	21.3
4 21	11 24.44	- 8 26.9	2.647	3.500	10.0	21.8	4 21	11 22.99	- 3 58.9	2.912	3.750	9.6	21.4
466720	2014 <i>WX</i> ₄₉₄		3 16.3 78°61	0°2/16.1	18		18194	2000 <i>QE</i> ₁₀₀		3 16.3 66°76	1°9/13.9	18 R	
2 11	12 6.92	- 1 47.9	1.909	2.733	13.7	20.6	2 11	12 3.91	+ 4 15.7	2.302	3.139	11.2	18.8
2 21	12 2.35	- 0 52.9	1.850	2.755	10.1	20.4	2 21	12 0.00	+ 5 18.3	2.226	3.140	8.2	18.6
3 2	11 55.92	+ 0 16.2	1.815	2.776	6.1	20.2	3 2	11 54.49	+ 6 29.5	2.175	3.141	4.8	18.4
3 12	11 48.35	+ 1 33.5	1.807	2.798	1.8	19.9	3 12	11 47.94	+ 7 43.6	2.153	3.142	2.0	18.2
3 22	11 40.51	+ 2 51.7	1.828	2.819	2.5	20.0	3 22	11 41.04	+ 8 54.3	2.160	3.143	3.6	18.3
4 1	11 33.34	+ 4 3.7	1.878	2.841	6.6	20.3	4 1	11 34.56	+ 9 55.7	2.196	3.144	6.9	18.5
4 11	11 27.60	+ 5 3.6	1.954	2.862	10.3	20.6	4 11	11 29.20	+10 43.5	2.259	3.146	10.1	18.7
4 21	11 23.78	+ 5 47.8	2.053	2.882	13.4	20.8	4 21	11 25.44	+11 15.3	2.344	3.147	12.8	18.9
452548	2004 <i>VC</i> ₈₁		3 16.3 189°65	4°4/20.8	17		382856	2004 <i>FK</i> ₂₈		3 16.3 317°38	0°6/15.7	17	
2 11	12 9.43	-14 2.9	1.932	2.698	15.7	21.9	2 11	12 5.37	+ 1 17.2	1.927	2.762	13.1	20.6
2 21	12 4.53	-13 48.5	1.841	2.698	12.7	21.7	2 21	12 1.51	+ 1 44.1	1.834	2.746	9.8	20.3
3 2	11 57.45	-13 10.2	1.771	2.696	9.3	21.5	3 2	11 55.63	+ 2 22.6	1.765	2.729	5.9	20.1
3 12	11 48.88	-12 9.3	1.726	2.694	5.9	21.3	3 12	11 48.34	+ 3 8.3	1.722	2.713	1.8	19.8
3 22	11 39.74	-10 49.9	1.709	2.692	4.4	21.2	3 22	11 40.46	+ 3 55.6	1.707	2.698	2.9	19.8
4 1	11 31.08	- 9 19.3	1.721	2.688	6.7	21.3	4 1	11 32.98	+ 4 38.3	1.720	2.683	7.2	20.0
4 11	11 23.88	- 7 46.6	1.760	2.684	10.2	21.5	4 11	11 26.79	+ 5 10.9	1.758	2.668	11.2	20.2
4 21	11 18.79	- 6 20.0	1.823	2.679	13.7	21.7	4 21	11 22.56	+ 5 29.9	1.819	2.654	14.6	20.4
215453	2002 <i>PG</i> ₁₁		3 16.3 142°92	1°0/17.3	18		395155	2010 <i>CE</i> ₈₇		3 16.3 186°55	3°0/13.6	18	
2 11	12 9.26	- 4 6.4	1.871	2.684	14.4	21.3	2 11	12 10.26	+ 4 50.9	1.585	2.430	14.9	21.6
2 21	12 4.28	- 3 36.2	1.795	2.691	10.9	21.1	2 21	12 5.42	+ 6 7.6	1.512	2.430	11.0	21.3
3 2	11 57.21	- 2 49.8	1.742	2.698	6.9	20.9	3 2	11 58.10	+ 7 36.7	1.463	2.430	6.6	21.1
3 12	11 48.78	- 1 51.2	1.716	2.705	2.6	20.6	3 12	11 49.10	+ 9 9.5	1.441	2.429	3.1	20.8
3 22	11 39.92	- 0 46.6	1.719	2.711	2.4	20.6	3 22	11 39.52	+10 35.9	1.446	2.428	5.3	21.0
4 1	11 31.64	+ 0 17.1	1.750	2.717	6.6	20.9	4 1	11 30.60	+11 46.6	1.479	2.425	9.7	21.2
4 11	11 24.85	+ 1 13.1	1.808	2.723	10.6	21.1	4 11	11 23.44	+12 35.6	1.536	2.423	13.9	21.4
4 21	11 20.15	+ 1 56.7	1.889	2.728	14.0	21.4	4 21	11 18.73	+13 1.0	1.613	2.420	17.4	21.7
374600	2006 <i>DM</i> ₁₁₀		3 16.3 20°30	0°5/16.8	18		399640	2004 <i>QL</i> ₁₀		3 16.3 173°35	3°4/12.8	18	
2 11	12 3.19	- 3 43.0	1.531	2.367	15.8	20.4	2 11	12 11.79	+ 8 24.3	2.060	2.896	12.3	22.7
2 21	12 0.13	- 2 52.3	1.464	2.373	11.9	20.1	2 21	12 6.00	+ 9 33.4	1.988	2.901	9.1	22.5
3 2	11 54.83	- 1 41.5	1.418	2.380	7.4	19.9	3 2	11 58.19	+10 48.4	1.941	2.904	5.6	22.3
3 12	11 48.07	- 0 16.9	1.397	2.388	2.5	19.6	3 12	11 49.08	+12 2.2	1.923	2.907	3.4	22.2
3 22	11 40.86	+ 1 12.9	1.403	2.396	2.7	19.6	3 22	11 39.56	+13 7.4	1.935	2.909	5.2	22.3
4 1	11 34.31	+ 2 38.2	1.436	2.405	7.5	19.9	4 1	11 30.60	+13 57.9	1.976	2.910	8.5	22.5
4 11	11 29.39	+ 3 50.4	1.494	2.415	11.9	20.2	4 11	11 23.08	+14 30.1	2.043	2.909	11.9	22.7
4 21	11 26.68	+ 4 44.2	1.573	2.425	15.6	20.5	4 21	11 17.57	+14 43.2	2.132	2.908	14.7	22.9
157812	1995 <i>US</i> ₆₀		3 16.3 53°17	0°3/16.1	18		287541	2003 <i>EE</i> ₂₀		3 16.3 337°52	0°3/16.0	18	
2 11	12 8.29	- 1 28.5	1.294	2.138	17.6	20.2	2 11	12 1.98	- 3 40.2	1.508	2.347	15.9	19.4
2 21	12 4.32	- 0 41.1	1.227	2.143	13.2	20.0	2 21	11 59.40	- 2 19.2	1.427	2.339	11.9	19.1
3 2	11 57.57	+ 0 26.7	1.182	2.147	8.1	19.7	3 2	11 54.50	- 0 34.0	1.368	2.332	7.3	18.9
3 12	11 48.94	+ 1 47.8	1.160	2.152	2.4	19.4	3 12	11 48.02	+ 1 28.2	1.334	2.326	2.2	18.5
3 22	11 39.71	+ 3 12.1	1.165	2.157	3.5	19.4	3 22	11 40.92	+ 3 36.2	1.328	2.319	3.2	18.6
4 1	11 31.30	+ 4 28.6	1.195	2.162	9.0	19.8	4 1	11 34.37	+ 5 37.7	1.349	2.314	8.4	18.9
4 11	11 24.93	+ 5 28.4	1.248	2.167	14.0	20.1	4 11	11 29.41	+ 7 21.5	1.394	2.309	13.1	19.1
4 21	11 21.32	+ 6 6.8	1.321	2.172	18.2	20.3	4 21	11 26.73	+ 8 41.1	1.461	2.305	17.1	19.3
301546	2009 <i>FX</i> ₇₁		3 16.3 270°40	4°3/11.8	17		508733	2017 <i>UB</i> ₂₉		3 16.3 122°64			

EPHEMERIDES

3 16.3

3 16.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
182492	2001 <i>SO</i> ₁₇₃		3 16.3 175°94	4.4/12.5 18			146339	2001 <i>OY</i> ₄₆		3 16.3 203°43	0°8/17.2 17		
2 11	12 13.68	+13 3.1	1.926	2.768	12.8	20.4	2 11	12 8.82	- 3 27.6	2.205	3.011	12.7	21.2
2 21	12 7.52	+13 39.2	1.855	2.769	9.6	20.2	2 21	12 3.79	- 2 58.4	2.113	3.007	9.6	20.9
3 2	11 59.16	+14 15.7	1.810	2.770	6.3	20.0	3 2	11 56.89	- 2 15.2	2.046	3.002	6.1	20.7
3 12	11 49.38	+14 46.0	1.792	2.770	4.4	19.9	3 12	11 48.72	- 1 21.6	2.007	2.996	2.2	20.5
3 22	11 39.20	+15 4.1	1.802	2.771	6.0	20.0	3 22	11 40.07	- 0 22.5	1.997	2.990	2.1	20.4
4 1	11 29.68	+15 6.0	1.841	2.771	9.3	20.2	4 1	11 31.83	+ 0 36.2	2.017	2.983	6.0	20.7
4 11	11 21.79	+14 50.0	1.904	2.770	12.6	20.4	4 11	11 24.82	+ 1 28.7	2.065	2.975	9.7	20.9
4 21	11 16.10	+14 17.1	1.989	2.770	15.5	20.6	4 21	11 19.61	+ 2 10.6	2.137	2.967	12.9	21.1
281949	2011 <i>GA</i> ₃₄		3 16.3 88°34	1°2/17.5 17			122572	2000 <i>RT</i> ₁₃		3 16.3 186°02	1°8/18.5 18		
2 11	12 7.45	- 4 8.1	1.943	2.757	13.9	21.1	2 11	12 6.11	- 8 14.7	2.225	3.016	13.1	20.5
2 21	12 2.87	- 3 47.5	1.868	2.764	10.6	20.9	2 21	12 1.75	- 7 28.6	2.135	3.016	10.1	20.3
3 2	11 56.34	- 3 11.7	1.816	2.771	6.7	20.7	3 2	11 55.62	- 6 24.0	2.069	3.015	6.7	20.1
3 12	11 48.52	- 2 24.5	1.790	2.778	2.7	20.5	3 12	11 48.32	- 5 4.5	2.030	3.014	3.2	19.9
3 22	11 40.31	- 1 31.0	1.793	2.785	2.3	20.5	3 22	11 40.61	- 3 35.6	2.021	3.013	2.3	19.8
4 1	11 32.65	- 0 37.5	1.824	2.793	6.3	20.7	4 1	11 33.32	- 2 4.6	2.042	3.011	5.7	20.0
4 11	11 26.38	+ 0 9.9	1.882	2.800	10.1	21.0	4 11	11 27.21	- 0 38.6	2.092	3.009	9.2	20.2
4 21	11 22.07	+ 0 46.8	1.963	2.807	13.4	21.2	4 21	11 22.83	+ 0 36.6	2.165	3.006	12.4	20.4
101607	1999 <i>CN</i> ₆		3 16.3 283°50	10°0/21.9 18			251005	2006 <i>PP</i> ₄		3 16.3 173°04	0°2/16.5 17		
2 11	12 19.57	-20 4.0	1.846	2.563	17.9	18.6	2 11	12 10.44	- 1 27.5	2.175	2.986	12.7	21.5
2 21	12 12.78	-21 58.7	1.743	2.550	15.6	18.4	2 21	12 4.93	- 0 57.0	2.092	2.990	9.5	21.3
3 2	12 2.96	-23 35.1	1.662	2.536	13.1	18.2	3 2	11 57.54	- 0 14.3	2.034	2.993	5.9	21.1
3 12	11 50.74	-24 46.9	1.605	2.523	10.9	18.0	3 12	11 48.91	+ 0 36.7	2.005	2.995	1.9	20.8
3 22	11 37.20	-25 29.8	1.574	2.509	10.0	17.9	3 22	11 39.87	+ 1 30.7	2.005	2.997	2.3	20.9
4 1	11 23.81	-25 43.4	1.571	2.496	10.9	18.0	4 1	11 31.31	+ 2 22.0	2.035	2.998	6.2	21.1
4 11	11 12.05	-25 32.7	1.592	2.482	13.3	18.1	4 11	11 24.05	+ 3 5.4	2.093	2.998	9.8	21.3
4 21	11 3.01	-25 6.3	1.636	2.469	16.1	18.2	4 21	11 18.66	+ 3 37.5	2.174	2.997	13.0	21.5
323073	2002 <i>TJ</i> ₉₆		3 16.3 66°80	8°4/24.9 17			384960	2012 <i>TJ</i> ₁₄₉		3 16.3 141°24	0°0/16.3 17		
2 11	12 4.75	-25 5.5	1.081	1.846	25.5	20.3	2 11	12 6.32	- 0 33.6	2.564	3.378	10.9	21.7
2 21	12 2.23	-24 9.8	1.015	1.858	21.6	20.0	2 21	12 1.60	- 0 5.4	2.486	3.385	8.1	21.5
3 2	11 56.51	-22 17.9	0.963	1.872	17.0	19.8	3 2	11 55.39	+ 0 32.4	2.433	3.392	4.9	21.3
3 12	11 48.65	-19 29.8	0.931	1.885	12.0	19.5	3 12	11 48.23	+ 1 16.1	2.408	3.399	1.5	21.1
3 22	11 40.18	-15 55.9	0.922	1.898	8.6	19.4	3 22	11 40.77	+ 2 1.7	2.413	3.405	2.0	21.1
4 1	11 32.78	-11 57.9	0.938	1.912	9.6	19.5	4 1	11 33.72	+ 2 44.6	2.449	3.411	5.4	21.3
4 11	11 27.81	- 8 3.1	0.980	1.926	13.9	19.8	4 11	11 27.73	+ 3 20.7	2.512	3.417	8.4	21.6
4 21	11 25.97	- 4 33.7	1.044	1.939	18.5	20.1	4 21	11 23.23	+ 3 47.2	2.600	3.422	11.1	21.7
172522	2003 <i>SP</i> ₂₆₉		3 16.3 200°19	1°5/14.8 17			96150	4158 <i>T</i> ₋₃		3 16.3 196°47	0°5/15.9 18		
2 11	12 10.87	+ 3 22.8	2.046	2.874	12.7	21.5	2 11	12 9.35	- 1 15.6	1.736	2.562	14.7	21.0
2 21	12 5.41	+ 4 7.6	1.961	2.870	9.4	21.3	2 21	12 4.60	- 0 19.5	1.654	2.560	11.0	20.7
3 2	11 57.91	+ 5 2.3	1.901	2.865	5.6	21.0	3 2	11 57.57	+ 0 53.4	1.595	2.558	6.7	20.5
3 12	11 49.03	+ 6 1.5	1.870	2.860	2.0	20.8	3 12	11 48.97	+ 2 17.4	1.564	2.555	2.0	20.1
3 22	11 39.64	+ 6 58.8	1.868	2.854	3.5	20.9	3 22	11 39.80	+ 3 44.2	1.560	2.551	3.0	20.2
4 1	11 30.73	+ 7 47.8	1.895	2.847	7.4	21.1	4 1	11 31.18	+ 5 5.0	1.585	2.547	7.8	20.5
4 11	11 23.20	+ 8 23.9	1.948	2.840	11.2	21.3	4 11	11 24.13	+ 6 12.0	1.636	2.542	12.1	20.7
4 21	11 17.66	+ 8 44.5	2.024	2.831	14.4	21.5	4 21	11 19.32	+ 7 0.9	1.709	2.537	15.7	20.9
490939	2011 <i>CM</i> ₈₅		3 16.3 204°78	0°7/15.5 17			410715	2009 <i>BQ</i> ₄₄		3 16.3 335°16	0°5/15.9 16		
2 11	12 6.90	+ 0 34.3	2.109	2.935	12.5	22.1	2 11	12 6.17	- 0 13.3	1.281	2.133	17.3	21.5
2 21	12 2.40	+ 1 22.0	2.025	2.932	9.3	21.9	2 21	12 2.93	+ 0 21.0	1.205	2.124	13.0	21.2
3 2	11 56.04	+ 2 21.7	1.965	2.929	5.6	21.6	3 2	11 56.87	+ 1 14.3	1.149	2.116	8.0	20.9
3 12	11 48.44	+ 3 28.5	1.934	2.925	1.6	21.4	3 12	11 48.82	+ 2 20.3	1.117	2.109	2.4	20.5
3 22	11 40.40	+ 4 36.1	1.932	2.921	2.8	21.4	3 22	11 39.99	+ 3 29.9	1.110	2.102	3.6	20.6
4 1	11 32.81	+ 5 38.1	1.958	2.917	6.8	21.7	4 1	11 31.82	+ 4 32.8	1.128	2.096	9.3	20.9
4 11	11 26.46	+ 6 28.9	2.012	2.913	10.4	21.9	4 11	11 25.62	+ 5 20.3	1.169	2.091	14.4	21.2
4 21	11 21.94	+ 7 5.1	2.088	2.908	13.5	22.1	4 21	11 22.20	+ 5 47.4	1.229	2.087	18.8	21.4
425086	2009 <i>SG</i> ₁₉		3 16.3 140°50	3°9/12.2 18			429987	2013 <i>PC</i> ₃₆		3 16.3 121°52	2°1/13.9 15		
2 11	12 12.62	+13 3.3	2.378	3.212	11.0	22.2	2 11	12 7.39	+ 4 31.1	2.129	2.964	12.0	22.1
2 21	12 6.27	+13 46.3	2.316	3.225	8.1	22.0	2 21	12 2.62	+ 5 37.7	2.064	2.978	8.8	21.9
3 2	11 58.19	+14 29.4	2.280	3.238	5.4	21.9	3 2	11 56.09	+ 6 52.7	2.025	2.991	5.2	21.7
3 12	11 49.06	+15 7.0	2.273	3.250	3.9	21.8	3 12	11 48.46	+ 8 9.5	2.014	3.003	2.2	21.6
3 22	11 39.68	+15 34.0	2.297	3.261	5.2	21.9	3 22	11 40.54	+ 9 21.5	2.033	3.016	3.9	21.7
4 1	11 30.90	+15 47.2	2.349	3.272	7.9	22.1	4 1	11 33.16	+10 22.5	2.081	3.027	7.3	21.9
4 11	11 23.46	+15 44.8	2.428	3.282	10.7	22.3	4 11	11 27.09	+11 8.1	2.155	3.039	10.6	22.2
4 21	11 17.83	+15 27.5	2.529	3.291	13.0	22.5	4 21	11 22.81	+11 36.5	2.252	3.050	13.4	22.4
272785	2005 <i>YJ</i> ₂₃₇		3 16.3 188°73	2°9/13.2 17			294964	2008 <i>DT</i> ₈₇		3 16.3 10°87	0°6/16.8 17		
2 11	12 7.80	+ 7 30.4	2.114	2.954	11.9	21.0	2 11	12 6.78	- 2 46.5	1.548	2.381	15.9	21.2
2 21	12 3.03	+ 8 26.3	2.038	2.954	8.7	20.8	2 21	12 2.88	- 2 13.9	1.473	2.381	12.0	21.0
3 2	11 56.40	+ 9 28.4	1.988	2.953	5.3	20.6	3 2	11 56.59	- 1 23.1	1.420	2.382	7.5	20.7
3 12	11 48.55	+10 30.5	1.966	2.952	2.9	20.4	3 12	11 48.68	- 0 19.1	1.393	2.383	2.5	20.4
3 22	11 40.30	+11 26.2	1.973	2.951	4.6	20.5	3 22	11 40.22	+ 0 50.6	1.392	2.385	2.7	20.4
4 1	11 32.54	+12 9.7	2.008	2.949	7.9	20.7	4 1	11 32.39	+ 1 57.4	1.418	2.386	7.7	20.7
4 11	11 26.08	+12 37.4	2.069	2.947	11.2	20.9	4 11	11 26.26	+ 2 53.3	1.468	2.388	12.2	21.0
4 21	11 21.46	+12 47.9	2.152	2.945	14.1	21.1	4 21	11 22.48	+ 3 33.4	1.540	2.390	16.0	21.2
178938	2001 <i>QA</i> ₈₉		3 16.3 213°80	0°8/15.4 18			159819	2003 <i>SX</i> ₂₈₄		3			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
272707	2005 YM ₂₆	3 16.3 332°69		5°9/10.4 17			28939	2000 TO ₃₃	3 16.3 105°10		11°1/27.4 18		
2 11	12 7.10	+14 22.9	1.721	2.580	13.2	20.4	2 11	12 11.63	-29 28.7	2.044	2.702	18.0	18.5
2 21	12 2.95	+15 41.4	1.654	2.575	10.0	20.2	2 21	12 6.48	-30 50.0	1.957	2.704	16.2	18.4
3 2	11 56.55	+17 1.5	1.612	2.571	7.0	20.0	3 2	11 58.85	-31 44.9	1.887	2.706	14.2	18.2
3 12	11 48.66	+18 13.8	1.596	2.567	6.0	19.9	3 12	11 49.44	-32 8.7	1.838	2.707	12.4	18.1
3 22	11 40.28	+19 9.7	1.607	2.563	7.9	20.0	3 22	11 39.23	-31 59.5	1.812	2.709	11.2	18.1
4 1	11 32.51	+19 42.9	1.643	2.560	11.1	20.2	4 1	11 29.43	-31 19.3	1.810	2.711	11.2	18.0
4 11	11 26.36	+19 51.1	1.702	2.557	14.4	20.4	4 11	11 21.18	-30 14.8	1.831	2.713	12.3	18.1
4 21	11 22.42	+19 35.2	1.781	2.554	17.3	20.6	4 21	11 15.29	-28 55.3	1.875	2.714	14.1	18.2
503932	2003 QW ₁₀₂	3 16.3 212°95		2°4/13.0 17			188276	2003 AS ₅₂	3 16.3 122°71		2°0/14.2 18		
2 11	12 7.30	+ 7 45.3	2.821	3.651	9.5	22.9	2 11	12 11.37	+ 5 33.4	2.166	2.995	12.1	21.0
2 21	12 2.31	+ 8 42.9	2.731	3.641	7.0	22.7	2 21	12 5.47	+ 6 19.7	2.104	3.014	8.8	20.8
3 2	11 55.85	+ 9 45.5	2.668	3.631	4.3	22.5	3 2	11 57.78	+ 7 12.3	2.069	3.033	5.3	20.6
3 12	11 48.41	+10 48.4	2.635	3.620	2.4	22.4	3 12	11 48.99	+ 8 5.7	2.062	3.051	2.2	20.4
3 22	11 40.59	+11 46.5	2.633	3.609	3.8	22.4	3 22	11 39.95	+ 8 54.0	2.086	3.069	3.7	20.6
4 1	11 33.09	+12 35.2	2.661	3.596	6.5	22.6	4 1	11 31.55	+ 9 32.3	2.139	3.086	7.1	20.8
4 11	11 26.52	+13 11.3	2.717	3.583	9.3	22.8	4 11	11 24.54	+ 9 57.2	2.218	3.102	10.3	21.0
4 21	11 21.36	+13 33.2	2.796	3.569	11.7	22.9	4 21	11 19.41	+10 7.5	2.321	3.117	13.1	21.3
498613	2008 RY ₁₀₀	3 16.3 162°75		2°6/19.0 17			32119	2000 LM ₇	3 16.3 297°91		1°6/14.4 18		
2 11	12 7.84	- 8 10.2	2.198	2.987	13.3	21.8	2 11	12 3.90	+ 2 49.4	2.150	2.987	11.9	18.7
2 21	12 3.05	- 8 4.0	2.112	2.990	10.4	21.6	2 21	12 0.18	+ 3 53.3	2.067	2.981	8.7	18.4
3 2	11 56.43	- 7 41.9	2.050	2.992	7.1	21.4	3 2	11 54.72	+ 5 8.1	2.010	2.976	5.2	18.2
3 12	11 48.60	- 7 5.8	2.014	2.994	3.8	21.2	3 12	11 48.10	+ 6 27.9	1.980	2.971	1.9	18.0
3 22	11 40.35	- 6 19.4	2.007	2.996	2.8	21.1	3 22	11 41.06	+ 7 45.9	1.980	2.965	3.5	18.1
4 1	11 32.53	- 5 28.2	2.029	2.998	5.7	21.3	4 1	11 34.43	+ 8 55.3	2.008	2.960	7.1	18.3
4 11	11 25.96	- 4 37.8	2.079	2.999	9.1	21.5	4 11	11 28.96	+ 9 50.8	2.063	2.955	10.6	18.5
4 21	11 21.17	- 3 53.5	2.153	3.001	12.2	21.7	4 21	11 25.20	+10 29.4	2.139	2.950	13.6	18.7
36705	2000 RE ₂₅	3 16.3 324°44		8°4/22.9 18			2061	Anza	3 16.3 157°40		0°8/17.3 18		
2 11	12 8.07	-18 18.8	1.626	2.385	18.4	17.8	2 11	12 12.24	- 4 21.8	2.613	3.400	11.5	22.0
2 21	12 4.14	-19 17.8	1.533	2.373	15.7	17.6	2 21	12 5.93	- 3 42.3	2.531	3.414	8.7	21.8
3 2	11 57.58	-19 52.1	1.460	2.362	12.7	17.3	3 2	11 58.01	- 2 50.2	2.475	3.426	5.5	21.6
3 12	11 49.07	-19 58.1	1.408	2.351	9.8	17.1	3 12	11 49.07	- 1 49.1	2.449	3.437	2.1	21.4
3 22	11 39.66	-19 35.8	1.380	2.341	8.4	17.0	3 22	11 39.83	- 0 43.7	2.455	3.447	1.9	21.4
4 1	11 30.64	-18 48.8	1.377	2.332	9.5	17.1	4 1	11 31.05	+ 0 20.8	2.493	3.455	5.2	21.7
4 11	11 23.28	-17 45.8	1.398	2.323	12.3	17.2	4 11	11 23.43	+ 1 19.3	2.560	3.462	8.4	21.9
4 21	11 18.46	-16 36.5	1.440	2.314	15.6	17.4	4 21	11 17.43	+ 2 8.1	2.653	3.468	11.1	22.1
297488	2000 UL ₃₃	3 16.3 222°66		2°3/19.3 18			411639	2011 UW ₂₆₁	3 16.3 56°50		3°4/13.9 18		
2 11	12 4.34	- 9 15.4	2.614	3.395	11.6	21.2	2 11	12 12.66	+ 7 51.3	1.395	2.248	16.1	21.3
2 21	12 0.24	- 8 53.0	2.517	3.390	9.1	21.0	2 21	12 7.36	+ 8 25.6	1.335	2.256	11.9	21.0
3 2	11 54.64	- 8 15.3	2.445	3.385	6.3	20.8	3 2	11 59.32	+ 9 6.6	1.298	2.265	7.2	20.8
3 12	11 48.05	- 7 24.5	2.400	3.379	3.4	20.6	3 12	11 49.53	+ 9 46.2	1.286	2.273	3.6	20.6
3 22	11 41.08	- 6 24.2	2.385	3.374	2.5	20.5	3 22	11 39.27	+10 16.7	1.300	2.282	5.5	20.7
4 1	11 34.43	- 5 19.3	2.399	3.368	4.9	20.7	4 1	11 29.95	+10 31.8	1.340	2.291	10.0	21.0
4 11	11 28.75	- 4 15.4	2.442	3.362	7.9	20.8	4 11	11 22.72	+10 28.2	1.403	2.301	14.3	21.3
4 21	11 24.53	- 3 17.3	2.510	3.356	10.7	21.0	4 21	11 18.21	+10 6.0	1.486	2.310	17.9	21.5
185506	2007 TJ ₃₁₅	3 16.3 143°75		0°5/15.8 18		R	192516	1998 RK ₁₆	3 16.3 261°87		2°7/18.3 17		
2 11	12 6.57	+ 0 56.1	2.481	3.301	11.0	21.0	2 11	12 11.55	- 6 26.5	1.548	2.359	16.9	21.0
2 21	12 1.85	+ 1 29.7	2.403	3.307	8.2	20.8	2 21	12 6.80	- 6 27.8	1.450	2.342	13.3	20.7
3 2	11 55.58	+ 2 12.2	2.351	3.313	4.9	20.6	3 2	11 59.25	- 6 8.9	1.373	2.324	9.0	20.4
3 12	11 48.32	+ 2 59.7	2.328	3.319	1.4	20.3	3 12	11 49.62	- 5 31.3	1.321	2.306	4.4	20.1
3 22	11 40.76	+ 3 47.7	2.335	3.325	2.3	20.4	3 22	11 38.99	- 4 39.6	1.296	2.287	3.4	20.0
4 1	11 33.63	+ 4 31.4	2.371	3.330	5.7	20.6	4 1	11 28.75	- 3 41.2	1.297	2.268	8.0	20.2
4 11	11 27.58	+ 5 6.8	2.435	3.336	8.8	20.8	4 11	11 20.23	- 2 45.0	1.324	2.248	12.9	20.4
4 21	11 23.08	+ 5 31.3	2.523	3.340	11.6	21.0	4 21	11 14.36	- 1 58.5	1.371	2.228	17.3	20.6
371145	2005 WV ₁₇₇	3 16.3 153°22		0°0/16.3 17			56772	2000 OW ₃₀	3 16.3 168°33		1°2/14.6 18		
2 11	12 8.72	- 0 44.0	2.192	3.009	12.4	22.4	2 11	12 4.62	+ 2 59.3	2.924	3.747	9.4	20.1
2 21	12 3.63	- 0 13.9	2.114	3.015	9.3	22.2	2 21	12 0.23	+ 3 53.5	2.844	3.751	6.9	20.0
3 2	11 56.74	+ 0 27.6	2.061	3.021	5.7	22.0	3 2	11 54.53	+ 4 55.1	2.790	3.754	4.1	19.8
3 12	11 48.70	+ 1 16.4	2.036	3.027	1.7	21.8	3 12	11 48.01	+ 5 59.6	2.767	3.757	1.4	19.6
3 22	11 40.28	+ 2 7.3	2.040	3.032	2.3	21.8	3 22	11 41.22	+ 7 2.6	2.774	3.760	2.6	19.7
4 1	11 32.36	+ 2 55.0	2.074	3.036	6.1	22.1	4 1	11 34.76	+ 7 59.5	2.812	3.762	5.5	19.9
4 11	11 25.70	+ 3 34.4	2.135	3.040	9.7	22.3	4 11	11 29.19	+ 8 46.8	2.878	3.764	8.2	20.0
4 21	11 20.84	+ 4 2.5	2.219	3.044	12.7	22.5	4 21	11 24.92	+ 9 22.0	2.968	3.765	10.5	20.2
180007	2002 YM ₁₄	3 16.3 165°75		0°3/16.7 18			115498	2003 UN ₂₆	3 16.3 194°54		3°3/13.2 18		
2 11	12 8.92	- 2 26.9	2.235	3.044	12.4	20.8	2 11	12 10.87	+ 7 57.7	1.852	2.694	13.2	19.9
2 21	12 3.77	- 1 48.3	2.154	3.050	9.3	20.6	2 21	12 5.59	+ 8 55.6	1.777	2.693	9.8	19.6
3 2	11 56.83	- 0 56.7	2.097	3.055	5.8	20.4	3 2	11 58.12	+10 0.5	1.726	2.691	6.0	19.4
3 12	11 48.73	+ 0 3.9	2.069	3.059	1.9	20.1	3 12	11 49.17	+11 4.8	1.703	2.688	3.4	19.2
3 22	11 40.24	+ 1 8.0	2.071	3.063	2.1	20.2	3 22	11 39.71	+12 1.3	1.708	2.685	5.2	19.3
4 1	11 32.23	+ 2 9.6	2.102	3.066	6.0	20.4	4 1	11 30.84	+12 43.2	1.741	2.681	9.0	19.6
4 11	11 25.47	+ 3 3.2	2.162	3.068	9.5	20.6	4 11	11 23.51	+13 6.8	1.799	2.677	12.6	19.8
4 21	11 20.47	+ 3 45.0	2.245	3.069	12.6	20.8	4 21	11 18.35	+13 10.9	1.878	2.673	15.8	20.0
56391	2000 ET ₉₇	3 16.3 293°02		0°1/16.4 18			4817	Gliba	3 16.3 96°08		0°3/16.1 18		
2 11	12 10.81	- 0 10.7	1.369	2.210	17.1	18.8	2 11	12 11.58	- 1 0.0	1.601	2.429		

EPHEMERIDES

3 16.3

3 16.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
284374	2006 <i>ST</i> ₂₅₀		3 16.3 130°78	1°5/18.3	18		90498	2004 <i>DC</i> ₇₁		3 16.3 115°33	9°2/ 6.9	18	
2 11	12 4.41	- 6 35.0	2.445	3.242	11.9	21.0	2 11	12 10.19	+12 0.5	1.148	2.021	17.4	18.3
2 21	12 0.33	- 6 2.8	2.361	3.246	9.1	20.8	2 21	12 6.06	+15 47.8	1.107	2.035	13.0	18.1
3 2	11 54.71	- 5 16.0	2.301	3.250	6.0	20.6	3 2	11 58.78	+19 41.9	1.091	2.049	9.7	18.0
3 12	11 48.09	- 4 17.7	2.269	3.254	2.7	20.4	3 12	11 49.42	+23 18.5	1.103	2.063	9.7	18.0
3 22	11 41.13	- 3 12.4	2.266	3.258	2.0	20.4	3 22	11 39.49	+26 16.4	1.141	2.076	12.9	18.2
4 1	11 34.58	- 2 5.7	2.293	3.262	5.1	20.6	4 1	11 30.62	+28 23.3	1.202	2.088	16.8	18.5
4 11	11 29.07	- 1 3.1	2.348	3.265	8.3	20.8	4 11	11 24.17	+29 37.8	1.283	2.100	20.4	18.8
4 21	11 25.10	- 0 9.1	2.428	3.269	11.2	21.0	4 21	11 20.81	+30 6.0	1.378	2.111	23.3	19.0
416177	2002 <i>SZ</i> ₁₃		3 16.3 200°70	0°6/15.7	14 C		260746	2005 <i>MU</i> ₆		3 16.3 163°61	5°2/21.9	16	
2 11	12 9.48	+ 0 28.2	2.123	2.943	12.6	22.5	2 11	12 10.85	-16 10.3	2.290	3.030	14.2	21.0
2 21	12 4.35	+ 1 9.8	2.035	2.939	9.4	22.3	2 21	12 5.30	-16 28.0	2.201	3.035	11.8	20.8
3 2	11 57.28	+ 2 3.4	1.973	2.935	5.7	22.1	3 2	11 57.84	-16 26.0	2.134	3.041	9.0	20.7
3 12	11 48.91	+ 3 4.1	1.939	2.930	1.7	21.8	3 12	11 49.09	-16 4.2	2.093	3.045	6.4	20.5
3 22	11 40.06	+ 4 6.0	1.934	2.924	2.7	21.8	3 22	11 39.86	-15 24.6	2.079	3.049	5.2	20.4
4 1	11 31.64	+ 5 2.9	1.959	2.918	6.7	22.1	4 1	11 31.07	-14 31.7	2.095	3.053	6.5	20.5
4 11	11 24.51	+ 5 49.4	2.010	2.910	10.4	22.3	4 11	11 23.57	-13 31.8	2.138	3.055	9.1	20.7
4 21	11 19.27	+ 6 22.0	2.085	2.903	13.6	22.5	4 21	11 17.93	-12 31.6	2.207	3.057	11.8	20.9
313699	2003 <i>TH</i> ₅₀		3 16.3 156°87	2°0/14.3	18		288667	2004 <i>PW</i> ₆₅		3 16.3 183°19	0°3/16.0	18	
2 11	12 10.16	+ 4 2.0	1.984	2.816	12.9	21.7	2 11	12 9.45	- 1 40.4	1.755	2.579	14.7	21.6
2 21	12 4.86	+ 5 2.0	1.912	2.823	9.5	21.5	2 21	12 4.65	- 0 44.0	1.675	2.580	11.0	21.4
3 2	11 57.56	+ 6 11.7	1.866	2.830	5.6	21.3	3 2	11 57.60	+ 0 29.4	1.618	2.580	6.7	21.1
3 12	11 48.98	+ 7 24.4	1.847	2.837	2.2	21.1	3 12	11 49.04	+ 1 53.9	1.588	2.580	2.0	20.8
3 22	11 40.01	+ 8 33.1	1.859	2.843	3.9	21.2	3 22	11 39.93	+ 3 21.3	1.587	2.579	2.9	20.9
4 1	11 31.61	+ 9 31.0	1.899	2.848	7.7	21.4	4 1	11 31.39	+ 4 43.0	1.615	2.577	7.6	21.1
4 11	11 24.66	+10 13.5	1.965	2.852	11.3	21.6	4 11	11 24.42	+ 5 51.4	1.668	2.575	11.8	21.4
4 21	11 19.70	+10 38.6	2.053	2.856	14.4	21.9	4 21	11 19.65	+ 6 41.8	1.744	2.572	15.5	21.6
109321	2001 <i>QS</i> ₁₃₉		3 16.3 191°67	0°1/16.4	18		272963	2006 <i>CR</i> ₄₈		3 16.4 164°10	1°6/14.5	17	
2 11	12 13.47	+ 0 50.5	1.989	2.806	13.4	18.9	2 11	12 6.38	+ 2 58.5	2.043	2.878	12.5	21.4
2 21	12 7.40	+ 0 48.3	1.904	2.805	10.1	18.7	2 21	12 2.06	+ 3 57.0	1.967	2.880	9.2	21.2
3 2	11 59.18	+ 0 55.5	1.844	2.804	6.2	18.5	3 2	11 55.88	+ 5 6.0	1.916	2.882	5.4	21.0
3 12	11 49.50	+ 1 9.0	1.812	2.803	2.0	18.2	3 12	11 48.48	+ 6 19.6	1.892	2.883	2.0	20.7
3 22	11 39.31	+ 1 24.7	1.809	2.801	2.4	18.2	3 22	11 40.68	+ 7 30.7	1.898	2.884	3.5	20.8
4 1	11 29.65	+ 1 38.2	1.836	2.799	6.7	18.5	4 1	11 33.36	+ 8 32.8	1.932	2.885	7.3	21.1
4 11	11 21.47	+ 1 45.4	1.889	2.797	10.6	18.7	4 11	11 27.35	+ 9 20.8	1.993	2.886	10.9	21.3
4 21	11 15.41	+ 1 43.8	1.966	2.794	13.9	18.9	4 21	11 23.17	+ 9 51.9	2.075	2.887	13.9	21.5
234485	2001 <i>TB</i> ₃₀		3 16.3 218°16	2°8/18.9	17		375983	2009 <i>WY</i> ₂₄₈		3 16.4 186°79	2°0/18.6	17	
2 11	12 9.71	- 8 46.6	1.728	2.526	16.0	21.6	2 11	12 6.52	- 7 46.5	2.110	2.906	13.5	21.6
2 21	12 5.02	- 8 25.7	1.637	2.520	12.6	21.3	2 21	12 2.17	- 7 13.9	2.022	2.905	10.5	21.4
3 2	11 57.94	- 7 42.6	1.567	2.513	8.6	21.1	3 2	11 55.96	- 6 23.2	1.958	2.905	7.0	21.2
3 12	11 49.17	- 6 39.6	1.523	2.505	4.4	20.8	3 12	11 48.51	- 5 17.6	1.920	2.904	3.4	21.0
3 22	11 39.71	- 5 22.5	1.506	2.497	3.2	20.7	3 22	11 40.62	- 4 2.4	1.912	2.903	2.4	20.9
4 1	11 30.72	- 3 59.2	1.518	2.488	7.1	20.9	4 1	11 33.17	- 2 44.3	1.932	2.902	5.9	21.1
4 11	11 23.31	- 2 39.2	1.555	2.478	11.4	21.1	4 11	11 26.97	- 1 30.4	1.980	2.900	9.5	21.3
4 21	11 18.21	- 1 29.9	1.616	2.469	15.3	21.3	4 21	11 22.58	- 0 26.6	2.052	2.898	12.8	21.5
381320	2007 <i>VQ</i> ₂₂₆		3 16.3 54°00	0°6/15.8	18		70188	1999 <i>RE</i> ₁₁		3 16.4 163°02	1°3/15.1	18	
2 11	12 8.68	+ 2 3.1	2.027	2.856	12.8	20.3	2 11	12 10.88	+ 2 31.3	2.012	2.838	13.0	20.3
2 21	12 3.68	+ 2 17.4	1.958	2.866	9.5	20.1	2 21	12 5.39	+ 3 16.2	1.936	2.844	9.6	20.1
3 2	11 56.80	+ 2 40.5	1.913	2.877	5.7	19.9	3 2	11 57.89	+ 4 11.3	1.886	2.850	5.7	19.9
3 12	11 48.74	+ 3 8.4	1.896	2.887	1.7	19.6	3 12	11 49.10	+ 5 11.2	1.864	2.855	1.8	19.7
3 22	11 40.34	+ 3 36.3	1.908	2.898	2.6	19.7	3 22	11 39.89	+ 6 9.4	1.871	2.859	3.2	19.8
4 1	11 32.53	+ 3 59.5	1.948	2.909	6.5	20.0	4 1	11 31.25	+ 6 59.8	1.907	2.862	7.2	20.0
4 11	11 26.10	+ 4 14.3	2.014	2.921	10.1	20.2	4 11	11 24.04	+ 7 37.5	1.970	2.865	10.9	20.2
4 21	11 21.57	+ 4 18.2	2.104	2.932	13.2	20.4	4 21	11 18.82	+ 8 0.1	2.056	2.867	14.0	20.5
38526	1999 <i>TB</i> ₂₉₆		3 16.3 301°08	0°1/16.3	18		166617	2002 <i>SN</i> ₂		3 16.4 133°02	0°6/15.7	18	
2 11	12 5.29	- 0 11.8	2.285	3.107	11.7	19.0	2 11	12 6.40	+ 0 49.9	2.329	3.152	11.5	20.6
2 21	12 1.16	+ 0 12.3	2.193	3.097	8.8	18.8	2 21	12 1.83	+ 1 29.9	2.254	3.159	8.5	20.4
3 2	11 55.31	+ 0 47.0	2.125	3.086	5.4	18.5	3 2	11 55.63	+ 2 19.7	2.203	3.166	5.1	20.2
3 12	11 48.31	+ 1 28.8	2.085	3.076	1.7	18.2	3 12	11 48.39	+ 3 15.0	2.181	3.172	1.5	20.0
3 22	11 40.85	+ 2 13.2	2.074	3.065	2.2	18.3	3 22	11 40.83	+ 4 10.5	2.189	3.179	2.5	20.1
4 1	11 33.75	+ 2 54.9	2.092	3.055	6.0	18.5	4 1	11 33.72	+ 5 1.1	2.225	3.185	6.0	20.3
4 11	11 27.76	+ 3 29.4	2.136	3.045	9.5	18.7	4 11	11 27.77	+ 5 42.1	2.289	3.190	9.3	20.5
4 21	11 23.42	+ 3 53.4	2.204	3.035	12.5	18.9	4 21	11 23.44	+ 6 10.9	2.377	3.196	12.1	20.7
387723	2003 <i>ES</i> ₆		3 16.3 20°16	0°4/15.8	18		285539	2000 <i>GY</i> ₁₂₀		3 16.4 295°98	0°1/16.3	17	
2 11	12 2.18	- 2 35.2	2.051	2.877	12.8	20.1	2 11	12 6.82	- 1 8.1	1.630	2.465	15.1	21.9
2 21	11 58.94	- 1 15.2	1.973	2.880	9.5	19.9	2 21	12 3.05	- 0 33.9	1.535	2.445	11.4	21.6
3 2	11 53.97	+ 0 21.2	1.920	2.883	5.7	19.7	3 2	11 56.85	+ 0 17.6	1.462	2.425	7.1	21.3
3 12	11 47.88	+ 2 7.8	1.895	2.887	1.7	19.4	3 12	11 48.88	+ 1 21.6	1.414	2.405	2.2	20.9
3 22	11 41.43	+ 3 56.5	1.900	2.891	2.6	19.5	3 22	11 40.11	+ 2 31.0	1.394	2.386	3.0	20.9
4 1	11 35.43	+ 5 38.9	1.934	2.895	6.6	19.7	4 1	11 31.73	+ 3 37.3	1.400	2.366	8.1	21.2
4 11	11 30.63	+ 7 7.8	1.994	2.899	10.3	20.0	4 11	11 24.90	+ 4 32.4	1.431	2.347	12.8	21.4
4 21	11 27.54	+ 8 18.6	2.078	2.904	13.4	20.2	4 21	11 20.40	+ 5 10.9	1.483	2.328	16.9	21.6
46272	2001 <i>HO</i> ₆₄		3 16.3 44°17	4°8/21.7	18		377775	2005 <i>YR</i> ₁₇₈		3 1			

EPHEMERIDES

3 16.4

3 16.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
110303	2001 <i>SR</i> ₂₇₀		3 16.4 85°94	0°3/16.7	18		114413	2002 <i>YD</i> ₂₆		3 16.4 145°35	4°2/10.8	18	
2 11	12 8.36	- 2 33.9	1.804	2.626	14.4	19.8	2 11	12 6.58	+13 51.2	2.572	3.415	9.9	20.5
2 21	12 3.60	- 1 51.7	1.742	2.644	10.8	19.6	2 21	12 1.85	+14 58.0	2.509	3.422	7.4	20.3
3 2	11 56.81	- 0 54.3	1.703	2.663	6.6	19.4	3 2	11 55.60	+16 5.2	2.472	3.429	5.1	20.2
3 12	11 48.77	+ 0 13.0	1.690	2.681	2.2	19.1	3 12	11 48.41	+17 6.9	2.465	3.436	4.2	20.1
3 22	11 40.41	+ 1 23.3	1.706	2.699	2.4	19.2	3 22	11 40.95	+17 57.8	2.487	3.442	5.6	20.2
4 1	11 32.73	+ 2 29.2	1.751	2.716	6.8	19.5	4 1	11 33.93	+18 33.8	2.537	3.448	8.0	20.4
4 11	11 26.59	+ 3 24.3	1.821	2.734	10.7	19.8	4 11	11 28.00	+18 52.8	2.612	3.453	10.4	20.5
4 21	11 22.51	+ 4 4.8	1.915	2.751	13.9	20.0	4 21	11 23.61	+18 54.9	2.710	3.458	12.6	20.7
123636	2000 <i>YO</i> ₅₂		3 16.4 8°43	9°2/6.0	18		325385	2008 <i>SG</i> ₂₇₆		3 16.4 336°69	0°3/15.9	17	
2 11	12 7.81	+23 58.4	1.753	2.608	13.2	19.1	2 11	12 1.52	- 0 2.8	2.879	3.699	9.7	20.7
2 21	12 3.52	+25 45.7	1.704	2.609	10.8	18.9	2 21	11 58.03	+ 0 39.8	2.792	3.696	7.2	20.5
3 2	11 56.92	+27 24.6	1.679	2.609	9.4	18.8	3 2	11 53.27	+ 1 31.5	2.731	3.692	4.3	20.3
3 12	11 48.83	+28 44.5	1.680	2.610	9.5	18.8	3 12	11 47.70	+ 2 28.6	2.698	3.690	1.3	20.1
3 22	11 40.32	+29 37.0	1.705	2.611	11.3	18.9	3 22	11 41.84	+ 3 27.0	2.696	3.687	1.9	20.1
4 1	11 32.53	+29 57.8	1.754	2.613	13.7	19.1	4 1	11 36.28	+ 4 22.1	2.723	3.684	5.0	20.3
4 11	11 26.45	+29 47.3	1.823	2.615	16.2	19.3	4 11	11 31.55	+ 5 10.0	2.779	3.681	7.8	20.5
4 21	11 22.66	+29 9.2	1.909	2.616	18.4	19.4	4 21	11 28.07	+ 5 47.8	2.859	3.679	10.3	20.7
56733	2000 <i>NK</i> ₁₇		3 16.4 132°87	1°5/14.4	18		37442	2722 <i>P-L</i>		3 16.4 301°07	0°8/17.2	17	
2 11	12 6.93	+ 5 22.2	2.780	3.606	9.8	19.5	2 11	12 3.37	- 5 46.6	1.748	2.568	14.9	18.7
2 21	12 1.94	+ 5 58.1	2.709	3.618	7.1	19.4	2 21	12 0.30	- 4 41.1	1.651	2.552	11.4	18.4
3 2	11 55.58	+ 6 39.1	2.665	3.629	4.3	19.2	3 2	11 55.08	- 3 12.2	1.578	2.536	7.3	18.1
3 12	11 48.37	+ 7 21.2	2.651	3.640	1.7	19.0	3 12	11 48.35	- 1 24.9	1.531	2.521	2.7	17.8
3 22	11 40.92	+ 8 0.1	2.667	3.651	2.9	19.1	3 22	11 40.96	+ 0 32.4	1.512	2.505	2.5	17.8
4 1	11 33.89	+ 8 32.3	2.712	3.661	5.7	19.3	4 1	11 33.97	+ 2 29.3	1.521	2.490	7.3	18.0
4 11	11 27.86	+ 8 54.7	2.786	3.671	8.4	19.5	4 11	11 28.37	+ 4 15.3	1.557	2.474	11.8	18.2
4 21	11 23.23	+ 9 6.1	2.884	3.680	10.8	19.7	4 21	11 24.85	+ 5 42.9	1.614	2.460	15.7	18.5
431192	2006 <i>SB</i> ₉₁		3 16.4 104°68	4°1/22.5	17		369339	2009 <i>SD</i> ₃₂₁		3 16.4 144°80	2°5/18.9	15	
2 11	12 4.17	-17 52.3	2.625	3.357	12.8	21.4	2 11	12 10.95	- 7 51.8	2.388	3.168	12.6	21.7
2 21	12 0.07	-17 12.2	2.540	3.371	10.5	21.2	2 21	12 5.19	- 7 51.6	2.307	3.179	9.9	21.6
3 2	11 54.51	-16 11.1	2.478	3.385	7.9	21.1	3 2	11 57.69	- 7 37.2	2.250	3.190	6.7	21.4
3 12	11 48.05	-14 51.1	2.443	3.399	5.4	20.9	3 12	11 49.08	- 7 10.4	2.221	3.200	3.6	21.2
3 22	11 41.34	-13 16.2	2.437	3.412	4.1	20.9	3 22	11 40.10	- 6 34.5	2.221	3.210	2.7	21.2
4 1	11 35.04	-11 32.5	2.461	3.425	5.2	21.0	4 1	11 31.60	- 5 54.0	2.252	3.219	5.4	21.3
4 11	11 29.80	- 9 47.2	2.515	3.438	7.6	21.1	4 11	11 24.32	- 5 13.8	2.311	3.227	8.5	21.5
4 21	11 26.02	- 8 6.8	2.595	3.451	10.1	21.3	4 21	11 18.78	- 4 38.4	2.395	3.235	11.4	21.7
329811	2004 <i>RT</i> ₈₉		3 16.4 229°33	1°4/17.9	17		305720	2009 <i>CM</i> ₂₀		3 16.4 165°95	0°2/16.6	18	
2 11	12 8.11	- 5 32.4	2.410	3.205	12.1	22.5	2 11	12 11.01	- 2 16.1	2.020	2.832	13.5	21.8
2 21	12 3.24	- 5 7.8	2.307	3.192	9.3	22.3	2 21	12 5.52	- 1 34.9	1.941	2.838	10.1	21.6
3 2	11 56.60	- 4 28.8	2.229	3.178	6.1	22.0	3 2	11 58.02	- 0 39.3	1.886	2.844	6.3	21.3
3 12	11 48.75	- 3 38.1	2.178	3.164	2.7	21.8	3 12	11 49.20	+ 0 25.9	1.858	2.849	2.0	21.1
3 22	11 40.39	- 2 39.8	2.157	3.149	2.1	21.7	3 22	11 39.94	+ 1 34.8	1.861	2.852	2.4	21.1
4 1	11 32.33	- 1 39.4	2.167	3.133	5.6	21.9	4 1	11 31.23	+ 2 40.3	1.892	2.855	6.6	21.4
4 11	11 25.34	- 0 42.4	2.204	3.117	9.0	22.1	4 11	11 23.92	+ 3 36.3	1.952	2.858	10.4	21.6
4 21	11 20.01	+ 0 6.3	2.266	3.100	12.1	22.3	4 21	11 18.62	+ 4 18.9	2.034	2.859	13.7	21.8
491057	2011 <i>QA</i> ₆₅		3 16.4 195°88	1°2/17.8	18		15943	1998 <i>AZ</i>		3 16.4 299°97	2°7/19.0	18	
2 11	12 8.03	- 3 45.1	2.681	3.478	10.9	21.3	2 11	12 8.20	- 7 20.6	2.203	2.995	13.2	18.0
2 21	12 2.92	- 3 42.5	2.589	3.476	8.4	21.2	2 21	12 3.43	- 7 34.1	2.109	2.988	10.3	17.8
3 2	11 56.27	- 3 29.7	2.523	3.474	5.4	21.0	3 2	11 56.78	- 7 33.4	2.039	2.982	7.1	17.5
3 12	11 48.62	- 3 8.8	2.485	3.472	2.3	20.7	3 12	11 48.85	- 7 19.9	1.996	2.976	3.9	17.3
3 22	11 40.60	- 2 42.6	2.477	3.469	1.9	20.7	3 22	11 40.39	- 6 56.1	1.981	2.970	3.0	17.3
4 1	11 32.92	- 2 15.0	2.500	3.466	5.0	20.9	4 1	11 32.31	- 6 26.4	1.995	2.963	5.8	17.4
4 11	11 26.24	- 1 49.6	2.551	3.463	8.0	21.1	4 11	11 25.43	- 5 55.8	2.036	2.958	9.2	17.6
4 21	11 21.04	- 1 29.8	2.627	3.460	10.7	21.3	4 21	11 20.36	- 5 28.9	2.101	2.952	12.3	17.8
435421	2008 <i>BH</i> ₄₈		3 16.4 57°81	4°7/10.4	17		310487	2000 <i>SB</i> ₃₆₂		3 16.4 153°75	1°8/14.6	18	
2 11	12 5.33	+14 23.5	2.308	3.158	10.7	20.9	2 11	12 11.81	+ 3 52.7	1.899	2.730	13.4	21.7
2 21	12 1.12	+15 36.1	2.244	3.160	8.0	20.7	2 21	12 6.18	+ 4 42.3	1.829	2.739	9.9	21.4
3 2	11 55.24	+16 49.2	2.205	3.162	5.6	20.6	3 2	11 58.44	+ 5 41.5	1.782	2.747	5.9	21.2
3 12	11 48.31	+17 56.1	2.195	3.164	4.8	20.5	3 12	11 49.33	+ 6 44.0	1.764	2.754	2.2	21.0
3 22	11 41.05	+18 50.4	2.213	3.166	6.3	20.6	3 22	11 39.83	+ 7 42.9	1.775	2.761	3.8	21.1
4 1	11 34.26	+19 27.8	2.259	3.168	8.9	20.8	4 1	11 30.95	+ 8 31.8	1.815	2.767	7.8	21.4
4 11	11 28.65	+19 45.9	2.329	3.171	11.5	20.9	4 11	11 23.60	+ 9 5.9	1.881	2.772	11.5	21.6
4 21	11 24.70	+19 44.9	2.419	3.173	13.8	21.1	4 21	11 18.38	+ 9 23.4	1.969	2.776	14.7	21.8
162778	2000 <i>XJ</i> ₂₆		3 16.4 79°48	6°5/11.8	18		105767	2000 <i>SE</i> ₁₀₇		3 16.4 222°38	1°8/18.8	18	
2 11	12 16.66	+16 7.3	1.479	2.331	15.4	19.6	2 11	12 4.39	- 7 50.2	2.630	3.418	11.4	20.1
2 21	12 10.10	+16 55.9	1.432	2.348	11.7	19.4	2 21	12 0.31	- 7 21.9	2.534	3.412	8.9	19.9
3 2	12 0.87	+17 41.2	1.408	2.364	8.1	19.3	3 2	11 54.75	- 6 39.0	2.462	3.406	6.0	19.7
3 12	11 50.04	+18 13.8	1.409	2.381	6.5	19.2	3 12	11 48.19	- 5 44.0	2.418	3.400	3.0	19.5
3 22	11 38.95	+18 26.5	1.437	2.397	8.2	19.4	3 22	11 41.27	- 4 40.8	2.404	3.394	2.1	19.4
4 1	11 28.98	+18 15.8	1.491	2.414	11.6	19.6	4 1	11 34.65	- 3 34.4	2.419	3.388	4.9	19.6
4 11	11 21.21	+17 42.0	1.567	2.430	15.0	19.8	4 11	11 29.00	- 2 30.3	2.463	3.381	8.0	19.8
4 21	11 16.20	+16 48.5	1.663	2.446	18.0	20.1	4 21	11 24.78	- 1 33.1	2.532	3.374	10.8	19.9
419585	2010 <i>RN</i> ₉₆		3 16.4 319°04	2°6/18.5	18		148783	2001 <i>UL</i> ₂₁		3 16.4 85°10			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
245961	2006 <i>SD</i> ₅₈		3 16.4 208°87	1°9/13.4	18		8609	Shuvalov		3 16.4 95°76	3°8/12.6	18	
2 11	12 4.99	+ 6 27.4	3.222	4.049	8.6	21.3	2 11	12 12.04	+ 8 0.3	1.734	2.578	13.9	17.8
2 21	12 0.49	+ 7 26.9	3.132	4.041	6.3	21.1	2 21	12 6.30	+ 9 26.2	1.690	2.607	10.1	17.7
3 2	11 54.74	+ 8 31.7	3.069	4.032	3.8	20.9	3 2	11 58.43	+10 57.5	1.670	2.635	6.2	17.5
3 12	11 48.18	+ 9 37.5	3.037	4.023	1.9	20.8	3 12	11 49.31	+12 25.1	1.679	2.662	3.9	17.4
3 22	11 41.31	+10 39.9	3.036	4.014	3.2	20.8	3 22	11 40.00	+13 40.3	1.716	2.689	5.7	17.6
4 1	11 34.70	+11 34.8	3.066	4.003	5.7	21.0	4 1	11 31.56	+14 36.8	1.781	2.715	9.3	17.8
4 11	11 28.87	+12 19.0	3.124	3.992	8.1	21.1	4 11	11 24.85	+15 11.3	1.871	2.741	12.6	18.1
4 21	11 24.24	+12 50.8	3.206	3.981	10.3	21.3	4 21	11 20.36	+15 24.1	1.981	2.765	15.4	18.3
217900	2001 <i>SE</i> ₆₅		3 16.4 189°68	1°3/18.1	17		505402	2013 <i>QS</i> ₆₅		3 16.4 214°28	3°8/20.2	17	
2 11	12 7.70	- 6 45.4	2.592	3.379	11.6	22.7	2 11	12 11.60	-11 41.5	2.485	3.242	12.8	22.6
2 21	12 2.75	- 6 3.0	2.497	3.377	8.9	22.5	2 21	12 5.84	-11 56.6	2.380	3.234	10.3	22.4
3 2	11 56.22	- 5 5.8	2.428	3.375	5.8	22.3	3 2	11 58.23	-11 56.3	2.300	3.224	7.5	22.2
3 12	11 48.65	- 3 56.8	2.387	3.372	2.6	22.1	3 12	11 49.32	-11 40.8	2.246	3.214	4.8	22.0
3 22	11 40.70	- 2 40.8	2.377	3.369	1.9	22.1	3 22	11 39.86	-11 12.1	2.222	3.202	3.8	21.9
4 1	11 33.10	- 1 23.4	2.398	3.364	5.1	22.3	4 1	11 30.68	-10 33.8	2.228	3.191	5.8	22.0
4 11	11 26.52	- 0 10.4	2.448	3.359	8.3	22.5	4 11	11 22.62	- 9 51.3	2.262	3.178	8.7	22.2
4 21	11 21.48	+ 0 53.4	2.523	3.353	11.2	22.6	4 21	11 16.28	- 9 9.6	2.322	3.165	11.6	22.3
100693	1997 <i>YP</i> ₉		3 16.4 114°48	6°0/22.8	18		151820	2003 <i>FW</i> ₉₆		3 16.4 133°00	0°2/16.2	18	
2 11	12 10.24	-18 8.6	2.106	2.842	15.5	19.5	2 11	12 13.43	+ 1 34.3	2.015	2.834	13.2	19.9
2 21	12 4.97	-18 28.3	2.029	2.857	12.9	19.4	2 21	12 7.28	+ 1 37.5	1.940	2.842	9.9	19.6
3 2	11 57.70	-18 25.6	1.972	2.872	10.0	19.2	3 2	11 59.08	+ 1 49.7	1.889	2.850	6.0	19.4
3 12	11 49.12	-18 0.0	1.940	2.886	7.4	19.1	3 12	11 49.56	+ 2 7.1	1.867	2.858	1.8	19.2
3 22	11 40.13	-17 14.1	1.935	2.900	6.0	19.0	3 22	11 39.63	+ 2 25.6	1.874	2.865	2.5	19.2
4 1	11 31.69	-16 12.8	1.959	2.914	7.0	19.1	4 1	11 30.31	+ 2 40.8	1.910	2.872	6.6	19.5
4 11	11 24.66	-15 3.6	2.008	2.927	9.5	19.3	4 11	11 22.47	+ 2 48.8	1.973	2.878	10.3	19.7
4 21	11 19.62	-13 53.9	2.083	2.940	12.2	19.5	4 21	11 16.71	+ 2 47.4	2.060	2.885	13.5	20.0
74111	1998 <i>QD</i> ₃₉		3 16.4 238°06	0°1/16.4	17		343092	2009 <i>DX</i> ₃₁		3 16.4 81°26	1°0/15.1	17	
2 11	12 10.21	- 0 58.6	2.024	2.841	13.3	21.2	2 11	12 4.28	+ 1 0.2	2.262	3.091	11.6	20.9
2 21	12 5.13	- 0 30.2	1.926	2.827	10.0	20.9	2 21	12 0.32	+ 2 2.8	2.192	3.101	8.5	20.7
3 2	11 57.93	+ 0 11.5	1.853	2.812	6.2	20.7	3 2	11 54.77	+ 3 16.2	2.148	3.112	5.1	20.5
3 12	11 49.25	+ 1 2.5	1.806	2.797	2.0	20.4	3 12	11 48.21	+ 4 34.8	2.131	3.123	1.6	20.3
3 22	11 39.92	+ 1 57.5	1.789	2.781	2.5	20.4	3 22	11 41.35	+ 5 52.3	2.145	3.133	2.8	20.4
4 1	11 30.96	+ 2 50.1	1.801	2.765	6.8	20.6	4 1	11 34.96	+ 7 2.5	2.187	3.144	6.4	20.7
4 11	11 23.31	+ 3 34.3	1.840	2.747	10.9	20.8	4 11	11 29.71	+ 8 0.3	2.257	3.154	9.6	20.9
4 21	11 17.67	+ 4 6.0	1.902	2.730	14.4	21.0	4 21	11 26.07	+ 8 43.0	2.350	3.164	12.4	21.1
422424	2014 <i>SU</i> ₂₈₆		3 16.4 275°25	1°2/17.2	16		363074	2000 <i>NF</i> ₂₃		3 16.4 252°40	9°3/4.8	17	
2 11	12 12.72	- 1 50.5	1.550	2.376	16.2	20.7	2 11	12 8.43	+20 2.9	1.652	2.512	13.7	20.4
2 21	12 7.57	- 1 58.2	1.462	2.365	12.4	20.4	2 21	12 4.39	+22 51.1	1.585	2.497	11.0	20.2
3 2	11 59.70	- 1 51.3	1.395	2.354	7.9	20.1	3 2	11 57.76	+25 40.1	1.544	2.482	9.4	20.0
3 12	11 49.84	- 1 32.8	1.353	2.342	3.0	19.8	3 12	11 49.25	+28 14.6	1.531	2.466	9.9	20.0
3 22	11 39.15	- 1 7.3	1.339	2.331	2.8	19.8	3 22	11 39.93	+30 20.9	1.544	2.449	12.3	20.1
4 1	11 28.97	- 0 40.9	1.351	2.320	7.9	20.0	4 1	11 31.10	+31 50.0	1.581	2.432	15.3	20.3
4 11	11 20.57	- 0 20.0	1.388	2.309	12.7	20.3	4 11	11 23.97	+32 39.4	1.638	2.415	18.3	20.4
4 21	11 14.81	- 0 9.4	1.447	2.297	16.9	20.5	4 21	11 19.36	+32 51.7	1.710	2.397	20.9	20.6
205003	1996 <i>XS</i> ₁₀		3 16.4 289°89	2°1/14.3	17		164408	2005 <i>YA</i> ₂₁₅		3 16.4 278°25	9°0/12.7	18	
2 11	12 8.74	+ 6 50.1	2.204	3.040	11.6	20.1	2 11	12 27.80	+20 10.7	1.144	1.994	19.1	19.2
2 21	12 3.73	+ 7 15.0	2.124	3.037	8.6	19.9	2 21	12 19.83	+20 30.3	1.072	1.983	15.2	18.9
3 2	11 56.90	+ 7 45.1	2.069	3.033	5.2	19.7	3 2	12 7.60	+20 39.6	1.021	1.973	11.2	18.6
3 12	11 48.88	+ 8 15.6	2.041	3.030	2.3	19.5	3 12	11 52.35	+20 25.9	0.993	1.963	9.0	18.5
3 22	11 40.45	+ 8 41.8	2.043	3.027	3.7	19.6	3 22	11 36.06	+19 40.1	0.991	1.952	10.8	18.5
4 1	11 32.48	+ 8 59.3	2.073	3.023	7.1	19.8	4 1	11 21.08	+18 20.0	1.013	1.942	15.1	18.7
4 11	11 25.77	+ 9 5.1	2.130	3.020	10.4	20.0	4 11	11 9.29	+16 30.8	1.056	1.931	19.7	18.9
4 21	11 20.85	+ 8 57.9	2.210	3.017	13.3	20.2	4 21	11 1.64	+14 21.1	1.118	1.921	23.8	19.2
88546	2001 <i>QJ</i> ₁₉₂		3 16.4 83°37	6°3/22.6	18		413871	2006 <i>UU</i> ₂₀₈		3 16.4 115°68	1°4/15.0	18	
2 11	12 8.90	-17 30.7	1.805	2.558	17.1	19.0	2 11	12 10.97	+ 2 55.5	1.954	2.783	13.2	22.3
2 21	12 4.25	-17 46.2	1.731	2.572	14.2	18.8	2 21	12 5.42	+ 3 39.3	1.891	2.800	9.7	22.2
3 2	11 57.37	-17 36.1	1.678	2.586	10.9	18.7	3 2	11 57.91	+ 4 32.5	1.853	2.817	5.8	21.9
3 12	11 49.04	-17 0.3	1.648	2.600	7.8	18.5	3 12	11 49.18	+ 5 29.3	1.843	2.834	1.9	21.7
3 22	11 40.25	-16 2.0	1.644	2.614	6.3	18.5	3 22	11 40.15	+ 6 23.5	1.862	2.850	3.3	21.8
4 1	11 32.10	-14 47.7	1.667	2.628	7.5	18.5	4 1	11 31.79	+ 7 9.0	1.910	2.865	7.2	22.1
4 11	11 25.54	-13 26.5	1.716	2.642	10.3	18.7	4 11	11 24.93	+ 7 41.6	1.985	2.880	10.8	22.4
4 21	11 21.19	-12 7.0	1.789	2.656	13.4	19.0	4 21	11 20.08	+ 7 59.2	2.082	2.895	13.8	22.6
458910	2011 <i>UJ</i> ₂₄₀		3 16.4 234°07	3°6/13.5	17		286010	2001 <i>SC</i> ₁₁₈		3 16.4 168°46	2°0/19.1	18	
2 11	12 14.02	+ 8 46.3	1.722	2.564	14.1	21.7	2 11	12 4.82	- 8 47.9	2.601	3.383	11.6	21.2
2 21	12 8.27	+ 9 29.5	1.637	2.552	10.5	21.5	2 21	12 0.61	- 8 14.9	2.511	3.386	9.1	21.1
3 2	11 59.98	+10 18.9	1.576	2.541	6.6	21.2	3 2	11 54.92	- 7 26.6	2.446	3.388	6.1	20.9
3 12	11 49.90	+11 7.4	1.543	2.528	3.7	21.0	3 12	11 48.26	- 6 25.6	2.409	3.390	3.2	20.7
3 22	11 39.11	+11 47.4	1.537	2.515	5.5	21.1	3 22	11 41.27	- 5 16.0	2.402	3.392	2.2	20.6
4 1	11 28.88	+12 12.4	1.559	2.502	9.6	21.3	4 1	11 34.65	- 4 3.2	2.425	3.394	4.9	20.8
4 11	11 20.34	+12 18.7	1.605	2.487	13.7	21.5	4 11	11 29.02	- 2 53.0	2.476	3.395	7.9	21.0
4 21	11 14.26	+12 5.6	1.673	2.473	17.2	21.7	4 21	11 24.84	- 1 50.0	2.553	3.395	10.7	21.2
142500	2002 <i>TM</i> ₃₂		3 16.4 69°03	1°5/15.4	18		361679	2007 <i>UC</i> ₃₈		3 16.4 233°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
92643	2000 <i>QE</i> ₂₄		3 16.4	40°02	2°1/17.7	18	87867	2000 <i>SJ</i> ₂₄₅		3 16.4	200°48	2°0/13.8	18
2 11	12 12.42	- 3 21.4	1.214	2.051	19.1	18.6	2 11	12 6.50	+ 6 55.6	2.705	3.536	9.9	20.3
2 21	12 7.54	- 3 40.1	1.156	2.063	14.6	18.4	2 21	12 1.80	+ 7 36.5	2.622	3.534	7.2	20.2
3 2	11 59.65	- 3 40.0	1.117	2.076	9.4	18.2	3 2	11 55.62	+ 8 22.4	2.566	3.530	4.4	20.0
3 12	11 49.80	- 3 24.1	1.102	2.090	4.0	17.9	3 12	11 48.50	+ 9 8.7	2.540	3.527	2.1	19.8
3 22	11 39.40	- 2 58.0	1.112	2.105	3.3	17.9	3 22	11 41.06	+ 9 50.9	2.543	3.523	3.4	19.9
4 1	11 30.01	- 2 29.3	1.147	2.120	8.4	18.2	4 1	11 33.97	+10 24.9	2.576	3.519	6.3	20.1
4 11	11 22.93	- 2 5.6	1.205	2.136	13.3	18.5	4 11	11 27.86	+10 47.8	2.636	3.515	9.1	20.2
4 21	11 18.84	- 1 52.2	1.284	2.152	17.5	18.8	4 21	11 23.19	+10 58.1	2.719	3.510	11.5	20.4
435355	2007 <i>VO</i> ₂₁₈		3 16.4	50°66	3°1/19.7	18	500290	2012 <i>PA</i> ₃₇		3 16.4	240°89	3°3/12.2	17
2 11	12 6.72	- 9 35.8	1.961	2.752	14.6	20.9	2 11	12 6.02	+ 8 7.8	2.283	3.124	11.1	21.8
2 21	12 2.31	- 9 29.6	1.897	2.774	11.4	20.7	2 21	12 1.78	+ 9 28.4	2.196	3.112	8.1	21.5
3 2	11 56.04	- 9 5.0	1.855	2.796	7.9	20.5	3 2	11 55.78	+10 56.4	2.136	3.100	5.1	21.3
3 12	11 48.62	- 8 24.5	1.840	2.817	4.4	20.4	3 12	11 48.59	+12 24.8	2.104	3.087	3.3	21.2
3 22	11 40.90	- 7 32.6	1.852	2.840	3.2	20.3	3 22	11 40.92	+13 46.5	2.103	3.074	5.0	21.3
4 1	11 33.79	- 6 35.3	1.892	2.862	5.9	20.5	4 1	11 33.61	+14 54.9	2.130	3.060	8.2	21.4
4 11	11 28.08	- 5 39.5	1.959	2.885	9.3	20.8	4 11	11 27.42	+15 45.6	2.182	3.046	11.3	21.6
4 21	11 24.27	- 4 50.4	2.049	2.907	12.3	21.0	4 21	11 22.91	+16 16.8	2.257	3.032	14.1	21.8
102082	1999 <i>RK</i> ₁₄₉		3 16.4	212°23	0°6/15.5	17	83885	2001 <i>UM</i> ₁₂₄		3 16.4	21°71	4°7/10.8	18
2 11	12 5.02	+ 1 36.0	2.888	3.706	9.7	20.7	2 11	12 4.10	+11 38.8	1.959	2.816	12.0	18.7
2 21	12 0.63	+ 2 14.0	2.796	3.700	7.2	20.5	2 21	12 0.49	+13 8.1	1.897	2.819	8.9	18.5
3 2	11 54.89	+ 3 0.0	2.732	3.694	4.3	20.3	3 2	11 55.01	+14 41.1	1.861	2.823	5.9	18.4
3 12	11 48.26	+ 3 50.3	2.696	3.687	1.3	20.1	3 12	11 48.34	+16 9.3	1.852	2.827	4.8	18.3
3 22	11 41.31	+ 4 40.9	2.691	3.681	2.2	20.1	3 22	11 41.30	+17 24.6	1.871	2.832	6.6	18.4
4 1	11 34.65	+ 5 27.5	2.717	3.673	5.2	20.3	4 1	11 34.79	+18 20.8	1.917	2.837	9.6	18.6
4 11	11 28.86	+ 6 6.5	2.770	3.666	8.1	20.5	4 11	11 29.61	+18 54.7	1.987	2.842	12.6	18.8
4 21	11 24.39	+ 6 35.2	2.848	3.658	10.6	20.7	4 21	11 26.29	+19 6.1	2.077	2.848	15.2	19.0
136074	2002 <i>YJ</i> ₁₆		3 16.4	7°87	12°1/29.3	17	228412	2001 <i>KD</i> ₇₉		3 16.4	227°85	1°7/18.3	17
2 11	12 11.73	+38 6.4	2.030	2.842	13.4	19.0	2 11	12 7.13	- 7 17.2	2.029	2.828	13.9	20.2
2 21	12 6.40	+39 45.3	1.998	2.843	12.4	18.9	2 21	12 2.82	- 6 36.8	1.933	2.819	10.8	20.0
3 2	11 58.66	+41 4.4	1.988	2.844	12.1	18.9	3 2	11 56.52	- 5 37.1	1.860	2.810	7.1	19.7
3 12	11 49.44	+41 54.8	2.002	2.844	12.7	18.9	3 12	11 48.84	- 4 21.3	1.815	2.800	3.2	19.5
3 22	11 39.88	+42 11.2	2.036	2.846	13.9	19.0	3 22	11 40.61	- 2 55.3	1.798	2.790	2.4	19.4
4 1	11 31.20	+41 52.7	2.091	2.847	15.4	19.1	4 1	11 32.76	- 1 26.6	1.811	2.780	6.2	19.6
4 11	11 24.40	+41 2.1	2.164	2.849	16.9	19.2	4 11	11 26.20	- 0 3.3	1.850	2.768	10.2	19.8
4 21	11 20.03	+39 45.1	2.250	2.851	18.3	19.4	4 21	11 21.54	+ 1 8.3	1.914	2.757	13.7	20.0
309251	2007 <i>RW</i> ₃₉		3 16.4	278°35	4°6/12.9	18	184659	2005 <i>SJ</i> ₄₁		3 16.4	246°68	1°0/17.6	17
2 11	12 12.45	+10 24.7	1.477	2.331	15.3	20.6	2 11	12 6.04	- 3 33.7	2.638	3.440	10.9	21.4
2 21	12 7.41	+11 12.0	1.401	2.322	11.4	20.4	2 21	12 1.56	- 3 18.7	2.540	3.430	8.4	21.2
3 2	11 59.59	+12 4.7	1.347	2.312	7.3	20.1	3 2	11 55.54	- 2 52.5	2.467	3.420	5.4	21.0
3 12	11 49.82	+12 53.9	1.319	2.303	4.7	19.9	3 12	11 48.50	- 2 17.9	2.422	3.410	2.2	20.7
3 22	11 39.32	+13 31.1	1.318	2.293	6.7	20.0	3 22	11 41.05	- 1 38.1	2.408	3.400	1.8	20.7
4 1	11 29.50	+13 49.1	1.342	2.284	10.9	20.2	4 1	11 33.90	- 0 57.4	2.423	3.389	5.1	20.9
4 11	11 21.62	+13 44.7	1.389	2.274	15.2	20.4	4 11	11 27.71	- 0 20.3	2.466	3.379	8.2	21.1
4 21	11 16.46	+13 18.1	1.455	2.265	18.9	20.7	4 21	11 22.98	+ 0 9.9	2.533	3.368	11.0	21.2
264533	2001 <i>RO</i> ₁₃₈		3 16.4	188°62	0°6/15.7	14	299784	2006 <i>SD</i> ₇₅		3 16.4	232°14	0°8/15.4	17
2 11	12 9.06	+ 0 48.0	2.263	3.082	12.0	22.3	2 11	12 6.03	+ 1 54.5	2.726	3.545	10.1	22.5
2 21	12 3.95	+ 1 29.6	2.178	3.081	8.9	22.1	2 21	12 1.50	+ 2 32.5	2.629	3.534	7.5	22.3
3 2	11 57.05	+ 2 21.9	2.118	3.080	5.4	21.9	3 2	11 55.50	+ 3 18.9	2.559	3.522	4.5	22.1
3 12	11 48.96	+ 3 20.4	2.087	3.078	1.6	21.6	3 12	11 48.49	+ 4 10.0	2.518	3.509	1.4	21.8
3 22	11 40.44	+ 4 19.6	2.085	3.075	2.6	21.7	3 22	11 41.10	+ 5 1.4	2.508	3.497	2.4	21.9
4 1	11 32.35	+ 5 13.7	2.114	3.072	6.4	22.0	4 1	11 34.00	+ 5 48.4	2.527	3.484	5.6	22.1
4 11	11 25.48	+ 5 57.9	2.170	3.068	9.9	22.2	4 11	11 27.82	+ 6 27.2	2.575	3.470	8.6	22.2
4 21	11 20.35	+ 6 29.1	2.249	3.064	12.9	22.3	4 21	11 23.06	+ 6 55.0	2.646	3.456	11.3	22.4
491704	2012 <i>UF</i> ₁₁₃		3 16.4	129°45	0°1/16.2	17	141128	2001 <i>XR</i> ₈₈		3 16.4	94°06	1°3/18.1	18
2 11	12 7.09	+ 0 3.0	2.659	3.472	10.6	22.5	2 11	12 5.81	- 5 30.9	2.458	3.257	11.8	20.5
2 21	12 2.16	+ 0 30.6	2.585	3.484	7.8	22.3	2 21	12 1.35	- 5 6.4	2.385	3.271	9.0	20.4
3 2	11 55.80	+ 1 6.9	2.536	3.496	4.8	22.1	3 2	11 55.36	- 4 28.8	2.335	3.286	5.8	20.2
3 12	11 48.54	+ 1 48.3	2.516	3.507	1.4	21.9	3 12	11 48.43	- 3 41.2	2.314	3.300	2.6	20.0
3 22	11 41.01	+ 2 30.9	2.527	3.518	2.0	22.0	3 22	11 41.23	- 2 48.0	2.322	3.314	1.9	20.0
4 1	11 33.91	+ 3 10.4	2.568	3.529	5.2	22.2	4 1	11 34.47	- 1 53.9	2.360	3.328	5.1	20.2
4 11	11 27.84	+ 3 43.0	2.636	3.539	8.2	22.4	4 11	11 28.81	- 1 4.1	2.426	3.342	8.2	20.4
4 21	11 23.22	+ 4 6.4	2.730	3.549	10.7	22.6	4 21	11 24.68	- 0 22.3	2.517	3.356	10.9	20.6
341643	2007 <i>VM</i> ₃₈		3 16.4	127°33	3°5/20.4	17	180759	2004 <i>OQ</i> ₅		3 16.4	264°99	0°5/15.7	17
2 11	12 7.73	-11 38.9	2.466	3.231	12.7	21.6	2 11	12 5.36	+ 1 3.2	2.613	3.433	10.5	20.7
2 21	12 2.84	-11 44.0	2.382	3.240	10.1	21.4	2 21	12 1.10	+ 1 37.5	2.512	3.417	7.8	20.5
3 2	11 56.31	-11 33.2	2.321	3.248	7.3	21.2	3 2	11 55.30	+ 2 21.1	2.437	3.399	4.7	20.3
3 12	11 48.72	-11 7.6	2.287	3.256	4.6	21.1	3 12	11 48.45	+ 3 10.3	2.391	3.382	1.4	20.0
3 22	11 40.76	-10 29.9	2.282	3.264	3.5	21.0	3 22	11 41.16	+ 4 0.9	2.375	3.365	2.3	20.1
4 1	11 33.23	- 9 44.4	2.306	3.272	5.4	21.1	4 1	11 34.14	+ 4 47.9	2.388	3.347	5.7	20.3
4 11	11 26.81	- 8 56.4	2.358	3.279	8.2	21.3	4 11	11 28.07	+ 5 27.2	2.429	3.329	8.9	20.4
4 21	11 22.01	- 8 10.9	2.436	3.286	10.9	21.5	4 21	11 23.44	+ 5 55.7	2.494	3.311	11.7	20.6
435034	2006 <i>VQ</i> ₁₄₁		3 16.4	278°43	4°9/22.3	18	480058	2015 <i>CN</i> ₅₇		3 16.4			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
523678	2013 <i>XB</i> ₂₆		3 16.4 322°45	0°1/17.8	18		249147	2008 <i>AW</i> ₅₈		3 16.4 141°34	0°6/15.8	18	
2 11	11 47.50	- 2 15.2	44.500	45.295	0.7	22.0	2 11	12 10.44	+ 0 4.8	2.035	2.854	13.1	21.3
2 21	11 46.91	- 2 11.9	44.408	45.295	0.6	21.9	2 21	12 5.06	+ 0 50.4	1.963	2.867	9.7	21.1
3 2	11 46.26	- 2 8.0	44.343	45.294	0.4	21.9	3 2	11 57.74	+ 1 48.0	1.917	2.878	5.9	20.9
3 12	11 45.57	- 2 3.8	44.307	45.294	0.1	21.9	3 12	11 49.21	+ 2 52.4	1.898	2.889	1.7	20.6
3 22	11 44.87	- 1 59.3	44.302	45.294	0.1	21.9	3 22	11 40.31	+ 3 57.3	1.909	2.900	2.7	20.7
4 1	11 44.19	- 1 54.8	44.327	45.294	0.3	21.9	4 1	11 32.00	+ 4 56.2	1.950	2.909	6.7	21.0
4 11	11 43.54	- 1 50.4	44.380	45.294	0.5	21.9	4 11	11 25.09	+ 5 43.8	2.017	2.918	10.4	21.2
4 21	11 42.96	- 1 46.3	44.461	45.294	0.7	21.9	4 21	11 20.13	+ 6 17.0	2.108	2.926	13.5	21.4
202931	1998 <i>TB</i> ₁		3 16.4 183°88	0°1/16.5	17		354860	2005 <i>YX</i> ₂₃₄		3 16.4 177°67	2°5/19.7	17	
2 11	12 7.05	- 1 14.2	2.415	3.228	11.5	21.8	2 11	12 5.27	- 9 17.8	2.891	3.664	10.8	21.4
2 21	12 2.37	- 0 41.4	2.329	3.228	8.6	21.6	2 21	12 0.85	- 9 15.6	2.798	3.665	8.5	21.2
3 2	11 56.05	+ 0 2.5	2.269	3.228	5.3	21.4	3 2	11 55.06	- 9 0.6	2.730	3.665	6.0	21.1
3 12	11 48.67	+ 0 53.7	2.237	3.228	1.7	21.1	3 12	11 48.37	- 8 34.4	2.690	3.666	3.5	20.9
3 22	11 40.91	+ 1 47.5	2.235	3.227	2.0	21.1	3 22	11 41.35	- 7 59.5	2.679	3.666	2.6	20.8
4 1	11 33.54	+ 2 38.9	2.263	3.226	5.7	21.4	4 1	11 34.64	- 7 19.5	2.698	3.666	4.6	21.0
4 11	11 27.28	+ 3 23.0	2.318	3.224	9.0	21.6	4 11	11 28.83	- 6 38.6	2.746	3.666	7.2	21.1
4 21	11 22.60	+ 3 56.5	2.397	3.222	11.9	21.8	4 21	11 24.34	- 6 0.7	2.819	3.665	9.7	21.3
112853	2002 <i>QM</i> ₂₅		3 16.4 121°89	0°1/16.5	18		152777	1999 <i>RA</i> ₁₆₀		3 16.4 206°43	1°6/14.6	17	
2 11	12 6.75	- 1 19.0	2.268	3.084	12.0	20.5	2 11	12 8.50	+ 4 18.2	2.390	3.217	11.1	20.7
2 21	12 2.18	- 0 44.3	2.192	3.093	9.0	20.4	2 21	12 3.49	+ 5 0.4	2.303	3.212	8.2	20.5
3 2	11 55.94	+ 0 2.0	2.141	3.101	5.5	20.2	3 2	11 56.78	+ 5 50.3	2.242	3.206	4.9	20.3
3 12	11 48.63	+ 0 55.7	2.118	3.109	1.7	19.9	3 12	11 48.92	+ 6 43.2	2.210	3.200	1.9	20.1
3 22	11 40.99	+ 1 51.8	2.125	3.116	2.1	20.0	3 22	11 40.65	+ 7 33.7	2.208	3.193	3.2	20.2
4 1	11 33.81	+ 2 44.7	2.160	3.124	5.8	20.2	4 1	11 32.77	+ 8 16.9	2.236	3.186	6.6	20.4
4 11	11 27.82	+ 3 29.6	2.223	3.131	9.2	20.4	4 11	11 26.01	+ 8 48.7	2.290	3.179	9.9	20.6
4 21	11 23.50	+ 4 3.2	2.310	3.138	12.1	20.6	4 21	11 20.92	+ 9 7.1	2.368	3.170	12.7	20.7
81936	2000 <i>OU</i> ₂₉		3 16.4 177°22	4°3/21.6	18		109869	2001 <i>RH</i> ₁₄₉		3 16.4 258°61	2°7/13.1	18	
2 11	12 7.00	-14 56.3	2.614	3.359	12.5	19.4	2 11	12 4.96	+ 6 35.2	2.248	3.090	11.2	19.7
2 21	12 2.31	-15 7.3	2.520	3.360	10.3	19.2	2 21	12 0.97	+ 7 42.0	2.167	3.084	8.2	19.5
3 2	11 56.02	-15 1.5	2.450	3.361	7.8	19.0	3 2	11 55.28	+ 8 56.2	2.112	3.078	5.0	19.3
3 12	11 48.67	-14 39.2	2.405	3.362	5.4	18.9	3 12	11 48.46	+10 11.8	2.086	3.072	2.7	19.1
3 22	11 40.91	-14 2.5	2.389	3.362	4.3	18.8	3 22	11 41.23	+11 22.0	2.088	3.066	4.3	19.2
4 1	11 33.48	-13 15.3	2.401	3.362	5.6	18.9	4 1	11 34.40	+12 20.9	2.119	3.060	7.6	19.4
4 11	11 27.10	-12 22.7	2.442	3.362	8.0	19.0	4 11	11 28.71	+13 4.1	2.176	3.054	10.8	19.6
4 21	11 22.25	-11 30.0	2.508	3.361	10.5	19.2	4 21	11 24.68	+13 29.8	2.256	3.048	13.5	19.8
336225	2008 <i>SA</i> ₇₈		3 16.4 255°62	0°3/16.7	17		182711	2001 <i>WZ</i> ₁₆		3 16.4 280°83	1°8/14.9	17	R
2 11	12 8.88	- 0 59.6	2.029	2.848	13.1	21.4	2 11	12 11.10	+ 4 48.9	1.768	2.606	13.9	19.9
2 21	12 4.09	- 0 43.8	1.938	2.840	9.9	21.1	2 21	12 6.12	+ 5 12.3	1.675	2.588	10.4	19.6
3 2	11 57.28	- 0 15.9	1.872	2.831	6.2	20.9	3 2	11 58.73	+ 5 44.7	1.605	2.570	6.3	19.4
3 12	11 49.09	+ 0 20.5	1.832	2.823	2.0	20.6	3 12	11 49.61	+ 6 20.8	1.562	2.552	2.3	19.1
3 22	11 40.35	+ 1 0.8	1.821	2.814	2.3	20.6	3 22	11 39.74	+ 6 54.3	1.547	2.534	3.9	19.1
4 1	11 32.03	+ 1 39.3	1.839	2.805	6.5	20.9	4 1	11 30.29	+ 7 19.2	1.559	2.516	8.4	19.3
4 11	11 25.02	+ 2 11.0	1.884	2.796	10.4	21.1	4 11	11 22.38	+ 7 30.7	1.597	2.497	12.6	19.6
4 21	11 19.95	+ 2 32.0	1.951	2.786	13.8	21.3	4 21	11 16.75	+ 7 26.7	1.655	2.479	16.4	19.7
390421	2013 <i>YQ</i> ₃₂		3 16.4 331°92	5°9/22.6	17		500966	2013 <i>QD</i> ₆₁		3 16.4 301°97	2°1/14.5	17	
2 11	12 7.70	-17 22.4	2.287	3.026	14.3	20.4	2 11	12 5.02	+ 1 22.7	1.476	2.326	15.6	21.0
2 21	12 3.11	-17 54.7	2.195	3.024	12.0	20.2	2 21	12 2.06	+ 2 37.2	1.379	2.299	11.7	20.7
3 2	11 56.64	-18 7.5	2.123	3.023	9.4	20.1	3 2	11 56.49	+ 4 12.7	1.303	2.272	7.0	20.4
3 12	11 48.89	-18 0.2	2.077	3.022	7.0	19.9	3 12	11 48.97	+ 6 1.5	1.254	2.244	2.5	20.0
3 22	11 40.61	-17 33.9	2.057	3.020	5.9	19.8	3 22	11 40.49	+ 7 52.8	1.230	2.217	4.7	20.1
4 1	11 32.70	-16 52.3	2.065	3.019	6.8	19.9	4 1	11 32.35	+ 9 34.4	1.233	2.190	10.0	20.3
4 11	11 25.99	-16 1.3	2.100	3.018	9.1	20.0	4 11	11 25.82	+10 55.6	1.259	2.164	15.0	20.5
4 21	11 21.06	-15 7.3	2.159	3.017	11.8	20.2	4 21	11 21.82	+11 50.8	1.305	2.138	19.4	20.7
18082	2000 <i>GB</i> ₁₃₆		3 16.4 204°09	4°2/12.4	18	R	472137	2014 <i>BY</i> ₅₇		3 16.4 29°42	8°5/24.1	17	
2 11	12 12.81	+10 13.7	1.869	2.710	13.1	18.7	2 11	12 12.50	-22 14.6	2.165	2.868	16.0	20.0
2 21	12 7.15	+11 18.1	1.791	2.706	9.8	18.5	2 21	12 6.89	-23 34.6	2.080	2.873	13.9	19.9
3 2	11 59.20	+12 27.8	1.738	2.700	6.3	18.2	3 2	11 59.08	-24 33.7	2.015	2.878	11.6	19.7
3 12	11 49.69	+13 34.8	1.713	2.694	4.2	18.1	3 12	11 49.69	-25 8.4	1.974	2.884	9.6	19.6
3 22	11 39.63	+14 31.2	1.716	2.687	6.0	18.2	3 22	11 39.64	-25 17.9	1.959	2.890	8.5	19.6
4 1	11 30.13	+15 10.5	1.748	2.679	9.6	18.4	4 1	11 29.98	-25 4.2	1.970	2.896	9.0	19.6
4 11	11 22.20	+15 29.4	1.804	2.670	13.2	18.6	4 11	11 21.72	-24 32.9	2.006	2.903	10.6	19.7
4 21	11 16.50	+15 27.3	1.881	2.661	16.3	18.8	4 21	11 15.56	-23 51.1	2.066	2.910	12.8	19.8
193896	2001 <i>QX</i> ₂₂₉		3 16.4 77°64	3°9/19.4	18		142746	2002 <i>TS</i> ₂₉₄		3 16.4 49°40	1°4/15.5	18	R
2 11	12 11.86	- 9 11.1	1.386	2.194	18.7	19.9	2 11	12 16.27	+ 5 14.2	1.430	2.272	16.4	18.7
2 21	12 6.92	- 9 18.5	1.321	2.208	14.7	19.6	2 21	12 9.95	+ 5 6.2	1.373	2.288	12.2	18.5
3 2	11 59.22	- 9 1.8	1.277	2.222	10.2	19.4	3 2	12 0.92	+ 5 5.4	1.339	2.304	7.3	18.3
3 12	11 49.71	- 8 23.0	1.256	2.236	5.6	19.2	3 12	11 50.21	+ 5 6.9	1.330	2.321	2.4	18.0
3 22	11 39.67	- 7 27.8	1.261	2.250	4.2	19.1	3 22	11 39.13	+ 5 5.5	1.349	2.338	3.7	18.1
4 1	11 30.48	- 6 24.7	1.292	2.264	7.8	19.4	4 1	11 29.08	+ 4 57.0	1.394	2.356	8.6	18.5
4 11	11 23.36	- 5 23.4	1.347	2.278	12.2	19.7	4 11	11 21.19	+ 4 38.3	1.464	2.374	12.9	18.8
4 21	11 18.97	- 4 31.5	1.424	2.291	16.2	19.9	4 21	11 16.05	+ 4 8.6	1.555	2.392	16.6	19.0
499306	2009 <i>WZ</i> ₃₆		3 16.4 135°48	1°8/18.4	17		171475	5151 <i>T</i> ₋					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
410356	2007 VW ₂₉		3 16.4 210°87		3°0/13.3 17		34903	3037 P-L		3 16.4 79°33		3°4/20.2 18	
2 11	12 11.68	+ 7 39.3	2.076	2.910	12.3	22.0	2 11	12 7.17	-10 51.0	2.361	3.134	12.9	18.1
2 21	12 6.14	+ 8 37.2	1.991	2.903	9.1	21.8	2 21	12 2.49	-10 57.4	2.281	3.145	10.3	17.9
3 2	11 58.52	+ 9 42.1	1.931	2.894	5.6	21.6	3 2	11 56.16	-10 47.9	2.225	3.156	7.4	17.8
3 12	11 49.50	+10 47.4	1.900	2.885	3.1	21.4	3 12	11 48.74	-10 23.6	2.195	3.167	4.5	17.6
3 22	11 39.93	+11 46.0	1.898	2.875	4.8	21.5	3 22	11 40.98	- 9 47.6	2.194	3.178	3.4	17.5
4 1	11 30.82	+12 32.0	1.925	2.864	8.4	21.7	4 1	11 33.67	- 9 4.2	2.221	3.188	5.4	17.7
4 11	11 23.07	+13 1.1	1.978	2.852	11.8	21.9	4 11	11 27.51	- 8 19.0	2.277	3.199	8.3	17.9
4 21	11 17.32	+13 12.0	2.053	2.839	14.9	22.1	4 21	11 23.00	- 7 36.7	2.356	3.210	11.1	18.1
209563	2004 XC ₁₃		3 16.4 70°86		4°5/12.8 18		466322	2013 QQ ₈₀		3 16.4 151°61		1°6/18.0 16	
2 11	12 11.11	+ 9 2.9	1.408	2.265	15.7	20.0	2 11	12 11.40	- 4 35.7	2.291	3.086	12.6	21.6
2 21	12 6.23	+10 7.4	1.353	2.277	11.6	19.8	2 21	12 5.65	- 4 34.5	2.209	3.094	9.7	21.4
3 2	11 58.72	+11 18.1	1.322	2.288	7.2	19.5	3 2	11 58.10	- 4 20.8	2.152	3.101	6.3	21.2
3 12	11 49.54	+12 25.3	1.316	2.300	4.5	19.4	3 12	11 49.36	- 3 57.0	2.122	3.108	2.8	21.0
3 22	11 39.95	+13 19.6	1.336	2.312	6.5	19.5	3 22	11 40.23	- 3 26.6	2.122	3.114	2.2	21.0
4 1	11 31.28	+13 53.8	1.381	2.323	10.7	19.8	4 1	11 31.58	- 2 54.0	2.153	3.120	5.6	21.2
4 11	11 24.62	+14 4.7	1.450	2.335	14.6	20.1	4 11	11 24.19	- 2 23.9	2.211	3.125	9.0	21.4
4 21	11 20.59	+13 52.9	1.537	2.347	18.0	20.3	4 21	11 18.59	- 2 0.1	2.294	3.130	12.0	21.6
140056	2001 SY ₉₆		3 16.4 56°95		1°9/18.6 18		62512	2000 SF ₂₄₁		3 16.4 68°36		1°5/18.3 18	
2 11	12 4.54	- 7 41.3	2.096	2.897	13.5	19.8	2 11	12 4.32	- 6 36.6	2.285	3.085	12.5	19.6
2 21	12 0.70	- 7 7.5	2.020	2.905	10.4	19.6	2 21	12 0.44	- 6 2.6	2.204	3.091	9.6	19.4
3 2	11 55.12	- 6 16.2	1.966	2.914	6.9	19.4	3 2	11 54.93	- 5 13.1	2.147	3.097	6.3	19.2
3 12	11 48.41	- 5 10.7	1.939	2.923	3.3	19.2	3 12	11 48.37	- 4 11.4	2.118	3.103	2.8	19.0
3 22	11 41.35	- 3 56.6	1.941	2.933	2.4	19.1	3 22	11 41.48	- 3 2.5	2.117	3.109	2.1	18.9
4 1	11 34.77	- 2 40.6	1.972	2.942	5.7	19.4	4 1	11 35.00	- 1 52.4	2.146	3.115	5.4	19.2
4 11	11 29.43	- 1 29.5	2.029	2.951	9.2	19.6	4 11	11 29.65	- 0 47.0	2.202	3.121	8.7	19.4
4 21	11 25.83	- 0 28.7	2.111	2.961	12.3	19.8	4 21	11 25.91	+ 0 8.8	2.282	3.127	11.7	19.6
517652	2015 BK ₅₄₃		3 16.4 170°52		0°9/15.4 17		125626	2001 XU ₅₈		3 16.4 113°35		1°4/15.2 18	
2 11	12 6.36	+ 0 34.1	1.954	2.784	13.1	21.3	2 11	12 12.92	+ 1 52.7	1.722	2.552	14.7	20.4
2 21	12 2.20	+ 1 27.9	1.875	2.785	9.7	21.1	2 21	12 7.09	+ 2 46.7	1.664	2.573	10.8	20.2
3 2	11 56.11	+ 2 34.6	1.821	2.785	5.8	20.9	3 2	11 59.05	+ 3 52.6	1.630	2.594	6.4	20.0
3 12	11 48.74	+ 3 48.7	1.795	2.786	1.8	20.6	3 12	11 49.65	+ 5 3.4	1.624	2.615	2.0	19.8
3 22	11 40.92	+ 5 3.1	1.797	2.786	3.0	20.7	3 22	11 39.94	+ 6 11.2	1.646	2.634	3.5	19.9
4 1	11 33.60	+ 6 10.7	1.827	2.786	7.1	21.0	4 1	11 31.04	+ 7 8.9	1.697	2.653	7.8	20.2
4 11	11 27.62	+ 7 5.4	1.884	2.787	10.9	21.2	4 11	11 23.87	+ 7 51.2	1.773	2.671	11.7	20.5
4 21	11 23.55	+ 7 43.9	1.963	2.787	14.1	21.4	4 21	11 18.98	+ 8 15.9	1.872	2.688	15.0	20.7
302350	2002 AV ₁₈₁		3 16.4 108°92		0°8/17.1 18		351865	2006 SF ₂₄		3 16.4 137°16		3°1/20.7 17	
2 11	12 13.40	- 3 14.4	1.684	2.498	15.6	21.7	2 11	12 6.33	-12 29.7	2.954	3.708	11.0	22.3
2 21	12 7.51	- 2 46.3	1.622	2.520	11.8	21.5	2 21	12 1.57	-12 22.0	2.869	3.720	8.9	22.1
3 2	11 59.32	- 2 1.8	1.584	2.541	7.4	21.3	3 2	11 55.47	-11 59.9	2.809	3.732	6.4	22.0
3 12	11 49.71	- 1 6.0	1.572	2.561	2.6	21.0	3 12	11 48.52	-11 24.8	2.776	3.743	4.1	21.9
3 22	11 39.76	- 0 5.6	1.589	2.581	2.5	21.0	3 22	11 41.31	-10 39.4	2.773	3.754	3.1	21.8
4 1	11 30.63	+ 0 52.2	1.634	2.600	7.1	21.4	4 1	11 34.44	- 9 47.5	2.799	3.764	4.6	21.9
4 11	11 23.28	+ 1 40.6	1.705	2.618	11.2	21.6	4 11	11 28.50	- 8 53.8	2.855	3.774	7.0	22.1
4 21	11 18.28	+ 2 15.5	1.799	2.636	14.7	21.9	4 21	11 23.90	- 8 2.5	2.937	3.784	9.3	22.2
341772	2007 VB ₃₃₅		3 16.4 219°52		3°8/11.8 17		498944	2009 BU ₅₃		3 16.4 23°88		6°2/21.5 17	
2 11	12 6.84	+11 50.5	2.387	3.231	10.6	21.2	2 11	12 11.21	-14 17.5	1.895	2.658	16.0	20.8
2 21	12 2.26	+12 48.0	2.312	3.227	7.9	21.0	2 21	12 6.02	-15 16.4	1.815	2.664	13.2	20.6
3 2	11 56.02	+13 47.9	2.263	3.224	5.2	20.8	3 2	11 58.56	-15 56.0	1.757	2.670	10.2	20.4
3 12	11 48.69	+14 44.2	2.242	3.220	3.8	20.7	3 12	11 49.56	-16 14.8	1.723	2.677	7.4	20.3
3 22	11 41.00	+15 31.2	2.251	3.216	5.3	20.8	3 22	11 39.97	-16 13.7	1.715	2.684	6.2	20.2
4 1	11 33.73	+16 4.4	2.287	3.212	8.0	21.0	4 1	11 30.89	-15 55.9	1.735	2.692	7.6	20.3
4 11	11 27.60	+16 21.1	2.350	3.208	10.8	21.2	4 11	11 23.32	-15 27.7	1.780	2.700	10.4	20.5
4 21	11 23.11	+16 20.9	2.433	3.203	13.3	21.3	4 21	11 17.96	-14 55.8	1.849	2.709	13.3	20.7
288946	2004 SB ₅₂		3 16.4 181°07		0°8/17.5 17		135072	2001 PA ₃₄		3 16.4 169°97		3°8/21.3 18	
2 11	12 6.99	- 4 46.7	2.679	3.473	11.0	21.9	2 11	12 5.93	-14 15.9	2.590	3.342	12.5	20.6
2 21	12 2.20	- 4 5.6	2.588	3.475	8.4	21.7	2 21	12 1.53	-14 9.2	2.497	3.344	10.1	20.5
3 2	11 55.91	- 3 11.5	2.524	3.476	5.3	21.6	3 2	11 55.57	-13 45.0	2.428	3.346	7.5	20.3
3 12	11 48.66	- 2 7.9	2.488	3.476	2.1	21.3	3 12	11 48.58	-13 4.3	2.385	3.347	5.0	20.1
3 22	11 41.06	- 0 59.3	2.483	3.475	1.8	21.3	3 22	11 41.22	-12 10.0	2.371	3.349	3.9	20.1
4 1	11 33.81	+ 0 9.2	2.508	3.474	5.0	21.5	4 1	11 34.21	-11 6.6	2.385	3.350	5.3	20.1
4 11	11 27.55	+ 1 12.2	2.563	3.471	8.1	21.7	4 11	11 28.24	-10 0.0	2.429	3.351	7.9	20.3
4 21	11 22.74	+ 2 6.0	2.643	3.469	10.8	21.9	4 21	11 23.77	- 8 55.6	2.497	3.351	10.5	20.5
503710	2016 JB ₂₀		3 16.4 139°02		0°4/16.0 17		85856	1999 AT ₁₉		3 16.4 182°22		1°8/18.1 18	
2 11	12 7.90	+ 0 7.7	2.217	3.037	12.1	21.6	2 11	12 12.81	- 5 29.7	1.900	2.700	14.7	20.0
2 21	12 3.09	+ 0 44.4	2.141	3.044	9.0	21.4	2 21	12 7.12	- 5 19.0	1.814	2.701	11.3	19.7
3 2	11 56.53	+ 1 31.9	2.090	3.052	5.5	21.2	3 2	11 59.20	- 4 51.9	1.751	2.701	7.4	19.5
3 12	11 48.86	+ 2 25.7	2.068	3.059	1.6	20.9	3 12	11 49.75	- 4 11.0	1.716	2.701	3.3	19.3
3 22	11 40.83	+ 3 20.6	2.075	3.065	2.4	21.0	3 22	11 39.74	- 3 21.2	1.709	2.700	2.6	19.2
4 1	11 33.30	+ 4 10.9	2.111	3.072	6.2	21.2	4 1	11 30.25	- 2 28.8	1.731	2.699	6.6	19.4
4 11	11 26.99	+ 4 52.0	2.174	3.078	9.6	21.5	4 11	11 22.27	- 1 40.4	1.780	2.696	10.6	19.7
4 21	11 22.42	+ 5 20.8	2.261	3.083	12.6	21.7	4 21	11 16.47	- 1 1.1	1.852	2.693	14.2	19.9
76929	2001 AX ₃₄		3 16.4 201°17		11°2/21.4 18		60268	1999 XU ₃₈		3 16.4 192°50		4°0/11.5 18	
2 11	12 23.86	-17 30.7	1.307	2.063									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
421598	2014 <i>OP</i> ₂₂₈		3 16.4 147°03	0°5/16.9	18		306369	6883 <i>P-L</i>		3 16.4 103°07	0°8/15.7	18	
2 11	12 10.28	- 2 59.8	1.970	2.781	13.8	21.7	2 11	12 10.66	- 0 19.9	1.650	2.480	15.2	21.3
2 21	12 5.06	- 2 24.6	1.894	2.791	10.4	21.5	2 21	12 5.55	+ 0 38.2	1.591	2.499	11.2	21.1
3 2	11 57.83	- 1 34.7	1.842	2.799	6.5	21.3	3 2	11 58.18	+ 1 51.1	1.555	2.518	6.7	20.9
3 12	11 49.30	- 0 34.3	1.818	2.808	2.3	21.0	3 12	11 49.42	+ 3 11.9	1.545	2.537	2.0	20.6
3 22	11 40.35	+ 0 30.3	1.823	2.815	2.3	21.0	3 22	11 40.32	+ 4 32.1	1.564	2.555	3.2	20.7
4 1	11 31.98	+ 1 32.7	1.857	2.822	6.5	21.3	4 1	11 31.99	+ 5 43.3	1.611	2.572	7.7	21.0
4 11	11 25.04	+ 2 26.4	1.918	2.829	10.3	21.5	4 11	11 25.39	+ 6 39.3	1.684	2.589	11.8	21.3
4 21	11 20.10	+ 3 7.5	2.002	2.834	13.6	21.8	4 21	11 21.06	+ 7 16.7	1.778	2.605	15.2	21.6
115748	2003 <i>UO</i> ₁₉₅		3 16.4 41°42	0°9/15.5	18		43068	1999 <i>VK</i> ₁₅₉		3 16.4 170°03	1°8/18.4	18	
2 11	12 7.61	+ 2 5.5	1.975	2.807	12.9	20.4	2 11	12 7.85	- 6 13.3	2.223	3.020	12.9	20.0
2 21	12 3.10	+ 2 35.9	1.899	2.809	9.6	20.2	2 21	12 3.14	- 5 56.5	2.137	3.022	10.0	19.8
3 2	11 56.65	+ 3 16.5	1.847	2.812	5.8	19.9	3 2	11 56.64	- 5 24.8	2.075	3.024	6.6	19.6
3 12	11 48.94	+ 4 2.3	1.823	2.814	1.8	19.7	3 12	11 48.95	- 4 40.8	2.041	3.025	3.1	19.4
3 22	11 40.81	+ 4 47.8	1.827	2.817	2.9	19.8	3 22	11 40.85	- 3 48.9	2.035	3.027	2.3	19.3
4 1	11 33.20	+ 5 27.1	1.859	2.820	6.9	20.0	4 1	11 33.17	- 2 54.4	2.059	3.028	5.6	19.5
4 11	11 26.94	+ 5 55.6	1.918	2.823	10.6	20.2	4 11	11 26.71	- 2 3.2	2.110	3.028	9.1	19.7
4 21	11 22.61	+ 6 10.7	1.999	2.826	13.8	20.5	4 21	11 21.99	- 1 19.8	2.185	3.029	12.2	19.9
4570	Runcorn		3 16.4 341°11	0°6/16.8	18		235404	2003 <i>XU</i> ₁		3 16.4 146°52	0°3/16.1	17	
2 11	12 11.02	- 0 15.9	1.143	1.995	19.0	16.1	2 11	12 7.30	- 0 9.1	2.688	3.499	10.5	21.8
2 21	12 7.01	- 0 25.0	1.070	1.988	14.5	15.8	2 21	12 2.36	+ 0 30.5	2.611	3.510	7.8	21.7
3 2	11 59.70	- 0 17.6	1.017	1.982	9.1	15.4	3 2	11 55.99	+ 1 19.3	2.560	3.520	4.7	21.5
3 12	11 50.03	+ 0 2.3	0.986	1.976	3.1	15.1	3 12	11 48.72	+ 2 13.5	2.539	3.530	1.4	21.3
3 22	11 39.41	+ 0 28.3	0.979	1.972	3.4	15.1	3 22	11 41.17	+ 3 8.6	2.549	3.539	2.0	21.3
4 1	11 29.57	+ 0 52.3	0.996	1.968	9.5	15.4	4 1	11 34.03	+ 4 0.0	2.588	3.548	5.3	21.5
4 11	11 22.04	+ 1 6.9	1.035	1.965	15.0	15.7	4 11	11 27.90	+ 4 43.6	2.656	3.556	8.2	21.7
4 21	11 17.74	+ 1 7.4	1.092	1.963	19.8	15.9	4 21	11 23.22	+ 5 16.8	2.749	3.564	10.8	21.9
204720	2006 <i>GH</i> ₄₁		3 16.4 318°04	0°2/16.6	18		502321	2015 <i>BL</i> ₁₆₀		3 16.4 124°99	1°3/17.8	17	
2 11	12 8.28	- 1 1.8	1.311	2.157	17.4	20.3	2 11	12 7.95	- 4 41.3	2.126	2.931	13.1	21.7
2 21	12 4.66	- 0 44.8	1.229	2.144	13.3	20.0	2 21	12 3.23	- 4 18.5	2.048	2.939	10.0	21.5
3 2	11 58.15	- 0 9.3	1.168	2.132	8.3	19.7	3 2	11 56.69	- 3 41.2	1.994	2.947	6.4	21.3
3 12	11 49.53	+ 0 39.6	1.130	2.121	2.7	19.3	3 12	11 48.97	- 2 52.8	1.967	2.955	2.7	21.1
3 22	11 40.02	+ 1 34.7	1.117	2.110	3.2	19.3	3 22	11 40.87	- 1 58.2	1.970	2.962	2.1	21.1
4 1	11 31.09	+ 2 26.6	1.129	2.099	8.9	19.6	4 1	11 33.27	- 1 3.1	2.001	2.969	5.8	21.3
4 11	11 24.12	+ 3 6.8	1.164	2.089	14.2	19.8	4 11	11 26.94	- 0 13.4	2.059	2.976	9.4	21.6
4 21	11 19.97	+ 3 29.9	1.219	2.080	18.7	20.1	4 21	11 22.43	+ 0 26.7	2.142	2.983	12.5	21.8
459970	2014 <i>OX</i> ₅		3 16.4 177°33	2°2/14.1	17		356487	2011 <i>RJ</i> ₁₆		3 16.4 264°61	5°3/20.5	17	
2 11	12 11.02	+ 4 37.8	2.080	2.910	12.5	22.8	2 11	12 11.59	- 12 40.2	1.628	2.409	17.5	21.4
2 21	12 5.56	+ 5 40.4	2.003	2.913	9.2	22.5	2 21	12 6.97	- 12 57.8	1.521	2.387	14.4	21.1
3 2	11 58.14	+ 6 52.1	1.951	2.915	5.5	22.3	3 2	11 59.58	- 12 51.6	1.434	2.364	10.6	20.8
3 12	11 49.41	+ 8 6.7	1.927	2.916	2.4	22.1	3 12	11 50.03	- 12 20.4	1.371	2.340	6.9	20.5
3 22	11 40.25	+ 9 16.9	1.934	2.917	4.0	22.2	3 22	11 39.38	- 11 26.4	1.334	2.316	5.4	20.4
4 1	11 31.60	+ 10 16.3	1.970	2.916	7.7	22.4	4 1	11 28.97	- 10 15.5	1.323	2.291	8.2	20.5
4 11	11 24.32	+ 11 0.3	2.032	2.915	11.2	22.7	4 11	11 20.16	- 8 57.6	1.338	2.266	12.5	20.7
4 21	11 18.98	+ 11 26.7	2.117	2.912	14.2	22.9	4 21	11 13.94	- 7 42.7	1.376	2.240	16.8	20.8
340644	2006 <i>QV</i> ₁₆₆		3 16.4 141°54	0°2/16.2	17		423229	2004 <i>RV</i> ₂₉₁		3 16.4 132°97	2°6/19.5	15	
2 11	12 4.51	- 1 50.9	2.610	3.422	10.8	21.3	2 11	12 9.43	- 9 19.3	2.465	3.239	12.4	22.3
2 21	12 0.37	- 0 50.3	2.531	3.430	8.0	21.2	2 21	12 4.08	- 9 10.1	2.386	3.254	9.8	22.1
3 2	11 54.81	+ 0 21.8	2.477	3.437	4.9	21.0	3 2	11 57.10	- 8 45.8	2.332	3.268	6.7	21.9
3 12	11 48.35	+ 1 41.0	2.453	3.444	1.5	20.7	3 12	11 49.08	- 8 8.4	2.305	3.282	3.8	21.7
3 22	11 41.60	+ 3 2.0	2.460	3.451	2.0	20.8	3 22	11 40.75	- 7 21.5	2.308	3.295	2.8	21.7
4 1	11 35.22	+ 4 18.9	2.497	3.457	5.4	21.0	4 1	11 32.88	- 6 29.6	2.340	3.308	5.2	21.9
4 11	11 29.83	+ 5 26.6	2.562	3.463	8.4	21.2	4 11	11 26.18	- 5 38.3	2.402	3.320	8.2	22.1
4 21	11 25.86	+ 6 21.9	2.652	3.469	11.1	21.4	4 21	11 21.11	- 4 52.1	2.488	3.331	10.9	22.3
119048	2001 <i>HQ</i> ₂₉		3 16.4 302°09	3°3/18.9	18		497595	2006 <i>KP</i> ₂₀		3 16.4 281°37	5°2/10.2	17	
2 11	12 6.90	- 8 11.6	1.265	2.092	19.1	19.6	2 11	12 6.08	+ 13 30.7	2.056	2.909	11.7	20.9
2 21	12 3.86	- 8 4.4	1.175	2.074	15.2	19.3	2 21	12 2.10	+ 14 57.7	1.974	2.892	8.8	20.7
3 2	11 57.81	- 7 29.7	1.103	2.056	10.4	18.9	3 2	11 56.15	+ 16 28.4	1.918	2.876	6.2	20.5
3 12	11 49.47	- 6 29.1	1.054	2.039	5.4	18.6	3 12	11 48.84	+ 17 54.4	1.889	2.860	5.3	20.4
3 22	11 40.05	- 5 8.5	1.030	2.021	3.9	18.4	3 22	11 40.99	+ 19 7.6	1.889	2.843	7.1	20.5
4 1	11 31.08	- 3 38.5	1.030	2.005	8.7	18.7	4 1	11 33.53	+ 20 1.5	1.916	2.827	10.1	20.6
4 11	11 24.06	- 2 11.9	1.052	1.988	14.2	18.9	4 11	11 27.35	+ 20 32.5	1.966	2.810	13.2	20.8
4 21	11 20.00	- 0 59.1	1.095	1.972	19.2	19.1	4 21	11 23.05	+ 20 40.1	2.036	2.794	15.9	20.9
139582	2001 <i>QA</i> ₁₀₅		3 16.4 112°27	0°8/17.4	18		399913	2005 <i>XA</i> ₇₆		3 16.4 280°03	3°3/14.1	17	
2 11	12 5.96	- 3 51.5	2.520	3.323	11.4	19.7	2 11	12 11.85	+ 6 25.4	1.404	2.256	16.1	21.1
2 21	12 1.46	- 3 21.4	2.444	3.336	8.6	19.5	2 21	12 7.27	+ 7 8.3	1.319	2.240	12.0	20.8
3 2	11 55.48	- 2 39.3	2.394	3.348	5.4	19.4	3 2	11 59.75	+ 8 2.2	1.255	2.223	7.4	20.5
3 12	11 48.56	- 1 48.7	2.371	3.360	2.1	19.2	3 12	11 50.06	+ 8 59.2	1.217	2.206	3.5	20.2
3 22	11 41.36	- 0 53.9	2.379	3.372	1.8	19.1	3 22	11 39.44	+ 9 49.9	1.205	2.189	5.6	20.3
4 1	11 34.59	+ 0 0.2	2.417	3.383	5.1	19.4	4 1	11 29.36	+ 10 25.8	1.219	2.172	10.6	20.5
4 11	11 28.87	+ 0 48.8	2.482	3.394	8.2	19.6	4 11	11 21.22	+ 10 41.0	1.255	2.155	15.4	20.7
4 21	11 24.66	+ 1 28.5	2.572	3.405	10.9	19.8	4 21	11 15.91	+ 10 33.7	1.310	2.138	19.6	20.9
79034	2228 <i>T-2</i>		3 16.4 225°36	0°6/16.9	17		436767	2012 <i>GW</i> ₁		3 16.4			

EPHEMERIDES

3 16.4

3 16.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
376289	2011 <i>FL</i> ₈₃		3 16.4 113°32'	0°8/15.6	17		206917	2004 <i>PY</i> ₈₈		3 16.4 161°83'	1°1/17.3	18	
2 11	12 6.99	+ 0 42.6	1.995	2.824	13.0	21.5	2 11	12 13.88	- 2 45.3	1.760	2.572	15.1	20.6
2 21	12 2.62	+ 1 31.7	1.922	2.830	9.6	21.3	2 21	12 8.03	- 2 37.3	1.681	2.577	11.5	20.4
3 2	11 56.36	+ 2 32.8	1.873	2.837	5.8	21.1	3 2	11 59.81	- 2 14.6	1.626	2.582	7.3	20.1
3 12	11 48.89	+ 3 40.5	1.851	2.843	1.7	20.8	3 12	11 50.01	- 1 40.6	1.597	2.586	2.8	19.9
3 22	11 41.02	+ 4 48.1	1.859	2.848	2.9	20.9	3 22	11 39.65	- 1 0.4	1.597	2.589	2.5	19.9
4 1	11 33.69	+ 5 49.1	1.895	2.854	6.9	21.2	4 1	11 29.92	- 0 20.4	1.625	2.592	7.0	20.1
4 11	11 27.68	+ 6 38.0	1.957	2.860	10.5	21.4	4 11	11 21.86	+ 0 13.4	1.680	2.594	11.2	20.4
4 21	11 23.55	+ 7 11.7	2.042	2.865	13.7	21.6	4 21	11 16.14	+ 0 36.7	1.757	2.596	14.9	20.6
286068	2001 <i>SS</i> ₃₁₅		3 16.4 175°73'	3°5/19.7	18		70374	1999 <i>RD</i> ₂₁₀		3 16.4 122°00'	2°0/18.3	18	
2 11	12 12.91	-10 26.1	2.015	2.790	14.8	21.8	2 11	12 12.94	- 6 3.8	1.960	2.756	14.4	19.6
2 21	12 7.13	-10 23.9	1.927	2.793	11.8	21.6	2 21	12 7.00	- 5 54.7	1.890	2.774	11.1	19.4
3 2	11 59.20	-10 2.6	1.861	2.796	8.3	21.4	3 2	11 59.01	- 5 29.7	1.843	2.791	7.3	19.2
3 12	11 49.80	- 9 23.6	1.823	2.798	4.8	21.1	3 12	11 49.72	- 4 51.7	1.823	2.808	3.4	19.0
3 22	11 39.86	- 8 30.6	1.812	2.799	3.6	21.1	3 22	11 40.06	- 4 5.4	1.832	2.824	2.6	18.9
4 1	11 30.41	- 7 29.7	1.831	2.799	6.4	21.2	4 1	11 31.06	- 3 16.6	1.871	2.839	6.2	19.2
4 11	11 22.40	- 6 28.0	1.878	2.798	10.0	21.4	4 11	11 23.58	- 2 31.6	1.937	2.854	9.9	19.5
4 21	11 16.49	- 5 31.9	1.949	2.796	13.3	21.7	4 21	11 18.19	- 1 54.9	2.026	2.868	13.1	19.7
359040	2008 <i>WW</i> ₁₁₆		3 16.4 193°07'	4°5/12.4	18		164711	1998 <i>FD</i> ₄₂		3 16.4 342°23'	1°8/17.5	18	
2 11	12 12.91	+10 32.0	1.731	2.577	13.8	21.7	2 11	12 7.51	- 2 18.3	1.147	1.998	19.0	19.1
2 21	12 7.38	+11 38.0	1.659	2.576	10.3	21.5	2 21	12 4.43	- 2 37.0	1.070	1.986	14.7	18.8
3 2	11 59.44	+12 49.1	1.611	2.574	6.6	21.3	3 2	11 58.19	- 2 37.4	1.012	1.975	9.5	18.4
3 12	11 49.88	+13 56.6	1.591	2.571	4.5	21.2	3 12	11 49.63	- 2 22.2	0.976	1.965	3.9	18.1
3 22	11 39.78	+14 52.2	1.598	2.568	6.4	21.3	3 22	11 40.07	- 1 56.7	0.963	1.956	3.3	18.0
4 1	11 30.31	+15 29.2	1.632	2.564	10.1	21.5	4 1	11 31.16	- 1 28.8	0.974	1.949	9.1	18.3
4 11	11 22.55	+15 44.3	1.691	2.560	13.8	21.7	4 11	11 24.43	- 1 6.9	1.006	1.943	14.6	18.6
4 21	11 17.16	+15 37.5	1.770	2.555	17.0	21.9	4 21	11 20.82	- 0 57.0	1.057	1.938	19.4	18.8
99729	2002 <i>JQ</i> ₅₅		3 16.4 313°13'	1°2/15.6	17 R		10175	Aenona		3 16.4 261°83'	1°4/17.6	18	
2 11	12 8.54	+ 2 4.4	1.343	2.195	16.7	19.6	2 11	12 8.39	- 5 23.4	1.567	2.387	16.3	17.6
2 21	12 4.88	+ 2 28.4	1.257	2.176	12.6	19.3	2 21	12 4.40	- 4 48.5	1.475	2.374	12.6	17.4
3 2	11 58.33	+ 3 7.4	1.191	2.158	7.7	19.0	3 2	11 57.86	- 3 51.3	1.404	2.361	8.2	17.1
3 12	11 49.64	+ 3 55.7	1.149	2.141	2.4	18.6	3 12	11 49.47	- 2 35.7	1.359	2.347	3.3	16.7
3 22	11 39.99	+ 4 45.3	1.133	2.124	3.9	18.7	3 22	11 40.28	- 1 8.9	1.341	2.333	2.7	16.7
4 1	11 30.85	+ 5 27.4	1.142	2.107	9.5	18.9	4 1	11 31.53	+ 0 19.3	1.349	2.319	7.8	16.9
4 11	11 23.60	+ 5 54.5	1.173	2.092	14.7	19.2	4 11	11 24.44	+ 1 38.9	1.383	2.305	12.6	17.2
4 21	11 19.16	+ 6 2.5	1.224	2.076	19.2	19.4	4 21	11 19.79	+ 2 42.7	1.438	2.291	16.9	17.4
109160	2001 <i>QM</i> ₆₂		3 16.4 117°92'	0°4/16.8	18		141210	2001 <i>XS</i> ₂₁₂		3 16.4 352°54'	14°4/25.3	18	
2 11	12 8.80	- 2 45.2	1.960	2.775	13.7	20.5	2 11	12 9.46	+41 21.6	1.755	2.567	15.2	18.0
2 21	12 3.94	- 2 3.7	1.889	2.789	10.3	20.3	2 21	12 5.29	+43 18.9	1.726	2.561	14.5	17.9
3 2	11 57.15	- 1 7.5	1.843	2.802	6.4	20.1	3 2	11 58.31	+44 51.6	1.718	2.555	14.5	17.9
3 12	11 49.13	- 0 1.5	1.824	2.814	2.1	19.8	3 12	11 49.54	+45 49.2	1.730	2.551	15.3	18.0
3 22	11 40.75	+ 1 8.0	1.834	2.826	2.3	19.8	3 22	11 40.31	+46 5.9	1.762	2.547	16.6	18.0
4 1	11 32.95	+ 2 14.1	1.873	2.838	6.4	20.1	4 1	11 32.08	+45 41.0	1.811	2.545	18.2	18.2
4 11	11 26.57	+ 3 10.5	1.939	2.850	10.2	20.4	4 11	11 25.98	+44 38.4	1.874	2.543	19.7	18.3
4 21	11 22.14	+ 3 53.5	2.028	2.861	13.4	20.6	4 21	11 22.62	+43 4.9	1.950	2.542	21.0	18.4
431944	2008 <i>UN</i> ₁₁		3 16.4 140°37'	1°2/17.7	17		355804	2008 <i>SF</i> ₂₅₃		3 16.4 158°97'	3°1/13.9	18	
2 11	12 8.10	- 4 24.4	2.229	3.033	12.6	22.1	2 11	12 12.16	+ 6 9.5	1.529	2.376	15.3	21.5
2 21	12 3.28	- 4 4.5	2.149	3.039	9.6	21.9	2 21	12 7.02	+ 7 5.4	1.461	2.379	11.3	21.3
3 2	11 56.71	- 3 31.0	2.093	3.046	6.2	21.7	3 2	11 59.30	+ 8 11.1	1.416	2.382	6.9	21.1
3 12	11 48.99	- 2 47.0	2.064	3.052	2.6	21.5	3 12	11 49.87	+ 9 18.3	1.397	2.385	3.3	20.8
3 22	11 40.90	- 1 57.2	2.065	3.057	2.1	21.4	3 22	11 39.88	+10 18.0	1.405	2.387	5.3	21.0
4 1	11 33.27	- 1 6.8	2.095	3.063	5.6	21.7	4 1	11 30.64	+11 2.5	1.440	2.389	9.7	21.2
4 11	11 26.86	- 0 21.3	2.153	3.068	9.1	21.9	4 11	11 23.26	+11 27.0	1.499	2.391	13.9	21.5
4 21	11 22.19	+ 0 15.5	2.234	3.073	12.1	22.1	4 21	11 18.44	+11 30.4	1.578	2.392	17.4	21.7
123109	2000 <i>SQ</i> ₃₅₅		3 16.4 141°62'	5°2/10.9	18		412126	2013 <i>GA</i> ₄₂		3 16.4 305°33'	2°8/19.0	17	
2 11	12 12.14	+16 18.0	2.215	3.055	11.4	20.5	2 11	12 4.12	- 9 49.5	1.401	2.218	18.0	21.0
2 21	12 6.22	+17 14.6	2.155	3.065	8.7	20.3	2 21	12 1.48	- 9 8.3	1.308	2.202	14.3	20.7
3 2	11 58.44	+18 9.3	2.122	3.074	6.2	20.2	3 2	11 56.20	- 7 56.3	1.234	2.185	9.8	20.4
3 12	11 49.51	+18 55.2	2.117	3.083	5.2	20.1	3 12	11 48.98	- 6 16.2	1.185	2.169	4.9	20.1
3 22	11 40.30	+19 26.6	2.141	3.092	6.6	20.2	3 22	11 40.88	- 4 16.1	1.160	2.153	3.3	19.9
4 1	11 31.70	+19 40.1	2.192	3.099	9.2	20.4	4 1	11 33.23	- 2 8.2	1.162	2.137	8.0	20.1
4 11	11 24.52	+19 34.4	2.268	3.107	11.9	20.6	4 11	11 27.31	- 0 6.6	1.188	2.122	13.2	20.4
4 21	11 19.25	+19 10.8	2.366	3.114	14.2	20.7	4 21	11 23.98	+ 1 37.3	1.236	2.107	17.9	20.6
302320	2002 <i>AR</i> ₅₈		3 16.4 32°02'	3°4/13.6	18		296341	2009 <i>FE</i> ₁		3 16.4 225°36'	0°1/16.3	18	
2 11	12 7.19	+ 4 50.2	1.233	2.096	17.1	19.9	2 11	12 4.38	- 1 39.4	2.373	3.190	11.5	20.8
2 21	12 3.69	+ 6 4.4	1.176	2.103	12.5	19.6	2 21	12 0.49	- 0 50.6	2.287	3.188	8.6	20.6
3 2	11 57.39	+ 7 32.3	1.140	2.110	7.5	19.3	3 2	11 55.01	+ 0 10.8	2.226	3.186	5.3	20.4
3 12	11 49.26	+ 9 3.3	1.129	2.118	3.6	19.1	3 12	11 48.48	+ 1 20.2	2.194	3.184	1.6	20.1
3 22	11 40.60	+10 25.4	1.143	2.127	5.9	19.3	3 22	11 41.59	+ 2 32.4	2.191	3.182	2.1	20.2
4 1	11 32.83	+11 28.4	1.182	2.135	10.8	19.6	4 1	11 35.06	+ 3 41.2	2.217	3.180	5.8	20.4
4 11	11 27.14	+12 6.1	1.242	2.145	15.3	19.9	4 11	11 29.59	+ 4 41.3	2.271	3.178	9.1	20.6
4 21	11 24.18	+12 17.4	1.321	2.155	19.1	20.1	4 21	11 25.68	+ 5 29.0	2.349	3.175	12.0	20.8
181162	2005 <i>SK</i> ₁₁		3 16.4 279°23'	0°8/15.5	17		17649	Brunorossi		3 16.4 274°11'	5°		

EPHEMERIDES

3 16.4

3 16.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
418322	2008 <i>FW</i> ₁₁₆		3 16.4 22°33'	1.5°/17.7	18		348914	2006 <i>TN</i> ₉		3 16.5 155°28'	2.0°/19.1	17	
2 11	12 5.37	- 5 21.2	1.382	2.215	17.4	21.0	2 11	12 4.60	- 8 28.7	2.555	3.340	11.7	21.2
2 21	12 2.14	- 4 49.5	1.315	2.221	13.3	20.8	2 21	12 0.55	- 7 59.0	2.467	3.343	9.1	21.0
3 2	11 56.39	- 3 55.1	1.268	2.227	8.6	20.5	3 2	11 55.02	- 7 14.0	2.403	3.346	6.2	20.8
3 12	11 48.97	- 2 43.2	1.246	2.234	3.5	20.3	3 12	11 48.50	- 6 16.4	2.367	3.348	3.2	20.6
3 22	11 41.01	- 1 22.0	1.249	2.242	2.8	20.2	3 22	11 41.66	- 5 10.4	2.360	3.350	2.2	20.5
4 1	11 33.76	- 0 1.8	1.278	2.250	7.7	20.5	4 1	11 35.17	- 4 1.3	2.383	3.353	4.9	20.7
4 11	11 28.34	+ 1 8.0	1.331	2.260	12.4	20.8	4 11	11 29.68	- 2 54.6	2.434	3.355	8.0	20.9
4 21	11 25.40	+ 2 0.9	1.404	2.269	16.5	21.1	4 21	11 25.66	- 1 55.1	2.511	3.356	10.7	21.1
230386	2002 <i>GC</i> ₁₂₀		3 16.4 230°23'	3.9°/11.9	17		476466	2008 <i>EO</i> ₁₅₄		3 16.5 266°46'	1.6°/14.5	17	
2 11	12 8.63	+11 25.3	2.257	3.099	11.2	20.8	2 11	12 6.66	+ 5 50.5	2.601	3.431	10.2	21.4
2 21	12 3.77	+12 25.8	2.175	3.090	8.3	20.6	2 21	12 2.07	+ 6 18.3	2.514	3.424	7.5	21.2
3 2	11 57.08	+13 29.7	2.119	3.080	5.4	20.4	3 2	11 55.94	+ 6 51.5	2.453	3.417	4.5	21.0
3 12	11 49.15	+14 30.4	2.092	3.070	3.9	20.3	3 12	11 48.80	+ 7 26.0	2.420	3.410	1.9	20.8
3 22	11 40.77	+15 21.7	2.094	3.060	5.5	20.4	3 22	11 41.30	+ 7 57.6	2.418	3.402	3.1	20.9
4 1	11 32.81	+15 58.4	2.124	3.049	8.5	20.5	4 1	11 34.15	+ 8 22.5	2.445	3.395	6.1	21.1
4 11	11 26.05	+16 17.5	2.179	3.038	11.5	20.7	4 11	11 28.00	+ 8 37.4	2.498	3.388	9.1	21.2
4 21	11 21.08	+16 18.4	2.256	3.027	14.2	20.9	4 21	11 23.33	+ 8 40.9	2.576	3.380	11.7	21.4
266312	2007 <i>CY</i> ₃₇		3 16.4 208°54'	2.2°/18.6	17 R		111952	2002 <i>GX</i> ₆₁		3 16.5 240°66'	1.9°/14.7	16	
2 11	12 11.72	- 6 18.2	2.296	3.084	12.8	20.8	2 11	12 10.64	+ 3 49.6	1.779	2.615	13.9	20.9
2 21	12 6.07	- 6 22.9	2.200	3.078	10.0	20.6	2 21	12 5.76	+ 4 35.5	1.691	2.604	10.4	20.7
3 2	11 58.50	- 6 14.1	2.127	3.072	6.7	20.4	3 2	11 58.55	+ 5 32.9	1.627	2.592	6.3	20.4
3 12	11 49.61	- 5 53.5	2.082	3.065	3.4	20.2	3 12	11 49.69	+ 6 35.4	1.590	2.580	2.3	20.1
3 22	11 40.19	- 5 24.0	2.067	3.057	2.6	20.1	3 22	11 40.17	+ 7 35.6	1.582	2.568	4.0	20.2
4 1	11 31.12	- 4 49.9	2.082	3.049	5.7	20.3	4 1	11 31.12	+ 8 26.2	1.601	2.555	8.4	20.4
4 11	11 23.27	- 4 16.5	2.125	3.041	9.2	20.5	4 11	11 23.58	+ 9 1.6	1.645	2.542	12.6	20.7
4 21	11 17.23	- 3 47.9	2.192	3.031	12.3	20.6	4 21	11 18.29	+ 9 18.8	1.711	2.528	16.2	20.9
207763	Oberursel		3 16.4 101°48'	1.0°/15.3	17		67512	2000 <i>RL</i> ₅₆		3 16.5 36°46'	4.1°/18.9	18	
2 11	12 6.85	+ 2 2.3	2.279	3.105	11.6	21.0	2 11	12 14.89	- 6 21.3	1.340	2.156	18.8	17.0
2 21	12 2.26	+ 2 45.3	2.210	3.117	8.6	20.8	2 21	12 9.44	- 7 10.5	1.271	2.163	14.8	16.7
3 2	11 56.04	+ 3 37.2	2.166	3.130	5.1	20.6	3 2	12 0.98	- 7 41.1	1.223	2.171	10.2	16.5
3 12	11 48.80	+ 4 33.4	2.151	3.142	1.6	20.4	3 12	11 50.48	- 7 53.4	1.198	2.179	5.6	16.2
3 22	11 41.27	+ 5 28.4	2.165	3.153	2.7	20.5	3 22	11 39.27	- 7 49.7	1.200	2.188	4.4	16.2
4 1	11 34.22	+ 6 16.9	2.208	3.165	6.2	20.7	4 1	11 28.90	- 7 35.6	1.227	2.197	8.3	16.4
4 11	11 28.36	+ 6 54.8	2.278	3.177	9.5	20.9	4 11	11 20.71	- 7 18.4	1.277	2.207	12.8	16.7
4 21	11 24.16	+ 7 19.6	2.372	3.188	12.2	21.1	4 21	11 15.48	- 7 4.6	1.349	2.217	16.9	17.0
261245	2005 <i>UL</i> ₅₉		3 16.4 346°65'	2.5°/14.3	17		423209	2004 <i>RQ</i> ₆₃		3 16.5 90°21'	0.2°/16.3	18	
2 11	12 9.38	+ 5 41.8	1.669	2.515	14.3	20.7	2 11	12 13.48	+ 0 45.0	2.128	2.941	12.8	21.4
2 21	12 4.80	+ 6 20.6	1.595	2.513	10.5	20.5	2 21	12 7.12	+ 0 59.6	2.071	2.970	9.5	21.3
3 2	11 57.90	+ 7 8.1	1.545	2.512	6.4	20.2	3 2	11 58.95	+ 1 23.3	2.039	2.998	5.8	21.1
3 12	11 49.44	+ 7 57.8	1.522	2.511	2.7	20.0	3 12	11 49.72	+ 1 52.3	2.036	3.026	1.8	20.9
3 22	11 40.45	+ 8 42.4	1.525	2.510	4.4	20.1	3 22	11 40.30	+ 2 22.1	2.062	3.054	2.3	21.0
4 1	11 32.08	+ 9 15.4	1.556	2.509	8.7	20.3	4 1	11 31.58	+ 2 48.0	2.119	3.080	6.1	21.2
4 11	11 25.35	+ 9 32.4	1.611	2.509	12.7	20.6	4 11	11 24.31	+ 3 6.5	2.203	3.107	9.5	21.5
4 21	11 20.90	+ 9 31.7	1.686	2.508	16.2	20.8	4 21	11 18.98	+ 3 15.3	2.311	3.132	12.3	21.7
295650	2008 <i>SD</i> ₃₀₅		3 16.4 302°84'	1.7°/15.1	17		477167	2009 <i>ED</i> ₂₄		3 16.5 281°06'	0.9°/15.6	17	
2 11	12 6.20	+ 0 26.6	1.221	2.077	17.7	20.6	2 11	12 8.80	+ 3 14.4	2.288	3.114	11.6	21.7
2 21	12 3.57	+ 1 26.5	1.123	2.046	13.4	20.3	2 21	12 3.87	+ 3 28.5	2.198	3.105	8.6	21.5
3 2	11 57.82	+ 2 51.2	1.047	2.016	8.2	19.9	3 2	11 57.15	+ 3 50.0	2.134	3.097	5.2	21.2
3 12	11 49.60	+ 4 33.9	0.993	1.985	2.6	19.5	3 12	11 49.22	+ 4 15.2	2.097	3.088	1.6	21.0
3 22	11 40.07	+ 6 23.0	0.965	1.954	4.8	19.5	3 22	11 40.83	+ 4 39.8	2.090	3.080	2.6	21.0
4 1	11 30.83	+ 8 4.1	0.960	1.924	11.1	19.7	4 1	11 32.83	+ 4 59.6	2.112	3.071	6.3	21.2
4 11	11 23.50	+ 9 24.2	0.977	1.894	17.1	19.9	4 11	11 26.00	+ 5 11.2	2.161	3.063	9.8	21.4
4 21	11 19.23	+10 15.8	1.012	1.865	22.3	20.2	4 21	11 20.89	+ 5 12.2	2.233	3.054	12.7	21.6
122674	2000 <i>RG</i> ₁₀₃		3 16.4 136°42'	5.8°/22.1	17		195276	2002 <i>EK</i> ₆₇		3 16.5 333°45'	1.4°/17.6	17	
2 11	12 11.52	-16 26.8	2.156	2.897	15.0	20.5	2 11	12 8.03	- 3 34.0	1.714	2.535	15.1	19.8
2 21	12 6.03	-16 59.7	2.072	2.905	12.4	20.3	2 21	12 3.85	- 3 28.3	1.629	2.530	11.6	19.6
3 2	11 58.52	-17 12.5	2.009	2.913	9.6	20.2	3 2	11 57.38	- 3 6.8	1.568	2.524	7.5	19.3
3 12	11 49.62	-17 4.6	1.971	2.920	7.0	20.0	3 12	11 49.34	- 2 32.6	1.531	2.519	3.0	19.0
3 22	11 40.22	-16 37.4	1.961	2.927	5.8	20.0	3 22	11 40.68	- 1 50.7	1.522	2.515	2.5	19.0
4 1	11 31.29	-15 55.1	1.978	2.934	6.9	20.0	4 1	11 32.53	- 1 7.4	1.540	2.511	7.0	19.3
4 11	11 23.72	-15 4.1	2.023	2.940	9.5	20.2	4 11	11 25.91	- 0 29.5	1.584	2.507	11.2	19.5
4 21	11 18.13	-14 11.2	2.092	2.946	12.2	20.4	4 21	11 21.50	- 0 1.9	1.649	2.503	15.0	19.7
374606	2006 <i>DS</i> ₁₃₆		3 16.5 80°28'	1.0°/15.6	18		64904	2001 <i>YO</i> ₈₈		3 16.5 227°26'	1.8°/14.8	18	
2 11	12 11.77	+ 3 19.0	1.895	2.725	13.5	20.8	2 11	12 12.21	+ 3 41.8	1.937	2.765	13.3	20.1
2 21	12 6.18	+ 3 34.3	1.830	2.739	10.0	20.6	2 21	12 6.80	+ 4 28.7	1.844	2.753	9.9	19.9
3 2	11 58.53	+ 3 57.8	1.789	2.753	6.0	20.4	3 2	11 59.14	+ 5 26.4	1.776	2.739	6.0	19.6
3 12	11 49.60	+ 4 25.0	1.775	2.766	1.9	20.2	3 12	11 49.90	+ 6 29.2	1.735	2.725	2.2	19.3
3 22	11 40.33	+ 4 50.8	1.791	2.780	3.0	20.3	3 22	11 39.99	+ 7 30.1	1.724	2.710	3.8	19.4
4 1	11 31.74	+ 5 10.3	1.834	2.794	7.1	20.6	4 1	11 30.49	+ 8 22.2	1.742	2.694	8.0	19.6
4 11	11 24.69	+ 5 19.9	1.904	2.808	10.8	20.8	4 11	11 22.41	+ 9 0.1	1.785	2.677	12.0	19.8
4 21	11 19.73	+ 5 17.7	1.997	2.821	13.9	21.0	4 21	11 16.46	+ 9 20.9	1.851	2.660	15.5	20.0
425109	2009 <i>ST</i> ₁₃₃		3 16.5 177°53'	2.0°/14.4	17		206257	2002 <i>XW</i> ₇₆ </					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
464518	2016 <i>CN</i> ₃		3 16.5 276°47'	4.4/19.9	16		290086	2005 <i>QL</i> ₉₅		3 16.5 190°56'	0.2/16.7	18	
2 11	12 9.87	-10 33.6	1.601	2.397	17.1	20.8	2 11	12 7.75	-0 26.7	2.697	3.506	10.5	20.9
2 21	12 5.53	-10 48.8	1.510	2.387	13.8	20.6	2 21	12 2.82	-0 13.3	2.609	3.505	7.9	20.8
3 2	11 58.60	-10 41.7	1.438	2.377	9.9	20.3	3 2	11 56.40	+0 8.6	2.546	3.504	4.9	20.6
3 12	11 49.78	-10 12.7	1.391	2.366	6.0	20.1	3 12	11 49.00	+0 36.3	2.513	3.503	1.6	20.3
3 22	11 40.13	-9 25.1	1.370	2.356	4.6	19.9	3 22	11 41.25	+1 6.3	2.509	3.501	1.8	20.3
4 1	11 30.92	-8 25.4	1.375	2.345	7.6	20.1	4 1	11 33.86	+1 34.8	2.536	3.499	5.1	20.6
4 11	11 23.38	-7 22.5	1.405	2.335	11.8	20.3	4 11	11 27.44	+1 58.3	2.591	3.497	8.1	20.8
4 21	11 18.32	-6 24.9	1.458	2.325	15.9	20.5	4 21	11 22.48	+2 14.0	2.670	3.495	10.8	20.9
267711	2003 <i>AM</i> ₉₁		3 16.5 25°67'	9.2/26.6	17		272114	2005 <i>JU</i> ₁₈₅		3 16.5 290°07'	2.9/18.4	18	
2 11	12 6.80	-25 35.1	1.982	2.680	17.4	19.7	2 11	12 11.10	-6 1.7	1.264	2.092	19.0	20.2
2 21	12 2.85	-26 26.8	1.902	2.687	15.3	19.6	2 21	12 7.02	-6 10.1	1.180	2.081	14.9	19.9
3 2	11 56.73	-26 51.8	1.840	2.695	12.9	19.4	3 2	11 59.79	-5 55.8	1.116	2.071	10.1	19.6
3 12	11 49.14	-26 47.3	1.799	2.703	10.8	19.3	3 12	11 50.24	-5 20.7	1.075	2.061	4.9	19.2
3 22	11 40.98	-26 13.7	1.782	2.712	9.4	19.2	3 22	11 39.64	-4 30.0	1.059	2.051	3.7	19.1
4 1	11 33.31	-25 14.8	1.790	2.721	9.4	19.3	4 1	11 29.63	-3 32.6	1.067	2.041	8.8	19.4
4 11	11 27.09	-23 58.3	1.822	2.731	10.9	19.4	4 11	11 21.71	-2 38.8	1.099	2.031	14.1	19.6
4 21	11 22.99	-22 33.3	1.877	2.741	13.0	19.5	4 21	11 16.84	-1 56.7	1.150	2.022	18.9	19.9
483563	2004 <i>BD</i> ₆₈		3 16.5 76°52'	0.7/15.8	17		129209	Robertburt		3 16.5 232°30'	3.4/12.0	18	
2 11	12 33.52	-3 46.7	1.663	2.439	17.4	22.7	2 11	12 5.36	+9 59.3	2.455	3.297	10.4	20.3
2 21	12 21.64	-1 49.7	1.632	2.513	12.8	22.5	2 21	12 1.22	+11 7.0	2.377	3.293	7.6	20.1
3 2	12 7.46	+0 23.1	1.629	2.583	7.5	22.4	3 2	11 55.49	+12 19.1	2.325	3.288	4.9	19.9
3 12	11 52.26	+2 40.6	1.660	2.650	2.2	22.2	3 12	11 48.73	+13 29.3	2.302	3.282	3.4	19.8
3 22	11 37.47	+4 50.4	1.725	2.714	3.3	22.4	3 22	11 41.59	+14 31.7	2.309	3.277	4.9	19.9
4 1	11 24.37	+6 42.6	1.824	2.774	7.9	22.8	4 1	11 34.83	+15 21.3	2.344	3.271	7.7	20.1
4 11	11 13.84	+8 11.2	1.954	2.832	11.8	23.1	4 11	11 29.12	+15 54.7	2.404	3.266	10.5	20.2
4 21	11 6.25	+9 15.2	2.107	2.887	14.8	23.4	4 21	11 24.96	+16 10.9	2.487	3.260	13.0	20.4
322345	2011 <i>HD</i> ₇₇		3 16.5 154°71'	3.6/12.2	18		30881	Robertstevenson		3 16.5 271°59'	0.5/16.9	18	
2 11	12 7.43	+10 14.9	2.220	3.064	11.3	20.7	2 11	12 9.12	-1 58.1	1.885	2.704	14.0	19.7
2 21	12 2.83	+11 19.2	2.151	3.067	8.3	20.5	2 21	12 4.61	-1 37.2	1.786	2.687	10.7	19.5
3 2	11 56.48	+12 27.3	2.107	3.070	5.3	20.3	3 2	11 57.88	-1 1.6	1.710	2.669	6.7	19.2
3 12	11 49.01	+13 32.6	2.092	3.073	3.6	20.2	3 12	11 49.56	-0 15.0	1.660	2.650	2.3	18.9
3 22	11 41.19	+14 28.9	2.106	3.075	5.2	20.3	3 22	11 40.51	+0 37.4	1.639	2.632	2.4	18.8
4 1	11 33.84	+15 10.8	2.148	3.078	8.2	20.5	4 1	11 31.81	+1 29.0	1.646	2.613	7.0	19.1
4 11	11 27.73	+15 35.5	2.216	3.080	11.1	20.7	4 11	11 24.48	+2 13.2	1.679	2.594	11.3	19.3
4 21	11 23.36	+15 42.3	2.305	3.082	13.7	20.8	4 21	11 19.23	+2 45.4	1.735	2.575	15.0	19.5
81703	2000 <i>JO</i> ₂₀		3 16.5 279°85'	1.7/17.9	18		266536	2008 <i>FN</i> ₆₈		3 16.5 82°12'	3.8/20.8	18	
2 11	12 9.31	-4 30.5	1.778	2.592	14.9	19.2	2 11	12 6.85	-14 23.7	1.751	2.527	16.7	20.3
2 21	12 4.89	-4 23.0	1.679	2.575	11.6	19.0	2 21	12 2.76	-13 32.9	1.681	2.545	13.3	20.1
3 2	11 58.12	-3 58.8	1.603	2.557	7.6	18.7	3 2	11 56.58	-12 14.6	1.632	2.564	9.5	19.9
3 12	11 49.63	-3 20.5	1.552	2.539	3.3	18.4	3 12	11 49.07	-10 32.6	1.609	2.583	5.6	19.7
3 22	11 40.35	-2 32.7	1.528	2.521	2.6	18.3	3 22	11 41.21	-8 34.4	1.614	2.601	3.8	19.7
4 1	11 31.43	-1 41.8	1.533	2.503	7.0	18.5	4 1	11 34.03	-6 30.3	1.648	2.619	6.4	19.9
4 11	11 23.96	-0 55.1	1.563	2.485	11.5	18.8	4 11	11 28.40	-4 31.1	1.708	2.637	10.2	20.1
4 21	11 18.70	-0 18.4	1.615	2.466	15.4	18.9	4 21	11 24.88	-2 45.4	1.793	2.655	13.6	20.4
34815	2001 <i>SQ</i> ₁₁₃		3 16.5 90°29'	1.7/18.2	18		99771	2002 <i>JE</i> ₁₁₀		3 16.5 281°95'	0.1/16.5	18	
2 11	12 7.95	-6 14.6	1.780	2.590	15.1	19.1	2 11	12 10.82	-0 6.0	1.556	2.390	15.8	20.1
2 21	12 3.58	-5 45.5	1.707	2.600	11.6	18.8	2 21	12 6.24	+0 9.3	1.469	2.378	11.9	19.8
3 2	11 57.09	-4 57.7	1.657	2.609	7.6	18.6	3 2	11 59.04	+0 39.2	1.403	2.366	7.4	19.5
3 12	11 49.23	-3 54.9	1.632	2.618	3.3	18.4	3 12	11 49.95	+1 19.3	1.363	2.354	2.4	19.2
3 22	11 40.93	-2 43.6	1.635	2.628	2.5	18.3	3 22	11 40.06	+2 3.5	1.350	2.342	2.9	19.2
4 1	11 33.24	-1 31.4	1.667	2.637	6.5	18.6	4 1	11 30.67	+2 44.2	1.363	2.330	8.1	19.5
4 11	11 27.05	-0 25.8	1.724	2.646	10.5	18.9	4 11	11 23.00	+3 14.9	1.401	2.318	12.9	19.7
4 21	11 22.96	+0 27.5	1.805	2.655	14.0	19.1	4 21	11 17.85	+3 31.1	1.460	2.306	17.0	19.9
429712	2011 <i>JF</i> ₁		3 16.5 339°48'	2.2/18.0	17		12302	1991 <i>RV</i> ₁₇		3 16.5 198°93'	0.5/17.0	18	
2 11	12 2.86	-4 22.2	1.292	2.137	17.7	19.8	2 11	12 11.00	-2 27.2	2.138	2.946	13.0	19.7
2 21	12 0.74	-4 27.0	1.203	2.115	13.8	19.5	2 21	12 5.65	-2 0.9	2.048	2.943	9.8	19.4
3 2	11 55.89	-4 11.2	1.134	2.094	9.1	19.2	3 2	11 58.32	-1 21.2	1.982	2.938	6.2	19.2
3 12	11 48.99	-3 37.0	1.087	2.075	4.1	18.8	3 12	11 49.65	-0 31.8	1.944	2.933	2.2	18.9
3 22	11 41.15	-2 49.9	1.064	2.057	3.2	18.7	3 22	11 40.47	+0 22.3	1.935	2.928	2.2	18.9
4 1	11 33.75	-1 58.3	1.065	2.041	8.3	19.0	4 1	11 31.70	+1 15.1	1.956	2.921	6.2	19.2
4 11	11 28.16	-1 11.7	1.089	2.027	13.6	19.2	4 11	11 24.23	+2 1.2	2.005	2.914	10.0	19.4
4 21	11 25.28	-0 37.6	1.131	2.014	18.3	19.4	4 21	11 18.64	+2 36.3	2.077	2.906	13.3	19.6
221159	2005 <i>TD</i> ₁₀₅		3 16.5 132°02'	0.1/16.6	18		254582	2005 <i>GM</i> ₄₃		3 16.5 275°81'	3.4/13.7	17	
2 11	12 11.61	-0 41.8	2.357	3.165	11.9	21.9	2 11	12 10.51	+7 21.0	1.613	2.462	14.5	20.9
2 21	12 5.74	-0 20.1	2.286	3.181	8.9	21.7	2 21	12 5.89	+8 9.2	1.531	2.451	10.8	20.7
3 2	11 58.16	+0 11.5	2.239	3.197	5.5	21.5	3 2	11 58.75	+9 6.1	1.473	2.439	6.7	20.4
3 12	11 49.54	+0 49.4	2.222	3.212	1.8	21.3	3 12	11 49.84	+10 4.0	1.440	2.428	3.5	20.2
3 22	11 40.62	+1 29.4	2.235	3.227	2.0	21.3	3 22	11 40.23	+10 54.7	1.435	2.416	5.4	20.2
4 1	11 32.22	+2 6.6	2.278	3.240	5.7	21.6	4 1	11 31.16	+11 30.9	1.456	2.404	9.7	20.5
4 11	11 25.08	+2 37.1	2.349	3.254	9.0	21.8	4 11	11 23.78	+11 47.8	1.501	2.393	13.9	20.7
4 21	11 19.68	+2 58.1	2.445	3.266	11.8	22.0	4 21	11 18.83	+11 44.1	1.566	2.381	17.5	20.9
510758	2012 <i>XJ</i> ₁₂₈		3 16.5 156°62'	3.0/20.8	17		6681	Prokopovich		3 16.5 191°55'	2.3/14.5	18	
2 11	12 6.26	-12 37.0	3.110	3.860	10.6	22.5</							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
156161	2001 TZ ₁₁₁		3 16.5 257°94	4.4°/20.3	17		170060	2002 VP ₈₃		3 16.5 40°45	7°0°/24.8	18	
2 11	12 9.41	-12 13.0	1.648	2.435	17.1	20.3	2 11	12 4.94	-21 35.6	1.828	2.563	17.5	19.3
2 21	12 5.23	-12 5.7	1.547	2.418	13.9	20.1	2 21	12 1.39	-21 38.3	1.760	2.582	14.8	19.1
3 2	11 58.48	-11 32.6	1.466	2.401	10.0	19.8	3 2	11 55.78	-21 12.0	1.712	2.603	11.8	19.0
3 12	11 49.81	-10 34.3	1.409	2.383	6.1	19.5	3 12	11 48.86	-20 16.9	1.685	2.624	8.9	18.8
3 22	11 40.22	-9 14.6	1.378	2.365	4.5	19.4	3 22	11 41.58	-18 56.9	1.684	2.645	7.1	18.8
4 1	11 30.99	-7 41.8	1.375	2.346	7.5	19.5	4 1	11 34.93	-17 19.2	1.709	2.667	7.7	18.8
4 11	11 23.33	-6 6.4	1.397	2.326	11.9	19.7	4 11	11 29.79	-15 33.7	1.761	2.689	9.9	19.0
4 21	11 18.12	-4 38.3	1.442	2.307	16.1	19.9	4 21	11 26.70	-13 50.2	1.836	2.712	12.7	19.2
37728	1996 TG ₃₉		3 16.5 176°69	1°1°/15.4	18		273047	2006 DP ₁₄₁		3 16.5 92°97	1°2°/15.3	18	
2 11	12 12.91	+ 2 41.7	2.108	2.928	12.7	19.6	2 11	12 9.40	+ 3 14.2	1.951	2.784	13.1	20.5
2 21	12 7.01	+ 3 16.9	2.027	2.931	9.4	19.4	2 21	12 4.51	+ 3 42.9	1.878	2.789	9.7	20.3
3 2	11 59.11	+ 4 1.4	1.971	2.933	5.7	19.2	3 2	11 57.62	+ 4 20.7	1.829	2.793	5.8	20.1
3 12	11 49.89	+ 4 50.5	1.944	2.935	1.8	18.9	3 12	11 49.44	+ 5 2.4	1.807	2.798	1.9	19.8
3 22	11 40.23	+ 5 38.3	1.947	2.936	3.0	19.0	3 22	11 40.85	+ 5 42.6	1.814	2.803	3.1	19.9
4 1	11 31.08	+ 6 19.5	1.980	2.935	6.9	19.2	4 1	11 32.81	+ 6 15.6	1.849	2.807	7.1	20.2
4 11	11 23.30	+ 7 49.4	2.039	2.934	10.6	19.5	4 11	11 26.19	+ 6 37.3	1.910	2.812	10.8	20.4
4 21	11 17.50	+ 7 5.8	2.122	2.932	13.7	19.7	4 21	11 21.54	+ 6 45.4	1.993	2.816	14.0	20.6
141120	2001 XT ₈₁		3 16.5 97°56	0°6°/15.9	18		497879	2006 UZ ₂₂₁		3 16.5 129°21	3°5°/21.5	17	
2 11	12 8.47	+ 0 14.0	1.827	2.656	13.9	20.0	2 11	12 5.08	-14 43.6	2.731	3.479	12.0	21.7
2 21	12 3.91	+ 0 55.6	1.756	2.665	10.4	19.8	2 21	12 0.85	-14 19.5	2.645	3.490	9.7	21.6
3 2	11 57.28	+ 1 50.1	1.710	2.673	6.3	19.6	3 2	11 55.20	-13 37.7	2.583	3.500	7.1	21.4
3 12	11 49.32	+ 2 52.1	1.690	2.681	1.9	19.3	3 12	11 48.66	-12 40.1	2.547	3.510	4.7	21.3
3 22	11 40.95	+ 3 54.8	1.698	2.689	2.8	19.4	3 22	11 41.82	-11 30.0	2.540	3.520	3.5	21.2
4 1	11 33.18	+ 4 51.2	1.735	2.697	7.1	19.7	4 1	11 35.36	-10 12.4	2.563	3.529	4.9	21.3
4 11	11 26.88	+ 5 35.7	1.797	2.705	11.0	19.9	4 11	11 29.88	- 8 53.2	2.615	3.538	7.4	21.5
4 21	11 22.64	+ 6 4.9	1.882	2.713	14.4	20.2	4 21	11 25.81	- 7 37.8	2.694	3.547	9.9	21.6
296089	2009 BK ₁₇		3 16.5 303°90	4°6°/10.9	17 R		5987	Liviogratton		3 16.5 240°53	0°7°/15.8	18	
2 11	12 5.65	+12 24.7	2.116	2.967	11.4	20.3	2 11	12 8.73	- 0 15.4	1.868	2.694	13.8	17.9
2 21	12 1.68	+13 41.3	2.043	2.961	8.5	20.1	2 21	12 4.29	+ 0 35.0	1.776	2.683	10.4	17.7
3 2	11 55.89	+15 1.1	1.995	2.956	5.8	19.9	3 2	11 57.66	+ 1 40.5	1.708	2.671	6.3	17.4
3 12	11 48.89	+16 16.5	1.976	2.950	4.6	19.8	3 12	11 49.51	+ 2 55.9	1.667	2.658	1.9	17.1
3 22	11 41.46	+17 20.3	1.985	2.945	6.3	19.9	3 22	11 40.72	+ 4 13.9	1.655	2.645	3.0	17.1
4 1	11 34.48	+18 6.9	2.020	2.940	9.2	20.1	4 1	11 32.35	+ 5 26.5	1.671	2.632	7.5	17.4
4 11	11 28.74	+18 33.0	2.081	2.935	12.2	20.3	4 11	11 25.36	+ 6 26.8	1.713	2.618	11.7	17.6
4 21	11 24.79	+18 38.4	2.162	2.930	14.8	20.4	4 21	11 20.45	+ 7 10.3	1.778	2.604	15.3	17.8
360551	2003 SS ₃₂₈		3 16.5 259°46	1°1°/15.6	16		348792	2006 PA ₃₀		3 16.5 197°61	2°5°/13.6	17	
2 11	12 10.87	+ 1 43.9	1.710	2.543	14.6	21.9	2 11	12 9.66	+ 5 28.0	2.157	2.989	12.0	21.8
2 21	12 6.13	+ 2 19.5	1.616	2.527	11.0	21.6	2 21	12 4.63	+ 6 37.3	2.074	2.986	8.8	21.6
3 2	11 58.92	+ 3 8.6	1.546	2.510	6.7	21.3	3 2	11 57.69	+ 7 55.6	2.018	2.982	5.3	21.3
3 12	11 49.92	+ 4 5.9	1.502	2.493	2.1	21.0	3 12	11 49.48	+ 9 16.2	1.990	2.977	2.6	21.1
3 22	11 40.14	+ 5 4.2	1.485	2.475	3.4	21.1	3 22	11 40.80	+10 32.1	1.992	2.972	4.2	21.2
4 1	11 30.76	+ 5 56.1	1.496	2.457	8.3	21.3	4 1	11 32.54	+11 36.6	2.023	2.965	7.8	21.4
4 11	11 22.93	+ 6 34.8	1.533	2.438	12.7	21.5	4 11	11 25.56	+12 24.9	2.080	2.958	11.2	21.6
4 21	11 17.44	+ 6 56.6	1.591	2.420	16.6	21.7	4 21	11 20.41	+12 54.9	2.160	2.950	14.1	21.8
130761	2000 SW ₂₈₁		3 16.5 64°89	4°5°/20.3	18		379455	2010 CP ₁₄₁		3 16.5 23°38	1°3°/15.3	17	
2 11	12 8.97	-11 34.9	1.466	2.265	18.3	19.7	2 11	12 6.02	+ 2 4.6	1.618	2.463	14.7	20.5
2 21	12 4.86	-11 33.9	1.392	2.271	14.6	19.4	2 21	12 2.31	+ 2 44.8	1.554	2.471	10.8	20.3
3 2	11 58.14	-11 6.6	1.338	2.277	10.4	19.2	3 2	11 56.40	+ 3 37.2	1.513	2.479	6.5	20.1
3 12	11 49.65	-10 14.7	1.308	2.283	6.3	19.0	3 12	11 49.08	+ 4 35.6	1.497	2.488	2.0	19.8
3 22	11 40.54	- 9 3.6	1.302	2.289	4.6	18.9	3 22	11 41.34	+ 5 32.5	1.508	2.498	3.4	19.9
4 1	11 32.11	- 7 42.0	1.323	2.295	7.6	19.1	4 1	11 34.26	+ 6 20.7	1.546	2.508	7.9	20.2
4 11	11 25.53	- 6 20.7	1.369	2.302	11.8	19.3	4 11	11 28.77	+ 6 54.6	1.609	2.519	11.9	20.5
4 21	11 21.51	- 5 8.6	1.437	2.308	15.8	19.6	4 21	11 25.45	+ 7 11.7	1.692	2.531	15.4	20.7
370819	2004 TP ₃₄₆		3 16.5 127°51	1°1°/15.3	16		199954	2007 HP ₂₈		3 16.5 284°42	1°6°/18.2	17	
2 11	12 11.10	+ 3 31.2	2.368	3.189	11.5	21.9	2 11	12 5.82	- 7 14.6	1.942	2.746	14.2	21.4
2 21	12 5.36	+ 3 59.0	2.300	3.204	8.4	21.7	2 21	12 2.19	- 6 29.6	1.831	2.720	11.1	21.2
3 2	11 57.95	+ 4 33.9	2.257	3.219	5.0	21.5	3 2	11 56.45	- 5 22.9	1.743	2.694	7.4	20.9
3 12	11 49.50	+ 5 11.4	2.243	3.234	1.7	21.3	3 12	11 49.17	- 3 57.5	1.681	2.667	3.3	20.6
3 22	11 40.78	+ 5 47.1	2.259	3.247	2.7	21.4	3 22	11 41.14	- 2 19.5	1.648	2.640	2.4	20.5
4 1	11 32.60	+ 6 16.6	2.306	3.261	6.1	21.7	4 1	11 33.36	- 0 37.2	1.643	2.613	6.6	20.7
4 11	11 25.65	+ 6 36.7	2.380	3.274	9.3	21.9	4 11	11 26.81	+ 1 0.0	1.665	2.586	11.0	20.9
4 21	11 20.41	+ 6 45.4	2.477	3.286	12.0	22.1	4 21	11 22.23	+ 2 24.5	1.711	2.558	14.9	21.0
500524	2012 TO ₃₀₈		3 16.5 124°69	0°7°/17.3	17		98868	2001 BS ₅		3 16.5 111°82	6°5°/9.1	18	
2 11	12 10.17	- 1 44.9	2.748	3.547	10.6	21.8	2 11	12 8.96	+18 8.9	2.010	2.860	12.0	19.4
2 21	12 4.49	- 1 41.6	2.671	3.561	8.0	21.7	2 21	12 4.16	+19 34.6	1.956	2.868	9.3	19.3
3 2	11 57.36	- 1 29.6	2.620	3.574	5.0	21.5	3 2	11 57.39	+20 57.4	1.928	2.875	7.1	19.1
3 12	11 49.32	- 1 11.4	2.599	3.588	1.9	21.3	3 12	11 49.37	+22 8.7	1.926	2.882	6.6	19.1
3 22	11 41.01	- 0 50.0	2.608	3.601	1.7	21.3	3 22	11 41.01	+23 1.4	1.952	2.889	8.2	19.2
4 1	11 33.12	- 0 28.7	2.648	3.613	4.8	21.5	4 1	11 33.27	+23 31.1	2.005	2.896	10.7	19.4
4 11	11 26.28	- 0 10.9	2.717	3.625	7.7	21.7	4 11	11 26.99	+23 36.5	2.080	2.903	13.4	19.6
4 21	11 20.92	+ 0 0.9	2.811	3.637	10.3	21.9	4 21	11 22.70	+23 19.5	2.174	2.910	15.7	19.8
362071	2009 BD ₇₆		3 16.5 296°89	6°4°/21.1	18		157963	2000 EO ₁₂₉		3 16.5 58°72	2°0°/14.9	18	
2 11	12 11.33	-13 20											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
93920	2000 <i>WN</i> ₁₆₀		3 16.5 165°71	1°9/14.6	18	R	174000	2001 <i>XE</i> ₂₃₃		3 16.5 149°01	1°7/14.3	18	
2 11	12 10.02	+ 5 16.1	2.035	2.869	12.5	20.3	2 11	12 7.05	+ 5 39.8	2.638	3.467	10.2	20.9
2 21	12 4.93	+ 5 51.9	1.959	2.871	9.3	20.1	2 21	12 2.31	+ 6 19.0	2.563	3.473	7.5	20.7
3 2	11 57.87	+ 6 35.0	1.908	2.873	5.6	19.8	3 2	11 56.10	+ 7 3.8	2.514	3.478	4.5	20.5
3 12	11 49.54	+ 7 20.2	1.885	2.874	2.2	19.6	3 12	11 48.96	+ 7 49.7	2.495	3.483	1.9	20.3
3 22	11 40.78	+ 8 1.5	1.890	2.876	3.7	19.7	3 22	11 41.54	+ 8 32.1	2.505	3.488	3.1	20.4
4 1	11 32.55	+ 8 33.8	1.925	2.877	7.4	20.0	4 1	11 34.51	+ 9 7.1	2.545	3.493	6.1	20.6
4 11	11 25.69	+ 8 53.2	1.985	2.878	10.9	20.2	4 11	11 28.51	+ 9 31.4	2.612	3.497	8.9	20.8
4 21	11 20.76	+ 8 58.0	2.068	2.878	14.0	20.4	4 21	11 23.97	+ 9 43.6	2.703	3.502	11.4	21.0
504154	2006 <i>SH</i> ₂₅₇		3 16.5 231°08	2°4/13.8	17		107056	2001 <i>AC</i> ₄		3 16.5 62°69	0°2/16.6	18	
2 11	12 10.79	+ 9 16.6	2.659	3.487	10.1	21.7	2 11	12 8.58	- 2 32.9	1.429	2.264	16.8	19.1
2 21	12 5.14	+ 9 39.8	2.568	3.477	7.5	21.5	2 21	12 4.45	- 1 48.0	1.366	2.276	12.6	18.9
3 2	11 57.88	+ 10 5.7	2.505	3.466	4.7	21.3	3 2	11 57.82	- 0 43.9	1.326	2.288	7.8	18.7
3 12	11 49.53	+ 10 30.1	2.470	3.456	2.5	21.1	3 12	11 49.56	+ 0 32.9	1.310	2.301	2.5	18.4
3 22	11 40.79	+ 10 49.1	2.467	3.445	3.7	21.2	3 22	11 40.83	+ 1 53.5	1.321	2.313	2.9	18.4
4 1	11 32.40	+ 10 59.1	2.493	3.433	6.6	21.4	4 1	11 32.90	+ 3 8.1	1.358	2.326	8.0	18.8
4 11	11 25.06	+ 10 57.9	2.546	3.422	9.5	21.5	4 11	11 26.83	+ 4 8.6	1.420	2.339	12.6	19.1
4 21	11 19.29	+ 10 44.8	2.623	3.409	12.0	21.7	4 21	11 23.24	+ 4 50.4	1.503	2.352	16.4	19.3
208378	2001 <i>SU</i> ₇₇		3 16.5 88°98	0°3/16.2	17		109514	2001 <i>QB</i> ₂₃₇		3 16.5 244°03	0°2/16.4	17	
2 11	12 9.52	+ 1 22.8	2.247	3.067	12.0	20.5	2 11	12 9.63	- 0 21.1	1.894	2.717	13.8	20.5
2 21	12 4.32	+ 1 35.9	2.174	3.077	8.9	20.3	2 21	12 4.91	+ 0 6.2	1.804	2.709	10.4	20.3
3 2	11 57.40	+ 1 57.5	2.126	3.087	5.4	20.1	3 2	11 58.03	+ 0 46.6	1.738	2.699	6.4	20.0
3 12	11 49.37	+ 2 24.1	2.106	3.097	1.6	19.9	3 12	11 49.65	+ 1 36.0	1.699	2.690	2.0	19.7
3 22	11 41.02	+ 2 51.3	2.116	3.107	2.3	19.9	3 22	11 40.66	+ 2 28.4	1.689	2.680	2.6	19.8
4 1	11 33.17	+ 3 15.0	2.155	3.117	6.0	20.2	4 1	11 32.10	+ 3 17.4	1.706	2.670	7.1	20.0
4 11	11 26.58	+ 3 31.5	2.221	3.127	9.3	20.4	4 11	11 24.95	+ 3 57.0	1.750	2.660	11.2	20.2
4 21	11 21.73	+ 3 38.4	2.311	3.137	12.2	20.6	4 21	11 19.87	+ 4 23.4	1.816	2.650	14.7	20.4
413175	2002 <i>QS</i> ₉₆		3 16.5 189°53	1°8/14.6	17		15964	<i>Billgray</i>		3 16.5 112°96	13°5/24.5	18	R
2 11	12 10.68	+ 4 4.5	2.128	2.955	12.3	22.8	2 11	12 22.15	- 23 33.4	1.276	2.006	24.0	18.2
2 21	12 5.38	+ 4 53.5	2.046	2.955	9.1	22.6	2 21	12 15.70	- 25 44.0	1.208	2.016	21.1	18.0
3 2	11 58.16	+ 5 51.6	1.989	2.953	5.5	22.4	3 2	12 5.37	- 27 23.3	1.157	2.026	17.9	17.8
3 12	11 49.64	+ 6 53.1	1.961	2.951	2.1	22.2	3 12	11 52.12	- 28 21.9	1.125	2.036	15.1	17.6
3 22	11 40.66	+ 7 51.8	1.963	2.948	3.5	22.3	3 22	11 37.58	- 28 34.8	1.115	2.046	13.6	17.6
4 1	11 32.15	+ 8 41.6	1.993	2.944	7.3	22.5	4 1	11 23.85	- 28 4.8	1.128	2.055	14.1	17.6
4 11	11 24.95	+ 9 18.2	2.051	2.940	10.8	22.7	4 11	11 12.82	- 27 3.1	1.162	2.063	16.3	17.8
4 21	11 19.63	+ 9 39.1	2.131	2.935	13.8	22.9	4 21	11 5.59	- 25 44.9	1.215	2.072	19.1	18.0
245464	2005 <i>MR</i> ₃₀		3 16.5 246°25	2°0/13.9	17		201182	2002 <i>PR</i> ₃₃		3 16.5 73°75	1°3/17.9	18	
2 11	12 4.88	+ 4 46.5	2.477	3.310	10.6	20.7	2 11	12 11.08	- 4 19.0	2.138	2.938	13.2	20.1
2 21	12 0.90	+ 5 48.4	2.389	3.301	7.8	20.5	2 21	12 5.40	- 4 8.1	2.082	2.970	10.0	19.9
3 2	11 55.35	+ 6 58.6	2.328	3.293	4.7	20.3	3 2	11 57.98	- 3 44.2	2.050	3.001	6.4	19.7
3 12	11 48.75	+ 8 11.7	2.295	3.284	2.1	20.1	3 12	11 49.54	- 3 10.5	2.046	3.032	2.7	19.5
3 22	11 41.76	+ 9 21.8	2.292	3.274	3.5	20.2	3 22	11 40.90	- 2 31.5	2.071	3.063	2.1	19.6
4 1	11 35.09	+ 10 23.4	2.319	3.265	6.7	20.4	4 1	11 32.92	- 1 52.1	2.126	3.093	5.6	19.8
4 11	11 29.43	+ 11 12.0	2.372	3.256	9.8	20.6	4 11	11 26.34	- 1 17.3	2.208	3.123	8.9	20.1
4 21	11 25.27	+ 11 45.2	2.449	3.246	12.5	20.7	4 21	11 21.59	- 0 50.5	2.314	3.153	11.8	20.3
190419	1999 <i>VO</i> ₅₄		3 16.5 164°28	0°8/17.5	17		257635	1999 <i>TM</i> ₂₁₈		3 16.5 133°97	0°7/15.8	18	
2 11	12 7.91	- 4 6.5	2.564	3.362	11.3	21.4	2 11	12 12.26	+ 1 5.2	1.959	2.780	13.5	21.8
2 21	12 3.01	- 3 35.8	2.479	3.367	8.6	21.2	2 21	12 6.57	+ 1 40.0	1.890	2.794	10.0	21.6
3 2	11 56.56	- 2 52.8	2.420	3.372	5.5	21.0	3 2	11 58.85	+ 2 25.9	1.845	2.807	6.0	21.3
3 12	11 49.12	- 2 0.7	2.389	3.377	2.1	20.8	3 12	11 49.85	+ 3 17.6	1.828	2.819	1.8	21.1
3 22	11 41.33	- 1 4.0	2.388	3.381	1.8	20.8	3 22	11 40.49	+ 4 9.1	1.841	2.831	2.8	21.2
4 1	11 33.94	- 0 7.5	2.418	3.384	5.1	21.0	4 1	11 31.75	+ 4 54.6	1.882	2.842	6.9	21.5
4 11	11 27.59	+ 0 43.9	2.476	3.387	8.3	21.2	4 11	11 24.50	+ 5 29.1	1.950	2.852	10.6	21.7
4 21	11 22.76	+ 1 26.5	2.560	3.389	11.0	21.4	4 21	11 19.30	+ 5 50.1	2.042	2.862	13.8	21.9
281937	2011 <i>FZ</i> ₁₄₂		3 16.5 330°09	1°2/17.6	17		214113	2004 <i>RP</i> ₃₃₉		3 16.5 222°29	3°9/10.5	17	
2 11	12 4.14	- 4 49.2	1.657	2.483	15.3	20.1	2 11	12 6.21	+ 15 33.9	3.165	4.002	8.4	21.4
2 21	12 1.09	- 4 15.0	1.569	2.471	11.8	19.9	2 21	12 1.57	+ 16 29.4	3.084	3.992	6.4	21.2
3 2	11 55.81	- 3 20.6	1.502	2.460	7.6	19.6	3 2	11 55.62	+ 17 24.7	3.030	3.982	4.5	21.1
3 12	11 48.96	- 2 10.2	1.461	2.450	3.0	19.3	3 12	11 48.82	+ 18 14.9	3.006	3.971	3.9	21.0
3 22	11 41.48	- 0 50.6	1.447	2.440	2.5	19.2	3 22	11 41.71	+ 18 56.0	3.011	3.960	5.0	21.1
4 1	11 34.44	+ 0 29.4	1.460	2.431	7.2	19.5	4 1	11 34.89	+ 19 24.5	3.046	3.949	7.1	21.2
4 11	11 28.88	+ 1 41.2	1.497	2.422	11.6	19.7	4 11	11 28.92	+ 19 38.7	3.107	3.937	9.2	21.4
4 21	11 25.47	+ 2 38.2	1.557	2.414	15.5	19.9	4 21	11 24.20	+ 19 38.3	3.190	3.925	11.1	21.5
120775	1998 <i>DB</i> ₂₃		3 16.5 161°29	3°9/20.3	18		491053	2011 <i>QP</i> ₅₈		3 16.5 171°83	0°5/17.2	18	
2 11	12 12.25	- 11 19.0	2.253	3.017	13.8	19.8	2 11	12 5.92	- 2 33.8	3.158	3.956	9.4	23.0
2 21	12 6.52	- 11 39.2	2.165	3.022	11.1	19.6	2 21	12 1.29	- 2 8.3	3.070	3.959	7.1	22.8
3 2	11 58.84	- 11 43.1	2.100	3.027	8.0	19.4	3 2	11 55.42	- 1 33.9	3.008	3.962	4.5	22.7
3 12	11 49.87	- 11 30.9	2.062	3.031	5.1	19.2	3 12	11 48.75	- 0 53.2	2.976	3.965	1.6	22.5
3 22	11 40.40	- 11 5.1	2.053	3.035	4.0	19.1	3 22	11 41.82	- 0 9.5	2.974	3.967	1.5	22.5
4 1	11 31.38	- 10 29.7	2.074	3.038	6.0	19.3	4 1	11 35.18	+ 0 33.6	3.004	3.968	4.3	22.7
4 11	11 23.63	- 9 50.2	2.122	3.041	9.0	19.5	4 11	11 29.36	+ 1 12.5	3.062	3.969	7.0	22.8
4 21	11 17.76	- 9 12.2	2.195	3.043	12.0	19.6	4 21	11 24.75	+ 1 44.4	3.146	3.970	9.3	23.0
508044	2015 <i>BY</i> ₅₃₃		3 16.5 213°56	1°6/14.6	17		64552	2001 <i></i>					

EPHEMERIDES

3 16.5

3 16.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
195611	2002 LP ₁₂		3 16.5 236°90	4°3/21.6	17		498835	2008 WW ₃₀		3 16.5 144°94	3°2/20.1	17	
2 11	12 6.69	-15 4.6	2.360	3.112	13.5	20.4	2 11	12 7.69	-10 46.6	2.328	3.102	13.1	22.4
2 21	12 2.44	-14 57.2	2.257	3.102	11.1	20.2	2 21	12 3.06	-10 41.0	2.242	3.107	10.4	22.2
3 2	11 56.40	-14 29.9	2.175	3.092	8.4	20.0	3 2	11 56.72	-10 18.5	2.180	3.112	7.4	22.0
3 12	11 49.12	-13 43.1	2.120	3.081	5.6	19.8	3 12	11 49.24	-9 40.7	2.144	3.117	4.4	21.8
3 22	11 41.33	-12 39.7	2.092	3.070	4.3	19.7	3 22	11 41.36	-8 51.1	2.136	3.122	3.2	21.7
4 1	11 33.85	-11 24.8	2.093	3.058	5.9	19.8	4 1	11 33.89	-7 54.6	2.158	3.126	5.5	21.9
4 11	11 27.46	-10 5.3	2.122	3.047	8.7	19.9	4 11	11 27.58	-6 57.2	2.207	3.130	8.5	22.1
4 21	11 22.75	-8 48.0	2.177	3.035	11.7	20.1	4 21	11 22.95	-6 4.3	2.281	3.134	11.4	22.3
497247	2005 GA ₂₅		3 16.5 281°69	0°3/16.3	17		1224	Fantasia		3 16.5 138°17	4°5/20.9	18	R
2 11	12 9.87	-0 8.3	1.646	2.478	15.1	22.0	2 11	12 12.27	-13 27.4	1.875	2.642	16.1	15.7
2 21	12 5.54	+0 18.1	1.548	2.457	11.5	21.7	2 21	12 6.82	-13 25.4	1.798	2.655	13.0	15.5
3 2	11 58.67	+0 59.8	1.473	2.435	7.1	21.4	3 2	11 59.15	-13 0.6	1.741	2.667	9.4	15.3
3 12	11 49.93	+1 52.5	1.423	2.414	2.2	21.0	3 12	11 50.03	-12 14.4	1.710	2.678	6.0	15.1
3 22	11 40.31	+2 49.4	1.401	2.392	3.0	21.0	3 22	11 40.42	-11 10.7	1.707	2.689	4.5	15.1
4 1	11 31.04	+3 42.9	1.405	2.371	8.1	21.3	4 1	11 31.43	-9 56.6	1.732	2.699	6.7	15.2
4 11	11 23.33	+4 25.4	1.435	2.349	12.9	21.5	4 11	11 24.00	-8 40.3	1.785	2.709	10.1	15.4
4 21	11 18.01	+4 52.3	1.486	2.327	17.0	21.7	4 21	11 18.77	-7 29.4	1.861	2.717	13.4	15.7
145206	2005 JQ ₃₆		3 16.5 299°72	2°9/18.8	17		466479	2013 UR ₆		3 16.5 221°48	0°5/15.9	17	
2 11	12 7.47	-7 29.0	1.539	2.354	16.8	20.0	2 11	12 7.51	-0 56.5	2.424	3.237	11.5	22.4
2 21	12 3.94	-7 23.1	1.439	2.332	13.3	19.7	2 21	12 2.94	+0 2.6	2.326	3.226	8.6	22.2
3 2	11 57.79	-6 54.9	1.361	2.311	9.1	19.4	3 2	11 56.67	+1 14.7	2.254	3.215	5.2	21.9
3 12	11 49.68	-6 6.1	1.306	2.289	4.6	19.1	3 12	11 49.24	+2 35.2	2.212	3.202	1.6	21.7
3 22	11 40.61	-5 1.5	1.277	2.268	3.4	18.9	3 22	11 41.35	+3 58.1	2.199	3.190	2.4	21.7
4 1	11 31.88	-3 49.1	1.274	2.247	7.7	19.1	4 1	11 33.76	+5 17.0	2.217	3.176	6.1	21.9
4 11	11 24.75	-2 38.7	1.296	2.226	12.6	19.3	4 11	11 27.22	+6 26.1	2.263	3.162	9.5	22.1
4 21	11 20.12	-1 38.7	1.339	2.206	17.0	19.6	4 21	11 22.27	+7 21.5	2.334	3.147	12.5	22.3
151827	2003 FX ₁₀₆		3 16.5 298°26	1°7/18.2	18	R	191966	2005 VU ₁₇		3 16.5 166°99	0°9/17.4	18	
2 11	12 4.69	-7 13.5	1.749	2.562	15.2	19.4	2 11	12 11.39	-4 59.6	1.795	2.603	15.1	21.2
2 21	12 1.47	-6 28.7	1.651	2.545	11.8	19.1	2 21	12 6.24	-4 13.9	1.715	2.608	11.5	21.0
3 2	11 56.06	-5 20.8	1.576	2.529	7.8	18.9	3 2	11 58.85	-3 9.2	1.658	2.613	7.3	20.7
3 12	11 49.07	-3 53.6	1.526	2.512	3.5	18.6	3 12	11 49.95	-1 50.2	1.628	2.617	2.8	20.4
3 22	11 41.40	-2 13.8	1.503	2.496	2.5	18.4	3 22	11 40.53	-0 24.2	1.627	2.620	2.4	20.4
4 1	11 34.10	-0 30.9	1.508	2.480	6.9	18.7	4 1	11 31.68	+1 0.4	1.655	2.622	6.9	20.7
4 11	11 28.18	+1 5.2	1.539	2.464	11.4	18.9	4 11	11 24.40	+2 15.3	1.710	2.624	11.1	21.0
4 21	11 24.38	+2 26.6	1.593	2.448	15.4	19.1	4 21	11 19.33	+3 15.1	1.788	2.625	14.8	21.2
127158	2002 GM ₁₃₉		3 16.5 163°82	0°2/16.3	17		470015	2006 RO ₇		3 16.5 184°25	0°8/17.8	18	
2 11	12 8.93	+0 1.3	2.177	2.995	12.4	20.7	2 11	12 5.12	-5 16.4	3.209	3.997	9.5	22.9
2 21	12 4.03	+0 30.5	2.096	2.998	9.3	20.5	2 21	12 0.72	-4 33.2	3.115	3.997	7.3	22.7
3 2	11 57.31	+1 10.6	2.041	3.001	5.6	20.3	3 2	11 55.11	-3 38.9	3.047	3.997	4.7	22.5
3 12	11 49.40	+1 57.5	2.013	3.004	1.7	20.0	3 12	11 48.71	-2 36.3	3.009	3.996	1.9	22.3
3 22	11 41.08	+2 46.1	2.015	3.006	2.3	20.1	3 22	11 42.03	-1 29.1	3.002	3.994	1.5	22.3
4 1	11 33.22	+3 30.9	2.045	3.008	6.2	20.3	4 1	11 35.62	-0 21.7	3.026	3.992	4.2	22.5
4 11	11 26.62	+4 7.1	2.103	3.009	9.8	20.5	4 11	11 30.00	+0 41.6	3.080	3.989	6.9	22.7
4 21	11 21.80	+4 31.7	2.185	3.011	12.8	20.7	4 21	11 25.56	+1 37.4	3.160	3.986	9.3	22.8
505052	2011 SV ₃₈		3 16.5 189°78	1°1/18.1	17		109411	2001 QV ₁₈₄		3 16.5 68°72	7°1/23.5	18	
2 11	12 4.75	-5 42.9	2.780	3.574	10.7	21.8	2 11	12 11.32	-19 8.2	1.699	2.443	18.3	18.8
2 21	12 0.62	-5 7.2	2.689	3.573	8.2	21.6	2 21	12 6.24	-19 34.6	1.637	2.469	15.3	18.7
3 2	11 55.11	-4 18.9	2.622	3.572	5.3	21.4	3 2	11 58.83	-19 33.2	1.595	2.495	11.9	18.5
3 12	11 48.69	-3 20.7	2.584	3.570	2.3	21.2	3 12	11 49.92	-19 3.5	1.575	2.520	8.8	18.4
3 22	11 41.94	-2 16.7	2.576	3.568	1.7	21.1	3 22	11 40.62	-18 8.7	1.581	2.546	7.2	18.4
4 1	11 35.50	-1 11.9	2.598	3.566	4.7	21.3	4 1	11 32.10	-16 55.9	1.614	2.571	8.1	18.5
4 11	11 29.96	-0 11.1	2.649	3.564	7.7	21.5	4 11	11 25.34	-15 34.4	1.672	2.596	10.7	18.7
4 21	11 25.77	+0 41.8	2.726	3.561	10.3	21.7	4 21	11 20.95	-14 13.8	1.753	2.621	13.6	18.9
95617	2002 GP ₇		3 16.5 104°52	5°2/11.8	18		208986	2003 AJ ₁₄		3 16.5 90°47	2°2/19.2	18	
2 11	12 12.64	+15 4.9	1.936	2.781	12.6	18.6	2 11	12 5.93	-8 46.4	2.285	3.073	12.9	20.5
2 21	12 6.94	+15 49.7	1.873	2.786	9.5	18.4	2 21	12 1.72	-8 19.3	2.209	3.086	10.0	20.3
3 2	11 59.11	+16 33.3	1.834	2.791	6.6	18.2	3 2	11 55.87	-7 35.7	2.156	3.098	6.8	20.1
3 12	11 49.96	+17 8.6	1.823	2.796	5.2	18.2	3 12	11 48.98	-6 38.3	2.130	3.110	3.5	19.9
3 22	11 40.44	+17 29.5	1.840	2.801	6.7	18.3	3 22	11 41.77	-5 31.9	2.133	3.123	2.5	19.9
4 1	11 31.60	+17 32.2	1.884	2.806	9.7	18.4	4 1	11 35.01	-4 22.4	2.165	3.135	5.3	20.1
4 11	11 24.34	+17 15.6	1.953	2.810	12.7	18.6	4 11	11 29.42	-3 15.8	2.225	3.147	8.5	20.3
4 21	11 19.22	+16 40.9	2.042	2.815	15.4	18.8	4 21	11 25.46	-2 17.3	2.309	3.159	11.4	20.5
233425	2006 HR ₁₂		3 16.5 218°67	0°3/16.9	17		243255	2007 WL ₆₀		3 16.5 194°98	3°0/20.1	18	
2 11	12 7.09	-2 9.5	2.026	2.845	13.2	21.4	2 11	12 6.46	-10 35.6	2.460	3.233	12.5	20.9
2 21	12 2.83	-1 37.1	1.943	2.844	9.9	21.2	2 21	12 2.11	-10 26.7	2.367	3.232	9.9	20.8
3 2	11 56.67	-0 50.7	1.884	2.843	6.2	20.9	3 2	11 56.15	-10 1.7	2.298	3.231	7.0	20.6
3 12	11 49.23	+0 5.3	1.852	2.842	2.1	20.7	3 12	11 49.09	-9 22.1	2.255	3.230	4.2	20.4
3 22	11 41.33	+1 5.5	1.848	2.841	2.2	20.7	3 22	11 41.62	-8 31.3	2.242	3.228	3.0	20.3
4 1	11 33.88	+2 3.4	1.874	2.840	6.3	20.9	4 1	11 34.50	-7 33.8	2.258	3.226	5.2	20.4
4 11	11 27.72	+2 53.1	1.925	2.839	10.1	21.1	4 11	11 28.43	-6 35.6	2.301	3.224	8.2	20.6
4 21	11 23.42	+3 30.5	2.000	2.837	13.4	21.3	4 21	11 23.94	-5 41.6	2.370	3.222	11.1	20.8
64912	2001 YY ₉₁		3 16.5 161°85	2°5/14.1	18		284819	2008 YY ₁₆₅		3 16.5 171°84	4°5/10.9	17	
2 11	12 12.04	+5 9.1	1.856	2.691	13.5	20.1	2 11	12 7.35	+14 16.1	2.437	3.281	10.4	21.2

EPHEMERIDES

3 16.5

3 16.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
164525	2006 <i>HF</i> ₆₃		3 16.5 213°69	0°5/16.0	17		372632	2009 <i>VU</i> ₇₂		3 16.5 163°05	6°2/9.7	18	
2 11	12 7.15	+ 0 17.2	2.255	3.076	11.9	20.6	2 11	12 10.69	+17 59.0	2.070	2.916	11.9	20.7
2 21	12 2.73	+ 0 55.4	2.169	3.073	8.9	20.4	2 21	12 5.47	+19 14.5	2.010	2.920	9.2	20.6
3 2	11 56.56	+ 1 44.6	2.108	3.069	5.4	20.2	3 2	11 58.27	+20 27.4	1.975	2.923	6.9	20.4
3 12	11 49.23	+ 2 40.5	2.074	3.065	1.6	19.9	3 12	11 49.79	+21 29.6	1.967	2.925	6.3	20.4
3 22	11 41.48	+ 3 37.9	2.071	3.061	2.4	20.0	3 22	11 40.93	+22 14.5	1.987	2.927	7.8	20.5
4 1	11 34.11	+ 4 31.0	2.096	3.057	6.2	20.2	4 1	11 32.66	+22 37.6	2.034	2.929	10.4	20.6
4 11	11 27.89	+ 5 14.9	2.148	3.052	9.7	20.4	4 11	11 25.84	+22 37.7	2.104	2.931	13.1	20.8
4 21	11 23.36	+ 5 46.3	2.224	3.048	12.7	20.6	4 21	11 21.01	+22 16.3	2.194	2.932	15.5	21.0
347308	2011 <i>QN</i> ₆		3 16.5 93°18	4°3/21.7	17		65760	1994 <i>PD</i> ₂₁		3 16.5 171°29	1°1/15.1	17	
2 11	12 6.42	-14 41.8	2.354	3.109	13.5	20.6	2 11	12 7.09	+ 1 47.8	2.411	3.234	11.2	20.3
2 21	12 2.14	-14 42.6	2.270	3.117	11.0	20.4	2 21	12 2.55	+ 2 46.2	2.331	3.237	8.3	20.1
3 2	11 56.17	-14 24.5	2.208	3.124	8.2	20.3	3 2	11 56.39	+ 3 54.5	2.277	3.240	4.9	19.9
3 12	11 49.11	-13 48.4	2.171	3.132	5.6	20.1	3 12	11 49.19	+ 5 7.7	2.251	3.242	1.6	19.6
3 22	11 41.65	-12 57.2	2.163	3.140	4.3	20.0	3 22	11 41.63	+ 6 19.9	2.256	3.243	2.8	19.7
4 1	11 34.62	-11 55.8	2.183	3.147	5.7	20.1	4 1	11 34.47	+ 7 25.3	2.291	3.245	6.2	19.9
4 11	11 28.72	-10 50.5	2.230	3.155	8.4	20.3	4 11	11 28.41	+ 8 19.1	2.353	3.245	9.4	20.1
4 21	11 24.47	- 9 47.3	2.303	3.162	11.1	20.5	4 21	11 23.92	+ 8 58.6	2.439	3.246	12.2	20.3
497717	2006 <i>SF</i> ₁₃₄		3 16.5 189°07	1°4/14.8	17		518640	2008 <i>KZ</i> ₅		3 16.5 218°79	2°7/14.0	18	C
2 11	12 8.66	+ 5 19.0	2.929	3.749	9.5	22.4	2 11	12 17.43	+ 3 52.8	1.812	2.635	14.3	24.3
2 21	12 3.43	+ 5 45.4	2.843	3.748	7.0	22.3	2 21	12 11.05	+ 5 14.6	1.715	2.621	10.7	24.0
3 2	11 56.81	+ 6 16.6	2.784	3.747	4.2	22.1	3 2	12 2.04	+ 6 51.2	1.643	2.605	6.5	23.8
3 12	11 49.29	+ 6 49.2	2.755	3.745	1.6	21.9	3 12	11 51.10	+ 8 34.5	1.599	2.588	2.9	23.5
3 22	11 41.45	+ 7 19.5	2.757	3.742	2.6	22.0	3 22	11 39.26	+10 14.7	1.587	2.568	4.9	23.6
4 1	11 33.95	+ 7 44.0	2.789	3.739	5.5	22.1	4 1	11 27.81	+11 41.9	1.604	2.547	9.4	23.8
4 11	11 27.37	+ 8 0.1	2.849	3.736	8.2	22.3	4 11	11 17.95	+12 48.7	1.647	2.523	13.7	24.0
4 21	11 22.16	+ 8 6.1	2.934	3.732	10.6	22.5	4 21	11 10.53	+13 32.1	1.713	2.498	17.5	24.2
453908	2011 <i>UB</i> ₃₂₁		3 16.5 80°19	1°8/17.9	18		505926	2015 <i>EH</i> ₆₅		3 16.5 282°47	5°9/10.2	17	
2 11	12 12.67	- 5 21.4	1.503	2.319	17.1	21.6	2 11	12 11.86	+19 4.1	2.270	3.110	11.2	20.7
2 21	12 7.32	- 5 2.8	1.446	2.342	13.1	21.4	2 21	12 6.37	+19 51.2	2.184	3.090	8.8	20.5
3 2	11 59.51	- 4 24.6	1.411	2.365	8.4	21.2	3 2	11 58.87	+20 35.3	2.124	3.070	6.6	20.4
3 12	11 50.16	- 3 31.3	1.401	2.388	3.6	21.0	3 12	11 50.01	+21 9.4	2.091	3.050	5.9	20.3
3 22	11 40.46	- 2 29.9	1.418	2.410	2.7	21.0	3 22	11 40.63	+21 27.8	2.087	3.030	7.4	20.3
4 1	11 31.65	- 1 28.6	1.462	2.432	7.2	21.3	4 1	11 31.67	+21 26.8	2.110	3.010	9.9	20.5
4 11	11 24.75	- 0 35.3	1.532	2.454	11.6	21.6	4 11	11 24.01	+21 5.1	2.157	2.989	12.6	20.6
4 21	11 20.36	+ 0 5.0	1.623	2.476	15.2	21.9	4 21	11 18.27	+20 24.1	2.225	2.969	15.1	20.7
70151	1999 <i>NL</i> ₃₂		3 16.5 307°31	2°4/14.7	18		357142	2002 <i>AE</i> ₁₉₃		3 16.5 83°07	3°3/13.8	18	
2 11	12 7.40	+ 3 15.6	1.343	2.198	16.5	18.5	2 11	12 12.28	+ 5 58.0	1.430	2.280	16.0	21.4
2 21	12 4.19	+ 4 6.1	1.253	2.176	12.4	18.2	2 21	12 7.14	+ 7 4.2	1.380	2.299	11.7	21.2
3 2	11 58.11	+ 5 13.4	1.185	2.154	7.5	17.9	3 2	11 59.44	+ 8 19.7	1.352	2.319	7.1	21.0
3 12	11 49.88	+ 6 30.0	1.141	2.132	2.8	17.5	3 12	11 50.17	+ 9 35.2	1.350	2.338	3.5	20.8
3 22	11 40.64	+ 7 45.8	1.122	2.110	4.9	17.6	3 22	11 40.55	+10 41.0	1.375	2.357	5.4	21.0
4 1	11 31.84	+ 8 50.1	1.129	2.089	10.3	17.8	4 1	11 31.87	+11 29.5	1.426	2.375	9.7	21.3
4 11	11 24.87	+ 9 34.2	1.157	2.068	15.5	18.0	4 11	11 25.19	+11 56.4	1.501	2.394	13.8	21.6
4 21	11 20.67	+ 9 53.9	1.205	2.048	20.0	18.3	4 21	11 21.08	+12 1.2	1.596	2.412	17.2	21.8
412068	2013 <i>ED</i> ₁₀₂		3 16.5 315°44	5°0/12.9	16		413839	2006 <i>SK</i> ₁₀₈		3 16.5 157°22	0°3/16.8	17	
2 11	12 9.24	+ 9 26.4	1.252	2.119	16.6	20.5	2 11	12 11.10	- 1 52.4	2.237	3.044	12.5	23.2
2 21	12 5.73	+10 20.3	1.171	2.099	12.5	20.2	2 21	12 5.60	- 1 21.0	2.158	3.053	9.4	23.0
3 2	11 59.13	+11 23.5	1.111	2.079	8.0	19.9	3 2	11 58.29	- 0 37.6	2.104	3.061	5.8	22.8
3 12	11 50.21	+12 25.9	1.075	2.060	5.0	19.6	3 12	11 49.80	+ 0 14.1	2.078	3.068	1.9	22.6
3 22	11 40.28	+13 16.4	1.063	2.041	7.4	19.7	3 22	11 40.93	+ 1 8.9	2.082	3.075	2.1	22.6
4 1	11 30.92	+13 45.6	1.075	2.023	12.2	19.9	4 1	11 32.55	+ 2 1.2	2.117	3.080	5.9	22.8
4 11	11 23.62	+13 48.0	1.107	2.006	17.1	20.1	4 11	11 25.44	+ 2 45.9	2.179	3.085	9.4	23.1
4 21	11 19.33	+13 23.4	1.157	1.989	21.4	20.4	4 21	11 20.12	+ 3 19.6	2.265	3.089	12.5	23.3
167791	2005 <i>AM</i> ₄₁		3 16.5 274°92	0°5/17.1	18		96507	1998 <i>QX</i> ₁		3 16.5 129°36	1°8/18.8	18	
2 11	12 7.25	- 2 29.8	2.024	2.842	13.2	20.3	2 11	12 9.33	- 7 10.4	2.780	3.558	11.1	20.2
2 21	12 2.99	- 2 3.0	1.940	2.840	10.0	20.1	2 21	12 3.93	- 6 55.5	2.704	3.576	8.6	20.0
3 2	11 56.81	- 1 22.3	1.879	2.837	6.3	19.8	3 2	11 57.11	- 6 28.2	2.652	3.594	5.7	19.9
3 12	11 49.35	- 0 31.6	1.846	2.835	2.2	19.5	3 12	11 49.40	- 5 50.9	2.630	3.611	2.9	19.7
3 22	11 41.40	+ 0 23.8	1.841	2.833	2.2	19.5	3 22	11 41.44	- 5 7.0	2.638	3.628	2.1	19.6
4 1	11 33.90	+ 1 17.8	1.864	2.831	6.3	19.8	4 1	11 33.89	- 4 20.5	2.676	3.644	4.6	19.8
4 11	11 27.68	+ 2 4.5	1.914	2.829	10.1	20.0	4 11	11 27.37	- 3 35.8	2.744	3.659	7.4	20.0
4 21	11 23.33	+ 2 39.7	1.987	2.827	13.4	20.2	4 21	11 22.30	- 2 56.6	2.838	3.673	9.9	20.2
176640	2002 <i>NP</i> ₆		3 16.5 216°73	0°2/16.3	16		212484	2006 <i>QC</i> ₉₃		3 16.5 250°22	0°2/16.7	16	
2 11	12 10.24	- 0 45.4	2.018	2.836	13.3	21.9	2 11	12 8.28	- 2 46.6	1.744	2.567	14.8	21.0
2 21	12 5.29	- 0 7.6	1.927	2.828	10.0	21.6	2 21	12 4.16	- 1 59.7	1.653	2.556	11.2	20.7
3 2	11 58.27	+ 0 43.7	1.860	2.820	6.1	21.4	3 2	11 57.74	- 0 54.3	1.585	2.545	7.0	20.4
3 12	11 49.83	+ 1 44.0	1.820	2.811	1.9	21.1	3 12	11 49.71	+ 0 24.6	1.543	2.533	2.3	20.1
3 22	11 40.81	+ 2 47.3	1.810	2.802	2.5	21.1	3 22	11 41.00	+ 1 49.6	1.529	2.522	2.6	20.1
4 1	11 32.21	+ 3 47.0	1.829	2.792	6.8	21.4	4 1	11 32.72	+ 3 11.8	1.544	2.510	7.4	20.4
4 11	11 24.93	+ 4 37.0	1.875	2.781	10.7	21.6	4 11	11 25.92	+ 4 22.9	1.584	2.497	11.9	20.6
4 21	11 19.62	+ 5 13.3	1.944	2.770	14.2	21.8	4 21	11 21.30	+ 5 17.5	1.646	2.485	15.7	20.8
61800	2000 <i>QU</i> ₁₈₄		3 16.5 78°14	5°6/10.4	18		4515	Khrennikov		3 16.5 76°84			

EPHEMERIDES

3 16.5

3 16.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
341804	2007 <i>XC</i> ₃₅		3 16.5 157°74	7°0/ 8.1 17			108182	2001 <i>HY</i> ₁₃		3 16.6 221°60	2°2/14.7 18		
2 11	12 10.75	+23 49.0	2.375	3.212	10.9	21.0	2 11	12 15.49	+ 5 12.7	1.859	2.687	13.8	20.5
2 21	12 5.33	+24 53.1	2.318	3.214	8.8	20.9	2 21	12 9.45	+ 5 52.1	1.767	2.676	10.3	20.2
3 2	11 58.10	+25 50.2	2.287	3.216	7.3	20.8	3 2	12 0.98	+ 6 40.7	1.700	2.663	6.3	20.0
3 12	11 49.75	+26 33.2	2.283	3.218	7.1	20.8	3 12	11 50.79	+ 7 32.5	1.661	2.650	2.6	19.7
3 22	11 41.09	+26 57.1	2.307	3.219	8.4	20.8	3 22	11 39.86	+ 8 20.7	1.651	2.636	4.1	19.8
4 1	11 33.00	+26 59.0	2.356	3.221	10.4	21.0	4 1	11 29.39	+ 8 58.6	1.669	2.620	8.4	20.0
4 11	11 26.24	+26 39.0	2.429	3.222	12.6	21.1	4 11	11 20.46	+ 9 21.5	1.714	2.604	12.5	20.2
4 21	11 21.31	+25 59.3	2.521	3.224	14.5	21.3	4 21	11 13.84	+ 9 27.3	1.781	2.587	16.1	20.4
290429	2005 <i>TM</i> ₉₆		3 16.5 335°22	4°4/19.9 18			306609	2000 <i>OG</i> ₂₂		3 16.6 210°29	5°0/10.4 18		
2 11	12 6.92	-10 35.2	1.239	2.057	19.9	20.1	2 11	12 9.44	+ 9 23.5	1.923	2.768	12.7	20.9
2 21	12 3.91	-10 31.8	1.160	2.052	15.9	19.8	2 21	12 4.85	+11 36.4	1.844	2.761	9.4	20.7
3 2	11 57.95	- 9 58.6	1.100	2.046	11.3	19.6	3 2	11 58.10	+13 59.2	1.793	2.754	6.2	20.4
3 12	11 49.86	- 8 57.0	1.062	2.042	6.4	19.3	3 12	11 49.85	+16 20.9	1.771	2.746	5.0	20.4
3 22	11 40.87	- 7 33.2	1.048	2.037	4.5	19.1	3 22	11 40.99	+18 30.1	1.779	2.737	7.2	20.5
4 1	11 32.52	- 5 58.1	1.058	2.034	8.4	19.3	4 1	11 32.55	+20 17.2	1.816	2.727	10.6	20.6
4 11	11 26.21	- 4 24.8	1.091	2.030	13.5	19.6	4 11	11 25.51	+21 36.6	1.878	2.716	14.0	20.8
4 21	11 22.80	- 3 4.4	1.145	2.028	18.1	19.9	4 21	11 20.53	+22 27.1	1.960	2.705	16.8	21.0
90355	2003 <i>HC</i> ₁₂		3 16.5 201°86	4°2/11.1 17			337839	2001 <i>VQ</i> ₇₄		3 16.6 133°75	0°0/16.5 17		
2 11	12 7.92	+11 47.5	2.359	3.201	10.7	20.0	2 11	12 7.02	- 0 37.5	2.763	3.572	10.3	22.3
2 21	12 3.28	+13 11.9	2.283	3.197	8.0	19.8	2 21	12 2.27	- 0 6.7	2.687	3.584	7.7	22.2
3 2	11 56.92	+14 39.9	2.233	3.192	5.4	19.6	3 2	11 56.14	+ 0 33.1	2.637	3.595	4.7	22.0
3 12	11 49.40	+16 4.4	2.213	3.187	4.2	19.5	3 12	11 49.15	+ 1 18.3	2.616	3.606	1.5	21.8
3 22	11 41.47	+17 18.5	2.223	3.182	5.8	19.6	3 22	11 41.89	+ 2 5.1	2.625	3.617	1.8	21.8
4 1	11 33.93	+18 16.5	2.260	3.176	8.6	19.8	4 1	11 35.01	+ 2 49.2	2.664	3.627	5.0	22.0
4 11	11 27.53	+18 55.2	2.324	3.169	11.4	19.9	4 11	11 29.10	+ 3 26.8	2.732	3.636	7.9	22.2
4 21	11 22.81	+19 13.8	2.408	3.162	13.8	20.1	4 21	11 24.58	+ 3 55.2	2.825	3.646	10.4	22.4
367501	2009 <i>HO</i> ₉₇		3 16.5 298°97	2°6/14.4 17			501019	2013 <i>RK</i> ₅₃		3 16.6 88°99	2°1/18.6 17		
2 11	12 9.23	+ 4 51.9	1.489	2.340	15.4	21.2	2 11	12 9.03	- 6 34.7	1.964	2.764	14.2	21.4
2 21	12 5.35	+ 5 36.4	1.396	2.316	11.6	20.9	2 21	12 4.31	- 6 24.9	1.889	2.775	11.0	21.2
3 2	11 58.75	+ 6 33.8	1.326	2.293	7.1	20.5	3 2	11 57.62	- 5 58.6	1.837	2.785	7.3	21.0
3 12	11 50.12	+ 7 37.1	1.280	2.270	3.0	20.2	3 12	11 49.66	- 5 18.6	1.812	2.795	3.6	20.8
3 22	11 40.53	+ 8 37.4	1.261	2.247	4.9	20.3	3 22	11 41.28	- 4 29.7	1.814	2.806	2.6	20.7
4 1	11 31.34	+ 9 25.8	1.268	2.224	9.9	20.5	4 1	11 33.44	- 3 37.7	1.845	2.816	6.0	20.9
4 11	11 23.85	+ 9 55.3	1.298	2.202	14.7	20.7	4 11	11 27.00	- 2 48.9	1.903	2.826	9.7	21.2
4 21	11 18.96	+10 3.0	1.347	2.179	18.9	20.9	4 21	11 22.51	- 2 8.4	1.985	2.836	12.9	21.4
350019	2010 <i>JZ</i> ₄₀		3 16.5 175°09	5°9/ 7.3 18			249132	2007 <i>YG</i> ₆₀		3 16.6 196°88	4°5/22.5 18		
2 11	12 7.16	+22 16.9	2.861	3.699	9.2	21.5	2 11	12 7.36	-16 55.7	2.841	3.568	12.0	21.5
2 21	12 2.45	+23 38.7	2.803	3.701	7.4	21.4	2 21	12 2.68	-17 0.6	2.740	3.565	10.0	21.3
3 2	11 56.28	+24 55.9	2.772	3.702	6.1	21.3	3 2	11 56.50	-16 48.5	2.661	3.562	7.7	21.1
3 12	11 49.18	+26 2.3	2.770	3.704	6.1	21.3	3 12	11 49.29	-16 19.7	2.609	3.558	5.6	21.0
3 22	11 41.77	+26 53.0	2.796	3.705	7.3	21.4	3 22	11 41.68	-15 36.0	2.586	3.554	4.5	20.9
4 1	11 34.76	+27 24.8	2.849	3.705	9.1	21.5	4 1	11 34.36	-14 41.1	2.592	3.549	5.4	21.0
4 11	11 28.76	+27 36.7	2.925	3.705	11.0	21.7	4 11	11 27.97	-13 40.0	2.626	3.544	7.5	21.1
4 21	11 24.22	+27 29.7	3.022	3.705	12.6	21.8	4 21	11 23.00	-12 38.2	2.686	3.538	9.9	21.2
88441	2001 <i>QA</i> ₇₅		3 16.5 127°78	3°2/20.2 18			501070	2013 <i>SL</i> ₄₂		3 16.6 222°40	1°8/14.6 17		
2 11	12 6.87	-12 16.4	1.956	2.735	15.1	19.1	2 11	12 10.25	+ 4 34.8	2.330	3.156	11.4	23.1
2 21	12 2.77	-11 38.0	1.874	2.742	12.0	18.9	2 21	12 5.07	+ 5 18.7	2.237	3.145	8.5	22.9
3 2	11 56.71	-10 36.4	1.814	2.749	8.4	18.7	3 2	11 58.07	+ 6 10.8	2.170	3.133	5.1	22.7
3 12	11 49.36	- 9 14.5	1.780	2.755	4.8	18.5	3 12	11 49.82	+ 7 6.0	2.132	3.121	2.0	22.5
3 22	11 41.56	- 7 38.1	1.774	2.762	3.3	18.4	3 22	11 41.06	+ 7 58.9	2.123	3.108	3.4	22.5
4 1	11 34.28	- 5 55.6	1.797	2.768	6.0	18.6	4 1	11 32.65	+ 8 43.9	2.145	3.095	6.9	22.7
4 11	11 28.36	- 4 15.8	1.847	2.774	9.7	18.8	4 11	11 25.39	+ 9 16.9	2.193	3.080	10.3	22.9
4 21	11 24.37	- 2 46.4	1.922	2.779	13.0	19.0	4 21	11 19.85	+ 9 35.6	2.265	3.065	13.2	23.1
412209	2013 <i>GP</i> ₁₁₀		3 16.6 334°77	2°8/19.0 16			386775	2010 <i>CJ</i> ₂₃₁		3 16.6 108°40	4°0/11.4 17		
2 11	12 4.95	- 9 7.0	1.355	2.176	18.3	20.6	2 11	12 6.60	+11 41.0	2.313	3.158	10.8	21.3
2 21	12 2.18	- 8 34.2	1.273	2.169	14.4	20.3	2 21	12 2.24	+12 56.4	2.251	3.167	8.0	21.1
3 2	11 56.77	- 7 32.6	1.212	2.163	9.8	20.0	3 2	11 56.24	+14 14.2	2.217	3.177	5.3	21.0
3 12	11 49.46	- 6 5.6	1.173	2.157	4.9	19.7	3 12	11 49.21	+15 27.6	2.210	3.186	4.1	20.9
3 22	11 41.40	- 4 21.2	1.160	2.152	3.3	19.6	3 22	11 41.88	+16 30.4	2.233	3.195	5.6	21.0
4 1	11 33.91	- 2 31.3	1.173	2.148	7.9	19.9	4 1	11 35.03	+17 17.5	2.284	3.204	8.3	21.2
4 11	11 28.23	- 0 48.6	1.209	2.144	12.9	20.1	4 11	11 29.35	+17 46.4	2.360	3.213	11.0	21.4
4 21	11 25.16	+ 0 37.1	1.266	2.140	17.3	20.4	4 21	11 25.31	+17 56.6	2.457	3.221	13.3	21.6
322403	2011 <i>RH</i> ₁₀		3 16.6 246°03	1°2/17.9 18			65286	2002 <i>HC</i> ₈		3 16.6 272°79	3°8/19.8 18		
2 11	12 5.98	- 4 55.9	2.465	3.265	11.7	21.3	2 11	12 9.22	- 9 57.3	1.605	2.404	16.9	19.3
2 21	12 1.80	- 4 31.8	2.369	3.257	9.0	21.1	2 21	12 5.11	- 9 57.6	1.515	2.396	13.6	19.1
3 2	11 56.01	- 3 54.3	2.297	3.248	5.8	20.9	3 2	11 58.49	- 9 35.0	1.445	2.387	9.6	18.8
3 12	11 49.13	- 3 6.3	2.253	3.240	2.5	20.7	3 12	11 50.04	- 8 50.6	1.400	2.378	5.5	18.6
3 22	11 41.82	- 2 11.9	2.239	3.231	1.9	20.6	3 22	11 40.81	- 7 48.8	1.381	2.369	4.0	18.4
4 1	11 34.82	- 1 16.1	2.254	3.223	5.2	20.8	4 1	11 32.04	- 6 37.3	1.388	2.360	7.3	18.6
4 11	11 28.84	- 0 24.2	2.297	3.214	8.6	21.0	4 11	11 24.90	- 5 25.3	1.421	2.351	11.7	18.8
4 21	11 24.39	+ 0 19.6	2.365	3.204	11.5	21.2	4 21	11 20.18	- 4 21.2	1.476	2.342	15.7	19.1
297276	1996 <i>VR</i> ₁₁		3 16.6 241°95	2°7/19.7 17			439172	2011 <i>VX</i> ₉					

EPHEMERIDES

3 16.6

3 16.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
372425	2009 <i>SM</i> ₃₄		3 16.6 212°60		2°6/19.6 17		203352	2001 <i>VK</i> ₅₃		3 16.6 177°95		2°1/18.4 18	
2 11	12 7.95	-10 22.0	2.327	3.102	13.0	22.5	2 11	12 13.11	- 6 18.8	1.858	2.655	15.0	20.9
2 21	12 3.41	- 9 51.0	2.226	3.095	10.3	22.3	2 21	12 7.58	- 6 6.4	1.773	2.657	11.7	20.7
3 2	11 57.08	- 9 1.3	2.150	3.087	7.2	22.0	3 2	11 59.78	- 5 36.3	1.711	2.659	7.7	20.4
3 12	11 49.52	- 7 55.2	2.100	3.078	4.0	21.8	3 12	11 50.42	- 4 51.3	1.675	2.660	3.6	20.2
3 22	11 41.47	- 6 37.1	2.080	3.069	2.8	21.7	3 22	11 40.48	- 3 56.4	1.669	2.660	2.7	20.1
4 1	11 33.75	- 5 13.1	2.090	3.060	5.5	21.9	4 1	11 31.07	- 2 58.2	1.690	2.660	6.6	20.4
4 11	11 27.16	- 3 50.4	2.129	3.049	8.9	22.1	4 11	11 23.19	- 2 3.8	1.739	2.658	10.7	20.6
4 21	11 22.25	- 2 35.2	2.192	3.039	12.0	22.2	4 21	11 17.52	- 1 18.9	1.811	2.656	14.3	20.8
205256	2000 <i>RS</i> ₇₈		3 16.6 177°00		1°2/17.6 18		343065	2009 <i>CU</i> ₂₈		3 16.6 46°64		1°8/18.3 17	
2 11	12 13.73	- 3 8.7	1.771	2.582	15.1	20.8	2 11	12 9.75	- 4 37.9	2.153	2.954	13.1	20.6
2 21	12 8.12	- 3 2.7	1.689	2.584	11.6	20.6	2 21	12 4.77	- 4 46.3	2.070	2.957	10.1	20.4
3 2	12 0.13	- 2 41.7	1.630	2.585	7.4	20.4	3 2	11 57.90	- 4 42.0	2.011	2.961	6.7	20.2
3 12	11 50.52	- 2 8.9	1.598	2.586	2.9	20.1	3 12	11 49.79	- 4 27.1	1.980	2.965	3.1	20.0
3 22	11 40.31	- 1 29.4	1.594	2.586	2.5	20.0	3 22	11 41.24	- 4 4.9	1.977	2.968	2.4	19.9
4 1	11 30.67	- 0 49.2	1.618	2.586	6.9	20.3	4 1	11 33.15	- 3 39.5	2.003	2.972	5.7	20.1
4 11	11 22.64	- 0 14.6	1.668	2.585	11.2	20.6	4 11	11 26.32	- 3 15.8	2.056	2.976	9.2	20.3
4 21	11 16.93	+ 0 10.0	1.742	2.584	14.8	20.8	4 21	11 21.32	- 2 57.7	2.133	2.980	12.3	20.6
1971	Hagihara		3 16.6 109°93		3°5/20.4 18		157092	2004 <i>FS</i> ₁₀₇		3 16.6 259°93		2°4/14.8 18	
2 11	12 8.69	-11 7.1	2.303	3.074	13.3	17.4	2 11	12 13.29	+ 4 43.2	1.500	2.343	15.7	20.5
2 21	12 3.87	-11 15.3	2.220	3.082	10.6	17.2	2 21	12 8.36	+ 5 21.8	1.412	2.328	11.8	20.2
3 2	11 57.30	-11 7.0	2.160	3.089	7.6	17.1	3 2	12 0.60	+ 6 12.3	1.346	2.312	7.2	19.9
3 12	11 49.58	-10 43.2	2.126	3.097	4.7	16.9	3 12	11 50.77	+ 7 7.8	1.306	2.296	2.8	19.6
3 22	11 41.45	-10 7.0	2.121	3.104	3.6	16.8	3 22	11 40.01	+ 8 0.1	1.293	2.279	4.7	19.6
4 1	11 33.75	- 9 22.7	2.145	3.112	5.6	17.0	4 1	11 29.76	+ 8 40.6	1.306	2.262	9.7	19.9
4 11	11 27.23	- 8 36.0	2.196	3.119	8.5	17.2	4 11	11 21.32	+ 9 3.5	1.343	2.245	14.5	20.1
4 21	11 22.44	- 7 52.1	2.271	3.126	11.4	17.4	4 21	11 15.58	+ 9 6.1	1.401	2.228	18.6	20.3
170907	2004 <i>XK</i> ₄₈		3 16.6 352°83		4°3/20.0 18		505885	2015 <i>DQ</i> ₁₄₂		3 16.6 321°66		5°5/21.4 17	
2 11	12 8.19	-10 23.7	1.394	2.203	18.6	19.6	2 11	12 5.42	-13 53.9	1.652	2.437	17.1	20.6
2 21	12 4.57	-10 28.7	1.315	2.201	14.9	19.3	2 21	12 2.30	-14 7.4	1.555	2.421	14.1	20.4
3 2	11 58.23	-10 8.0	1.256	2.199	10.5	19.1	3 2	11 56.80	-13 56.1	1.477	2.405	10.6	20.1
3 12	11 49.97	- 9 22.6	1.220	2.198	6.2	18.8	3 12	11 49.54	-13 19.4	1.423	2.390	7.1	19.9
3 22	11 40.95	- 8 17.8	1.208	2.197	4.4	18.7	3 22	11 41.47	-12 20.1	1.394	2.375	5.5	19.7
4 1	11 32.54	- 7 2.2	1.223	2.196	7.9	18.9	4 1	11 33.76	-11 4.7	1.391	2.361	7.6	19.8
4 11	11 26.00	- 5 46.6	1.261	2.196	12.4	19.2	4 11	11 27.55	- 9 42.8	1.412	2.347	11.4	20.0
4 21	11 22.12	- 4 40.3	1.320	2.197	16.6	19.4	4 21	11 23.65	- 8 23.8	1.456	2.334	15.2	20.2
329999	2005 <i>TO</i> ₉₃		3 16.6 171°47		2°6/19.4 17		126130	2001 <i>YY</i> ₁₂₀		3 16.6 270°02		7°4/ 8.1 18	
2 11	12 8.11	- 9 25.2	2.087	2.873	14.0	21.6	2 11	12 9.37	+19 34.4	1.919	2.770	12.4	19.8
2 21	12 3.63	- 8 59.7	2.000	2.876	11.0	21.4	2 21	12 4.89	+21 8.6	1.845	2.755	9.8	19.6
3 2	11 57.24	- 8 15.2	1.937	2.878	7.5	21.2	3 2	11 58.18	+22 40.9	1.797	2.740	7.8	19.4
3 12	11 49.58	- 7 14.2	1.899	2.879	4.0	21.0	3 12	11 49.92	+24 1.5	1.775	2.725	7.6	19.4
3 22	11 41.45	- 6 1.8	1.891	2.880	2.8	20.9	3 22	11 41.07	+25 1.9	1.781	2.710	9.4	19.4
4 1	11 33.76	- 4 44.4	1.911	2.881	5.8	21.1	4 1	11 32.70	+25 36.1	1.811	2.694	12.1	19.6
4 11	11 27.35	- 3 29.6	1.959	2.882	9.4	21.3	4 11	11 25.80	+25 42.3	1.863	2.679	15.0	19.7
4 21	11 22.79	- 2 23.4	2.031	2.882	12.7	21.5	4 21	11 21.05	+25 22.2	1.934	2.663	17.5	19.9
163285	2002 <i>GK</i> ₁₃₆		3 16.6 64°33		0°1/16.5 18		486680	2013 <i>TV</i> ₇₈		3 16.6 130°53		0°9/16.9 18	
2 11	12 12.73	- 0 32.6	1.355	2.192	17.4	20.2	2 11	12 28.84	+ 2 16.0	1.186	2.013	20.1	21.0
2 21	12 7.64	- 0 9.6	1.301	2.212	13.0	20.0	2 21	12 20.43	+ 1 22.4	1.117	2.021	15.4	20.7
3 2	11 59.86	+ 0 29.4	1.268	2.232	8.0	19.7	3 2	12 8.15	+ 0 37.5	1.069	2.028	9.7	20.4
3 12	11 50.40	+ 1 18.2	1.261	2.252	2.5	19.4	3 12	11 53.17	- 0 0.7	1.045	2.035	3.3	20.1
3 22	11 40.56	+ 2 9.1	1.279	2.272	3.0	19.5	3 22	11 37.30	- 0 34.5	1.050	2.042	3.5	20.1
4 1	11 31.69	+ 2 54.1	1.324	2.292	8.2	19.9	4 1	11 22.63	- 1 7.0	1.081	2.049	9.7	20.5
4 11	11 24.89	+ 3 26.6	1.393	2.312	12.8	20.2	4 11	11 10.90	- 1 41.7	1.137	2.054	15.2	20.8
4 21	11 20.78	+ 3 43.3	1.482	2.332	16.6	20.5	4 21	11 2.99	- 2 21.2	1.214	2.060	19.7	21.1
53204	1999 <i>CZ</i> ₇₃		3 16.6 285°34		3°1/13.2 18		138171	2000 <i>EK</i> ₁₀₂		3 16.6 164°39		0°4/17.0 18	
2 11	12 5.44	+ 4 1.9	1.724	2.572	13.8	18.8	2 11	12 9.37	- 3 5.4	2.125	2.934	13.0	19.9
2 21	12 2.05	+ 5 40.0	1.642	2.562	10.2	18.6	2 21	12 4.48	- 2 23.3	2.043	2.939	9.8	19.7
3 2	11 56.48	+ 7 33.1	1.584	2.552	6.1	18.3	3 2	11 57.72	- 1 26.8	1.987	2.943	6.1	19.5
3 12	11 49.38	+ 9 32.0	1.554	2.542	3.1	18.1	3 12	11 49.74	- 0 20.1	1.958	2.947	2.1	19.3
3 22	11 41.68	+11 26.2	1.552	2.532	5.3	18.2	3 22	11 41.33	+ 0 50.7	1.958	2.951	2.1	19.3
4 1	11 34.43	+13 5.4	1.578	2.522	9.4	18.4	4 1	11 33.40	+ 1 59.2	1.988	2.954	6.1	19.5
4 11	11 28.61	+14 22.1	1.628	2.512	13.4	18.6	4 11	11 26.74	+ 2 59.3	2.046	2.956	9.8	19.7
4 21	11 24.90	+15 13.1	1.699	2.503	16.8	18.8	4 21	11 21.91	+ 3 46.7	2.127	2.958	13.0	20.0
376706	1994 <i>UT</i> ₇		3 16.6 130°49		0°2/16.8 17		523669	2012 <i>XS</i> ₁₃₄		3 16.6 136°94		9°3/ 6.2 18 C	
2 11	12 9.47	- 1 5.9	2.204	3.018	12.4	21.9	2 11	12 21.04	+29 11.1	2.171	2.987	12.5	23.2
2 21	12 4.44	- 0 43.9	2.128	3.026	9.3	21.7	2 21	12 13.07	+30 53.2	2.139	3.010	10.6	23.1
3 2	11 57.64	- 0 10.8	2.076	3.034	5.8	21.5	3 2	12 2.86	+32 21.8	2.133	3.031	9.4	23.1
3 12	11 49.69	+ 0 29.7	2.052	3.042	1.9	21.2	3 12	11 51.32	+33 27.7	2.154	3.051	9.5	23.1
3 22	11 41.37	+ 1 13.0	2.057	3.050	2.1	21.2	3 22	11 39.56	+34 5.1	2.202	3.070	10.8	23.2
4 1	11 33.53	+ 1 53.9	2.092	3.057	5.9	21.5	4 1	11 28.74	+34 12.2	2.275	3.087	12.6	23.4
4 11	11 26.95	+ 2 27.7	2.154	3.064	9.4	21.7	4 11	11 19.76	+33 51.1	2.370	3.103	14.5	23.5
4 21	11 22.13	+ 2 51.4	2.240	3.070	12.4	21.9	4 21	11 13.16	+33 6.5	2.483	3.117	16.1	23.7
192697	1999 <i>TB</i> ₆₀		3 16.6 176°84		0°5/17.1 17		329302	2000 <i>RF</i> ₈₂		3 16.6 168°87			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
195793	2002 <i>PR</i> ₁₇₉		3 16.6 277°58	0°5/16.1	17		54573	2000 <i>QP</i> ₁₅₅		3 16.6 250°22	3°8/21.0	17	
2 11	12 6.96	+ 0 6.8	2.048	2.874	12.8	20.5	2 11	12 6.58	-12 58.4	2.463	3.224	12.8	19.9
2 21	12 2.82	+ 0 43.9	1.962	2.868	9.6	20.3	2 21	12 2.35	-12 59.1	2.363	3.216	10.4	19.7
3 2	11 56.78	+ 1 33.3	1.901	2.863	5.8	20.0	3 2	11 56.44	-12 42.6	2.285	3.208	7.7	19.5
3 12	11 49.46	+ 2 30.4	1.866	2.858	1.8	19.8	3 12	11 49.37	-12 9.6	2.234	3.200	5.0	19.3
3 22	11 41.66	+ 3 29.3	1.861	2.852	2.5	19.8	3 22	11 41.83	-11 22.8	2.211	3.191	3.8	19.2
4 1	11 34.27	+ 4 23.8	1.884	2.847	6.6	20.0	4 1	11 34.59	-10 26.5	2.216	3.183	5.5	19.3
4 11	11 28.13	+ 5 8.4	1.933	2.842	10.4	20.3	4 11	11 28.38	- 9 26.7	2.250	3.174	8.3	19.4
4 21	11 23.82	+ 5 39.4	2.005	2.836	13.6	20.5	4 21	11 23.76	- 8 28.8	2.309	3.165	11.2	19.6
323127	2003 <i>BP</i> ₁₆		3 16.6 351°85	5°4/11.7	18		51917	2001 <i>QQ</i> ₈₃		3 16.6 285°14	1°1/15.9	18	
2 11	12 5.90	+10 16.3	1.397	2.264	15.2	19.3	2 11	12 17.48	+ 4 52.7	1.728	2.556	14.7	17.1
2 21	12 2.76	+11 38.6	1.332	2.260	11.3	19.1	2 21	12 11.14	+ 4 38.5	1.636	2.543	11.1	16.9
3 2	11 57.05	+13 8.2	1.289	2.256	7.4	18.9	3 2	12 2.15	+ 4 30.1	1.569	2.531	6.8	16.6
3 12	11 49.59	+14 34.2	1.272	2.253	5.4	18.7	3 12	11 51.27	+ 4 23.7	1.528	2.518	2.2	16.3
3 22	11 41.53	+15 45.9	1.280	2.250	7.6	18.8	3 22	11 39.59	+ 4 15.3	1.515	2.506	3.2	16.3
4 1	11 34.14	+16 34.3	1.312	2.249	11.6	19.1	4 1	11 28.42	+ 4 1.0	1.532	2.493	8.0	16.6
4 11	11 28.58	+16 55.4	1.366	2.248	15.6	19.3	4 11	11 18.96	+ 3 38.0	1.575	2.481	12.4	16.8
4 21	11 25.52	+16 49.1	1.438	2.248	19.1	19.5	4 21	11 12.02	+ 3 4.9	1.639	2.469	16.2	17.0
22757	Klimcak		3 16.6 133°14	1°2/15.3	18		507028	2008 <i>UU</i> ₁₀₁		3 16.6 267°72	0°7/15.9	17	
2 11	12 7.65	+ 2 30.1	2.211	3.038	11.9	19.2	2 11	12 10.69	+ 1 36.8	2.166	2.986	12.4	22.5
2 21	12 3.12	+ 3 13.6	2.135	3.044	8.8	19.0	2 21	12 5.69	+ 2 0.5	2.059	2.963	9.3	22.2
3 2	11 56.85	+ 4 6.4	2.085	3.049	5.3	18.8	3 2	11 58.65	+ 2 34.5	1.977	2.938	5.7	22.0
3 12	11 49.46	+ 5 3.5	2.063	3.054	1.7	18.5	3 12	11 50.13	+ 3 14.9	1.923	2.913	1.8	21.7
3 22	11 41.71	+ 5 59.3	2.071	3.059	2.9	18.6	3 22	11 40.92	+ 3 56.8	1.898	2.888	2.6	21.7
4 1	11 34.43	+ 6 48.2	2.107	3.064	6.5	18.8	4 1	11 31.96	+ 4 34.8	1.902	2.862	6.8	21.9
4 11	11 28.34	+ 7 25.9	2.170	3.068	9.9	19.1	4 11	11 24.18	+ 5 3.9	1.933	2.836	10.6	22.1
4 21	11 23.97	+ 7 49.8	2.256	3.073	12.8	19.3	4 21	11 18.25	+ 5 20.8	1.987	2.809	14.1	22.2
277207	2005 <i>QA</i> ₁₀₆		3 16.6 215°74	2°6/14.2	18		520268	2014 <i>EQ</i> ₁₂₄		3 16.6 193°07	3°3/20.8	17	
2 11	12 13.04	+ 4 51.2	1.731	2.566	14.3	21.5	2 11	12 6.82	-12 6.5	2.732	3.491	11.7	22.0
2 21	12 7.76	+ 5 52.1	1.646	2.558	10.6	21.3	2 21	12 2.32	-12 6.2	2.637	3.490	9.4	21.8
3 2	12 0.02	+ 7 4.6	1.585	2.550	6.5	21.0	3 2	11 56.32	-11 50.8	2.564	3.489	6.9	21.7
3 12	11 50.56	+ 8 21.2	1.551	2.540	2.9	20.8	3 12	11 49.33	-11 21.5	2.519	3.487	4.4	21.5
3 22	11 40.39	+ 9 33.5	1.546	2.529	4.7	20.9	3 22	11 41.94	-10 40.6	2.503	3.485	3.3	21.4
4 1	11 30.73	+10 33.1	1.569	2.518	9.0	21.1	4 1	11 34.86	- 9 52.1	2.517	3.482	5.0	21.5
4 11	11 22.67	+11 14.4	1.617	2.506	13.2	21.3	4 11	11 28.73	- 9 0.9	2.558	3.480	7.6	21.7
4 21	11 16.97	+11 34.9	1.686	2.493	16.8	21.5	4 21	11 24.03	- 8 11.6	2.626	3.477	10.1	21.9
503218	2015 <i>HA</i> ₄₂		3 16.6 334°24	0°1/16.7	17		57354	2001 <i>QB</i> ₂₉₂		3 16.6 131°54	0°9/17.5	18	
2 11	12 4.89	- 2 46.7	2.145	2.963	12.6	20.7	2 11	12 9.62	- 4 0.7	2.030	2.838	13.6	19.9
2 21	12 1.18	- 1 53.0	2.062	2.963	9.5	20.5	2 21	12 4.72	- 3 30.1	1.955	2.848	10.3	19.7
3 2	11 55.73	- 0 44.4	2.003	2.962	5.9	20.2	3 2	11 57.90	- 2 44.7	1.903	2.858	6.6	19.5
3 12	11 49.13	+ 0 34.3	1.971	2.961	1.9	20.0	3 12	11 49.84	- 1 48.2	1.879	2.867	2.5	19.2
3 22	11 42.12	+ 1 56.8	1.969	2.961	2.2	20.0	3 22	11 41.38	- 0 46.4	1.884	2.876	2.1	19.2
4 1	11 35.51	+ 3 16.0	1.995	2.960	6.1	20.2	4 1	11 33.45	+ 0 14.5	1.918	2.885	6.1	19.5
4 11	11 30.07	+ 4 25.6	2.049	2.960	9.7	20.5	4 11	11 26.88	+ 1 8.2	1.978	2.893	9.8	19.7
4 21	11 26.32	+ 5 21.1	2.126	2.960	12.9	20.7	4 21	11 22.21	+ 1 50.6	2.063	2.901	13.0	19.9
90351	2003 <i>GW</i> ₄₂		3 16.6 293°04	7°6/6.9	18		49038	1998 <i>QY</i> ₁₀₉		3 16.6 226°13	2°2/14.3	18	
2 11	12 9.44	+24 9.5	2.272	3.113	11.1	19.3	2 11	12 11.38	+ 5 25.1	2.151	2.980	12.1	20.1
2 21	12 4.69	+25 24.3	2.194	3.091	9.2	19.2	2 21	12 6.11	+ 6 14.5	2.058	2.968	9.0	19.8
3 2	11 57.96	+26 33.4	2.142	3.069	7.8	19.0	3 2	11 58.84	+ 7 12.3	1.991	2.955	5.5	19.6
3 12	11 49.86	+27 28.7	2.116	3.047	7.8	19.0	3 12	11 50.18	+ 8 13.0	1.953	2.941	2.4	19.4
3 22	11 41.23	+28 3.8	2.117	3.026	9.3	19.0	3 22	11 40.94	+ 9 10.1	1.944	2.927	3.9	19.4
4 1	11 33.02	+28 14.5	2.143	3.004	11.5	19.1	4 1	11 32.06	+ 9 57.7	1.964	2.911	7.6	19.6
4 11	11 26.10	+28 0.1	2.191	2.982	13.8	19.3	4 11	11 24.45	+10 31.1	2.011	2.895	11.2	19.8
4 21	11 21.08	+27 22.4	2.258	2.960	16.0	19.4	4 21	11 18.72	+10 48.1	2.080	2.879	14.3	20.0
207484	2006 <i>HY</i> ₄₂		3 16.6 189°72	0°5/16.2	18		505232	2012 <i>UK</i> ₃₅		3 16.6 216°58	3°0/20.3	17	
2 11	12 11.39	+ 0 9.6	1.679	2.508	15.0	21.1	2 11	12 5.84	-11 17.0	2.432	3.204	12.6	21.9
2 21	12 6.48	+ 0 42.2	1.600	2.508	11.3	20.8	2 21	12 1.77	-10 58.4	2.337	3.201	10.1	21.7
3 2	11 59.19	+ 1 29.0	1.545	2.507	6.9	20.6	3 2	11 56.07	-10 22.3	2.265	3.197	7.2	21.5
3 12	11 50.28	+ 2 24.7	1.515	2.506	2.1	20.2	3 12	11 49.26	- 9 30.6	2.220	3.194	4.3	21.3
3 22	11 40.76	+ 3 22.4	1.513	2.505	2.9	20.3	3 22	11 42.03	- 8 26.9	2.203	3.190	3.0	21.2
4 1	11 31.83	+ 4 14.6	1.539	2.503	7.7	20.6	4 1	11 35.14	- 7 16.5	2.216	3.186	5.2	21.4
4 11	11 24.53	+ 4 55.0	1.591	2.501	12.0	20.8	4 11	11 29.29	- 6 5.7	2.257	3.181	8.3	21.6
4 21	11 19.55	+ 5 19.8	1.664	2.499	15.8	21.1	4 21	11 25.02	- 5 0.0	2.323	3.177	11.2	21.7
19048	9567 <i>P-L</i>		3 16.6 239°47	2°4/13.8	18		204106	2003 <i>WB</i> ₁₂₆		3 16.6 50°85	7°0/23.7	18	
2 11	12 8.60	+ 8 15.3	2.448	3.282	10.7	18.7	2 11	12 9.39	-19 2.2	1.882	2.623	16.9	19.5
2 21	12 3.72	+ 8 47.1	2.366	3.278	7.9	18.5	2 21	12 4.78	-19 37.9	1.814	2.642	14.2	19.3
3 2	11 57.19	+ 9 22.9	2.310	3.273	4.9	18.3	3 2	11 58.04	-19 48.9	1.766	2.661	11.2	19.2
3 12	11 49.58	+ 9 58.1	2.283	3.269	2.5	18.1	3 12	11 49.90	-19 34.4	1.740	2.681	8.5	19.0
3 22	11 41.60	+10 27.9	2.285	3.265	3.8	18.2	3 22	11 41.32	-18 56.6	1.740	2.701	7.0	19.0
4 1	11 34.01	+10 48.4	2.316	3.260	6.8	18.4	4 1	11 33.36	-18 0.7	1.767	2.721	7.8	19.1
4 11	11 27.52	+10 56.9	2.374	3.256	9.8	18.6	4 11	11 26.93	-16 54.7	1.819	2.742	10.1	19.2
4 21	11 22.65	+10 52.3	2.455	3.251	12.5	18.8	4 21	11 22.62	-15 46.7	1.895	2.762	12.7	19.4
211560	2003 <i>SB</i> ₉₄		3 16.6 176°78	0°1/16.5	18		94893	2001 <i>YG</i> ₅		3 16.6 72°98	3°4/13.7		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
161753	2006 SW ₃₂₇		3 16.6 202°42	1°5/14.6	17		145775	1998 BE ₂₀		3 16.6 27°68	6°9/22.0	18	
2 11	12 7.21	+ 4 54.6	2.706	3.532	10.0	20.9	2 11	12 10.59	-14 59.2	1.544	2.321	18.5	19.3
2 21	12 2.56	+ 5 32.9	2.620	3.528	7.4	20.8	2 21	12 6.17	-15 51.0	1.471	2.328	15.3	19.1
3 2	11 56.45	+ 6 17.3	2.561	3.525	4.4	20.6	3 2	11 59.16	-16 18.3	1.417	2.335	11.8	18.9
3 12	11 49.37	+ 7 3.7	2.531	3.521	1.8	20.4	3 12	11 50.34	-16 19.5	1.386	2.343	8.5	18.7
3 22	11 41.94	+ 7 47.7	2.531	3.516	2.9	20.4	3 22	11 40.85	-15 56.3	1.380	2.352	6.9	18.7
4 1	11 34.85	+ 8 25.0	2.561	3.512	5.9	20.6	4 1	11 31.99	-15 14.0	1.399	2.362	8.4	18.8
4 11	11 28.72	+ 8 52.4	2.619	3.507	8.8	20.8	4 11	11 24.94	-14 21.3	1.442	2.372	11.6	19.0
4 21	11 24.01	+ 9 8.0	2.700	3.501	11.3	21.0	4 21	11 20.44	-13 27.1	1.508	2.382	15.0	19.2
519020	2010 JC ₁₃₁		3 16.6 281°61	0°9/17.5	16		471407	2011 SS ₂₁₇		3 16.6 228°32	0°6/15.8	17	
2 11	12 8.77	- 2 24.9	2.414	3.220	11.7	21.6	2 11	12 6.99	+ 1 37.8	2.832	3.647	9.9	22.3
2 21	12 4.03	- 2 21.8	2.308	3.200	9.0	21.3	2 21	12 2.40	+ 2 11.3	2.735	3.636	7.4	22.1
3 2	11 57.53	- 2 8.2	2.227	3.181	5.8	21.1	3 2	11 56.37	+ 2 52.9	2.664	3.624	4.5	21.9
3 12	11 49.76	- 1 46.2	2.173	3.161	2.3	20.8	3 12	11 49.38	+ 3 39.1	2.622	3.612	1.4	21.7
3 22	11 41.44	- 1 19.1	2.149	3.141	1.9	20.8	3 22	11 41.99	+ 4 25.9	2.610	3.600	2.1	21.7
4 1	11 33.37	- 0 51.1	2.154	3.121	5.5	21.0	4 1	11 34.87	+ 5 8.9	2.629	3.587	5.3	21.9
4 11	11 26.33	- 0 26.5	2.187	3.101	9.0	21.2	4 11	11 28.64	+ 5 44.5	2.676	3.574	8.3	22.1
4 21	11 20.91	- 0 8.8	2.244	3.081	12.1	21.3	4 21	11 23.76	+ 6 10.1	2.748	3.560	10.9	22.2
376696	2013 QF ₈₀		3 16.6 216°20	0°6/17.1	17		45925	2000 YK ₁₁₁		3 16.6 321°93	3°0/14.4	18	
2 11	12 8.19	- 2 59.1	1.837	2.656	14.3	21.5	2 11	12 8.29	+ 5 25.4	1.308	2.168	16.5	18.9
2 21	12 3.94	- 2 26.6	1.755	2.655	10.9	21.2	2 21	12 4.91	+ 6 8.0	1.227	2.152	12.4	18.6
3 2	11 57.58	- 1 38.2	1.696	2.654	6.8	21.0	3 2	11 58.62	+ 7 3.2	1.168	2.137	7.6	18.3
3 12	11 49.78	- 0 38.0	1.664	2.653	2.4	20.7	3 12	11 50.24	+ 8 3.2	1.132	2.122	3.3	18.0
3 22	11 41.46	+ 0 27.6	1.659	2.652	2.3	20.7	3 22	11 40.94	+ 8 58.3	1.122	2.108	5.4	18.1
4 1	11 33.63	+ 1 31.4	1.683	2.651	6.7	21.0	4 1	11 32.22	+ 9 39.1	1.136	2.095	10.5	18.3
4 11	11 27.22	+ 2 26.5	1.733	2.650	10.8	21.2	4 11	11 25.43	+ 9 59.1	1.172	2.082	15.4	18.6
4 21	11 22.86	+ 3 8.3	1.805	2.648	14.4	21.4	4 21	11 21.44	+ 9 55.9	1.227	2.071	19.7	18.8
431635	2007 XF ₁₉		3 16.6 69°55	4°1/12.4	18		58723	1998 DU ₁₇		3 16.6 113°51	1°3/15.2	18	
2 11	12 10.27	+12 32.5	2.123	2.966	11.7	20.7	2 11	12 11.13	+ 3 4.1	2.177	3.000	12.2	20.7
2 21	12 5.02	+13 16.7	2.069	2.983	8.7	20.5	2 21	12 5.62	+ 3 44.3	2.114	3.020	9.0	20.5
3 2	11 57.97	+14 1.4	2.040	2.999	5.7	20.4	3 2	11 58.35	+ 4 32.7	2.076	3.039	5.4	20.3
3 12	11 49.84	+14 40.6	2.038	3.016	4.1	20.3	3 12	11 49.99	+ 5 24.3	2.067	3.057	1.8	20.1
3 22	11 41.46	+15 8.8	2.065	3.033	5.5	20.4	3 22	11 41.35	+ 6 13.4	2.088	3.075	3.0	20.2
4 1	11 33.72	+15 22.4	2.120	3.049	8.3	20.6	4 1	11 33.30	+ 6 55.0	2.138	3.093	6.5	20.5
4 11	11 27.36	+15 19.5	2.201	3.066	11.2	20.8	4 11	11 26.58	+ 7 25.2	2.215	3.110	9.8	20.7
4 21	11 22.85	+15 0.9	2.303	3.083	13.7	21.0	4 21	11 21.68	+ 7 42.0	2.315	3.126	12.7	20.9
124749	2001 SD ₂₁₅		3 16.6 158°55	1°6/15.2	18		213776	2003 DZ ₁₈		3 16.6 105°62	3°8/11.4	18	
2 11	12 13.44	+ 2 49.5	1.806	2.634	14.1	20.7	2 11	12 5.99	+10 56.1	2.439	3.282	10.4	20.2
2 21	12 7.79	+ 3 35.9	1.734	2.642	10.5	20.5	2 21	12 1.75	+12 19.2	2.379	3.295	7.7	20.0
3 2	11 59.89	+ 4 33.3	1.685	2.649	6.3	20.2	3 2	11 55.97	+13 45.2	2.347	3.308	5.0	19.9
3 12	11 50.51	+ 5 35.6	1.664	2.655	2.2	20.0	3 12	11 49.23	+15 7.4	2.344	3.320	3.8	19.8
3 22	11 40.65	+ 6 35.5	1.672	2.660	3.6	20.1	3 22	11 42.22	+16 19.5	2.370	3.333	5.3	19.9
4 1	11 31.42	+ 7 26.2	1.709	2.664	7.8	20.3	4 1	11 35.65	+17 16.4	2.425	3.345	7.9	20.1
4 11	11 23.80	+ 8 2.4	1.771	2.668	11.8	20.6	4 11	11 30.19	+17 55.4	2.506	3.357	10.5	20.3
4 21	11 18.41	+ 8 21.9	1.856	2.671	15.2	20.8	4 21	11 26.26	+18 15.9	2.608	3.368	12.7	20.5
221658	2007 CR ₁₅		3 16.6 108°87	2°6/18.6	18		330953	2009 SL ₃₂₉		3 16.6 165°57	5°2/10.9	16	
2 11	12 14.66	- 5 26.9	1.857	2.655	15.0	20.6	2 11	12 12.66	+16 27.1	2.304	3.141	11.1	21.8
2 21	12 8.70	- 5 50.1	1.780	2.663	11.7	20.4	2 21	12 6.81	+17 26.0	2.239	3.146	8.5	21.6
3 2	12 0.46	- 5 58.9	1.725	2.672	7.8	20.2	3 2	11 59.11	+18 23.2	2.200	3.151	6.1	21.5
3 12	11 50.70	- 5 54.7	1.697	2.679	3.9	20.0	3 12	11 50.25	+19 12.1	2.190	3.155	5.2	21.4
3 22	11 40.42	- 5 40.5	1.697	2.687	3.0	19.9	3 22	11 41.05	+19 46.8	2.209	3.158	6.6	21.5
4 1	11 30.73	- 5 21.0	1.726	2.695	6.5	20.1	4 1	11 32.40	+20 3.7	2.256	3.161	9.1	21.7
4 11	11 22.63	- 5 1.4	1.782	2.702	10.4	20.4	4 11	11 25.08	+20 1.5	2.327	3.163	11.7	21.8
4 21	11 16.77	- 4 46.5	1.861	2.709	13.8	20.6	4 21	11 19.62	+19 41.1	2.421	3.165	14.0	22.0
337035	1995 UB ₁₁		3 16.6 119°39	0°5/16.0	17		399345	2000 SU ₇₅		3 16.6 189°43	3°7/13.1	18	
2 11	12 9.39	+ 1 59.8	2.493	3.310	11.0	21.3	2 11	12 15.48	+10 31.6	2.080	2.911	12.4	21.6
2 21	12 4.21	+ 2 16.5	2.418	3.319	8.2	21.1	2 21	12 9.13	+11 17.5	2.001	2.911	9.2	21.4
3 2	11 57.45	+ 2 40.6	2.368	3.329	5.0	20.9	3 2	12 0.66	+12 6.7	1.949	2.909	5.9	21.2
3 12	11 49.69	+ 3 8.6	2.347	3.337	1.5	20.7	3 12	11 50.78	+12 52.7	1.925	2.906	3.7	21.1
3 22	11 41.62	+ 3 36.8	2.355	3.346	2.2	20.7	3 22	11 40.41	+13 29.4	1.930	2.903	5.2	21.2
4 1	11 34.00	+ 4 1.2	2.394	3.354	5.6	21.0	4 1	11 30.59	+13 51.7	1.965	2.899	8.6	21.4
4 11	11 27.48	+ 4 18.3	2.460	3.363	8.7	21.2	4 11	11 22.23	+13 57.0	2.026	2.894	11.9	21.6
4 21	11 22.55	+ 4 26.3	2.551	3.371	11.4	21.4	4 21	11 15.95	+13 45.2	2.109	2.888	14.8	21.7
48395	1981 ES ₁₁		3 16.6 283°62	3°1/19.2	18		55344	2001 SH ₁₃₈		3 16.6 34°33	0°1/16.6	18	
2 11	12 8.90	- 8 19.6	1.691	2.494	16.1	19.3	2 11	12 11.28	+ 0 11.0	1.625	2.456	15.3	19.4
2 21	12 4.87	- 8 17.2	1.592	2.477	12.8	19.0	2 21	12 6.44	+ 0 20.4	1.552	2.459	11.5	19.1
3 2	11 58.39	- 7 54.2	1.516	2.461	8.8	18.8	3 2	11 59.19	+ 0 42.6	1.501	2.463	7.1	18.9
3 12	11 50.12	- 7 11.7	1.463	2.445	4.8	18.5	3 12	11 50.34	+ 1 13.2	1.476	2.467	2.3	18.6
3 22	11 41.02	- 6 14.3	1.438	2.428	3.4	18.3	3 22	11 40.93	+ 1 46.6	1.478	2.470	2.7	18.6
4 1	11 32.27	- 5 8.8	1.439	2.411	7.1	18.5	4 1	11 32.16	+ 2 16.6	1.507	2.475	7.5	18.9
4 11	11 25.02	- 4 3.8	1.466	2.395	11.5	18.7	4 11	11 25.09	+ 2 37.6	1.562	2.479	11.8	19.2
4 21	11 20.08	- 3 7.0	1.516	2.378	15.6	18.9	4 21	11 20.38	+ 2 46.4	1.638	2.483	15.5	19.4
172511	2003 SZ ₂₂₄		3 16.6 101°21	0°3/16.4	18		89321	2001 VB ₄₃		3 16.6 107°03	5°5/11.9	18	
2 11	12 9.86	- 1 30.5	1										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
141822	2002 <i>NO</i> ₅₃		3 16.6 249°63	0°4/16.2	17		52477	1995 <i>SG</i> ₇₇		3 16.6 228°38	4°1/21.6	18	
2 11	12 11.40	+ 0 5.9	1.941	2.761	13.6	21.4	2 11	12 6.86	-14 22.7	2.531	3.282	12.8	19.7
2 21	12 6.42	+ 0 36.8	1.840	2.743	10.3	21.2	2 21	12 2.55	-14 24.6	2.431	3.276	10.4	19.5
3 2	11 59.21	+ 1 20.9	1.764	2.725	6.4	20.9	3 2	11 56.59	-14 8.9	2.354	3.270	7.8	19.3
3 12	11 50.38	+ 2 14.0	1.715	2.706	2.0	20.6	3 12	11 49.51	-13 36.3	2.303	3.264	5.3	19.1
3 22	11 40.82	+ 3 10.2	1.695	2.686	2.7	20.6	3 22	11 41.96	-12 49.1	2.280	3.257	4.1	19.0
4 1	11 31.58	+ 4 2.8	1.704	2.666	7.2	20.8	4 1	11 34.72	-11 51.5	2.286	3.250	5.5	19.1
4 11	11 23.68	+ 4 45.5	1.739	2.645	11.4	21.0	4 11	11 28.49	-10 49.4	2.320	3.243	8.1	19.3
4 21	11 17.87	+ 5 14.4	1.797	2.624	15.1	21.2	4 21	11 23.82	- 9 48.3	2.379	3.236	10.9	19.4
285584	2000 <i>QN</i> ₆₈		3 16.6 141°01	0°9/17.8	17		501115	2013 <i>TU</i> ₁₂		3 16.6 233°30	6°5/25.4	18	
2 11	12 7.40	- 3 44.2	2.838	3.634	10.4	21.8	2 11	12 9.83	-25 10.2	2.746	3.414	13.6	22.6
2 21	12 2.60	- 3 25.4	2.757	3.643	7.9	21.7	2 21	12 4.82	-25 6.9	2.624	3.396	11.9	22.5
3 2	11 56.43	- 2 56.4	2.701	3.653	5.1	21.5	3 2	11 58.04	-24 40.7	2.522	3.377	9.9	22.3
3 12	11 49.39	- 2 19.8	2.674	3.662	2.1	21.3	3 12	11 50.00	-23 50.0	2.444	3.356	7.9	22.1
3 22	11 42.06	- 1 39.0	2.678	3.670	1.6	21.3	3 22	11 41.38	-22 35.9	2.394	3.335	6.6	22.0
4 1	11 35.09	- 0 57.9	2.712	3.679	4.6	21.5	4 1	11 33.00	-21 2.2	2.373	3.313	6.9	22.0
4 11	11 29.06	- 0 20.6	2.774	3.686	7.4	21.7	4 11	11 25.63	-19 15.6	2.381	3.290	8.6	22.1
4 21	11 24.40	+ 0 10.0	2.862	3.694	10.0	21.9	4 21	11 19.87	-17 23.7	2.416	3.266	10.9	22.2
5742	1990 <i>TN</i> ₄		3 16.6 337°96	7°3/ 8.3	18		82982	2001 <i>QC</i> ₁₄₄		3 16.6 271°11	0°6/15.8	18	
2 11	12 8.62	+21 28.1	2.057	2.906	11.8	16.4	2 11	12 5.30	- 0 10.9	2.206	3.030	12.0	19.4
2 21	12 4.11	+22 43.0	1.996	2.902	9.4	16.2	2 21	12 1.52	+ 0 43.3	2.118	3.023	9.0	19.1
3 2	11 57.60	+23 52.7	1.960	2.898	7.6	16.1	3 2	11 56.01	+ 1 50.4	2.054	3.017	5.5	18.9
3 12	11 49.80	+24 48.9	1.950	2.895	7.4	16.1	3 12	11 49.33	+ 3 5.2	2.019	3.010	1.7	18.6
3 22	11 41.58	+25 25.1	1.967	2.892	8.9	16.2	3 22	11 42.20	+ 4 21.7	2.012	3.003	2.5	18.7
4 1	11 33.94	+25 37.4	2.009	2.889	11.3	16.3	4 1	11 35.43	+ 5 33.2	2.035	2.996	6.4	18.9
4 11	11 27.70	+25 25.1	2.074	2.887	13.7	16.5	4 11	11 29.79	+ 6 33.9	2.085	2.989	9.9	19.1
4 21	11 23.45	+24 50.3	2.157	2.885	16.0	16.6	4 21	11 25.80	+ 7 20.0	2.157	2.982	13.0	19.3
432132	2009 <i>BQ</i> ₅₃		3 16.6 350°26	1°5/15.1	17		262628	2006 <i>WE</i> ₂₁		3 16.6 49°94	0°5/16.1	18	
2 11	12 6.45	+ 3 23.9	1.858	2.698	13.3	21.0	2 11	12 8.17	- 0 30.9	1.587	2.423	15.4	20.6
2 21	12 2.62	+ 4 0.0	1.780	2.695	9.8	20.7	2 21	12 4.14	+ 0 13.8	1.518	2.429	11.5	20.3
3 2	11 56.76	+ 4 46.1	1.725	2.691	5.9	20.5	3 2	11 57.80	+ 1 14.3	1.471	2.435	7.0	20.1
3 12	11 49.55	+ 5 36.9	1.698	2.688	2.1	20.2	3 12	11 49.92	+ 2 24.5	1.450	2.441	2.1	19.8
3 22	11 41.85	+ 6 25.8	1.698	2.686	3.4	20.3	3 22	11 41.55	+ 3 36.4	1.456	2.448	3.0	19.9
4 1	11 34.64	+ 7 6.8	1.725	2.684	7.5	20.6	4 1	11 33.82	+ 4 41.4	1.490	2.455	7.8	20.2
4 11	11 28.80	+ 7 34.8	1.778	2.683	11.3	20.8	4 11	11 27.74	+ 5 32.7	1.548	2.462	12.1	20.4
4 21	11 24.93	+ 7 47.4	1.852	2.682	14.6	21.0	4 21	11 23.94	+ 6 6.3	1.627	2.469	15.7	20.7
300000	2006 <i>UW</i> ₃₀		3 16.6 206°75	0°3/16.2	17		244722	2003 <i>QN</i> ₈₅		3 16.6 214°13	2°8/19.3	17	
2 11	12 6.98	+ 0 30.5	2.801	3.613	10.1	22.5	2 11	12 10.35	- 9 6.4	1.898	2.688	15.1	20.8
2 21	12 2.38	+ 1 0.7	2.709	3.608	7.5	22.3	2 21	12 5.64	- 8 48.4	1.804	2.682	11.9	20.5
3 2	11 56.36	+ 1 39.4	2.643	3.603	4.6	22.1	3 2	11 58.72	- 8 10.0	1.733	2.675	8.2	20.3
3 12	11 49.38	+ 2 23.3	2.606	3.597	1.4	21.9	3 12	11 50.25	- 7 13.4	1.687	2.668	4.4	20.1
3 22	11 42.06	+ 3 8.5	2.600	3.591	1.9	21.9	3 22	11 41.14	- 6 3.3	1.670	2.660	3.1	19.9
4 1	11 35.03	+ 3 50.7	2.624	3.585	5.1	22.1	4 1	11 32.44	- 4 46.9	1.681	2.652	6.5	20.1
4 11	11 28.91	+ 4 26.1	2.676	3.578	8.1	22.3	4 11	11 25.15	- 3 32.5	1.719	2.643	10.5	20.4
4 21	11 24.16	+ 4 52.2	2.753	3.571	10.7	22.4	4 21	11 19.96	- 2 26.8	1.781	2.633	14.1	20.6
140909	2001 <i>VW</i> ₅₄		3 16.6 241°64	1°0/17.7	17		426011	2011 <i>KF</i> ₂₃		3 16.6 7°05	2°9/19.5	17	
2 11	12 8.19	- 3 22.0	2.531	3.332	11.4	20.3	2 11	12 6.18	- 8 56.2	1.762	2.564	15.5	20.8
2 21	12 3.48	- 3 10.5	2.432	3.321	8.7	20.1	2 21	12 2.57	- 8 42.2	1.680	2.564	12.2	20.6
3 2	11 57.13	- 2 47.9	2.358	3.311	5.6	19.9	3 2	11 56.82	- 8 7.3	1.620	2.565	8.4	20.4
3 12	11 49.67	- 2 16.4	2.313	3.300	2.3	19.7	3 12	11 49.63	- 7 14.2	1.585	2.566	4.5	20.1
3 22	11 41.74	- 1 39.7	2.296	3.289	1.8	19.6	3 22	11 41.89	- 6 7.8	1.577	2.568	3.1	20.1
4 1	11 34.10	- 1 2.0	2.310	3.278	5.2	19.8	4 1	11 34.66	- 4 55.8	1.597	2.570	6.5	20.3
4 11	11 27.47	- 0 27.8	2.352	3.266	8.5	20.0	4 11	11 28.87	- 3 46.2	1.642	2.572	10.4	20.5
4 21	11 22.38	- 0 0.7	2.418	3.254	11.4	20.2	4 21	11 25.16	- 2 45.9	1.710	2.574	14.0	20.7
186134	2001 <i>TM</i> ₁₇₁		3 16.6 158°14	3°3/12.7	18		242062	2002 <i>TE</i> ₃		3 16.6 240°83	1°6/14.9	17	
2 11	12 10.01	+ 9 7.6	2.271	3.107	11.3	21.1	2 11	12 9.78	+ 5 5.0	2.473	3.298	10.9	20.6
2 21	12 4.86	+10 15.0	2.202	3.115	8.3	21.0	2 21	12 4.71	+ 5 34.8	2.378	3.285	8.1	20.4
3 2	11 57.95	+11 27.0	2.160	3.122	5.3	20.8	3 2	11 57.92	+ 6 11.1	2.308	3.271	4.9	20.2
3 12	11 49.90	+12 37.0	2.146	3.128	3.4	20.7	3 12	11 49.95	+ 6 49.7	2.268	3.257	1.9	20.0
3 22	11 41.51	+13 38.7	2.162	3.133	4.9	20.8	3 22	11 41.51	+ 7 26.1	2.257	3.243	3.1	20.0
4 1	11 33.61	+14 26.7	2.207	3.138	7.9	21.0	4 1	11 33.38	+ 7 55.6	2.276	3.228	6.4	20.2
4 11	11 26.95	+14 57.9	2.277	3.143	10.8	21.2	4 11	11 26.32	+ 8 14.9	2.322	3.212	9.7	20.4
4 21	11 22.04	+15 11.3	2.371	3.146	13.4	21.3	4 21	11 20.87	+ 8 22.0	2.392	3.197	12.5	20.6
461906	2006 <i>PK</i> ₂₄		3 16.6 212°51	2°4/18.6	16		28184	<i>Vaishnavirao</i>		3 16.6 233°25	2°4/14.6	18	
2 11	12 12.42	- 6 21.7	1.903	2.700	14.7	22.0	2 11	12 13.52	+ 5 1.0	1.687	2.523	14.6	19.4
2 21	12 7.15	- 6 22.6	1.812	2.695	11.5	21.8	2 21	12 8.26	+ 5 45.5	1.600	2.512	10.9	19.1
3 2	11 59.63	- 6 7.1	1.743	2.690	7.8	21.5	3 2	12 0.45	+ 6 40.7	1.536	2.501	6.6	18.8
3 12	11 50.51	- 5 37.1	1.701	2.684	3.8	21.3	3 12	11 50.84	+ 7 39.8	1.499	2.489	2.8	18.5
3 22	11 40.75	- 4 56.6	1.687	2.678	2.8	21.2	3 22	11 40.46	+ 8 35.1	1.490	2.476	4.5	18.6
4 1	11 31.42	- 4 11.2	1.701	2.671	6.5	21.4	4 1	11 30.58	+ 9 19.0	1.509	2.462	9.0	18.9
4 11	11 23.53	- 3 27.6	1.743	2.664	10.5	21.6	4 11	11 22.34	+ 9 46.0	1.553	2.448	13.3	19.1
4 21	11 17.79	- 2 51.1	1.807	2.656	14.1	21.8	4 21	11 16.52	+ 9 54.0	1.618	2.433	17.0	19.3
463196	2012 <i>BB</i> ₁₅₂		3 16.6 287°60	0°3/16.8	17		470816	2008 <i>VF</i> ₇₃		3 16.6 228°17			

EPHEMERIDES

3 16.6

3 16.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
374979	2007 <i>EM</i> ₉		3 16.6 89°32'	3°1/14.5	16		330393	2006 <i>YJ</i> ₁₄		3 16.6 48°81'	2°1/14.7	18	
2 11	12 19.42	+10 28.8	1.835	2.665	13.8	21.0	2 11	12 8.67	+3 49.0	1.622	2.467	14.7	21.0
2 21	12 12.20	+10 27.8	1.763	2.672	10.3	20.8	2 21	12 4.47	+4 40.7	1.556	2.473	10.8	20.8
3 2	12 2.59	+10 27.7	1.717	2.678	6.5	20.6	3 2	11 57.98	+5 43.6	1.513	2.479	6.5	20.6
3 12	11 51.44	+10 23.4	1.698	2.684	3.3	20.4	3 12	11 50.00	+6 50.6	1.496	2.486	2.5	20.3
3 22	11 39.87	+10 10.7	1.709	2.690	4.6	20.5	3 22	11 41.55	+7 53.4	1.506	2.493	4.1	20.4
4 1	11 29.07	+9 46.7	1.748	2.696	8.4	20.7	4 1	11 33.75	+8 44.7	1.544	2.500	8.5	20.7
4 11	11 20.07	+9 10.3	1.815	2.702	12.1	21.0	4 11	11 27.60	+9 19.1	1.605	2.507	12.5	21.0
4 21	11 13.48	+8 22.3	1.904	2.708	15.2	21.2	4 21	11 23.69	+9 34.4	1.688	2.514	15.9	21.2
54202	2000 <i>HQ</i> ₈₀		3 16.6 88°33'	8°8/7.4	18		385937	2006 <i>UT</i> ₁₁₀		3 16.6 112°07'	2°1/19.4	17	
2 11	12 10.84	+21 58.7	1.695	2.548	13.7	18.7	2 11	12 5.45	-9 20.1	2.491	3.272	12.1	21.6
2 21	12 6.09	+23 43.9	1.647	2.555	11.0	18.5	2 21	12 1.38	-8 45.4	2.410	3.282	9.5	21.4
3 2	11 58.95	+25 22.1	1.625	2.561	9.1	18.4	3 2	11 55.80	-7 54.5	2.352	3.292	6.5	21.2
3 12	11 50.29	+26 42.3	1.628	2.568	9.0	18.4	3 12	11 49.26	-6 50.3	2.322	3.302	3.4	21.1
3 22	11 41.20	+27 36.0	1.656	2.574	10.8	18.5	3 22	11 42.40	-5 37.4	2.321	3.311	2.3	21.0
4 1	11 32.90	+27 58.6	1.708	2.581	13.3	18.7	4 1	11 35.94	-4 21.3	2.351	3.321	4.9	21.2
4 11	11 26.37	+27 50.4	1.781	2.587	16.0	18.9	4 11	11 30.51	-3 8.1	2.408	3.330	8.0	21.4
4 21	11 22.22	+27 15.0	1.872	2.593	18.3	19.1	4 21	11 26.58	-2 2.7	2.491	3.339	10.7	21.6
368592	2004 <i>RO</i> ₆₆		3 16.6 127°09'	0°2/16.4	18		61306	2000 <i>OF</i> ₄₉		3 16.6 231°02'	2°3/14.5	18	
2 11	12 11.77	+0 38.6	2.268	3.081	12.1	21.5	2 11	12 13.78	+5 29.2	1.972	2.801	13.1	20.1
2 21	12 6.11	+0 58.1	2.196	3.095	9.1	21.3	2 21	12 8.16	+6 12.1	1.878	2.787	9.8	19.8
3 2	11 58.70	+1 26.9	2.149	3.108	5.5	21.1	3 2	12 0.27	+7 3.9	1.808	2.772	6.0	19.6
3 12	11 50.17	+2 1.2	2.131	3.121	1.7	20.8	3 12	11 50.77	+7 58.6	1.767	2.756	2.6	19.3
3 22	11 41.33	+2 36.5	2.142	3.134	2.2	20.9	3 22	11 40.59	+8 49.7	1.755	2.739	4.1	19.4
4 1	11 33.00	+3 8.3	2.184	3.146	5.9	21.2	4 1	11 30.78	+9 30.8	1.772	2.721	8.1	19.6
4 11	11 25.96	+3 32.5	2.253	3.157	9.3	21.4	4 11	11 22.39	+9 57.0	1.815	2.703	12.0	19.8
4 21	11 20.68	+3 46.6	2.346	3.168	12.2	21.6	4 21	11 16.11	+10 6.3	1.880	2.684	15.4	20.0
374520	2005 <i>YC</i> ₂₉₂		3 16.6 181°90'	0°8/17.5	17		210694	2000 <i>SK</i> ₆₂		3 16.6 243°02'	2°5/14.1	18	
2 11	12 8.85	-3 29.1	2.126	2.934	13.0	21.8	2 11	12 14.41	+10 3.8	2.653	3.475	10.3	20.4
2 21	12 4.19	-3 3.2	2.041	2.935	9.9	21.6	2 21	12 8.01	+10 14.3	2.558	3.463	7.7	20.2
3 2	11 57.66	-2 23.2	1.980	2.935	6.3	21.4	3 2	11 59.88	+10 26.4	2.490	3.450	4.8	20.0
3 12	11 49.88	-1 32.8	1.946	2.935	2.4	21.2	3 12	11 50.59	+10 36.0	2.452	3.437	2.6	19.8
3 22	11 41.63	-0 37.0	1.942	2.934	2.0	21.1	3 22	11 40.85	+10 39.6	2.445	3.423	3.7	19.9
4 1	11 33.82	+0 18.4	1.966	2.934	6.0	21.4	4 1	11 31.47	+10 34.2	2.468	3.409	6.6	20.0
4 11	11 27.26	+1 7.5	2.018	2.933	9.6	21.6	4 11	11 23.20	+10 18.2	2.520	3.395	9.6	20.2
4 21	11 22.51	+1 46.2	2.093	2.931	12.8	21.8	4 21	11 16.57	+9 51.1	2.596	3.381	12.2	20.3
146258	2001 <i>AO</i> ₂₂		3 16.6 102°92'	0°5/17.3	17		304437	2006 <i>TK</i> ₉₉		3 16.6 299°65'	4°5/22.3	17	
2 11	12 6.69	-2 42.4	2.787	3.588	10.4	21.0	2 11	12 3.81	-16 48.3	2.181	2.933	14.5	20.5
2 21	12 2.06	-2 14.0	2.716	3.608	7.8	20.8	2 21	12 0.60	-16 17.2	2.072	2.917	12.0	20.3
3 2	11 56.10	-1 35.8	2.672	3.626	4.9	20.6	3 2	11 55.56	-15 21.1	1.986	2.901	9.1	20.1
3 12	11 49.33	-0 50.9	2.656	3.645	1.8	20.5	3 12	11 49.25	-14 0.9	1.924	2.885	6.1	19.9
3 22	11 42.32	-0 3.2	2.670	3.663	1.6	20.5	3 22	11 42.38	-12 20.5	1.890	2.870	4.5	19.8
4 1	11 35.71	+0 43.2	2.715	3.681	4.7	20.7	4 1	11 35.81	-10 26.8	1.885	2.854	6.0	19.8
4 11	11 30.07	+1 24.3	2.788	3.698	7.5	20.9	4 11	11 30.38	-8 28.9	1.908	2.839	9.2	20.0
4 21	11 25.79	+1 57.2	2.887	3.715	10.0	21.1	4 21	11 26.67	-6 35.8	1.957	2.824	12.4	20.2
159435	1999 <i>VJ</i> ₁₇₈		3 16.6 138°79'	4°4/11.6	18		348417	2005 <i>NW</i> ₈		3 16.6 193°27'	4°0/10.7	17	
2 11	12 10.32	+13 20.2	2.243	3.084	11.3	20.3	2 11	12 5.65	+12 52.3	2.671	3.514	9.6	21.2
2 21	12 5.11	+14 20.7	2.180	3.092	8.4	20.1	2 21	12 1.50	+14 12.9	2.599	3.512	7.2	21.0
3 2	11 58.11	+15 22.0	2.143	3.101	5.7	20.0	3 2	11 55.88	+15 35.5	2.554	3.511	4.9	20.9
3 12	11 49.99	+16 17.4	2.135	3.109	4.4	19.9	3 12	11 49.30	+16 54.1	2.538	3.509	4.1	20.8
3 22	11 41.55	+17 1.1	2.156	3.116	5.9	20.0	3 22	11 42.37	+18 2.8	2.552	3.507	5.4	20.9
4 1	11 33.65	+17 28.6	2.204	3.123	8.6	20.2	4 1	11 35.80	+18 56.8	2.594	3.504	7.8	21.0
4 11	11 27.04	+17 38.1	2.278	3.130	11.3	20.4	4 11	11 30.20	+19 33.5	2.662	3.502	10.3	21.2
4 21	11 22.23	+17 29.8	2.373	3.137	13.8	20.5	4 21	11 26.02	+19 52.2	2.752	3.499	12.4	21.4
173956	2001 <i>XA</i> ₁₄		3 16.6 177°67'	1°0/17.8	18		498395	2007 <i>XW</i> ₃₁		3 16.6 150°96'	2°5/13.5	17	
2 11	12 8.40	-3 20.6	2.627	3.425	11.1	20.6	2 11	12 8.50	+8 34.1	2.622	3.454	10.1	22.3
2 21	12 3.52	-3 12.5	2.538	3.426	8.5	20.4	2 21	12 3.54	+9 17.4	2.550	3.461	7.4	22.2
3 2	11 57.10	-2 54.0	2.475	3.427	5.4	20.2	3 2	11 57.08	+10 4.4	2.505	3.467	4.6	22.0
3 12	11 49.68	-2 27.4	2.440	3.427	2.2	20.0	3 12	11 49.67	+10 50.2	2.488	3.473	2.6	21.9
3 22	11 41.88	-1 56.1	2.435	3.427	1.8	19.9	3 22	11 41.96	+11 30.2	2.502	3.478	3.8	22.0
4 1	11 34.44	-1 23.9	2.460	3.427	4.9	20.1	4 1	11 34.67	+12 0.4	2.545	3.484	6.6	22.1
4 11	11 27.99	-0 54.9	2.513	3.427	8.0	20.3	4 11	11 28.43	+12 18.2	2.614	3.488	9.3	22.3
4 21	11 23.04	-0 32.3	2.591	3.427	10.8	20.5	4 21	11 23.69	+12 22.7	2.708	3.493	11.7	22.5
23292	2000 <i>YH</i> ₁₂₈		3 16.6 184°54'	0°5/16.1	18		230247	2001 <i>VC</i> ₄		3 16.6 314°61'	10°1/26.6	18	
2 11	12 12.69	+0 40.7	2.097	2.913	12.9	19.6	2 11	12 6.10	-25 48.9	1.712	2.423	19.3	19.5
2 21	12 7.07	+1 12.4	2.013	2.914	9.7	19.4	2 21	12 3.00	-26 30.5	1.614	2.410	17.1	19.3
3 2	11 59.44	+1 55.3	1.953	2.914	5.9	19.1	3 2	11 57.39	-26 41.1	1.533	2.397	14.5	19.0
3 12	11 50.46	+2 44.8	1.922	2.913	1.8	18.9	3 12	11 49.92	-26 16.3	1.472	2.385	12.0	18.9
3 22	11 40.98	+3 35.4	1.920	2.911	2.6	18.9	3 22	11 41.57	-25 15.4	1.434	2.373	10.3	18.7
4 1	11 31.98	+4 21.5	1.948	2.908	6.6	19.2	4 1	11 33.59	-23 42.7	1.419	2.361	10.4	18.7
4 11	11 24.32	+4 57.8	2.003	2.905	10.4	19.4	4 11	11 27.18	-21 48.1	1.428	2.350	12.3	18.8
4 21	11 18.61	+5 21.4	2.081	2.901	13.6	19.6	4 21	11 23.21	-19 43.9	1.460	2.339	15.1	18.9
57054	2001 <i>MB</i> ₁₃		3 16.6 101°54'	5°6/21.7	18		228866	2003 <i>HM</i> ₄		3 16.6 250°26'	6°5/9.3	17	
2 11	12 14.11</												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
211234	2002 <i>PR</i> ₁₇₃		3 16.6 222°57	0°8/17.5	16		235608	2004 <i>PC</i> ₇₉		3 16.6 198°28	3°1/20.1	18	
2 11	12 9.17	- 4 24.7	1.927	2.737	14.1	21.3	2 11	12 9.81	-10 32.8	2.403	3.171	12.9	21.2
2 21	12 4.71	- 3 44.9	1.835	2.730	10.8	21.1	2 21	12 4.80	-10 29.2	2.306	3.168	10.3	21.0
3 2	11 58.13	- 2 47.5	1.766	2.722	6.9	20.8	3 2	11 58.02	-10 9.2	2.233	3.165	7.3	20.8
3 12	11 50.08	- 1 36.6	1.725	2.713	2.6	20.5	3 12	11 50.03	- 9 34.3	2.187	3.160	4.3	20.6
3 22	11 41.43	- 0 18.3	1.712	2.704	2.2	20.5	3 22	11 41.55	- 8 47.3	2.170	3.156	3.2	20.5
4 1	11 33.19	+ 0 59.6	1.727	2.695	6.6	20.7	4 1	11 33.40	- 7 53.1	2.182	3.150	5.4	20.6
4 11	11 26.30	+ 2 9.7	1.770	2.685	10.7	21.0	4 11	11 26.38	- 6 57.5	2.223	3.144	8.6	20.8
4 21	11 21.42	+ 3 6.3	1.835	2.675	14.3	21.2	4 21	11 21.03	- 6 5.7	2.289	3.138	11.5	21.0
344364	2001 <i>XX</i> ₉₆		3 16.6 149°28	5°2/24.5	18		65002	2002 <i>AT</i> ₇₀		3 16.6 288°04	5°4/12.4	18	
2 11	12 7.65	-21 35.5	3.097	3.787	11.8	20.7	2 11	12 11.82	+10 58.7	1.423	2.281	15.6	19.2
2 21	12 2.84	-21 45.8	3.005	3.797	10.1	20.5	2 21	12 7.46	+12 2.2	1.341	2.264	11.7	18.9
3 2	11 56.65	-21 38.6	2.935	3.806	8.1	20.4	3 2	12 0.21	+13 12.5	1.282	2.246	7.7	18.6
3 12	11 49.54	-21 13.6	2.891	3.814	6.3	20.3	3 12	11 50.84	+14 19.8	1.248	2.229	5.4	18.5
3 22	11 42.11	-20 32.4	2.874	3.822	5.3	20.2	3 22	11 40.56	+15 13.6	1.240	2.212	7.6	18.5
4 1	11 34.99	-19 38.1	2.886	3.830	5.7	20.3	4 1	11 30.84	+15 45.4	1.256	2.194	11.9	18.7
4 11	11 28.79	-18 35.6	2.927	3.837	7.2	20.4	4 11	11 23.01	+15 50.8	1.295	2.177	16.3	18.9
4 21	11 23.93	-17 29.9	2.994	3.844	9.1	20.5	4 21	11 17.97	+15 29.8	1.352	2.160	20.1	19.1
402915	2007 <i>TW</i> ₁₂₆		3 16.6 125°42	0°1/16.8	18		121155	1999 <i>JH</i> ₉₅		3 16.6 301°65	9°2/ 7.4	18	
2 11	12 12.10	- 2 8.8	1.927	2.740	14.0	22.7	2 11	12 11.00	+22 50.4	1.675	2.528	13.8	19.3
2 21	12 6.63	- 1 27.2	1.860	2.757	10.5	22.5	2 21	12 6.50	+24 21.0	1.606	2.513	11.3	19.1
3 2	11 59.13	- 0 31.3	1.816	2.774	6.5	22.3	3 2	11 59.41	+25 45.9	1.562	2.497	9.5	19.0
3 12	11 50.35	+ 0 33.7	1.800	2.790	2.1	22.1	3 12	11 50.53	+26 53.7	1.542	2.482	9.4	18.9
3 22	11 41.21	+ 1 41.4	1.813	2.806	2.3	22.1	3 22	11 40.98	+27 35.3	1.547	2.467	11.2	19.0
4 1	11 32.71	+ 2 44.8	1.856	2.820	6.6	22.4	4 1	11 32.04	+27 45.3	1.576	2.452	14.0	19.1
4 11	11 25.70	+ 3 38.0	1.926	2.834	10.4	22.6	4 11	11 24.87	+27 23.1	1.625	2.438	16.9	19.3
4 21	11 20.74	+ 4 17.3	2.018	2.848	13.6	22.9	4 21	11 20.21	+26 32.2	1.691	2.423	19.6	19.4
251627	Joyceearl		3 16.6 279°06	7°2/23.4	16		2124	Nissen		3 16.6 233°84	3°9/12.2	18	
2 11	12 12.43	-20 58.2	2.521	3.220	14.0	21.0	2 11	12 9.59	+12 45.4	2.384	3.223	10.7	16.9
2 21	12 7.01	-21 59.9	2.405	3.200	12.2	20.9	2 21	12 4.59	+13 30.8	2.305	3.217	8.0	16.7
3 2	11 59.56	-22 44.2	2.311	3.180	10.1	20.7	3 2	11 57.84	+14 17.6	2.252	3.211	5.4	16.5
3 12	11 50.58	-23 8.7	2.243	3.160	8.2	20.5	3 12	11 49.96	+14 59.9	2.228	3.204	3.9	16.4
3 22	11 40.80	-23 12.1	2.200	3.140	7.2	20.4	3 22	11 41.67	+15 32.7	2.232	3.198	5.3	16.5
4 1	11 31.14	-22 56.0	2.186	3.120	7.8	20.4	4 1	11 33.79	+15 51.7	2.265	3.191	8.0	16.7
4 11	11 22.51	-22 44.2	2.199	3.099	9.7	20.5	4 11	11 27.08	+15 54.7	2.324	3.184	10.9	16.8
4 21	11 15.64	-21 44.2	2.236	3.079	12.0	20.6	4 21	11 22.07	+15 41.6	2.404	3.176	13.4	17.0
504393	2007 <i>VM</i> ₂₅₉		3 16.6 206°13	0°6/17.5	17		376701	2013 <i>RS</i> ₁		3 16.6 126°50	0°2/16.9	16	
2 11	12 5.95	- 4 6.4	2.506	3.309	11.4	22.7	2 11	12 8.42	- 2 25.4	2.070	2.884	13.1	22.2
2 21	12 1.81	- 3 24.4	2.414	3.306	8.7	22.5	2 21	12 3.85	- 1 44.2	1.995	2.894	9.9	22.0
3 2	11 56.12	- 2 28.9	2.348	3.302	5.5	22.3	3 2	11 57.44	- 0 49.2	1.944	2.902	6.1	21.8
3 12	11 49.39	- 1 23.7	2.309	3.298	2.1	22.1	3 12	11 49.83	+ 0 15.2	1.921	2.911	2.1	21.6
3 22	11 42.27	- 0 13.4	2.301	3.294	1.8	22.0	3 22	11 41.83	+ 1 22.9	1.927	2.919	2.1	21.6
4 1	11 35.48	+ 0 56.3	2.322	3.289	5.2	22.2	4 1	11 34.34	+ 2 27.4	1.962	2.927	6.2	21.9
4 11	11 29.69	+ 1 59.8	2.372	3.284	8.5	22.4	4 11	11 28.14	+ 3 22.9	2.024	2.935	9.8	22.1
4 21	11 25.39	+ 2 53.1	2.446	3.279	11.4	22.6	4 21	11 23.76	+ 4 5.4	2.109	2.942	13.0	22.3
9538	1982 <i>UM</i> ₂		3 16.6 111°64	0°4/16.3	18		436941	2012 <i>TE</i> ₁₃₃		3 16.6 98°91	0°1/16.6	18	
2 11	12 10.46	- 0 32.0	1.829	2.653	14.2	17.9	2 11	12 5.89	- 2 13.5	2.307	3.121	11.9	21.4
2 21	12 5.53	+ 0 10.1	1.762	2.666	10.6	17.7	2 21	12 1.78	- 1 19.1	2.234	3.133	8.9	21.2
3 2	11 58.52	+ 1 5.6	1.718	2.679	6.4	17.5	3 2	11 56.08	- 0 12.0	2.187	3.146	5.5	21.0
3 12	11 50.17	+ 2 9.2	1.701	2.692	2.0	17.2	3 12	11 49.38	+ 1 3.1	2.167	3.158	1.7	20.8
3 22	11 41.42	+ 3 14.0	1.713	2.704	2.6	17.3	3 22	11 42.36	+ 2 20.4	2.178	3.170	2.1	20.8
4 1	11 33.31	+ 4 13.0	1.753	2.716	7.0	17.6	4 1	11 35.79	+ 3 33.4	2.218	3.181	5.7	21.1
4 11	11 26.72	+ 5 0.3	1.819	2.728	10.9	17.9	4 11	11 30.34	+ 4 36.9	2.285	3.193	9.0	21.3
4 21	11 22.20	+ 5 32.5	1.908	2.739	14.2	18.1	4 21	11 26.48	+ 5 27.2	2.377	3.204	11.9	21.5
222376	2001 <i>AC</i> ₃₁		3 16.6 142°38	5°2/22.9	18		55469	2001 <i>TT</i> ₂₀₅		3 16.6 336°53	10°1/ 8.1	18	
2 11	12 11.08	-18 6.0	2.582	3.301	13.3	20.3	2 11	12 12.56	+23 35.1	1.454	2.312	15.3	18.2
2 21	12 5.60	-18 22.3	2.496	3.314	11.1	20.2	2 21	12 7.88	+24 54.2	1.395	2.304	12.5	18.0
3 2	11 58.42	-18 19.9	2.433	3.326	8.7	20.0	3 2	12 0.32	+26 4.4	1.359	2.296	10.5	17.8
3 12	11 50.13	-17 58.7	2.395	3.337	6.4	19.9	3 12	11 50.82	+26 53.7	1.345	2.289	10.2	17.8
3 22	11 41.44	-17 20.5	2.385	3.348	5.2	19.8	3 22	11 40.70	+27 13.0	1.356	2.282	12.0	17.9
4 1	11 33.17	-16 29.2	2.405	3.358	6.0	19.9	4 1	11 31.45	+26 58.0	1.390	2.276	14.9	18.0
4 11	11 26.03	-15 30.4	2.453	3.368	8.2	20.1	4 11	11 24.29	+26 9.7	1.443	2.271	17.9	18.2
4 21	11 20.54	-14 30.2	2.526	3.377	10.5	20.2	4 21	11 19.94	+24 53.3	1.513	2.266	20.7	18.4
26990	Culbertson		3 16.6 210°47	4°7/10.9	18		222711	2002 <i>AL</i> ₉₉		3 16.6 143°89	3°8/12.7	18	
2 11	12 9.16	+15 27.2	2.473	3.313	10.4	18.6	2 11	12 9.54	+ 9 31.9	1.963	2.807	12.5	20.7
2 21	12 4.21	+16 25.9	2.399	3.309	7.9	18.5	2 21	12 4.80	+10 36.0	1.895	2.811	9.2	20.5
3 2	11 57.58	+17 24.4	2.351	3.304	5.6	18.3	3 2	11 58.07	+11 45.0	1.852	2.815	5.9	20.4
3 12	11 49.86	+18 16.3	2.332	3.299	4.7	18.2	3 12	11 50.04	+12 51.6	1.837	2.819	3.8	20.2
3 22	11 41.76	+18 56.4	2.342	3.294	6.1	18.3	3 22	11 41.61	+13 48.6	1.850	2.822	5.5	20.3
4 1	11 34.07	+19 20.5	2.380	3.289	8.5	18.5	4 1	11 33.72	+14 30.1	1.891	2.826	8.8	20.5
4 11	11 27.53	+19 26.7	2.443	3.283	11.1	18.6	4 11	11 27.24	+14 52.9	1.957	2.829	12.0	20.7
4 21	11 22.62	+19 15.4	2.528	3.277	13.4	18.8	4 21	11 22.74	+14 56.4	2.044	2.832	14.9	20.9
53552	2000 <i>BC</i> ₃₃		3 16.6 199°34	1°3/15.5	18		292861	2006 <i>VZ</i>		3 16.6 8°98	10°2/ 7.4	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
282845	2006 UZ ₂₉₁		3 16.6 63°14	4.4/21.4	18		122449	2000 QG ₁₃₇		3 16.6 157°44	6.7/23.9	17	
2 11	12 7.93	-13 37.8	2.217	2.978	14.0	20.6	2 11	12 10.33	-20 38.3	2.189	2.905	15.5	20.5
2 21	12 3.51	-13 51.2	2.132	2.983	11.4	20.4	2 21	12 5.43	-21 3.4	2.099	2.910	13.2	20.3
3 2	11 57.27	-13 46.1	2.068	2.988	8.5	20.2	3 2	11 58.52	-21 5.7	2.030	2.914	10.6	20.1
3 12	11 49.80	-13 23.0	2.031	2.993	5.7	20.1	3 12	11 50.23	-20 43.8	1.985	2.918	8.2	20.0
3 22	11 41.87	-12 44.3	2.020	2.998	4.4	20.0	3 22	11 41.40	-19 59.2	1.967	2.922	6.8	19.9
4 1	11 34.37	-11 54.9	2.038	3.003	6.0	20.1	4 1	11 32.99	-18 56.4	1.975	2.925	7.4	19.9
4 11	11 28.07	-11 0.7	2.083	3.009	8.8	20.3	4 11	11 25.89	-17 42.5	2.011	2.928	9.6	20.1
4 21	11 23.53	-10 7.9	2.153	3.014	11.7	20.5	4 21	11 20.72	-16 25.2	2.071	2.930	12.1	20.2
189619	2001 BW ₅₇		3 16.6 131°20	1.0/15.6	18		400531	2008 TW ₆₅		3 16.6 172°93	2.0/18.5	18	
2 11	12 8.24	+ 1 23.6	2.137	2.962	12.4	20.3	2 11	12 11.78	- 7 24.6	1.790	2.588	15.5	22.5
2 21	12 3.67	+ 2 10.7	2.063	2.969	9.2	20.1	2 21	12 6.74	- 6 52.8	1.707	2.591	12.1	22.3
3 2	11 57.31	+ 3 8.5	2.014	2.977	5.5	19.9	3 2	11 59.41	- 6 0.5	1.646	2.594	8.0	22.0
3 12	11 49.80	+ 4 11.7	1.993	2.984	1.7	19.7	3 12	11 50.53	- 4 51.2	1.612	2.596	3.7	21.8
3 22	11 41.91	+ 5 14.3	2.001	2.991	2.8	19.8	3 22	11 41.07	- 3 31.0	1.606	2.598	2.6	21.7
4 1	11 34.51	+ 6 10.2	2.039	2.997	6.5	20.0	4 1	11 32.16	- 2 8.3	1.628	2.598	6.7	21.9
4 11	11 28.35	+ 6 54.7	2.103	3.003	10.0	20.2	4 11	11 24.79	- 0 51.5	1.678	2.598	10.9	22.2
4 21	11 23.97	+ 7 24.9	2.190	3.009	13.0	20.5	4 21	11 19.65	+ 0 12.8	1.750	2.597	14.6	22.4
320240	2007 JG ₃₃		3 16.6 126°32	3.5/12.6	18		133140	2003 QM ₇		3 16.6 165°46	0.8/17.5	18	
2 11	12 9.07	+ 9 32.3	2.240	3.079	11.3	20.8	2 11	12 11.95	- 3 38.1	2.034	2.838	13.7	21.4
2 21	12 4.17	+10 39.8	2.178	3.092	8.3	20.6	2 21	12 6.57	- 3 8.9	1.952	2.844	10.4	21.2
3 2	11 57.55	+11 51.2	2.142	3.104	5.3	20.4	3 2	11 59.16	- 2 24.9	1.895	2.849	6.6	21.0
3 12	11 49.86	+12 59.9	2.135	3.116	3.5	20.3	3 12	11 50.42	- 1 29.9	1.865	2.853	2.5	20.7
3 22	11 41.85	+13 59.6	2.157	3.127	5.0	20.5	3 22	11 41.21	- 0 29.5	1.864	2.857	2.1	20.7
4 1	11 34.37	+14 45.2	2.207	3.138	7.9	20.7	4 1	11 32.51	+ 0 30.1	1.893	2.860	6.2	20.9
4 11	11 28.14	+15 13.7	2.284	3.149	10.8	20.9	4 11	11 25.18	+ 1 22.5	1.949	2.862	10.1	21.2
4 21	11 23.64	+15 24.6	2.382	3.159	13.3	21.1	4 21	11 19.83	+ 2 3.6	2.029	2.863	13.4	21.4
439726	2015 DT ₂₁₀		3 16.6 203°77	3.8/11.7	17		375308	2008 RV ₁₀		3 16.6 166°29	0.7/15.9	17	
2 11	12 6.60	+11 57.1	2.481	3.323	10.3	21.1	2 11	12 10.21	+ 1 44.3	2.287	3.106	11.9	21.6
2 21	12 2.30	+13 1.8	2.407	3.321	7.6	21.0	2 21	12 5.06	+ 2 10.7	2.207	3.110	8.8	21.4
3 2	11 56.42	+14 8.8	2.360	3.320	5.1	20.8	3 2	11 58.15	+ 2 46.1	2.151	3.113	5.4	21.2
3 12	11 49.50	+15 12.2	2.342	3.318	3.8	20.7	3 12	11 50.08	+ 3 26.3	2.124	3.115	1.7	20.9
3 22	11 42.24	+16 6.4	2.352	3.316	5.2	20.8	3 22	11 41.62	+ 4 6.7	2.127	3.117	2.4	21.0
4 1	11 35.36	+16 46.7	2.391	3.313	7.9	21.0	4 1	11 33.61	+ 4 42.4	2.159	3.119	6.1	21.2
4 11	11 29.54	+17 10.3	2.456	3.311	10.5	21.1	4 11	11 26.79	+ 5 9.3	2.219	3.121	9.5	21.4
4 21	11 25.27	+17 16.8	2.543	3.308	12.9	21.3	4 21	11 21.69	+ 5 25.0	2.302	3.122	12.4	21.6
134678	1999 WZ ₁₆		3 16.6 237°89	2.3/14.7	16		329987	2005 SD ₂₃₇		3 16.6 126°34	4.3/21.6	18	
2 11	12 12.72	+ 5 23.4	1.804	2.639	13.8	20.9	2 11	12 7.57	-15 8.6	1.999	2.760	15.4	20.8
2 21	12 7.51	+ 6 0.6	1.717	2.629	10.3	20.6	2 21	12 3.40	-14 45.3	1.916	2.768	12.5	20.6
3 2	11 59.94	+ 6 46.9	1.654	2.619	6.3	20.4	3 2	11 57.26	-13 58.0	1.854	2.775	9.2	20.4
3 12	11 50.71	+ 7 36.0	1.618	2.607	2.6	20.1	3 12	11 49.82	-12 48.3	1.817	2.782	6.0	20.2
3 22	11 40.81	+ 8 21.3	1.611	2.596	4.2	20.2	3 22	11 41.92	-11 21.0	1.807	2.789	4.3	20.1
4 1	11 31.38	+ 8 56.3	1.631	2.584	8.4	20.4	4 1	11 34.53	- 9 43.4	1.827	2.796	6.2	20.2
4 11	11 23.48	+ 9 16.2	1.677	2.572	12.5	20.6	4 11	11 28.48	- 8 4.6	1.874	2.802	9.4	20.4
4 21	11 17.83	+ 9 19.0	1.744	2.559	16.0	20.8	4 21	11 24.36	- 6 32.5	1.945	2.808	12.6	20.6
100047	Leobaeck		3 16.6 229°71	1.0/17.6	18	R	135637	2002 JX ₉₁		3 16.6 241°98	0.6/17.2	16	
2 11	12 11.11	- 3 42.5	2.021	2.827	13.7	20.5	2 11	12 11.04	- 2 50.1	1.904	2.716	14.1	21.5
2 21	12 6.12	- 3 19.0	1.923	2.815	10.5	20.2	2 21	12 6.22	- 2 22.8	1.806	2.702	10.8	21.2
3 2	11 59.01	- 2 40.3	1.849	2.803	6.7	20.0	3 2	11 59.16	- 1 39.7	1.731	2.687	6.9	21.0
3 12	11 50.40	- 1 49.4	1.802	2.790	2.6	19.7	3 12	11 50.49	- 0 44.4	1.683	2.672	2.5	20.6
3 22	11 41.15	- 0 51.7	1.784	2.777	2.2	19.6	3 22	11 41.10	+ 0 17.3	1.663	2.656	2.3	20.6
4 1	11 32.24	+ 0 6.7	1.795	2.763	6.4	19.9	4 1	11 32.06	+ 1 18.5	1.673	2.640	6.9	20.8
4 11	11 24.64	+ 0 59.1	1.834	2.748	10.5	20.1	4 11	11 24.39	+ 2 12.3	1.708	2.622	11.1	21.0
4 21	11 19.03	+ 1 40.7	1.896	2.733	14.0	20.3	4 21	11 18.82	+ 2 53.5	1.767	2.605	14.9	21.2
273115	2006 FH ₃₉		3 16.6 242°74	0.7/17.4	17		306057	2010 GF ₃₁		3 16.6 273°05	1.6/15.4	17	
2 11	12 7.57	- 3 24.3	2.101	2.912	13.0	20.5	2 11	12 10.85	+ 2 0.2	1.513	2.353	15.8	20.9
2 21	12 3.34	- 2 53.0	2.010	2.906	9.9	20.3	2 21	12 6.63	+ 2 44.7	1.420	2.335	11.9	20.6
3 2	11 57.22	- 2 7.1	1.943	2.899	6.3	20.0	3 2	11 59.68	+ 3 45.0	1.350	2.316	7.3	20.3
3 12	11 49.80	- 1 10.2	1.903	2.892	2.3	19.8	3 12	11 50.72	+ 4 54.9	1.306	2.297	2.4	20.0
3 22	11 41.87	- 0 7.5	1.892	2.885	2.1	19.7	3 22	11 40.82	+ 6 5.7	1.288	2.278	4.0	20.0
4 1	11 34.33	+ 0 54.5	1.910	2.878	6.1	20.0	4 1	11 31.33	+ 7 8.0	1.297	2.258	9.2	20.2
4 11	11 27.99	+ 1 49.7	1.955	2.870	9.9	20.2	4 11	11 23.54	+ 7 53.9	1.330	2.238	14.1	20.5
4 21	11 23.46	+ 2 33.6	2.023	2.863	13.2	20.4	4 21	11 18.33	+ 8 19.3	1.383	2.219	18.3	20.7
456740	2007 TF ₂₃		3 16.6 103°45	0.4/16.3	18		521151	2015 FR ₄₀₆		3 16.6 286°02	4.5/11.6	17	
2 11	12 15.27	+ 0 43.3	1.737	2.558	14.9	21.5	2 11	12 8.63	+14 4.9	2.280	3.124	11.0	21.3
2 21	12 9.11	+ 1 4.5	1.677	2.580	11.1	21.3	2 21	12 3.94	+14 56.6	2.207	3.120	8.3	21.2
3 2	12 0.70	+ 1 37.3	1.640	2.600	6.8	21.1	3 2	11 57.48	+15 48.8	2.160	3.117	5.7	21.0
3 12	11 50.88	+ 2 16.8	1.630	2.621	2.1	20.8	3 12	11 49.88	+16 35.2	2.141	3.113	4.5	20.9
3 22	11 40.72	+ 2 56.9	1.649	2.640	2.7	20.9	3 22	11 41.88	+17 10.2	2.150	3.110	5.9	21.0
4 1	11 31.36	+ 3 31.7	1.696	2.659	7.2	21.2	4 1	11 34.34	+17 29.7	2.187	3.107	8.6	21.1
4 11	11 23.75	+ 3 56.2	1.770	2.678	11.2	21.5	4 11	11 28.02	+17 31.5	2.249	3.103	11.4	21.3
4 21	11 18.44	+ 4 8.0	1.866	2.696	14.5	21.7	4 21	11 23.43	+17 15.9	2.332	3.100	13.8	21.5
517573	2014 UO ₆₈		3 16.6 198°84	0.3/16.9	17		136272	2003 YF ₁₀₇		3 16.6 21°94	0.1/16.7	18	
2 11	12 11.22	- 1 56.1											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
37594	1991 <i>UJ</i> ₁		3 16.6 82°50	0°3/16.9	18		442721	2012 <i>VB</i> ₃₁		3 16.7 115°09	4°0/13.3	18	
2 11	12 7.86	- 2 37.4	1.866	2.686	14.1	19.2	2 11	12 16.49	+ 8 19.4	1.581	2.422	15.2	21.8
2 21	12 3.63	- 1 56.6	1.794	2.695	10.6	19.0	2 21	12 10.20	+ 9 28.4	1.529	2.444	11.2	21.6
3 2	11 57.40	- 1 0.5	1.745	2.704	6.6	18.8	3 2	12 1.43	+10 43.4	1.502	2.465	6.9	21.4
3 12	11 49.87	+ 0 6.0	1.723	2.713	2.2	18.5	3 12	11 51.15	+11 55.2	1.502	2.486	4.0	21.2
3 22	11 41.92	+ 1 16.3	1.730	2.722	2.3	18.5	3 22	11 40.55	+12 55.0	1.530	2.506	5.9	21.4
4 1	11 34.53	+ 2 23.2	1.764	2.731	6.6	18.8	4 1	11 30.89	+13 36.2	1.585	2.524	9.7	21.6
4 11	11 28.55	+ 3 20.0	1.825	2.740	10.5	19.1	4 11	11 23.18	+13 55.7	1.664	2.542	13.5	21.9
4 21	11 24.54	+ 4 2.7	1.909	2.749	13.8	19.3	4 21	11 18.01	+13 54.0	1.764	2.559	16.6	22.2
397024	2005 <i>TQ</i> ₁₉₁		3 16.6 174°58	3°2/13.8	18		328721	2009 <i>TR</i> ₂₁		3 16.7 143°79	5°4/10.7	18	
2 11	12 13.12	+ 6 8.8	1.687	2.527	14.4	21.6	2 11	12 13.59	+17 45.0	2.356	3.191	11.0	21.2
2 21	12 7.81	+ 7 15.3	1.615	2.530	10.7	21.3	2 21	12 7.46	+18 41.8	2.298	3.202	8.4	21.0
3 2	12 0.10	+ 8 31.5	1.568	2.532	6.5	21.1	3 2	11 59.54	+19 35.5	2.266	3.213	6.2	20.9
3 12	11 50.77	+ 9 49.3	1.547	2.534	3.3	20.9	3 12	11 50.52	+20 19.6	2.263	3.224	5.4	20.9
3 22	11 40.88	+10 59.8	1.554	2.535	5.1	21.0	3 22	11 41.23	+20 49.0	2.289	3.233	6.7	21.0
4 1	11 31.63	+11 55.3	1.590	2.535	9.2	21.2	4 1	11 32.53	+21 0.1	2.343	3.242	9.1	21.1
4 11	11 24.07	+12 30.7	1.649	2.535	13.2	21.5	4 11	11 25.18	+20 52.4	2.422	3.251	11.5	21.3
4 21	11 18.87	+12 44.8	1.730	2.533	16.6	21.7	4 21	11 19.67	+20 27.1	2.522	3.259	13.7	21.5
214767	2006 <i>UO</i> ₉		3 16.6 147°35	0°6/17.4	17		429651	2011 <i>GE</i> ₁₂		3 16.7 253°03	0°5/17.2	17	
2 11	12 6.14	- 3 7.5	2.595	3.400	11.0	20.9	2 11	12 9.23	- 1 53.5	2.040	2.855	13.2	21.9
2 21	12 1.87	- 2 36.8	2.512	3.404	8.4	20.7	2 21	12 4.64	- 1 36.2	1.951	2.849	10.0	21.7
3 2	11 56.13	- 1 54.7	2.453	3.408	5.3	20.5	3 2	11 58.06	- 1 6.1	1.886	2.843	6.3	21.4
3 12	11 49.44	- 1 4.6	2.423	3.412	2.0	20.3	3 12	11 50.12	- 0 26.6	1.847	2.837	2.3	21.2
3 22	11 42.41	- 0 10.5	2.423	3.416	1.7	20.3	3 22	11 41.64	+ 0 17.6	1.837	2.830	2.1	21.1
4 1	11 35.74	+ 0 42.6	2.453	3.419	5.0	20.5	4 1	11 33.56	+ 1 0.7	1.856	2.824	6.3	21.4
4 11	11 30.06	+ 1 30.2	2.510	3.423	8.1	20.7	4 11	11 26.77	+ 1 37.3	1.902	2.817	10.1	21.6
4 21	11 25.82	+ 2 8.9	2.593	3.426	10.8	20.9	4 21	11 21.87	+ 2 3.5	1.971	2.810	13.5	21.8
362734	2011 <i>US</i> ₂₉₄		3 16.6 133°48	1°0/15.9	18		201586	2003 <i>SF</i> ₉₇		3 16.7 278°91	3°8/19.9	17	
2 11	12 14.81	+ 2 24.0	1.677	2.506	15.0	21.7	2 11	12 11.24	- 9 25.5	2.030	2.812	14.5	20.2
2 21	12 9.00	+ 2 45.9	1.607	2.515	11.2	21.4	2 21	12 6.32	- 9 50.9	1.928	2.798	11.6	20.0
3 2	12 0.78	+ 3 18.7	1.561	2.523	6.8	21.2	3 2	11 59.23	-10 0.4	1.848	2.783	8.3	19.7
3 12	11 50.97	+ 3 56.9	1.541	2.531	2.1	20.9	3 12	11 50.55	- 9 53.9	1.794	2.768	5.1	19.5
3 22	11 40.67	+ 4 34.3	1.549	2.539	3.2	21.0	3 22	11 41.13	- 9 33.6	1.768	2.753	3.9	19.4
4 1	11 31.08	+ 5 4.8	1.585	2.546	7.8	21.3	4 1	11 32.01	- 9 3.6	1.770	2.738	6.5	19.5
4 11	11 23.24	+ 5 23.6	1.647	2.553	12.0	21.5	4 11	11 24.16	- 8 29.5	1.799	2.723	10.1	19.7
4 21	11 17.79	+ 5 28.2	1.730	2.559	15.5	21.8	4 21	11 18.33	- 7 57.2	1.852	2.708	13.5	19.9
196675	2003 <i>SV</i> ₅₆		3 16.6 291°81	1°8/18.0	17		27770	1991 <i>VF</i> ₁		3 16.7 174°71	0°4/16.3	18	
2 11	12 13.45	- 3 8.8	1.921	2.728	14.3	20.3	2 11	12 13.94	+ 0 19.5	1.693	2.517	15.1	18.6
2 21	12 7.98	- 3 32.3	1.827	2.718	11.1	20.1	2 21	12 8.45	+ 0 46.3	1.615	2.519	11.4	18.3
3 2	12 0.22	- 3 44.1	1.756	2.708	7.3	19.8	3 2	12 0.52	+ 1 26.5	1.560	2.521	7.0	18.1
3 12	11 50.84	- 3 45.6	1.712	2.698	3.3	19.5	3 12	11 50.94	+ 2 15.2	1.532	2.523	2.2	17.8
3 22	11 40.75	- 3 39.7	1.696	2.688	2.6	19.5	3 22	11 40.76	+ 3 5.7	1.532	2.523	2.9	17.8
4 1	11 31.06	- 3 30.3	1.709	2.678	6.5	19.7	4 1	11 31.19	+ 3 51.1	1.560	2.524	7.6	18.1
4 11	11 22.79	- 3 22.1	1.748	2.668	10.6	19.9	4 11	11 23.30	+ 4 25.3	1.614	2.523	12.0	18.4
4 21	11 16.67	- 3 19.0	1.811	2.659	14.1	20.1	4 21	11 17.78	+ 4 44.9	1.689	2.522	15.7	18.6
93698	2000 <i>VM</i> ₂₆		3 16.6 108°62	1°8/14.9	18		430377	2014 <i>DW</i> ₈₇		3 16.7 103°09	3°0/12.5	17	
2 11	12 10.72	+ 4 33.0	1.965	2.798	13.0	20.3	2 11	12 5.30	+ 7 36.7	2.432	3.271	10.6	20.7
2 21	12 5.64	+ 5 8.5	1.896	2.807	9.6	20.1	2 21	12 1.32	+ 9 2.8	2.367	3.282	7.7	20.5
3 2	11 58.57	+ 5 52.0	1.852	2.816	5.8	19.8	3 2	11 55.82	+10 34.6	2.329	3.293	4.8	20.3
3 12	11 50.24	+ 6 38.0	1.835	2.825	2.2	19.6	3 12	11 49.35	+12 5.5	2.320	3.303	3.0	20.2
3 22	11 41.52	+ 7 20.5	1.847	2.834	3.5	19.7	3 22	11 42.59	+13 28.9	2.342	3.314	4.5	20.3
4 1	11 33.38	+ 7 54.2	1.887	2.842	7.3	20.0	4 1	11 36.25	+14 39.2	2.392	3.324	7.4	20.5
4 11	11 26.67	+ 8 15.1	1.954	2.850	10.9	20.2	4 11	11 30.97	+15 32.4	2.469	3.334	10.1	20.7
4 21	11 21.93	+ 8 21.5	2.042	2.858	13.9	20.4	4 21	11 27.20	+16 7.4	2.568	3.344	12.5	20.9
373435	1999 <i>TF</i> ₁₂₅		3 16.6 210°83	2°4/19.5	17		247467	2002 <i>JZ</i> ₁₂		3 16.7 267°71	5°0/11.2	17	
2 11	12 8.19	- 9 3.8	2.449	3.227	12.4	21.5	2 11	12 10.23	+14 13.1	2.105	2.949	11.8	20.7
2 21	12 3.59	- 8 43.9	2.350	3.221	9.8	21.3	2 21	12 5.43	+15 15.2	2.019	2.932	8.9	20.5
3 2	11 57.29	- 8 7.9	2.275	3.214	6.7	21.1	3 2	11 58.58	+16 19.1	1.958	2.914	6.2	20.3
3 12	11 49.84	- 7 17.9	2.228	3.207	3.6	20.9	3 12	11 50.31	+17 17.5	1.925	2.896	5.1	20.2
3 22	11 41.92	- 6 17.6	2.210	3.199	2.5	20.8	3 22	11 41.46	+18 3.4	1.920	2.878	6.7	20.2
4 1	11 34.32	- 5 12.3	2.222	3.191	5.2	21.0	4 1	11 33.00	+18 31.3	1.942	2.859	9.6	20.4
4 11	11 27.77	- 4 7.8	2.262	3.182	8.5	21.2	4 11	11 25.83	+18 38.6	1.989	2.841	12.8	20.5
4 21	11 22.82	- 3 9.6	2.327	3.173	11.5	21.3	4 21	11 20.60	+18 25.3	2.056	2.822	15.5	20.7
41771	2000 <i>VB</i> ₃₈		3 16.6 131°54	0°6/17.2	18		21246	1995 <i>YF</i> ₁		3 16.7 286°72	4°7/21.2	18	
2 11	12 12.32	- 3 5.2	1.902	2.712	14.3	19.9	2 11	12 8.06	-13 12.7	1.989	2.760	15.1	17.9
2 21	12 6.88	- 2 31.7	1.832	2.727	10.8	19.7	2 21	12 3.97	-13 24.6	1.890	2.748	12.4	17.7
3 2	11 59.35	- 1 43.1	1.784	2.741	6.8	19.5	3 2	11 57.77	-13 16.1	1.812	2.737	9.2	17.5
3 12	11 50.49	- 0 44.1	1.765	2.754	2.4	19.2	3 12	11 50.07	-12 47.3	1.759	2.725	6.1	17.3
3 22	11 41.24	+ 0 19.3	1.774	2.766	2.2	19.2	3 22	11 41.71	-12 0.5	1.733	2.714	4.7	17.2
4 1	11 32.60	+ 1 20.3	1.812	2.778	6.5	19.5	4 1	11 33.67	-11 1.2	1.734	2.702	6.6	17.3
4 11	11 25.46	+ 2 12.4	1.877	2.790	10.4	19.8	4 11	11 26.91	- 9 56.5	1.762	2.691	9.9	17.4
4 21	11 20.41	+ 2 51.8	1.966	2.800	13.7	20.0	4 21	11 22.14	- 8 53.7	1.814	2.679	13.3	17.6
200680	2001 <i>TB</i> ₁₈₆		3 16.7 28°44	1°2/17.5	18		287462	2003 <i>AX</i> ₆		3 16.7 1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
495087	2011 QR ₃₃		3 16.7 243°18	0°6/17.1	17		367892	2011 YG ₅₉		3 16.7 329°49	2°9/14.4	18	
2 11	12 15.81	- 1 9.2	1.657	2.474	15.7	22.1	2 11	12 7.76	+ 4 59.6	1.344	2.202	16.3	20.4
2 21	12 10.17	- 1 6.9	1.561	2.461	12.0	21.8	2 21	12 4.46	+ 5 48.6	1.267	2.191	12.1	20.1
3 2	12 1.80	- 0 50.7	1.488	2.446	7.6	21.6	3 2	11 58.39	+ 6 50.8	1.211	2.180	7.4	19.8
3 12	11 51.43	- 0 23.9	1.441	2.431	2.7	21.2	3 12	11 50.35	+ 7 57.9	1.180	2.170	3.2	19.6
3 22	11 40.14	+ 0 8.7	1.422	2.415	2.7	21.2	3 22	11 41.51	+ 9 0.2	1.174	2.160	5.2	19.7
4 1	11 29.25	+ 0 40.6	1.432	2.399	7.8	21.4	4 1	11 33.27	+ 9 48.3	1.193	2.151	10.2	19.9
4 11	11 20.04	+ 1 5.6	1.467	2.382	12.5	21.7	4 11	11 26.89	+10 15.6	1.234	2.143	14.9	20.1
4 21	11 13.38	+ 1 19.3	1.523	2.364	16.7	21.9	4 21	11 23.19	+10 19.7	1.294	2.135	19.0	20.4
506375	2017 QD ₂₇		3 16.7 130°80	0°1/16.6	17		238874	2005 YD ₅		3 16.7 354°92	4°3/13.8	18	
2 11	12 6.35	- 1 31.9	2.932	3.736	9.9	22.4	2 11	12 8.56	+ 7 29.3	1.054	1.929	18.4	20.0
2 21	12 1.82	- 0 46.1	2.857	3.751	7.4	22.3	2 21	12 5.55	+ 8 14.2	0.992	1.924	13.8	19.7
3 2	11 56.01	+ 0 9.0	2.809	3.766	4.5	22.1	3 2	11 59.25	+ 9 9.9	0.950	1.920	8.5	19.4
3 12	11 49.40	+ 1 10.0	2.790	3.780	1.4	21.9	3 12	11 50.65	+10 6.1	0.929	1.917	4.5	19.1
3 22	11 42.56	+ 2 12.4	2.802	3.794	1.7	21.9	3 22	11 41.22	+10 51.3	0.932	1.916	6.7	19.3
4 1	11 36.08	+ 3 11.8	2.845	3.807	4.7	22.2	4 1	11 32.69	+11 16.2	0.957	1.916	12.0	19.5
4 11	11 30.49	+ 4 4.1	2.917	3.820	7.5	22.4	4 11	11 26.52	+11 15.7	1.002	1.916	17.0	19.8
4 21	11 26.19	+ 4 46.6	3.014	3.832	9.9	22.6	4 21	11 23.53	+10 49.7	1.065	1.919	21.4	20.1
65962	1998 HU ₁		3 16.7 156°32	2°0/14.7	18		39535	1990 RX ₇		3 16.7 71°05	0°9/15.8	18	
2 11	12 12.73	+ 4 28.7	1.965	2.794	13.1	20.1	2 11	12 7.32	+ 0 18.5	1.860	2.691	13.7	19.0
2 21	12 7.18	+ 5 15.8	1.892	2.801	9.7	19.9	2 21	12 3.29	+ 1 10.7	1.786	2.695	10.2	18.8
3 2	11 59.56	+ 6 11.7	1.845	2.808	5.8	19.6	3 2	11 57.25	+ 2 16.5	1.737	2.700	6.1	18.5
3 12	11 50.60	+ 7 10.3	1.825	2.815	2.3	19.4	3 12	11 49.90	+ 3 29.8	1.714	2.705	1.9	18.3
3 22	11 41.21	+ 8 5.0	1.835	2.821	3.7	19.5	3 22	11 42.10	+ 4 43.5	1.719	2.710	2.9	18.3
4 1	11 32.39	+ 8 49.7	1.874	2.826	7.6	19.8	4 1	11 34.82	+ 5 50.2	1.753	2.715	7.1	18.6
4 11	11 25.04	+ 9 20.1	1.939	2.830	11.2	20.0	4 11	11 28.94	+ 6 43.8	1.812	2.720	11.0	18.9
4 21	11 19.73	+ 9 34.4	2.026	2.834	14.3	20.2	4 21	11 25.02	+ 7 20.7	1.894	2.724	14.3	19.1
504829	2010 MR ₁₄		3 16.7 184°79	3°0/20.4	17		158175	2001 QE ₂₆₀		3 16.7 261°33	4°2/19.9	18	
2 11	12 6.67	-10 43.9	2.741	3.507	11.5	21.1	2 11	12 11.83	- 9 53.2	1.521	2.320	17.7	20.2
2 21	12 2.28	-10 47.2	2.648	3.507	9.2	21.0	2 21	12 7.41	-10 6.7	1.429	2.309	14.3	19.9
3 2	11 56.42	-10 36.6	2.578	3.507	6.6	20.8	3 2	12 0.22	- 9 57.4	1.357	2.298	10.2	19.6
3 12	11 49.57	-10 13.1	2.536	3.507	4.1	20.6	3 12	11 50.97	- 9 25.6	1.309	2.286	6.0	19.4
3 22	11 42.35	- 9 39.2	2.523	3.507	3.0	20.5	3 22	11 40.78	- 8 35.0	1.287	2.275	4.4	19.2
4 1	11 35.43	- 8 58.7	2.539	3.506	4.8	20.7	4 1	11 31.02	- 7 32.6	1.291	2.263	7.8	19.4
4 11	11 29.45	- 8 16.0	2.584	3.506	7.5	20.8	4 11	11 23.01	- 6 28.0	1.321	2.251	12.4	19.6
4 21	11 24.88	- 7 35.5	2.653	3.505	10.0	21.0	4 21	11 17.63	- 5 29.8	1.371	2.239	16.6	19.8
160907	2001 UJ ₈₇		3 16.7 317°75	1°0/17.4	18		142195	2002 RK ₅₄		3 16.7 210°98	1°6/15.0	16	
2 11	12 7.48	- 2 55.3	1.213	2.059	18.5	19.8	2 11	12 9.48	+ 2 8.6	1.954	2.784	13.2	20.9
2 21	12 4.64	- 2 41.5	1.126	2.040	14.3	19.5	2 21	12 4.92	+ 3 8.3	1.870	2.779	9.8	20.7
3 2	11 58.74	- 2 5.5	1.059	2.022	9.2	19.2	3 2	11 58.29	+ 4 20.6	1.809	2.773	5.9	20.5
3 12	11 50.51	- 1 11.2	1.015	2.005	3.5	18.8	3 12	11 50.25	+ 5 39.3	1.777	2.767	2.1	20.2
3 22	11 41.18	- 0 6.0	0.995	1.988	3.1	18.7	3 22	11 41.67	+ 6 56.9	1.773	2.761	3.5	20.3
4 1	11 32.32	+ 0 59.5	0.998	1.972	9.1	19.0	4 1	11 33.52	+ 8 6.0	1.799	2.754	7.6	20.5
4 11	11 25.45	+ 1 54.7	1.024	1.957	14.8	19.2	4 11	11 26.72	+ 9 0.5	1.850	2.746	11.4	20.7
4 21	11 21.57	+ 2 32.1	1.069	1.943	19.8	19.5	4 21	11 21.89	+ 9 37.3	1.924	2.739	14.7	20.9
399306	5400 T ₋₃		3 16.7 165°42	2°6/14.2	18		211150	2002 GE ₁₃₇		3 16.7 37°88	0°6/17.1	18	
2 11	12 13.67	+ 5 41.5	1.951	2.781	13.2	22.4	2 11	12 9.83	- 2 20.7	1.269	2.110	18.2	20.7
2 21	12 7.91	+ 6 39.1	1.878	2.788	9.7	22.2	2 21	12 5.90	- 1 59.5	1.208	2.119	13.8	20.4
3 2	12 0.03	+ 7 45.0	1.830	2.794	5.9	22.0	3 2	11 59.16	- 1 18.7	1.167	2.129	8.6	20.2
3 12	11 50.77	+ 8 52.4	1.811	2.799	2.7	21.8	3 12	11 50.56	- 0 24.0	1.150	2.140	3.0	19.9
3 22	11 41.04	+ 9 54.1	1.821	2.803	4.3	21.9	3 22	11 41.38	+ 0 36.4	1.158	2.151	2.9	19.9
4 1	11 31.90	+10 43.7	1.860	2.806	8.1	22.2	4 1	11 33.06	+ 1 33.1	1.191	2.162	8.3	20.2
4 11	11 24.26	+11 17.0	1.925	2.808	11.7	22.4	4 11	11 26.80	+ 2 17.9	1.247	2.175	13.3	20.5
4 21	11 18.71	+11 32.3	2.012	2.810	14.8	22.6	4 21	11 23.28	+ 2 45.8	1.324	2.187	17.4	20.8
383350	2006 RS ₂₅		3 16.7 107°28	2°8/19.9	17		109698	2001 RS ₃₈		3 16.7 57°38	4°1/19.5	18	
2 11	12 8.60	- 9 26.4	2.449	3.225	12.5	21.2	2 11	12 17.64	- 7 33.9	1.539	2.336	17.6	19.4
2 21	12 3.79	- 9 26.4	2.369	3.236	9.8	21.1	2 21	12 11.27	- 8 23.8	1.478	2.357	13.9	19.2
3 2	11 57.36	- 9 11.7	2.313	3.248	6.9	20.9	3 2	12 2.25	- 8 55.6	1.438	2.379	9.7	19.0
3 12	11 49.88	- 8 43.8	2.283	3.259	4.0	20.7	3 12	11 51.52	- 9 9.5	1.424	2.401	5.6	18.8
3 22	11 42.06	- 8 5.9	2.283	3.270	2.9	20.7	3 22	11 40.33	- 9 7.8	1.437	2.423	4.3	18.8
4 1	11 34.66	- 7 22.3	2.312	3.281	5.1	20.8	4 1	11 30.03	- 8 55.5	1.477	2.445	7.4	19.0
4 11	11 28.36	- 6 38.1	2.369	3.291	8.1	21.0	4 11	11 21.73	- 8 39.0	1.542	2.467	11.3	19.3
4 21	11 23.66	- 5 57.8	2.451	3.302	10.8	21.2	4 21	11 16.09	- 8 24.3	1.630	2.490	14.8	19.6
423697	2006 AC ₄₈		3 16.7 345°17	3°6/19.5	17		498412	2007 YR ₇₂		3 16.7 90°66	9°8/29.4	17	
2 11	12 10.67	- 8 1.0	1.745	2.544	15.8	20.8	2 11	12 14.40	-32 40.4	2.606	3.210	15.5	21.1
2 21	12 6.07	- 8 25.4	1.660	2.541	12.5	20.6	2 21	12 8.41	-33 54.4	2.530	3.230	14.0	21.0
3 2	11 59.13	- 8 32.4	1.596	2.538	8.8	20.3	3 2	12 0.38	-34 44.8	2.472	3.249	12.4	20.9
3 12	11 50.54	- 8 22.8	1.558	2.536	5.0	20.1	3 12	11 50.93	-35 8.2	2.435	3.269	11.0	20.8
3 22	11 41.29	- 7 59.5	1.546	2.534	3.7	20.0	3 22	11 40.93	-35 3.7	2.421	3.288	10.0	20.8
4 1	11 32.50	- 7 27.5	1.561	2.532	6.8	20.2	4 1	11 31.35	-34 33.2	2.433	3.307	9.8	20.8
4 11	11 25.26	- 6 53.6	1.602	2.530	10.8	20.4	4 11	11 23.08	-33 41.9	2.469	3.326	10.4	20.8
4 21	11 20.27	- 6 23.6	1.666	2.529	14.4	20.6	4 21	11 16.77	-32 37.0	2.528	3.345	11.6	20.9
126949	2002 FL ₅		3 16.7 201°37	2°2/18.9	18		258172	2001 SJ ₁₃₃		3 16.7 124°36	0°9/17.5	18	
2 11	12 8.67	- 7 16.2											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
306970	2001 <i>VD</i> ₆₂		3 16.7 190°85	3°8/21.6	18		437564	2014 <i>AB</i> ₇		3 16.7 31°19	1°3/15.4	17	
2 11	12 6.72	-14 9.5	2.614	3.365	12.4	20.8	2 11	12 7.20	+ 2 46.7	1.887	2.724	13.2	21.2
2 21	12 2.43	-14 5.1	2.519	3.364	10.1	20.6	2 21	12 3.14	+ 3 22.3	1.820	2.732	9.8	21.0
3 2	11 56.58	-13 43.6	2.446	3.363	7.5	20.4	3 2	11 57.15	+ 4 7.8	1.776	2.741	5.9	20.8
3 12	11 49.68	-13 5.8	2.400	3.362	5.0	20.3	3 12	11 49.90	+ 4 57.8	1.759	2.750	2.0	20.6
3 22	11 42.38	-12 14.5	2.382	3.360	3.8	20.2	3 22	11 42.28	+ 5 46.1	1.771	2.760	3.1	20.7
4 1	11 35.39	-11 13.8	2.393	3.358	5.2	20.3	4 1	11 35.21	+ 6 26.7	1.810	2.770	7.1	20.9
4 11	11 29.39	-10 9.6	2.433	3.356	7.8	20.4	4 11	11 29.52	+ 6 55.2	1.874	2.780	10.8	21.2
4 21	11 24.89	-9 7.2	2.498	3.354	10.4	20.6	4 21	11 25.75	+ 7 9.1	1.961	2.791	13.9	21.4
173703	2001 <i>QY</i> ₅₀		3 16.7 87°99	3°8/20.8	18		195780	2002 <i>PN</i> ₁₆₀		3 16.7 76°89	1°4/15.2	17	
2 11	12 14.92	-12 7.0	2.624	3.370	12.5	20.6	2 11	12 8.67	+ 3 20.5	2.028	2.860	12.6	20.5
2 21	12 8.26	-12 34.3	2.557	3.401	10.0	20.4	2 21	12 4.17	+ 3 57.1	1.953	2.863	9.4	20.3
3 2	12 0.00	-12 47.0	2.515	3.432	7.3	20.3	3 2	11 57.76	+ 4 42.8	1.902	2.866	5.6	20.0
3 12	11 50.75	-12 45.5	2.500	3.463	4.8	20.2	3 12	11 50.11	+ 5 32.4	1.879	2.869	2.0	19.8
3 22	11 41.25	-12 31.7	2.515	3.493	3.8	20.2	3 22	11 42.04	+ 6 20.1	1.885	2.873	3.2	19.9
4 1	11 32.28	-12 0.0	2.561	3.522	5.3	20.3	4 1	11 34.46	+ 7 0.3	1.918	2.876	7.0	20.1
4 11	11 24.52	-11 41.9	2.636	3.551	7.7	20.5	4 11	11 28.20	+ 7 28.6	1.978	2.879	10.5	20.3
4 21	11 18.44	-11 14.7	2.737	3.579	10.1	20.7	4 21	11 23.79	+ 7 42.6	2.061	2.883	13.6	20.6
30336	Zhangyizhen		3 16.7 168°51	2°3/19.0	18		140399	2001 <i>TN</i> ₆₇		3 16.7 82°64	0°6/15.9	18	
2 11	12 10.27	- 7 41.6	2.121	2.910	13.7	19.5	2 11	12 8.24	+ 1 17.0	2.299	3.120	11.7	19.7
2 21	12 5.33	- 7 26.6	2.036	2.914	10.7	19.3	2 21	12 3.54	+ 1 49.7	2.233	3.137	8.7	19.5
3 2	11 58.47	- 6 54.9	1.973	2.917	7.2	19.1	3 2	11 57.22	+ 2 31.3	2.193	3.154	5.2	19.3
3 12	11 50.32	- 6 9.0	1.937	2.919	3.7	18.9	3 12	11 49.90	+ 3 17.6	2.180	3.171	1.6	19.1
3 22	11 41.69	- 5 13.2	1.931	2.921	2.6	18.8	3 22	11 42.30	+ 4 3.7	2.197	3.188	2.3	19.2
4 1	11 33.50	- 4 13.3	1.953	2.923	5.8	19.0	4 1	11 35.20	+ 4 44.7	2.244	3.205	5.9	19.4
4 11	11 26.60	- 3 15.8	2.003	2.924	9.4	19.3	4 11	11 29.28	+ 5 16.5	2.317	3.221	9.1	19.7
4 21	11 21.56	- 2 26.0	2.077	2.925	12.6	19.5	4 21	11 25.00	+ 5 36.9	2.414	3.237	11.8	19.9
389713	2011 <i>SW</i> ₁		3 16.7 290°35	1°6/18.2	17		477	Italia		3 16.7 210°44	0°8/15.9	18	
2 11	12 9.12	- 4 14.6	2.232	3.034	12.7	21.2	2 11	12 12.92	+ 1 34.2	2.025	2.844	13.2	14.8
2 21	12 4.47	- 4 17.2	2.137	3.025	9.8	21.0	2 21	12 7.46	+ 2 2.1	1.935	2.838	9.9	14.6
3 2	11 57.97	- 4 7.5	2.066	3.017	6.4	20.8	3 2	11 59.87	+ 2 40.7	1.870	2.831	6.0	14.3
3 12	11 50.18	- 3 47.5	2.022	3.008	2.9	20.5	3 12	11 50.83	+ 3 25.6	1.833	2.824	1.9	14.1
3 22	11 41.86	- 3 20.5	2.007	2.999	2.2	20.4	3 22	11 41.20	+ 4 11.1	1.826	2.816	2.7	14.1
4 1	11 33.88	- 2 50.8	2.021	2.991	5.6	20.7	4 1	11 32.00	+ 4 51.6	1.847	2.807	6.9	14.3
4 11	11 27.05	- 2 23.3	2.062	2.982	9.2	20.9	4 11	11 24.16	+ 5 21.9	1.895	2.798	10.8	14.6
4 21	11 21.98	- 2 2.0	2.127	2.974	12.4	21.0	4 21	11 18.34	+ 5 39.2	1.966	2.788	14.2	14.8
34098	2000 <i>PM</i> ₁₂		3 16.7 141°89	4°2/11.2	18		376058	2010 <i>FX</i> ₇		3 16.7 333°48	1°8/18.4	17	
2 11	12 7.95	+14 13.4	2.564	3.405	10.0	18.7	2 11	12 8.60	- 5 38.6	1.933	2.739	14.2	21.0
2 21	12 3.26	+15 12.8	2.499	3.411	7.5	18.5	2 21	12 4.29	- 5 25.9	1.849	2.738	11.0	20.8
3 2	11 57.03	+16 12.4	2.461	3.416	5.2	18.4	3 2	11 57.93	- 4 56.8	1.787	2.738	7.3	20.6
3 12	11 49.82	+17 6.3	2.451	3.421	4.2	18.3	3 12	11 50.20	- 4 14.2	1.752	2.737	3.3	20.3
3 22	11 42.32	+17 49.4	2.470	3.426	5.5	18.4	3 22	11 41.93	- 3 23.0	1.745	2.737	2.4	20.3
4 1	11 35.25	+18 18.0	2.517	3.431	7.9	18.5	4 1	11 34.13	- 2 29.1	1.766	2.737	6.2	20.5
4 11	11 29.26	+18 30.0	2.590	3.435	10.4	18.7	4 11	11 27.67	- 1 39.3	1.813	2.736	10.0	20.7
4 21	11 24.81	+18 25.6	2.685	3.440	12.5	18.9	4 21	11 23.18	- 0 58.5	1.884	2.736	13.5	20.9
221682	2007 <i>DK</i> ₂₂		3 16.7 142°08	0°3/16.4	18		151775	2003 <i>EV</i> ₃₄		3 16.7 300°98	3°7/19.5	17	R
2 11	12 9.48	- 0 41.1	2.057	2.875	13.0	21.4	2 11	12 10.98	- 8 5.7	1.714	2.513	16.0	19.8
2 21	12 4.73	- 0 0.4	1.981	2.883	9.7	21.2	2 21	12 6.57	- 8 31.9	1.614	2.495	12.8	19.6
3 2	11 58.08	+ 0 52.8	1.930	2.890	6.0	21.0	3 2	11 59.64	- 8 40.6	1.535	2.477	9.1	19.3
3 12	11 50.19	+ 1 53.8	1.906	2.896	1.9	20.7	3 12	11 50.84	- 8 32.2	1.481	2.459	5.2	19.0
3 22	11 41.90	+ 2 56.6	1.911	2.903	2.4	20.8	3 22	11 41.12	- 8 8.9	1.453	2.441	3.9	18.9
4 1	11 34.10	+ 3 54.8	1.945	2.909	6.4	21.1	4 1	11 31.71	- 7 35.6	1.452	2.423	7.2	19.1
4 11	11 27.02	+ 4 42.9	2.007	2.914	10.1	21.3	4 11	11 23.78	- 6 59.3	1.477	2.406	11.5	19.3
4 21	11 23.60	+ 5 17.6	2.091	2.919	13.2	21.5	4 21	11 18.19	- 6 26.6	1.524	2.389	15.4	19.5
303416	2004 <i>YF</i> ₁₈		3 16.7 117°31	0°4/17.0	18		298779	2004 <i>PW</i> ₂₀		3 16.7 140°99	3°5/19.6	18	
2 11	12 12.76	- 2 21.1	1.735	2.552	15.1	21.8	2 11	12 13.55	- 9 11.0	1.664	2.456	16.7	21.5
2 21	12 7.40	- 1 48.9	1.668	2.567	11.4	21.6	2 21	12 8.26	- 9 14.1	1.587	2.464	13.2	21.3
3 2	11 59.80	- 1 1.1	1.624	2.582	7.1	21.3	3 2	12 0.50	- 8 56.2	1.531	2.471	9.2	21.1
3 12	11 50.75	- 0 2.9	1.607	2.597	2.4	21.1	3 12	11 51.05	- 8 19.1	1.500	2.478	5.1	20.9
3 22	11 41.29	+ 0 59.0	1.618	2.611	2.4	21.1	3 22	11 41.00	- 7 27.3	1.496	2.485	3.7	20.8
4 1	11 32.52	+ 1 57.4	1.657	2.624	7.0	21.4	4 1	11 31.57	- 6 27.9	1.520	2.491	7.0	21.0
4 11	11 25.40	+ 2 45.9	1.723	2.637	11.1	21.7	4 11	11 23.87	- 5 29.2	1.570	2.497	11.1	21.3
4 21	11 20.51	+ 3 20.3	1.811	2.649	14.5	21.9	4 21	11 18.57	- 4 38.0	1.643	2.502	14.8	21.5
38236	1999 <i>NC</i> ₆₄		3 16.7 278°80	4°7/12.9	18		501005	2013 <i>RR</i> ₃₁		3 16.7 220°40	3°2/19.6	17	
2 11	12 12.39	+10 26.3	1.535	2.388	14.9	18.6	2 11	12 13.37	- 8 40.6	2.220	2.995	13.6	21.9
2 21	12 7.67	+11 20.8	1.457	2.377	11.2	18.3	2 21	12 7.72	- 8 58.2	2.120	2.987	10.8	21.7
3 2	12 0.27	+12 21.2	1.403	2.367	7.3	18.0	3 2	12 0.04	- 9 1.1	2.043	2.979	7.6	21.5
3 12	11 50.99	+13 18.6	1.374	2.356	4.8	17.9	3 12	11 50.90	- 8 49.8	1.994	2.970	4.4	21.3
3 22	11 40.96	+14 4.1	1.371	2.345	6.7	17.9	3 22	11 41.13	- 8 26.6	1.973	2.960	3.3	21.2
4 1	11 31.53	+14 30.4	1.395	2.335	10.8	18.1	4 1	11 31.68	- 7 55.7	1.983	2.950	6.0	21.3
4 11	11 23.90	+14 33.7	1.441	2.324	14.9	18.4	4 11	11 23.46	- 7 22.4	2.020	2.939	9.4	21.5
4 21	11 18.85	+14 14.2	1.507	2.314	18.5	18.6	4 21	11 17.13	- 6 51.6	2.081	2.928	12.6	21.7
122272	2000 <i>PV</i>		3 16.7 143°76	0°6/15.9	18		500151	2012 <i>DA</i> ₆₄		3 16.7 287°55	7°0/21.3	17	

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3 16.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
50656	2000 <i>EM</i> ₉₄		3 16.7 148°36	2°7/19.6	18		156858	2003 <i>DN</i> ₃		3 16.7 227°79	2°4/18.8	17	
2 11	12 11.84	- 9 23.1	2.314	3.087	13.2	18.7	2 11	12 13.35	- 6 16.9	2.178	2.966	13.4	20.5
2 21	12 6.32	- 9 13.1	2.232	3.099	10.4	18.6	2 21	12 7.74	- 6 28.5	2.078	2.956	10.5	20.3
3 2	11 59.01	- 8 46.9	2.174	3.110	7.2	18.4	3 2	12 0.08	- 6 26.5	2.002	2.946	7.2	20.1
3 12	11 50.52	- 8 6.5	2.142	3.120	4.0	18.2	3 12	11 50.94	- 6 12.2	1.954	2.935	3.7	19.8
3 22	11 41.64	- 7 15.5	2.141	3.129	2.8	18.1	3 22	11 41.17	- 5 48.2	1.934	2.924	2.7	19.8
4 1	11 33.22	- 6 19.3	2.169	3.138	5.4	18.3	4 1	11 31.72	- 5 18.9	1.944	2.913	5.9	19.9
4 11	11 26.03	- 5 23.7	2.226	3.146	8.6	18.5	4 11	11 23.51	- 4 49.5	1.982	2.901	9.6	20.1
4 21	11 20.61	- 4 33.8	2.308	3.153	11.6	18.7	4 21	11 17.22	- 4 24.5	2.044	2.888	12.9	20.3
218915	2007 <i>PL</i> ₂₇		3 16.7 199°15	3°4/19.7	17		319538	2006 <i>RG</i> ₈₃		3 16.7 222°49	0°2/16.9	17	
2 11	12 14.34	- 9 21.4	1.944	2.723	15.1	21.2	2 11	12 7.32	- 1 24.4	2.435	3.247	11.5	21.8
2 21	12 8.68	- 9 30.7	1.850	2.720	12.0	20.9	2 21	12 2.95	- 0 58.2	2.346	3.243	8.6	21.6
3 2	12 0.73	- 9 22.1	1.779	2.716	8.5	20.7	3 2	11 56.96	- 0 21.2	2.282	3.239	5.4	21.4
3 12	11 51.15	- 8 56.3	1.735	2.711	4.9	20.5	3 12	11 49.88	+ 0 23.4	2.245	3.235	1.8	21.1
3 22	11 40.88	- 8 16.6	1.719	2.706	3.6	20.4	3 22	11 42.40	+ 1 11.0	2.239	3.231	1.9	21.1
4 1	11 31.03	- 7 28.3	1.731	2.700	6.5	20.5	4 1	11 35.25	+ 1 57.0	2.261	3.227	5.5	21.4
4 11	11 22.64	- 6 38.4	1.771	2.693	10.3	20.8	4 11	11 29.15	+ 2 36.6	2.312	3.223	8.8	21.6
4 21	11 16.41	- 5 53.1	1.835	2.685	13.9	21.0	4 21	11 24.61	+ 3 6.5	2.386	3.218	11.7	21.7
82410	2001 <i>NU</i> ₁₁		3 16.7 226°81	0°8/15.9	18		263583	2008 <i>FK</i> ₉₃		3 16.7 233°09	1°3/17.8	17	
2 11	12 10.72	+ 1 18.0	1.806	2.635	14.1	19.9	2 11	12 10.41	- 4 2.3	1.815	2.627	14.7	21.3
2 21	12 6.00	+ 1 49.7	1.723	2.631	10.6	19.7	2 21	12 5.81	- 3 47.1	1.728	2.623	11.3	21.1
3 2	11 59.06	+ 2 33.6	1.665	2.627	6.4	19.4	3 2	11 58.98	- 3 15.7	1.664	2.619	7.3	20.8
3 12	11 50.59	+ 3 24.7	1.632	2.623	2.0	19.1	3 12	11 50.59	- 2 31.5	1.626	2.614	3.0	20.5
3 22	11 41.54	+ 4 16.6	1.628	2.619	2.9	19.2	3 22	11 41.59	- 1 39.5	1.616	2.609	2.3	20.5
4 1	11 32.98	+ 5 2.5	1.652	2.615	7.4	19.4	4 1	11 33.04	- 0 46.6	1.634	2.604	6.7	20.7
4 11	11 25.90	+ 5 36.9	1.702	2.610	11.5	19.6	4 11	11 25.96	+ 0 0.6	1.679	2.599	10.9	21.0
4 21	11 20.97	+ 5 56.5	1.773	2.605	15.1	19.9	4 21	11 21.01	+ 0 37.0	1.746	2.594	14.5	21.2
67665	2000 <i>SX</i> ₂₇₁		3 16.7 197°35	3°2/19.7	18		290093	2005 <i>QX</i> ₁₀₃		3 16.7 193°92	0°2/16.5	16	
2 11	12 11.66	- 9 45.0	1.935	2.718	15.0	18.9	2 11	12 8.48	- 2 4.2	2.105	2.919	12.9	22.2
2 21	12 6.66	- 9 39.2	1.844	2.716	12.0	18.7	2 21	12 4.06	- 1 8.9	2.018	2.918	9.7	22.0
3 2	11 59.46	- 9 13.8	1.775	2.713	8.4	18.5	3 2	11 57.75	+ 0 1.2	1.956	2.916	6.0	21.8
3 12	11 50.73	- 8 30.5	1.732	2.710	4.7	18.3	3 12	11 50.17	+ 1 21.3	1.922	2.913	1.9	21.5
3 22	11 41.38	- 7 33.3	1.717	2.706	3.4	18.2	3 22	11 42.11	+ 2 44.6	1.918	2.910	2.3	21.5
4 1	11 32.45	- 6 28.5	1.731	2.701	6.4	18.3	4 1	11 34.46	+ 4 3.9	1.943	2.906	6.4	21.8
4 11	11 24.94	- 5 23.7	1.772	2.696	10.2	18.5	4 11	11 28.05	+ 5 12.8	1.995	2.902	10.2	22.0
4 21	11 19.52	- 4 25.6	1.836	2.690	13.7	18.8	4 21	11 23.44	+ 6 6.8	2.071	2.898	13.4	22.2
37032	2000 <i>UL</i> ₈		3 16.7 91°31	4°4/12.6	18		195080	2002 <i>CX</i> ₁₀₇		3 16.7 71°15	2°6/14.6	18	
2 11	12 12.67	+ 12 5.7	1.907	2.750	12.9	19.0	2 11	12 12.31	+ 4 37.6	1.396	2.245	16.4	19.7
2 21	12 7.13	+ 12 54.8	1.851	2.765	9.6	18.8	2 21	12 7.50	+ 5 28.3	1.341	2.259	12.1	19.4
3 2	11 59.54	+ 13 45.3	1.820	2.780	6.3	18.6	3 2	12 0.05	+ 6 30.1	1.307	2.274	7.3	19.2
3 12	11 50.68	+ 14 30.1	1.816	2.794	4.4	18.5	3 12	11 50.92	+ 7 34.5	1.299	2.288	3.0	19.0
3 22	11 41.52	+ 15 2.8	1.840	2.809	5.9	18.6	3 22	11 41.35	+ 8 32.5	1.317	2.303	4.7	19.1
4 1	11 33.06	+ 15 19.1	1.891	2.823	9.0	18.8	4 1	11 32.67	+ 9 16.2	1.361	2.318	9.3	19.4
4 11	11 26.16	+ 15 17.2	1.968	2.837	12.1	19.1	4 11	11 25.97	+ 9 40.6	1.429	2.332	13.7	19.7
4 21	11 21.36	+ 14 57.7	2.066	2.850	14.9	19.3	4 21	11 21.87	+ 9 44.6	1.517	2.347	17.3	20.0
477590	2010 <i>JN</i> ₉₈		3 16.7 249°27	6°6/26.8	18		187883	2000 <i>RW</i>		3 16.7 240°74	0°1/16.7	17	
2 11	12 6.76	- 27 26.1	3.157	3.802	12.4	22.1	2 11	12 8.23	- 2 52.5	2.369	3.175	11.9	21.8
2 21	12 2.45	- 27 33.1	3.035	3.783	10.9	22.0	2 21	12 3.80	- 1 54.8	2.263	3.157	9.0	21.6
3 2	11 56.64	- 27 20.0	2.932	3.763	9.3	21.8	3 2	11 57.59	- 0 41.9	2.182	3.139	5.6	21.3
3 12	11 49.78	- 26 45.4	2.853	3.743	7.7	21.7	3 12	11 50.14	+ 0 41.9	2.130	3.120	1.9	21.0
3 22	11 42.45	- 25 49.9	2.800	3.722	6.7	21.6	3 22	11 42.12	+ 2 10.7	2.108	3.100	2.1	21.0
4 1	11 35.31	- 24 36.0	2.775	3.701	6.7	21.6	4 1	11 34.36	+ 3 37.8	2.117	3.080	6.0	21.2
4 11	11 29.02	- 23 8.8	2.779	3.679	7.9	21.6	4 11	11 27.64	+ 4 56.3	2.154	3.059	9.6	21.4
4 21	11 24.08	- 21 34.5	2.808	3.657	9.6	21.7	4 21	11 22.54	+ 6 1.6	2.215	3.037	12.8	21.6
109587	2001 <i>QJ</i> ₂₇₇		3 16.7 175°94	4°6/10.8	17 R		289992	Onfray		3 16.7 285°07	0°2/16.5	17	
2 11	12 8.11	+ 14 35.5	2.431	3.274	10.4	20.0	2 11	12 7.38	- 0 18.2	2.275	3.093	11.9	21.7
2 21	12 3.51	+ 15 43.1	2.363	3.275	7.9	19.8	2 21	12 3.23	+ 0 9.6	2.171	3.073	9.0	21.4
3 2	11 57.27	+ 16 51.1	2.321	3.275	5.5	19.7	3 2	11 57.28	+ 0 48.9	2.092	3.052	5.6	21.2
3 12	11 49.96	+ 17 53.0	2.308	3.276	4.6	19.6	3 12	11 50.04	+ 1 36.0	2.041	3.032	1.8	20.9
3 22	11 42.30	+ 18 43.0	2.323	3.276	6.0	19.7	3 22	11 42.23	+ 2 26.3	2.019	3.011	2.2	20.9
4 1	11 35.07	+ 19 16.9	2.366	3.277	8.5	19.8	4 1	11 34.68	+ 3 14.2	2.026	2.990	6.1	21.1
4 11	11 28.97	+ 19 32.5	2.435	3.277	11.0	20.0	4 11	11 28.20	+ 3 54.7	2.060	2.969	9.8	21.3
4 21	11 24.49	+ 19 30.0	2.525	3.276	13.3	20.2	4 21	11 23.38	+ 4 23.9	2.117	2.948	13.0	21.4
41049	Van Citters		3 16.7 179°56	5°7/ 9.2	18		425069	2009 <i>RJ</i> ₄₁		3 16.7 120°78	2°1/19.0	18	
2 11	12 11.33	+ 19 53.6	2.614	3.449	10.1	19.2	2 11	12 10.82	- 7 35.7	2.232	3.017	13.2	22.4
2 21	12 5.81	+ 21 3.3	2.550	3.451	7.9	19.1	2 21	12 5.57	- 7 19.8	2.158	3.034	10.3	22.2
3 2	11 58.64	+ 22 9.5	2.512	3.452	6.2	19.0	3 2	11 58.55	- 6 48.3	2.108	3.050	6.9	22.1
3 12	11 50.40	+ 23 5.7	2.504	3.452	5.8	18.9	3 12	11 50.40	- 6 4.0	2.085	3.066	3.5	21.9
3 22	11 41.83	+ 23 46.7	2.523	3.452	7.0	19.0	3 22	11 41.91	- 5 11.1	2.091	3.082	2.4	21.8
4 1	11 33.71	+ 24 9.0	2.571	3.451	9.1	19.2	4 1	11 33.93	- 4 15.2	2.127	3.097	5.4	22.0
4 11	11 26.75	+ 24 11.6	2.643	3.450	11.3	19.3	4 11	11 27.22	- 3 22.0	2.191	3.111	8.7	22.3
4 21	11 21.43	+ 23 55.6	2.736	3.448	13.3	19.4	4 21	11 22.29	- 2 36.1	2.280	3.125	11.7	22.5
464899	2005 <i>SV</i> ₃₀		3 16.7 148°57	0°1/16.8	17		311588	2006 <i>HT</i> ₁₂₀		3 16			

EPHEMERIDES

3 16.7

3 16.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
221669	2007 <i>CP</i> ₅₂		3 16.7 45°82	5°8/20.7	18		420775	2013 <i>GB</i> ₅₀		3 16.7 307°02	4°8/12.3	16	
2 11	12 16.53	-11 24.5	1.661	2.439	17.4	19.2	2 11	12 8.00	+ 8 19.1	1.425	2.285	15.4	20.8
2 21	12 10.60	-12 31.1	1.585	2.447	14.1	18.9	2 21	12 4.56	+ 9 45.6	1.350	2.275	11.4	20.5
3 2	12 2.03	-13 19.0	1.530	2.455	10.5	18.7	3 2	11 58.47	+11 23.2	1.299	2.265	7.3	20.3
3 12	11 51.62	-13 46.4	1.500	2.464	7.2	18.6	3 12	11 50.50	+13 1.2	1.273	2.256	4.8	20.1
3 22	11 40.51	-13 53.9	1.496	2.473	5.9	18.5	3 22	11 41.79	+14 28.0	1.272	2.246	7.1	20.2
4 1	11 30.01	-13 45.1	1.520	2.483	7.9	18.6	4 1	11 33.66	+15 33.3	1.297	2.237	11.4	20.4
4 11	11 21.31	-13 26.4	1.569	2.492	11.3	18.9	4 11	11 27.31	+16 11.4	1.344	2.229	15.7	20.6
4 21	11 15.18	-13 4.8	1.641	2.502	14.7	19.1	4 21	11 23.53	+16 21.2	1.410	2.220	19.3	20.9
340830	2006 <i>UU</i> ₂₄₁		3 16.7 91°75	1°5/18.6	18		502685	2015 <i>CR</i> ₆₀		3 16.7 112°82	4°3/12.3	18	
2 11	12 6.89	- 6 43.1	2.477	3.268	11.9	21.4	2 11	12 10.02	+11 18.3	1.967	2.812	12.4	20.7
2 21	12 2.48	- 6 10.2	2.407	3.288	9.1	21.2	2 21	12 5.23	+12 20.7	1.903	2.819	9.2	20.5
3 2	11 56.58	- 5 23.4	2.361	3.308	6.0	21.0	3 2	11 58.46	+13 26.1	1.864	2.825	6.0	20.3
3 12	11 49.75	- 4 25.8	2.343	3.327	2.8	20.9	3 12	11 50.41	+14 27.2	1.852	2.831	4.3	20.2
3 22	11 42.65	- 3 22.1	2.354	3.346	1.9	20.8	3 22	11 41.97	+15 17.0	1.868	2.837	5.9	20.3
4 1	11 36.01	- 2 17.6	2.396	3.365	4.9	21.0	4 1	11 34.10	+15 50.2	1.912	2.842	9.0	20.5
4 11	11 30.44	- 1 17.6	2.465	3.384	8.0	21.3	4 11	11 27.65	+16 4.1	1.981	2.848	12.1	20.7
4 21	11 26.38	- 0 26.2	2.560	3.402	10.7	21.5	4 21	11 23.18	+15 58.8	2.071	2.853	14.9	20.9
432422	2010 <i>AV</i> ₆₄		3 16.7 11°53	6°5/10.1	17		470464	2008 <i>AZ</i> ₃₅		3 16.7 190°79	8°5/28.1	18	
2 11	12 9.66	+16 42.3	1.810	2.663	12.9	21.2	2 11	12 12.28	-31 14.8	2.980	3.587	13.7	21.5
2 21	12 5.19	+17 59.0	1.748	2.664	10.0	21.0	2 21	12 6.74	-32 14.7	2.879	3.586	12.3	21.4
3 2	11 58.53	+19 14.4	1.712	2.664	7.4	20.8	3 2	11 59.40	-32 54.5	2.797	3.585	10.9	21.3
3 12	11 50.43	+20 19.5	1.702	2.665	6.5	20.8	3 12	11 50.75	-33 11.5	2.738	3.583	9.6	21.2
3 22	11 41.88	+21 6.4	1.718	2.666	8.2	20.9	3 22	11 41.50	-33 4.6	2.703	3.580	8.7	21.1
4 1	11 33.96	+21 30.1	1.760	2.667	11.1	21.0	4 1	11 32.47	-32 35.1	2.694	3.577	8.6	21.1
4 11	11 27.60	+21 28.9	1.825	2.669	14.1	21.2	4 11	11 24.46	-31 47.3	2.710	3.574	9.4	21.2
4 21	11 23.39	+21 4.4	1.909	2.670	16.7	21.4	4 21	11 18.08	-30 47.0	2.751	3.571	10.6	21.2
140312	2001 <i>SY</i> ₃₁₉		3 16.7 263°98	0°0/16.7	17		150119	1993 <i>TM</i> ₁₀		3 16.7 152°13	1°3/17.9	16	
2 11	12 5.52	- 2 10.4	2.255	3.071	12.1	20.4	2 11	12 11.01	- 4 28.5	2.035	2.838	13.7	21.7
2 21	12 1.75	- 1 21.3	2.167	3.067	9.1	20.2	2 21	12 5.96	- 4 11.2	1.954	2.844	10.5	21.5
3 2	11 56.29	- 0 18.6	2.104	3.063	5.6	20.0	3 2	11 58.92	- 3 39.1	1.897	2.849	6.8	21.3
3 12	11 49.70	+ 0 53.3	2.068	3.059	1.8	19.7	3 12	11 50.57	- 2 55.5	1.867	2.854	2.9	21.0
3 22	11 42.68	+ 2 8.7	2.062	3.054	2.1	19.7	3 22	11 41.76	- 2 5.1	1.866	2.859	2.1	21.0
4 1	11 36.01	+ 3 21.2	2.085	3.050	5.9	20.0	4 1	11 33.44	- 1 14.0	1.894	2.863	6.0	21.2
4 11	11 30.45	+ 4 24.7	2.136	3.046	9.4	20.2	4 11	11 26.46	- 0 27.9	1.949	2.867	9.8	21.5
4 21	11 26.50	+ 5 15.3	2.210	3.042	12.5	20.4	4 21	11 21.42	+ 0 8.7	2.028	2.871	13.0	21.7
8906	<i>Yano</i>		3 16.7 99°59	0°3/16.4	18		120854	1998 <i>QQ</i> ₁₂		3 16.7 261°08	0°4/16.3	18	
2 11	12 7.58	- 0 0.7	2.561	3.374	10.9	18.3	2 11	12 10.44	- 1 51.2	1.578	2.406	15.8	19.8
2 21	12 2.93	+ 0 34.1	2.493	3.392	8.1	18.1	2 21	12 6.35	- 0 56.0	1.480	2.386	12.1	19.5
3 2	11 56.83	+ 1 17.9	2.450	3.410	4.9	17.9	3 2	11 59.63	+ 0 20.0	1.404	2.366	7.5	19.1
3 12	11 49.83	+ 2 7.0	2.436	3.427	1.5	17.7	3 12	11 50.93	+ 1 51.6	1.354	2.344	2.4	18.8
3 22	11 42.58	+ 2 56.7	2.453	3.444	2.0	17.8	3 22	11 41.28	+ 3 29.9	1.331	2.323	3.2	18.8
4 1	11 35.76	+ 3 42.6	2.499	3.461	5.3	18.0	4 1	11 31.96	+ 5 4.1	1.336	2.300	8.5	19.0
4 11	11 29.99	+ 4 20.8	2.573	3.477	8.3	18.2	4 11	11 24.23	+ 6 24.3	1.366	2.278	13.5	19.2
4 21	11 25.69	+ 4 48.6	2.671	3.494	10.8	18.4	4 21	11 18.97	+ 7 24.0	1.416	2.254	17.9	19.5
107544	2001 <i>DR</i> ₇₀		3 16.7 190°64	1°0/17.7	18		474612	2004 <i>TX</i> ₁₈		3 16.7 162°56	12°0/27.8	18	
2 11	12 14.57	- 2 52.6	2.214	3.011	12.9	19.9	2 11	12 10.69	-28 44.0	1.172	1.898	25.9	21.4
2 21	12 8.53	- 2 46.4	2.123	3.010	9.9	19.7	2 21	12 7.43	-28 59.1	1.095	1.901	22.9	21.2
3 2	12 0.49	- 2 28.3	2.056	3.008	6.4	19.4	3 2	12 0.65	-28 24.6	1.031	1.904	19.2	20.9
3 12	11 51.08	- 2 0.9	2.018	3.005	2.5	19.2	3 12	11 51.30	-26 53.7	0.984	1.907	15.4	20.7
3 22	11 41.13	- 1 27.9	2.009	3.002	2.1	19.1	3 22	11 40.91	-24 27.1	0.957	1.909	12.5	20.6
4 1	11 31.60	- 0 54.3	2.031	2.997	5.9	19.4	4 1	11 31.35	-21 16.1	0.954	1.910	12.3	20.5
4 11	11 23.36	- 0 24.9	2.081	2.992	9.6	19.6	4 11	11 24.29	-17 42.7	0.974	1.911	14.9	20.7
4 21	11 17.01	- 0 3.3	2.155	2.986	12.8	19.8	4 21	11 20.66	-14 11.0	1.016	1.912	18.8	20.9
454993	2015 <i>TG</i> ₂₄₁		3 16.7 101°16	2°4/18.5	18		366419	2001 <i>TZ</i> ₂₅₆		3 16.7 197°84	4°1/21.2	17	
2 11	12 14.91	- 5 49.5	1.411	2.225	18.1	21.1	2 11	12 11.74	-13 37.4	2.502	3.249	13.0	22.6
2 21	12 9.55	- 5 48.2	1.345	2.239	14.0	20.9	2 21	12 6.32	-13 45.1	2.402	3.245	10.6	22.4
3 2	12 1.40	- 5 26.2	1.300	2.252	9.3	20.6	3 2	11 59.11	-13 35.8	2.324	3.241	7.9	22.2
3 12	11 51.40	- 4 46.8	1.279	2.265	4.3	20.4	3 12	11 50.65	-13 9.9	2.273	3.235	5.3	22.1
3 22	11 40.83	- 3 56.0	1.285	2.277	3.1	20.3	3 22	11 41.67	-12 29.4	2.251	3.229	4.1	22.0
4 1	11 31.09	- 3 2.2	1.318	2.290	7.7	20.6	4 1	11 32.99	-11 38.5	2.259	3.223	5.7	22.1
4 11	11 23.40	- 2 13.6	1.375	2.302	12.3	20.9	4 11	11 25.41	-10 43.0	2.296	3.215	8.4	22.2
4 21	11 18.44	- 1 36.4	1.454	2.313	16.3	21.2	4 21	11 19.50	- 9 48.3	2.358	3.207	11.2	22.4
291967	2006 <i>QO</i> ₆₁		3 16.7 277°45	2°7/18.8	18		330413	2007 <i>BP</i> ₅₈		3 16.7 17°84	2°1/14.7	18	
2 11	12 11.38	- 6 29.8	1.626	2.435	16.3	20.5	2 11	12 5.26	+ 1 47.6	1.427	2.279	15.8	19.8
2 21	12 6.89	- 6 36.2	1.536	2.425	12.9	20.2	2 21	12 2.31	+ 3 1.0	1.362	2.283	11.7	19.6
3 2	11 59.84	- 6 24.0	1.467	2.416	8.7	19.9	3 2	11 56.94	+ 4 30.7	1.320	2.288	7.0	19.3
3 12	11 50.95	- 5 54.9	1.423	2.407	4.4	19.7	3 12	11 49.97	+ 6 7.9	1.303	2.294	2.6	19.1
3 22	11 41.25	- 5 13.0	1.406	2.397	3.2	19.6	3 22	11 42.47	+ 7 41.8	1.312	2.300	4.4	19.2
4 1	11 32.00	- 4 24.9	1.416	2.388	7.2	19.8	4 1	11 35.64	+ 9 2.2	1.348	2.307	9.1	19.5
4 11	11 24.37	- 3 38.4	1.451	2.379	11.7	20.0	4 11	11 30.51	+10 1.6	1.406	2.315	13.5	19.7
4 21	11 19.16	- 3 0.1	1.508	2.369	15.7	20.2	4 21	11 27.74	+10 37.0	1.485	2.323	17.2	20.0
341410	2007 <i>TN</i> ₁₇₃		3 16.7 209°76	0°8/15.9	17		402562	2006 <i>QO</i> ₆₀					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
502433	2015 <i>BO</i> ₂₇₀		3 16.7 105°64	2°4/14.2	17		429111	2009 <i>SQ</i> ₁₇₃		3 16.7 161°37	2°9/19.7	17	
2 11	12 9.19	+ 5 54.0	2.026	2.863	12.5	21.6	2 11	12 12.46	- 9 0.2	2.320	3.094	13.1	21.4
2 21	12 4.54	+ 6 45.8	1.958	2.872	9.2	21.4	2 21	12 6.88	- 9 6.5	2.233	3.100	10.4	21.3
3 2	11 58.01	+ 7 44.8	1.916	2.880	5.6	21.2	3 2	11 59.45	- 8 57.8	2.170	3.105	7.3	21.1
3 12	11 50.27	+ 8 44.9	1.901	2.889	2.6	21.0	3 12	11 50.80	- 8 35.3	2.134	3.110	4.1	20.9
3 22	11 42.15	+ 9 39.7	1.914	2.897	4.0	21.1	3 22	11 41.68	- 8 2.0	2.127	3.114	3.0	20.8
4 1	11 34.57	+10 23.4	1.956	2.905	7.6	21.3	4 1	11 32.98	- 7 22.2	2.150	3.118	5.5	21.0
4 11	11 28.33	+10 52.0	2.024	2.913	10.9	21.5	4 11	11 25.50	- 6 41.4	2.201	3.121	8.7	21.2
4 21	11 23.97	+11 4.2	2.114	2.921	13.9	21.7	4 21	11 19.79	- 6 4.2	2.277	3.124	11.7	21.4
233485	2006 <i>TB</i> ₇₄		3 16.7 194°75	1°5/18.9	18		309253	2007 <i>RC</i> ₄₂		3 16.7 345°35	3°6/19.5	18	
2 11	12 5.51	- 8 2.0	2.895	3.674	10.6	21.3	2 11	12 9.51	- 8 36.9	1.393	2.207	18.3	20.7
2 21	12 1.40	- 7 19.7	2.798	3.672	8.3	21.1	2 21	12 5.78	- 8 39.6	1.314	2.204	14.5	20.4
3 2	11 55.94	- 6 23.3	2.726	3.669	5.5	20.9	3 2	11 59.29	- 8 18.3	1.255	2.202	10.1	20.2
3 12	11 49.58	- 5 15.6	2.683	3.666	2.7	20.8	3 12	11 50.85	- 7 34.7	1.219	2.200	5.5	19.9
3 22	11 42.89	- 4 0.6	2.671	3.663	1.8	20.7	3 22	11 41.61	- 6 34.2	1.208	2.198	3.8	19.8
4 1	11 36.48	- 2 43.3	2.689	3.659	4.4	20.9	4 1	11 32.96	- 5 25.4	1.223	2.197	7.7	20.0
4 11	11 30.92	- 1 29.0	2.737	3.654	7.3	21.0	4 11	11 26.18	- 4 18.4	1.261	2.196	12.5	20.3
4 21	11 26.66	- 0 22.2	2.811	3.649	9.9	21.2	4 21	11 22.05	- 3 21.5	1.321	2.195	16.7	20.5
175469	2006 <i>QD</i> ₁₂₇		3 16.7 107°70	0°8/15.9	18		44975	1999 <i>VD</i> ₁₄₅		3 16.7 140°41	2°4/19.2	18	
2 11	12 13.16	+ 3 39.6	2.653	3.465	10.6	20.0	2 11	12 9.39	- 7 35.3	2.131	2.922	13.6	19.4
2 21	12 6.97	+ 3 47.0	2.585	3.484	7.9	19.8	2 21	12 4.73	- 7 27.7	2.047	2.926	10.6	19.2
3 2	11 59.26	+ 3 59.9	2.543	3.503	4.7	19.7	3 2	11 58.19	- 7 4.1	1.987	2.930	7.2	19.0
3 12	11 50.63	+ 4 15.0	2.531	3.522	1.5	19.5	3 12	11 50.40	- 6 26.6	1.953	2.934	3.7	18.7
3 22	11 41.77	+ 4 29.2	2.550	3.540	2.2	19.5	3 22	11 42.15	- 5 39.3	1.947	2.938	2.6	18.7
4 1	11 33.40	+ 4 39.2	2.600	3.558	5.4	19.8	4 1	11 34.33	- 4 47.7	1.971	2.941	5.7	18.9
4 11	11 26.16	+ 4 42.6	2.678	3.575	8.3	20.0	4 11	11 27.77	- 3 57.6	2.021	2.945	9.2	19.1
4 21	11 20.50	+ 4 37.9	2.782	3.592	10.8	20.2	4 21	11 23.03	- 3 14.3	2.096	2.948	12.3	19.3
223753	2004 <i>RE</i> ₂₀₆		3 16.7 177°17	4°8/22.6	17		140420	2001 <i>TM</i> ₉₀		3 16.7 77°44	3°7/21.0	18	
2 11	12 9.93	-17 9.8	2.607	3.333	13.0	20.9	2 11	12 7.02	-12 35.1	2.270	3.037	13.6	20.0
2 21	12 4.90	-17 17.2	2.511	3.335	10.8	20.7	2 21	12 2.88	-12 30.8	2.186	3.044	10.9	19.8
3 2	11 58.19	-17 6.1	2.437	3.337	8.4	20.5	3 2	11 57.01	-12 8.1	2.124	3.050	8.0	19.6
3 12	11 50.35	-16 36.7	2.390	3.338	6.0	20.4	3 12	11 50.00	-11 28.3	2.089	3.057	5.0	19.4
3 22	11 42.06	-15 50.9	2.370	3.339	4.8	20.3	3 22	11 42.59	-10 34.9	2.081	3.064	3.7	19.4
4 1	11 34.11	-14 52.9	2.380	3.338	5.8	20.4	4 1	11 35.58	- 9 33.1	2.102	3.071	5.5	19.5
4 11	11 27.21	-13 48.3	2.419	3.338	8.1	20.5	4 11	11 29.73	- 8 29.3	2.150	3.077	8.5	19.7
4 21	11 21.90	-12 43.0	2.483	3.336	10.6	20.7	4 21	11 25.55	- 7 29.2	2.223	3.084	11.4	19.9
37278	2000 <i>YE</i> ₇		3 16.7 242°07	6°8/ 8.6	18		133209	2003 <i>QN</i> ₆₈		3 16.7 231°53	0°7/17.4	17	
2 11	12 10.54	+19 56.5	2.156	3.000	11.5	19.4	2 11	12 11.27	- 3 25.8	1.860	2.671	14.5	21.0
2 21	12 5.68	+21 19.7	2.084	2.989	9.1	19.2	2 21	12 6.53	- 2 55.4	1.765	2.661	11.1	20.7
3 2	11 58.81	+22 40.2	2.037	2.978	7.2	19.0	3 2	11 59.52	- 2 8.2	1.693	2.649	7.1	20.5
3 12	11 50.58	+23 49.5	2.018	2.967	6.9	19.0	3 12	11 50.89	- 1 8.0	1.649	2.638	2.6	20.2
3 22	11 41.83	+24 40.4	2.027	2.955	8.5	19.1	3 22	11 41.56	- 0 0.9	1.632	2.625	2.3	20.1
4 1	11 33.54	+25 8.3	2.061	2.943	11.0	19.2	4 1	11 32.61	+ 1 5.9	1.644	2.612	6.9	20.4
4 11	11 26.58	+25 11.5	2.119	2.931	13.5	19.3	4 11	11 25.07	+ 2 5.0	1.683	2.598	11.2	20.6
4 21	11 21.56	+24 51.5	2.196	2.918	15.9	19.5	4 21	11 19.66	+ 2 51.1	1.744	2.584	14.9	20.8
36658	2000 <i>QG</i> ₂₀₄		3 16.7 283°71	2°3/14.6	18		454112	2013 <i>CA</i> ₇₆		3 16.7 344°83	4°5/19.7	18	
2 11	12 9.18	+ 4 40.9	1.795	2.635	13.7	19.4	2 11	12 8.23	- 8 37.8	1.170	1.999	20.2	20.6
2 21	12 4.89	+ 5 29.1	1.716	2.631	10.1	19.1	2 21	12 5.30	- 9 1.1	1.094	1.991	16.2	20.3
3 2	11 58.43	+ 6 27.3	1.661	2.626	6.1	18.9	3 2	11 59.24	- 8 58.7	1.035	1.985	11.4	20.0
3 12	11 50.47	+ 7 29.0	1.633	2.622	2.5	18.6	3 12	11 50.89	- 8 30.9	0.998	1.979	6.5	19.7
3 22	11 41.97	+ 8 27.1	1.632	2.618	4.1	18.7	3 22	11 41.54	- 7 42.2	0.985	1.974	4.7	19.5
4 1	11 33.96	+ 9 14.4	1.659	2.613	8.2	19.0	4 1	11 32.82	- 6 41.5	0.994	1.971	8.7	19.8
4 11	11 27.41	+ 9 46.1	1.712	2.609	12.1	19.2	4 11	11 26.22	- 5 40.2	1.026	1.968	13.8	20.0
4 21	11 22.97	+ 9 59.7	1.785	2.605	15.5	19.4	4 21	11 22.67	- 4 48.1	1.077	1.966	18.5	20.3
467376	2004 <i>RX</i> ₇₉		3 16.7 228°04	6°9/ 6.9	17		274780	2008 <i>VQ</i> ₂₃		3 16.7 227°80	3°2/12.9	18	
2 11	12 12.12	+23 55.7	2.614	3.444	10.2	21.8	2 11	12 9.13	+ 9 21.8	2.333	3.170	11.0	20.9
2 21	12 6.62	+25 22.3	2.539	3.429	8.4	21.7	2 21	12 4.44	+10 17.0	2.249	3.162	8.2	20.7
3 2	11 59.30	+26 43.9	2.491	3.414	7.1	21.6	3 2	11 57.98	+11 16.9	2.192	3.154	5.2	20.5
3 12	11 50.73	+27 53.1	2.471	3.397	7.1	21.5	3 12	11 50.33	+12 15.6	2.162	3.145	3.3	20.4
3 22	11 41.68	+28 43.9	2.479	3.380	8.5	21.6	3 22	11 42.23	+13 7.2	2.162	3.135	4.7	20.5
4 1	11 32.98	+29 12.4	2.514	3.362	10.4	21.7	4 1	11 34.50	+13 46.6	2.191	3.126	7.7	20.6
4 11	11 25.43	+29 17.5	2.572	3.343	12.5	21.8	4 11	11 27.91	+14 10.4	2.245	3.116	10.8	20.8
4 21	11 19.59	+29 0.6	2.650	3.323	14.4	21.9	4 21	11 22.99	+14 17.5	2.322	3.106	13.5	21.0
209026	2003 <i>FQ</i> ₂₁		3 16.7 78°10	0°6/16.0	17		313432	2002 <i>QC</i> ₁₁₆		3 16.7 104°78	3°6/19.9	18	
2 11	12 6.95	+ 0 21.7	2.267	3.089	11.9	20.7	2 11	12 12.48	- 9 32.3	1.739	2.529	16.2	21.5
2 21	12 2.68	+ 1 5.5	2.200	3.104	8.8	20.6	2 21	12 7.39	- 9 40.3	1.665	2.539	12.9	21.3
3 2	11 56.79	+ 1 59.5	2.158	3.119	5.3	20.4	3 2	11 59.97	- 9 28.3	1.611	2.550	9.0	21.1
3 12	11 49.88	+ 2 59.2	2.144	3.134	1.6	20.1	3 12	11 51.01	- 8 57.8	1.583	2.560	5.2	20.9
3 22	11 42.68	+ 3 59.0	2.159	3.150	2.3	20.2	3 22	11 41.51	- 8 12.9	1.583	2.570	3.7	20.8
4 1	11 35.96	+ 4 53.3	2.203	3.165	5.9	20.5	4 1	11 32.63	- 7 20.1	1.610	2.580	6.7	21.0
4 11	11 30.39	+ 5 37.7	2.274	3.180	9.2	20.7	4 11	11 25.37	- 6 26.8	1.663	2.590	10.5	21.2
4 21	11 26.45	+ 6 9.5	2.370	3.194	12.0	20.9	4 21	11 20.38	- 5 39.7	1.739	2.599	14.0	21.5
104567	2000 <i>GC</i> ₇₅		3 16.7 261°98	3°5/21.5	18		431165	2006 <i>RC</i> ₄₅					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
308548	2005 <i>UX</i> ₂₅₁		3 16.7 223°60	5°2/24.0	18		181752	1996 <i>JZ</i> ₆		3 16.7 304°10	2°2/14.9	17	
2 11	12 7.62	-20 35.5	3.125	3.822	11.6	21.8	2 11	12 8.85	+ 3 51.6	1.577	2.423	14.9	20.8
2 21	12 3.04	-20 50.0	3.014	3.811	9.9	21.6	2 21	12 5.06	+ 4 36.5	1.491	2.408	11.2	20.6
3 2	11 57.03	-20 47.7	2.926	3.801	8.0	21.5	3 2	11 58.77	+ 5 34.0	1.427	2.393	6.8	20.3
3 12	11 50.02	-20 28.2	2.863	3.790	6.2	21.4	3 12	11 50.70	+ 6 37.7	1.389	2.379	2.6	20.0
3 22	11 42.57	-19 52.6	2.827	3.779	5.2	21.3	3 22	11 41.85	+ 7 39.2	1.377	2.365	4.3	20.0
4 1	11 35.33	-19 3.6	2.821	3.767	5.7	21.3	4 1	11 33.45	+ 8 30.3	1.392	2.351	9.0	20.3
4 11	11 28.92	-18 5.6	2.843	3.755	7.3	21.4	4 11	11 26.66	+ 9 4.4	1.431	2.337	13.5	20.5
4 21	11 23.82	-17 3.8	2.891	3.742	9.3	21.5	4 21	11 22.25	+ 9 18.6	1.490	2.324	17.4	20.7
235714	2004 <i>TD</i> ₁₁₂		3 16.7 215°10	9°2/28.0	17 R		72141	2000 <i>YL</i> ₈₅		3 16.7 349°28	4°5/12.7	18	
2 11	12 8.88	-29 17.0	2.254	2.909	16.6	20.4	2 11	12 8.99	+ 8 5.5	1.424	2.283	15.5	18.7
2 21	12 4.63	-29 47.0	2.155	2.905	14.8	20.2	2 21	12 5.23	+ 9 24.6	1.358	2.281	11.5	18.5
3 2	11 58.29	-29 50.0	2.073	2.901	12.8	20.0	3 2	11 58.86	+10 53.5	1.313	2.280	7.3	18.2
3 12	11 50.48	-29 23.0	2.013	2.896	10.8	19.9	3 12	11 50.70	+12 21.8	1.295	2.279	4.6	18.0
3 22	11 42.04	-28 26.1	1.976	2.892	9.4	19.8	3 22	11 41.91	+13 38.7	1.302	2.278	6.7	18.2
4 1	11 33.96	-27 2.5	1.965	2.887	9.3	19.8	4 1	11 33.79	+14 35.1	1.334	2.277	10.9	18.4
4 11	11 27.19	-25 19.9	1.980	2.882	10.5	19.8	4 11	11 27.51	+15 5.8	1.389	2.277	15.0	18.6
4 21	11 22.38	-23 27.5	2.019	2.877	12.5	20.0	4 21	11 23.76	+15 10.4	1.463	2.277	18.6	18.9
22751	1998 <i>UA</i> ₂₇		3 16.7 302°77	3°8/13.8	18		361329	2006 <i>UU</i> ₆₁		3 16.7 233°15	4°6/21.6	17	
2 11	12 9.26	+ 5 45.2	1.280	2.140	16.8	16.9	2 11	12 11.18	-15 8.0	2.260	3.006	14.2	21.6
2 21	12 5.90	+ 6 49.1	1.199	2.124	12.6	16.6	2 21	12 6.24	-15 5.8	2.149	2.990	11.8	21.4
3 2	11 59.55	+ 8 7.7	1.139	2.108	7.8	16.3	3 2	11 59.27	-14 42.9	2.059	2.973	8.9	21.1
3 12	11 50.99	+ 9 31.6	1.104	2.092	3.9	16.0	3 12	11 50.83	-13 59.1	1.995	2.956	6.0	20.9
3 22	11 41.45	+10 49.3	1.093	2.077	6.2	16.1	3 22	11 41.70	-12 57.0	1.960	2.938	4.6	20.8
4 1	11 32.46	+11 49.4	1.107	2.062	11.3	16.3	4 1	11 32.81	-11 41.5	1.954	2.918	6.3	20.9
4 11	11 25.43	+12 24.6	1.143	2.047	16.3	16.5	4 11	11 25.08	-10 20.2	1.976	2.898	9.4	21.0
4 21	11 21.27	+12 32.4	1.197	2.033	20.6	16.8	4 21	11 19.19	- 9 0.4	2.023	2.877	12.6	21.2
272503	2005 <i>UZ</i> ₁₆₄		3 16.7 258°83	1°6/15.3	17		270582	2002 <i>JY</i> ₁₄₄		3 16.7 354°90	4°0/12.3	18	
2 11	12 11.31	+ 3 48.5	1.921	2.752	13.3	21.4	2 11	12 5.41	+ 7 5.2	1.737	2.590	13.4	19.5
2 21	12 6.48	+ 4 21.1	1.828	2.738	9.9	21.1	2 21	12 2.15	+ 8 44.5	1.667	2.589	9.9	19.3
3 2	11 59.45	+ 5 3.4	1.760	2.724	6.1	20.9	3 2	11 56.78	+10 34.0	1.621	2.587	6.2	19.1
3 12	11 50.87	+ 5 50.4	1.719	2.709	2.2	20.6	3 12	11 49.99	+12 24.2	1.603	2.586	4.0	19.0
3 22	11 41.62	+ 6 35.9	1.706	2.694	3.5	20.6	3 22	11 42.70	+14 4.9	1.613	2.586	6.0	19.1
4 1	11 32.75	+ 7 13.7	1.722	2.679	7.7	20.9	4 1	11 35.92	+15 27.3	1.649	2.586	9.7	19.3
4 11	11 25.26	+ 7 38.9	1.763	2.664	11.6	21.1	4 11	11 30.56	+16 25.8	1.710	2.586	13.3	19.5
4 21	11 19.83	+ 7 48.8	1.827	2.648	15.1	21.3	4 21	11 27.25	+16 58.8	1.791	2.586	16.4	19.7
187125	Marxgyörgy		3 16.7 123°00	4°4/11.7	18		330859	2009 <i>QP</i> ₂₉		3 16.7 127°64	1°6/18.8	18	
2 11	12 8.03	+ 9 5.7	1.888	2.736	12.7	20.1	2 11	12 9.96	- 7 23.1	2.475	3.257	12.2	21.9
2 21	12 3.88	+10 47.0	1.825	2.744	9.4	19.9	2 21	12 4.81	- 6 47.7	2.401	3.277	9.4	21.7
3 2	11 57.72	+12 35.1	1.787	2.751	6.1	19.7	3 2	11 58.07	- 5 57.5	2.351	3.295	6.2	21.5
3 12	11 50.26	+14 20.6	1.778	2.757	4.4	19.6	3 12	11 50.35	- 4 55.9	2.330	3.313	2.9	21.3
3 22	11 42.37	+15 54.3	1.797	2.764	6.2	19.8	3 22	11 42.34	- 3 47.4	2.338	3.330	2.0	21.3
4 1	11 35.02	+17 8.7	1.844	2.770	9.5	20.0	4 1	11 34.80	- 2 37.7	2.378	3.347	5.0	21.5
4 11	11 29.08	+17 59.6	1.915	2.776	12.8	20.2	4 11	11 28.39	- 1 32.4	2.446	3.362	8.1	21.7
4 21	11 25.11	+18 26.4	2.007	2.782	15.6	20.4	4 21	11 23.57	- 0 35.9	2.540	3.377	10.9	21.9
450488	2005 <i>YJ</i> ₆₇		3 16.7 62°48	2°8/14.7	18		495202	2013 <i>CG</i> ₄₈		3 16.7 64°57	3°6/13.7	18	
2 11	12 12.92	+ 4 47.1	1.269	2.122	17.4	21.2	2 11	12 10.41	+ 5 56.4	1.402	2.256	16.0	20.8
2 21	12 8.21	+ 5 35.8	1.215	2.136	12.8	20.9	2 21	12 6.27	+ 7 7.3	1.338	2.260	11.8	20.5
3 2	12 0.63	+ 6 36.2	1.183	2.151	7.8	20.7	3 2	11 59.47	+ 8 29.8	1.297	2.264	7.2	20.3
3 12	11 51.23	+ 7 39.2	1.176	2.165	3.2	20.4	3 12	11 50.89	+ 9 54.0	1.281	2.268	3.7	20.1
3 22	11 41.35	+ 8 35.0	1.194	2.180	5.0	20.6	3 22	11 41.73	+11 9.6	1.291	2.273	5.7	20.2
4 1	11 32.46	+ 9 15.4	1.237	2.195	9.9	20.9	4 1	11 33.32	+12 7.3	1.327	2.277	10.2	20.5
4 11	11 25.73	+ 9 35.4	1.304	2.211	14.4	21.2	4 11	11 26.80	+12 41.6	1.386	2.282	14.5	20.7
4 21	11 21.80	+ 9 34.1	1.389	2.226	18.2	21.5	4 21	11 22.87	+12 51.4	1.465	2.286	18.2	21.0
63576	2001 <i>QS</i> ₂₇		3 16.7 130°53	1°2/17.9	18		469122	2015 <i>DU</i> ₂₀₆		3 16.7 337°80	1°2/15.3	17	
2 11	12 11.57	- 5 38.4	1.654	2.464	16.0	19.7	2 11	12 5.37	+ 1 23.5	2.074	2.906	12.4	20.6
2 21	12 6.75	- 4 56.5	1.582	2.475	12.3	19.5	2 21	12 1.80	+ 2 21.7	1.992	2.903	9.2	20.4
3 2	11 59.59	- 3 54.3	1.532	2.486	7.9	19.3	3 2	11 56.44	+ 3 31.9	1.936	2.900	5.5	20.2
3 12	11 50.89	- 2 36.6	1.509	2.496	3.2	19.0	3 12	11 49.86	+ 4 48.6	1.907	2.898	1.8	19.9
3 22	11 41.68	- 1 11.2	1.513	2.506	2.4	19.0	3 22	11 42.85	+ 6 4.8	1.906	2.895	3.0	20.0
4 1	11 33.13	+ 0 13.0	1.546	2.515	7.0	19.3	4 1	11 36.23	+ 7 13.9	1.935	2.893	6.9	20.3
4 11	11 26.25	+ 1 27.4	1.604	2.524	11.3	19.5	4 11	11 30.81	+ 8 9.9	1.989	2.891	10.4	20.5
4 21	11 21.66	+ 2 26.3	1.685	2.532	15.0	19.8	4 21	11 27.12	+ 8 49.7	2.066	2.889	13.5	20.7
366855	2005 <i>SQ</i> ₁₅		3 16.7 112°69	0°7/17.4	18		497766	2006 <i>SQ</i> ₃₁₁		3 16.7 121°49	0°0/16.7	17	
2 11	12 11.37	- 2 35.0	1.902	2.715	14.1	21.9	2 11	12 9.26	- 0 1.0	2.641	3.450	10.8	21.7
2 21	12 6.33	- 2 17.2	1.828	2.725	10.7	21.7	2 21	12 4.22	+ 0 16.3	2.565	3.462	8.0	21.5
3 2	11 59.22	- 1 45.5	1.778	2.734	6.8	21.4	3 2	11 57.69	+ 0 42.0	2.515	3.473	5.0	21.3
3 12	11 50.75	- 1 3.8	1.755	2.744	2.5	21.2	3 12	11 50.23	+ 1 12.9	2.494	3.484	1.6	21.1
3 22	11 41.85	- 0 17.3	1.760	2.753	2.2	21.2	3 22	11 42.48	+ 1 45.4	2.503	3.495	1.8	21.1
4 1	11 33.51	+ 0 28.0	1.794	2.762	6.4	21.5	4 1	11 35.13	+ 2 15.6	2.542	3.506	5.1	21.4
4 11	11 26.63	+ 1 6.3	1.854	2.771	10.3	21.7	4 11	11 28.81	+ 2 40.0	2.609	3.516	8.1	21.6
4 21	11 21.78	+ 1 33.8	1.937	2.779	13.6	21.9	4 21	11 23.97	+ 2 56.1	2.701	3.526	10.7	21.8
210371	2007 <i>VL</i> ₂₅		3 16.7 153°56	1°6/18.5	17		165380	2000 <i>WF</i> ₁₄₆		3 16.7			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
259203	2003 <i>AJ</i> ₅₀		3 16.8 38°16'	3°2/14.1	18		241547	2010 <i>FF</i> ₁₃		3 16.8 288°09'	1°0/15.7	17	
2 11	12 10.26	+ 6 41.5	1.487	2.340	15.3	20.3	2 11	12 8.49	+ 2 27.5	2.132	2.960	12.3	20.8
2 21	12 5.96	+ 7 30.4	1.427	2.347	11.3	20.0	2 21	12 4.18	+ 2 55.4	2.039	2.946	9.2	20.6
3 2	11 59.17	+ 8 27.9	1.389	2.356	6.9	19.8	3 2	11 57.96	+ 3 33.0	1.970	2.933	5.6	20.4
3 12	11 50.77	+ 9 25.6	1.377	2.365	3.4	19.6	3 12	11 50.41	+ 4 15.9	1.928	2.919	1.8	20.1
3 22	11 41.90	+10 15.4	1.391	2.374	5.2	19.7	3 22	11 42.31	+ 4 58.8	1.916	2.906	2.8	20.1
4 1	11 33.78	+10 50.1	1.431	2.383	9.4	20.0	4 1	11 34.55	+ 5 36.5	1.932	2.892	6.7	20.3
4 11	11 27.47	+11 5.5	1.495	2.393	13.5	20.2	4 11	11 27.98	+ 6 4.2	1.974	2.879	10.4	20.5
4 21	11 23.60	+11 0.8	1.578	2.404	16.9	20.5	4 21	11 23.19	+ 6 19.1	2.039	2.865	13.6	20.7
379470	2010 <i>DQ</i> ₄		3 16.8 102°63'	2°4/19.1	17		76033	2000 <i>DW</i> ₄₆		3 16.8 161°63'	0°4/17.2	18	
2 11	12 11.36	- 7 2.6	2.148	2.937	13.6	21.4	2 11	12 8.60	- 2 11.6	2.432	3.239	11.6	20.0
2 21	12 6.11	- 7 4.8	2.073	2.951	10.6	21.2	2 21	12 3.92	- 1 43.4	2.349	3.243	8.8	19.8
3 2	11 59.00	- 6 52.2	2.022	2.965	7.1	21.0	3 2	11 57.62	- 1 3.8	2.291	3.247	5.5	19.6
3 12	11 50.69	- 6 26.8	1.997	2.978	3.7	20.8	3 12	11 50.26	- 0 16.3	2.261	3.250	2.0	19.4
3 22	11 41.98	- 5 52.2	2.001	2.991	2.6	20.8	3 22	11 42.52	+ 0 34.6	2.260	3.253	1.8	19.4
4 1	11 33.79	- 5 13.4	2.035	3.004	5.6	21.0	4 1	11 35.17	+ 1 24.0	2.290	3.256	5.4	19.6
4 11	11 26.90	- 4 35.6	2.095	3.017	9.0	21.2	4 11	11 28.90	+ 2 7.2	2.347	3.258	8.7	19.8
4 21	11 21.86	- 4 3.5	2.181	3.030	12.0	21.4	4 21	11 24.20	+ 2 40.7	2.429	3.260	11.5	20.0
501471	2014 <i>BR</i> ₃₀		3 16.8 104°18'	1°1/15.4	17		126058	2001 <i>YX</i> ₇₉		3 16.8 157°34'	0°2/17.0	18	
2 11	12 5.88	+ 1 20.4	2.399	3.223	11.2	21.6	2 11	12 10.64	- 1 43.1	2.298	3.105	12.2	20.9
2 21	12 1.88	+ 2 19.3	2.325	3.231	8.3	21.5	2 21	12 5.50	- 1 13.3	2.217	3.112	9.2	20.7
3 2	11 56.34	+ 3 28.1	2.277	3.240	5.0	21.3	3 2	11 58.62	- 0 31.9	2.162	3.118	5.7	20.5
3 12	11 49.81	+ 4 41.8	2.258	3.249	1.6	21.0	3 12	11 50.59	+ 0 17.5	2.135	3.124	2.0	20.3
3 22	11 42.96	+ 5 54.6	2.269	3.257	2.6	21.1	3 22	11 42.17	+ 1 9.9	2.137	3.130	2.0	20.3
4 1	11 36.52	+ 7 0.6	2.309	3.265	6.0	21.4	4 1	11 34.19	+ 1 59.9	2.170	3.134	5.7	20.5
4 11	11 31.13	+ 7 55.2	2.376	3.274	9.2	21.6	4 11	11 27.40	+ 2 42.8	2.230	3.139	9.1	20.7
4 21	11 27.27	+ 8 35.6	2.467	3.282	11.9	21.8	4 21	11 22.32	+ 3 15.1	2.314	3.142	12.1	20.9
145234	2005 <i>JQ</i> ₈₀		3 16.8 165°48'	0°8/15.6	18		15721	1990 <i>OV</i>		3 16.8 254°48'	2°3/18.8	18	
2 11	12 5.89	+ 0 37.2	2.928	3.741	9.7	20.9	2 11	12 9.90	- 7 40.3	1.609	2.416	16.6	18.3
2 21	12 1.65	+ 1 39.2	2.845	3.745	7.2	20.8	2 21	12 5.88	- 7 14.1	1.515	2.404	13.0	18.1
3 2	11 56.11	+ 2 50.3	2.789	3.750	4.3	20.6	3 2	11 59.34	- 6 24.5	1.442	2.391	8.8	17.8
3 12	11 49.72	+ 4 6.2	2.763	3.754	1.4	20.4	3 12	11 50.94	- 5 14.5	1.394	2.378	4.2	17.5
3 22	11 43.05	+ 5 22.0	2.768	3.757	2.2	20.4	3 22	11 41.71	- 3 50.1	1.373	2.365	2.9	17.4
4 1	11 36.68	+ 6 32.8	2.804	3.760	5.1	20.6	4 1	11 32.88	- 2 20.5	1.379	2.352	7.3	17.6
4 11	11 31.17	+ 7 34.3	2.869	3.763	7.9	20.8	4 11	11 25.64	- 0 56.0	1.411	2.338	12.0	17.8
4 21	11 26.93	+ 8 23.7	2.959	3.765	10.3	21.0	4 21	11 20.80	+ 0 15.4	1.465	2.324	16.2	18.0
433926	2015 <i>CZ</i> ₃		3 16.8 46°31'	0°6/17.1	18		62081	2000 <i>RS</i> ₈₂		3 16.8 122°14'	3°3/20.7	18	
2 11	12 18.03	+ 0 58.5	1.558	2.382	16.2	20.3	2 11	12 8.97	-12 36.4	2.197	2.962	14.0	19.3
2 21	12 11.50	+ 0 29.3	1.501	2.404	12.2	20.1	2 21	12 4.34	-12 11.4	2.118	2.977	11.2	19.1
3 2	12 2.44	+ 0 10.2	1.467	2.426	7.6	19.9	3 2	11 57.93	-11 26.5	2.062	2.990	8.0	18.9
3 12	11 51.81	- 0 1.4	1.459	2.449	2.7	19.6	3 12	11 50.37	-10 23.7	2.032	3.004	4.8	18.7
3 22	11 40.83	- 0 9.1	1.479	2.472	2.5	19.7	3 22	11 42.43	- 9 7.8	2.031	3.017	3.4	18.7
4 1	11 30.79	- 0 16.9	1.527	2.495	7.2	20.0	4 1	11 34.98	- 7 45.1	2.060	3.029	5.5	18.8
4 11	11 22.73	- 0 28.6	1.600	2.519	11.4	20.3	4 11	11 28.78	- 6 23.1	2.116	3.041	8.7	19.0
4 21	11 17.24	- 0 46.6	1.696	2.543	15.0	20.6	4 21	11 24.35	- 5 8.1	2.198	3.053	11.7	19.2
48125	2001 <i>FK</i> ₁₀₅		3 16.8 246°20'	0°3/16.5	17		27045	1998 <i>FY</i> ₇₄		3 16.8 153°51'	0°2/16.9	18	
2 11	12 10.89	- 0 46.6	1.903	2.723	13.9	19.7	2 11	12 14.75	- 1 14.9	1.624	2.444	15.8	19.9
2 21	12 6.23	- 0 10.2	1.806	2.708	10.5	19.4	2 21	12 9.25	- 0 54.6	1.549	2.450	12.0	19.6
3 2	11 59.36	+ 0 40.8	1.733	2.693	6.5	19.1	3 2	12 1.23	- 0 19.3	1.497	2.456	7.5	19.4
3 12	11 50.89	+ 1 42.0	1.687	2.677	2.1	18.8	3 12	11 51.50	+ 0 26.5	1.471	2.461	2.5	19.1
3 22	11 41.71	+ 2 47.0	1.669	2.661	2.6	18.8	3 22	11 41.18	+ 1 16.3	1.473	2.466	2.6	19.1
4 1	11 32.88	+ 3 48.7	1.680	2.644	7.1	19.1	4 1	11 31.52	+ 2 2.8	1.503	2.470	7.5	19.4
4 11	11 25.40	+ 4 40.4	1.718	2.627	11.4	19.3	4 11	11 23.62	+ 2 39.7	1.558	2.473	11.9	19.7
4 21	11 19.99	+ 5 17.5	1.777	2.610	15.0	19.5	4 21	11 18.18	+ 3 2.9	1.635	2.476	15.7	19.9
79079	4302 <i>T</i> ₋₃		3 16.8 266°35'	1°5/15.4	18		284987	2010 <i>HH</i> ₁₀₅		3 16.8 198°14'	0°3/17.1	17	
2 11	12 11.07	+ 2 5.9	1.775	2.606	14.2	20.3	2 11	12 7.43	- 1 56.8	2.420	3.230	11.6	21.2
2 21	12 6.60	+ 2 53.8	1.674	2.584	10.7	20.1	2 21	12 3.10	- 1 27.3	2.333	3.229	8.7	21.0
3 2	11 59.72	+ 3 55.9	1.597	2.561	6.6	19.8	3 2	11 57.15	- 0 46.4	2.270	3.227	5.5	20.8
3 12	11 51.05	+ 5 6.6	1.547	2.538	2.2	19.4	3 12	11 50.12	+ 0 2.5	2.236	3.225	1.9	20.5
3 22	11 41.52	+ 6 18.2	1.525	2.514	3.6	19.5	3 22	11 42.69	+ 0 54.9	2.231	3.224	1.8	20.5
4 1	11 32.28	+ 7 22.5	1.531	2.489	8.3	19.7	4 1	11 35.61	+ 1 45.6	2.255	3.221	5.4	20.7
4 11	11 24.46	+ 8 12.3	1.562	2.464	12.8	19.9	4 11	11 29.58	+ 2 29.8	2.308	3.219	8.8	21.0
4 21	11 18.88	+ 8 43.7	1.615	2.439	16.7	20.1	4 21	11 25.10	+ 3 4.2	2.384	3.217	11.7	21.1
239732	2009 <i>BG</i> ₁₇₇		3 16.8 137°15'	4°8/10.7	18		64961	2001 <i>YU</i> ₁₃₇		3 16.8 77°14'	9°5/4.2	18	
2 11	12 8.75	+15 42.1	2.461	3.302	10.4	20.1	2 11	12 12.00	+32 36.6	2.331	3.151	11.6	19.4
2 21	12 3.99	+16 47.1	2.399	3.309	7.9	20.0	2 21	12 6.62	+33 59.6	2.296	3.161	10.2	19.4
3 2	11 57.62	+17 51.3	2.363	3.315	5.6	19.8	3 2	11 59.29	+35 8.6	2.286	3.171	9.5	19.3
3 12	11 50.23	+18 48.3	2.355	3.321	4.8	19.8	3 12	11 50.79	+35 56.1	2.301	3.181	9.8	19.4
3 22	11 42.53	+19 32.8	2.377	3.326	6.1	19.9	3 22	11 42.02	+36 17.4	2.340	3.190	10.9	19.4
4 1	11 35.28	+20 0.8	2.426	3.332	8.5	20.0	4 1	11 33.95	+36 11.1	2.403	3.200	12.5	19.6
4 11	11 29.18	+20 10.5	2.500	3.337	10.9	20.2	4 11	11 27.37	+35 38.6	2.486	3.210	14.1	19.7
4 21	11 24.69	+20 2.5	2.595	3.342	13.1	20.4	4 21	11 22.78	+34 43.7	2.585	3.220	15.5	19.9
260955	2005 <i>SL</i> ₃₃		3 16.8 279°95'	2°6/20.4	17		17912	1999 <i>FV</i> ₄₄		3 16.8 137°54'			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
459066	2012 <i>BG</i> ₂₇		3 16.8 29°26'	6°2'/21.8	18		130769	2000 <i>SA</i> ₃₁₄		3 16.8 179°60'	6°6'/23.5	18	
2 11	12 8.04	-14 1.7	1.274	2.074	20.5	20.3	2 11	12 12.06	-19 31.6	1.973	2.702	16.6	19.6
2 21	12 4.78	-14 23.7	1.210	2.085	16.7	20.1	2 21	12 7.10	-19 46.5	1.881	2.703	14.0	19.4
3 2	11 58.70	-14 15.6	1.164	2.096	12.4	19.9	3 2	11 59.89	-19 36.2	1.810	2.704	11.1	19.2
3 12	11 50.71	-13 37.3	1.140	2.108	8.3	19.7	3 12	11 51.09	-18 59.5	1.762	2.705	8.2	19.1
3 22	11 42.07	-12 33.7	1.139	2.121	6.2	19.6	3 22	11 41.66	-17 58.4	1.740	2.705	6.7	19.0
4 1	11 34.21	-11 14.1	1.163	2.135	8.4	19.8	4 1	11 32.66	-16 38.6	1.747	2.704	7.6	19.0
4 11	11 28.38	-9 50.5	1.209	2.150	12.3	20.0	4 11	11 25.11	-15 8.7	1.779	2.702	10.2	19.2
4 21	11 25.30	-8 33.5	1.277	2.165	16.3	20.3	4 21	11 19.71	-13 37.8	1.837	2.700	13.3	19.3
49505	1999 <i>CF</i> ₁₉		3 16.8 44°94'	3°1'/19.7	18		315366	2007 <i>VU</i> ₁		3 16.8 150°02'	1°3'/18.1	18	
2 11	12 10.59	-8 21.0	2.058	2.845	14.1	18.5	2 11	12 12.95	-4 58.5	1.977	2.776	14.2	21.8
2 21	12 5.74	-8 38.5	1.975	2.849	11.2	18.3	2 21	12 7.50	-4 36.3	1.898	2.786	10.9	21.6
3 2	11 58.90	-8 40.3	1.914	2.853	7.8	18.1	3 2	11 59.97	-3 58.2	1.844	2.795	7.1	21.4
3 12	11 50.72	-8 27.7	1.880	2.857	4.5	17.9	3 12	11 51.08	-3 7.8	1.816	2.803	3.0	21.1
3 22	11 42.04	-8 3.3	1.874	2.861	3.3	17.9	3 22	11 41.73	-2 10.3	1.818	2.811	2.2	21.1
4 1	11 33.80	-7 31.8	1.896	2.866	5.9	18.0	4 1	11 32.91	-1 12.1	1.849	2.818	6.2	21.4
4 11	11 26.88	-6 58.8	1.945	2.870	9.3	18.3	4 11	11 25.53	-0 19.6	1.907	2.824	10.0	21.6
4 21	11 21.88	-6 29.1	2.018	2.875	12.5	18.5	4 21	11 20.18	+0 22.5	1.989	2.829	13.3	21.8
209973	2006 <i>HN</i> ₂₅		3 16.8 265°35'	0°8'/17.5	16		8965	<i>Citrinella</i>		3 16.8 279°66'	0°1'/16.6	18	
2 11	12 9.98	-4 1.0	1.682	2.500	15.5	21.2	2 11	12 6.89	-0 31.4	2.369	3.185	11.6	18.2
2 21	12 5.88	-3 27.6	1.584	2.482	11.9	20.9	2 21	12 2.82	-0 2.1	2.272	3.172	8.7	18.0
3 2	11 59.32	-2 34.4	1.508	2.465	7.7	20.6	3 2	11 57.06	+0 38.2	2.200	3.159	5.4	17.8
3 12	11 50.95	-1 25.5	1.458	2.446	2.9	20.3	3 12	11 50.14	+1 26.0	2.155	3.146	1.8	17.5
3 22	11 41.72	-0 7.3	1.435	2.428	2.5	20.2	3 22	11 42.73	+2 16.5	2.140	3.132	2.0	17.5
4 1	11 32.84	+1 11.3	1.439	2.409	7.5	20.4	4 1	11 35.61	+3 4.7	2.154	3.119	5.8	17.7
4 11	11 25.45	+2 21.6	1.470	2.390	12.2	20.7	4 11	11 29.52	+3 45.6	2.195	3.105	9.2	17.9
4 21	11 20.36	+3 16.9	1.522	2.370	16.3	20.9	4 21	11 25.02	+4 15.8	2.261	3.092	12.3	18.1
519286	2011 <i>BF</i> ₁₆₇		3 16.8 241°65'	1°2'/17.9	17		507455	2012 <i>TJ</i> ₁₃₉		3 16.8 139°13'	5°4'/23.8	17	
2 11	12 8.41	-4 45.5	1.929	2.739	14.1	22.0	2 11	12 6.88	-19 20.0	2.501	3.223	13.6	21.5
2 21	12 4.26	-4 17.0	1.842	2.735	10.8	21.8	2 21	12 2.76	-19 24.3	2.409	3.226	11.5	21.4
3 2	11 58.06	-3 31.8	1.777	2.731	7.0	21.5	3 2	11 56.98	-19 8.1	2.338	3.229	9.0	21.2
3 12	11 50.47	-2 33.4	1.740	2.727	2.9	21.3	3 12	11 50.09	-18 31.3	2.292	3.233	6.7	21.1
3 22	11 42.32	-1 27.4	1.730	2.723	2.2	21.2	3 22	11 42.79	-17 36.3	2.273	3.236	5.4	21.0
4 1	11 34.59	-0 20.7	1.749	2.719	6.3	21.5	4 1	11 35.84	-16 27.4	2.282	3.239	6.1	21.0
4 11	11 28.19	+0 39.5	1.794	2.714	10.3	21.7	4 11	11 29.95	-15 10.9	2.319	3.242	8.2	21.2
4 21	11 23.74	+1 28.2	1.862	2.710	13.8	21.9	4 21	11 25.64	-13 53.3	2.382	3.244	10.6	21.3
175147	2005 <i>EN</i> ₂₅		3 16.8 89°60'	2°3'/14.7	18		135434	2001 <i>UD</i> ₁₄₃		3 16.8 12°46'	3°3'/14.3	18	
2 11	12 10.12	+2 55.8	1.558	2.400	15.3	20.1	2 11	12 10.86	+5 42.5	1.271	2.129	17.0	19.9
2 21	12 5.76	+4 5.2	1.496	2.412	11.3	19.9	2 21	12 6.90	+6 35.1	1.207	2.130	12.7	19.6
3 2	11 59.03	+5 27.8	1.458	2.424	6.8	19.6	3 2	12 0.03	+7 39.6	1.163	2.131	7.7	19.3
3 12	11 50.77	+6 55.2	1.445	2.435	2.6	19.4	3 12	11 51.17	+8 46.9	1.144	2.133	3.6	19.1
3 22	11 42.05	+8 17.8	1.461	2.447	4.3	19.5	3 22	11 41.63	+9 46.5	1.150	2.135	5.6	19.2
4 1	11 34.04	+9 26.8	1.503	2.458	8.8	19.8	4 1	11 32.89	+10 29.5	1.181	2.137	10.5	19.5
4 11	11 27.76	+10 16.3	1.569	2.469	12.9	20.1	4 11	11 26.22	+10 50.3	1.234	2.140	15.1	19.7
4 21	11 23.80	+10 44.0	1.657	2.480	16.3	20.3	4 21	11 22.36	+10 47.6	1.306	2.143	19.1	20.0
156727	2002 <i>VR</i> ₁₁		3 16.8 109°72'	2°3'/15.0	18		152849	1999 <i>VR</i> ₁₇₀		3 16.8 160°75'	2°1'/18.5	18	
2 11	12 16.18	+4 35.2	1.462	2.301	16.3	21.0	2 11	12 14.39	-6 18.4	1.674	2.476	16.2	21.3
2 21	12 10.38	+5 14.1	1.402	2.316	12.1	20.8	2 21	12 8.97	-6 3.2	1.595	2.482	12.6	21.0
3 2	12 1.91	+6 3.3	1.365	2.330	7.3	20.5	3 2	12 1.07	-5 28.6	1.538	2.488	8.4	20.8
3 12	11 51.71	+6 55.3	1.354	2.344	2.8	20.3	3 12	11 51.48	-4 37.7	1.507	2.492	3.9	20.5
3 22	11 41.04	+7 42.0	1.370	2.357	4.4	20.4	3 22	11 41.28	-3 36.3	1.504	2.497	2.7	20.5
4 1	11 31.27	+8 16.3	1.413	2.370	9.0	20.7	4 1	11 31.69	-2 32.0	1.529	2.500	7.0	20.7
4 11	11 23.52	+8 33.6	1.481	2.383	13.3	21.0	4 11	11 23.79	-1 33.0	1.581	2.503	11.3	21.0
4 21	11 18.43	+8 32.7	1.569	2.395	17.0	21.3	4 21	11 18.30	-0 45.2	1.655	2.505	15.1	21.2
172107	2002 <i>GW</i> ₄₁		3 16.8 263°01'	2°1'/18.7	18		355604	2008 <i>DO</i> ₉		3 16.8 290°23'	8°5'/24.4	18	
2 11	12 9.17	-7 14.5	1.652	2.460	16.1	20.4	2 11	12 14.41	-23 54.9	2.449	3.126	14.9	20.5
2 21	12 5.27	-6 47.5	1.558	2.448	12.6	20.2	2 21	12 8.79	-25 15.4	2.339	3.111	13.1	20.4
3 2	11 58.92	-5 58.2	1.486	2.436	8.5	19.9	3 2	12 0.99	-26 17.7	2.249	3.095	11.2	20.2
3 12	11 50.81	-4 49.5	1.439	2.424	4.0	19.6	3 12	11 51.51	-26 58.0	2.184	3.080	9.5	20.1
3 22	11 41.91	-3 27.6	1.418	2.411	2.7	19.5	3 22	11 41.14	-27 14.3	2.145	3.065	8.6	20.0
4 1	11 33.41	-2 1.3	1.426	2.398	7.1	19.7	4 1	11 30.88	-27 7.5	2.133	3.050	8.9	20.0
4 11	11 26.44	-0 40.2	1.458	2.385	11.7	19.9	4 11	11 21.72	-26 41.7	2.146	3.035	10.4	20.0
4 21	11 21.78	+0 28.0	1.513	2.372	15.9	20.1	4 21	11 14.45	-26 3.2	2.184	3.020	12.5	20.1
2865	<i>Laurel</i>		3 16.8 292°05'	6°0'/21.1	18		206316	2003 <i>KL</i> ₂₈		3 16.8 226°53'	4°3'/12.6	18	
2 11	12 14.28	-12 57.2	1.757	2.527	16.8	15.5	2 11	12 13.05	+9 51.7	1.865	2.706	13.2	21.2
2 21	12 9.08	-13 52.9	1.664	2.519	13.9	15.3	2 21	12 7.88	+11 2.1	1.781	2.695	9.9	20.9
3 2	12 1.29	-14 29.5	1.591	2.512	10.6	15.1	3 2	12 0.39	+12 19.2	1.722	2.683	6.4	20.7
3 12	11 51.60	-14 45.3	1.543	2.504	7.4	14.9	3 12	11 51.28	+13 34.7	1.690	2.671	4.3	20.6
3 22	11 41.03	-14 40.6	1.522	2.497	6.1	14.8	3 22	11 41.50	+14 40.2	1.687	2.658	6.1	20.6
4 1	11 30.83	-14 18.9	1.528	2.490	7.9	14.9	4 1	11 32.16	+15 28.7	1.712	2.644	9.7	20.8
4 11	11 22.19	-13 46.7	1.559	2.483	11.3	15.0	4 11	11 24.31	+15 55.8	1.761	2.629	13.3	21.0
4 21	11 15.97	-13 11.5	1.612	2.476	14.8	15.2	4 21	11 18.65	+16 0.8	1.831	2.614	16.6	21.2
229105	2004 <i>RP</i> ₃₉		3 16.8 126°71'	0°5'/16.2	18		213786	2003 <i>FJ</i> ₅		3 16.8 281°97'	2°7'/13.9	17	
2 11	12 11.10	+0 50.6											

EPHEMERIDES

3 16.8

3 16.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
212308	2005 <i>OD</i> ₇		3 16.8 225°08	0°3/16.4	18		184715	2005 <i>SD</i> ₁₅₃		3 16.8 221°13	1°5/15.2	17	
2 11	12 9.21	+ 1 14.0	2.535	3.349	11.0	20.8	2 11	12 12.02	+ 3 59.9	2.260	3.082	11.9	21.8
2 21	12 4.38	+ 1 29.3	2.445	3.345	8.2	20.6	2 21	12 6.72	+ 4 35.4	2.167	3.072	8.9	21.6
3 2	11 57.94	+ 1 52.6	2.381	3.341	5.0	20.4	3 2	11 59.52	+ 5 19.2	2.100	3.062	5.4	21.4
3 12	11 50.43	+ 2 20.8	2.346	3.336	1.6	20.2	3 12	11 51.00	+ 6 6.6	2.061	3.050	2.0	21.1
3 22	11 42.51	+ 2 50.2	2.340	3.332	2.0	20.2	3 22	11 41.95	+ 6 52.2	2.052	3.039	3.1	21.2
4 1	11 34.93	+ 3 16.6	2.365	3.327	5.5	20.4	4 1	11 33.24	+ 7 30.9	2.072	3.026	6.8	21.4
4 11	11 28.38	+ 3 36.4	2.416	3.322	8.7	20.6	4 11	11 25.72	+ 7 58.3	2.120	3.013	10.3	21.6
4 21	11 23.36	+ 3 47.3	2.493	3.318	11.5	20.8	4 21	11 19.99	+ 8 12.2	2.191	3.000	13.4	21.8
497885	2006 <i>UX</i> ₂₆₁		3 16.8 239°72	0°5/17.2	17		246027	2006 <i>UF</i> ₅₆		3 16.8 0°32	3°1/20.1	17	
2 11	12 10.87	- 0 43.5	2.014	2.824	13.6	22.6	2 11	12 7.30	- 9 47.1	2.116	2.901	13.9	20.3
2 21	12 6.14	- 0 12.1	1.914	2.810	10.4	22.3	2 21	12 3.30	- 9 44.8	2.028	2.900	11.0	20.1
3 2	11 59.30	- 1 25.6	1.839	2.795	6.6	22.1	3 2	11 57.44	- 9 25.0	1.963	2.900	7.8	19.9
3 12	11 50.94	- 0 27.6	1.790	2.780	2.4	21.7	3 12	11 50.32	- 8 49.3	1.924	2.900	4.5	19.7
3 22	11 41.92	+ 0 36.4	1.771	2.764	2.2	21.7	3 22	11 42.71	- 8 1.3	1.912	2.900	3.2	19.6
4 1	11 33.21	+ 1 39.5	1.781	2.748	6.6	21.9	4 1	11 35.49	- 7 6.4	1.929	2.901	5.7	19.8
4 11	11 25.77	+ 2 35.2	1.817	2.731	10.6	22.2	4 11	11 29.48	- 6 10.9	1.973	2.901	9.1	20.0
4 21	11 20.30	+ 3 18.5	1.877	2.713	14.2	22.3	4 21	11 25.24	- 5 20.5	2.041	2.902	12.2	20.2
222300	2000 <i>SD</i> ₂₆₇		3 16.8 180°70	0°2/16.9	17		498827	2008 <i>VC</i> ₃₉		3 16.8 164°02	0°2/17.0	17	
2 11	12 11.48	- 0 42.1	1.989	2.806	13.5	20.6	2 11	12 9.17	- 1 24.9	2.280	3.091	12.1	22.2
2 21	12 6.46	- 0 26.9	1.907	2.806	10.2	20.4	2 21	12 4.49	- 0 59.1	2.197	3.093	9.2	22.0
3 2	11 59.39	+ 0 0.1	1.848	2.806	6.4	20.2	3 2	11 58.07	- 0 21.9	2.139	3.096	5.7	21.8
3 12	11 50.94	+ 0 35.1	1.817	2.807	2.2	19.9	3 12	11 50.51	+ 0 23.0	2.108	3.098	2.0	21.5
3 22	11 41.97	+ 1 13.4	1.814	2.806	2.2	19.9	3 22	11 42.53	+ 1 11.1	2.107	3.100	1.9	21.5
4 1	11 33.48	+ 1 49.5	1.840	2.806	6.4	20.2	4 1	11 34.96	+ 1 57.0	2.136	3.101	5.7	21.8
4 11	11 26.35	+ 2 18.3	1.892	2.805	10.3	20.4	4 11	11 28.54	+ 2 36.1	2.191	3.103	9.2	22.0
4 21	11 21.19	+ 2 36.4	1.968	2.805	13.6	20.6	4 21	11 23.81	+ 3 4.8	2.271	3.104	12.2	22.2
522424	2016 <i>CE</i> ₃₁₄		3 16.8 307°40	2°2/14.9	17		383346	2006 <i>QE</i> ₁₁₀		3 16.8 252°44	0°6/17.5	17	
2 11	12 9.90	+ 4 39.5	1.668	2.511	14.4	21.3	2 11	12 7.34	- 2 52.6	2.279	3.089	12.2	21.9
2 21	12 5.72	+ 5 15.4	1.584	2.500	10.8	21.1	2 21	12 3.19	- 2 26.2	2.190	3.085	9.3	21.7
3 2	11 59.16	+ 6 1.5	1.523	2.489	6.6	20.8	3 2	11 57.31	- 1 47.1	2.126	3.081	5.9	21.4
3 12	11 50.91	+ 6 51.8	1.489	2.478	2.6	20.5	3 12	11 50.27	- 0 58.6	2.089	3.078	2.2	21.2
3 22	11 41.98	+ 7 38.9	1.481	2.468	4.1	20.6	3 22	11 42.78	- 0 5.4	2.081	3.074	1.9	21.2
4 1	11 33.53	+ 8 16.1	1.500	2.458	8.5	20.8	4 1	11 35.65	+ 0 47.0	2.102	3.070	5.6	21.4
4 11	11 26.64	+ 8 37.8	1.544	2.448	12.8	21.0	4 11	11 29.62	+ 1 33.5	2.150	3.066	9.1	21.6
4 21	11 22.02	+ 8 41.9	1.609	2.439	16.4	21.3	4 21	11 25.24	+ 2 10.0	2.223	3.062	12.2	21.8
18581	Batillo		3 16.8 2°05	4°1/19.7	18		94991	2001 <i>YC</i> ₁₂₂		3 16.8 339°90	3°7/14.6	18	
2 11	12 12.38	- 8 30.5	1.441	2.248	18.1	17.3	2 11	12 12.69	+ 7 56.5	1.169	2.032	17.8	18.2
2 21	12 7.92	- 8 55.4	1.362	2.247	14.4	17.0	2 21	12 8.67	+ 8 17.5	1.098	2.023	13.4	17.9
3 2	12 0.68	- 8 58.9	1.303	2.247	10.1	16.8	3 2	12 1.38	+ 8 46.2	1.047	2.015	8.4	17.6
3 12	11 51.44	- 8 41.9	1.269	2.247	5.8	16.5	3 12	11 51.74	+ 9 14.5	1.019	2.008	4.0	17.3
3 22	11 41.41	- 8 7.8	1.259	2.248	4.3	16.4	3 22	11 41.18	+ 9 33.6	1.016	2.001	5.9	17.4
4 1	11 31.98	- 7 23.4	1.276	2.248	7.8	16.6	4 1	11 31.39	+ 9 36.2	1.036	1.996	11.1	17.7
4 11	11 24.42	- 6 37.4	1.316	2.249	12.2	16.9	4 11	11 23.88	+ 9 18.2	1.078	1.991	16.2	17.9
4 21	11 19.55	- 5 57.4	1.378	2.250	16.3	17.1	4 21	11 19.52	+ 8 39.6	1.137	1.988	20.5	18.2
422257	2014 <i>SJ</i> ₁₃₅		3 16.8 82°36	5°8/11.1	18		309136	2006 <i>XQ</i> ₃₈		3 16.8 78°20	8°7/7.9	18	
2 11	12 10.73	+13 23.1	1.705	2.558	13.6	21.0	2 11	12 12.33	+21 44.6	1.679	2.531	13.9	20.3
2 21	12 6.04	+14 50.1	1.655	2.572	10.2	20.8	2 21	12 7.31	+23 29.0	1.642	2.548	11.1	20.2
3 2	11 59.13	+16 18.3	1.629	2.587	7.1	20.6	3 2	11 59.93	+25 5.4	1.629	2.565	9.1	20.1
3 12	11 50.83	+17 38.0	1.629	2.601	5.8	20.6	3 12	11 51.10	+26 23.0	1.641	2.582	8.9	20.1
3 22	11 42.17	+18 40.6	1.657	2.615	7.5	20.7	3 22	11 41.97	+27 13.7	1.679	2.599	10.5	20.3
4 1	11 34.24	+19 20.4	1.711	2.629	10.7	20.9	4 1	11 33.70	+27 33.9	1.742	2.616	13.0	20.5
4 11	11 27.97	+19 35.2	1.788	2.643	13.8	21.2	4 11	11 27.25	+27 24.1	1.825	2.633	15.5	20.7
4 21	11 23.91	+19 26.5	1.885	2.657	16.5	21.4	4 21	11 23.15	+26 48.2	1.926	2.650	17.8	20.9
151785	2003 <i>FZ</i> ₃		3 16.8 104°39	6°8/11.8	18		389777	2011 <i>SQ</i> ₂₇₄		3 16.8 176°67	0°1/16.9	18	
2 11	12 20.69	+20 2.7	1.844	2.678	13.6	19.1	2 11	12 5.53	- 2 23.4	2.767	3.572	10.4	21.4
2 21	12 13.37	+20 31.7	1.781	2.682	10.7	18.9	2 21	12 1.52	- 1 33.6	2.679	3.574	7.8	21.3
3 2	12 3.60	+20 54.0	1.743	2.687	8.0	18.7	3 2	11 56.14	- 0 32.6	2.618	3.575	4.9	21.1
3 12	11 52.29	+21 1.9	1.731	2.692	6.8	18.6	3 12	11 49.86	+ 0 35.9	2.585	3.575	1.6	20.8
3 22	11 40.61	+20 50.1	1.748	2.696	8.1	18.7	3 22	11 43.25	+ 1 47.1	2.583	3.576	1.7	20.8
4 1	11 29.80	+20 16.3	1.792	2.701	10.8	18.9	4 1	11 36.95	+ 2 56.0	2.612	3.576	4.9	21.1
4 11	11 20.88	+19 21.6	1.861	2.705	13.8	19.1	4 11	11 31.54	+ 3 57.7	2.669	3.576	7.9	21.3
4 21	11 14.47	+18 9.5	1.950	2.710	16.5	19.3	4 21	11 27.46	+ 4 48.9	2.751	3.575	10.5	21.4
374527	2006 <i>AJ</i> ₄₇		3 16.8 193°83	6°1/9.1	17		496058	2009 <i>DE</i> ₁₀₇		3 16.8 112°99	2°1/14.8	18	
2 11	12 10.85	+18 46.0	2.325	3.166	10.9	21.6	2 11	12 10.74	+ 2 43.3	1.621	2.460	15.0	21.3
2 21	12 5.78	+20 8.8	2.259	3.164	8.5	21.5	2 21	12 6.20	+ 3 50.5	1.556	2.470	11.1	21.1
3 2	11 58.88	+21 29.3	2.219	3.161	6.6	21.3	3 2	11 59.34	+ 5 10.7	1.514	2.479	6.6	20.9
3 12	11 50.76	+22 39.9	2.207	3.158	6.2	21.3	3 12	11 50.96	+ 6 36.2	1.499	2.489	2.5	20.6
3 22	11 42.22	+23 34.1	2.223	3.155	7.6	21.4	3 22	11 42.10	+ 7 57.6	1.512	2.498	4.1	20.8
4 1	11 34.14	+24 7.3	2.266	3.151	10.0	21.5	4 1	11 33.91	+ 9 6.6	1.552	2.507	8.5	21.0
4 11	11 27.30	+24 18.2	2.333	3.146	12.4	21.7	4 11	11 27.40	+ 9 56.9	1.617	2.516	12.6	21.3
4 21	11 22.25	+24 7.7	2.421	3.141	14.6	21.8	4 21	11 23.16	+10 26.3	1.703	2.524	16.0	21.5
371174	2005 <i>YC</i> ₅₅		3 16.8 115°09	1°2/15.5	18		72402	2001 <i>CV</i> ₂₄		3 1			

EPHEMERIDES

3 16.8

3 16.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
56215	1999 <i>HH</i>		3 16.8 260°29	5°7/11.2	18		105378	2000 <i>QF</i> ₁₃₀		3 16.8 88°05	1°2/15.9	18	
2 11	12 15.19	+16 56.4	2.102	2.939	12.1	18.7	2 11	12 16.55	+2 36.7	1.601	2.430	15.6	19.1
2 21	12 9.35	+17 46.6	2.012	2.919	9.4	18.5	2 21	12 10.37	+3 3.8	1.547	2.455	11.6	18.9
3 2	12 1.28	+18 35.6	1.948	2.898	6.8	18.3	3 2	12 1.79	+3 41.3	1.517	2.480	7.0	18.7
3 12	11 51.64	+19 16.0	1.912	2.878	5.7	18.2	3 12	11 51.75	+4 23.4	1.513	2.504	2.3	18.5
3 22	11 41.34	+19 41.3	1.904	2.856	7.2	18.2	3 22	11 41.41	+5 3.3	1.538	2.528	3.3	18.6
4 1	11 31.46	+19 46.7	1.924	2.834	10.1	18.3	4 1	11 31.98	+5 34.9	1.590	2.552	7.8	18.9
4 11	11 22.97	+19 30.7	1.968	2.812	13.2	18.5	4 11	11 24.43	+5 53.7	1.668	2.575	11.8	19.2
4 21	11 16.58	+18 54.3	2.034	2.790	16.0	18.6	4 21	11 19.33	+5 57.8	1.768	2.597	15.2	19.5
157798	1995 <i>OZ</i> ₁₂		3 16.8 63°23	4°0/12.4	18		337837	2001 <i>VS</i> ₇₁		3 16.8 156°57	5°5/24.2	18	
2 11	12 7.47	+7 7.0	1.684	2.536	13.9	19.4	2 11	12 7.23	-20 26.9	2.645	3.355	13.2	20.4
2 21	12 3.63	+8 50.2	1.631	2.552	10.1	19.3	2 21	12 2.99	-20 35.1	2.551	3.358	11.2	20.3
3 2	11 57.68	+10 41.6	1.603	2.569	6.3	19.1	3 2	11 57.16	-20 23.6	2.478	3.361	9.0	20.1
3 12	11 50.40	+12 31.3	1.603	2.586	4.0	19.0	3 12	11 50.26	-19 51.9	2.430	3.363	6.8	20.0
3 22	11 42.76	+14 9.0	1.630	2.603	6.0	19.1	3 22	11 42.94	-19 2.0	2.409	3.366	5.6	19.9
4 1	11 35.79	+15 26.6	1.684	2.620	9.6	19.4	4 1	11 35.95	-17 57.8	2.416	3.368	6.1	19.9
4 11	11 30.36	+16 19.7	1.763	2.637	13.0	19.6	4 11	11 29.98	-16 45.0	2.451	3.370	8.0	20.0
4 21	11 27.01	+16 47.7	1.862	2.654	16.0	19.8	4 21	11 25.52	-15 30.0	2.512	3.372	10.2	20.2
322294	2011 <i>FU</i> ₅₆		3 16.8 304°57	2°8/13.9	17		340684	2006 <i>RE</i> ₉₄		3 16.8 97°26	1°9/19.2	18	
2 11	12 8.64	+6 36.8	1.909	2.751	12.9	20.8	2 11	12 6.41	-7 51.4	2.396	3.185	12.3	20.8
2 21	12 4.46	+7 29.3	1.831	2.747	9.5	20.5	2 21	12 2.38	-7 25.1	2.314	3.192	9.6	20.6
3 2	11 58.23	+8 29.7	1.778	2.743	5.9	20.3	3 2	11 56.77	-6 43.5	2.255	3.199	6.5	20.4
3 12	11 50.62	+9 31.3	1.751	2.739	3.0	20.1	3 12	11 50.13	-5 49.3	2.224	3.206	3.3	20.2
3 22	11 42.50	+10 27.2	1.753	2.735	4.5	20.2	3 22	11 43.12	-4 46.9	2.222	3.213	2.2	20.1
4 1	11 34.85	+11 11.1	1.783	2.731	8.2	20.4	4 1	11 36.51	-3 41.6	2.249	3.220	5.0	20.3
4 11	11 28.56	+11 38.4	1.837	2.727	11.8	20.6	4 11	11 30.95	-2 39.4	2.304	3.227	8.2	20.5
4 21	11 24.24	+11 47.6	1.913	2.724	15.0	20.8	4 21	11 26.95	-1 44.8	2.384	3.234	11.1	20.7
387283	2012 <i>UM</i> ₁₅₁		3 16.8 266°64	0°3/16.5	17		158212	2001 <i>SU</i> ₈₃		3 16.8 98°21	0°4/16.4	18	
2 11	12 7.40	-0 13.0	2.283	3.102	11.9	21.3	2 11	12 9.88	-2 12.0	1.951	2.767	13.7	20.7
2 21	12 3.27	+0 21.1	2.189	3.091	8.9	21.1	2 21	12 5.13	-1 2.8	1.890	2.790	10.2	20.6
3 2	11 57.41	+1 6.6	2.121	3.081	5.5	20.8	3 2	11 58.49	+0 21.2	1.853	2.813	6.2	20.4
3 12	11 50.34	+1 59.5	2.079	3.070	1.8	20.5	3 12	11 50.68	+1 53.6	1.845	2.835	1.9	20.1
3 22	11 42.78	+2 54.8	2.067	3.059	2.2	20.6	3 22	11 42.57	+3 26.5	1.866	2.857	2.5	20.2
4 1	11 35.54	+3 46.9	2.085	3.048	6.0	20.8	4 1	11 35.09	+4 52.3	1.916	2.879	6.6	20.5
4 11	11 29.39	+4 30.8	2.129	3.037	9.5	21.0	4 11	11 29.00	+6 4.4	1.994	2.899	10.2	20.8
4 21	11 24.87	+5 2.9	2.197	3.026	12.6	21.2	4 21	11 24.82	+6 59.3	2.094	2.920	13.3	21.0
39271	2001 <i>AM</i> ₂₀		3 16.8 231°67	5°9/9.6	18		47091	1999 <i>AP</i> ₉		3 16.8 261°96	0°2/17.0	18	
2 11	12 10.71	+17 24.1	2.266	3.108	11.1	19.3	2 11	12 7.82	-1 42.3	2.156	2.972	12.6	18.6
2 21	12 5.81	+18 43.5	2.189	3.097	8.6	19.1	2 21	12 3.65	-1 12.7	2.069	2.968	9.5	18.4
3 2	11 58.99	+20 2.3	2.138	3.085	6.5	19.0	3 2	11 57.67	-0 30.4	2.006	2.964	6.0	18.1
3 12	11 50.86	+21 12.8	2.115	3.073	5.9	18.9	3 12	11 50.45	+0 20.8	1.971	2.961	2.0	17.9
3 22	11 42.23	+22 8.1	2.121	3.061	7.4	19.0	3 22	11 42.76	+1 15.7	1.964	2.957	2.0	17.9
4 1	11 33.99	+22 43.2	2.153	3.048	10.0	19.1	4 1	11 35.46	+2 8.4	1.987	2.954	6.0	18.1
4 11	11 26.99	+22 55.9	2.210	3.034	12.6	19.3	4 11	11 29.32	+2 53.7	2.036	2.950	9.6	18.3
4 21	11 21.81	+22 46.9	2.287	3.020	15.0	19.4	4 21	11 24.93	+3 27.6	2.109	2.946	12.8	18.5
473852	2016 <i>ET</i> ₁₃₀		3 16.8 155°69	1°0/17.8	16		498127	2007 <i>TE</i> ₂₆		3 16.8 187°53	0°1/16.7	17	
2 11	12 10.85	-3 51.9	1.982	2.789	13.9	22.1	2 11	12 9.82	+0 4.9	2.764	3.570	10.4	23.3
2 21	12 6.00	-3 27.4	1.901	2.794	10.6	21.9	2 21	12 4.73	+0 27.7	2.675	3.569	7.8	23.2
3 2	11 59.13	-2 47.9	1.844	2.798	6.8	21.7	3 2	11 58.15	+0 59.0	2.611	3.568	4.8	23.0
3 12	11 50.91	-1 57.0	1.814	2.802	2.7	21.4	3 12	11 50.58	+1 35.7	2.576	3.566	1.6	22.7
3 22	11 42.20	-1 0.1	1.813	2.806	2.1	21.4	3 22	11 42.65	+2 14.0	2.572	3.564	1.8	22.7
4 1	11 33.99	-0 3.5	1.841	2.809	6.2	21.6	4 1	11 35.03	+2 50.0	2.599	3.561	5.1	23.0
4 11	11 27.13	+0 46.6	1.895	2.812	10.0	21.9	4 11	11 28.37	+3 19.9	2.654	3.558	8.1	23.1
4 21	11 22.24	+1 25.7	1.973	2.815	13.4	22.1	4 21	11 23.13	+3 41.2	2.734	3.554	10.7	23.3
269596	2010 <i>AY</i> ₉₆		3 16.8 157°43	6°4/8.3	17		109341	2001 <i>QN</i> ₁₄₈		3 16.8 61°37	7°5/9.2	18	
2 11	12 8.42	+15 28.7	2.045	2.895	11.8	20.4	2 11	12 9.58	+16 38.6	1.584	2.444	14.1	19.1
2 21	12 4.20	+17 42.6	1.986	2.899	9.0	20.2	2 21	12 5.42	+18 28.2	1.538	2.456	10.9	19.0
3 2	11 58.03	+19 58.0	1.954	2.903	6.8	20.1	3 2	11 58.89	+20 16.1	1.516	2.468	8.2	18.8
3 12	11 50.55	+22 4.2	1.951	2.907	6.5	20.1	3 12	11 50.85	+21 50.7	1.521	2.480	7.6	18.8
3 22	11 42.60	+23 51.7	1.977	2.910	8.4	20.2	3 22	11 42.40	+23 2.1	1.551	2.493	9.5	19.0
4 1	11 35.14	+25 13.6	2.030	2.913	11.0	20.3	4 1	11 34.72	+23 44.4	1.605	2.505	12.4	19.2
4 11	11 29.00	+26 7.2	2.106	2.915	13.7	20.5	4 11	11 28.80	+23 56.5	1.682	2.518	15.4	19.4
4 21	11 24.76	+26 33.3	2.201	2.918	16.0	20.7	4 21	11 25.21	+23 41.0	1.776	2.530	18.0	19.6
269010	2007 <i>EU</i> ₁₃₇		3 16.8 340°09	3°6/14.1	18		319484	2006 <i>QU</i> ₁₈		3 16.8 264°57	1°3/15.6	17	
2 11	12 12.76	+9 17.1	1.558	2.408	14.9	19.7	2 11	12 10.31	+0 57.8	1.795	2.624	14.2	21.8
2 21	12 7.97	+9 41.0	1.483	2.402	11.1	19.5	2 21	12 6.06	+1 52.3	1.694	2.603	10.7	21.5
3 2	12 0.60	+10 9.6	1.431	2.396	7.0	19.2	3 2	11 59.46	+3 2.4	1.618	2.581	6.6	21.2
3 12	11 51.44	+10 35.9	1.404	2.391	3.8	19.0	3 12	11 51.13	+4 22.7	1.568	2.558	2.2	20.9
3 22	11 41.64	+10 53.1	1.404	2.386	5.4	19.1	3 22	11 41.97	+5 45.2	1.546	2.536	3.4	20.9
4 1	11 32.46	+10 55.8	1.431	2.382	9.5	19.3	4 1	11 33.11	+7 1.1	1.553	2.512	8.1	21.1
4 11	11 25.07	+10 41.1	1.481	2.378	13.6	19.5	4 11	11 25.63	+8 3.0	1.585	2.488	12.5	21.3
4 21	11 20.17	+10 9.0	1.551	2.375	17.2	19.7	4 21	11 20.32	+8 46.0	1.639	2.464	16.4	21.5
348967	2006 <i>UR</i> ₇₃		3 16.8 190°75	1°0/15.6	17		138591	2000 <i>QB</i> ₁₅₆		3 16.8 214°71	3°4/20.9	18	
2 11	12 10.23	+3 50.4</											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
35811	1999 <i>JS</i> ₄₅		3 16.8 26°72	1.3°/15.8	18		377440	2004 <i>TK</i> ₂₉₅		3 16.8 168°93	2.5°/19.8	17	
2 11	12 9.57	+ 0 57.4	1.310	2.158	17.2	17.9	2 11	12 9.32	- 9 31.2	2.469	3.242	12.4	21.9
2 21	12 5.87	+ 1 43.5	1.244	2.162	12.9	17.6	2 21	12 4.57	- 9 13.0	2.380	3.246	9.8	21.7
3 2	11 59.42	+ 2 46.8	1.200	2.166	7.8	17.3	3 2	11 58.15	- 8 39.0	2.314	3.250	6.8	21.5
3 12	11 51.09	+ 3 59.5	1.179	2.170	2.5	17.0	3 12	11 50.65	- 7 51.2	2.276	3.253	3.8	21.3
3 22	11 42.12	+ 5 12.0	1.184	2.175	3.8	17.1	3 22	11 42.73	- 6 53.4	2.267	3.255	2.6	21.2
4 1	11 33.90	+ 6 14.3	1.215	2.180	9.1	17.4	4 1	11 35.18	- 5 50.6	2.288	3.257	5.1	21.4
4 11	11 27.63	+ 6 58.9	1.268	2.186	13.9	17.7	4 11	11 28.70	- 4 48.7	2.337	3.259	8.2	21.6
4 21	11 24.04	+ 7 22.1	1.342	2.192	18.0	18.0	4 21	11 23.80	- 3 52.6	2.412	3.260	11.0	21.8
170372	2003 <i>SA</i> ₂₄₄		3 16.8 116°57	2.9°/14.5	18		245061	2004 <i>FN</i> ₁₄₈		3 16.8 295°76	8.9°/ 5.7	17	
2 11	12 13.61	+ 6 33.8	1.603	2.445	14.9	20.2	2 11	12 11.37	+27 51.2	2.162	2.997	11.9	20.2
2 21	12 8.46	+ 7 13.7	1.534	2.450	11.1	20.0	2 21	12 6.52	+29 12.6	2.098	2.983	10.1	20.0
3 2	12 0.83	+ 8 1.5	1.489	2.454	6.8	19.7	3 2	11 59.54	+30 24.6	2.057	2.969	9.0	19.9
3 12	11 51.54	+ 8 50.1	1.470	2.458	3.2	19.5	3 12	11 51.13	+31 18.6	2.043	2.954	9.2	19.9
3 22	11 41.72	+ 9 32.1	1.479	2.463	4.7	19.6	3 22	11 42.22	+31 48.2	2.053	2.940	10.6	20.0
4 1	11 32.58	+10 0.9	1.514	2.467	9.0	19.9	4 1	11 33.82	+31 49.8	2.088	2.926	12.6	20.1
4 11	11 25.22	+10 12.4	1.574	2.471	13.0	20.1	4 11	11 26.86	+31 23.7	2.144	2.913	14.8	20.2
4 21	11 20.27	+10 5.8	1.655	2.475	16.5	20.3	4 21	11 21.96	+30 32.9	2.217	2.899	16.8	20.3
497846	2006 <i>UA</i> ₇₉		3 16.8 172°46	1.4°/15.1	17		131267	2001 <i>FX</i> ₄₅		3 16.8 273°99	1.3°/15.6	18	
2 11	12 9.60	+ 5 7.9	2.855	3.674	9.7	22.3	2 11	12 12.04	+ 4 15.6	2.079	2.906	12.6	19.7
2 21	12 4.49	+ 5 34.1	2.772	3.676	7.2	22.2	2 21	12 6.96	+ 4 30.9	1.987	2.894	9.4	19.4
3 2	11 57.97	+ 6 5.3	2.717	3.678	4.4	22.0	3 2	11 59.82	+ 4 53.6	1.919	2.881	5.8	19.2
3 12	11 50.54	+ 6 38.0	2.691	3.680	1.7	21.8	3 12	11 51.24	+ 5 19.5	1.879	2.869	2.0	18.9
3 22	11 42.79	+ 7 8.4	2.696	3.682	2.6	21.9	3 22	11 42.07	+ 5 43.9	1.867	2.856	3.0	18.9
4 1	11 35.38	+ 7 33.0	2.730	3.683	5.5	22.1	4 1	11 33.28	+ 6 2.0	1.885	2.844	7.0	19.2
4 11	11 28.92	+ 7 49.0	2.793	3.683	8.2	22.2	4 11	11 25.76	+ 6 10.0	1.928	2.831	10.7	19.4
4 21	11 23.83	+ 7 55.0	2.881	3.684	10.6	22.4	4 21	11 20.17	+ 6 5.9	1.995	2.818	14.0	19.5
469273	2016 <i>JQ</i> ₃₄		3 16.8 285°00	8.7°/ 7.6	17		101716	1999 <i>DJ</i> ₆		3 16.8 177°39	3.6°/20.1	18	
2 11	12 12.80	+22 46.9	1.838	2.685	13.1	20.3	2 11	12 13.86	- 9 41.9	2.092	2.866	14.4	18.7
2 21	12 7.97	+24 13.9	1.760	2.662	10.7	20.1	2 21	12 8.29	-10 1.8	2.003	2.867	11.5	18.5
3 2	12 0.64	+25 36.1	1.707	2.640	9.0	20.0	3 2	12 0.62	-10 5.4	1.936	2.868	8.2	18.3
3 12	11 51.53	+26 43.3	1.678	2.618	8.9	19.9	3 12	11 51.50	- 9 53.3	1.896	2.869	4.9	18.1
3 22	11 41.68	+27 26.5	1.676	2.595	10.6	20.0	3 22	11 41.80	- 9 28.0	1.884	2.869	3.7	18.0
4 1	11 32.29	+27 40.1	1.698	2.572	13.3	20.1	4 1	11 32.51	- 8 53.9	1.901	2.869	6.1	18.2
4 11	11 24.51	+27 23.1	1.741	2.549	16.2	20.2	4 11	11 24.56	- 8 16.7	1.946	2.869	9.5	18.4
4 21	11 19.09	+26 38.3	1.803	2.526	18.8	20.4	4 21	11 18.60	- 7 42.0	2.015	2.868	12.7	18.6
82667	2001 <i>PM</i> ₂₀		3 16.8 137°01	1.7°/18.0	18		433634	2014 <i>AA</i> ₂		3 16.8 52°85	5.2°/10.8	17	
2 11	12 19.73	- 2 26.3	1.923	2.720	14.6	19.3	2 11	12 8.23	+14 39.5	2.089	2.938	11.7	21.3
2 21	12 12.72	- 2 58.3	1.842	2.727	11.3	19.1	2 21	12 3.95	+15 51.7	2.029	2.944	8.8	21.1
3 2	12 3.35	- 3 19.6	1.784	2.734	7.4	18.9	3 2	11 57.84	+17 4.0	1.994	2.950	6.2	20.9
3 12	11 52.37	- 3 31.5	1.754	2.740	3.2	18.6	3 12	11 50.54	+18 9.0	1.988	2.956	5.2	20.9
3 22	11 40.83	- 3 36.4	1.754	2.746	2.5	18.6	3 22	11 42.88	+18 59.9	2.008	2.963	6.7	21.0
4 1	11 29.86	- 3 37.8	1.784	2.751	6.5	18.8	4 1	11 35.75	+19 32.1	2.056	2.969	9.4	21.2
4 11	11 20.51	- 3 39.8	1.841	2.757	10.4	19.1	4 11	11 29.93	+19 43.5	2.128	2.976	12.2	21.3
4 21	11 13.46	- 3 45.8	1.923	2.762	13.8	19.3	4 21	11 25.92	+19 34.7	2.220	2.983	14.6	21.5
213233	2000 <i>WL</i> ₁₁₂		3 16.8 63°51	2.8°/14.9	18		248705	2006 <i>MY</i> ₁₄		3 16.8 159°99	2.9°/20.3	18	
2 11	12 15.66	+ 6 24.3	1.375	2.223	16.6	20.1	2 11	12 11.28	-11 18.4	2.351	3.114	13.3	21.3
2 21	12 10.13	+ 6 52.8	1.322	2.239	12.3	19.9	2 21	12 6.08	-10 54.6	2.264	3.123	10.6	21.1
3 2	12 1.86	+ 7 29.1	1.291	2.256	7.5	19.7	3 2	11 59.11	-10 12.6	2.200	3.131	7.4	20.9
3 12	11 51.87	+ 8 5.8	1.285	2.273	3.2	19.4	3 12	11 50.97	- 9 14.5	2.164	3.138	4.3	20.7
3 22	11 41.46	+ 8 35.3	1.305	2.291	4.8	19.6	3 22	11 42.41	- 8 4.5	2.157	3.144	3.0	20.7
4 1	11 32.04	+ 8 51.3	1.351	2.308	9.3	19.9	4 1	11 34.28	- 6 48.5	2.181	3.150	5.3	20.8
4 11	11 24.73	+ 8 50.6	1.421	2.326	13.6	20.2	4 11	11 27.33	- 5 33.2	2.233	3.154	8.5	21.0
4 21	11 20.14	+ 8 32.7	1.512	2.343	17.2	20.5	4 21	11 22.10	- 4 24.4	2.310	3.158	11.5	21.2
159860	2004 <i>PS</i> ₁₃		3 16.8 236°29	2.5°/14.6	18		105004	2000 <i>KZ</i> ₅		3 16.8 177°26	4.7°/10.8	18	
2 11	12 12.25	+ 4 6.5	1.644	2.482	14.8	21.0	2 11	12 11.15	+14 33.9	2.485	3.321	10.5	19.6
2 21	12 7.61	+ 5 4.6	1.558	2.472	11.1	20.7	2 21	12 5.90	+15 51.5	2.415	3.323	7.9	19.5
3 2	12 0.44	+ 6 15.6	1.496	2.461	6.8	20.4	3 2	11 58.96	+17 9.9	2.373	3.325	5.6	19.3
3 12	11 51.48	+ 7 32.2	1.461	2.450	2.8	20.2	3 12	11 50.91	+18 22.1	2.360	3.327	4.7	19.3
3 22	11 41.76	+ 8 45.6	1.453	2.438	4.5	20.2	3 22	11 42.48	+19 22.1	2.377	3.327	6.1	19.4
4 1	11 32.51	+ 9 47.1	1.473	2.426	9.1	20.5	4 1	11 34.48	+20 5.3	2.422	3.327	8.6	19.5
4 11	11 24.87	+10 30.2	1.517	2.414	13.4	20.7	4 11	11 27.61	+20 29.3	2.493	3.326	11.1	19.7
4 21	11 19.62	+10 52.1	1.582	2.401	17.2	20.9	4 21	11 22.40	+20 34.3	2.585	3.324	13.3	19.8
34010	Tassiloschwarz		3 16.8 173°86	1.6°/18.3	18		499161	2009 <i>SR</i> ₅₀		3 16.8 232°10	0.2°/16.6	17	
2 11	12 13.23	- 5 21.6	1.854	2.655	14.9	19.4	2 11	12 10.10	- 1 10.3	2.265	3.076	12.2	23.5
2 21	12 7.98	- 5 2.6	1.771	2.658	11.5	19.2	2 21	12 5.40	- 0 25.4	2.165	3.062	9.3	23.3
3 2	12 0.48	- 4 26.4	1.710	2.661	7.6	18.9	3 2	11 58.81	+ 0 32.9	2.089	3.047	5.7	23.1
3 12	11 51.45	- 3 36.3	1.676	2.662	3.3	18.7	3 12	11 50.91	+ 1 40.2	2.041	3.032	1.9	22.8
3 22	11 41.84	- 2 37.6	1.671	2.664	2.3	18.6	3 22	11 42.43	+ 2 51.1	2.024	3.016	2.2	22.8
4 1	11 32.74	- 1 37.2	1.694	2.664	6.5	18.9	4 1	11 34.24	+ 3 59.0	2.036	2.999	6.2	23.0
4 11	11 25.13	- 0 42.2	1.744	2.664	10.6	19.1	4 11	11 27.15	+ 4 58.1	2.076	2.981	9.9	23.2
4 21	11 19.68	+ 0 2.1	1.818	2.663	14.2	19.3	4 21	11 21.80	+ 5 44.1	2.140	2.963	13.2	23.4
243792	2000 <i>SM</i> ₈₁		3 16.8 159°16	2.5°/14.5	18		63157	2000 <i>YL</i> ₂					

EPHEMERIDES

3 16.8

3 16.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
308150	2005 AA ₃₄		3 16.8 45°22	3°9/13.3	18		140217	2001 SA ₂₃₆		3 16.8 173°90	1°3/15.1	18	
2 11	12 9.35	+ 6 16.6	1.418	2.274	15.7	20.2	2 11	12 7.11	+ 2 57.4	2.684	3.505	10.2	20.6
2 21	12 5.55	+ 7 37.5	1.355	2.278	11.6	20.0	2 21	12 2.78	+ 3 48.9	2.603	3.508	7.6	20.4
3 2	11 59.16	+ 9 9.8	1.315	2.282	7.2	19.7	3 2	11 57.00	+ 4 48.3	2.547	3.509	4.6	20.3
3 12	11 51.05	+10 43.4	1.300	2.287	4.0	19.5	3 12	11 50.28	+ 5 51.3	2.521	3.511	1.7	20.0
3 22	11 42.35	+12 7.3	1.312	2.291	6.0	19.7	3 22	11 43.23	+ 6 52.7	2.525	3.512	2.6	20.1
4 1	11 34.37	+13 12.0	1.349	2.296	10.4	19.9	4 1	11 36.51	+ 7 47.8	2.559	3.512	5.7	20.3
4 11	11 28.23	+13 51.9	1.409	2.301	14.6	20.2	4 11	11 30.73	+ 8 32.7	2.621	3.513	8.6	20.5
4 21	11 24.58	+14 6.0	1.488	2.306	18.1	20.4	4 21	11 26.35	+ 9 4.9	2.707	3.513	11.2	20.7
496723	2016 GZ ₂₃		3 16.8 289°76	3°1/19.8	17		226025	2002 EA ₁₂₅		3 16.8 178°29	1°1/15.8	17	
2 11	12 7.37	-10 0.9	1.721	2.518	16.1	22.0	2 11	12 11.32	+ 2 46.2	2.052	2.877	12.8	20.6
2 21	12 3.97	- 9 39.4	1.620	2.501	12.8	21.7	2 21	12 6.34	+ 3 13.7	1.972	2.878	9.5	20.4
3 2	11 58.23	- 8 53.9	1.541	2.483	9.0	21.4	3 2	11 59.38	+ 3 50.4	1.916	2.878	5.8	20.2
3 12	11 50.79	- 7 46.3	1.486	2.466	4.9	21.1	3 12	11 51.10	+ 4 31.7	1.888	2.879	1.9	19.9
3 22	11 42.54	- 6 21.6	1.458	2.448	3.3	21.0	3 22	11 42.35	+ 5 12.2	1.889	2.879	2.8	20.0
4 1	11 34.61	- 4 48.1	1.457	2.431	6.8	21.2	4 1	11 34.07	+ 5 46.5	1.919	2.878	6.8	20.2
4 11	11 28.10	- 3 15.9	1.482	2.413	11.2	21.4	4 11	11 27.10	+ 6 10.2	1.975	2.878	10.4	20.4
4 21	11 23.77	- 1 53.7	1.530	2.396	15.3	21.6	4 21	11 22.05	+ 6 21.0	2.054	2.877	13.6	20.6
434888	2006 SF ₃₇₉		3 16.8 35°92	0°2/17.1	17		428050	2006 DM ₁₄₂		3 16.8 63°45	1°9/14.9	18	
2 11	12 5.57	- 3 8.7	2.191	3.005	12.5	21.3	2 11	12 8.53	+ 3 12.9	1.816	2.653	13.7	20.6
2 21	12 1.94	- 2 18.5	2.109	3.007	9.4	21.1	2 21	12 4.38	+ 4 8.2	1.750	2.663	10.1	20.4
3 2	11 56.61	- 1 13.7	2.052	3.009	5.9	20.9	3 2	11 58.20	+ 5 14.2	1.708	2.673	6.1	20.2
3 12	11 50.15	+ 0 1.0	2.022	3.012	2.0	20.7	3 12	11 50.71	+ 6 24.3	1.693	2.683	2.3	19.9
3 22	11 43.30	+ 1 19.8	2.021	3.014	2.0	20.7	3 22	11 42.80	+ 7 31.1	1.706	2.693	3.7	20.1
4 1	11 36.83	+ 2 35.8	2.049	3.016	5.8	20.9	4 1	11 35.47	+ 8 27.5	1.747	2.703	7.6	20.3
4 11	11 31.49	+ 3 43.0	2.105	3.019	9.4	21.1	4 11	11 29.58	+ 9 8.5	1.813	2.713	11.4	20.6
4 21	11 27.79	+ 4 37.0	2.184	3.021	12.4	21.3	4 21	11 25.69	+ 9 31.7	1.901	2.724	14.6	20.8
308868	2006 SY ₂₅		3 16.8 237°66	3°1/20.1	18		44941	1999 VQ ₅₃		3 16.8 299°22	0°6/16.3	18	
2 11	12 10.34	- 9 33.8	2.491	3.261	12.4	20.4	2 11	12 10.50	+ 0 38.0	1.481	2.320	16.1	19.2
2 21	12 5.42	- 9 47.5	2.390	3.254	9.9	20.2	2 21	12 6.63	+ 1 2.8	1.390	2.303	12.3	18.9
3 2	11 58.76	- 9 47.2	2.314	3.246	7.1	20.0	3 2	12 0.05	+ 1 43.3	1.321	2.285	7.6	18.5
3 12	11 50.89	- 9 33.6	2.264	3.238	4.3	19.8	3 12	11 51.45	+ 2 34.4	1.277	2.268	2.5	18.2
3 22	11 42.49	- 9 9.1	2.244	3.229	3.2	19.7	3 22	11 41.92	+ 3 28.8	1.259	2.251	3.2	18.2
4 1	11 34.38	- 8 37.1	2.253	3.221	5.3	19.8	4 1	11 32.80	+ 4 18.2	1.267	2.234	8.6	18.4
4 11	11 27.30	- 8 2.5	2.290	3.212	8.3	20.0	4 11	11 25.37	+ 4 54.9	1.298	2.217	13.5	18.7
4 21	11 21.82	- 7 29.9	2.352	3.203	11.2	20.2	4 21	11 20.51	+ 5 14.3	1.351	2.201	17.9	18.9
403301	2009 BL ₁₆₄		3 16.8 72°19	1°3/17.7	16		464494	2016 BQ ₆₉		3 16.8 238°19	1°9/18.4	16	
2 11	12 14.33	- 2 32.7	1.484	2.307	16.9	21.9	2 11	12 14.43	- 5 2.6	1.868	2.668	14.9	21.9
2 21	12 9.26	- 2 36.3	1.410	2.310	13.0	21.6	2 21	12 9.11	- 5 0.2	1.767	2.654	11.6	21.7
3 2	12 1.48	- 2 23.9	1.357	2.314	8.3	21.4	3 2	12 1.38	- 4 41.8	1.690	2.639	7.7	21.4
3 12	11 51.84	- 1 58.8	1.330	2.318	3.3	21.1	3 12	11 51.87	- 4 9.5	1.638	2.624	3.5	21.1
3 22	11 41.52	- 1 26.3	1.329	2.322	2.6	21.0	3 22	11 41.55	- 3 27.4	1.615	2.608	2.5	21.0
4 1	11 31.88	- 0 53.3	1.355	2.326	7.6	21.3	4 1	11 31.54	- 2 41.4	1.621	2.591	6.7	21.2
4 11	11 24.12	- 0 26.3	1.406	2.331	12.3	21.6	4 11	11 22.95	- 1 58.4	1.654	2.573	11.1	21.4
4 21	11 18.98	- 0 10.2	1.478	2.335	16.3	21.9	4 21	11 16.58	- 1 23.7	1.709	2.556	14.9	21.6
437633	2014 BV ₃₄		3 16.8 51°48	3°8/12.2	17		108927	2001 PK ₂₁		3 16.8 143°01	1°2/15.4	18	
2 11	12 6.61	+10 6.1	2.205	3.051	11.3	20.3	2 11	12 8.89	+ 3 17.7	2.446	3.269	11.1	19.9
2 21	12 2.68	+11 17.4	2.138	3.055	8.3	20.2	2 21	12 4.21	+ 3 54.3	2.370	3.275	8.2	19.7
3 2	11 57.04	+12 32.8	2.097	3.059	5.4	20.0	3 2	11 57.93	+ 4 38.4	2.319	3.281	4.9	19.5
3 12	11 50.29	+13 45.5	2.084	3.064	3.8	19.9	3 12	11 50.62	+ 5 25.8	2.296	3.286	1.7	19.3
3 22	11 43.18	+14 49.0	2.100	3.069	5.3	20.0	3 22	11 42.97	+ 6 11.6	2.303	3.292	2.7	19.4
4 1	11 36.52	+15 37.7	2.143	3.073	8.2	20.2	4 1	11 35.72	+ 6 51.1	2.340	3.297	6.0	19.6
4 11	11 31.03	+16 8.6	2.212	3.078	11.1	20.4	4 11	11 29.55	+ 7 20.7	2.404	3.301	9.1	19.8
4 21	11 27.20	+16 20.7	2.302	3.083	13.6	20.5	4 21	11 24.94	+ 7 38.3	2.492	3.306	11.8	20.0
108869	2001 OA ₁₀₂		3 16.8 153°16	3°9/21.0	18		430620	2003 DT ₉		3 16.8 51°25	7°2/ 8.6	18	
2 11	12 14.51	-12 41.1	2.526	3.271	12.9	20.0	2 11	12 8.64	+18 45.9	1.868	2.722	12.6	20.1
2 21	12 8.40	-12 58.6	2.438	3.282	10.5	19.9	2 21	12 4.35	+20 31.9	1.836	2.748	9.8	20.0
3 2	12 0.52	-13 0.3	2.374	3.291	7.7	19.7	3 2	11 58.08	+22 12.7	1.830	2.775	7.6	19.9
3 12	11 51.45	-12 46.7	2.338	3.300	5.1	19.6	3 12	11 50.65	+23 38.6	1.851	2.801	7.3	19.9
3 22	11 41.95	-12 19.8	2.331	3.309	3.9	19.5	3 22	11 42.99	+24 42.2	1.898	2.828	8.9	20.0
4 1	11 32.84	-11 43.3	2.354	3.316	5.5	19.6	4 1	11 36.05	+25 19.6	1.971	2.855	11.3	20.2
4 11	11 24.90	-11 2.2	2.406	3.323	8.2	19.8	4 11	11 30.63	+25 30.4	2.066	2.882	13.7	20.5
4 21	11 18.67	-10 21.7	2.484	3.329	10.8	20.0	4 21	11 27.20	+25 17.0	2.180	2.910	15.8	20.7
264573	2001 TG ₉₂		3 16.8 84°26	0°6/17.4	18		58672	Remigio		3 16.8 117°48	5°6/23.4	18	
2 11	12 13.53	- 2 35.9	1.860	2.671	14.5	21.7	2 11	12 11.81	-18 50.3	2.242	2.966	15.0	19.4
2 21	12 7.89	- 2 12.4	1.803	2.698	10.9	21.5	2 21	12 6.58	-18 57.4	2.165	2.985	12.5	19.3
3 2	12 0.23	- 1 35.2	1.770	2.726	6.8	21.3	3 2	11 59.47	-18 42.2	2.109	3.003	9.7	19.1
3 12	11 51.33	- 0 48.5	1.764	2.753	2.5	21.1	3 12	11 51.14	-18 4.8	2.078	3.022	7.1	19.0
3 22	11 42.15	+ 0 1.7	1.787	2.780	2.1	21.1	3 22	11 42.42	-17 8.1	2.074	3.039	5.7	19.0
4 1	11 33.71	+ 0 49.4	1.838	2.806	6.3	21.4	4 1	11 34.21	-15 57.2	2.099	3.056	6.5	19.0
4 11	11 26.83	+ 1 29.1	1.916	2.831	10.1	21.7	4 11	11 27.32	-14 39.5	2.151	3.072	8.8	19.2
4 21	11 22.03	+ 1 57.2	2.018	2.857	13.2	22.0	4 21	11 22.28	-13 22.1	2.229	3.088	11.4	19.4
11294	Kazu		3 16.8 73°92	2°9/14.4	18		78310	Spoto		3 16.8 132°87	3°0/19.7	18	
2 11	12 11.50	+ 3 39.4	1.347	2.196	16.8	17.6</							

EPHEMERIDES

3 16.9

3 16.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
240048	2001 <i>WM</i> ₃		3 16.9 150°57	2°6/20.3	18		181705	1989 <i>RY</i>		3 16.9 150°60	2°0/19.3	18	
2 11	12 6.83	-10 34.6	2.538	3.310	12.2	20.6	2 11	12 11.32	- 8 14.6	2.496	3.271	12.3	20.8
2 21	12 2.70	-10 13.7	2.450	3.314	9.7	20.4	2 21	12 5.99	- 7 49.7	2.413	3.283	9.6	20.6
3 2	11 57.03	- 9 36.6	2.384	3.318	6.8	20.2	3 2	11 59.03	- 7 9.8	2.354	3.294	6.5	20.4
3 12	11 50.34	- 8 45.3	2.346	3.321	3.9	20.0	3 12	11 51.01	- 6 17.4	2.324	3.305	3.3	20.3
3 22	11 43.27	- 7 43.6	2.337	3.325	2.7	19.9	3 22	11 42.63	- 5 16.7	2.324	3.314	2.2	20.2
4 1	11 36.55	- 6 36.6	2.357	3.328	4.9	20.1	4 1	11 34.66	- 4 12.9	2.354	3.323	5.0	20.4
4 11	11 30.83	- 5 29.9	2.406	3.331	7.8	20.3	4 11	11 27.81	- 3 11.6	2.413	3.331	8.1	20.6
4 21	11 26.60	- 4 28.7	2.481	3.334	10.6	20.5	4 21	11 22.57	- 2 17.4	2.498	3.338	11.0	20.8
231875	2000 <i>UZ</i> ₁₅		3 16.9 183°77	5°3/24.2	16		384991	2012 <i>TE</i> ₁₉₃		3 16.9 16°79	10°4/ 6.5	17	
2 11	12 8.46	-21 22.4	2.431	3.137	14.3	21.5	2 11	12 20.42	+34 15.0	2.138	2.945	13.0	19.9
2 21	12 4.08	-20 49.0	2.330	3.138	12.1	21.3	2 21	12 13.12	+35 6.1	2.090	2.946	11.4	19.8
3 2	11 57.96	-19 50.6	2.250	3.138	9.5	21.2	3 2	12 3.49	+35 40.5	2.066	2.948	10.5	19.7
3 12	11 50.66	-18 27.4	2.196	3.137	6.9	21.0	3 12	11 52.46	+35 50.4	2.066	2.950	10.6	19.7
3 22	11 42.93	-16 43.2	2.170	3.136	5.3	20.9	3 22	11 41.19	+35 31.1	2.092	2.952	11.6	19.8
4 1	11 35.57	-14 44.2	2.174	3.134	6.0	20.9	4 1	11 30.86	+34 42.0	2.141	2.955	13.2	19.9
4 11	11 29.35	-12 39.2	2.207	3.132	8.4	21.1	4 11	11 22.42	+33 26.2	2.212	2.957	15.1	20.0
4 21	11 24.80	-10 36.7	2.268	3.130	11.1	21.2	4 21	11 16.41	+31 49.0	2.302	2.960	16.7	20.2
8633	Keisukenagao		3 16.9 27°88	0°2/16.7	18		313768	2003 <i>WO</i> ₁₈₈		3 16.9 62°11	1°1/17.8	18	
2 11	12 10.95	+ 1 18.4	1.844	2.672	13.9	17.5	2 11	12 12.38	- 3 36.9	1.434	2.259	17.3	20.8
2 21	12 6.18	+ 1 19.5	1.775	2.681	10.4	17.3	2 21	12 7.68	- 3 19.4	1.375	2.277	13.2	20.5
3 2	11 59.32	+ 1 30.4	1.729	2.690	6.4	17.0	3 2	12 0.42	- 2 43.3	1.338	2.296	8.4	20.3
3 12	11 51.12	+ 1 47.3	1.710	2.701	2.1	16.8	3 12	11 51.51	- 1 53.5	1.326	2.314	3.3	20.1
3 22	11 42.49	+ 2 5.7	1.719	2.711	2.3	16.8	3 22	11 42.15	- 0 57.2	1.339	2.333	2.5	20.0
4 1	11 34.45	+ 2 21.0	1.755	2.722	6.6	17.1	4 1	11 33.62	- 0 2.5	1.380	2.352	7.4	20.4
4 11	11 27.88	+ 2 28.9	1.818	2.734	10.4	17.3	4 11	11 27.01	+ 0 43.0	1.445	2.371	11.9	20.7
4 21	11 23.36	+ 2 27.0	1.903	2.746	13.7	17.6	4 21	11 22.92	+ 1 14.6	1.532	2.389	15.7	21.0
415107	2012 <i>CG</i> ₃₄		3 16.9 117°51	1°3/15.6	18		325656	2009 <i>SX</i> ₃₄₁		3 16.9 257°71	4°0/13.5	18	
2 11	12 11.85	+ 1 27.0	1.827	2.653	14.1	21.4	2 11	12 15.19	+11 4.3	1.915	2.752	13.1	21.0
2 21	12 6.83	+ 2 22.5	1.762	2.669	10.4	21.2	2 21	12 9.55	+11 38.2	1.827	2.738	9.9	20.7
3 2	11 59.70	+ 3 30.2	1.721	2.684	6.3	21.0	3 2	12 1.56	+12 15.1	1.763	2.723	6.4	20.5
3 12	11 51.23	+ 4 43.6	1.708	2.698	2.1	20.8	3 12	11 51.93	+12 48.6	1.726	2.708	4.0	20.3
3 22	11 42.37	+ 5 55.2	1.723	2.712	3.2	20.9	3 22	11 41.62	+13 12.2	1.719	2.693	5.5	20.4
4 1	11 34.15	+ 6 57.8	1.767	2.725	7.4	21.1	4 1	11 31.76	+13 20.9	1.739	2.678	9.1	20.5
4 11	11 27.45	+ 7 45.7	1.837	2.738	11.2	21.4	4 11	11 23.38	+13 12.1	1.784	2.662	12.7	20.7
4 21	11 22.82	+ 8 16.4	1.929	2.751	14.4	21.6	4 21	11 17.21	+12 45.6	1.851	2.646	16.0	20.9
64418	2001 <i>UE</i> ₁₈₄		3 16.9 229°76	5°0/11.4	18		500727	2012 <i>XY</i> ₅₀		3 16.9 165°96	1°0/15.7	17	
2 11	12 9.51	+11 39.7	1.910	2.758	12.6	19.5	2 11	12 8.58	+ 2 36.1	2.553	3.372	10.8	22.4
2 21	12 5.22	+13 5.5	1.836	2.753	9.5	19.2	2 21	12 3.95	+ 3 11.0	2.471	3.375	8.0	22.2
3 2	11 58.82	+14 36.2	1.787	2.747	6.4	19.0	3 2	11 57.78	+ 3 53.9	2.416	3.378	4.8	22.0
3 12	11 50.98	+16 3.0	1.766	2.741	5.0	18.9	3 12	11 50.60	+ 4 40.4	2.390	3.380	1.6	21.7
3 22	11 42.61	+17 17.4	1.773	2.735	6.7	19.0	3 22	11 43.07	+ 5 26.2	2.393	3.382	2.4	21.8
4 1	11 34.70	+18 12.3	1.807	2.729	10.0	19.2	4 1	11 35.91	+ 6 6.7	2.426	3.384	5.7	22.0
4 11	11 28.18	+18 44.2	1.865	2.722	13.2	19.4	4 11	11 29.76	+ 6 38.2	2.487	3.385	8.8	22.2
4 21	11 23.69	+18 52.7	1.943	2.715	16.1	19.6	4 21	11 25.11	+ 6 58.3	2.571	3.386	11.4	22.4
30976	1995 <i>FH</i> ₁		3 16.9 324°06	1°7/15.7	18		90078	2002 <i>VX</i> ₉₇		3 16.9 346°55	5°4/20.8	18	
2 11	12 15.60	+ 5 41.4	1.590	2.427	15.3	17.7	2 11	12 9.58	-11 41.2	1.243	2.053	20.3	19.1
2 21	12 10.19	+ 5 38.9	1.508	2.420	11.5	17.4	2 21	12 6.32	-11 58.9	1.165	2.049	16.5	18.9
3 2	12 2.09	+ 5 42.9	1.448	2.412	7.1	17.1	3 2	12 0.02	-11 47.8	1.106	2.046	12.0	18.6
3 12	11 52.12	+ 5 48.7	1.415	2.405	2.6	16.8	3 12	11 51.51	-11 7.8	1.069	2.044	7.5	18.3
3 22	11 41.40	+ 5 51.0	1.408	2.398	3.7	16.9	3 22	11 42.05	-10 3.5	1.055	2.042	5.4	18.2
4 1	11 31.25	+ 5 45.2	1.429	2.391	8.4	17.1	4 1	11 33.21	- 8 44.0	1.065	2.040	8.5	18.4
4 11	11 22.89	+ 5 28.0	1.475	2.385	12.9	17.4	4 11	11 26.42	- 7 21.8	1.099	2.039	13.3	18.6
4 21	11 17.08	+ 4 58.0	1.543	2.379	16.7	17.6	4 21	11 22.57	- 6 7.9	1.152	2.039	17.8	18.9
370974	2005 <i>SE</i> ₂₁₅		3 16.9 238°73	2°1/19.0	17		7401	Toynbee		3 16.9 159°90	0°8/17.7	18	
2 11	12 11.05	- 7 24.4	2.233	3.018	13.2	22.0	2 11	12 12.06	- 3 49.7	2.050	2.853	13.6	19.0
2 21	12 6.21	- 7 9.9	2.126	3.003	10.4	21.8	2 21	12 6.90	- 3 19.2	1.969	2.859	10.4	18.8
3 2	11 59.41	- 6 39.1	2.044	2.987	7.1	21.5	3 2	11 59.75	- 2 33.7	1.912	2.865	6.6	18.6
3 12	11 51.20	- 5 54.1	1.988	2.970	3.6	21.3	3 12	11 51.29	- 1 37.2	1.883	2.871	2.6	18.3
3 22	11 42.34	- 4 58.6	1.961	2.952	2.5	21.2	3 22	11 42.36	- 0 35.1	1.882	2.875	2.0	18.3
4 1	11 33.73	- 3 58.1	1.964	2.934	5.7	21.4	4 1	11 33.91	+ 0 26.1	1.912	2.880	6.1	18.6
4 11	11 26.26	- 2 59.1	1.995	2.915	9.4	21.5	4 11	11 26.80	+ 1 20.2	1.968	2.883	9.9	18.8
4 21	11 20.57	- 2 7.0	2.050	2.896	12.8	21.7	4 21	11 21.62	+ 2 3.0	2.049	2.886	13.1	19.0
155182	2005 <i>UL</i> ₃₁₇		3 16.9 91°50	1°1/17.9	18		472142	2014 <i>BN</i> ₆₄		3 16.9 9°26	8°3/25.7	17	
2 11	12 10.11	- 4 15.4	1.796	2.609	14.9	21.2	2 11	12 6.29	-22 30.4	1.864	2.589	17.5	19.8
2 21	12 5.65	- 3 49.4	1.722	2.618	11.4	21.0	2 21	12 3.03	-23 13.0	1.781	2.591	15.2	19.7
3 2	11 59.05	- 3 6.7	1.672	2.626	7.3	20.7	3 2	11 57.58	-23 29.0	1.717	2.594	12.5	19.5
3 12	11 51.05	- 2 11.4	1.647	2.635	2.9	20.5	3 12	11 50.62	-23 16.4	1.674	2.598	10.0	19.3
3 22	11 42.57	- 1 9.5	1.651	2.644	2.2	20.5	3 22	11 43.04	-22 35.9	1.655	2.603	8.5	19.3
4 1	11 34.65	- 0 8.3	1.682	2.653	6.5	20.7	4 1	11 35.90	-21 32.1	1.661	2.609	8.7	19.3
4 11	11 28.22	+ 0 45.5	1.740	2.661	10.5	21.0	4 11	11 30.19	-20 13.1	1.692	2.615	10.6	19.4
4 21	11 23.87	+ 1 27.0	1.820	2.670	14.0	21.2	4 21	11 26.57	-18 48.3	1.746	2.623	13.2	19.6
111576	2002 <i>AQ</i> ₂₀		3 16.9 97°49	1°0/18.0	18		204969	1991 <i>VU</i> ₁₁		3 16.9 80°61	1°1/15.7		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
428845	2008 <i>UH</i> ₅₁		3 16.9 82°44'	0°4/16.4	17		93409	2000 <i>SS</i> ₂₉₆		3 16.9 57°64'	2°6/18.9	18	
2 11	12 9.39	+ 0 19.9	1.978	2.802	13.2	21.6	2 11	12 14.24	- 5 26.4	1.702	2.506	15.9	19.5
2 21	12 4.97	+ 0 50.4	1.901	2.805	9.9	21.4	2 21	12 8.85	- 5 48.7	1.632	2.519	12.4	19.3
3 2	11 58.60	+ 1 32.6	1.847	2.808	6.1	21.2	3 2	12 1.10	- 5 55.3	1.584	2.531	8.3	19.1
3 12	11 50.91	+ 2 21.9	1.820	2.811	1.9	20.9	3 12	11 51.78	- 5 48.0	1.561	2.544	4.2	18.9
3 22	11 42.77	+ 3 12.7	1.822	2.814	2.4	20.9	3 22	11 41.95	- 5 30.2	1.566	2.557	3.0	18.8
4 1	11 35.10	+ 3 58.9	1.852	2.817	6.6	21.2	4 1	11 32.78	- 5 7.1	1.599	2.570	6.6	19.1
4 11	11 28.75	+ 4 35.4	1.909	2.820	10.3	21.4	4 11	11 25.28	- 4 44.6	1.658	2.584	10.6	19.3
4 21	11 24.31	+ 4 58.8	1.988	2.823	13.6	21.6	4 21	11 20.10	- 4 27.6	1.739	2.597	14.1	19.6
225565	2000 <i>TR</i> ₁₂		3 16.9 163°39'	2°7/13.6	16		307714	2003 <i>UG</i> ₁₄₁		3 16.9 153°98'	4°6/12.4	18	
2 11	12 10.27	+ 7 20.3	2.409	3.239	11.0	21.4	2 11	12 13.46	+ 11 3.5	1.827	2.669	13.4	20.7
2 21	12 5.28	+ 8 21.0	2.336	3.245	8.1	21.3	2 21	12 8.15	+ 12 12.7	1.762	2.676	10.0	20.5
3 2	11 58.63	+ 9 27.5	2.288	3.250	5.0	21.1	3 2	12 0.60	+ 13 25.8	1.721	2.682	6.5	20.3
3 12	11 50.90	+ 10 33.7	2.270	3.255	2.7	20.9	3 12	11 51.60	+ 14 34.4	1.708	2.687	4.6	20.2
3 22	11 42.80	+ 11 34.0	2.282	3.259	4.1	21.0	3 22	11 42.14	+ 15 30.7	1.724	2.692	6.3	20.3
4 1	11 35.13	+ 12 23.2	2.323	3.263	7.1	21.2	4 1	11 33.31	+ 16 8.6	1.766	2.696	9.6	20.5
4 11	11 28.59	+ 12 57.7	2.391	3.266	10.0	21.4	4 11	11 26.06	+ 16 25.2	1.833	2.700	13.0	20.7
4 21	11 23.68	+ 13 16.3	2.483	3.268	12.6	21.6	4 21	11 20.99	+ 16 20.6	1.921	2.703	15.9	20.9
318055	2004 <i>FV</i> ₆₀		3 16.9 152°14'	0°9/15.8	18		82208	2001 <i>HP</i> ₄₂		3 16.9 255°21'	3°3/14.0	17	
2 11	12 10.64	+ 0 50.5	2.159	2.977	12.5	20.7	2 11	12 13.11	+ 5 43.9	1.566	2.409	15.2	20.1
2 21	12 5.72	+ 1 43.8	2.083	2.986	9.3	20.5	2 21	12 8.54	+ 6 48.4	1.475	2.391	11.4	19.8
3 2	11 58.97	+ 2 48.4	2.033	2.994	5.6	20.3	3 2	12 1.25	+ 8 5.7	1.408	2.373	7.1	19.5
3 12	11 51.02	+ 3 59.0	2.011	3.001	1.8	20.0	3 12	11 51.94	+ 9 27.8	1.366	2.354	3.5	19.3
3 22	11 42.67	+ 5 9.3	2.019	3.008	2.7	20.1	3 22	11 41.69	+ 10 44.8	1.352	2.334	5.4	19.3
4 1	11 34.80	+ 6 13.0	2.056	3.014	6.5	20.4	4 1	11 31.84	+ 11 47.2	1.365	2.314	10.1	19.5
4 11	11 28.18	+ 7 4.7	2.120	3.020	10.0	20.6	4 11	11 23.67	+ 12 28.2	1.402	2.294	14.6	19.8
4 21	11 23.35	+ 7 41.6	2.208	3.025	13.0	20.8	4 21	11 18.04	+ 12 45.2	1.459	2.273	18.6	20.0
121224	1999 <i>RA</i> ₂₁		3 16.9 163°01'	2°8/18.1	18		272394	2005 <i>SS</i> ₂₈₈		3 16.9 245°62'	5°6/10.7	17	
2 11	12 27.27	- 2 15.3	1.295	2.106	19.6	19.8	2 11	12 12.36	+ 15 22.2	2.100	2.941	11.9	21.7
2 21	12 19.58	- 3 13.6	1.218	2.110	15.3	19.5	2 21	12 7.31	+ 16 36.1	2.015	2.925	9.1	21.5
3 2	12 8.25	- 3 59.2	1.161	2.113	10.1	19.2	3 2	12 0.14	+ 17 51.5	1.956	2.908	6.6	21.3
3 12	11 54.26	- 4 32.0	1.130	2.116	4.7	18.9	3 12	11 51.49	+ 19 0.2	1.925	2.891	5.6	21.2
3 22	11 39.22	- 4 53.5	1.127	2.118	3.7	18.8	3 22	11 42.21	+ 19 54.9	1.922	2.873	7.2	21.2
4 1	11 25.03	- 5 7.5	1.151	2.120	8.9	19.1	4 1	11 33.32	+ 20 29.6	1.946	2.855	10.1	21.4
4 11	11 13.39	- 5 19.4	1.200	2.121	14.2	19.4	4 11	11 25.74	+ 20 41.7	1.995	2.835	13.2	21.5
4 21	11 5.27	- 5 34.2	1.270	2.122	18.7	19.7	4 21	11 20.14	+ 20 31.6	2.064	2.816	15.9	21.7
10991	Dulov		3 16.9 235°13'	0°2/17.1	18		138691	2000 <i>SP</i> ₅₇		3 16.9 257°49'	1°2/15.8	18	R
2 11	12 11.85	- 2 17.1	1.960	2.771	13.8	18.8	2 11	12 14.69	+ 5 20.8	2.380	3.198	11.5	19.8
2 21	12 7.04	- 1 40.0	1.861	2.757	10.6	18.5	2 21	12 8.67	+ 5 18.4	2.291	3.192	8.6	19.6
3 2	12 0.03	+ 0 47.3	1.785	2.743	6.7	18.3	3 2	12 0.79	+ 5 20.5	2.226	3.187	5.3	19.4
3 12	11 51.45	+ 0 17.0	1.737	2.727	2.3	17.9	3 12	11 51.67	+ 5 23.8	2.191	3.181	1.9	19.1
3 22	11 42.16	+ 1 26.9	1.718	2.711	2.3	17.9	3 22	11 42.07	+ 5 25.1	2.186	3.175	2.6	19.2
4 1	11 33.18	+ 2 35.0	1.728	2.694	6.8	18.1	4 1	11 32.87	+ 5 21.1	2.212	3.170	6.2	19.4
4 11	11 25.52	+ 3 34.3	1.765	2.677	11.0	18.4	4 11	11 24.86	+ 5 9.6	2.265	3.164	9.5	19.6
4 21	11 19.88	+ 4 20.1	1.825	2.658	14.7	18.6	4 21	11 18.62	+ 4 49.1	2.343	3.158	12.4	19.8
467428	2005 <i>XG</i> ₄₀		3 16.9 41°75'	6°0/11.1	17		458966	2011 <i>WA</i> ₁₄		3 16.9 96°62'	0°3/17.2	18	
2 11	12 10.34	+ 14 26.8	1.710	2.564	13.6	21.2	2 11	12 13.44	- 2 17.5	1.613	2.433	15.9	21.9
2 21	12 5.94	+ 15 41.8	1.651	2.569	10.3	21.0	2 21	12 8.26	- 1 46.4	1.551	2.451	12.0	21.7
3 2	11 59.28	+ 16 57.5	1.617	2.574	7.2	20.8	3 2	12 0.71	- 0 59.1	1.511	2.469	7.5	21.5
3 12	11 51.16	+ 18 4.6	1.609	2.579	6.0	20.8	3 12	11 51.64	- 0 0.9	1.497	2.487	2.6	21.2
3 22	11 42.58	+ 18 54.9	1.627	2.585	7.7	20.9	3 22	11 42.15	+ 1 1.0	1.511	2.504	2.4	21.3
4 1	11 34.67	+ 19 22.8	1.672	2.591	10.8	21.1	4 1	11 33.41	+ 1 58.9	1.552	2.520	7.2	21.6
4 11	11 28.39	+ 19 26.4	1.739	2.597	14.0	21.3	4 11	11 26.42	+ 2 46.1	1.619	2.537	11.4	21.9
4 21	11 24.31	+ 19 6.8	1.825	2.603	16.8	21.5	4 21	11 21.77	+ 3 18.6	1.709	2.553	15.0	22.1
166667	2002 <i>TU</i> ₅₇		3 16.9 122°06'	4°0/21.5	18		410320	2007 <i>TG</i> ₄₄₁		3 16.9 122°62'	4°3/21.1	18	
2 11	12 9.99	- 13 36.5	2.426	3.178	13.2	20.8	2 11	12 12.43	- 13 19.7	1.845	2.612	16.2	21.4
2 21	12 5.13	- 13 43.9	2.343	3.189	10.7	20.6	2 21	12 7.40	- 13 11.6	1.769	2.627	13.1	21.2
3 2	11 58.57	- 13 33.9	2.283	3.200	8.0	20.5	3 2	12 0.17	- 12 40.4	1.715	2.641	9.5	21.0
3 12	11 50.90	- 13 7.3	2.248	3.211	5.3	20.3	3 12	11 51.49	- 11 47.6	1.686	2.655	6.0	20.8
3 22	11 42.84	- 12 26.8	2.242	3.221	4.0	20.3	3 22	11 42.32	- 10 37.8	1.685	2.668	4.3	20.7
4 1	11 35.17	- 11 36.8	2.266	3.231	5.5	20.4	4 1	11 33.75	- 9 18.2	1.711	2.681	6.5	20.9
4 11	11 28.64	- 10 42.9	2.317	3.240	8.1	20.5	4 11	11 26.72	- 7 57.6	1.765	2.693	10.0	21.1
4 21	11 23.74	- 9 50.6	2.393	3.250	10.8	20.7	4 21	11 21.84	- 6 43.4	1.843	2.704	13.3	21.4
498608	2008 <i>RR</i> ₇₇		3 16.9 202°98'	0°5/16.4	17		462009	2006 <i>XD</i> ₈		3 16.9 148°65'	5°1/22.8	18	
2 11	12 13.38	+ 2 1.1	2.418	3.229	11.6	22.3	2 11	12 11.51	- 17 24.7	2.251	2.984	14.7	21.7
2 21	12 7.67	+ 2 13.5	2.327	3.224	8.7	22.1	2 21	12 6.45	- 17 25.2	2.165	2.994	12.2	21.5
3 2	12 0.17	+ 2 33.6	2.261	3.220	5.3	21.8	3 2	11 59.48	- 17 4.0	2.101	3.003	9.3	21.3
3 12	11 51.45	+ 2 58.2	2.224	3.215	1.7	21.6	3 12	11 51.25	- 16 21.4	2.061	3.012	6.6	21.2
3 22	11 42.25	+ 3 23.2	2.218	3.209	2.2	21.6	3 22	11 42.56	- 15 20.2	2.049	3.021	5.1	21.1
4 1	11 33.42	+ 3 44.8	2.241	3.203	5.8	21.8	4 1	11 34.32	- 14 5.9	2.067	3.028	6.2	21.2
4 11	11 25.73	+ 3 59.2	2.293	3.196	9.2	22.0	4 11	11 27.34	- 12 45.7	2.112	3.035	8.8	21.3
4 21	11 19.74	+ 4 4.2	2.369	3.189	12.2	22.2	4 21	11 22.19	- 11 26.9	2.182	3.041	11.6	21.5
213403	2001 <i>WT</i>		3 16.9 17°58'	0°1/16.9	17		313443</						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
388272	2006 <i>RW</i> ₃₉		3 16.9 116°32	0°5/16.2	17		421223	2013 <i>SQ</i> ₃₅		3 16.9 118°78	0°1/16.8	17	
2 11	12 7.70	+ 0 37.8	2.770	3.581	10.2	21.9	2 11	12 13.15	+ 0 28.4	1.978	2.795	13.5	21.4
2 21	12 3.14	+ 1 20.0	2.699	3.598	7.6	21.8	2 21	12 7.78	+ 0 38.2	1.902	2.802	10.2	21.2
3 2	11 57.22	+ 2 10.6	2.655	3.615	4.6	21.6	3 2	12 0.35	+ 0 58.3	1.849	2.808	6.3	21.0
3 12	11 50.46	+ 3 5.5	2.640	3.631	1.5	21.4	3 12	11 51.56	+ 1 25.1	1.825	2.815	2.1	20.7
3 22	11 43.45	+ 4 0.5	2.656	3.647	2.0	21.5	3 22	11 42.31	+ 1 53.9	1.829	2.821	2.2	20.7
4 1	11 36.82	+ 4 51.0	2.702	3.662	5.0	21.7	4 1	11 33.59	+ 2 19.8	1.862	2.827	6.4	21.0
4 11	11 31.14	+ 5 33.4	2.776	3.677	7.9	21.9	4 11	11 26.29	+ 2 38.1	1.921	2.833	10.2	21.2
4 21	11 26.82	+ 6 5.2	2.875	3.691	10.3	22.1	4 21	11 21.00	+ 2 46.3	2.004	2.839	13.5	21.5
192820	1999 <i>VO</i> ₈₂		3 16.9 255°16	6°1/ 9.9	18		429208	2009 <i>WD</i> ₁₉₅		3 16.9 139°02	0°3/17.3	15	
2 11	12 14.51	+19 26.0	2.353	3.186	11.1	20.7	2 11	12 9.71	- 2 48.5	2.255	3.061	12.4	21.9
2 21	12 8.77	+20 26.0	2.264	3.164	8.7	20.5	2 21	12 4.98	- 2 9.0	2.178	3.071	9.4	21.7
3 2	12 0.99	+21 23.6	2.200	3.142	6.7	20.3	3 2	11 58.51	- 1 16.6	2.126	3.081	5.9	21.5
3 12	11 51.79	+22 11.5	2.165	3.119	6.1	20.2	3 12	11 50.93	- 0 15.2	2.101	3.090	2.1	21.3
3 22	11 41.99	+22 43.5	2.159	3.095	7.5	20.3	3 22	11 42.97	+ 0 49.7	2.106	3.099	1.9	21.3
4 1	11 32.54	+22 55.3	2.180	3.071	10.0	20.4	4 1	11 35.46	+ 1 52.2	2.141	3.108	5.7	21.6
4 11	11 24.33	+22 45.3	2.225	3.046	12.7	20.5	4 11	11 29.14	+ 2 46.9	2.204	3.116	9.1	21.8
4 21	11 18.00	+22 14.7	2.291	3.021	15.1	20.6	4 21	11 24.50	+ 3 30.0	2.291	3.123	12.1	22.0
405390	2004 <i>FH</i> ₆₇		3 16.9 301°36	3°7/14.3	17		82047	2000 <i>SX</i> ₂₅₆		3 16.9 311°68	2°9/13.7	17	
2 11	12 11.66	+ 6 15.9	1.236	2.095	17.3	21.0	2 11	12 6.38	+ 6 24.0	1.998	2.842	12.3	18.9
2 21	12 8.16	+ 7 2.8	1.146	2.070	13.1	20.6	2 21	12 2.90	+ 7 23.3	1.908	2.824	9.2	18.7
3 2	12 1.41	+ 8 3.4	1.077	2.045	8.2	20.3	3 2	11 57.46	+ 8 31.5	1.842	2.807	5.7	18.4
3 12	11 52.12	+ 9 9.3	1.032	2.021	4.0	20.0	3 12	11 50.64	+ 9 42.4	1.803	2.790	3.0	18.2
3 22	11 41.55	+10 9.6	1.011	1.996	6.1	20.0	3 22	11 43.24	+10 48.7	1.792	2.773	4.5	18.3
4 1	11 31.36	+10 53.2	1.015	1.972	11.6	20.2	4 1	11 36.16	+11 43.5	1.809	2.756	8.2	18.5
4 11	11 23.17	+11 12.8	1.039	1.948	17.0	20.4	4 11	11 30.30	+12 21.8	1.851	2.740	11.8	18.6
4 21	11 18.09	+11 5.6	1.081	1.925	21.8	20.6	4 21	11 26.27	+12 41.2	1.915	2.724	15.0	18.8
466470	2013 <i>TB</i> ₁₃₃		3 16.9 234°93	5°3/11.6	17		224313	2005 <i>UT</i> ₂₄		3 16.9 176°50	0°1/16.9	17	
2 11	12 11.85	+14 31.9	1.978	2.823	12.4	21.2	2 11	12 11.35	- 0 56.5	2.122	2.934	12.9	21.2
2 21	12 6.89	+15 31.1	1.907	2.819	9.4	21.0	2 21	12 6.37	- 0 29.2	2.038	2.936	9.7	21.0
3 2	11 59.84	+16 30.8	1.860	2.816	6.6	20.8	3 2	11 59.47	+ 0 10.1	1.979	2.937	6.1	20.8
3 12	11 51.39	+17 23.4	1.841	2.812	5.3	20.7	3 12	11 51.28	+ 0 57.4	1.948	2.938	2.0	20.5
3 22	11 42.45	+18 2.2	1.849	2.808	6.8	20.8	3 22	11 42.62	+ 1 47.6	1.946	2.938	2.1	20.5
4 1	11 34.04	+18 22.1	1.885	2.805	9.8	21.0	4 1	11 34.38	+ 2 35.0	1.973	2.938	6.1	20.8
4 11	11 27.06	+18 21.2	1.945	2.801	12.8	21.1	4 11	11 27.41	+ 3 14.3	2.027	2.938	9.8	21.0
4 21	11 22.11	+18 0.1	2.025	2.796	15.6	21.3	4 21	11 22.29	+ 3 42.2	2.105	2.937	13.0	21.2
503309	2016 <i>AV</i> ₁₂₂		3 16.9 280°32	13°2/24.1	17		326419	2001 <i>TO</i> ₃₀		3 16.9 131°08	6°9/ 9.9	18	
2 11	12 20.62	-26 24.5	1.734	2.415	20.1	21.1	2 11	12 16.39	+20 55.2	2.077	2.912	12.3	20.7
2 21	12 14.82	-28 36.8	1.630	2.396	18.2	20.9	2 21	12 10.06	+21 57.6	2.025	2.925	9.7	20.6
3 2	12 5.64	-30 27.8	1.544	2.378	16.1	20.7	3 2	12 1.65	+22 54.1	1.998	2.936	7.6	20.5
3 12	11 53.62	-31 48.7	1.479	2.359	14.2	20.5	3 12	11 51.96	+23 36.8	1.998	2.947	6.9	20.5
3 22	11 39.85	-32 32.7	1.438	2.340	13.2	20.4	3 22	11 41.98	+23 59.8	2.026	2.958	8.3	20.6
4 1	11 25.97	-32 37.8	1.420	2.321	13.7	20.4	4 1	11 32.71	+24 0.1	2.081	2.968	10.6	20.7
4 11	11 13.72	-32 8.8	1.425	2.302	15.4	20.4	4 11	11 25.03	+23 37.8	2.160	2.978	13.1	20.9
4 21	11 4.44	-31 16.1	1.451	2.283	17.8	20.5	4 21	11 19.46	+22 55.7	2.259	2.987	15.3	21.1
468925	2014 <i>WD</i> ₄₂₇		3 16.9 72°35	3°8/12.9	17		503588	2016 <i>GN</i> ₅₉		3 16.9 94°20	1°6/18.3	17	
2 11	12 9.03	+ 8 52.6	1.900	2.746	12.8	20.6	2 11	12 11.66	- 4 28.1	1.741	2.552	15.3	22.2
2 21	12 4.80	+ 9 59.7	1.831	2.748	9.5	20.4	2 21	12 7.00	- 4 21.9	1.661	2.555	11.8	22.0
3 2	11 58.55	+11 12.7	1.787	2.750	6.0	20.2	3 2	12 0.05	- 3 59.3	1.604	2.557	7.7	21.7
3 12	11 50.96	+12 24.1	1.769	2.752	3.8	20.1	3 12	11 51.51	- 3 23.3	1.572	2.559	3.4	21.5
3 22	11 42.91	+13 26.4	1.780	2.754	5.4	20.2	3 22	11 42.39	- 2 39.1	1.568	2.561	2.4	21.4
4 1	11 35.38	+14 13.1	1.818	2.757	8.8	20.4	4 1	11 33.79	- 1 52.9	1.591	2.563	6.6	21.7
4 11	11 29.24	+14 40.6	1.881	2.759	12.2	20.6	4 11	11 26.73	- 1 11.5	1.641	2.565	10.8	21.9
4 21	11 25.07	+14 48.0	1.965	2.761	15.1	20.8	4 21	11 21.87	- 0 39.9	1.713	2.567	14.5	22.1
310901	2003 <i>SO</i> ₁₈		3 16.9 156°72	0°3/17.2	18		469711	2005 <i>JJ</i> ₅₁		3 16.9 330°81	3°1/14.5	17	
2 11	12 12.83	- 2 26.1	2.058	2.864	13.5	22.0	2 11	12 8.70	+ 5 15.3	1.329	2.187	16.4	21.0
2 21	12 7.47	- 1 50.3	1.980	2.873	10.2	21.8	2 21	12 5.47	+ 6 4.1	1.253	2.176	12.3	20.7
3 2	12 0.13	- 1 0.6	1.925	2.881	6.4	21.6	3 2	11 59.43	+ 7 5.9	1.197	2.165	7.6	20.4
3 12	11 51.48	- 0 1.3	1.899	2.888	2.2	21.3	3 12	11 51.38	+ 8 12.3	1.166	2.155	3.4	20.1
3 22	11 42.38	+ 1 1.7	1.902	2.894	2.1	21.3	3 22	11 42.50	+ 9 13.4	1.160	2.146	5.3	20.2
4 1	11 33.78	+ 2 2.1	1.934	2.900	6.2	21.6	4 1	11 34.20	+10 0.0	1.179	2.137	10.2	20.5
4 11	11 26.54	+ 2 54.0	1.994	2.905	10.0	21.9	4 11	11 27.77	+10 25.3	1.220	2.130	15.0	20.7
4 21	11 21.23	+ 3 33.4	2.078	2.909	13.2	22.1	4 21	11 24.02	+10 27.2	1.280	2.122	19.1	20.9
191917	2005 <i>QO</i> ₇₁		3 16.9 179°34	0°1/16.9	18		377420	2004 <i>TP</i> ₁₃₂		3 16.9 218°21	4°4/21.9	18	
2 11	12 12.86	- 2 39.2	1.785	2.599	14.9	21.4	2 11	12 9.80	-15 15.6	2.425	3.168	13.5	21.2
2 21	12 7.84	- 1 46.4	1.703	2.601	11.3	21.1	2 21	12 5.18	-15 14.2	2.321	3.160	11.1	21.0
3 2	12 0.53	- 0 36.1	1.645	2.603	7.0	20.9	3 2	11 58.76	-14 53.5	2.239	3.151	8.4	20.8
3 12	11 51.65	+ 0 46.4	1.613	2.603	2.4	20.6	3 12	11 51.07	-14 14.0	2.183	3.142	5.7	20.6
3 22	11 42.18	+ 2 13.2	1.611	2.603	2.5	20.6	3 22	11 42.84	-13 18.1	2.155	3.132	4.4	20.5
4 1	11 33.22	+ 3 35.8	1.637	2.602	7.2	20.9	4 1	11 34.88	-12 10.5	2.157	3.121	5.8	20.6
4 11	11 25.80	+ 4 46.2	1.690	2.600	11.5	21.1	4 11	11 27.99	-10 57.5	2.186	3.110	8.5	20.7
4 21	11 20.57	+ 5 39.7	1.765	2.598	15.1	21.3	4 21	11 22.76	- 9 45.7	2.241	3.099	11.4	20.9
78031	2002 <i>JH</i> ₇₅		3 16.9 202°25	4°0/13.6	18		10700	Juanangelviera		3 1			

EPHEMERIDES

3 16.9

3 16.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
406057	2006 <i>US</i> ₃₄		3 16.9 95°23	2°0/15.1	18		326411	2001 <i>SV</i> ₂₁₉		3 16.9 190°57	0°5/17.5	18	
2 11	12 15.01	+ 4 38.8	1.879	2.706	13.7	22.5	2 11	12 8.12	- 4 59.5	1.981	2.789	13.8	21.3
2 21	12 9.03	+ 5 20.9	1.825	2.733	10.1	22.3	2 21	12 4.13	- 3 56.0	1.894	2.788	10.6	21.1
3 2	12 1.01	+ 6 10.7	1.796	2.759	6.1	22.2	3 2	11 58.17	- 2 33.7	1.832	2.787	6.7	20.8
3 12	11 51.76	+ 7 1.9	1.795	2.785	2.4	22.0	3 12	11 50.89	- 0 57.7	1.797	2.786	2.5	20.6
3 22	11 42.25	+ 7 48.3	1.824	2.810	3.6	22.1	3 22	11 43.09	+ 0 44.7	1.791	2.784	2.1	20.5
4 1	11 33.49	+ 8 24.3	1.880	2.834	7.4	22.4	4 1	11 35.72	+ 2 24.9	1.815	2.782	6.4	20.8
4 11	11 26.33	+ 8 46.4	1.963	2.858	10.9	22.6	4 11	11 29.62	+ 3 54.6	1.865	2.780	10.3	21.0
4 21	11 21.27	+ 8 53.2	2.069	2.881	13.9	22.9	4 21	11 25.39	+ 5 8.4	1.940	2.777	13.8	21.2
59473	1999 <i>HT</i> ₁		3 16.9 167°20	2°7/13.9	18		409818	2006 <i>JX</i> ₃₅		3 16.9 207°40	0°6/17.5	17	
2 11	12 10.91	+ 6 49.5	2.187	3.019	11.9	19.1	2 11	12 11.80	- 3 42.9	2.136	2.937	13.2	23.0
2 21	12 5.97	+ 7 44.0	2.112	3.023	8.8	18.9	2 21	12 6.81	- 3 4.5	2.041	2.931	10.1	22.7
3 2	11 59.18	+ 8 44.8	2.063	3.026	5.4	18.7	3 2	11 59.82	- 2 10.7	1.970	2.924	6.4	22.5
3 12	11 51.19	+ 9 46.2	2.042	3.029	2.8	18.5	3 12	11 51.45	- 1 5.3	1.927	2.916	2.4	22.2
3 22	11 42.78	+ 10 41.9	2.051	3.031	4.1	18.6	3 22	11 42.50	+ 0 6.0	1.914	2.907	2.0	22.2
4 1	11 34.83	+ 11 26.3	2.089	3.033	7.4	18.8	4 1	11 33.90	+ 1 16.7	1.930	2.897	6.1	22.4
4 11	11 28.13	+ 11 55.8	2.152	3.034	10.7	19.0	4 11	11 26.53	+ 2 20.0	1.975	2.887	10.0	22.6
4 21	11 23.21	+ 12 8.9	2.239	3.035	13.5	19.2	4 21	11 21.02	+ 3 11.4	2.043	2.875	13.3	22.8
325769	2010 <i>LY</i> ₆₃		3 16.9 225°58	1°6/18.1	18		215095	3131 <i>T</i> ₋₃		3 16.9 236°28	2°1/20.2	18	
2 11	12 22.00	- 4 17.6	1.829	2.618	15.5	22.2	2 11	12 6.09	- 11 6.4	3.021	3.782	10.7	20.8
2 21	12 15.05	- 4 13.5	1.721	2.602	12.2	21.9	2 21	12 2.06	- 10 24.1	2.909	3.767	8.5	20.6
3 2	12 5.29	- 3 53.4	1.636	2.584	8.0	21.6	3 2	11 56.67	- 9 26.0	2.821	3.753	6.0	20.4
3 12	11 53.38	- 3 19.3	1.578	2.564	3.5	21.3	3 12	11 50.36	- 8 14.2	2.762	3.737	3.4	20.2
3 22	11 40.38	- 2 35.6	1.550	2.543	2.6	21.2	3 22	11 43.65	- 6 52.3	2.733	3.721	2.2	20.1
4 1	11 27.64	- 1 48.4	1.553	2.519	7.3	21.4	4 1	11 37.14	- 5 25.2	2.735	3.705	4.3	20.2
4 11	11 16.46	- 1 5.0	1.583	2.494	12.0	21.6	4 11	11 31.43	- 3 58.6	2.767	3.688	7.1	20.4
4 21	11 7.78	- 0 31.0	1.637	2.467	16.2	21.8	4 21	11 26.96	- 2 37.6	2.827	3.671	9.7	20.5
271690	2004 <i>RS</i> ₁₀₁		3 16.9 222°25	1°2/18.2	17		457246	2008 <i>PV</i> ₁		3 16.9 300°82	4°0/12.5	17	
2 11	12 10.75	- 4 35.3	2.306	3.102	12.5	21.7	2 11	12 6.32	+ 6 29.6	1.706	2.558	13.7	20.3
2 21	12 5.90	- 4 17.5	2.208	3.093	9.7	21.5	2 21	12 3.16	+ 8 8.0	1.623	2.544	10.2	20.0
3 2	11 59.20	- 3 45.9	2.134	3.084	6.3	21.3	3 2	11 57.77	+ 9 59.1	1.565	2.531	6.4	19.8
3 12	11 51.23	- 3 3.4	2.087	3.074	2.7	21.0	3 12	11 50.80	+ 11 53.6	1.534	2.518	4.0	19.6
3 22	11 42.71	- 2 14.1	2.070	3.063	1.9	20.9	3 22	11 43.17	+ 13 40.7	1.531	2.505	6.0	19.7
4 1	11 34.49	- 1 23.0	2.083	3.052	5.5	21.2	4 1	11 35.94	+ 15 10.5	1.554	2.493	10.0	19.9
4 11	11 27.39	- 0 35.9	2.124	3.041	9.1	21.4	4 11	11 30.13	+ 16 16.1	1.601	2.480	13.9	20.1
4 21	11 21.99	+ 0 3.1	2.189	3.029	12.3	21.5	4 21	11 26.43	+ 16 55.1	1.669	2.468	17.3	20.3
8680	Rone		3 16.9 122°37	1°6/14.9	18		333783	2011 <i>FP</i> ₁₀₀		3 16.9 328°97	2°4/18.7	17	
2 11	12 9.49	+ 5 10.4	2.601	3.425	10.5	18.6	2 11	12 12.88	- 4 42.8	1.758	2.565	15.3	20.1
2 21	12 4.58	+ 5 44.9	2.531	3.437	7.7	18.4	2 21	12 8.01	- 5 5.3	1.670	2.560	12.0	19.9
3 2	11 58.17	+ 6 24.9	2.486	3.448	4.7	18.3	3 2	12 0.75	- 5 13.3	1.605	2.555	8.1	19.6
3 12	11 50.82	+ 7 6.3	2.471	3.459	1.9	18.1	3 12	11 51.80	- 5 8.5	1.565	2.550	4.0	19.4
3 22	11 43.19	+ 7 44.6	2.485	3.470	2.9	18.2	3 22	11 42.14	- 4 53.8	1.553	2.545	2.8	19.3
4 1	11 35.97	+ 8 15.9	2.529	3.481	5.9	18.4	4 1	11 32.92	- 4 34.1	1.569	2.540	6.7	19.5
4 11	11 29.79	+ 8 37.1	2.601	3.492	8.7	18.6	4 11	11 25.22	- 4 14.9	1.610	2.536	10.9	19.7
4 21	11 25.10	+ 8 46.7	2.697	3.502	11.2	18.8	4 21	11 19.77	- 4 1.2	1.674	2.532	14.6	20.0
326711	2003 <i>CW</i> ₁₀		3 16.9 71°92	0°7/17.6	18		209057	2003 <i>QL</i> ₃₈		3 16.9 157°75	0°6/16.3	18	
2 11	12 12.26	- 4 29.6	1.675	2.487	15.8	20.6	2 11	12 12.81	- 0 0.5	1.990	2.806	13.5	21.4
2 21	12 7.16	- 3 41.6	1.625	2.520	11.9	20.4	2 21	12 7.54	+ 0 43.2	1.913	2.813	10.1	21.2
3 2	11 59.92	- 2 35.9	1.597	2.553	7.5	20.2	3 2	12 0.22	+ 1 39.5	1.861	2.820	6.2	21.0
3 12	11 51.40	- 1 18.7	1.596	2.585	2.8	20.0	3 12	11 51.56	+ 2 43.2	1.836	2.827	2.0	20.7
3 22	11 42.64	+ 0 2.2	1.624	2.617	2.2	20.0	3 22	11 42.44	+ 3 47.9	1.841	2.832	2.6	20.8
4 1	11 34.69	+ 1 18.4	1.679	2.648	6.6	20.3	4 1	11 33.84	+ 4 47.0	1.875	2.837	6.7	21.0
4 11	11 28.42	+ 2 23.1	1.761	2.679	10.6	20.6	4 11	11 26.63	+ 5 34.9	1.936	2.841	10.5	21.3
4 21	11 24.33	+ 3 12.0	1.866	2.710	13.9	20.9	4 21	11 21.40	+ 6 8.2	2.021	2.845	13.8	21.5
464632	1999 <i>TG</i> ₂₃		3 16.9 194°84	1°9/14.7	17		251340	2007 <i>HJ</i> ₉₆		3 16.9 313°45	15°1/31.2	18	
2 11	12 11.90	+ 6 12.1	2.532	3.354	10.7	22.1	2 11	12 6.95	- 32 16.9	1.149	1.860	27.1	20.5
2 21	12 6.51	+ 6 46.6	2.446	3.351	8.0	21.9	2 21	12 5.11	- 33 14.6	1.069	1.854	24.7	20.2
3 2	11 59.45	+ 7 26.6	2.387	3.348	4.9	21.7	3 2	11 59.74	- 33 24.3	1.001	1.849	21.7	20.0
3 12	11 51.28	+ 8 7.6	2.357	3.344	2.2	21.5	3 12	11 51.64	- 32 36.0	0.948	1.845	18.6	19.8
3 22	11 42.69	+ 8 45.1	2.357	3.340	3.3	21.6	3 22	11 42.25	- 30 45.1	0.911	1.840	16.0	19.6
4 1	11 34.47	+ 9 14.6	2.387	3.335	6.4	21.8	4 1	11 33.50	- 27 56.9	0.895	1.836	15.1	19.5
4 11	11 27.33	+ 9 33.0	2.444	3.330	9.4	22.0	4 11	11 27.20	- 24 29.3	0.899	1.832	16.4	19.6
4 21	11 21.78	+ 9 38.9	2.526	3.324	12.1	22.1	4 21	11 24.42	- 20 46.6	0.924	1.828	19.5	19.7
463102	2011 <i>UG</i> ₆₂		3 16.9 148°58	0°2/17.1	18		168228	2006 <i>KA</i> ₃₂		3 16.9 115°34	0°7/17.6	18	
2 11	12 13.01	- 2 26.8	1.884	2.695	14.3	22.5	2 11	12 13.89	- 3 21.6	1.778	2.588	15.1	21.3
2 21	12 7.77	- 1 48.0	1.809	2.705	10.8	22.3	2 21	12 8.46	- 2 52.3	1.711	2.606	11.5	21.1
3 2	12 0.40	- 0 54.0	1.757	2.714	6.8	22.1	3 2	12 0.82	- 2 7.1	1.668	2.623	7.3	20.8
3 12	11 51.62	+ 0 10.3	1.733	2.722	2.3	21.8	3 12	11 51.76	- 1 10.7	1.651	2.640	2.7	20.6
3 22	11 42.36	+ 1 18.4	1.737	2.730	2.2	21.8	3 22	11 42.29	- 0 9.3	1.662	2.656	2.2	20.6
4 1	11 33.66	+ 2 23.2	1.771	2.737	6.6	22.1	4 1	11 33.49	+ 0 49.8	1.703	2.671	6.6	20.9
4 11	11 26.44	+ 3 18.1	1.831	2.743	10.6	22.4	4 11	11 26.29	+ 1 40.2	1.769	2.686	10.7	21.2
4 21	11 21.30	+ 3 59.1	1.915	2.749	14.0	22.6	4 21	11 21.29	+ 2 17.5	1.859	2.700	14.1	21.4
168749	2000 <i>QA</i> ₁₅₈		3 16.9 99°80	4°1/22.3	17		63537	2001 <i>PS</i> ₃₃					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
324557	2006 WZ ₉₇		3 16.9 164°43	0°7/16.2	16		90224	2003 BB ₁₄		3 16.9 336°95	3°3/19.3	18	
2 11	12 11.89	+ 0 42.2	2.024	2.843	13.2	21.4	2 11	12 10.51	- 7 24.5	1.269	2.093	19.2	19.5
2 21	12 6.85	+ 1 19.5	1.946	2.848	9.9	21.2	2 21	12 7.00	- 7 31.3	1.191	2.088	15.2	19.2
3 2	11 59.81	+ 2 8.3	1.891	2.852	6.0	20.9	3 2	12 0.50	- 7 14.0	1.132	2.083	10.4	18.9
3 12	11 51.44	+ 3 3.8	1.864	2.855	1.9	20.7	3 12	11 51.81	- 6 34.2	1.095	2.079	5.4	18.6
3 22	11 42.60	+ 4 0.1	1.867	2.858	2.6	20.7	3 22	11 42.20	- 5 37.4	1.083	2.075	3.7	18.5
4 1	11 34.24	+ 4 50.9	1.898	2.860	6.7	21.0	4 1	11 33.18	- 4 32.9	1.096	2.072	8.2	18.8
4 11	11 27.23	+ 5 31.1	1.957	2.862	10.4	21.2	4 11	11 26.16	- 3 31.1	1.132	2.069	13.3	19.0
4 21	11 22.15	+ 5 57.6	2.038	2.864	13.6	21.4	4 21	11 22.03	- 2 40.8	1.188	2.067	17.9	19.3
170862	2004 GZ ₇		3 16.9 38°26	3°4/20.8	18		382733	2003 AN ₅₁		3 16.9 51°93	7°6/24.5	18	
2 11	12 5.38	-12 31.1	1.856	2.640	15.6	19.9	2 11	12 13.86	-20 26.8	1.973	2.693	16.8	20.6
2 21	12 2.12	-11 57.6	1.784	2.654	12.4	19.7	2 21	12 8.42	-21 24.7	1.910	2.719	14.3	20.5
3 2	11 56.92	-11 0.5	1.734	2.668	8.8	19.5	3 2	12 0.81	-21 58.8	1.866	2.746	11.6	20.4
3 12	11 50.47	- 9 43.0	1.708	2.683	5.2	19.3	3 12	11 51.78	-22 7.3	1.846	2.773	9.1	20.3
3 22	11 43.62	- 8 11.2	1.710	2.698	3.4	19.3	3 22	11 42.31	-21 51.4	1.851	2.800	7.7	20.2
4 1	11 37.30	- 6 33.2	1.740	2.714	5.9	19.4	4 1	11 33.45	-21 15.1	1.883	2.827	8.1	20.3
4 11	11 32.34	- 4 58.2	1.797	2.730	9.5	19.7	4 11	11 26.14	-20 25.5	1.940	2.854	10.0	20.5
4 21	11 29.27	- 3 33.4	1.878	2.747	12.8	19.9	4 21	11 20.98	-19 30.4	2.022	2.881	12.4	20.7
110423	2001 TJ ₂₁		3 16.9 101°35	2°7/19.2	18		366903	2005 UU ₄₁		3 16.9 196°06	1°2/15.4	15	
2 11	12 13.30	- 6 50.0	1.854	2.649	15.1	18.9	2 11	12 11.32	+ 3 2.8	2.652	3.465	10.6	23.0
2 21	12 8.09	- 7 1.2	1.777	2.657	11.9	18.7	2 21	12 6.05	+ 3 47.4	2.561	3.462	7.9	22.8
3 2	12 0.66	- 6 56.1	1.721	2.665	8.1	18.5	3 2	11 59.17	+ 4 39.9	2.497	3.457	4.8	22.6
3 12	11 51.74	- 6 36.4	1.692	2.673	4.2	18.3	3 12	11 51.23	+ 5 36.2	2.462	3.452	1.7	22.4
3 22	11 42.29	- 6 5.7	1.690	2.681	3.0	18.2	3 22	11 42.86	+ 6 31.4	2.458	3.446	2.6	22.4
4 1	11 33.37	- 5 29.5	1.717	2.688	6.3	18.4	4 1	11 34.81	+ 7 20.6	2.485	3.439	5.9	22.6
4 11	11 25.96	- 4 54.0	1.771	2.696	10.1	18.6	4 11	11 27.76	+ 7 59.9	2.540	3.431	8.9	22.8
4 21	11 20.70	- 4 24.2	1.847	2.703	13.5	18.9	4 21	11 22.22	+ 8 26.9	2.620	3.422	11.6	23.0
313714	2003 UC ₉₇		3 16.9 164°00	0°5/17.4	18		228046	2008 HM ₁₈		3 16.9 229°88	2°2/14.4	17	
2 11	12 12.93	- 2 48.5	2.123	2.926	13.2	21.7	2 11	12 9.75	+ 4 24.2	2.182	3.011	12.0	21.1
2 21	12 7.54	- 2 16.2	2.041	2.933	10.0	21.5	2 21	12 5.26	+ 5 28.4	2.091	3.000	8.9	20.9
3 2	12 0.20	- 1 30.1	1.984	2.939	6.3	21.3	3 2	11 58.87	+ 6 42.8	2.025	2.989	5.4	20.7
3 12	11 51.57	- 0 34.3	1.955	2.944	2.3	21.1	3 12	11 51.17	+ 8 1.2	1.988	2.976	2.4	20.4
3 22	11 42.47	+ 0 25.8	1.955	2.948	2.0	21.0	3 22	11 42.91	+ 9 16.8	1.980	2.963	3.8	20.5
4 1	11 33.85	+ 1 24.1	1.985	2.952	6.0	21.3	4 1	11 34.98	+10 22.8	2.002	2.950	7.4	20.7
4 11	11 26.53	+ 2 14.9	2.043	2.955	9.7	21.5	4 11	11 28.22	+11 14.1	2.050	2.936	10.9	20.9
4 21	11 21.10	+ 2 54.1	2.125	2.957	12.9	21.8	4 21	11 23.22	+11 47.8	2.120	2.922	14.0	21.1
246306	2007 TX ₁₄₀		3 16.9 185°51	1°7/15.2	18		463236	2012 EJ ₉		3 16.9 326°27	1°1/16.2	17	
2 11	12 13.47	+ 3 33.7	2.062	2.885	12.8	21.6	2 11	12 11.83	+ 3 3.1	1.433	2.277	16.3	20.9
2 21	12 8.04	+ 4 21.9	1.980	2.885	9.5	21.4	2 21	12 7.75	+ 3 7.8	1.347	2.263	12.3	20.7
3 2	12 0.56	+ 5 19.9	1.923	2.885	5.8	21.2	3 2	12 0.87	+ 3 23.6	1.284	2.249	7.6	20.3
3 12	11 51.70	+ 6 22.0	1.894	2.884	2.2	20.9	3 12	11 51.93	+ 3 45.5	1.244	2.235	2.5	20.0
3 22	11 42.33	+ 7 21.7	1.895	2.882	3.4	21.0	3 22	11 42.09	+ 4 7.6	1.231	2.222	3.4	20.0
4 1	11 33.41	+ 8 12.7	1.925	2.879	7.3	21.2	4 1	11 32.74	+ 4 23.1	1.243	2.210	8.7	20.3
4 11	11 25.84	+ 8 50.3	1.982	2.875	10.9	21.5	4 11	11 25.19	+ 4 26.7	1.279	2.199	13.6	20.5
4 21	11 20.22	+ 9 12.1	2.062	2.871	14.1	21.7	4 21	11 20.30	+ 4 15.4	1.335	2.189	17.8	20.8
67691	2000 SS ₃₁₀		3 16.9 154°58	10°3/29.2	18		217075	2001 SR ₂₈₉		3 16.9 133°31	4°6/21.7	18	
2 11	12 9.78	-30 43.1	2.070	2.720	18.0	18.1	2 11	12 13.14	-14 20.3	2.213	2.961	14.4	21.1
2 21	12 5.69	-31 26.0	1.978	2.721	16.2	17.9	2 21	12 7.68	-14 33.3	2.131	2.974	11.8	20.9
3 2	11 59.32	-31 39.7	1.904	2.722	14.1	17.8	3 2	12 0.29	-14 27.1	2.072	2.987	8.8	20.8
3 12	11 51.34	-31 20.7	1.849	2.723	12.1	17.6	3 12	11 51.62	-14 2.1	2.039	2.999	6.0	20.6
3 22	11 42.67	-30 28.3	1.817	2.724	10.7	17.5	3 22	11 42.49	-13 21.0	2.034	3.011	4.6	20.5
4 1	11 34.41	-29 5.9	1.809	2.725	10.4	17.5	4 1	11 33.83	-12 28.5	2.058	3.022	6.1	20.6
4 11	11 27.60	-27 21.5	1.826	2.725	11.4	17.6	4 11	11 26.47	-11 31.1	2.109	3.032	8.9	20.8
4 21	11 22.95	-25 25.4	1.867	2.726	13.3	17.7	4 21	11 20.99	-10 35.1	2.186	3.042	11.7	21.0
351596	2005 US ₅₂₄		3 16.9 139°76	1°4/15.1	17		173500	2000 SL ₃₁₁		3 16.9 188°83	3°2/20.5	18	
2 11	12 7.88	+ 4 46.3	2.748	3.572	10.0	22.1	2 11	12 13.97	-10 29.4	2.935	3.684	11.2	20.3
2 21	12 3.37	+ 5 19.3	2.671	3.577	7.4	21.9	2 21	12 7.93	-10 58.5	2.835	3.684	9.0	20.1
3 2	11 57.44	+ 5 58.0	2.619	3.582	4.4	21.8	3 2	12 0.32	-11 15.8	2.761	3.682	6.6	19.9
3 12	11 50.61	+ 6 38.5	2.597	3.586	1.7	21.6	3 12	11 51.62	-11 21.7	2.714	3.681	4.2	19.8
3 22	11 43.48	+ 7 16.7	2.604	3.591	2.7	21.6	3 22	11 42.48	-11 17.2	2.698	3.679	3.3	19.7
4 1	11 36.69	+ 7 48.7	2.642	3.595	5.6	21.8	4 1	11 33.58	-11 4.8	2.714	3.676	4.9	19.8
4 11	11 30.84	+ 8 11.5	2.707	3.599	8.4	22.0	4 11	11 25.62	-10 48.1	2.758	3.673	7.4	20.0
4 21	11 26.38	+ 8 23.3	2.796	3.603	10.8	22.2	4 21	11 19.11	-10 30.6	2.829	3.670	9.8	20.1
97992	2000 QL ₁₈₇		3 16.9 225°64	2°0/15.2	18		341315	2007 SB ₂₁		3 16.9 122°45	4°8/11.1	18	
2 11	12 15.60	+ 4 49.5	1.842	2.670	13.9	19.9	2 11	12 10.37	+15 28.3	2.368	3.208	10.8	20.9
2 21	12 9.98	+ 5 21.7	1.753	2.660	10.4	19.6	2 21	12 5.43	+16 28.9	2.307	3.217	8.2	20.7
3 2	12 1.95	+ 6 3.0	1.687	2.649	6.4	19.3	3 2	11 58.79	+17 28.6	2.273	3.225	5.8	20.6
3 12	11 52.22	+ 6 47.7	1.649	2.638	2.5	19.1	3 12	11 51.09	+18 21.0	2.267	3.233	4.8	20.5
3 22	11 41.77	+ 7 29.5	1.639	2.626	3.8	19.1	3 22	11 43.08	+19 0.6	2.289	3.242	6.2	20.6
4 1	11 31.75	+ 8 2.0	1.658	2.613	8.1	19.4	4 1	11 35.56	+19 23.6	2.339	3.249	8.6	20.8
4 11	11 23.24	+ 8 20.5	1.703	2.600	12.2	19.6	4 11	11 29.25	+19 28.4	2.414	3.257	11.1	21.0
4 21	11 16.98	+ 8 23.0	1.770	2.586	15.8	19.8	4 21	11 24.61	+19 15.6	2.511	3.264	13.3	21.1
248948	2006 WG ₁₇₀		3 16.9 301°17	3°3/13.0	17		55202	2001 RW ₂₃		3 16.9 64°09	1°0/15.8	18	
2 11	12 7.99	+ 9 54.6</											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
87644	2000 <i>RJ</i> ₇₇		3 16.9 207°13	4.0°/12.5	18	R	460244	2014 <i>QR</i> ₂₆₇		3 16.9 166°80	4.2°/20.6	16	
2 11	12 13.61	+12 41.5	2.364	3.196	11.1	20.4	2 11	12 14.88	-11 18.4	1.917	2.687	15.6	21.9
2 21	12 7.95	+13 28.6	2.283	3.191	8.3	20.2	2 21	12 9.34	-11 34.9	1.831	2.691	12.6	21.7
3 2	12 0.44	+14 17.3	2.228	3.184	5.6	20.0	3 2	12 1.52	-11 32.1	1.766	2.695	9.1	21.5
3 12	11 51.68	+15 1.5	2.201	3.178	4.0	19.9	3 12	11 52.11	-11 10.5	1.728	2.698	5.7	21.3
3 22	11 42.47	+15 35.7	2.204	3.170	5.3	20.0	3 22	11 42.07	-10 32.9	1.717	2.700	4.2	21.2
4 1	11 33.66	+15 55.8	2.236	3.162	8.1	20.1	4 1	11 32.50	-9 44.6	1.734	2.702	6.6	21.4
4 11	11 26.07	+15 59.5	2.295	3.153	11.0	20.3	4 11	11 24.41	-8 52.8	1.779	2.704	10.1	21.6
4 21	11 20.25	+15 46.6	2.375	3.144	13.6	20.4	4 21	11 18.50	-8 4.0	1.848	2.705	13.5	21.8
424696	2008 <i>SM</i> ₂₆		3 16.9 26°88	1°6/15.4	17		238436	2004 <i>PZ</i> ₇		3 16.9 160°73	1°0/17.9	18	
2 11	12 8.38	+ 2 31.5	1.813	2.649	13.7	21.0	2 11	12 13.52	- 4 21.0	1.824	2.630	15.0	21.4
2 21	12 4.44	+ 3 20.0	1.740	2.652	10.2	20.8	2 21	12 8.30	- 3 50.8	1.745	2.636	11.5	21.2
3 2	11 58.43	+ 4 20.1	1.690	2.654	6.2	20.5	3 2	12 0.84	- 3 3.5	1.689	2.642	7.4	21.0
3 12	11 51.03	+ 5 25.7	1.667	2.657	2.2	20.3	3 12	11 51.87	- 2 3.2	1.659	2.647	2.9	20.7
3 22	11 43.14	+ 6 29.5	1.672	2.660	3.4	20.4	3 22	11 42.34	- 0 56.1	1.658	2.652	2.2	20.7
4 1	11 35.77	+ 7 24.6	1.704	2.663	7.5	20.6	4 1	11 33.36	+ 0 10.4	1.686	2.655	6.6	21.0
4 11	11 29.81	+ 8 5.4	1.762	2.667	11.4	20.9	4 11	11 25.90	+ 1 9.1	1.741	2.658	10.8	21.2
4 21	11 25.85	+ 8 29.1	1.841	2.671	14.7	21.1	4 21	11 20.61	+ 1 55.1	1.818	2.660	14.3	21.4
226856	2004 <i>TX</i> ₁₁		3 16.9 86°66	1°1/15.9	18		375353	2008 <i>SP</i> ₆₀		3 16.9 130°55	1°5/18.5	17	
2 11	12 11.96	+ 2 33.1	1.896	2.723	13.6	20.3	2 11	12 9.69	- 5 38.0	2.208	3.004	13.0	21.2
2 21	12 6.95	+ 2 59.6	1.827	2.734	10.1	20.1	2 21	12 5.08	- 5 16.7	2.128	3.012	10.0	21.0
3 2	11 59.88	+ 3 35.7	1.783	2.745	6.1	19.9	3 2	11 58.68	- 4 40.8	2.071	3.020	6.6	20.8
3 12	11 51.49	+ 4 16.4	1.766	2.756	2.0	19.7	3 12	11 51.11	- 3 53.3	2.042	3.028	3.0	20.6
3 22	11 42.69	+ 4 56.0	1.777	2.767	2.9	19.8	3 22	11 43.13	- 2 58.7	2.042	3.035	2.0	20.5
4 1	11 34.48	+ 5 29.0	1.816	2.778	6.9	20.0	4 1	11 35.58	- 2 2.7	2.071	3.042	5.4	20.7
4 11	11 27.72	+ 5 51.0	1.882	2.789	10.7	20.3	4 11	11 29.24	- 1 11.0	2.128	3.048	8.9	21.0
4 21	11 22.98	+ 5 59.7	1.970	2.799	13.9	20.5	4 21	11 24.62	- 0 28.0	2.209	3.055	12.0	21.2
229167	2004 <i>TM</i> ₉₇		3 16.9 287°00	1°6/15.4	17		153709	2001 <i>US</i> ₈₀		3 16.9 111°51	4°1/13.1	18	
2 11	12 10.68	+ 3 40.9	1.872	2.705	13.5	20.9	2 11	12 14.00	+10 58.1	1.914	2.753	13.0	20.3
2 21	12 6.17	+ 4 13.4	1.791	2.701	10.1	20.7	2 21	12 8.43	+11 46.9	1.853	2.765	9.7	20.1
3 2	11 59.52	+ 4 55.5	1.734	2.697	6.1	20.4	3 2	12 0.77	+12 38.2	1.817	2.778	6.2	19.9
3 12	11 51.41	+ 5 41.9	1.703	2.694	2.2	20.2	3 12	11 51.80	+13 25.1	1.809	2.790	4.1	19.8
3 22	11 42.74	+ 6 26.5	1.701	2.690	3.4	20.2	3 22	11 42.46	+14 1.2	1.829	2.801	5.5	19.9
4 1	11 34.54	+ 7 3.1	1.727	2.686	7.5	20.5	4 1	11 33.78	+14 21.7	1.877	2.813	8.8	20.1
4 11	11 27.75	+ 7 27.0	1.778	2.682	11.4	20.7	4 11	11 26.64	+14 24.3	1.950	2.824	12.0	20.3
4 21	11 22.99	+ 7 35.8	1.851	2.678	14.7	20.9	4 21	11 21.59	+14 9.4	2.045	2.835	14.8	20.5
282813	2006 <i>RJ</i> ₂₀		3 16.9 156°07	3°4/21.4	18		150698	2001 <i>PG</i> ₇		3 16.9 209°50	0°1/16.8	18	
2 11	12 8.98	-13 3.8	2.884	3.630	11.4	21.4	2 11	12 12.64	- 1 51.5	1.709	2.529	15.2	20.4
2 21	12 4.21	-13 5.4	2.793	3.637	9.3	21.3	2 21	12 7.89	- 1 9.1	1.623	2.524	11.6	20.2
3 2	11 58.01	-12 52.2	2.725	3.643	6.8	21.1	3 2	12 0.74	- 0 9.6	1.559	2.518	7.2	19.9
3 12	11 50.85	-12 25.3	2.685	3.648	4.5	20.9	3 12	11 51.87	+ 1 2.0	1.522	2.512	2.4	19.6
3 22	11 43.34	-11 47.0	2.674	3.654	3.4	20.9	3 22	11 42.31	+ 2 18.3	1.513	2.506	2.6	19.6
4 1	11 36.14	-11 0.9	2.693	3.658	4.7	21.0	4 1	11 33.21	+ 3 30.6	1.532	2.499	7.5	19.9
4 11	11 29.85	-10 11.6	2.741	3.663	7.1	21.1	4 11	11 25.66	+ 4 31.5	1.578	2.491	11.9	20.1
4 21	11 24.93	- 9 23.5	2.815	3.667	9.5	21.3	4 21	11 20.40	+ 5 15.8	1.645	2.482	15.8	20.3
107663	2001 <i>FK</i> ₂		3 16.9 357°54	3°1/19.5	18		388682	2007 <i>UX</i> ₆₀		3 16.9 114°85	1°0/15.6	17	
2 11	12 4.87	- 8 40.4	1.216	2.047	19.4	19.2	2 11	12 9.35	+ 2 43.8	2.570	3.388	10.7	21.9
2 21	12 2.77	- 8 22.9	1.142	2.043	15.4	18.9	2 21	12 4.50	+ 3 21.6	2.501	3.404	7.9	21.7
3 2	11 57.85	- 7 36.3	1.087	2.040	10.5	18.6	3 2	11 58.17	+ 4 6.8	2.459	3.420	4.8	21.5
3 12	11 50.94	- 6 23.9	1.054	2.038	5.4	18.3	3 12	11 50.91	+ 4 55.2	2.445	3.435	1.6	21.3
3 22	11 43.22	- 4 53.6	1.045	2.038	3.4	18.2	3 22	11 43.37	+ 5 42.0	2.461	3.450	2.4	21.4
4 1	11 36.13	- 3 17.0	1.061	2.038	8.0	18.4	4 1	11 36.26	+ 6 23.1	2.508	3.465	5.6	21.6
4 11	11 30.97	- 1 47.1	1.099	2.040	13.1	18.7	4 11	11 30.20	+ 6 54.7	2.582	3.479	8.5	21.9
4 21	11 28.52	- 0 33.6	1.157	2.043	17.7	19.0	4 21	11 25.63	+ 7 15.0	2.680	3.493	11.1	22.0
497312	2005 <i>TB</i> ₆₆		3 16.9 214°44	0°2/17.1	17		136514	2005 <i>QT</i> ₃₆		3 16.9 237°74	1°4/18.7	17	
2 11	12 11.76	- 1 26.6	2.281	3.087	12.3	23.4	2 11	12 7.81	- 5 34.1	2.657	3.447	11.2	20.4
2 21	12 6.68	- 0 59.8	2.185	3.079	9.4	23.2	2 21	12 3.51	- 5 19.1	2.558	3.439	8.7	20.2
3 2	11 59.72	- 0 21.2	2.114	3.071	5.9	22.9	3 2	11 57.67	- 4 51.7	2.484	3.430	5.8	20.0
3 12	11 51.47	+ 0 25.9	2.072	3.061	2.0	22.7	3 12	11 50.78	- 4 14.3	2.437	3.421	2.7	19.8
3 22	11 42.68	+ 1 16.7	2.059	3.052	2.0	22.6	3 22	11 43.46	- 3 30.3	2.420	3.412	1.8	19.7
4 1	11 34.21	+ 2 5.8	2.076	3.041	5.9	22.9	4 1	11 36.40	- 2 43.8	2.433	3.403	4.8	19.9
4 11	11 26.89	+ 2 47.9	2.121	3.030	9.5	23.1	4 11	11 30.27	- 1 59.6	2.474	3.394	7.9	20.1
4 21	11 21.31	+ 3 19.5	2.189	3.018	12.7	23.3	4 21	11 25.56	- 1 21.6	2.541	3.384	10.7	20.2
485181	2010 <i>SR</i> ₃₉		3 16.9 144°14	6°4/20.0	18		415889	2001 <i>TJ</i> ₈₅		3 16.9 138°87	0°8/17.9	18	
2 11	12 26.47	- 9 43.3	1.322	2.107	20.6	20.6	2 11	12 11.37	- 4 13.7	2.302	3.098	12.5	22.0
2 21	12 19.08	-11 6.2	1.246	2.115	16.8	20.4	2 21	12 6.21	- 3 41.6	2.226	3.112	9.5	21.8
3 2	12 8.07	-12 9.9	1.191	2.122	12.3	20.1	3 2	11 59.32	- 2 56.0	2.174	3.125	6.1	21.6
3 12	11 54.41	-12 50.6	1.159	2.128	8.0	19.9	3 12	11 51.31	- 2 0.5	2.150	3.137	2.4	21.4
3 22	11 39.64	-13 7.6	1.154	2.134	6.5	19.9	3 22	11 42.95	- 1 0.2	2.156	3.149	1.8	21.4
4 1	11 25.67	-13 4.4	1.175	2.139	9.5	20.0	4 1	11 35.05	- 0 0.5	2.192	3.160	5.4	21.6
4 11	11 14.17	-12 49.1	1.221	2.144	13.9	20.3	4 11	11 28.34	+ 0 52.9	2.256	3.170	8.8	21.9
4 21	11 6.15	-12 30.4	1.289	2.148	18.0	20.5	4 21	11 23.34	+ 1 36.3	2.345	3.180	11.8	22.1
117667	2005 <i>EC</i> ₂₀₅		3 16.9 53°31	1°5/14.9	18		110885	2001 <i>UM</i> ₁₀₉		3 16.9 19			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
416113	2002 <i>PJ</i> ₁₉₁		3 16.9 184°50	0°8/16.1	15		460900	2014 <i>WE</i> ₁₈₃		3 16.9 64°65	3°9/13.4	18	
2 11	12 12.75	+ 1 12.5	2.139	2.955	12.7	23.0	2 11	12 10.85	+ 7 39.3	1.563	2.413	14.8	20.7
2 21	12 7.46	+ 1 50.0	2.055	2.956	9.5	22.7	2 21	12 6.52	+ 8 47.0	1.503	2.423	10.9	20.5
3 2	12 0.22	+ 2 38.3	1.995	2.955	5.8	22.5	3 2	11 59.80	+10 2.5	1.468	2.433	6.8	20.3
3 12	11 51.66	+ 3 32.7	1.964	2.954	1.9	22.2	3 12	11 51.53	+11 16.8	1.458	2.443	3.9	20.1
3 22	11 42.60	+ 4 27.6	1.962	2.953	2.6	22.3	3 22	11 42.80	+12 21.0	1.475	2.453	5.7	20.2
4 1	11 33.97	+ 5 17.0	1.990	2.951	6.5	22.5	4 1	11 34.79	+13 7.7	1.519	2.464	9.6	20.5
4 11	11 26.61	+ 5 56.0	2.045	2.948	10.2	22.8	4 11	11 28.49	+13 32.8	1.586	2.474	13.4	20.7
4 21	11 21.12	+ 6 21.6	2.124	2.944	13.3	23.0	4 21	11 24.53	+13 35.7	1.673	2.485	16.7	21.0
322223	2011 <i>AU</i> ₇₃		3 16.9 33°52	2°6/14.8	17		177859	2005 <i>QB</i> ₃		3 16.9 189°46	1°4/18.8	18	
2 11	12 12.03	+ 6 1.7	1.678	2.520	14.4	20.7	2 11	12 8.06	- 5 58.3	2.998	3.780	10.3	21.6
2 21	12 7.34	+ 6 37.4	1.607	2.522	10.7	20.5	2 21	12 3.49	- 5 43.9	2.903	3.779	7.9	21.5
3 2	12 0.31	+ 7 21.2	1.559	2.524	6.6	20.3	3 2	11 57.57	- 5 18.6	2.834	3.777	5.3	21.3
3 12	11 51.71	+ 8 6.6	1.538	2.527	2.9	20.0	3 12	11 50.75	- 4 44.2	2.792	3.775	2.5	21.1
3 22	11 42.57	+ 8 46.5	1.544	2.529	4.3	20.1	3 22	11 43.58	- 4 3.9	2.781	3.773	1.7	21.0
4 1	11 34.04	+ 9 14.9	1.577	2.532	8.4	20.4	4 1	11 36.67	- 3 21.3	2.801	3.770	4.3	21.2
4 11	11 27.13	+ 9 27.5	1.635	2.535	12.4	20.6	4 11	11 30.60	- 2 40.4	2.850	3.767	7.0	21.4
4 21	11 22.49	+ 9 23.1	1.714	2.538	15.8	20.9	4 21	11 25.80	- 2 4.6	2.924	3.764	9.6	21.5
426864	2013 <i>WK</i> ₆		3 16.9 164°65	4°9/10.5	17		253800	2003 <i>XO</i> ₂₁		3 16.9 356°25	2°9/19.1	18	
2 11	12 10.73	+16 5.9	2.584	3.420	10.1	21.5	2 11	12 11.98	- 6 21.8	1.487	2.301	17.3	20.1
2 21	12 5.63	+17 18.2	2.519	3.425	7.7	21.3	2 21	12 7.71	- 6 36.8	1.408	2.300	13.6	19.8
3 2	11 58.92	+18 29.8	2.482	3.431	5.6	21.2	3 2	12 0.77	- 6 32.5	1.349	2.299	9.3	19.6
3 12	11 51.19	+19 34.1	2.473	3.435	4.9	21.2	3 12	11 51.94	- 6 10.6	1.315	2.298	4.8	19.3
3 22	11 43.11	+20 25.8	2.494	3.439	6.2	21.2	3 22	11 42.34	- 5 35.6	1.306	2.297	3.3	19.2
4 1	11 35.46	+21 0.6	2.543	3.442	8.4	21.4	4 1	11 33.30	- 4 54.0	1.324	2.297	7.4	19.5
4 11	11 28.91	+21 17.0	2.617	3.445	10.8	21.6	4 11	11 26.03	- 4 13.8	1.366	2.298	11.9	19.7
4 21	11 23.94	+21 15.2	2.713	3.447	12.9	21.7	4 21	11 21.33	- 3 41.5	1.429	2.299	16.0	20.0
280582	2004 <i>TM</i> ₂₂₅		3 16.9 324°49	2°1/19.0	17		141267	2001 <i>YB</i> ₃₂		3 16.9 34°02	2°7/14.3	18	
2 11	12 3.27	- 9 1.7	1.509	2.326	17.0	19.9	2 11	12 9.26	+ 7 19.3	1.974	2.815	12.6	19.6
2 21	12 1.23	- 8 9.7	1.412	2.307	13.4	19.6	2 21	12 4.89	+ 7 56.6	1.909	2.823	9.3	19.4
3 2	11 56.80	- 6 48.5	1.337	2.288	9.1	19.3	3 2	11 58.62	+ 8 39.5	1.868	2.832	5.7	19.2
3 12	11 50.62	- 5 1.5	1.285	2.270	4.3	19.0	3 12	11 51.12	+ 9 22.1	1.854	2.842	2.8	19.0
3 22	11 43.61	- 2 56.8	1.260	2.253	2.6	18.8	3 22	11 43.25	+ 9 58.6	1.869	2.851	4.2	19.1
4 1	11 36.97	- 0 46.6	1.261	2.237	7.4	19.1	4 1	11 35.93	+10 24.0	1.911	2.862	7.6	19.3
4 11	11 31.84	+ 1 16.1	1.287	2.221	12.4	19.3	4 11	11 29.96	+10 35.1	1.979	2.872	11.0	19.6
4 21	11 29.00	+ 3 0.7	1.335	2.206	16.8	19.5	4 21	11 25.87	+10 31.0	2.069	2.883	13.9	19.8
430919	2005 <i>TM</i> ₃₂		3 16.9 257°66	2°9/13.4	16		80671	2000 <i>BM</i> ₁₇		3 16.9 173°35	1°2/17.9	18	
2 11	12 10.11	+10 3.2	2.683	3.513	10.0	21.7	2 11	12 16.41	- 3 49.4	1.790	2.593	15.3	19.9
2 21	12 5.24	+10 42.0	2.587	3.495	7.4	21.5	2 21	12 10.58	- 3 37.4	1.707	2.597	11.8	19.6
3 2	11 58.76	+11 24.0	2.517	3.477	4.8	21.3	3 2	12 2.33	- 3 9.5	1.647	2.600	7.6	19.4
3 12	11 51.17	+12 4.6	2.475	3.458	2.9	21.2	3 12	11 52.42	- 2 29.1	1.615	2.602	3.1	19.1
3 22	11 43.11	+12 39.1	2.464	3.438	4.1	21.2	3 22	11 41.88	- 1 41.3	1.610	2.603	2.3	19.1
4 1	11 35.31	+13 3.4	2.482	3.418	6.9	21.4	4 1	11 31.89	- 0 52.8	1.635	2.604	6.8	19.4
4 11	11 28.46	+13 14.9	2.527	3.398	9.7	21.5	4 11	11 23.50	- 0 10.1	1.686	2.604	11.0	19.6
4 21	11 23.09	+13 12.4	2.596	3.378	12.2	21.6	4 21	11 17.41	+ 0 22.0	1.760	2.602	14.7	19.8
219518	2001 <i>PK</i> ₂₀		3 16.9 191°23	6°2/ 9.6	18		326453	2001 <i>WR</i> ₂₄		3 16.9 165°58	2°3/19.4	16	
2 11	12 12.97	+18 22.0	2.221	3.060	11.4	20.7	2 11	12 10.47	- 8 7.5	2.087	2.875	13.9	21.5
2 21	12 7.61	+19 43.0	2.154	3.059	8.9	20.5	2 21	12 5.84	- 7 49.7	2.002	2.878	10.9	21.3
3 2	12 0.30	+21 2.0	2.113	3.057	6.8	20.4	3 2	11 59.26	- 7 14.4	1.939	2.881	7.4	21.1
3 12	11 51.68	+22 10.9	2.100	3.054	6.3	20.3	3 12	11 51.37	- 6 24.1	1.903	2.884	3.8	20.9
3 22	11 42.61	+23 2.9	2.115	3.051	7.7	20.4	3 22	11 42.98	- 5 23.4	1.895	2.886	2.6	20.8
4 1	11 34.03	+23 33.5	2.157	3.047	10.2	20.5	4 1	11 35.01	- 4 18.5	1.916	2.888	5.7	21.0
4 11	11 26.76	+23 41.1	2.224	3.042	12.8	20.7	4 11	11 28.32	- 3 16.0	1.965	2.889	9.3	21.2
4 21	11 21.40	+23 27.0	2.310	3.037	15.0	20.9	4 21	11 23.48	- 2 21.6	2.038	2.890	12.6	21.4
170059	2002 <i>VD</i> ₈₃		3 16.9 34°09	1°1/15.8	18		299564	2006 <i>DX</i> ₁₉₂		3 16.9 38°53	0°6/16.4	18	
2 11	12 7.11	+ 1 20.9	1.799	2.635	13.8	19.1	2 11	12 8.51	- 1 49.3	1.276	2.121	17.9	20.0
2 21	12 3.44	+ 2 8.3	1.735	2.646	10.3	18.9	2 21	12 5.25	- 0 49.5	1.213	2.128	13.4	19.7
3 2	11 57.78	+ 3 7.9	1.693	2.658	6.2	18.6	3 2	11 59.26	+ 0 32.0	1.171	2.135	8.3	19.5
3 12	11 50.84	+ 4 13.4	1.679	2.670	2.0	18.4	3 12	11 51.42	+ 2 7.1	1.152	2.143	2.6	19.1
3 22	11 43.50	+ 5 18.0	1.692	2.682	3.0	18.5	3 22	11 42.96	+ 3 44.7	1.159	2.151	3.3	19.2
4 1	11 36.72	+ 6 14.5	1.733	2.695	7.1	18.8	4 1	11 35.25	+ 5 13.0	1.192	2.160	8.8	19.6
4 11	11 31.35	+ 6 57.6	1.799	2.709	10.9	19.0	4 11	11 29.50	+ 6 22.5	1.248	2.169	13.7	19.9
4 21	11 27.92	+ 7 24.3	1.887	2.722	14.2	19.3	4 21	11 26.37	+ 7 8.4	1.324	2.179	17.9	20.1
213656	2002 <i>RA</i> ₂₃₅		3 16.9 259°73	0°5/17.4	17		214471	2005 <i>SO</i> ₂₄₉		3 16.9 256°47	2°3/14.1	17	
2 11	12 11.16	- 2 49.6	1.799	2.615	14.7	21.5	2 11	12 9.12	+ 7 30.6	2.617	3.446	10.2	20.9
2 21	12 6.80	- 2 21.8	1.701	2.599	11.3	21.2	2 21	12 4.53	+ 8 9.0	2.522	3.431	7.6	20.7
3 2	12 0.11	- 1 37.3	1.626	2.583	7.2	20.9	3 2	11 58.34	+ 8 52.4	2.454	3.416	4.7	20.5
3 12	11 51.71	- 0 39.8	1.577	2.567	2.7	20.6	3 12	11 51.05	+ 9 36.2	2.414	3.400	2.4	20.3
3 22	11 42.52	+ 0 24.7	1.556	2.550	2.3	20.6	3 22	11 43.31	+10 15.9	2.404	3.384	3.6	20.4
4 1	11 33.66	+ 1 28.6	1.564	2.532	7.1	20.8	4 1	11 35.83	+10 47.1	2.423	3.368	6.5	20.6
4 11	11 26.20	+ 2 24.6	1.597	2.515	11.5	21.0	4 11	11 29.32	+11 6.5	2.469	3.351	9.5	20.7
4 21	11 20.90	+ 3 7.1	1.652	2.497	15.4	21.2	4 21	11 24.29	+11 12.7	2.539	3.335	12.1	20.9
473946	2016 <i>EY</i> ₁₇₅		3 16.9 291°25	0°2/16.8	17		459615	2013 <i>HM</i> ₁₀₇		3 1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
191957	2005 <i>UP</i> ₂₂₇		3 16.9 248°14	1°0/17.8 18			170401	2003 <i>TX</i> ₁₇		3 16.9 35°26	0°4/16.6 18		
2 11	12 12.20	- 4 27.6	1.572	2.389	16.4	21.0	2 11	12 8.60	- 1 48.1	1.354	2.195	17.2	19.8
2 21	12 7.90	- 3 56.9	1.478	2.376	12.7	20.7	2 21	12 5.21	- 0 57.2	1.289	2.202	13.0	19.5
3 2	12 0.96	- 3 5.2	1.406	2.362	8.3	20.4	3 2	11 59.21	+ 0 13.7	1.245	2.209	8.0	19.3
3 12	11 52.05	- 1 56.4	1.359	2.348	3.3	20.0	3 12	11 51.44	+ 1 37.6	1.226	2.217	2.6	19.0
3 22	11 42.24	- 0 37.5	1.340	2.333	2.5	19.9	3 22	11 43.07	+ 3 4.6	1.232	2.225	3.0	19.0
4 1	11 32.81	+ 0 42.3	1.347	2.318	7.7	20.2	4 1	11 35.42	+ 4 24.0	1.264	2.233	8.3	19.3
4 11	11 25.01	+ 1 53.4	1.380	2.302	12.6	20.5	4 11	11 29.62	+ 5 27.1	1.320	2.242	13.1	19.6
4 21	11 19.69	+ 2 49.1	1.434	2.286	16.9	20.7	4 21	11 26.33	+ 6 9.3	1.397	2.252	17.1	19.9
454581	2014 <i>PU</i> ₂₄		3 16.9 59°43	4°1/12.9 18			256957	2008 <i>EA</i> ₇₆		3 16.9 134°54	2°3/14.7 18		
2 11	12 8.74	+ 4 55.5	1.371	2.227	16.2	20.3	2 11	12 14.57	+ 6 21.6	2.135	2.960	12.4	20.9
2 21	12 5.12	+ 6 49.6	1.323	2.246	11.8	20.1	2 21	12 8.70	+ 7 0.7	2.068	2.974	9.1	20.8
3 2	11 59.00	+ 8 56.3	1.298	2.265	7.2	19.9	3 2	12 0.92	+ 7 45.7	2.026	2.988	5.6	20.6
3 12	11 51.30	+ 11 3.1	1.298	2.284	4.1	19.7	3 12	11 51.93	+ 8 31.1	2.013	3.001	2.5	20.4
3 22	11 43.17	+ 12 56.9	1.326	2.304	6.3	19.9	3 22	11 42.59	+ 9 11.3	2.030	3.013	3.7	20.5
4 1	11 35.88	+ 14 27.4	1.380	2.324	10.5	20.2	4 1	11 33.83	+ 9 41.4	2.076	3.025	7.2	20.7
4 11	11 30.44	+ 15 28.8	1.456	2.343	14.5	20.5	4 11	11 26.44	+ 9 58.2	2.149	3.036	10.5	20.9
4 21	11 27.43	+ 16 0.8	1.552	2.363	17.8	20.8	4 21	11 20.96	+ 10 0.7	2.245	3.046	13.3	21.1
89751	2002 <i>AM</i> ₂₆		3 16.9 107°57	6°3/ 9.7 18			215890	2005 <i>GM</i> ₁₇		3 16.9 16°24	0°2/17.1 18		
2 11	12 9.82	+ 15 36.3	1.904	2.755	12.5	19.4	2 11	12 9.19	- 1 41.6	1.273	2.116	17.9	20.7
2 21	12 5.46	+ 17 18.4	1.850	2.764	9.6	19.3	2 21	12 5.85	- 1 16.1	1.206	2.119	13.6	20.4
3 2	11 59.05	+ 19 0.5	1.821	2.773	7.1	19.1	3 2	11 59.70	- 0 31.3	1.160	2.123	8.5	20.1
3 12	11 51.30	+ 20 32.8	1.819	2.781	6.4	19.1	3 12	11 51.63	+ 0 27.2	1.137	2.128	2.9	19.8
3 22	11 43.15	+ 21 47.0	1.845	2.790	8.0	19.2	3 22	11 42.87	+ 1 30.8	1.139	2.133	2.8	19.8
4 1	11 35.59	+ 22 37.3	1.898	2.798	10.8	19.4	4 1	11 34.84	+ 2 29.9	1.167	2.139	8.4	20.2
4 11	11 29.47	+ 23 1.5	1.973	2.806	13.6	19.6	4 11	11 28.78	+ 3 15.9	1.217	2.146	13.4	20.5
4 21	11 25.37	+ 23 1.0	2.068	2.814	16.0	19.8	4 21	11 25.41	+ 3 43.9	1.287	2.153	17.6	20.7
112663	2002 <i>PK</i> ₈₈		3 16.9 185°49	0°3/16.7 18			499464	2010 <i>FX</i> ₄		3 16.9 99°92	1°5/15.4 17		
2 11	12 9.56	- 0 3.0	2.360	3.173	11.7	20.6	2 11	12 8.91	+ 3 11.5	2.130	2.958	12.2	20.9
2 21	12 4.94	+ 0 25.8	2.275	3.173	8.8	20.4	2 21	12 4.59	+ 3 54.4	2.054	2.963	9.1	20.7
3 2	11 58.62	+ 1 4.9	2.214	3.173	5.4	20.2	3 2	11 58.45	+ 4 46.4	2.004	2.967	5.5	20.5
3 12	11 51.16	+ 1 50.4	2.182	3.172	1.8	19.9	3 12	11 51.13	+ 5 42.3	1.981	2.971	2.0	20.3
3 22	11 43.29	+ 2 37.8	2.179	3.171	2.0	19.9	3 22	11 43.40	+ 6 36.3	1.987	2.975	3.0	20.4
4 1	11 35.77	+ 3 21.9	2.206	3.170	5.7	20.2	4 1	11 36.11	+ 7 22.7	2.022	2.980	6.7	20.6
4 11	11 29.36	+ 3 58.4	2.260	3.169	9.1	20.4	4 11	11 30.04	+ 7 57.1	2.083	2.984	10.1	20.8
4 21	11 24.56	+ 4 24.1	2.339	3.167	12.0	20.6	4 21	11 25.72	+ 8 17.2	2.168	2.988	13.1	21.0
429373	2010 <i>JP</i> ₁₁₄		3 16.9 250°80	6°5/ 8.0 17			128808	2004 <i>RK</i> ₂₅₅		3 16.9 212°46	5°3/10.2 17		
2 11	12 11.89	+ 23 25.3	2.670	3.501	10.0	21.5	2 11	12 9.99	+ 14 44.3	2.271	3.113	11.1	20.3
2 21	12 6.65	+ 24 31.7	2.592	3.484	8.1	21.3	2 21	12 5.42	+ 16 13.7	2.196	3.107	8.5	20.2
3 2	11 59.68	+ 25 33.0	2.539	3.466	6.8	21.2	3 2	11 59.00	+ 17 44.9	2.148	3.100	6.1	20.0
3 12	11 51.53	+ 26 22.9	2.515	3.448	6.6	21.2	3 12	11 51.33	+ 19 10.0	2.129	3.093	5.3	19.9
3 22	11 42.92	+ 26 55.8	2.518	3.429	7.9	21.2	3 22	11 43.18	+ 20 21.6	2.138	3.086	6.9	20.0
4 1	11 34.65	+ 27 8.5	2.548	3.411	9.8	21.3	4 1	11 35.41	+ 21 14.2	2.175	3.078	9.5	20.2
4 11	11 27.48	+ 26 59.9	2.602	3.391	11.9	21.5	4 11	11 28.82	+ 21 44.9	2.236	3.069	12.2	20.3
4 21	11 21.94	+ 26 31.3	2.676	3.372	13.9	21.6	4 21	11 23.98	+ 21 53.8	2.318	3.060	14.6	20.5
498131	2007 <i>TQ</i> ₃₃		3 16.9 120°10	1°8/19.2 17			224320	2005 <i>UT</i> ₃₈		3 16.9 129°50	2°1/14.8 18		
2 11	12 7.91	- 7 32.3	2.431	3.217	12.2	22.1	2 11	12 11.67	+ 5 2.7	1.990	2.822	12.9	20.9
2 21	12 3.63	- 7 4.9	2.350	3.227	9.5	21.9	2 21	12 6.73	+ 5 48.0	1.920	2.830	9.5	20.7
3 2	11 57.76	- 6 22.6	2.293	3.237	6.4	21.7	3 2	11 59.80	+ 6 41.3	1.874	2.838	5.8	20.5
3 12	11 50.87	- 5 28.3	2.264	3.246	3.1	21.5	3 12	11 51.59	+ 7 36.6	1.856	2.845	2.5	20.3
3 22	11 43.62	- 4 26.1	2.264	3.255	2.0	21.5	3 22	11 42.96	+ 8 27.7	1.867	2.853	3.7	20.4
4 1	11 36.77	- 3 21.6	2.293	3.264	4.9	21.7	4 1	11 34.86	+ 9 8.7	1.907	2.860	7.4	20.6
4 11	11 30.97	- 2 20.4	2.351	3.273	8.1	21.9	4 11	11 28.14	+ 9 35.7	1.972	2.866	10.9	20.8
4 21	11 26.71	- 1 27.0	2.434	3.281	11.0	22.1	4 21	11 23.36	+ 9 46.8	2.060	2.873	14.0	21.1
44222	1998 <i>QG</i> ₉		3 16.9 305°15	4°5/20.9 18			352461	2008 <i>AV</i> ₉₄		3 16.9 134°00	3°3/20.6 17		
2 11	12 10.02	- 11 47.6	1.884	2.662	15.6	18.4	2 11	12 9.99	- 10 39.0	2.482	3.248	12.6	21.2
2 21	12 5.89	- 12 8.0	1.788	2.652	12.7	18.1	2 21	12 5.24	- 10 52.4	2.392	3.251	10.1	21.0
3 2	11 59.52	- 12 8.9	1.714	2.643	9.3	17.9	3 2	11 58.82	- 10 50.9	2.326	3.253	7.3	20.8
3 12	11 51.56	- 11 50.1	1.664	2.633	6.0	17.7	3 12	11 51.26	- 10 35.6	2.286	3.256	4.5	20.7
3 22	11 42.86	- 11 14.2	1.641	2.624	4.5	17.6	3 22	11 43.26	- 10 8.6	2.275	3.259	3.4	20.6
4 1	11 34.50	- 10 26.0	1.645	2.615	6.7	17.7	4 1	11 35.60	- 9 33.9	2.293	3.261	5.2	20.7
4 11	11 27.49	- 9 32.9	1.676	2.606	10.2	17.9	4 11	11 28.99	- 8 56.2	2.339	3.263	8.0	20.9
4 21	11 22.56	- 8 41.7	1.729	2.598	13.7	18.1	4 21	11 23.97	- 8 20.3	2.410	3.266	10.8	21.1
56691	2000 <i>LW</i> ₁₆		3 16.9 294°24	8°6/ 7.6 18			241503	2009 <i>CN</i> ₄₂		3 16.9 282°74	5°2/10.6 18		
2 11	12 10.32	+ 20 26.1	1.683	2.539	13.7	18.9	2 11	12 8.32	+ 15 4.8	2.219	3.065	11.2	19.9
2 21	12 6.27	+ 22 17.1	1.623	2.534	10.9	18.8	2 21	12 4.19	+ 16 18.4	2.145	3.057	8.5	19.7
3 2	11 59.78	+ 24 4.8	1.588	2.528	9.0	18.6	3 2	11 58.25	+ 17 33.0	2.096	3.050	6.1	19.5
3 12	11 51.62	+ 25 37.4	1.578	2.523	8.8	18.6	3 12	11 51.08	+ 18 41.1	2.076	3.042	5.2	19.4
3 22	11 42.86	+ 26 45.1	1.593	2.517	10.7	18.7	3 22	11 43.45	+ 19 36.1	2.083	3.035	6.7	19.5
4 1	11 34.69	+ 27 21.7	1.633	2.512	13.5	18.8	4 1	11 36.22	+ 20 12.8	2.117	3.027	9.4	19.7
4 11	11 28.20	+ 27 26.2	1.693	2.507	16.3	19.0	4 11	11 30.17	+ 20 28.8	2.176	3.019	12.1	19.8
4 21	11 24.05	+ 27 1.2	1.770	2.502	18.8	19.2	4 21	11 25.86	+ 20 24.2	2.255	3.012	14.6	20.0
185453	2006 <i>YK</i> ₄₁		3 16.9 207°46	0°7/17.6 17	</								

EPHEMERIDES

3 16.9

3 16.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
101905	1999 <i>RN</i> ₁		3 16.9 103°40	0°9/17.8	18		4308	Magarach		3 16.9 127°93	4°4/21.6	18	
2 11	12 13.85	- 3 40.9	1.762	2.571	15.2	20.5	2 11	12 13.18	-13 46.6	2.271	3.020	14.1	17.6
2 21	12 8.49	- 3 13.9	1.698	2.591	11.6	20.3	2 21	12 7.72	-14 1.6	2.190	3.034	11.5	17.4
3 2	12 0.93	- 2 30.9	1.656	2.611	7.4	20.1	3 2	12 0.39	-13 58.3	2.132	3.048	8.5	17.2
3 12	11 51.97	- 1 36.3	1.641	2.630	2.8	19.9	3 12	11 51.81	-13 37.2	2.100	3.061	5.7	17.1
3 22	11 42.61	- 0 36.5	1.655	2.648	2.2	19.9	3 22	11 42.80	-13 0.8	2.096	3.073	4.4	17.0
4 1	11 33.94	+ 0 21.5	1.697	2.666	6.5	20.2	4 1	11 34.23	-12 13.7	2.121	3.085	5.9	17.1
4 11	11 26.89	+ 1 11.1	1.765	2.684	10.6	20.4	4 11	11 26.93	-11 21.9	2.174	3.096	8.6	17.3
4 21	11 22.02	+ 1 48.1	1.857	2.701	14.0	20.7	4 21	11 21.45	-10 31.2	2.252	3.107	11.4	17.5
251004	2006 <i>PO</i> ₃		3 16.9 151°64	1°6/15.3	18		110226	2001 <i>SF</i> ₂₂₅		3 16.9 99°83	1°1/15.9	18	
2 11	12 13.49	+ 3 33.3	2.040	2.864	12.9	21.8	2 11	12 11.32	+ 1 55.1	1.752	2.584	14.4	20.0
2 21	12 8.05	+ 4 17.1	1.967	2.873	9.6	21.6	2 21	12 6.79	+ 2 28.5	1.676	2.585	10.7	19.8
3 2	12 0.61	+ 5 10.1	1.919	2.881	5.8	21.4	3 2	12 0.02	+ 3 13.8	1.623	2.586	6.6	19.5
3 12	11 51.87	+ 6 6.5	1.899	2.889	2.2	21.1	3 12	11 51.73	+ 4 5.4	1.597	2.587	2.2	19.2
3 22	11 42.70	+ 7 0.3	1.908	2.896	3.3	21.2	3 22	11 42.88	+ 4 56.8	1.598	2.589	3.1	19.3
4 1	11 34.06	+ 7 45.5	1.947	2.902	7.1	21.5	4 1	11 34.56	+ 5 41.1	1.627	2.590	7.5	19.6
4 11	11 26.80	+ 8 17.8	2.012	2.908	10.7	21.7	4 11	11 27.76	+ 6 12.9	1.682	2.591	11.6	19.8
4 21	11 21.50	+ 8 34.9	2.100	2.913	13.7	21.9	4 21	11 23.12	+ 6 29.3	1.758	2.592	15.1	20.0
327367	2005 <i>UF</i> ₂₈₂		3 16.9 286°86	7°1/10.8	18		68801	2002 <i>GR</i> ₂₀		3 16.9 198°62	1°4/15.8	18	
2 11	12 15.17	+18 14.4	1.730	2.577	13.8	20.4	2 11	12 15.22	+ 3 26.6	1.864	2.689	13.9	19.6
2 21	12 9.94	+19 12.6	1.651	2.560	10.8	20.2	2 21	12 9.64	+ 3 52.2	1.781	2.686	10.4	19.4
3 2	12 2.11	+20 8.5	1.595	2.544	8.1	20.0	3 2	12 1.78	+ 4 27.3	1.722	2.684	6.4	19.1
3 12	11 52.46	+20 52.9	1.565	2.527	7.1	19.9	3 12	11 52.33	+ 5 6.8	1.690	2.680	2.2	18.8
3 22	11 42.07	+21 17.5	1.562	2.511	8.8	20.0	3 22	11 42.26	+ 5 44.8	1.687	2.676	3.2	18.9
4 1	11 32.21	+21 17.1	1.584	2.494	11.9	20.1	4 1	11 32.70	+ 6 15.5	1.713	2.672	7.5	19.1
4 11	11 24.05	+20 50.5	1.629	2.478	15.2	20.3	4 11	11 24.64	+ 6 34.3	1.764	2.667	11.5	19.4
4 21	11 18.35	+19 59.9	1.694	2.462	18.3	20.4	4 21	11 18.76	+ 6 38.9	1.838	2.662	15.0	19.6
229179	2004 <i>TD</i> ₁₆₆		3 16.9 188°87	1°3/18.3	17		498679	2008 <i>SB</i> ₂₂₈		3 16.9 194°30	2°3/19.3	17	
2 11	12 9.07	- 5 23.5	1.957	2.762	14.1	20.8	2 11	12 10.61	- 7 14.5	2.148	2.937	13.5	22.2
2 21	12 4.94	- 4 56.3	1.872	2.762	10.9	20.5	2 21	12 5.96	- 7 9.6	2.059	2.937	10.6	22.0
3 2	11 58.80	- 4 12.2	1.811	2.762	7.1	20.3	3 2	11 59.39	- 6 49.2	1.992	2.935	7.2	21.8
3 12	11 51.30	- 3 14.7	1.775	2.762	3.1	20.1	3 12	11 51.50	- 6 15.2	1.953	2.934	3.7	21.5
3 22	11 43.26	- 2 9.3	1.768	2.761	2.1	20.0	3 22	11 43.09	- 5 31.4	1.942	2.933	2.5	21.5
4 1	11 35.66	- 1 2.7	1.790	2.761	6.1	20.2	4 1	11 35.06	- 4 43.0	1.960	2.931	5.6	21.6
4 11	11 29.36	- 0 1.9	1.838	2.760	10.0	20.5	4 11	11 28.25	- 3 55.9	2.005	2.929	9.2	21.9
4 21	11 24.97	+ 0 47.9	1.909	2.760	13.4	20.7	4 21	11 23.24	- 3 15.1	2.074	2.927	12.4	22.1
138706	2000 <i>SR</i> ₉₂		3 16.9 179°54	3°3/21.4	17		177047	2003 <i>ES</i> ₅		3 16.9 349°92	1°2/18.0	17	
2 11	12 7.63	-13 2.6	2.721	3.473	11.9	20.7	2 11	12 9.50	- 2 36.9	1.940	2.755	13.8	19.3
2 21	12 3.37	-12 54.6	2.626	3.474	9.7	20.5	2 21	12 5.30	- 2 40.9	1.854	2.750	10.6	19.1
3 2	11 57.62	-12 30.5	2.554	3.474	7.1	20.4	3 2	11 59.06	- 2 32.5	1.792	2.746	6.9	18.9
3 12	11 50.86	-11 51.6	2.509	3.475	4.6	20.2	3 12	11 51.41	- 2 14.1	1.755	2.743	2.8	18.6
3 22	11 43.71	-11 0.5	2.493	3.475	3.3	20.1	3 22	11 43.20	- 1 49.6	1.747	2.740	2.1	18.5
4 1	11 36.85	-10 1.7	2.507	3.474	4.8	20.2	4 1	11 35.39	- 1 23.9	1.766	2.738	6.1	18.8
4 11	11 30.93	- 9 0.2	2.549	3.474	7.4	20.4	4 11	11 28.90	- 1 2.1	1.812	2.736	10.0	19.0
4 21	11 26.42	- 8 1.2	2.617	3.473	10.0	20.5	4 21	11 24.35	- 0 48.0	1.880	2.734	13.4	19.2
498897	2008 <i>YY</i> ₁₅₈		3 16.9 44°18	3°6/19.9	18		42284	2001 <i>TV</i> ₈		3 16.9 207°01	5°8/10.6	18	R
2 11	12 15.02	- 7 53.7	1.878	2.665	15.3	20.6	2 11	12 15.09	+18 12.5	2.304	3.137	11.3	17.9
2 21	12 9.33	- 8 35.4	1.810	2.683	12.1	20.5	2 21	12 9.19	+19 11.5	2.229	3.132	8.8	17.7
3 2	12 1.46	- 9 1.5	1.764	2.701	8.5	20.3	3 2	12 1.32	+20 8.2	2.181	3.125	6.6	17.6
3 12	11 52.17	- 9 12.7	1.745	2.720	5.0	20.1	3 12	11 52.14	+20 55.3	2.160	3.118	5.8	17.5
3 22	11 42.43	- 9 10.8	1.753	2.739	3.7	20.1	3 22	11 42.50	+21 27.1	2.168	3.111	7.1	17.6
4 1	11 33.31	- 9 0.0	1.790	2.759	6.3	20.3	4 1	11 33.32	+21 39.5	2.204	3.103	9.6	17.7
4 11	11 25.74	- 8 45.5	1.853	2.779	9.7	20.5	4 11	11 25.45	+21 31.4	2.265	3.094	12.2	17.9
4 21	11 20.33	- 8 32.1	1.940	2.799	12.9	20.7	4 21	11 19.48	+21 3.8	2.347	3.084	14.6	18.0
240547	2004 <i>PJ</i> ₉₁		3 16.9 136°67	0°3/16.7	18		66698	1999 <i>TM</i> ₈₂		3 16.9 119°72	0°7/16.3	17	
2 11	12 12.75	- 2 23.8	1.941	2.751	14.0	21.3	2 11	12 10.38	+ 0 51.8	2.042	2.864	13.0	20.4
2 21	12 7.55	- 1 20.0	1.871	2.767	10.5	21.1	2 21	12 5.76	+ 1 25.9	1.966	2.870	9.7	20.2
3 2	12 0.32	- 0 0.6	1.824	2.782	6.5	20.9	3 2	11 59.23	+ 2 10.9	1.915	2.876	5.9	20.0
3 12	11 51.78	+ 1 28.5	1.806	2.796	2.1	20.7	3 12	11 51.44	+ 3 2.3	1.892	2.882	1.9	19.7
3 22	11 42.84	+ 2 59.5	1.818	2.809	2.4	20.7	3 22	11 43.22	+ 3 54.2	1.897	2.888	2.5	19.8
4 1	11 34.47	+ 4 24.5	1.859	2.822	6.7	21.0	4 1	11 35.47	+ 4 40.8	1.931	2.894	6.5	20.0
4 11	11 27.54	+ 5 36.6	1.927	2.833	10.5	21.3	4 11	11 29.03	+ 5 17.2	1.991	2.899	10.1	20.3
4 21	11 22.60	+ 6 31.9	2.019	2.844	13.8	21.5	4 21	11 24.44	+ 5 40.5	2.075	2.904	13.3	20.5
499549	2010 <i>RA</i> ₁₂₆		3 16.9 12°78	4°4/14.1	18		253244	2003 <i>AJ</i> ₂₄		3 16.9 158°86	1°5/15.4	18	
2 11	12 17.67	+11 17.8	1.464	2.311	15.8	20.4	2 11	12 11.70	+ 2 47.5	1.972	2.798	13.2	20.8
2 21	12 11.93	+11 36.2	1.396	2.312	11.9	20.2	2 21	12 6.83	+ 3 35.1	1.896	2.803	9.8	20.6
3 2	12 3.35	+11 56.5	1.351	2.313	7.7	19.9	3 2	11 59.93	+ 4 33.1	1.845	2.808	6.0	20.3
3 12	11 52.86	+12 11.3	1.331	2.315	4.5	19.7	3 12	11 51.69	+ 5 35.9	1.822	2.812	2.1	20.1
3 22	11 41.75	+12 13.9	1.338	2.317	6.0	19.8	3 22	11 42.98	+ 6 36.7	1.827	2.815	3.2	20.2
4 1	11 31.45	+11 59.7	1.371	2.319	10.1	20.1	4 1	11 34.77	+ 7 29.2	1.861	2.818	7.2	20.4
4 11	11 23.19	+11 27.3	1.428	2.322	14.3	20.3	4 11	11 27.92	+ 8 8.4	1.921	2.821	10.9	20.7
4 21	11 17.69	+10 37.9	1.505	2.324	17.9	20.5	4 21	11 23.03	+ 8 31.6	2.004	2.823	14.1	20.9
473185	2015 <i>KN</i> ₇₀		3 16.9 293°37	1°9/14.5	17		114697	2003 <i>FS</i> ₁₀₉		3 16.9 193°74			

EPHEMERIDES

3 16.9

3 16.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
189846	2003 <i>ES</i> ₃₀		3 16.9 315°05	0°6/16.4	17		198301	2004 <i>TR</i> ₃₂₃		3 16.9 101°30	0°9/16.1	17	
2 11	12 5.56	- 1 59.2	1.535	2.373	15.7	19.9	2 11	12 10.29	+ 1 25.8	1.967	2.793	13.2	20.8
2 21	12 2.97	- 0 59.7	1.441	2.353	12.0	19.6	2 21	12 5.78	+ 2 1.0	1.893	2.798	9.9	20.6
3 2	11 57.94	+ 0 21.5	1.370	2.333	7.5	19.3	3 2	11 59.29	+ 2 47.2	1.842	2.804	6.0	20.3
3 12	11 51.13	+ 1 58.5	1.323	2.314	2.4	18.9	3 12	11 51.49	+ 3 39.3	1.819	2.809	2.0	20.1
3 22	11 43.48	+ 3 42.2	1.303	2.295	3.0	18.9	3 22	11 43.25	+ 4 31.5	1.824	2.815	2.7	20.1
4 1	11 36.18	+ 5 21.3	1.309	2.277	8.3	19.1	4 1	11 35.50	+ 5 17.5	1.857	2.820	6.7	20.4
4 11	11 30.37	+ 6 45.7	1.340	2.259	13.2	19.4	4 11	11 29.09	+ 5 52.6	1.917	2.825	10.5	20.6
4 21	11 26.88	+ 7 48.7	1.391	2.242	17.4	19.6	4 21	11 24.59	+ 6 13.7	2.000	2.830	13.7	20.9
305638	2009 <i>BD</i> ₃₆		3 16.9 157°06	1°7/15.4	18		231368	2006 <i>HF</i> ₁₈		3 16.9 295°64	1°4/15.6	18	
2 11	12 14.88	+ 3 20.4	1.955	2.778	13.4	21.9	2 11	12 8.43	+ 2 6.1	1.943	2.775	13.1	20.6
2 21	12 9.19	+ 4 5.2	1.881	2.786	10.0	21.6	2 21	12 4.49	+ 2 54.2	1.861	2.770	9.8	20.4
3 2	12 1.38	+ 4 59.8	1.832	2.794	6.1	21.4	3 2	11 58.56	+ 3 54.1	1.802	2.766	6.0	20.2
3 12	11 52.18	+ 5 58.4	1.811	2.801	2.2	21.2	3 12	11 51.27	+ 5 0.1	1.771	2.762	2.1	19.9
3 22	11 42.51	+ 6 54.3	1.820	2.807	3.4	21.3	3 22	11 43.45	+ 6 5.4	1.768	2.757	3.1	20.0
4 1	11 33.40	+ 7 41.3	1.857	2.813	7.3	21.5	4 1	11 36.05	+ 7 3.3	1.793	2.753	7.2	20.2
4 11	11 25.76	+ 8 14.8	1.921	2.818	11.1	21.8	4 11	11 29.94	+ 7 48.1	1.844	2.749	11.0	20.4
4 21	11 20.19	+ 8 32.6	2.008	2.821	14.3	22.0	4 21	11 25.72	+ 8 16.6	1.918	2.745	14.3	20.6
225518	2000 <i>QJ</i> ₁₇₉		3 16.9 249°69	0°6/16.4	17		296112	2009 <i>BW</i> ₅₀		3 16.9 180°81	2°1/14.9	18	
2 11	12 12.26	+ 1 1.5	2.219	3.033	12.3	21.2	2 11	12 13.69	+ 4 11.5	1.937	2.764	13.4	21.5
2 21	12 7.26	+ 1 29.4	2.115	3.014	9.3	20.9	2 21	12 8.40	+ 5 6.7	1.858	2.766	9.9	21.3
3 2	12 0.28	+ 2 8.1	2.036	2.995	5.8	20.7	3 2	12 0.97	+ 6 12.0	1.804	2.766	6.1	21.1
3 12	11 51.86	+ 2 53.6	1.984	2.975	1.9	20.4	3 12	11 52.08	+ 7 21.0	1.778	2.767	2.5	20.8
3 22	11 42.77	+ 3 41.0	1.963	2.954	2.4	20.4	3 22	11 42.66	+ 8 26.3	1.781	2.766	3.8	20.9
4 1	11 33.94	+ 4 24.7	1.971	2.933	6.4	20.6	4 1	11 33.73	+ 9 21.2	1.813	2.765	7.8	21.2
4 11	11 26.25	+ 4 59.6	2.006	2.911	10.2	20.8	4 11	11 26.22	+ 10 0.7	1.871	2.763	11.5	21.4
4 21	11 20.35	+ 5 22.5	2.065	2.889	13.5	21.0	4 21	11 20.78	+ 10 22.5	1.951	2.760	14.8	21.6
458737	2011 <i>OS</i> ₅₆		3 16.9 188°23	3°3/13.7	18		241512	2009 <i>DN</i> ₄₄		3 16.9 284°18	3°5/12.9	18	
2 11	12 13.58	+ 6 25.1	1.797	2.633	13.8	22.3	2 11	12 8.45	+ 9 50.0	2.210	3.051	11.4	20.2
2 21	12 8.49	+ 7 38.3	1.720	2.632	10.3	22.0	2 21	12 4.27	+ 10 47.9	2.133	3.047	8.5	20.0
3 2	12 1.10	+ 9 1.2	1.668	2.631	6.4	21.8	3 2	11 58.32	+ 11 50.2	2.082	3.043	5.5	19.9
3 12	11 52.13	+ 10 25.7	1.644	2.630	3.4	21.6	3 12	11 51.17	+ 12 50.6	2.058	3.039	3.6	19.7
3 22	11 42.56	+ 11 43.1	1.648	2.627	5.1	21.7	3 22	11 43.58	+ 13 43.0	2.063	3.035	5.0	19.8
4 1	11 33.52	+ 12 45.4	1.681	2.624	9.0	21.9	4 1	11 36.39	+ 14 22.1	2.096	3.031	8.0	20.0
4 11	11 26.00	+ 13 27.7	1.738	2.620	12.8	22.1	4 11	11 30.37	+ 14 44.4	2.154	3.027	11.1	20.2
4 21	11 20.70	+ 13 48.2	1.817	2.615	16.1	22.4	4 21	11 26.05	+ 14 49.2	2.235	3.024	13.8	20.3
523690	2014 <i>DN</i> ₁₄₃		3 16.9 282°70	0°1/19.4	18		345688	2006 <i>UG</i> ₁₅₄		3 16.9 128°20	1°3/15.3	17	
2 11	11 49.60	- 5 3.4	45.808	46.584	0.8	22.1	2 11	12 9.40	+ 4 10.2	2.721	3.540	10.2	21.9
2 21	11 49.03	- 5 0.6	45.710	46.582	0.6	22.1	2 21	12 4.56	+ 4 43.9	2.649	3.552	7.5	21.7
3 2	11 48.40	- 4 57.2	45.640	46.580	0.4	22.0	3 2	11 58.29	+ 5 23.6	2.602	3.564	4.5	21.5
3 12	11 47.72	- 4 53.3	45.598	46.578	0.2	22.0	3 12	11 51.12	+ 6 5.3	2.585	3.575	1.7	21.3
3 22	11 47.04	- 4 49.0	45.586	46.577	0.1	22.0	3 22	11 43.66	+ 6 45.0	2.598	3.586	2.5	21.4
4 1	11 46.36	- 4 44.6	45.604	46.575	0.3	22.0	4 1	11 36.59	+ 7 18.5	2.642	3.596	5.5	21.6
4 11	11 45.73	- 4 40.2	45.652	46.573	0.5	22.0	4 11	11 30.51	+ 7 43.0	2.713	3.606	8.3	21.8
4 21	11 45.15	- 4 36.0	45.726	46.571	0.7	22.1	4 21	11 25.83	+ 7 56.5	2.808	3.616	10.8	22.0
506210	2016 <i>HT</i>		3 16.9 251°20	5°5/10.8	17		353237	2010 <i>CQ</i> ₉₃		3 16.9 302°43	2°5/15.1	18	
2 11	12 12.34	+ 15 52.4	2.199	3.039	11.5	21.3	2 11	12 11.34	+ 3 33.6	1.318	2.169	17.0	21.1
2 21	12 7.33	+ 16 58.5	2.114	3.022	8.9	21.1	2 21	12 7.60	+ 4 22.5	1.241	2.161	12.7	20.8
3 2	12 0.29	+ 18 5.2	2.055	3.006	6.4	20.9	3 2	12 0.95	+ 5 26.5	1.185	2.152	7.8	20.5
3 12	11 51.85	+ 19 4.9	2.023	2.989	5.5	20.9	3 12	11 52.18	+ 6 37.7	1.154	2.144	3.1	20.2
3 22	11 42.83	+ 19 51.0	2.020	2.971	7.0	20.9	3 22	11 42.53	+ 7 46.1	1.148	2.136	4.7	20.3
4 1	11 34.17	+ 20 18.2	2.045	2.953	9.7	21.0	4 1	11 33.47	+ 8 41.6	1.167	2.128	10.0	20.5
4 11	11 26.76	+ 20 24.2	2.093	2.935	12.6	21.2	4 11	11 26.34	+ 9 16.9	1.208	2.120	14.9	20.8
4 21	11 21.23	+ 20 9.3	2.163	2.916	15.2	21.3	4 21	11 22.00	+ 9 28.9	1.269	2.113	19.2	21.0
435889	2008 <i>YU</i> ₁₆₈		3 16.9 71°70	1°0/15.9	17		140523	2001 <i>TK</i> ₁₇₁		3 16.9 143°66	4°6/10.7	17	
2 11	12 9.35	+ 1 53.8	2.077	2.903	12.6	21.5	2 11	12 8.93	+ 15 20.6	2.624	3.463	9.9	20.2
2 21	12 4.93	+ 2 28.9	2.007	2.913	9.4	21.3	2 21	12 4.32	+ 16 30.5	2.562	3.470	7.5	20.1
3 2	11 58.69	+ 3 13.7	1.960	2.922	5.7	21.0	3 2	11 58.19	+ 17 40.0	2.526	3.478	5.4	20.0
3 12	11 51.27	+ 4 3.5	1.942	2.932	1.9	20.8	3 12	11 51.09	+ 18 43.0	2.520	3.485	4.6	19.9
3 22	11 43.47	+ 4 52.7	1.952	2.942	2.6	20.9	3 22	11 43.69	+ 19 34.3	2.542	3.491	5.8	20.0
4 1	11 36.15	+ 5 35.7	1.990	2.952	6.4	21.1	4 1	11 36.69	+ 20 9.7	2.593	3.497	8.1	20.2
4 11	11 30.10	+ 6 8.0	2.055	2.962	9.9	21.4	4 11	11 30.73	+ 20 27.6	2.668	3.503	10.4	20.3
4 21	11 25.84	+ 6 27.1	2.143	2.971	13.0	21.6	4 21	11 26.27	+ 20 28.0	2.766	3.509	12.5	20.5
143223	2002 <i>YN</i> ₁₁		3 16.9 326°18	7°0/10.7	17		500017	2011 <i>QL</i> ₆₀		3 16.9 186°23	1°1/18.6	17	
2 11	12 17.64	+ 22 31.6	2.098	2.929	12.3	19.1	2 11	12 6.50	- 6 22.3	2.951	3.735	10.4	22.1
2 21	12 11.22	+ 23 4.9	2.028	2.924	9.9	18.9	2 21	12 2.41	- 5 41.4	2.857	3.735	8.0	21.9
3 2	12 2.62	+ 23 30.7	1.983	2.919	7.8	18.8	3 2	11 56.99	- 4 48.0	2.788	3.734	5.2	21.7
3 12	11 52.60	+ 23 42.0	1.965	2.914	7.1	18.7	3 12	11 50.70	- 3 44.7	2.748	3.733	2.4	21.5
3 22	11 42.16	+ 23 33.5	1.975	2.909	8.3	18.8	3 22	11 44.08	- 2 35.5	2.739	3.731	1.5	21.4
4 1	11 32.36	+ 23 2.9	2.011	2.905	10.6	18.9	4 1	11 37.72	- 1 25.2	2.760	3.729	4.3	21.6
4 11	11 24.15	+ 22 10.9	2.072	2.900	13.2	19.1	4 11	11 32.19	- 0 18.7	2.810	3.727	7.2	21.8
4 21	11 18.10	+ 21 0.6	2.154	2.896	15.6	19.2	4 21	11 27.91	+ 0 40.1	2.887	3.724	9.7	22.0
371959	2008 <i>FT</i> ₅₀		3 16.9 272°74	0°2/17.2	17								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
198548	2004 <i>XB</i> ₁₃₂		3 16.9 136°27	5°0/22.8	17		200651	2001 <i>TC</i> ₅		3 16.9 148°31	0°4/16.7	18	
2 11	12 11.88	-16 56.1	2.485	3.213	13.6	21.3	2 11	12 14.42	+ 0 0.8	1.521	2.350	16.3	21.4
2 21	12 6.69	-17 11.3	2.400	3.225	11.3	21.1	2 21	12 9.46	+ 0 26.6	1.447	2.354	12.3	21.2
3 2	11 59.75	-17 7.9	2.337	3.236	8.7	21.0	3 2	12 1.87	+ 1 7.5	1.396	2.357	7.6	20.9
3 12	11 51.66	-16 45.8	2.300	3.247	6.3	20.8	3 12	11 52.47	+ 1 57.9	1.369	2.360	2.5	20.6
3 22	11 43.15	-16 7.1	2.290	3.258	5.0	20.8	3 22	11 42.40	+ 2 50.8	1.370	2.363	2.9	20.6
4 1	11 35.02	-15 15.8	2.310	3.268	5.9	20.9	4 1	11 32.99	+ 3 38.3	1.398	2.365	7.9	21.0
4 11	11 28.04	-14 17.8	2.358	3.278	8.2	21.0	4 11	11 25.38	+ 4 13.7	1.451	2.368	12.6	21.2
4 21	11 22.72	-13 19.1	2.431	3.287	10.7	21.2	4 21	11 20.30	+ 4 33.3	1.525	2.370	16.5	21.5
107677	2001 <i>FN</i> ₁₀		3 16.9 268°75	0°9/17.7	18		369326	2009 <i>SW</i> ₂₀₁		3 16.9 158°83	0°3/16.6	16	
2 11	12 13.41	- 2 5.7	1.690	2.508	15.4	19.7	2 11	12 10.62	- 0 41.1	2.239	3.051	12.3	22.5
2 21	12 8.66	- 2 1.6	1.598	2.497	11.9	19.4	2 21	12 5.83	+ 0 1.2	2.159	3.057	9.3	22.3
3 2	12 1.41	- 1 42.8	1.529	2.485	7.6	19.1	3 2	11 59.26	+ 0 55.2	2.104	3.063	5.7	22.1
3 12	11 52.32	- 1 12.6	1.485	2.474	3.0	18.8	3 12	11 51.52	+ 1 56.6	2.077	3.068	1.9	21.8
3 22	11 42.43	- 0 35.7	1.468	2.462	2.4	18.8	3 22	11 43.37	+ 2 59.8	2.080	3.072	2.2	21.9
4 1	11 32.93	+ 0 1.3	1.480	2.450	7.2	19.0	4 1	11 35.64	+ 3 58.8	2.113	3.076	6.0	22.1
4 11	11 24.98	+ 0 32.2	1.516	2.438	11.7	19.3	4 11	11 29.09	+ 4 48.5	2.173	3.080	9.5	22.4
4 21	11 19.37	+ 0 52.1	1.575	2.426	15.7	19.5	4 21	11 24.25	+ 5 25.4	2.257	3.083	12.5	22.6
123009	2000 <i>ST</i> ₂₆₀		3 16.9 242°30	0°3/16.7	17		242425	2004 <i>LC</i> ₁₆		3 17.0 238°79	6°7/25.7	18	
2 11	12 12.20	- 1 30.9	1.883	2.699	14.2	20.5	2 11	12 8.44	-23 52.5	2.708	3.389	13.5	20.0
2 21	12 7.57	- 0 45.9	1.783	2.683	10.8	20.3	2 21	12 4.21	-24 19.2	2.604	3.383	11.8	19.8
3 2	12 0.65	+ 0 15.4	1.707	2.666	6.8	20.0	3 2	11 58.31	-24 25.8	2.521	3.377	9.8	19.7
3 12	11 52.06	+ 1 28.6	1.658	2.648	2.3	19.7	3 12	11 51.23	-24 10.9	2.461	3.371	8.0	19.6
3 22	11 42.69	+ 2 46.6	1.637	2.629	2.5	19.6	3 22	11 43.64	-23 35.2	2.428	3.365	6.8	19.5
4 1	11 33.62	+ 4 1.6	1.645	2.610	7.2	19.9	4 1	11 36.29	-22 41.4	2.421	3.358	7.0	19.5
4 11	11 25.88	+ 5 5.9	1.680	2.590	11.5	20.1	4 11	11 29.92	-21 35.0	2.442	3.352	8.4	19.5
4 21	11 20.25	+ 5 54.6	1.737	2.569	15.3	20.3	4 21	11 25.08	-20 22.2	2.488	3.345	10.4	19.7
75012	1999 <i>UO</i> ₃		3 16.9 170°39	1°3/18.4	18		365176	2009 <i>ET</i> ₃₀		3 17.0 327°29	0°5/17.4	17	
2 11	12 11.32	- 5 53.4	1.945	2.744	14.4	19.6	2 11	12 8.46	- 2 41.8	1.343	2.181	17.5	20.7
2 21	12 6.65	- 5 19.1	1.861	2.748	11.1	19.4	2 21	12 5.43	- 2 15.9	1.261	2.171	13.4	20.4
3 2	11 59.91	- 4 26.9	1.800	2.750	7.3	19.2	3 2	11 59.62	- 1 29.3	1.199	2.161	8.6	20.1
3 12	11 51.75	- 3 20.6	1.766	2.752	3.1	18.9	3 12	11 51.79	- 0 26.6	1.161	2.151	3.1	19.7
3 22	11 43.06	- 2 6.1	1.761	2.754	2.1	18.9	3 22	11 43.07	+ 0 44.2	1.148	2.142	2.7	19.6
4 1	11 34.83	- 0 50.7	1.785	2.755	6.2	19.1	4 1	11 34.86	+ 1 53.3	1.161	2.133	8.3	19.9
4 11	11 27.96	+ 0 18.1	1.836	2.756	10.1	19.4	4 11	11 28.45	+ 2 50.9	1.196	2.126	13.5	20.2
4 21	11 23.08	+ 1 15.0	1.910	2.756	13.6	19.6	4 21	11 24.70	+ 3 30.8	1.252	2.119	18.0	20.5
290208	2005 <i>SN</i> ₄₀		3 16.9 199°47	1°3/15.9	18		409915	2006 <i>TN</i> ₇₄		3 17.0 113°72	6°6/10.9	18	
2 11	12 16.10	+ 2 9.9	1.750	2.574	14.7	21.5	2 11	12 17.89	+18 52.2	1.910	2.747	13.1	21.8
2 21	12 10.50	+ 2 45.2	1.666	2.571	11.1	21.2	2 21	12 11.40	+19 52.7	1.860	2.764	10.2	21.6
3 2	12 2.44	+ 3 32.7	1.605	2.567	6.8	21.0	3 2	12 2.70	+20 48.3	1.836	2.780	7.6	21.5
3 12	11 52.64	+ 4 26.7	1.571	2.562	2.3	20.7	3 12	11 52.66	+21 30.8	1.839	2.797	6.7	21.5
3 22	11 42.15	+ 5 20.4	1.566	2.556	3.3	20.7	3 22	11 42.33	+21 54.1	1.869	2.812	8.0	21.6
4 1	11 32.16	+ 6 6.7	1.590	2.550	7.9	21.0	4 1	11 32.81	+21 54.8	1.926	2.828	10.6	21.8
4 11	11 23.77	+ 6 39.8	1.639	2.543	12.2	21.2	4 11	11 25.01	+21 33.1	2.008	2.842	13.3	22.0
4 21	11 17.72	+ 6 56.7	1.710	2.535	15.9	21.4	4 21	11 19.47	+20 51.5	2.109	2.856	15.7	22.2
458643	2011 <i>GH</i> ₃₅		3 16.9 304°76	1°3/17.9	17		209089	2003 <i>SH</i> ₃₃		3 17.0 321°40	1°5/15.9	18	
2 11	12 14.68	- 1 26.1	1.746	2.562	15.1	20.8	2 11	12 14.26	+ 3 35.7	1.427	2.269	16.5	20.5
2 21	12 9.69	- 1 48.8	1.643	2.540	11.7	20.5	2 21	12 9.59	+ 3 49.9	1.350	2.263	12.4	20.3
3 2	12 2.13	- 2 0.4	1.563	2.518	7.6	20.2	3 2	12 2.10	+ 4 15.2	1.294	2.258	7.7	20.0
3 12	11 52.61	- 2 2.8	1.508	2.496	3.2	19.9	3 12	11 52.60	+ 4 45.9	1.262	2.253	2.7	19.7
3 22	11 42.13	- 1 58.9	1.481	2.474	2.4	19.8	3 22	11 42.29	+ 5 15.2	1.258	2.248	3.7	19.7
4 1	11 31.89	- 1 53.1	1.482	2.453	7.1	20.0	4 1	11 32.59	+ 5 36.1	1.279	2.244	8.8	20.0
4 11	11 23.11	- 1 50.4	1.509	2.432	11.7	20.2	4 11	11 24.79	+ 5 43.5	1.324	2.239	13.6	20.2
4 21	11 16.67	- 1 54.6	1.558	2.411	15.8	20.4	4 21	11 19.68	+ 5 34.8	1.389	2.236	17.7	20.5
460349	2014 <i>RQ</i> ₃₃		3 16.9 161°27	2°7/14.6	18		496727	2016 <i>GX</i> ₅₈		3 17.0 164°42	0°9/17.8	17	
2 11	12 13.46	+ 5 32.9	1.751	2.587	14.2	21.6	2 11	12 13.50	- 2 15.9	1.769	2.583	15.0	21.9
2 21	12 8.40	+ 6 25.1	1.679	2.591	10.5	21.4	2 21	12 8.49	- 2 13.6	1.687	2.583	11.5	21.7
3 2	12 1.05	+ 7 26.6	1.631	2.595	6.4	21.1	3 2	12 1.16	- 1 57.5	1.629	2.584	7.4	21.5
3 12	11 52.15	+ 8 30.1	1.610	2.598	2.9	20.9	3 12	11 52.23	- 1 30.7	1.596	2.584	2.9	21.2
3 22	11 42.71	+ 9 28.1	1.617	2.601	4.4	21.0	3 22	11 42.68	- 0 58.0	1.591	2.585	2.2	21.1
4 1	11 33.85	+10 13.6	1.652	2.603	8.5	21.2	4 1	11 33.63	- 0 25.1	1.615	2.585	6.7	21.4
4 11	11 26.58	+10 42.0	1.712	2.605	12.3	21.5	4 11	11 26.12	+ 0 2.1	1.664	2.585	10.9	21.7
4 21	11 21.53	+10 51.6	1.793	2.606	15.7	21.7	4 21	11 20.82	+ 0 19.5	1.736	2.585	14.6	21.9
235909	2005 <i>EA</i> ₂₅		3 16.9 91°06	2°1/15.0	18		184998	2006 <i>OU</i> ₁₁		3 17.0 154°29	4°0/21.4	18	
2 11	12 13.28	+ 6 37.3	2.091	2.921	12.4	20.2	2 11	12 14.70	-13 29.1	2.416	3.159	13.5	21.3
2 21	12 7.86	+ 6 58.1	2.020	2.928	9.2	20.0	2 21	12 8.81	-13 36.6	2.329	3.171	11.0	21.1
3 2	12 0.52	+ 7 24.0	1.974	2.936	5.7	19.8	3 2	12 1.10	-13 26.6	2.265	3.181	8.1	21.0
3 12	11 51.93	+ 7 50.3	1.956	2.944	2.4	19.6	3 12	11 52.16	-12 59.7	2.228	3.190	5.3	20.8
3 22	11 42.95	+ 8 12.2	1.967	2.952	3.5	19.7	3 22	11 42.76	-12 18.5	2.220	3.199	4.0	20.7
4 1	11 34.50	+ 8 25.3	2.006	2.960	7.0	19.9	4 1	11 33.78	-11 27.4	2.242	3.206	5.6	20.8
4 11	11 27.42	+ 8 26.9	2.072	2.968	10.4	20.1	4 11	11 26.00	-10 32.3	2.293	3.213	8.4	21.0
4 21	11 22.23	+ 8 15.9	2.161	2.975	13.4	20.3	4 21	11 19.98	- 9 38.9	2.369	3.219	11.2	21.2
417224	2005 <i>YQ</i> ₃₇		3 16.9 81°54	5°9/22.3	18		496160	2010 <i>VE</i> ₁₉₈					